INDEX

*= TIFQ certified product in compliance with DM 174, pumps are fit for contact with water intended for human consumption.

CD

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS
in AISI 304

Single impeller centrifugal electric pumps made entirely of AISI 304 stainless steel.

APPLICATIONS
- Domestic pressure boosting
- Small-scale garden irrigation
- Washing
- Treating water
- Cooling towers
- Pumping clean water in general

TECHNICAL DETAILS
- Sturdy hydraulic frame
- Small dimensions

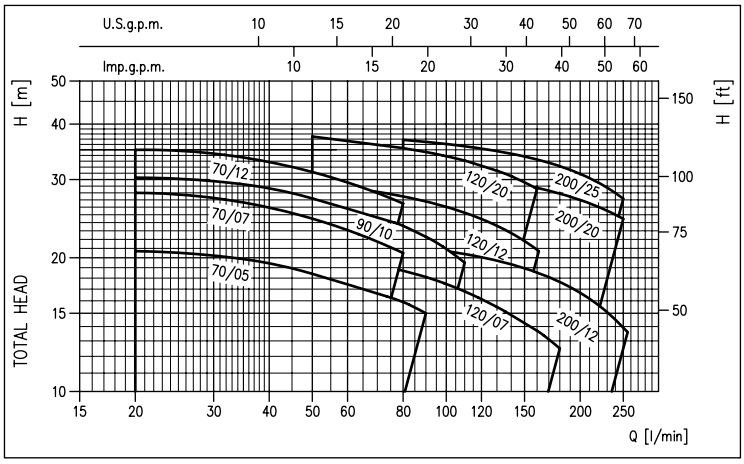
PUMP TECHNICAL DATA
- Maximum working pressure: 8 bar
- Maxim temperature of the liquid:
  -5°C ÷ +60°C for CD, CDE, Q1AEGG, VAEGG, U3U3EGG, Q1U3EGG and U3CEGG 70/05-70/07-90/10 models
  -5°C ÷ +90°C for the rest of the CD range
  -5°C ÷ +110°C for the H, HS, HW, HSW version
  -5°C ÷ +120°C for the rest of the CDE range and for the Q1AEGG, VAEGG, U3U3EGG, Q1U3EGG and U3CEGG versions
- G1½ suction connection for CD 200, G1¼ for the rest of the range
- G1 discharge connection
- MEI > 0.4
  For further information please see our Technical Data Sheet on the web site www.ebaraeurope.com

MOTOR TECHNICAL DATA
- High-efficiency IE2 motors starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW
- 2-pole self-ventilated enclosed fan-cooled asynchronous motor
- Class of insulation F
- IP55 protection degree
- 230V ± 10% 50 Hz single phase voltage,
  230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS
- Pump casing, impeller, diffuser, seal housing disc, bracket, motor case and fan cover in EN 1.4301 (AISI 304)
- Mechanical seal in:
  - Ceramic/Carbon/NBR (standard)
  - special versions: see p. 8
- Shaft in AISI 303 (part in contact with the liquid)

ACCESSORIES (On request)
- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-*drive* - Variable speed control system

PERFORMANCE RANGE (according to ISO 9906 Attachment A)



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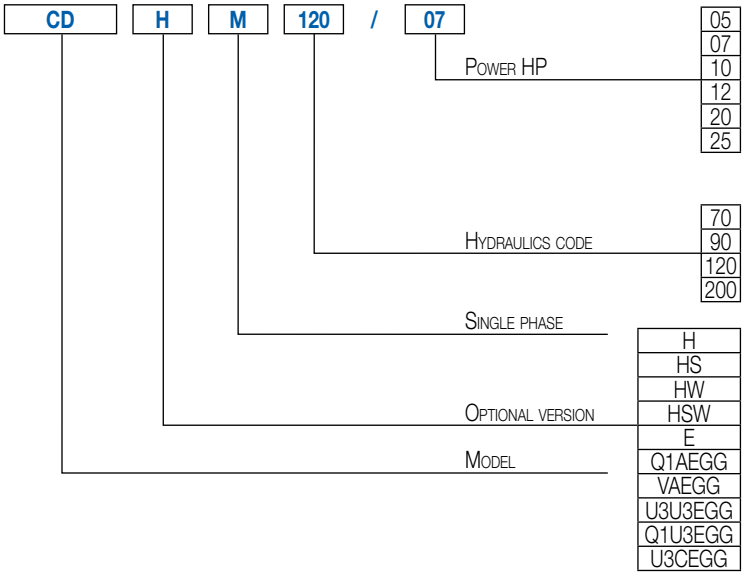
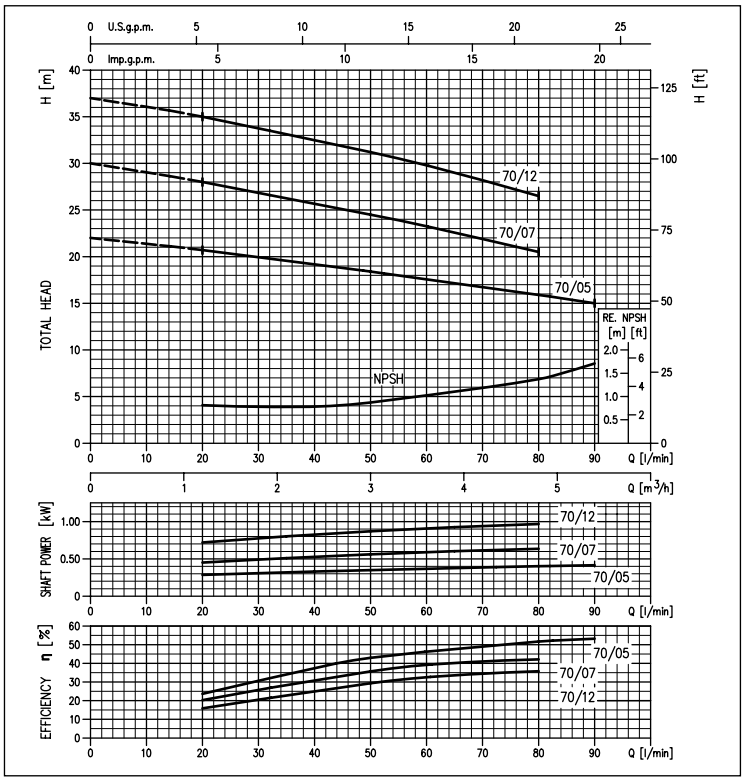


SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

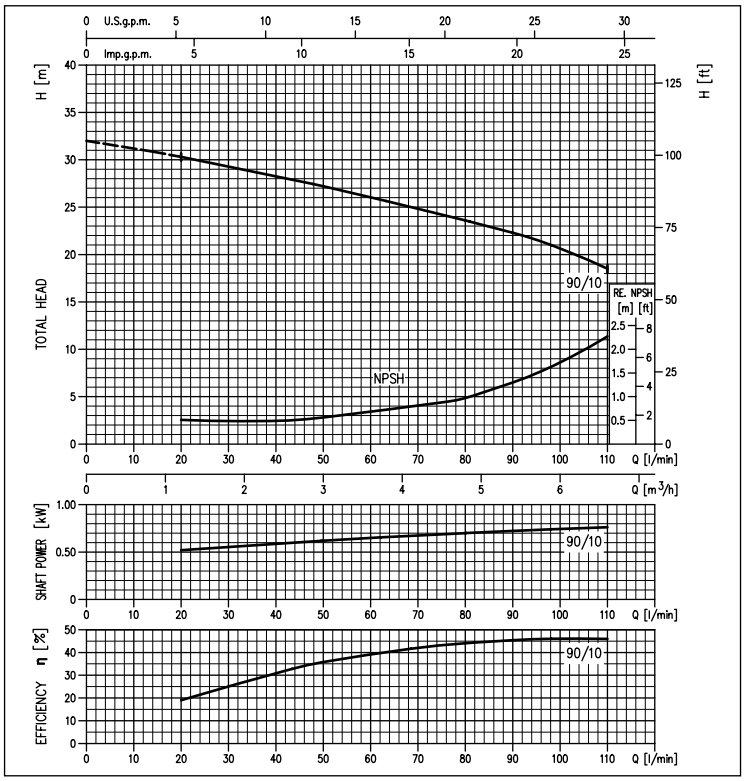
PERFORMANCE CURVES CD 70 series

(according to ISO 9906 Attachment A)



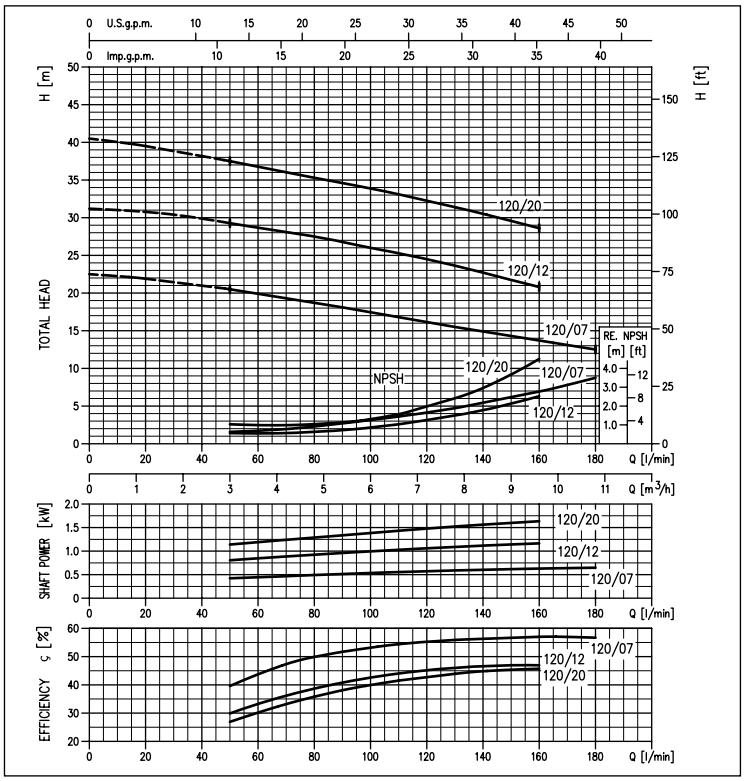
PERFORMANCE CURVES CD 90 series

(according to ISO 9906 Attachment A)



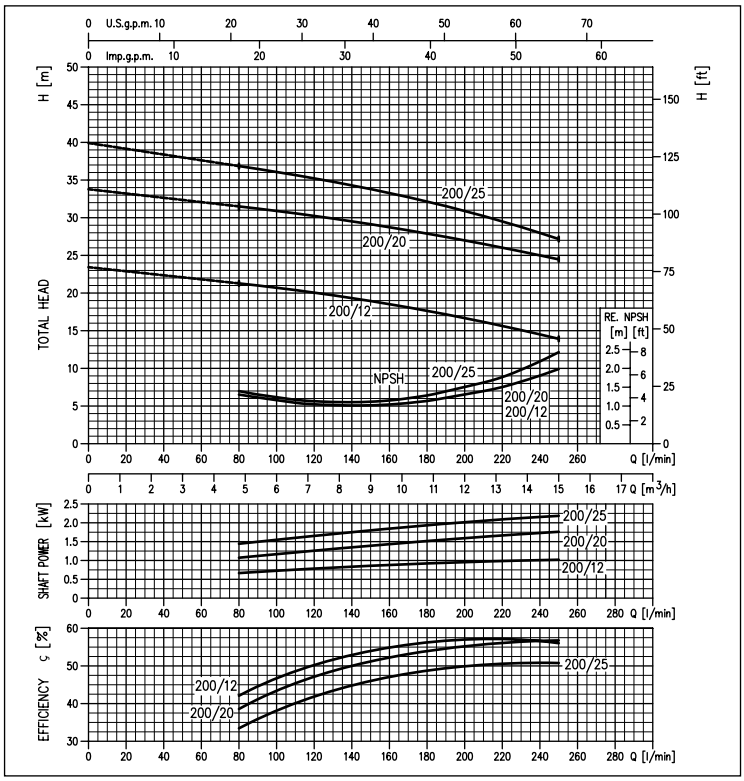
PERFORMANCE CURVES CD 120 series

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES CD 200 series

(according to ISO 9906 Attachment A)



CD

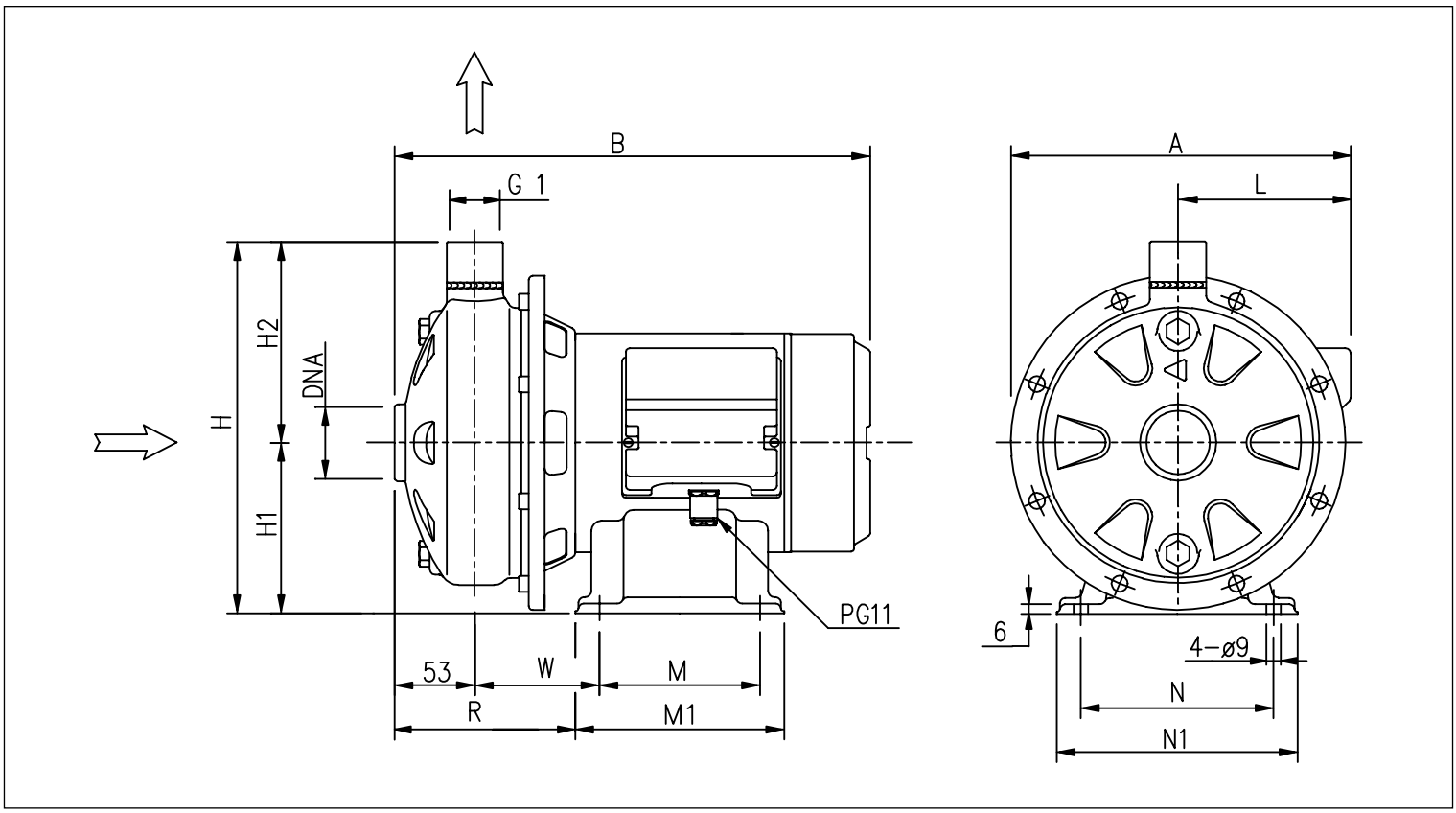
SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

PERFORMANCE CHART

Model		P2		Q = Flow Rate									
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min 20	50	80	90	110	130	160	180	210	250
				m³/h 1.2	3	4.8	5.4	6.6	7.8	9.6	10.8	12.6	15
				H=Head [m]									
CDM 70/05	CD 70/05	0.5	0.37	20.7	18.4	15.9	15.0	-	-	-	-	-	-
CDM 70/07	CD 70/07	0.8	0.55	28.0	24.5	20.5	-	-	-	-	-	-	-
CDM 70/12	CD 70/12	1.2	0.9	35.0	31.2	26.5	-	-	-	-	-	-	-
CDM 90/10	CD 90/10	1	0.75	30.3	27.2	23.6	22.3	19.5	-	-	-	-	-
CDM 120/07	CD 120/07	0.8	0.55	-	20.5	18.7	18.1	16.8	15.5	13.7	12.5	-	-
CDM 120/12	CD 120/12	1.2	0.9	-	29.3	27.5	26.8	25.2	23.6	21.0	-	-	-
CDM 120/20	CD 120/20	2	1.5	-	37.5	35.3	34.6	33.1	31.4	28.6	-	-	-
CDM 200/12	CD 200/12	1.2	0.9	-	-	21.3	21.0	20.4	19.7	18.5	17.6	16.0	14.0
CDM 200/20	CD 200/20	2	1.5	-	-	31.5	31.2	30.6	30.0	28.7	27.9	26.5	24.5
-	CD 200/25	2.5	1.8	-	-	36.8	36.5	35.6	34.7	33.3	32.0	30.0	27.2

DIMENSIONS



DIMENSIONAL TABLE

Model	Dimensions [mm]																			Weight [kg]		
	A		B		*	H	H1	H2	L		M		M1		N	N1	R	W	DNA			
	[2]	[1]	[2]	[1]					[2]	[1]	[2]	[1]	[2]	[1]						[2]	[1]	*
CD(M) 70/05	209	208	298	298	-	229.5	106	123.5	105	104	100	100	130	130	120	150	115.5	77.5	G1¼	8.7	8.7	-
CD(M) 70/07	209	208	298	298	-	229.5	106	123.5	105	104	100	100	130	130	120	150	115.5	77.5	G1¼	10.0	10.0	-
CD(M) 70/12	208	208	328	338	338	229.5	106	123.5	104	104	100	100	130	130	120	150	130.5	92.5	G1¼	13.2	13.7	13.7
CD(M) 90/10	209	208	328	328	328	229.5	106	123.5	105	104	100	100	130	130	120	150	130.5	92.5	G1¼	11.5	11.6	11.6
CD(M) 120/07	209	208	298	298	-	229.5	106	123.5	105	104	100	100	130	130	120	150	115.5	77.5	G1¼	10.0	10.5	-
CD(M) 120/12	208	208	328	338	338	229.5	106	123.5	104	104	100	100	130	130	120	150	130.5	92.5	G1¼	12.3	12.9	12.9
CD(M) 120/20	232	232	356	366	376	250	118	132	116	116	120	120	150	150	140	170	133	95	G1¼	15.3	17.4	18.3
CD(M) 200/12	208	208	328	338	338	229.5	106	123.5	104	104	100	100	130	130	120	150	130.5	92.5	G1½	12.0	12.6	12.6
CD(M) 200/20	213	213	356	366	376	229.5	106	123.5	109	109	120	120	150	150	140	170	133	95	G1½	15.8	16.6	17.5
CD 200/25	-	232	-	366	376	250	118	132	-	116	-	120	-	150	140	170	138	100	G1½	-	17.4	18.3

[1]= Three phase only [2]= Single phase only

* Models with IE3 motor only

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW

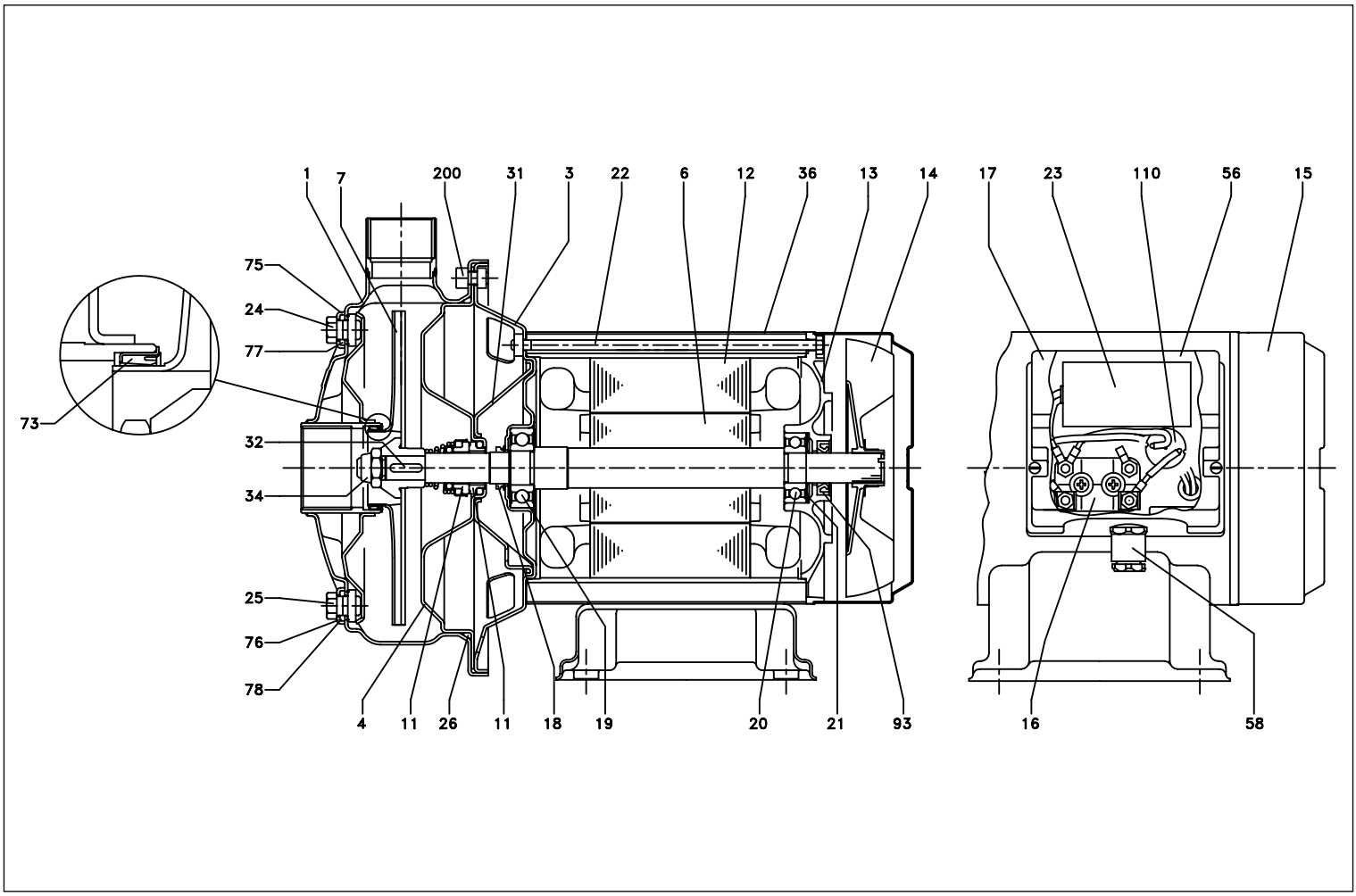


TABLE OF MATERIALS

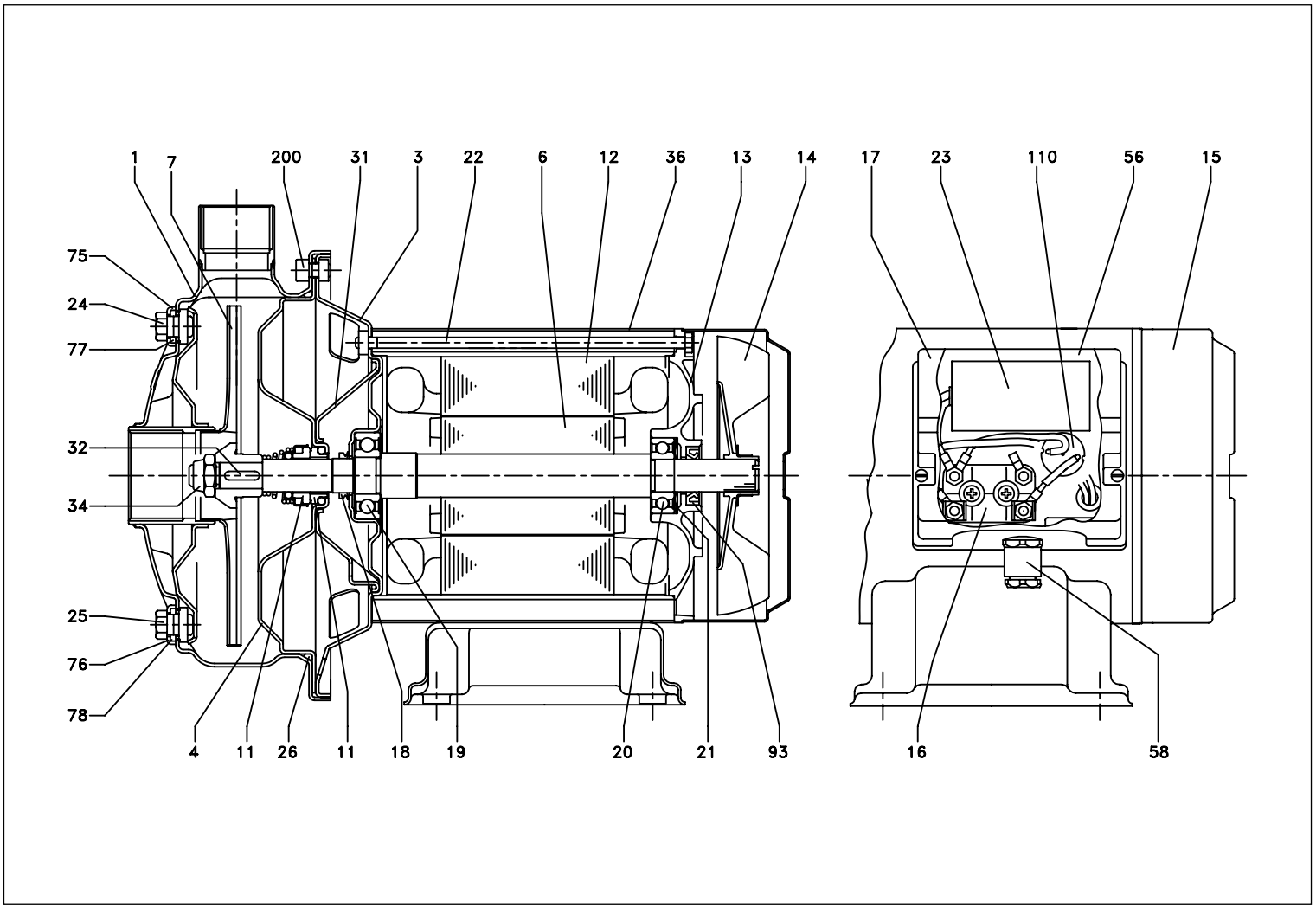
Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	24	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
4	Casing cover	EN 1.4301 (AISI 304)	26	O-Ring [2]	NBR
6	Shaft	AISI 303 Part in contact with the liquid	31	Seal disc spacer	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless Steel A2-70
12	Motor frame	-	36	Motor casing	EN 1.4301 (AISI 304)
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	58	Cable input	-
15	Fan cover	EN 1.4301 (AISI 304)	73	Casing ring [3]	NBR
16	Terminal Box	-	75	Washer	EN 1.4301 (AISI 304)
17	Terminal Box cover	PA66 reinforced with fibreglass	76	Washer	EN 1.4301 (AISI 304)
18	Seal ring	NBR	77	O-Ring [2]	NBR
19	Bearing (pump side)	-	78	O-Ring [2]	NBR
20	Bearing (motor side)	-	93	Seal ring	NBR
21	Adjustment ring	Steel C70	110	Motor protector [1]	-
22	Tie-rod	Galvanised Fe 42	200	Screw (pump body)	Stainless Steel A2-70
23	Capacitor [1]	-			

[1]= Single phase only
[2]= FKM for CDH-CDHS-CDHW-CDHSW
EPDM for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG
[3]= FKM for CDH-CDHS-CDHW-CDHSW
NBR for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW CD 70/12 - 120/07 - 120/20



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	24	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
4	Casing cover	EN 1.4301 (AISI 304)	26	O-Ring [2]	NBR
6	Shaft	AISI 303 Part in contact with the liquid	31	Seal disc spacer	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless Steel A2-70
12	Motor frame	-	36	Motor casing	EN 1.4301 (AISI 304)
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	58	Cable entry	-
15	Fan cover	EN 1.4301 (AISI 304)	73	Casing ring	-
16	Terminal Box	-	75	Washer	EN 1.4301 (AISI 304)
17	Terminal Box cover	PA66 reinforced with fibreglass	76	Washer	EN 1.4301 (AISI 304)
18	Seal ring	NBR	77	O-Ring [2]	NBR
19	Bearing (pump side)	-	78	O-Ring [2]	NBR
20	Bearing (motor side)	-	93	Seal ring	NBR
21	Adjustment ring	Steel C70	110	Motor protector [1]	-
22	Tie-rod	Galvanised Fe 42	200	Screw (pump body)	Stainless Steel A2-70
23	Capacitor [1]	-			

[1]= Single phase only
[2]= FKM for CDH-CDHS-CDHW-CDHSW
EPDM for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW CD 120/12 - 200/12 - 200/20 - 200/25

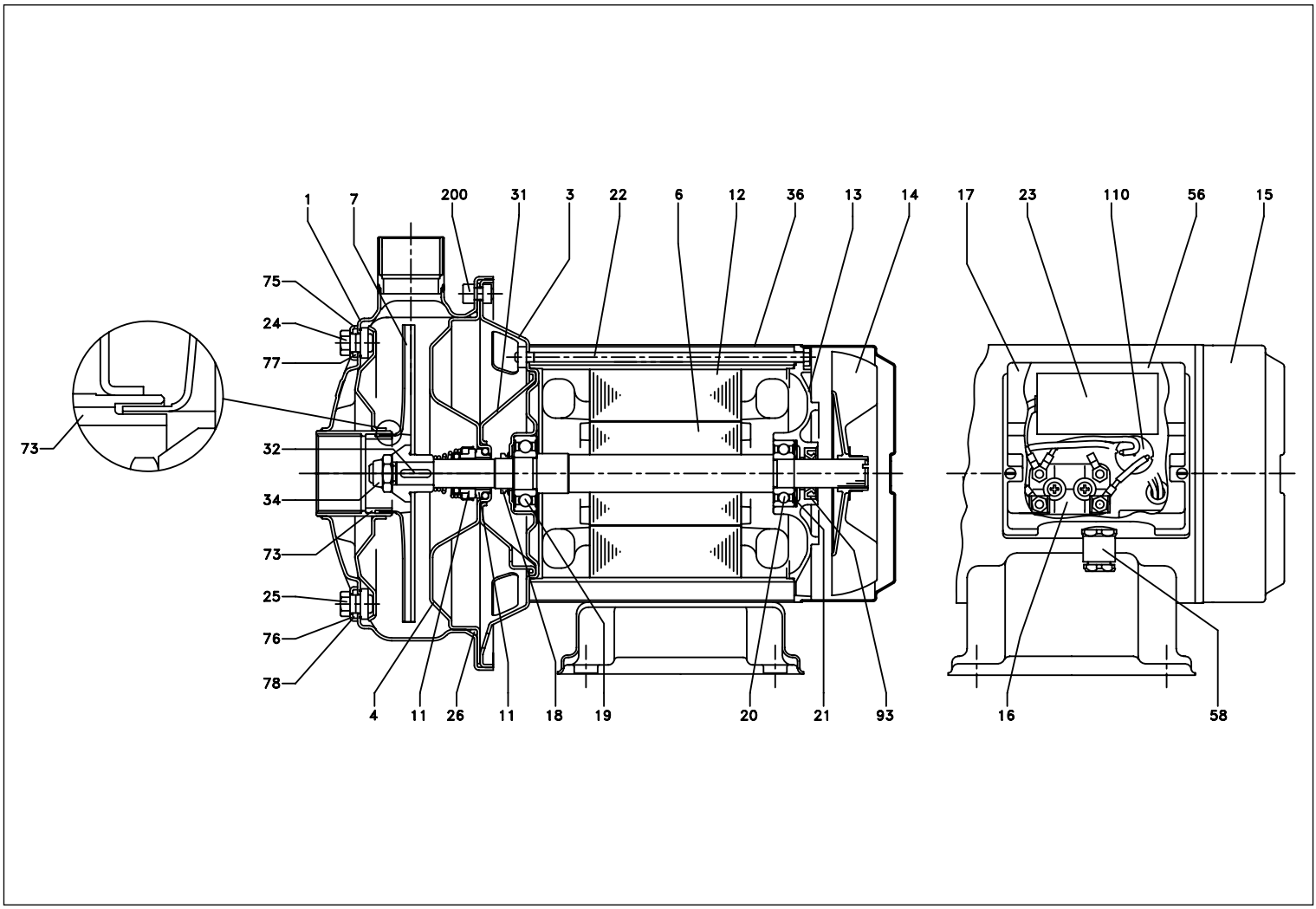


TABLE OF MATERIALS

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	24	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
4	Casing cover	EN 1.4301 (AISI 304)	26	O-Ring [2]	NBR
6	Shaft	AISI 303 Part in contact with the liquid	31	Seal disc spacer	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	32	Key	AISI 316
11	Mechanical seal	Ceramic/Carbon/NBR	34	Impeller nut	Stainless Steel A2-70
12	Motor frame	-	36	Motor casing	EN 1.4301 (AISI 304)
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	58	Cable entry	-
15	Fan cover	EN 1.4301 (AISI 304)	73	Double casing ring	EN 1.4301 (AISI 304)
16	Terminal Box	-	75	Washer	EN 1.4301 (AISI 304)
17	Terminal Box cover	PA66 reinforced with fibreglass	76	Washer	EN 1.4301 (AISI 304)
18	Seal ring	NBR	77	O-Ring [2]	NBR
19	Bearing (pump side)	-	78	O-Ring [2]	NBR
20	Bearing (motor side)	-	93	Seal ring	NBR
21	Adjustment ring	Steel C70	110	Motor protector [1]	-
22	Tie-rod	Galvanised Fe 42	200	Screw (pump body)	Stainless Steel A2-70
23	Capacitor [1]	-			

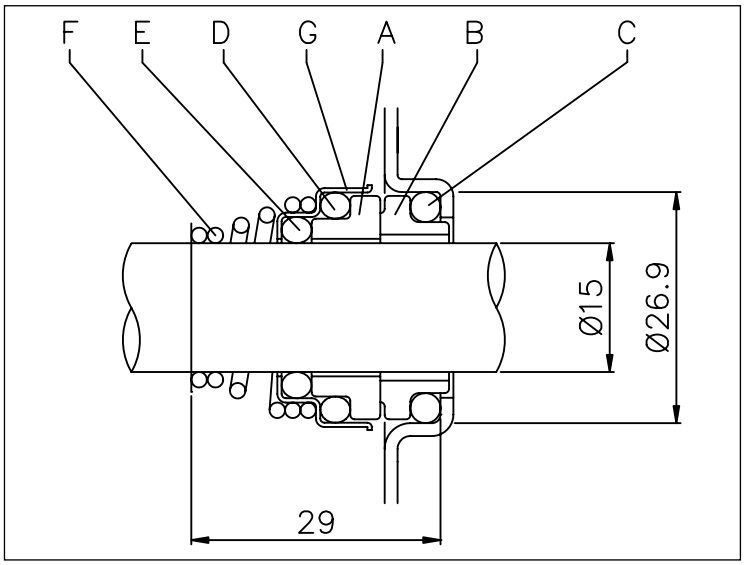
[1]= Single phase only
[2]= FKM for CDH-CDHS-CDHW-CDHSW
EPDM for CDE, CD Q1AEGG, CD VAEGG, CD U3U3EGG, CD Q1U3EGG, CD U3CEGG

CD

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

MECHCANICAL SEAL standard



MATERIALS TABLE

Ref.	Name	Materials
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Materials				
		H Version	HS Version	HW Version	HSW Version	E Version
A	Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
B	Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
C	O-Ring	FKM	FKM	FKM	FKM	EPDM
D	O-Ring	FKM	FKM	FKM	FKM	EPDM
E	O-Ring	FKM	FKM	FKM	FKM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 304	AISI 316	AISI 316	AISI 316	AISI 316

Ref.	Name	Materials				
		Q1AEGG Version	VAEGG Version	U3U3EGG Version	Q1U3EGG Version	U3CEGG Version
A	Rotating part	Silicon Carbide	Ceramic	Tungsten Carbide	Silicon Carbide	Tungsten Carbide
B	Fixed part	Metallised carbon	Metallised carbon	Tungsten Carbide	Tungsten Carbide	Special Carbon
C	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
D	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
E	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

CD

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

ELECTRIC DATA TABLE

Model Single phase 230V	Model Three phase 230/400V	P_2 [HP]	P_2 [kW]	Efficiency Single phase	Efficiency Three phase	Capacitor Single phase µF	Capacitor Single phase V_c	Efficiency (%) Three phase η % 50%	Efficiency (%) Three phase η % 75%	Efficiency (%) Three phase η % 100%	P_1 Single phase [kW]	P_1 Three phase [kW]	Absorbed Current [A] Single phase 230V	Absorbed Current [A] Three phase 230V	Absorbed Current [A] Three phase 400V
CDM 70/05	CD 70/05	0.5	0.37	-	-	12.5	450	-	-	-	0.75	0.68	3.4	2.4	1.4
CDM 70/07	CD 70/07	0.75	0.55	-	-	16	450	-	-	-	1.1	1.0	5.0	3.5	2.0
CDM 70/12	CD 70/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.5	1.35	6.5	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDM 90/10	CD 90/10	1.0	0.75	-	IE2	20	450	77.2	80.9	81.3	1.2	1.05	5.6	3.3	1.9
-		1.0	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7
CDM 120/07	CD 120/07	0.75	0.55	-	-	16	450	-	-	-	1.0	1.0	4.6	3.2	1.85
CDM 120/12	CD 120/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.6	1.45	6.9	4.5	2.6
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDM 120/20	CD 120/20	2.0	1.5	-	IE2	40	450	80.3	83.4	83.8	2.1	2.09	9.3	7.0	4.0
-		2.0	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
CDM 200/12	CD 200/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.4	1.35	6.3	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDM 200/20	CD 200/20	2.0	1.5	-	IE2	40	450	80.3	83.4	83.8	2.3	2.22	10.2	7.4	4.3
-		2.0	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
-	CD 200/25	2.5	1.85	-	IE2	-	-	83.0	84.4	83.8	-	2.87	-	8.7	5.0
-		2.5	1.85	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7

NOISE DATA TABLE

Model Single phase 230V	Model Three phase 230/400V	P_2 [HP]	P_2 [kW]	L_{pA} - dB(A)*
CDM 70/05	CD 70/05	0.5	0.37	<70
CDM 70/07	CD 70/07	0.75	0.55	
CDM 70/12	CD 70/12	1.2	0.9	
CDM 90/10	CD 90/10	1	0.75	
CDM 120/07	CD 120/07	0.75	0.55	
CDM 120/12	CD 120/12	1.2	0.9	
CDM 120/20	CD 120/20	2	1.5	
CDM 200/12	CD 200/12	1.2	0.9	
CDM 200/20	CD 200/20	2	1.5	
-	CD 200/25	2.5	1.85	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

CDX(L)

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

Single impeller centrifugal electric pumps with hydraulic parts in AISI 304 and AISI 316.

APPLICATIONS

- Domestic pressure boosting
- Small-scale garden irrigation
- Washing
- Treating water
- Cooling towers
- Pumping clean water in general

TECHNICAL DETAILS

- Solid hydraulic structure
- Small dimensions

PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
- Maxim temperature of the liquid:
  -5°C ÷ +60°C for CDX(L) and for E, Q1AEGG, VAEGG, U3U3EGG, Q1U3EGG e U3CEGG 70/05-70/07-90/10 versions
  -5°C ÷ +90°C for the rest of the CDX(L) range
  -5°C ÷ +110°C for the H-HS-HW-HSW version
  -5°C ÷ +120°C for E, Q1AEGG, VAEGG, U3U3EGG, Q1U3EGG and U3CEGG versions
- G1½ suction connection for CDX(L) 200, G1¼ for the rest of the range
- G1 discharge connection
- MEI > 0.4
  For further information please see our Data Book on the web site www.ebaraeurope.com

MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 protection degree
- 230V ±10% 50Hz single phase voltage,
  230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

AISI 304 Version

- Pump casing, impeller, diffuser and casing cover in AISI 304
- Shaft in AISI 303 (part in contact with the liquid)

AISI 316 (L) Version

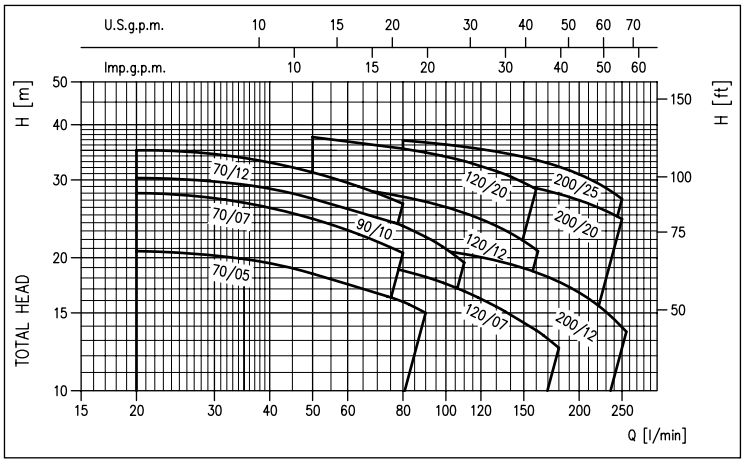
- Pump casing, impeller, diffuser and casing cover in AISI 316
- Shaft in AISI 316 (part in contact with the liquid)

- Bracket and motor frame in aluminium
- Mechanical seal in:
  - Ceramic/Carbon/NBR (standard)
  - special versions: see p. 16

ACCESSORIES (On request)

- Insulation casing for CDX (L) pump casing for applications with refrigerant liquids or liquids with high temperature variations that may generate condensate
- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-*drive* - Variable speed control system

PERFORMANCE RANGE (according to ISO 9906 Attachment A)



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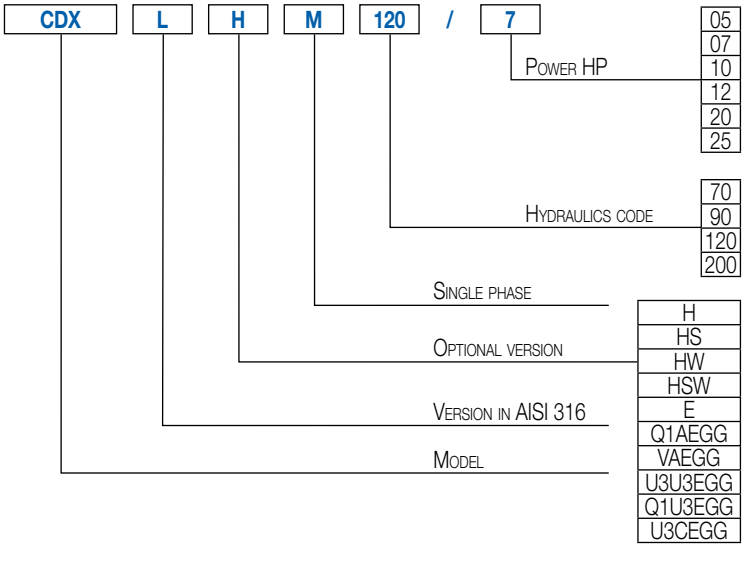


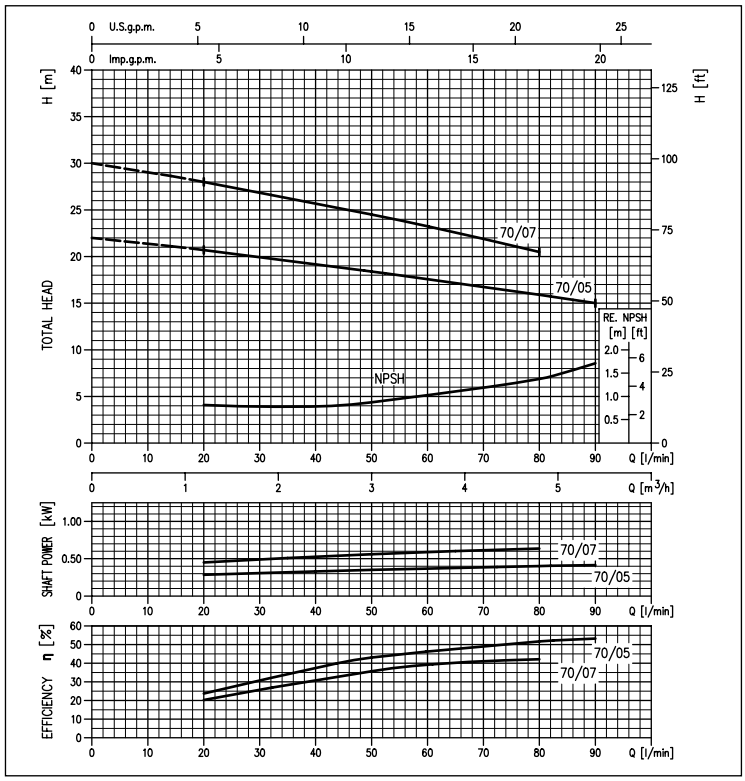
CDX(L)

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

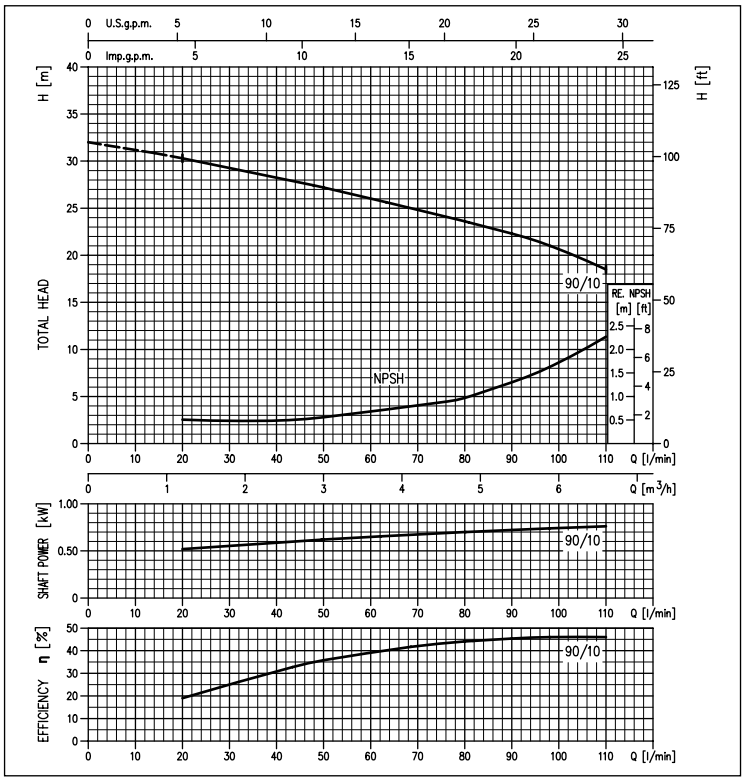
PERFORMANCE CURVES CDX(L) 70 series

(according to ISO 9906 Attachment A)



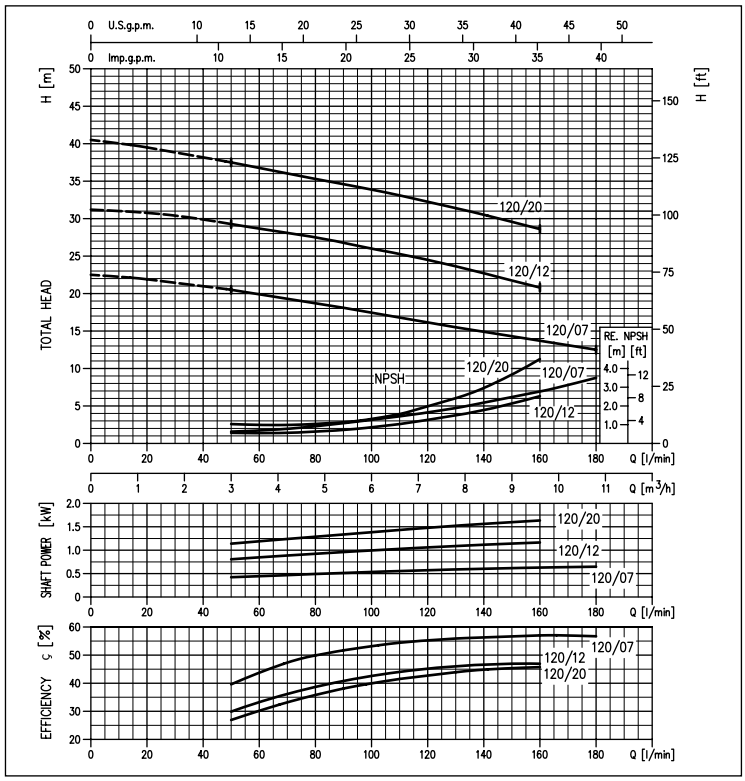
PERFORMANCE CURVES CDX(L) 90 series

(according to ISO 9906 Attachment A)



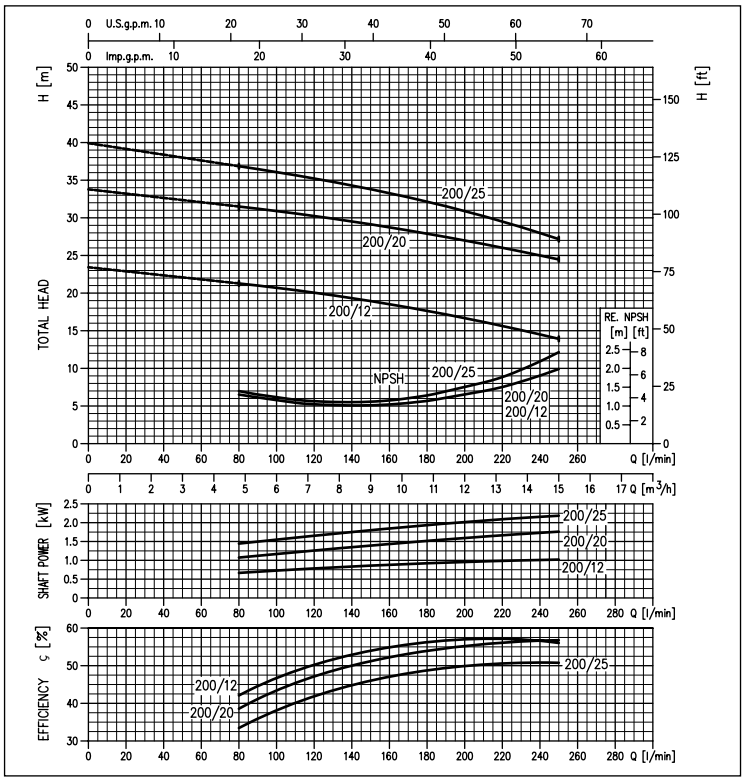
PERFORMANCE CURVES CDX(L) 120 series

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES CDX(L) 200 series

(according to ISO 9906 Attachment A)



CDX(L)

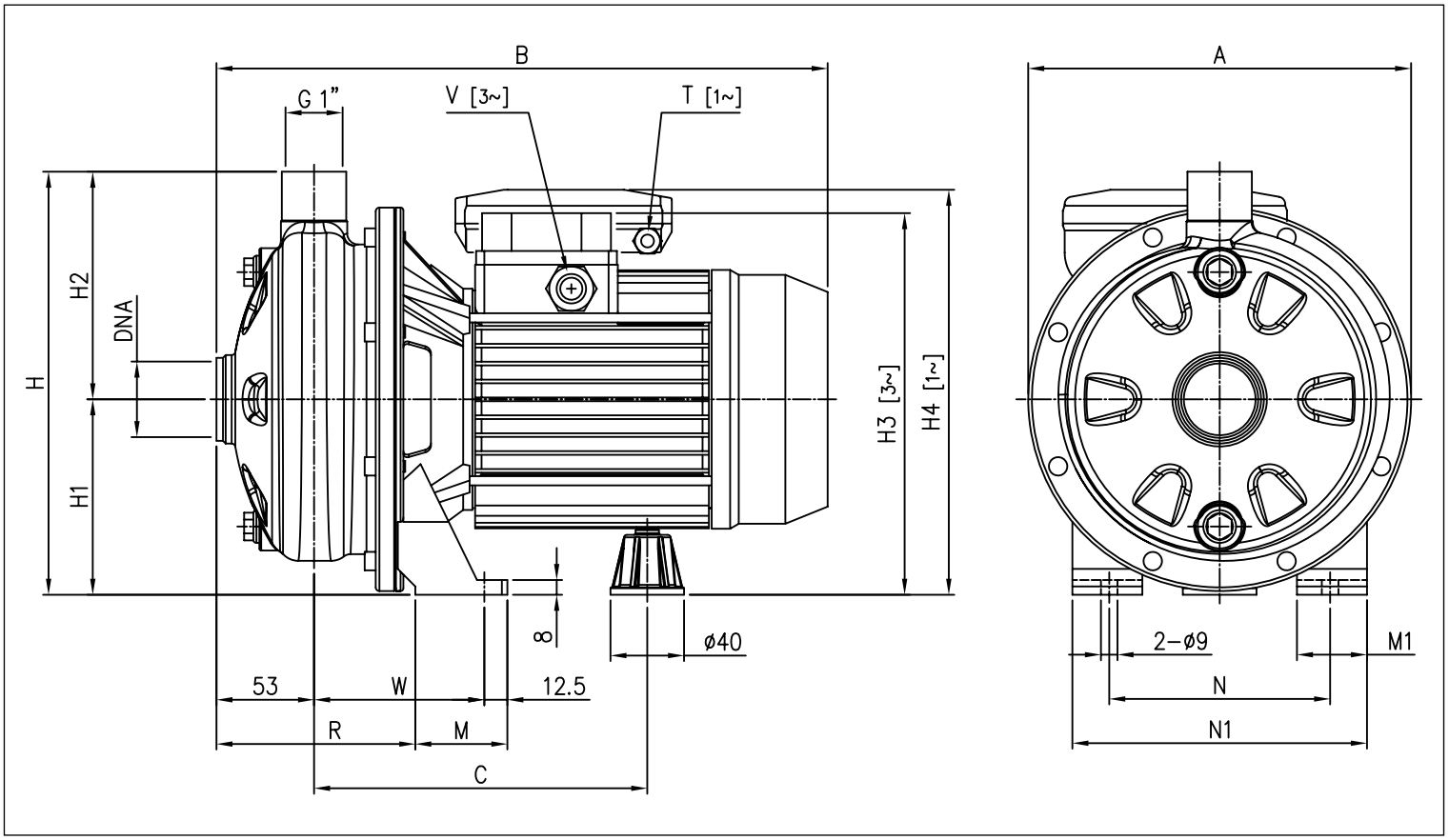
SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

PERFORMANCE CHART

Model		P_2		Q = Flow Rate									
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min 20	50	80	90	110	130	160	180	210	250
				m^3/h 1.2	3	4.8	5.4	6.6	7.8	9.6	10.8	12.6	15.0
				H=Head [m]									
CDXM 70/05	CDX 70/05	0.5	0.37	20.7	18.4	15.9	15.0	-	-	-	-	-	-
CDXM 70/07	CDX 70/07	0.75	0.55	28.0	24.5	20.5	-	-	-	-	-	-	-
CDXM 90/10	CDX 90/10	1	0.75	30.3	27.2	23.6	22.3	19.5	-	-	-	-	-
CDXM 120/07	CDX 120/07	0.75	0.55	-	20.5	18.7	18.1	16.8	15.5	13.7	12.5	-	-
CDXM 120/12	CDX 120/12	1.2	0.9	-	29.3	27.5	26.8	25.2	23.6	21.0	-	-	-
CDXM 120/20	CDX 120/20	2	1.5	-	37.5	35.3	34.6	33.1	31.4	28.6	-	-	-
CDXM 200/12	CDX 200/12	1.2	0.9	-	-	21.3	21.0	20.4	19.7	18.5	17.6	16.0	14.0
CDXM 200/20	CDX 200/20	2	1.5	-	-	31.5	31.2	30.6	30.0	28.7	27.9	26.5	24.5
-	CDX 200/25	2.5	1.8	-	-	36.8	26.5	35.6	34.7	33.3	32.0	30.0	27.2

DIMENSIONS



DIMENSIONAL TABLE

Model	Dimensions [mm]																				Weight [kg]		
	A	B			C	H	H1	H2	H3	H4	M	M1	N	N1	R	T	V		W	DNA			
		[2]	[1]	*					[1]	[2]						[2]	[1]	*			[2]	[1]	*
CDX(M) 70/05	208	321	320	-	181	229.5	106	123.5	207	216	50	38	120	160	108	PG11	PG11	-	92.5	G1 ¼	8.3	8.3	-
CDX(M) 70/07	208	321	320	-	181	229.5	106	123.5	207	216	50	38	120	160	108	PG11	PG11	-	92.5	G1 ¼	9.8	9.7	-
CDX(M) 90/10	208	321	320	320	181	229.5	106	123.5	207	216	50	38	120	160	108	PG11	PG11	M16x1.5	92.5	G1 ¼	11.0	11.0	11.0
CDX(M) 120/07	208	321	320	-	181	229.5	106	123.5	207	216	50	38	120	160	108	PG11	PG11	-	92.5	G1 ¼	9.6	9.5	-
CDX(M) 120/12	208	321	332	332	181	229.5	106	123.5	207	235	50	38	120	160	108	PG11	PG11	M16x1.5	92.5	G1 ¼	11.8	12.4	12.4
CDX(M) 120/20	232	346.5	359	371.5	198.5	250	118	132	237	248.5	55	40	140	180	105.5	PG13.5	PG11	M20x1.5	95	G1 ¼	16.5	17.2	18.1
CDX(M) 200/12	208	321	332	332	181	229.5	106	123.5	207	235	50	38	120	160	108	PG13.5	PG11	M16x1.5	92.5	G1 ½	11.4	12.2	12.2
CDX(M) 200/20	208	346.5	359	371.5	198.5	229.5	106	123.5	225	236.5	55	40	140	180	105.5	PG13.5	PG11	M20x1.5	95	G1 ½	15.3	16.1	17
CDX 200/25	232	-	359	371.5	198.5	250	118	132	237	-	55	40	140	180	105.5	-	PG11	M20x1.5	95	G1 ½	-	15.9	16.8

[1]= Three phase only [2]= Single phase only

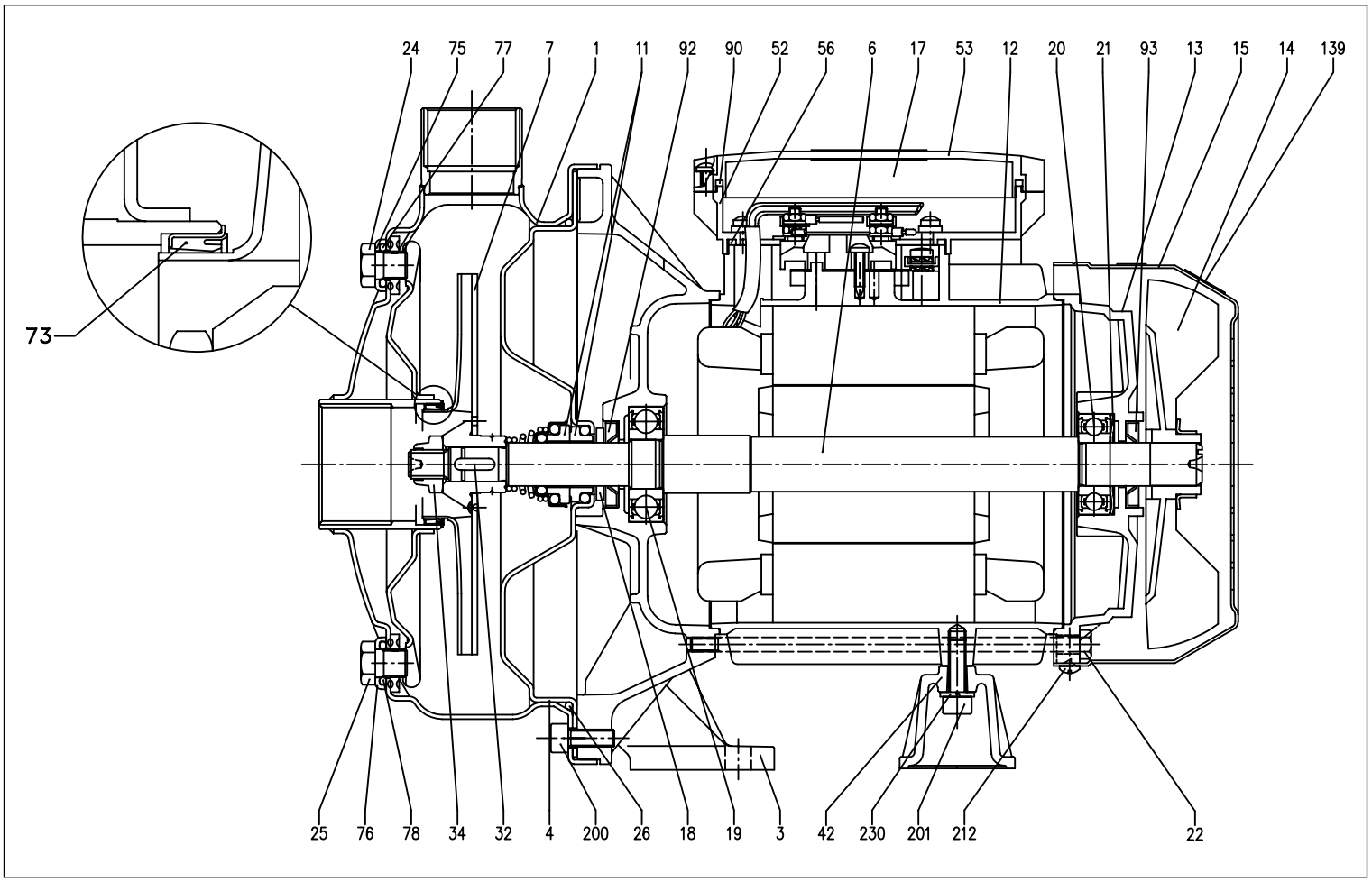
* Models with IE3 motor only

CDX(L)

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

SECTIONAL VIEW CDX(L) 70/05 - 70/07 - 90/10



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304) / AISI 316	25	Plug	AISI 303 / AISI 316
3	Motor bracket	Aluminium	26	O-Ring [3]	NBR
4	Casing cover	EN 1.4301 (AISI 304) / AISI 316	32	Key	AISI 316
6	Shaft	AISI 303 / AISI 316 Part in contact with the liquid	34	Impeller nut	EN 1.4301 (AISI 304) / AISI 316
7	Impeller	EN 1.4301 (AISI 304) / AISI 316	42	Motor support	Aluminium
11	Mechanical seal [3]	Ceramic/Carbon/NBR	52	Terminal Box [2]	ABS
12	Motor frame	-	53	Terminal Box cover [2]	ABS
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	73	Casing ring [4]	EN 1.4301 (AISI 304)
15	Fan cover	Galvanised Fe P04	75	Washer	EN 1.4301 (AISI 304) / AISI 316
16	Terminal Box	-	76	Washer	EN 1.4301 (AISI 304) / AISI 316
17	Terminal Box cover [1]	Aluminium	77	O-Ring [3]	NBR
18	Splash ring	NBR	78	O-Ring [3]	NBR
19	Bearing (pump side)	-	90	Gasket [2]	NBR
20	Bearing (motor side)	-	92	Seal ring	-
21	Adjustment ring	Steel C70	93	Seal ring	-
22	Tie-rod	Galvanised Fe 42	110	Motor protector [2]	-
23	Capacitor [2]	-	200	Screw (pump body)	Stainless Steel A2 UNI7323
24	Plug	AISI 303 / AISI 316			

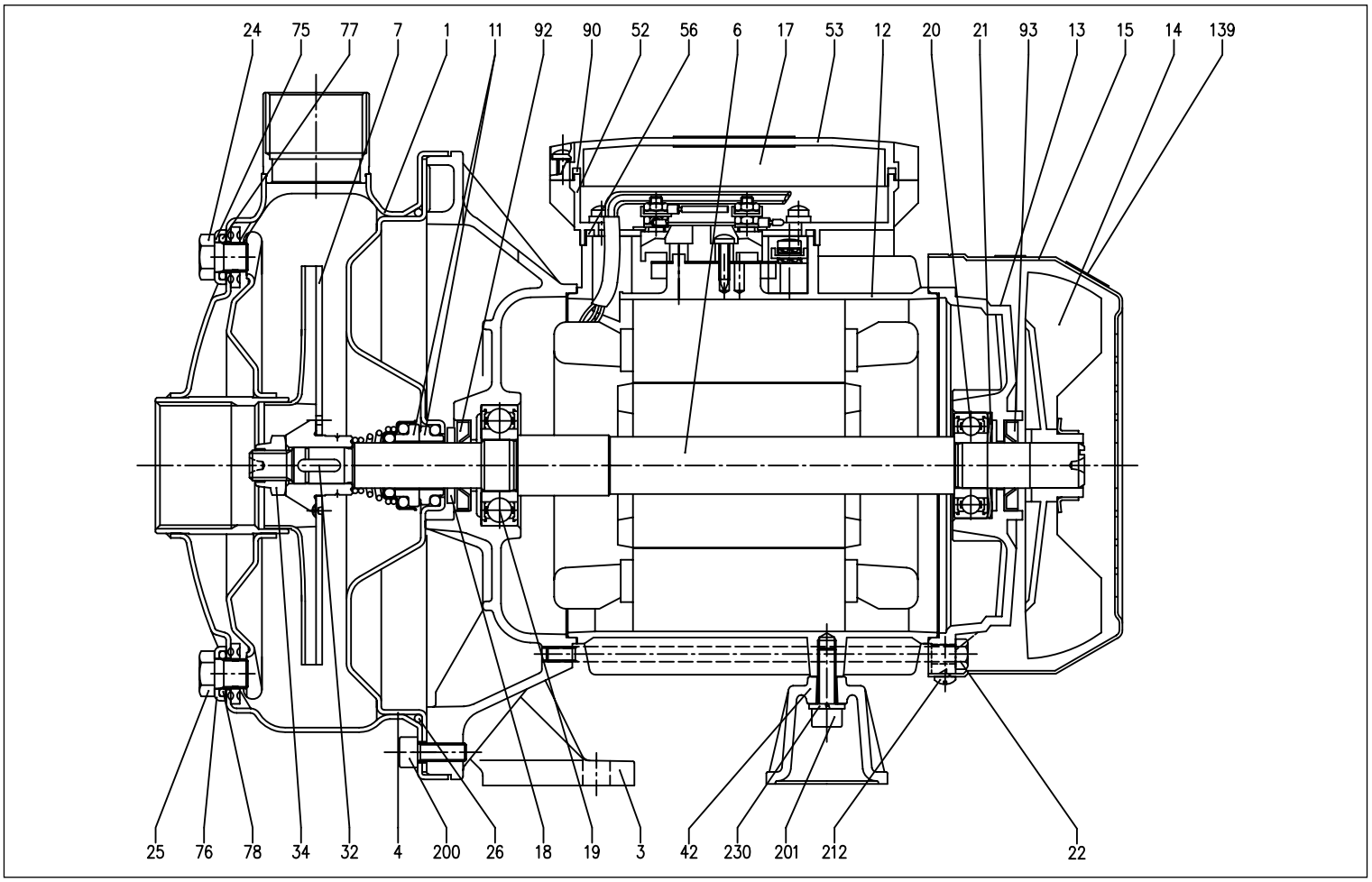
[1]= Three-phase only [2]= Single phase only
[3]= FKM for CDX(L)H, CDX(L)HS, CDX(L)HW, CDX(L)HSW
EPDM for CDX(L)E, CDX(L) Q1AEGG, CDX(L) VAEGG, CDX(L) U3U3EGG, CDX(L) Q1U3EGG, CDX(L) U3CEGG
[4]= FKM for CDX(L)H, CDX(L)HS, CDX(L)HW, CDX(L)HSW
NBR for CDX(L)E, CDX(L) Q1AEGG, CDX(L) VAEGG, CDX(L) U3U3EGG, CDX(L) Q1U3EGG, CDX(L) U3CEGG

CDX(L)

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

SECTIONAL VIEW CDX(L) 120/07 - 120/20



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304) / AISI 316	25	Plug	AISI 303 / AISI 316
3	Motor bracket	Aluminium	26	O-Ring [3]	NBR
4	Casing cover	EN 1.4301 (AISI 304) / AISI 316	32	Key	AISI 316
6	Shaft	AISI 303 / AISI 316 Part in contact with the liquid	34	Impeller nut	EN 1.4301 (AISI 304) / AISI 316
7	Impeller	EN 1.4301 (AISI 304) / AISI 316	42	Motor support	Aluminium
11	Mechanical seal [3]	Ceramic/Carbon/NBR	52	Terminal Box [2]	ABS
12	Motor frame	-	53	Terminal Box cover [2]	ABS
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	73	Casing ring	-
15	Fan cover	Galvanised Fe P04	75	Washer	EN 1.4301 (AISI 304) / AISI 316
16	Terminal Box	-	76	Washer	EN 1.4301 (AISI 304) / AISI 316
17	Terminal Box cover [1]	Aluminium	77	O-Ring [3]	NBR
18	Splash ring	NBR	78	O-Ring [3]	NBR
19	Bearing (pump side)	-	90	Gasket [2]	NBR
20	Bearing (motor side)	-	92	Seal ring	-
21	Adjustment ring	Steel C70	93	Seal ring	-
22	Tie-rod	Galvanised Fe 42	110	Motor protector [2]	-
23	Capacitor [2]	-	200	Screw (pump body)	Stainless Steel A2 UNI7323
24	Plug	AISI 303 / AISI 316			

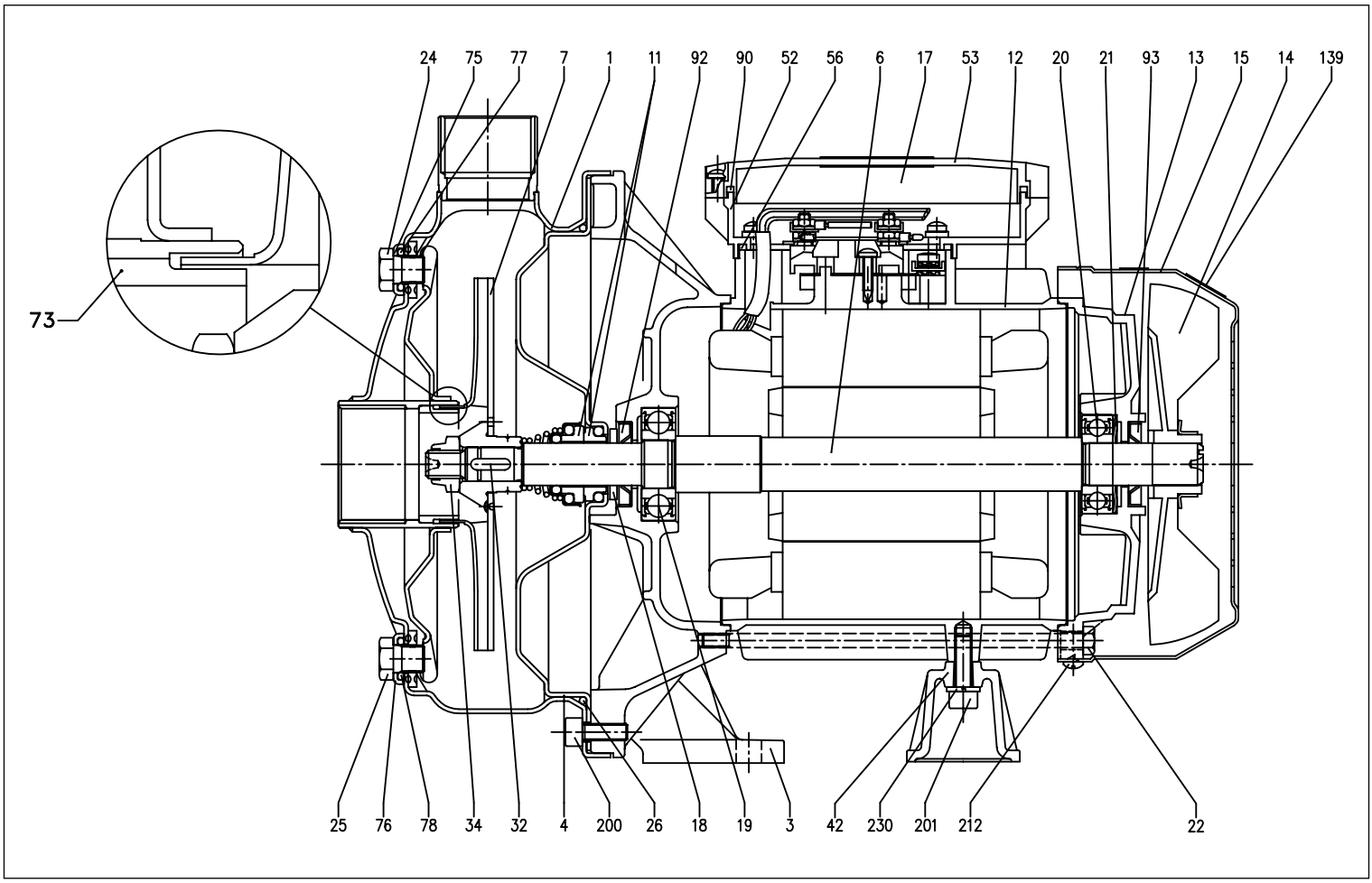
[1]= Three-phase only [2]= Single phase only
[3]= FKM for CDX(L)H, CDX(L)HS, CDX(L)HW, CDX(L)HSW
EPDM for CDX(L)E, CDX(L) Q1AEGG, CDX(L) VAEGG, CDX(L) U3U3EGG, CDX(L) Q1U3EGG, CDX(L) U3CEGG

CDX(L)

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

SECTIONAL VIEW CDX(L) 120/12 - 200/12 - 200/20 - 200/25



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304) / AISI 316	25	Plug	AISI 303 / AISI 316
3	Motor bracket	Aluminium	26	O-Ring [3]	NBR
4	Casing cover	EN 1.4301 (AISI 304) / AISI 316	32	Key	AISI 316
6	Shaft	AISI 303 / AISI 316 Part in contact with the liquid	34	Impeller nut	EN 1.4301 (AISI 304) / AISI 316
7	Impeller	EN 1.4301 (AISI 304) / AISI 316	42	Motor support	Aluminium
11	Mechanical seal [3]	Ceramic/Carbon/NBR	52	Terminal Box [2]	ABS
12	Motor frame	-	53	Terminal Box cover [2]	ABS
13	Motor cover	Aluminium	56	Terminal box cover gasket	NBR
14	Fan	PA	73	Double casing ring	EN 1.4301 (AISI 304) / AISI 316
15	Fan cover	Galvanised Fe P04	75	Washer	EN 1.4301 (AISI 304) / AISI 316
16	Terminal Box	-	76	Washer	EN 1.4301 (AISI 304) / AISI 316
17	Terminal Box cover [1]	Aluminium	77	O-Ring [3]	NBR
18	Splash ring	NBR	78	O-Ring [3]	NBR
19	Bearing (pump side)	-	90	Gasket [2]	NBR
20	Bearing (motor side)	-	92	Seal ring	-
21	Adjustment ring	Steel C70	93	Seal ring	-
22	Tie-rod	Galvanised Fe 42	110	Motor protector [2]	-
23	Capacitor [2]	-	200	Screw (pump body)	Stainless Steel A2 UNI7323
24	Plug	AISI 303 / AISI 316			

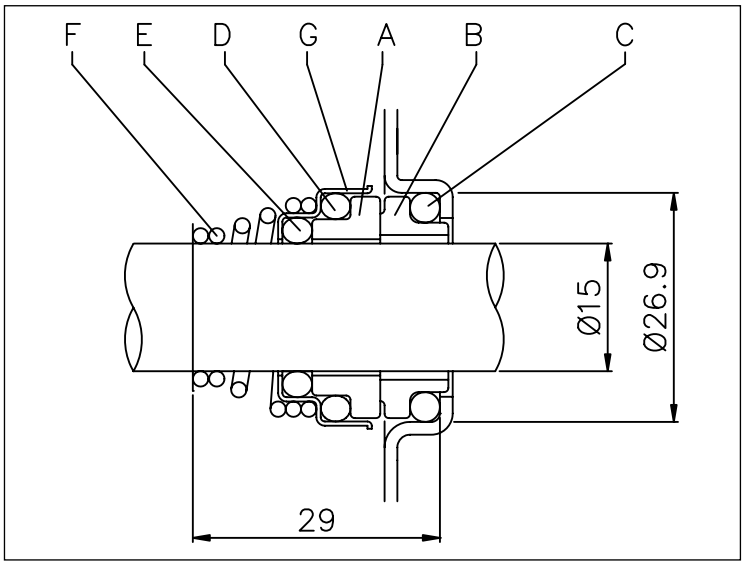
[1]= Three-phase only [2]= Single phase only
[3]= FKM for CDX(L)H, CDX(L)HS, CDX(L)HW, CDX(L)HSW
EPDM for CDX(L)E, CDX(L) Q1AEGG, CDX(L) VAEGG, CDX(L) U3U3EGG, CDX(L) Q1U3EGG, CDX(L) U3CEGG

CDX(L)

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

MECHCANICAL SEAL standard



MATERIALS TABLE

Ref.	Name	Materials
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Materials				
		H Version	HS Version	HW Version	HSW Version	E Version
A	Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
B	Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
C	O-Ring	FKM	FKM	FKM	FKM	EPDM
D	O-Ring	FKM	FKM	FKM	FKM	EPDM
E	O-Ring	FKM	FKM	FKM	FKM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 304	AISI 316	AISI 316	AISI 316	AISI 316

Ref.	Name	Materials				
		Q1AEGG Version	VAEGG Version	U3U3EGG Version	Q1U3EGG Version	U3CEGG Version
A	Rotating part	Silicon Carbide	Ceramic	Tungsten Carbide	Silicon Carbide	Tungsten Carbide
B	Fixed part	Metallised carbon	Metallised carbon	Tungsten Carbide	Tungsten Carbide	Special Carbon
C	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
D	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
E	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

CDX(L)

SINGLE IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

ELECTRIC DATA TABLE

Model		P_2		Efficiency		Capacitor Single phase		Efficiency (%) Three phase η %			P_1		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	μF	V_c	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V
CDXM 70/05	CDX 70/05	0.5	0.37	-	-	12.5	450	-	-	-	0.75	0.68	3.4	2.4	1.4
CDXM 70/07	CDX 70/07	0.75	0.55	-	-	16	450	-	-	-	1.1	1.0	5.0	3.5	2.0
CDXM 90/10	CDX 90/10	1	0.75	-	IE2	20	450	77.2	80.9	81.3	1.2	1.05	5.6	3.3	1.9
-		1	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7
CDXM 120/07	CDX 120/07	0.75	0.55	-	-	16	450	-	-	-	1.0	1.0	4.6	3.2	1.85
CDXM 120/12	CDX 120/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.6	1.45	6.9	4.5	2.6
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDXM 120/20	CDX 120/20	2	1.5	-	IE2	40	450	80.3	83.4	83.8	2.1	2.09	9.3	7.0	4.0
-		2	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
CDXM 200/12	CDX 200/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.4	1.35	6.3	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
CDXM 200/20	CDX 200/20	2	1.5	-	IE2	40	450	80.3	83.4	83.8	2.3	2.22	10.2	7.4	4.3
-		2	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
-	CDX 200/25	2.5	1.8	-	IE2	-	-	83.0	84.4	83.8	-	2.87	-	8.7	5.0
-		2.5	1.8	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7

NOISE DATA TABLE

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
CDXM 70/05	CDX 70/05	0.5	0.37	61
CDXM 70/07	CDX 70/07	0.75	0.55	62
CDXM 90/10	CDX 90/10	1	0.75	62
CDXM 120/07	CDX 120/07	0.75	0.55	62
CDXM 120/12	CDX 120/12	1.2	0.9	
CDXM 120/20	CDX 120/20	2	1.5	64
CDXM 200/12	CDX 200/12	1.2	0.9	62
CDXM 200/20	CDX 200/20	2	1.5	64
-	CDX 200/25	2.5	1.8	65

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

Insulation casing

For applications with refrigerant liquids or liquids with high thermal difference that may generate condensate

2CDX(L)

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

Dual impeller centrifugal electric pumps with hydraulic parts in AISI 304 and AISI 316.

APPLICATIONS

- Domestic pressure boosting
- Small-scale garden irrigation
- Washing
- Treating water
- Cooling towers
- Pumping clean water in general

TECHNICAL DETAILS

- Sturdy structure
- Small dimensions

PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
- Maxim temperature of the liquid:
  -5°C ÷ +60°C 2CDX(L) for E, Q1AEGG, VAEGG, U3U3EGG, Q1U3EGG and U3CEGG versions
  -5°C ÷ +110° for H-HS-HW-HSW versions
- G1½ suction connection for 2CDX(L) 200, G1¼ for the rest of the range
- G1 discharge connection

MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 protection degree
- 230V ±10% 50Hz single phase voltage, 230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

AISI 304 Version

- Pump casing, impeller, shaft, diffuser and seal housing disc in EN 1.4301 (AISI 304)

AISI 316 (L) Version

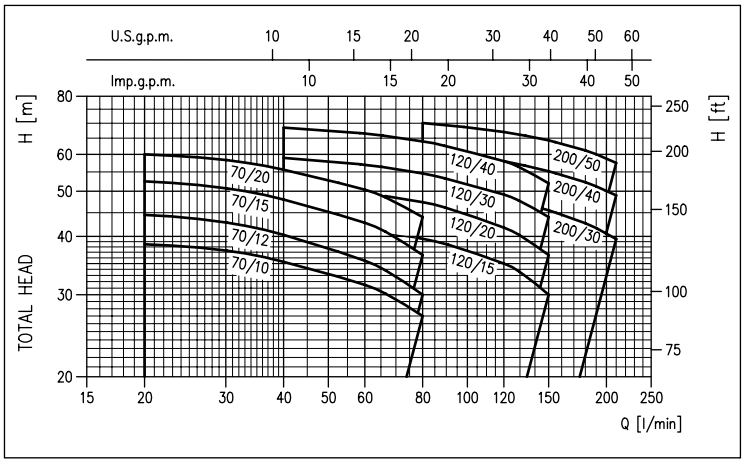
- Pump casing, impeller, shaft, diffuser and seal housing disc in AISI 316

- Aluminium motor bracket (up to 1.5 kW included), in cast iron (2.2 kW and above)
- Mechanical seal in:
  - Ceramic/Carbon/NBR (standard)
  - special versions: see p. 22

ACCESSORIES (On request)

- Insulation casing for 2CDX (L) pump casing for applications with refrigerant liquids or liquids with high thermal difference that may generate condensate
- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-*drive* - Variable speed control system

PERFORMANCE RANGE (according to ISO 9906 Attachment A)



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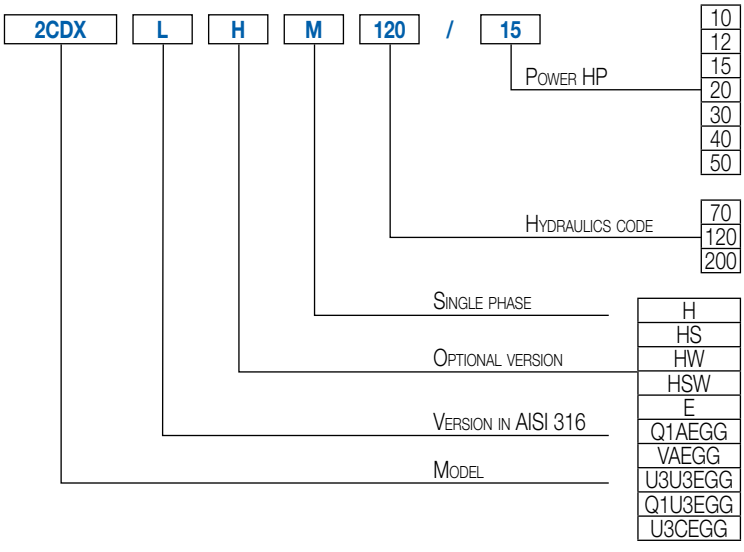


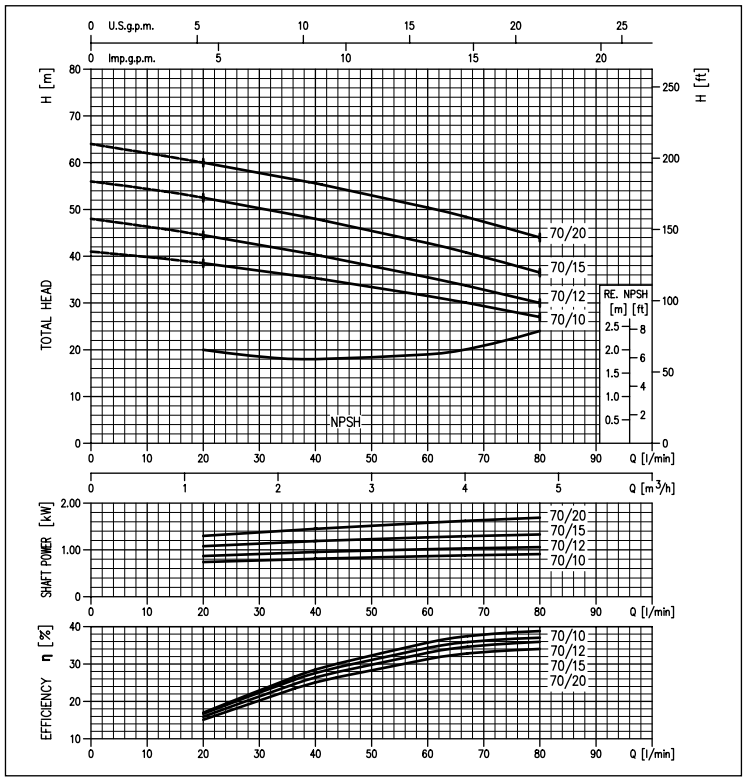
2CDX(L)

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

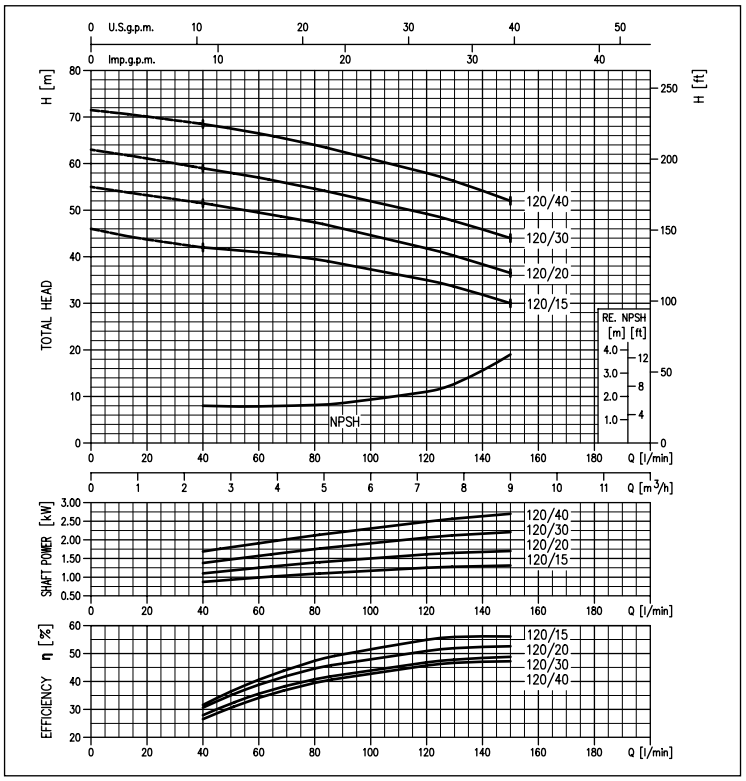
PERFORMANCE CURVES 2CDX 70 series

(according to ISO 9906 Attachment A)



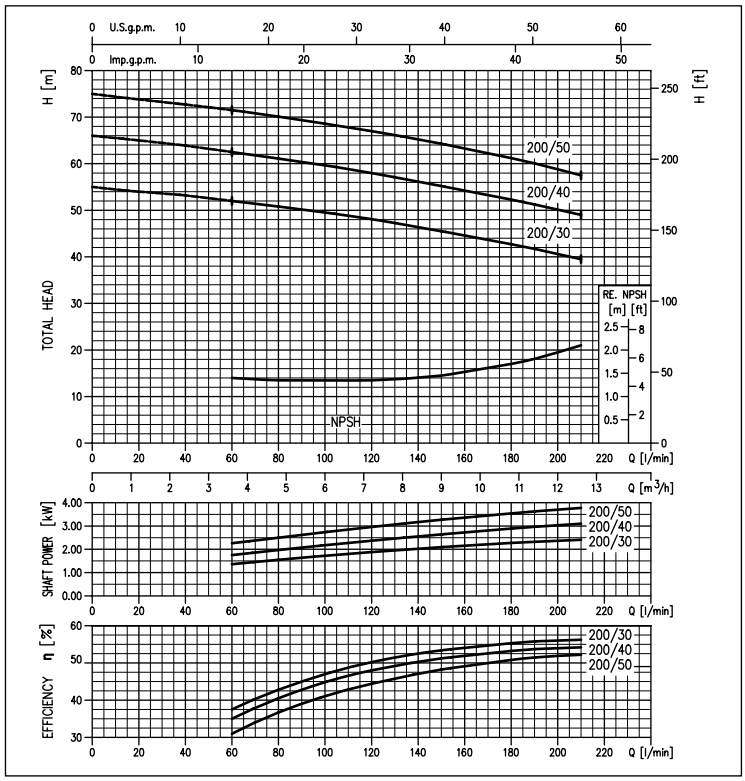
PERFORMANCE CURVES 2CDX 120 series

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES 2CDX 200 series

(according to ISO 9906 Attachment A)



2CDX(L)

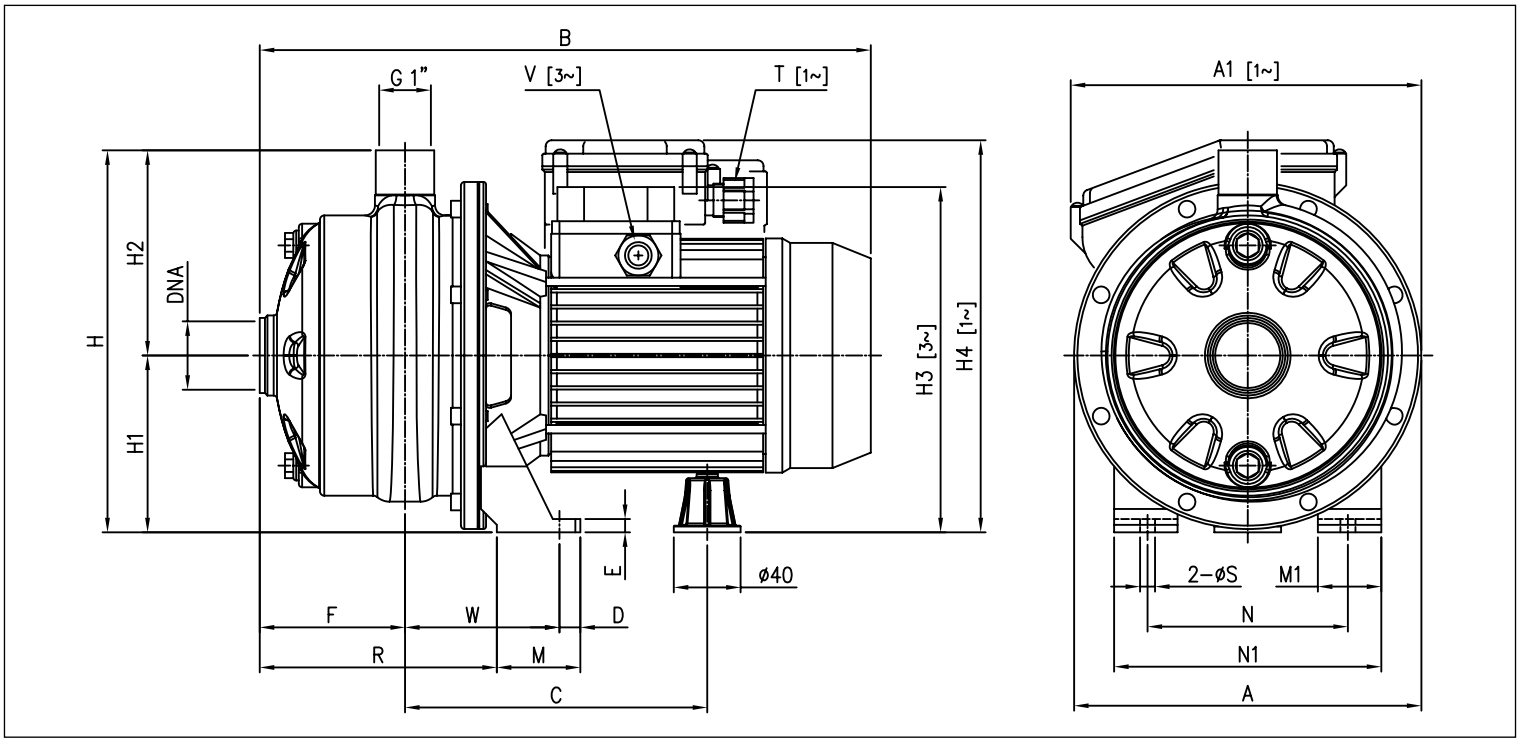
DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

PERFORMANCE CHART

Model		P2		Q = Flow Rate							
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min	20	40	60	80	120	150	180	210
				m³/h	1.2	2.4	3.6	4.8	7.2	9	10.8	12.6
				H=Head [m]								
2CDXM 70/10	2CDX 70/10	1	0.75		38.5	35.3	31.5	27.0	-	-	-	-
2CDXM 70/12	2CDX 70/12	1.2	0.9		44.5	40.3	35.5	30.0	-	-	-	-
2CDXM 70/15	2CDX 70/15	1.5	1.1		52.5	48.0	42.8	36.5	-	-	-	-
2CDXM 70/20	2CDX 70/20	2	1.5		60.0	55.6	50.4	44.0	-	-	-	-
2CDXM 120/15	2CDX 120/15	1.5	1.1		-	42.0	41.0	39.5	35.0	30.0	-	-
2CDXM 120/20	2CDX 120/20	2	1.5		-	51.5	49.5	47.4	41.8	36.5	-	-
-	2CDX 120/30	3	2.2		-	59.0	57.0	54.6	49.2	44.0	-	-
-	2CDX 120/40	4	3		-	68.5	66.5	64.0	58.0	52.0	-	-
-	2CDX 200/30	3	2.2		-	-	52.0	50.8	48.1	45.5	42.7	39.5
-	2CDX 200/40	4	3		-	-	62.5	61.1	58.0	55.2	52.3	49.0
-	2CDX 200/50	5	3.7		-	-	71.5	70.1	67.0	64.3	61.2	57.5

DIMENSIONS



DIMENSIONAL TABLE

Model	Dimensions [mm]																										Weight [kg]		
	A	A1 [2]**	B [2]	B [1]	B *	C	D	E	F	H	H1	H2	H3 [1]	H3 *	H4 [2]	M	M1	N	N1	R	T [2]	V [1]	V *	W	S	DNA	[2]	[1]	*
2CDX(M) 70/10	208	-	355	354	354	181	12.5	8	87	229	106	123	207	207	216	50	38	120	160	142	PG 11	PG 11	M16x1.5	92.5	9	G1¼	12.7	12.6	12.6
2CDX(M) 70/12	208	210	355	366	366	181	12.5	8	87	229	106	123	207	207	235	50	38	120	160	142	PG 13.5	PG 11	M16x1.5	92.5	9	G1¼	13.3	13.7	13.7
2CDX(M) 70/15	232	-	395.5	382	407	198.5	12.5	8	89	250	118	132	237	237	248.5	55	40	140	180	141.5	PG 13.5	PG 11	M20x1.5	95	9	G1¼	17.5	17.0	17.0
2CDX(M) 70/20	232	-	382.5	395	407.5	198.5	12.5	8	89	250	118	132	237	237	248.5	55	40	140	180	141.5	PG 13.5	PG 11	M20x1.5	95	9	G1¼	18.5	19.2	20.1
2CDX(M) 120/15	208	210	395.5	382	407	198.5	12.5	8	89	229	106	123	225	225	236.5	55	40	140	180	141.5	PG 13.5	PG 11	M20x1.5	95	9	G1¼	16.3	15.6	15.6
2CDX(M) 120/20	208	210	382.5	395	407.5	198.5	12.5	8	89	229	106	123	225	225	236.5	55	40	140	180	141.5	PG 13.5	PG 11	M20x1.5	95	9	G1¼	17.0	17.4	18.3
2CDX 120/30	232	-	-	419	405	223.5÷234.5 ***	12.5	10	87	250	118	132	242	237	-	65	40	140	180	143.5	-	PG 13.5	M20x1.5	109	9	G1¼	-	25.2	26.1
2CDX 120/40	232	-	-	458	458	223.5÷234.5	12.5	10	87	250	118	132	242	242	-	65	40	140	180	143.5	-	PG 13.5	M20x1.5	109	9	G1¼	-	27.8	27.8
2CDX 200/30	208	-	-	458	458	223.5÷234.5	12.5	10	87	229	106	123	230	230	-	65	40	140	180	143.5	-	PG 13.5	M20x1.5	109	9	G1½	-	25.7	26.6
2CDX 200/40	232	-	-	458	458	223.5÷234.5	12.5	10	87	250	118	132	242	242	-	65	40	140	180	143.5	-	PG 13.5	M20x1.5	109	9	G1½	-	27.6	27.6
2CDX 200/50	232	-	-	481	481	232.5	16	12	87	250	118	132	259	259	-	68	50	160	210	143.5	-	PG 16	M20x1.5	108.5	12	G1½	-	35.6	35.6

* Models with IE3 motor only

** Value specified only if greater than "A"

*** 2CDX 120/30 = 198.5 mm for IE3 version

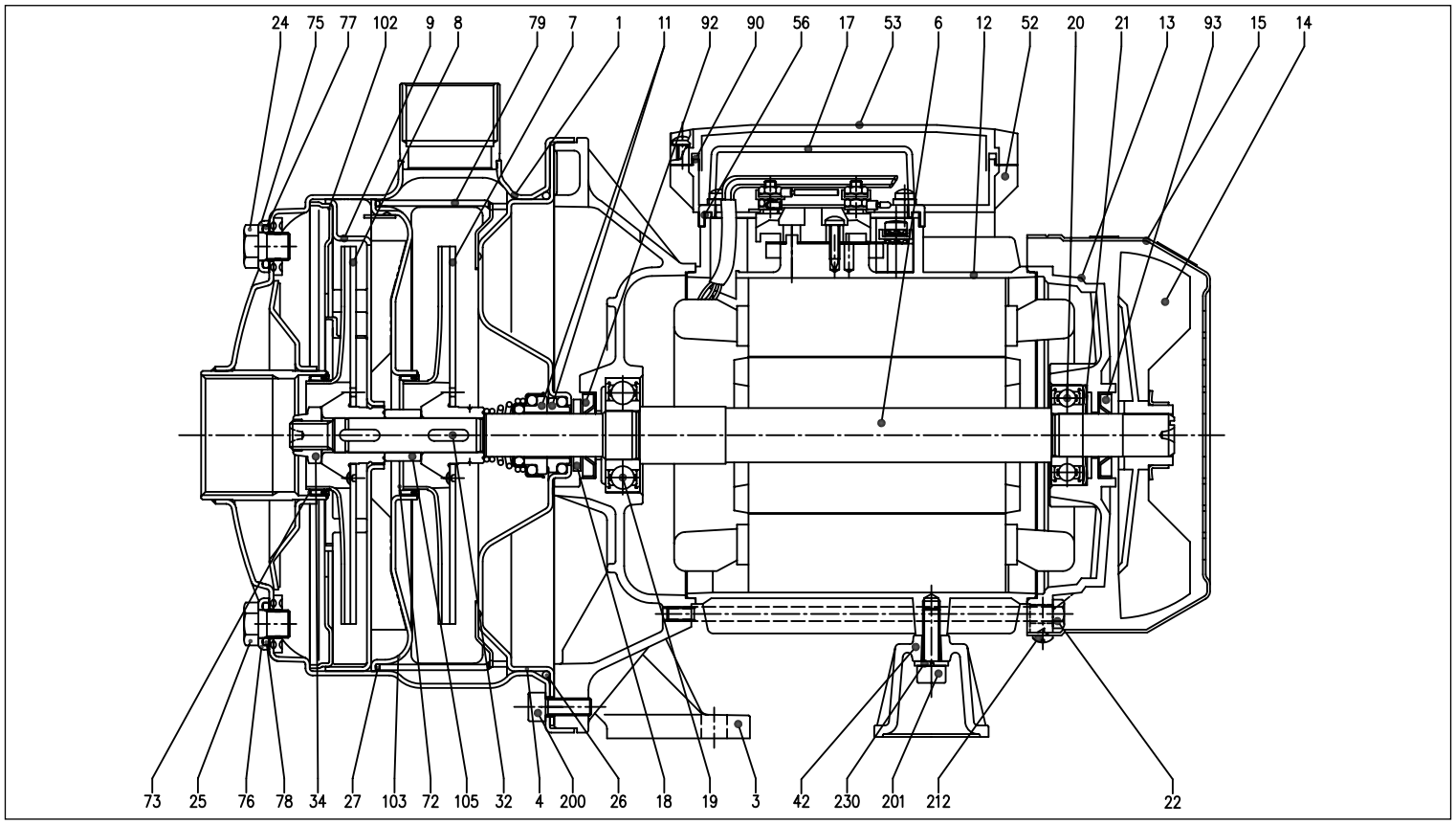
[1]= Three phase only [2]= Single phase only

2CDX(L)

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304) / AISI 316	32	Key	AISI 316
3	Motor bracket	Aluminium (up to 1.5 kW included) Cast iron (from 2.2 kW and above)	34	Impeller nut	Stainless Steel A2-70 / AISI 316
			42	Motor support	Aluminium
4	Casing cover	EN 1.4301 (AISI 304) / AISI 316	52	Terminal Box [2]	ABS
6	Shaft	EN 1.4301 (AISI 304) / AISI 316 Part in contact with the liquid	53	Terminal Box cover [2]	ABS
7	Impeller	EN 1.4301 (AISI 304)	56	Terminal box cover gasket	NBR
8	Impeller	EN 1.4301 (AISI 304)	72	Casing ring [4]	NBR
9	Diffuser	EN 1.4301 (AISI 304)	73	Casing ring [4]	NBR
11	Mechanical seal	Ceramic/Carbon/NBR	75	Washer	EN 1.4301 (AISI 304) / AISI 316
12	Motor frame	-	76	Washer	EN 1.4301 (AISI 304) / AISI 316
13	Motor cover	Aluminium	77	O-Ring [3]	NBR
14	Fan	PA	78	O-Ring [3]	NBR
15	Fan cover	Galvanised Fe P04	79	Diffuser spacer	EN 1.4301 (AISI 304)
17	Terminal Box cover [1]	Aluminium	90	Gasket [2]	NBR
18	Splash ring	NBR	92	Seal ring	NBR
19	Bearing (pump side)	-	93	Seal ring	NBR
20	Bearing (motor side)	-	102	Diffuser cover	EN 1.4301 (AISI 304)
21	Adjustment ring	Steel C70	103	Conveyor cover	EN 1.4301 (AISI 304)
22	Tie-rod	Galvanised Fe 42	105	Impeller spacer	EN 1.4301 (AISI 304)
24	Plug	EN 1.4301 (AISI 304) / AISI 316	200	Screw (pump body)	Stainless Steel A2-70
25	Plug	EN 1.4301 (AISI 304) / AISI 316	201	Screw	Zn. steel cl.8.8
26	O-Ring [3]	NBR	212	Screw	Stainless Steel A2
27	O-Ring [3]	NBR	230	Washer	Steel C70

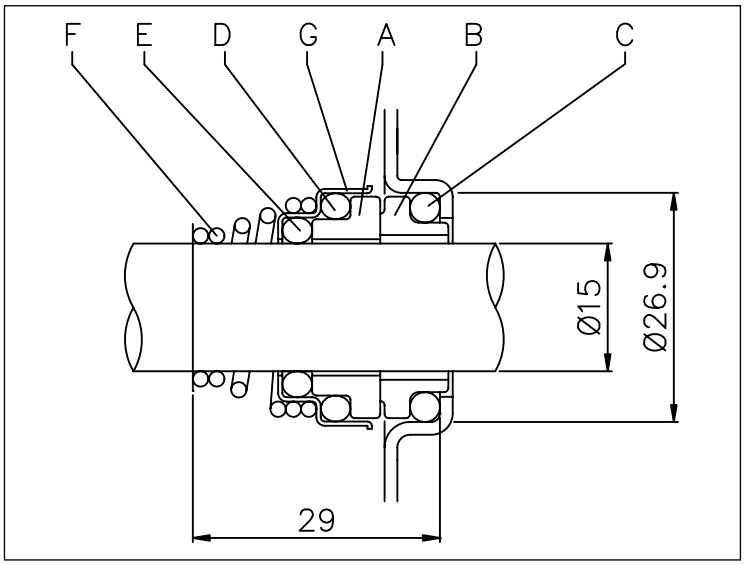
[1]= Three-phase only
[2]= Single phase only
[3]= FKM for 2CDX(L)H, 2CDX(L)HS, 2CDX(L)HW, 2CDX(L)HSW
EPDM for 2CDX(L)E, 2CDX(L) Q1AEGG, 2CDX(L) VAEGG, 2CDX(L) U3U3EGG, 2CDX(L) Q1U3EGG, 2CDX(L) U3CEGG
[4]= FKM for 2CDX(L)H, 2CDX(L)HS, 2CDX(L)HW, 2CDX(L)HSW
NBR for 2CDX(L)E, 2CDX(L) Q1AEGG, 2CDX(L) VAEGG, 2CDX(L) U3U3EGG, 2CDX(L) Q1U3EGG, 2CDX(L) U3CEGG

2CDX(L)

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

MECHCANICAL SEAL 2CDX(L) standard



MATERIALS TABLE

Ref.	Name	Materials
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Materials				
		H Version	HS Version	HW Version	HSW Version	E Version
A	Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
B	Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
C	O-Ring	FKM	FKM	FKM	FKM	EPDM
D	O-Ring	FKM	FKM	FKM	FKM	EPDM
E	O-Ring	FKM	FKM	FKM	FKM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 304	AISI 316	AISI 316	AISI 316	AISI 316

Ref.	Name	Materials				
		Q1AEGG Version	VAEGG Version	U3U3EGG Version	Q1U3EGG Version	U3CEGG Version
A	Rotating part	Silicon Carbide	Ceramic	Tungsten Carbide	Silicon Carbide	Tungsten Carbide
B	Fixed part	Metallised carbon	Metallised carbon	Tungsten Carbide	Tungsten Carbide	Special Carbon
C	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
D	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
E	O-Ring	EPDM	EPDM	EPDM	EPDM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

2CDX(L)

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304 and AISI 316

ELECTRIC DATA TABLE

Model		P_2		Efficiency		Capacitor Single phase		Efficiency (%) Three phase η %			P_1		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	µF	V_c	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V
2CDXM 70/10	2CDX 70/10	1	0.75	-	IE2	20	450	77.2	80.9	81.3	1.30	1.14	6.0	3.6	2.0
-		1	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7
2CDXM 70/12	2CDX 70/12	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.55	1.35	7.0	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
2CDXM 70/15	2CDX 70/15	1.5	1.1	-	IE2	40	450	79.7	82.5	83.0	1.80	1.80	8.1	5.6	3.2
-		1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
2CDXM 70/20	2CDX 70/20	2	1.5	-	IE2	40	450	80.3	83.4	83.8	2.30	2.28	10.0	7.4	4.3
-		2	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
2CDXM 120/15	2CDX 120/15	1.5	1.1	-	IE2	40	450	79.7	82.5	83.0	1.80	1.80	8.3	5.6	3.2
-		1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
2CDXM 120/20	2CDX 120/20	2	1.5	-	IE2	40	450	80.3	83.4	83.8	2.35	2.28	10.2	7.3	4.2
-		2	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
-	2CDX 120/30	3	2.2	-	IE2	-	-	83.1	85.7	86.2	-	2.90	-	8.8	5.1
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
-	2CDX 120/40	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4
-	2CDX 200/30	3	2.2	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1
-		3	2.2	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4
-	2CDX 200/40	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.83	-	11.6	6.7
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4
-	2CDX 200/50	5	3.7	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7
-		5	3.7	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7

NOISE DATA TABLE

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
2CDXM 70/10	2CDX 70/10	1	0.75	62
2CDXM 70/12	2CDX 70/12	1.2	0.9	
2CDXM 70/15	2CDX 70/15	1.5	1.1	64
2CDXM 70/20	2CDX 70/20	2	1.5	
2CDXM 120/15	2CDX 120/15	1.5	1.1	64
2CDXM 120/20	2CDX 120/20	2	1.5	
-	2CDX 120/30	3	2.2	68
-	2CDX 120/40	4	3	
-	2CDX 200/30	3	2.2	68
-	2CDX 200/40	4	3	
-	2CDX 200/50	5	3.7	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

Insulation casing

For applications with refrigerant liquids or liquids with high thermal difference that may generate condensate

DWO

OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

Open impeller centrifugal electric pumps in AISI 304 stainless steel.

APPLICATIONS

- Washing vegetables, meat, fish, molluscs
- Industrial washing plants at cycle end
- Washing and surface finishing of metal pieces, boxes, washing bottles, vases, glass containers, crates, baskets
- Dishwashers, glasswashers, cupwashers for communities
- Painting booths
- Pumping, evacuation, transfer of liquids

TECHNICAL DETAILS

- Sturdy structure
- Small dimensions
- Silent

PUMP TECHNICAL DATA

- Maximum working pressure: 8 bar
- Maximum temperature of the liquid:
  -5°C ÷ +90°C
  -5°C ÷ +110° for H-HS-HW-HSW versions
- Maximum solids size for passage: 19 mm
- G2½ suction connection for DWO 300-400, G2 for the rest of the range
- G2 discharge connection

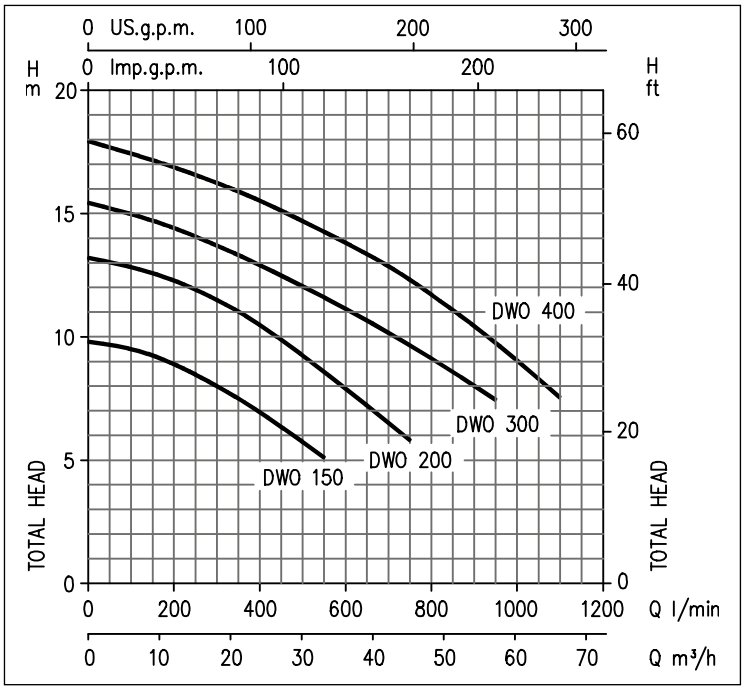
MOTOR TECHNICAL DATA

- High efficiency IE2 motors starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 protection degree
- 230V ±10% 50Hz single phase voltage,
  230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

- Pump casing, casing cover, impeller and shaft (part in contact with the liquid) in AISI 304
- Bracket and motor frame in aluminium
- Mechanical seal in:
  - Ceramic/Carbon/NBR (standard)
  - special versions: see p. 27

PERFORMANCE CURVES (according to ISO 9906 Attachment A)



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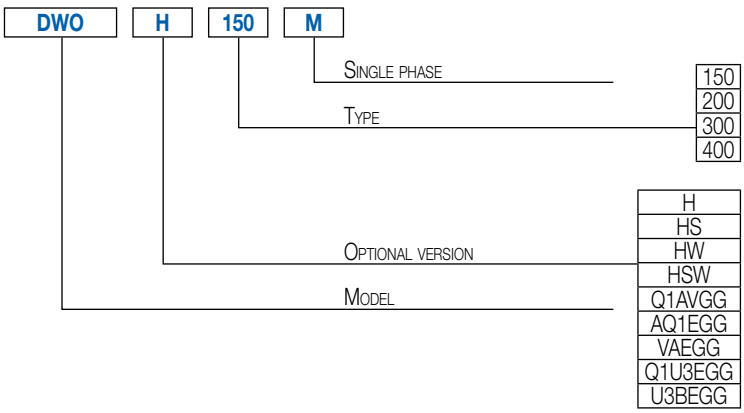


DWO

OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

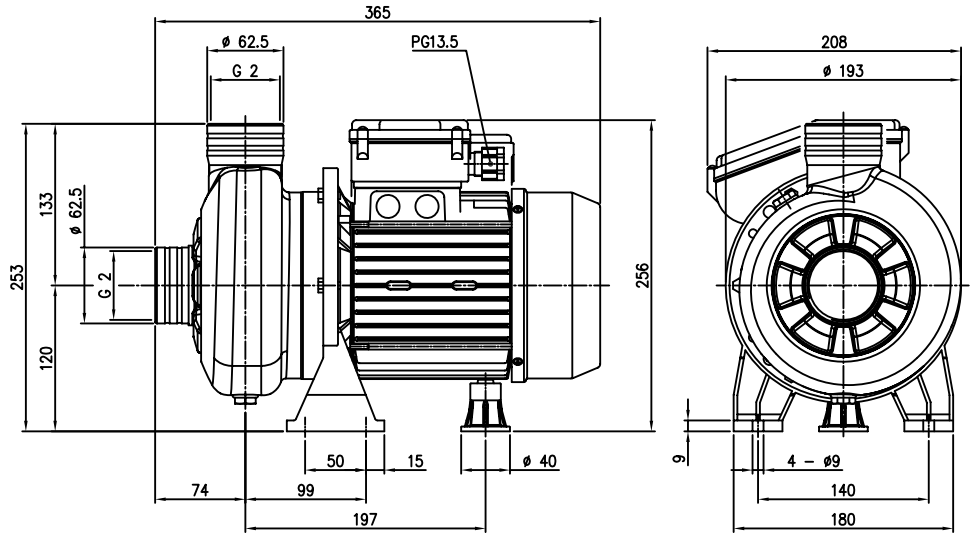
in AISI 304

PERFORMANCE CHART

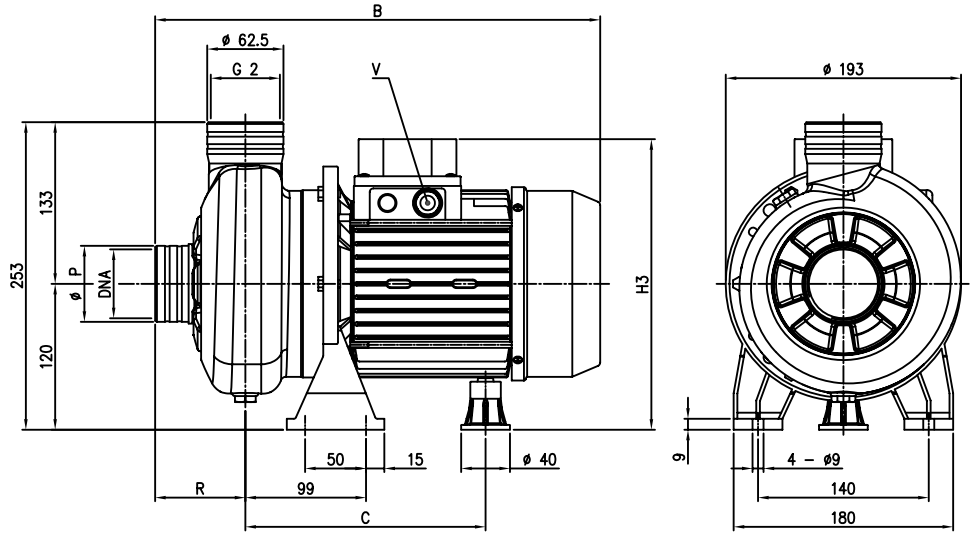
Model		P_2		Q = Flow Rate							
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min	100	200	300	400	550	750	950	1100
				m^3/h	6	12	18	24	33	42	57	66
				H=Head [m]								
DWO 150 M	DWO 150	1.5	1.1		9.5	8.9	7.9	6.9	5.1	-	-	-
DWO 200 M	DWO 200	2	1.5		12.7	12.3	11.5	10.5	8.6	5.8	-	-
-	DWO 300	3	2.2		15.0	14.5	13.8	12.9	11.7	9.7	7.5	-
-	DWO 400	4	3		17.5	16.9	16.3	15.6	14.3	12.4	9.8	7.6

DIMENSIONS

Single phase
DWO 150
DWO 200



Three phase
DWO 150
DWO 200
DWO 300
DWO 400



DIMENSIONAL TABLE

Model	Dimensions [mm]											Weight [kg]		
	B		C		H3		R	P	V		DNA			
	[1]	*	[1]	*	[1]	*	[1]	[1]	[1]	*	[1]	[2]	[1]	*
DWO 150	365	390	197	197	239	239	74	62.5	PG11	M20x1.5	G 2	14.4	14.5	15.4
DWO 200	378	390.5	197	197	239	239	74	62.5	PG11	M20x1.5	G 2	15.7	16.2	17.1
DWO 300	416	394.5	230/241	197	244	239	78	80	PG 13.5	M20x1.5	G 2½	-	19.4	19.4
DWO 400	455	455	230/241	230/241	244	244	78	80	PG 13.5	M20x1.5	G 2½	-	22.4	22.4

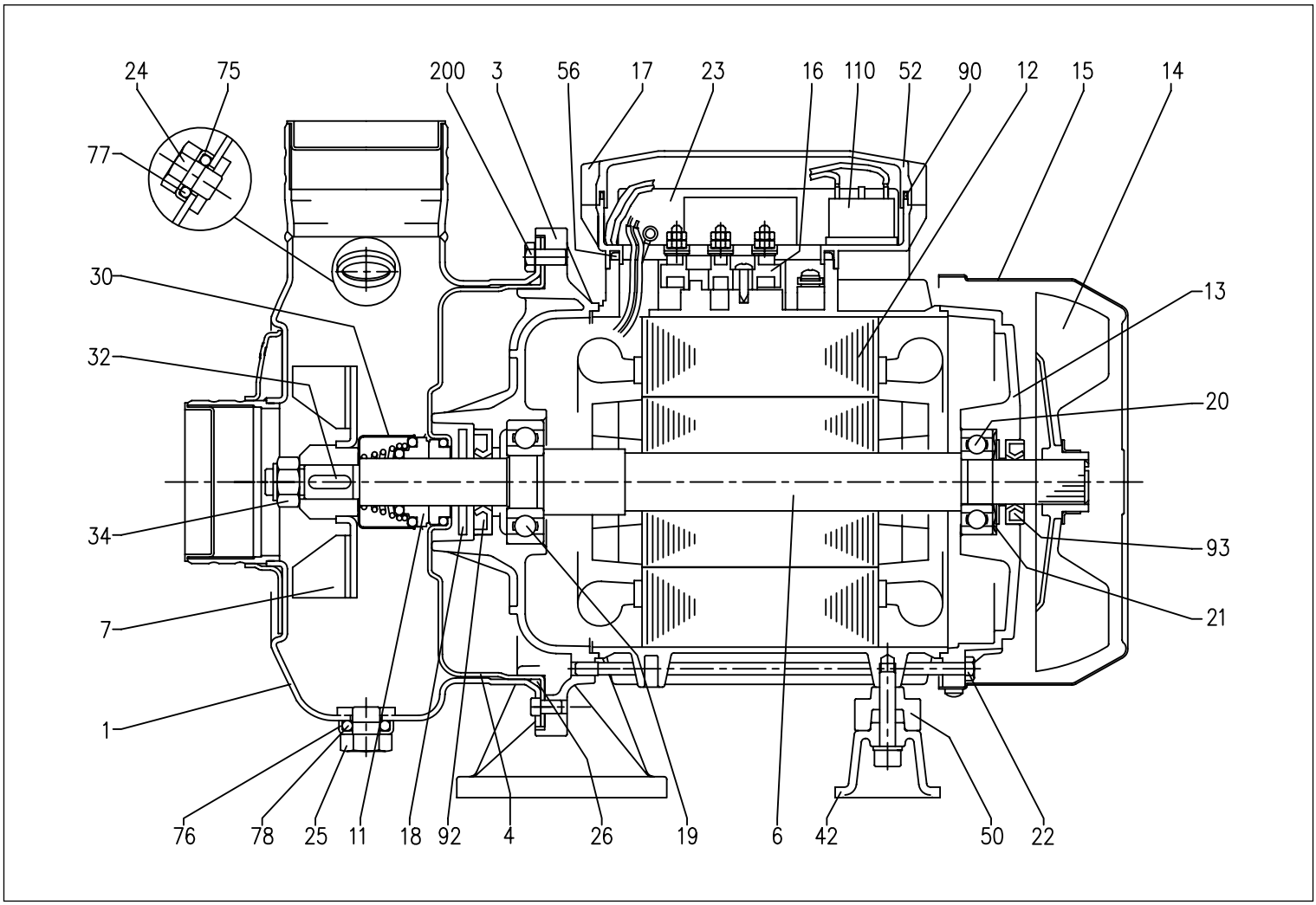
[1]= Three-phase only
[2]= Single phase only

DWO

OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	25	Plug	AISI 303
3	Motor bracket	Aluminium	26	O-Ring [3]	NBR
4	Casing cover	EN 1.4301 (AISI 304)	30	Splash washer	EN 1.4301 (AISI 304)
6	Shaft	EN 1.4301 (AISI 304) Part in contact with the liquid	32	Key	AISI 316
7	Impeller	EN 1.4301 (AISI 304)	34	Impeller nut	EN 1.4301 (AISI 304)
11	Mechanical seal	Ceramic/Carbon/NBR	42	Motor support	Aluminium
12	Motor frame	-	50	Spacer	-
13	Motor cover	Aluminium	52	Terminal box [2]	PP
14	Fan	PP	56	Terminal box cover gasket	NBR
15	Fan cover	Galvanised Fe P04	75	Washer	EN 1.4301 (AISI 304)
16	Terminal Box	-	76	Washer	EN 1.4301 (AISI 304)
17	Terminal Box cover [1]	Aluminium	77	O-Ring	NBR
18	Splash ring	NBR	78	O-Ring	NBR
19	Bearing (pump side)	-	90	Terminal box cover gasket [2]	NBR
20	Bearing (motor side)	-	92	Seal ring	-
21	Adjustment ring	Steel C70	93	Seal ring	-
22	Tie-rod	Galvanised Fe 42	110	Motor protector [2]	-
23	Capacitor [2]	-	200	Screw (pump body)	Stainless Steel A2 UNI7323
24	Plug	AISI 303			

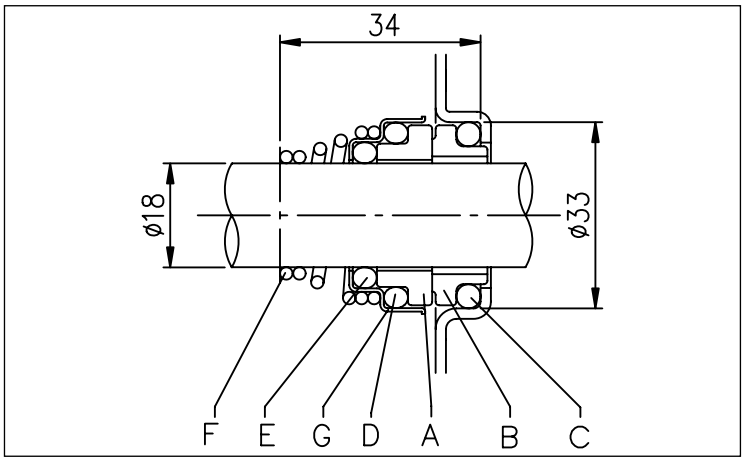
[1]= Three-phase only [2]= Single phase only
[3]= FKM for H-HS-HW-HSW versions

DWO

OPEN IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

MECHCANICAL SEAL standard



MATERIALS TABLE

Ref.	Name	Materials
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316 L
G	Structure/frame	AISI 304

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Materials			
		H Version	HS Version	HW Version	HSW Version
A	Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide
B	Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide
C	O-Ring	FKM	FKM	FKM	FKM
D	O-Ring	FKM	FKM	FKM	FKM
E	O-Ring	FKM	FKM	FKM	FKM
F	Spring	AISI 316 L	AISI 316 L	AISI 316 L	AISI 316 L
G	Structure/frame	AISI 304	AISI 316	AISI 316	AISI 316

Ref.	Name	Materials				
		Q1AVGG Version	AQ1EGG Version	VAEGG Version	Q1U3EGG Version	U3BEGG Version
A	Rotating part	Silicon Carbide	Metallised carbon	Ceramic	Silicon Carbide	Tungsten Carbide
B	Fixed part	Metallised carbon	Silicon Carbide	Metallised carbon	Tungsten Carbide	Graphite
C	O-Ring	FKM	EPDM	EPDM	EPDM	EPDM
D	O-Ring	FKM	EPDM	EPDM	EPDM	EPDM
E	O-Ring	FKM	EPDM	EPDM	EPDM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

ELECTRIC DATA TABLE

Model		P_2		Efficiency		Capacitor Single phase		Efficiency (%) Three phase η %			P_1		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	µF	V~	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V
DWO 150 M	DWO 150	1.5	1.1	-	IE2	35	450	79.7	82.5	83.0	1.36	1.80	6.8	5.6	3.2
-		1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
DWO 200 M	DWO 200	2	1.5	-	IE2	40	450	78.6	83.0	84.2	2.05	1.78	9.0	6.3	3.7
-		2	1.5	-	IE3	-	-	82.7	86.1	87.0	-	1.72	-	6.6	3.8
-	DWO 300	3	2.2	-	IE2	-	-	83.1	85.7	86.2	-	2.55	-	7.8	4.5
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
-	DWO 400	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4

NOISE DATA TABLE

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
DWO 150 M	DWO 150	1.5	1.1	<70
DWO 200 M	DWO 200	2	1.5	
-	DWO 300	3	2.2	
-	DWO 400	4	3	

* Mean value of several measurements made at 1 m distance around the pump.
Tolerance ± 2.5 dB.

DWC

ENCLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS
in AISI 304

DWC-N

DWC-V

Enclosed impeller centrifugal electric pumps in AISI 304 stainless steel.

APPLICATIONS
- Cooling, air conditioning and heating systems
- Chiller
- Washing systems
- Industrial liquids

TECHNICAL DETAILS
- Available in two different versions: with threaded (DWC-N) and Victaulic connections (DWC-V)
- Insulation as per standard for the Victaulic version (DWC-V)

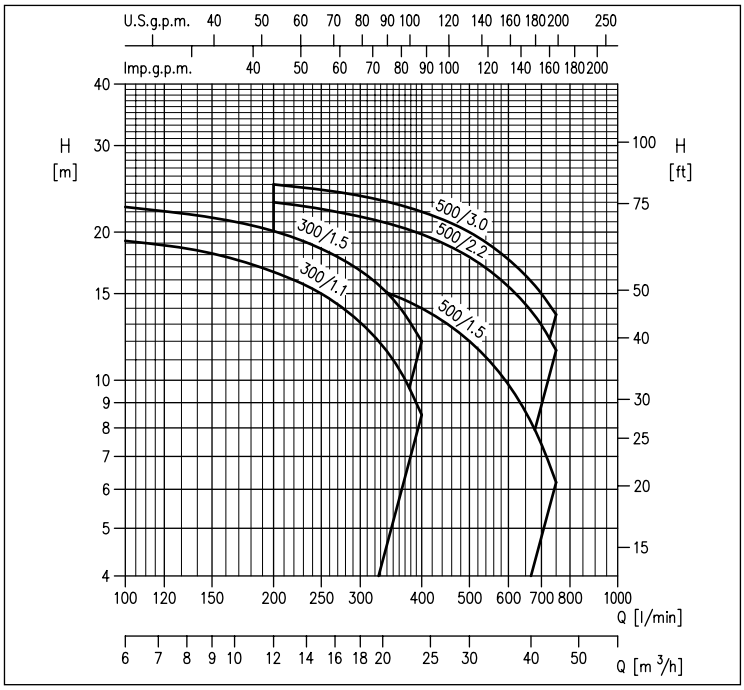
PUMP TECHNICAL DATA
- Maximum working pressure: 8 bar
- Maxim temperature of the liquid:
  -15°C ÷ +90°C
  -15°C ÷ +110°C for H-HS-HW-HSW versions
- Suction and discharge connection G2 for DWC-N
- Suction and discharge connection Ø2" (60.3 mm) for DWC-V
- For further information please see our Data Book on the web site www.ebaraeurope.com

MOTOR TECHNICAL DATA
- High efficiency IE2 motors starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 protection degree
- 230/400V ±10% 50Hz three phase voltage
- Protection under user's responsibility for the three phase version

MATERIALS
- Pump casing, casing cover, impeller and shaft (part in contact with the liquid) in AISI 304
- Bracket and motor frame in aluminium
- Mechanical seal in:
  - Ceramic/Carbon/EPDM (standard)
  - special versions: see p. 32

ACCESSORIES (On request)
Insulation casing for DWC pump casing for applications with refrigerant liquids or liquids with high thermal difference that may generate condensate.

PERFORMANCE RANGE (according to ISO 9906 Attachment A)



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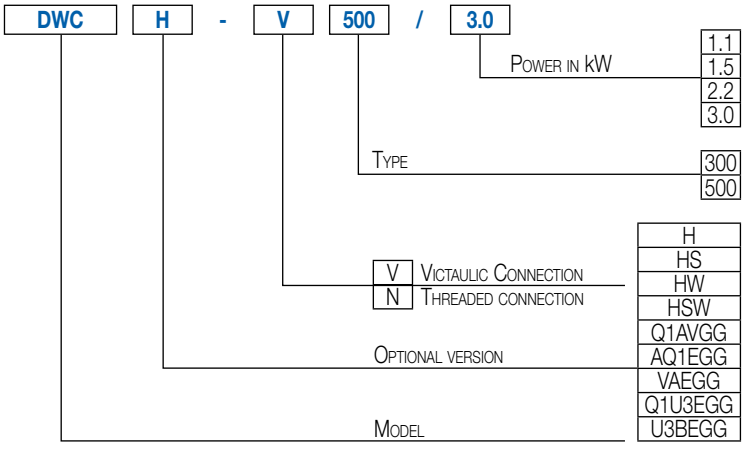


DWC

ENCLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS

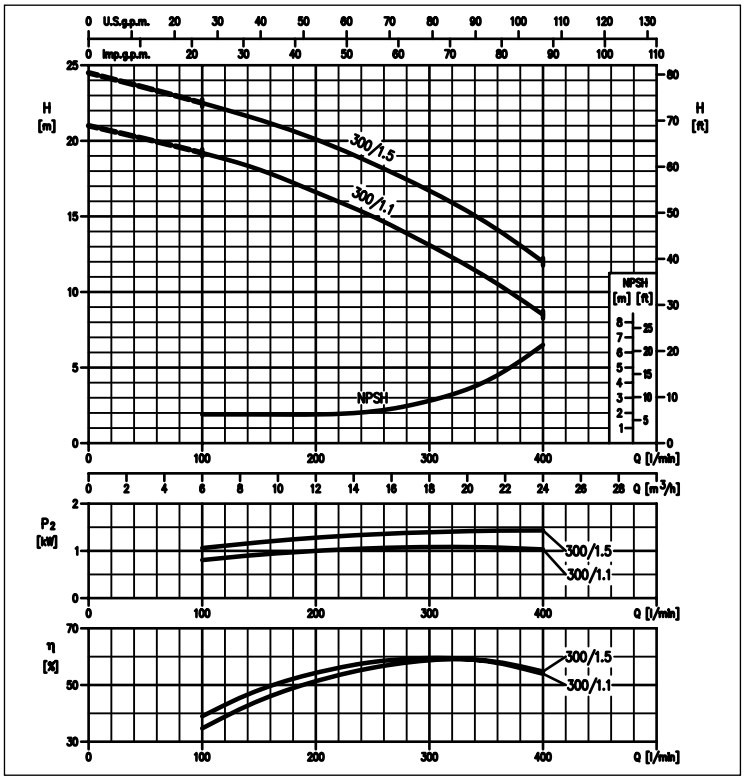
in AISI 304

PERFORMANCE CHART

Model Three phase 230/400V	P_2 [HP]	P_2 [kW]	Q = Flow Rate l/min	100	150	200	250	300	350	400	500	600	700	750
			m^3/h	6	9	12	15	18	21	24	30	36	42	45
			H=Head [m]											
DWC 300/1.1	1.5	1.1		19.2	18.1	16.6	15.0	13.1	11.0	8.5	-	-	-	-
DWC 300/1.5	2	1.5		22.5	21.4	20.1	18.5	16.7	14.6	12.0	-	-	-	-
DWC 500/1.5	2	1.5		-	-	17.0	16.4	15.7	14.9	14.0	12.0	9.8	7.4	6.2
DWC 500/2.2	3	2.2		-	-	23.0	22.3	21.5	20.7	19.8	17.8	15.5	13.0	11.5
DWC 500/3.0	4	3		-	-	25.0	24.4	23.7	22.9	22.0	20.0	17.6	15.0	13.6

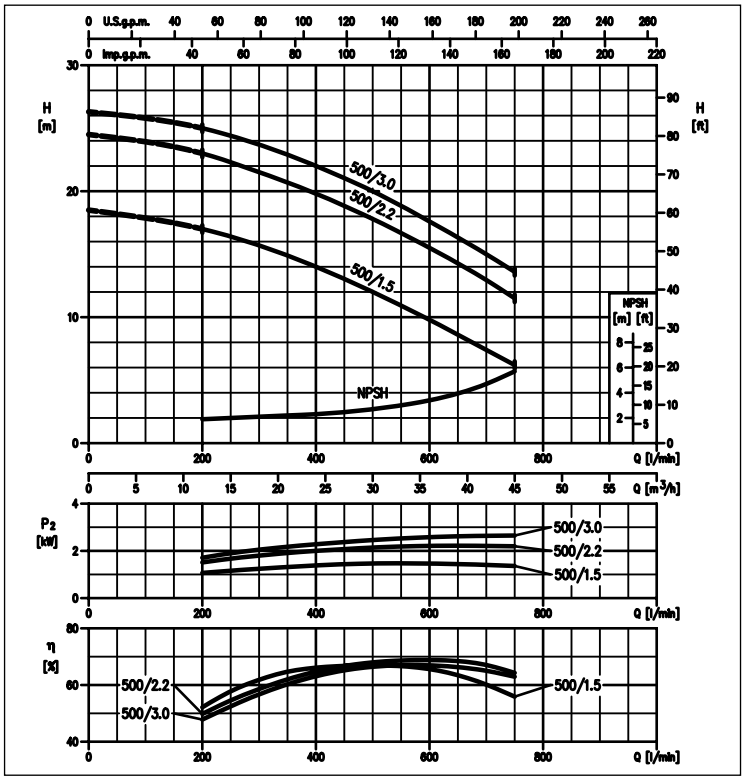
PERFORMANCE CURVES DWC 300 series

(according to ISO 9906 Attachment A)

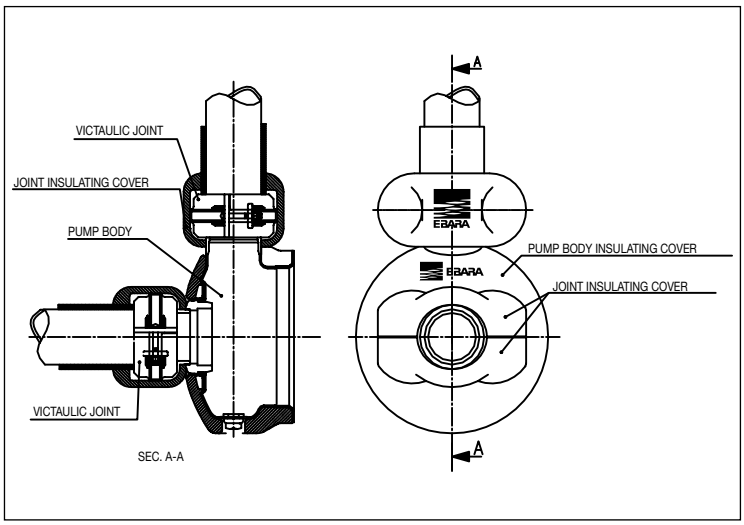


PERFORMANCE CURVES DWC 500 series

(according to ISO 9906 Attachment A)



THERMAL INSULATION

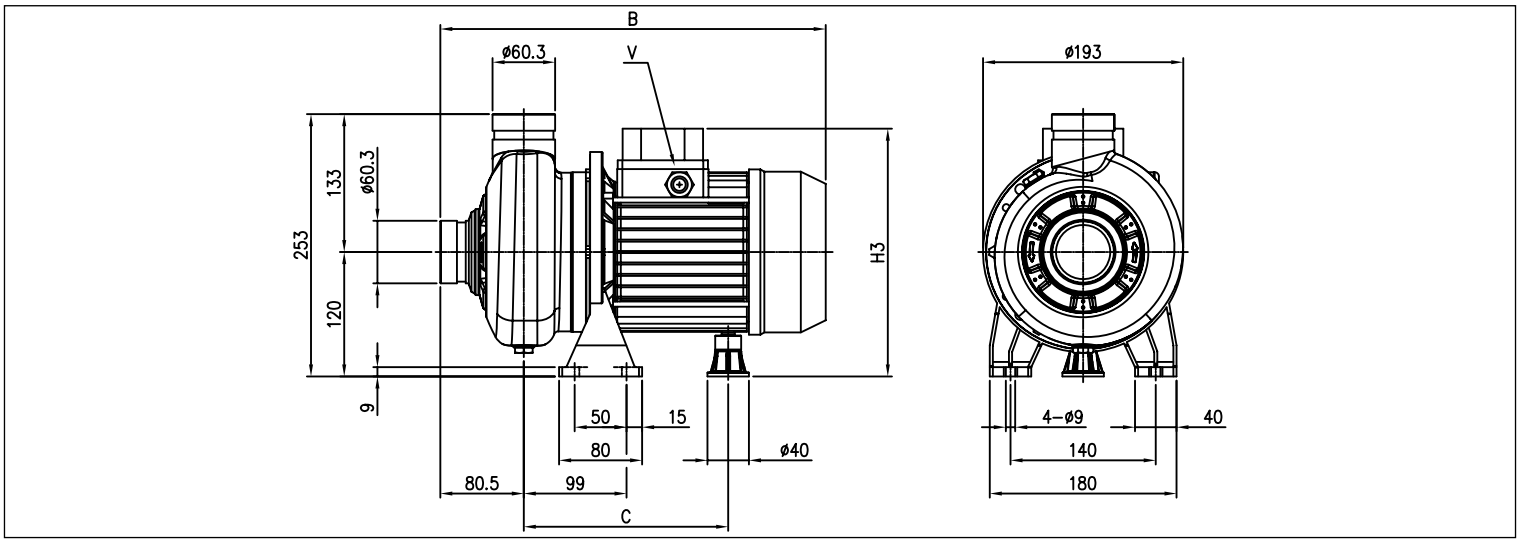


Model	Insulating cover pump casing	Insulating cover joint	Joint Victaulic
DWC-V 300/1.1	Standard	On request	On request
DWC-V 300/1.5			
DWC-V 500/1.5			
DWC-V 500/2.2			
DWC-V 500/3.0			
DWC-N 300/1.1	On request	Not applicable	Not applicable
DWC-N 300/1.5			
DWC-N 500/1.5			
DWC-N 500/2.2			
DWC-N 500/3.0			

ENCLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

DIMENSIONS DWC-V (VICTAULIC CONNECTION)

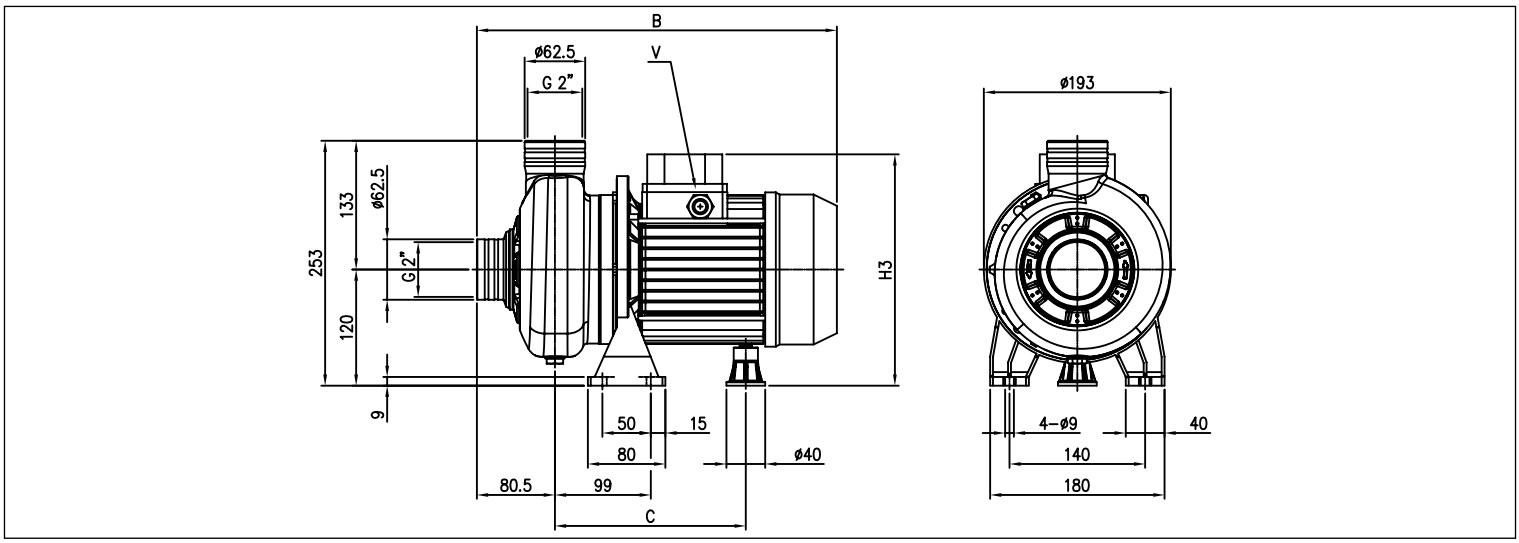


DIMENSIONAL TABLE

Model	Dimensions [mm]								Weight [kg]	
	B	B*	C	C*	H3	H3*	V	V*		*
DWC-V 300/1.1	372	397	197	197	239	239	PG11	M20x1.5	14.5	15.4
DWC-V 300/1.5	385	397.5	197	197	239	239	PG11	M20x1.5	16.0	16.9
DWC-V 500/1.5	385	397.5	197	197	239	239	PG11	M20x1.5	17.0	17.9
DWC-V 500/2.2	418	396.5	230 ÷ 241	197	244	239	PG 13.5	M20x1.5	20.3	20.3
DWC-V 500/3.0	457	457	230 ÷ 241	230 ÷ 241	244	244	PG 13.5	M20x1.5	22.3	22.3

* Models with IE3 motor only

DIMENSIONS VIEW DWC-N (THREADED CONNECTION)



DIMENSIONAL TABLE

Model	Dimensions [mm]								Weight [kg]	
	B	B*	C	C*	H3	H3*	V	V*		*
DWC-N 300/1.1	372	397	197	197	239	239	PG11	M20x1.5	14.5	15.4
DWC-N 300/1.5	385	397.5	197	197	239	239	PG11	M20x1.5	16.0	16.9
DWC-N 500/1.5	385	397.5	197	197	239	239	PG11	M20x1.5	16.5	17.4
DWC-N 500/2.2	418	396.5	230 ÷ 241	197	244	239	PG 13.5	M20x1.5	20.3	20.3
DWC-N 500/3.0	457	457	230 ÷ 241	230 ÷ 241	244	244	PG 13.5	M20x1.5	22.3	22.3

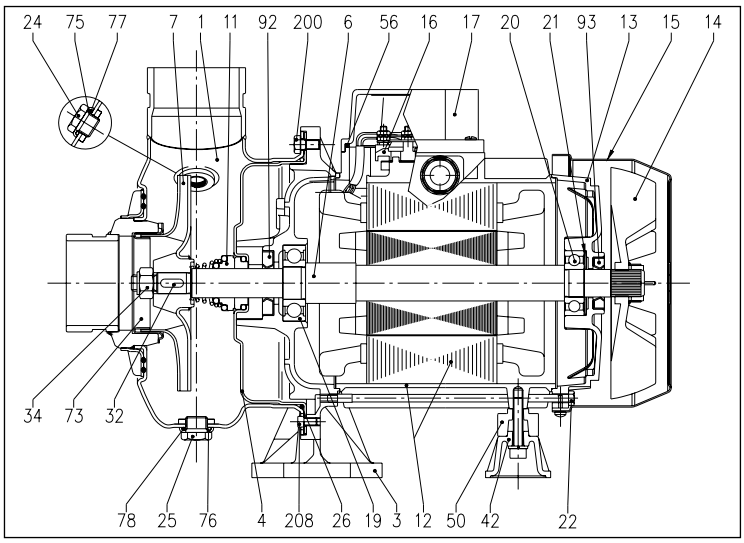
* Models with IE3 motor only

DWC

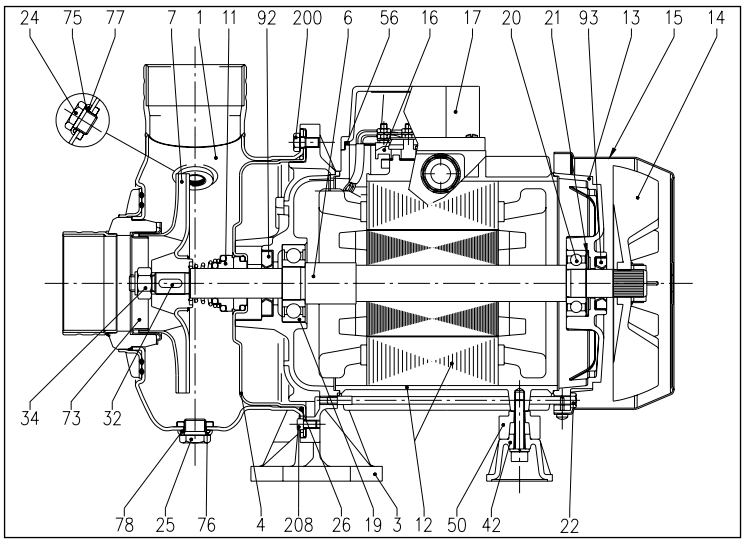
ENCLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

SECTIONAL VIEW DWC-V (VICTAULIC CONNECTION)



SECTIONAL VIEW DWC-N (THREADED CONNECTION)



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	25	Plug	EN 1.4301 (AISI 304)
3	Motor bracket	Aluminium	26	O-Ring [1]	EPDM
4	Casing cover	EN 1.4301 (AISI 304)	32	Key	EN 1.4401 (AISI 316)
6	Shaft	EN 1.4301 (AISI 304) Part in contact with the liquid	34	Impeller nut	EN 1.4301 (AISI 304)
7	Impeller	EN 1.4301 (AISI 304)	42	Motor support	Aluminium / Galvanised steel
11	Mechanical seal	Ceramic/Carbon/EPDM	50	Spacer	-
12	Motor frame	-	56	Terminal box cover gasket	NBR
13	Motor cover	Aluminium	73	Casing ring	EN 1.4301 (AISI 304)
14	Fan	PA	75	Washer	EN 1.4301 (AISI 304)
15	Fan cover	Galvanised Fe P04	76	Washer	EN 1.4301 (AISI 304)
16	Terminal Box	-	77	O-Ring [1]	EPDM
17	Terminal box cover	Aluminium	78	O-Ring [1]	EPDM
19	Bearing (pump side)	-	92	Seal ring	-
20	Bearing (motor side)	-	93	Seal ring	-
21	Adjustment ring	Steel C70	200	Screw (pump body)	Stainless steel A2-70/1 class ISO 3506/1
22	Tie-rod	Galvanised Fe 42	208	Screw	Stainless steel A2-70/1 class ISO 3506/1
24	Plug	EN 1.4301 (AISI 304)			

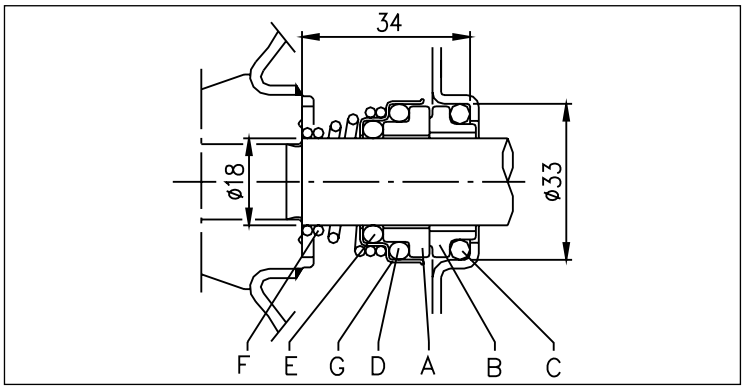
[1]= FKM for H-HS-HW-HSW versions

DWC

ENCLOSED IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

MECHCANICAL SEAL standard



MATERIALS TABLE

Ref.	Name	Materials
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	EPDM
D	O-Ring	EPDM
E	O-Ring	EPDM
F	Spring	AISI 316
G	Structure/frame	AISI 304

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Materials			
		H Version	HS Version	HW Version	HSW Version
A	Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide
B	Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide
C	O-Ring	FKM	FKM	FKM	FKM
D	O-Ring	FKM	FKM	FKM	FKM
E	O-Ring	FKM	FKM	FKM	FKM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 304	AISI 316	AISI 316	AISI 316

Ref.	Name	Materials				
		Q1AVGG Version	AQ1EGG Version	VAEGG Version	Q1U3EGG Version	U3BEGG Version
A	Rotating part	Silicon Carbide	Metallised carbon	Ceramic	Silicon Carbide	Tungsten Carbide
B	Fixed part	Metallised carbon	Silicon Carbide	Metallised carbon	Tungsten Carbide	Graphite
C	O-Ring	FKM	EPDM	EPDM	EPDM	EPDM
D	O-Ring	FKM	EPDM	EPDM	EPDM	EPDM
E	O-Ring	FKM	EPDM	EPDM	EPDM	EPDM
F	Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
G	Structure/frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

ELECTRIC DATA TABLE

Model Three phase 230/400V	P_2		Efficiency	Efficiency (%) Three phase η %			P_1	Absorbed Current [A] Three phase	
	[HP]	[kW]	Three phase	50%	75%	100%	Three phase [kW]	230V	400V
DWC 300/1.1	1.5	1.1	IE2	79.7	82.5	83.0	1.80	5.5	3.2
	1.5	1.1	IE3	83.0	85.8	85.6	1.77	5.8	3.3
DWC 300/1.5	2	1.5	IE2	78.6	83.0	84.2	1.78	6.3	3.7
	2	1.5	IE3	82.7	86.1	87.0	1.72	6.6	3.8
DWC 500/1.5	2	1.5	IE2	78.6	83.0	84.2	1.78	6.3	3.7
	2	1.5	IE3	82.7	86.1	87.0	1.72	6.6	3.8
DWC 500/2.2	3	2.2	IE2	83.1	85.7	86.2	2.55	7.8	4.5
	3	2.2	IE3	86.2	87.0	86.0	2.55	8.2	4.7
DWC 500/3.0	4	3	IE2	85.0	86.7	86.3	3.48	10.6	6.1
	4	3	IE3	85.9	87.5	87.1	3.44	11.1	6.4

NOISE DATA TABLE

Model Three phase 230/400V	P_2		L_{pA} - dB(A)*
	[HP]	[kW]	
DWC 300/1.1	1.5	1.1	<70
DWC 300/1.5	2	1.5	
DWC 500/1.5	2	1.5	<70
DWC 500/2.2	3	2.2	
DWC 500/3.0	4	3	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

CDA

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

Cast iron dual impeller centrifugal electric pumps.

APPLICATIONS

- Pressure boosting domestic plants
- Small-scale irrigation
- Pumping non-aggressive liquids for civil and industrial use
- Washing plants
- Washing vehicles

TECHNICAL DETAILS

- Available with brass impeller (CDA 0.75 M GO, CDA 1.00 M/T GO)
- They can be inserted into machinery for industrial use

PUMP TECHNICAL DATA

- Maximum working pressure: 6 bar for CDA 0.75 - 1.00, 10 bar for the rest of the range
- Maximum temperature of the liquid: 40°C for CDA 0.75 - 1.00, 90°C for the rest of the range
- Suction connection G1 for CDA 0.75 - 1.00, G1¼ for CDA 1.50 - 2.00 - 3.00, G1½ for CDA 4.00 - 5.50
- Discharge connection: G1 for CDA 0.75 - 1.00 - 1.50 - 2.00 - 3.00, G1¼ for CDA 4.00 - 5.50

MOTOR TECHNICAL DATA

- High efficiency motors IE2 motors starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP44 Protection degree
- 230V ± 10% 50Hz single phase voltage, 230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

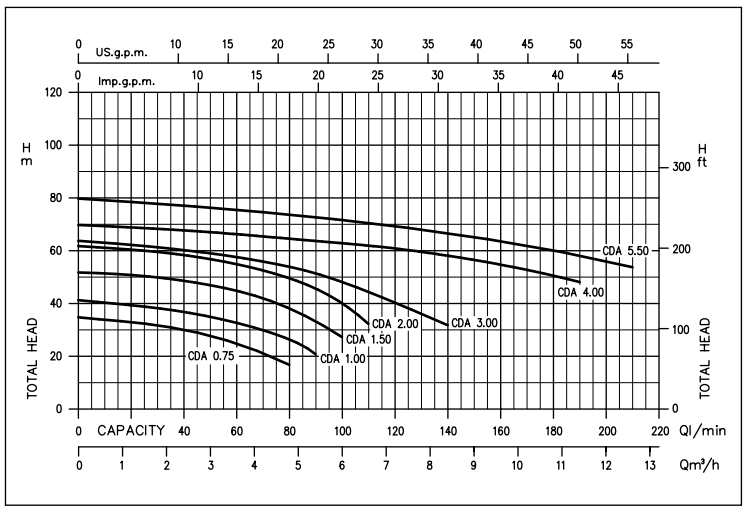
MATERIALS

- Cast iron pump casing
- Mechanical seal in Ceramic/Carbon/NBR
- Impeller in PPE + PS reinforced with glass fibres for CDA 0.75-1.00, in brass for the rest of the range
- Shaft in AISI 303 for CDA 0.75 - 1.00 - 1.50 - 2.00 - 3.00, in AISI 304 for CDA 4.00 - 5.50
- Bracket in aluminium for CDA 0.75-1.00, in cast iron for the rest of the range
- Seal housing disc in AISI 304 for CDA 0.75-1.00, in cast iron built-in the motor bracket for the rest of the range

ACCESSORIES (On request)

- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-*drive* - Variable speed control system

PERFORMANCE CURVES (according to ISO 9906 Attachment A)



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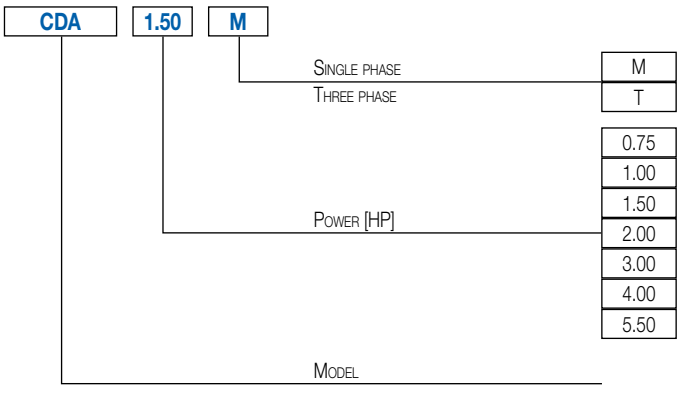


CDA

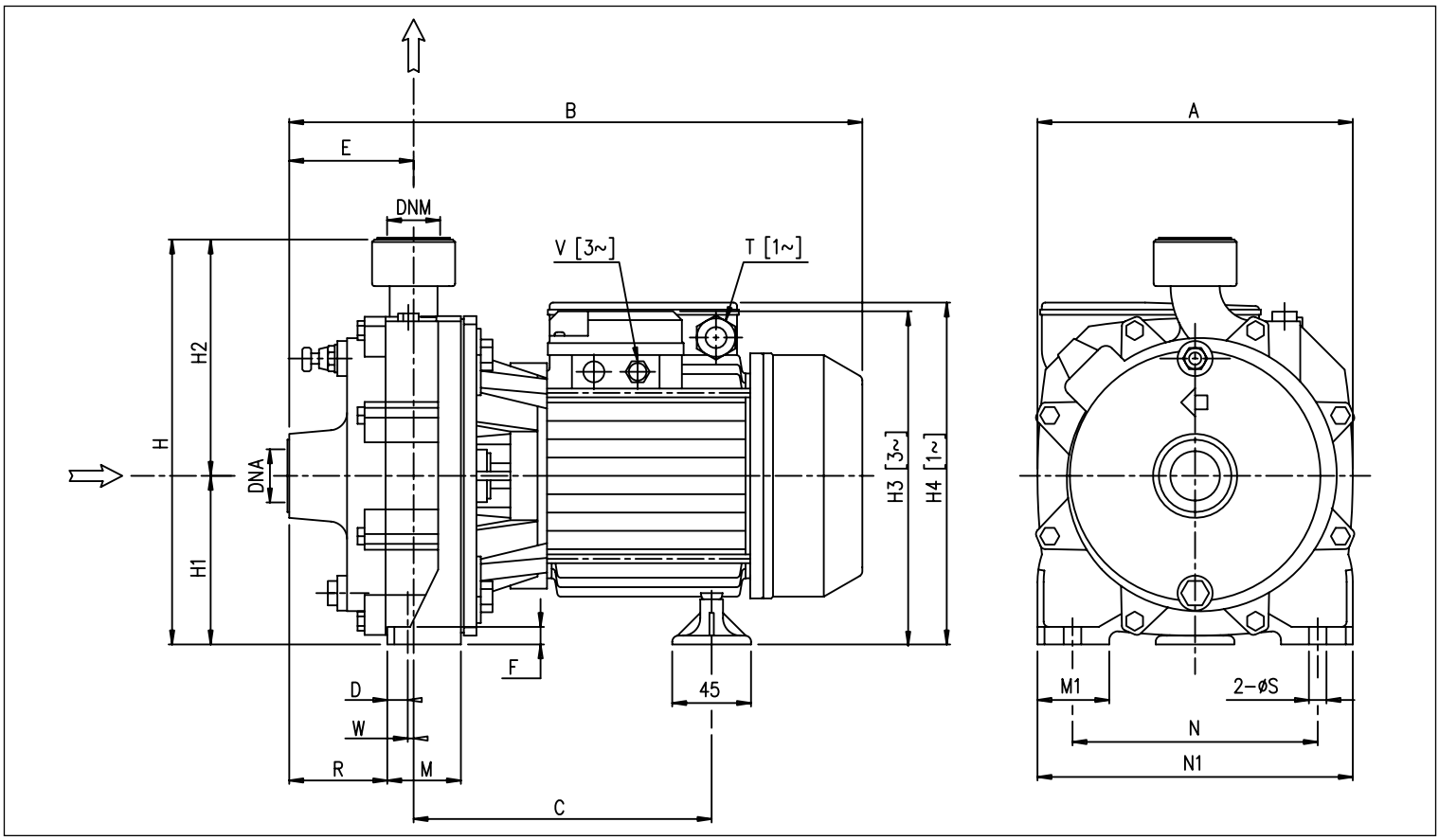
DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

PERFORMANCE CHART

Model		P_2		Q = Flow Rate										
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min 20	40	50	80	90	100	110	140	170	190	210
				m^3/h 1.2	2.4	3	4.8	5.4	6	6.6	8.4	10.2	11.4	12.6
				H=Head [m]										
CDA 0.75 M	CDA 0.75 T	0.75	0.55	33.0	30.2	27.9	17.0	-	-	-	-	-	-	-
CDA 1.00 M	CDA 1.00 T	1	0.75	39.5	37.0	35.2	27.0	21.0	-	-	-	-	-	-
CDA 1.50 M	CDA 1.50 T	1.5	1.1	50.8	48.8	47.1	38.4	33.4	27.5	-	-	-	-	-
CDA 2.00 M	CDA 2.00 T	2	1.5	60.5	58.6	56.9	49.8	46.5	40.3	32.5	-	-	-	-
-	CDA 3.00 T	3	2.2	-	60.5	59.3	54.1	51.6	48.4	44.6	32.0	-	-	-
-	CDA 4.00 T	4	3	-	-	67.0	64.8	63.9	62.5	62.0	58.0	53.5	48.0	-
-	CDA 5.50 T	5.5	4	-	-	76.5	73.9	72.9	71.8	70.5	66.8	62.0	58.3	54.0

DIMENSIONS



DIMENSIONAL TABLE

Model	Dimensions [mm]																								Weight [kg]	
	A	B	*	C	*	D	E	F	H	H1	H2	H3 [1]	*	H4 [2]	M	M1	N	N1	R	T [2]	V [1]	*	W	S	DNA	DNM		*
CDA 0.75M	183	336.3	-	179.8	-	8.3	73	9	227	97	130	-	-	198	42	40	140	180	57.5	PG11	-	-	6.8	9.5	G1	G1	13.8	-
CDA 0.75T	183	336.3	-	179.8	-	8.3	73	9	227	97	130	197.5	-	-	42	40	140	180	57.5	-	PG11	-	6.8	9.5	G1	G1	13.8	-
CDA 1.00M	183	336.3	-	179.8	-	8.3	73	9	227	97	130	-	-	198	42	40	140	180	57.5	PG11	-	-	6.8	9.5	G1	G1	15.0	-
CDA 1.00T	183	336.3	336.3	179.8	179.8	8.3	73	9	227	97	130	197.5	197.5	-	42	40	140	180	57.5	-	PG11	M16x1.5	6.8	9.5	G1	G1	15.0	15.0
CDA 1.50M	209	407.8	-	218.3	-	8.3	86	9	265	110	155	-	-	242	48	40	155	195	65.5	PG13.5	-	-	12.3	9.5	G1¼	G1	24.2	-
CDA 1.50T	194	394.8	419.8	218.3	218.3	8.3	86	9	265	110	155	224	224	-	48	40	155	195	65.5	-	PG11	M20x1.5	12.3	9.5	G1¼	G1	24.9	25.8
CDA 2.00M	209	410.8	-	218.3	-	8.3	86	9	265	110	155	-	-	242	48	40	155	195	65.5	PG13.5	-	-	12.3	9.5	G1¼	G1	26.0	-
CDA 2.00T	194	408	420.5	218.3	218.3	8.3	86	9	265	110	155	224	224	-	48	40	155	195	65.5	-	PG11	M20x1.5	12.3	9.5	G1¼	G1	27.1	28.0
CDA 3.00T	194	410.8	423.3	218.3	218.3	8.3	86	9	265	110	155	224	224	-	48	40	155	195	65.5	-	PG11	M20x1.5	12.3	9.5	G1¼	G1	25.8	26.7
CDA 4.00T	228	461.5	494.5	225.3	262.5	12	95.5	12	308.5	133.5	175	264.5	259.5	-	57	50	180	230	71.5	-	G1½	M20x1.5	12	12	G1½	G1¼	46.8	46.8
CDA 5.50T	228	508	508	225.3	225.3	12	95.5	12	308.5	133.5	175	264.5	264.5	-	57	50	180	230	71.5	-	G1½	M20x1.5	12	12	G1½	G1¼	52.0	52.0

[1]= Three-phase only [2]= Single phase only

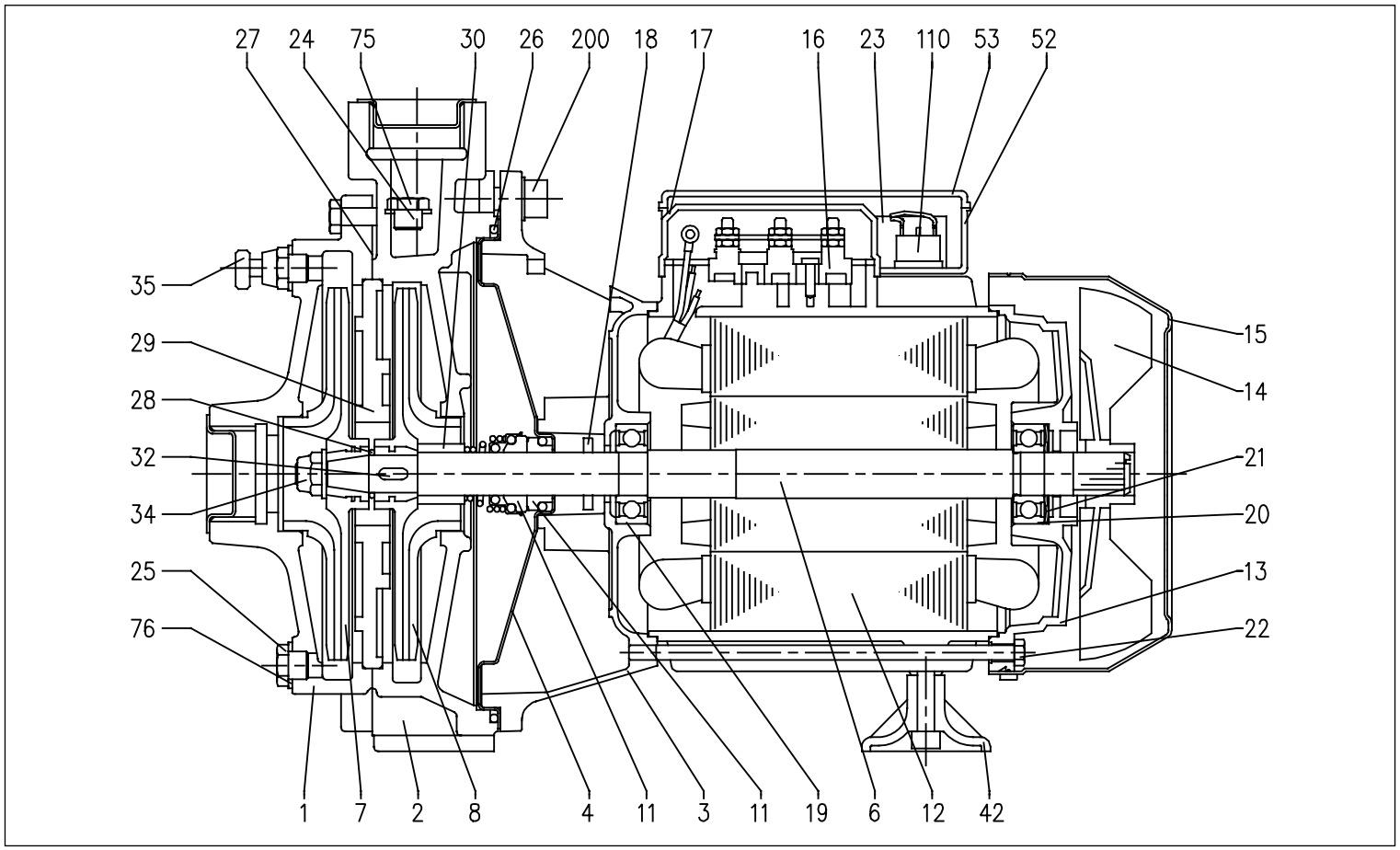
* Models with IE3 motor only

CDA

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

SECTIONAL VIEW



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	Cast iron	23	Capacitor [2]	-
2	Pump casing	Cast iron	24	Plug	Brass
3	Motor bracket	[3]	25	Plug	Brass
4	Casing cover	[4]	26	O-Ring	NBR
6	Shaft	[5]	27	Pump body gasket	Cellulose fibres included
7	Impeller	[6]	28	O-Ring	NBR
8	Impeller	[6]	29	Intermediate disc	Cast iron
11	Mechanical seal	Ceramic/Carbon/NBR	30	Seal spacer	Brass
12	Motor frame	-	32	Key	AISI 316
13	Motor cover	Aluminium	34	Impeller nut [7]	AISI 304
14	Fan	PP	35	Bleed valve	Brass
15	Fan cover	Galvanised Fe P04	42	Motor support	PP
16	Terminal Box	-	52	Capacitor-holder box [2]	ABS
17	Terminal Box cover [1]	Aluminium	53	Capacitor-holder box cover [8]	ABS
18	Splash ring	NBR	75	Washer	Aluminium
19	Bearing (pump side)	-	76	Washer	Aluminium
20	Bearing (motor side)	-	110	Motor protector [9]	-
21	Adjustment ring	Steel C70	200	Screw (pump body)	Zn. steel Cl. 8.8 ISO 898-1
22	Tie-rod	Galvanised Fe 42			

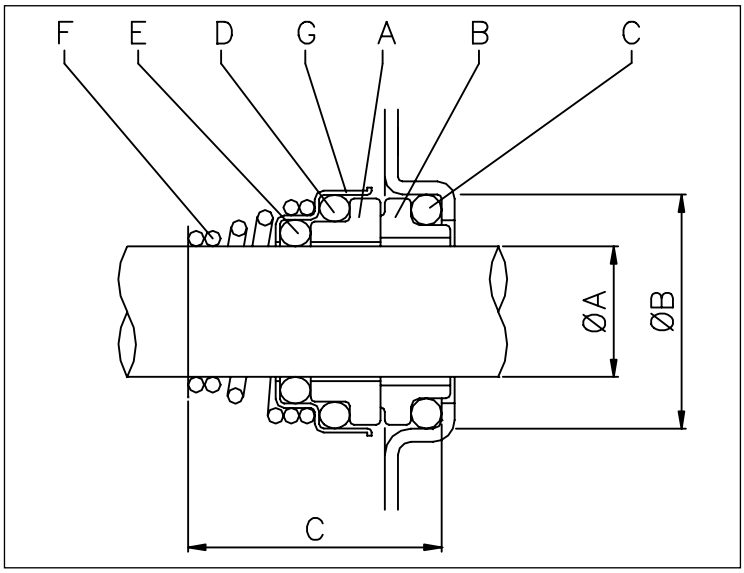
[1]= Three-phase only
[2]= Single phase only
[3]= Aluminium for CDA 0.75 - 1.00, cast iron for the rest of the range
[4]= AISI 304 for CDA 0.75 - 1.00, cast iron integrated Motor support for the rest of the range
[5]= AISI 303 (part in contact with the liquid) for CDA 0.75 - 1.00 - 1.50 - 2.00 - 3.00, AISI 304 (part in contact with the liquid) for the rest of the range
[6]= PPE+PS reinforced with fibreglass for CDA 0.75 - 1.00, brass for the rest of the range
[7]= Version with brass impeller only
[8]= With gasket in NBR only for CDA 0.75 - 1.00 single phase models
[9]= Version CDA 1.50 - 2.00 single phase only

CDA

DUAL IMPELLER CENTRIFUGAL ELECTRIC PUMPS

in cast iron

MECHANICAL SEAL



MATERIALS TABLE

Ref.	Name	Materials
A	Rotating part	Ceramic
B	Fixed part	Carbon
C	O-Ring	NBR
D	O-Ring	NBR
E	O-Ring	NBR
F	Spring	AISI 316
G	Structure/frame	AISI 304

DIMENSIONS

Single phase	Three phase	ØA	ØB	C
CDA 0.75 M	CDA 0.75 T	15	26	29
CDA 1.00 M	CDA 1.00 T	15	26	29
CDA 1.50 M	CDA 1.50 T	18	30.9	32
CDA 2.00 M	CDA 2.00 T	18	30.9	32
-	CDA 3.00 T	18	30.9	32
-	CDA 4.00 T	20	30.9	33
-	CDA 5.50 T	20	30.9	33

ELECTRIC DATA TABLE

Model Single phase 230V	Model Three phase 230/400V	P_2 [HP]	P_2 [kW]	Efficiency Single phase	Efficiency Three phase	Capacitor Single phase µF	Capacitor Single phase V_c	Efficiency (%) Three phase η % 50%	Efficiency (%) Three phase η % 75%	Efficiency (%) Three phase η % 100%	P_1 Single phase [kW]	P_1 Three phase [kW]	Absorbed Current [A] Single phase 230V	Absorbed Current [A] Three phase 230V	Absorbed Current [A] Three phase 400V
CDA 0.75 M	CDA 0.75 T	0.75	0.55	-	-	16	450	-	-	-	1.1	1.05	5.0	3.4	2.0
CDA 1.00 M	CDA 1.00 T	1	0.75	-	IE2	20	450	77.2	80.9	81.3	1.38	1.13	6.1	3.4	2.0
-		1	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7
CDA 1.50 M	CDA 1.50 T	1.5	1.1	-	IE2	40	450	79.7	82.5	83.0	1.85	1.80	8.6	5.5	3.2
-		1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
CDA 2.00 M	CDA 2.00 T	2	1.5	-	IE2	40	450	80.3	83.4	83.8	2.35	2.25	10.8	7.8	4.5
-		2	1.5	-	IE3	-	-	84.2	86.8	86.9	-	2.01	-	7.1	4.1
-	CDA 3.00 T	3	2.2	-	IE2	-	-	83.0	84.4	83.8	-	2.74	-	8.5	4.9
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
-	CDA 4.00 T	4	3	-	IE2	-	-	83.1	86.3	86.8	-	4.10	-	12.5	7.2
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4
-	CDA 5.50 T	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7

NOISE DATA TABLE

Model Single phase 230V	Model Three phase 230/400V	P_2 [HP]	P_2 [kW]	L_{pA} - dB(A)*
CDA 0.75 M	CDA 0.75 T	0.75	0.55	<70
CDA 1.00 M	CDA 1.00 T	1	0.75	
CDA 1.50 M	CDA 1.50 T	1.5	1.1	
CDA 2.00 M	CDA 2.00 T	2	1.5	
-	CDA 3.00 T	3	2.2	
-	CDA 4.00 T	4	3	
-	CDA 5.50 T	5.5	4	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

MATRIX

HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

WRAS APPROVED PRODUCT

Horizontal multistage centrifugal electric pumps in AISI 304 stainless steel.

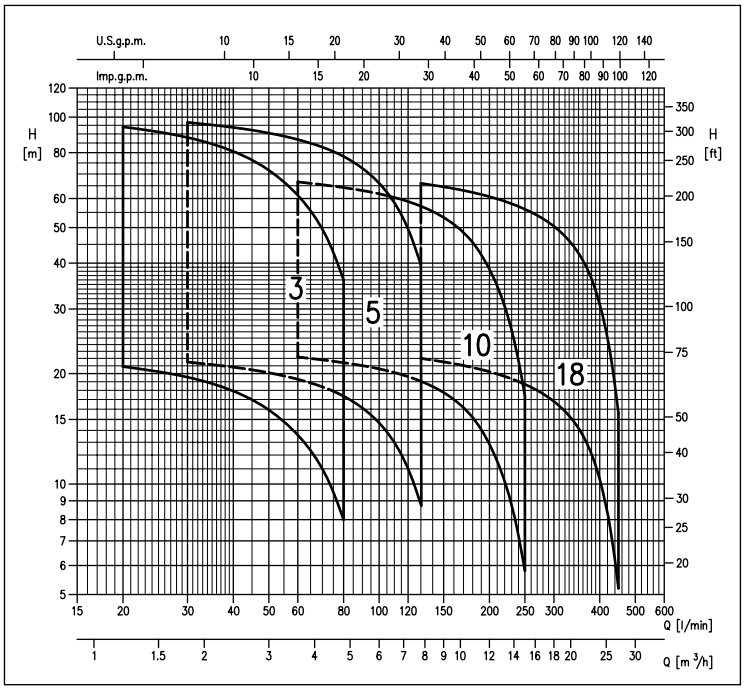
APPLICATIONS

- Industrial washing
- Pressure boosting units
- Industrial plants
- Distribution and treatment of water
- Heating and air conditioning
- Cooling and chiller
- Irrigation
- Recovery of rain water

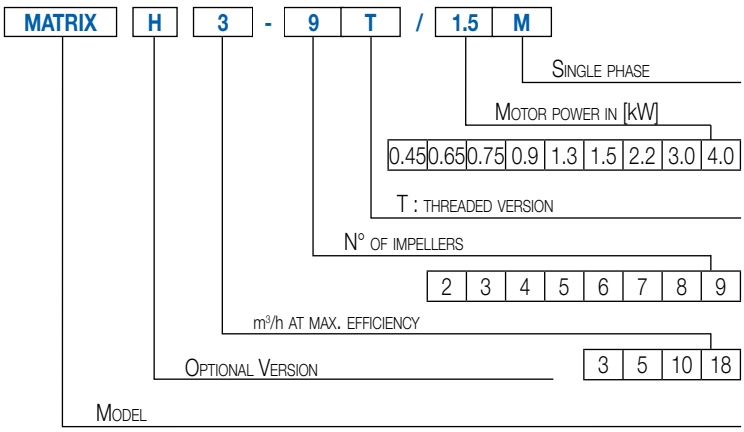
TECHNICAL DETAILS

- Sturdy and compact structure
- Available in various versions and models
- WRAS approval for the standard version (up to +85° C) and DM174 (up to +110° C)

PERFORMANCE RANGE (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



PUMP TECHNICAL DATA

- Temperature of the liquid:
  from -15° to +85° C (standard)
  from -15° to +110° C (for TE version for high temperature)
- Maximum working pressure: 10 bar
- Maximum chlorine content: 500 ppm
- Suction connection G1 for MATRIX 3, G1¼ for MATRIX 5, G1½ for MATRIX 10, G2 for MATRIX 18
- Discharge connection G1 for MATRIX 3-5, G1¼ for MATRIX 10, G1½ for MATRIX 18

MOTOR TECHNICAL DATA

- High efficiency motors IE2 motors starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW
- Self-ventilated 2 pole asynchronous motor
- Class of insulation F
- IP55 protection degree
- 230V ±10% 50Hz single phase voltage,
  230/400V ±10% 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

- Pump casing, impellers, intermediate stages, seal housing disc and shaft (part in contact with the liquid) in EN 1.4301 (AISI 304)
- Mechanical seal in:
  - Ceramic/Carbon/EPDM (standard)
  - special versions: see p. 43
- Bracket in EN AB-AlSi11Cu2(Fe) (microcasted aluminium)

ACCESSORIES (On request)

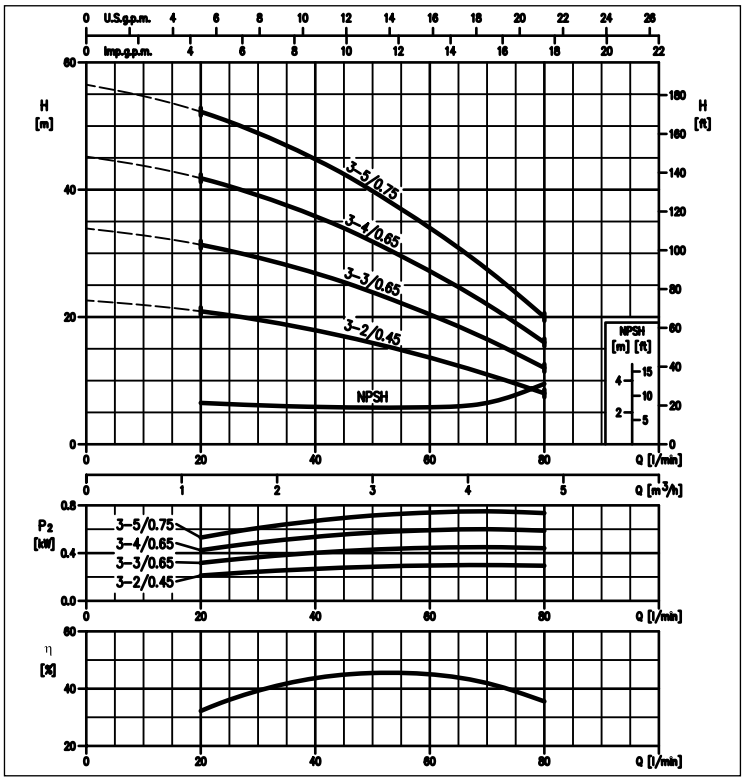
- Insulation casing for MATRIX pump casing for applications with refrigerant liquids or liquids with high thermal difference that may generate condensate
- Electric panels
- Vessels
- Floats
- Pressure switches
- Presscomfort - Pressure regulator
- E-power - Variable speed control system
- E-*drive* - Variable speed control system

HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

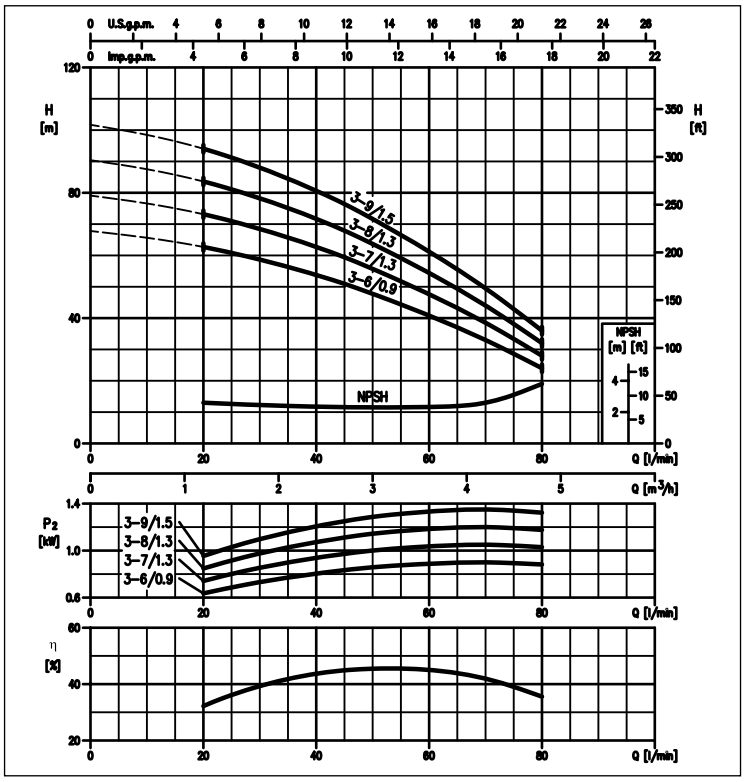
PERFORMANCE CURVES series MATRIX 3 (from 2 to 5 impellers)

(according to ISO 9906 Attachment A)



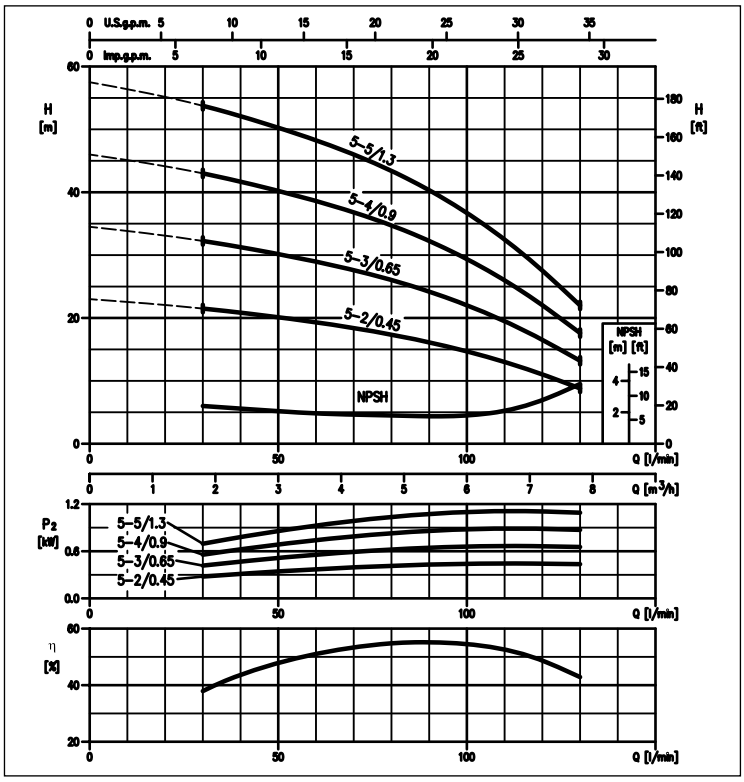
PERFORMANCE CURVES series MATRIX 3 (from 6 to 9 impellers)

(according to ISO 9906 Attachment A)



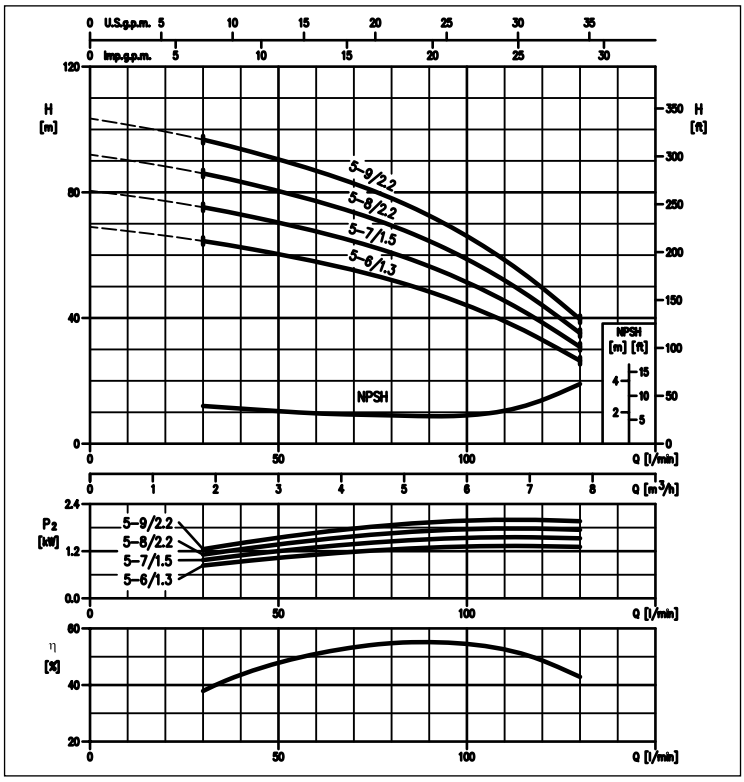
PERFORMANCE CURVES series MATRIX 5 (from 2 to 5 impellers)

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES series MATRIX 5 (from 6 to 9 impellers)

(according to ISO 9906 Attachment A)

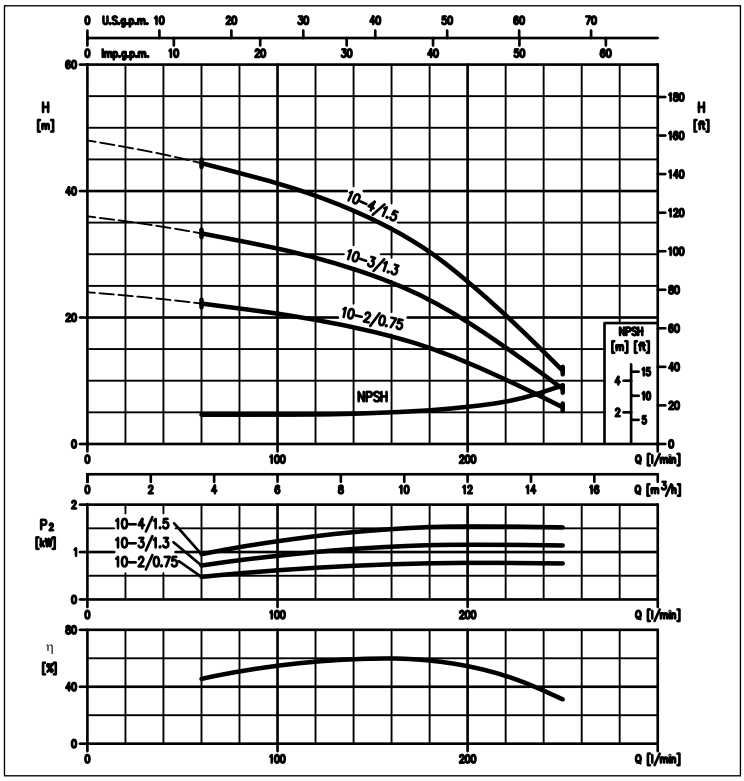


HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

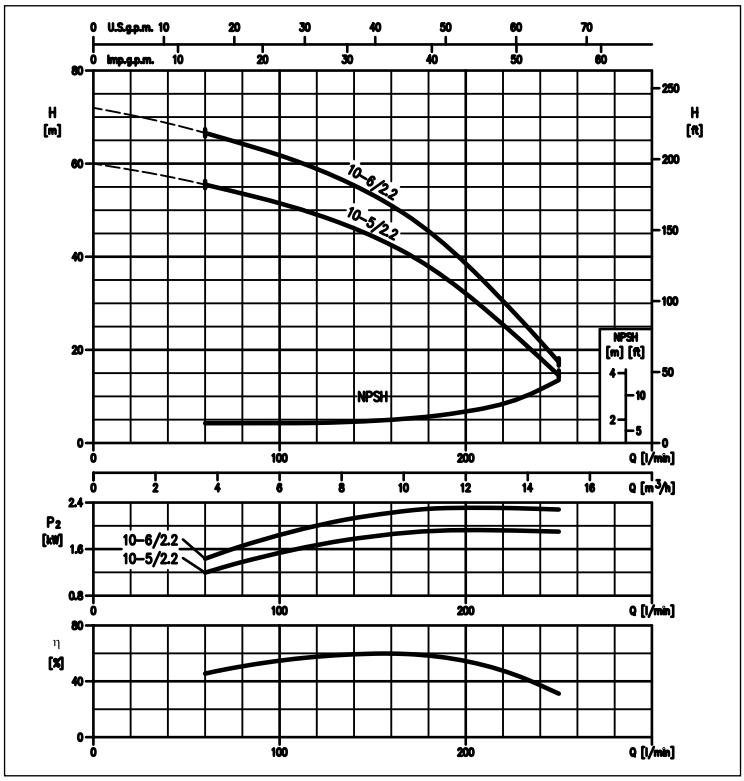
PERFORMANCE CURVES series MATRIX 10 (from 2 to 4 impellers)

(according to ISO 9906 Attachment A)



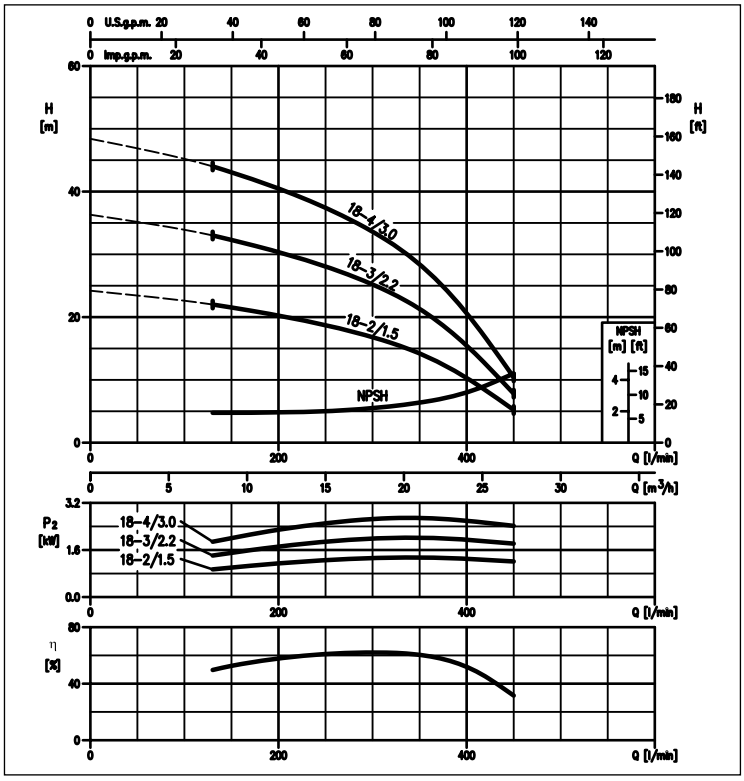
PERFORMANCE CURVES series MATRIX 10 (from 5 to 6 impellers)

(according to ISO 9906 Attachment A)



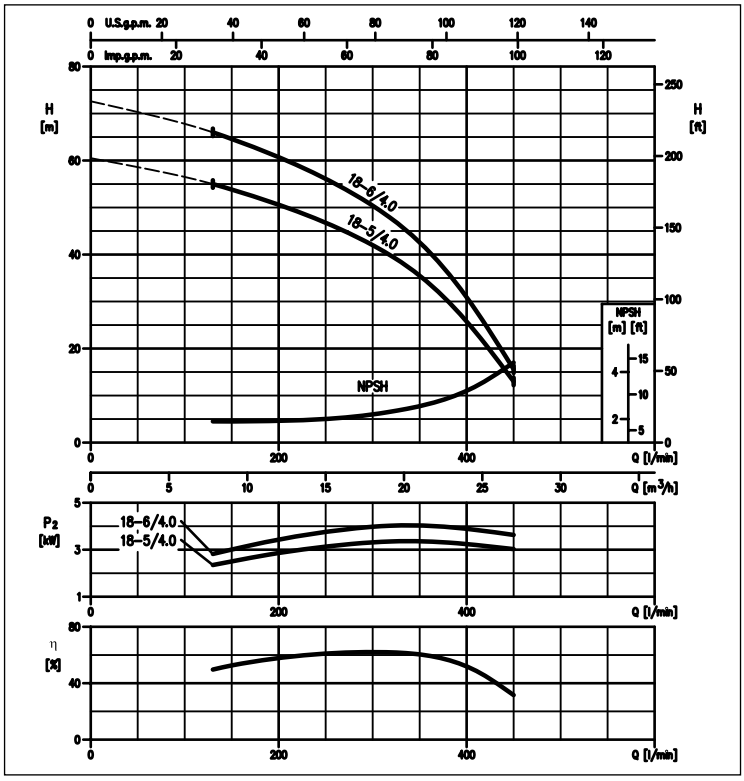
PERFORMANCE CURVES series MATRIX 18 (from 2 to 4 impellers)

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES series MATRIX 18 (5 and 6 impellers)

(according to ISO 9906 Attachment A)



MATRIX

HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

PERFORMANCE CHART

Model		P_2		Q = Flow Rate													
Single phase 230V	Three phase 230/400V	[HP]	[kW]	l/min 20	30	45	60	80	100	130	160	200	250	300	350	400	450
				m^3/h 1.2	1.8	2.7	3.6	4.8	6	7.8	9.6	12	15	18	21	24	27
				H=Head [m]													
MATRIX 3-2T/0.45M	MATRIX 3-2T/0.45	0.6	0.45	20.9	19.6	17.0	13.6	8.0	-	-	-	-	-	-	-	-	-
MATRIX 3-3T/0.65M	MATRIX 3-3T/0.65	0.9	0.65	31.4	29.3	25.5	20.4	12.0	-	-	-	-	-	-	-	-	-
MATRIX 3-4T/0.65M	MATRIX 3-4T/0.65	0.9	0.65	42.0	39.1	34.0	27.2	16.0	-	-	-	-	-	-	-	-	-
MATRIX 3-5T/0.75M	MATRIX 3-5T/0.75	1	0.75	52.5	49.0	42.5	34.0	20.0	-	-	-	-	-	-	-	-	-
MATRIX 3-6T/0.9M	MATRIX 3-6T/0.9	1.2	0.9	62.5	58.5	51.0	41.0	24.0	-	-	-	-	-	-	-	-	-
MATRIX 3-7T/1.3M	MATRIX 3-7T/1.3	1.8	1.3	73.0	68.5	59.5	47.5	28.0	-	-	-	-	-	-	-	-	-
MATRIX 3-8T/1.3M	MATRIX 3-8T/1.3	1.8	1.3	83.5	78.0	68.0	54.5	32.0	-	-	-	-	-	-	-	-	-
MATRIX 3-9T/1.5M	MATRIX 3-9T/1.5	2	1.5	94.0	88.0	76.5	61.0	36.0	-	-	-	-	-	-	-	-	-
MATRIX 5-2T/0.45M	MATRIX 5-2T/0.45	0.6	0.45	-	21.5	20.5	19.3	17.4	14.7	8.8	-	-	-	-	-	-	-
MATRIX 5-3T/0.65M	MATRIX 5-3T/0.65	0.9	0.65	-	32.3	30.7	29.0	26.0	22.0	13.2	-	-	-	-	-	-	-
MATRIX 5-4T/0.9 M	MATRIX 5-4T/0.9	1.2	0.9	-	43.0	41.0	38.6	34.7	29.4	17.6	-	-	-	-	-	-	-
MATRIX 5-5T/1.3M	MATRIX 5-5T/1.3	1.8	1.3	-	54.0	51.0	48.5	43.5	36.7	22.0	-	-	-	-	-	-	-
MATRIX 5-6T/1.3M	MATRIX 5-6T/1.3	1.8	1.3	-	64.5	61.5	58.0	52.0	44.0	26.4	-	-	-	-	-	-	-
MATRIX 5-7T/1.5 M	MATRIX 5-7T/1.5	2	1.5	-	75.5	72.0	67.5	61.0	51.5	30.8	-	-	-	-	-	-	-
MATRIX 5-8T/2.2 M	MATRIX 5-8T/2.2	3	2.2	-	86.0	82.0	77.0	69.5	58.5	35.2	-	-	-	-	-	-	-
MATRIX 5-9T/2.2 M	MATRIX 5-9T/2.2	3	2.2	-	97.0	92.0	87.0	78.0	66.0	39.6	-	-	-	-	-	-	-
MATRIX 10-2T/0.75M	MATRIX 10-2T/0.75	1	0.75	-	-	-	22.2	21.4	20.6	19.1	17.0	12.8	5.8	-	-	-	-
MATRIX 10-3T/1.3M	MATRIX 10-3T/1.3	1.8	1.3	-	-	-	33.3	32.1	30.9	28.6	25.5	19.3	8.7	-	-	-	-
MATRIX 10-4T/1.5M	MATRIX 10-4T/1.5	2	1.5	-	-	-	44.5	43.0	41.0	38.1	34.0	25.7	11.6	-	-	-	-
MATRIX 10-5T/2.2M	MATRIX 10-5T/2.2	3	2.2	-	-	-	55.5	53.5	51.5	47.5	42.5	32.1	14.5	-	-	-	-
MATRIX 10-6T/2.2M	MATRIX 10-6T/2.2	3	2.2	-	-	-	66.5	64.5	62.0	57.0	51.0	38.5	17.4	-	-	-	-
MATRIX 18-2T/1.5M	MATRIX 18-2T/1.5	2	1.5	-	-	-	-	-	-	22.0	21.3	20.2	18.7	16.8	14.2	10.3	5.2
MATRIX 18-3T/2.2M	MATRIX 18-3T/2.2	3	2.2	-	-	-	-	-	-	33.0	31.9	30.4	28.1	25.2	21.3	15.5	7.8
-	MATRIX 18-4T/3	4	3	-	-	-	-	-	-	44.0	42.5	40.5	37.4	33.6	28.4	20.6	10.4
-	MATRIX 18-5T/4	5.5	4	-	-	-	-	-	-	55.0	53.0	50.5	47.0	42.0	35.5	25.8	13.0
-	MATRIX 18-6T/4	5.5	4	-	-	-	-	-	-	66.0	64.0	60.5	56.0	50.5	42.5	30.9	15.6

DIMENSIONS

FIG. 1

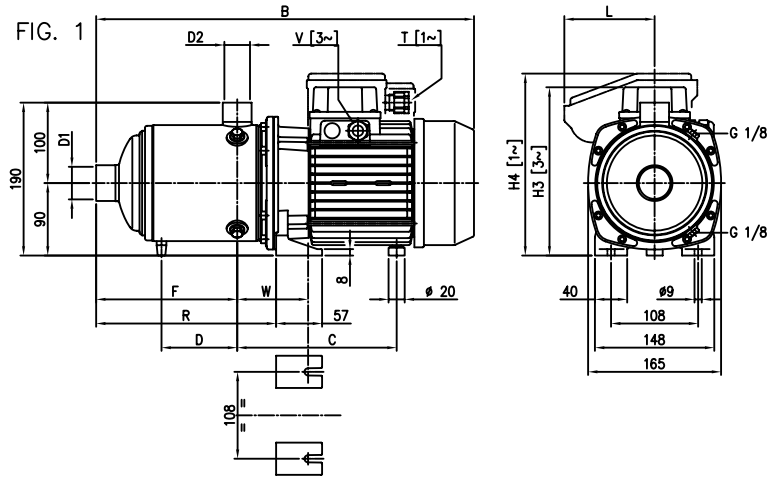
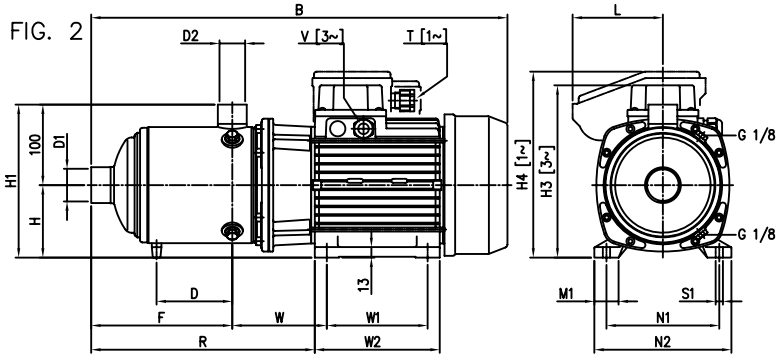


FIG. 2



HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

MATRIX 3 DIMENSIONS TABLE

Model	Fig.	Dimensions [mm] B	B *	C	D	F	H3 [1]	H4 [2]	L	R	T [2]	V [1]	V *	W	D1	D2	Weight [kg]	Weight [kg] *
MATRIX 3-2T/0.45M	1	360	-	171	-	103	-	200	86.5	151.5	PG11	-	-	88÷97	1”	1”	8.5	-
MATRIX 3-2T/0.45	1	360	-	171	-	103	192	-	-	151.5	-	PG11	-	88÷97	1”	1”	8.4	-
MATRIX 3-3T/0.65M	1	360	-	171	-	103	-	200	86.5	151.5	PG11	-	-	88÷97	1”	1”	9.9	-
MATRIX 3-3T/0.65	1	360	-	171	-	103	192	-	-	151.5	-	PG11	-	88÷97	1”	1”	9.8	-
MATRIX 3-4T/0.65M	1	384	-	171	-	127	-	200	86.5	175.5	PG11	-	-	88÷97	1”	1”	10.6	-
MATRIX 3-4T/0.65	1	384	-	171	-	127	192	-	-	175.5	-	PG11	-	88÷97	1”	1”	10.4	-
MATRIX 3-5T/0.75M	1	408	-	171	-	151	-	200	86.5	199.5	PG11	-	-	88÷97	1”	1”	12.5	-
MATRIX 3-5T/0.75	1	408	408	171	-	151	192	-	-	199.5	-	PG11	M16x1.5	88÷97	1”	1”	12.4	12.4
MATRIX 3-6T/0.9M	1	432	-	171	-	175	-	219	106	223.5	M20x1.5	-	-	88÷97	1”	1”	13.7	-
MATRIX 3-6T/0.9	1	444	444	171	-	175	192	-	-	223.5	-	PG11	M16x1.5	88÷97	1”	1”	13.6	13.6
MATRIX 3-7T/1.3M	1	493	-	198	110.5	199	-	226	112	247.5	M20x1.5	-	-	88÷97	1”	1”	16.3	-
MATRIX 3-7T/1.3	1	493	518	198	110.5	199	209	-	-	247.5	-	PG11	M20x1.5	88÷97	1”	1”	17.0	17.9
MATRIX 3-8T/1.3M	1	517	-	198	134.5	223	-	226	112	271.5	M20x1.5	-	-	88÷97	1”	1”	16.3	-
MATRIX 3-8T/1.3	1	517	542	198	134.5	223	209	-	-	271.5	-	PG11	M20x1.5	88÷97	1”	1”	17.8	18.7
MATRIX 3-9T/1.5M	1	541	-	198	158.5	247	-	226	112	295.5	M20x1.5	-	-	88÷97	1”	1”	18.3	-
MATRIX 3-9T/1.5	1	554	566.5	198	158.5	247	209	-	-	295.5	-	PG11	M20x1.5	88÷97	1”	1”	20.0	20.9

[1]= Three-phase only *= IE3 models only
[2]= Single phase only

MATRIX 5-10-18 DIMENSIONS TABLE

Model	Fig.	Dimensions [mm] B	B *	C	D	F	H	H1	H3 [1]	H4 [2]	L	R	T [2]	V [1]	V *	W	W1	W2	M1	N1	N2	S1	D1	D2	Weight [kg]	Weight [kg] *
MATRIX 5-2T/0.45 M	1	360	-	171	-	103	-	-	-	200	86.5	151.5	PG11	-	-	88÷97	-	-	-	-	-	-	1”¼	1”	8.5	-
MATRIX 5-2T/0.45	1	360	-	171	-	103	-	-	192	-	-	151.5	-	PG11	-	88÷97	-	-	-	-	-	-	1”¼	1”	8.4	-
MATRIX 5-3T/0.65 M	1	360	-	171	-	103	-	-	-	200	86.5	151.5	PG11	-	-	88÷97	-	-	-	-	-	-	1”¼	1”	9.9	-
MATRIX 5-3T/0.65	1	360	-	171	-	103	-	-	192	-	-	151.5	-	PG11	-	88÷97	-	-	-	-	-	-	1”¼	1”	9.8	-
MATRIX 5-4T/0.9 M	1	384	-	171	-	127	-	-	-	219	106	175.5	M20x1.5	-	-	88÷97	-	-	-	-	-	-	1”¼	1”	12.2	-
MATRIX 5-4T/0.9	1	396	396	171	-	127	-	-	192	-	-	175.5	-	PG11	M16x1.5	88÷97	-	-	-	-	-	-	1”¼	1”	12.4	12.4
MATRIX 5-5T/1.3 M	1	445	-	198	-	151	-	-	-	226	112	199.5	M20x1.5	-	-	88÷97	-	-	-	-	-	-	1”¼	1”	15.8	-
MATRIX 5-5T/1.3	1	445	470	198	-	151	-	-	209	-	-	199.5	-	PG11	M20x1.5	88÷97	-	-	-	-	-	-	1”¼	1”	15.8	16.7
MATRIX 5-6T/1.3 M	1	469	-	198	-	175	-	-	-	226	112	223.5	M20x1.5	-	-	88÷97	-	-	-	-	-	-	1”¼	1”	15.2	-
MATRIX 5-6T/1.3	1	469	494	198	-	175	-	-	209	-	-	223.5	-	PG11	M20x1.5	88÷97	-	-	-	-	-	-	1”¼	1”	16.2	17.1
MATRIX 5-7T/1.5 M	1	493	-	198	110.5	199	-	-	-	226	112	247.5	M20x1.5	-	-	88÷97	-	-	-	-	-	-	1”¼	1”	18.3	-
MATRIX 5-7T/1.5	1	506	518.5	198	110.5	199	-	-	209	-	-	247.5	-	PG11	M20x1.5	88÷97	-	-	-	-	-	-	1”¼	1”	18.7	19.6
MATRIX 5-8T/2.2 M	2	565	-	-	134.5	223	90	190	-	231	112	325.5	M20x1.5	-	-	117.5	125	155	30	140	170	9	1”¼	1”	22.3	-
MATRIX 5-8T/2.2	1	530	542.5	198	134.5	223	-	-	209	-	-	271.5	-	PG11	M20x1.5	88÷97	-	-	-	-	-	-	1”¼	1”	18.7	19.6
MATRIX 5-9T/2.2 M	2	589	-	-	158.5	247	90	190	-	231	112	349.5	M20x1.5	-	-	117.5	125	155	30	140	170	9	1”¼	1”	23.3	-
MATRIX 5-9T/2.2	1	554	566.5	198	158.5	247	-	-	209	-	-	295.5	-	PG11	M20x1.5	88÷97	-	-	-	-	-	-	1”¼	1”	18.8	19.7
MATRIX 10-2T/0.75 M	1	379	-	175	-	118	-	-	-	200	86.5	170.5	PG11	-	-	92÷101	-	-	-	-	-	-	1”½	1”¼	11.3	-
MATRIX 10-2T/0.75	1	379	379	175	-	118	-	-	192	-	-	170.5	-	PG11	M16x1.5	92÷101	-	-	-	-	-	-	1”½	1”¼	11.2	11.2
MATRIX 10-3T/1.3 M	1	416	-	202	-	118	-	-	-	226	112	170.5	M20x1.5	-	-	92÷101	-	-	-	-	-	-	1”½	1”¼	14.3	-
MATRIX 10-3T/1.3	1	416	441	202	-	118	-	-	209	-	-	170.5	-	PG11	M20x1.5	92÷101	-	-	-	-	-	-	1”½	1”¼	13.6	14.5
MATRIX 10-4T/1.5 M	1	446	-	202	-	148	-	-	-	226	112	200.5	M20x1.5	-	-	92÷101	-	-	-	-	-	-	1”½	1”¼	15.6	-
MATRIX 10-4T/1.5	1	459	471.5	202	-	148	-	-	209	-	-	200.5	-	PG11	M20x1.5	92÷101	-	-	-	-	-	-	1”½	1”¼	17.3	18.2
MATRIX 10-5T/2.2 M	2	524	-	-	-	178	90	190	-	231	112	284.5	M20x1.5	-	-	121.5	125	155	30	140	170	9	1”½	1”¼	21.8	-
MATRIX 10-5T/2.2	1	489	501.5	202	-	178	-	-	209	-	-	230.5	-	PG11	M20x1.5	92÷101	-	-	-	-	-	-	1”½	1”¼	17.9	18.8
MATRIX 10-6T/2.2 M	2	554	-	-	118.5	208	90	190	-	231	112	314.5	M20x1.5	-	-	121.5	125	155	30	140	170	9	1”½	1”¼	22.1	-
MATRIX 10-6T/2.2	1	519	531.5	202	118.5	208	-	-	209	-	-	260.5	-	PG11	M20x1.5	92÷101	-	-	-	-	-	-	1”½	1”¼	18.3	19.2
MATRIX 18-2T/1.5M	1	442	-	205	-	141	-	-	-	226	112	196.5	M20x1.5	-	-	95÷104	-	-	-	-	-	-	2”	1”½	14.5	-
MATRIX 18-2T/1.5M	1	455	467.5	205	-	141	-	-	209	-	-	196.5	-	PG11	M20x1.5	95÷104	-	-	-	-	-	-	2”	1”½	16.2	17.1
MATRIX 18-3T/2.2M	2	490	-	-	-	141	90	190	-	231	112	250.5	M20x1.5	-	-	124.5	125	155	30	140	170	9	2”	1”½	20.7	-
MATRIX 18-3T/2.2	1	455	467.5	205	-	141	-	-	209	-	-	196.5	-	PG11	M20x1.5	95÷104	-	-		-	-	-	2”	1”½	17.2	18.1
MATRIX 18-4T/3	2	565	565	-	-	178.5	90	190	214	-	-	288	-	PG13.5	M20x1.5	124.5	125	155	30	140	170	9	2”	1”½	23.8	23.8
MATRIX 18-5T/4	2	615	615	-	123	216	100	200	241	-	-	315	-	PG13.5	M20x1.5	114	140	170	35	160	192	11	2”	1”½	33.2	33.2
MATRIX 18-6T/4	2	652	652	-	160.5	253.5	100	200	241	-	-	352.5	-	PG13.5	M20x1.5	114	140	170	35	160	192	11	2”	1”½	34.2	34.2

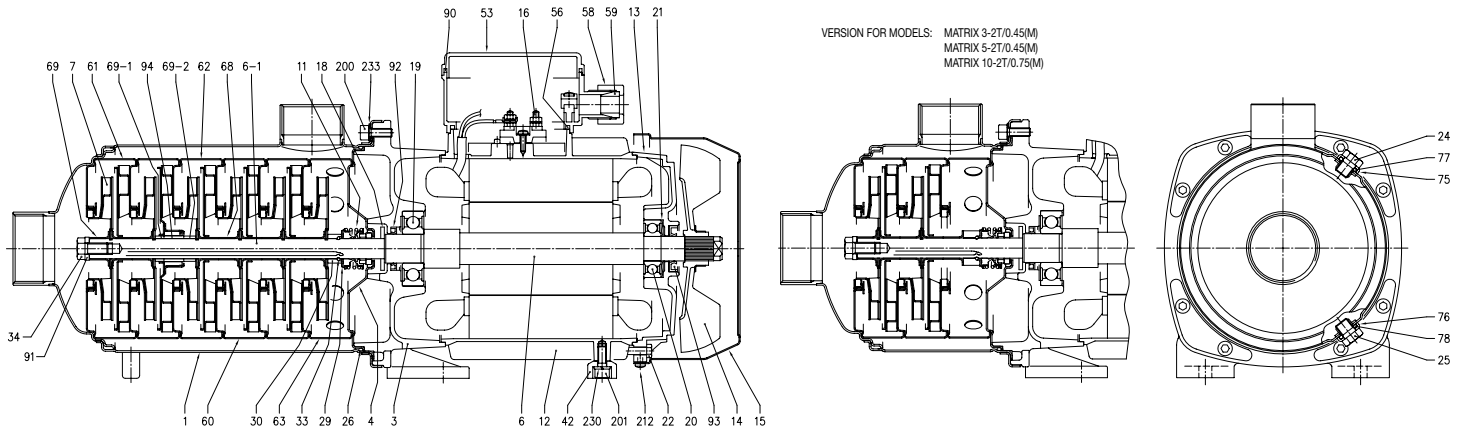
[1]= Three-phase only *= IE3 models only
[2]= Single phase only

MATRIX

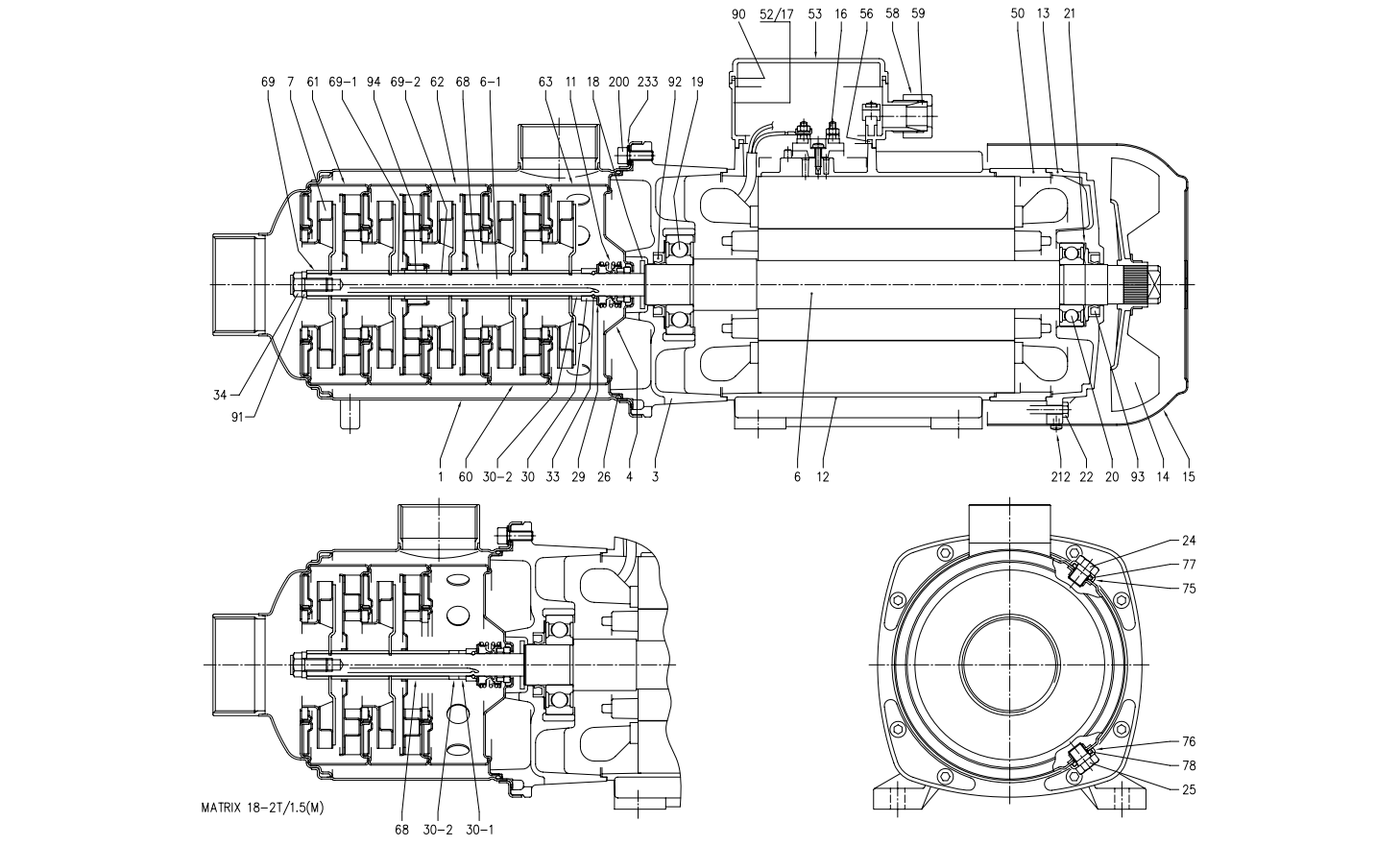
HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

MATRIX 3-5-10 SECTIONAL VIEW



MATRIX 18 SECTIONAL VIEW



HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

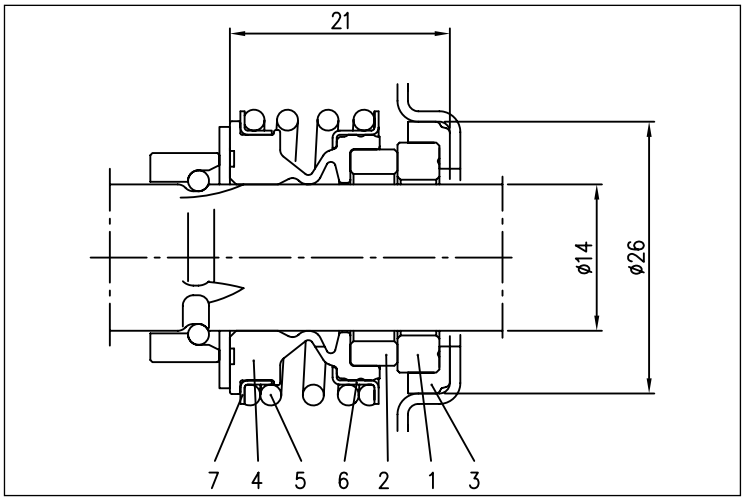
in AISI 304

MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	EN 1.4301 (AISI 304)	42	Motor support	Aluminium
3	Motor bracket	EN AB-AlSi11Cu2(Fe)	50	Motor spacer [2]	Aluminium
4	Casing cover	EN 1.4301 (AISI 304)	52	Capacitor-holder box [1]	ABS
6	Shaft	-	53	Capacitor-holder box cover [1]	ABS
6-1	Pump shaft	EN 1.4301 (AISI 304)	56	Box gasket	NBR
7	Impeller	EN 1.4301 (AISI 304)	58	Nut ring	-
11	Mechanical seal	Ceramic/Carbon/EPDM	59	Conic gasket	NBR
12	Motor frame	-	60	Intermediate stage	EN 1.4301 (AISI 304)+PTFE
13	Motor cover	Aluminium	61	Intermediate stage (suction)	EN 1.4301 (AISI 304)+PTFE
14	Fan	PA	62	Intermediate stage (bearing)	EN 1.4301 (AISI 304) + PTFE + Ceramic
15	Fan cover	Galvanised Fe P04	63	Intermediate stage (discharge)	EN 1.4301 (AISI 304) + PTFE
16	Terminal Box	-	68	Shaft casing (intermediate)	EN 1.4301 (AISI 304)
17	Terminal Box cover	Aluminium	69	Impeller spacer	EN 1.4301 (AISI 304)
18	Splash ring	NBR	69-1	Shaft casing (adapter)	EN 1.4301 (AISI 304)
19	Bearing (pump side)	-	69-2	Shaft casing (adapter)	EN 1.4301 (AISI 304)
20	Bearing (motor side)	-	75	Washer	EN 1.4301 (AISI 304)
21	Adjustment ring	Steel C70	76	Washer	EN 1.4301 (AISI 304)
22	Tie-rod	Galvanised Fe 42	77	O-Ring	EPDM
24	Plug	EN 1.4301 (AISI 304)	78	O-Ring	EPDM
25	Plug	EN 1.4301 (AISI 304)	90	Terminal box cover [1]	NBR
26	O-Ring	EPDM	91	Shaft washer	EN 1.4301 (AISI 304)
29	Washer	EN 1.4301 (AISI 304)	92	Seal ring	-
30	Holding ring	EN 1.4301 (AISI 304)	93	Seal ring	-
30-1-2	Shaft casing	EN 1.4301 (AISI 304)	94	Guide bush	WC - Tungsten carbide
33	Ring	EN 1.4301 (AISI 304)	200	Screw (pump body)	EN 1.4301 (AISI 304)
34	Screw	EN 1.4301 (AISI 304)	233	Plate	EN 1.4301 (AISI 304)

[1]= Single phase only
[2]= MATRIX 18-5T/4 and MATRIX 18-6T/4 only

MECHCANICAL SEAL standard



MATERIALS TABLE standard

Ref.	Name	Materials
1	Fixed part	Ceramic
2	Rotating part	Carbon
3	Gasket	EPDM
4	Diaphragm	EPDM
5	Spring	EN 1.4402 (AISI 316)
6	Structure/frame	EN 1.4402 (AISI 316)
7	Retainer ring	EN 1.4402 (AISI 316)

SPECIAL MECHANICAL SEALS (on request)

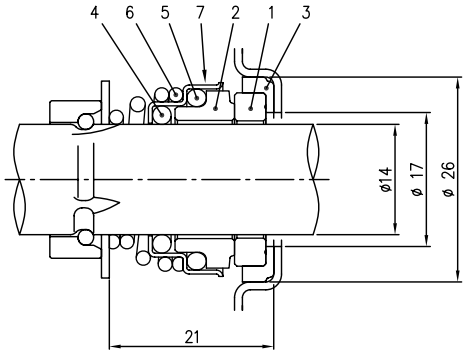
Ref.	Name	Materials			
		H Version	HS Version	U3Q1EGG Version	Q1AEGG Version
1	Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Silicon Carbide
2	Rotating part	Ceramic	Silicon Carbide	Silicon Carbide	Metallised carbon
3	Gasket	FKM	FKM	EPDM	EPDM
4	Diaphragm	FKM	FKM	EPDM	EPDM
5	Spring	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)
6	Structure/frame	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)
7	Retainer ring	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)

MATRIX

HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

MECHCANICAL SEAL HIGH TEMPERATURE



MATERIALS TABLE HIGH TEMPERATURE

Ref.	Name	Material
1	Stationary seal ring	Ceramic
2	Rotary seal ring	Carbon
3	Gasket	EPDM
4	O-Ring	EPDM
5	O-Ring	EPDM
6	Spring	EN 1.4402 (AISI 316)
7	Retainer ring	EN 1.4301 (AISI 304)

ELECTRIC DATA TABLE

Model		P_2		Efficiency		Capacitor Single phase		Efficiency Three phase η %			P_1		Absorbed Current [A]		
Single phase 230V	Three phase 230/400V	[HP]	[kW]	Single phase	Three phase	µF	V_c	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V
MATRIX 3-2T/0.45M	MATRIX 3-2T/0.45	0.6	0.45	-	-	12.5	450	-	-	-	0.73	0.72	3.2	2.3	1.3
MATRIX 3-3T/0.65M	MATRIX 3-3T/0.65	0.9	0.65	-	-	16	450	-	-	-	0.97	0.85	4.5	2.8	1.6
MATRIX 3-4T/0.65M	MATRIX 3-4T/0.65	0.9	0.65	-	-	16	450	-	-	-	0.97	0.85	4.5	2.8	1.6
MATRIX 3-5T/0.75M	MATRIX 3-5T/0.75	1.0	0.75	-	IE2	25	450	77.2	80.9	81.3	1.14	0.92	5.4	3.0	1.7
-		1.0	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7
MATRIX 3-6T/0.9M	MATRIX 3-6T/0.9	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.28	1.35	5.7	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
MATRIX 3-7T/1.3M	MATRIX 3-7T/1.3	1.8	1.3	-	IE2	35	450	79.7	82.5	83.0	1.75	1.80	7.8	5.6	3.2
-		1.8	1.3	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
MATRIX 3-8T/1.3M	MATRIX 3-8T/1.3	1.8	1.3	-	IE2	35	450	79.7	82.5	83.0	1.75	1.80	7.8	5.6	3.2
-		1.8	1.3	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
MATRIX 3-9T/1.5M	MATRIX 3-9T/1.5	2.0	1.5	-	IE2	40	450	78.6	83.0	84.2	1.95	1.78	8.7	6.3	3.7
-		2.0	1.5	-	IE3	-	-	82.7	86.1	87.0	-	1.72	-	6.6	3.8
MATRIX 5-2T/0.45M	MATRIX 5-2T/0.45	0.6	0.45	-	-	12.5	450	-	-	-	0.73	0.72	3.2	2.3	1.3
MATRIX 5-3T/0.65M	MATRIX 5-3T/0.65	0.9	0.65	-	-	16	450	-	-	-	0.97	0.85	4.5	2.8	1.6
MATRIX 5-4T/0.9 M	MATRIX 5-4T/0.9	1.2	0.9	-	IE2	31.5	450	79.0	81.7	81.6	1.28	1.35	5.7	4.3	2.5
-		1.2	0.9	-	IE3	-	-	81.7	83.1	82.4	-	1.34	-	4.3	2.5
MATRIX 5-5T/1.3M	MATRIX 5-5T/1.3	1.8	1.3	-	IE2	35	450	79.7	82.5	83.0	1.75	1.80	7.8	5.6	3.2
-		1.8	1.3	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
MATRIX 5-6T/1.3M	MATRIX 5-6T/1.3	1.8	1.3	-	IE2	35	450	79.7	82.5	83.0	1.75	1.80	7.8	5.6	3.2
-		1.8	1.3	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
MATRIX 5-7T/1.5 M	MATRIX 5-7T/1.5	2.0	1.5	-	IE2	40	450	78.6	83.0	84.2	1.95	1.78	8.7	6.3	3.7
-		2.0	1.5	-	IE3	-	-	82.7	86.1	87.0	-	1.72	-	6.6	3.8
MATRIX 5-8T/2.2 M	MATRIX 5-8T/2.2	3.0	2.2	-	IE2	50	450	83.0	84.4	83.8	2.92	2.63	13.0	8.2	4.7
-		3.0	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
MATRIX 5-9T/2.2 M	MATRIX 5-9T/2.2	3.0	2.2	-	IE2	50	450	83.0	84.4	83.8	2.92	2.63	13.0	8.2	4.7
-		3.0	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
MATRIX 10-2T/0.75M	MATRIX 10-2T/0.75	1.0	0.75	-	IE2	25	450	77.2	80.9	81.3	1.14	0.92	5.4	3.0	1.7
-		1.0	0.75	-	IE3	-	-	80.9	82.3	82.1	-	0.91	-	3.0	1.7
MATRIX 10-3T/1.3M	MATRIX 10-3T/1.3	1.8	1.3	-	IE2	35	450	79.7	82.5	83.0	1.75	1.80	7.8	5.6	3.2
-		1.8	1.3	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3
MATRIX 10-4T/1.5M	MATRIX 10-4T/1.5	2.0	1.5	-	IE2	40	450	78.6	83.0	84.2	1.95	1.78	8.7	6.3	3.7
-		2.0	1.5	-	IE3	-	-	82.7	86.1	87.0	-	1.72	-	6.6	3.8
MATRIX 10-5T/2.2M	MATRIX 10-5T/2.2	3.0	2.2	-	IE2	50	450	83.0	84.4	83.8	2.92	2.63	13.0	8.2	4.7
-		3.0	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
MATRIX 10-6T/2.2M	MATRIX 10-6T/2.2	3.0	2.2	-	IE2	50	450	83.0	84.4	83.8	2.92	2.63	13.0	8.2	4.7
-		3.0	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
MATRIX 18-2T/1.5M	MATRIX 18-2T/1.5	2.0	1.5	-	IE2	40	450	78.6	83.0	84.2	1.95	1.78	8.7	6.3	3.7
-		2.0	1.5	-	IE3	-	-	82.7	86.1	87.0	-	1.72	-	6.6	3.8
MATRIX 18-3T/2.2M	MATRIX 18-3T/2.2	3.0	2.2	-	IE2	50	450	83.0	84.4	83.8	2.92	2.63	13.0	8.2	4.7
-		3.0	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7
-	MATRIX 18-4T/3	4.0	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1
-		4.0	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4
-	MATRIX 18-5T/4	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7
-	MATRIX 18-6T/4	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7

MATRIX

HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

NOISE DATA TABLE

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400V	[HP]	[kW]	
MATRIX 3-2T/0.45M	MATRIX 3-2T/0.45	0.6	0.45	61
MATRIX 3-3T/0.65M	MATRIX 3-3T/0.65	0.9	0.65	62
MATRIX 3-4T/0.65M	MATRIX 3-4T/0.65	0.9	0.65	
MATRIX 3-5T/0.75M	MATRIX 3-5T/0.75	1.0	0.75	
MATRIX 3-6T/0.9M	MATRIX 3-6T/0.9	1.2	0.9	
MATRIX 3-7T/1.3M	MATRIX 3-7T/1.3	1.8	1.3	64
MATRIX 3-8T/1.3M	MATRIX 3-8T/1.3	1.8	1.3	
MATRIX 3-9T/1.5M	MATRIX 3-9T/1.5	2.0	1.5	
MATRIX 5-2T/0.45M	MATRIX 5-2T/0.45	0.6	0.45	61
MATRIX 5-3T/0.65M	MATRIX 5-3T/0.65	0.9	0.65	62
MATRIX 5-4T/0.9 M	MATRIX 5-4T/0.9	1.2	0.9	
MATRIX 5-5T/1.3M	MATRIX 5-5T/1.3	1.8	1.3	64
MATRIX 5-6T/1.3M	MATRIX 5-6T/1.3	1.8	1.3	
MATRIX 5-7T/1.5 M	MATRIX 5-7T/1.5	2.0	1.5	
MATRIX 5-8T/2.2 M	MATRIX 5-8T/2.2	3.0	2.2	65
MATRIX 5-9T/2.2 M	MATRIX 5-9T/2.2	3.0	2.2	
MATRIX 10-2T/0.75M	MATRIX 10-2T/0.75	1.0	0.75	62
MATRIX 10-3T/1.3M	MATRIX 10-3T/1.3	1.8	1.3	64
MATRIX 10-4T/1.5M	MATRIX 10-4T/1.5	2.0	1.5	
MATRIX 10-5T/2.2M	MATRIX 10-5T/2.2	3.0	2.2	65
MATRIX 10-6T/2.2M	MATRIX 10-6T/2.2	3.0	2.2	
MATRIX 18-2T/1.5M	MATRIX 18-2T/1.5	2.0	1.5	64
MATRIX 18-3T/2.2M	MATRIX 18-3T/2.2	3.0	2.2	65
-	MATRIX 18-4T/3	4.0	3	68
-	MATRIX 18-5T/4	5.5	4	69
-	MATRIX 18-6T/4	5.5	4	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

Insulation casing

For applications with refrigerant liquids or liquids with high thermal difference that may generate condensate

EVMS

VERTICAL MULTISTAGE ELECTRIC PUMPS

in cast iron, AISI 304, AISI 316

The new EBARA vertical multistage centrifugal electric pumps, called "EVMS" are available in various versions, in different sizes, number of stages and with a wide range of options to meet the customer's requirements. EVMS pumps can be used with IE3 motors and ensure maximum hydraulic efficiency with a minimum efficiency index MEI >0.7 for all sizes. EVMS offers exceptional performance, ideal for your requirements.

Innovative hydraulic solutions

Any motor, anywhere.

- Commercial motors that can be used with any pump model without requiring any modification thanks to the low axial thrust value
- Long motor bearing expected life
- High efficiency pump: MEI > 0.7 classification for the most efficient models
- Patent application n. VI2014A000271

Power saving

- High efficiency IE3 motor starting from 0.75kW in compliance with directives EuP 2005/32/EC and ErP 2009/125/EC
- Possibility to install inverter systems (VFD) and sensor directly on EVMS to maintain constant the physical operations, such as the pumping pressure depending on the conditions of use

Options for different connections with piping

- There are various options for different connections with the pipes according to the application requirements
- The external dimensions of the junction are those of the pumps on the market

Mechanical seals

- Shaft gasket material:
  B: Carbon graphite impregnated with resin
  Q: Sintered silicon carbide
  Qg: Silicon carbide with carbon graphite
  There are versions with graphite inside the silicon carbide to improve the operation with reduced lubrication.
- In compliance with EN12756 (ex DIN 24960)

Easy to maintain

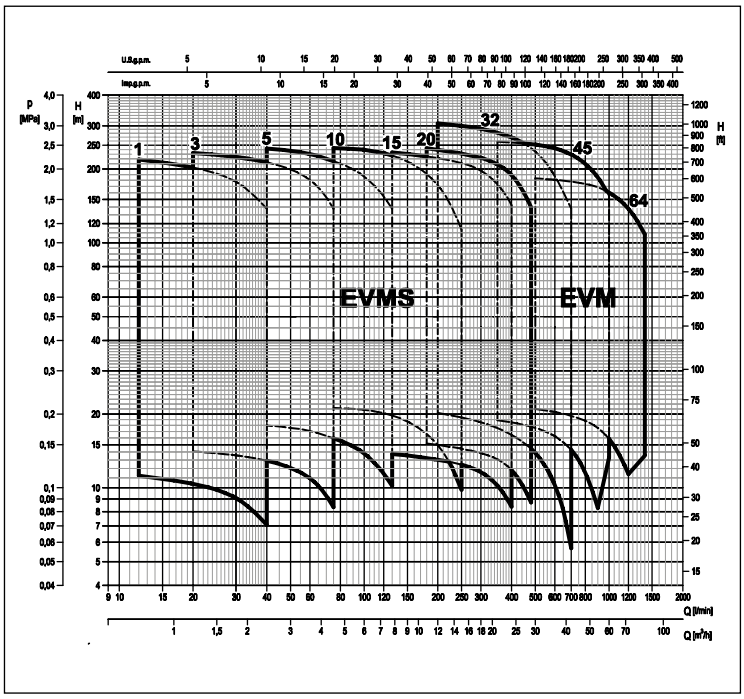
- The mechanical seal with cartridge can be replaced without demounting the motor bracket
- The junction with spacer allows easy maintenance without having to remove the heavy motors over 5.5 kW.

Versatile solutions for pump bleeding and filling

- Air venting system
- Water fill sensor and system
- Sensor insertion
- Systems for unloading/suction pressure and discharge

For further information please see our Data Book on the web site www.ebaraeurope.com or contact our sales network.

PERFORMANCE RANGE at 2900 min⁻¹ (according to ISO 9906 Attachment A)



3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

Standardised centrifugal electric pumps built in stainless steel AISI 304 (3 SERIES) and AISI 316 (3L SERIES).

APPLICATIONS
- Water supply to civil, agricultural and industrial plants
- Pressure boosting
- Fire-fighting, heating and air conditioning systems
- Pumping industrial liquids
- Irrigation
- Refrigeration towers
- Swimming pools
- Emptying
- Washing plants

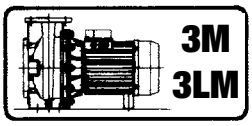
TECHNICAL DETAILS
- Highly resistant structure
- Hydroforming process EBARA patent

PUMP TECHNICAL DATA
- Maximum working pressure: 10 bar
- Temperature of the liquid:
  -10°C ÷ +90°C
  -10°C ÷ +110°C (L-H-HS-HW-HSW versions)
  -20°C ÷ +120°C (E-ES versions)
- MEI > 0.4
  For further information please see our Data Book on the web site www.ebaraeurope.com

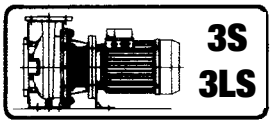
MOTOR TECHNICAL DATA
- High efficiency motors
  IE2 starting from 0.75kW up to 5.5kW
  IE3 starting from 7.5kW for 3M(L)(4)
- Self-ventilated 2 and 4 poles asynchronous motor
- Class of insulation F (B for high temperatures)
- IP 55 protection degree
- 230V ±10% 50Hz single phase voltage,
  230/400V ±10% (up 4 kW included) three phase voltage, 50 Hz,
  400/690V ±10% (from 5.5 kW and above) three phase voltage, 50 Hz
- Protection is user's responsibility

MATERIALS
- Pump casing and casing cover in:
  - AISI 304 for 3 SERIES 32-125/160/200
    40-125/160/200
    50-125/160/200
    65-125/160/200
  - AISI 316L for 3L SERIES 32-125/160/200
    40-125/160/200
    50-125/160/200
    65-125/160/200
  - AISI 316 microcasted for 3L SERIES 65-250
    80-160/200/250
- Impeller in:
  - AISI 304 for 3 SERIES 32-125/160/200
    40-125/160/200
    50-125/160/200
  - AISI 316L for 3L SERIES 32-125/160/200
    40-125/160/200
    50-125/160/200
  - AISI 316 microcasted for 3 SERIES 65-125/160/200
    3L SERIES 65-125/160/200
    65-250
    80-160/200/250
- Mechanical seal standard in:
  - Carbon/Ceramic/NBR for 3 SERIES
  - Silicon Carbide/Silicon Carbide/FKM for 3L SERIES
  - special mechanical seals available on request, see p. 92 for 3-3L SERIES 2 poles, p.130 for 3-3L SERIES 4 poles

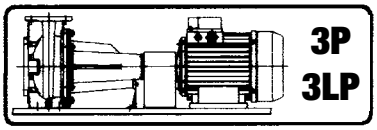
Available in 4 versions with 2 and 4 pole motors



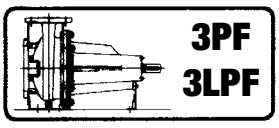
Monobloc with extended motor shaft



Monobloc with standard motor and rigid joint



On base, with standard motor and flexible coupling



Pump with bare shaft

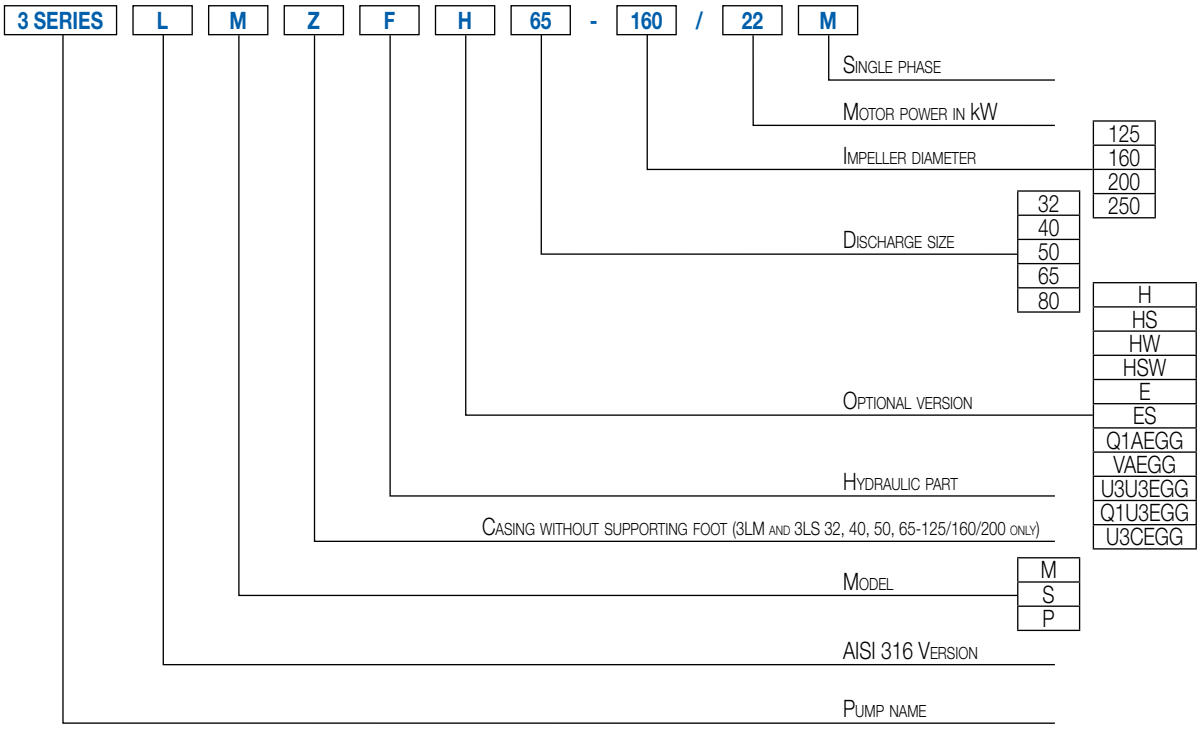
SPECIAL VERSIONS
- 3Z SERIES: electropump inclusive of rotary bracket and body without supporting foot.

ACCESSORIES (On request)
- Counter-flanges available in the following materials:
  - galvanised
  - AISI 304
  - AISI 316

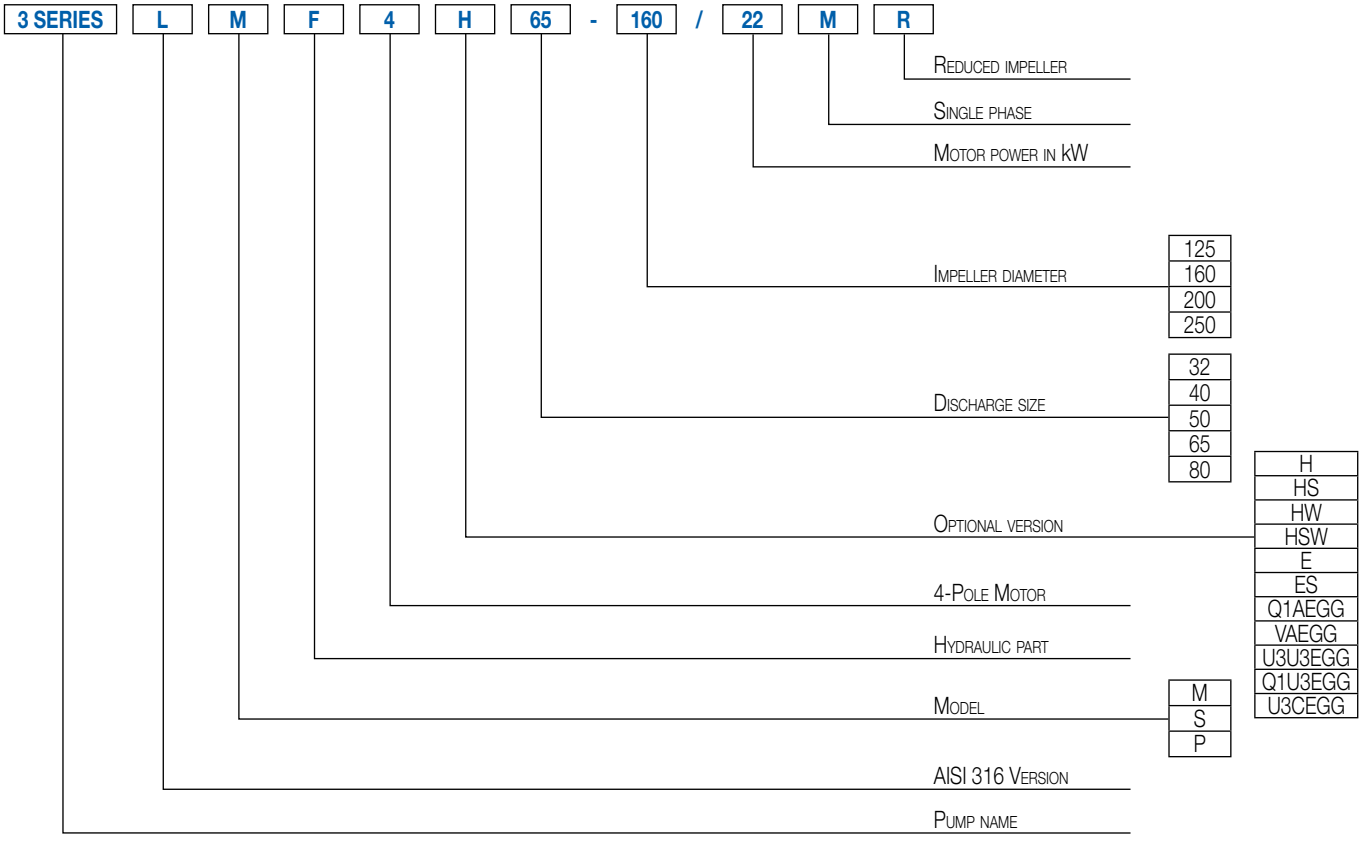
3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

IDENTIFICATION CODE - 2 Poles



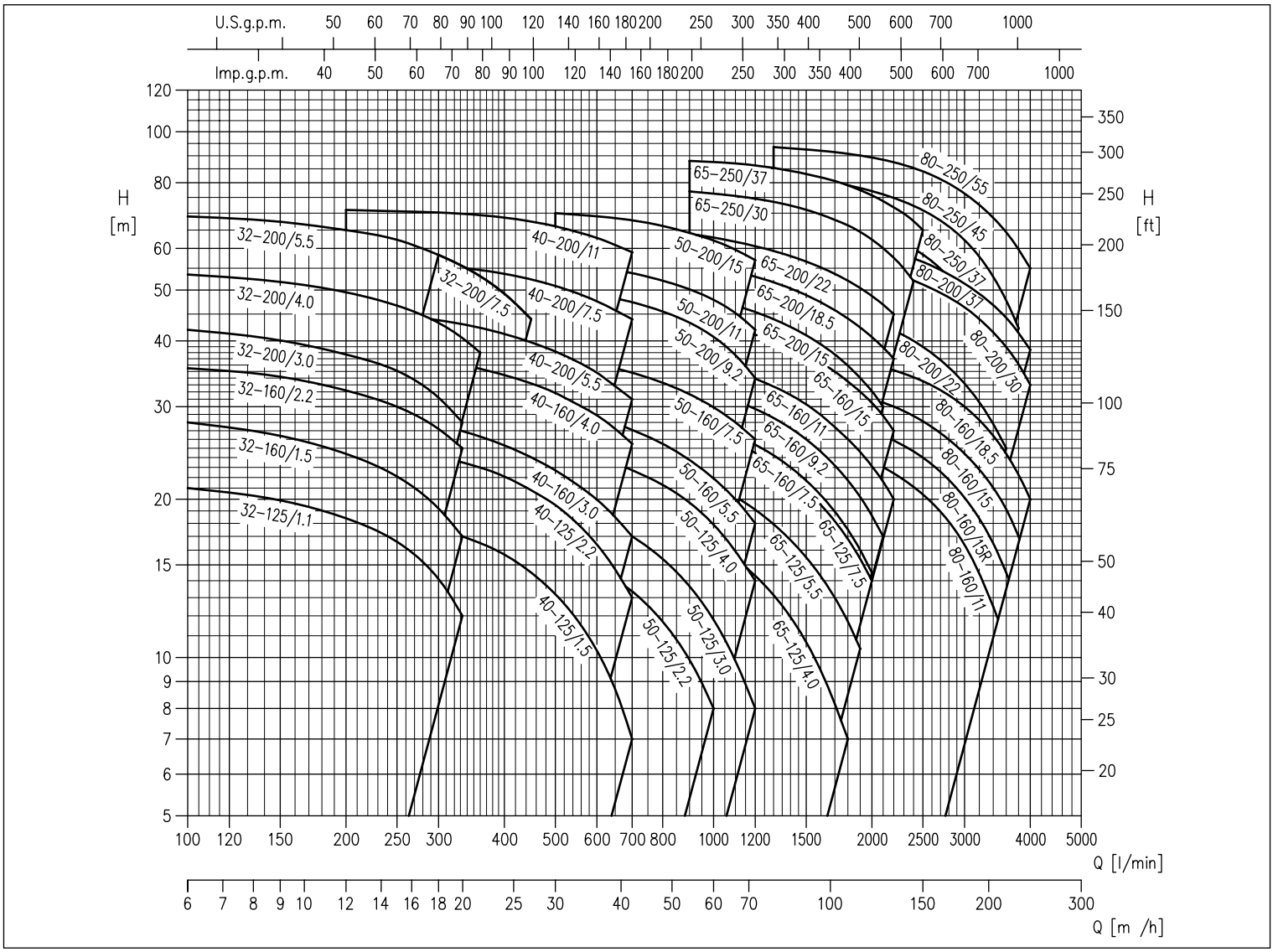
IDENTIFICATION CODE - 4 Poles



3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE RANGE 3(L) SERIES at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



	Versions	3M	3S	3P	3LM	3LMZ	3LS	3LSZ	3LP
Pump	32-125	■	■	■	■	♦	■	♦	■
	32-160	■	■	■	■	♦	■	♦	■
	32-200	■	■	■	■	♦	■	♦	■
	40-125	■	■	■	■	♦	■	♦	■
	40-160	■	■	■	■	♦	■	♦	■
	40-200	■	■	■	■	♦	■	♦	■
	50-125	■	■	■	■	♦	■	♦	■
	50-160	■	■	■	■	♦	■	♦	■
	50-200	■	■	■	■	♦	■	♦	■
	65-125	■	■	■	■	♦	■	♦	■
	65-160	■	■	■	■	♦	■	♦	■
	65-200	■	■	■	■	♦	■	♦	■
	65-250	-	-	-	-	-	●	-	●
	80-160	-	-	-	●	-	●	-	●
	80-200	-	-	-	-	-	●	-	●
	80-250	-	-	-	-	-	▲	-	▲

■ = Models also available in H-HS-HW-HSW-E version
● = Models also available in H-HW-HSW-E version
▲ = Models also available in H-HW-HSW-ES version
♦ = Models available only in standard version

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CHART 32-40-50

2 Poles

Model	P_2		Q = Flow Rate													
			l/min	100	150	200	300	333	360	400	450	500	600	700	800	1000	1200
	[HP]	[kW]	m^3/h	6	9	12	18	20	22	24	27	30	36	42	48	60	72
			H=Head [m]														
3(.) SERIES 32-125/1.1(M)	1.5	1.1		21.0	19.9	18.4	14.1	12.0	-	-	-	-	-	-	-	-	-
3(.) SERIES 32-160/1.5(M)	2	1.5		28.0	26.5	24.5	19.2	17.0	-	-	-	-	-	-	-	-	-
3(.) SERIES 32-160/2.2(M)	3	2.2		35.5	34.0	32.0	27.0	25.0	-	-	-	-	-	-	-	-	-
3(.) SERIES 32-200/3.0	4	3		42.0	40.0	37.5	31.0	28.0	-	-	-	-	-	-	-	-	-
3(.) SERIES 32-200/4.0	5.5	4		53.5	52.0	49.5	43.5	40.5	38.0	-	-	-	-	-	-	-	-
3(.) SERIES 32-200/5.5	7.5	5.5		69.0	67.5	65.0	58.5	-	-	-	-	-	-	-	-	-	-
3(.) SERIES 32-200/7.5	10	7.5		69.0	67.5	65.0	58.5	55.5	53.0	49.0	44.0	-	-	-	-	-	-
3(.) SERIES 40-125/1.5(M)	2	1.5		-	-	19.0	17.6	17.0	16.5	15.7	14.5	13.2	10.3	7.0	-	-	-
3(.) SERIES 40-125/2.2(M)	3	2.2		-	-	25.5	24.0	23.5	23.0	22.0	21.0	19.5	16.4	13.0	-	-	-
3(.) SERIES 40-160/3.0	4	3		-	-	29.5	27.5	27.0	26.5	25.5	24.0	22.5	20.0	17.0	-	-	-
3(.) SERIES 40-160/4.0	5.5	4		-	-	38.5	37.0	36.0	35.5	34.5	33.0	32.0	29.0	25.5	-	-	-
3(.) SERIES 40-200/5.5	7.5	5.5		-	-	45.5	44.0	43.0	42.5	41.0	39.5	38.0	35.0	31.0	-	-	-
3(.) SERIES 40-200/7.5	10	7.5		-	-	57.0	55.5	55.0	54.5	53.5	52.5	51.0	47.5	44.0	-	-	-
3(.) SERIES 40-200/11	15	11		-	-	71.0	70.0	70.0	69.5	68.5	67.5	66.0	63.0	59.0	-	-	-
3(.) SERIES 50-125/2.2(M)	3	2.2		-	-	-	-	-	-	17.5	17.0	16.3	14.9	13.4	11.7	8.0	-
3(.) SERIES 50-125/3.0	4	3		-	-	-	-	-	-	20.5	20.0	19.6	18.4	17.0	15.4	11.8	8.0
3(.) SERIES 50-125/4.0	5.5	4		-	-	-	-	-	-	26.0	25.5	25.0	24.0	22.5	21.5	17.9	14.0
3(.) SERIES 50-160/5.5	7.5	5.5		-	-	-	-	-	-	31.0	30.5	30.0	28.5	27.0	25.5	22.0	18.0
3(.) SERIES 50-160/7.5	10	7.5		-	-	-	-	-	-	38.5	38.0	37.5	36.0	35.0	33.5	30.0	26.0
3(.) SERIES 50-200/9.2	12.5	9.2		-	-	-	-	-	-	-	-	50.0	49.0	47.5	45.5	40.5	34.0
3(.) SERIES 50-200/11	15	11		-	-	-	-	-	-	-	-	56.0	55.0	54.0	52.0	48.0	42.0
3(.) SERIES 50-200/15	20	15		-	-	-	-	-	-	-	-	70.0	69.0	68.0	66.0	62.0	57.0

(M) Single phase version only for 3M SERIES

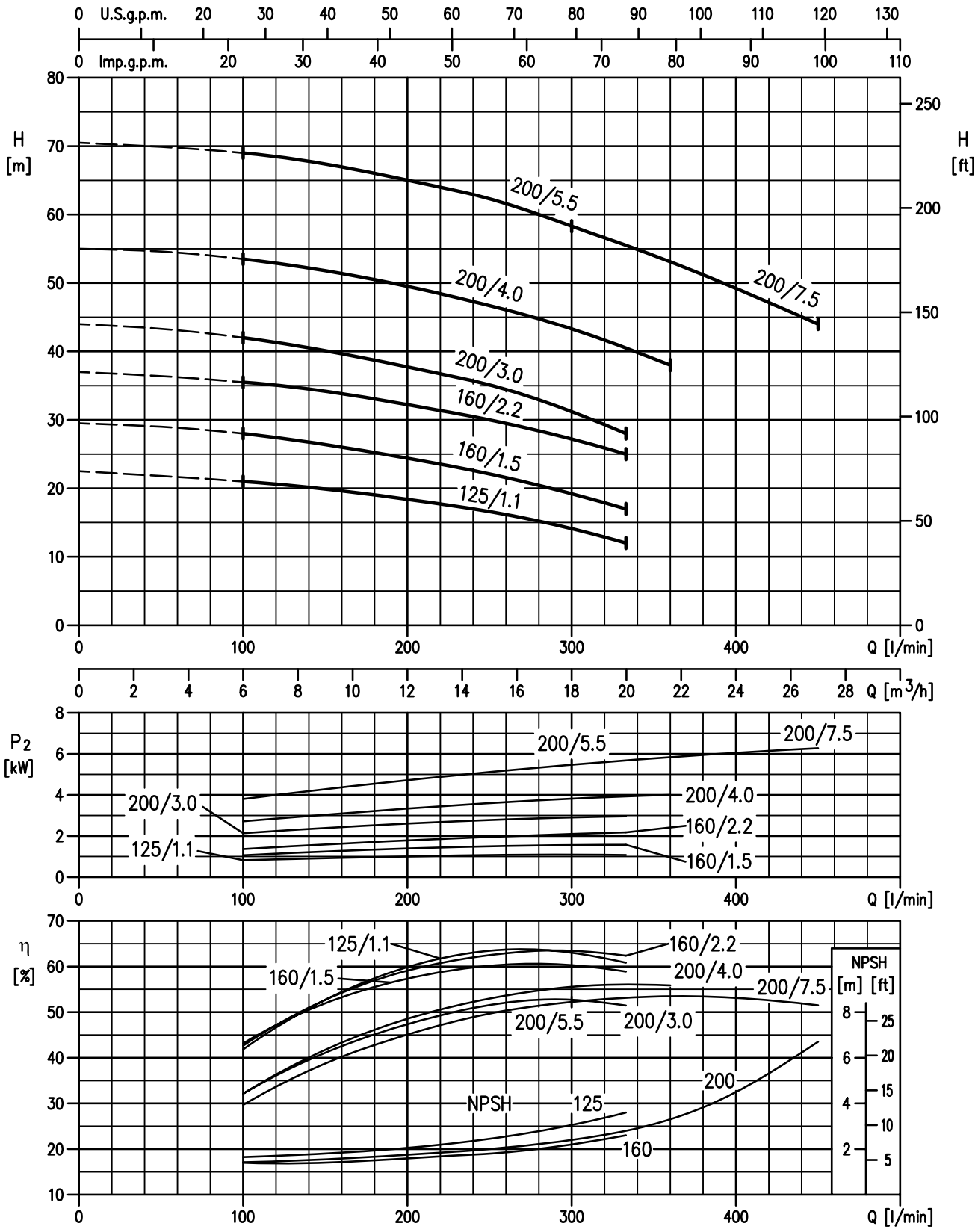
PERFORMANCE CHART 65-80

2 Poles

Model	P_2		Q = Flow Rate																
			l/min	600	700	900	1300	1500	1700	1900	2100	2200	2300	2400	2500	3000	3400	3600	3800	4000
	[HP]	[kW]	m^3/h	36	42	54	78	90	102	114	126	132	138	144	150	180	204	216	228	240
			H=Head [m]																	
3(.) SERIES 65-125/4.0	5.5	4		19.8	19.0	17.3	13.3	11.0	8.6	6.3	-	-	-	-	-	-	-	-	-	-
3(.) SERIES 65-125/5.5	7.5	5.5		-	24.0	22.2	18.0	15.7	13.3	10.8	8.0	-	-	-	-	-	-	-	-	-
3(.) SERIES 65-125/7.5	10	7.5		-	29.5	27.8	23.5	21.1	18.7	16.1	13.4	12.0	-	-	-	-	-	-	-	-
3(.) SERIES 65-160/7.5	10	7.5		-	30.0	28.6	24.8	22.5	19.9	17.1	14.2	-	-	-	-	-	-	-	-	-
3(.) SERIES 65-160/9.2	12.5	9.2		-	34.5	32.8	28.8	26.5	23.9	21.1	18.3	16.8	-	-	-	-	-	-	-	-
3(.) SERIES 65-160/11	15	11		-	38.5	37.1	33.1	30.9	28.4	25.8	23.0	21.5	20.0	-	-	-	-	-	-	-
3(.) SERIES 65-160/15	20	15		-	45.5	44.0	40.0	37.8	35.3	32.6	29.6	28.0	26.5	-	-	-	-	-	-	-
3(.) SERIES 65-200/15	20	15		-	51.0	49.0	44.0	41.5	38.4	35.3	31.8	30.0	-	-	-	-	-	-	-	-
3(.) SERIES 65-200/18.5	25	18.5		-	58.5	56.5	51.5	49.0	46.0	43.0	39.7	38.0	36.3	-	-	-	-	-	-	-
3(.) SERIES 65-200/22	30	22		-	65.5	64.0	59.5	57.0	54.0	51.0	48.0	46.5	45.0	-	-	-	-	-	-	-
3(.) SERIES 65-250/30	40	30		-	-	77.0	73.5	71.0	68.0	64.5	60.0	57.5	55.0	52.0	-	-	-	-	-	-
3(.) SERIES 65-250/37	50	37		-	-	88.0	85.5	83.0	80.5	77.5	74.0	72.0	70.0	67.5	65.0	-	-	-	-	-
3(.) SERIES 80-160/11	15	11		-	-	-	27.3	26.4	25.4	24.2	23.0	22.4	21.8	21.1	20.4	16.4	12.5	-	-	-
3(.) SERIES 80-160/15R	20	15		-	-	-	30.5	29.7	28.8	27.7	26.5	25.9	25.3	24.6	24.0	20.1	16.5	14.5	-	-
3(.) SERIES 80-160/15	20	15		-	-	-	34.0	33.3	32.5	31.5	30.5	30.0	29.4	28.8	28.1	24.4	21.0	19.1	17.0	-
3(.) SERIES 80-160/18.5	25	18.5		-	-	-	39.0	38.4	37.6	36.7	35.7	35.2	34.7	34.1	33.5	30.0	26.4	24.4	22.3	20.0
3(.) SERIES 80-200/22	30	22		-	-	-	48.0	47.0	45.5	44.5	43.0	42.0	41.0	40.0	39.0	33.2	27.8	25.0	-	-
3(.) SERIES 80-200/30	40	30		-	-	-	58.5	58.0	57.0	56.0	54.5	54.0	53.0	52.0	51.0	46.5	41.5	39.0	36.1	33.0
3(.) SERIES 80-200/37	50	37		-	-	-	64.0	63.0	62.0	61.0	59.5	59.0	58.0	57.5	56.5	51.5	47.0	44.5	41.5	38.5
3(.) SERIES 80-250/37	50	37		-	-	-	71.5	70.5	68.5	66.5	64.0	63.0	61.5	60.0	58.5	48.5	38.0	-	-	-
3(.) SERIES 80-250/45	60	45		-	-	-	82.5	81.5	80.0	78.0	76.0	75.0	73.5	72.5	71.0	62.0	53.0	48.0	42.5	-
3(.) SERIES 80-250/55	75	55		-	-	-	93.5	92.5	91.5	90.0	88.5	87.5	86.5	85.5	84.0	76.5	68.5	64.5	60.0	55.0

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

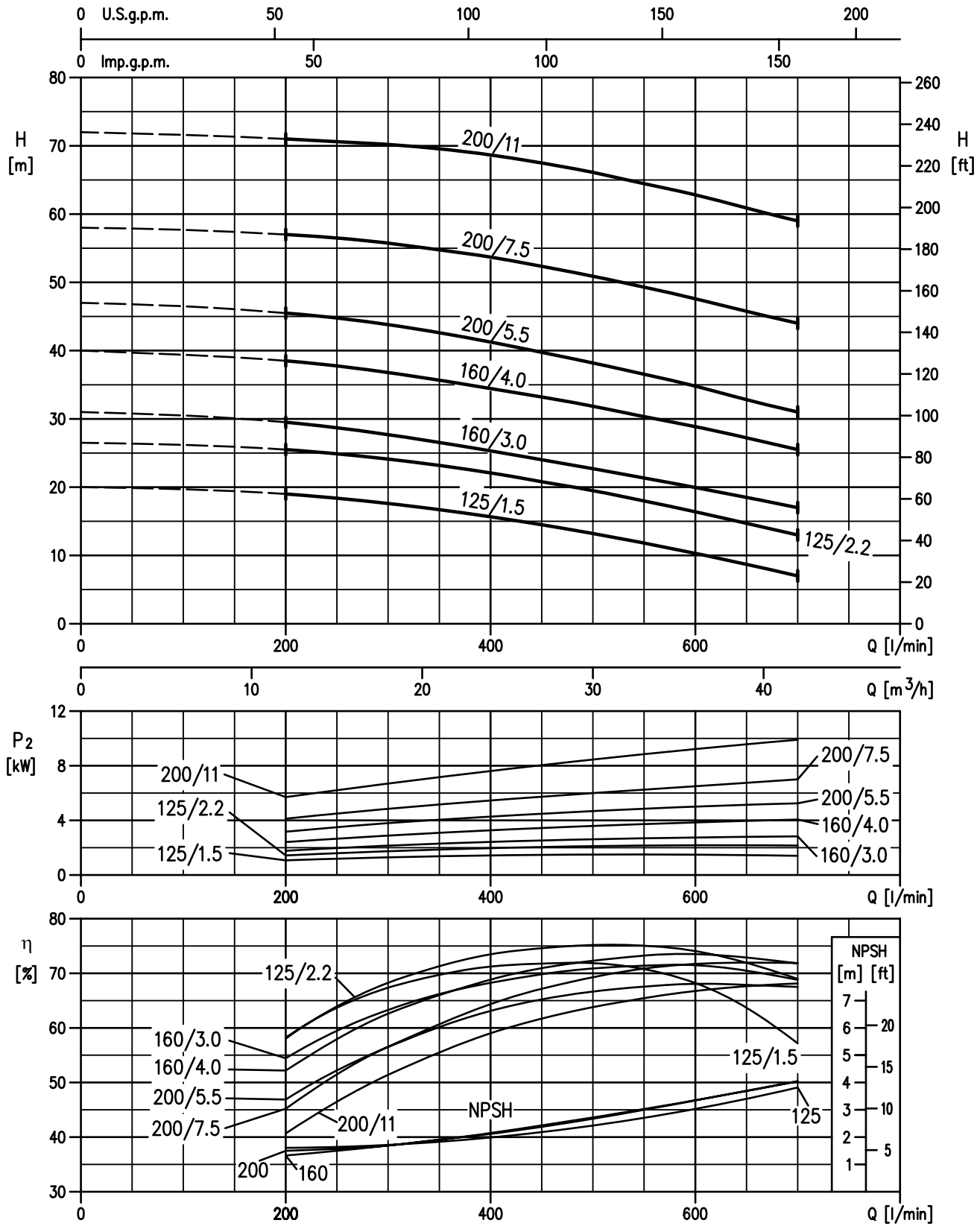
PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 32 SERIES at 2900 min-1 (according to ISO 9906 Attachment A) **2 Poles**



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

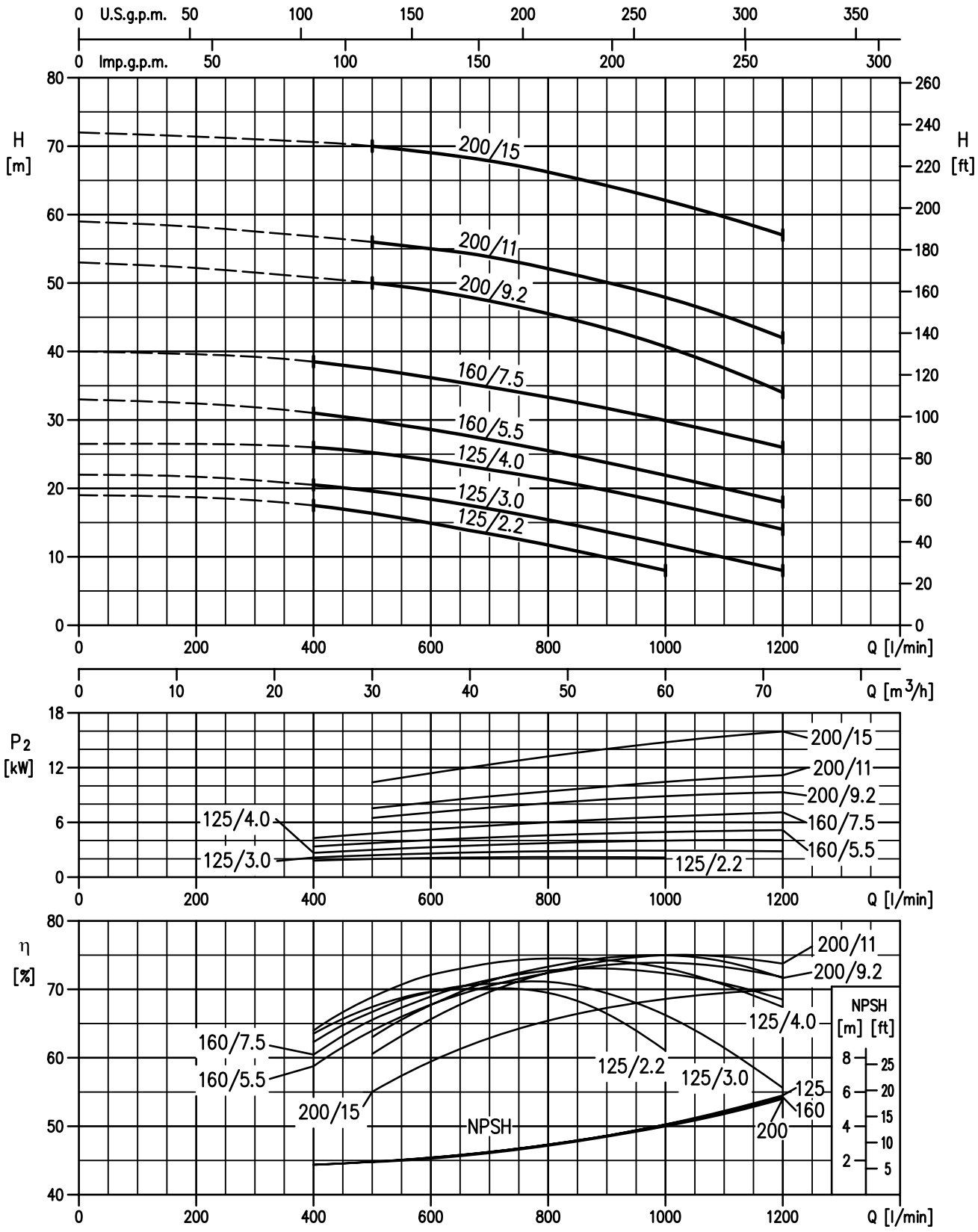
PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 40 SERIES at 2900 min-1 (according to ISO 9906 Attachment A)

2 Poles



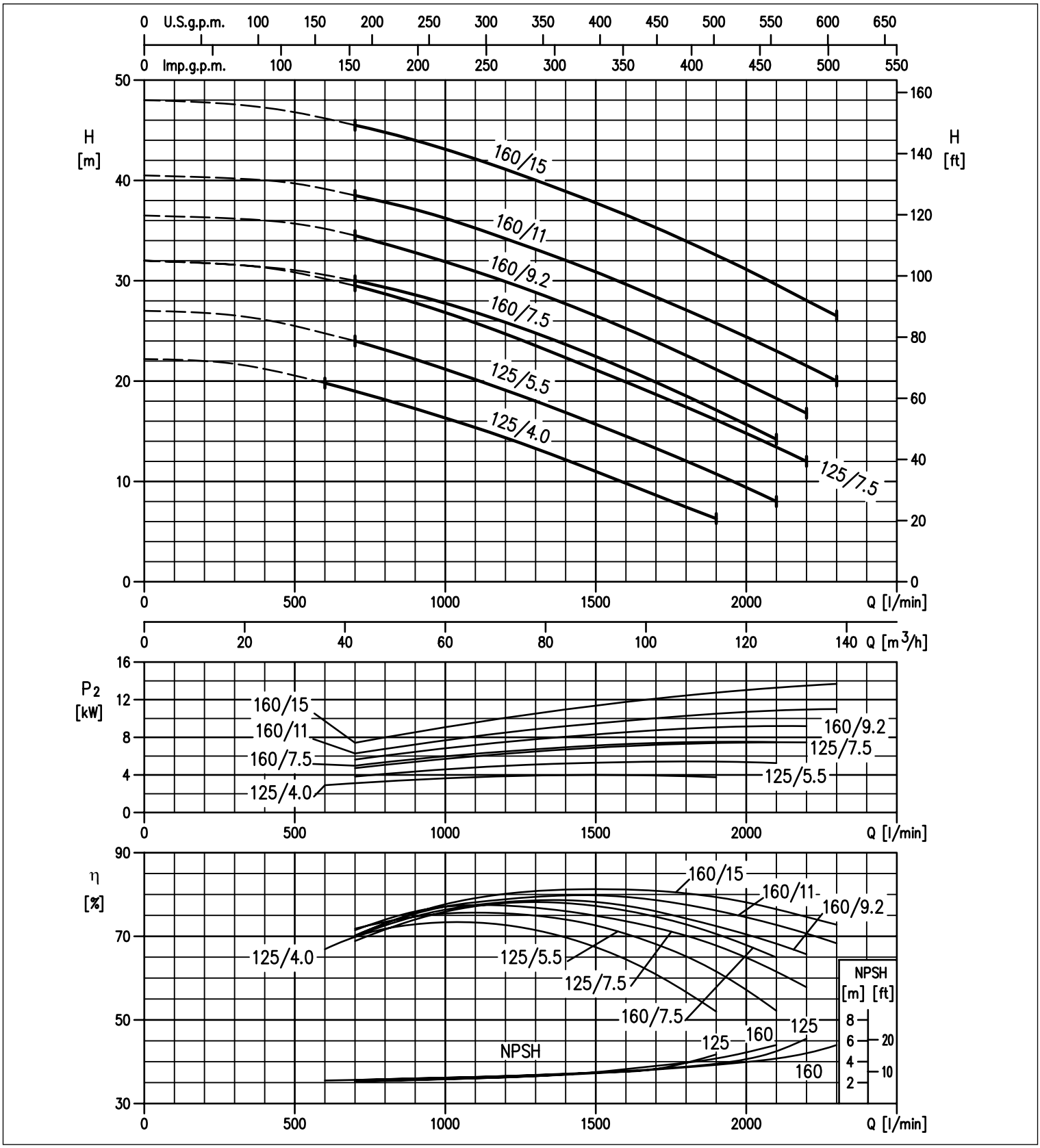
CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 50 SERIES at 2900 min-1 (according to ISO 9906 Attachment A) **2 Poles**



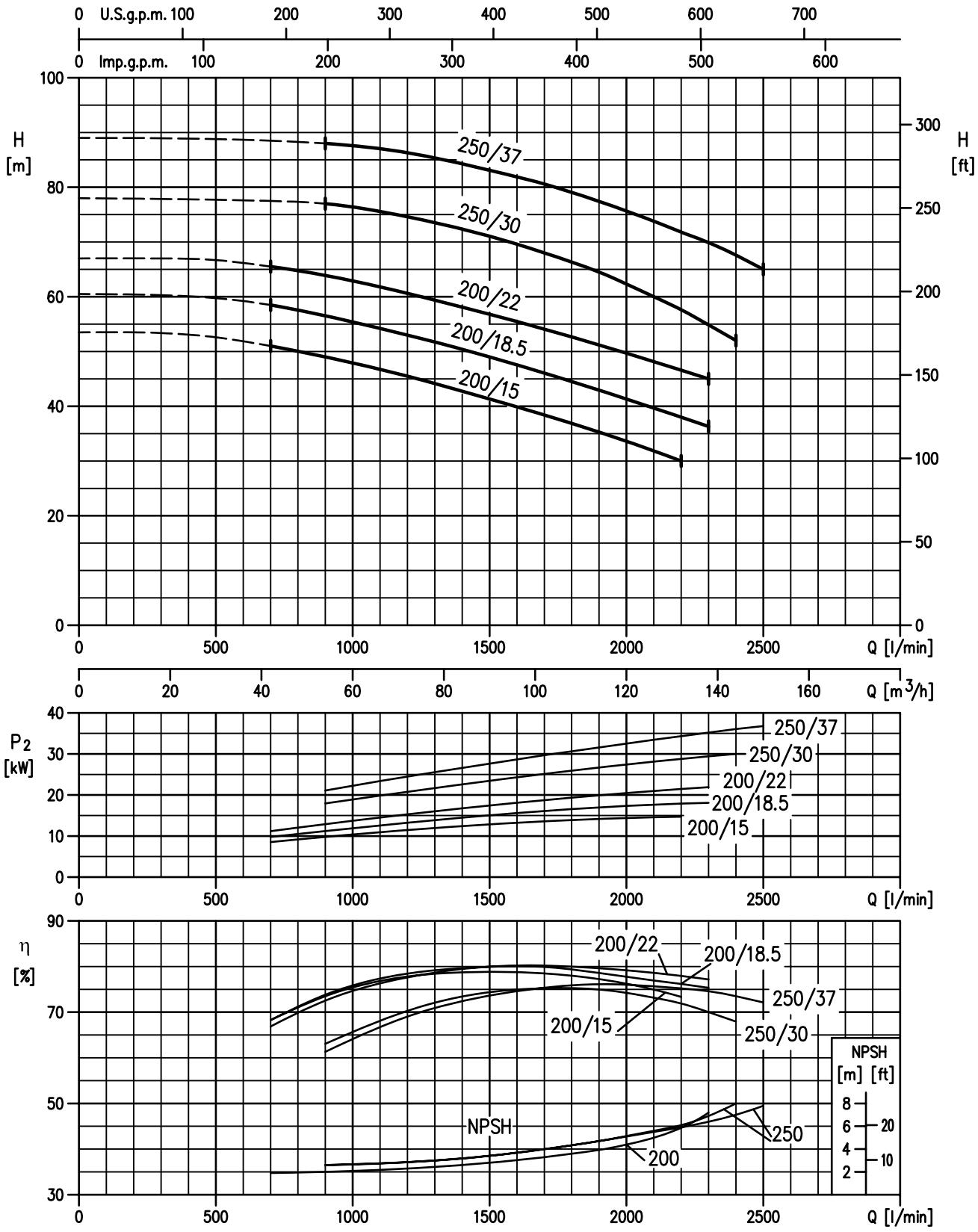
CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 65 SERIES at 2900 min-1 (according to ISO 9906 Attachment A) **2 Poles**



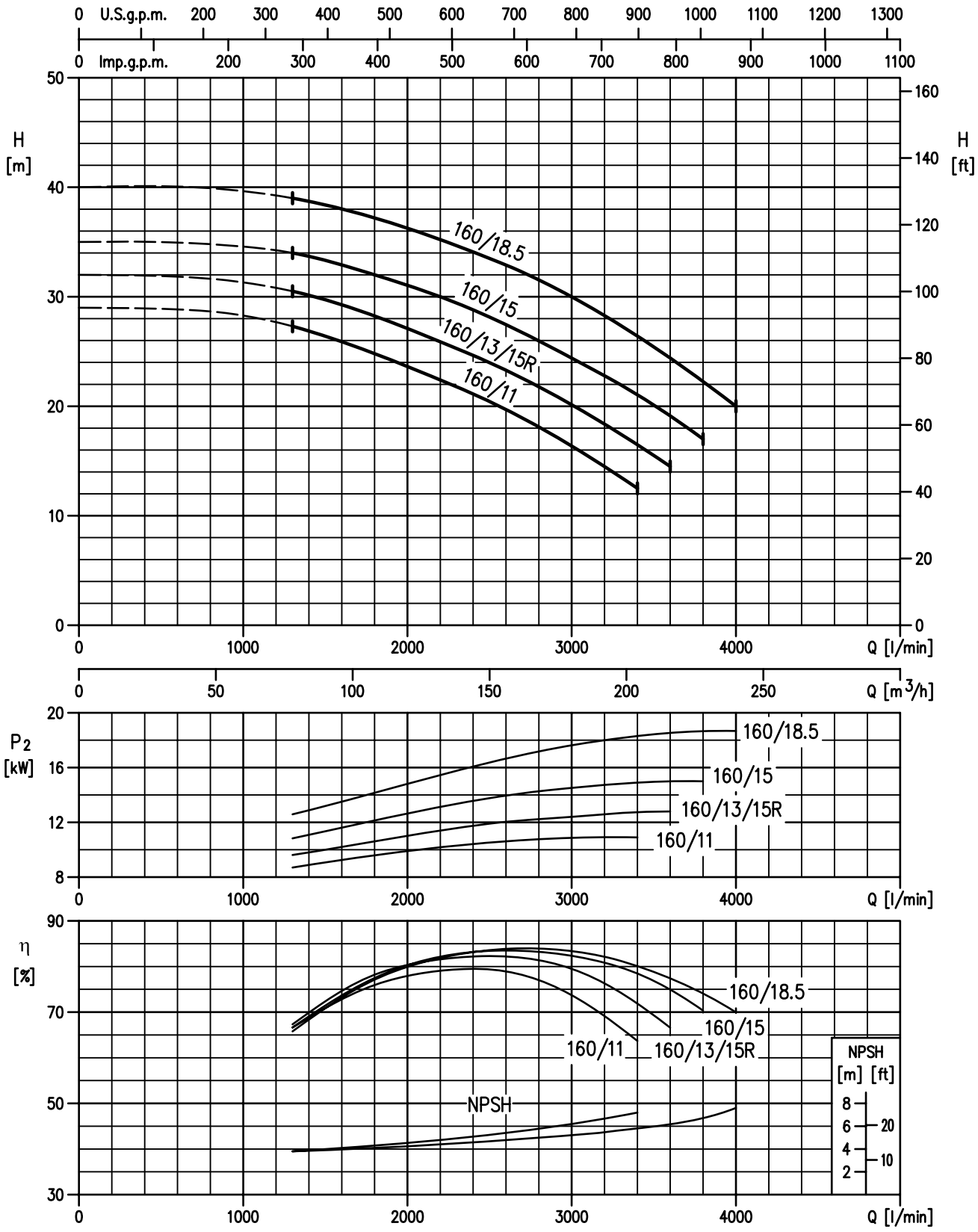
CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3L 65 SERIES at 2900 min-1 (according to ISO 9906 Attachment A) **2 Poles**



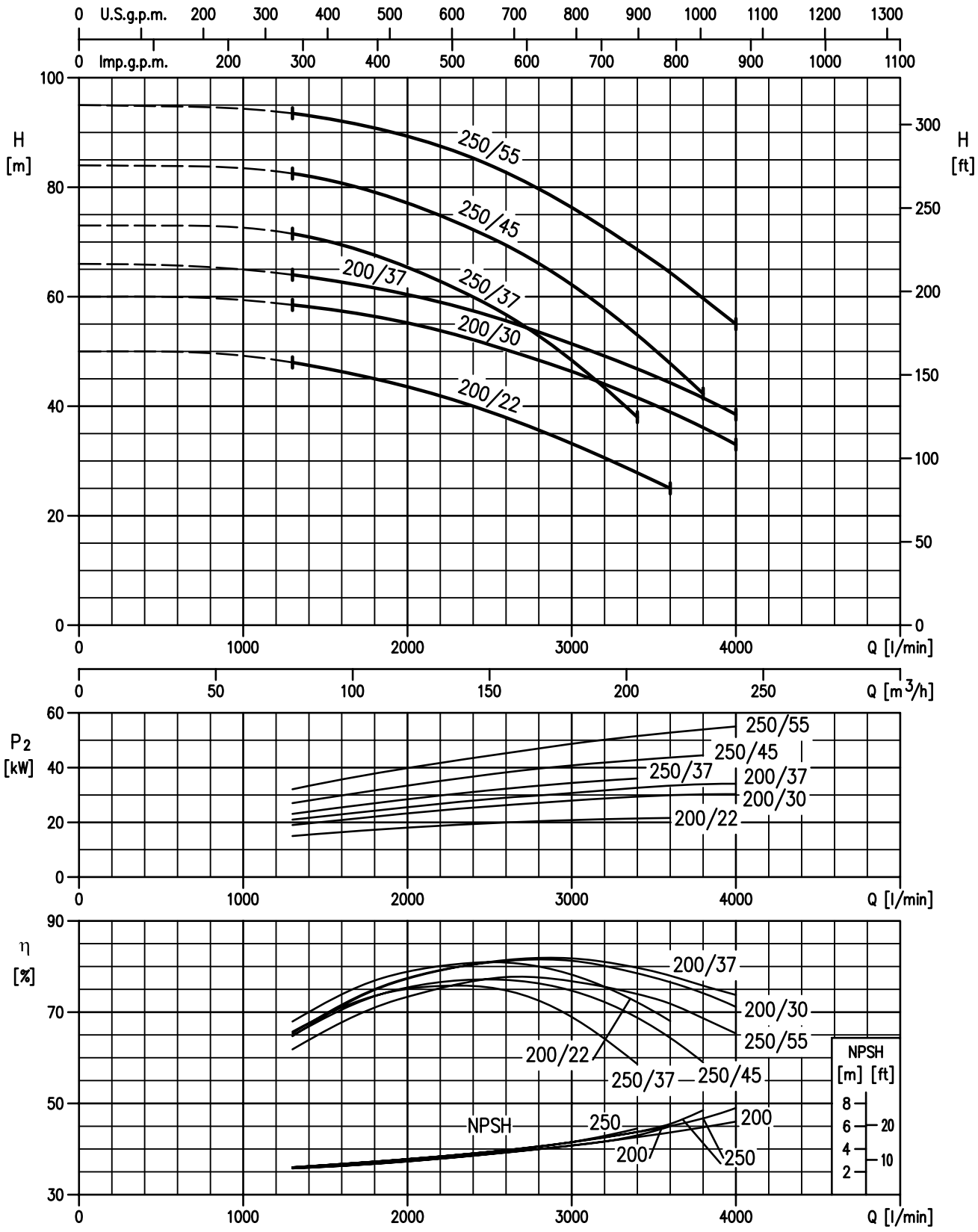
CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3L 80 SERIES at 2900 min-1 (according to ISO 9906 Attachment A) 2 Poles



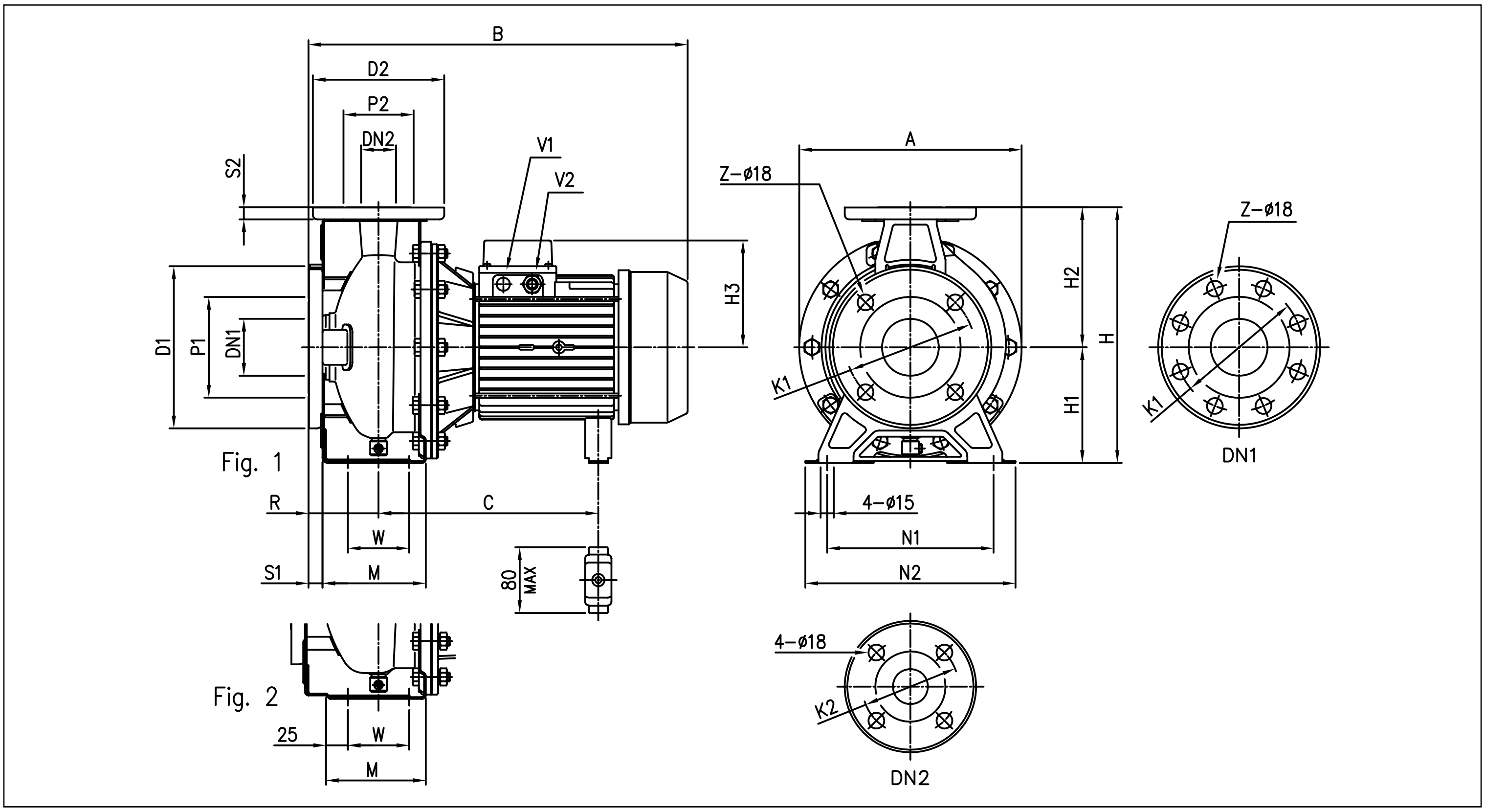
CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3L 80 SERIES at 2900 min-1 (according to ISO 9906 Attachment A) **2 Poles**



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)M 32, 40, 50, 65 - up to 11 kW — **2 Poles**



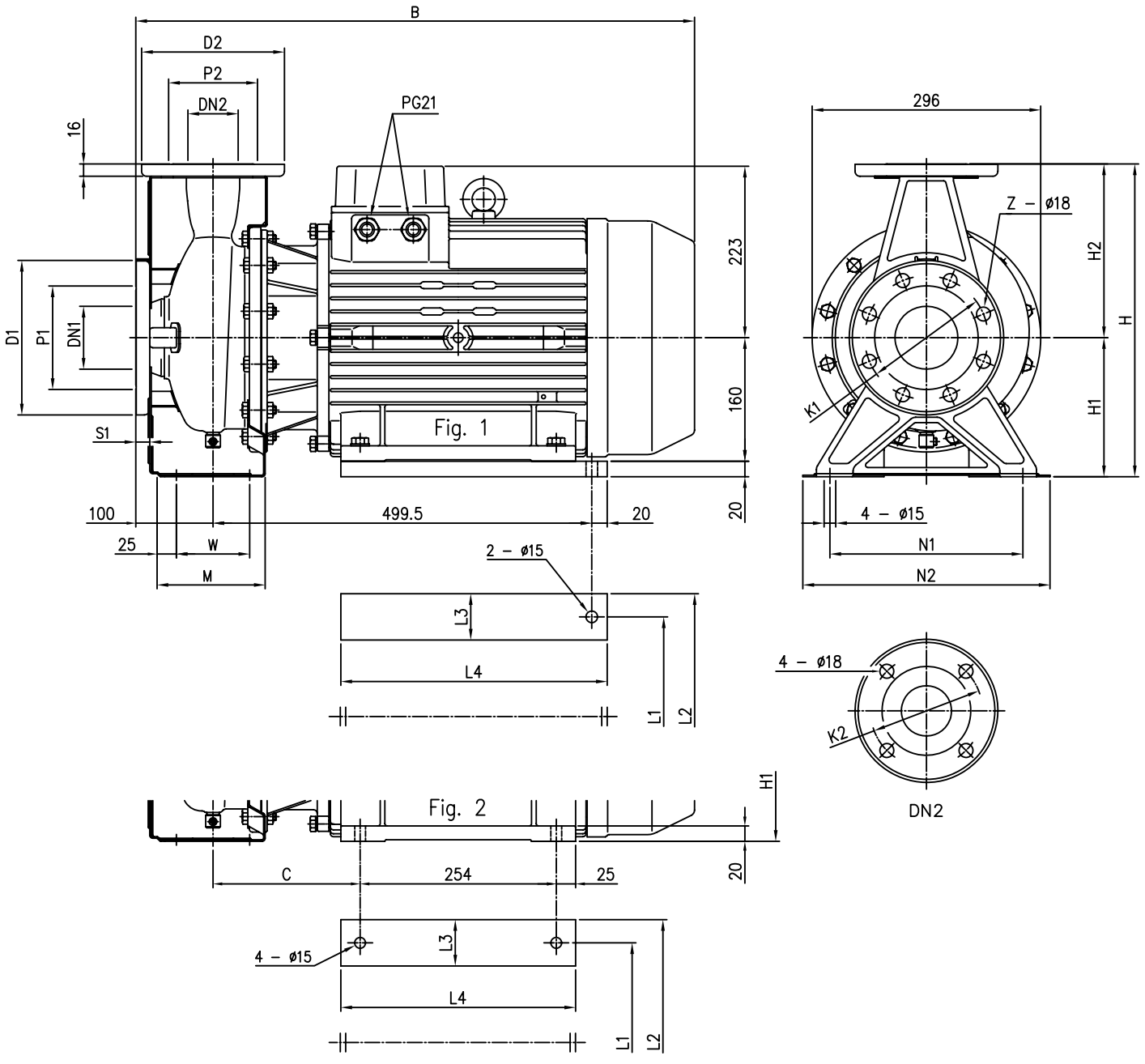
DIMENSIONAL TABLE

Model	Dimensions [mm]																																				Weight [kg]		
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	H3 [4]	H3 [3]	H3 *	R	W	M	N1	N2	A	B [4]	B [3]	B *	C [4]	C [3]	C *	V1 *	V1 [3]	V2 *	V2 [3]	V2 [1]	[4]	[3]	*
32-125/1.1 (M)	50	95	125	165	16	4	-	32	75	100	140	14	1	252	112	140	141	124	119	80	70	114	140	190	213	408	407	431	219÷230	219÷230	232	-	-	PG 13.5	PG 13.5	M20x1.5	19.6	24.1	24.1
32-160/1.5 (M)	50	95	125	165	16	4	-	32	75	100	140	14	1	292	132	160	141	124	119	80	70	118	190	240	254	408	407	431	219÷230	219÷230	232	-	-	PG 13.5	PG 13.5	M20x1.5	22.5	27.0	27.0
32-160/2.2 (M)	50	95	125	165	16	4	-	32	75	100	140	14	1	292	132	160	141	124	119	80	70	118	190	240	254	408	432	431	219÷230	244÷255	232	-	-	PG 13.5	PG 13.5	M20x1.5	27.7	28.0	28.0
32-200/3.0	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	-	124	124	80	70	119	190	240	296	-	471	471	-	244÷255	244÷255	-	-	PG 13.5	PG 13.5	-	-	35.1	35.1
32-200/4.0	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	-	141	141	80	70	119	190	240	296	-	494	494	-	253	253	-	-	PG 16	PG 16	-	-	38.2	38.2
32-200/5.5	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	-	150	150	80	70	119	190	240	296	-	519	519	-	275	275	M20x1.5	PG 13.5	PG 16	PG 16	-	-	52.2	52.2
32-200/7.5	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	-	150	150	80	70	119	190	240	296	-	-	539	-	275	275	-	PG 13.5	PG 16	-	-	-	-	60.1
40-125/1.5 (M)	65	115	145	185	16	4	-	40	80	110	150	14	1	252	112	140	141	124	119	80	70	114	160	210	213	408	407	431	219÷230	219÷230	232	-	-	PG 13.5	PG 13.5	M20x1.5	20.1	24.6	24.6
40-125/2.2 (M)	65	115	145	185	16	4	-	40	80	110	150	14	1	252	112	140	141	124	119	80	70	114	160	210	213	408	432	431	219÷230	244÷255	232	-	-	PG 13.5	PG 13.5	M20x1.5	25.8	26.1	26.1
40-160/3.0	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	-	124	124	80	70	118	190	240	254	-	471	471	-	244÷255	244÷255	-	-	PG 13.5	PG 13.5	-	-	26.6	26.6
40-160/4.0	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	-	141	141	80	70	118	190	240	254	-	494	494	-	253	253	-	-	PG 16	PG 16	-	-	40.8	40.8
40-200/5.5	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	-	150	150	100	70	115	212	265	296	-	539	539	-	275	275	M20x1.5	PG 13.5	PG 16	PG 16	-	-	52.5	52.5
40-200/7.5	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	-	150	150	100	70	115	212	265	296	-	-	559	-	275	275	-	PG 13.5	PG 16	-	-	-	-	59.3
40-200/11	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	-	178	178	100	70	115	212	265	296	-	-	595	-	359	359	-	PG 13.5	PG 21	-	-	-	-	69.6
50-125/2.2 (M)	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	141	124	119	100	70	114	190	240	254	428	452	451	219÷230	244÷255	232	-	-	PG 13.5	PG 13.5	M20x1.5	29.4	32.0	32.0
50-125/3.0	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	-	124	124	100	70	114	190	240	254	-	491	491	-	244÷255	244÷255	-	-	PG 13.5	PG 13.5	-	-	30.9	30.9
50-125/4.0	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	-	141	141	100	70	114	190	240	254	-	514	514	-	253	253	-	-	PG 16	PG 16	-	-	40.9	40.9
50-160/5.5	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	-	150	150	100	70	115	212	265	296	-	539	539	-	275	275	M20x1.5	PG 13.5	PG 16	PG 16	-	-	46.5	46.5
50-160/7.5	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	-	150	150	100	70	115	212	265	296	-	-	559	-	275	275	-	PG 13.5	PG 16	-	-	-	-	58.6
50-200/9.2	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	-	178	178	100	70	115	212	265	296	-	-	595	-	359	359	-	PG 13.5	PG 21	-	-	-	-	63.9
50-200/11	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	-	178	178	100	70	115	212	265	296	-	-	595	-	359	359	-	PG 13.5	PG 21	-	-	-	-	69.6
65-125/4	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	-	141	141	100	95	140	212	280	254	-	514	514	-	253	253	-	-	PG 16	PG 16	-	-	37.7	37.7
65-125/5.5	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	-	150	150	100	95	140	212	280	254	-	539	539	-	275	275	M20x1.5	PG 13.5	PG 16	PG 16	-	-	48.7	48.7
65-125/7.5	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	-	150	150	100	95	140	212	280	254	-	-	559	-	275	275	-	PG 13.5	PG 16	-	-	-	-	52.1
65-160/7.5	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	-	150	150	100	95	140	212	280	296	-	-	559	-	275	275	-	PG 13.5	PG 16	-	-	-	-	55.3
65-160/9.2	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	-	178	178	100	95	140	212	280	296	-	-	595	-	359	359	-	PG 13.5	PG 21	-	-	-	-	61.0
65-160/11	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	-	178	178	100	95	140	212	280	296	-	-	595	-	359	359	-	PG 13.5	PG 21	-	-	-	-	67.4

[1] Standard [2] On request
[3] Three-phase only [4] Single phase only * Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)M 50, 65 - 15 ÷ 22 kW **2 Poles**



DIMENSIONAL TABLE

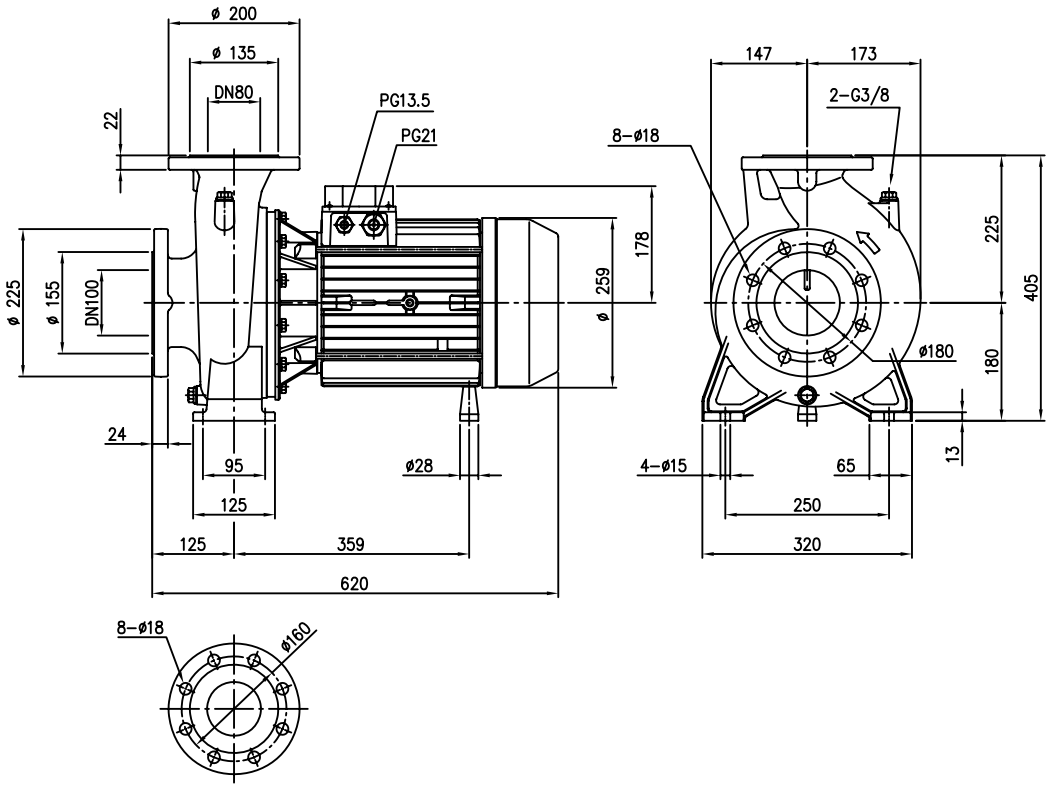
Model	Dimensions [mm]																									Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	Fig.	H	H1	H2	W	M	N1	N2	B	C	L1	L2	L3	L4	
50-200/15	65	115	145	185	16	4	-	50	95	125	165	2	360	160	200	70	115	212	265	723	190.5	254	318	65	304	105.1
65-160/15	80	134	160	200	18	8	4	65	115	145	185	2	360	160	200	95	140	212	280	732	199.5	254	318	65	304	107.1
65-200/15	80	134	160	200	18	8	4	65	115	145	185	1	405	180	225	95	140	250	320	732	-	254	314	60	345	110.1
65-200/18.5	80	134	160	200	18	8	4	65	115	145	185	1	405	180	225	95	140	250	320	732	-	254	314	60	345	125.3
65-200/22	80	134	160	200	18	8	4	65	115	145	185	1	405	180	225	95	140	250	320	732	-	254	314	60	345	136.1

[1] Standard [2] On request

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LM 80-160 - 11 kW

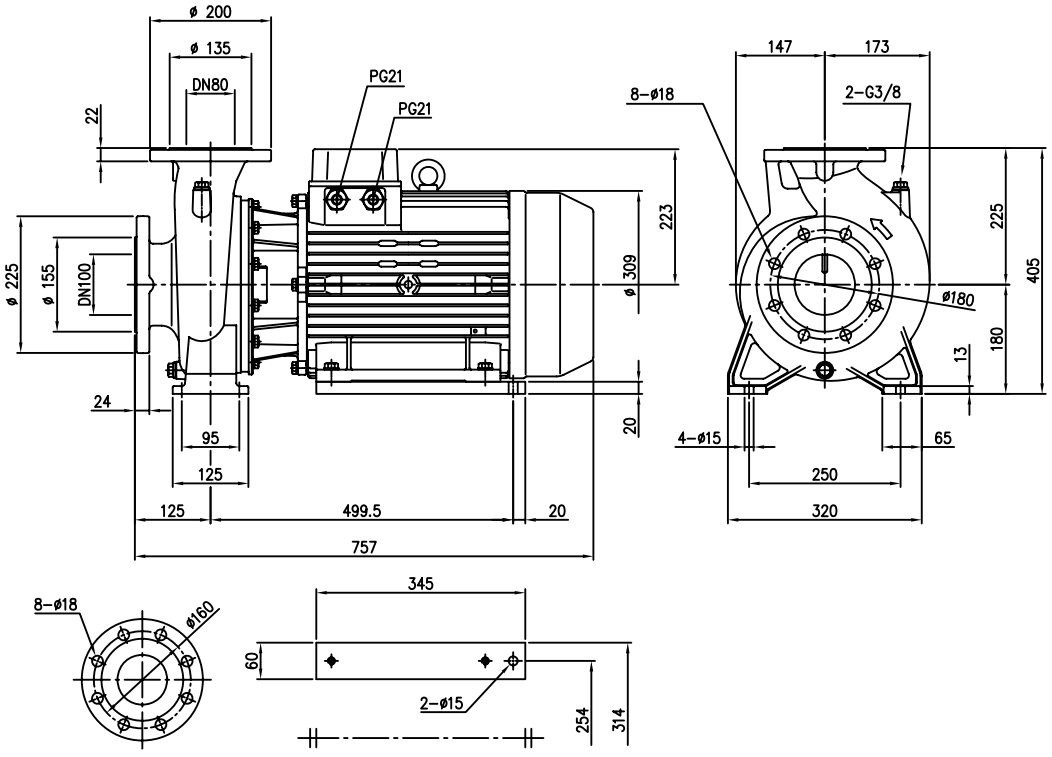
2 Poles



Weight IE3
80-160/11: 100.0 kg

3LM 80-160 / 15R / 15 / 18.5 kW

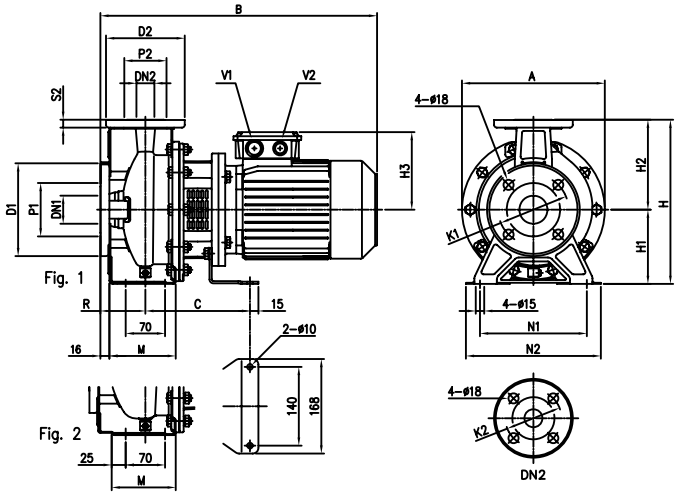
2 Poles



Weight IE3
80-160/15R: 130.1 kg
80-160/15: 131.1 kg
80-160/18.5: 145.3 kg

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)S 32, 40, 50 - up to 2.2 kW — 2 Poles

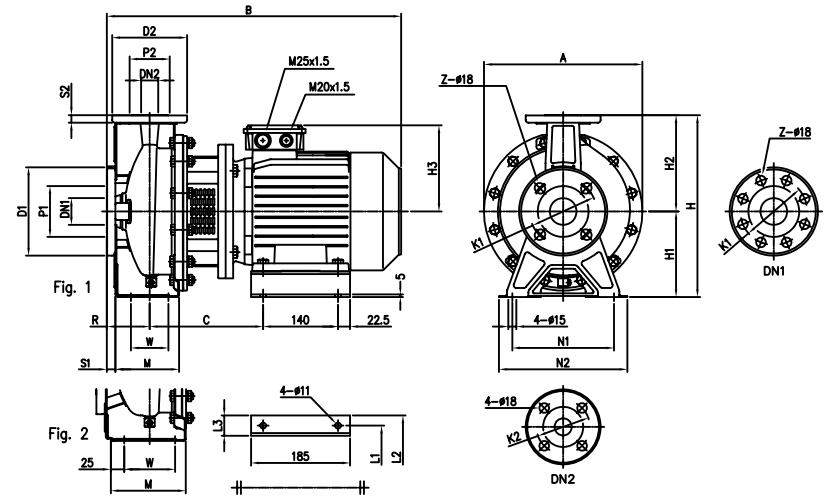


DIMENSIONAL TABLE

Model	Dimensions [mm]																						Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	H3	R	M	N1	N2	A	B	C	V1	V2	*
32-125/1.1	50	95	125	165	32	75	100	140	14	1	252	112	140	139	80	114	140	190	213	430	174	M25x 1.5	M20x1.5	23.1	24.7
32-160/1.5	50	95	125	165	32	75	100	140	14	1	292	132	160	148	80	118	190	240	254	477	186	M25x 1.5	M20x1.5	29.8	29.8
32-160/2.2	50	95	125	165	32	75	100	140	14	1	292	132	160	148	80	118	190	240	254	477	186	M25x 1.5	M20x1.5	32.4	32.4
40-125/1.5	65	115	145	185	40	80	110	150	14	1	252	112	140	148	80	114	160	210	213	477	186	M25x 1.5	M20x1.5	26.5	26.5
40-125/2.2	65	115	145	185	40	80	110	150	14	1	252	112	140	148	80	114	160	210	213	477	186	M25x 1.5	M20x1.5	29.6	29.6
50-125/2.2	65	115	145	185	50	95	125	165	16	2	292	132	160	148	100	114	190	240	254	497	186	M25x 1.5	M20x1.5	32.9	32.9

* Models with IE3 motor only

3(L)S 32, 65 - 3 ÷ 4 kW — 2 Poles



DIMENSIONAL TABLE

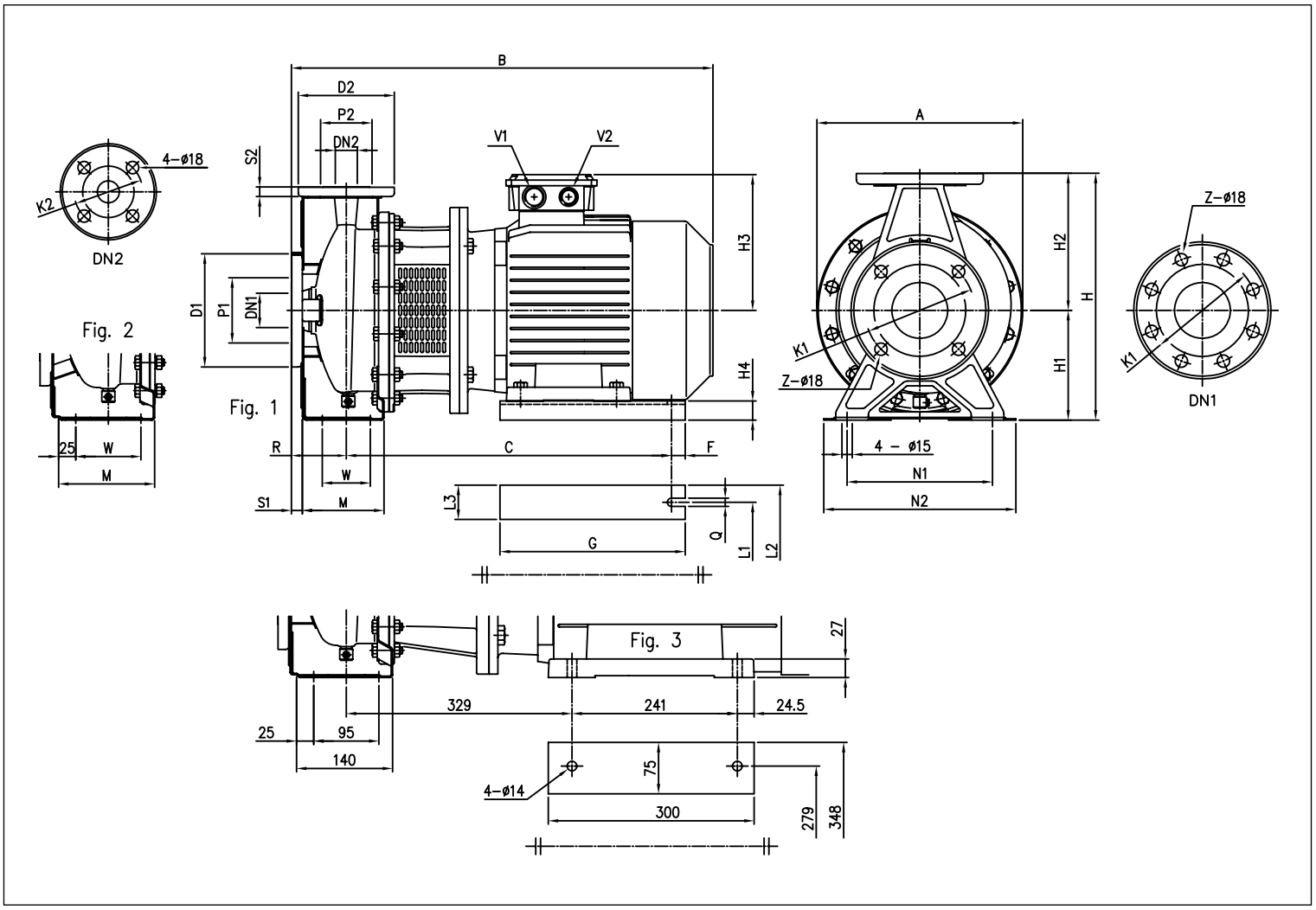
Model	Dimensions [mm]																												Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	H3	R	W	M	N1	N2	A	B	C	L1	L2	L3	*
32-200/3.0	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	155	80	70	119	190	240	296	528	205	160	202	42	46.9	46.9
32-200/4.0	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	171	80	70	119	190	240	296	550	212	190	228	38	49	49
65-125/4.0	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	171	100	95	140	212	280	254	570	212	190	228	38	50.1	50.1

[1] Standard [2] On request * Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)S 32, 40, 50, 65 - up to 65-200

2 Poles



DIMENSIONAL TABLE

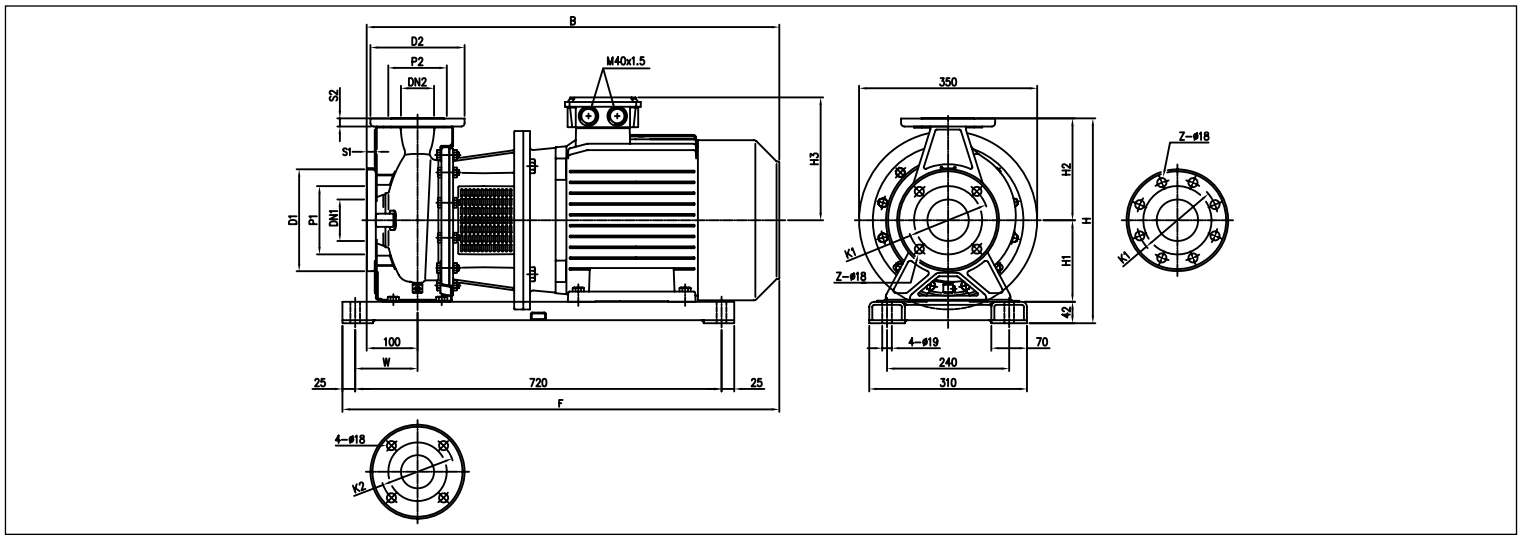
Model	Dimensions [mm]																																		Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	H3	H4	R	W	M	N1	N2	A	B	C	F	G	Q	L1	L2	L3	V1	V2		*
32-200/5.5	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	198	28	80	70	119	190	240	300	607	479	15	270	12	216	266	50	M32x1.5	M32x1.5	71.8	71.8
32-200/7.5	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	198	28	80	70	119	190	240	300	607	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	87.0
40-160/3.0	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	155	32	80	70	118	190	240	254	528	388	15	220	12	160	200	40	M25x 1.5	M20x1.5	42.5	42.5
40-160/4.0	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	171	20	80	70	118	190	240	254	550	395	15	220	12	190	240	50	M25x 1.5	M20x1.5	44.6	44.6
40-200/5.5	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	198	28	100	70	115	212	265	300	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	72.2	72.2
40-200/7.5	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	198	28	100	70	115	212	265	300	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	82.0
50-125/3.0	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	155	32	100	70	114	190	240	254	548	388	15	220	12	160	200	40	M25x 1.5	M20x1.5	35.5	35.5
50-125/4.0	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	171	20	100	70	114	190	240	254	570	395	15	220	12	190	240	50	M25x 1.5	M20x1.5	45.6	45.6
50-160/5.5	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	198	28	100	70	115	212	265	300	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	63.8	63.8
50-160/7.5	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	198	28	100	70	115	212	265	300	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	91.0
50-200/9.2	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	198	28	100	70	115	212	265	300	667	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	90.7
65-125/5.5	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	198	28	100	95	140	212	280	300	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	60.0	60.0
65-125/7.5	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	198	28	100	95	140	212	280	300	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	79.4
65-160/7.5	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	198	28	100	95	140	212	280	300	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	82.4
65-160/9.2	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	198	28	100	95	140	212	280	300	667	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	88.0
65-200/15	80	134	160	200	18	8	4	65	115	145	185	16	2	405	180	225	238	20	100	95	140	250	320	350	806	621	20	350	14	254	314	60	M40x1.5	M40x1.5	-	138.0
65-200/18.5	80	134	160	200	18	8	4	65	115	145	185	16	2	405	180	225	238	20	100	95	140	250	320	350	850	621	20	350	14	254	314	60	M40x1.5	M40x1.5	-	137.2
65-200/22	80	134	160	200	18	8	4	65	115	145	185	16	3	405	180	225	268	-	100	-	-	250	320	350	885	-	-	-	-	-	-	-	M32x1.5	M32x1.5	-	175.0

[1] Standard [2] On request
* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)S 40, 50, 65 - 11 ÷ 15 kW

2 Poles



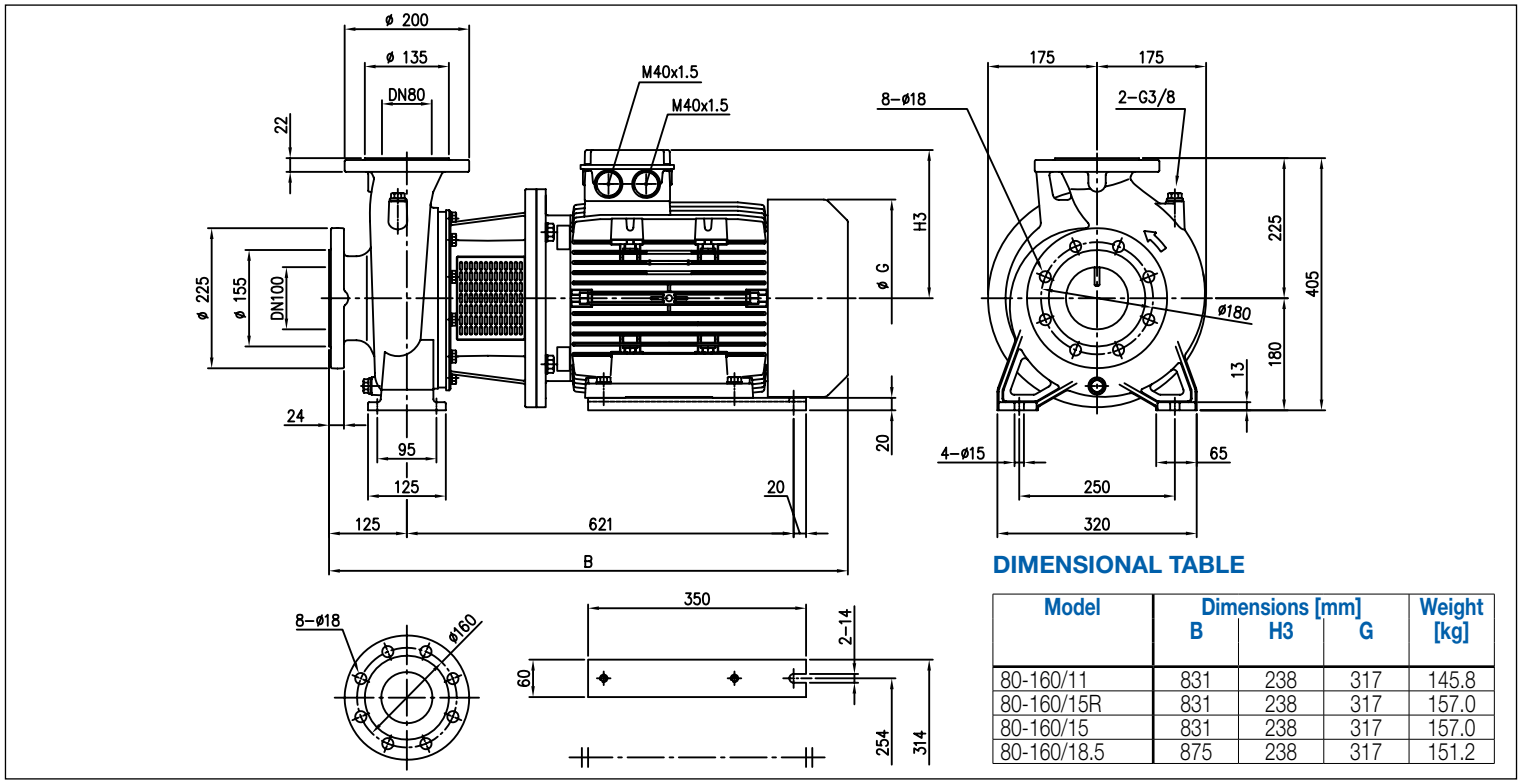
DIMENSIONAL TABLE

Model	Dimensions [mm]																			Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	W	B	F	
40-200/11	65	115	145	185	16	4	-	40	80	110	150	14	382	160	180	238	110	796	831	117.8
50-200/11	65	115	145	185	16	4	-	50	95	125	165	16	402	160	200	238	110	796	831	117.8
50-200/15	65	115	145	185	16	4	-	50	95	125	165	16	402	160	200	238	110	796	831	147.9
65-160/11	80	134	160	200	18	8	4	65	115	145	185	16	402	160	200	238	122.5	796	844	86.8
65-160/15	80	134	160	200	18	8	4	65	115	145	185	16	402	160	200	238	122.5	806	854	120.9

[1] Standard [2] On request

3LS 80-160

2 Poles



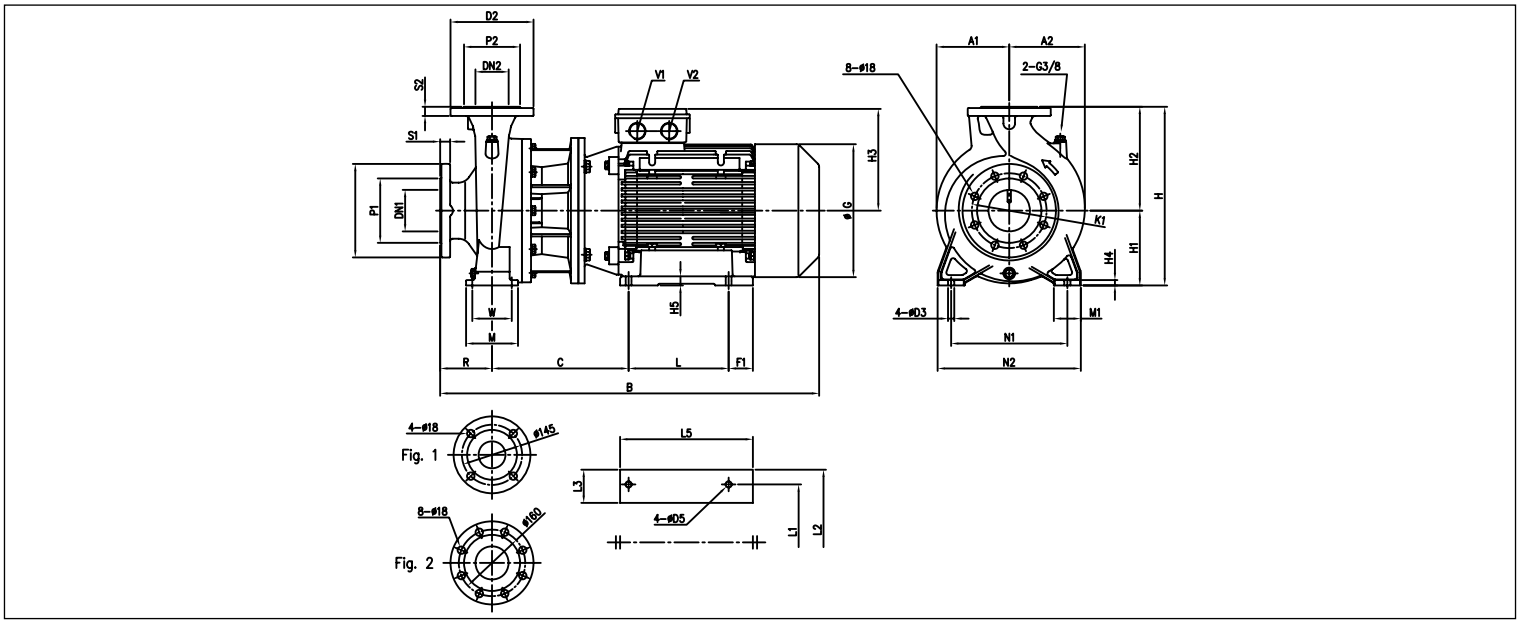
DIMENSIONAL TABLE

Model	Dimensions [mm]			Weight [kg]
	B	H3	G	
80-160/11	831	238	317	145.8
80-160/15R	831	238	317	157.0
80-160/15	831	238	317	157.0
80-160/18.5	875	238	317	151.2

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LS 65-250, 80

2 Poles

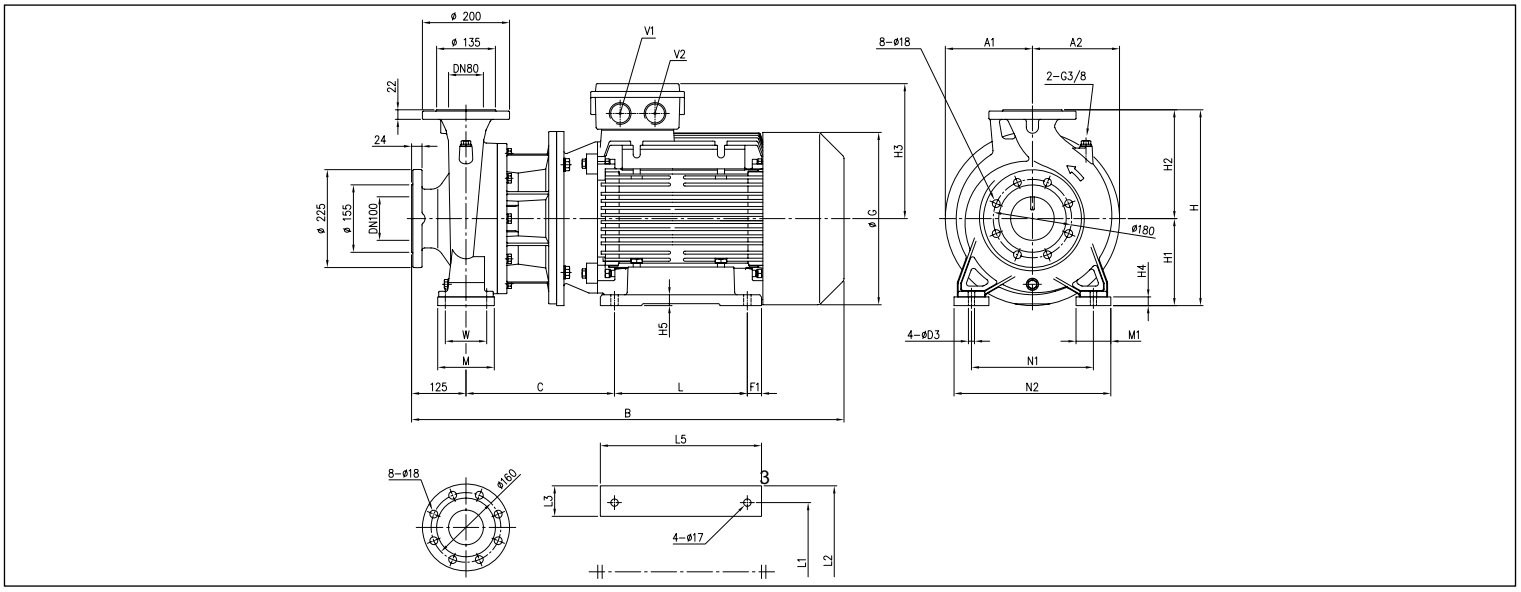


DIMENSIONAL TABLE

Model	Dimensions [mm]																														Weight [kg]
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	H4	H5	R	W	N1	N2	M	M1	L	L1	L2	L3	L5	A1	A2	B	C	F1	G	D3	D5	V1	V2	
65-250/30	80	135	160	200	22	65 Fig.1	120	185	20	450	200	250	300	15	25	100	120	280	360	160	80	305	318	388	80	358	200	200	966	341	21.5	399	19	17	M40x1.5	M40x1.5	303.0
65-250/37	80	135	160	200	22	65 Fig.1	120	185	20	450	200	250	300	15	25	100	120	280	360	160	80	305	318	388	80	358	200	200	966	341	21.5	399	19	17	M40x1.5	M40x1.5	320.0
80-200/22	100	155	180	225	24	80 Fig.2	135	200	22	430	180	250	268	13	27	125	95	280	345	125	65	241	279	348	75	300	175	182	910	329	24.5	360	15	14	M32x1.5	M32x1.5	207.0
80-250/37	100	155	180	225	24	80 Fig.2	135	200	22	480	200	280	300	15	25	125	120	315	400	160	80	305	318	388	80	358	200	200	1019	369	21.5	399	19	17	M40x1.5	M40x1.5	335.0

3LS 80

2 Poles

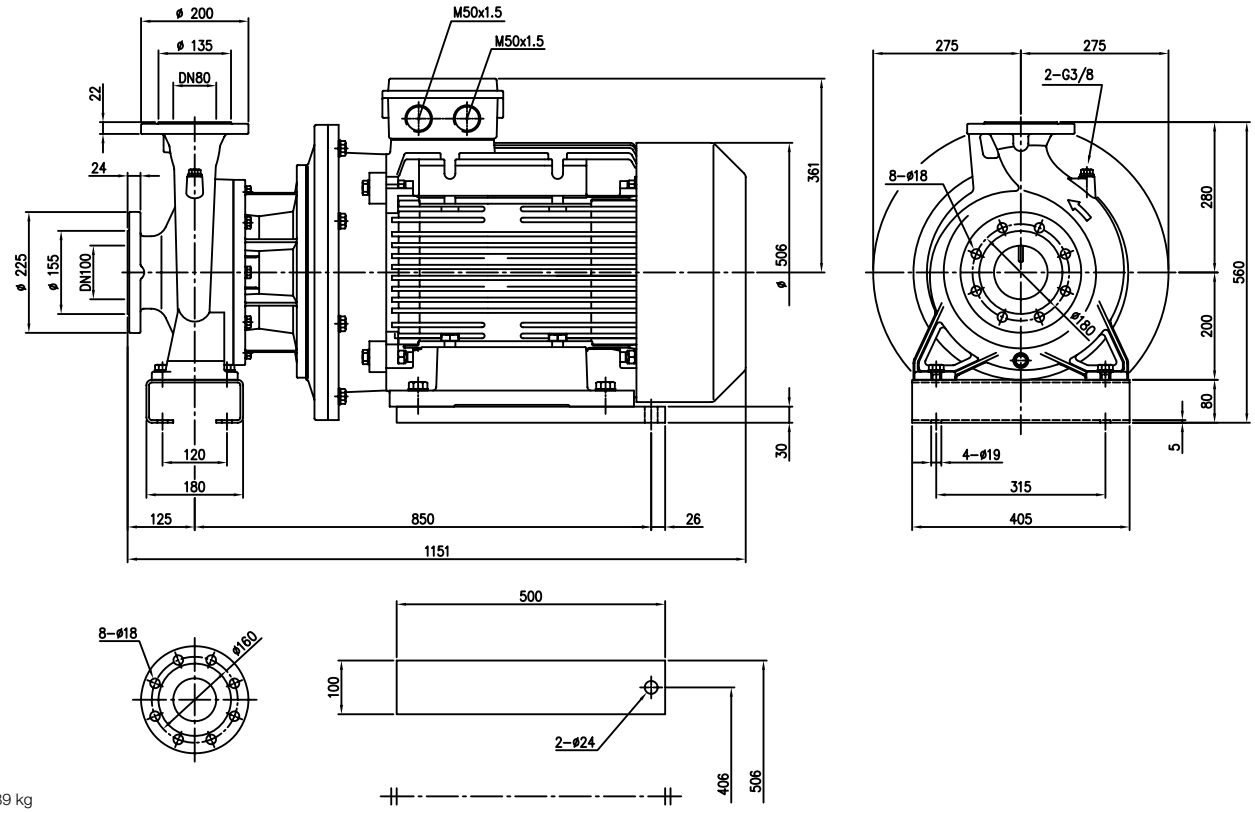


DIMENSIONAL TABLE

Model	Dimensions [mm]																								Weight [kg]
	H	H1	H2	H3	H4	H5	W	N1	N2	M	M1	L	L1	L2	L3	L5	A1	A2	B	C	F1	G	D3	V1	V2	
80-200/30	450	200	250	300	20	25	95	280	360	130	80	305	318	388	80	358	200	200	991	341	21.5	399	14	M40x1.5	M40x1.5	306.0
80-200/37	450	200	250	300	20	25	95	280	360	130	80	305	318	388	80	358	200	200	991	341	21.5	399	14	M40x1.5	M40x1.5	325.0
80-250/45	505	225	280	335	25	28	120	315	415	165	100	311	356	436	80	386	225	225	1060	385	37.5	465	18	M50x1.5	M50x1.5	401.0

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LS 80-250/55 **2 Poles**

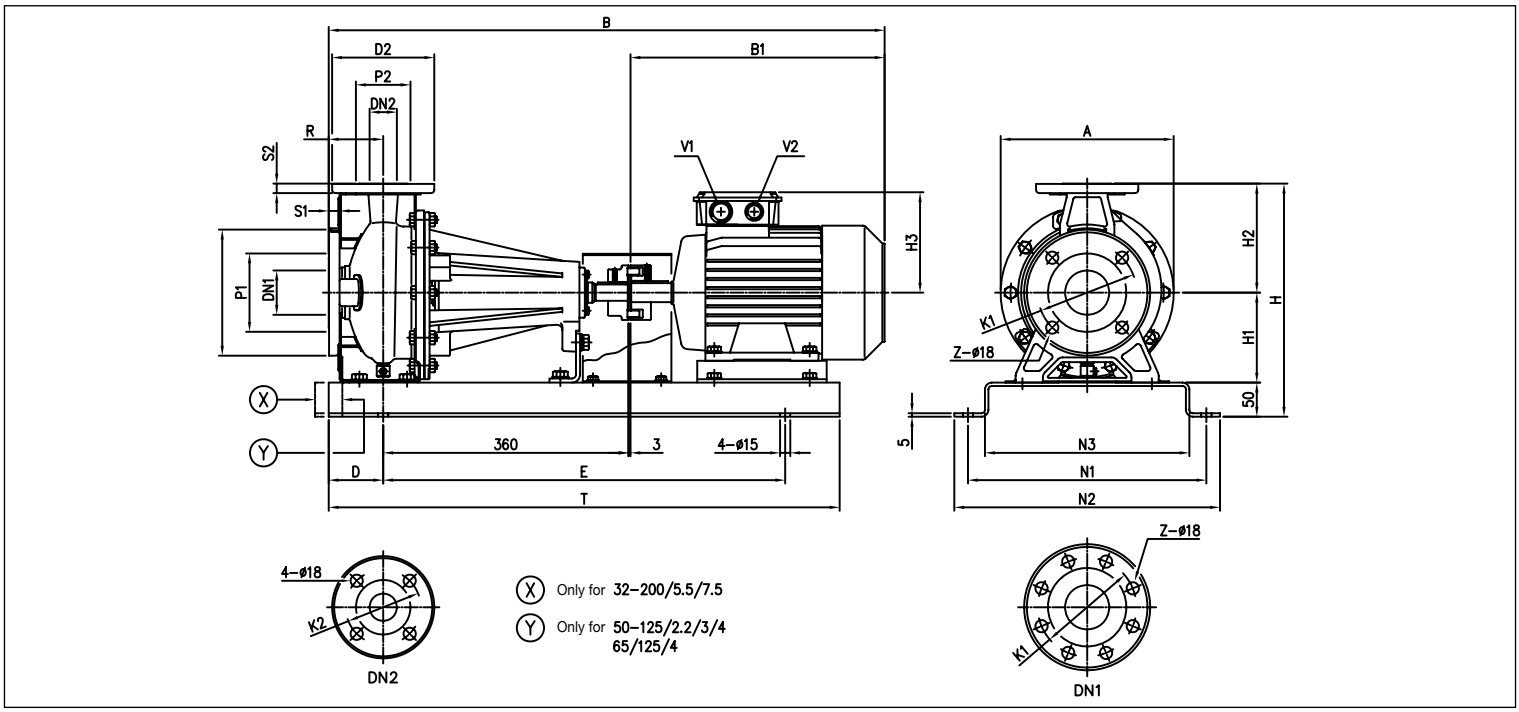


Weight IE3

80-250/55: 489 kg

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)P 32, 40, 50, 65 up to 65-200 — 2 Poles



DIMENSIONAL TABLE

Model	Dimensions [mm]																											Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	A	B	B1	D	E	N1	N2	N3	T	V1	V2		*
32-125/1.1	50	95	125	165	16	4	-	32	75	100	140	14	302	112	140	139	80	213	715	272	80	550	300	340	250	710	M25x 1.5	M20x1.5	45.1	46.7
32-160/1.5	50	95	125	165	16	4	-	32	75	100	140	14	342	132	160	148	80	254	760	317	80	590	350	390	300	750	M25x 1.5	M20x1.5	52.3	52.3
32-160/2.2	50	95	125	165	16	4	-	32	75	100	140	14	342	132	160	148	80	254	760	317	80	590	350	390	300	750	M25x 1.5	M20x1.5	53.5	53.5
32-200/3	50	95	125	165	16	4	-	32	75	100	140	14	390	160	180	155	80	296	809	366	80	590	350	390	300	750	M25x 1.5	M20x1.5	71.5	71.5
32-200/4	50	95	125	165	16	4	-	32	75	100	140	14	390	160	180	171	80	296	831	388	80	590	350	390	300	750	M25x 1.5	M20x1.5	75.1	75.1
32-200/5.5	50	95	125	165	16	4	-	32	75	100	140	14	390	160	180	198	80	296	885	442	100	650	350	390	300	850	M32x1.5	M32x1.5	97.0	97.0
32-200/7.5	50	95	125	165	16	4	-	32	75	100	140	14	390	160	180	198	80	296	885	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	112.2
40-125/1.5	65	115	145	185	16	4	-	40	80	110	150	14	302	112	140	148	80	213	760	317	80	550	300	340	250	710	M25x 1.5	M20x1.5	49.8	49.8
40-125/2.2	65	115	145	185	16	4	-	40	80	110	150	14	302	112	140	148	80	213	760	317	80	550	300	340	250	710	M25x 1.5	M20x1.5	51.0	51.0
40-160/3	65	115	145	185	16	4	-	40	80	110	150	14	342	132	160	155	80	254	809	366	80	590	350	390	300	750	M25x 1.5	M20x1.5	81.0	81.0
40-160/4	65	115	145	185	16	4	-	40	80	110	150	14	342	132	160	171	80	254	831	388	80	590	350	390	300	750	M25x 1.5	M20x1.5	67.6	67.6
40-200/5.5	65	115	145	185	16	4	-	40	80	110	150	14	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	98.0	98.0
40-200/7.5	65	115	145	185	16	4	-	40	80	110	150	14	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	106.9
40-200/11	65	115	145	185	16	4	-	40	80	110	150	14	390	160	180	238	100	296	1071	608	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	127.8
50-125/2.2	65	115	145	185	16	4	-	50	95	125	165	16	342	132	160	148	100	254	780	317	80	550	350	390	300	710	M25x 1.5	M20x1.5	75.0	75.0
50-125/3	65	115	145	185	16	4	-	50	95	125	165	16	342	132	160	155	100	254	829	366	80	590	350	390	300	750	M25x 1.5	M20x1.5	82.5	82.5
50-125/4	65	115	145	185	16	4	-	50	95	125	165	16	342	132	160	171	100	254	851	388	80	590	350	390	300	750	M25x 1.5	M20x1.5	84.6	84.6
50-160/5.5	65	115	145	185	16	4	-	50	95	125	165	16	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	98.0	98.0
50-160/7.5	65	115	145	185	16	4	-	50	95	125	165	16	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	106.9
50-200/9.2	65	115	145	185	16	4	-	50	95	125	165	16	410	160	200	198	100	296	945	482	100	650	350	390	300	850	M32x1.5	M32x1.5	-	111.0
50-200/11	65	115	145	185	16	4	-	50	95	125	165	16	410	160	200	238	100	296	1071	608	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	128.3
50-200/15	65	115	145	185	16	4	-	50	95	125	165	16	410	160	200	238	100	296	1071	608	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	135.4
65-125/4	80	134	160	200	18	8	4	65	115	145	185	16	390	160	180	171	100	254	851	388	80	590	350	390	300	750	M25x 1.5	M20x1.5	85.1	85.1
65-125/5.5	80	134	160	200	18	8	4	65	115	145	185	16	390	160	180	198	100	254	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	99.0	99.0
65-125/7.5	80	134	160	200	18	8	4	65	115	145	185	16	390	160	180	198	100	254	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	109.4
65-160/7.5	80	134	160	200	18	8	4	65	115	145	185	16	410	160	200	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	115.4
65-160/9.2	80	134	160	200	18	8	4	65	115	145	185	16	410	160	200	198	100	296	945	482	100	650	350	390	300	850	M32x1.5	M32x1.5	-	118.0
65-160/11	80	134	160	200	18	8	4	65	115	145	185	16	410	160	200	238	100	296	1071	608	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	124.8
65-160/15	80	134	160	200	18	8	4	65	115	145	185	16	410	160	200	238	100	296	1071	608	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	129.0
65-200/15	80	134	160	200	18	8	4	65	115	145	185	16	455	180	225	238	100	296	1071	608	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	137.0
65-200/18.5	80	134	160	200	18	8	4	65	115	145	185	16	455	180	225	238	100	296	1115	652	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	135.2
65-200/22	80	134	160	200	18	8	4	65	115	145	185	16	455	180	225	268	100	296	1150	687	100	800	410	450	360	1000	M32x1.5	M32x1.5	-	189.0

[1] Standard [2] On request
* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LP 65-250, 80 — 2 Poles

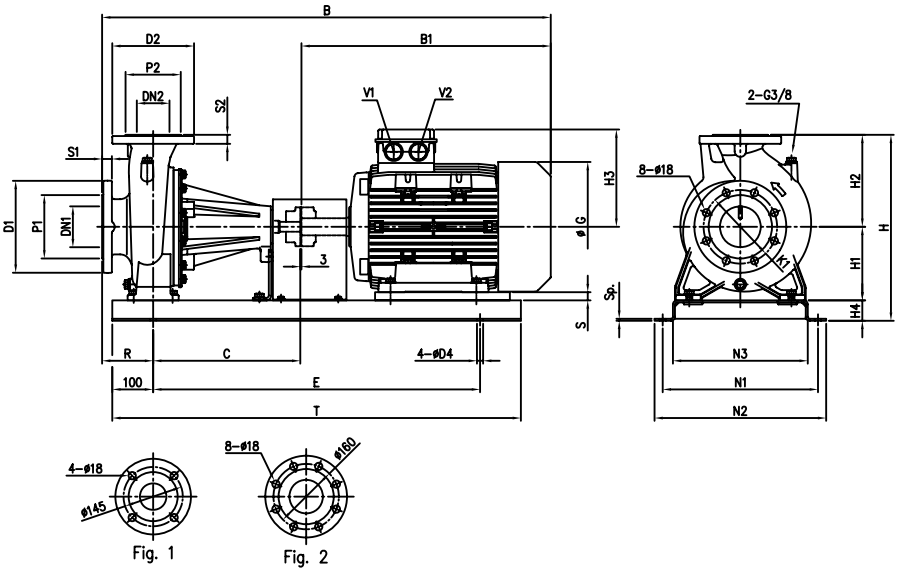


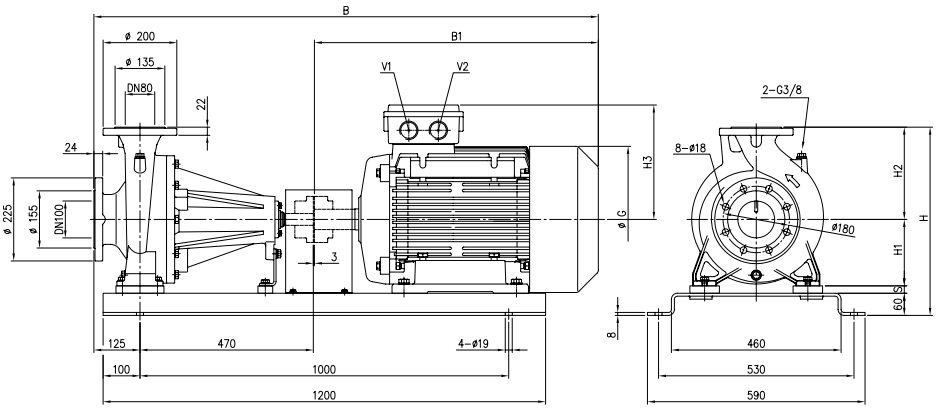
Fig. 1

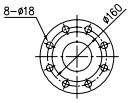
Fig. 2

DIMENSIONAL TABLE

Model	Dimensions [mm]																											Weight
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	H4	R	N1	N2	N3	B	B1	C	G	E	T	S	D4	Sp.	V1	V2	[kg]
65-250/30	80	135	160	200	22	65 Fig. 1	120	185	20	510	200	250	300	60	100	530	590	460	1341	768	470	399	1000	1200	-	19	8	M40x1.5	M40x1.5	354.0
65-250/37	80	135	160	200	22	65 Fig. 1	120	185	20	510	200	250	300	60	100	530	590	460	1341	768	470	399	1000	1200	-	19	8	M40x1.5	M40x1.5	373.0
80-160/11	100	155	180	225	24	80 Fig. 2	135	200	22	455	180	225	238	50	125	380	420	330	1096	608	360	317	800	1000	20	15	5	M40x1.5	M40x1.5	174.8
80-160/15R	100	155	180	225	24	80 Fig. 2	135	200	22	455	180	225	238	50	125	380	420	330	1096	608	360	317	800	1000	20	15	5	M40x1.5	M40x1.5	186.0
80-160/15	100	155	180	225	24	80 Fig. 2	135	200	22	455	180	225	238	50	125	380	420	330	1096	608	360	317	800	1000	20	15	5	M40x1.5	M40x1.5	186.0
80-160/18.5	100	155	180	225	24	80 Fig. 2	135	200	22	455	180	225	238	50	125	380	420	330	1140	652	360	317	800	1000	20	15	5	M40x1.5	M40x1.5	181.2
80-200/22	100	155	180	225	24	80 Fig. 2	135	200	22	490	180	250	268	60	125	530	590	460	1285	687	470	360	1000	1200	-	19	8	M32x1.5	M32x1.5	259.0
80-250/37	100	155	180	225	24	80 Fig. 2	135	200	22	540	200	280	300	60	125	530	590	460	1366	768	470	399	1000	1200	-	19	8	M40x1.5	M40x1.5	377.0

3LP 80 - 30 ÷ 45 kW — 2 Poles





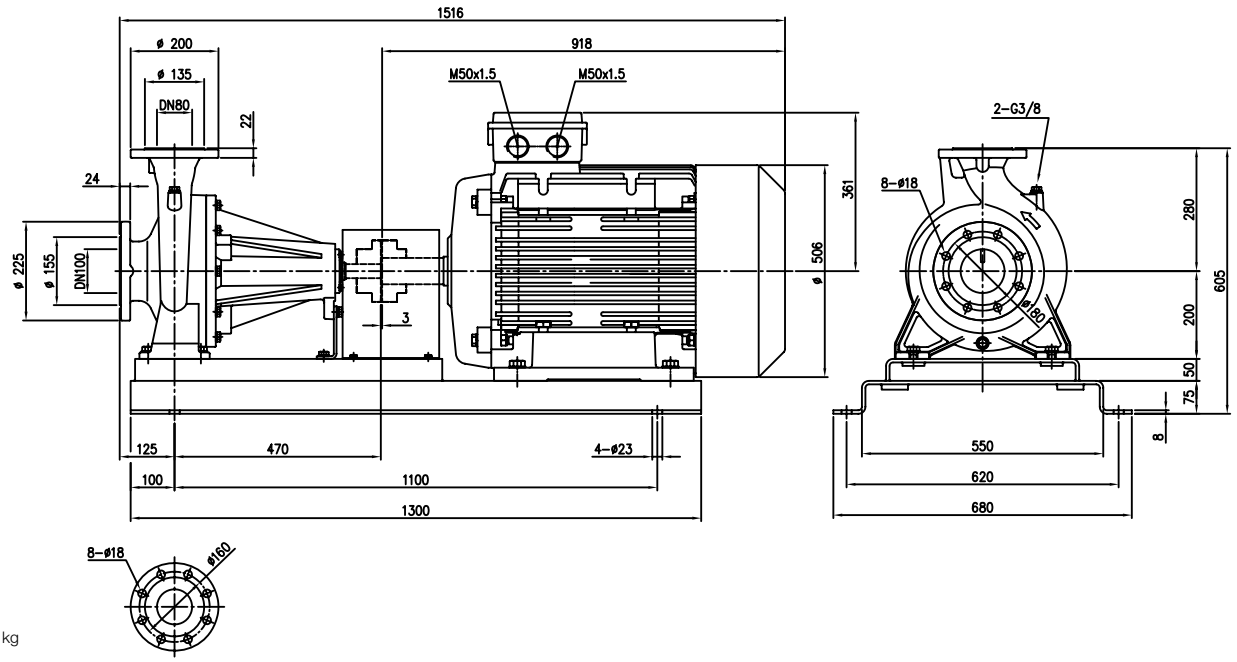
DIMENSIONAL TABLE

Model	Dimensions [mm]									Weight
	H	H1	H2	H3	B	B1	G	S	V1	V2	[kg]
80-200/30	510	180	250	300	1366	768	399	20	M40x1.5	M40x1.5	356.0
80-200/37	510	180	250	300	1366	768	399	20	M40x1.5	M40x1.5	365.0
80-250/45	565	200	280	335	1407	809	465	25	M50x1.5	M50x1.5	440.0

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LP 80-250/55 **2 Poles**

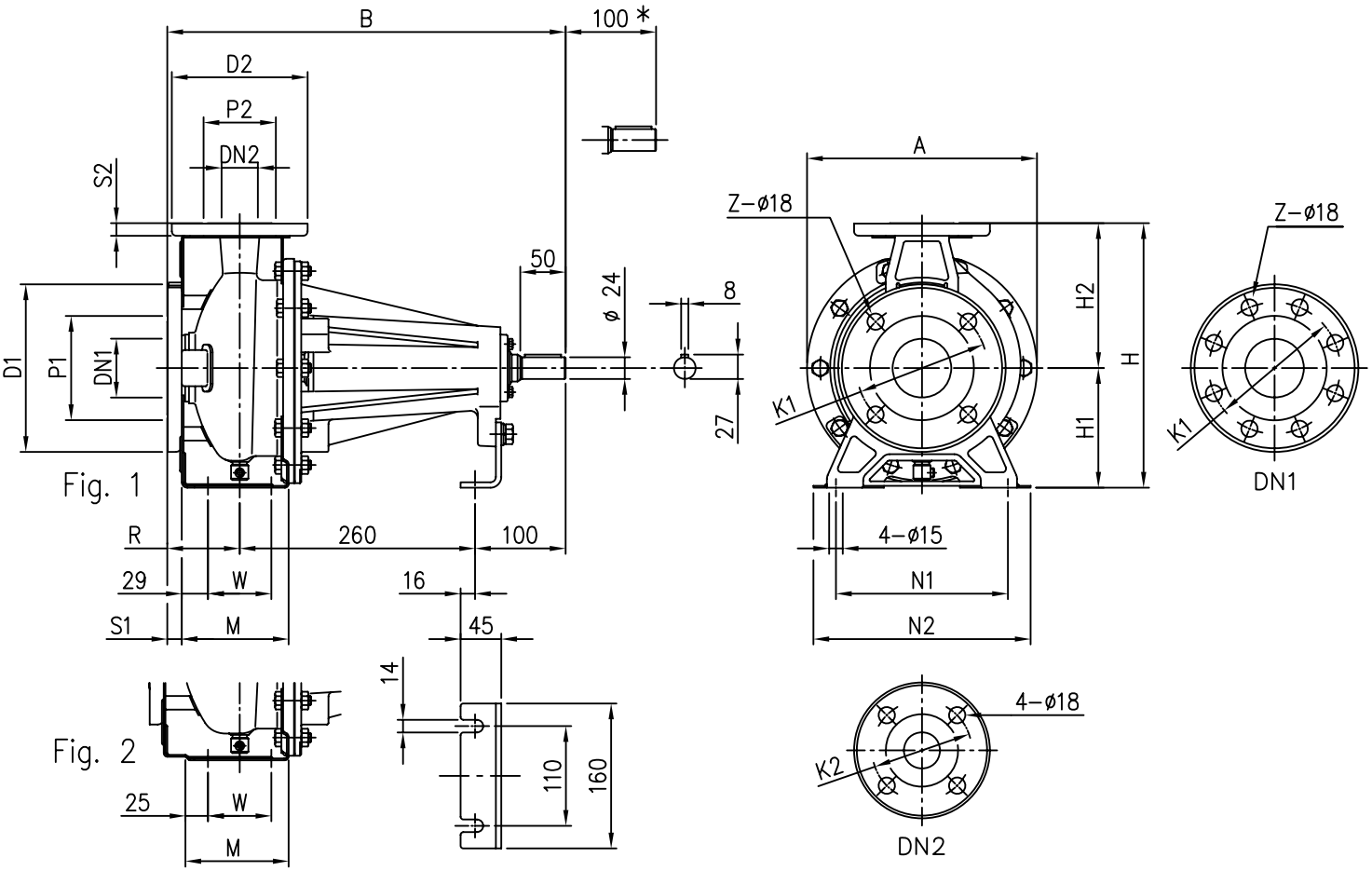


Weight IE3

80-250/55: 528 kg

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)PF 32, 40, 50, 65 **2 Poles**



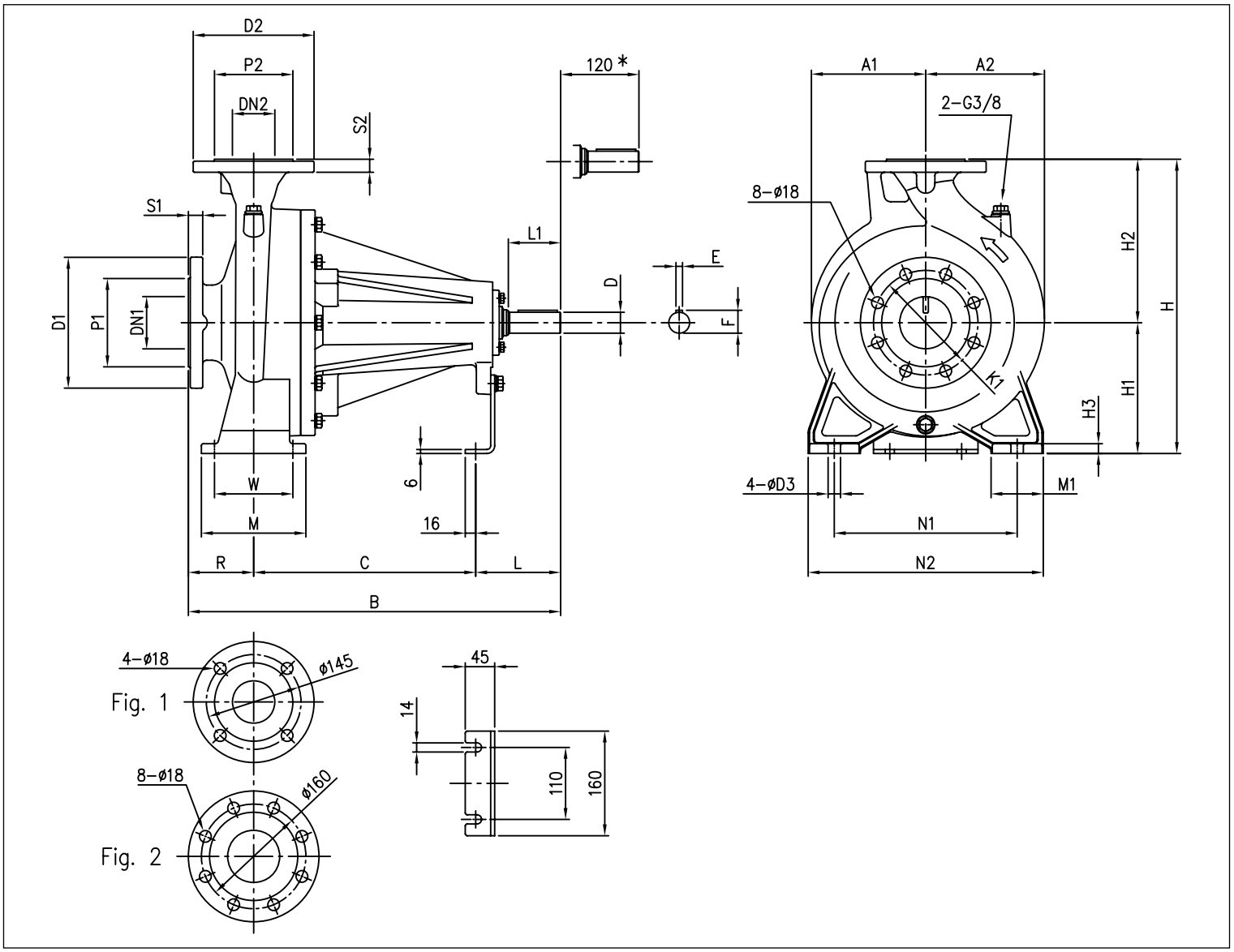
DIMENSIONAL TABLE

Model	Fig.	Dimensions [mm] DN1	P1	K1	D1	S1	Z [1]	Z [2]	DN2	P2	K2	D2	S2	H	H1	H2	M	N1	N2	R	W	A	B	Weight [kg]
32-125	1	50	95	125	165	16	4	-	32	75	100	140	14	252	112	140	114	140	190	80	70	213	440	17.0
32-160	1	50	95	125	165	16	4	-	32	75	100	140	14	292	132	160	118	190	240	80	70	254	440	19.0
32-200	1	50	95	125	165	16	4	-	32	75	100	140	14	340	160	180	119	190	240	80	70	296	440	27.0
40-125	1	65	115	145	185	16	4	-	40	80	110	150	14	252	112	140	114	160	210	80	70	213	440	17.0
40-160	1	65	115	145	185	16	4	-	40	80	110	150	14	292	132	160	118	190	240	80	70	254	440	19.0
40-200	2	65	115	145	185	16	4	-	40	80	110	150	14	340	160	180	115	212	265	100	70	296	460	27.0
50-125	2	65	115	145	185	16	4	-	50	95	125	165	16	292	132	160	114	190	240	100	70	254	460	19.0
50-160	2	65	115	145	185	16	4	-	50	95	125	165	16	340	160	180	115	212	265	100	70	296	460	28.0
50-200	2	65	115	145	185	16	4	-	50	95	125	165	16	360	160	200	115	212	265	100	70	296	460	27.0
65-125	2	80	134	160	200	18	8	4	65	115	145	185	16	340	160	180	140	212	280	100	95	254	460	28.0
65-160	2	80	134	160	200	18	8	4	65	115	145	185	16	360	160	200	140	212	280	100	95	296	460	29.0
65-200	2	80	134	160	200	18	8	4	65	115	145	185	16	405	180	225	140	250	320	100	95	296	460	30.0

[1] Standard [2] On request
* Space where it is possible to disassemble the pump with spacer joint without disassembling the motor.

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)PF 65-250, 80 **2 Poles**



DIMENSIONAL TABLE

Model	Dimensions [mm]																												Weight [kg]
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	R	W	N1	N2	M	M1	L	L1	D	D3	E	F	A1	A2	B	C	
65-250	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	15	100	120	280	360	160	80	130	80	32	19	10	35	175	182	570	340	82.0
80-160	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	13	125	95	250	320	125	65	100	50	24	15	8	27	147	173	485	260	60.0
80-200	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	13	125	95	280	345	125	65	130	80	32	15	10	35	175	182	595	340	83.0
80-250	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	15	125	120	315	400	160	80	130	80	32	19	10	35	175	192	595	340	88.0

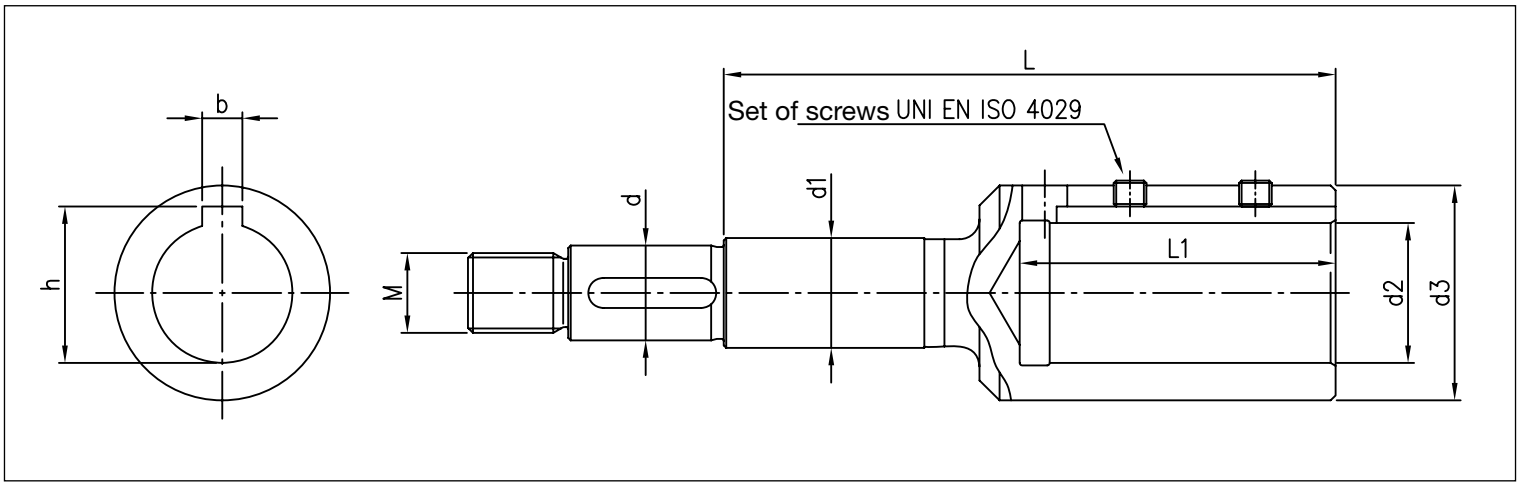
* Space where it is possible to disassemble the pump with spacer joint without disassembling the motor.

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

JOINT FOR 3(L)S SERIES

2 Poles



DIMENSIONAL TABLE

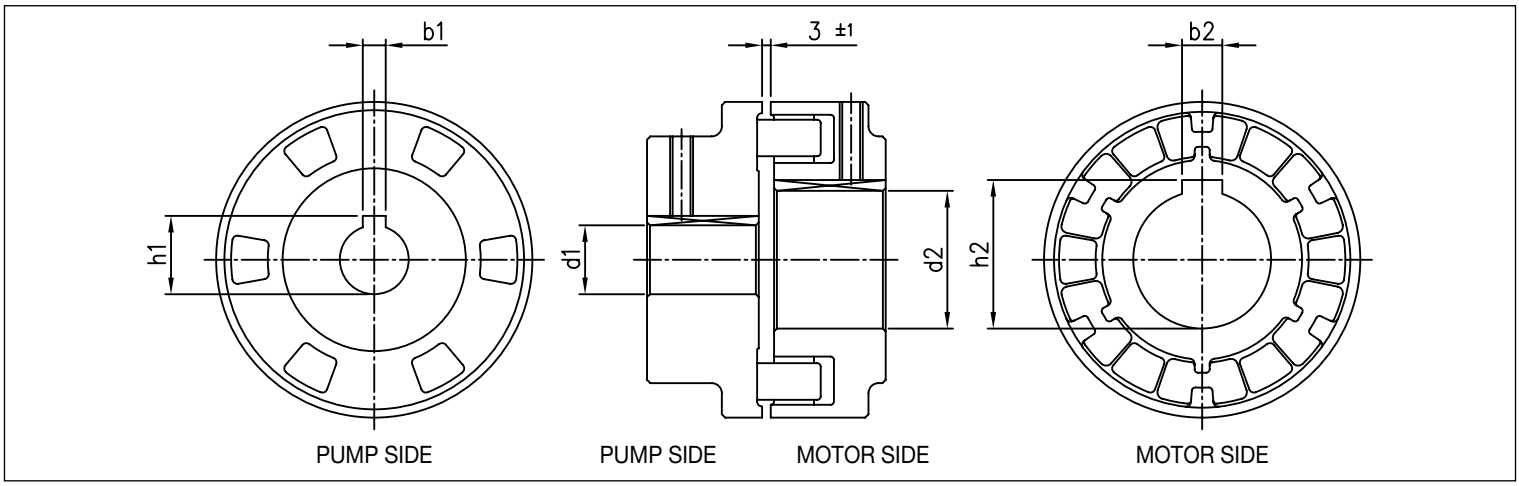
Model	[HP]	[kW]	Motor size	Dimensions [mm]									
				d	d1	d2	d3	M	L	L1	b	h	Screws
32-125/1.1	1.5	1.1	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
32-160/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
32-160/2.2	3	2.2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
32-200/3.0	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
32-200/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
32-200/5.5	7.5	5.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
32-200/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
40-125/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-125/2.2	3	2.2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-160/3.0	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
40-160/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
40-200/5.5	7.5	5.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
40-200/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
40-200/11	15	11	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
50-125/2.2	3	2.2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-125/3.0	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
50-125/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
50-160/5.5	7.5	5.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
50-160/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
50-200/9.2	12.5	9.2	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
50-200/11	15	11	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
50-200/15	20	15	160	22	22	42	63	M18x1.5	209	114	12	45.3	M8x8
65-125/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-125/5.5	7.5	5.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
65-125/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
65-160/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
65-160/9.2	12.5	9.2	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
65-160/11	15	11	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
65-160/15	20	15	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
65-200/15	20	15	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
65-200/18.5	25	18.5	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
65-200/22	30	22	180	24	30	48	72	M20x1.5	184	114	14	51.8	M10x10
65-250/30	40	30	200	24	30	55	85	M20x1.5	184	114	16	59.3	M12x12
65-250/37	50	37	200	24	30	55	85	M20x1.5	184	114	16	59.3	M12x12
80-160/11	15	11	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
80-160/15R	20	15	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
80-160/15	20	15	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
80-160/18.5	25	18.5	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
80-200/22	30	22	180	24	30	48	72	M20x1.5	184	114	14	51.8	M10x10
80-200/30	40	30	200	24	30	55	85	M20x1.5	184	114	16	59.3	M12x12
80-200/37	50	37	200	24	30	55	85	M20x1.5	184	114	16	59.3	M12x12
80-250/37	50	37	200	29	35	55	85	M24x2	206	114	16	59.3	M12x12
80-250/45	60	45	225	29	35	55	85	M24x2	206	114	16	59.3	M12x12
80-250/55	75	55	250	29	35	60	89	M24x2	218	144	18	64.4	M12x12

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

JOINT FOR 3(L)P SERIES

2 Poles



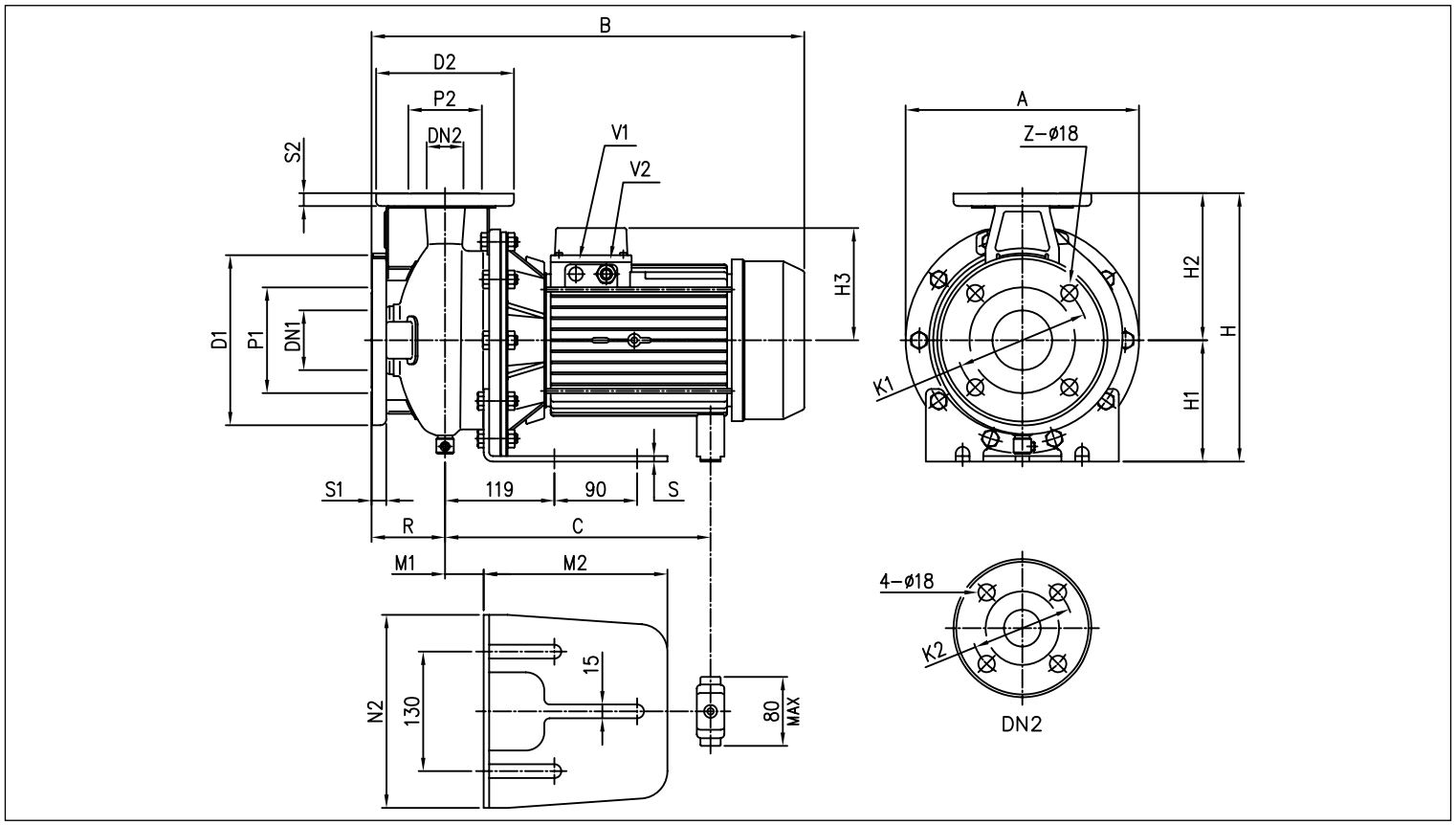
DIMENSIONAL TABLE

Model	[HP]	[kW]	Motor	Dimensions [mm]					
				d1	b1	h1	d2	b2	h2
32-125/1.1	1.5	1.1	80	24	8	27.3	19	6	21.8
32-160/1.5	2	1.5	90	24	8	27.3	24	8	27.3
32-160/2.2	3	2.2	90	24	8	27.3	24	8	27.3
32-200/3.0	4	3	100	24	8	27.3	28	8	31.3
32-200/4.0	5.5	4	112	24	8	27.3	28	8	31.3
32-200/5.5	7.5	5.5	132	24	8	27.3	38	10	41.3
32-200/7.5	10	7.5	132	24	8	27.3	38	10	41.3
40-125/1.5	2	1.5	90	24	8	27.3	24	8	27.3
40-125/2.2	3	2.2	90	24	8	27.3	24	8	27.3
40-160/3.0	4	3	100	24	8	27.3	28	8	31.3
40-160/4.0	5.5	4	112	24	8	27.3	28	8	31.3
40-200/5.5	7.5	5.5	132	24	8	27.3	38	10	41.3
40-200/7.5	10	7.5	132	24	8	27.3	38	10	41.3
40-200/11	15	11	160	24	8	27.3	42	12	45.3
50-125/2.2	3	2.2	90	24	8	27.3	24	8	27.3
50-125/3.0	4	3	100	24	8	27.3	28	8	31.3
50-125/4.0	5.5	4	112	24	8	27.3	28	8	31.3
50-160/5.5	7.5	5.5	132	24	8	27.3	38	10	41.3
50-160/7.5	10	7.5	132	24	8	27.3	38	10	41.3
50-200/9.2	12.5	9.2	132	24	8	27.3	38	10	41.3
50-200/11	15	11	160	24	8	27.3	42	12	45.3
50-200/15	20	15	160	24	8	27.3	42	12	45.3
65-125/4.0	5.5	4	112	24	8	27.3	28	8	31.3
65-125/5.5	7.5	5.5	132	24	8	27.3	38	10	41.3
65-125/7.5	10	7.5	132	24	8	27.3	38	10	41.3
65-160/7.5	10	7.5	132	24	8	27.3	38	10	41.3
65-160/9.2	12.5	9.2	132	24	8	27.3	38	10	41.3
65-160/11	15	11	160	24	8	27.3	42	12	45.3
65-160/15	20	15	160	24	8	27.3	42	12	45.3
65-200/15	20	15	160	24	8	27.3	42	12	45.3
65-200/18.5	25	18.5	160	24	8	27.3	42	12	45.3
65-200/22	30	22	180	24	8	27.3	48	14	51.8
65-250/30	40	30	200	32	10	35.3	55	16	59.3
65-250/37	50	37	200	32	10	35.3	55	16	59.3
80-160/11	15	11	160	24	8	27.3	42	12	45.3
80-160/15R	20	15	160	24	8	27.3	42	12	45.3
80-160/15	20	15	160	24	8	27.3	42	12	45.3
80-160/18.5	25	18.5	160	24	8	27.3	42	12	45.3
80-200/22	30	22	180	32	10	35.3	48	14	51.8
80-200/30	40	30	200	32	10	35.3	55	16	59.3
80-200/37	50	37	200	32	10	35.3	55	16	59.3
80-250/37	50	37	200	32	10	35.3	55	16	59.3
80-250/45	60	45	225	32	10	35.3	55	16	59.3
80-250/55	75	55	250	32	10	35.3	60	18	64.4

3Z SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LMZ 32, 40, 50-125, 50-160, 50-200/9.2/11 - 65-125, 65-160/7.5/9.2/11



DIMENSIONAL TABLE

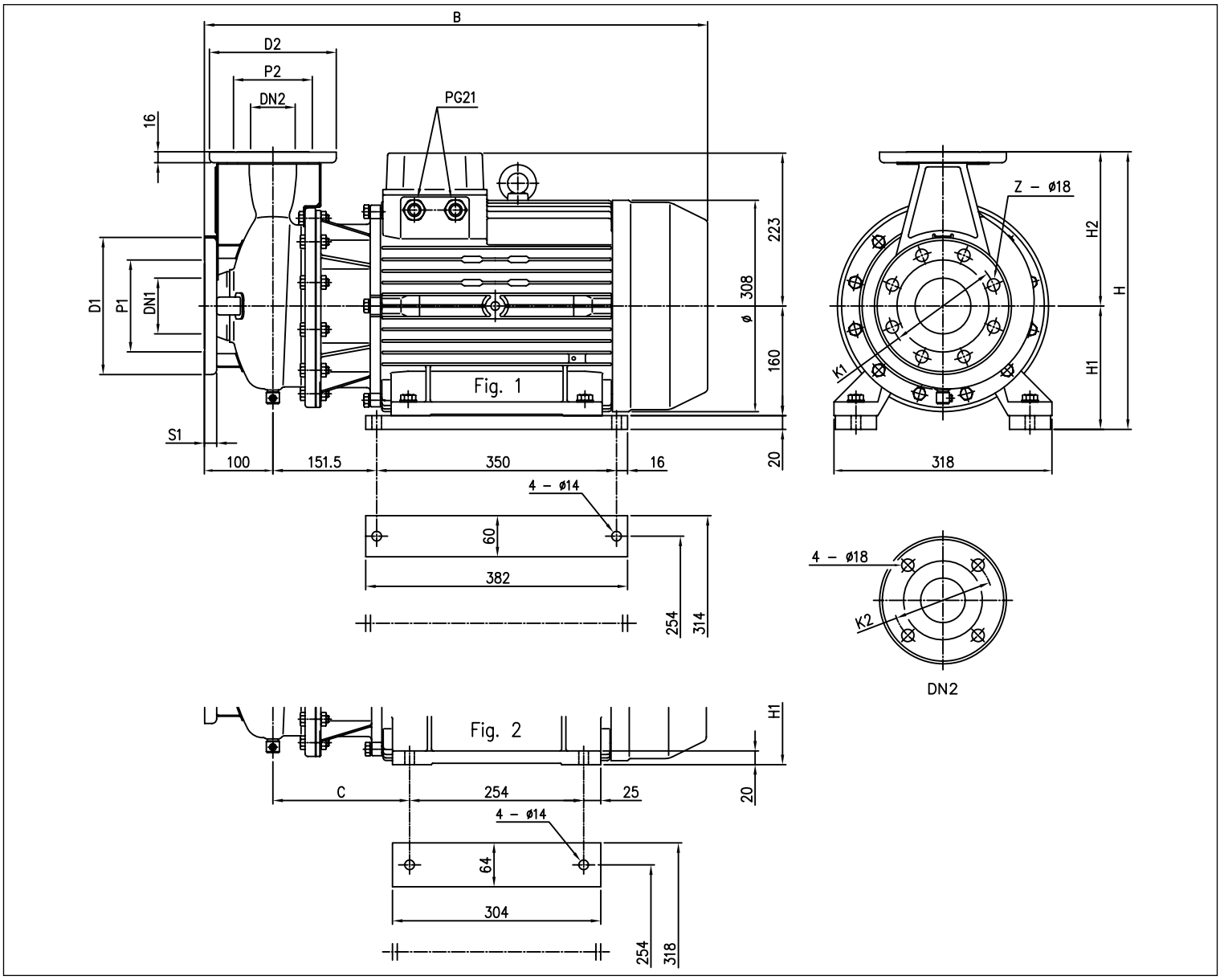
Model	Dimensions [mm]																													Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	*	R	M1	M2	S	N2	A	B	*	C	V1	*	V2	*		
32-125/1.1	50	95	125	165	16	4	32	75	100	140	14	252	112	140	124	119	80	32.5	212	6	190	213	407	431	-	-	-	PG 13.5	M20x1.5	24.1	24.1
32-160/1.5	50	95	125	165	16	4	32	75	100	140	14	292	132	160	124	119	80	42	200	6	210	254	407	431	-	-	-	PG 13.5	M20x1.5	27.0	27.0
32-160/2.2	50	95	125	165	16	4	32	75	100	140	14	292	132	160	124	119	80	42	200	6	210	254	432	431	-	-	-	PG 13.5	M20x1.5	28.0	28.0
32-200/3.0	50	95	125	165	16	4	32	75	100	140	14	340	160	180	124	124	80	39	205	8	220	296	471	471	-	-	-	PG 13.5	M20x1.5	35.1	35.1
32-200/4.0	50	95	125	165	16	4	32	75	100	140	14	340	160	180	141	141	80	39	205	8	220	296	494	494	-	-	-	PG 16	M20x1.5	38.2	38.2
32-200/5.5	50	95	125	165	16	4	32	75	100	140	14	340	160	180	150	150	80	39	205	8	220	296	519	519	-	PG 13.5	M20x1.5	PG 16	M25x 1.5	52.2	52.2
32-200/7.5	50	95	125	165	16	4	32	75	100	140	14	340	160	180	150	150	80	39	205	8	220	296	-	539	275	-	PG 13.5	-	PG 16	-	60.1
40-125/1.5	65	115	145	185	16	4	40	80	110	150	14	252	112	140	124	119	80	32.5	212	6	190	213	407	431	-	-	-	PG 13.5	M20x1.5	24.6	24.6
40-125/2.2	65	115	145	185	16	4	40	80	110	150	14	252	112	140	124	119	80	32.5	212	6	190	213	432	431	-	-	-	PG 13.5	M20x1.5	26.1	26.1
40-160/3.0	65	115	145	185	16	4	40	80	110	150	14	292	132	160	124	124	80	42	200	6	210	254	471	471	-	-	-	PG 13.5	M20x1.5	26.6	26.6
40-160/4.0	65	115	145	185	16	4	40	80	110	150	14	292	132	160	141	141	80	42	200	6	210	254	494	491	-	-	-	PG 16	M20x1.5	40.8	40.8
40-200/5.5	65	115	145	185	16	4	40	80	110	150	14	340	160	180	150	150	100	39	205	8	220	296	539	539	-	PG 13.5	M20x1.5	PG 16	M25x 1.5	52.5	52.5
40-200/7.5	65	115	145	185	16	4	40	80	110	150	14	340	160	180	150	150	100	39	205	8	220	296	-	559	275	-	PG 13.5	-	PG 16	-	59.3
40-200/11	65	115	145	185	16	4	40	80	110	150	14	340	160	180	178	178	100	39	205	8	220	296	-	595	359	-	PG 13.5	-	PG 21	-	69.6
50-125/2.2	65	115	145	185	16	4	50	95	125	165	16	292	132	160	124	119	100	42	200	6	210	254	452	451	-	-	-	PG 13.5	M20x1.5	32.0	32.0
50-125/3.0	65	115	145	185	16	4	50	95	125	165	16	292	132	160	124	124	100	42	200	6	210	254	491	491	-	-	-	PG 13.5	M20x1.5	30.9	30.9
50-125/4.0	65	115	145	185	16	4	50	95	125	165	16	292	132	160	141	141	100	42	200	6	210	254	514	514	-	-	-	PG 16	M20x1.5	40.9	40.9
50-160/5.5	65	115	145	185	16	4	50	95	125	165	16	340	160	180	150	150	100	39	205	8	220	296	539	539	-	PG 13.5	M20x1.5	PG 16	M25x 1.5	46.5	46.5
50-160/7.5	65	115	145	185	16	4	50	95	125	165	16	340	160	180	150	150	100	39	205	8	220	296	-	559	275	-	PG 13.5	-	PG 16	-	58.6
50-200/9.2	65	115	145	185	16	4	50	95	125	165	16	360	160	200	178	178	100	39	205	8	220	296	-	595	359	-	PG 13.5	-	PG 21	-	63.9
50-200/11	65	115	145	185	16	4	50	95	125	165	16	360	160	200	178	178	100	39	205	8	220	296	-	595	359	-	PG 13.5	-	PG 21	-	69.6
65-125/4	80	134	160	200	18	8	65	115	145	185	16	340	160	180	141	141	100	42	200	6	210	254	514	514	-	-	-	PG 16	M20x1.5	37.7	37.7
65-125/5.5	80	134	160	200	18	8	65	115	145	185	16	340	160	180	150	150	100	42	200	6	210	254	539	539	-	PG 13.5	M20x1.5	PG 16	M25x 1.5	48.7	48.7
65-125/7.5	80	134	160	200	18	8	65	115	145	185	16	340	160	180	150	150	100	42	200	6	210	254	-	559	275	-	PG 13.5	-	PG 16	-	52.1
65-160/7.5	80	134	160	200	18	8	65	115	145	185	16	360	160	200	150	150	100	39	205	8	220	296	-	559	275	-	PG 13.5	-	PG 16	-	55.3
65-160/9.2	80	134	160	200	18	8	65	115	145	185	16	360	160	200	178	178	100	39	205	8	220	296	-	595	359	-	PG 13.5	-	PG 21	-	61.0
65-160/11	80	134	160	200	18	8	65	115	145	185	16	360	160	200	178	178	100	39	205	8	220	296	-	595	359	-	PG 13.5	-	PG 21	-	67.4

* Models with IE3 motor only

3Z SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LMZ 50-200/15, 65-160/15, 65-200



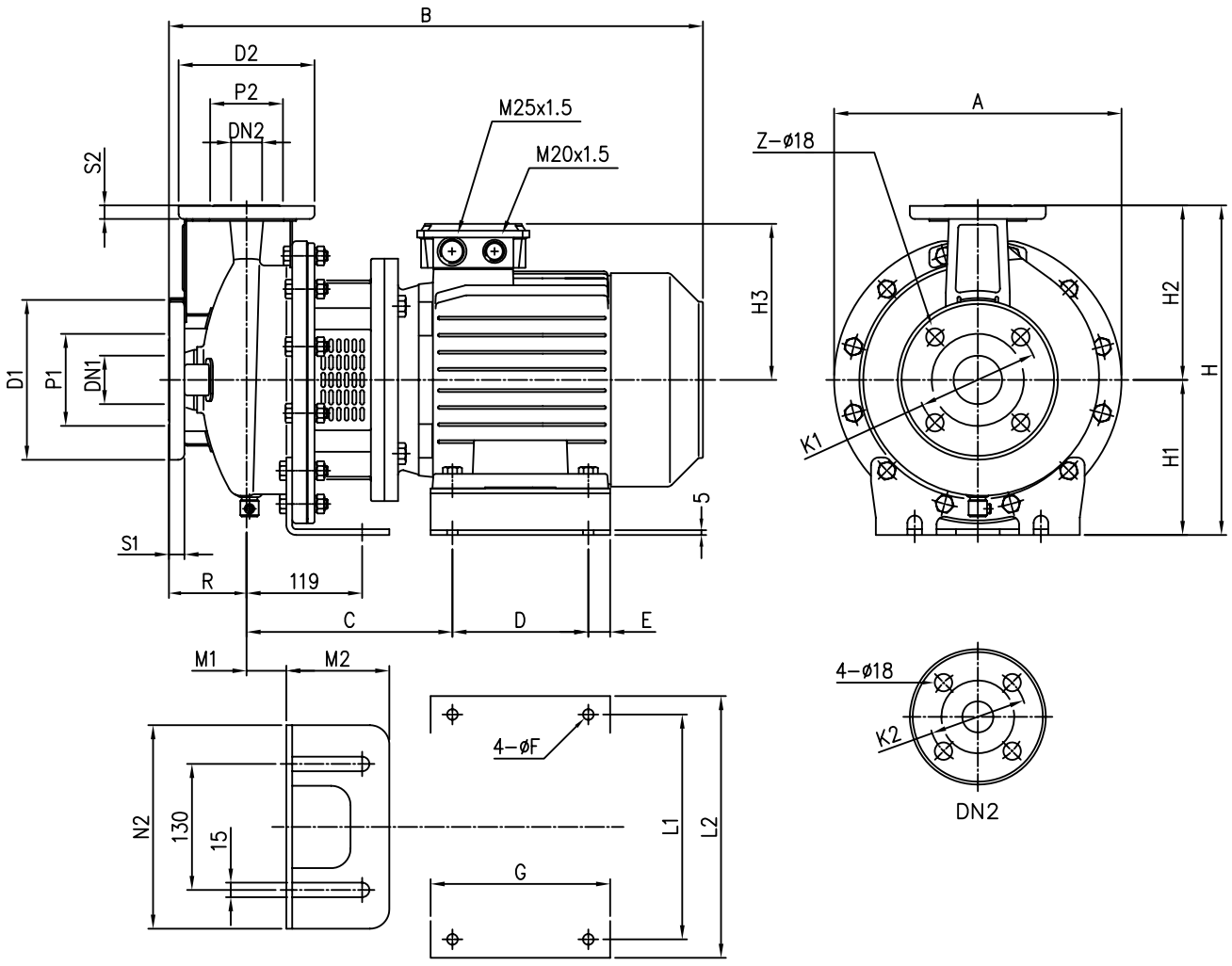
DIMENSIONAL TABLE

Model	Dimensions [mm]																Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	Fig.	H	H1	H2	B	C	
50-200/15	65	115	145	185	16	4	50	95	125	165	2	360	160	200	723	190.5	105.1
65-160/15	80	134	160	200	18	8	65	115	145	185	2	360	160	200	732	199.5	107.1
65-200/15	80	134	160	200	18	8	65	115	145	185	1	405	180	225	732	-	110.1
65-200/18.5	80	134	160	200	18	8	65	115	145	185	1	405	180	225	732	-	125.3
65-200/22	80	134	160	200	18	8	65	115	145	185	1	405	180	225	732	-	136.1

* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LSZ 32-125/160, 32-200/3/4, 50-125/2.2, 65-125/4



DIMENSIONAL TABLE

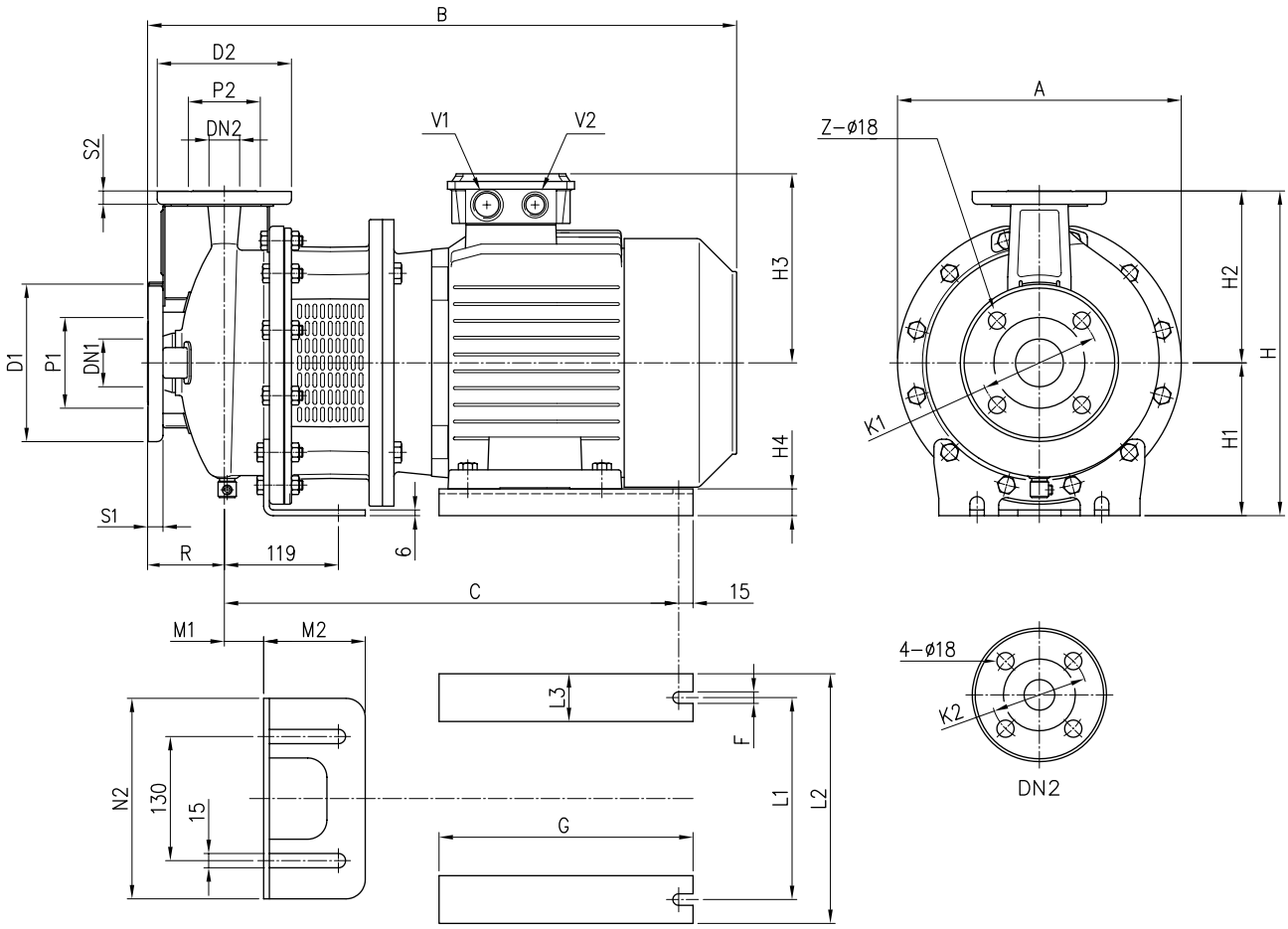
Model	Dimensions [mm]																											Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	A	B	C	D	E	F Ø	G	L1	L2	M1	M2	N2		*
32-125/1.1	50	95	125	165	16	4	32	75	100	140	14	252	112	140	139	80	213	430	168	100	15	9	130	205	225	32.5	117	190	23.1	24.7
32-160/1.5	50	95	125	165	16	4	32	75	100	140	14	292	132	160	148	80	254	477	186	125	25	9	170	210	230	42	105	210	29.8	29.8
32-160/2.2	50	95	125	165	16	4	32	75	100	140	14	292	132	160	148	80	254	477	186	125	25	9	170	210	230	42	105	210	32.4	32.4
32-200/3.0	50	95	125	165	16	4	32	75	100	140	14	340	160	180	155	80	296	528	205	140	22.5	11	185	160	202	41	106	210	46.9	46.9
32-200/4.0	50	95	125	165	16	4	32	75	100	140	14	340	160	180	171	80	296	550	212	140	22.5	11	185	190	228	41	106	210	49.0	49.0
50-125/2.2	65	115	145	185	16	4	50	95	125	165	16	292	132	160	148	100	254	497	186	125	25	9	170	210	230	42	105	210	32.9	32.9
65-125/4.0	80	134	160	200	18	8	65	115	145	185	16	340	160	180	171	100	254	570	212	140	22.5	11	185	190	228	42	105	210	50.1	50.1

* Models with IE3 motor only

3Z SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LSZ 32-200/5.5/7.5, 40-125/160, 40-200/5.5/7.5, 50-125/3/4, 50-160, 50-200/9.2, 65-125/5.5/7.5, 65-160/7.5/9.2



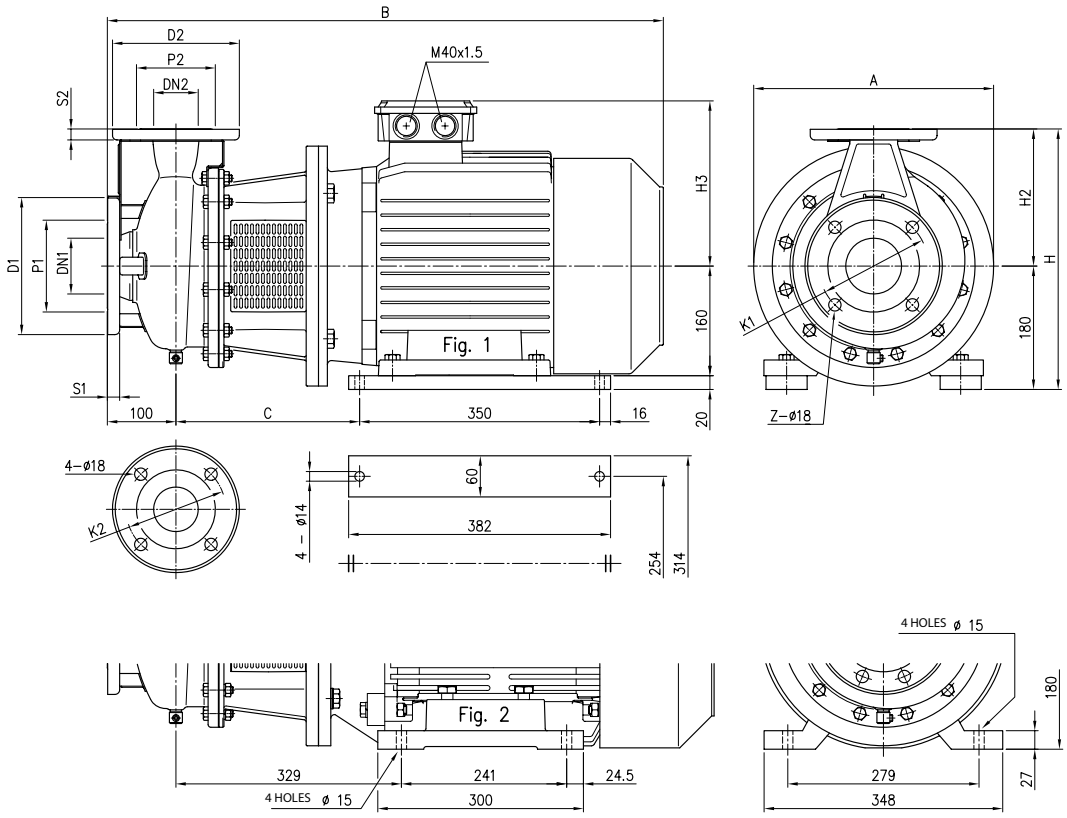
DIMENSIONAL TABLE

Model	Dimensions [mm]																												Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	H4	R	A	B	C	F	G Ø	L1	L2	L3	M1	M2	N2		*
32-200/5.5	50	95	125	165	16	4	32	75	100	140	14	340	160	180	198	28	80	300	607	479	12	270	216	266	50	41	106	210	71.8	71.8
32-200/7.5	50	95	125	165	16	4	32	75	100	140	14	340	160	180	198	28	80	300	607	479	12	270	216	266	50	41	106	210	-	87.0
40-125/1.5	65	115	145	185	16	4	40	80	110	150	14	252	112	140	148	22	80	213	477	342	10	186	140	185	45	32.5	117	190	26.5	26.5
40-125/2.2	65	115	145	185	16	4	40	80	110	150	14	252	112	140	148	22	80	213	477	342	10	186	140	185	40	32.5	117	190	29.5	29.5
40-160/3.0	65	115	145	185	16	4	40	80	110	150	14	292	132	160	155	32	80	254	528	387.5	12	220	160	200	50	42	105	210	42.5	42.5
40-160/4.0	65	115	145	185	16	4	40	80	110	150	14	292	132	160	171	20	80	254	550	394.5	12	220	190	240	50	42	105	210	44.6	44.6
40-200/5.5	65	115	145	185	16	4	40	80	110	150	14	340	160	180	198	28	100	300	627	479	12	270	216	266	50	41	106	210	72.2	72.2
40-200/7.5	65	115	145	185	16	4	40	80	110	150	14	340	160	180	198	28	100	300	627	479	12	270	216	266	40	41	106	210	-	82.0
50-125/3.0	65	115	145	185	16	4	50	95	125	165	16	292	132	160	155	32	100	254	548	387.5	12	220	160	200	50	42	105	210	35.5	35.5
50-125/4.0	65	115	145	185	16	4	50	95	125	165	16	292	132	160	171	20	100	254	570	394.5	12	220	190	240	50	42	105	210	45.6	45.6
50-160/5.5	65	115	145	185	16	4	50	95	125	165	16	340	160	180	198	28	100	300	627	479	12	270	216	266	50	41	106	210	63.8	63.8
50-160/7.5	65	115	145	185	16	4	50	95	125	165	16	340	160	180	198	28	100	300	627	479	12	270	216	266	50	41	106	210	-	91.0
50-200/9.2	65	115	145	185	16	4	50	95	125	165	16	360	160	200	198	28	100	300	667	479	12	270	216	266	50	41	106	210	-	90.7
65-125/5.5	80	134	160	200	18	8	65	115	145	185	16	340	160	180	198	28	100	300	627	479	12	270	216	266	50	42	105	210	60.0	60.0
65-125/7.5	80	134	160	200	18	8	65	115	145	185	16	340	160	180	198	28	100	300	627	479	12	270	216	266	50	42	105	210	-	79.4
65-160/7.5	80	134	160	200	18	8	65	115	145	185	16	360	160	200	198	28	100	300	627	479	12	270	216	266	50	41	106	210	-	82.4
65-160/9.2	80	134	160	200	18	8	65	115	145	185	16	360	160	200	198	28	100	300	667	479	12	270	216	266	50	41	106	210	-	88.0

* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LSZ 40-200/11, 50-200/11/15, 65-160/11/15, 62-200



DIMENSIONAL TABLE

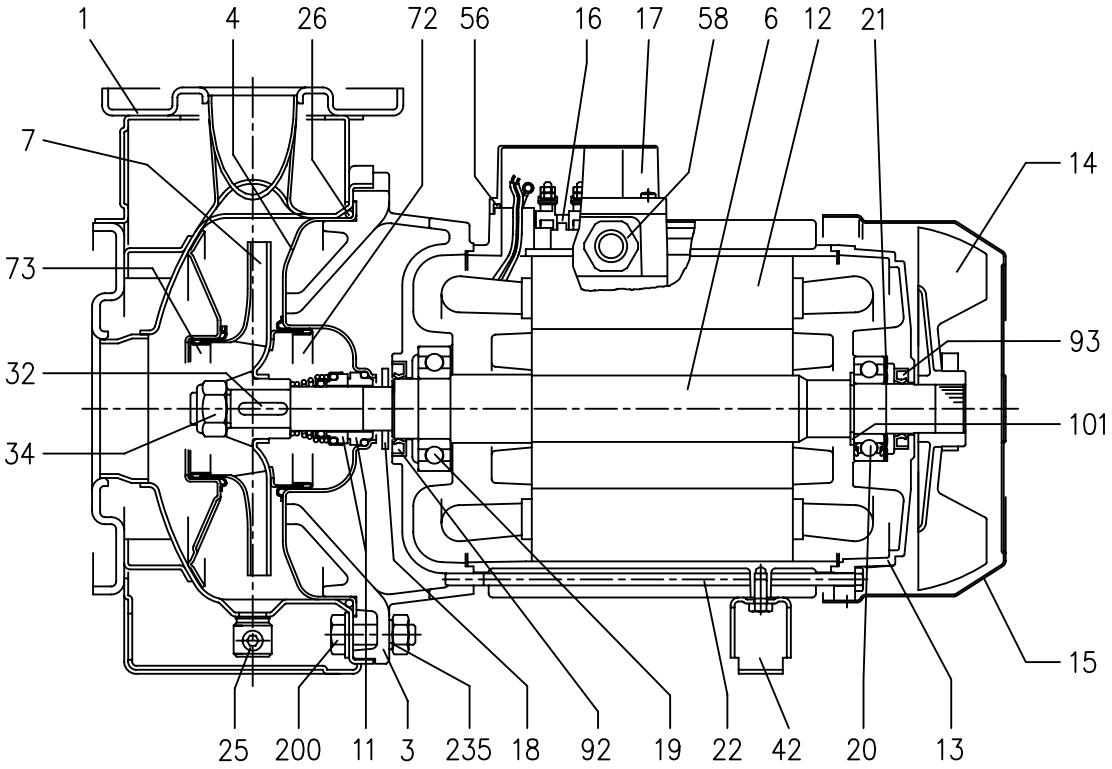
Model	Dimensions [mm]																		Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H2	H3	A	B	C	
40-200/11	65	115	145	185	16	4	40	80	110	150	14	1	360	180	238	350	796	258	117.8
50-200/11	65	115	145	185	16	4	50	95	125	165	16	1	380	200	238	350	796	258	117.8
50-200/15	65	115	145	185	16	4	50	95	125	165	16	1	380	200	238	350	796	258	147.9
65-160/11	80	134	160	200	18	8	65	115	145	185	16	1	380	200	238	350	796	258	86.8
65-160/15	80	134	160	200	18	8	65	115	145	185	16	1	380	200	238	350	806	268	120.9
65-200/15	80	134	160	200	18	8	65	115	145	185	16	1	405	225	238	350	806	268	138.0
65-200/18.5	80	134	160	200	18	8	65	115	145	185	16	1	405	225	238	350	850	268	137.2
65-200/22	80	134	160	200	18	8	65	115	145	185	16	2	405	225	268	360	885	-	175.0

* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

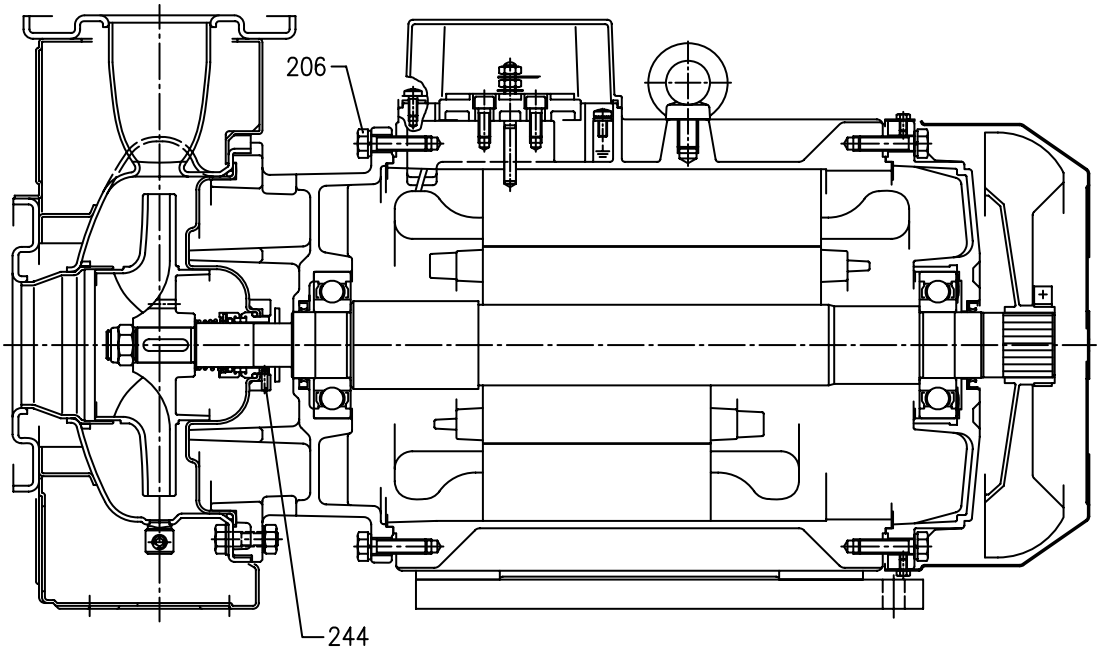
SECTIONAL VIEW 3(L)M 32, 40, 50, 65 SERIES - up to 11 kW

2 Poles



SECTIONAL VIEW 3(L)M 32, 40, 50, 65 SERIES - of 15 kW and over

2 Poles



3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

MATERIALS TABLE

Ref.	Name	Materials	
		3M	3LM
001	Pump casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket	[4]	
004	Casing cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Shaft	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
007	Impeller	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
011	Mechanical seal std	Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
012	Motor frame	-	
013	Motor cover	Aluminium	
014	Fan	PA	
015	Fan cover	Galvanised steel Fe P04	
016	Terminal Box	-	
017	Terminal Box cover	Aluminium (three phase version)	
018	Splash washer	NBR	-
019	Bearing (pump side)	-	
020	Bearing (motor side)	-	
021	Adjustment ring	Steel C70	
022	Tie-rod	Galvanised steel Fe 42	
	Screw	Galvanised steel	
025	Plug	EN 1.4401 (AISI 316) / PTFE	
026	O-Ring	NBR	FKM
032	Key	EN 1.4401 (AISI 316)	
034	Impeller nut	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support	Aluminium / Galvanised steel	
056	Terminal box gasket	NBR	
058	Cable gland	-	
072	Casing ring [1]	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
092	Seal ring	-	-
093	Seal ring	-	-
101	Seeger ring	Carbon steel TC 80	
200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1	
206	Support screw [2]	Galvanised steel	
244	Plug [3]	-	EN 1.4301 (AISI 304)

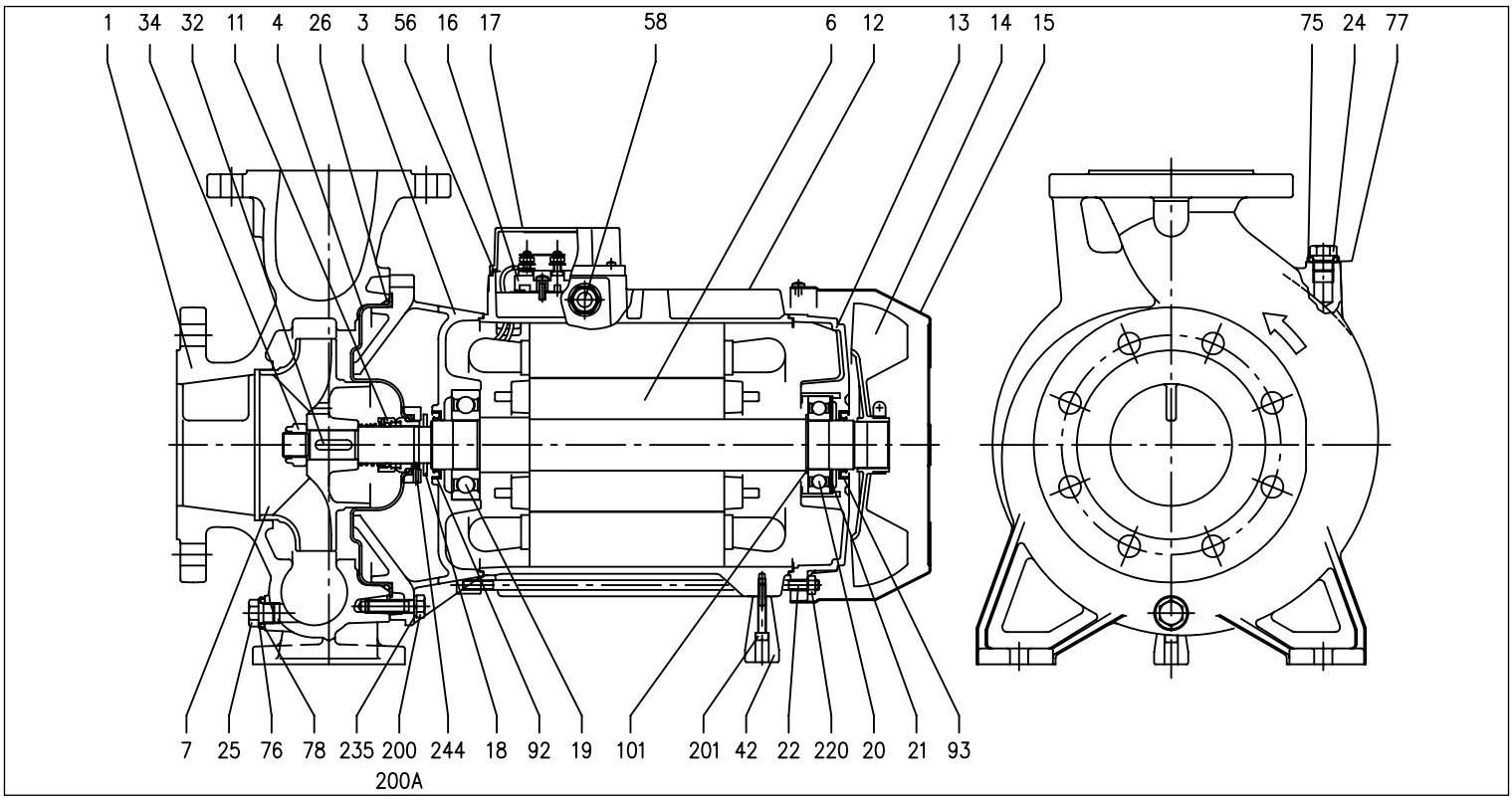
[1]= For 32-200/3, 32-200/4, 32-200/5.5, 40-200/5.5, 40-200/7.5, 40-200/11, 50-160/5.5, 50-160/7.5, 50-200/9.2, 50-200/11, 50-200/15
[2]= For 15 kW and over
[3]= Only for 65-160/15 and 65-200
[4]= Cast iron EN-GJL-200-EN 1561 for 32-200/3 and for models with 15, 18,5 and 22 kW motors
Aluminium AL-EN-1706-AC-46000-D for the other models

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

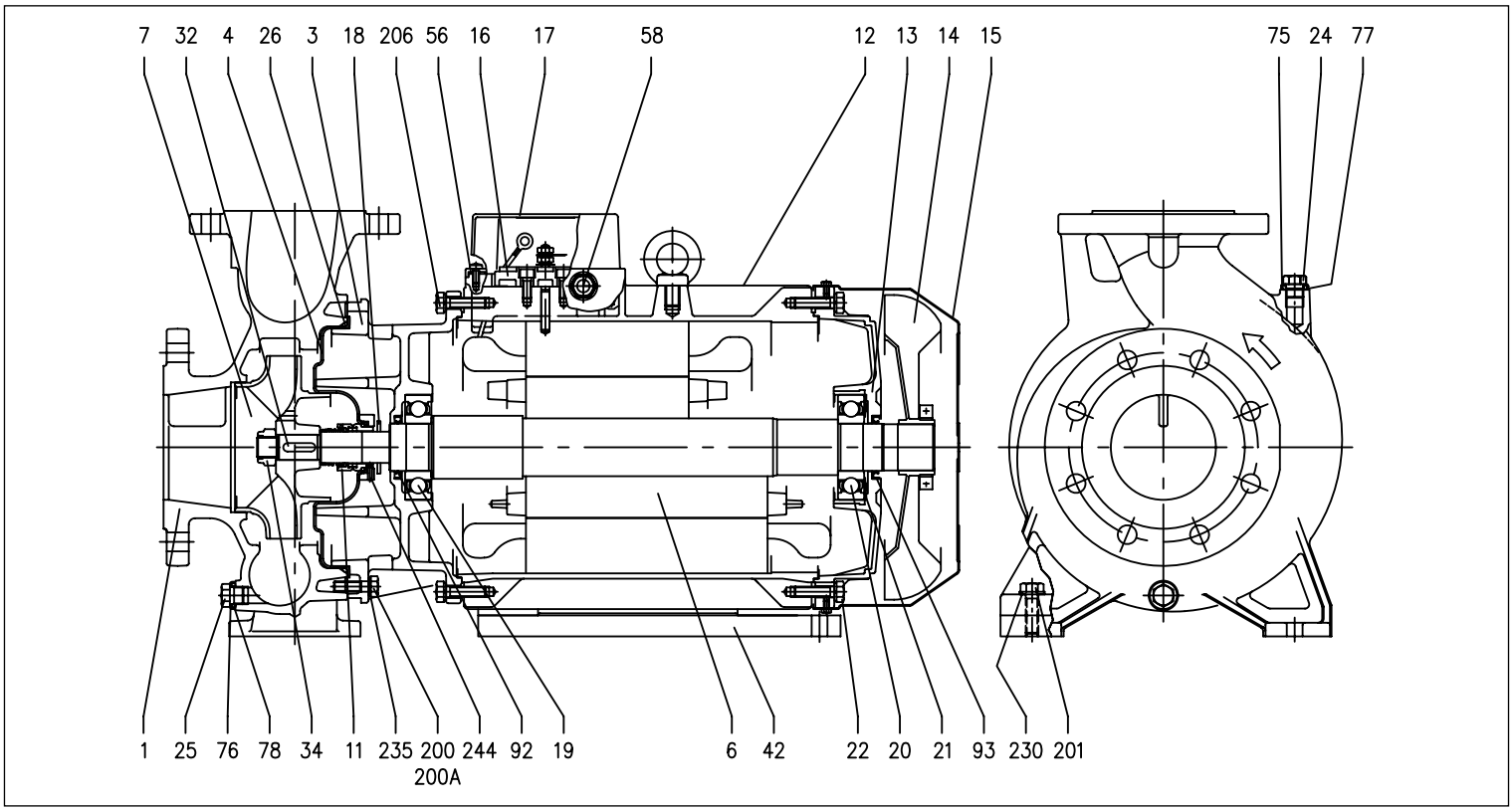
SECTIONAL VIEW 3LM 80-160/11 SERIES

2 Poles



SECTIONAL VIEW 3LM 80-160/15R SERIES

2 Poles



3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	032	Key	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	034	Impeller nut	Aluminium
004	Casing cover	EN 1.4404 (AISI 316L)	042	Motor support	Aluminium
006	Shaft	EN 1.4404 (AISI 316L) Part in contact with the liquid	056	Terminal box gasket	NBR
007	Impeller	EN 1.4401 (AISI 316)	058	Cable gland	-
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	075	Washer	EN 1.4404 (AISI 316L)
012	Motor frame	-	076	Washer	EN 1.4404 (AISI 316L)
013	Motor cover	Aluminium	077	O-Ring	FKM
014	Fan	PA	078	O-Ring	
015	Fan cover	Galvanised steel Fe P04	092	Seal ring (11 kW, 15-18 .5 kW)	-
016	Terminal Box	-	093	Seal ring (11 kW, 15-18 .5 kW)	-
017	Terminal Box cover	Aluminium	101	Seeger ring (only for 11 kW)	Carbon steel TC 80
018	Splash washer	NBR	200	Screw (pump body)	Stainless steel A2-70/1 class ISO 3506/1
019	Bearing (pump side)	-	201	Screw (11 kW, 15-18.5 kW)	Stainless steel A2-70/1 class ISO 3506/1
020	Bearing (motor side)	-	206	Motor bracket screw (only for 15-18.5 kW)	Galvanised steel
021	Adjustment ring	Steel C70	220	Tie-rod nut (only for 11 kW)	Galvanised steel
022	Tie-rod	Galvanised steel	230	Washer (15-18.5 kW)	Galvanised steel
024	Plug	EN 1.4404 (AISI 316L)	235	Washer	EN 1.4301(AISI 304)
025	Plug	EN 1.4404 (AISI 316L)	244	Plug [1]	EN 1.4301(AISI 304)
026	O-Ring	FKM			

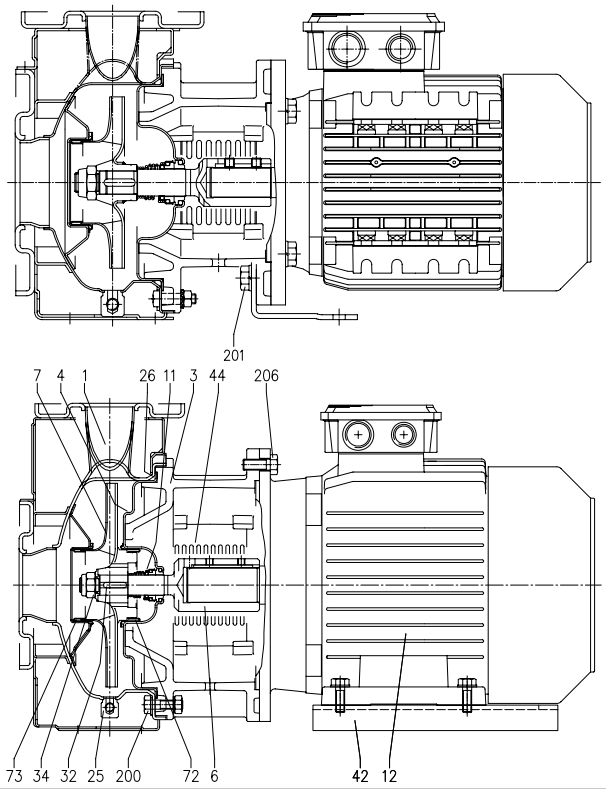
[1]= Not for H and E versions

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

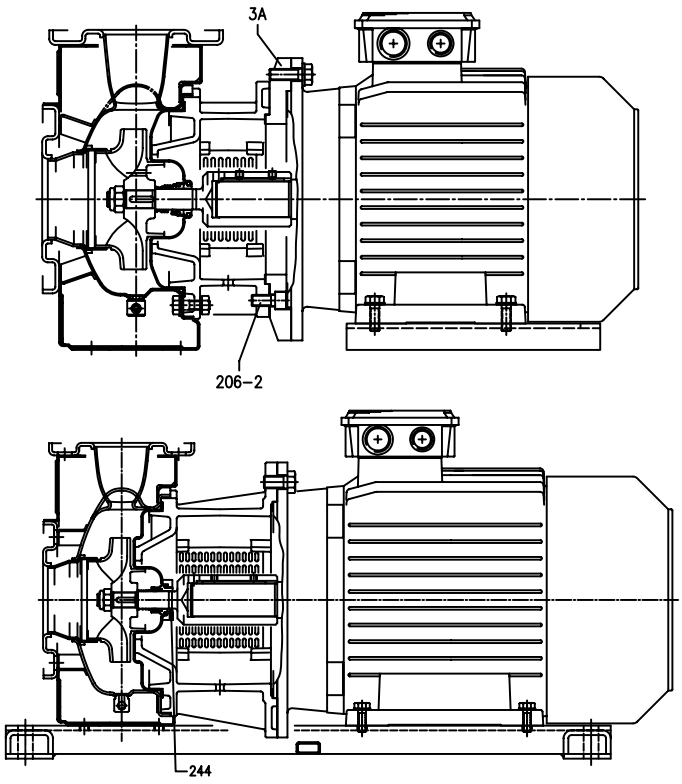
SECTIONAL VIEW 3(L)S 32, 40, 50 SERIES

2 Poles



SECTIONAL VIEW 3(L)S 65 SERIES

2 Poles



3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

MATERIALS TABLE

Ref.	Name	Materials	
		3S	3LS
001	Pump casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	
003A	Adapter ring [1]	Cast iron EN-GJL-200-EN 1561	
004	Casing cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Joint - Part in contact with the liquid	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
007	Impeller	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
011	Mechanical seal	Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
012	Motor	-	
025	Plug	EN 1.4401 (AISI 316) / PTFE	
026	O-Ring	NBR	FKM
032	Key	EN 1.4401 (AISI 316)	
034	Impeller nut	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support	Aluminium / Galvanised steel	
044	Support protection	EN 1.4301 (AISI 304)	
072	Casing ring [2]	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring (not for 65)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1	
201	Screw	Galvanised steel	
206	Support screw	Galvanised steel	
206-2	Adapter ring screw	Galvanised steel	
244	Plug [3]	-	EN 1.4301 (AISI 304)

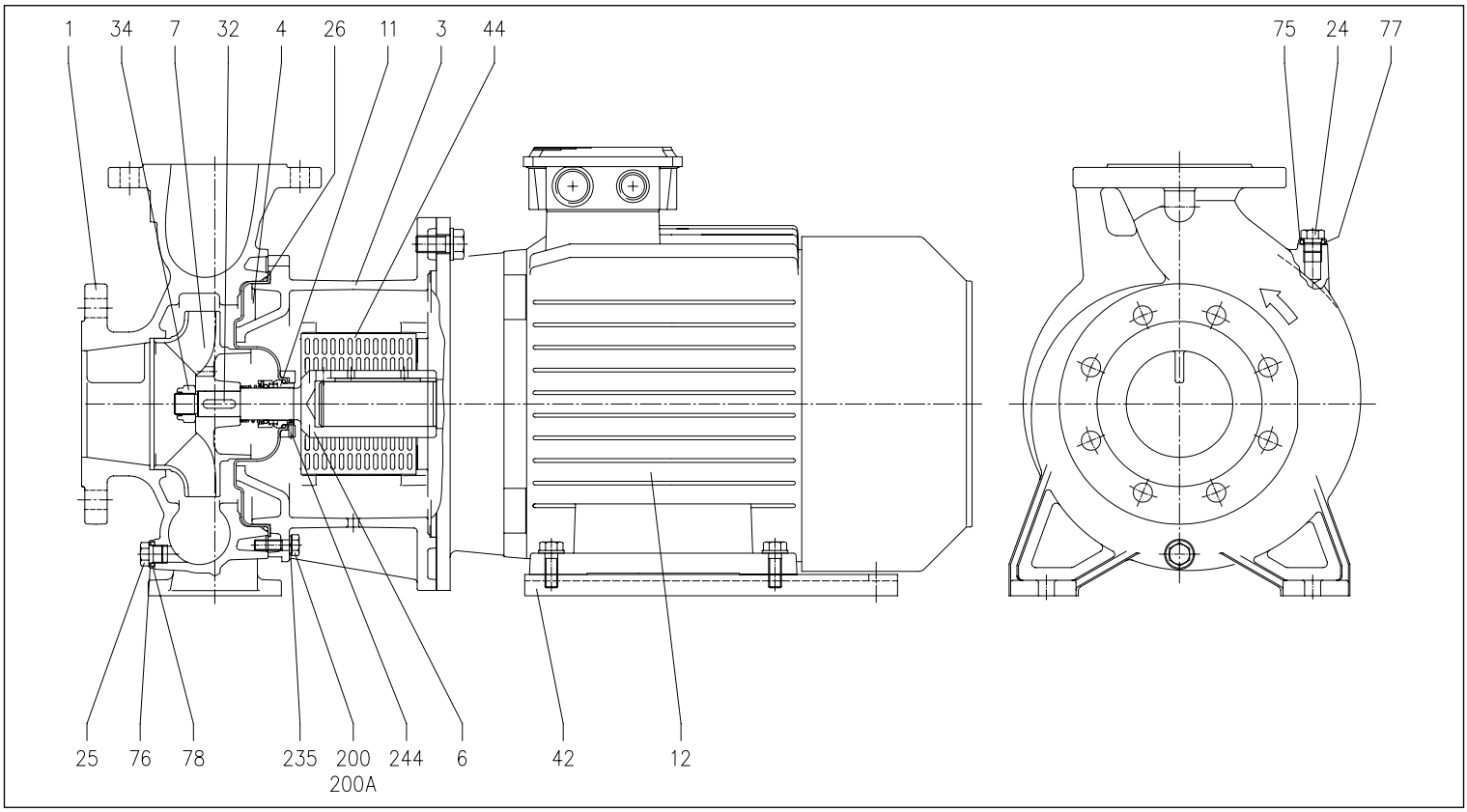
[1]= For 65-125/5.5 and 65-125/7.5 versions only
[2]= For 32-200, 40-200, 50-160, 50-200 versions only
[3]= For 65-160/15, 65-200 versions only

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LS 80-160 SERIES

2 Poles



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	034	Impeller nut	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	042	Motor support	Aluminium
004	Casing cover	EN 1.4404 (AISI 316L)	044	Support protection	EN 1.4301 (AISI 304)
006	Joint	EN 1.4404 (AISI 316L)	075	Washer	EN 1.4404 (AISI 316L)
007	Impeller	EN 1.4401 (AISI 316)	076	Washer	
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	077	O-Ring	FKM
012	Motor	-	078	O-Ring	
024	Plug	EN 1.4404 (AISI 316L)	200	Screw (pump body)	Stainless steel A2-70/1 class ISO 3506/1
025	Plug	EN 1.4404 (AISI 316L)	235	Washer	EN 1.4301(AISI 304)
026	O-Ring	FKM	244	Plug [1]	EN 1.4301(AISI 304)
032	Key	EN 1.4401 (AISI 316)			

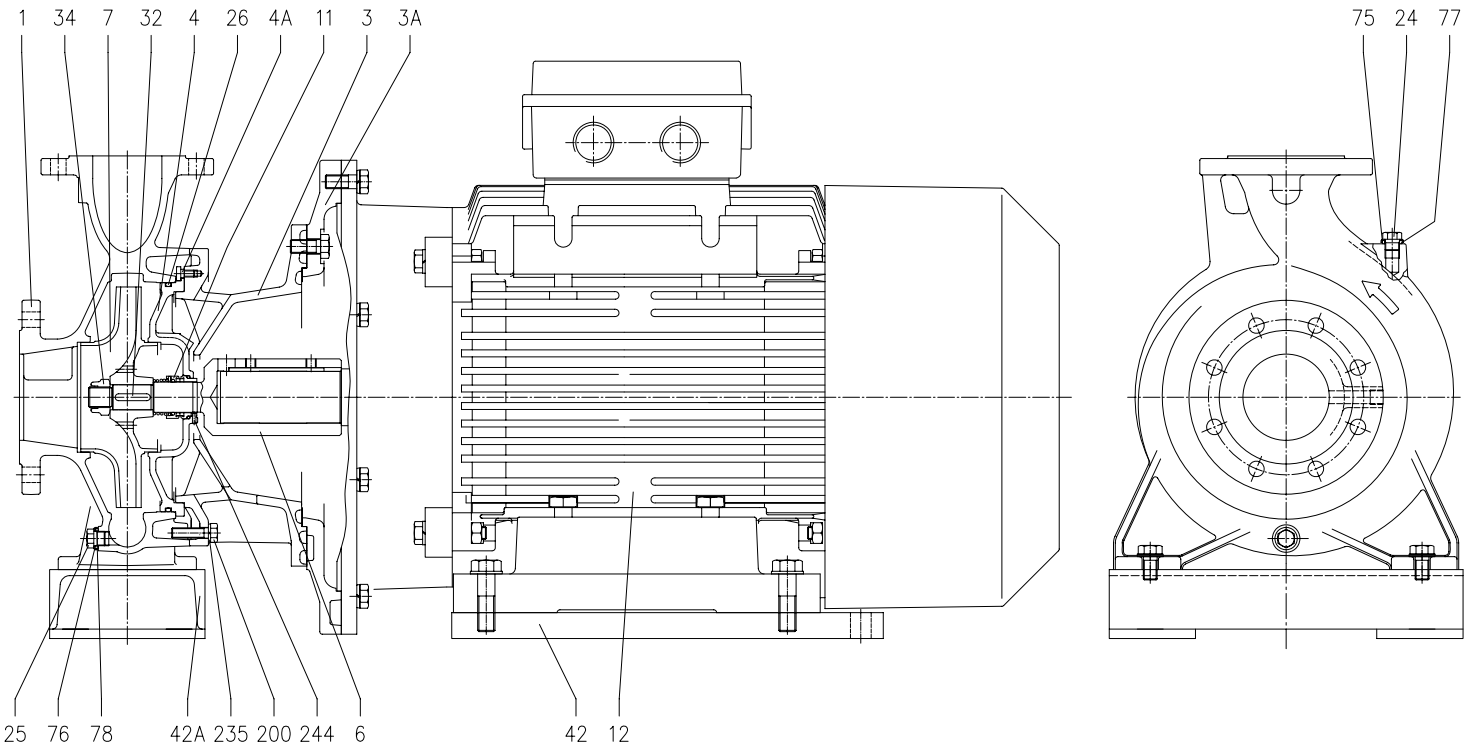
[1]= Not for H and E versions

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LS 65-250, 80-200/250 SERIES

2 Poles



MATERIALS TABLE

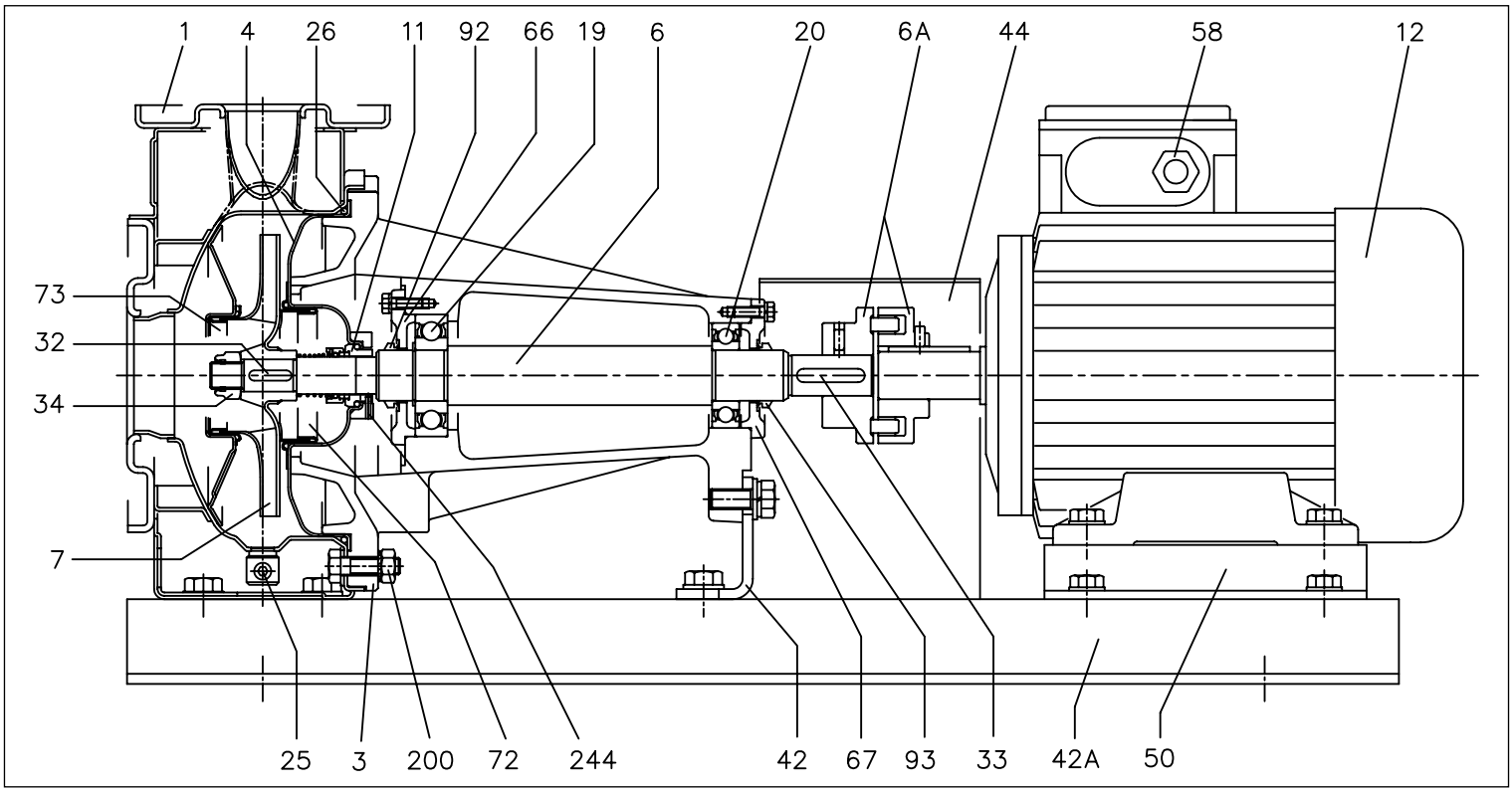
Ref.	Name		Materials	Ref.	Name		Materials
001	Pump casing		EN 1.4401 (AISI 316)	032	Key	65-250 d=24 mm	EN 1.4401 (AISI 316)
003	Motor bracket		Cast iron EN-GJL-200-EN 1561			65-250 d=24 mm	
003A	Adapter ring		Cast iron EN-GJL-200-EN 1561			80-250 d=29 mm	
004	Casing cover		EN 1.4401 (AISI 316)	034	Impeller nut	65-250 d=24 mm	EN 1.4404 (AISI 316L)
004A	Casing cover screw disc		EN 1.4301(AISI 304)			65-250 d=24 mm	
006	Joint		EN 1.4404 (AISI 316L) per 22 kW			80-250 d=29 mm	
		65-250 d=24 mm	EN 1.4462 (duplex steel) per 30-37 kW	042	Motor bracket		Aluminium
		65-250 d=24 mm	EN 1.4404 (AISI 316L) per 22 kW	042A	Pump bracket		Galvanised aluminium/steel (only for 80-250/55)
			EN 1.4462 (duplex steel) per 30-37 kW	075	Washer		EN 1.4404 (AISI 316L)
		80-250 d=29 mm	EN 1.4462 (duplex steel)	076	Washer		
007	Impeller		EN 1.4401 (AISI 316)	077	O-Ring		FKM
011	Mechanical seal		Silicon Carbide/Silicon Carbide/FKM	078	O-Ring		
012	Motor		-	200	Screw (pump body)		Stainless steel A2-70/1 class ISO 3506/1
024	Plug		EN 1.4404 (AISI 316L)	235	Washer		Steel C70
025	Plug		EN 1.4404 (AISI 316L)	244	Plug [1]		EN 1.4301(AISI 304)
026	O-Ring		FKM				

[1]= Not for H and E versions

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3(L)P 32, 40, 50, 65-125/160/200 SERIES

2 Poles



MATERIALS TABLE

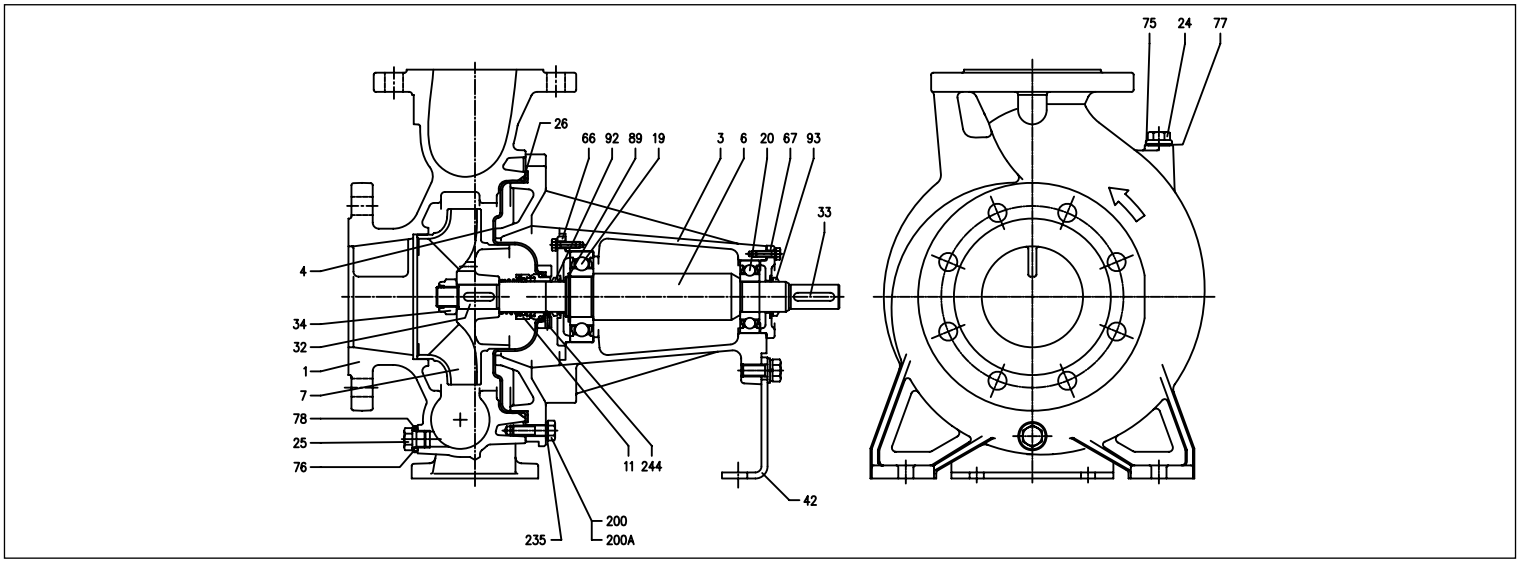
Ref.	Name		Materials 3P	Materials 3LP
001	Pump casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket		Cast iron EN-GJL-200-EN 1561	
004	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Shaft - Part in contact with the liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006A	Joint		Cast iron EN-GJL-250-EN 1561	
007	Impeller	32, 40, 50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
		65-125/160/200	EN 1.4401 (AISI 316)	
011	Mechanical seal		Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
012	Motor		-	
019	Bearing (pump side)		-	
020	Bearing (motor side)		-	
025	Plug		EN 1.4401 (AISI 316) / PTFE	
026	O-Ring		NBR	FKM
032	Key		EN 1.4401 (AISI 316)	
033	Key		C 40	
034	Impeller nut		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support		Galvanised steel Fe 37	
42A	Base		Galvanised steel Fe 37	
044	Joint cover		Galvanised steel Fe 37	
050	Motor support		Aluminium / Galvanised steel	
058	Cable gland		-	
066	Bracket cover		Cast iron EN-GJL-250-EN 1561	
067	Bracket cover		Cast iron EN-GJL-250-EN 1561	
072	Casing ring [1]		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring	not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
092	V Ring		-	
093	V Ring		-	
200	Screw (pump body)		Stainless steel A2 70 class ISO 3506/1	
244	Plug [2]		-	EN 1.4301 (AISI 304)

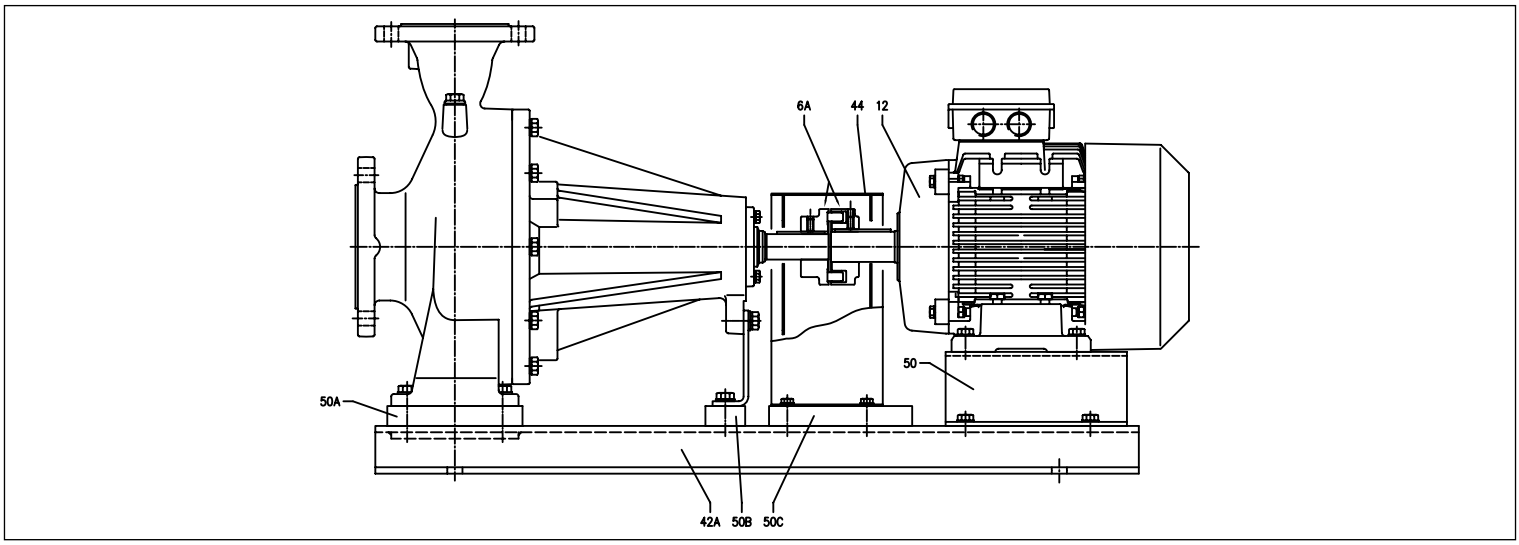
[1]= For 32-200/3, 32-200/4, 32-200/5.5, 40-200/5.5, 40-200/7.5, 40-200/11, 50-160/5.5, 50-160/7.5, 50-200/9.2, 50-200/11, 50-200/15 versions
[2]= Only for 65-160/15 and 65-200

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LP 80-160 SERIES

2 Poles





MATERIALS TABLE

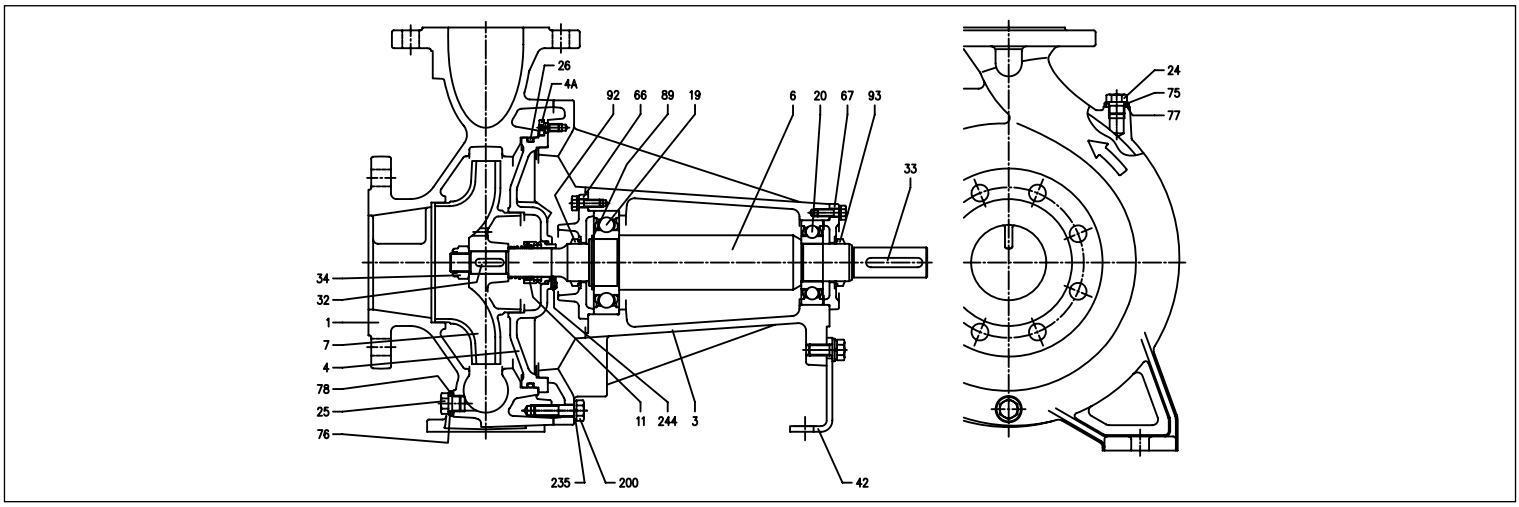
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	042A	Base	Galvanised steel
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	044	Joint cover	Galvanised steel
004	Casing cover	EN 1.4404 (AISI 316L)	050	Rest	Aluminium
006	Shaft	EN 1.4404 (AISI316L) Part in contact with the liquid	050A	Pump spacer	-
			050B	Pump spacer	-
006A	Joint	Cast iron EN-GJL-200-EN 1561	050C	Joint cover spacer	-
007	Impeller	EN 1.4401 (AISI 316)	066	Bracket cover	Cast iron EN-GJL-200-EN 1561
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	067	Bracket cover	Cast iron EN-GJL-200-EN 1561
012	Motor	-	075	Washer	EN 1.4404 (AISI 316L)
019	Bearing (pump side)	-	076	Washer	EN 1.4404 (AISI 316L)
020	Bearing (motor side)	-	077	O-Ring	FKM
024	Plug	EN 1.4404 (AISI 316L)	078	O-Ring	FKM
025	Plug	EN 1.4404 (AISI 316L)	089	Seeger ring	Carbon steel TC 80
026	O-Ring	FKM	092	V Ring	-
032	Key	EN 1.4401 (AISI 316)	093	V Ring	-
033	Key	C 40	200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1
034	Impeller nut	EN 1.4404 (AISI 316L)	235	Washer	EN 1.4301(AISI 304)
042	Motor support	Galvanised steel	244	Plug [1]	EN 1.4301(AISI 304)

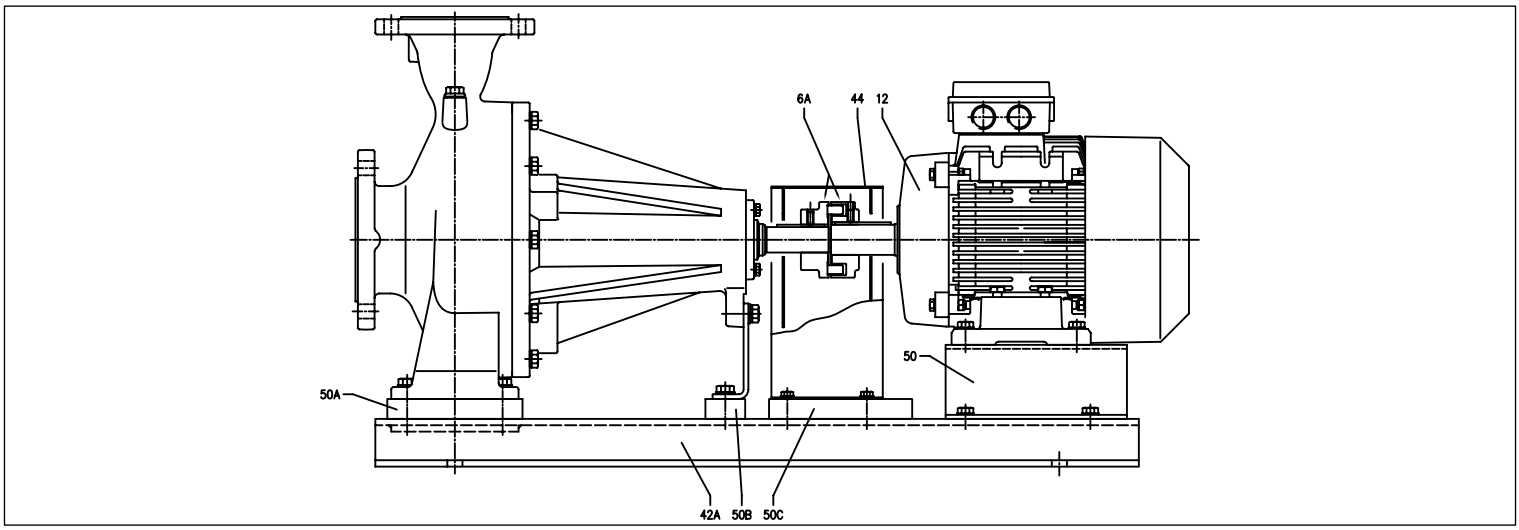
[1]= Not for H and E versions

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LPF 65-250, 80-200/250 SERIES

2 Poles





MATERIALS TABLE

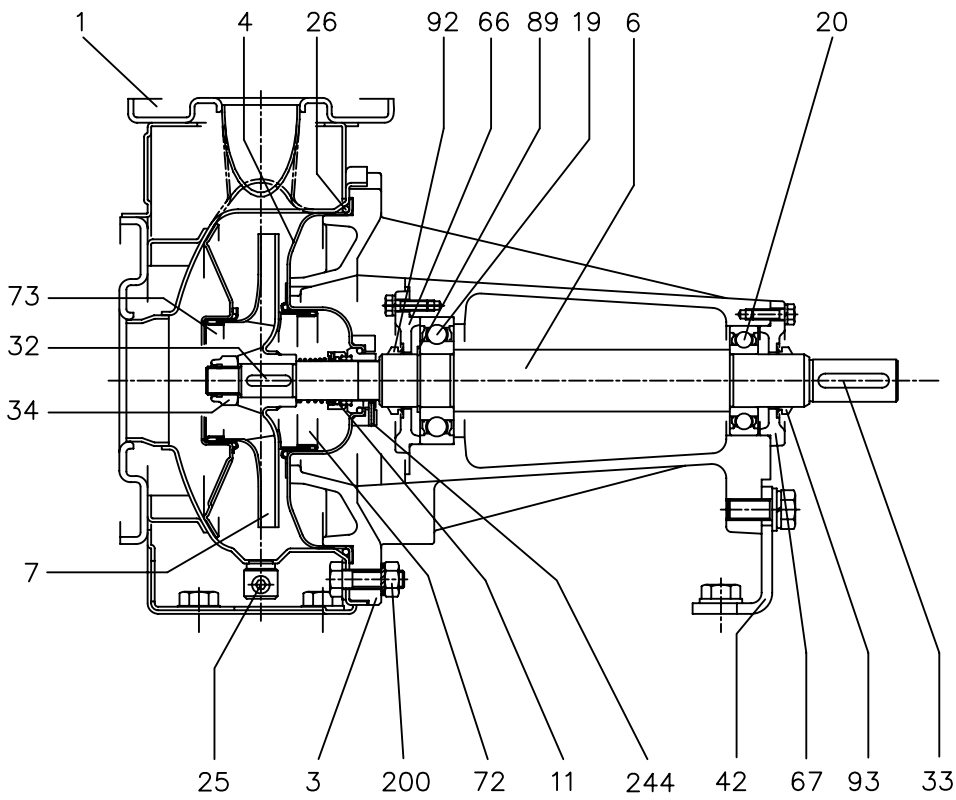
Ref.	Name		Materials	Ref.	Name	Materials
001	Pump casing		EN 1.4401 (AISI 316)	042	Motor support	Galvanised steel
003	Motor bracket		Cast iron EN-GJL-200-EN 1561	042A	Base	Galvanised steel
004	Casing cover		EN 1.4401 (AISI 316)	044	Joint cover	Galvanised steel
004A	Casing cover screw disc		EN 1.4301(AISI 304)	050	Motor support (only for 65-250/22 kW)	Aluminium
006	Shaft		EN 1.4462 (Duplex steel) for 30-37 kW	050A	Pump spacer	Aluminium
006A	Joint		Cast iron EN-GJL-200-EN 1561	050B	Pump spacer	Aluminium
007	Impeller		EN 1.4401 (AISI316)	050C	Joint cover spacer	Aluminium
011	Mechanical seal		Silicon Carbide/Silicon Carbide/FKM	066	Bracket cover	Cast iron EN-GJL-200-EN 1561
012	Motor		-	067	Bracket cover	Cast iron EN-GJL-200-EN 1561
019	Bearing (pump side)		-	075	Washer	EN 1.4404 (AISI 316L)
020	Bearing (motor side)		-	076	Washer	
024	Plug		EN 1.4404 (AISI 316L)	077	O-Ring	FKM
025	Plug		EN 1.4404 (AISI 316L)	078	O-Ring	
026	O-Ring		FKM	089	Seeger ring	Carbon steel TC 80
032	Key	65-250 d=24 mm	EN 1.4401 (AISI 316)	092	V Ring	-
		65-250 d=24 mm		093	V Ring	-
		80-250 d=29 mm		200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1
033	Key		C 40	235	Washer	EN 1.4301 (AISI 304)
034	Impeller nut	65-250 d=24 mm	EN 1.4404 (AISI 316L)	244	Plug [1]	EN 1.4301 (AISI 304)
		65-250 d=24 mm				
		80-250 d=29 mm				

[1]= Not for H and E versions

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3(L)PF 32, 40, 50, 65 SERIES

2 Poles



MATERIALS TABLE

Ref.	Name	Materials 3PF	Materials 3LPF
001	Pump casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	
004	Casing cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Shaft - Part in contact with the liquid	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
007	Impeller 32, 40, 50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
	Impeller 65-125/160/200	EN 1.4401 (AISI 316)	
011	Mechanical seal	Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
019	Bearing (pump side)	-	
020	Bearing (motor side)	-	
025	Plug	EN 1.4401 (AISI 316) / PTFE	
026	O-Ring	NBR	FKM
032	Key	EN 1.4301 (AISI 304)	EN 1.4401 (AISI 316)
033	Key	C 40	
034	Impeller nut	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support	Galvanised steel Fe 37	
066	Bracket cover	Cast iron EN-GJL-250-EN 1561	
067	Bracket cover	Cast iron EN-GJL-250-EN 1561	
072	Casing ring [1]	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
089	Seeger ring	Carbon steel TC 80	
092	Seal ring	-	
093	Seal ring	-	
200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1	
244	Plug [2]	-	EN 1.4301 (AISI 304)

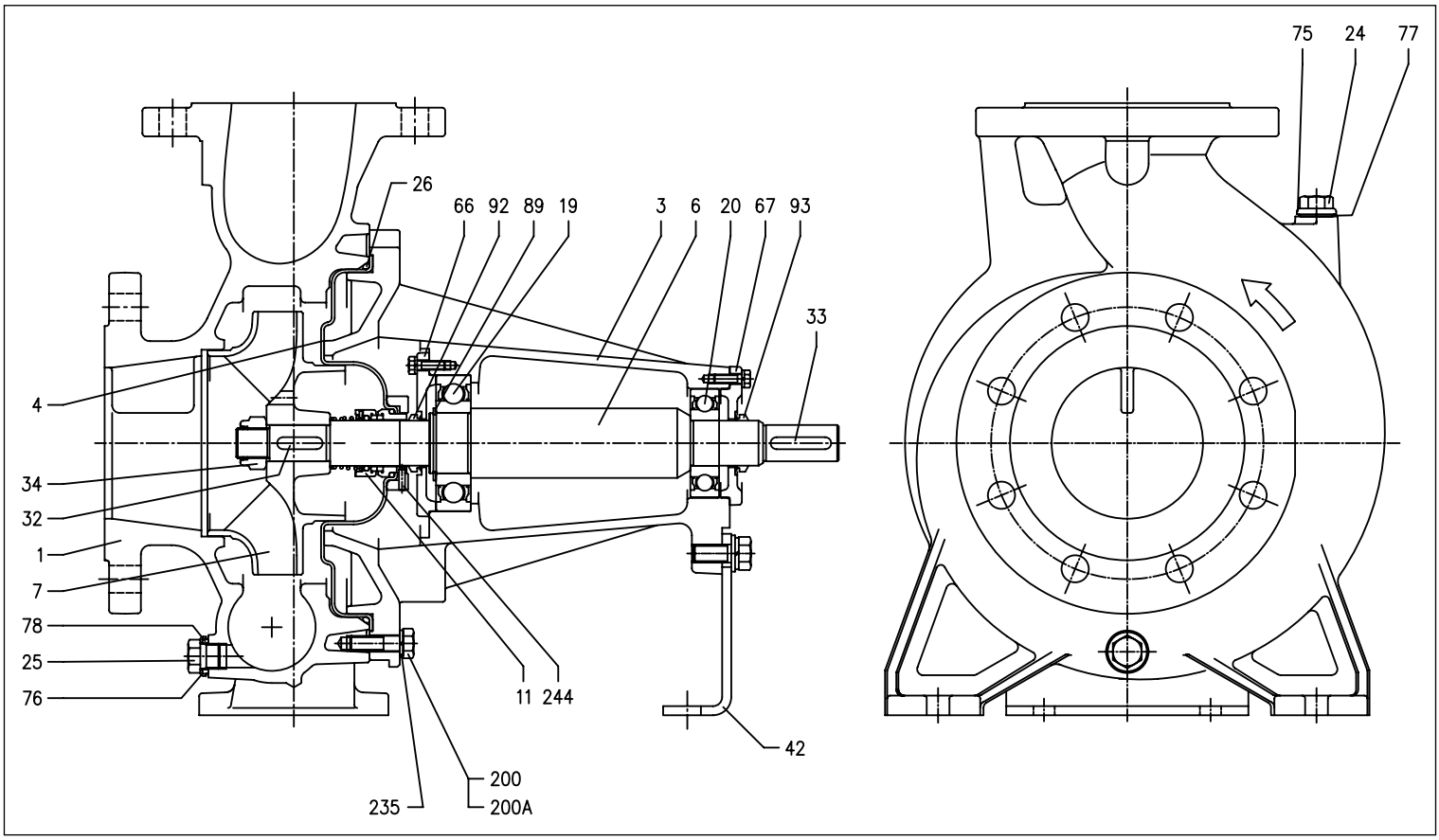
[1]= For 32-200, 40-200, 50-160, 50-200 versions
[2]= Only for 65-160/15 and 65-200

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LPF 80-160 SERIES

2 Poles



MATERIALS TABLE

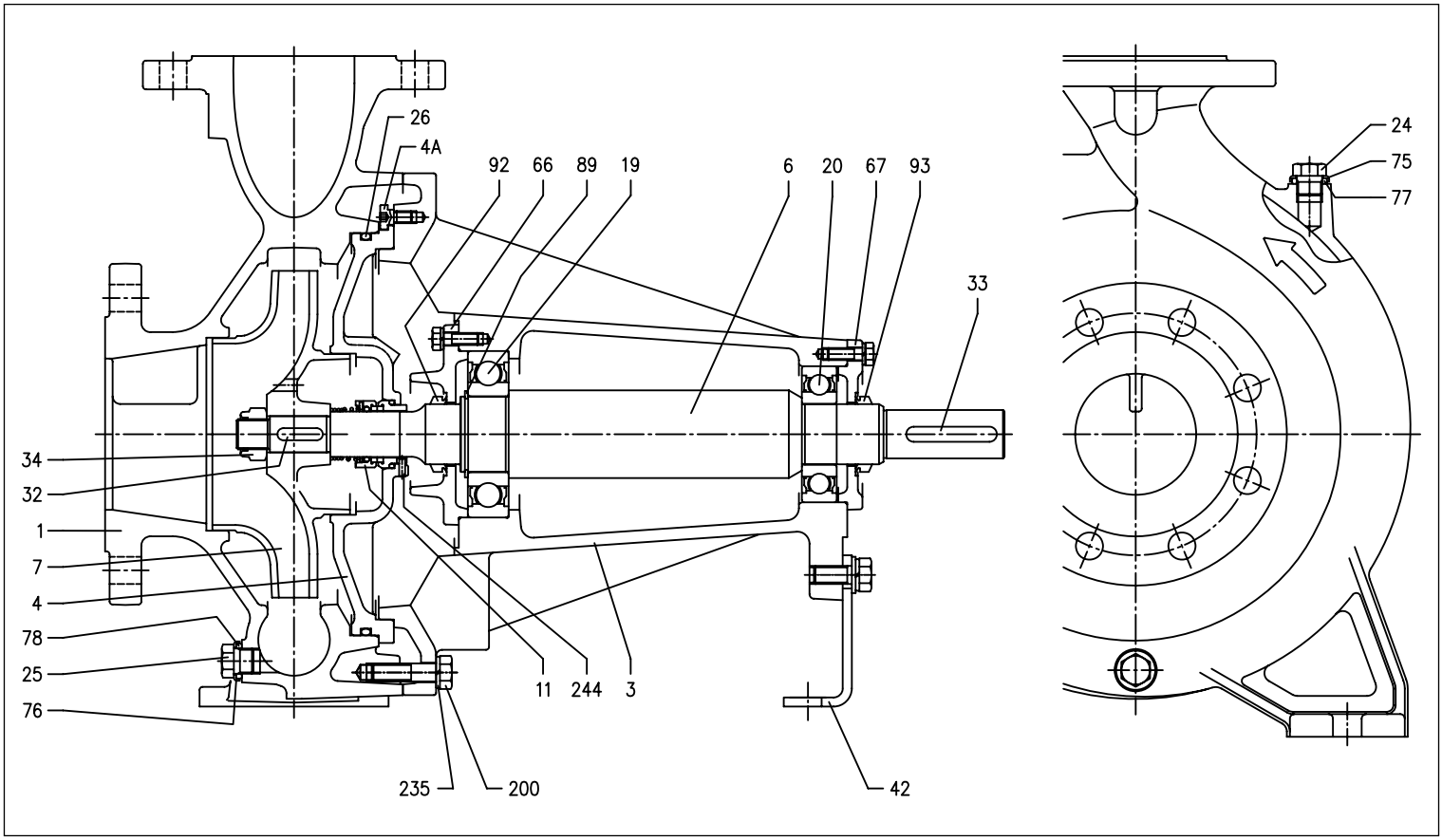
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	042	Motor support	Galvanised steel
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	066	Bracket cover	Cast iron EN-GJL-200-EN 1561
004	Casing cover	EN 1.4404 (AISI 316L)	067	Bracket cover	Cast iron EN-GJL-200-EN 1561
006	Shaft	EN 1.4404 (AISI316L) Part in contact with the liquid	075	Washer	EN 1.4404 (AISI 316L)
007	Impeller	EN 1.4401 (AISI 316)	076	Washer	EN 1.4404 (AISI 316L)
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	077	O-Ring	FKM
019	Bearing (pump side)	-	078	O-Ring	FKM
020	Bearing (motor side)	-	089	Seeger ring	Carbon steel TC 80
024	Plug	EN 1.4404 (AISI 316L)	092	V Ring	-
025	Plug	EN 1.4404 (AISI 316L)	093	V Ring	-
026	O-Ring	FKM	200	Body screw	Stainless steel A2 70 class ISO 3506/1
032	Key	EN 1.4401 (AISI 316)	235	Washer	EN 1.4301(AISI 304)
033	Key	C 40	244	Plug [1]	EN 1.4301(AISI 304)
034	Impeller nut	EN 1.4404 (AISI 316L)			

[1]= Not for H and E versions

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LPF 65-250, 80 SERIES

2 Poles



MATERIALS TABLE

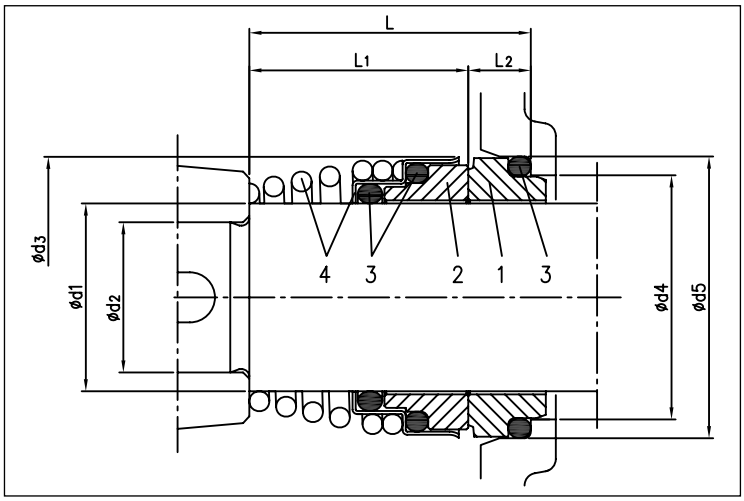
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	033	Key	C 40
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	034	Impeller nut 65-250 d=24 mm Impeller nut 65-250 d=24 mm Impeller nut 80-250 d=29 mm	EN 1.4404 (AISI 316L)
004	Casing cover	EN 1.4401 (AISI 316)			
004A	Casing cover screw disc	EN 1.4301(AISI 304)			
006	Shaft	EN 1.4462 (Duplex steel) for 30-37 kW	042	Motor support	Galvanised steel
007	Impeller	EN 1.4401 (AISI316)	066	Bracket cover	Cast iron EN-GJL-200-EN 1561
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	067	Bracket cover	Cast iron EN-GJL-200-EN 1561
			075	Washer	EN 1.4404 (AISI 316L)
			076	Washer	
019	Bearing (pump side)	-	077	O-Ring	FKM
020	Bearing (motor side)	-	078	O-Ring	
024	Plug	EN 1.4404 (AISI 316L)	089	Seeger ring	Carbon steel TC 80
025	Plug	EN 1.4404 (AISI 316L)	092	Seal ring	-
026	O-Ring	FKM	093	Seal ring	-
			200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1
032	Key 65-250 d=24 mm Key 65-250 d=24 mm Key 80-250 d=29 mm	EN 1.4401 (AISI 316)	235	Washer	EN 1.4301 (AISI 304)
			244	Plug [1]	EN 1.4301 (AISI 304)

[1]= Not for H and E versions

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

MECHANICAL SEAL standard version



MATERIALS TABLE

Ref.	Name	Materials	
		3 SERIES	3L SERIES
1	Fixed part	Carbon	Silicon Carbide
2	Rotating part	Ceramic	Silicon Carbide
3	Gasket	NBR	FKM
4	Frame + spring	EN 1.4401 (AISI 316)	EN 1.4571 (AISI 316Ti)

SPECIAL MECHANICAL SEALS 3 SERIES (On request)

Name	Materials				
	H Version	HS Version	HW Version	HSW Version	E Version
Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
Rotating Part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
Elastomers	FKM	FKM	FKM	FKM	EPDM
Spring	AISI 316	AISI 316Ti	AISI 316	AISI 316	AISI 316Ti
Structure/Frame	AISI 316	AISI 316Ti	AISI 316	AISI 316	AISI 316Ti

SPECIAL MECHANICAL SEALS 3L SERIES (On request)

Name	Materials				
	H Version	HW Version	HSW Version	E* Version	ES** Version
Fixed part	Carbon	Tungsten Carbide	Tungsten Carbide	Carbon	Carbon
Rotating Part	Ceramic	Tungsten Carbide	Silicon Carbide	Ceramic	Silicon Carbide
Elastomers	FKM	FKM	FKM	EPDM	EPDM
Spring	AISI 316	AISI 316	AISI 316	AISI 316Ti	AISI 316Ti
Structure/Frame	AISI 316	AISI 316	AISI 316	AISI 316Ti	AISI 316Ti

* Not available for 3 I 80-250 SERIES 2 poles
** Available only for 3 I 80-250 SERIES 2 poles

SPECIAL MECHANICAL SEALS 3-3L SERIES (On request)

Name	Materials				
	U3U3EGG Version	U3CEGG Version	Q1Q1EGG Version	Q1U3EGG Version	Q1AEGG Version
Fixed part	Tungsten Carbide	Tungsten Carbide	Silicon Carbide	Silicon Carbide	Silicon Carbide
Rotating Part	Tungsten Carbide	Special carbon	Silicon Carbide	Tungsten Carbide	Metallised carbon
Elastomers	EPDM	EPDM	EPDM	EPDM	EPDM
Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
Structure/Frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3(L)M SERIES

2 Poles

Model		P2		Efficiency		Capacitor Single phase		Efficiency(%) Three phase			P1		Absorbed Current [A]			
Single phase	Three phase	[HP]	[kW]	Single phase	Three phase	µF	Vc	η % 50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	400V	690V
3(.)M 32-125/1.1 M	3(.)M(Z) 32-125/1.1	1.5	1.1	-	IE2	31.5	450	79.5	82.0	82.5	1.51	1.82	6.7	5.6	3.2	-
-		1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3	-
3(.)M 32-160/1.5 M	3(.)M(Z) 32-160/1.5	2	1.5	-	IE2	40	450	79.5	82.0	82.5	2.10	1.82	9.6	5.6	3.2	-
-		2	1.5	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3	-
3(.)M 32-160/2.2 M	3(.)M(Z) 32-160/2.2	3	2.2	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7	-
-	3(.)M(Z) 32-200/3.0	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4	-
-	3(.)M(Z) 32-200/4.0	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3(.)M(Z) 32-200/5.5	7.5	5.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0
-		7.5	5.5	-	IE3	-	-	89.2	90.6	90.4	-	6.09	-	-	10.6	6.1
-	3(.)M(Z) 32-200/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
3(.)M 40-125/1.5 M	3(.)M(Z) 40-125/1.5	2	1.5	-	IE2	40	450	79.5	82.0	82.5	2.10	1.82	9.6	5.6	3.2	-
-		2	1.5	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3	-
3(.)M 40-125/2.2 M	3(.)M(Z) 40-125/2.2	3	2.2	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7	-
-	3(.)M(Z) 40-160/3.0	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4	-
-	3(.)M(Z) 40-160/4.0	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3(.)M(Z) 40-200/5.5	7.5	5.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0
-		7.5	5.5	-	IE3	-	-	89.2	90.6	90.4	-	6.09	-	-	10.6	6.1
-	3(.)M(Z) 40-200/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3(.)M(Z) 40-200/11	15	11	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3
3(.)M 50-125/2.2 M	3(.)M(Z) 50-125/2.2	3	2.2	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7	-
-	3(.)M(Z) 50-125/3.0	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4	-
-	3(.)M(Z) 50-125/4.0	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3(.)M(Z) 50-160/5.5	7.5	5.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0
-		7.5	5.5	-	IE3	-	-	89.2	90.6	90.4	-	6.09	-	-	10.6	6.1
-	3(.)M(Z) 50-160/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3(.)M(Z) 50-200/9.2	12.5	9.2	-	IE3	-	-	90.1	90.8	90.9	-	10.12	-	-	17.2	10.0
-	3(.)M(Z) 50-200/11	15	11	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3
-	3(.)M(Z) 50-200/15	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3(.)M(Z) 65-125/4	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3(.)M(Z) 65-125/5.5	7.5	5.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0
-		7.5	5.5	-	IE3	-	-	89.2	90.6	90.4	-	6.09	-	-	10.6	6.1
-	3(.)M(Z) 65-125/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3(.)M(Z) 65-160/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3(.)M(Z) 65-160/9.2	12.5	9.2	-	IE3	-	-	90.1	90.8	90.9	-	10.12	-	-	17.2	10.0
-	3(.)M(Z) 65-160/11	15	11	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3
-	3(.)M(Z) 65-160/15	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3(.)M(Z) 65-200/15	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3(.)M(Z) 65-200/18.5	25	18.5	-	IE3	-	-	91.6	93.0	92.6	-	19.98	-	-	35.0	20.3
-	3(.)M(Z) 65-200/22	30	22	-	IE3	-	-	92.0	93.1	93.2	-	23.58	-	-	39.7	23.6
-	3LM 80-160/11	15	11	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3
-	3LM 80-160/15R	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3LM 80-160/15	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3LM 80-160/18.5	25	18.5	-	IE3	-	-	91.6	93.0	92.6	-	19.98	-	-	35.0	20.3

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3(L)S - 3(L)P SERIES

2 Poles

Model		Motor	Motor P_2		Efficiency	Efficiency (%) and power factor				Absorbed Current [A]		
		Motor	[HP]	[kW]		η % 50%	η % 75%	η % 100%	cos ø	230V	400V	690V
3(.)S(Z) 32-125/1.1	3(.)P 32-125/1.1	80	1.5	1.1	IE2	79.5	81.2	81.5	0.78	4.3	2.5	-
			1.5	1.1	IE3	78.7	81.7	82.7	0.76	4.2	2.4	-
3(.)S(Z) 32-160/1.5	3(.)P 32-160/1.5	90S	2	1.5	IE2	81.0	82.8	82.8	0.80	5.5	3.2	-
			2	1.5	IE3	83.2	84.8	84.2	0.85	5.2	3.0	-
3(.)S(Z) 32-160/2.2	3(.)P 32-160/2.2	90L	3	2.2	IE2	82.5	84.0	84.0	0.85	7.6	4.4	-
			3	2.2	IE3	85.0	86.2	86.5	0.82	8.0	4.6	-
3(.)S(Z) 32-200/3.0	3(.)P 32-200/3.0	100 L	4	3	IE2	84.1	85.8	85.5	0.84	10.2	5.9	-
			4	3	IE3	82.3	85.8	87.1	0.89	9.7	5.6	-
3(.)S(Z) 32-200/4.0	3(.)P 32-200/4.0	112 M	5.5	4	IE2	85.2	86.4	86.1	0.86	13.5	7.8	-
			5.5	4	IE3	86.8	87.8	88.1	0.93	12.1	7.0	-
3(.)S(Z) 32-200/5.5	3(.)P 32-200/5.5	132S	7.5	5.5	IE2	85.8	87.4	87.3	0.88	-	10.4	6.0
			7.5	5.5	IE3	88.0	88.5	89.2	0.90	-	10.0	5.8
3(.)S(Z) 32-200/7.5	3(.)P 32-200/7.5	132S	10	7.5	IE3	88.6	89.2	90.1	0.92	-	13.1	7.6
3(.)S(Z) 40-125/1.5	3(.)P 40-125/1.5	90S	2	1.5	IE2	81.0	82.8	82.8	0.80	5.5	3.2	-
			2	1.5	IE3	83.2	84.8	84.2	0.85	5.2	3.0	-
3(.)S(Z) 40-125/2.2	3(.)P 40-125/2.2	90L	3	2.2	IE2	82.5	84.0	84.0	0.85	7.6	4.4	-
			3	2.2	IE3	85.0	86.2	86.5	0.82	8.0	4.6	-
3(.)S(Z) 40-160/3.0	3(.)P 40-160/3.0	100 L	4	3	IE2	84.1	85.8	85.5	0.84	10.2	5.9	-
			4	3	IE3	82.3	85.8	87.1	0.89	9.7	5.6	-
3(.)S(Z) 40-160/4.0	3(.)P 40-160/4.0	112 M	5.5	4	IE2	85.2	86.4	86.1	0.86	13.5	7.8	-
			5.5	4	IE3	86.8	87.8	88.1	0.93	12.1	7.0	-
3(.)S(Z) 40-200/5.5	3(.)P 40-200/5.5	132S	7.5	5.5	IE2	85.8	87.4	87.3	0.88	-	10.4	6.0
			7.5	5.5	IE3	88.0	88.5	89.2	0.90	-	10.0	5.8
3(.)S(Z) 40-200/7.5	3(.)P 40-200/7.5	132S	10	7.5	IE3	88.6	89.2	90.1	0.92	-	13.1	7.6
3(.)S(Z) 40-200/11	3(.)P 40-200/11	160 M	15	11	IE3	87.4	89.8	91.2	0.89	-	19.7	11.4
3(.)S(Z) 50-125/2.2	3(.)P 50-125/2.2	90L	3	2.2	IE2	82.5	84.0	84.0	0.85	7.6	4.4	-
			3	2.2	IE3	85.0	86.2	86.5	0.82	8.0	4.6	-
3(.)S(Z) 50-125/3.0	3(.)P 50-125/3.0	100 L	4	3	IE2	84.1	85.8	85.5	0.84	10.2	5.9	-
			4	3	IE3	82.3	85.8	87.1	0.89	9.7	5.6	-
3(.)S(Z) 50-125/4.0	3(.)P 50-125/4.0	112 M	5.5	4	IE2	85.2	86.4	86.1	0.86	13.5	7.8	-
			5.5	4	IE3	86.8	87.8	88.1	0.93	12.1	7.0	-
3(.)S(Z) 50-160/5.5	3(.)P 50-160/5.5	132S	7.5	5.5	IE2	85.8	87.4	87.3	0.88	-	10.4	6.0
			7.5	5.5	IE3	88.0	88.5	89.2	0.90	-	10.0	5.8
3(.)S(Z) 50-160/7.5	3(.)P 50-160/7.5	132S	10	7.5	IE3	88.6	89.2	90.1	0.92	-	13.1	7.6
3(.)S(Z) 50-200/9.2	3(.)P 50-200/9.2	132M	12.5	9.2	IE3	88.6	89.8	90.7	0.89	-	16.5	9.5
3(.)S(Z) 50-200/11	3(.)P 50-200/11	160 M	15	11	IE3	87.4	89.8	91.2	0.89	-	19.7	11.4
3(.)S(Z) 50-200/15	3(.)P 50-200/15	160 M	20	15	IE3	91.0	91.3	91.9	0.89	-	26.7	15.4
3(.)S(Z) 65-125/4	3(.)P 65-125/4	112 M	5.5	4	IE2	85.2	86.4	86.1	0.86	13.5	7.8	-
			5.5	4	IE3	86.8	87.8	88.1	0.93	12.1	7.0	-
3(.)S(Z) 65-125/5.5	3(.)P 65-125/5.5	132S	7.5	5.5	IE2	85.8	87.4	87.3	0.88	-	10.4	6.0
			7.5	5.5	IE3	88.0	88.5	89.2	0.90	-	10.0	5.8
3(.)S(Z) 65-125/7.5	3(.)P 65-125/7.5	132S	10	7.5	IE3	88.6	89.2	90.1	0.92	-	13.1	7.6
3(.)S(Z) 65-160/7.5	3(.)P 65-160/7.5	132S	10	7.5	IE3	88.6	89.2	90.1	0.92	-	13.1	7.6
3(.)S(Z) 65-160/9.2	3(.)P 65-160/9.2	132M	12.5	9.2	IE3	88.6	89.8	90.7	0.89	-	16.5	9.5
3(.)S(Z) 65-160/11	3(.)P 65-160/11	160 M	15	11	IE3	87.4	89.8	91.2	0.89	-	19.7	11.4
3(.)S(Z) 65-160/15	3(.)P 65-160/15	160 M	20	15	IE3	91.0	91.3	91.9	0.89	-	26.7	15.4
3(.)S(Z) 65-200/15	3(.)P 65-200/15	160 M	20	15	IE3	91.0	91.3	91.9	0.89	-	26.7	15.4
3(.)S(Z) 65-200/18.5	3(.)P 65-200/18.5	160L	25	18.5	IE3	91.6	92.8	92.4	0.88	-	33.0	19.1
3(.)S(Z) 65-200/22	3(.)P 65-200/22	180	30	22	IE3	92.3	92.9	92.9	0.90	-	38.0	22.0
3LS 65-250/30	3LP 65-250/30	200	40	30	IE3	92.8	93.9	94.0	0.89	-	51.8	30.0
3LS 65-250/37	3LP 65-250/37	200	50	37	IE3	93.0	93.9	93.8	0.90	-	62.5	36.0
3LS 80-160/11	3LP 80-160/11	160 M	15	11	IE3	87.4	89.8	91.2	0.89	-	19.7	11.4
3LS 80-160/15R	3LP 80-160/15R	160 M	20	15	IE3	91.0	91.3	91.9	0.89	-	26.7	15.4
3LS 80-160/15	3LP 80-160/15	160 M	20	15	IE3	91.0	91.3	91.9	0.89	-	26.7	15.4
3LS 80-160/18.5	3LP 80-160/18.5	160L	25	18.5	IE3	91.6	92.8	92.4	0.88	-	33.0	19.1
3LS 80-200/22	3LP 80-200/22	180	30	22	IE3	92.3	92.9	92.9	0.90	-	38.0	22.0
3LS 80-200/30	3LP 80-200/30	200	40	30	IE3	92.8	93.9	94.0	0.89	-	51.8	30.0
3LS 80-200/37	3LP 80-200/37	200	50	37	IE3	93.0	93.9	93.8	0.90	-	62.5	36.0
3LS 80-250/37	3LP 80-250/37	200	50	37	IE3	93.0	93.9	93.8	0.90	-	62.5	36.0
3LS 80-250/45	3LP 80-250/45	225	60	45	IE3	93.2	94.6	94.8	0.92	-	74.5	43.0
3LS 80-250/55	3LP 80-250/55	250	75	55	IE3	93.6	94.5	94.4	0.90	-	93.5	54.0

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

NOISE DATA TABLE

2 Poles

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400/690V	[HP]	[kW]	
3(.)M 32-125/1.1 M	3(.)M(Z) 32-125/1.1	1.5	1.1	<70
3(.)M 32-160/1.5 M	3(.)M(Z) 32-160/1.5	2.0	1.5	
3(.)M 32-160/2.2 M	3(.)M(Z) 32-160/2.2	3.0	2.2	
-	3(.)M(Z) 32-200/3.0	4.0	3.0	71
-	3(.)M(Z) 32-200/4.0	5.5	4.0	
-	3(.)M(Z) 32-200/5.5	7.5	5.5	75
-	3(.)M(Z) 32-200/7.5	10.0	7.5	
3(.)M 40-125/1.5 M	3(.)M(Z) 40-125/1.5	2.0	1.5	<70
3(.)M 40-125/2.2 M	3(.)M(Z) 40-125/2.2	3.0	2.2	
-	3(.)M(Z) 40-160/3.0	4.0	3.0	71
-	3(.)M(Z) 40-160/4.0	5.5	4.0	
-	3(.)M(Z) 40-200/5.5	7.5	5.5	75
-	3(.)M(Z) 40-200/7.5	10.0	7.5	
-	3(.)M(Z) 40-200/11	15.0	11.0	80
3(.)M 50-125/2.2 M	3(.)M(Z) 50-125/2.2	3.0	2.2	<70
-	3(.)M(Z) 50-125/3.0	4.0	3.0	71
-	3(.)M(Z) 50-125/4.0	5.5	4.0	
-	3(.)M(Z) 50-160/5.5	7.5	5.5	75
-	3(.)M(Z) 50-160/7.5	10.0	7.5	
-	3(.)M(Z) 50-200/9.2	12.5	9.2	80
-	3(.)M(Z) 50-200/11	15.0	11.0	
-	3(.)M(Z) 50-200/15	20.0	15.0	
-	3(.)M(Z) 65-125/4	5.5	4.0	71
-	3(.)M(Z) 65-125/5.5	7.5	5.5	75
-	3(.)M(Z) 65-125/7.5	10.0	7.5	
-	3(.)M(Z) 65-160/7.5	10.0	7.5	
-	3(.)M(Z) 65-160/9.2	12.5	9.2	80
-	3(.)M(Z) 65-160/11	15.0	11.0	
-	3(.)M(Z) 65-160/15	20.0	15.0	
-	3(.)M(Z) 65-200/15	20.0	15.0	
-	3(.)M(Z) 65-200/18.5	25.0	18.5	83-82
-	3(.)M(Z) 65-200/22	30.0	22.0	
-	3LM 80-160/11	15.0	11.0	80
	3LM 80-160/15R	17.5	13.0	
-	3LM 80-160/15	20.0	15.0	
-	3LM 80-160/18.5	25.0	18.5	83-82

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

Model		P_2		L_{pA} - dB(A)*
Single phase 230V	Three phase 230/400/690V	[HP]	[kW]	
3(.)S(Z) 32-125/1.1	3(.)P 32-125/1.1	1.5	1.1	<70
3(.)S(Z) 32-160/1.5	3(.)P 32-160/1.5	2	1.5	
3(.)S(Z) 32-160/2.2	3(.)P 32-160/2.2	3	2.2	
3(.)S(Z) 32-200/3.0	3(.)P 32-200/3.0	4	3	
3(.)S(Z) 32-200/4.0	3(.)P 32-200/4.0	5.5	4	
3(.)S(Z) 32-200/5.5	3(.)P 32-200/5.5	7.5	5.5	72
3(.)S(Z) 32-200/7.5	3(.)P 32-200/7.5	10	7.5	
3(.)S(Z) 40-125/1.5	3(.)P 40-125/1.5	2	1.5	<70
3(.)S(Z) 40-125/2.2	3(.)P 40-125/2.2	3	2.2	
3(.)S(Z) 40-160/3.0	3(.)P 40-160/3.0	4	3	
3(.)S(Z) 40-160/4.0	3(.)P 40-160/4.0	5.5	4	
3(.)S(Z) 40-200/5.5	3(.)P 40-200/5.5	7.5	5.5	72
3(.)S(Z) 40-200/7.5	3(.)P 40-200/7.5	10	7.5	
3(.)S(Z) 40-200/11	3(.)P 40-200/11	15	11	74
3(.)S(Z) 50-125/2.2	3(.)P 50-125/2.2	3	2.2	<70
3(.)S(Z) 50-125/3.0	3(.)P 50-125/3.0	4	3	
3(.)S(Z) 50-125/4.0	3(.)P 50-125/4.0	5.5	4	
3(.)S(Z) 50-160/5.5	3(.)P 50-160/5.5	7.5	5.5	72
3(.)S(Z) 50-160/7.5	3(.)P 50-160/7.5	10	7.5	
3(.)S(Z) 50-200/9.2	3(.)P 50-200/9.2	12.5	9.2	
3(.)S(Z) 50-200/11	3(.)P 50-200/11	15	11	74
3(.)S(Z) 50-200/15	3(.)P 50-200/15	20	15	
3(.)S(Z) 65-125/4	3(.)P 65-125/4	5.5	4	<70
3(.)S(Z) 65-125/5.5	3(.)P 65-125/5.5	7.5	5.5	72
3(.)S(Z) 65-125/7.5	3(.)P 65-125/7.5	10	7.5	
3(.)S(Z) 65-160/7.5	3(.)P 65-160/7.5	10	7.5	
3(.)S(Z) 65-160/9.2	3(.)P 65-160/9.2	12.5	9.2	
3(.)S(Z) 65-160/11	3(.)P 65-160/11	15	11	74
3(.)S(Z) 65-160/15	3(.)P 65-160/15	20	15	
3(.)S(Z) 65-200/15	3(.)P 65-200/15	20	15	
3(.)S(Z) 65-200/18.5	3(.)P 65-200/18.5	25	18.5	
3(.)S(Z) 65-200/22	3(.)P 65-200/22	30	22	77
3LS 65-250/30	3LP 65-250/30	40	30	78
3LS 65-250/37	3LP 65-250/37	50	37	
3LS 80-160/11	3LP 80-160/11	15	11	74
3LS 80-160/15R	3LP 80-160/15R	20	15	
3LS 80-160/15	3LP 80-160/15	20	15	
3LS 80-160/18.5	3LP 80-160/18.5	25	18.5	
3LS 80-200/22	3LP 80-200/22	30	22	77
3LS 80-200/30	3LP 80-200/30	40	30	78
3LS 80-200/37	3LP 80-200/37	50	37	
3LS 80-250/37	3LP 80-250/37	50	37	
3LS 80-250/45	3LP 80-250/45	60	45	80
3LS 80-250/55	3LP 80-250/55	75	55	81

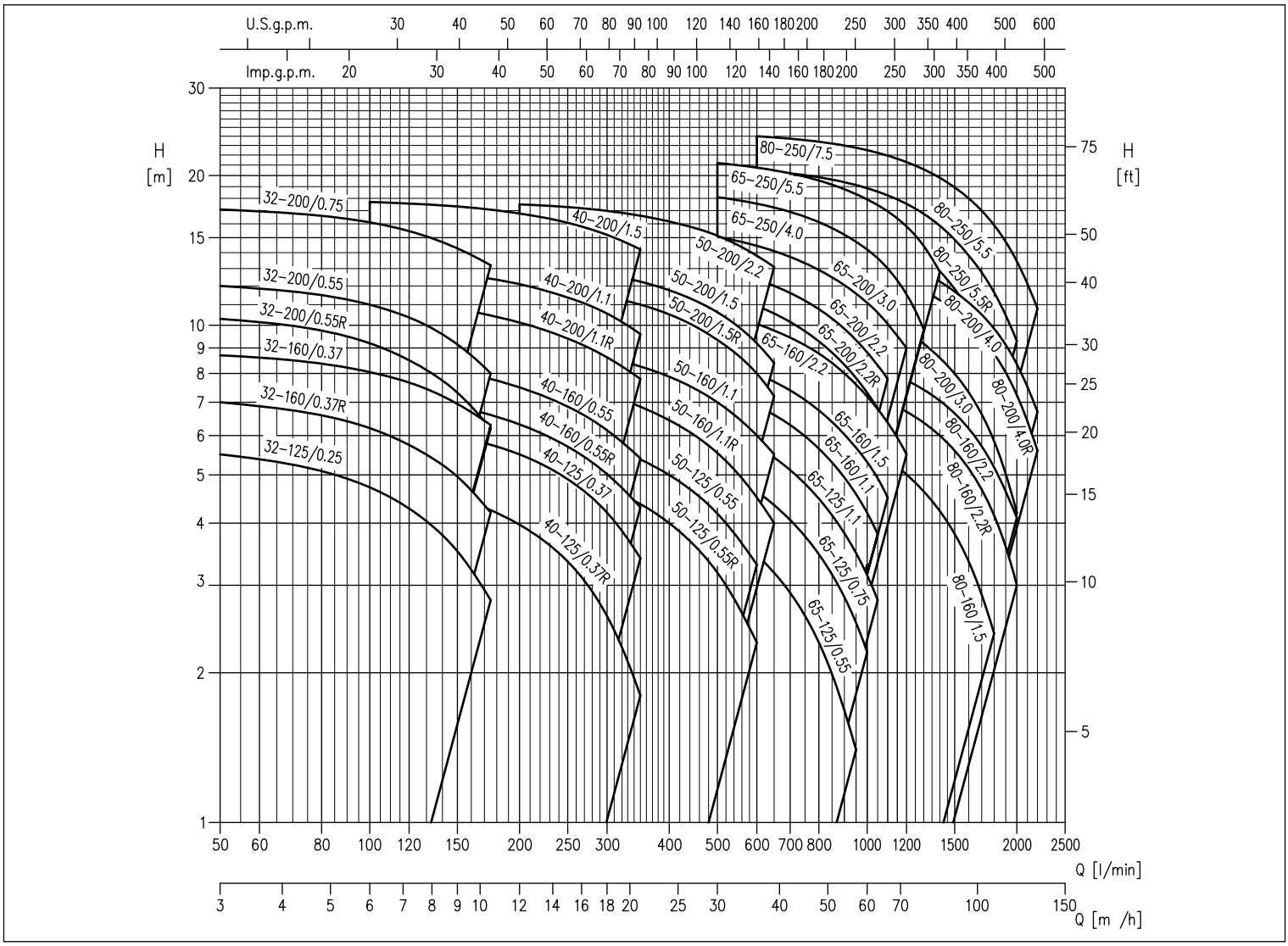
* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE RANGE 3(L) SERIES at 1450 min⁻¹ (according to ISO 9906 Attachment A)

4 Poles



Pump	Versions	3M4	3S4	3P4	3LM4	3LS4	3LP4
	32-125	■	■	■	●	●	●
	32-160	■	■	■	●	●	●
	32-200	■	■	■	●	●	●
	40-125	■	■	■	●	●	●
	40-160	■	■	■	●	●	●
	40-200	■	■	■	●	●	●
	50-125	■	■	■	●	●	●
	50-160	■	■	■	●	●	●
	50-200	■	■	■	●	●	●
	65-125	■	■	■	●	●	●
	65-160	■	■	■	●	●	●
	65-200	■	■	■	●	●	●
	65-250	-	-	-	●	●	●
	80-160	-	-	-	●	●	●
	80-200	-	-	-	●	●	●
	80-250	-	-	-	●	●	●

■ = Models also available in H-HS-HW-HSW-E version
● = Models also available in H-HW-HSW-E version

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CHART 32-40-50

4 Poles

Model	P_2		Q = Flow Rate											
			l/min 50	100	150	175	200	250	300	350	400	500	600	650
	[HP]	[kW]	m^3/h 3	6	9	10.5	12	15	18	21	24	30	36	39
			H=Head (m)											
32-125/0.25	0.33	0.25	5.5	4.7	3.5	2.8	-	-	-	-	-	-	-	-
32-160/0.37R	0.5	0.37	7.0	6.2	5.0	4.2	-	-	-	-	-	-	-	-
32-160/0.37	0.5	0.37	8.7	8.1	7.0	6.3	-	-	-	-	-	-	-	-
32-200/0.55R	0.75	0.55	10.3	9.2	7.3	6.2	-	-	-	-	-	-	-	-
32-200/0.55	0.75	0.55	12.0	11.0	9.2	8.0	-	-	-	-	-	-	-	-
32-200/0.75	1	0.75	17.1	16.1	14.3	13.2	-	-	-	-	-	-	-	-
40-125/0.37R	0.5	0.37	-	4.8	4.5	4.3	4.0	3.4	2.6	1.8	-	-	-	-
40-125/0.37	0.5	0.37	-	6.3	6.0	5.8	5.5	4.9	4.2	3.4	-	-	-	-
40-160/0.55R	0.75	0.55	-	7.3	6.9	6.6	6.3	5.7	5.0	4.3	-	-	-	-
40-160/0.55	0.75	0.55	-	8.6	8.1	7.8	7.5	6.9	6.2	5.4	-	-	-	-
40-200/1.1R	1.5	1.1	-	11.2	10.8	10.5	10.1	9.4	8.6	7.8	-	-	-	-
40-200/1.1	1.5	1.1	-	13.2	12.7	12.4	12.1	11.4	10.6	9.6	-	-	-	-
40-200/1.5	2	1.5	-	17.7	17.3	17.1	16.8	16.1	15.2	14.2	-	-	-	-
50-125/0.55R	0.75	0.55	-	-	-	-	5.2	5.0	4.7	4.4	4.0	3.2	2.3	-
50-125/0.55	0.75	0.55	-	-	-	-	6.2	6.0	5.7	5.4	5.0	4.2	3.3	-
50-160/1.1R	1.5	1.1	-	-	-	-	7.8	7.6	7.2	6.9	6.4	5.5	4.5	4.0
50-160/1.1	1.5	1.1	-	-	-	-	9.1	8.9	8.6	8.3	7.9	7.0	6.0	5.5
50-200/1.5R	2	1.5	-	-	-	-	12.1	11.8	11.4	11.0	10.5	9.3	8.0	7.2
50-200/1.5	2	1.5	-	-	-	-	13.3	13.0	12.7	12.2	11.8	10.6	9.2	8.4
50-200/2.2	3	2.2	-	-	-	-	17.5	17.3	17.0	16.6	16.2	15.1	13.8	13.1

PERFORMANCE CHART 65-80

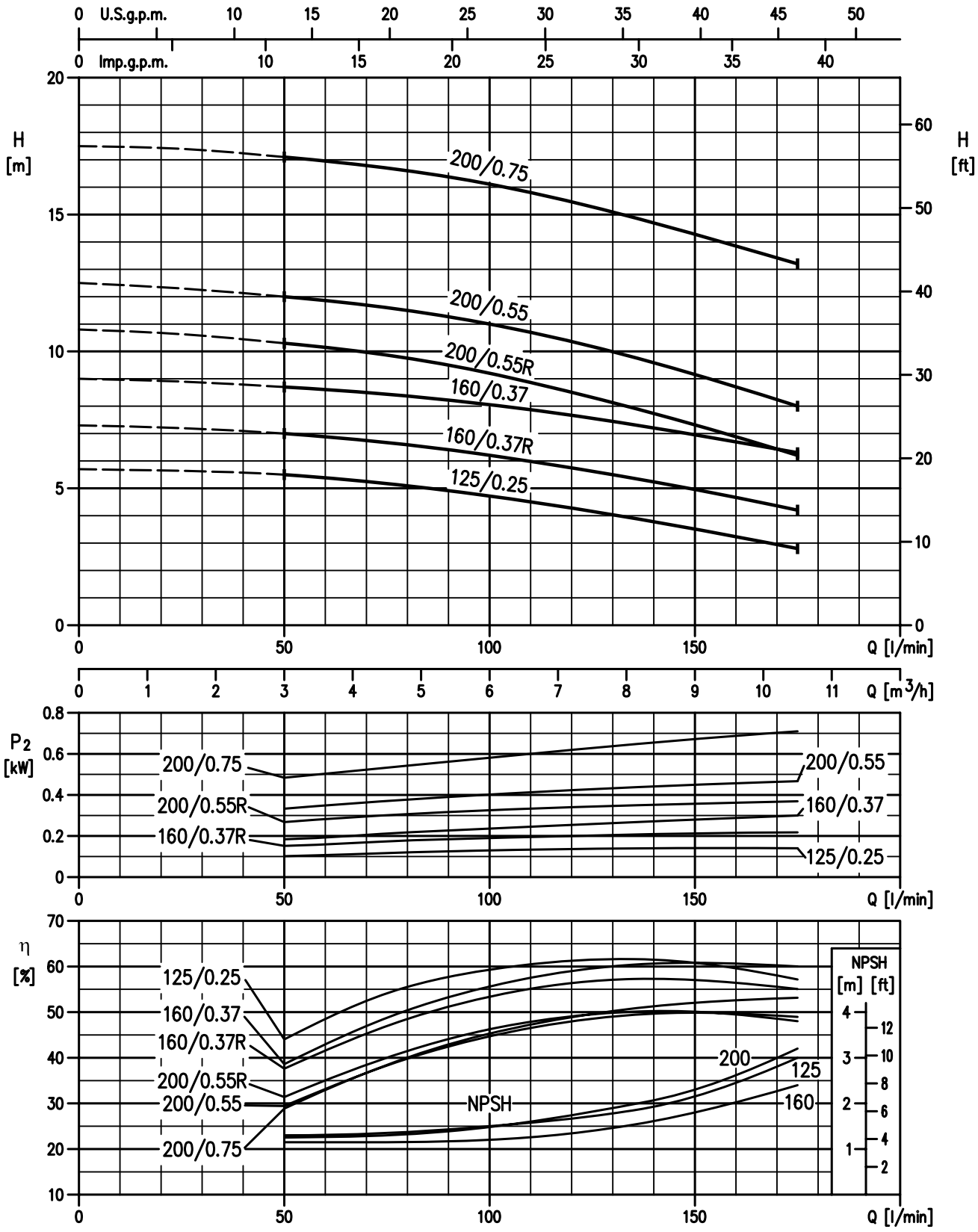
4 Poles

Model	P_2		Q = Flow Rate															
			l/min 300	350	500	600	800	950	1000	1050	1100	1200	1300	1400	1600	1800	2000	2200
	[HP]	[kW]	m^3/h 18	21	30	36	48	57	60	63	66	72	78	84	96	108	120	132
			H=Head (m)															
65-125/0.55	0.75	0.55	4.8	4.6	4.0	3.5	2.3	1.4	-	-	-	-	-	-	-	-	-	-
65-125/0.75	1	0.75	6.0	5.8	5.2	4.6	3.5	2.5	2.2	-	-	-	-	-	-	-	-	-
65-125/1.1	1.5	1.1	7.2	7.0	6.3	5.7	4.5	3.5	3.2	2.8	-	-	-	-	-	-	-	-
65-160/1.1	1.5	1.1	-	8.1	7.4	6.9	5.7	4.6	4.2	3.8	-	-	-	-	-	-	-	-
65-160/1.5	2	1.5	-	9.2	8.5	8.0	6.7	5.7	5.3	4.9	4.5	-	-	-	-	-	-	-
65-160/2.2	3	2.2	-	11.3	10.6	10.1	8.8	7.6	7.2	6.8	6.4	5.5	-	-	-	-	-	-
65-200/2.2R	3	2.2	-	12.4	11.6	10.9	9.3	7.8	7.3	6.8	-	-	-	-	-	-	-	-
65-200/2.2	3	2.2	-	13.9	13.0	12.4	10.8	9.3	8.8	8.3	7.8	-	-	-	-	-	-	-
65-200/3	4	3	-	15.8	15.1	14.4	12.9	11.6	11.1	10.6	10.1	9.0	-	-	-	-	-	-
65-250/4	5.5	4	-	-	18.1	17.6	16.1	14.7	14.2	13.7	13.0	11.6	9.8	-	-	-	-	-
65-250/5.5	7.5	5.5	-	-	21.2	20.8	19.6	18.4	17.9	17.5	17.0	15.8	14.4	12.8	-	-	-	-
80-160/1.5	2	1.5	-	-	-	6.8	6.3	5.9	5.7	5.6	5.4	5.0	4.6	4.2	3.4	2.4	-	-
80-160/2.2R	3	2.2	-	-	-	8.1	7.8	7.4	7.3	7.1	7.0	6.7	6.4	6.0	5.2	4.2	3.0	-
80-160/2.2	3	2.2	-	-	-	9.1	8.8	8.4	8.3	8.2	8.0	7.8	7.4	7.1	6.2	5.2	4.1	-
80-200/3	4	3	-	-	-	12.0	11.5	10.9	10.7	10.4	10.2	9.7	9.2	8.6	7.3	5.9	4.2	-
80-200/4R	5.5	4	-	-	-	14.4	13.9	13.4	13.2	12.9	12.7	12.2	11.7	11.2	10.1	8.8	7.2	5.6
80-200/4	5.5	4	-	-	-	15.4	14.9	14.3	14.1	13.9	13.7	13.2	12.8	12.3	11.1	9.9	8.4	6.7
80-250/5.5R	7.5	5.5	-	-	-	17.7	17.0	16.3	16.0	15.7	15.4	14.6	13.8	12.9	10.7	8.4	-	-
80-250/5.5	7.5	5.5	-	-	-	20.5	19.9	19.1	18.9	18.6	18.2	17.6	16.8	15.9	13.8	11.7	9.3	-
80-250/7.5	10	7.5	-	-	-	24.0	23.4	22.8	22.5	22.2	21.9	21.3	20.6	19.8	18.0	15.9	13.5	10.8

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

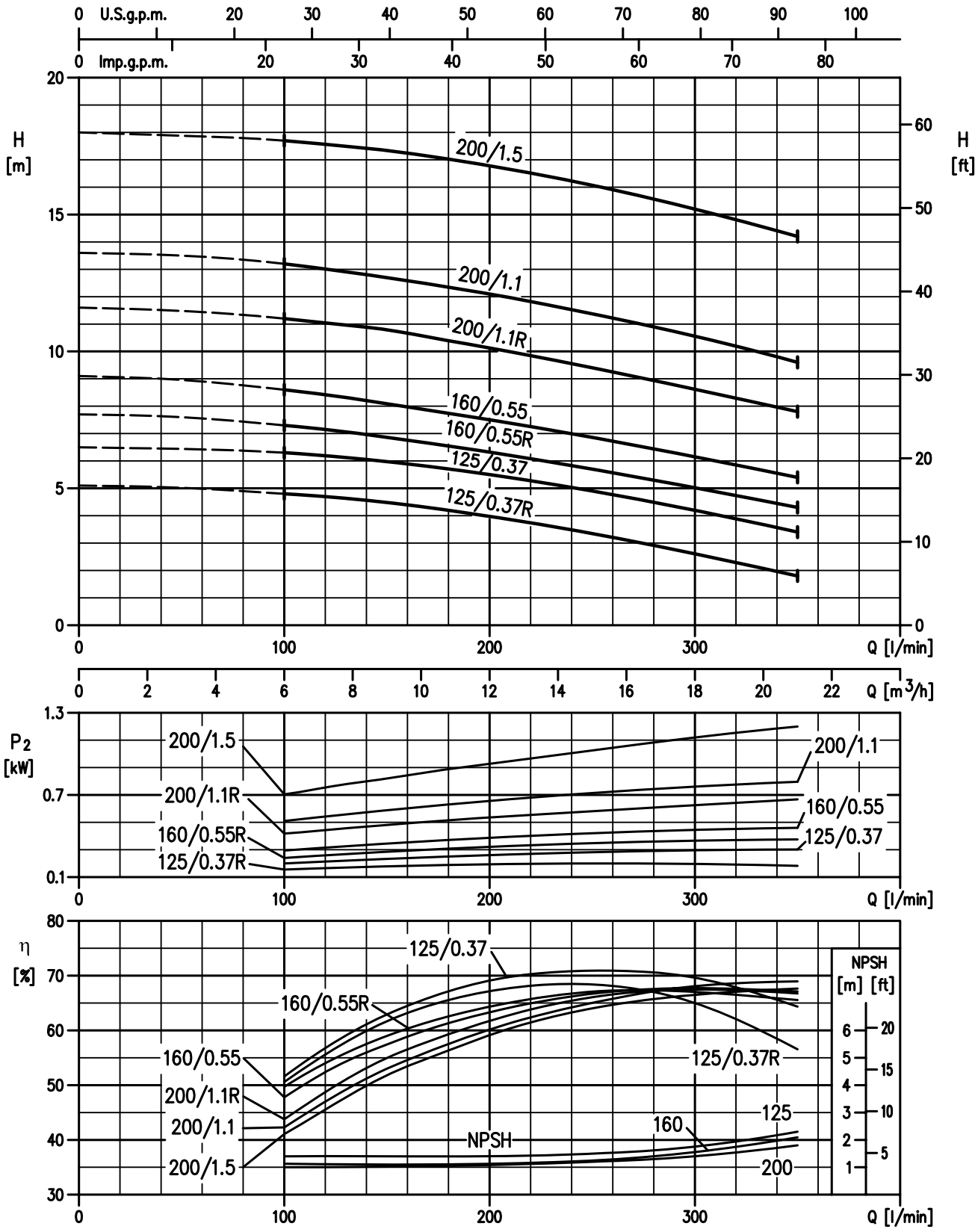
PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 32 SERIES at 1450 min-1 (according to ISO 9906 Attachment A)

4 Poles



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

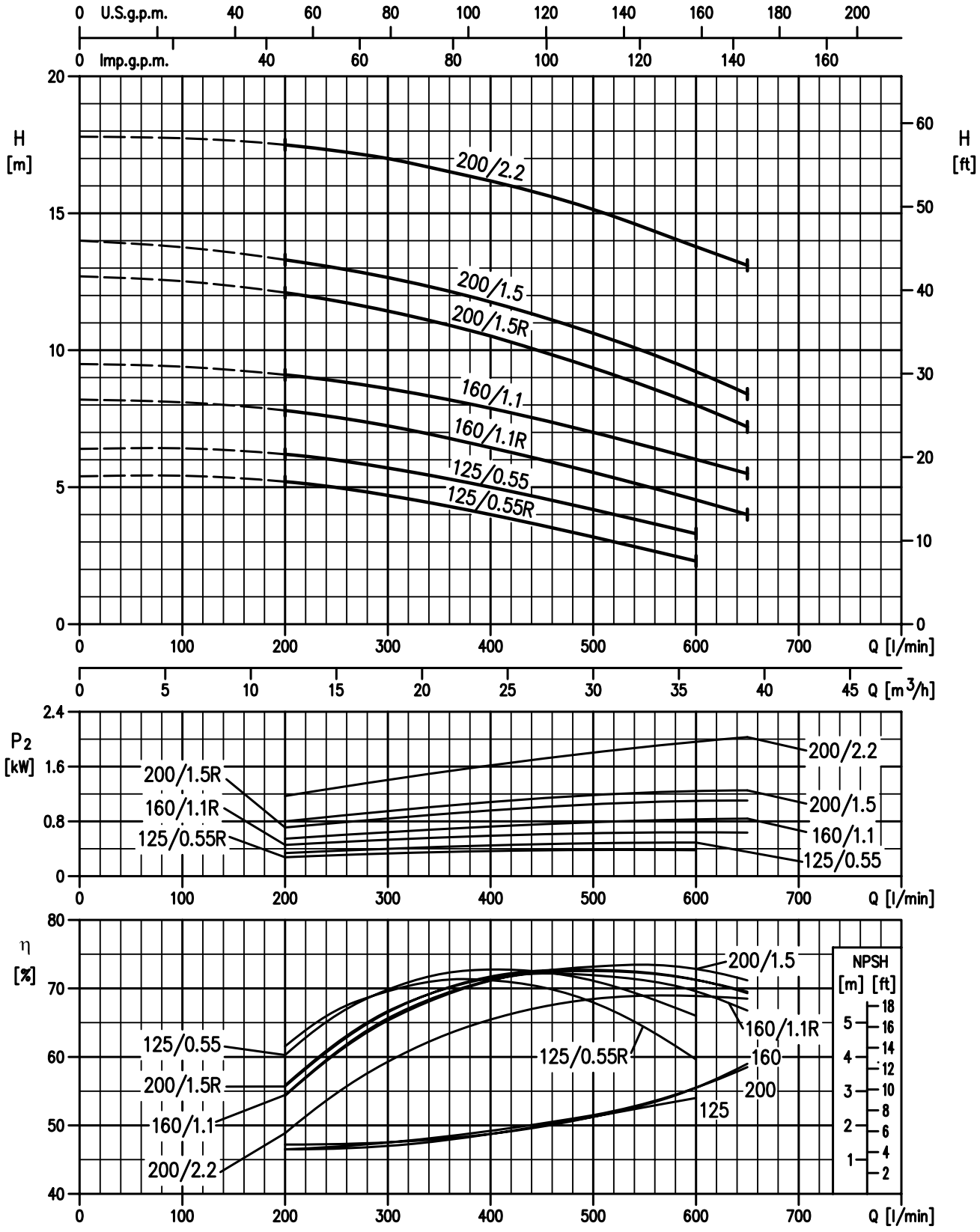
PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 40 SERIES at 1450 min-1 (according to ISO 9906 Attachment A) **4 Poles**



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

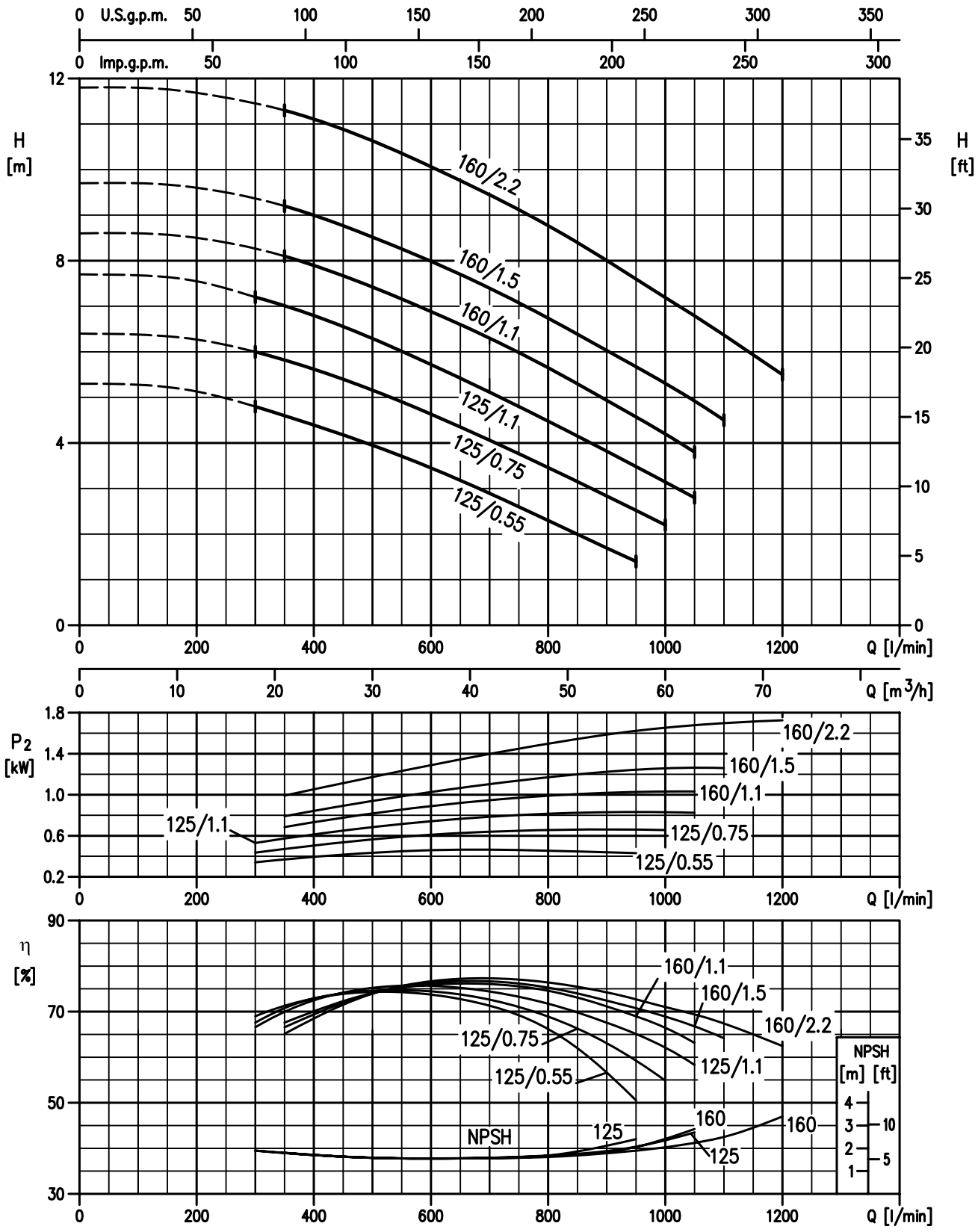
PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 50 SERIES at 1450 min-1 (according to ISO 9906 Attachment A)

4 Poles



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

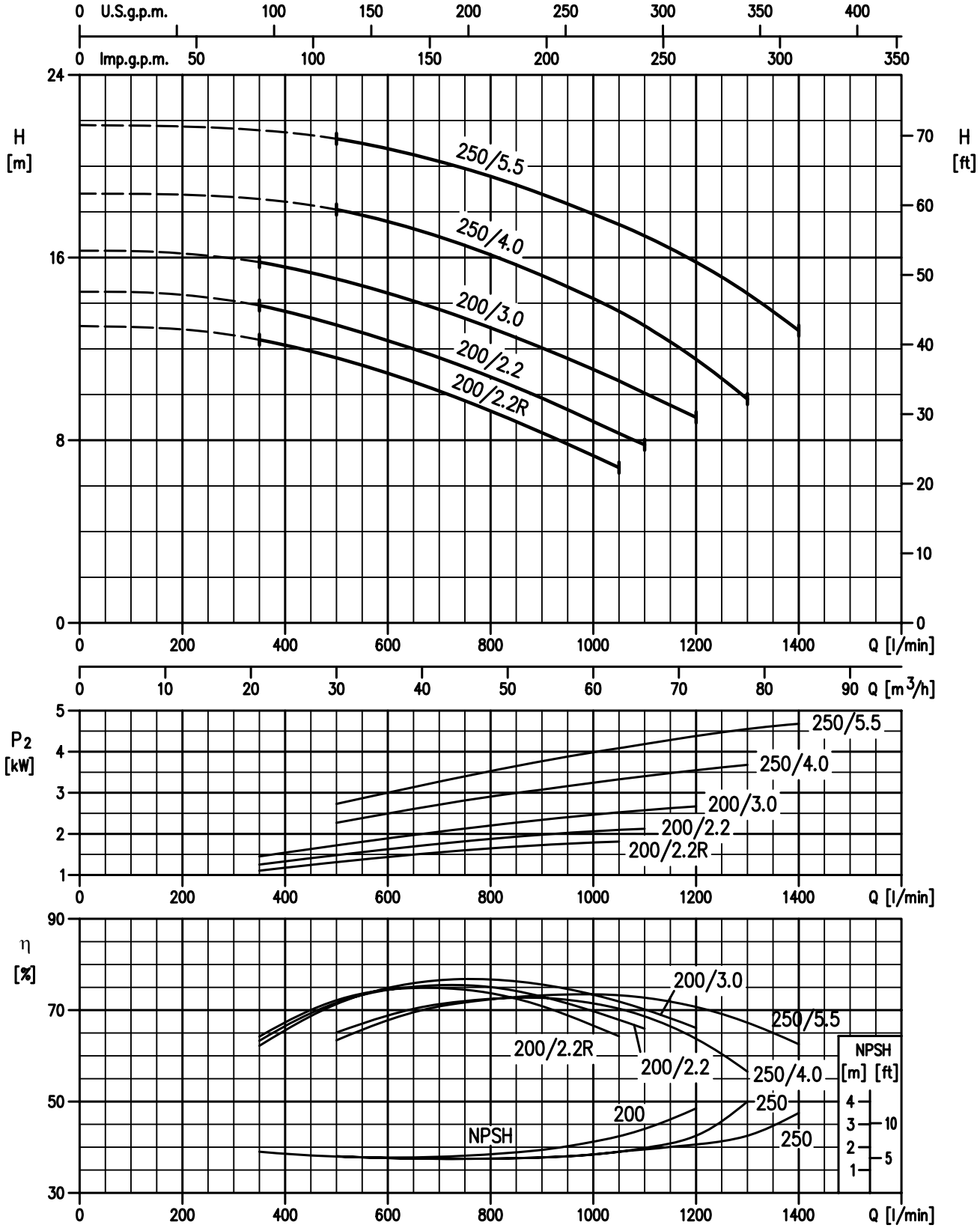
PERFORMANCE CURVES 3(L)M-3(L)S-3(L)P 65 SERIES at 1450 min-1 (according to ISO 9906 Attachment A) **4 Poles**



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

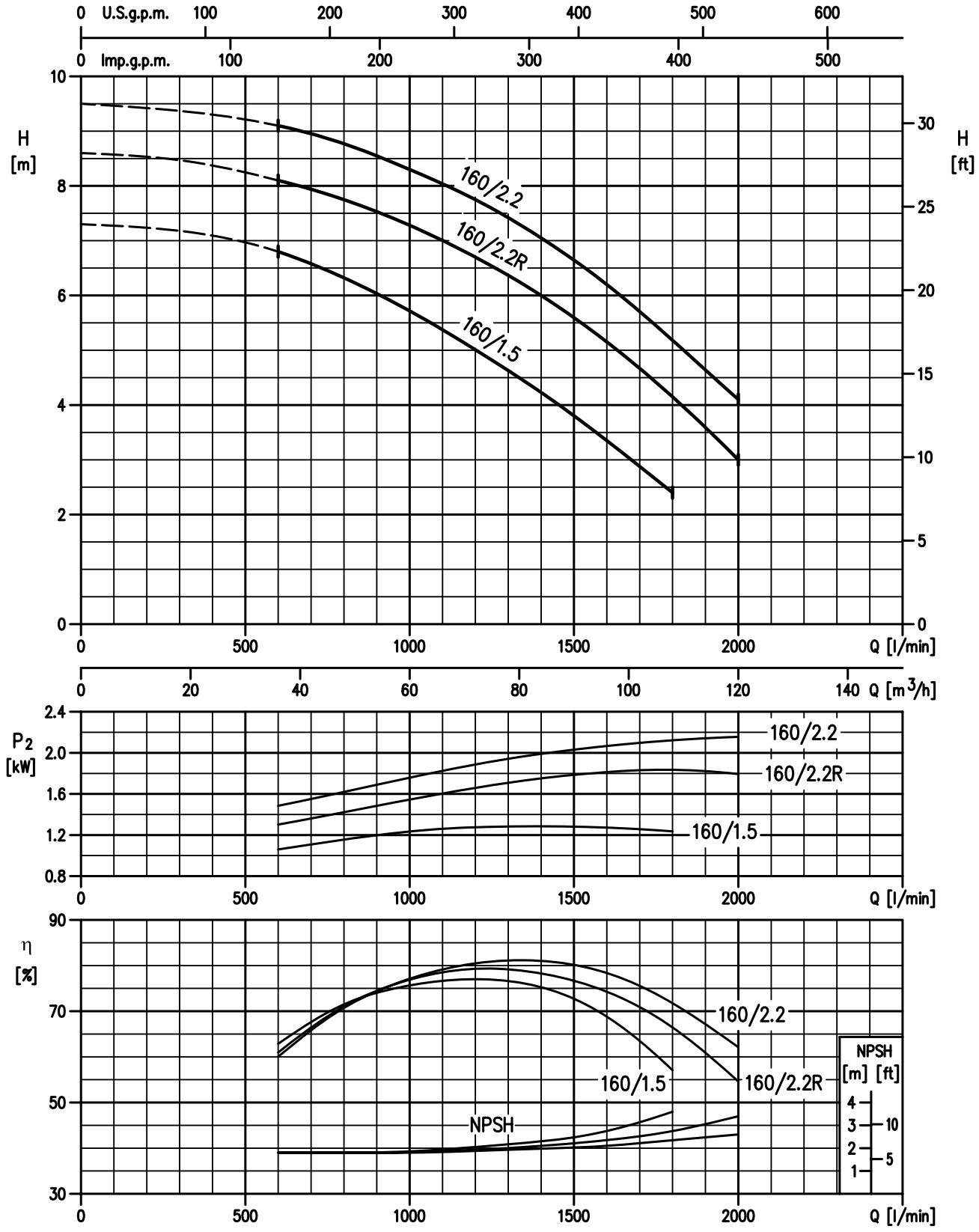
PERFORMANCE CURVES 3L 65 SERIES at 1450 min-1 (according to ISO 9906 Attachment A)

4 Poles



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

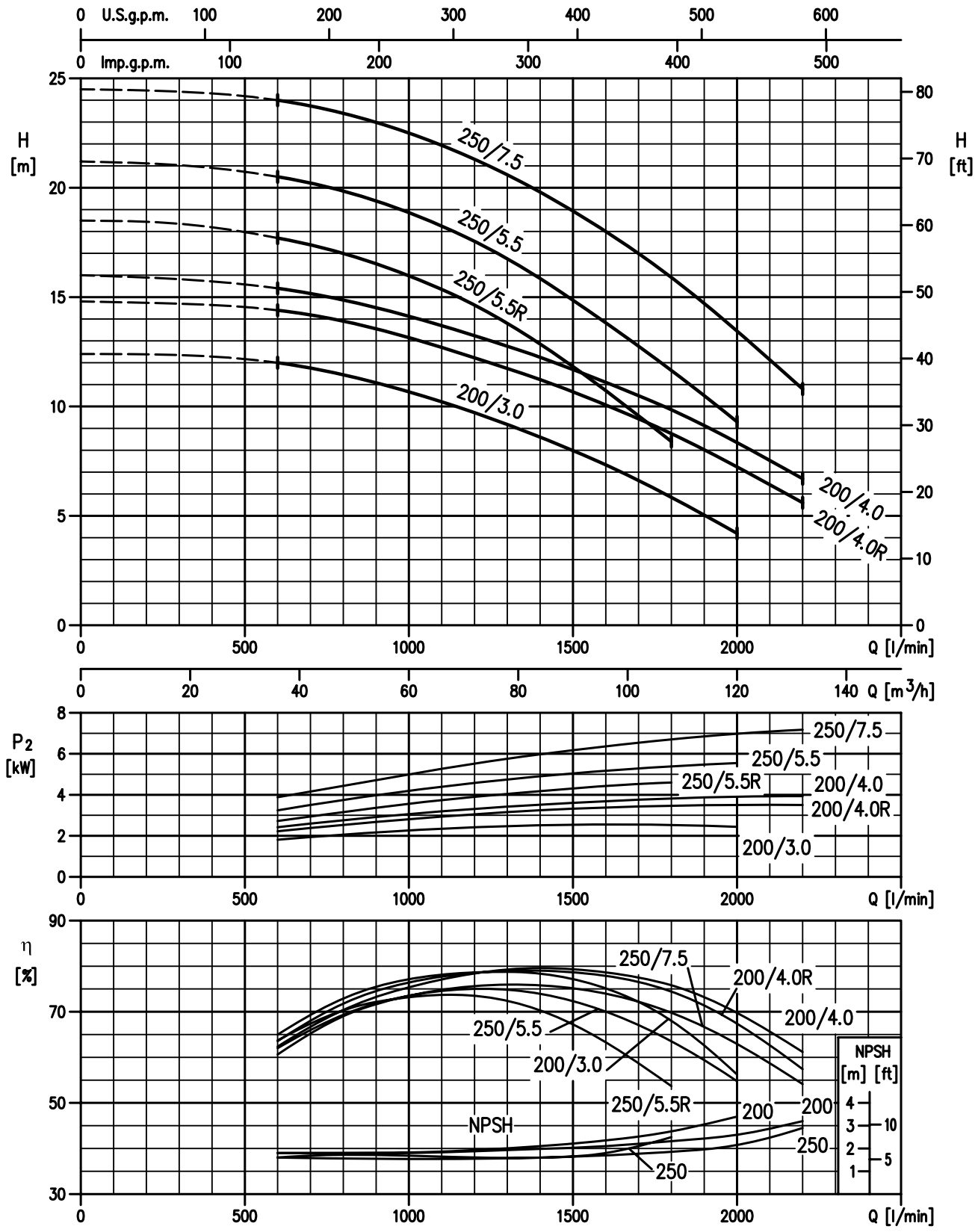
PERFORMANCE CURVES 3L 80 SERIES at 1450 min-1 (according to ISO 9906 Attachment A) **4 Poles**



CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3L 80 SERIES at 1450 min-1 (according to ISO 9906 Attachment A)

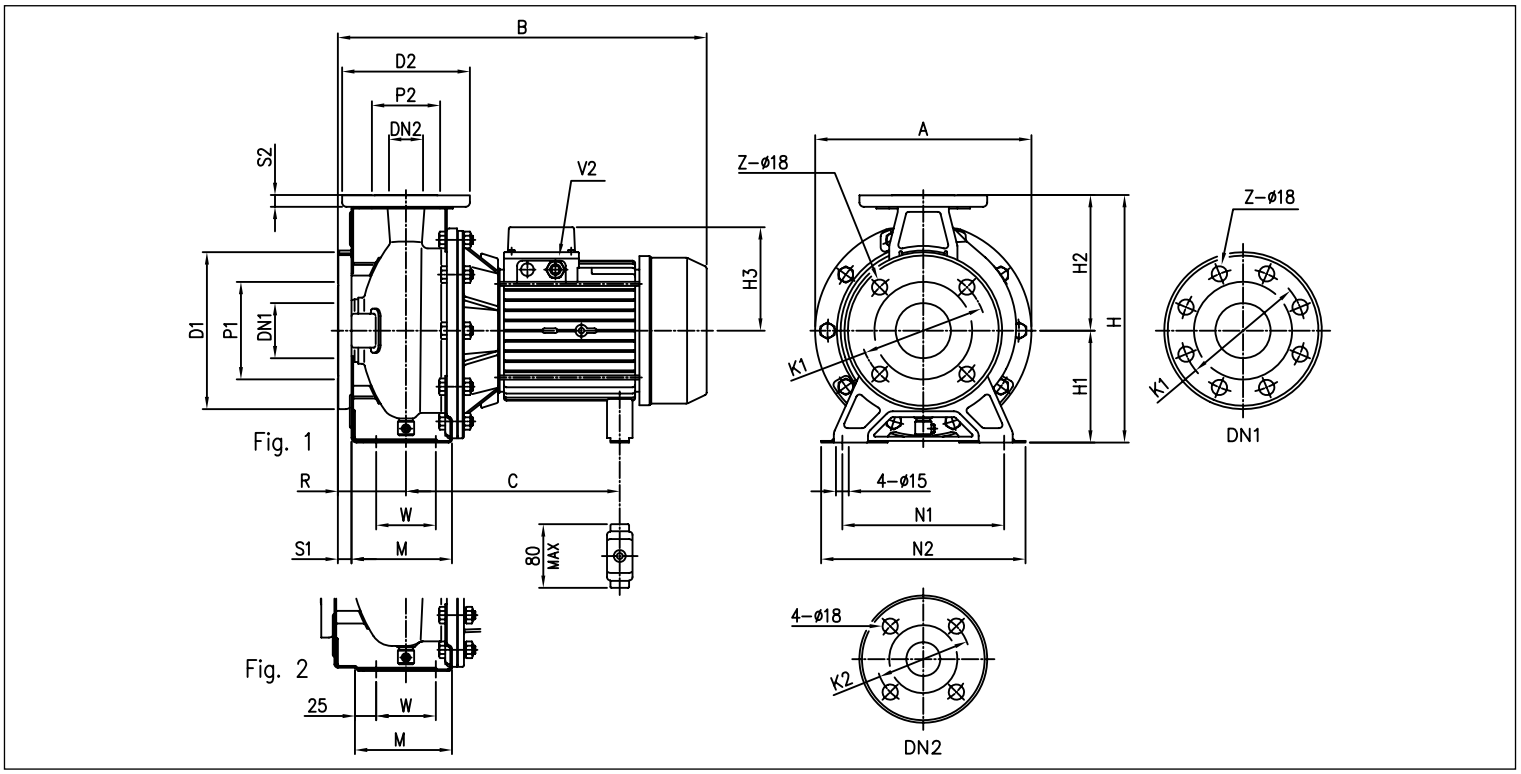
4 Poles



3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)M4 32, 40, 50, 65-125/160/200 **4 Poles**



DIMENSIONAL TABLE

Model	Dimensions [mm]																										Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	H3	R	W	M	N1	N2	A	B	C	V2	
32-125/0.25	50	95	125	165	16	4	-	32	75	100	140	14	1	252	112	140	102	80	70	114	140	190	213	371	205	PG 11	15.0
32-160/0.37R	50	95	125	165	16	4	-	32	75	100	140	14	1	292	132	160	119	80	70	118	190	240	254	393	219	PG 11	19.7
32-160/0.37	50	95	125	165	16	4	-	32	75	100	140	14	1	292	132	160	119	80	70	118	190	240	254	393	219	PG 11	19.9
32-200/0.55R	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	119	80	70	119	190	240	296	393	219	PG 11	24.5
32-200/0.55	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	119	80	70	119	190	240	296	393	219	PG 11	24.5
32-200/0.75	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	124	80	70	119	190	240	296	432	244÷255	PG 13.5	28.1
40-125/0.37R	65	115	145	185	16	4	-	40	80	110	150	14	1	252	112	140	102	80	70	114	160	210	213	371	205	PG 11	15.6
40-125/0.37	65	115	145	185	16	4	-	40	80	110	150	14	1	252	112	140	102	80	70	114	160	210	213	371	205	PG 11	15.7
40-160/0.55R	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	119	80	70	118	190	240	254	393	219	PG 11	20.2
40-160/0.55	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	119	80	70	118	190	240	254	393	219	PG 11	20.6
40-200/1.1R	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	124	100	70	115	212	265	296	452	244÷255	PG 13.5	28.5
40-200/1.1	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	124	100	70	115	212	265	296	452	244÷255	PG 13.5	28.6
40-200/1.5	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	124	100	70	115	212	265	296	491	244÷255	PG 13.5	30.3
50-125/0.55R	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	119	100	70	114	190	240	254	413	219	PG 11	20.4
50-125/0.55	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	119	100	70	114	190	240	254	413	219	PG 11	20.5
50-160/1.1R	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	124	100	70	115	212	265	296	452	244÷255	PG 13.5	28.6
50-160/1.1	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	124	100	70	115	212	265	296	452	244÷255	PG 13.5	28.7
50-200/1.5R	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	124	100	70	115	212	265	296	491	244÷255	PG 13.5	30.5
50-200/1.5	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	124	100	70	115	212	265	296	491	244÷255	PG 13.5	31.6
50-200/2.2	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	141	100	70	115	212	265	296	474	253	PG 16	30.0
65-125/0.55	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	119	100	95	140	212	280	254	413	219	PG 11	21.9
65-125/0.75	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	124	100	95	140	212	280	254	452	244÷255	PG 13.5	20.0
65-125/1.1	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	124	100	95	140	212	280	254	452	244÷255	PG 13.5	20.0
65-160/1.1	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	124	100	95	140	212	280	296	452	244÷255	PG 13.5	28.5
65-160/1.5	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	124	100	95	140	212	280	296	491	244÷255	PG 13.5	30.0
65-160/2.2	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	141	100	95	140	212	280	296	474	253	PG 16	32.0
65-200/2.2R	80	134	160	200	18	8	4	65	115	145	185	16	2	405	180	225	141	100	95	140	250	320	296	474	253	PG 16	30.0
65-200/2.2	80	134	160	200	18	8	4	65	115	145	185	16	2	405	180	225	141	100	95	140	250	320	296	474	253	PG 16	30.0
65-200/3	80	134	160	200	18	8	4	65	115	145	185	16	2	405	180	225	141	100	95	140	250	320	296	514	253	PG 16	38.0

[1] Standard
[2] On request

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)M4 65-250, 80-160/200, 80-250/5.5 **4 Poles**

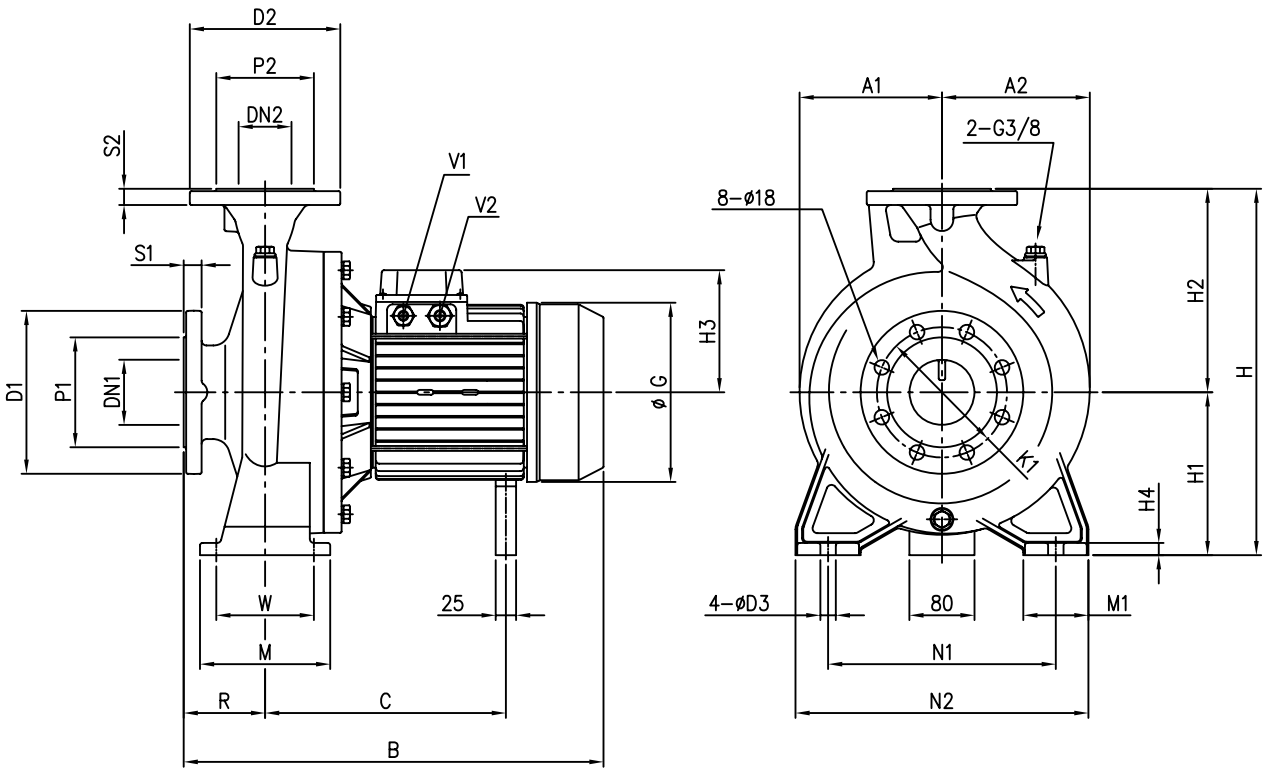


Fig. 1

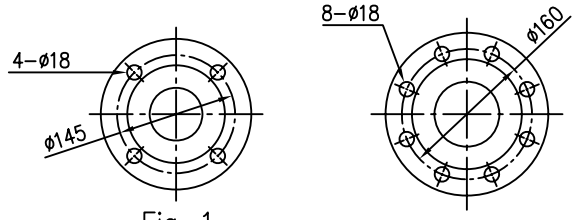


Fig. 2

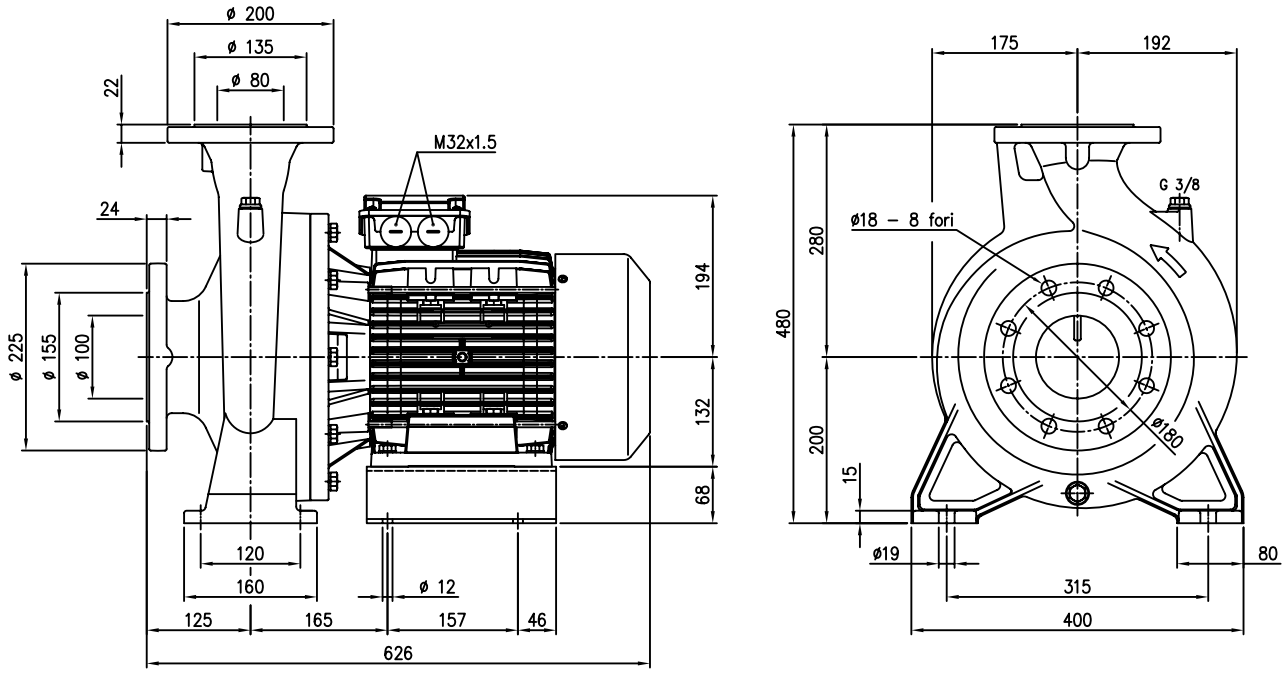
DIMENSIONAL TABLE

Model	Dimensions [mm]																											Weight [kg]
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	H4	R	W	N1	N2	M	M1	A1	A2	B	C	G	D3	V1	V2	
65-250/4	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	150	15	100	120	280	360	160	80	175	182	559	295	220	19	PG13.5	PG16	81.0
65-250/5.5	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	178	15	100	120	280	360	160	80	175	182	612	376	259	19	PG13.5	PG21	96.0
80-160/1.5	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	124	13	125	95	250	320	125	65	147	173	516	244÷255	176	15	-	PG13.5	53.0
80-160/2.2R	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	141	13	125	95	250	320	125	65	147	173	499	253	193	15	-	PG16	53.0
80-160/2.2	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	141	13	125	95	250	320	125	65	147	173	499	253	193	15	-	PG16	53.0
80-200/3	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	141	13	125	95	280	345	125	65	175	182	561	275	193	15	-	PG16	73.0
80-200/4R	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	150	13	125	95	280	345	125	65	175	182	584	295	220	15	PG13.5	PG16	80.0
80-200/4	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	150	13	125	95	280	345	125	65	175	182	584	295	220	15	PG13.5	PG16	81.0
80-250/5.5R	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	178	15	125	120	315	400	160	80	175	192	637	376	259	19	PG13.5	PG21	94.0
80-250/5.5	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	178	15	125	120	315	400	160	80	175	192	637	376	259	19	PG13.5	PG21	95.0

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)M4 80-250/7.5 **4 Poles**

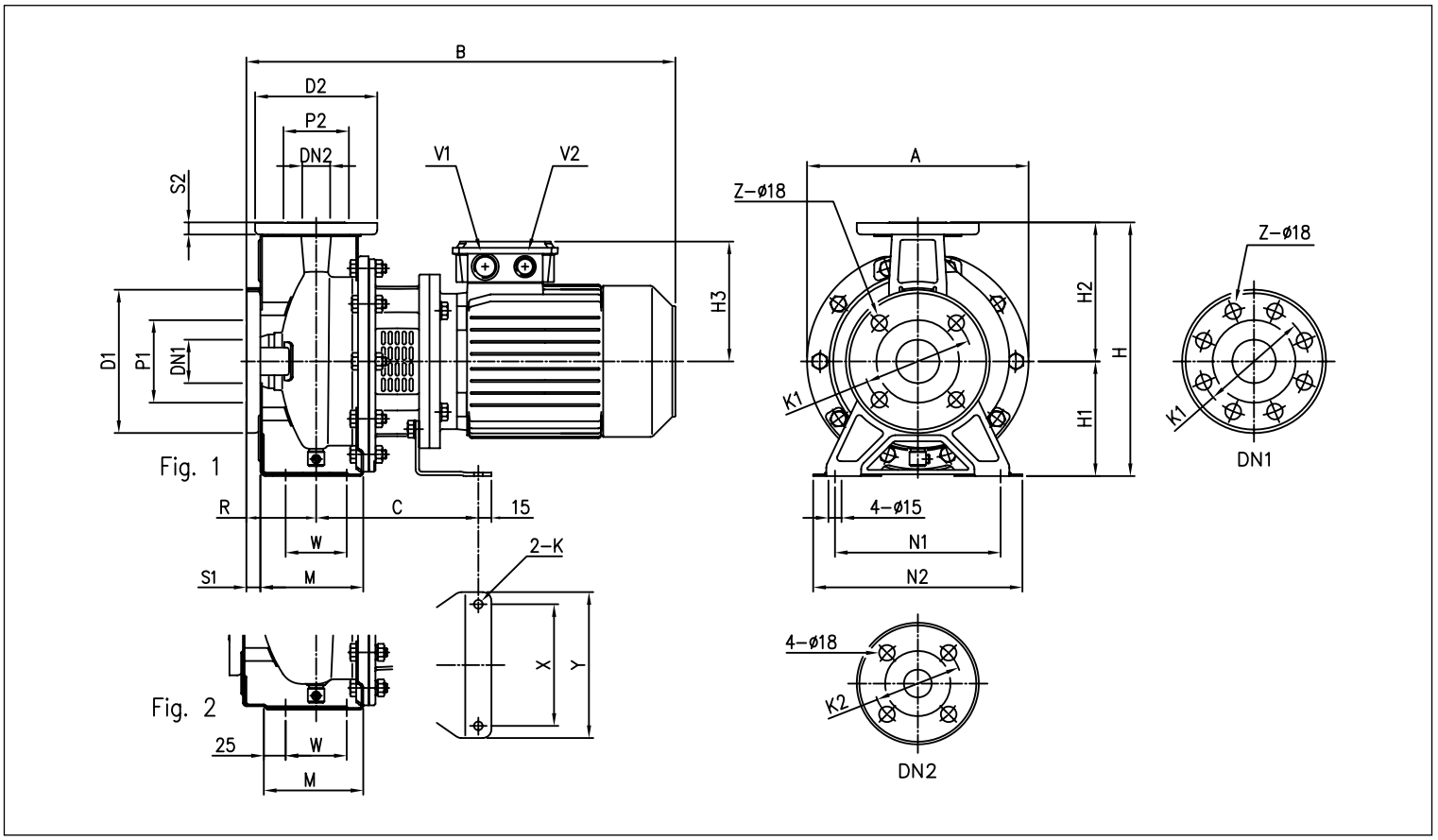


Weight
3(L)M4 80-250/7.5: 119.0 kg

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)S4 32, 40, 50, 65 - up to 1.5 kW

4 Poles



DIMENSIONAL TABLE

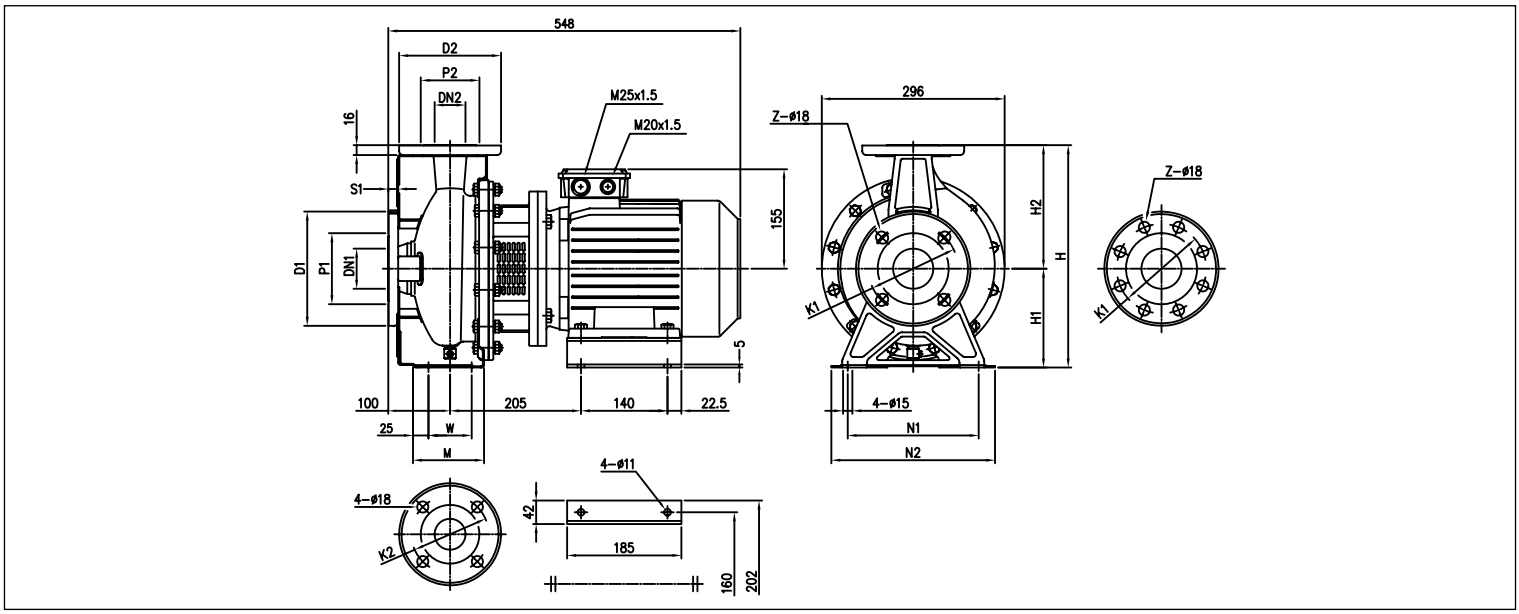
Model	Dimensions [mm]																													Weight [kg]	
	DN Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	H3	R	W	M	N1	N2	A	B	C	X	Y	K	V1	V2		*
32-125/0.25	50	95	125	165	16	4	-	32	75	100	140	14	1	252	112	140	114	80	70	114	140	190	213	404	153	112	140	8	M20x1.5	M16x1.5	15.4	-
32-160/0.37R	50	95	125	165	16	4	-	32	75	100	140	14	1	292	132	160	114	80	70	118	190	240	254	404	153	112	140	8	M20x1.5	M16x1.5	18.5	-
32-160/0.37	50	95	125	165	16	4	-	32	75	100	140	14	1	292	132	160	114	80	70	118	190	240	254	404	153	112	140	8	M20x1.5	M16x1.5	18.7	-
32-200/0.55R	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	139	80	70	119	190	240	296	430	174	140	168	10	M25x1.5	M20x1.5	28.0	-
32-200/0.55	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	139	80	70	119	190	240	296	430	174	140	168	10	M25x1.5	M20x1.5	33.0	-
32-200/0.75	50	95	125	165	16	4	-	32	75	100	140	14	1	340	160	180	139	80	70	119	190	240	296	430	174	140	168	10	M25x1.5	M20x1.5	29.5	29.5
40-125/0.37R	65	115	145	185	16	4	-	40	80	110	150	14	1	252	112	140	114	80	70	114	160	210	213	404	153	112	140	8	M20x1.5	M16x1.5	16.2	-
40-125/0.37	65	115	145	185	16	4	-	40	80	110	150	14	1	252	112	140	114	80	70	114	160	210	213	404	153	112	140	8	M20x1.5	M16x1.5	16.2	-
40-160/0.55R	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	139	80	70	118	190	240	254	430	174	140	168	10	M25x1.5	M20x1.5	23.5	-
40-160/0.55	65	115	145	185	16	4	-	40	80	110	150	14	1	292	132	160	139	80	70	118	190	240	254	430	174	140	168	10	M25x1.5	M20x1.5	23.5	-
40-200/1.1R	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	148	100	70	115	212	265	296	497	186	140	168	10	M25x1.5	M20x1.5	34.3	32.1
40-200/1.1	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	148	100	70	115	212	265	296	497	186	140	168	10	M25x1.5	M20x1.5	34.3	32.1
40-200/1.5	65	115	145	185	16	4	-	40	80	110	150	14	2	340	160	180	148	100	70	115	212	265	296	497	186	140	168	10	M25x1.5	M20x1.5	35.5	32.9
50-125/0.55R	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	139	100	70	114	190	240	254	450	174	140	168	10	M25x1.5	M20x1.5	23.7	-
50-125/0.55	65	115	145	185	16	4	-	50	95	125	165	16	2	292	132	160	139	100	70	114	190	240	254	450	174	140	168	10	M25x1.5	M20x1.5	23.7	-
50-160/1.1R	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	148	100	70	115	212	265	296	497	186	140	168	10	M25x1.5	M20x1.5	34.0	31.8
50-160/1.1	65	115	145	185	16	4	-	50	95	125	165	16	2	340	160	180	148	100	70	115	212	265	296	497	186	140	168	10	M25x1.5	M20x1.5	34.0	31.8
50-200/1.5R	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	148	100	70	115	212	265	296	497	186	140	168	10	M25x1.5	M20x1.5	37.1	34.5
50-200/1.5	65	115	145	185	16	4	-	50	95	125	165	16	2	360	160	200	148	100	70	115	212	265	296	497	186	140	168	10	M25x1.5	M20x1.5	37.1	34.5
65-125/0.55	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	139	100	95	140	212	280	254	450	174	140	168	10	M25x1.5	M20x1.5	21.5	-
65-125/0.75	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	139	100	95	140	212	280	254	450	174	140	168	10	M25x1.5	M20x1.5	30.0	30.0
65-125/1.1	80	134	160	200	18	8	4	65	115	145	185	16	2	340	160	180	148	100	95	140	212	280	254	497	186	140	168	10	M25x1.5	M20x1.5	30.0	27.8
65-160/1.1	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	148	100	95	140	212	280	296	497	186	140	168	10	M25x1.5	M20x1.5	31.0	28.8
65-160/1.5	80	134	160	200	18	8	4	65	115	145	185	16	2	360	160	200	148	100	95	140	212	280	296	497	186	140	168	10	M25x1.5	M20x1.5	43.0	40.4

[1] Standard [2] On request
* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)S4 50, 65 - 2.2 ÷ 3 kW

4 Poles



DIMENSIONAL TABLE

Model	Dimensions [mm]																		Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	H	H1	H2	W	M	N1	N2		*
50-200/2.2	65	115	145	185	16	4	-	50	95	125	165	360	160	200	70	115	212	265	43.0	43.4
65-160/2.2	80	134	160	200	18	8	4	65	115	145	185	360	160	200	95	140	212	280	46.0	46.4
65-200/2.2R	80	134	160	200	18	8	4	65	115	145	185	405	180	225	95	140	250	320	42.5	42.9
65-200/2.2	80	134	160	200	18	8	4	65	115	145	185	405	180	225	95	140	250	320	43.0	43.4
65-200/3	80	134	160	200	18	8	4	65	115	145	185	405	180	225	95	140	250	320	48.5	48.5

[1] Standard [2] On request
* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LS4 65-250, 80-160/200/250 - up to 7.5 kW

4 Poles

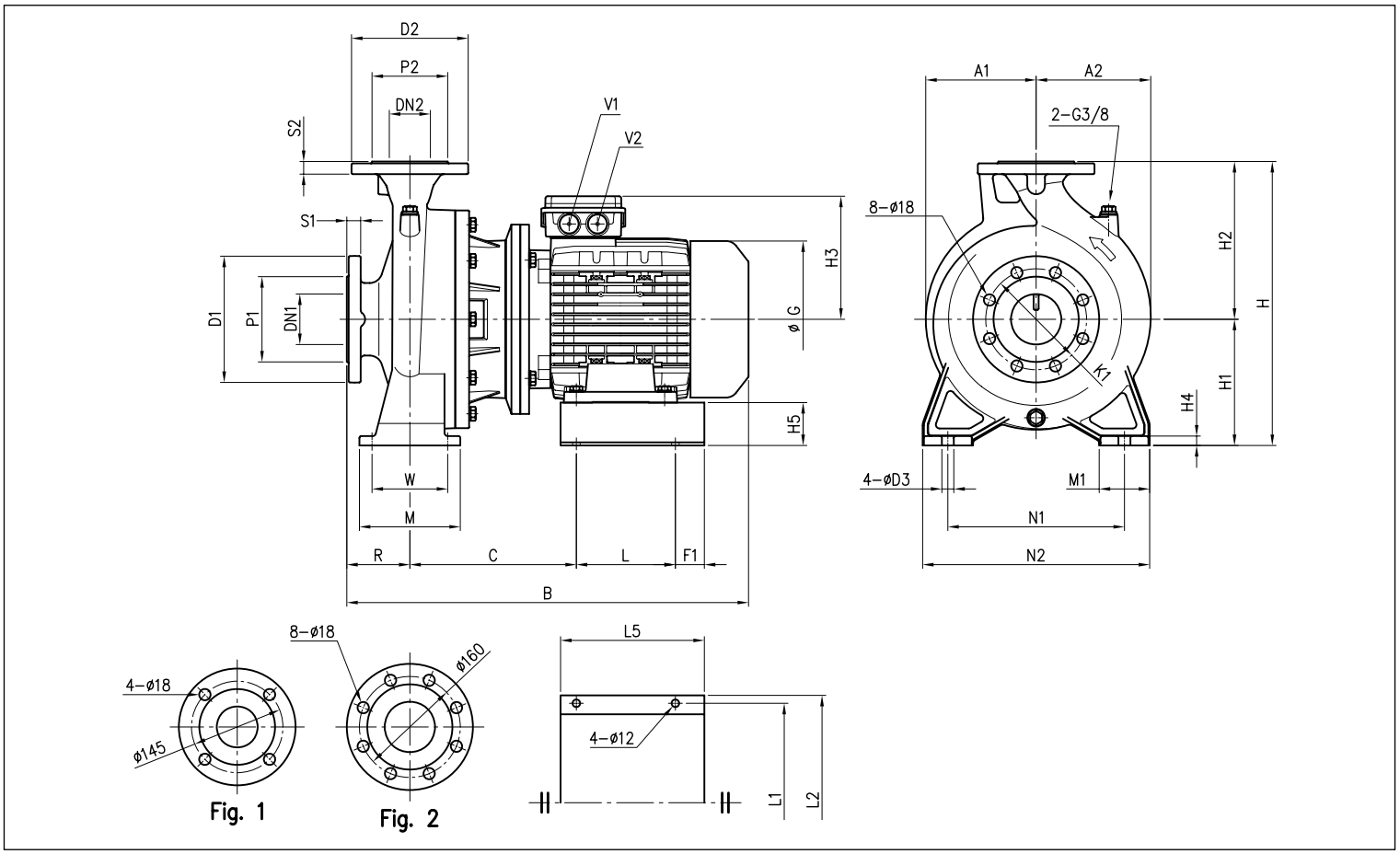


Fig. 1 Fig. 2

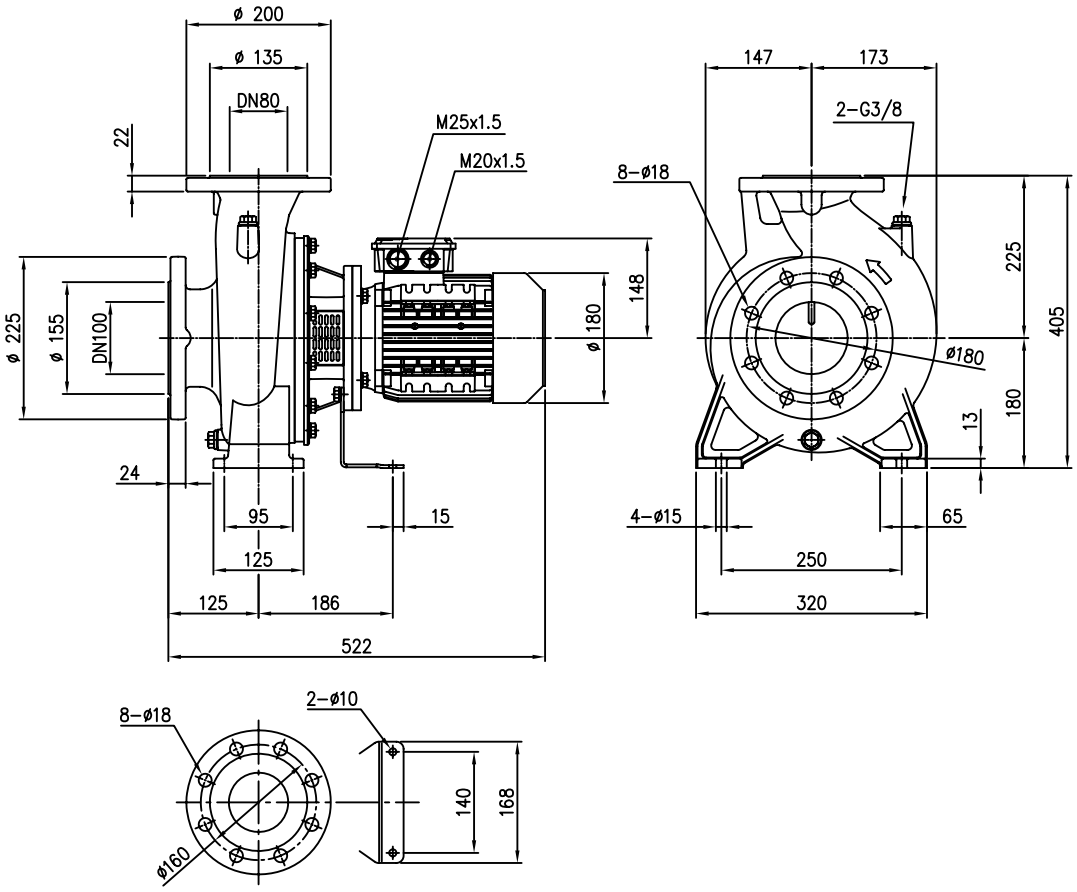
DIMENSIONAL TABLE

Model	Dimensions [mm]																															Weight [kg]	
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	H4	H5	R	W	N1	N2	M	M1	L	L1	L2	L5	A1	A2	B	C	F1	G	D3	V1	V2		*
65-250/4	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	171	15	88	100	120	280	360	160	80	147	265	290	187	175	182	580	215	20	225	19	M25x1.5	M20x1.5	85.0	90.6
65-250/5.5	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	198	15	68	100	120	280	360	160	80	157	315	340	228	175	182	637	264	46	248	19	M32x1.5	M32x1.5	108.0	118.0
80-160/2.2R	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	155	13	80	125	95	250	320	125	65	140	250	275	190	147	173	573	205	25	196	15	M25x1.5	M20x1.5	69.7	70.1
80-160/2.2	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	155	13	80	125	95	250	320	125	65	140	250	275	190	147	173	573	205	25	196	15	M25x1.5	M20x1.5	70.0	70.4
80-200/3	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	155	13	80	125	95	280	345	125	65	140	250	275	190	175	182	583	215	25	196	15	M25x1.5	M20x1.5	80.0	80.0
80-200/4R	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	171	13	68	125	95	280	345	125	65	157	315	340	228	175	182	605	198	46	225	15	M25x1.5	M20x1.5	84.0	89.6
80-200/4	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	171	13	68	125	95	280	345	125	65	157	315	340	228	175	182	605	198	46	225	15	M25x1.5	M20x1.5	90.0	95.6
80-250/5.5R	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	198	15	68	125	120	315	400	160	80	157	315	340	228	175	192	662	264	46	248	19	M32x1.5	M32x1.5	114.0	124.0
80-250/5.5	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	198	15	68	125	120	315	400	160	80	157	315	340	228	175	192	662	264	46	248	19	M32x1.5	M32x1.5	115.0	125.0
80-250/7.5	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	198	15	68	125	120	315	400	160	80	157	315	340	228	175	192	702	264	46	248	19	M32x1.5	M32x1.5	-	134.0

* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LS4 80-160/1.5 **4 Poles**

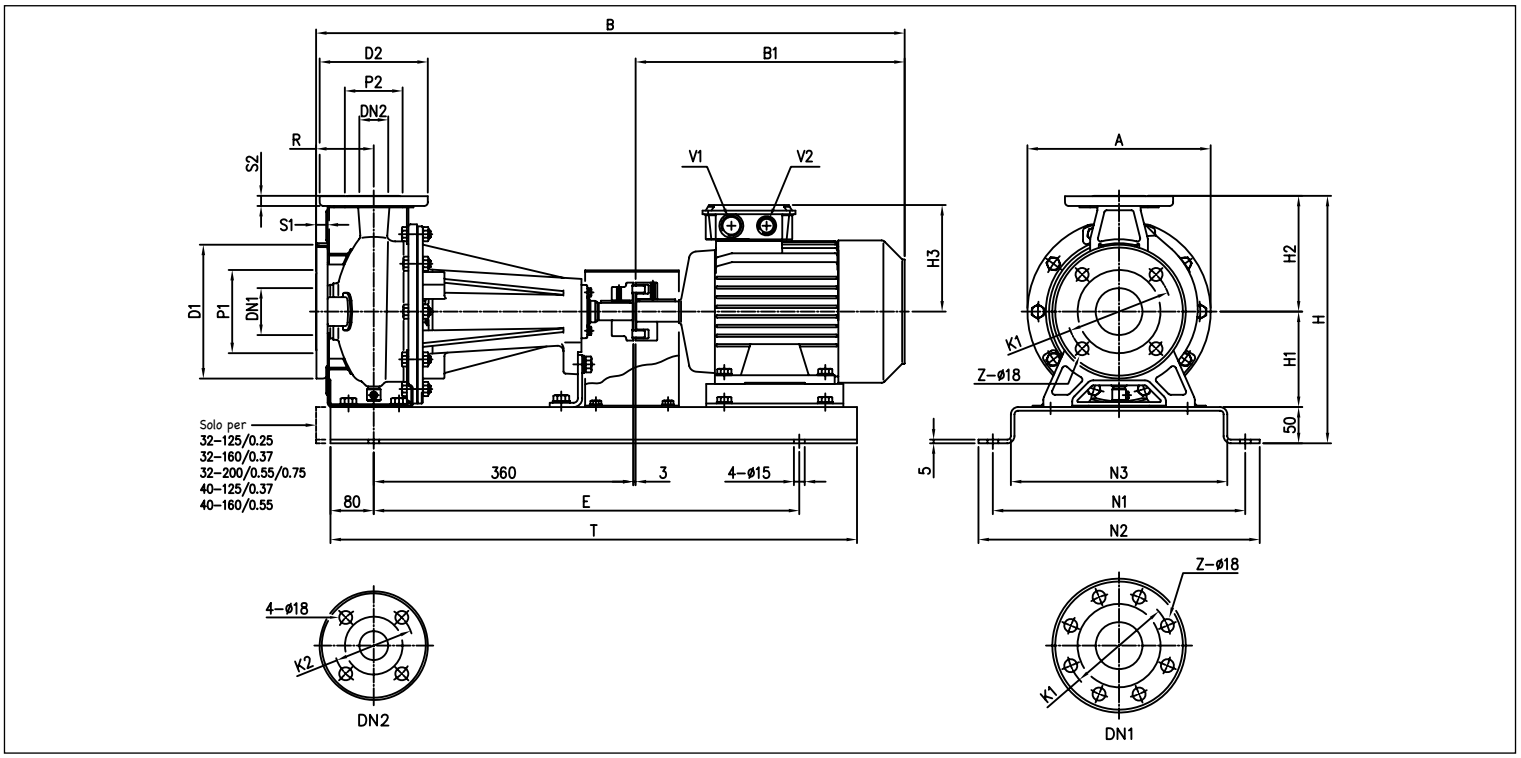


Weight 3LS4 80-160/1.5:
IE2= 60.5 kg
IE3= 57.9 kg

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)P4 32, 40, 50, 65 - up to 65-200

4 Poles



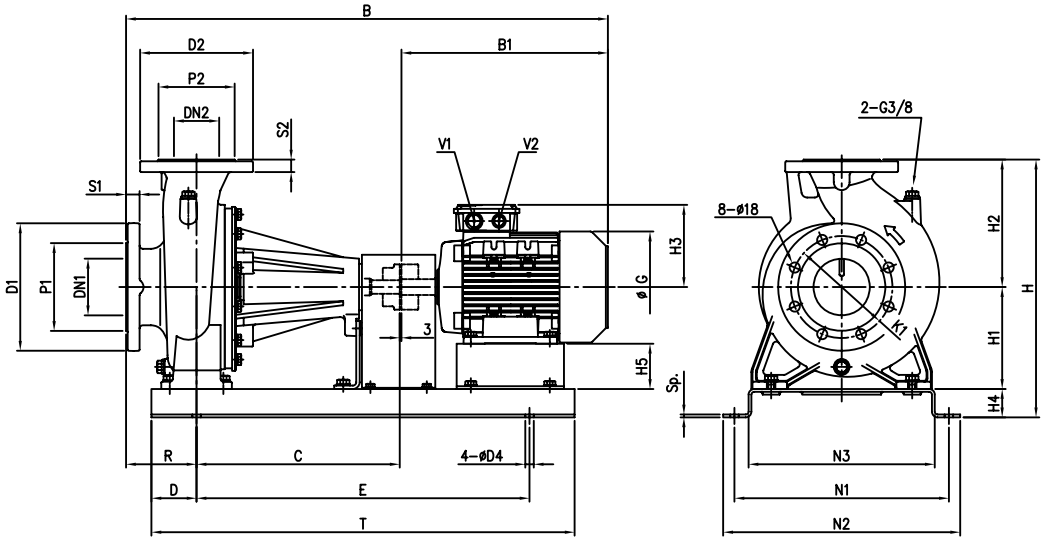
DIMENSIONAL TABLE

Model	Dimensions [mm]																										Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	Z [1]	Z [2]	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	A	B	B1	E	N1	N2	N3	T	V1	V2		*
32-125/0.25	50	95	125	165	16	4	-	32	75	100	140	14	302	112	140	114	80	213	689	246	550	300	340	250	710	M20x1.5	M16x1.5	37.0	-
32-160/0.37R	50	95	125	165	16	4	-	32	75	100	140	14	342	132	160	114	80	254	689	246	510	350	390	300	670	M20x1.5	M16x1.5	41.0	-
32-160/0.37	50	95	125	165	16	4	-	32	75	100	140	14	342	132	160	114	80	254	689	246	510	350	390	300	670	M20x1.5	M16x1.5	41.0	-
32-200/0.55R	50	95	125	165	16	4	-	32	75	100	140	14	390	160	180	139	80	296	715	272	510	350	390	300	670	M25x1.5	M20x1.5	53.5	-
32-200/0.55	50	95	125	165	16	4	-	32	75	100	140	14	390	160	180	139	80	296	715	272	510	350	390	300	670	M25x1.5	M20x1.5	53.5	-
32-200/0.75	50	95	125	165	16	4	-	32	75	100	140	14	390	160	180	139	80	296	715	272	510	350	390	300	670	M25x1.5	M20x1.5	54.5	54.5
40-125/0.37R	65	115	145	185	16	4	-	40	80	110	150	14	302	112	140	114	80	213	689	246	550	300	340	250	710	M20x1.5	M16x1.5	46.5	-
40-125/0.37	65	115	145	185	16	4	-	40	80	110	150	14	302	112	140	114	80	213	689	246	550	300	340	250	710	M20x1.5	M16x1.5	46.5	-
40-160/0.55R	65	115	145	185	16	4	-	40	80	110	150	14	342	132	160	139	80	254	715	272	510	350	390	300	670	M25x1.5	M20x1.5	44.5	-
40-160/0.55	65	115	145	185	16	4	-	40	80	110	150	14	342	132	160	139	80	254	715	272	510	350	390	300	670	M25x1.5	M20x1.5	44.5	-
40-200/1.1R	65	115	145	185	16	4	-	40	80	110	150	14	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	61.5	59.3
40-200/1.1	65	115	145	185	16	4	-	40	80	110	150	14	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	61.5	59.3
40-200/1.5	65	115	145	185	16	4	-	40	80	110	150	14	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	64.0	61.4
50-125/0.55R	65	115	145	185	16	4	-	50	95	125	165	16	342	132	160	139	100	254	735	272	510	350	390	300	670	M25x1.5	M20x1.5	45.0	-
50-125/0.55	65	115	145	185	16	4	-	50	95	125	165	16	342	132	160	139	100	254	735	272	510	350	390	300	670	M25x1.5	M20x1.5	45.0	-
50-160/1.1R	65	115	145	185	16	4	-	50	95	125	165	16	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	52.5	50.3
50-160/1.1	65	115	145	185	16	4	-	50	95	125	165	16	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	52.5	50.3
50-200/1.5R	65	115	145	185	16	4	-	50	95	125	165	16	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	64.0	61.4
50-200/1.5	65	115	145	185	16	4	-	50	95	125	165	16	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	64.0	61.4
50-200/2.2	65	115	145	185	16	4	-	50	95	125	165	16	410	160	200	155	100	296	829	366	590	350	390	300	750	M25x1.5	M20x1.5	70.0	70.4
65-125/0.55	80	134	160	200	18	8	4	65	115	145	185	16	390	160	180	139	100	254	735	272	510	350	390	300	670	M25x1.5	M20x1.5	48.5	-
65-125/0.75	80	134	160	200	18	8	4	65	115	145	185	16	390	160	180	139	100	254	735	272	510	350	390	300	670	M25x1.5	M20x1.5	48.5	48.5
65-125/1.1	80	134	160	200	18	8	4	65	115	145	185	16	390	160	180	148	100	254	780	317	590	350	390	300	750	M25x1.5	M20x1.5	56.0	53.8
65-160/1.1	80	134	160	200	18	8	4	65	115	145	185	16	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	62.5	60.3
65-160/1.5	80	134	160	200	18	8	4	65	115	145	185	16	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	63.5	60.9
65-160/2.2	80	134	160	200	18	8	4	65	115	145	185	16	410	160	200	155	100	296	829	366	590	350	390	300	750	M25x1.5	M20x1.5	71.5	71.9
65-200/2.2R	80	134	160	200	18	8	4	65	115	145	185	16	455	180	225	155	100	296	829	366	590	380	420	330	750	M25x1.5	M20x1.5	74.0	74.4
65-200/2.2	80	134	160	200	18	8	4	65	115	145	185	16	455	180	225	155	100	296	829	366	590	380	420	330	750	M25x1.5	M20x1.5	74.0	74.4
65-200/3	80	134	160	200	18	8	4	65	115	145	185	16	455	180	225	155	100	296	829	366	590	380	420	330	750	M25x1.5	M20x1.5	77.5	77.5

[1] Standard [2] On request
* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LP4 65-250, 80 **4 Poles**



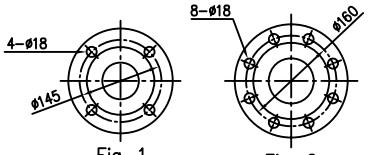


Fig. 1

Fig. 2

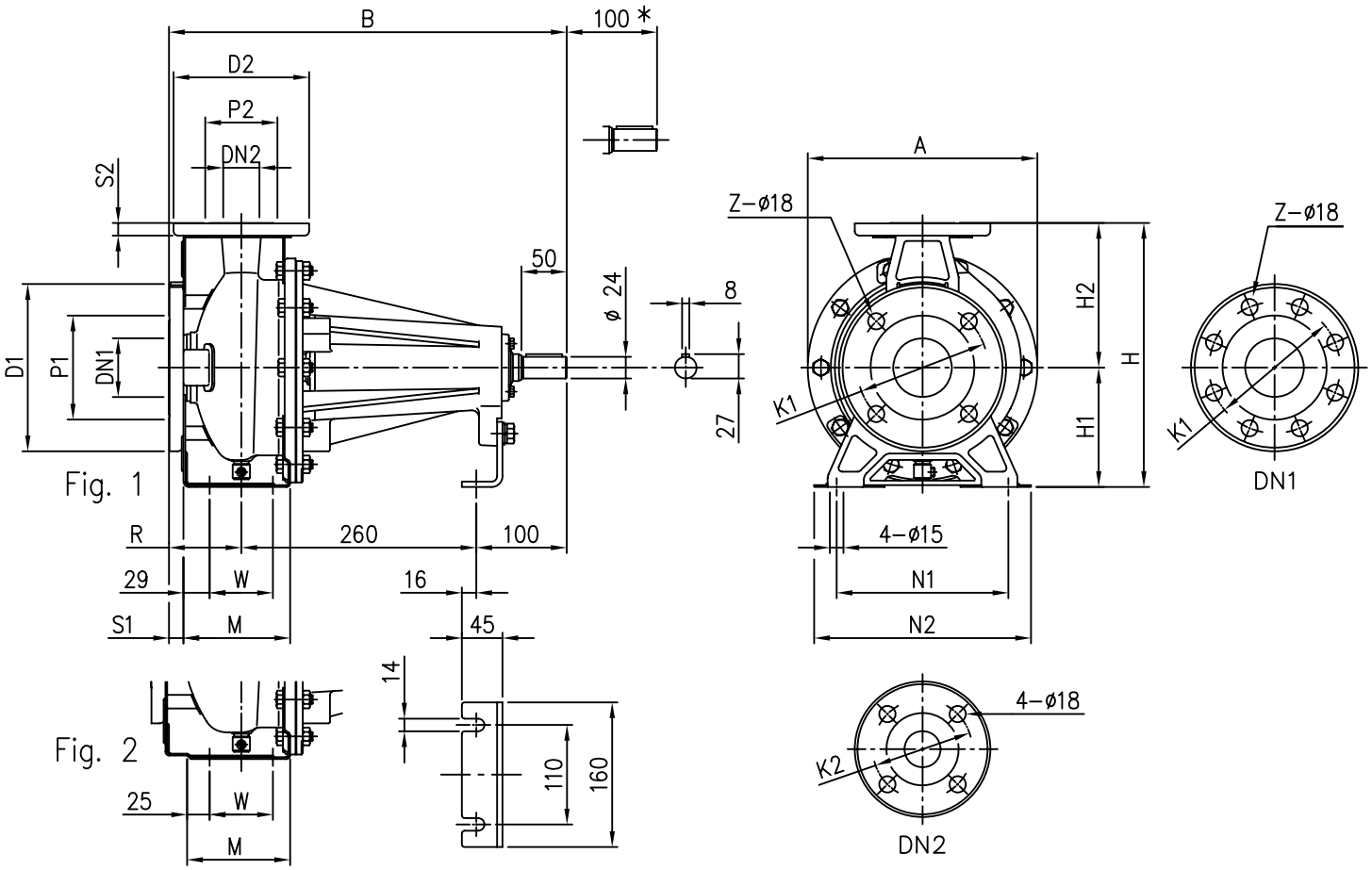
DIMENSIONAL TABLE

Model	Dimensions [mm]																										Weight [kg]	
	DN1	P1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	H4	H5	R	N1	N2	N3	B	B1	C	D	G	E	T	D4	Sp.	V1	V2		*
65-250/4	80	135	200	22	65 Fig. 1	120	185	20	510	200	250	171	60	88	100	510	570	440	961	388	470	100	225	760	960	19	8	M25x1.5	M20x1.5	113.5	119.1
65-250/5.5	80	135	200	22	65 Fig. 1	120	185	20	510	200	250	198	60	68	100	510	570	440	1015	442	470	100	248	760	960	19	8	M32x1.5	M32x1.5	130.0	140.0
80-160/1.5	100	155	225	24	80 Fig. 2	135	200	22	455	180	225	148	50	90	125	380	420	330	805	317	360	80	180	590	750	15	5	M25x1.5	M20x1.5	80.0	77.4
80-160/2.2R	100	155	225	24	80 Fig. 2	135	200	22	455	180	225	155	50	80	125	380	420	330	854	366	360	80	196	590	750	15	5	M25x1.5	M20x1.5	86.0	86.4
80-160/2.2	100	155	225	24	80 Fig. 2	135	200	22	455	180	225	155	50	80	125	380	420	330	854	366	360	80	196	590	750	15	5	M25x1.5	M20x1.5	100.5	100.9
80-200/3	100	155	225	24	80 Fig. 2	135	200	22	490	180	250	155	60	80	125	460	520	390	964	366	470	100	196	700	900	19	8	M25x1.5	M20x1.5	109.5	109.5
80-200/4R	100	155	225	24	80 Fig. 2	135	200	22	490	180	250	171	60	68	125	460	520	390	986	388	470	100	225	700	900	19	8	M25x1.5	M20x1.5	116.5	122.1
80-200/4	100	155	225	24	80 Fig. 2	135	200	22	490	180	250	171	60	68	125	460	520	390	986	388	470	100	225	700	900	19	8	M25x1.5	M20x1.5	117.0	122.6
80-250/5.5R	100	155	225	24	80 Fig. 2	135	200	22	540	200	280	198	60	68	125	510	570	440	1040	442	470	100	248	760	960	19	8	M32x1.5	M32x1.5	134.0	144.0
80-250/5.5	100	155	225	24	80 Fig. 2	135	200	22	540	200	280	198	60	68	125	510	570	440	1040	442	470	100	248	760	960	19	8	M32x1.5	M32x1.5	134.5	144.5
80-250/7.5	100	155	225	24	80 Fig. 2	135	200	22	540	200	280	198	60	68	125	510	570	440	1080	482	470	100	248	760	960	19	8	M32x1.5	M32x1.5	-	157.5

* Models with IE3 motor only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3(L)PF4 32, 40, 50, 65 **4 Poles**



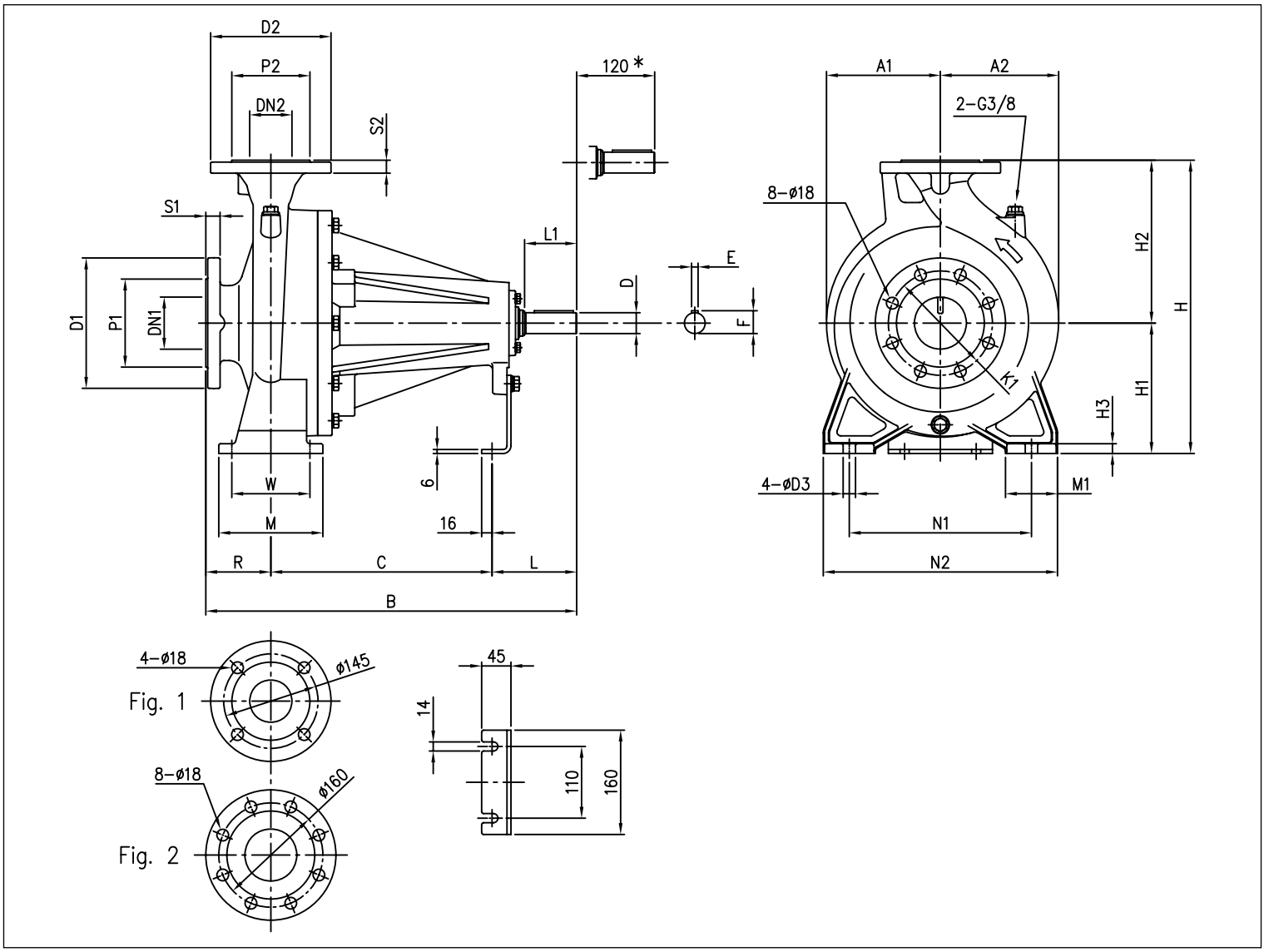
DIMENSIONAL TABLE

Model	Dimensions [mm]																							Weight [kg]
	Fig.	DN1	P1	K1	D1	S1	Z [1]	Z [2]	DN2	P2	K2	D2	S2	H	H1	H2	M	N1	N2	R	W	A	B	
32-125	1	50	95	125	165	16	4	-	32	75	100	140	14	252	112	140	114	140	190	80	70	213	440	17.0
32-160	1	50	95	125	165	16	4	-	32	75	100	140	14	292	132	160	118	190	240	80	70	254	440	19.0
32-200	1	50	95	125	165	16	4	-	32	75	100	140	14	340	160	180	119	190	240	80	70	296	440	27.0
40-125	1	65	115	145	185	16	4	-	40	80	110	150	14	252	112	140	114	160	210	80	70	213	440	17.0
40-160	1	65	115	145	185	16	4	-	40	80	110	150	14	292	132	160	118	190	240	80	70	254	440	19.0
40-200	2	65	115	145	185	16	4	-	40	80	110	150	14	340	160	180	115	212	265	100	70	296	460	27.0
50-125	2	65	115	145	185	16	4	-	50	95	125	165	16	292	132	160	114	190	240	100	70	254	460	19.0
50-160	2	65	115	145	185	16	4	-	50	95	125	165	16	340	160	180	115	212	265	100	70	296	460	28.0
50-200	2	65	115	145	185	16	4	-	50	95	125	165	16	360	160	200	115	212	265	100	70	296	460	27.0
65-125	2	80	134	160	200	18	8	4	65	115	145	185	16	340	160	180	140	212	280	100	95	254	460	28.0
65-160	2	80	134	160	200	18	8	4	65	115	145	185	16	360	160	200	140	212	280	100	95	296	460	29.0
65-200	2	80	134	160	200	18	8	4	65	115	145	185	16	405	180	225	140	250	320	100	95	296	460	30.0

* Space where it is possible to disassemble the pump with spacer joint without disassembling the motor.
[1] Standard
[2] On request

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

3LPF4 65-250, 80 **4 Poles**



DIMENSIONAL TABLE

Model	Dimensions [mm]																												Weight [kg]
	DN1	P1	K1	D1	S1	DN2	P2	D2	S2	H	H1	H2	H3	R	W	N1	N2	M	M1	L	L1	D	D3	E	F	A1	A2	B	C	
65-250	80	135	160	200	22	65 Fig. 1	120	185	20	450	200	250	15	100	120	280	360	160	80	130	80	32	19	10	35	175	182	570	340	82.0
80-160	100	155	180	225	24	80 Fig. 2	135	200	22	405	180	225	13	125	95	250	320	125	65	100	50	24	15	8	27	147	173	485	260	56.0
80-200	100	155	180	225	24	80 Fig. 2	135	200	22	430	180	250	13	125	95	280	345	125	65	130	80	32	15	10	35	175	182	595	340	83.0
80-250	100	155	180	225	24	80 Fig. 2	135	200	22	480	200	280	15	125	120	315	400	160	80	130	80	32	19	10	35	175	192	595	340	84.0

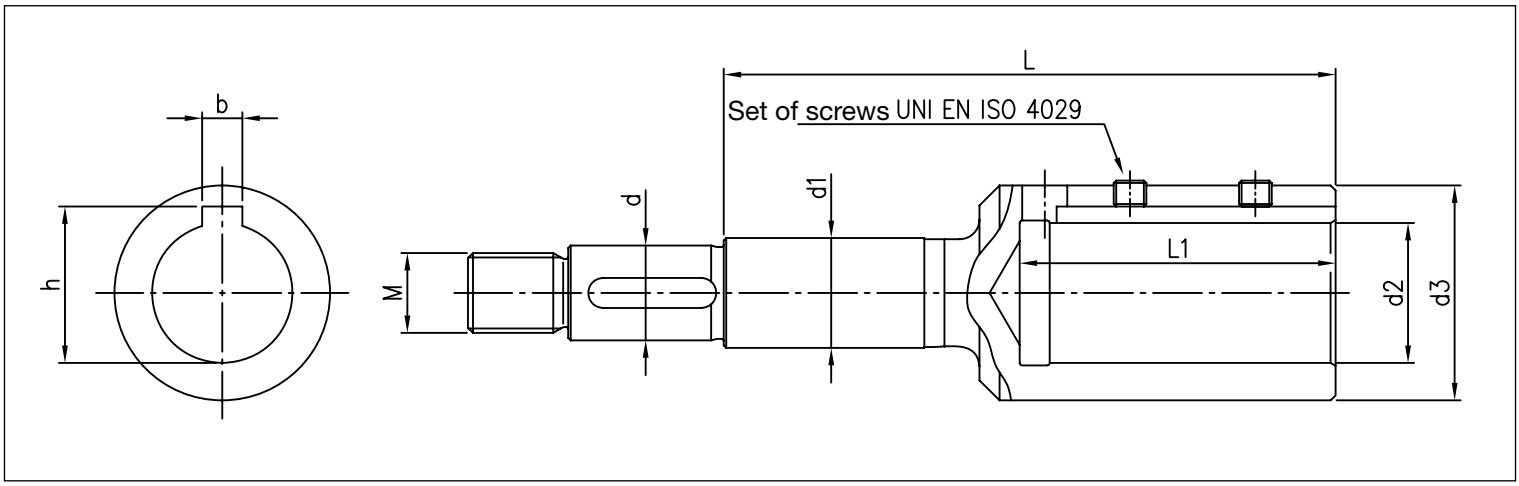
* Space where it is possible to disassemble the pump with spacer joint without disassembling the motor.

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

JOINT FOR 3(L)S4 SERIES

4 Poles



DIMENSIONAL TABLE

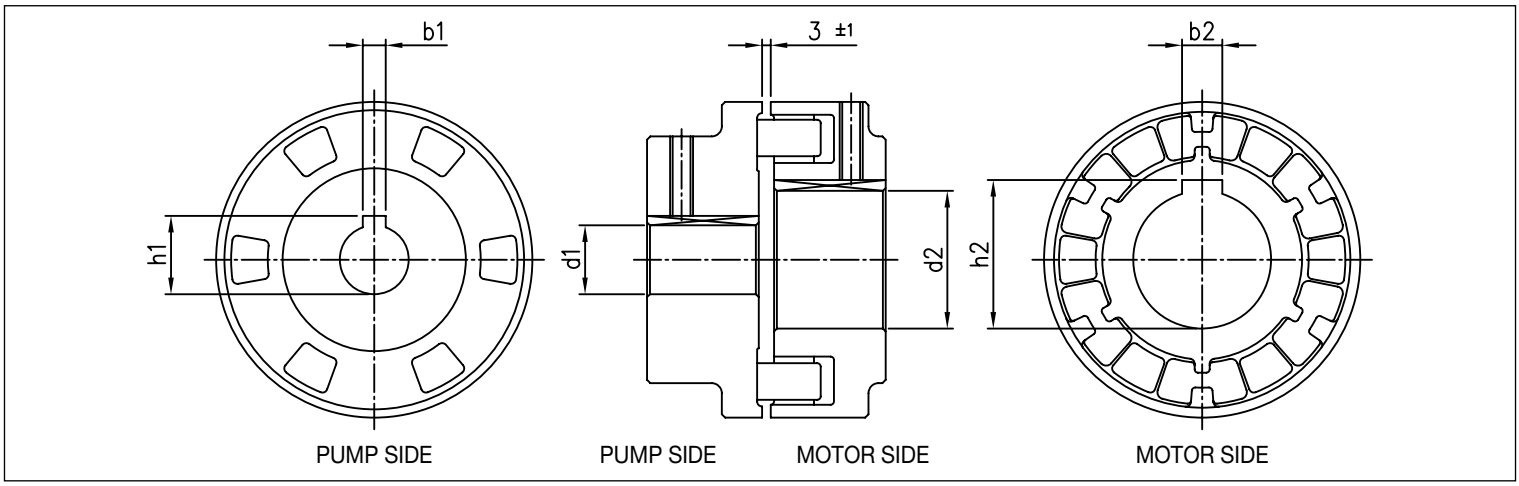
Model	[HP]	[kW]	Motor size	Dimensions [mm]									
				d	d1	d2	d3	M	L	L1	b	h	Screws
32-125/0.25	0.33	0.25	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
32-160/0.37R	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
32-160/0.37	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
32-200/0.55R	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
32-200/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
32-200/0.75	1	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-125/0.37R	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
40-125/0.37	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
40-160/0.55R	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-160/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
40-200/1.1R	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-200/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
40-200/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-125/0.55R	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
50-125/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
50-160/1.1R	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-160/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-200/1.5R	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-200/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
50-200/2.2	3	2.2	100	22	22	28	43	M18x1.5	153	63	8	31.3	M8x8
65-125/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
65-125/0.75	1	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
65-125/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-160/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-160/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
65-160/2.2	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-200/2.2R	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-200/2.2	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-200/3	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
65-250/4	5.5	4	112	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
65-250/5.5	7.5	5.5	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8
80-160/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
80-160/2.2R	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
80-160/2.2	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
80-200/3	4	3	100	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
80-200/4R	5.5	4	112	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
80-200/4	5.5	4	112	24	30	28	43	M20x1.5	128	63	8	31.3	M8x8
80-250/5.5R	7.5	5.5	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8
80-250/5.5	7.5	5.5	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8
80-250/7.5	10	7.5	132	24	30	38	58	M20x1.5	151	84	10	41.3	M8x8

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

JOINT FOR 3(L)P4 SERIES

4 Poles



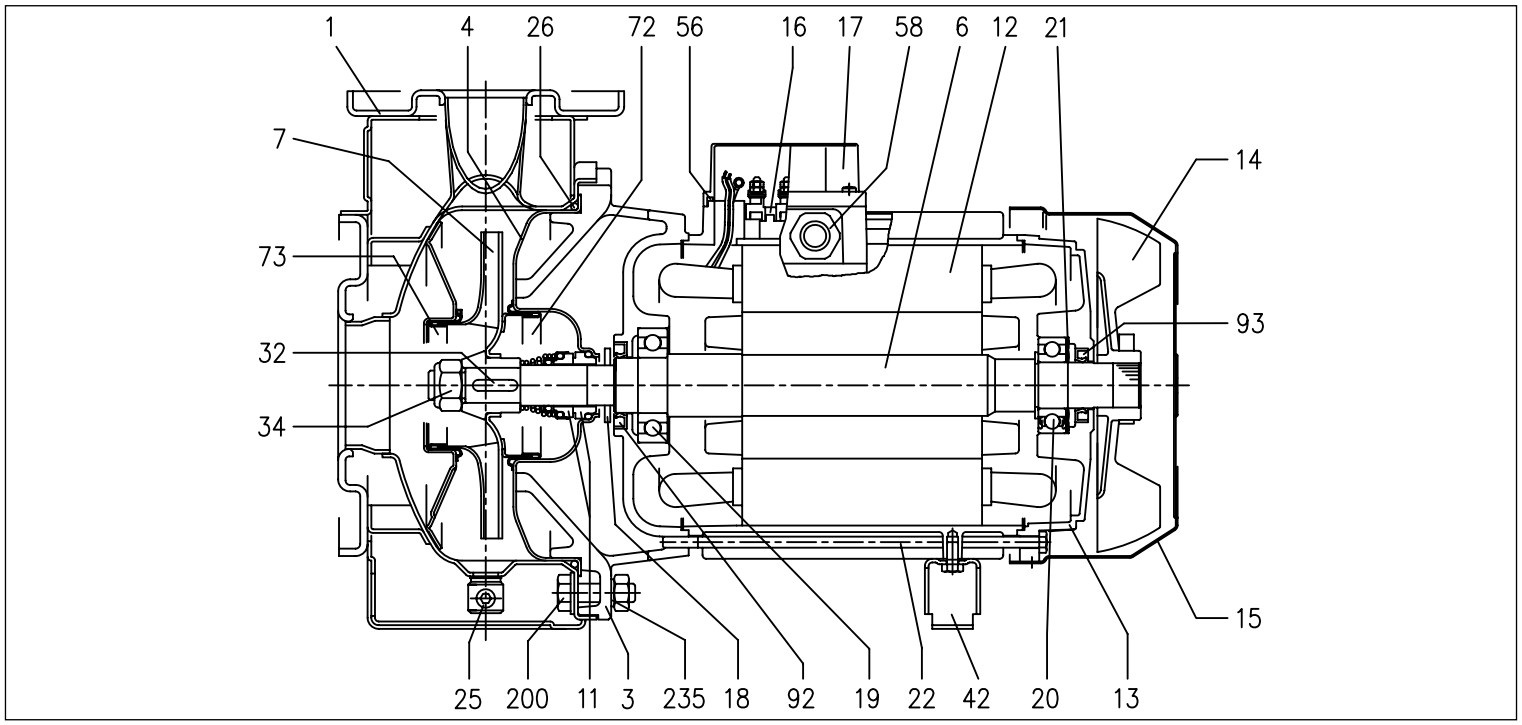
DIMENSIONAL TABLE

Model	[HP]	[kW]	Motor	Dimensions [mm]					
				d1	b1	h1	d2	b2	h2
32-125/0.25	0.33	0.25	71	24	8	27.3	14	5	16.3
32-160/0.37R	0.5	0.37	71	24	8	27.3	14	5	16.3
32-160/0.37	0.5	0.37	71	24	8	27.3	14	5	16.3
32-200/0.55R	0.75	0.55	80	24	8	27.3	19	6	21.8
32-200/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
32-200/0.75	1	0.75	80	24	8	27.3	19	6	21.8
40-125/0.37R	0.5	0.37	71	24	8	27.3	14	5	16.3
40-125/0.37	0.5	0.37	71	24	8	27.3	14	5	16.3
40-160/0.55R	0.75	0.55	80	24	8	27.3	19	6	21.8
40-160/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
40-200/1.1R	1.5	1.1	90	24	8	27.3	24	8	27.3
40-200/1.1	1.5	1.1	90	24	8	27.3	24	8	27.3
40-200/1.5	2	1.5	90	24	8	27.3	24	8	27.3
50-125/0.55R	0.75	0.55	80	24	8	27.3	19	6	21.8
50-125/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
50-160/1.1R	1.5	1.1	90	24	8	27.3	24	8	27.3
50-160/1.1	1.5	1.1	90	24	8	27.3	24	8	27.3
50-200/1.5R	2	1.5	90	24	8	27.3	24	8	27.3
50-200/1.5	2	1.5	90	24	8	27.3	24	8	27.3
50-200/2.2	3	2.2	100	24	8	27.3	28	8	31.3
65-125/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
65-125/0.75	1	0.75	80	24	8	27.3	19	6	21.8
65-125/1.1	1.5	1.1	90	24	8	27.3	24	8	27.3
65-160/1.1	1.5	1.1	90	24	8	27.3	24	8	27.3
65-160/1.5	2	1.5	90	24	8	27.3	24	8	27.3
65-160/2.2	3	2.2	100	24	8	27.3	28	8	31.3
65-200/2.2R	3	2.2	100	24	8	27.3	28	8	31.3
65-200/2.2	3	2.2	100	24	8	27.3	28	8	31.3
65-200/3	4	3	100	24	8	27.3	28	8	31.3
65-250/4	5.5	4	112	32	10	35.3	28	8	31.3
65-250/5.5	7.5	5.5	132	32	10	35.3	38	10	41.3
80-160/1.5	2	1.5	90	24	8	27.3	24	8	27.3
80-160/2.2R	3	2.2	100	24	8	27.3	28	8	31.3
80-160/2.2	3	2.2	100	24	8	27.3	28	8	31.3
80-200/3	4	3	100	32	10	35.3	28	8	31.3
80-200/4R	5.5	4	112	32	10	35.3	28	8	31.3
80-200/4	5.5	4	112	32	10	35.3	28	8	31.3
80-250/5.5R	7.5	5.5	132	32	10	35.3	38	10	41.3
80-250/5.5	7.5	5.5	132	32	10	35.3	38	10	41.3
80-250/7.5	10	7.5	132	32	10	35.3	38	10	41.3

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3(L)M4 32, 40, 50, 65 SERIES

4 Poles



MATERIALS TABLE

Ref.	Name	Materials 3M4	Materials 3LM4
001	Pump casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket	[2]	
004	Casing cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Shaft (part in contact with the liquid)	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
007	Impeller 32, 40, 50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
	Impeller 65-125/160/200	EN 1.4401 (AISI 316)	
011	Mechanical seal	Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
012	Motor frame	-	
013	Motor cover	Aluminium	
014	Fan	PA	
015	Fan cover	Galvanised steel Fe P04	
016	Terminal Box	-	
017	Terminal Box cover	Aluminium (three phase version)	
018	Splash washer	NBR	-
019	Bearing (pump side)	-	
020	Bearing (motor side)	-	
021	Adjustment ring	Steel C70	
022	Tie-rod	Galvanised steel Fe 42	
025	Plug	EN 1.4401 (AISI 316) / PTFE	
026	O-Ring	NBR	FKM
032	Key	EN 1.4401 (AISI 316)	
034	Impeller nut	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support	Aluminium / Galvanised steel	
056	Terminal box cover gasket	NBR	
058	Cable gland	-	
072	Casing ring [1]	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
092	Seal ring	-	-
093	Seal ring	-	-
200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1	
235	Washer	EN 1.4301 (AISI 304)	

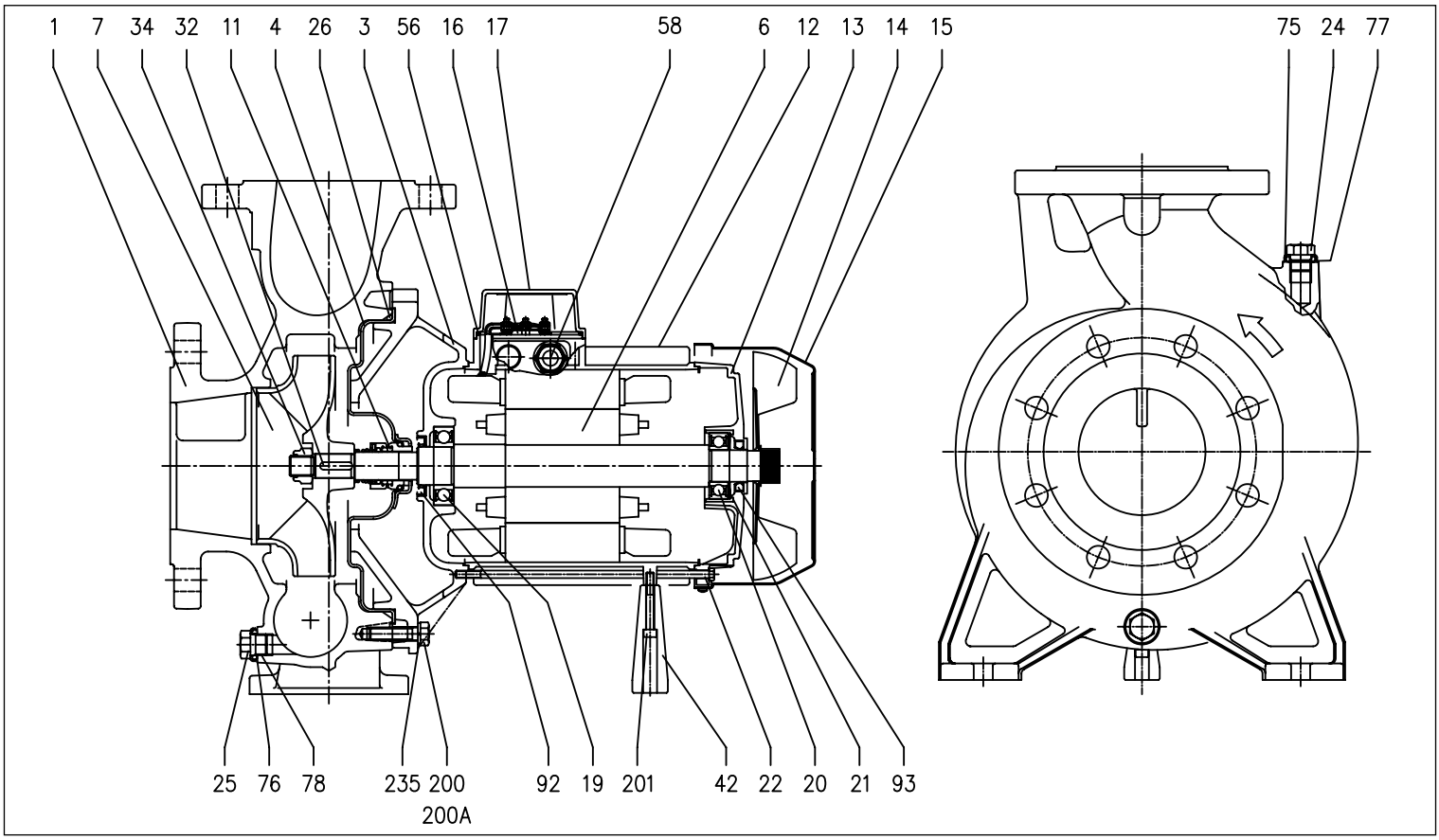
[1]= For 32-200, 40-200, 50-160 , 50-200 versions
[2]= Cast iron EEN-GJL-200-EN 1561 per 32-200/3 and for models with 15, 18.5 and 22 kW motors
Aluminium AL-EN-1706-AC-46000-D for the other models

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LM4 80-160 SERIES

4 Poles



MATERIALS TABLE

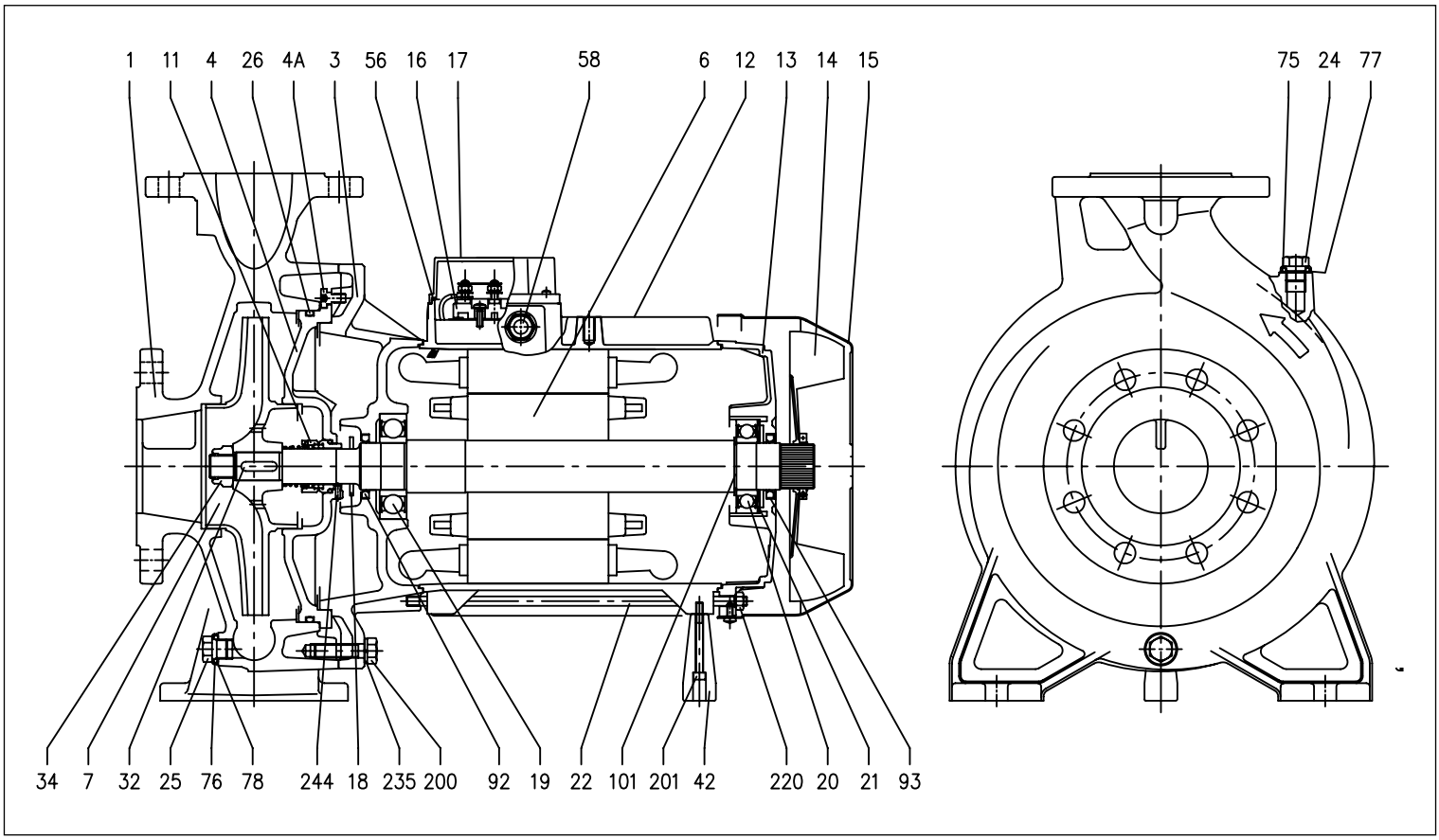
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	025	Plug	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	026	O-Ring	FKM
004	Casing cover	EN 1.4404 (AISI 316L)	032	Key	EN 1.4404 (AISI 316L)
006	Shaft	EN 1.4404 (AISI 316L) Part in contact with the liquid	034	Impeller nut	EN 1.4404 (AISI 316L)
007	Impeller	EN 1.4401 (AISI 316)	042	Motor support	Aluminium
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	056	Terminal box cover gasket	NBR
012	Motor frame	-	058	Cable gland	-
013	Motor cover	Aluminium	075	Washer	EN 1.4404 (AISI 316L)
014	Fan	PA	076	Washer	EN 1.4404 (AISI 316L)
015	Fan cover	Galvanised steel Fe P04	077	O-Ring	FKM [1]
016	Terminal Box	-	078	O-Ring	
017	Terminal Box cover	Aluminium	092	Seal ring	-
019	Bearing (pump side)	-	093	Seal ring	-
020	Bearing (motor side)	-	200	Screw (pump body)	Stainless steel A2-70/1 class ISO 3506/1
021	Adjustment ring	Steel C70	201	Foot screw	Stainless steel A2-70/1 class ISO 3506/1
022	Tie-rod	Galvanised steel Fe 42	235	Washer	EN 1.4301 (AISI 304)
024	Plug	EN 1.4404 (AISI 316L)			

[1]= EPDM for E version

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LM4 65-250, 80 SERIES

4 Poles



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	032	Key	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	034	Impeller nut	Aluminium
004	Casing cover	EN 1.4401 (AISI 316)	042	Motor support	Aluminium
004A	Casing cover screw	EN 1.4301 (AISI 304)	056	Terminal box cover gasket	NBR
006	Shaft	EN 1.4404 (AISI 316L) Part in contact with the liquid	058	Cable gland	-
007	Impeller	EN 1.4401 (AISI 316)	075	Washer	EN 1.4404 (AISI 316L)
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	076	Washer	
012	Motor frame	-	077	O-Ring	FKM [2]
013	Motor cover	Aluminium	078	O-Ring	
014	Fan	PA	092	Seal ring (3-4 kW, 5.5 kW)	-
015	Fan cover	Galvanised steel Fe P04			
016	Terminal Box	-	093	Seal ring (3 kW, 4 kW, 5.5 kW)	-
017	Terminal Box cover	Aluminium			
018	Splash washer	NBR			
019	Bearing (pump side)	-	101	Seeger ring (only for 5.5 kW)	Carbon steel TC 80
020	Bearing (motor side)	-	200	Screw (pump body)	Stainless steel A2-70/1 class ISO 3506/1
021	Adjustment ring	Steel C70	201	Foot screw	Stainless steel A2-70/1 class ISO 3506/1
022	Tie-rod	Galvanised steel Fe 42	220	Tie-rod nut	Galvanised steel
024	Plug	EN 1.4404 (AISI 316L)	235	Washer	EN 1.4301(AISI 304)
025	Plug	EN 1.4404 (AISI 316L)	244	Plug [1]	EN 1.4301(AISI 304)
026	O-Ring	FKM			

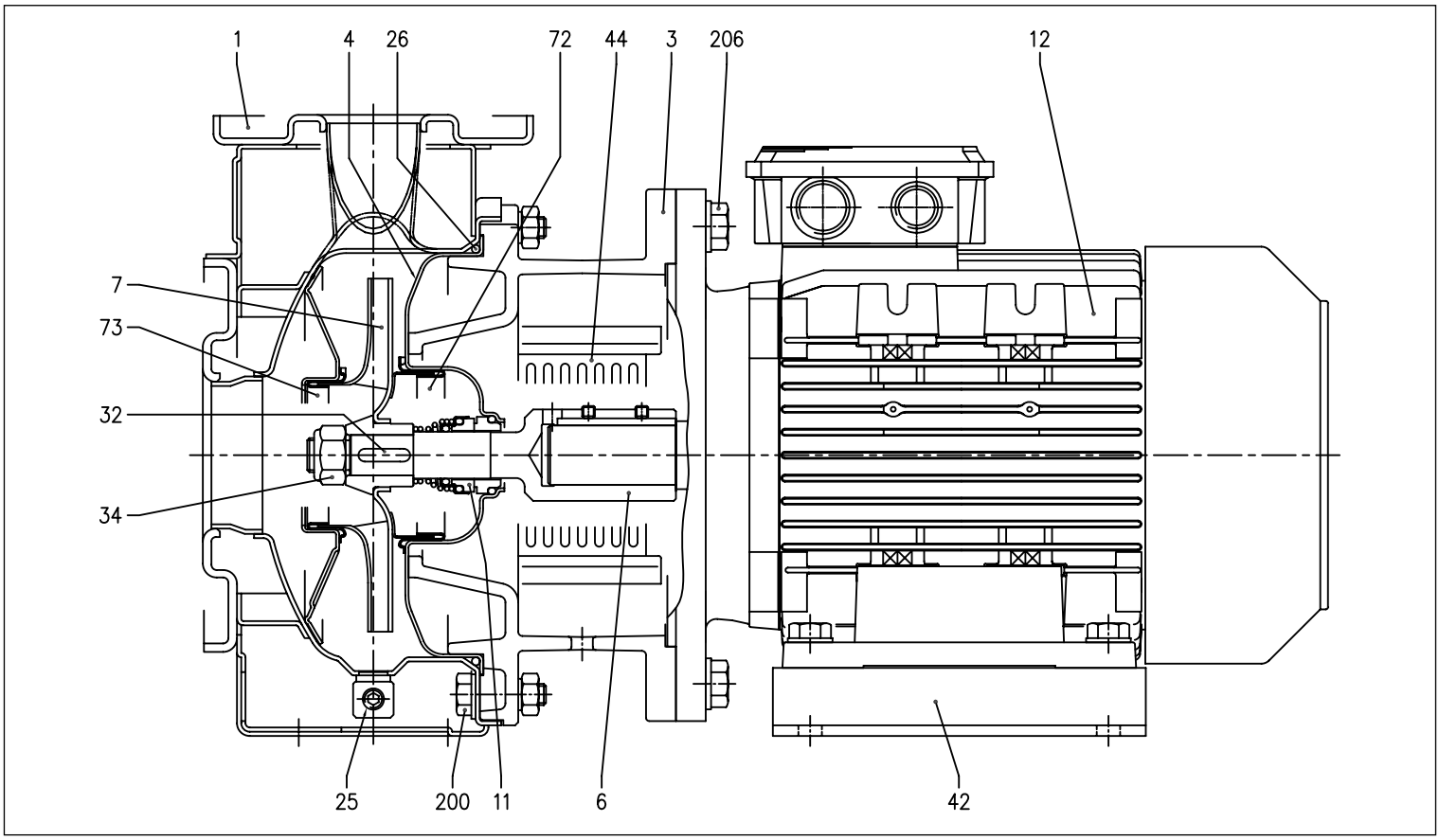
[1]= Not for H, HW, HSW and E versions
[2]= EPDM for E version

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3(L)S4 32, 40, 50, 65-125/160/200 SERIES

4 Poles



MATERIALS TABLE

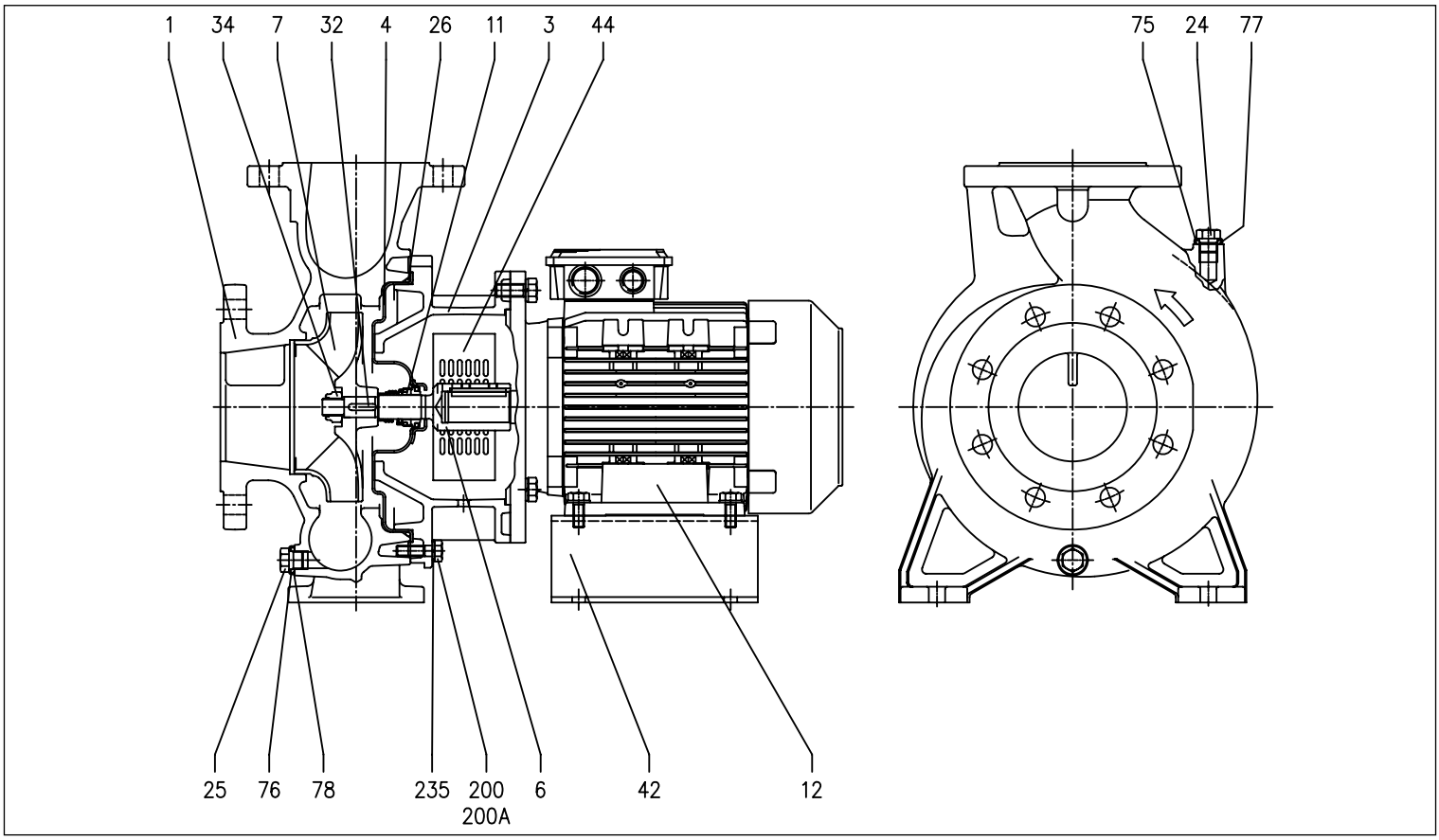
Ref.	Name		Materials 3S4	Materials 3LS4
001	Pump casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket		Cast iron EN-GJL-200-EN 1561	
004	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Joint - Part in contact with the liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
007	Impeller	32, 40, 50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
		65-125/160/200	EN 1.4401 (AISI 316)	
011	Mechanical seal		Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
012	Motor		-	
025	Plug		EN 1.4401 (AISI 316) / PTFE	
026	O-Ring		NBR [2]	FKM
032	Key		EN 1.4401 (AISI 316)	
034	Impeller nut		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support		Galvanised steel	
044	Support protection		EN 1.4301 (AISI 304)	
072	Casing ring [1]	not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring	not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
200	Screw (pump body)		Stainless steel A2 70 class ISO 3506/1	
206	Screw		Galvanised steel	

[1]= For 32-200, 40-200, 50-160, 50-200 versions only
[2] = FPM for H-HS-HW-HSW versions, EPDM for E version

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LS4 80-160 SERIES

4 Poles



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	032	Key	EN 1.4401 (AISI 316)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	034	Impeller nut	EN 1.4404 (AISI 316L)
004	Casing cover	EN 1.4404 (AISI 316L)	042	Motor support	Galvanised steel
006	Joint	EN 1.4404 (AISI 316L)	044	Support protection	EN 1.4301 (AISI 304)
007	Impeller	EN 1.4401 (AISI 316)	075	Washer	EN 1.4404 (AISI 316L)
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	076	Washer	
012	Motor	-	077	O-Ring	FKM [1]
024	Plug	EN 1.4404 (AISI 316L)	078	O-Ring	
025	Plug	EN 1.4404 (AISI 316L)	200	Screw (pump body)	Stainless steel A2-70/1 class ISO 3506/1
026	O-Ring	FKM [1]	235	Washer	EN 1.4301(AISI 304)

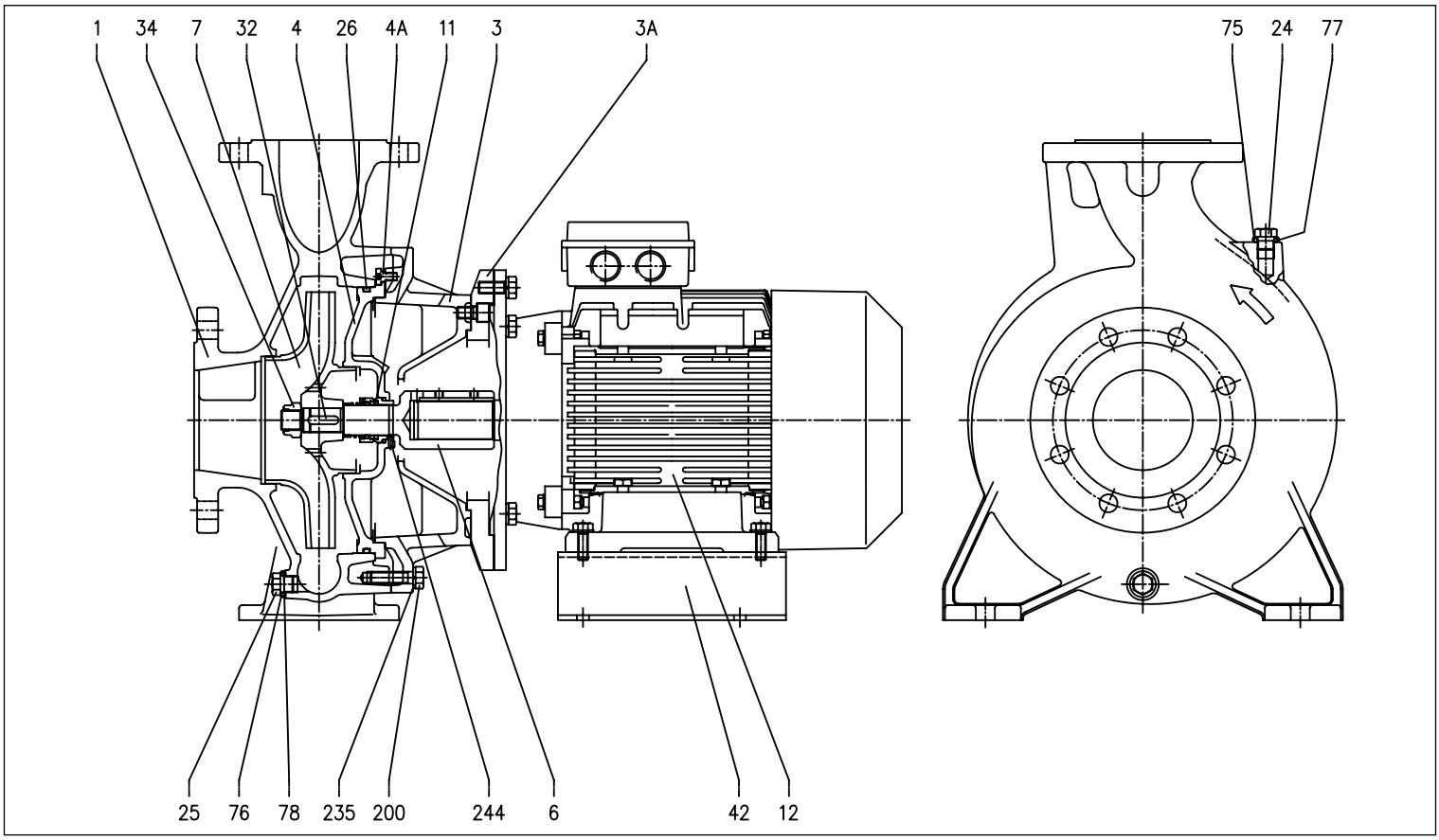
[1]= EPDM for E version

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LS4 65-250, 80 SERIES

4 Poles



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	032	Key	EN 1.4401 (AISI 316)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	034	Impeller nut	EN 1.4404 (AISI 316L)
003A	Adapter ring [1]	Cast iron EN-GJL-200-EN 1561	042	Motor bracket	Galvanised steel
004	Casing cover	EN 1.4401 (AISI 316)	075	Washer	EN 1.4404 (AISI 316L)
004A	Casing cover screw disc	EN 1.4301(AISI 304)	076	Washer	
006	Joint	EN 1.4404 (AISI 316L)	077	O-Ring	FKM [3]
007	Impeller	EN 1.4401 (AISI 316)	078	O-Ring	
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	200	Screw (pump body)	Stainless steel A2-70/1 class ISO 3506/1
012	Motor	-	235	Washer	EN 1.4301(AISI 304)
024	Plug	EN 1.4404 (AISI 316L)	244	Plug [2]	EN 1.4301(AISI 304)
025	Plug	EN 1.4404 (AISI 316L)			
026	O-Ring	FKM [3]			

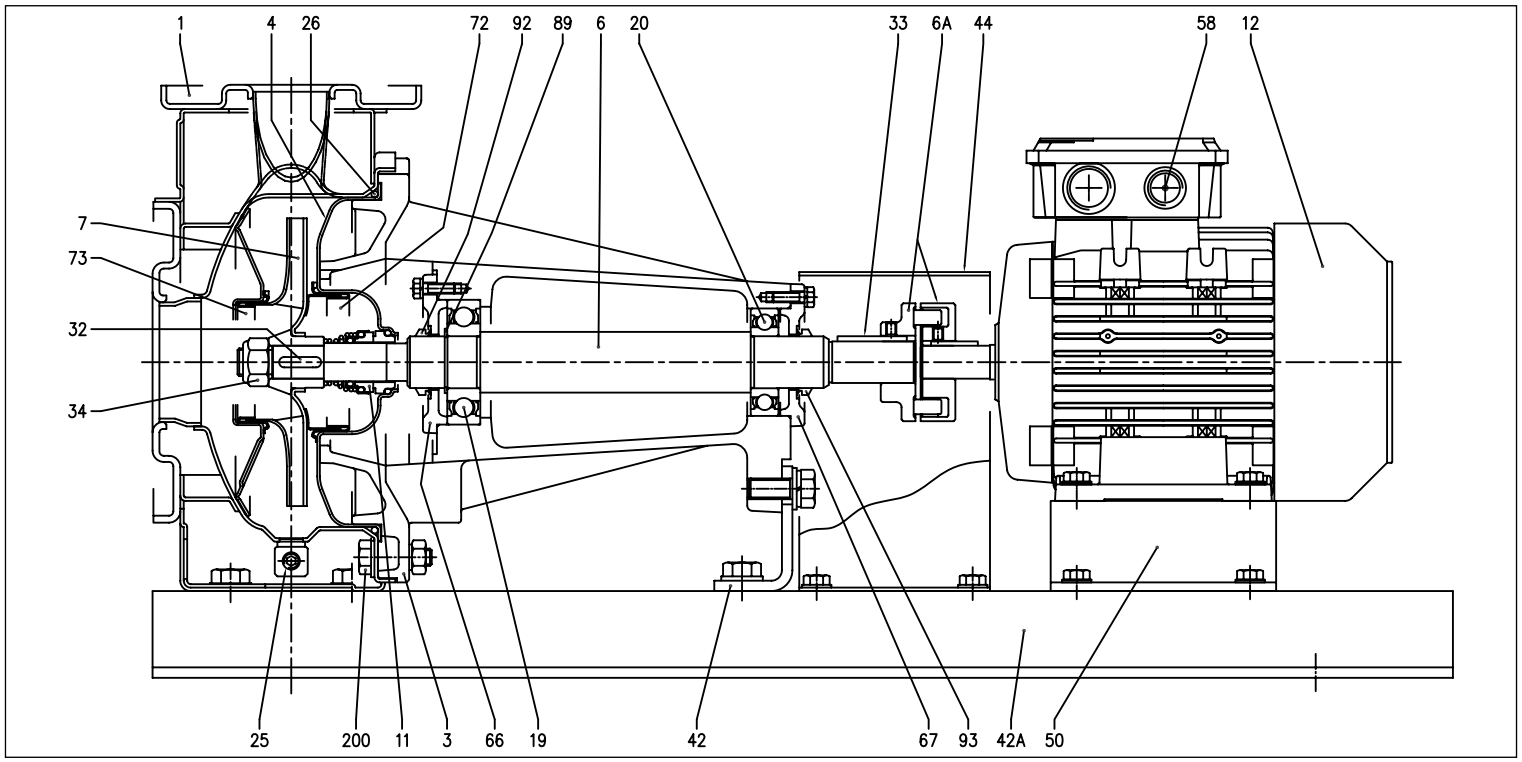
[1] = For 65-250/5.5 kW only
[2]= Not for H-HW-HSW and E versions
[3]= EPDM for E version

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3(L)P 32, 40, 50, 65-125/160/200 SERIES

4 Poles



MATERIALS TABLE

Ref.	Name		Materials 3P4	Materials 3LP4
001	Pump casing		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket		Cast iron EN-GJL-200-EN 1561	
004	Casing cover		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Shaft - Part in contact with the liquid		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006A	Flexible joint		Cast iron EN-GJL-200-EN 1561	
007	Impeller	32, 40, 50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
		65-125/160/200	EN 1.4401 (AISI 316)	
011	Mechanical seal		Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
012	Motor		-	
019	Bearing (pump side)		-	
020	Bearing (motor side)		-	
025	Plug		EN 1.4401 (AISI 316) / PTFE	
026	O-Ring		NBR [2]	FKM
032	Key		EN 1.4401 (AISI 316)	
033	Key		C 40	
034	Impeller nut		EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support		Galvanised steel	
042A	Base		Galvanised steel	
044	Protection		Galvanised steel	
050	Motor bracket		Galvanised steel	
058	Nut		-	
066	Bearing cover		Cast iron EN-GJL-250-EN 1561	
067	Bearing cover		Cast iron EN-GJL-250-EN 1561	
072	Casing ring [1]	not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring	not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
089	Seeger ring		Carbon steel TC 80	
092	V Ring		-	
093	V Ring		-	
200	Screw (pump body)		Stainless steel A2 70 class ISO 3506/1	

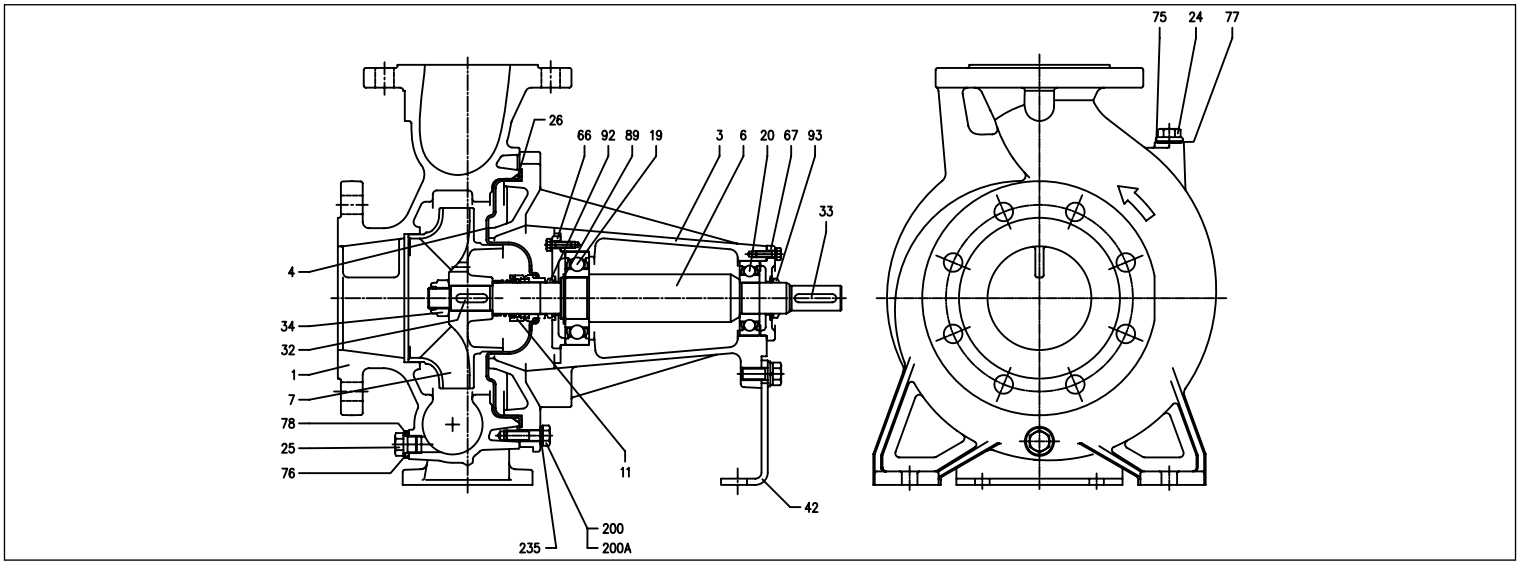
[1]= For versions: 32-200, 40-200, 50-1602, 50-200
[2]= FPM for H-HS-HW-HSW versions and EPDM for E version

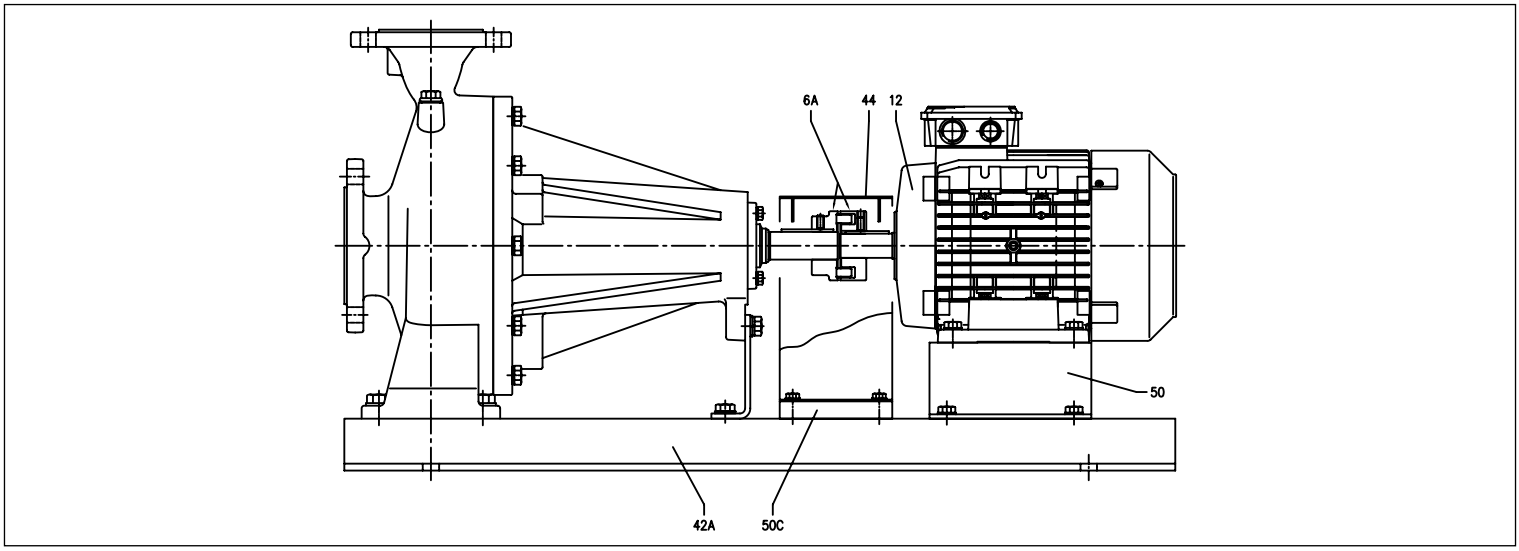
3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LP4 80-160 SERIES

4 Poles





MATERIALS TABLE

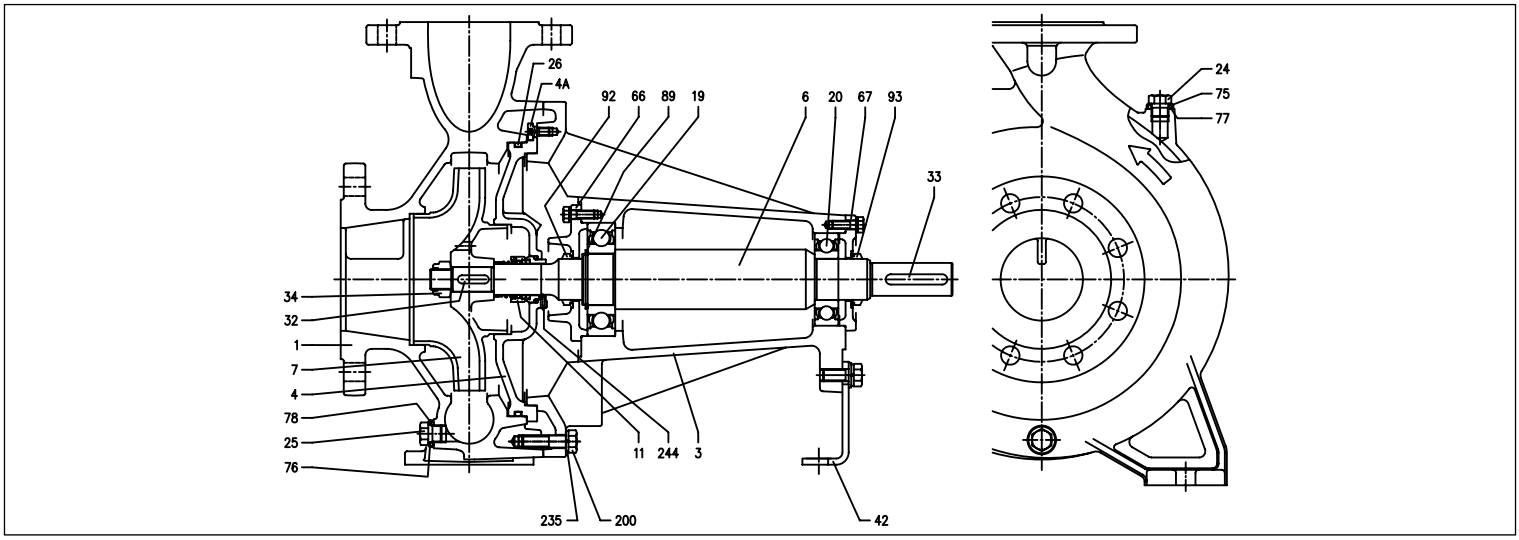
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	042	Pump support	Galvanised steel
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	042A	Base	Galvanised steel
004	Casing cover	EN 1.4404 (AISI 316L)	044	Protection	Galvanised steel
006	Shaft	EN 1.4404 (AISI316L) Part in contact with the liquid	050	Motor bracket	Galvanised steel
			050C	Joint protection [2]	Aluminium
006A	Flexible joint	Cast iron EN-GJL-200-EN 1561	066	Bearing cover	Cast iron EN-GJL-200-EN 1561
007	Impeller	EN 1.4401 (AISI 316)	067	Bearing cover	Cast iron EN-GJL-200-EN 1561
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	075	Washer	EN 1.4404 (AISI 316L)
012	Motor	-	076	Washer	
019	Bearing (pump side)	-	077	O-Ring	FKM [1]
020	Bearing (motor side)	-	078	O-Ring	
024	Plug	EN 1.4404 (AISI 316L)	089	Seeger ring	Carbon steel TC 80
025	Plug	EN 1.4404 (AISI 316L)	092	V Ring	-
026	O-Ring	FKM [1]	093	V Ring	-
032	Key	EN 1.4401 (AISI 316)	200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1
033	Key	C 40	200A	Screw	Stainless steel A2 70 class ISO 3506/1
034	Impeller nut	EN 1.4404 (AISI 316L)	235	Washer	EN 1.4301(AISI 304)

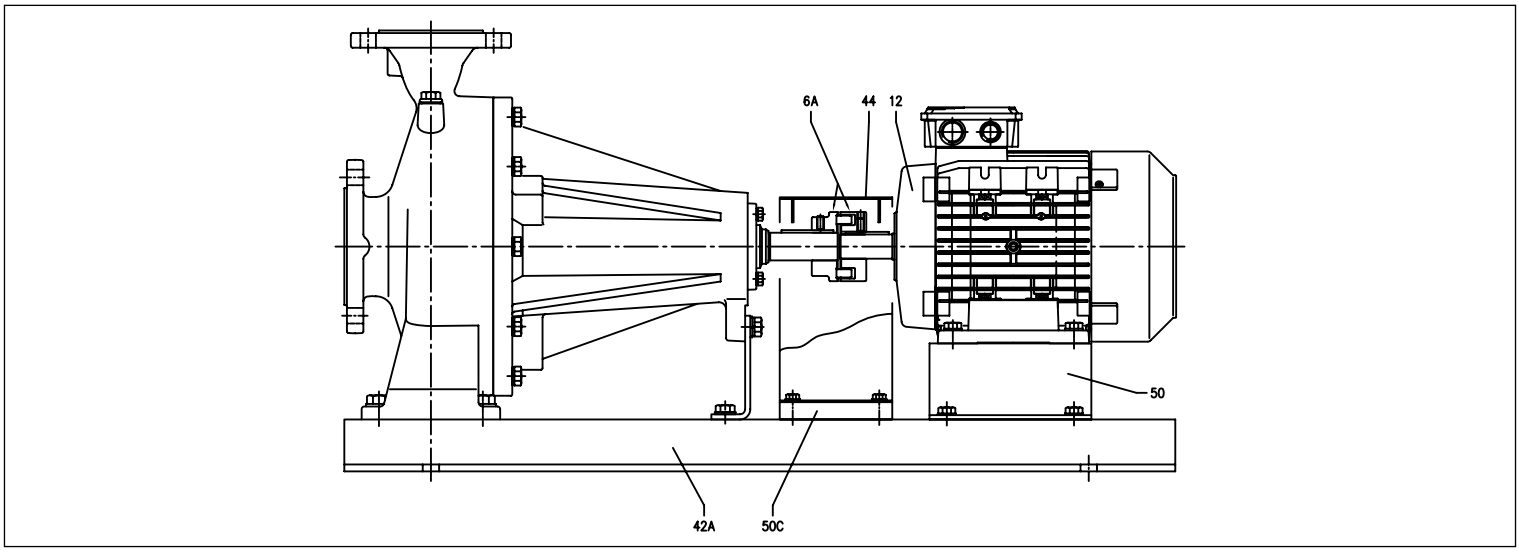
[1]= EPDM for E version
[2]= For 1.5 kW only

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LP4 65-250, 80 SERIES

4 Poles





MATERIALS TABLE

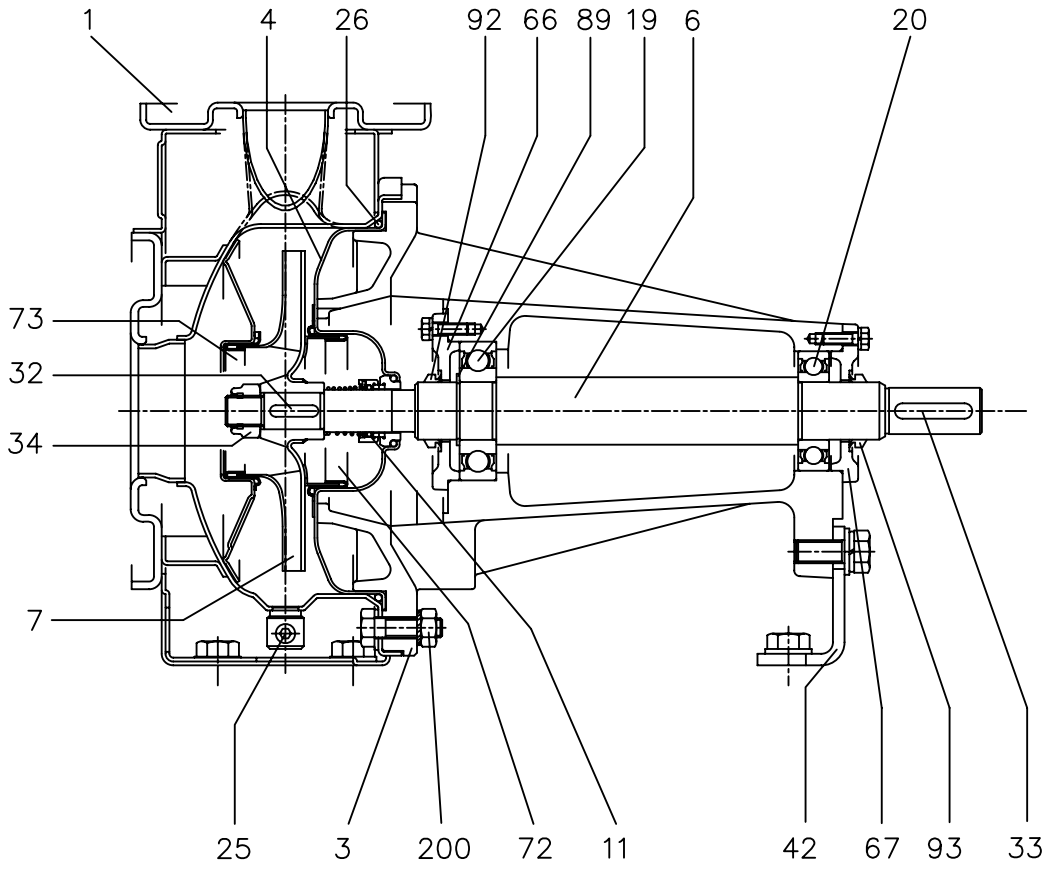
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	042	Motor support	Galvanised steel
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	042A	Base	Galvanised steel
004	Casing cover	EN 1.4401 (AISI 316)	044	Protection	Galvanised steel
004A	Casing cover screw disc	EN 1.4301(AISI 304)	050	Motor bracket	Galvanised steel
006	Shaft	EN 1.4462 (duplex steel) Part in contact with the liquid	050C	Joint protection	Aluminium
006A	Flexible joint	Cast iron EN-GJL-200-EN 1561	066	Bracket cover	Cast iron EN-GJL-200-EN 1561
007	Impeller	EN 1.4401 (AISI 316)	067	Bracket cover	Cast iron EN-GJL-200-EN 1561
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	075	Washer	EN 1.4404 (AISI 316L)
012	Motor	-	076	Washer	EN 1.4404 (AISI 316L)
019	Bearing (pump side)	-	077	O-Ring	FKM [2]
020	Bearing (motor side)	-	078	O-Ring	
024	Plug	EN 1.4404 (AISI 316L)	089	Seeger ring	Carbon steel TC 80
025	Plug	EN 1.4404 (AISI 316L)	092	Seal ring	-
026	O-Ring	FKM [2]	093	Seal ring	-
032	Key	EN 1.4401 (AISI 316)	200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1
033	Key	C 40	235	Washer	EN 1.4301 (AISI 304)
034	Impeller nut	EN 1.4404 (AISI 316L)	244	Plug [1]	EN 1.4301 (AISI 304)

[1]= Not for H and E versions
[2]= EPDM for E version

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3(L)PF4 32, 40, 50, 65 SERIES

4 Poles



MATERIALS TABLE

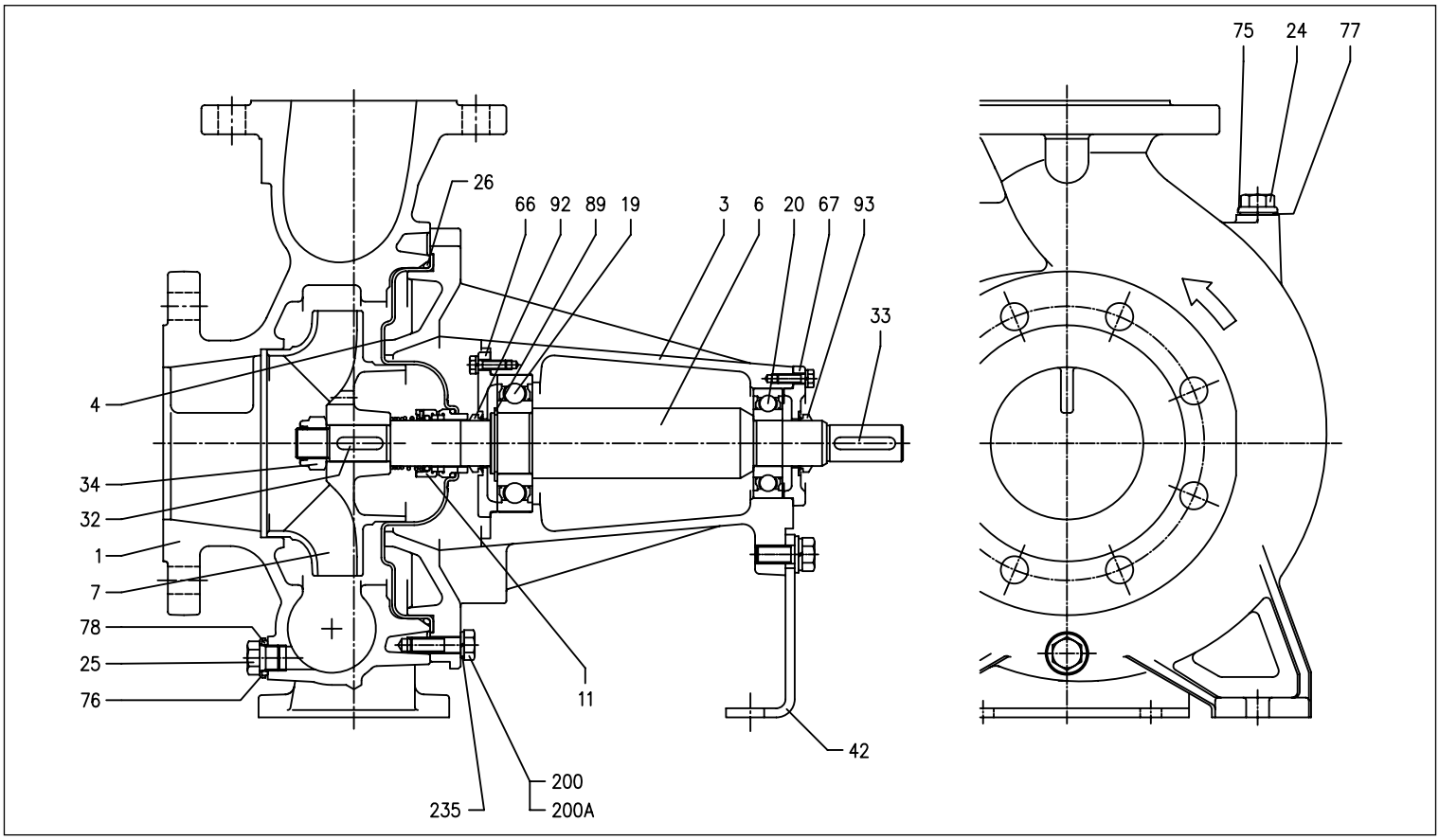
Ref.	Name	Materials	
		3PF4	3LPF4
001	Pump casing	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	
004	Casing cover	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
006	Shaft - Part in contact with the liquid	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
007	Impeller 32, 40, 50	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
	Impeller 65-125/160/200	EN 1.4401 (AISI 316)	
011	Mechanical seal	Carbon/Ceramic/NBR	Silicon Carbide/Silicon Carbide/FKM
019	Bearing (pump side)	-	
020	Bearing (motor side)	-	
025	Plug	EN 1.4401 (AISI 316) / PTFE	
026	O-Ring	NBR [2]	FKM
032	Key	EN 1.4401 (AISI 316)	
033	Key	C 40	
034	Impeller nut	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
042	Motor support	Galvanised steel	
066	Bracket cover	Cast iron EN-GJL-250-EN 1561	
067	Bracket cover	Cast iron EN-GJL-250-EN 1561	
072	Casing ring [1] not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
073	Casing ring not for 65	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
089	Seeger ring	Carbon steel TC 80	
092	Seal ring	-	
093	Seal ring	-	
200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1	

[1]= For versions: 32-200, 40-200, 50-160, 50-200
[2]= FKM for H and HS versions

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LPF4 80-160 SERIES

4 Poles



MATERIALS TABLE

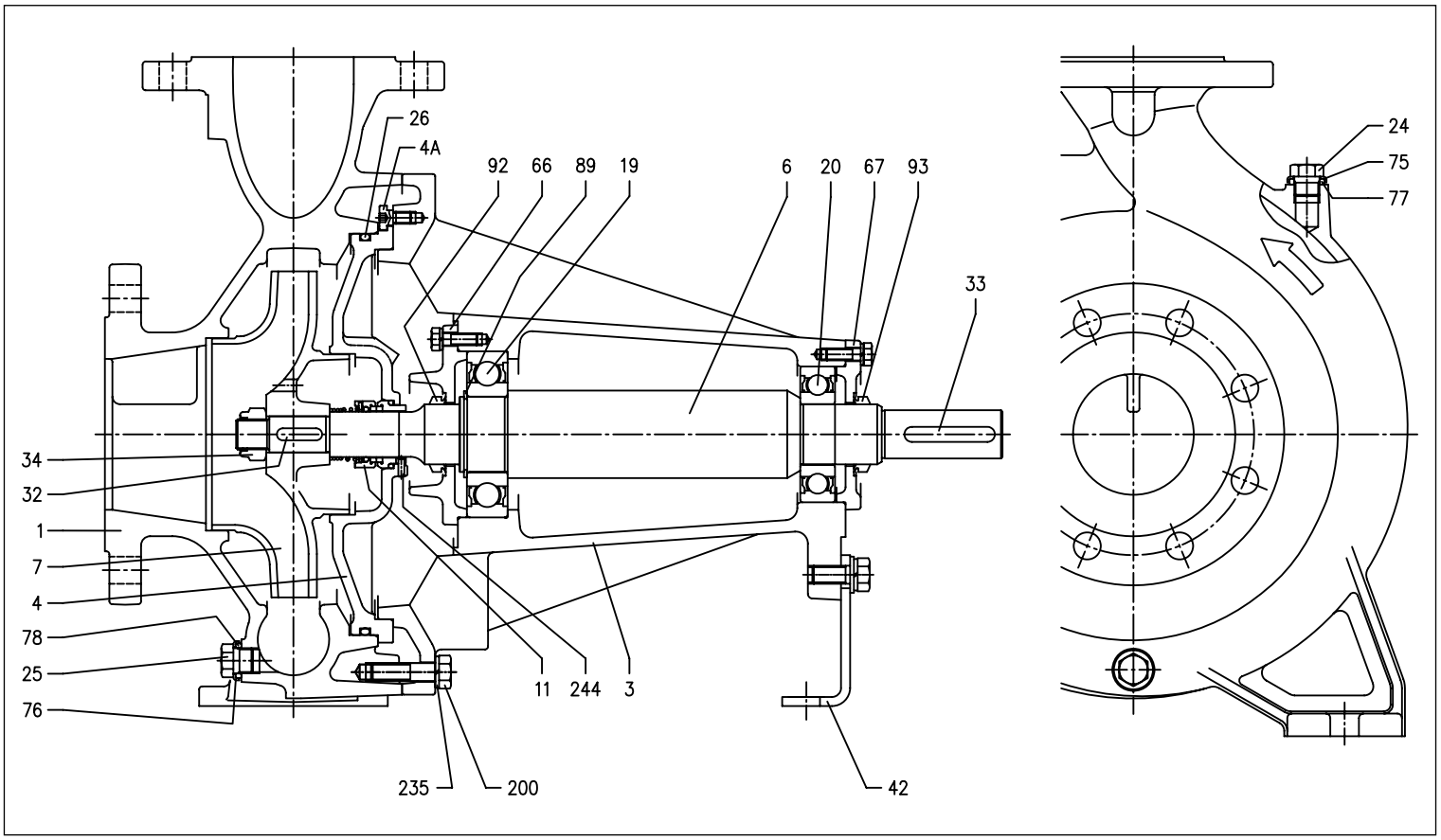
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	033	Key	C 40
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	034	Impeller nut	EN 1.4404 (AISI 316L)
004	Casing cover	EN 1.4404 (AISI 316L)	042	Pump support	Galvanised steel
006	Shaft	EN 1.4404 (AISI316L) Part in contact with the liquid	066	Bracket cover	Cast iron EN-GJL-200-EN 1561
			067	Bracket cover	Cast iron EN-GJL-200-EN 1561
007	Impeller	EN 1.4401 (AISI 316)	075	Washer	EN 1.4404 (AISI 316L)
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	076	Washer	
			077	O-Ring	FKM [1]
			078	O-Ring	
019	Bearing (pump side)	-	089	Seeger ring	Carbon steel TC 80
020	Bearing (motor side)	-	092	V Ring	-
024	Plug	EN 1.4404 (AISI 316L)	093	V Ring	-
025	Plug	EN 1.4404 (AISI 316L)	200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1
026	O-Ring	FKM [1]	200A	Screw	Stainless steel A2 70 class ISO 3506/1
032	Key	EN 1.4401 (AISI 316)	235	Washer	EN 1.4301(AISI 304)

[1]= EPDM for E version

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

SECTIONAL VIEW 3LPF4 65-250, 80 SERIES

4 Poles



MATERIALS TABLE

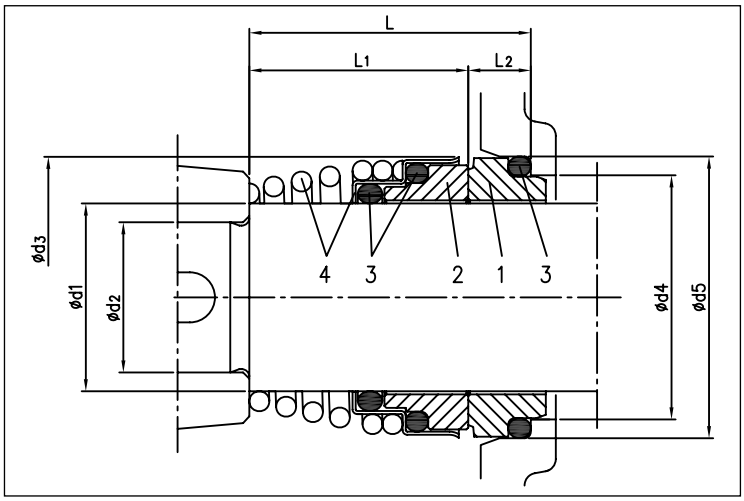
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	EN 1.4401 (AISI 316)	034	Impeller nut	EN 1.4404 (AISI 316L)
003	Motor bracket	Cast iron EN-GJL-200-EN 1561	042	Motor support	Galvanised steel
004	Casing cover	EN 1.4401 (AISI 316)	066	Bracket cover	Cast iron EN-GJL-200-EN 1561
004A	Casing cover screw disc	EN 1.4301(AISI 304)	067	Bracket cover	Cast iron EN-GJL-200-EN 1561
006	Shaft	EN 1.4462 (duplex steel) Part in contact with the liquid	075	Washer	EN 1.4404 (AISI 316L)
007	Impeller	EN 1.4401 (AISI316)	076	Washer	
011	Mechanical seal	Silicon Carbide/Silicon Carbide/FKM	077	O-Ring	FKM [2]
			078	O-Ring	
			089	Seeger ring	Carbon steel TC 80
019	Bearing (pump side)	-	092	Seal ring	-
020	Bearing (motor side)	-	093	Seal ring	-
024	Plug	EN 1.4404 (AISI 316L)	200	Screw (pump body)	Stainless steel A2 70 class ISO 3506/1
025	Plug	EN 1.4404 (AISI 316L)	235	Washer	EN 1.4301 (AISI 304)
026	O-Ring	FKM [2]	244	Plug [1]	EN 1.4301 (AISI 304)
032	Key	EN 1.4401 (AISI 316)			
033	Key	C 40			

[1]= Not for H and E versions
[2]= EPDM for E version

3 - 3L SERIES

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

MECHANICAL SEAL standard version



MATERIALS TABLE

Ref.	Name	Materials	
		3 SERIES	3L SERIES
1	Fixed part	Carbon	Silicon Carbide
2	Rotating part	Ceramic	Silicon Carbide
3	Gasket	NBR	FKM
4	Frame + spring	EN 1.4401 (AISI 316)	EN 1.4571 (AISI 316Ti)

SPECIAL MECHANICAL SEALS 3 SERIES (On request)

Name	Materials				
	H Version	HS Version	HW Version	HSW Version	E Version
Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
Rotating Part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
Elastomers	FKM	FKM	FKM	FKM	EPDM
Spring	AISI 316	AISI 316Ti	AISI 316	AISI 316	AISI 316Ti
Structure/Frame	AISI 316	AISI 316Ti	AISI 316	AISI 316	AISI 316Ti

SPECIAL MECHANICAL SEALS 3L SERIES (On request)

Name	Materials				
	H Version	HW Version	HSW Version	E* Version	ES** Version
Fixed part	Carbon	Tungsten Carbide	Tungsten Carbide	Carbon	Carbon
Rotating Part	Ceramic	Tungsten Carbide	Silicon Carbide	Ceramic	Silicon Carbide
Elastomers	FKM	FKM	FKM	EPDM	EPDM
Spring	AISI 316	AISI 316	AISI 316	AISI 316Ti	AISI 316Ti
Structure/Frame	AISI 316	AISI 316	AISI 316	AISI 316Ti	AISI 316Ti

* Not available for 3 I 80-250 SERIES 2 poles
** Available only for 3 I 80-250 SERIES 2 poles

SPECIAL MECHANICAL SEALS 3-3L SERIES (On request)

Name	Materials				
	U3U3EGG Version	U3CEGG Version	Q1Q1EGG Version	Q1U3EGG Version	Q1AEGG Version
Fixed part	Tungsten Carbide	Tungsten Carbide	Silicon Carbide	Silicon Carbide	Silicon Carbide
Rotating Part	Tungsten Carbide	Special carbon	Silicon Carbide	Tungsten Carbide	Metallised carbon
Elastomers	EPDM	EPDM	EPDM	EPDM	EPDM
Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
Structure/Frame	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3(L)M4 SERIES

4 Poles

Model Three phase 230/400/690V	Motor	P_2		P_1	Efficiency	Efficiency(%) Three phase η %			Absorbed Current [A] Three phase		
		[HP]	[kW]	Three phase [kW]	Three phase	50%	75%	100%	230V	400V	690V
3(.)M4 32-125/0.25	71	0.33	0.25	0.55	-	-	-	-	1.9	1.1	-
3(.)M4 32-160/0.37R	80	0.5	0.37	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 32-160/0.37		0.5	0.37	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 32-200/0.55R	80	0.75	0.55	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 32-200/0.55		0.75	0.55	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 32-200/0.75	90	1	0.75	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 40-125/0.37R	71	0.5	0.37	0.55	-	-	-	-	1.9	1.1	-
3(.)M4 40-125/0.37		0.5	0.37	0.55	-	-	-	-	1.9	1.1	-
3(.)M4 40-160/0.55R	80	0.75	0.55	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 40-160/0.55		0.75	0.55	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 40-200/1.1R	90	1.5	1.1	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 40-200/1.1		1.5	1.1	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 40-200/1.5		2	1.5	1.88	IE2	80.3	83.4	83.8	6.2	3.6	-
3(.)M4 50-125/0.55R	80	0.75	0.55	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 50-125/0.55		0.75	0.55	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 50-160/1.1R	90	1.5	1.1	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 50-160/1.1		1.5	1.1	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 50-200/1.5R		2	1.5	1.88	IE2	80.3	83.4	83.8	6.2	3.6	-
3(.)M4 50-200/1.5		2	1.5	1.88	IE2	80.3	83.4	83.8	6.2	3.6	-
3(.)M4 50-200/2.2	100	3	2.2	2.70	IE2	84.6	86.0	85.6	8.1	4.7	-
3(.)M4 65-125/0.55	80	0.75	0.55	0.8	-	-	-	-	2.6	1.5	-
3(.)M4 65-125/0.75	90	1	0.75	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 65-125/1.1		1.5	1.1	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 65-160/1.1		1.5	1.1	1.41	IE2	78.4	81.6	81.9	4.6	2.7	-
3(.)M4 65-160/1.5		2	1.5	1.88	IE2	80.3	83.4	83.8	6.2	3.6	-
3(.)M4 65-160/2.2	100	3	2.2	2.70	IE2	84.6	86.0	85.6	8.1	4.7	-
3(.)M4 65-200/2.2R		3	2.2	2.70	IE2	84.6	86.0	85.6	8.1	4.7	-
3(.)M4 65-200/2.2		3	2.2	2.70	IE2	84.6	86.0	85.6	8.1	4.7	-
3(.)M4 65-200/3		4	3	3.54	IE2	81.6	86.1	89.0	11.8	6.8	-
3LM4 65-250/4	112	5.5	4	4.75	IE2	87.6	89.0	88.5	14.9	8.6	-
3LM4 65-250/5.5	132	7.5	5.5	6.52	IE2	74.7	81.9	88.6	-	11.3	6.6
3LM4 80-160/1.5	90	2	1.5	1.88	IE2	80.3	83.4	83.8	6.2	3.6	-
3LM4 80-160/2.2R	100	3	2.2	2.70	IE2	84.6	86.0	85.6	8.1	4.7	-
3LM4 80-160/2.2		3	2.2	2.70	IE2	84.6	86.0	85.6	8.1	4.7	-
3LM4 80-200/3		4	3	3.54	IE2	81.6	86.1	89.0	11.8	6.8	-
3LM4 80-200/4R	112	5.5	4	4.75	IE2	87.6	89.0	88.5	14.9	8.6	-
3LM4 80-200/4	112	5.5	4	4.75	IE2	87.6	89.0	88.5	14.9	8.6	-
3LM4 80-250/5.5R	132	7.5	5.5	6.52	IE2	74.7	81.9	88.6	-	11.3	6.6
3LM4 80-250/5.5		7.5	5.5	6.52	IE2	74.7	81.9	88.6	-	11.3	6.6
3LM4 80-250/7.5	132M	10	7.5	8.27	IE3	89.8	90.9	90.4	-	15.3	8.8

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3(L)S4 - 3(L)P4 SERIES

4 Poles

Model		Motor	P_2		Efficiency	P_1	Efficiency (%) Three phase η %			Absorbed Current [A] Three phase		
Three phase 230/400/690V	Three phase 230/400/690V		[HP]	[kW]	Three phase	[kW]	50%	75%	100%	230V	400V	690V
3(.)S4 32-125/0.25	3(.)P4 32-125/0.25	71	0.25	0.33	-	0.41	55.0	59.0	64.0	1.6	0.9	-
3(.)S4 32-160/0.37R	3(.)P4 32-160/0.37R		0.37	0.5	-	0.56	60.0	63.0	67.0	2.1	1.2	-
3(.)S4 32-160/0.37	3(.)P4 32-160/0.37		0.37	0.5	-	0.56	60.0	63.0	67.0	2.1	1.2	-
3(.)S4 32-200/0.55R	3(.)P4 32-200/0.55R	80	0.55	0.75	-	0.80	67.0	69.0	70.0	2.8	1.6	-
3(.)S4 32-200/0.55	3(.)P4 32-200/0.55		0.55	0.75	-	0.80	67.0	69.0	70.0	2.8	1.6	-
3(.)S4 32-200/0.75	3(.)P4 32-200/0.75		0.75	1	IE2	0.95	79.2	80.3	80.2	3.1	1.8	-
					IE3	0.92	80.7	81.5	82.5	3.1	1.8	-
3(.)S4 40-125/0.37R	3(.)P4 40-125/0.37R	71	0.37	0.5	-	0.56	60.0	63.0	67.0	2.1	1.2	-
3(.)S4 40-125/0.37	3(.)P4 40-125/0.37				-	0.56	60.0	63.0	67.0	2.1	1.2	-
3(.)S4 40-160/0.55R	3(.)P4 40-160/0.55R	80	0.55	0.75	-	0.80	67.0	69.0	70.0	2.8	1.6	-
3(.)S4 40-160/0.55	3(.)P4 40-160/0.55				-	0.80	67.0	69.0	70.0	2.8	1.6	-
3(.)S4 40-200/1.1R	3(.)P4 40-200/1.1R	90S	1.1	1.5	IE2	1.33	81.4	82.7	82.5	4.3	2.5	-
					IE3	1.30	83.3	84.3	84.1	4.3	2.5	-
3(.)S4 40-200/1.1	3(.)P4 40-200/1.1		1.1	1.5	IE2	1.33	81.4	82.7	82.5	4.3	2.5	-
					IE3	1.30	83.3	84.3	84.1	4.3	2.5	-
3(.)S4 40-200/1.5	3(.)P4 40-200/1.5	90L	1.5	2	IE2	1.81	82.0	83.5	83.0	5.9	3.4	-
					IE3	1.80	84.1	85.2	85.3	6.2	3.6	-
3(.)S4 50-125/0.55R	3(.)P4 50-125/0.55R	80	0.55	0.75	-	0.80	67.0	69.0	70.0	2.8	1.6	-
3(.)S4 50-125/0.55	3(.)P4 50-125/0.55		0.55	0.75	-	0.80	67.0	69.0	70.0	2.8	1.6	-
3(.)S4 50-160/1.1R	3(.)P4 50-160/1.1R	90S	1.1	1.5	IE2	1.33	81.4	82.7	82.5	4.3	2.5	-
					IE3	1.30	83.3	84.3	84.1	4.3	2.5	-
3(.)S4 50-160/1.1	3(.)P4 50-160/1.1		1.1	15	IE2	1.33	81.4	82.7	82.5	4.3	2.5	-
					IE3	1.30	83.3	84.3	84.1	4.3	2.5	-
3(.)S4 50-200/1.5R	3(.)P4 50-200/1.5R	90L	1.5	2	IE2	1.81	82.0	83.5	83.0	5.9	3.4	-
					IE3	1.80	84.1	85.2	85.3	6.2	3.6	-
3(.)S4 50-200/1.5	3(.)P4 50-200/1.5		1.5	2	IE2	1.81	82.0	83.5	83.0	5.9	3.4	-
					IE3	1.80	84.1	85.2	85.3	6.2	3.6	-
3(.)S4 50-200/2.2	3(.)P4 50-200/2.2	100 L	2.2	3	IE2	2.61	84.0	85.3	85.1	8.8	5.1	-
					IE3	2.58	83.2	86.2	86.7	10.2	5.9	-
3(.)S4 65-125/0.55	3(.)P4 65-125/0.55	80	0.55	0.75	-	0.80	67.0	69.0	70.0	2.8	1.6	-
3(.)S4 65-125/0.75	3(.)P4 65-125/0.75		0.75	1	IE2	0.95	79.2	80.3	80.2	3.1	1.8	-
					IE3	0.92	80.7	81.5	82.5	3.1	1.8	-
3(.)S4 65-125/1.1	3(.)P4 65-125/1.1	90S	1.1	1.5	IE2	1.33	81.4	82.7	82.5	4.3	2.5	-
					IE3	1.30	83.3	84.3	84.1	4.3	2.5	-
3(.)S4 65-160/1.1	3(.)P4 65-160/1.1		1.1	1.5	IE2	1.33	81.4	82.7	82.5	4.3	2.5	-
					IE3	1.30	83.3	84.3	84.1	4.3	2.5	-
3(.)S4 65-160/1.5	3(.)P4 65-160/1.5	90L	1.5	2	IE2	1.81	82.0	83.5	83.0	5.9	3.4	-
					IE3	1.80	84.1	85.2	85.3	6.2	3.6	-
3(.)S4 65-160/2.2	3(.)P4 65-160/2.2	100 L	2.2	3	IE2	2.61	84.0	85.3	85.1	8.8	5.1	-
					IE3	2.58	83.2	86.2	86.7	10.2	5.9	-
3(.)S4 65-200/2.2R	3(.)P4 65-200/2.2R		2.2	3	IE2	2.61	84.0	85.3	85.1	8.8	5.1	-
					IE3	2.58	83.2	86.2	86.7	10.2	5.9	-
3(.)S4 65-200/2.2	3(.)P4 65-200/2.2		2.2	3	IE2	2.61	84.0	85.3	85.1	8.8	5.1	-
					IE3	2.58	83.2	86.2	86.7	10.2	5.9	-
3(.)S4 65-200/3	3(.)P4 65-200/3		3	4	IE2	3.47	85.3	86.6	86.4	11.3	6.5	-
					IE3	3.44	85.1	87.1	87.7	11.8	6.8	-
3LS4 65-250/4	3LP4 65-250/4	112 M	4	5.5	IE2	4.59	86.0	87.3	87.1	14.7	8.5	-
					IE3	4.54	87.2	88.3	88.6	14.2	8.2	-
3LS4 65-250/5.5	3LP4 65-250/5.5	132S	5.5	7.5	IE2	6.29	87.5	88.3	88.1	-	10.8	6.2
					IE3	6.17	89.8	90.2	89.6	-	10.6	6.1
3LS4 80-160/1.5	3LP4 80-160/1.5	90L	1.5	2	IE2	1.81	82.0	83.5	83.0	5.9	3.4	-
					IE3	1.80	84.1	85.2	85.3	6.2	3.6	-
3LS4 80-160/2.2R	3LP4 80-160/2.2R	100 L	2.2	3	IE2	2.61	84.0	85.3	85.1	8.8	5.1	-
					IE3	2.58	83.2	86.2	86.7	10.2	5.9	-
3LS4 80-160/2.2	3LP4 80-160/2.2		2.2	3	IE2	2.61	84.0	85.3	85.1	8.8	5.1	-
					IE3	2.58	83.2	86.2	86.7	10.2	5.9	-
3LS4 80-200/3	3LP4 80-200/3		3	4	IE2	3.47	85.3	86.6	86.4	11.3	6.5	-
					IE3	3.44	85.1	87.1	87.7	11.8	6.8	-
3LS4 80-200/4R	3LP4 80-200/4R	112 M	4	5.5	IE2	4.59	86.0	87.3	87.1	14.7	8.5	-
					IE3	4.54	87.2	88.3	88.6	14.2	8.2	-
3LS4 80-200/4	3LP4 80-200/4		4	5.5	IE2	4.59	86.0	87.3	87.1	14.7	8.5	-
					IE3	4.54	87.2	88.3	88.6	14.2	8.2	-
3LS4 80-250/5.5R	3LP4 80-250/5.5R	132S	5.5	75	IE2	6.29	87.5	88.3	88.1	-	10.8	6.2
					IE3	6.17	89.8	90.2	89.6	-	10.6	6.1
3LS4 80-250/5.5	3LP4 80-250/5.5		5.5	7.5	IE2	6.29	87.5	88.3	88.1	-	10.8	6.2
					IE3	6.17	89.8	90.2	89.6	-	10.6	6.1
3LS4 80-250/7.5	3LP4 80-250/7.5	132M	75	10	IE3	8.27	89.8	90.9	90.4	-	15.3	8.8

CENTRIFUGAL ELECTRIC PUMPS STANDARDISED IN COMPLIANCE WITH EN 733 (EX DIN 24255)

NOISE DATA TABLE

4 Poles

Model Single phase 230V	P_2 [HP]	P_2 [kW]	L_{pA} - dB(A)*
3(L)M4 32-125/0.25	0.33	0.25	<70
3(L)M4 32-160/0.37R	0.5	0.37	
3(L)M4 32-160/0.37	0.5	0.37	
3(L)M4 32-200/0.55R	0.75	0.55	
3(L)M4 32-200/0.55	0.75	0.55	
3(L)M4 32-200/0.75	1	0.75	
3(L)M4 40-125/0.37R	0.5	0.37	<70
3(L)M4 40-125/0.37	0.5	0.37	
3(L)M4 40-160/0.55R	0.75	0.55	
3(L)M4 40-160/0.55	0.75	0.55	
3(L)M4 40-200/1.1R	1.5	1.1	
3(L)M4 40-200/1.1	1.5	1.1	
3(L)M4 40-200/1.5	2	1.5	
3(L)M4 50-125/0.55R	0.75	0.55	<70
3(L)M4 50-125/0.55	0.75	0.55	
3(L)M4 50-160/1.1R	1.5	1.1	
3(L)M4 50-160/1.1	1.5	1.1	
3(L)M4 50-200/1.5R	2	1.5	
3(L)M4 50-200/1.5	2	1.5	
3(L)M4 50-200/2.2	3	2.2	
3(L)M4 65-125/0.55	0.75	0.55	<70
3(L)M4 65-125/0.75	1	0.75	
3(L)M4 65-125/1.1	1.5	1.1	
3(L)M4 65-160/1.1	1.5	1.1	
3(L)M4 65-160/1.5	2	1.5	
3(L)M4 65-160/2.2	3	2.2	
3(L)M4 65-200/2.2R	3	2.2	
3(L)M4 65-200/2.2	3	2.2	
3(L)M4 65-200/3	4	3	
3LM4 65-250/4	5.5	4	
3LM4 65-250/5.5	7.5	5.5	71
3LM4 80-160/1.5	2	1.5	<70
3LM4 80-160/2.2R	3	2.2	
3LM4 80-160/2.2	3	2.2	
3LM4 80-200/3	4	3	
3LM4 80-200/4R	5.5	4	
3LM4 80-200/4	5.5	4	
3LM4 80-250/5.5R	7.5	5.5	71
3LM4 80-250/5.5	7.5	5.5	
3LM4 80-250/7.5	10	7.5	<70**

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

Model Single phase 230V	Model Three phase 230/400/690V	P_2 [HP]	P_2 [kW]	L_{pA} - dB(A)*
3(L)S4 32-125/0.25	3(L)P4 32-125/0.25	0.33	0.25	<70
3(L)S4 32-160/0.37R	3(L)P4 32-160/0.37R	0.5	0.37	
3(L)S4 32-160/0.37	3(L)P4 32-160/0.37	0.5	0.37	
3(L)S4 32-200/0.55R	3(L)P4 32-200/0.55R	0.75	0.55	
3(L)S4 32-200/0.55	3(L)P4 32-200/0.55	0.75	0.55	
3(L)S4 32-200/0.75	3(L)P4 32-200/0.75	1	0.75	
3(L)S4 40-125/0.37R	3(L)P4 40-125/0.37R	0.5	0.37	<70
3(L)S4 40-125/0.37	3(L)P4 40-125/0.37	0.5	0.37	
3(L)S4 40-160/0.55R	3(L)P4 40-160/0.55R	0.75	0.55	
3(L)S4 40-160/0.55	3(L)P4 40-160/0.55	0.75	0.55	
3(L)S4 40-200/1.1R	3(L)P4 40-200/1.1R	1.5	1.1	
3(L)S4 40-200/1.1	3(L)P4 40-200/1.1	1.5	1.1	
3(L)S4 40-200/1.5	3(L)P4 40-200/1.5	2	1.5	
3(L)S4 50-125/0.55R	3(L)P4 50-125/0.55R	0.75	0.55	<70
3(L)S4 50-125/0.55	3(L)P4 50-125/0.55	0.75	0.55	
3(L)S4 50-160/1.1R	3(L)P4 50-160/1.1R	1.5	1.1	
3(L)S4 50-160/1.1	3(L)P4 50-160/1.1	1.5	1.1	
3(L)S4 50-200/1.5R	3(L)P4 50-200/1.5R	2	1.5	
3(L)S4 50-200/1.5	3(L)P4 50-200/1.5	2	1.5	
3(L)S4 50-200/2.2	3(L)P4 50-200/2.2	3	2.2	
3(L)S4 65-125/0.55	3(L)P4 65-125/0.55	0.75	0.55	<70
3(L)S4 65-125/0.75	3(L)P4 65-125/0.75	1	0.75	
3(L)S4 65-125/1.1	3(L)P4 65-125/1.1	1.5	1.1	
3(L)S4 65-160/1.1	3(L)P4 65-160/1.1	1.5	1.1	
3(L)S4 65-160/1.5	3(L)P4 65-160/1.5	2	1.5	
3(L)S4 65-160/2.2	3(L)P4 65-160/2.2	3	2.2	
3(L)S4 65-200/2.2R	3(L)P4 65-200/2.2R	3	2.2	
3(L)S4 65-200/2.2	3(L)P4 65-200/2.2	3	2.2	
3(L)S4 65-200/3	3(L)P4 65-200/3	4	3	
3LS4 65-250/4	3LP4 65-250/4	5.5	4	
3LS4 65-250/5.5	3LP4 65-250/5.5	7.5	5.5	
3LS4 80-160/1.5	3LP4 80-160/1.5	2	1.5	<70
3LS4 80-160/2.2R	3LP4 80-160/2.2R	3	2.2	
3LS4 80-160/2.2	3LP4 80-160/2.2	3	2.2	
3LS4 80-200/3	3LP4 80-200/3	4	3	
3LS4 80-200/4R	3LP4 80-200/4R	5.5	4	
3LS4 80-200/4	3LP4 80-200/4	5.5	4	
3LS4 80-250/5.5R	3LP4 80-250/5.5R	7.5	5.5	
3LS4 80-250/5.5	3LP4 80-250/5.5	7.5	5.5	
3LS4 80-250/7.5	3LP4 80-250/7.5	10	7.5	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

Cast iron monoblock (3D SERIES) and normalised centrifugal electropumps conforming to EN 733 (3DS-3DP SERIES).

APPLICATIONS
- Handling of water and clean, chemically non-aggressive liquids
- Water supply
- Pressurisation
- Washing and industrial plants
- Water circulation in climate control systems
- Irrigation and agriculture

TECHNICAL DETAILS
- Highly robust construction
- Stainless steel impeller
- High efficiency

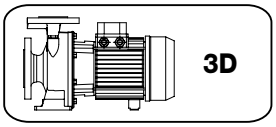
PUMP TECHNICAL DATA
- Maximum working pressure: 10 bar
- Temperature of the liquid:
  -5°C ÷ +90°C
  -5°C ÷ +110°C (versions H-HS-HW-HSW)
  -5°C ÷ +120°C (version E)
- MEI > 0.4
  For further information please see our Data Book on the web site www.ebaraeurope.com

MOTOR TECHNICAL DATA
High efficiency motors
  IE2 starting from 0.75kW up to 5.5kW
  IE3 starting from 0.75kW (starting from 7.5kW for 3D4)
- Self-ventilated 2-pole and 4-pole asynchronous motors
- Class of insulation F (B for high temperatures)
- IP 55 protection degree
- 230V ±10% 50Hz single phase voltage,
  230/400 ±10% three-phase voltage (up to 4 kW included), 50 Hz,
  400/690V ± 10% (from 5.5 kW and above) three phase voltage, 50 Hz
- Protection to be arranged by the user

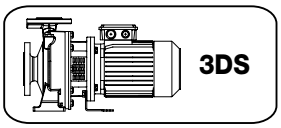
MATERIALS
- Cast iron pump body EN-GJL-250-EN 1561
- Impeller in:
  - AISI 304 steel for SERIES 3D 32, 40, 50
  - AISI 316 microcast steel for SERIES 3D 65
- AISI 304 steel shaft (part in contact with the liquid)
- Mechanical seal in:
  - Ceramic/Carbon/NBR (standard)
  - Special versions: see p. 165 for 3D SERIES 2 poles, p. 192 for 3D SERIES 4 poles

SPECIAL VERSIONS
- Special voltages
- 3DPF version (only hydraulic part) available upon request

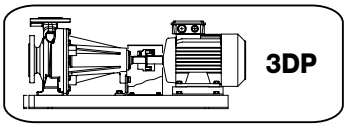
Available in 3 versions with 2 and 4 pole motors



Monobloc with extended motor shaft



Monobloc with standard motor and rigid joint

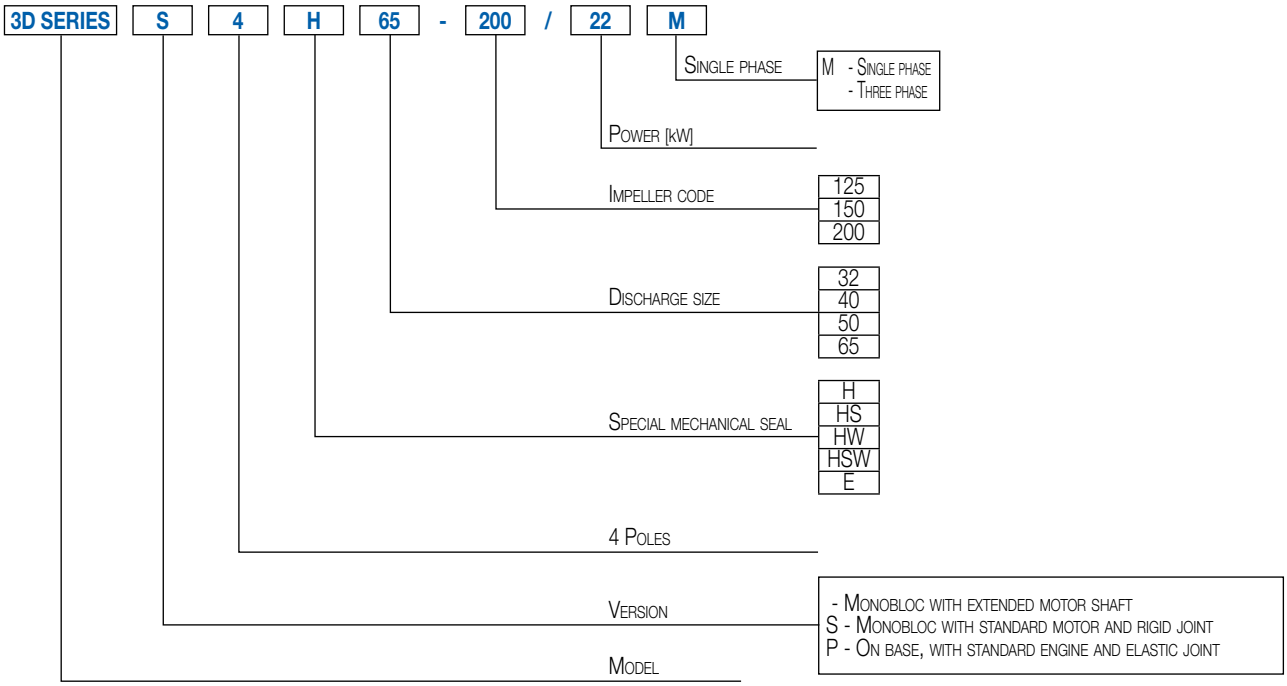


On base, with standard motor and flexible coupling

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

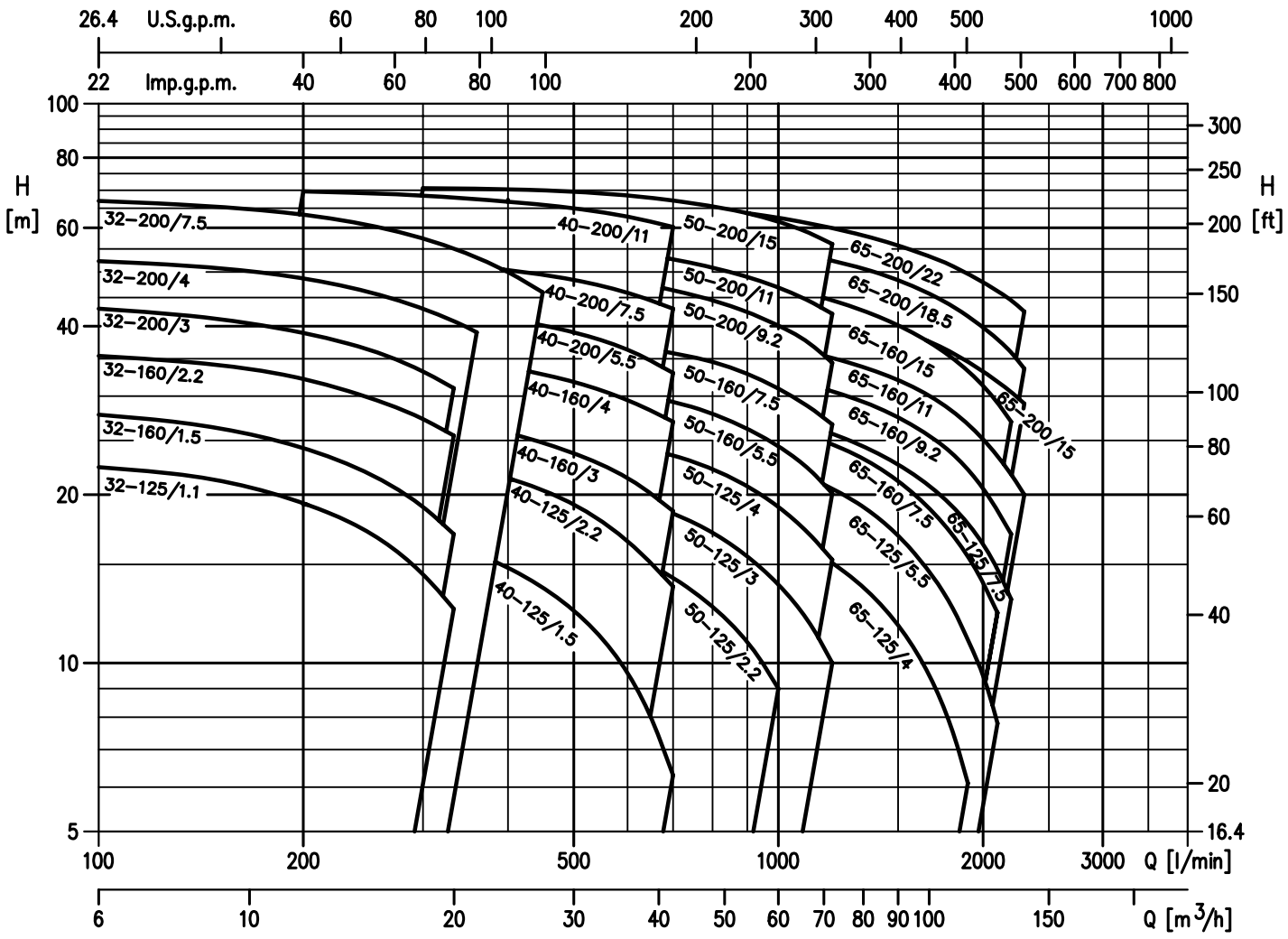
IDENTIFICATION CODE



3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE RANGE at 2900 min⁻¹ (according to ISO 9906 Attachment A) **2 Poles**



3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CHART 3D(.) SERIES 32

2 Poles

Model	P2		Q = Flow Rate								
			l/min	100	150	200	250	300	333	360	400	450
	[HP]	[kW]	m³/h	6	9	12	15	18	20	21.6	24	27
			H=Head [m]									
3D(.) 32-125/1.1 (M)	1.5	1.1		22.4	21.2	19.3	17.1	14.4	12.5	-	-	-
3D(.) 32-160/1.5 (M)	2	1.5		27.5	25.9	23.7	21.3	18.5	16.4	-	-	-
3D(.) 32-160/2.2 (M)	3	2.2		35.4	34.1	32.2	29.8	27.3	25.5	-	-	-
3D(.) 32-200/3.0	4	3		43.0	41.0	39.0	36.5	33.0	31.0	-	-	-
3D(.) 32-200/4.0	5.5	4		52.5	51.0	49.0	46.0	43.0	41.0	39.0	-	-
3D(.) 32-200/7.5	10	7.5		67.0	65.0	63.0	61.0	57.0	55.0	53.0	50.0	46.0

PERFORMANCE CHART 3D(.) SERIES 40

2 Poles

Model	P2		Q = Flow Rate								
			l/min	200	250	300	350	400	450	500	600	700
	[HP]	[kW]	m³/h	12	15	18	21	24	27	30	36	42
			H=Head [m]									
3D(.) 40-125/1.5 (M)	2	1.5		18.2	17.6	16.8	15.9	14.8	13.7	12.4	9.6	6.3
3D(.) 40-125/2.2 (M)	3	2.2		24.4	23.9	23.2	22.4	21.4	20.4	19.2	16.5	13.7
3D(.) 40-160/3.0	4	3		29.4	28.7	27.8	26.8	25.8	24.8	23.7	21.4	18.7
3D(.) 40-160/4.0	5.5	4		37.2	36.5	35.7	34.8	33.8	32.8	31.8	29.5	27.0
3D(.) 40-200/5.5	7.5	5.5		44.5	44.0	43.0	42.0	41.0	40.0	39.0	36.3	33.0
3D(.) 40-200/7.5	10	7.5		53.5	53.0	52.0	51.5	50.5	49.5	48.5	46.0	43.0
3D(.) 40-200/11	15	11		70.0	69.0	68.5	67.5	67.0	66.0	65.0	63.0	60.0

PERFORMANCE CHART 3D(.) SERIES 50

2 Poles

Model	P2		Q = Flow Rate								
			l/min	400	500	600	700	800	900	1000	1100	1200
	[HP]	[kW]	m³/h	24	30	36	42	48	54	60	66	72
			H=Head [m]									
3D(.) 50-125/2.2 (M)	3	2.2		18.0	17.0	15.7	14.2	12.6	10.9	9.0	-	-
3D(.) 50-125/3.0	4	3		21.5	20.8	19.8	18.5	17.1	15.5	13.8	12.0	10.0
3D(.) 50-125/4.0	5.5	4		25.8	25.3	24.5	23.5	22.2	20.7	19.0	17.2	15.3
3D(.) 50-160/5.5	7.5	5.5		32.0	31.5	30.5	29.3	27.9	26.2	24.4	22.4	20.0
3D(.) 50-160/7.5	10	7.5		38.2	37.6	36.9	35.8	34.5	32.9	30.9	28.9	26.7
3D(.) 50-200/9.2	12.5	9.2		-	49.5	48.0	46.5	44.5	42.5	40.0	37.6	34.4
3D(.) 50-200/11	15	11		-	55.5	54.5	52.5	51.0	49.0	47.0	44.5	42.0
3D(.) 50-200/15	20	15		-	69.5	68.5	67.0	65.5	63.5	61.5	59.0	56.0

PERFORMANCE CHART 3D(.) SERIES 65

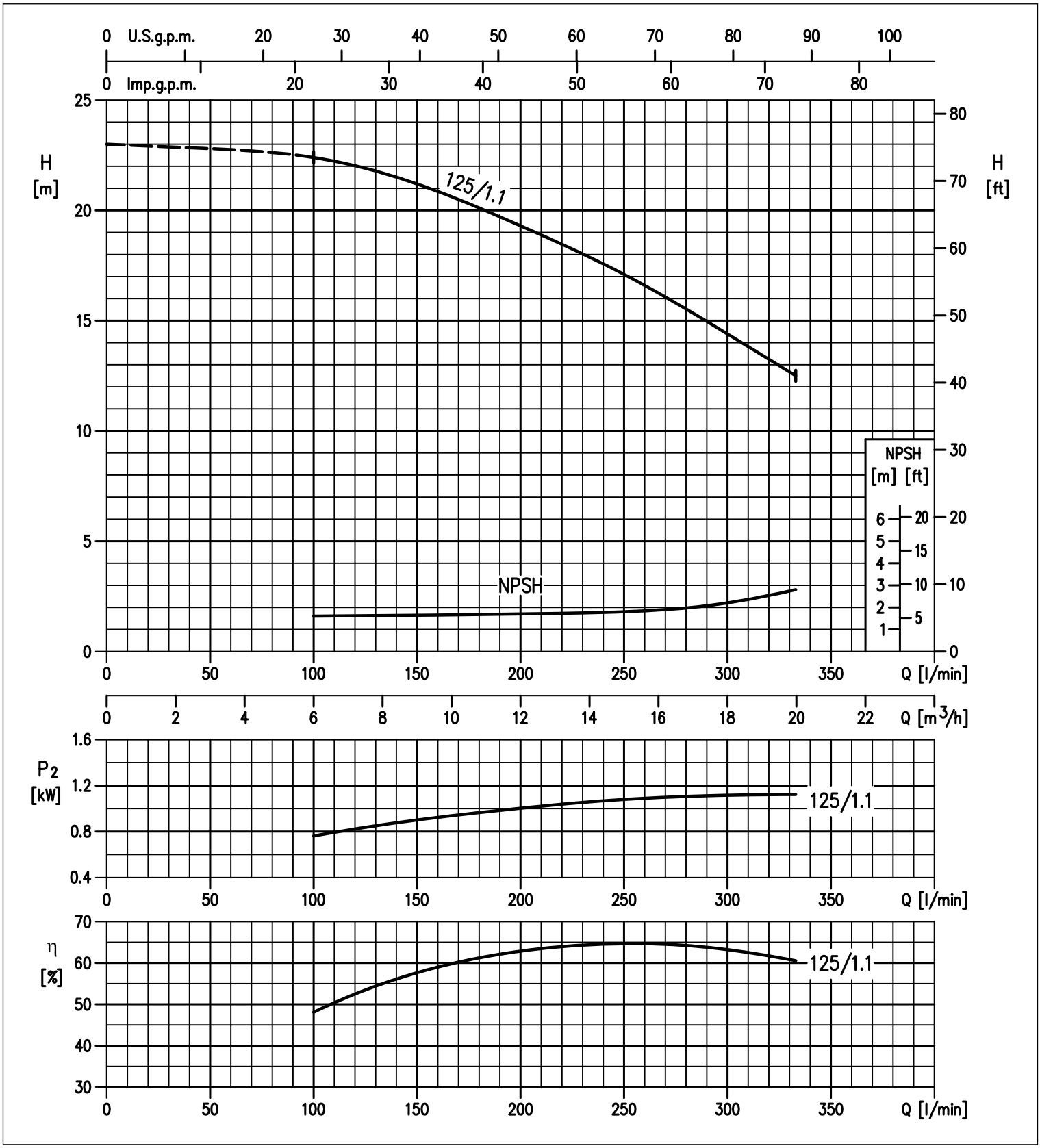
2 Poles

Model	P2		Q = Flow Rate								
			l/min	600	700	1000	1300	1600	1900	2100	2200	2300
	[HP]	[kW]	m³/h	36	42	60	78	96	114	126	132	138
			H=Head [m]									
3D(.) 65-125/4.0	5.5	4		20.4	19.8	17.2	14.0	10.4	6.0	-	-	-
3D(.) 65-125/5.5	7.5	5.5		-	25.0	22.5	19.4	15.5	11.0	8.0	-	-
3D(.) 65-125/7.5	10	7.5		-	29.6	27.5	24.7	21.5	17.8	14.7	13.0	-
3D(.) 65-160/7.5	10	7.5		-	29.0	26.6	23.5	19.8	15.5	12.3	-	-
3D(.) 65-160/9.2	12.5	9.2		-	34.7	32.4	29.6	26.3	22.2	18.8	17.0	-
3D(.) 65-160/11	15	11		-	39.0	37.0	34.0	31.0	27.0	23.0	22.0	20.0
3D(.) 65-160/15	20	15		-	46.0	44.0	41.5	38.4	34.6	31.9	30.5	29.0
3D(.) 65-200/15	20	15		-	51.0	47.0	43.0	38.6	33.3	29.2	27.0	-
3D(.) 65-200/18.5	25	18.5		-	58.0	55.0	51.0	47.0	41.5	37.9	35.9	33.6
3D(.) 65-200/22	30	22		-	65.5	62.5	58.5	54.5	49.5	46.0	44.5	42.5

(M) Single phase version only for 3D SERIES

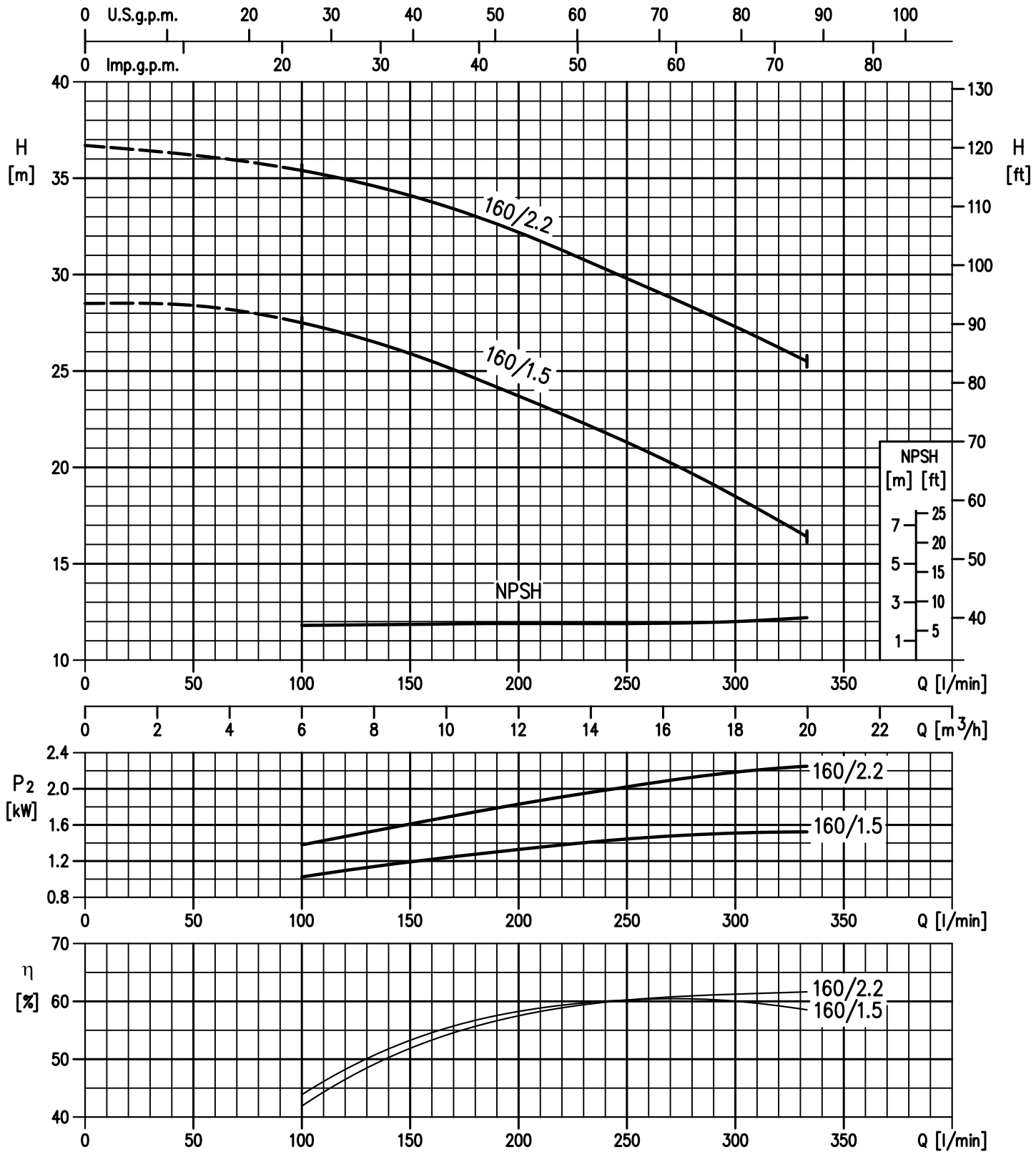
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 32-125 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



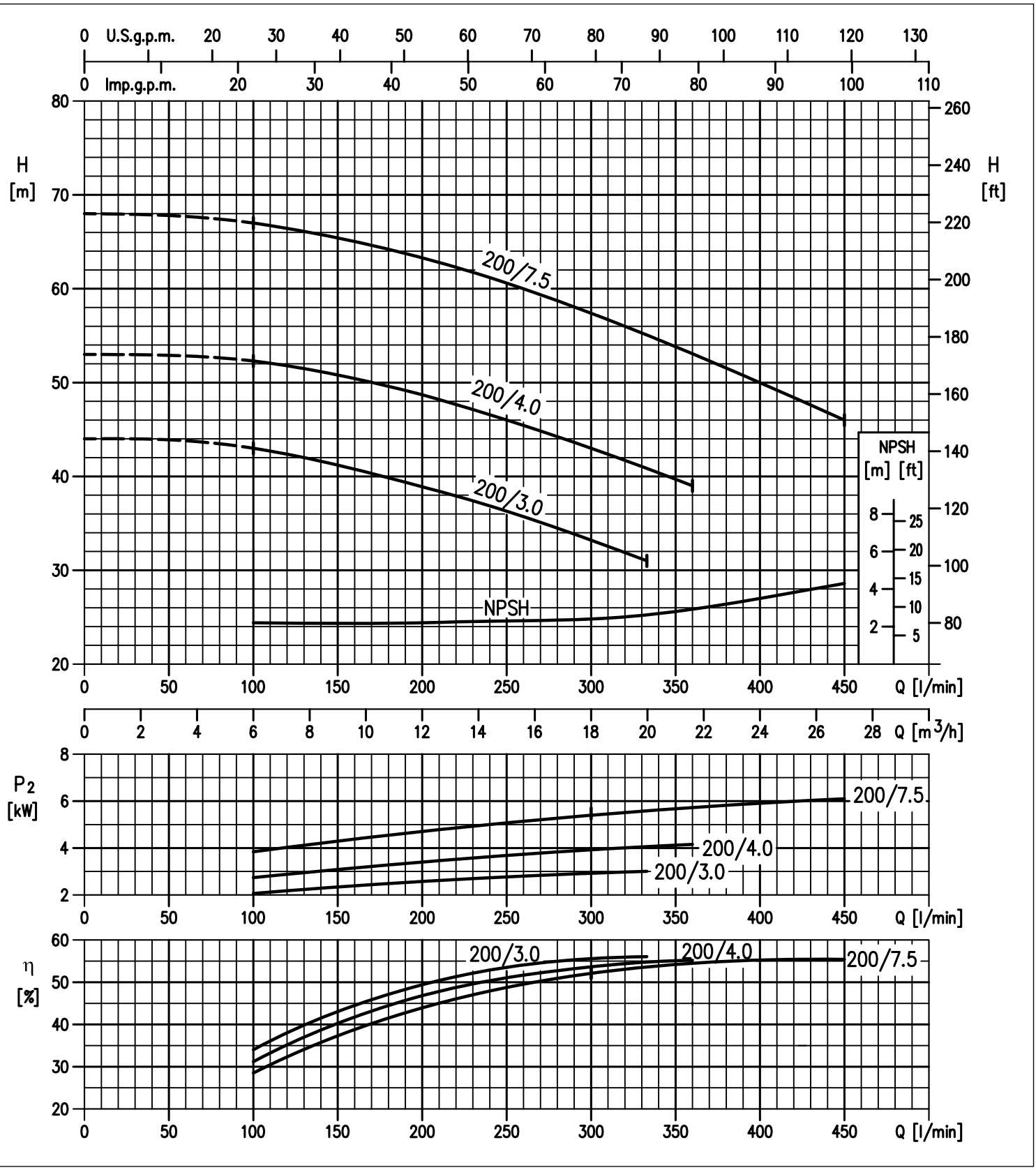
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 32-160 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

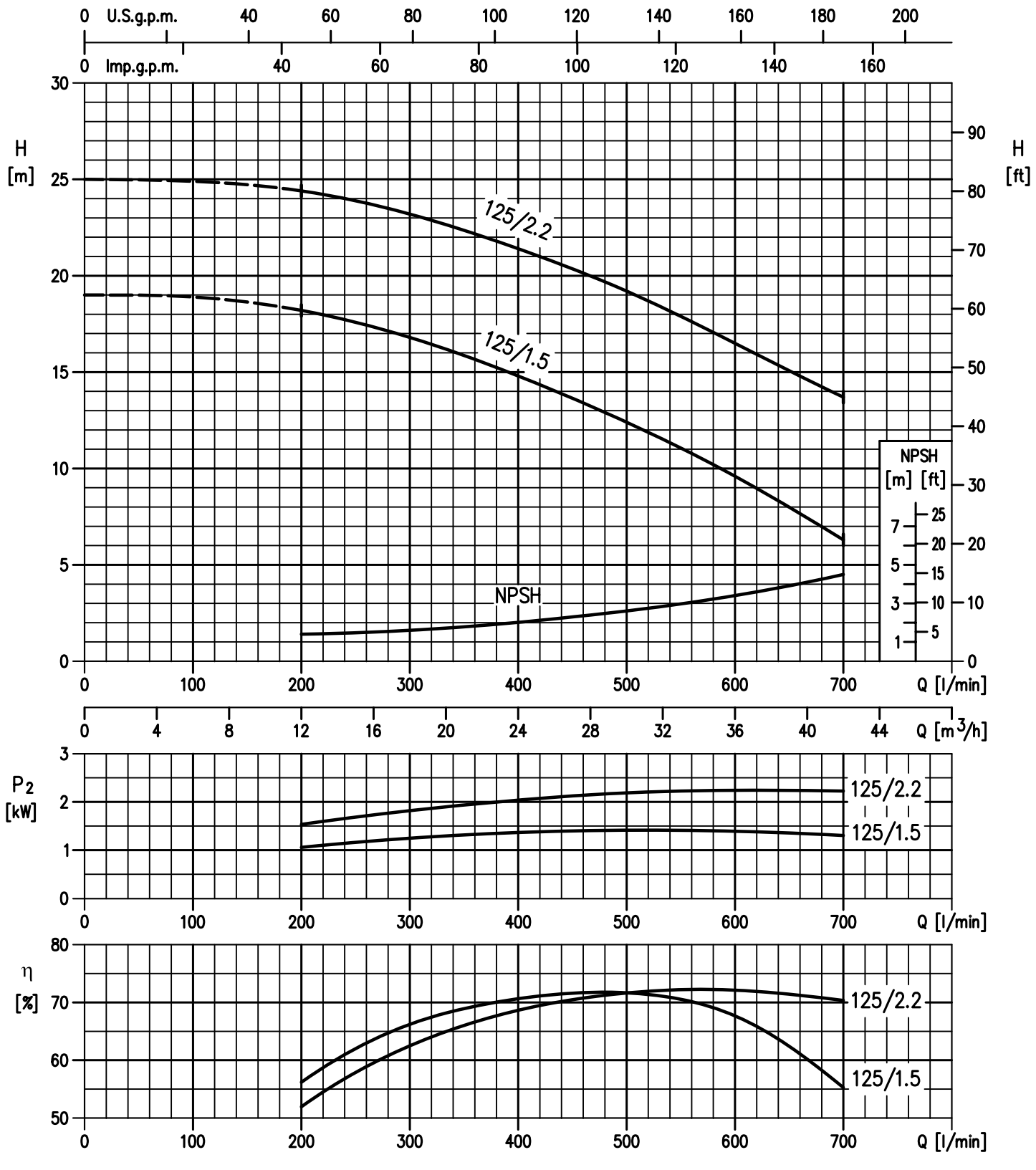
PERFORMANCE CURVES 3D(.) SERIES 32-200 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

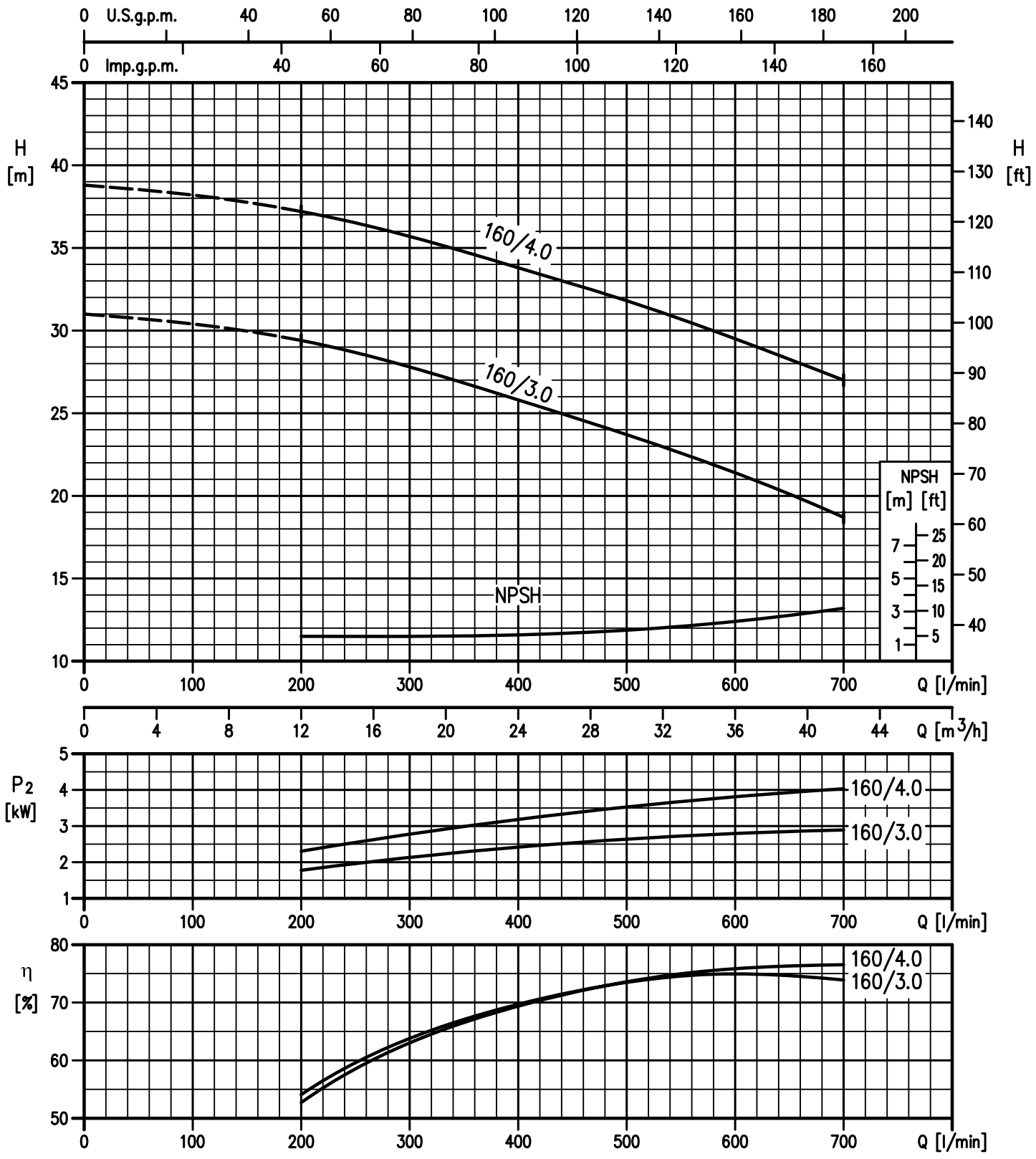
PERFORMANCE CURVES 3D(.) SERIES 40-125 at 2900 min^{-1} (according to ISO 9906 Attachment A)

2 Poles



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

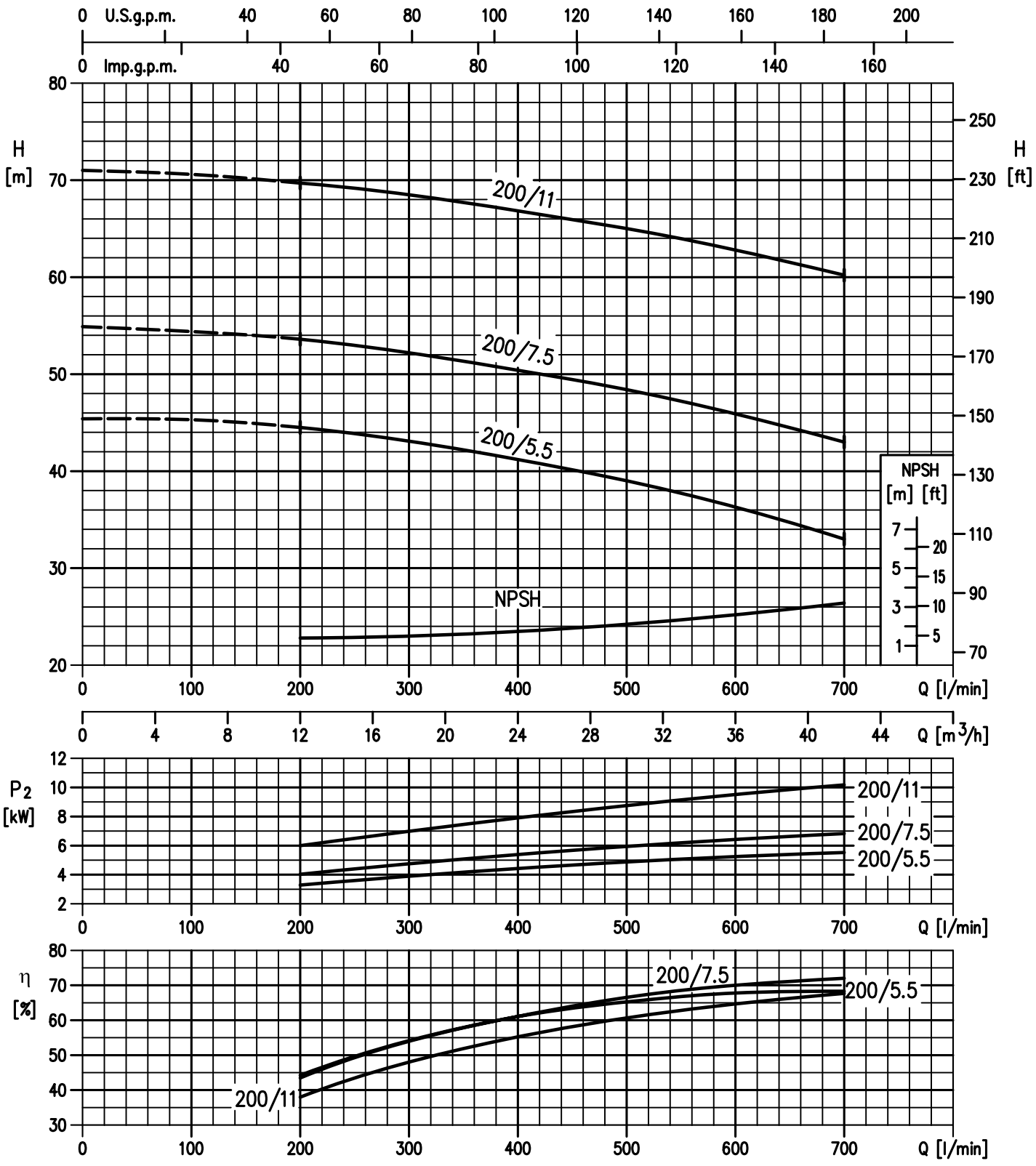
PERFORMANCE CURVES 3D(.) SERIES 40-125 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



3D SERIES

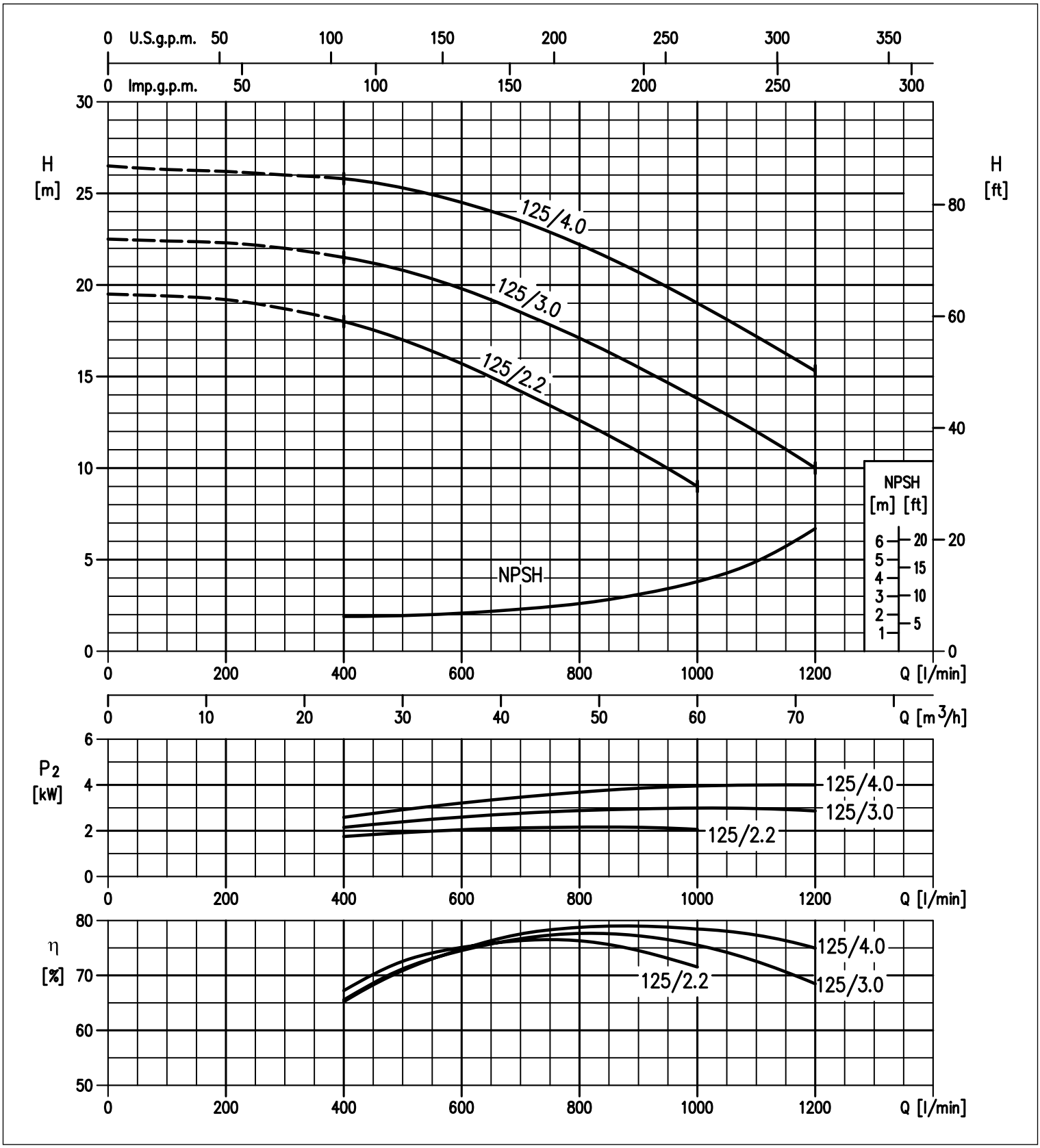
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 40-200 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



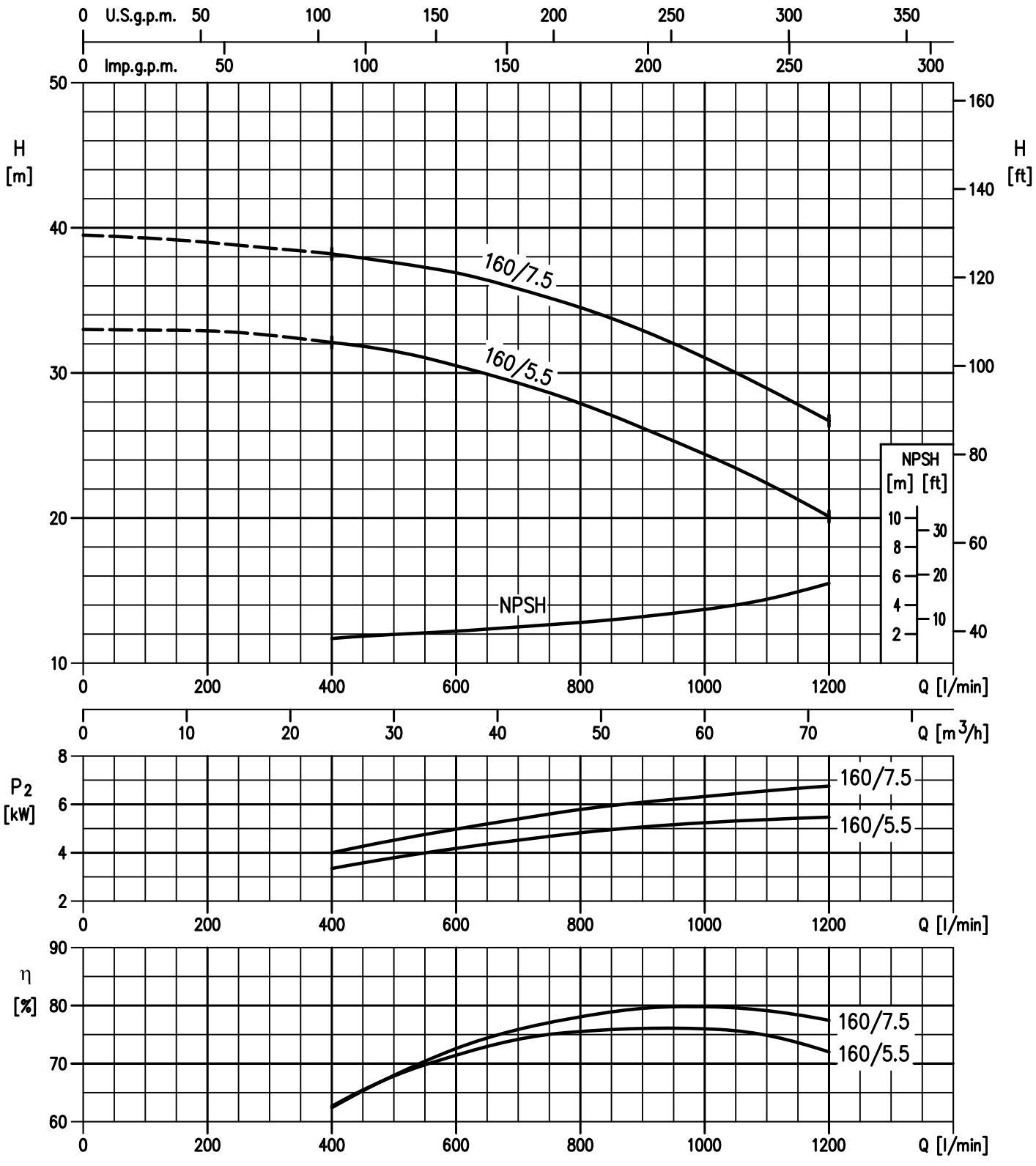
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 50-125 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



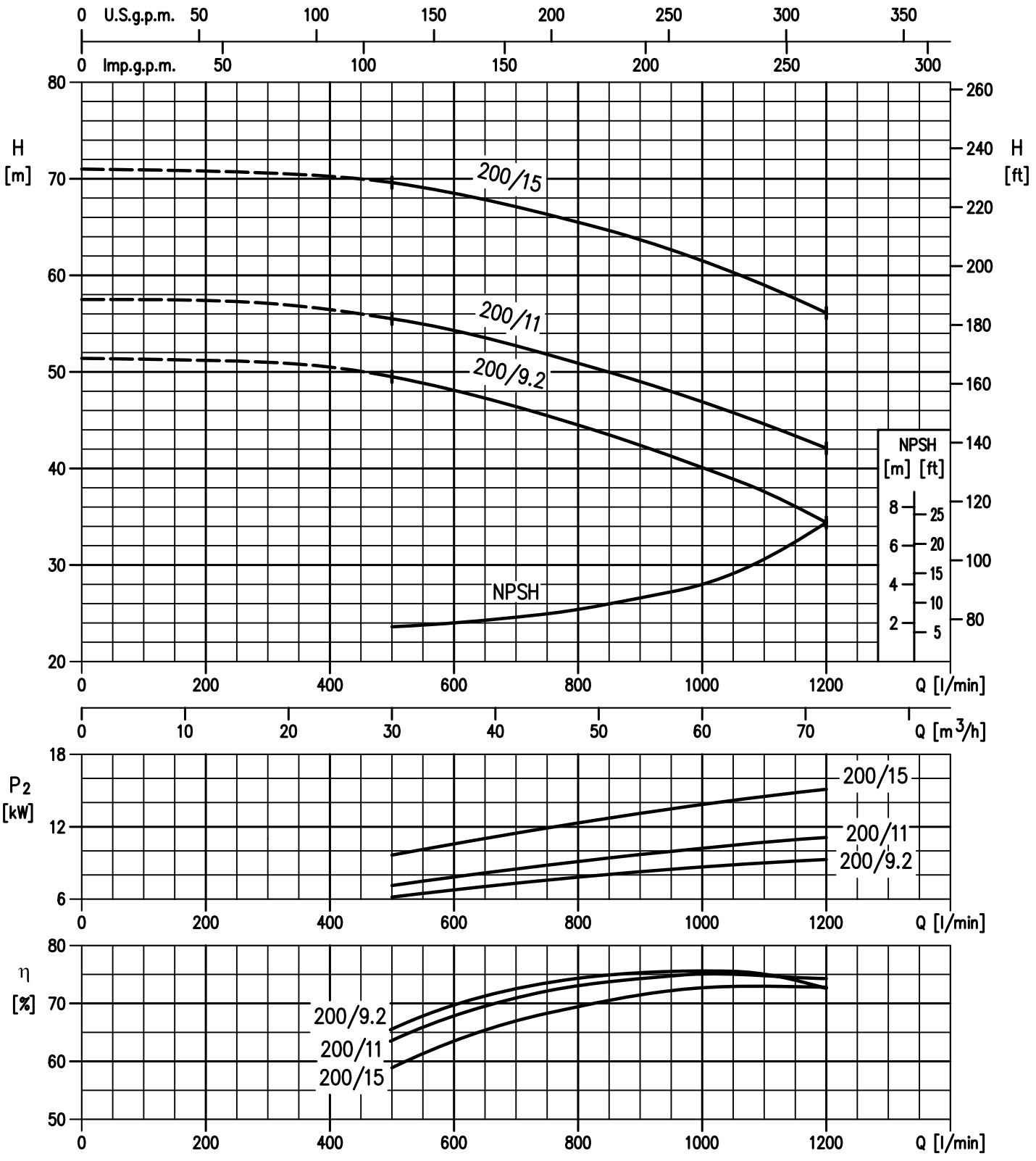
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 50-160 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



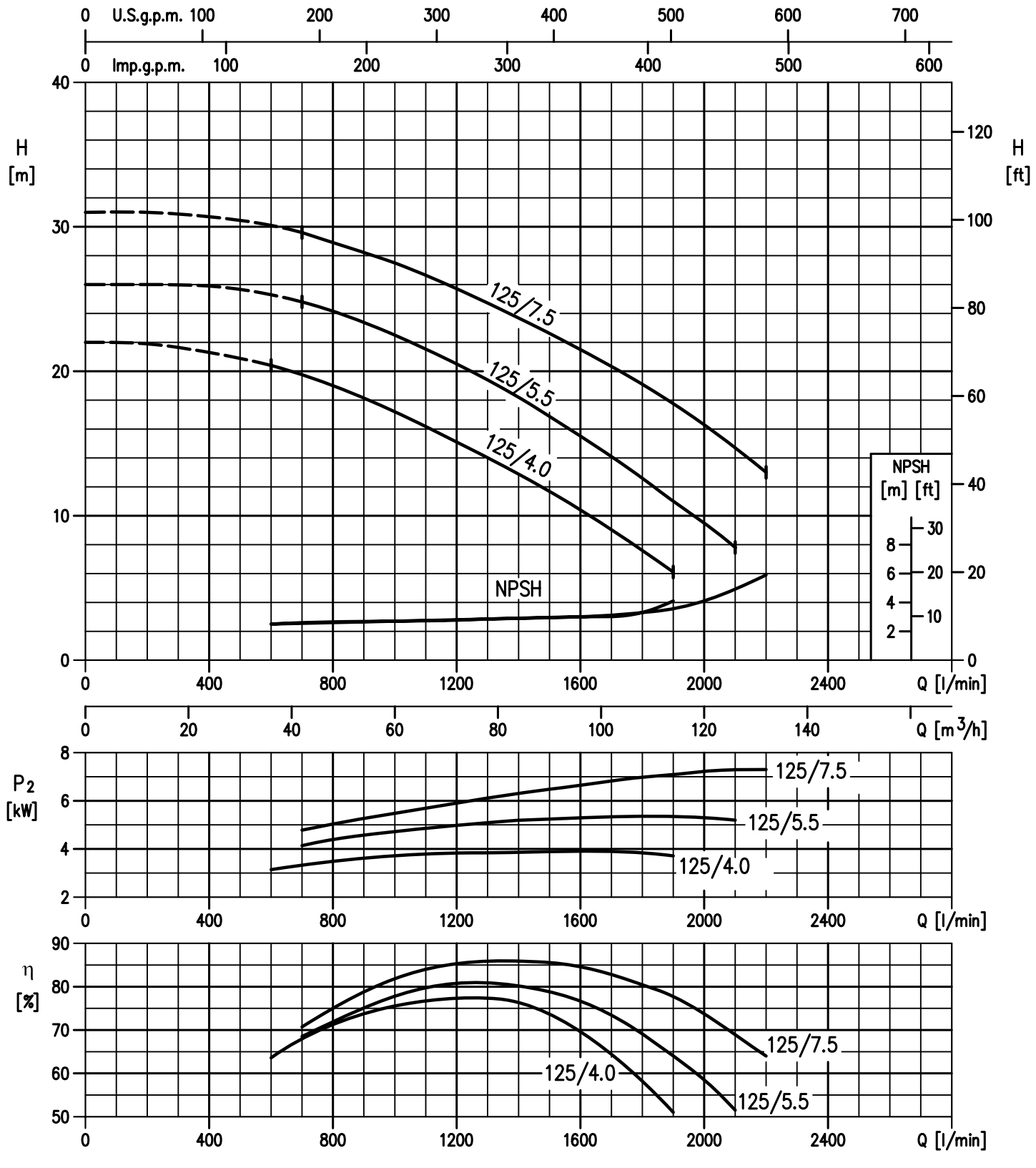
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 50-200 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



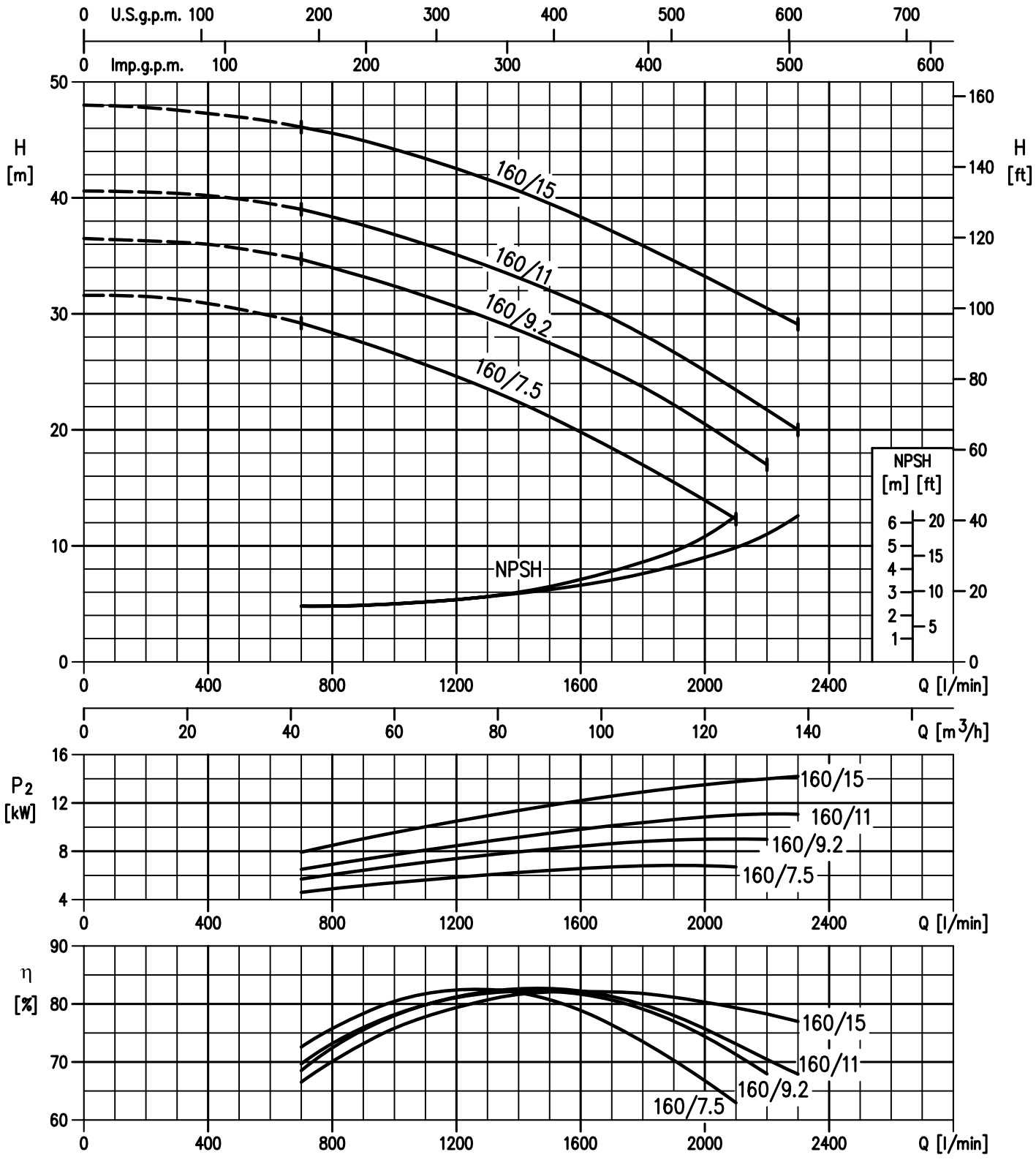
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 65-125 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

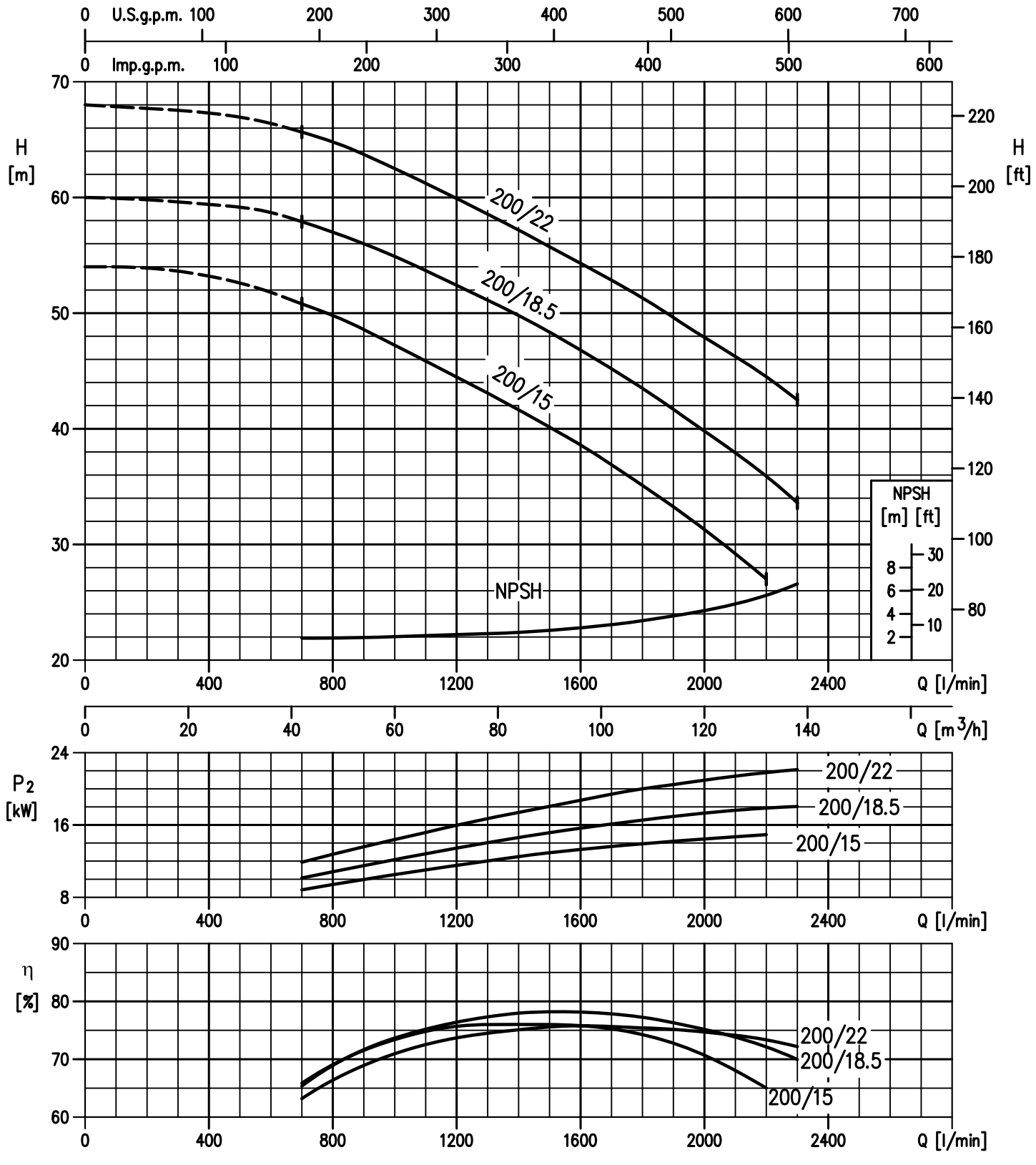
PERFORMANCE CURVES 3D(.) SERIES 65-160 at 2900 min^{-1} (according to ISO 9906 Attachment A) **2 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.) SERIES 65-200 at 2900 min^{-1} (according to ISO 9906 Attachment A)

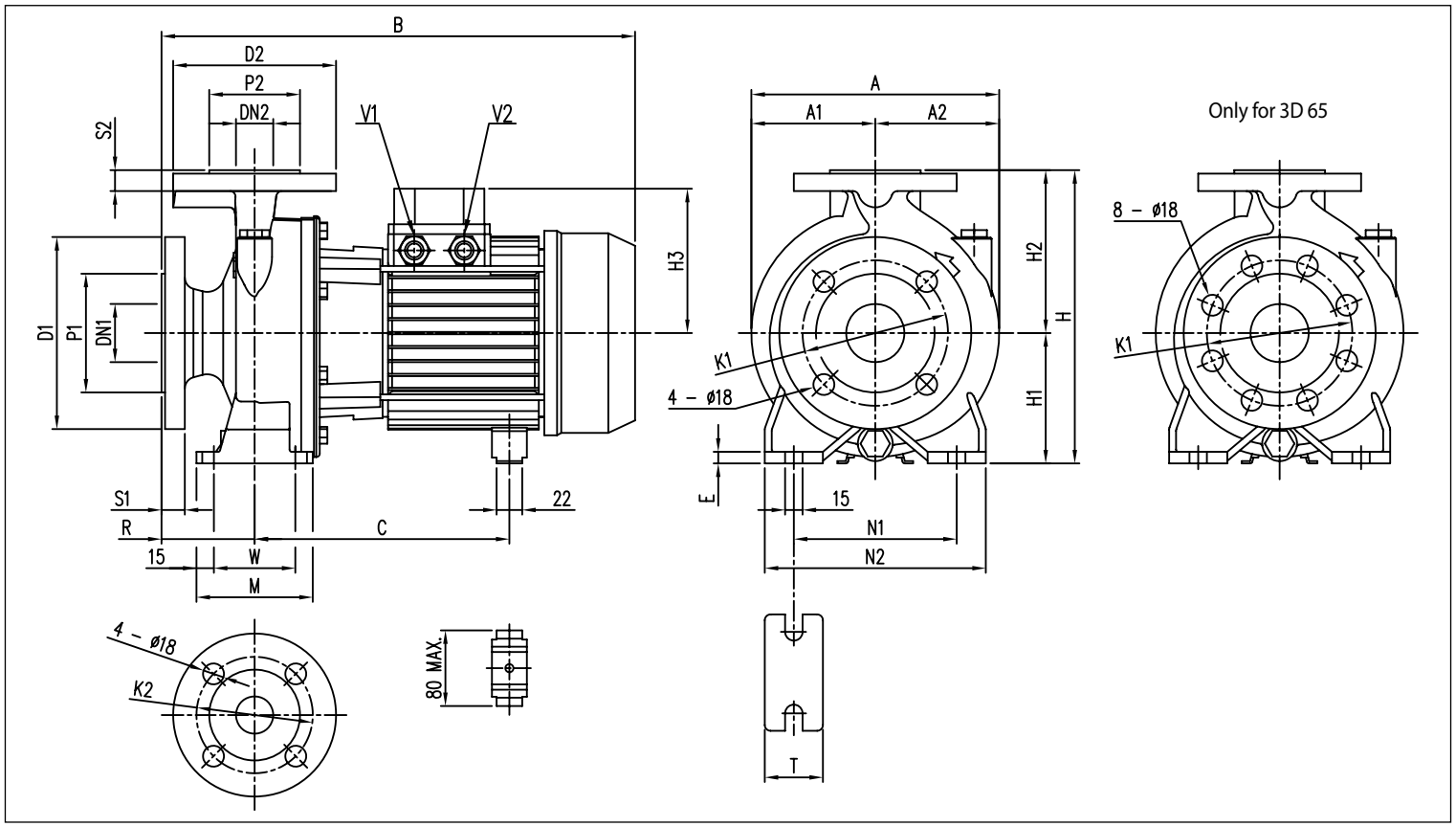
2 Poles



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3D SERIES - up to 11kW

2 Poles



DIMENSIONAL TABLE

Model	Dimensions [mm]																																							Weight [kg]		
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3 [2]	H3 [1]	H3 *	R	W	M	N1	N2	T	E	A	A1	A2	B [2]	B [1]	B *	C [2]	C [1]	C *	V1 [1]	V1 *	V2 [2]	V2 [1]	V2 *	[2]	[1]	*
32-125/1.1(M)	50	102	125	165	20	32	78	100	140	18	252	112	140	141	124	119	80	70	100	140	190	50	10	213	106.5	106.5	408	407	431	219÷230	219÷230	232	-	-	M20x1.5	PG 13.5	M16x1.5	25.0	29.5	29.5
32-160/1.5(M)	50	102	125	165	20	32	78	100	140	18	292	132	160	141	124	119	80	70	100	190	240	50	10	254	127	127	408	407	431	219÷230	219÷230	232	-	-	M20x1.5	PG 13.5	M20x1.5	29.0	33.5	33.5
32-160/2.2(M)	50	102	125	165	20	32	78	100	140	18	292	132	160	141	124	119	80	70	100	190	240	50	10	254	127	127	408	432	431	219÷230	244÷255	232	-	-	M20x1.5	PG 13.5	M20x1.5	35.7	36.0	36.0
32-200/3.0	50	102	125	165	20	32	78	100	140	18	340	160	180	-	124	124	80	70	100	190	240	50	10	296	148	148	-	471	471	-	244÷255	244÷255	-	-	-	PG 13.5	M20x1.5	-	47.5	47.5
32-200/4.0	50	102	125	165	20	32	78	100	140	18	340	160	180	-	141	141	80	70	100	190	240	50	10	296	148	148	-	494	494	-	253	253	-	-	-	PG 16	M20x1.5	-	50.0	50.0
32-200/7.5	50	102	125	165	20	32	78	100	140	18	340	160	180	-	150	150	80	70	100	190	240	50	10	296	148	148	-	-	539	-	275	275	-	PG 13.5	-	-	PG 16	-	-	65.1
40-125/1.5(M)	65	122	145	185	20	40	88	110	150	18	252	112	140	141	124	119	80	70	100	160	210	50	10	220	108	112	408	407	431	219÷230	219÷230	232	-	-	M20x1.5	PG 13.5	M20x1.5	25.5	30.0	30.0
40-125/2.2(M)	65	122	145	185	20	40	88	110	150	18	252	112	140	141	124	119	80	70	100	160	210	50	10	220	108	112	408	432	431	219÷230	244÷255	232	-	-	M20x1.5	PG 13.5	M20x1.5	31.7	32.0	32.0
40-160/3.0	65	122	145	185	20	40	88	110	150	18	292	132	160	-	124	124	80	70	100	190	240	50	12	254	127	127	-	471	471	-	244÷255	244÷255	-	-	-	PG 13.5	M20x1.5	-	39.0	39.0
40-160/4.0	65	122	145	185	20	40	88	110	150	18	292	132	160	-	141	141	80	70	100	190	240	50	12	254	127	127	-	494	494	-	253	253	-	-	-	PG 16	M20x1.5	-	48.0	48.0
40-200/5.5	65	122	145	185	20	40	88	110	150	18	340	160	180	-	150	150	100	70	100	212	265	50	12	296	148	148	-	539	539	-	275	275	PG 13.5	M20x1.5	-	PG 16	M25x1.5	-	60.0	60.0
40-200/7.5	65	122	145	185	20	40	88	110	150	18	340	160	180	-	150	150	100	70	100	212	265	50	12	296	148	148	-	-	559	-	275	275	-	PG 13.5	-	-	PG 16	-	-	66.1
40-200/11	65	122	145	185	20	40	88	110	150	18	340	160	180	-	178	178	100	70	100	212	265	50	12	296	148	148	-	-	595	-	359	359	-	PG 13.5	-	-	PG 21	-	-	82.4
50-125/2.2(M)	65	122	145	185	20	50	102	125	165	20	292	132	160	141	124	119	100	70	100	190	240	50	10	254	127	127	428	452	451	219÷230	244÷255	232	-	-	M20x1.5	PG 13.5	M20x1.5	34.4	37.0	37.0
50-125/3.0	65	122	145	185	20	50	102	125	165	20	292	132	160	-	124	124	100	70	100	190	240	50	10	254	127	127	-	491	491	-	244÷255	244÷255	-	-	-	PG 13.5	M20x1.5	-	39.5	39.5
50-125/4.0	65	122	145	185	20	50	102	125	165	20	292	132	160	-	141	141	100	70	100	190	240	50	10	254	127	127	-	514	514	-	253	253	-	-	-	PG 16	M20x1.5	-	48.0	48.0
50-160/5.5	65	122	145	185	20	50	102	125	165	20	340	160	180	-	150	150	100	70	100	212	265	50	10	296	148	148	-	539	539	-	275	275	PG 13.5	M20x1.5	-	PG 16	M25x1.5	-	60.0	60.0
50-160/7.5	65	122	145	185	20	50	102	125	165	20	340	160	180	-	150	150	100	70	100	212	265	50	10	296	148	148	-	-	559	-	275	275	-	PG 13.5	-	-	PG 16	-	-	67.1
50-200/9.2	65	122	145	185	20	50	102	125	165	20	360	160	200	-	178	178	100	70	100	212	265	50	10	296	148	148	-	-	595	-	359	359	-	PG 13.5	-	-	PG 21	-	-	77.0
50-200/11	65	122	145	185	20	50	102	125	165	20	360	160	200	-	178	178	100	70	100	212	265	50	10	296	148	148	-	-	595	-	359	359	-	PG 13.5	-	-	PG 21	-	-	82.4
65-125/4.0	80	138	160	200	22	65	122	145	185	20	340	160	180	-	141	141	100	95	125	212	280	65	12	263	127	136	-	514	514	-	253	253	-	-	-	PG 16	M20x1.5	-	53.0	53.0
65-125/5.5	80	138	160	200	22	65	122	145	185	20	340	160	180	-	150	150	100	95	125	212	280	65	12	263	127	136	-	539	539	-	275	275	PG 13.5	M20x1.5	-	PG 16	M25x1.5	-	65.0	65.0
65-125/7.5	80	138	160	200	22	65	122	145	185	20	340	160	180	-	150	150	100	95	125	212	280	65	12	263	127	136	-	-	559	-	275	275	-	PG 13.5	-	-	PG 16	-	-	72.6
65-160/7.5	80	138	160	200	22	65	122	145	185	20	360	160	200	-	150	150	100	95	125	212	280	65	12	296	148	148	-	-	559	-	275	275	-	PG 13.5	-	-	PG 16	-	-	73.1
65-160/9.2	80	138	160	200	22	65	122	145	185	20	360	160	200	-	178	178	100	95	125	212	280	65	12	296	148	148	-	-	595	-	359	359	-	PG 13.5	-	-	PG 21	-	-	85.0
65-160/11	80	138	160	200	22	65	122	145	185	20	360	160	200	-	178	178	100	95	125	212	280	65	12	296	148	148	-	-	595	-	359	359	-	PG 13.5	-	-	PG 21	-	-	87.4

[1]= Three-phase only [2]= Single phase only
* Models with IE3 motor only

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3D SERIES - from 15kW up **2 Poles**

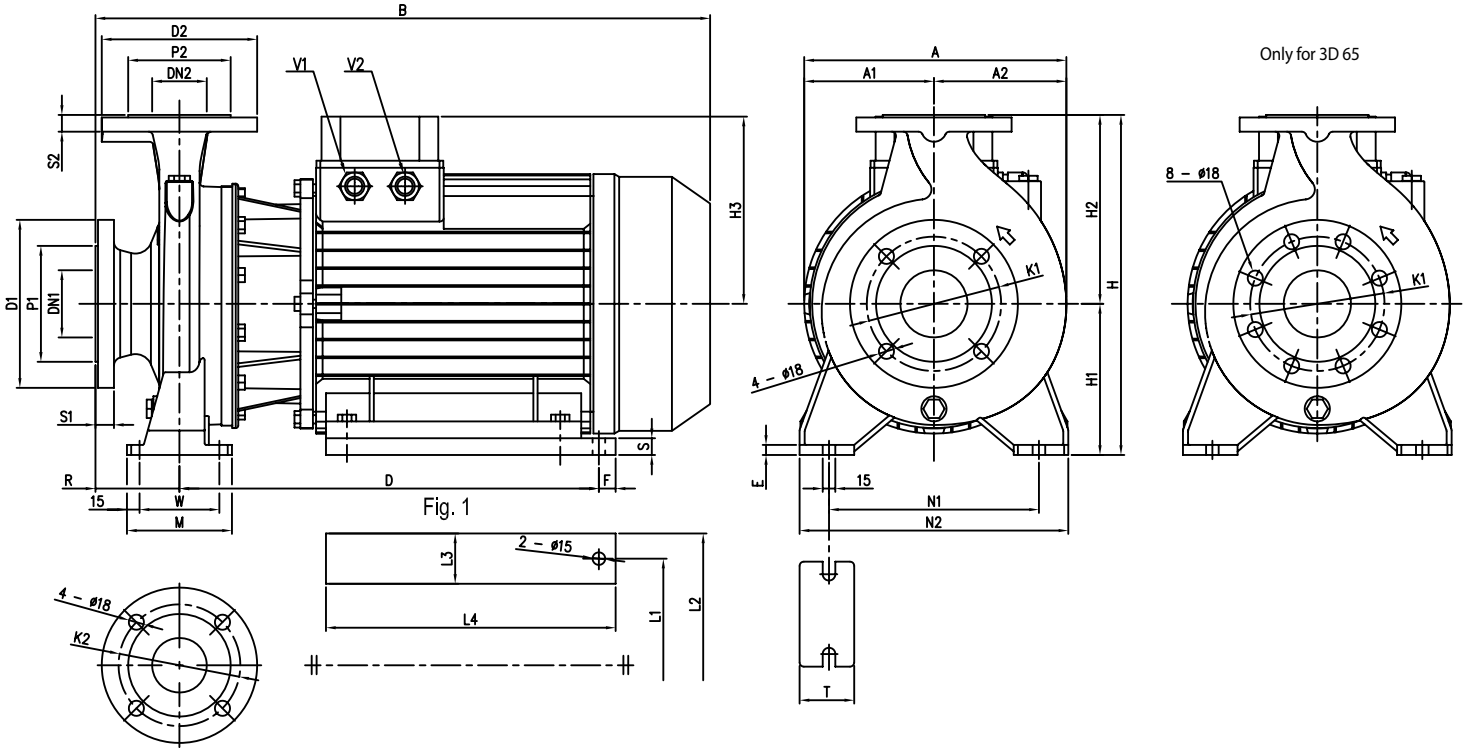
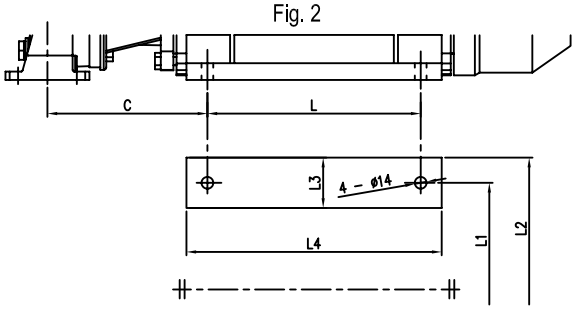


Fig. 1

Fig. 2



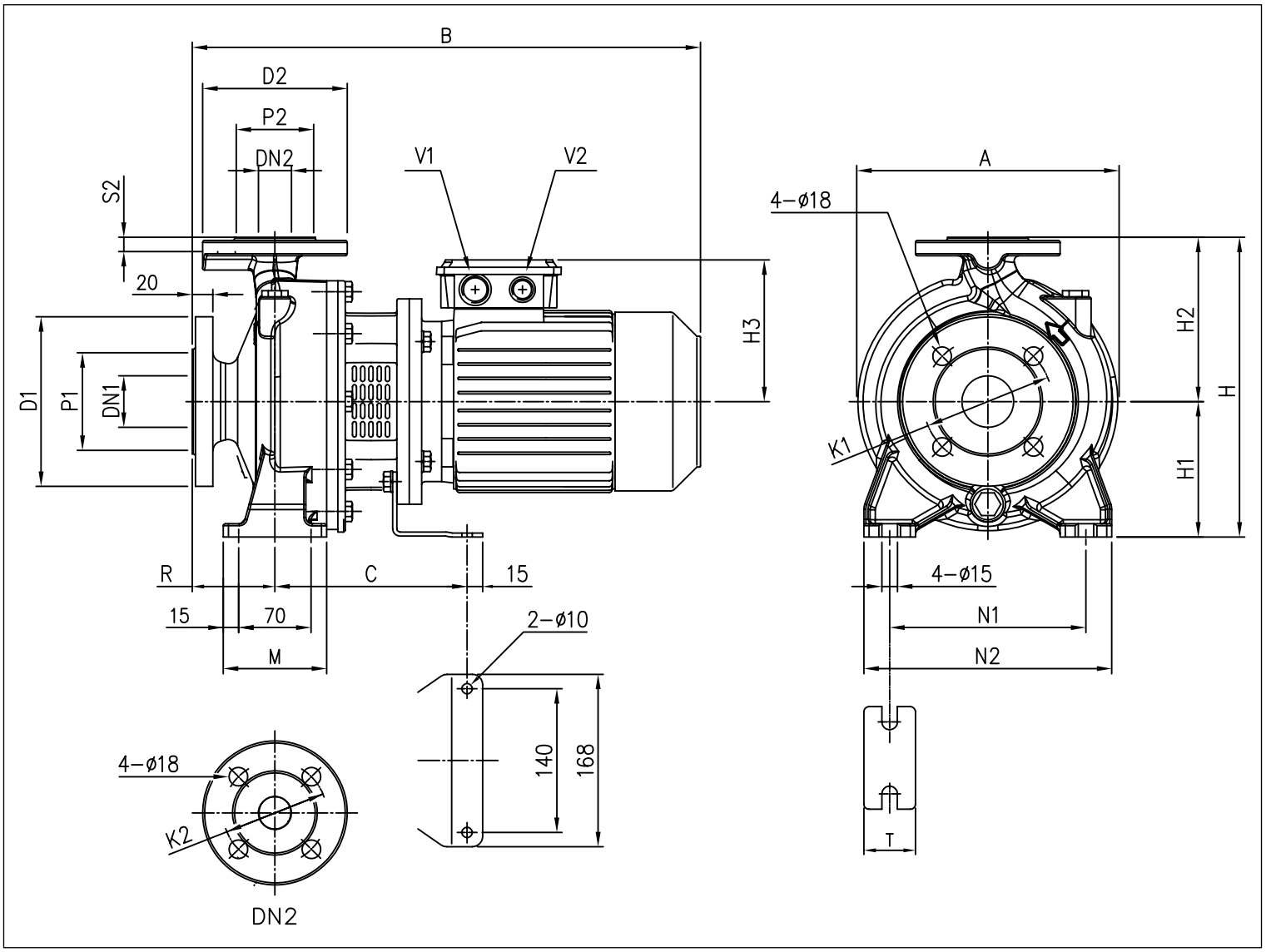
DIMENSIONAL TABLE

Model	Dimensions [mm]																																						Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	Fig.	R	W	M	N1	N2	T	E	A	A1	A2	B	C	L	L1	L2	L3	L4	D	F	S	V1	V2	
3D 50-200/15	65	122	145	185	20	50	102	125	165	20	360	160	200	223	2	100	70	100	212	265	50	10	296	154.5	141.5	723	190.5	254	254	318	64	304	-	-	-	PG 21	PG 21	124.1
3D 65-160/15	80	138	160	200	22	65	122	145	185	20	360	160	200	223	2	100	95	125	212	280	65	12	296	154.5	141.5	732	199.5	254	254	318	64	304	-	-	-	PG 21	PG 21	129.1
3D 65-200/15	80	138	160	200	22	65	122	145	185	20	405	180	225	223	1	100	95	125	250	320	65	12	312	154.5	157.5	732	-	-	254	314	60	345	499.5	20	20	PG 21	PG 21	129.1
3D 65-200/18.5	80	138	160	200	22	65	122	145	185	20	405	180	225	223	1	100	95	125	250	320	65	12	312	154.5	157.5	732	-	-	254	314	60	345	499.5	20	20	PG 21	PG 21	146.3
3D 65-200/22	80	138	160	200	22	65	122	145	185	20	405	180	225	223	1	100	95	125	250	320	65	12	312	154.5	157.5	732	-	-	254	314	60	345	499.5	20	20	PG 21	PG 21	158.1

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

DIMENSIONS 3DS 32, 40, 50 SERIES - up to 2.2kW

2 Poles



DIMENSIONAL TABLE

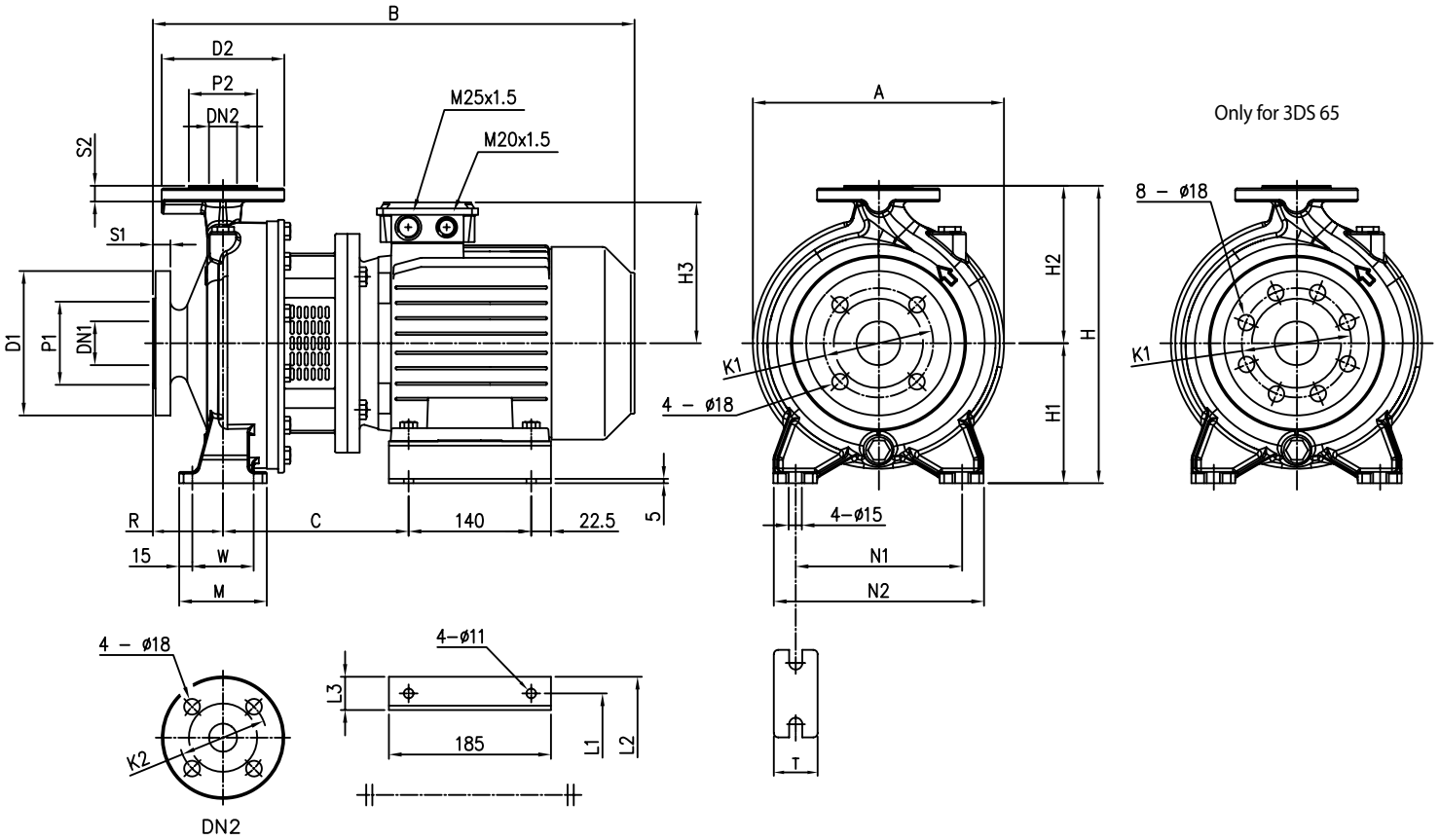
Model	Dimensions [mm]																							Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	M	N1	N2	T	A	B	C	V1	V2		*
3DS 32-125/1.1	50	102	125	165	32	78	100	140	18	252	112	140	139	80	100	140	190	50	213	430	174	M25x1.5	M20x1.5	30.5	32.1
3DS 32-160/1.5	50	102	125	165	32	75	100	140	18	292	132	160	148	80	100	190	240	50	254	477	186	M25x1.5	M20x1.5	36.3	36.3
3DS 32-160/2.2	50	102	125	165	32	75	100	140	18	292	132	160	148	80	100	190	240	50	254	477	186	M25x1.5	M20x1.5	40.4	40.4
3DS 40-125/1.5	65	115	145	185	40	80	110	150	14	252	112	140	148	80	114	160	210	50	213	477	186	M25x1.5	M20x1.5	31.9	31.9
3DS 40-125/2.2	65	115	145	185	40	80	110	150	14	252	112	140	148	80	114	160	210	50	213	477	186	M25x1.5	M20x1.5	35.5	35.5
3DS 50-125/2.2	65	115	145	185	50	95	125	165	16	292	132	160	148	100	114	190	240	50	254	497	186	M25x1.5	M20x1.5	37.9	37.9

* Models with IE3 motor only

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

DIMENSIONS 3DS 32, 65 SERIES - 3 ÷ 4 kW

2 Poles



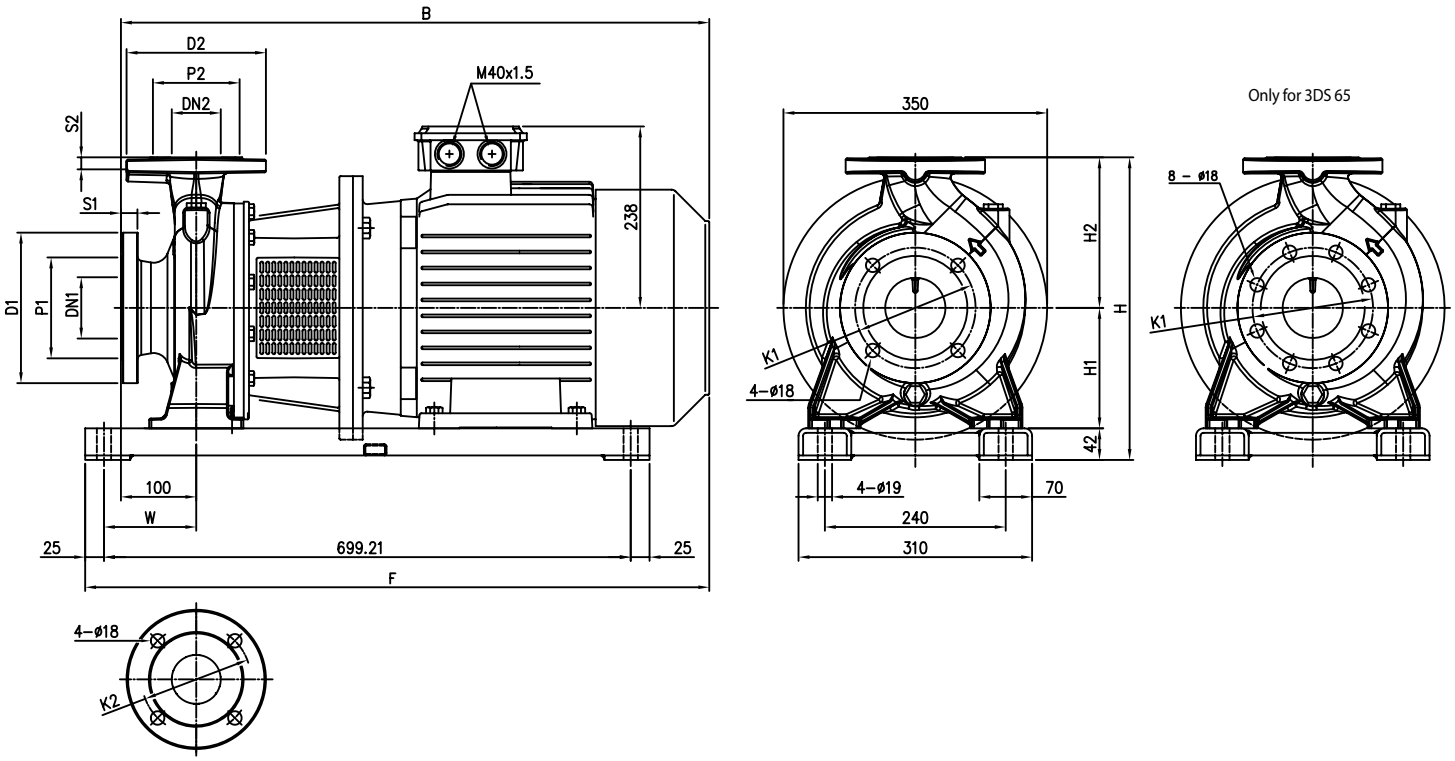
DIMENSIONAL TABLE

Model	Dimensions [mm]																										Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	W	M	N1	N2	T	A	B	C	L1	L2	L3		*
3DS 32-200/3.0	50	102	125	165	20	32	78	100	140	18	340	160	180	155	80	70	100	190	240	50	296	528	205	160	202	42	59.3	59.3
3DS 32-200/4.0	50	102	125	165	20	32	78	100	140	18	340	160	180	171	80	70	100	190	240	50	296	550	212	190	228	38	60.8	60.8
3DS 65-125/4.0	80	138	160	200	22	65	122	145	185	20	340	160	180	171	100	95	125	212	280	65	180	570	212	190	228	38	65.4	65.4

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3DS 40, 50, 65 SERIES - 11 ÷ 15 kW **2 Poles**



DIMENSIONAL TABLE

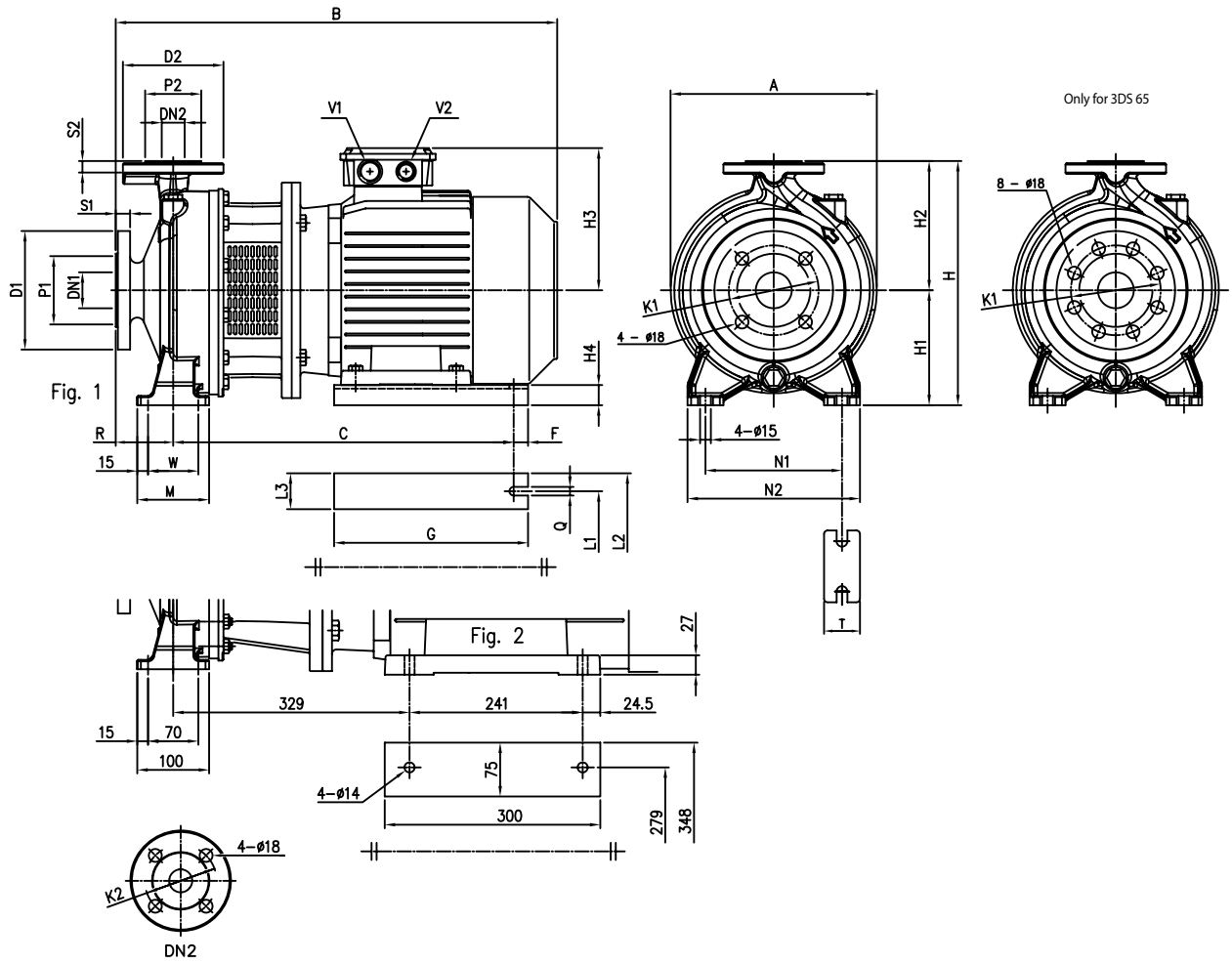
Model	Dimensions [mm]																Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	W	B	F	
3DS 40-200/11	65	122	145	185	20	40	88	110	150	18	382	160	180	110	796	833	130.8
3DS 50-200/11	65	122	145	185	20	50	102	125	165	20	402	160	200	110	796	833	130.8
3DS 50-200/15	65	122	145	185	20	50	102	125	165	20	402	160	200	110	796	833	166.9
3DS 65-160/11	80	138	160	200	22	65	115	145	185	20	402	160	200	123	806	846	106.8
3DS 65-160/15	80	138	160	200	22	65	115	145	185	20	402	160	200	123	806	846	142.9

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3DS 32, 40, 50, 65 SERIES

2 Poles



DIMENSIONAL TABLE

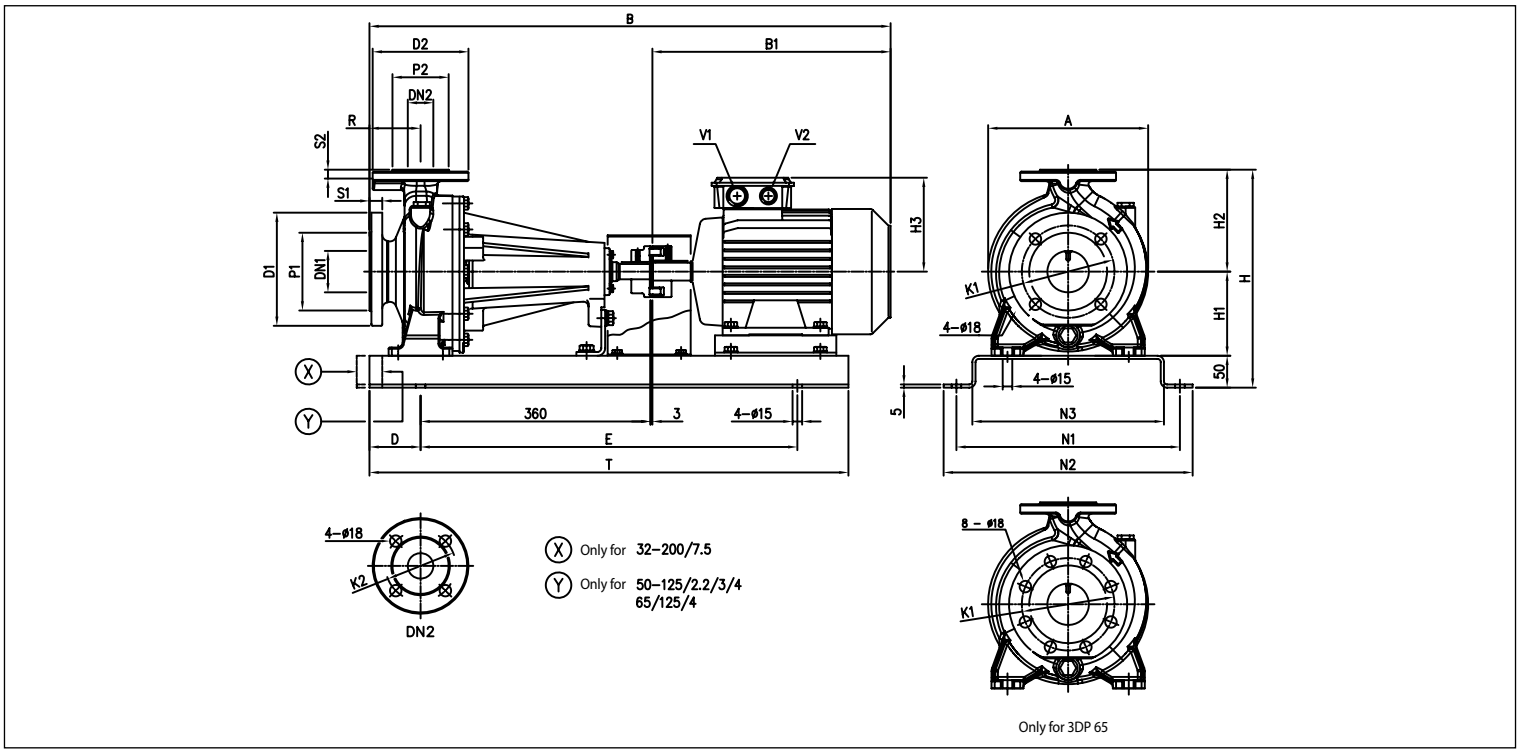
Model	Dimensions [mm]																																Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	Fig.	H	H1	H2	H3	H4	R	W	M	N1	N2	T	A	B	C	F	G	Q	L1	L2	L3	V1	V2		*
3DS 32-200/7.5	50	102	125	165	20	32	78	100	140	18	1	340	160	180	198	28	80	70	100	190	240	50	296	607	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	92.0
3DS 40-160/3.0	65	122	145	185	20	40	88	110	150	18	1	292	132	160	155	32	80	70	100	190	240	50	254	528	388	15	220	12	160	200	40	M25x1.5	M20x1.5	65.6	65.6
3DS 40-160/4.0	65	122	145	185	20	40	88	110	150	18	1	292	132	160	171	20	80	70	100	190	240	50	254	550	395	15	220	12	190	240	50	M25x1.5	M20x1.5	51.8	51.8
3DS 40-200/5.5	65	122	145	185	20	40	88	110	150	18	1	340	160	180	198	28	100	70	100	212	265	50	296	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	79.7	79.7
3DS 40-200/7.5	65	122	145	185	20	40	88	110	150	18	1	340	160	180	198	28	100	70	100	212	265	50	296	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	88.8
3DS 50-125/3.0	65	122	145	185	20	50	102	125	165	20	1	292	132	160	155	32	100	70	100	190	240	50	254	548	388	15	220	12	160	200	40	M25x1.5	M20x1.5	44.1	44.1
3DS 50-125/4.0	65	122	145	185	20	50	102	125	165	20	1	292	132	160	171	20	100	70	100	190	240	50	254	570	395	15	220	12	190	240	50	M25x1.5	M20x1.5	52.7	52.7
3DS 50-160/5.5	65	122	145	185	20	50	102	125	165	20	1	340	160	180	198	28	100	70	100	212	265	50	296	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	77.3	77.3
3DS 50-160/7.5	65	122	145	185	20	50	102	125	165	20	1	340	160	180	198	28	100	70	100	212	265	50	296	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	99.5
3DS 50-200/9.2	65	122	145	185	20	50	102	125	165	20	1	360	160	200	198	28	100	70	100	212	265	50	296	667	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	104.0
3DS 65-125/5.5	80	138	160	200	22	65	122	145	185	20	1	340	160	180	198	28	100	95	125	212	280	65	263	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	76.3	76.3
3DS 65-125/7.5	80	138	160	200	22	65	122	145	185	20	1	340	160	180	198	28	100	95	125	212	280	65	263	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	99.9
3DS 65-160/7.5	80	138	160	200	22	65	122	145	185	20	1	360	160	200	198	28	100	95	125	212	280	65	296	627	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	99.2
3DS 65-160/9.2	80	138	160	200	22	65	122	145	185	20	1	360	160	200	198	28	100	95	125	212	280	65	296	667	479	15	270	12	216	266	50	M32x1.5	M32x1.5	-	108.0
3DS 65-200/15	80	138	160	200	22	65	122	145	185	20	1	405	180	225	238	20	100	95	125	250	320	65	312	806	621	20	350	14	254	314	60	M40x1.5	M40x1.5	-	156.9
3DS 65-200/18.5	80	138	160	200	22	65	122	145	185	20	1	405	180	225	238	20	100	95	125	250	320	65	312	850	621	20	350	14	254	314	60	M40x1.5	M40x1.5	-	158.5
3DS 65-200/22	80	138	160	200	22	65	122	145	185	20	2	405	180	225	268	-	100	-	-	250	320	65	312	885	-	-	-	-	-	-	-	M40x1.5	M40x1.5	-	197.0

* Models with IE3 motor only

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

DIMENSIONS 3DP 32, 40, 50, 65 SERIES

2 Poles



DIMENSIONAL TABLE

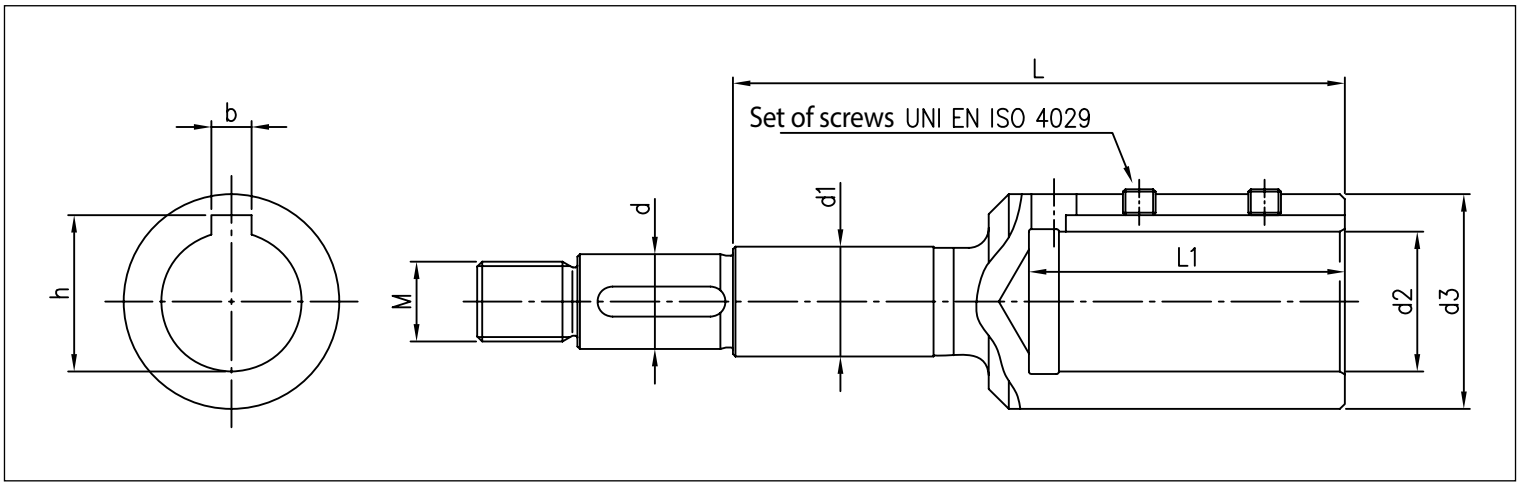
Model	Dimensions [mm]																									Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	A	B	B1	D	E	N1	N2	N3	T	V1	V2		*
3DP 32-125/1.1	50	102	125	165	20	32	78	100	140	18	302	112	140	139	80	213	715	272	80	550	300	340	250	710	M25x1.5	M20x1.5	50.5	62.1
3DP 32-160/1.5	50	102	125	165	20	32	78	100	140	18	342	132	160	148	80	254	760	317	80	590	350	390	300	750	M25x1.5	M20x1.5	58.5	58.5
3DP 32-160/2.2	50	102	125	165	20	32	78	100	140	18	342	132	160	148	80	254	760	317	80	590	350	390	300	750	M25x1.5	M20x1.5	61.5	61.5
3DP 32-200/3.0	50	102	125	165	20	32	78	100	140	18	390	160	180	155	80	296	809	366	80	590	350	390	300	750	M25x1.5	M20x1.5	83.9	83.9
3DP 32-200/4.0	50	102	125	165	20	32	78	100	140	18	390	160	180	171	80	296	831	388	80	590	350	390	300	750	M25x1.5	M20x1.5	86.9	86.9
3DP 32-200/7.5	50	102	125	165	20	32	78	100	140	18	390	160	180	198	80	296	885	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	117.2
3DP 40-125/1.5	65	122	145	185	20	40	88	110	150	18	302	112	140	148	80	220	760	317	80	550	300	340	250	710	M25x1.5	M20x1.5	76.2	76.2
3DP 40-125/2.2	65	122	145	185	20	40	88	110	150	18	302	112	140	148	80	220	760	317	80	550	300	340	250	710	M25x1.5	M20x1.5	56.9	56.9
3DP 40-160/3.0	65	122	145	185	20	40	88	110	150	18	342	132	160	155	80	254	809	366	80	590	350	390	300	750	M25x1.5	M20x1.5	93.4	93.4
3DP 40-160/4.0	65	122	145	185	20	40	88	110	150	18	342	132	160	171	80	254	831	388	80	590	350	390	300	750	M25x1.5	M20x1.5	74.8	74.8
3DP 40-200/5.5	65	122	145	185	20	40	88	110	150	18	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M20x1.5	105.0	105.0
3DP 40-200/7.5	65	122	145	185	20	40	88	110	150	18	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	113.7
3DP 40-200/11	65	122	145	185	20	40	88	110	150	18	390	160	180	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	140.6
3DP 50-125/2.2	65	122	145	185	20	50	102	125	165	20	342	132	160	148	100	254	780	317	80	550	350	390	300	710	M25x1.5	M20x1.5	80.0	80.0
3DP 50-125/3.0	65	122	145	185	20	50	102	125	165	20	342	132	160	155	100	254	829	366	80	590	350	390	300	750	M25x1.5	M20x1.5	91.1	91.1
3DP 50-125/4.0	65	122	145	185	20	50	102	125	165	20	342	132	160	171	100	254	851	388	80	590	350	390	300	750	M25x1.5	M20x1.5	91.7	91.7
3DP 50-160/5.5	65	122	145	185	20	50	102	125	165	20	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	111.5	111.5
3DP 50-160/7.5	65	122	145	185	20	50	102	125	165	20	390	160	180	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	115.4
3DP 50-200/9.2	65	122	145	185	20	50	102	125	165	20	410	160	200	198	100	296	945	482	100	650	350	390	300	850	M32x1.5	M32x1.5	-	124.1
3DP 50-200/11	65	122	145	185	20	50	102	125	165	20	410	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M32x1.5	-	144.4
3DP 50-200/15	65	122	145	185	20	50	102	125	165	20	410	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	154.4
3DP 65-125/4.0	80	138	160	200	22	65	122	145	185	20	390	160	180	171	100	263	851	388	80	590	350	390	300	750	M25x1.5	M20x1.5	70.9	70.9
3DP 65-125/5.5	80	138	160	200	22	65	122	145	185	20	390	160	180	198	100	263	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	115.3	115.3
3DP 65-125/7.5	80	138	160	200	22	65	122	145	185	20	390	160	180	198	100	263	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	129.9
3DP 65-160/7.5	80	138	160	200	22	65	122	145	185	20	410	160	200	198	100	296	905	442	100	650	350	390	300	850	M32x1.5	M32x1.5	-	133.2
3DP 65-160/9.2	80	138	160	200	22	65	122	145	185	20	410	160	200	198	100	296	945	482	100	650	350	390	300	850	M32x1.5	M32x1.5	-	138.0
3DP 65-160/11	80	138	160	200	22	65	122	145	185	20	410	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	144.8
3DP 65-160/15	80	138	160	200	22	65	122	145	185	20	455	160	200	238	100	296	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	151.0
3DP 65-200/15	80	138	160	200	22	65	122	145	185	20	455	180	225	238	100	312	1071	610	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	156.0
3DP 65-200/18.5	80	138	160	200	22	65	122	145	185	20	455	180	225	238	100	312	1115	654	100	800	380	420	330	1000	M40x1.5	M40x1.5	-	156.2
3DP 65-200/22	80	138	160	200	22	65	122	145	185	20	455	180	225	268	100	312	1150	690	100	800	410	450	360	1000	M40x1.5	M40x1.5	-	211.0

* Models with IE3 motor only

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

Joint for 3DS SERIES **2 Poles**



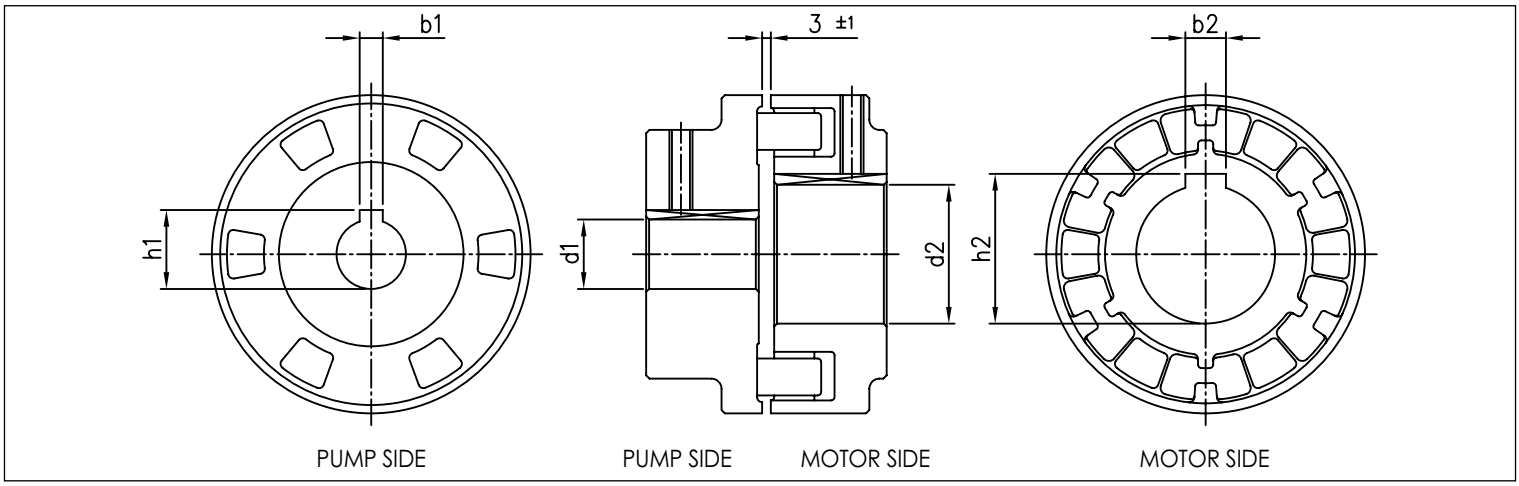
DIMENSIONAL TABLE

Model	[HP]	[kW]	Grand. Motor	Dimensions [mm]									
				d	d1	d2	d3	M	L	L1	b	h	Screws set
3DS 32-125/1.1	1.5	1.1	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS 32-160/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS 32-160/2.2	3	2.2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS 32-200/3.0	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS 32-200/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS 32-200/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 40-125/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS 40-125/2.2	3	2.2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS 40-160/3.0	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS 40-160/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS 40-200/5.5	7.5	5.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 40-200/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 40-200/11	15	11	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
3DS 50-125/2.2	3	2.2	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS 50-125/3.0	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS 50-125/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS 50-160/5.5	7.5	5.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 50-160/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 50-200/9.2	12.5	9.2	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 50-200/11	15	11	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
3DS 50-200/15	20	15	160	22	22	42	63	M18x1.5	209	114	12	45.3	M8x8
3DS 65-125/4.0	5.5	4	112	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS 65-125/5.5	7.5	5.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 65-125/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 65-160/7.5	10	7.5	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 65-160/9.2	12.5	9.2	132	19	22	38	58	M16x1.5	145	84	10	41.3	M8x8
3DS 65-160/11	15	11	160	19	22	42	63	M16x1.5	178	114	12	45.3	M8x8
3DS 65-160/15	20	15	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
3DS 65-200/15	20	15	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
3DS 65-200/18.5	25	18.5	160	24	30	42	63	M20x1.5	184	114	12	45.3	M8x8
3DS 65-200/22	30	22	180	24	30	48	72	M20x1.5	184	114	14	51.8	M10x10

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

Joint for 3DP SERIES **2 Poles**



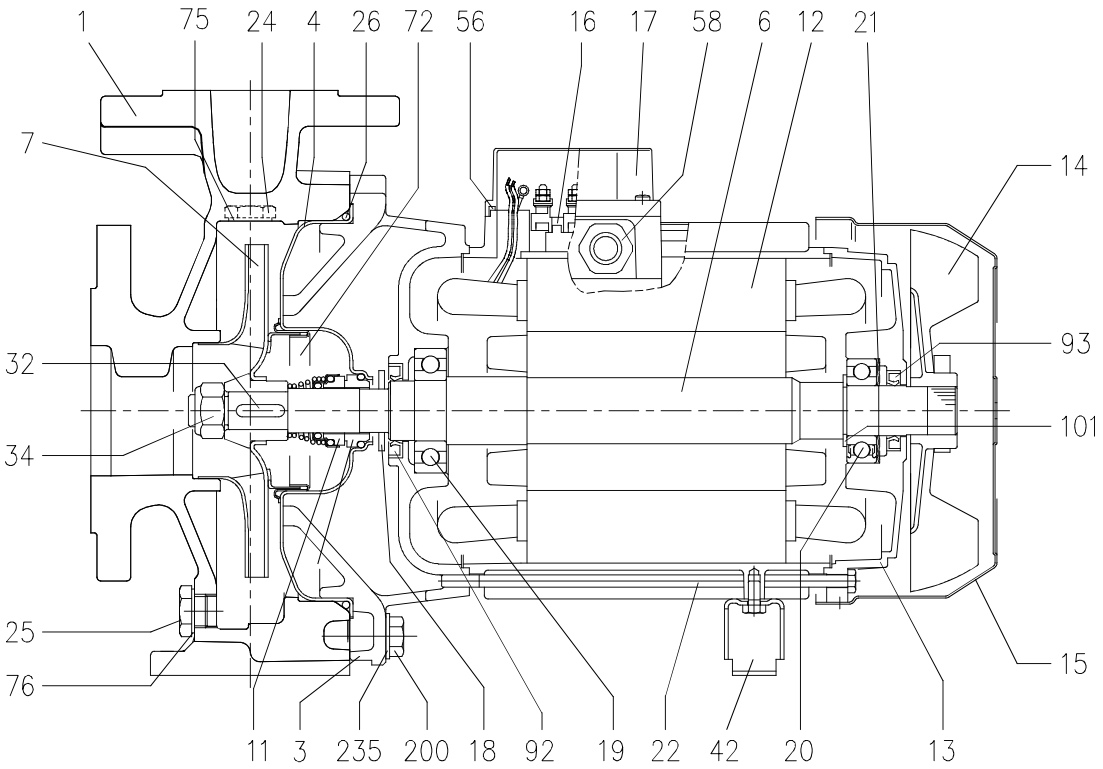
DIMENSIONAL TABLE

Model	[HP]	[kW]	Grand. Motor	Dimensions [mm] d1	b1	h1	d2	b2	h2
3DP 32-125/1.1	1.5	1.1	80	24	8	27.3	19	6	21.8
3DP 32-160/1.5	2	1.5	90	24	8	27.3	24	8	27.3
3DP 32-160/2.2	3	2.2	90	24	8	27.3	24	8	27.3
3DP 32-200/3.0	4	3	100	24	8	27.3	28	8	31.3
3DP 32-200/4.0	5.5	4	112	24	8	27.3	28	8	31.3
3DP 32-200/7.5	10	7.5	132	24	8	27.3	38	10	41.3
3DP 40-125/1.5	2	1.5	90	24	8	27.3	24	8	27.3
3DP 40-125/2.2	3	2.2	90	24	8	27.3	24	8	27.3
3DP 40-160/3.0	4	3	100	24	8	27.3	28	8	31.3
3DP 40-160/4.0	5.5	4	112	24	8	27.3	28	8	31.3
3DP 40-200/5.5	7.5	5.5	132	24	8	27.3	38	10	41.3
3DP 40-200/7.5	10	7.5	132	24	8	27.3	38	10	41.3
3DP 40-200/11	15	11	160	24	8	27.3	42	12	45.3
3DP 50-125/2.2	3	2.2	90	24	8	27.3	24	8	27.3
3DP 50-125/3.0	4	3	100	24	8	27.3	28	8	31.3
3DP 50-125/4.0	5.5	4	112	24	8	27.3	28	8	31.3
3DP 50-160/5.5	7.5	5.5	132	24	8	27.3	38	10	41.3
3DP 50-160/7.5	10	7.5	132	24	8	27.3	38	10	41.3
3DP 50-200/9.2	12.5	9.2	132	24	8	27.3	38	10	41.3
3DP 50-200/11	15	11	160	24	8	27.3	42	12	45.3
3DP 50-200/15	20	15	160	24	8	27.3	42	12	45.3
3DP 65-125/4.0	5.5	4	112	24	8	27.3	28	8	31.3
3DP 65-125/5.5	7.5	5.5	132	24	8	27.3	38	10	41.3
3DP 65-160/7.5	10	7.5	132	24	8	27.3	38	10	41.3
3DP 65-160/9.2	12.5	9.2	132	24	8	27.3	38	10	41.3
3DP 65-160/11	15	11	160	24	8	27.3	42	12	45.3
3DP 65-160/15	20	15	160	24	8	27.3	42	12	45.3
3DP 65-200/15	20	15	160	24	8	27.3	42	12	45.3
3DP 65-200/18.5	25	18.5	160	24	8	27.3	42	12	45.3
3DP 65-200/22	30	22	180	24	8	27.3	48	14	51.8

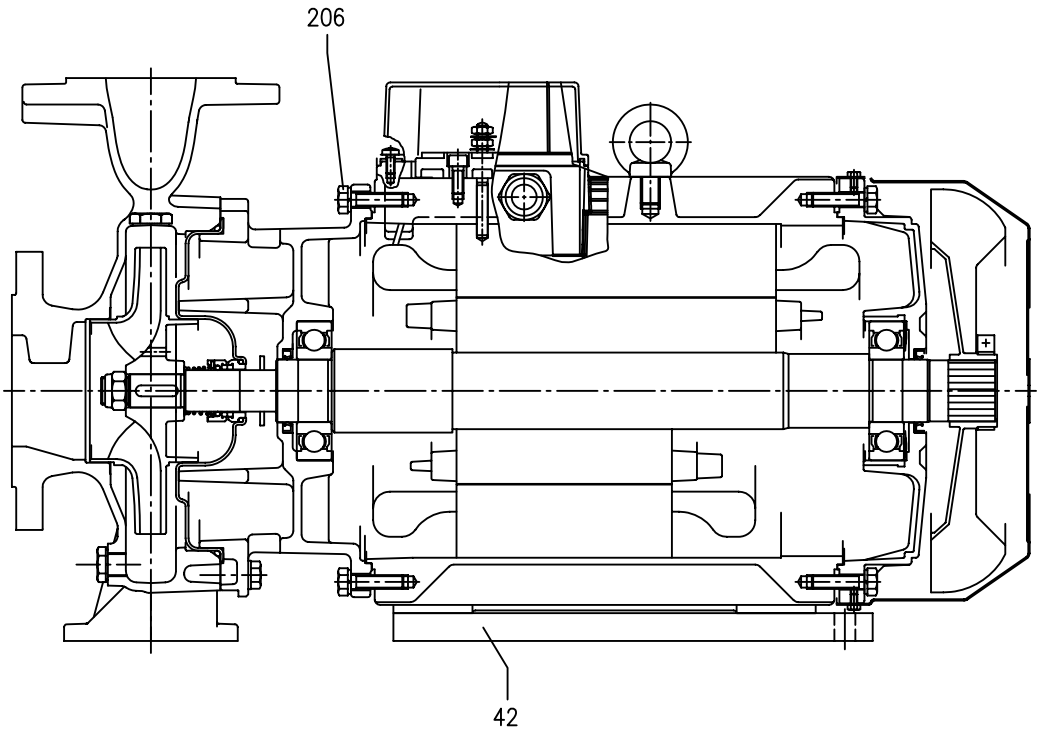
3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

SECTIONAL VIEW 3D 32, 40, 50, 65 SERIES - up to 11 kW **2 Poles**



SECTIONAL VIEW 3D 32, 40, 50, 65 SERIES - from 15 kW and over **2 Poles**



3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

MATERIALS TABLE

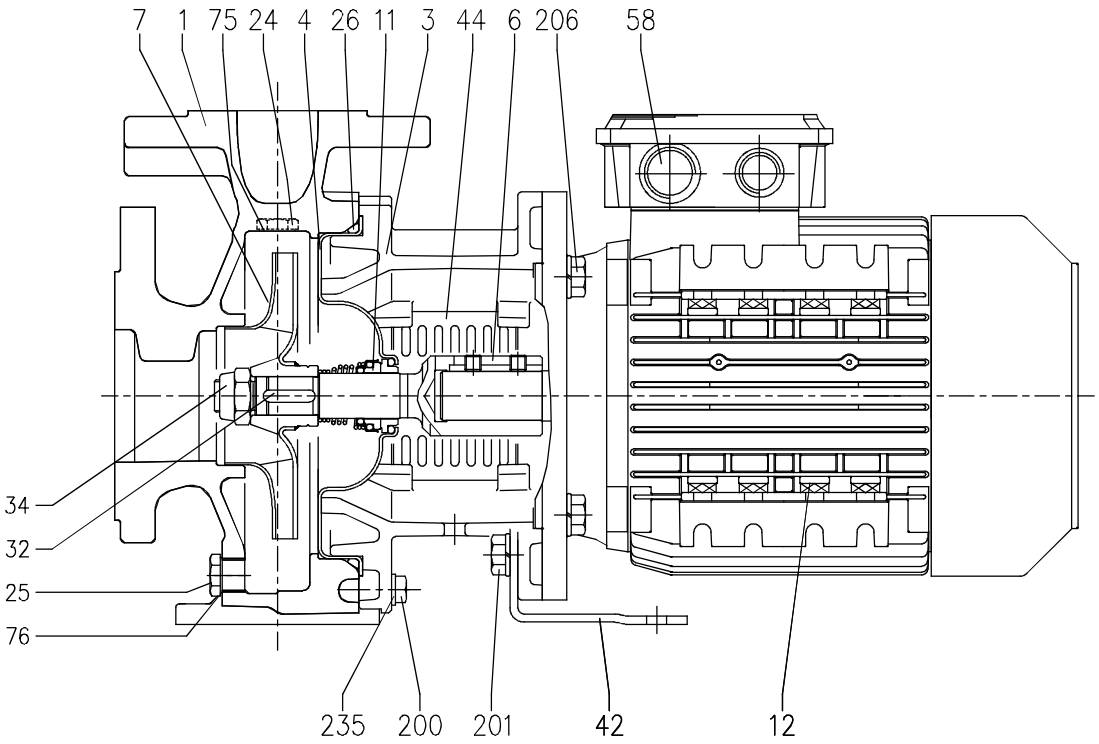
Ref.	Name	Materials
001	Pump casing	Cast iron EN-GJL-250-EN 1561
003	Motor bracket	[1]
004	Casing cover	EN 1.4301 (AISI 304)
006	Shaft (part in contact with the liquid)	EN 1.4301 (AISI 304)
007	Impeller	[2]
011	Mechanical seal	Ceramic/Carbon/NBR
012	Motor frame	-
013	Motor cover	Aluminium
014	Fan	PA
015	Fan cover	Galvanised Fe P04
016	Terminal Box	-
017	Terminal Box cover	Aluminium (for three phase version only)
018	Splash washer	NBR
019	Bearing (pump side)	-
020	Bearing (motor side)	-
021	Adjustment ring	Steel C70
022	Tie-rod	Galvanised Fe 42
	Screw	Galvanised steel 8.8 class ISO 898-1
024	Plug	Brass
025	Plug	Brass
026	O-Ring	NBR [3]
032	Key	EN 1.4401 (AISI 316)
034	Impeller nut	EN 1.4301 (AISI 304)
042	Motor support	Aluminium / Galvanised steel
056	Terminal box gasket	NBR
058	Cable gland	-
072	Casing ring [4]	EN 1.4301 (AISI 304)
075	Washer	Aluminium
076	Washer	Aluminium
092	Seal ring	-
093	Seal ring	-
101	Elastic ring [5]	Carbon Steel TC 80
200	Screw	Galvanised steel 8.8 class ISO 898-1
235	Washer	Galvanised steel
206	Screw (support) [6]	Galvanised steel 8.8 class ISO 898-1

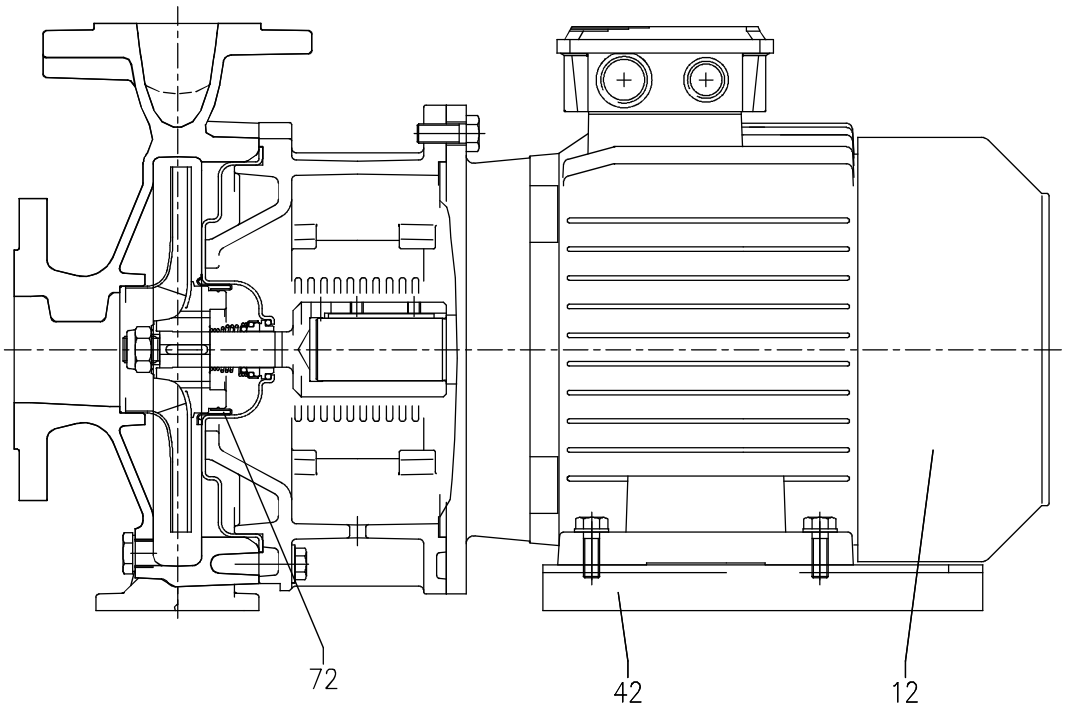
[1]= Cast iron EN-GJL-200-EN 1561 for 3D 32-200/3 SERIES and models with 15, 18.5 and 22 kW; aluminium AL-EN-1706-AC-46000-D for the other models
[2]= EN 1.4301 (AISI 304) for 3D 32, 40, 50 SERIES; EN 1.4401 (AISI 316) for 3D 65 SERIES
[3]= FKM for H, HS, HW, HSW versions; EDPM for E version
[4]= Only for SERIES 3D 32-200, 40-200, 50-160, 50-200/9,2 and 50-200/11
[5]= Only for 9.2 and 11 kW models
[6] = Only for models starting from 15 kW and over

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

SECTIONAL VIEW 3DS 32, 40, 50 SERIES

2 Poles

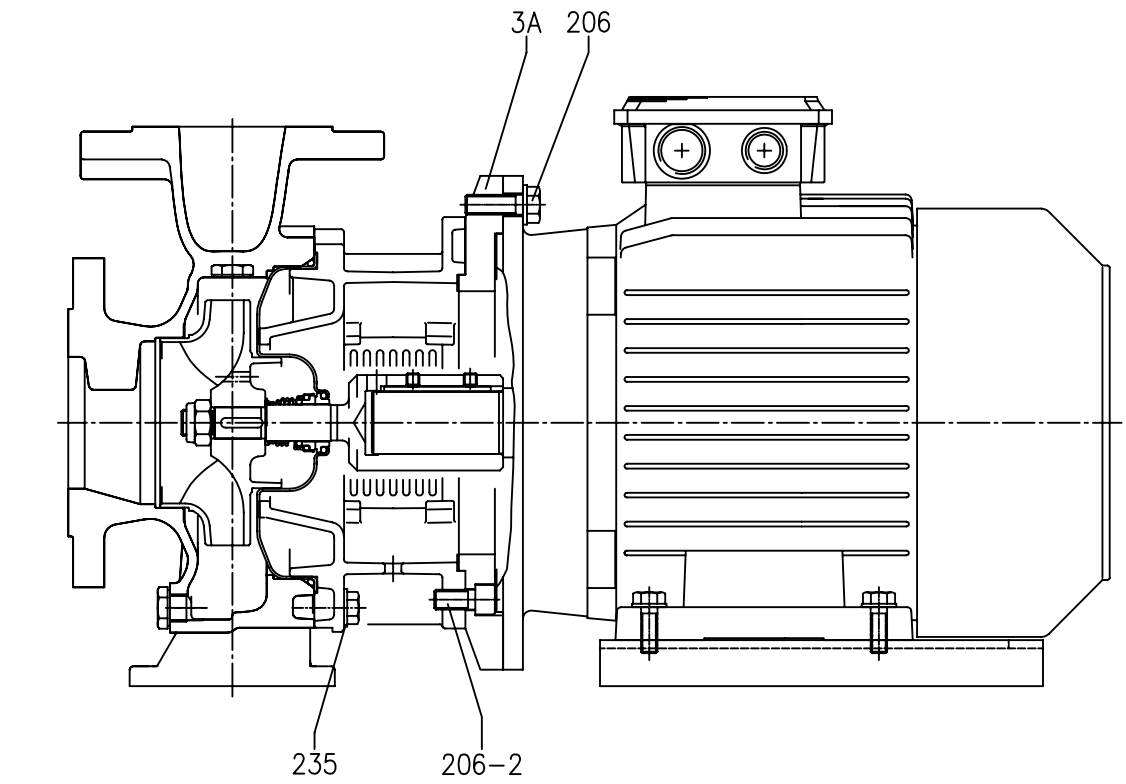


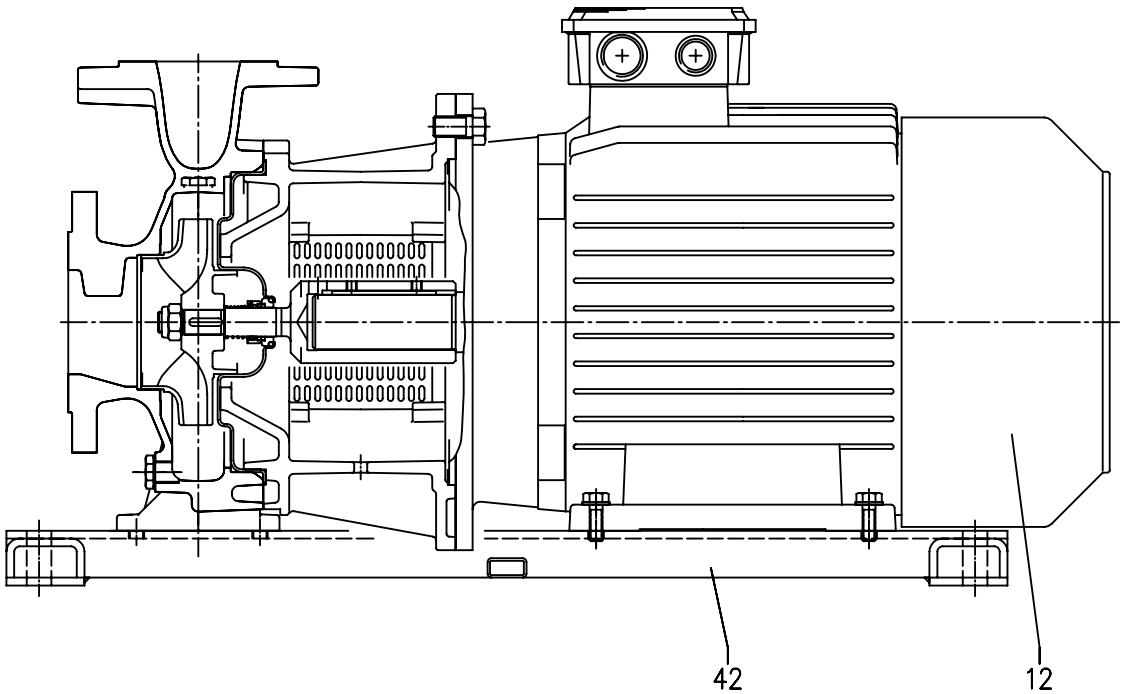


NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

SECTIONAL VIEW 3DS 65 SERIES

2 Poles





3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

MATERIALS TABLE

Ref.	Name	Materials
001	Pump casing	Cast iron EN-GJL-250-EN 1561
003	Motor bracket	Cast iron EN-GJL-250-EN 1561
003A	Adapter ring [1]	Cast iron EN-GJL-250-EN 1561
004	Shaft	EN 1.4301 (AISI 304)
006	Joint (part in contact with the liquid)	EN 1.4301 (AISI 304)
007	Impeller	[2]
011	Mechanical seal	Ceramic/Carbon/NBR
012	Motor	-
024	Plug	Brass
025	Plug	Brass
026	O-Ring	NBR [3]
032	Key	EN 1.4401 (AISI 316)
034	Impeller nut	EN 1.4301 (AISI 304)
042	Motor support	Galvanised steel
044	Support protection	EN 1.4301 (AISI 304)
058	Cable gland	-
072	Casing ring [4]	EN 1.4301 (AISI 304)
075	Washer	Aluminium
076	Washer	Aluminium
200	Screw	Galvanised steel 8.8 class ISO 898-1
201	Screw [5]	Galvanised steel 8.8 class ISO 898-1
206	Screw (support)	Galvanised steel 8.8 class ISO 898-1
206-2	Adapter ring screw	Galvanised steel 8.8 class ISO 898-1
235	Washer	Galvanised steel

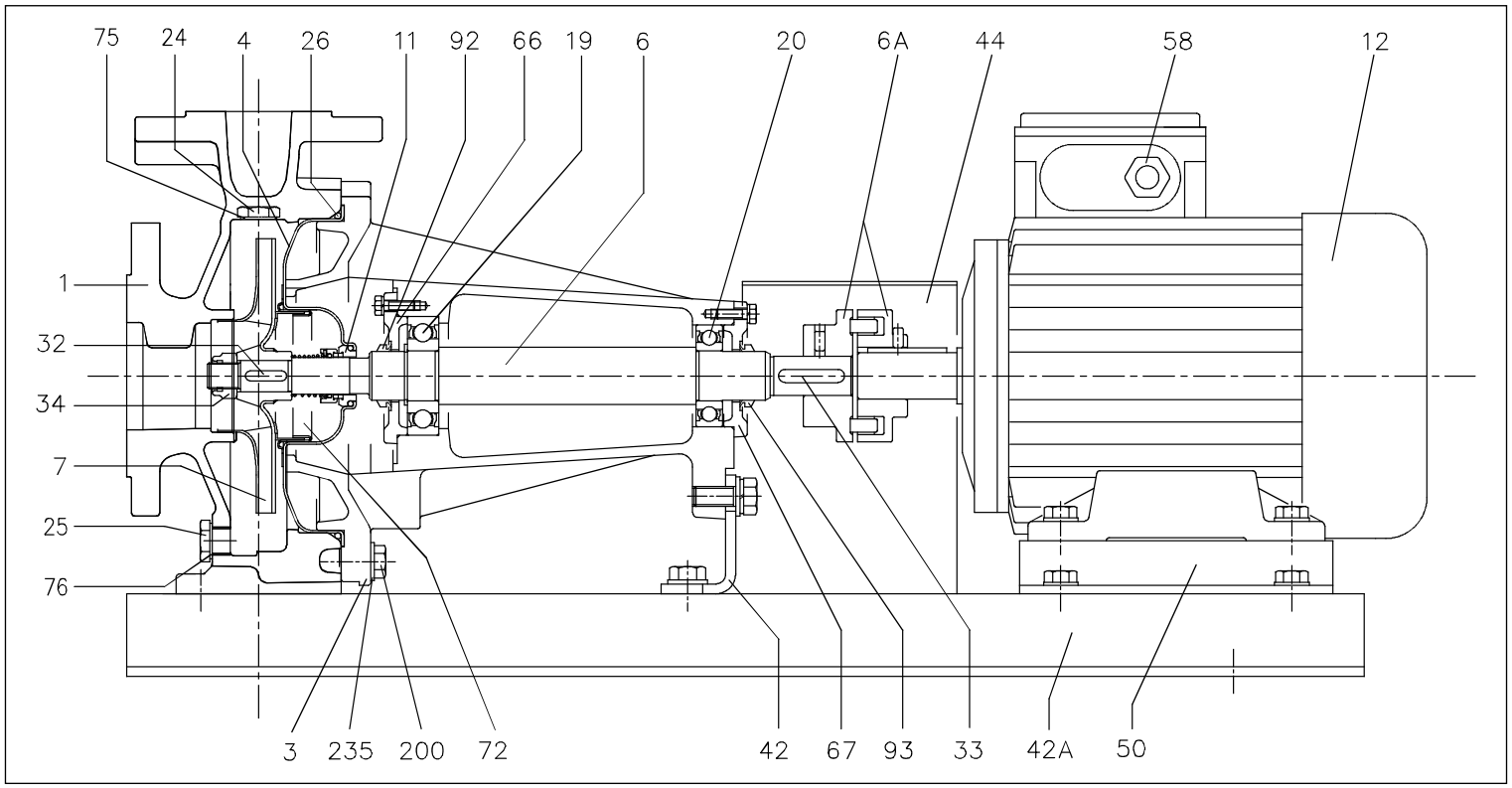
[1]= Only for 3D SERIES models 65-125/5.5 and 65-125/7.5
[2]= EN 1.4301 (AISI 304) for 3D 32, 40, 50 SERIES; EN 1.4401 (AISI 316) for 3D 65 SERIES
[3]= FKM for H, HS, HW, HSW versions; EPDM for E version
[4]= Only for 3D SERIES models 32-200, 40-200, 50-160, 50-200
[5]= Only for 3D SERIES models 32-125/1.1, 32-160/1.5, 32-160/2.2, 40-125/1.5, 40-125/2.2, 50-125/2.2

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

SECTIONAL VIEW 3DP 32, 40, 50, 65 SERIES

2 Poles



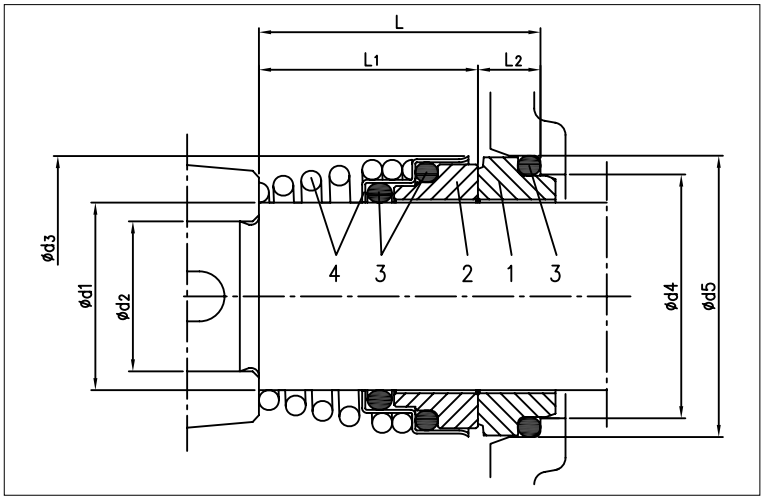
MATERIALS TABLE

Ref.	Name	Materials
001	Pump casing	Cast iron EN-GJL-250-EN 1561
003	Motor bracket	Cast iron EN-GJL-250-EN 1561
004	Casing cover	EN 1.4301 (AISI 304)
006	Shaft (part in contact with the liquid)	EN 1.4301 (AISI 304)
006A	Flexible joint	Cast iron EN-GJL-250-EN 1561
007	Impeller	[1]
011	Mechanical seal	Ceramic/Carbon/NBR
012	Motor	-
019	Bearing	-
020	Bearing	-
024	Plug	Brass
025	Plug	Brass
026	O-Ring	NBR [2]
032	Key	EN 1.4401 (AISI 316)
033	Key	C 40
034	Impeller nut	EN 1.4301 (AISI 304)
042	Pump support	Galvanised Fe 37
042A	Base	Galvanised Fe 37
044	Support protection	Galvanised Fe 37
050	Motor support	Aluminium / Galvanised steel
058	Cable gland	-
066	Bearing cover (impeller side)	Cast iron EN-GJL-250-EN 1561
067	Bearing cover (motor side)	Cast iron EN-GJL-250-EN 1561
072	Casing ring [3]	EN 1.4301 (AISI 304)
075	Washer	Aluminium
076	Washer	Aluminium
092	V Ring	-
093	V Ring	-
200	Screw	Galvanised steel 8.8 class ISO 898-1
235	Washer	Galvanised steel

[1]= EN 1.4301 (AISI 304) for SERIES 3D 32, 40, 50; EN 1.4401 (AISI 316) for SERIES 3D 65
[2]= FKM for H, HS, HW, HSW versions; EPDM for E version
[3]= Only for 3D SERIES models 32-200, 40-200, 50-160, 50-200

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

MECHANICAL SEAL standard version



MATERIALS TABLE

Ref.	Name	Materials
1	Fixed part	Carbon
2	Rotating part	Ceramic
3	Gasket	NBR
4	Frame + spring	EN 1.4401 (AISI 316)

SPECIAL MECHANICAL SEALS (On request)

Name	Materials				
	H Version	HS Version	HW Version	HSW Version	E Version
Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
Gasket	FKM	FKM	FKM	FKM	EPDM
Frame + spring	EN 1.4401 (AISI 316)	EN 1.4571 (AISI 316Ti)	EN 1.4401 (AISI 316)	EN 1.4401 (AISI 316)	EN 1.4401 (AISI 316)

SPECIAL MECHANICAL SEALS (On request)

Name	Materials				
	U3U3EGG Version	U3CEGG Version	Q1Q1EGG Version	Q1U3EGG Version	Q1AEGG Version
Fixed part	Tungsten Carbide	Tungsten Carbide	Silicon Carbide	Silicon Carbide	Silicon Carbide
Rotating Part	Tungsten Carbide	Special carbon	Silicon Carbide	Tungsten Carbide	Metallised carbon
Elastomers	EPDM	EPDM	EPDM	EPDM	EPDM
Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3D SERIES

2 Poles

Model		P_2		Efficiency		Capacitor Single phase		Efficiency (%) Three phase η %			P_1		Absorbed Current [A]			
Single phase 230V	Three phase 230/400/690V	[HP]	[kW]	Single phase	Three phase	μF	V_c	50%	75%	100%	Single phase [kW]	Three phase [kW]	Single phase 230V	Three phase 230V	Three phase 400V	Three phase 690V
3D 32-125/1.1 M	3D 32-125/1.1	1.5	1.1	-	IE2	31.5	450	79.5	82.0	82.5	1.51	1.82	6.7	5.6	3.2	-
-		1.5	1.1	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3	-
3D 32-160/1.5 M	3D 32-160/1.5	2	1.5	-	IE2	40	450	79.5	82.0	82.5	2.10	1.82	9.6	5.6	3.2	-
-		2	1.5	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3	-
3D 32-160/2.2 M	3D 32-160/2.2	3	2.2	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7	-
-	3D 32-200/3.0	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4	-
-	3D 32-200/4.0	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3D 32-200/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
3D 40-125/1.5 M	3D 40-125/1.5	2	1.5	-	IE2	40	450	79.5	82.0	82.5	2.10	1.82	9.6	5.6	3.2	-
-		2	1.5	-	IE3	-	-	83.0	85.8	85.6	-	1.77	-	5.8	3.3	-
3D 40-125/2.2 M	3D 40-125/2.2	3	2.2	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7	-
-	3D 40-160/3.0	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4	-
-	3D 40-160/4.0	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3D 40-200/5.5	7.5	5.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0
-		7.5	5.5	-	IE3	-	-	89.2	90.6	90.4	-	6.09	-	-	10.6	6.1
-	3D 40-200/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3D 40-200/11	15	11	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3
3D 50-125/2.2 M	3D 50-125/2.2	3	2.2	-	IE2	50	450	83.1	85.7	86.2	2.95	2.55	13.3	7.8	4.5	-
-		3	2.2	-	IE3	-	-	86.2	87.0	86.0	-	2.55	-	8.2	4.7	-
-	3D 50-125/3.0	4	3	-	IE2	-	-	85.0	86.7	86.3	-	3.48	-	10.6	6.1	-
-		4	3	-	IE3	-	-	85.9	87.5	87.1	-	3.44	-	11.1	6.4	-
-	3D 50-125/4.0	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3D 50-160/5.5	7.5	5.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0
-		7.5	5.5	-	IE3	-	-	89.2	90.6	90.4	-	6.09	-	-	10.6	6.1
-	3D 50-160/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3D 50-200/9.2	12.5	9.2	-	IE3	-	-	90.1	90.8	90.9	-	10.12	-	-	17.2	10.0
-	3D 50-200/11	15	11	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3
-	3D 50-200/15	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3D 65-125/4.0	5.5	4	-	IE2	-	-	84.3	87.2	87.8	-	4.56	-	15.1	8.7	-
-		5.5	4	-	IE3	-	-	85.8	88.3	88.4	-	4.52	-	15.1	8.7	-
-	3D 65-125/5.5	7.5	5.5	-	IE2	-	-	82.9	86.0	87.4	-	6.29	-	-	10.4	6.0
-		7.5	5.5	-	IE3	-	-	89.2	90.6	90.4	-	6.09	-	-	10.6	6.1
-	3D 65-125/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3D 65-160/7.5	10	7.5	-	IE3	-	-	89.0	90.7	90.8	-	8.26	-	-	13.6	7.9
-	3D 65-160/9.2	12.5	9.2	-	IE3	-	-	90.1	90.8	90.9	-	10.12	-	-	17.2	10.0
-	3D 65-160/11	15	11	-	IE3	-	-	90.4	91.2	91.8	-	11.98	-	-	21.3	12.3
-	3D 65-160/15	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3D 65-200/15	20	15	-	IE3	-	-	91.2	92.0	91.9	-	16.32	-	-	27.7	17.3
-	3D 65-200/18.5	25	18.5	-	IE3	-	-	91.6	93.0	92.6	-	19.98	-	-	35.0	20.3
-	3D 65-200/22	30	22	-	IE3	-	-	92.0	93.1	93.2	-	23.58	-	-	39.7	23.6

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3DS - 3DP SERIES

2 Poles

Model		P_2		Grand. motor	Efficiency motor	Efficiency (%) Three phase η %			P_1	Absorbed Current [A]		
3DS SERIES Three phase 230/400/690V	3DP SERIES Three phase 230/400/690V	[HP]	[kW]			50%	75%	100%	Three phase [kW]	Three phase 230V	Three phase 400V	Three phase 690V
3DS 32-125/1.1	3DP 32-125/1.1	1.5	1.1	80	IE2	79.5	81.2	81.5	1.35	4.3	2.5	-
		1.5	1.1		IE3	78.7	81.7	82.7	1.26	4.2	2.4	-
3DS 32-160/1.5	3DP 32-160/1.5	2	1.5	90S	IE2	81.0	82.8	82.8	1.77	5.5	3.2	-
		2	1.5		IE3	83.2	84.8	84.2	1.77	5.2	3.0	-
3DS 32-160/2.2	3DP 32-160/2.2	3	2.2	90L	IE2	82.5	84.0	84.0	2.59	7.6	4.4	-
		3	2.2		IE3	85.0	86.2	86.5	2.61	8.0	4.6	-
3DS 32-200/3.0	3DP 32-200/3.0	4	3	100 L	IE2	84.1	85.8	85.5	3.43	10.2	5.9	-
		4	3		IE3	82.3	85.8	87.1	3.45	9.7	5.6	-
3DS 32-200/4.0	3DP 32-200/4.0	5.5	4	112 M	IE2	85.2	86.4	86.1	4.64	13.5	7.8	-
		5.5	4		IE3	86.8	87.8	88.1	4.51	12.1	7.0	-
3DS 32-200/7.5	3DP 32-200/7.5	10	7.5	132S	IE3	88.6	89.2	90.1	8.35	-	13.1	7.6
3DS 40-125/1.5	3DP 40-125/1.5	2	1.5	90S	IE2	81.0	82.8	82.8	1.77	5.5	3.2	-
		2	1.5		IE3	83.2	84.8	84.2	1.77	5.2	3.0	-
3DS 40-125/2.2	3DP 40-125/2.2	3	2.2	90L	IE2	82.5	84.0	84.0	2.59	7.6	4.4	-
		3	2.2		IE3	85.0	86.2	86.5	2.61	8.0	4.6	-
3DS 40-160/3.0	3DP 40-160/3.0	4	3	100 L	IE2	84.1	85.8	85.5	3.43	10.2	5.9	-
		4	3		IE3	82.3	85.8	87.1	3.45	9.7	5.6	-
3DS 40-160/4.0	3DP 40-160/4.0	5.5	4	112 M	IE2	85.2	86.4	86.1	4.64	13.5	7.8	-
		5.5	4		IE3	86.8	87.8	88.1	4.51	12.1	7.0	-
3DS 40-200/5.5	3DP 40-200/5.5	7.5	5.5	132S	IE2	85.8	87.4	87.3	6.34	-	10.4	6.0
		7.5	5.5		IE3	88.0	88.5	89.2	6.24	-	10.0	5.8
3DS 40-200/7.5	3DP 40-200/7.5	10	7.5		IE3	88.6	89.2	90.1	8.35	-	13.1	7.6
3DS 40-200/11	3DP 40-200/11	15	11	160 M	IE3	87.4	89.8	91.2	12.15	-	19.7	11.4
3DS 50-125/2.2	3DP 50-125/2.2	3	2.2	90L	IE2	82.5	84.0	84.0	2.59	7.6	4.4	-
		3	2.2		IE3	85.0	86.2	86.5	2.61	8.0	4.6	-
3DS 50-125/3.0	3DP 50-125/3.0	4	3	100 L	IE2	84.1	85.8	85.5	3.43	10.2	5.9	-
		4	3		IE3	82.3	85.8	87.1	3.45	9.7	5.6	-
3DS 50-125/4.0	3DP 50-125/4.0	5.5	4	112 M	IE2	85.2	86.4	86.1	4.64	13.5	7.8	-
		5.5	4		IE3	86.8	87.8	88.1	4.51	12.1	7.0	-
3DS 50-160/5.5	3DP 50-160/5.5	7.5	5.5	132S	IE2	85.8	87.4	87.3	6.34	-	10.4	6.0
		7.5	5.5		IE3	88.0	88.5	89.2	6.24	-	10.0	5.8
3DS 50-160/7.5	3DP 50-160/7.5	10	7.5		IE3	88.6	89.2	90.1	8.35	-	13.1	7.6
3DS 50-200/9.2	3DP 50-200/9.2	12.5	9.2	132M	IE3	88.6	89.8	90.7	10.17	-	16.5	9.5
3DS 50-200/11	3DP 50-200/11	15	11	160 M	IE3	87.4	89.8	91.2	12.15	-	19.7	11.4
3DS 50-200/15	3DP 50-200/15	20	15		IE3	91.0	91.3	91.9	16.46	-	26.7	15.4
3DS 65-125/4	3DP 65-125/4	5.5	4	112 M	IE2	85.2	86.4	86.1	4.64	13.5	7.8	-
		5.5	4		IE3	86.8	87.8	88.1	4.51	12.1	7.0	-
3DS 65-125/5.5	3DP 65-125/5.5	7.5	5.5	132S	IE2	85.8	87.4	87.3	6.34	-	10.4	6.0
		7.5	5.5		IE3	88.0	88.5	89.2	6.24	-	10.0	5.8
3DS 65-125/7.5	3DP 65-125/7.5	10	7.5		IE3	88.6	89.2	90.1	8.35	-	13.1	7.6
3DS 65-160/7.5	3DP 65-160/7.5	10	7.5		IE3	88.6	89.2	90.1	8.35	-	13.1	7.6
3DS 65-160/9.2	3DP 65-160/9.2	12.5	9.2	132M	IE3	88.6	89.8	90.7	10.17	-	16.5	9.5
3DS 65-160/11	3DP 65-160/11	15	11	160 M	IE3	87.4	89.8	91.2	12.15	-	19.7	11.4
3DS 65-160/15	3DP 65-160/15	20	15		IE3	91.0	91.3	91.9	16.46	-	26.7	15.4
3DS 65-200/15	3DP 65-200/15	20	15		IE3	91.0	91.3	91.9	16.46	-	26.7	15.4
3DS 65-200/18.5	3DP 65-200/18.5	25	18.5	160L	IE3	91.6	92.8	92.4	20.12	-	33.0	19.1
3DS 65-200/22	3DP 65-200/22	30	22	180M	IE3	92.3	92.9	92.9	23.69	-	38.0	22.0

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

NOISE DATA TABLE 3D SERIES — 2 Poles

Model	P_2		L_{pA} - dB(A)*
	[HP]	[kW]	
3D 32-125/1.1 (M)	1.5	1.1	69
3D 32-160/1.5 (M)	2	1.5	
3D 32-160/2.2 (M)	3	2.2	
3D 32-200/3.0	4	3	76
3D 32-200/4.0	5.5	4	
3D 32-200/7.5	10	7.5	79
3D 40-125/1.5 (M)	2	1.5	69
3D 40-125/2.2 (M)	3	2.2	
3D 40-160/3.0	4	3	76
3D 40-160/4.0	5.5	4	
3D 40-200/5.5	7.5	5.5	79
3D 40-200/7.5	10	7.5	
3D 40-200/11	15	11	82
3D 50-125/2.2 (M)	3	2.2	69
3D 50-125/3.0	4	3	76
3D 50-125/4.0	5.5	4	
3D 50-160/5.5	7.5	5.5	79
3D 50-160/7.5	10	7.5	
3D 50-200/9.2	12.5	9.2	82
3D 50-200/11	15	11	
3D 50-200/15	20	15	86
3D 65-125/4.0	5.5	4	76
3D 65-125/5.5	7.5	5.5	79
3D 65-125/7.5	10	7.5	
3D 65-160/7.5	10	7.5	
3D 65-160/9.2	12.5	9.2	82
3D 65-160/11	15	11	
3D 65-160/15	20	15	86
3D 65-200/15	20	15	
3D 65-200/18.5	25	18.5	
3D 65-200/22	30	22	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

NOISE DATA TABLE 3DS - 3DP SERIES — 2 Poles

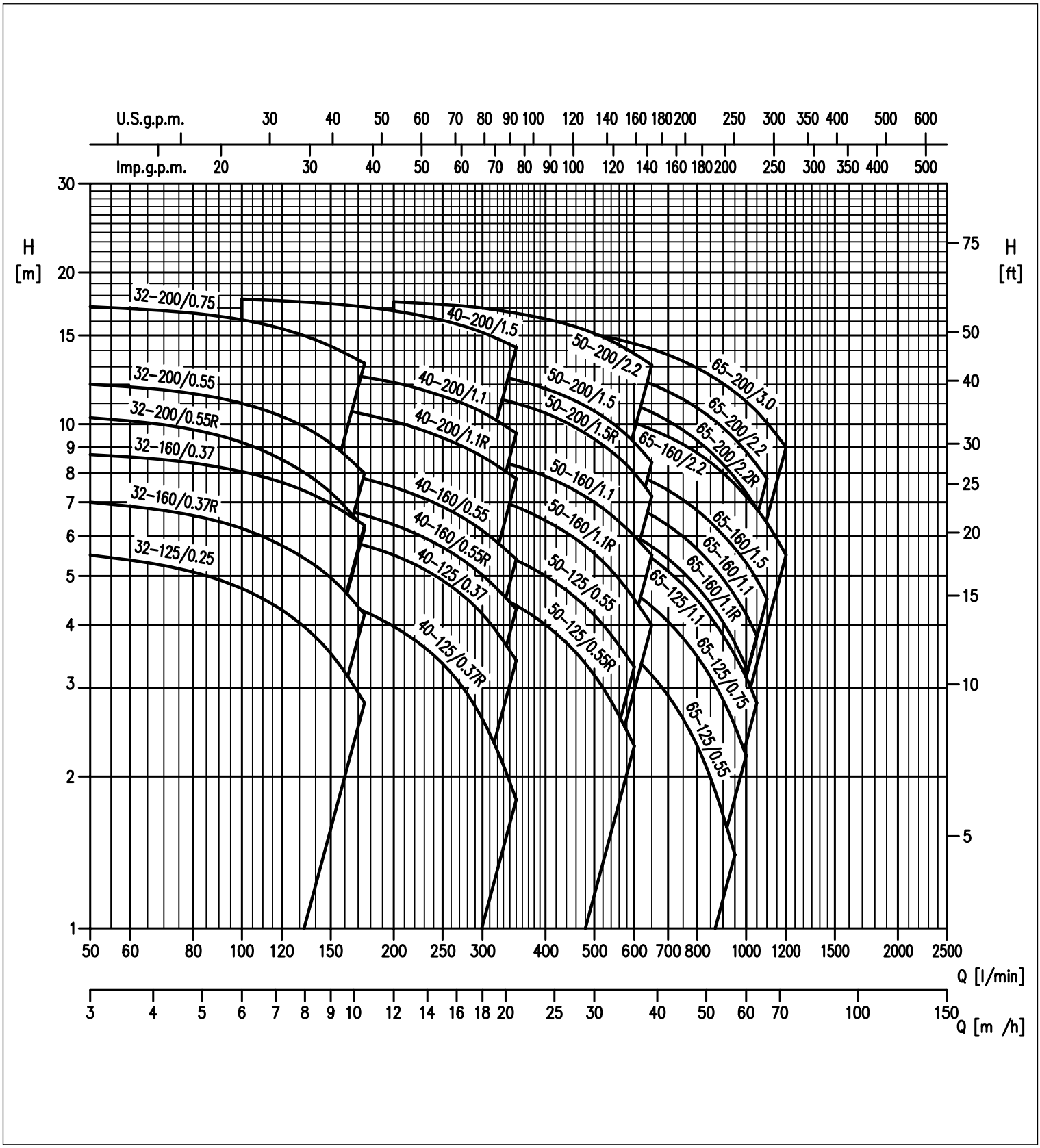
Model		P_2		L_{pA} - dB(A)*
3DS	3DP	[HP]	[kW]	
3DS 32-125/1.1	3DP 32-125/1.1	1.5	1.1	<70
3DS 32-160/1.5	3DP 32-160/1.5	2	1.5	
3DS 32-160/2.2	3DP 32-160/2.2	3	2.2	
3DS 32-200/3.0	3DP 32-200/3.0	4	3	
3DS 32-200/4.0	3DP 32-200/4.0	5.5	4	
3DS 32-200/7.5	3DP 32-200/7.5	10	7.5	72
3DS 40-125/1.5	3DP 40-125/1.5	2	1.5	<70
3DS 40-125/2.2	3DP 40-125/2.2	3	2.2	
3DS 40-160/3.0	3DP 40-160/3.0	4	3	
3DS 40-160/4.0	3DP 40-160/4.0	5.5	4	
3DS 40-200/5.5	3DP 40-200/5.5	7.5	5.5	72
3DS 40-200/7.5	3DP 40-200/7.5	10	7.5	
3DS 40-200/11	3DP 40-200/11	15	11	74
3DS 50-125/2.2	3DP 50-125/2.2	3	2.2	<70
3DS 50-125/3.0	3DP 50-125/3.0	4	3	
3DS 50-125/4.0	3DP 50-125/4.0	5.5	4	
3DS 50-160/5.5	3DP 50-160/5.5	7.5	5.5	72
3DS 50-160/7.5	3DP 50-160/7.5	10	7.5	
3DS 50-200/9.2	3DP 50-200/9.2	12.5	9.2	
3DS 50-200/11	3DP 50-200/11	15	11	74
3DS 50-200/15	3DP 50-200/15	20	15	
3DS 65-125/4.0	3DP 65-125/4.0	5.5	4	<70
3DS 65-125/5.5	3DP 65-125/5.5	7.5	5.5	72
3DS 65-125/7.5	3DP 65-125/7.5	10	7.5	
3DS 65-160/7.5	3DP 65-160/7.5	10	7.5	
3DS 65-160/9.2	3DP 65-160/9.2	12.5	9.2	
3DS 65-160/11	3DP 65-160/11	15	11	74
3DS 65-160/15	3DP 65-160/15	20	15	
3DS 65-200/15	3DP 65-200/15	20	15	
3DS 65-200/18.5	3DP 65-200/18.5	25	18.5	
3DS 65-200/22	3DP 65-200/22	30	22	77

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE RANGE at 1400 min⁻¹ (according to ISO 9906 Attachment A) **4 Poles**



3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CHART SERIES 3D(.)4 32

4 Poles

Model	P_2		Q = Flow Rate			
			l/min	50	100	150	175
	[HP]	[kW]	m³/h	3	6	9	10.5
			H=Head [m]				
3D(.)4 32-125/0.25	0.33	0.25		5.5	4.7	3.5	2.8
3D(.)4 32-160/0.37R	0.5	0.37		7.0	6.2	5.0	4.2
3D(.)4 32-160/0.37	0.5	0.37		8.7	8.1	7.0	6.3
3D(.)4 32-200/0.55R	0.75	0.55		10.3	9.2	7.3	6.2
3D(.)4 32-200/0.55	0.75	0.55		12.0	11.0	9.2	8.0
3D(.)4 32-200/0.75	1	0.75		17.1	16.1	14.3	13.2

PERFORMANCE CHART SERIES 3D(.)4 40

4 Poles

Model	P_2		Q = Flow Rate						
			l/min	100	150	175	200	250	300	350
	[HP]	[kW]	m³/h	6	9	10.5	12	15	18	21
			H=Head [m]							
3D(.)4 40-125/0.37R	0.5	0.37		4.8	4.5	4.3	4.0	3.4	2.6	1.8
3D(.)4 40-125/0.37	0.5	0.37		6.3	6.0	5.8	5.5	4.9	4.2	3.4
3D(.)4 40-160/0.55R	0.75	0.55		7.3	6.9	6.6	6.3	5.7	5.0	4.3
3D(.)4 40-160/0.55	0.75	0.55		8.6	8.1	7.8	7.5	6.9	6.2	5.4
3D(.)4 40-200/1.1R	1.5	1.1		11.2	10.8	10.5	10.1	9.4	8.6	7.8
3D(.)4 40-200/1.1	1.5	1.1		13.2	12.7	12.4	12.1	11.4	10.6	9.6
3D(.)4 40-200/1.5	2	1.5		17.7	17.3	17.1	16.8	16.1	15.2	14.2

PERFORMANCE CHART SERIES 3D(.)4 50

4 Poles

Model	P_2		Q = Flow Rate							
			l/min	200	250	300	350	400	500	600	650
	[HP]	[kW]	m³/h	12	15	18	21	24	30	36	39
			H=Head [m]								
3D(.)4 50-125/0.55R	0.75	0.55		5.2	5.0	4.7	4.4	4.0	3.2	2.3	-
3D(.)4 50-125/0.55	0.75	0.55		6.2	6.0	5.7	5.4	5.0	4.2	3.3	-
3D(.)4 50-160/1.1R	1.5	1.1		7.8	7.6	7.2	6.9	6.4	5.5	4.5	4.0
3D(.)4 50-160/1.1	1.5	1.1		9.1	8.9	8.6	8.3	7.9	7.0	6.0	5.5
3D(.)4 50-200/1.5R	2	1.5		12.1	11.8	11.4	11.0	10.5	9.3	8.0	7.2
3D(.)4 50-200/1.5	2	1.5		13.3	13.0	12.7	12.2	11.8	10.6	9.2	8.4
3D(.)4 50-200/2.2	3	2.2		17.5	17.3	17.0	16.6	16.2	15.1	13.8	13.1

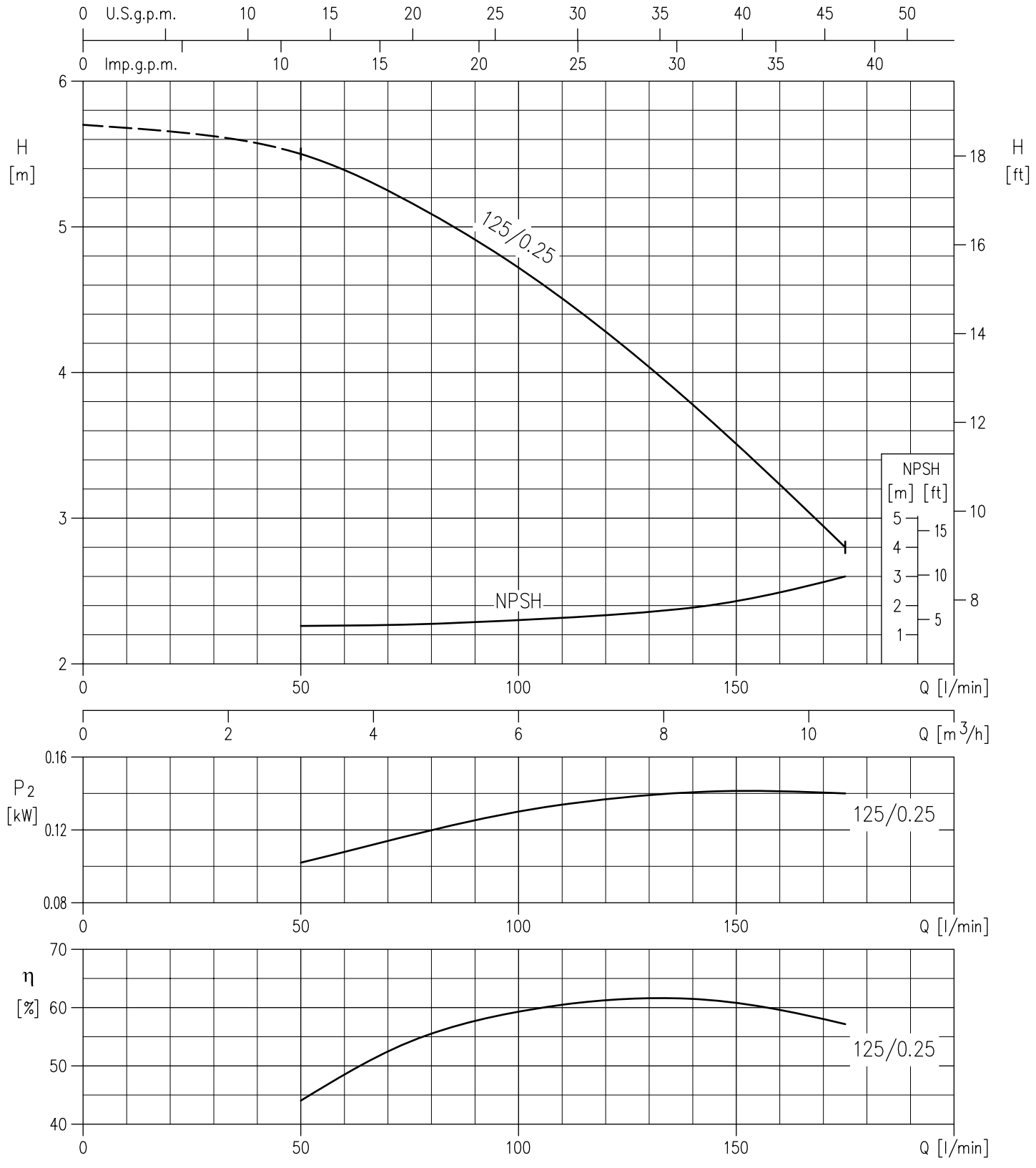
PERFORMANCE CHART SERIES 3D(.)4 65

4 Poles

Model	P_2		Q = Flow Rate									
			l/min	300	350	500	600	800	950	1000	1050	1100	1200
	[HP]	[kW]	m³/h	18	21	30	36	48	57	60	63	66	72
			H=Head [m]										
3D(.)4 65-125/0.55	0.75	0.55		4.8	4.6	4.0	3.5	2.3	1.4	-	-	-	-
3D(.)4 65-125/0.75	1	0.75		6.0	5.8	5.2	4.6	3.5	2.5	2.2	-	-	-
3D(.)4 65-125/1.1	1.5	1.1		7.2	7.0	6.3	5.7	4.5	3.5	3.2	2.8	-	-
3D(.)4 65-160/1.1	1.5	1.1		-	8.1	7.4	6.9	5.7	4.6	4.2	3.8	-	-
3D(.)4 65-160/1.5	2	1.5		-	9.2	8.5	8.0	6.7	5.7	5.3	4.9	4.5	-
3D(.)4 65-160/2.2	3	2.2		-	11.3	10.6	10.1	8.8	7.6	7.2	6.8	6.4	5.5
3D(.)4 65-200/2.2R	3	2.2		-	12.4	11.6	10.9	9.3	7.8	7.3	6.8	-	-
3D(.)4 65-200/2.2	3	2.2		-	13.9	13.0	12.4	10.8	9.3	8.8	8.3	7.8	-
3D(.)4 65-200/3	4	3		-	15.8	15.1	14.4	12.9	11.6	11.1	10.6	10.1	9.0

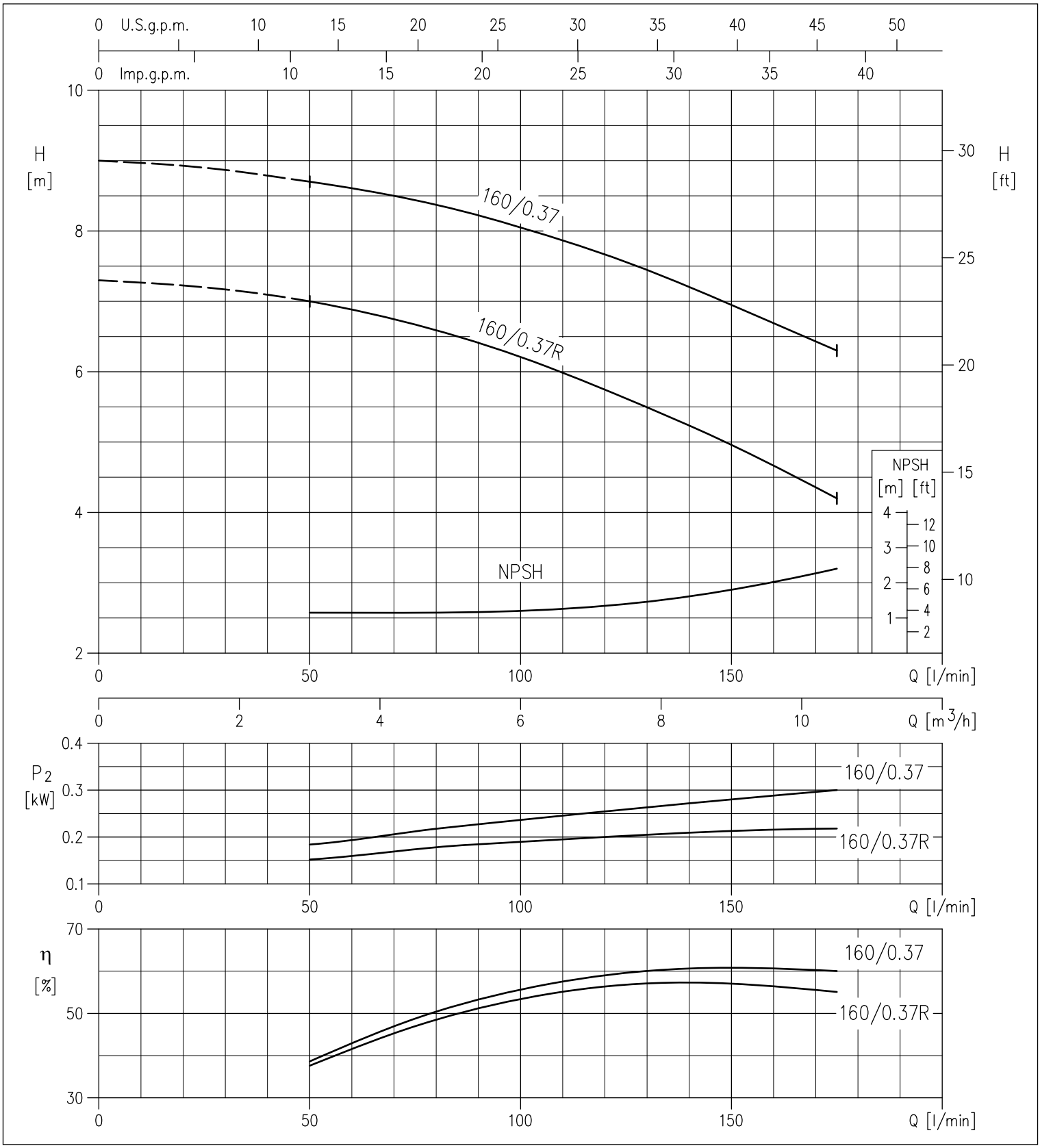
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D 4 32-125 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



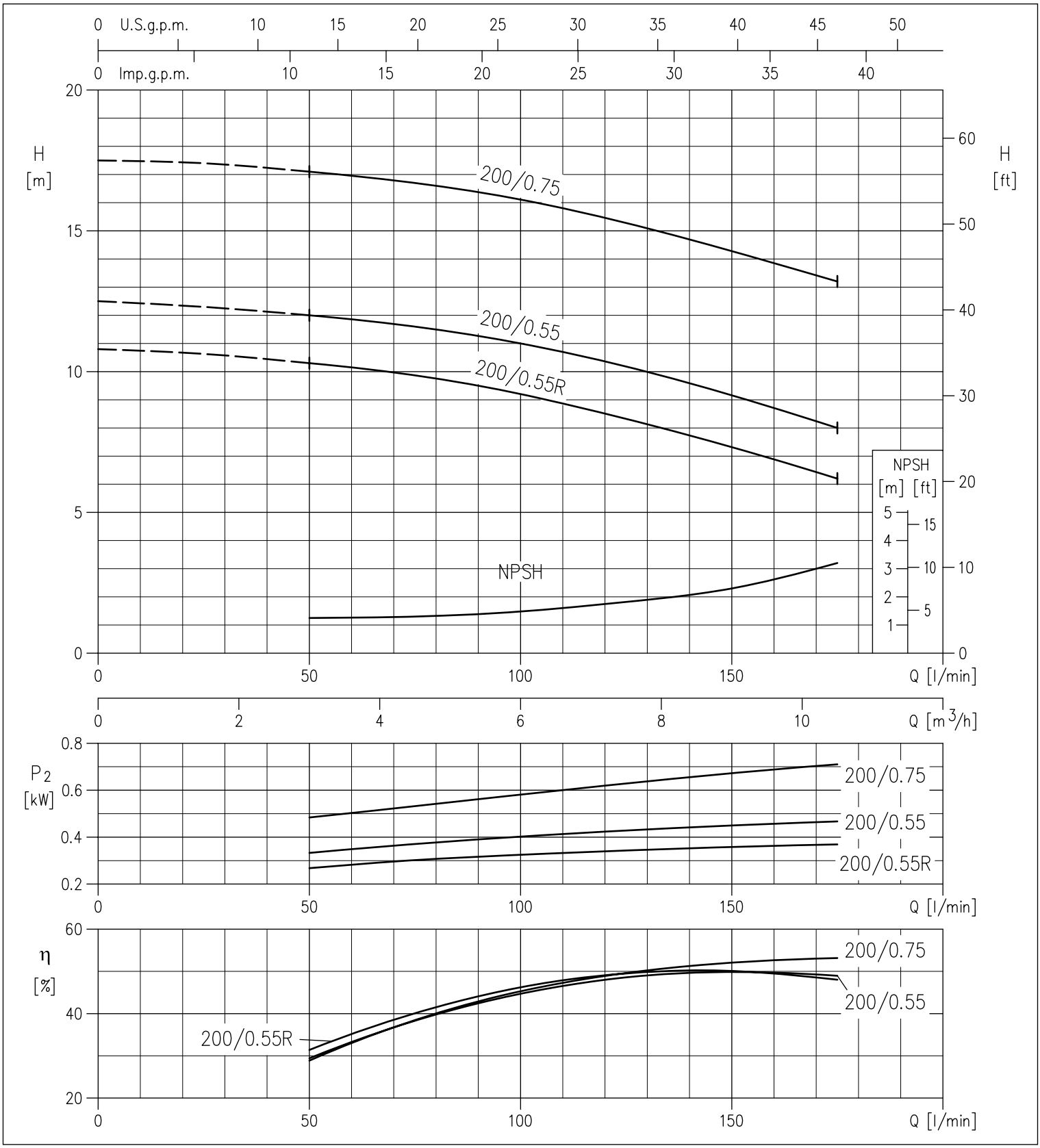
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.)4 32-160 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

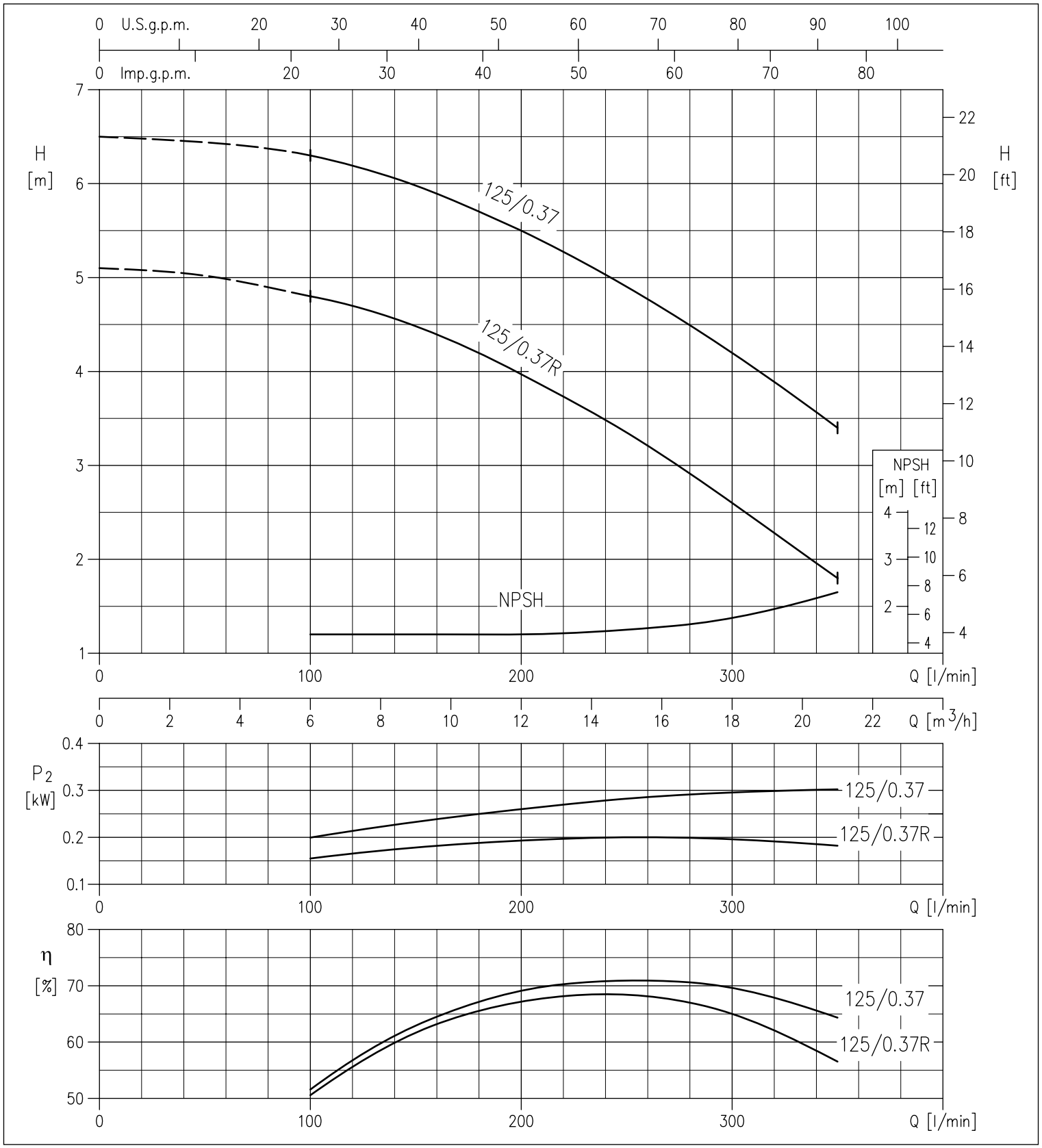
PERFORMANCE CURVES 3D(.)4 32-200 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.)4 40-125 SERIES at 1400 min-1 (according to ISO 9906 Attachment A)

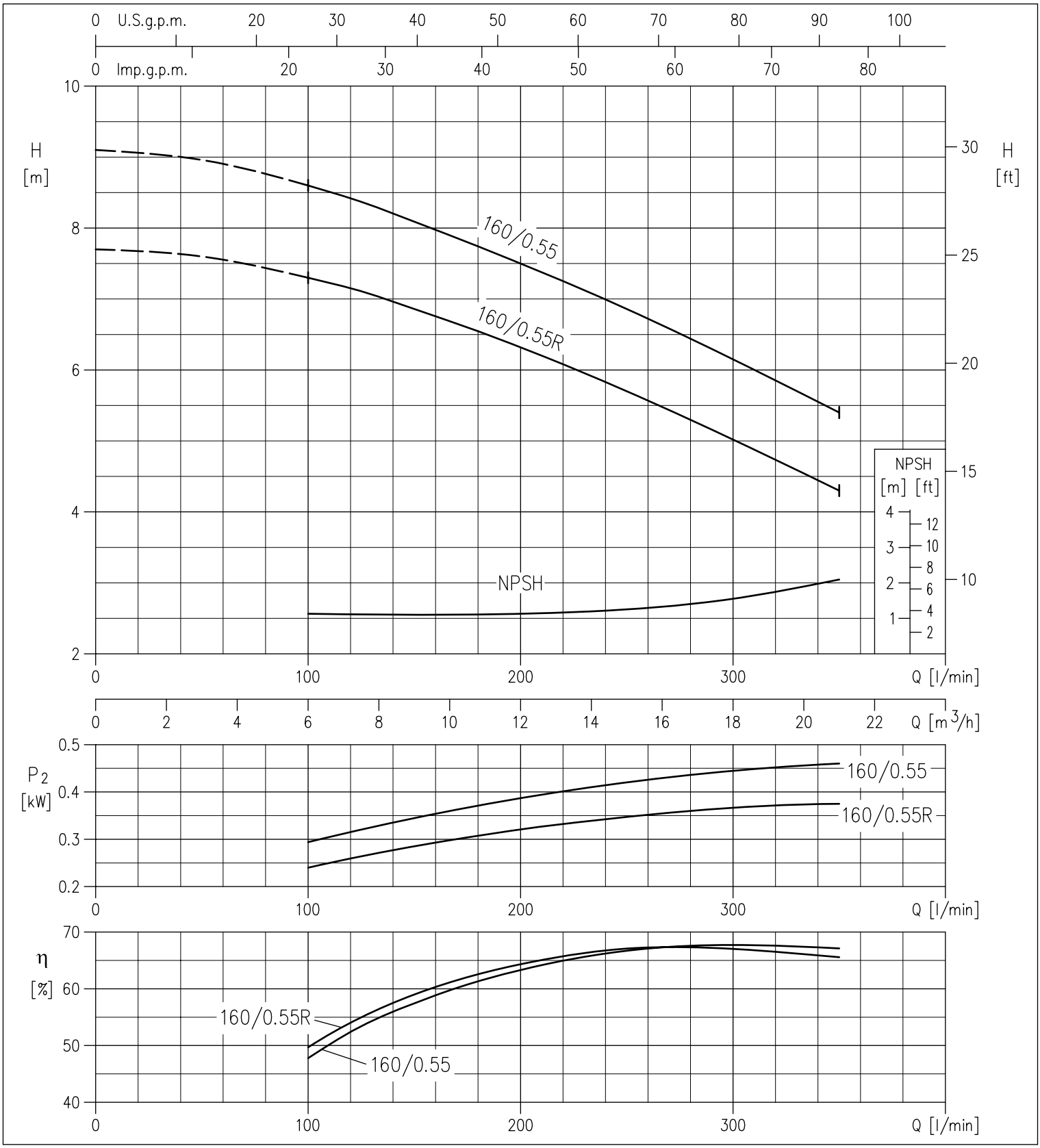
4 Poles



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

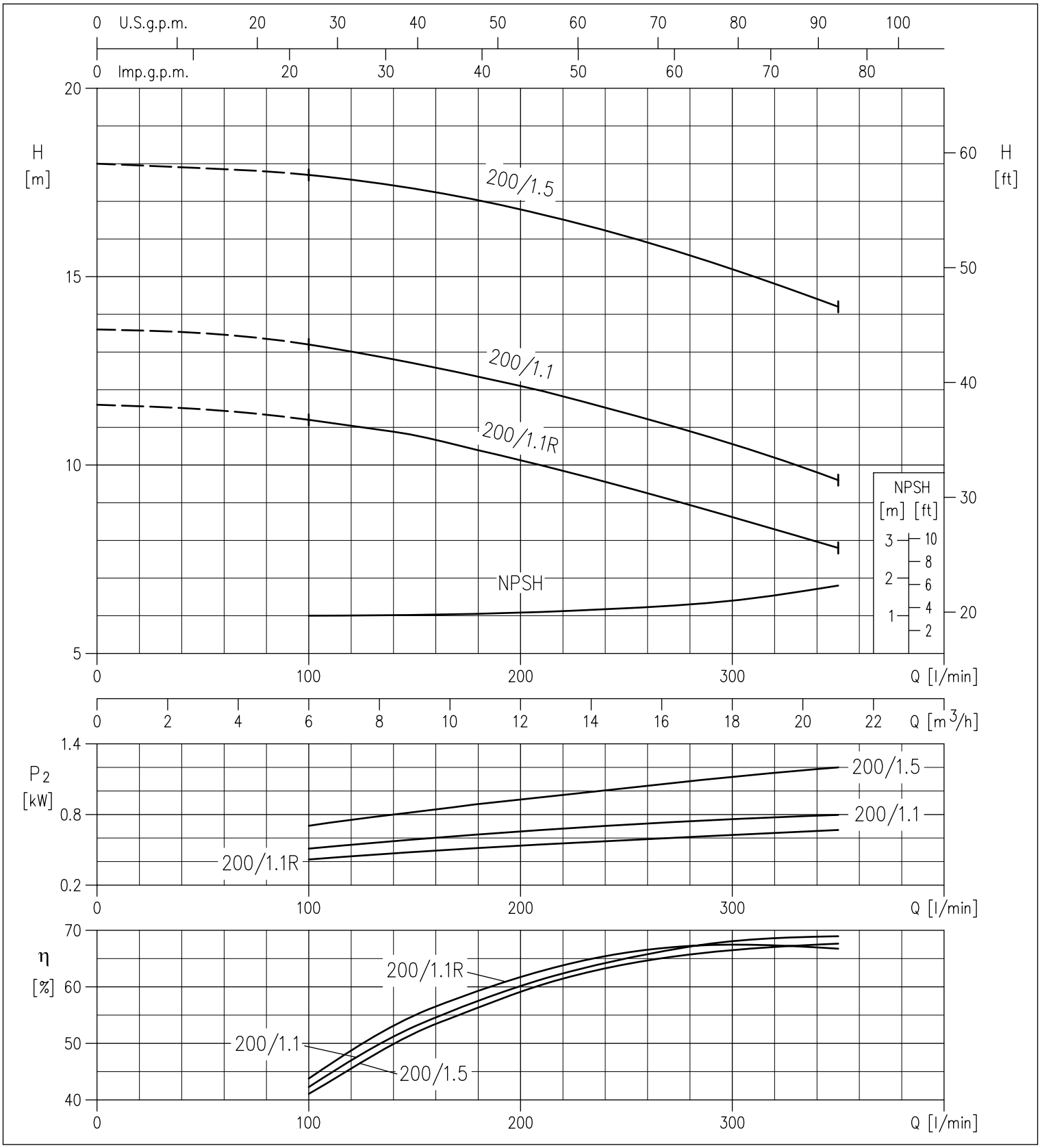
PERFORMANCE CURVES 3D(.)4 40-160 SERIES at 1400 min-1 (according to ISO 9906 Attachment A)

4 Poles



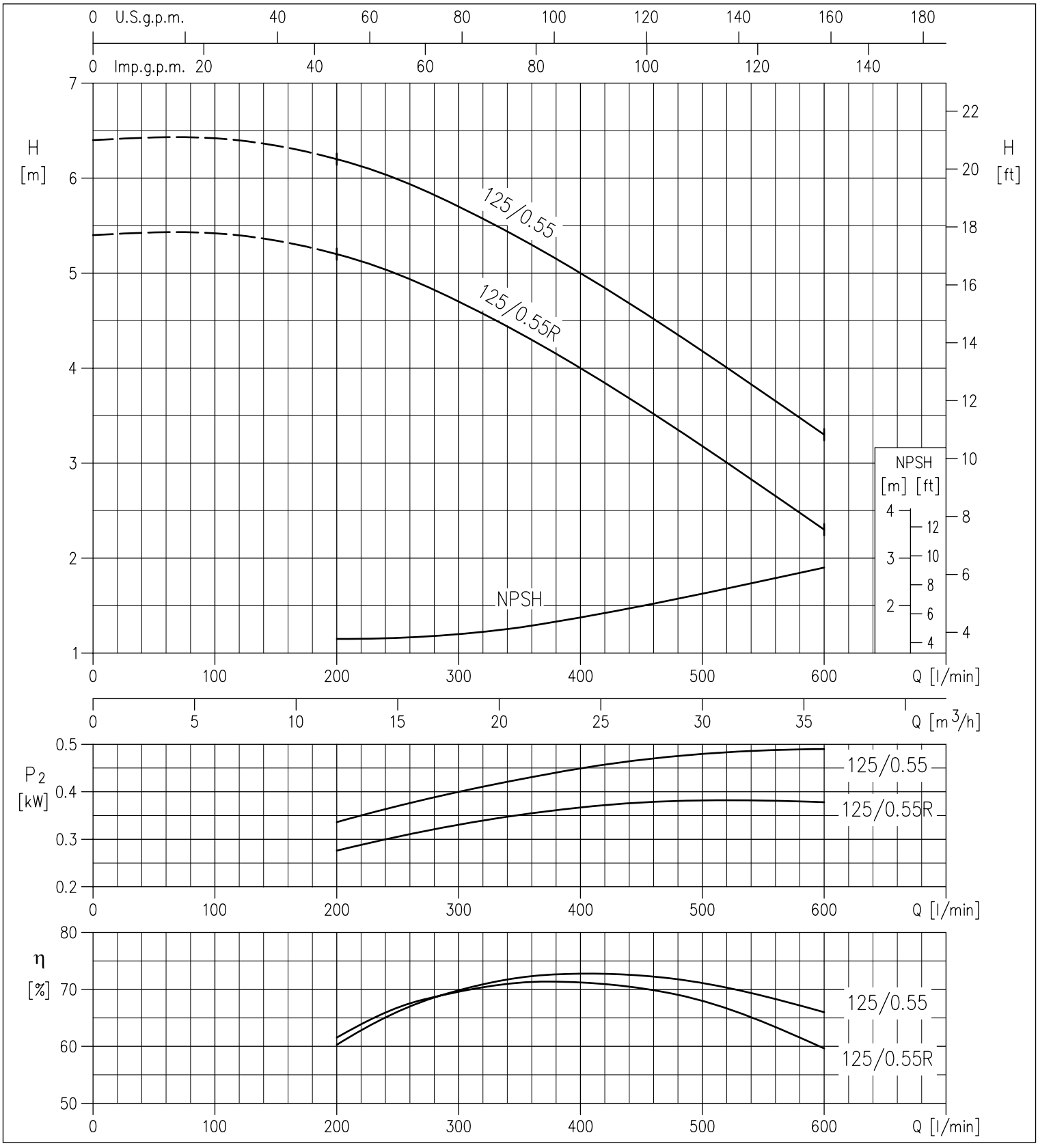
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.)4 40-200 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

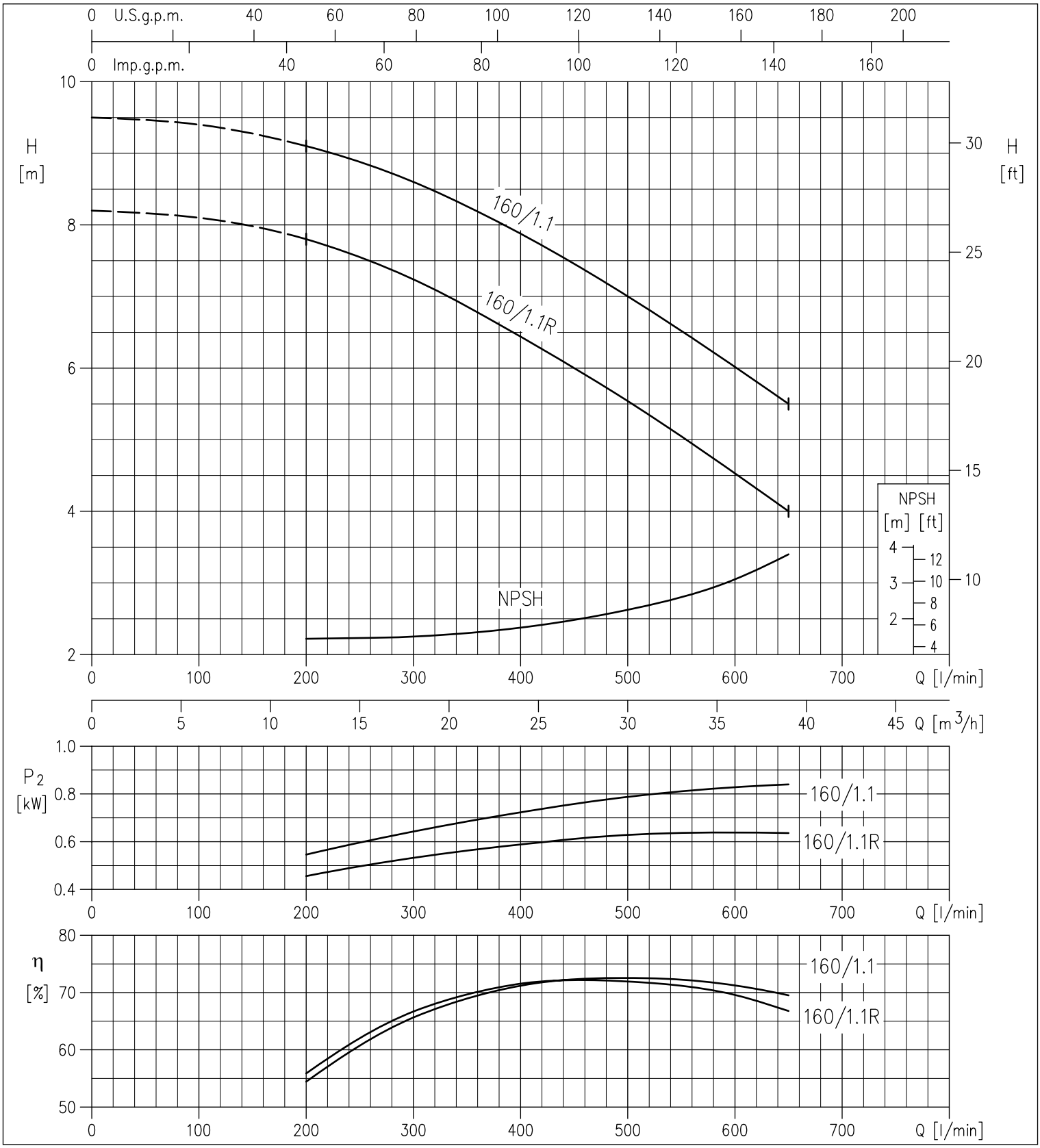
PERFORMANCE CURVES 3D(.)4 50-125 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.)4 50-160 SERIES at 1400 min-1 (according to ISO 9906 Attachment A)

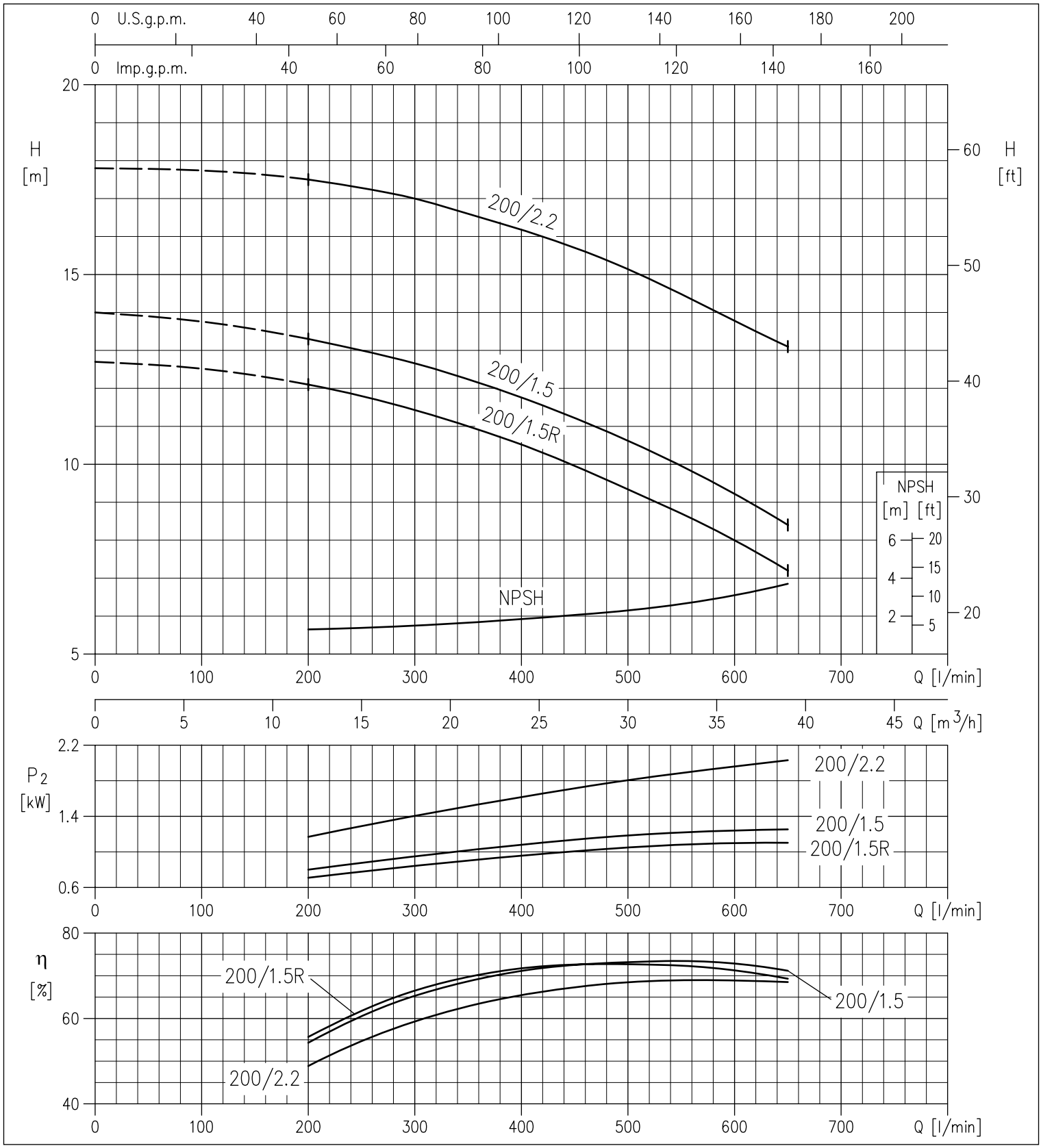
4 Poles



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

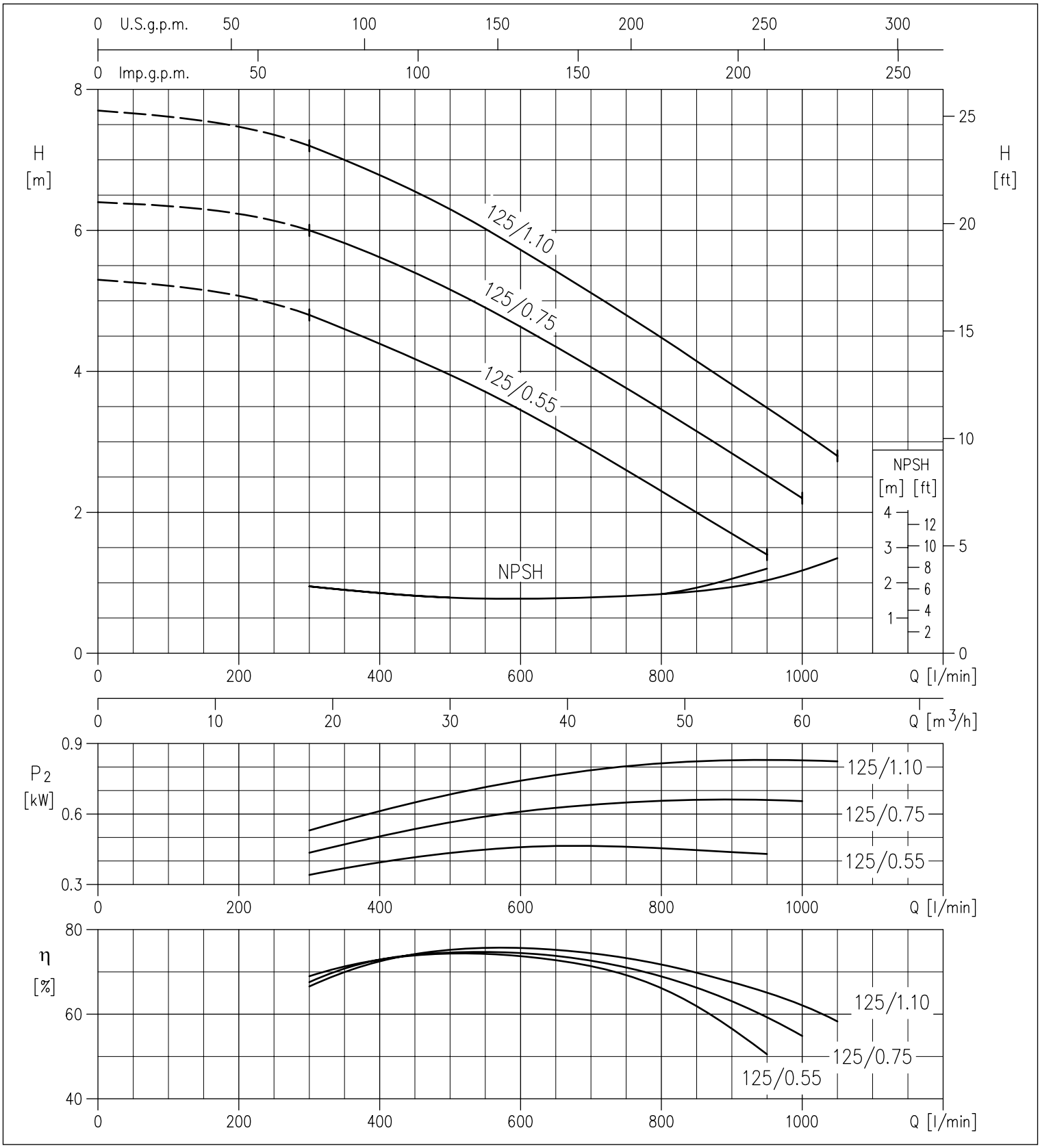
PERFORMANCE CURVES 3D(.)4 50-200 SERIES at 1400 min-1 (according to ISO 9906 Attachment A)

4 Poles



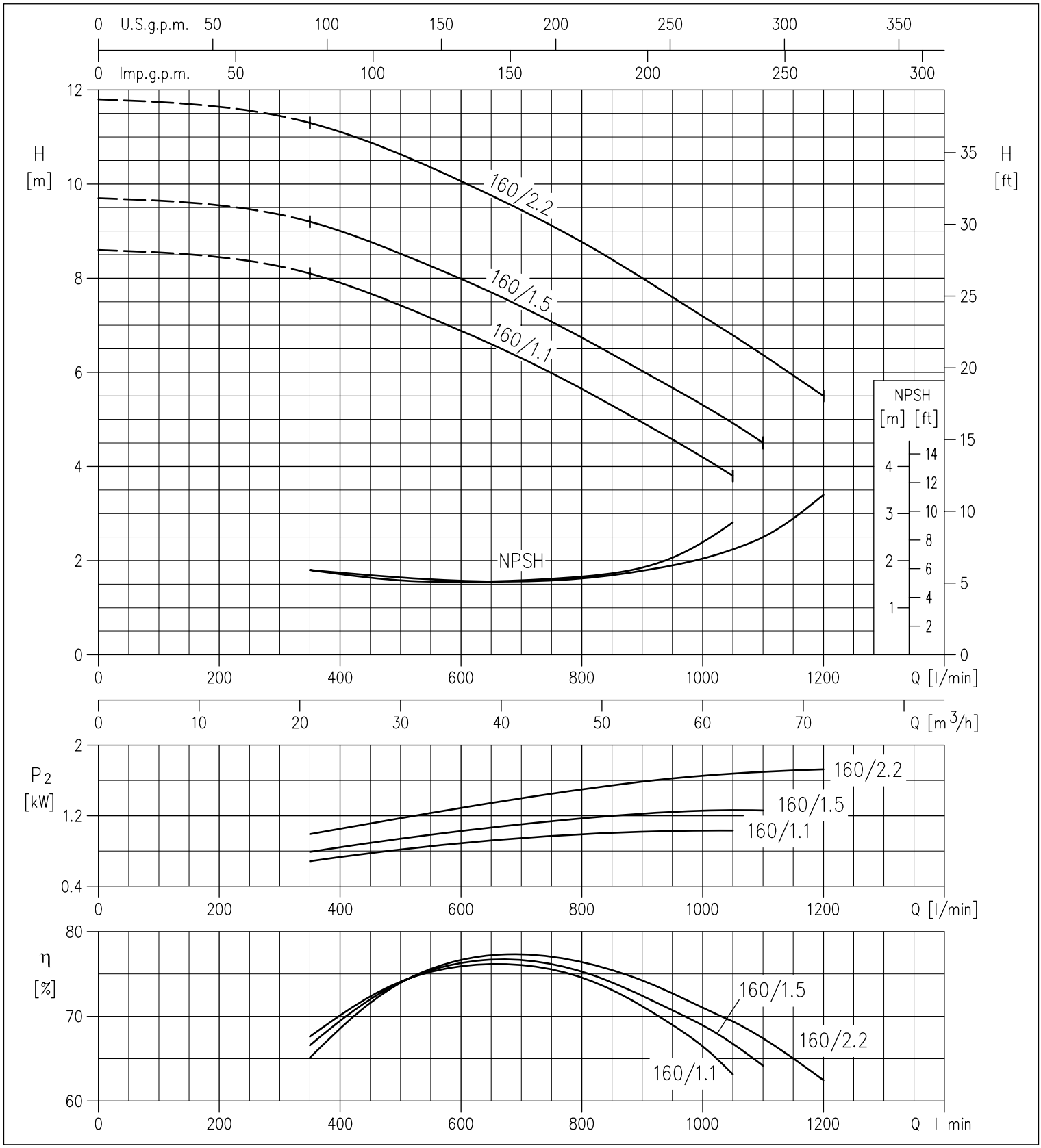
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.)4 65-125 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



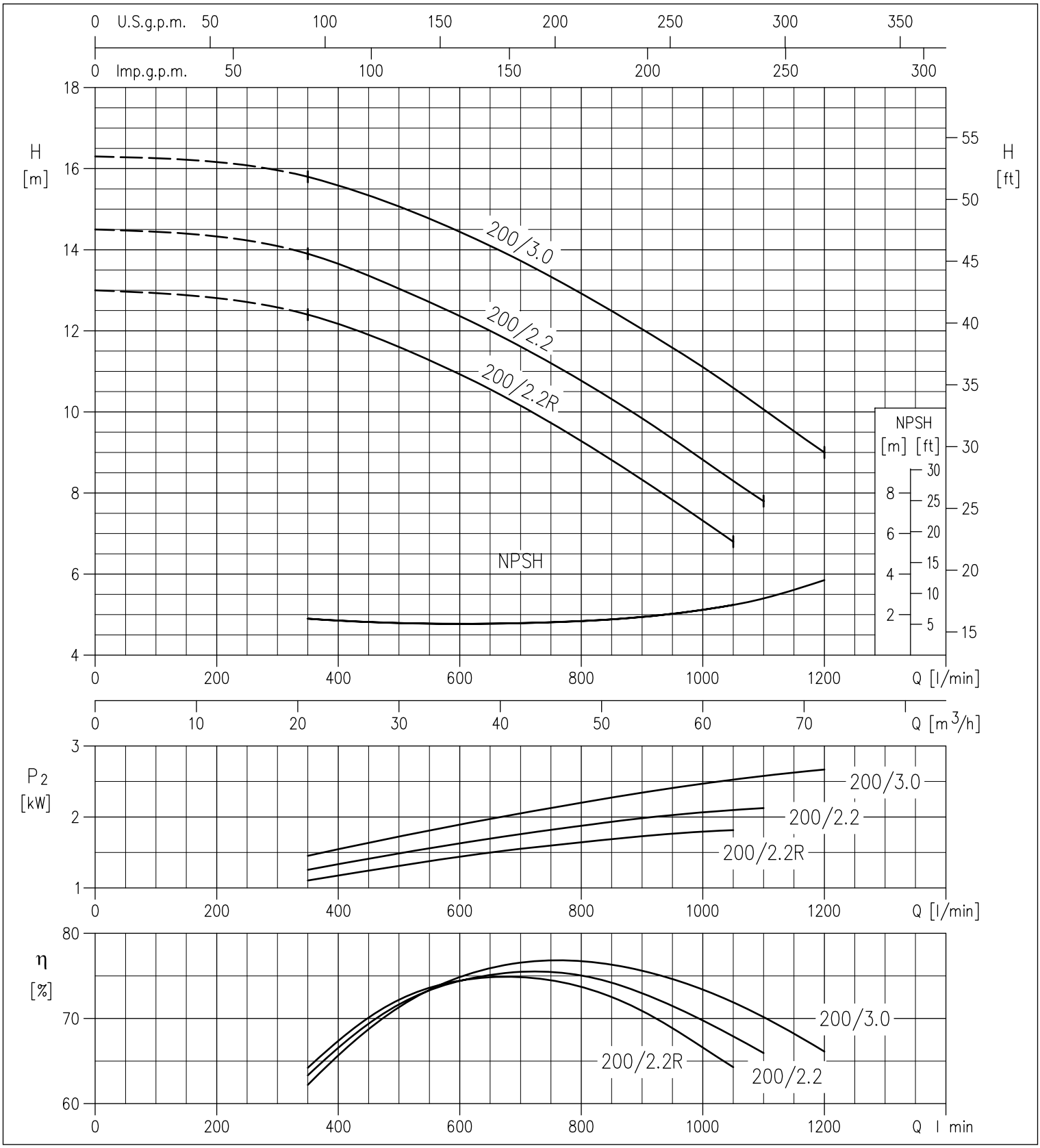
NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

PERFORMANCE CURVES 3D(.)4 65-160 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

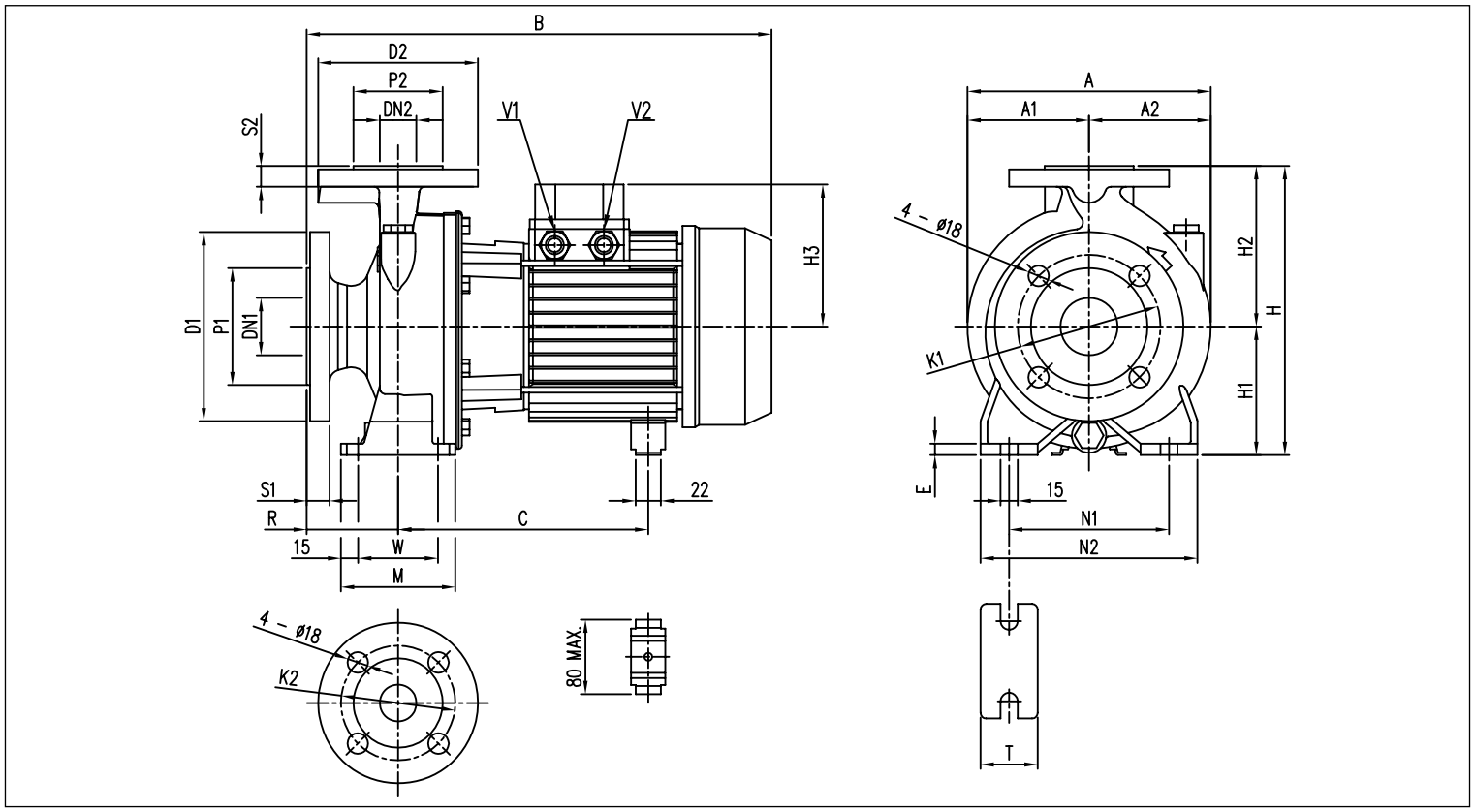
PERFORMANCE CURVES 3D(.)4 65-200 SERIES at 1400 min-1 (according to ISO 9906 Attachment A) **4 Poles**



NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3D4 SERIES

4 Poles



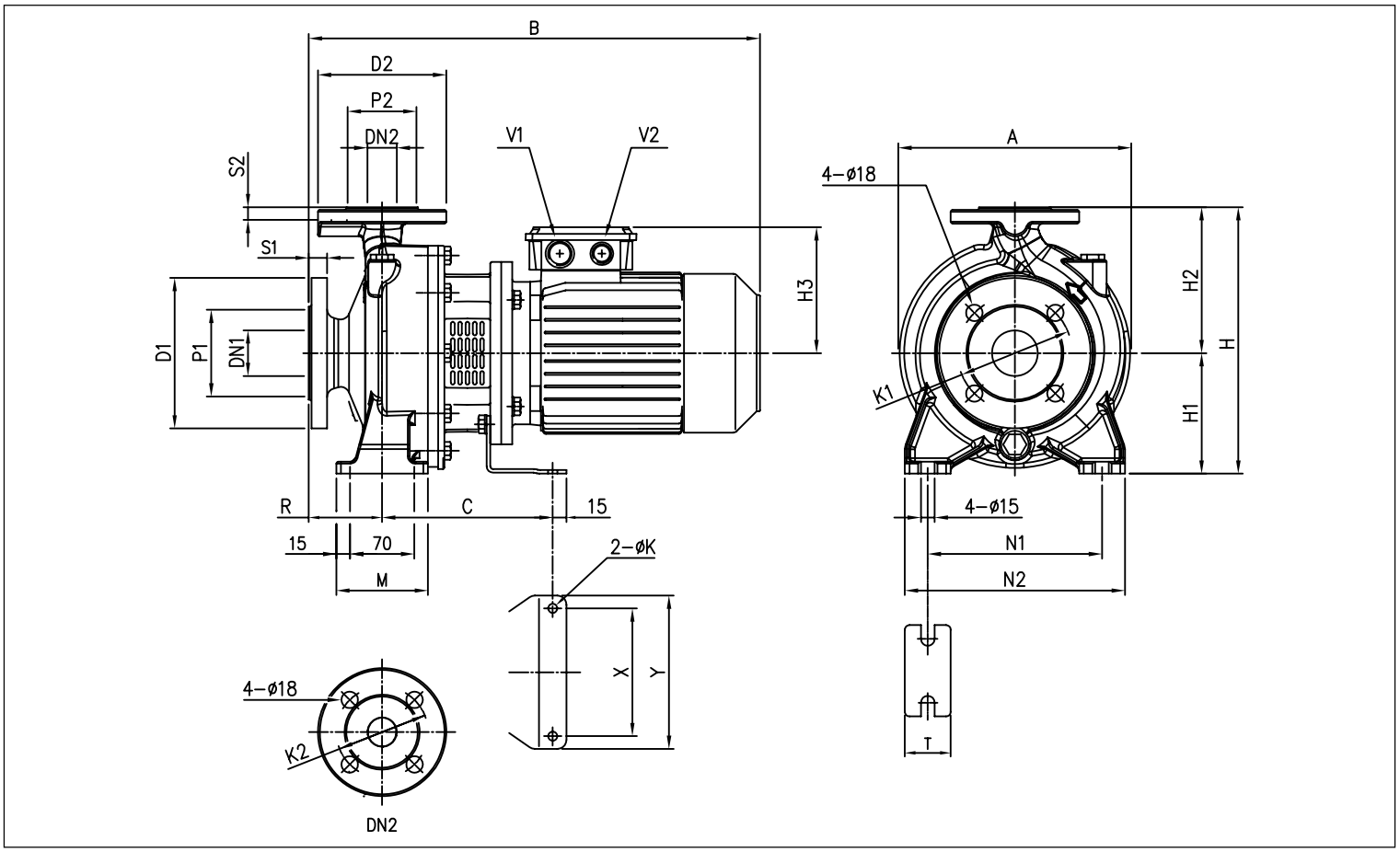
DIMENSIONAL TABLE

Model	Dimensions [mm]																											Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	W	M	N1	N2	T	E	A	A1	A2	B	C	V2	
3D4 32-125/0.25	50	102	125	165	20	32	78	100	140	18	252	112	140	102	80	70	100	140	190	50	10	213	106.5	106.5	371	205	PG 11	23.9
3D4 32-160/0.37R	50	102	125	165	20	32	78	100	140	18	292	132	160	119	80	70	100	190	240	50	10	254	127	127	393	219	PG 11	31.1
3D4 32-160/0.37	50	102	125	165	20	32	78	100	140	18	292	132	160	119	80	70	100	190	240	50	10	254	127	127	393	219	PG 11	31.3
3D4 32-200/0.55R	50	102	125	165	20	32	78	100	140	18	340	160	180	119	80	70	100	190	240	50	10	296	148	148	393	219	PG 11	35.9
3D4 32-200/0.55	50	102	125	165	20	32	78	100	140	18	340	160	180	119	80	70	100	190	240	50	10	296	148	148	393	219	PG 11	35.9
3D4 32-200/0.75	50	102	125	165	20	32	78	100	140	18	340	160	180	124	80	70	100	190	240	50	10	296	148	148	432	244÷255	PG 13.5	39.5
3D4 40-125/0.37R	65	122	145	185	20	40	88	110	150	18	252	112	140	102	80	70	100	160	210	50	10	213	108	112	371	205	PG 11	24.7
3D4 40-125/0.37	65	122	145	185	20	40	88	110	150	18	252	112	140	102	80	70	100	160	210	50	10	213	108	112	371	205	PG 11	24.8
3D4 40-160/0.55R	65	122	145	185	20	40	88	110	150	18	292	132	160	119	80	70	100	190	240	50	12	254	127	127	393	219	PG 11	32.3
3D4 40-160/0.55	65	122	145	185	20	40	88	110	150	18	292	132	160	119	80	70	100	190	240	50	12	254	127	127	393	219	PG 11	32.7
3D4 40-200/1.1R	65	122	145	185	20	40	88	110	150	18	340	160	180	124	100	70	100	212	265	50	12	296	148	148	452	244÷255	PG 13.5	41.2
3D4 40-200/1.1	65	122	145	185	20	40	88	110	150	18	340	160	180	124	100	70	100	212	265	50	12	296	148	148	452	244÷255	PG 13.5	41.3
3D4 40-200/1.5	65	122	145	185	20	40	88	110	150	18	340	160	180	124	100	70	100	212	265	50	12	296	148	148	491	244÷255	PG 13.5	43.0
3D4 50-125/0.55R	65	122	145	185	20	50	102	125	165	20	292	132	160	119	100	70	100	190	240	50	10	254	127	127	413	219	PG 11	32.7
3D4 50-125/0.55	65	122	145	185	20	50	102	125	165	20	292	132	160	119	100	70	100	190	240	50	10	254	127	127	413	219	PG 11	32.8
3D4 50-160/1.1R	65	122	145	185	20	50	102	125	165	20	340	160	180	124	100	70	100	212	265	50	10	296	148	148	452	244÷255	PG 13.5	42.2
3D4 50-160/1.1	65	122	145	185	20	50	102	125	165	20	340	160	180	124	100	70	100	212	265	50	10	296	148	148	452	244÷255	PG 13.5	42.3
3D4 50-200/1.5R	65	122	145	185	20	50	102	125	165	20	360	160	200	124	100	70	100	212	265	50	10	296	148	148	491	244÷255	PG 13.5	43.4
3D4 50-200/1.5	65	122	145	185	20	50	102	125	165	20	360	160	200	124	100	70	100	212	265	50	10	296	148	148	491	244÷255	PG 13.5	44.5
3D4 50-200/2.2	65	122	145	185	20	50	102	125	165	20	360	160	200	141	100	70	100	212	265	50	10	296	148	148	474	253	PG 16	42.9
3D4 65-125/0.55	80	138	160	200	22	65	122	145	185	20	340	160	180	119	100	95	125	212	280	65	12	263	127	136	413	219	PG 11	37.2
3D4 65-125/0.75	80	138	160	200	22	65	122	145	185	20	340	160	180	124	100	95	125	212	280	65	12	263	127	136	452	244÷255	PG 13.5	35.3
3D4 65-125/1.1	80	138	160	200	22	65	122	145	185	20	340	160	180	124	100	95	125	212	280	65	12	263	127	136	452	244÷255	PG 13.5	35.3
3D4 65-160/1.1	80	138	160	200	22	65	122	145	185	20	360	160	200	124	100	95	125	212	280	65	12	296	148	148	452	244÷255	PG 13.5	44.6
3D4 65-160/1.5	80	138	160	200	22	65	122	145	185	20	360	160	200	124	100	95	125	212	280	65	12	296	148	148	491	244÷255	PG 13.5	46.1
3D4 65-160/2.2	80	138	160	200	22	65	122	145	185	20	360	160	200	141	100	95	125	212	280	65	12	296	148	148	474	253	PG 16	48.1
3D4 65-200/2.2R	80	138	160	200	22	65	122	145	185	20	405	180	225	141	100	95	125	250	320	65	12	312	154.5	157.5	474	253	PG 16	46.5
3D4 65-200/2.2	80	138	160	200	22	65	122	145	185	20	405	180	225	141	100	95	125	250	320	65	12	312	154.5	157.5	474	253	PG 16	46.5
3D4 65-200/3	80	138	160	200	22	65	122	145	185	20	405	180	225	141	100	95	125	250	320	65	12	312	154.5	157.5	514	253	PG 16	54.5

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3DS4 32, 40, 50, 65 SERIES

4 Poles



DIMENSIONAL TABLE

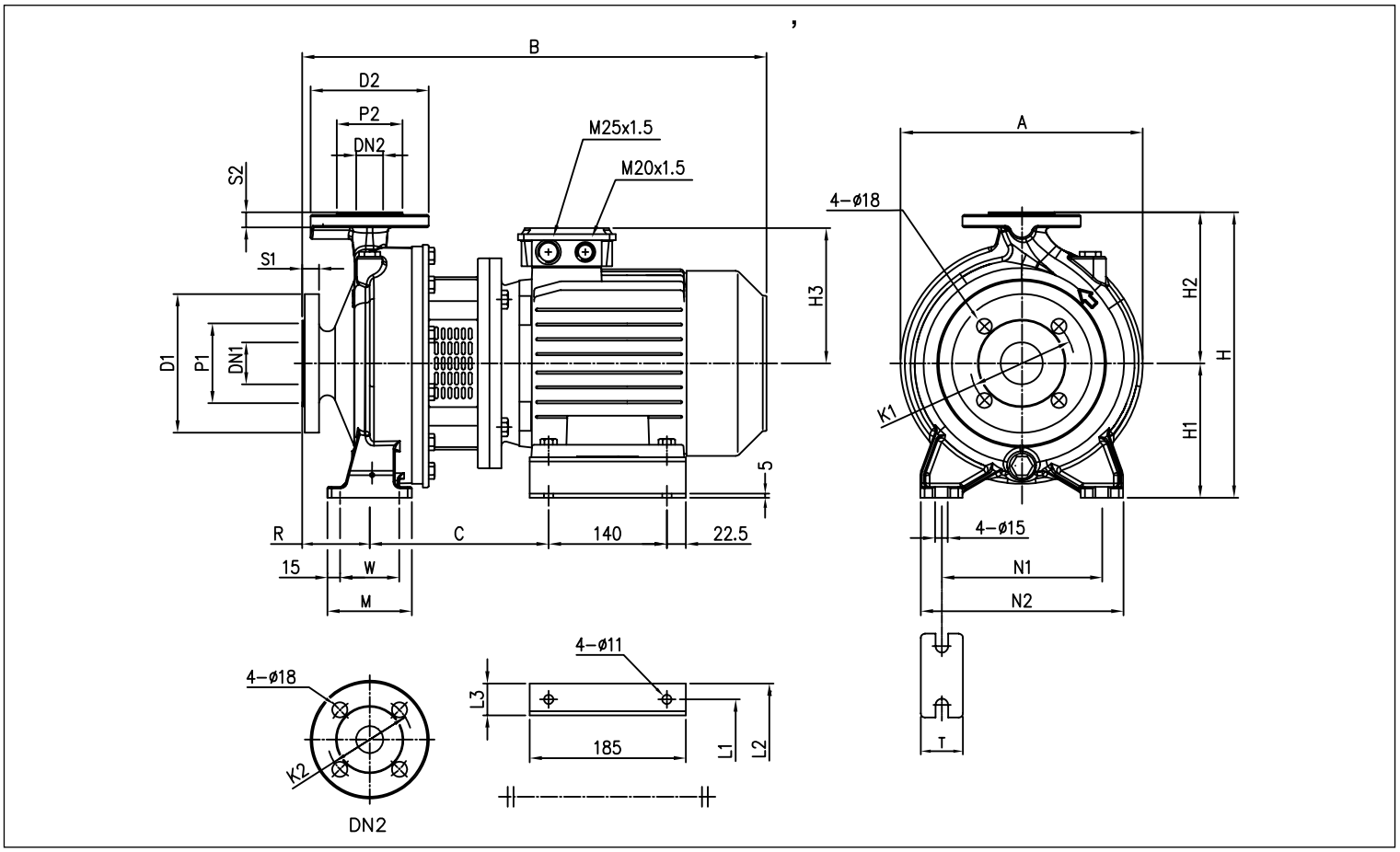
Model	Dimensions [mm]																												Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	W	M	N1	N2	T	A	B	C	X	Y	K	V2	V2		*
3DS4 32-125/0.25	50	102	125	165	20	32	78	100	140	18	252	112	140	114	80	70	100	140	190	50	213	404	153	112	140	8	M20x1.5	M16x1.5	24.3	-
3DS4 32-160/0.37R	50	102	125	165	20	32	78	100	140	18	292	132	160	114	80	70	100	190	240	50	254	404	153	112	140	8	M20x1.5	M16x1.5	29.9	-
3DS4 32-160/0.37	50	102	125	165	20	32	78	100	140	18	292	132	160	114	80	70	100	190	240	50	254	404	153	112	140	8	M20x1.5	M16x1.5	30.1	-
3DS4 32-200/0.55R	50	102	125	165	20	32	78	100	140	18	340	160	180	139	80	70	100	190	240	50	296	430	174	140	168	10	M25x1.5	M20x1.5	39.4	-
3DS4 32-200/0.55	50	102	125	165	20	32	78	100	140	18	340	160	180	139	80	70	100	190	240	50	296	430	174	140	168	10	M25x1.5	M20x1.5	44.4	-
3DS4 32-200/0.75	50	102	125	165	20	32	78	100	140	18	340	160	180	139	80	70	100	190	240	50	296	430	174	140	168	10	M25x1.5	M20x1.5	40.9	40.9
3DS4 40-125/0.37R	65	122	145	185	20	40	88	110	150	18	252	112	140	114	80	70	100	160	210	50	220	404	153	112	140	8	M20x1.5	M16x1.5	25.3	-
3DS4 40-125/0.37	65	122	145	185	20	40	88	110	150	18	252	112	140	114	80	70	100	160	210	50	220	404	153	112	140	8	M20x1.5	M16x1.5	25.3	-
3DS4 40-160/0.55R	65	122	145	185	20	40	88	110	150	18	292	132	160	139	80	70	100	190	240	50	254	430	174	140	168	10	M25x1.5	M20x1.5	35.6	-
3DS4 40-160/0.55	65	122	145	185	20	40	88	110	150	18	292	132	160	139	80	70	100	190	240	50	254	430	174	140	168	10	M25x1.5	M20x1.5	35.6	-
3DS4 40-200/1.1R	65	122	145	185	20	40	88	110	150	18	340	160	180	148	100	70	100	212	265	50	296	497	186	140	168	10	M25x1.5	M20x1.5	47.0	49.2
3DS4 40-200/1.1	65	122	145	185	20	40	88	110	150	18	340	160	180	148	100	70	100	212	265	50	296	497	186	140	168	10	M25x1.5	M20x1.5	47.0	49.2
3DS4 40-200/1.5	65	122	145	185	20	40	88	110	150	18	340	160	180	148	100	70	100	212	265	50	296	497	186	140	168	10	M25x1.5	M20x1.5	48.2	50.8
3DS4 50-125/0.55R	65	122	145	185	20	50	102	125	165	20	292	132	160	139	100	70	100	190	240	50	254	450	174	140	168	10	M25x1.5	M20x1.5	36.0	-
3DS4 50-125/0.55	65	122	145	185	20	50	102	125	165	20	292	132	160	139	100	70	100	190	240	50	254	450	174	140	168	10	M25x1.5	M20x1.5	36.0	-
3DS4 50-160/1.1R	65	122	145	185	20	50	102	125	165	20	340	160	180	148	100	70	100	212	265	50	296	497	186	140	168	10	M25x1.5	M20x1.5	47.6	49.8
3DS4 50-160/1.1	65	122	145	185	20	50	102	125	165	20	340	160	180	148	100	70	100	212	265	50	296	497	186	140	168	10	M25x1.5	M20x1.5	47.6	49.8
3DS4 50-200/1.5R	65	122	145	185	20	50	102	125	165	20	360	160	200	148	100	70	100	212	265	50	296	497	186	140	168	10	M25x1.5	M20x1.5	50.0	52.6
3DS4 50-200/1.5	65	122	145	185	20	50	102	125	165	20	360	160	200	148	100	70	100	212	265	50	296	497	186	140	168	10	M25x1.5	M20x1.5	50.0	52.6
3DS4 65-125/0.55	80	138	160	200	22	65	122	145	185	20	340	160	180	139	100	95	125	212	280	65	263	450	174	140	168	10	M25x1.5	M20x1.5	36.8	-
3DS4 65-125/0.75	80	138	160	200	22	65	122	145	185	20	340	160	180	139	100	95	125	212	280	65	263	450	174	140	168	10	M25x1.5	M20x1.5	45.3	45.3
3DS4 65-125/1.1	80	138	160	200	22	65	122	145	185	20	340	160	180	148	100	95	125	212	280	65	263	497	186	140	168	10	M25x1.5	M20x1.5	45.3	47.5
3DS4 65-160/1.1	80	138	160	200	22	65	122	145	185	20	360	160	200	148	100	95	125	212	280	65	296	497	186	140	168	10	M25x1.5	M20x1.5	47.1	49.3
3DS4 65-160/1.5	80	138	160	200	22	65	122	145	185	20	360	160	200	148	100	95	125	212	280	65	296	497	186	140	168	10	M25x1.5	M20x1.5	59.1	61.7

* Models with IE3 motor only

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3DS4 50, 60 SERIES **4 Poles**



DIMENSIONAL TABLE

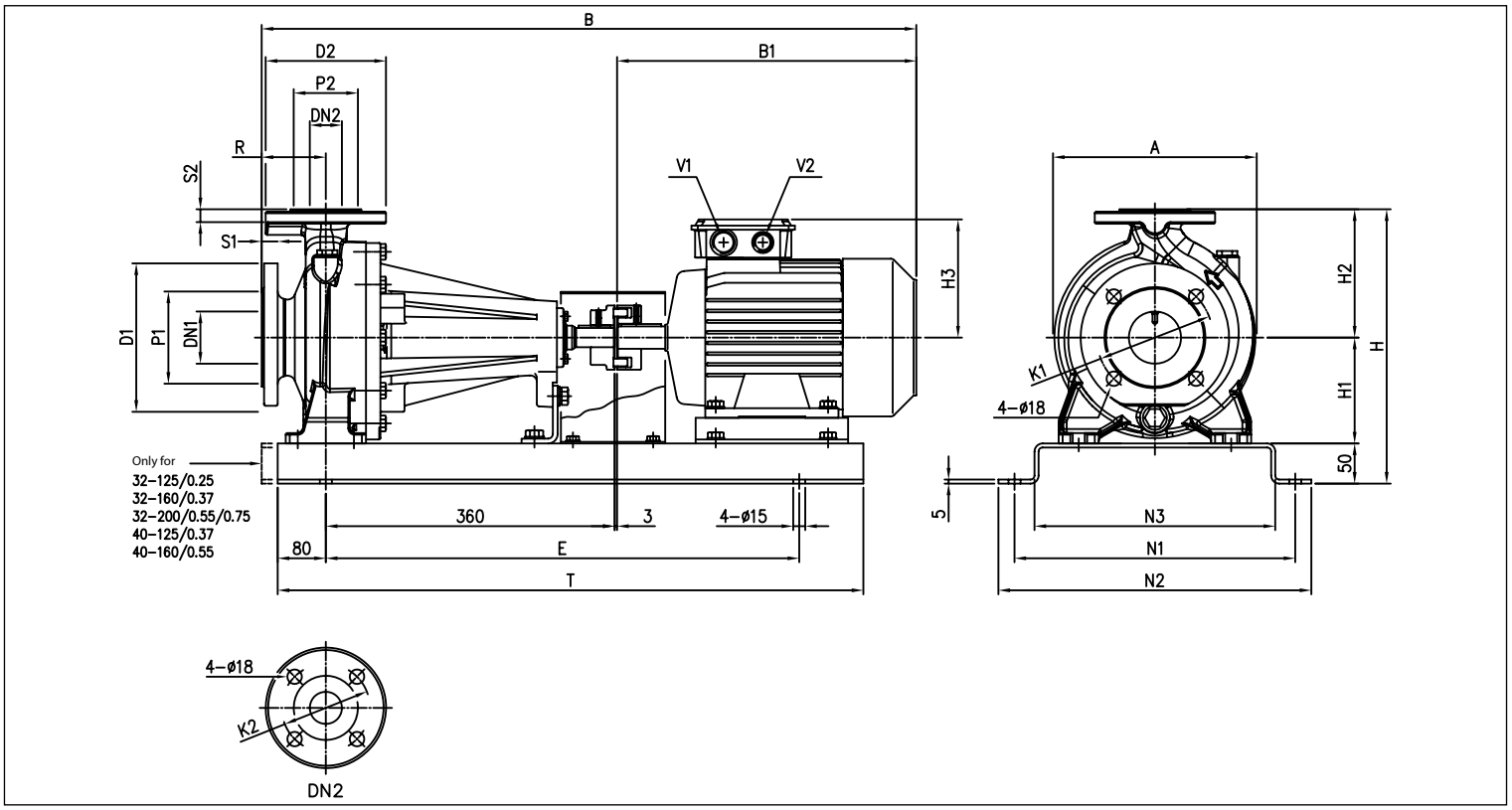
Model	Dimensions [mm]																				Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	R	W	M	A	N1	N2	T		*
3DS4 50-200/2.20	65	122	145	185	20	50	102	125	165	20	360	160	200	100	70	100	296	212	265	50	55.9	56.3
3DS4 65-160/2.20	80	138	160	200	22	65	122	145	185	20	360	160	200	100	95	125	296	212	280	65	62.1	62.5
3DS4 65-200/2.20R	80	138	160	200	22	65	122	145	185	20	405	180	225	100	95	125	312	250	320	65	59.0	59.4
3DS4 65-200/2.20	80	138	160	200	22	65	122	145	185	20	405	180	225	10 0	95	125	312	250	320	65	59.5	59.9
3DS4 65-200/3.00	80	138	160	200	22	65	122	145	185	20	405	180	225	100	95	125	312	250	320	65	65.0	65.0

* Models with IE3 motor only

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

3DP4 32, 65 SERIES

4 Poles



DIMENSIONAL TABLE

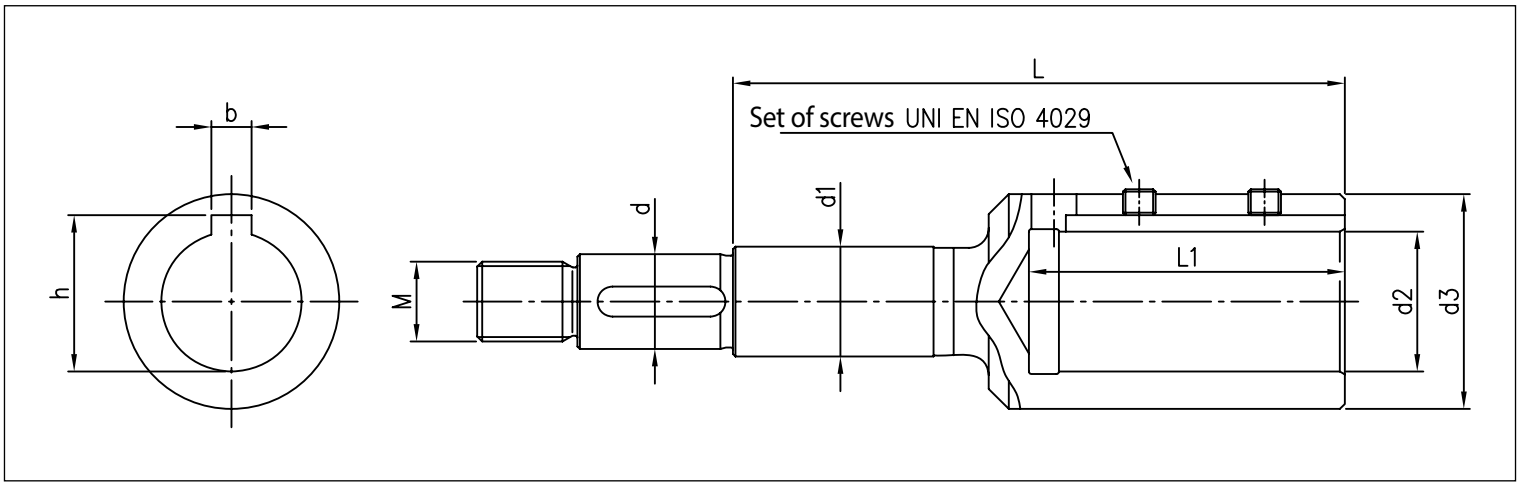
Model	Dimensions [mm]																									Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	A	B	B1	E	N1	N2	N3	T	V2	V2		*
3DP4 32-125/0.25	50	102	125	165	20	32	78	100	140	18	302	112	140	114	80	213	689	246	550	300	340	250	710	M20x1.5	M16x1.5	45.9	-
3DP4 32-160/0.37R	50	102	125	165	20	32	78	100	140	18	342	132	160	114	80	254	689	246	510	350	390	300	670	M20x1.5	M16x1.5	52.4	-
3DP4 32-160/0.37	50	102	125	165	20	32	78	100	140	18	342	132	160	114	80	254	689	246	510	350	390	300	670	M20x1.5	M16x1.5	52.4	-
3DP4 32-200/0.55R	50	102	125	165	20	32	78	100	140	18	390	160	180	139	80	296	715	272	510	350	390	300	670	M25x1.5	M20x1.5	64.9	-
3DP4 32-200/0.55	50	102	125	165	20	32	78	100	140	18	390	160	180	139	80	296	715	272	510	350	390	300	670	M25x1.5	M20x1.5	64.9	-
3DP4 32-200/0.75	50	102	125	165	20	32	78	100	140	18	390	160	180	139	80	296	715	272	510	350	390	300	670	M25x1.5	M20x1.5	65.9	65.9
3DP4 40-125/0.37R	65	122	145	185	20	40	88	110	150	18	302	112	140	114	80	220	689	246	550	300	340	250	710	M20x1.5	M16x1.5	55.6	-
3DP4 40-125/0.37	65	122	145	185	20	40	88	110	150	18	302	112	140	114	80	220	689	246	550	300	340	250	710	M20x1.5	M16x1.5	55.6	-
3DP4 40-160/0.55R	65	122	145	185	20	40	88	110	150	18	342	132	160	139	80	254	715	272	510	350	390	300	670	M25x1.5	M20x1.5	56.6	-
3DP4 40-160/0.55	65	122	145	185	20	40	88	110	150	18	342	132	160	139	80	254	715	272	510	350	390	300	670	M25x1.5	M20x1.5	56.6	-
3DP4 40-200/1.1R	65	122	145	185	20	40	88	110	150	18	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	74.2	76.4
3DP4 40-200/1.1	65	122	145	185	20	40	88	110	150	18	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	74.2	76.4
3DP4 40-200/1.5	65	122	145	185	20	40	88	110	150	18	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	76.7	79.3
3DP4 50-125/0.55R	65	122	145	185	20	50	102	125	165	20	342	132	160	139	100	254	735	272	510	350	390	300	670	M25x1.5	M20x1.5	57.3	-
3DP4 50-125/0.55	65	122	145	185	20	50	102	125	165	20	342	132	160	139	100	254	735	272	510	350	390	300	670	M25x1.5	M20x1.5	57.3	-
3DP4 50-160/1.1R	65	122	145	185	20	50	102	125	165	20	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	66.1	68.3
3DP4 50-160/1.1	65	122	145	185	20	50	102	125	165	20	390	160	180	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	66.1	68.3
3DP4 50-200/1.5R	65	122	145	185	20	50	102	125	165	20	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	76.9	79.5
3DP4 50-200/1.5	65	122	145	185	20	50	102	125	165	20	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	76.9	79.5
3DP4 50-200/1.5	65	122	145	185	20	50	102	125	165	20	410	160	200	155	100	296	829	366	590	350	390	300	750	M25x1.5	M20x1.5	82.9	83.3
3DP4 65-125/0.55	80	138	160	200	22	65	122	145	185	20	390	160	180	139	100	263	735	272	510	350	390	300	670	M25x1.5	M20x1.5	63.8	-
3DP4 65-125/0.75	80	138	160	200	22	65	122	145	185	20	390	160	180	139	100	263	735	272	510	350	390	300	670	M25x1.5	M20x1.5	63.8	63.8
3DP4 65-125/1.1	80	138	160	200	22	65	122	145	185	20	390	160	180	148	100	263	780	317	590	350	390	300	750	M25x1.5	M20x1.5	71.3	73.5
3DP4 65-160/1.1	80	138	160	200	22	65	122	145	185	20	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	78.6	80.8
3DP4 65-160/1.5	80	138	160	200	22	65	122	145	185	20	410	160	200	148	100	296	780	317	590	350	390	300	750	M25x1.5	M20x1.5	79.6	82.2
3DP4 65-160/2.2	80	138	160	200	22	65	122	145	185	20	410	160	200	155	100	296	829	366	590	350	390	300	750	M25x1.5	M20x1.5	87.6	88.0
3DP4 65-200/2.2R	80	138	160	200	22	65	122	145	185	20	455	180	225	155	100	296	829	366	590	380	420	330	750	M25x1.5	M20x1.5	90.5	90.9
3DP4 65-200/2.2	80	138	160	200	22	65	122	145	185	20	455	180	225	155	100	296	829	366	590	380	420	330	750	M25x1.5	M20x1.5	90.5	90.9
3DP4 65-200/3	80	138	160	200	22	65	122	145	185	20	455	180	225	155	100	296	829	366	590	380	420	330	750	M25x1.5	M20x1.5	94.0	94.0

* Models with IE3 motor only

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

Joint for 3DS4 SERIES **4 Poles**



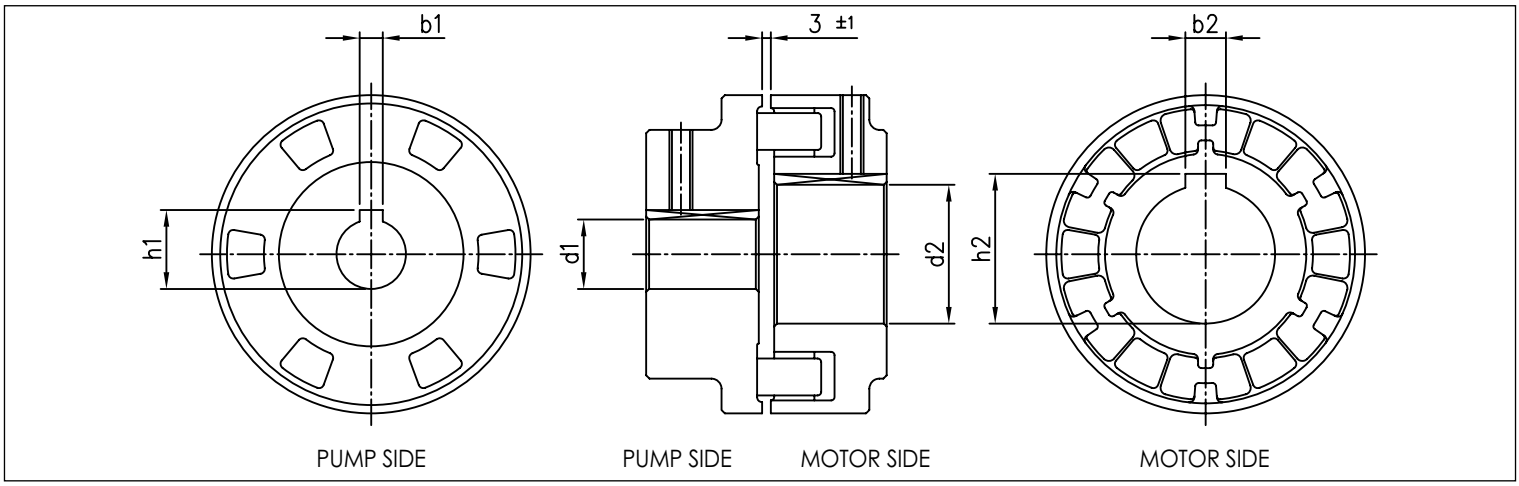
DIMENSIONAL TABLE

Model	[HP]	[kW]	Grand. Motor	Dimensions [mm]									
				d	d1	d2	d3	M	L	L1	b	h	Screws set
3DS4 32-125/0.25	0.33	0.25	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
3DS4 32-160/0.37R	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
3DS4 32-160/0.37	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
3DS4 32-200/0.55R	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 32-200/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 32-200/0.75	1	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 40-125/0.37R	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
3DS4 40-125/0.37	0.5	0.37	71	19	22	14	28	M16x1.5	88	33	5	16.3	M5x6
3DS4 40-160/0.55R	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 40-160/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 40-200/1.1R	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 40-200/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 40-200/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 50-125/0.55R	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 50-125/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 50-160/1.1R	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 50-160/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 50-200/1.5R	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 50-200/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 50-200/2.2	3	2.2	100	22	22	28	43	M18x1.5	153	63	8	31.3	M8x8
3DS4 65-125/0.55	0.75	0.55	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 65-125/0.75	1	0.75	80	19	22	19	33	M16x1.5	98	43	6	21.8	M6x6
3DS4 65-125/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 65-160/1.1	1.5	1.1	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 65-160/1.5	2	1.5	90	19	22	24	39	M16x1.5	110	53	8	27.3	M8x8
3DS4 65-160/2.2	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS4 65-200/2.2R	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS4 65-200/2.2	3	2.2	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8
3DS4 65-200/3	4	3	100	19	22	28	43	M16x1.5	122	63	8	31.3	M8x8

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

Joint for 3DP4 SERIES **4 Poles**



DIMENSIONAL TABLE

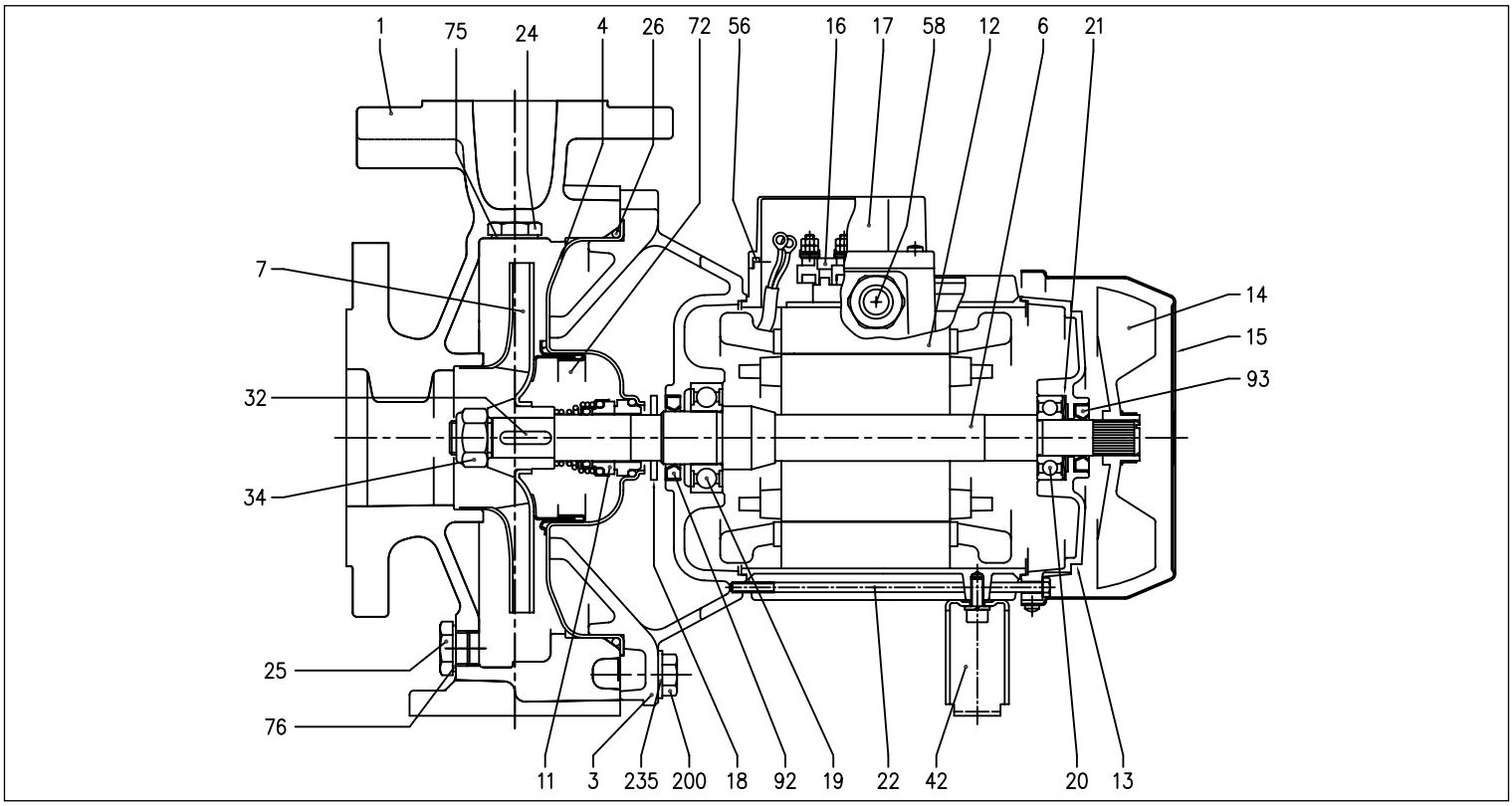
Model	[HP]	[kW]	Grand. Motor	Dimensions [mm]					
				d1	b1	h1	d2	b2	h2
3DP4 32-125/0.25	0.33	0.25	71	24	8	27.3	14	5	16.3
3DP4 32-160/0.37R	0.50	0.37	71	24	8	27.3	14	5	16.3
3DP4 32-160/0.37	0.50	0.37	71	24	8	27.3	14	5	16.3
3DP4 32-200/0.55R	0.75	0.55	80	24	8	27.3	19	6	21.8
3DP4 32-200/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
3DP4 32-200/0.75	1.00	0.75	80	24	8	27.3	19	6	21.8
3DP4 40-125/0.37R	0.50	0.37	71	24	8	27.3	14	5	16.3
3DP4 40-125/0.37	0.50	0.37	71	24	8	27.3	14	5	16.3
3DP4 40-160/0.55R	0.75	0.55	80	24	8	27.3	19	6	21.8
3DP4 40-160/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
3DP4 40-200/1.10R	1.50	1.10	90	24	8	27.3	24	8	27.3
3DP4 40-200/1.10	1.50	1.10	90	24	8	27.3	24	8	27.3
3DP4 40-200/1.50	2.00	1.50	90	24	8	27.3	24	8	27.3
3DP4 50-125/0.55R	0.75	0.55	80	24	8	27.3	19	6	21.8
3DP4 50-125/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
3DP4 50-160/1.10R	1.50	1.10	90	24	8	27.3	24	8	27.3
3DP4 50-160/1.10	1.50	1.10	90	24	8	27.3	24	8	27.3
3DP4 50-200/1.50R	2.00	1.50	90	24	8	27.3	24	8	27.3
3DP4 50-200/1.50	2.00	1.50	90	24	8	27.3	24	8	27.3
3DP4 50-200/2.20	3.00	2.20	100	24	8	27.3	28	8	31.3
3DP4 65-125/0.55	0.75	0.55	80	24	8	27.3	19	6	21.8
3DP4 65-125/0.75	1.00	0.75	80	24	8	27.3	19	6	21.8
3DP4 65-125/1.10	1.50	1.10	90	24	8	27.3	24	8	27.3
3DP4 65-160/1.10	1.50	1.10	90	24	8	27.3	24	8	27.3
3DP4 65-160/1.50	2.00	1.50	90	24	8	27.3	24	8	27.3
3DP4 65-160/2.20	3.00	2.20	100	24	8	27.3	28	8	31.3
3DP4 65-200/2.20R	3.00	2.20	100	24	8	27.3	28	8	31.3
3DP4 65-200/2.20	3.00	2.20	100	24	8	27.3	28	8	31.3
3DP4 65-200/3.00	4.00	3.00	100	24	8	27.3	28	8	31.3

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

SECTIONAL VIEW 3D4 SERIES

4 Poles



MATERIALS TABLE

Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	Cast iron EN-GJL-250-EN 1561[1]	022	Tie-rod	Galvanised Fe 42
003	Motor bracket	[1]	024	Plug	Brass
004	Casing cover	EN 1.4301 (AISI 304)	025	Plug	Brass
006	Shaft (part in contact with the liquid)	EN 1.4301 (AISI 304)	026	O-Ring	NBR [3]
007	Impeller	[2]	032	Key	EN 1.4401 (AISI 316)
011	Mechanical seal	Ceramic/Carbon/NBR	034	Impeller nut	EN 1.4301 (AISI 304)
012	Motor frame	-	042	Motor support	Aluminium / Galvanised steel
013	Motor cover	Aluminium	056	Terminal box gasket	NBR
014	Fan	PA	058	Cable gland	-
015	Fan cover	Galvanised Fe P04	072	Casing ring [4]	EN 1.4301 (AISI 304)
016	Terminal Box	-	075	Washer	Aluminium
017	Terminal Box cover	Aluminium (for three phase version only)	076	Washer	Aluminium
018	Splash washer	NBR	092	Seal ring	-
019	Bearing (pump side)	-	093	Seal ring	-
020	Bearing (motor side)	-	200	Screw	Galvanised steel 8.8 class ISO 898-1
021	Adjustment ring	Steel C70	235	Washer	Galvanised steel

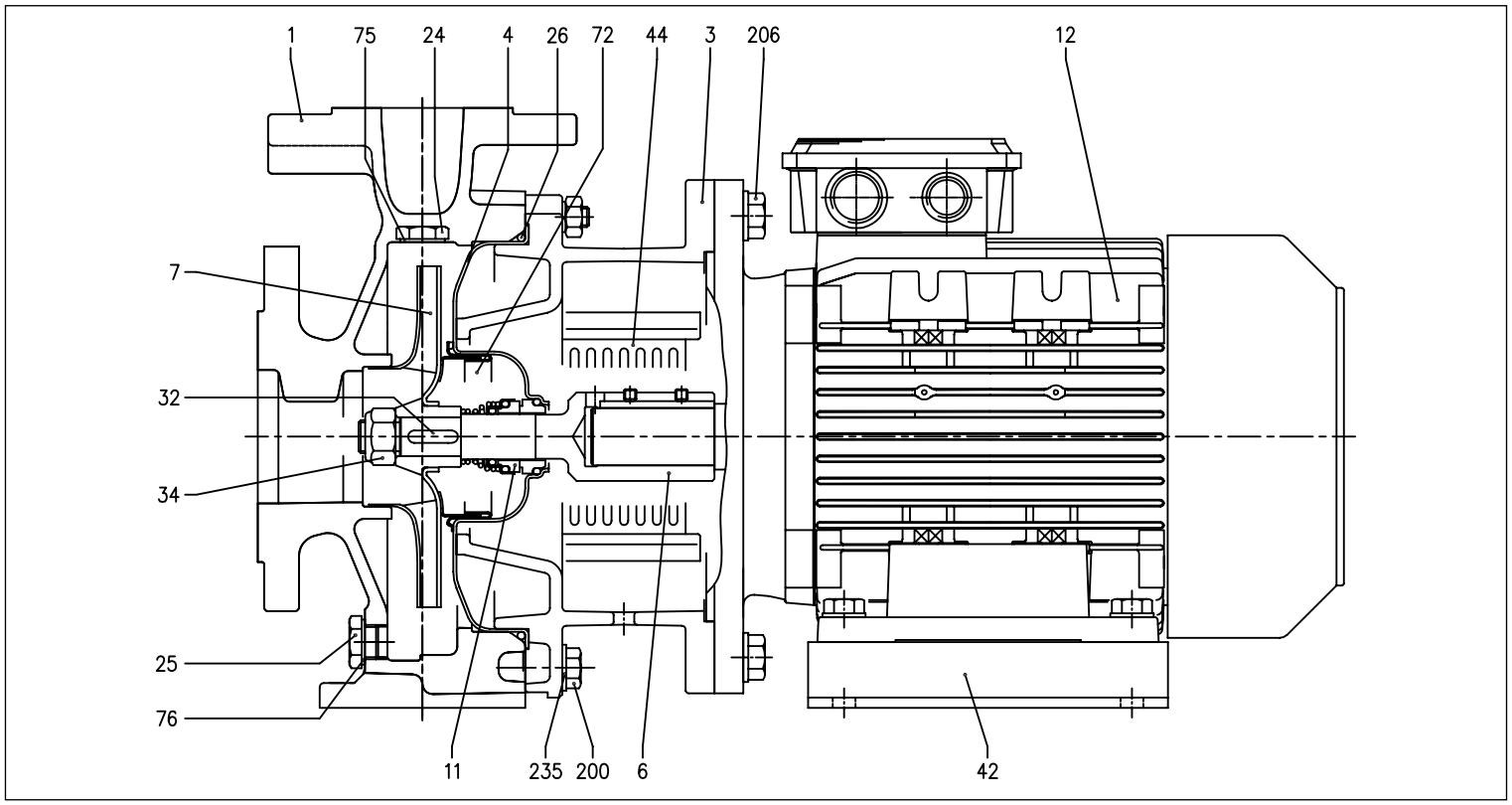
[1]= Aluminium AL-EN-1706-AC-46000-D for 3D4 SERIES models 50-200/2.2, 65-125/0.75 and 1.1, 65-160/2.2, 65-200/2.2 and 3 kW; cast iron EN-GJL-200-EN 1561 for the other models
[2]= EN 1.4301 (AISI 304) for SERIES 3D4 32, 40, 50; EN 1.4401 (AISI 316) for SERIES 3D4 65
[3]= FKM for H, HS, HW, HSW versions; EPDM for E version
[4]= Only for SERIES 3D4 32-200, 40-200, 50-160, 50-200

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

SECTIONAL VIEW 3DS4 SERIES

4 Poles



MATERIALS TABLE

Ref.	Name	Materials
001	Pump casing	Cast iron EN-GJL-250-EN 1561
003	Motor bracket	Cast iron EN-GJL-250-EN 1561
004	Casing cover	EN 1.4301 (AISI 304)
006	Joint (part in contact with the liquid)	EN 1.4301 (AISI 304)
007	Impeller	[1]
011	Mechanical seal	Ceramic/Carbon/NBR
012	Motor	-
024	Plug	Brass
025	Plug	Brass
026	O-Ring	NBR [2]
032	Key	EN 1.4401 (AISI 316)
034	Impeller nut	EN 1.4301 (AISI 304)
042	Motor support	Galvanised steel
044	Support protection	EN 1.4301 (AISI 304)
072	Casing ring [3]	EN 1.4301 (AISI 304)
075	Washer	Aluminium
076	Washer	Aluminium
200	Screw	Galvanised steel 8.8 class ISO 898-1
206	Screw (support)	Galvanised steel 8.8 class ISO 898-1
235	Washer	Galvanised steel

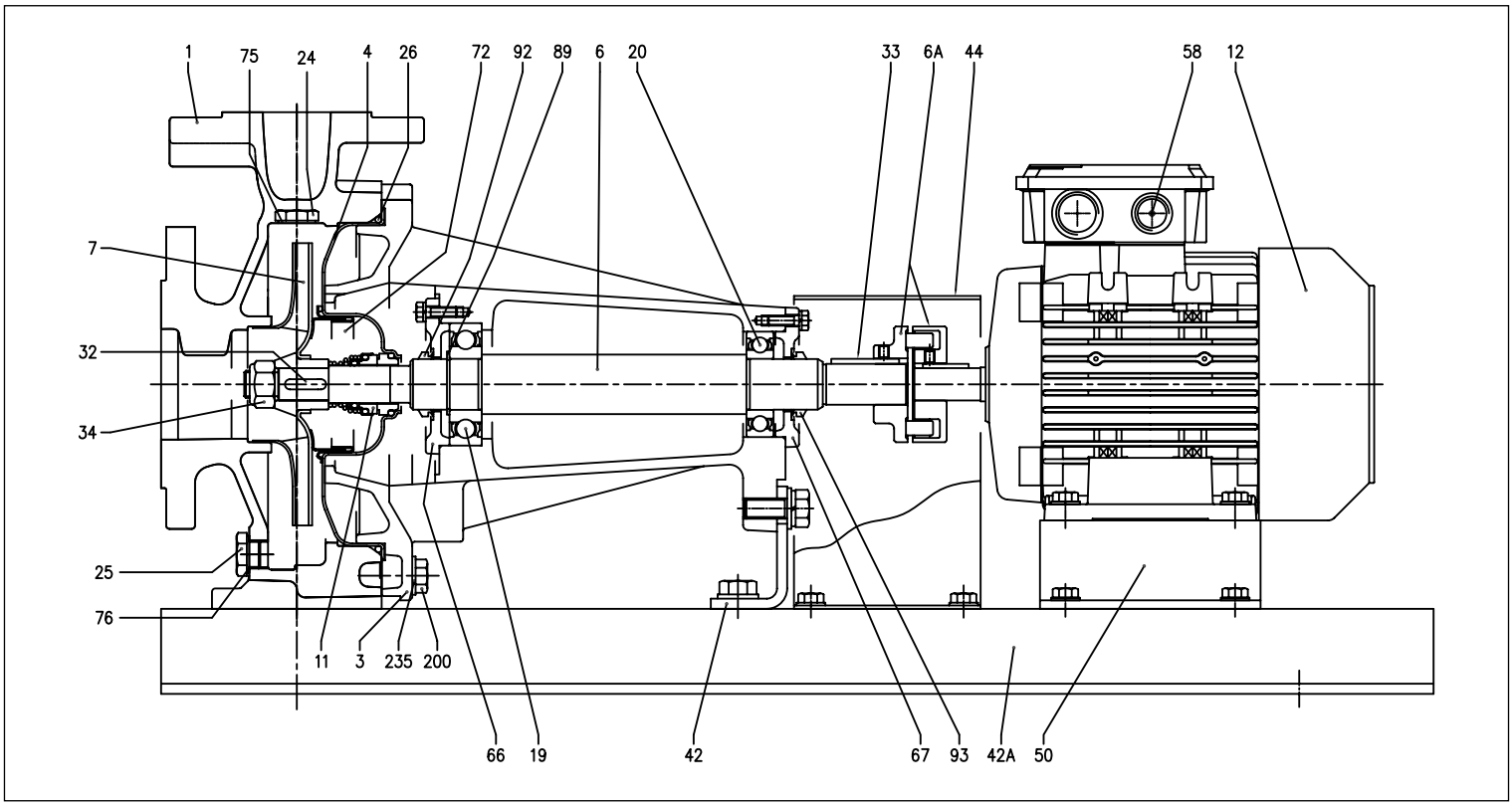
[1]= EN 1.4301 (AISI 304) for 3DS4 SERIES models 32, 40, 50; EN 1.4401 (AISI 316) for SERIES 3DS4 65
[2]= FKM for H, HS, HW, HSW versions; EPDM for E version
[3]= Only for SERIES 3DS4 32-200, 40-200, 50-160, 50-200

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

SECTIONAL VIEW 3DP4 SERIES

4 Poles



MATERIALS TABLE

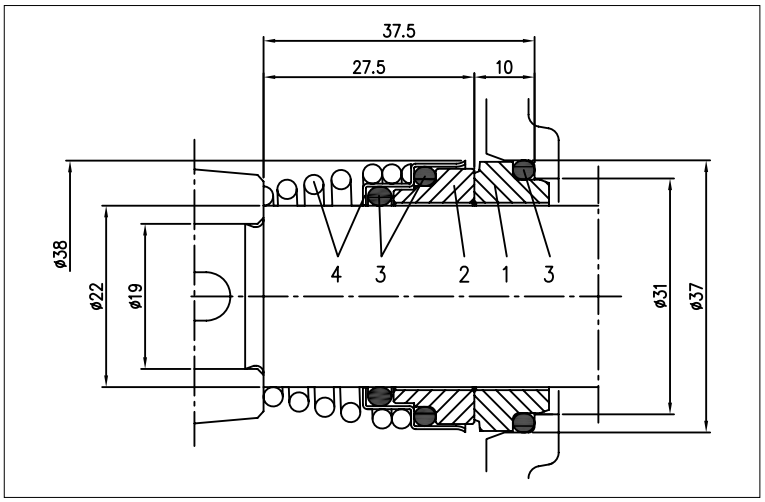
Ref.	Name	Materials	Ref.	Name	Materials
001	Pump casing	Cast iron EN-GJL-250-EN 1561	042	Pump support	Galvanised Fe 37
003	Motor Bracket	Cast iron EN-GJL-250-EN 1561	042A	Base	Galvanised Fe 37
004	Casing cover	EN 1.4301 (AISI 304)	044	Protection	Galvanised Fe 37
006	Shaft	EN 1.4301 (AISI 304)	050	Motor support	Aluminium / Galvanised steel
006A	Flexible joint	Cast iron EN-GJL-250-EN 1561	058	Cable gland	-
007	Impeller	[1]	066	Bracket cover	Cast iron EN-GJL-250-EN 1561
011	Mechanical seal	Ceramic/Carbon/NBR	067	Bracket cover	Cast iron EN-GJL-250-EN 1561
012	Motor frame	-	072	Casing ring [3]	EN 1.4301 (AISI 304)
019	Bearing	-	075	Washer	Aluminium
020	Bearing	-	076	Washer	Aluminium
024	Plug	Brass	089	Seeger ring	Carbon steel TC 80
025	Plug	Brass	092	Seal ring	-
026	O-Ring	NBR [2]	093	Seal ring	-
032	Key	EN 1.4401 (AISI 316)	200	Screw	Galvanised steel 8.8 class ISO 898-1
033	Key	C40	235	Washer	Galvanised steel
034	Impeller nut	EN 1.4301 (AISI 304)			

[1]= EN 1.4301 (AISI 304) for 3DP4 SERIES models 32, 40, 50; EN 1.4401 (AISI 316) for SERIES 3DP4 65
[2]= FKM for H, HS, HW, HSW versions; EPDM for E version
[3]= Only for SERIES 3DP4 32-200, 40-200, 50-160, 50-200

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

MECHANICAL SEAL standard version



MATERIALS TABLE

Ref.	Name	Materials
1	Fixed part	Carbon
2	Rotating part	Ceramic
3	Gasket	NBR
4	Frame + spring	EN 1.4401 (AISI 316)

SPECIAL MECHANICAL SEALS (On request)

Name	Materials				
	H Version	HS Version	HW Version	HSW Version	E Version
Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
Gasket	FKM	FKM	FKM	FKM	EPDM
Frame + spring	EN 1.4401 (AISI 316)	EN 1.4571 (AISI 316Ti)	EN 1.4401 (AISI 316)	EN 1.4401 (AISI 316)	EN 1.4401 (AISI 316)

SPECIAL MECHANICAL SEALS (On request)

Name	Materials				
	U3U3EGG Version	U3CEGG Version	Q1Q1EGG Version	Q1U3EGG Version	Q1AEGG Version
Fixed part	Tungsten Carbide	Tungsten Carbide	Silicon Carbide	Silicon Carbide	Silicon Carbide
Rotating Part	Tungsten Carbide	Special carbon	Silicon Carbide	Tungsten Carbide	Metallised carbon
Elastomers	EPDM	EPDM	EPDM	EPDM	EPDM
Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3D4 SERIES

4 Poles

Model Three phase 230/400V	P_2 [HP]	P_2 [kW]	Efficiency	Efficiency(%) Three phase η % 50%	75%	100%	P_1 [kW]	Absorbed Current [A] Three phase 230V	400V
3D4 32-125/0.25	0.33	0.25	-	-	-	-	0.55	1.9	1.1
3D4 32-160/0.37R	0.5	0.37	-	-	-	-	0.80	2.6	1.5
3D4 32-160/0.37	0.5	0.37	-	-	-	-	0.80	2.6	1.5
3D4 32-200/0.55R	0.75	0.55	-	-	-	-	0.80	2.6	1.5
3D4 32-200/0.55	0.75	0.55	-	-	-	-	0.80	2.6	1.5
3D4 32-200/0.75	1	0.75	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 40-125/0.37R	0.5	0.37	-	-	-	-	0.55	1.9	1.1
3D4 40-125/0.37	0.5	0.37	-	-	-	-	0.55	1.9	1.1
3D4 40-160/0.55R	0.75	0.55	-	-	-	-	0.80	2.6	1.5
3D4 40-160/0.55	0.75	0.55	-	-	-	-	0.80	2.6	1.5
3D4 40-200/1.1R	1.5	1.1	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 40-200/1.1	1.5	1.1	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 40-200/1.5	2	1.5	IE2	80.3	83.4	83.8	1.88	6.2	3.6
3D4 50-125/0.55R	0.75	0.55	-	-	-	-	0.80	2.6	1.5
3D4 50-125/0.55	0.75	0.55	-	-	-	-	0.80	2.6	1.5
3D4 50-160/1.1R	1.5	1.1	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 50-160/1.1	1.5	1.1	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 50-200/1.5R	2	1.5	IE2	80.3	83.4	83.8	1.88	6.2	3.6
3D4 50-200/1.5	2	1.5	IE2	80.3	83.4	83.8	1.88	6.2	3.6
3D4 50-200/2.2	3	2.2	IE2	84.6	86.0	85.6	2.70	8.1	4.7
3D4 65-125/0.55	0.75	0.55	-	-	-	-	0.80	2.6	1.5
3D4 65-125/0.75	1	0.75	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 65-125/1.1	1.5	1.1	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 65-160/1.1	1.5	1.1	IE2	78.4	81.6	81.9	1.41	4.6	2.7
3D4 65-160/1.5	2	1.5	IE2	80.3	83.4	83.8	1.88	6.2	3.6
3D4 65-160/2.2	3	2.2	IE2	84.6	86.0	85.6	2.70	8.1	4.7
3D4 65-200/2.2R	3	2.2	IE2	84.6	86.0	85.6	2.70	8.1	4.7
3D4 65-200/2.2	3	2.2	IE2	84.6	86.0	85.6	2.70	8.1	4.7
3D4 65-200/3	4	3	IE2	81.6	86.1	89.0	3.54	11.8	6.8

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

ELECTRIC DATA TABLE 3DS - 3DP SERIES

4 Poles

Model 3DS4 Three phase 230/400V	Model 3DP4 Three phase 230/400V	Size Motors	P_2 [HP]	P_2 [kW]	Efficiency	Efficiency(%) Three phase η % 50%	75%	100%	P_1 [kW]	Absorbed Current [A] Three phase 230V	400V
3DS4 32-125/0.25	3DP4 32-125/0.25	71	0.33	0.25	-	55.0	59.0	64.0	0.41	1.6	0.9
3DS4 32-160/0.37R	3DP4 32-160/0.37R		0.5	0.37	-	60.0	63.0	67.0	0.56	2.1	1.2
3DS4 32-160/0.37	3DP4 32-160/0.37		0.5	0.37	-	60.0	63.0	67.0	0.56	2.1	1.2
3DS4 32-200/0.55R	3DP4 32-200/0.55R	80	0.75	0.55	-	67.0	69.0	70.0	0.80	2.8	1.6
3DS4 32-200/0.55	3DP4 32-200/0.55		0.75	0.55	-	67.0	69.0	70.0	0.80	2.8	1.6
3DS4 32-200/0.75	3DP4 32-200/0.75		1	0.75	IE2	79.2	80.3	80.2	0.95	3.1	1.8
3DS4 32-200/0.75	3DP4 32-200/0.75				IE3	80.7	81.5	82.5	0.92	3.1	1.8
3DS4 40-125/0.37R	3DP4 40-125/0.37R	71	0.5	0.37	-	60.0	63.0	67.0	0.56	2.1	1.2
3DS4 40-125/0.37	3DP4 40-125/0.37		0.5	0.37	-	60.0	63.0	67.0	0.56	2.1	1.2
3DS4 40-160/0.55R	3DP4 40-160/0.55R	80	0.75	0.55	-	67.0	69.0	70.0	0.80	2.8	1.6
3DS4 40-160/0.55	3DP4 40-160/0.55		0.75	0.55	-	67.0	69.0	70.0	0.80	2.8	1.6
3DS4 40-200/1.1R	3DP4 40-200/1.1R	90L	1.5	1.1	IE2	81.4	82.7	82.5	1.33	4.3	2.5
3DS4 40-200/1.1R	3DP4 40-200/1.1R				IE3	83.3	84.3	84.1	1.30	4.3	2.5
3DS4 40-200/1.1	3DP4 40-200/1.1		1.5	1.1	IE2	81.4	82.7	82.5	1.33	4.3	2.5
3DS4 40-200/1.1	3DP4 40-200/1.1				IE3	83.3	84.3	84.1	1.30	4.3	2.5
3DS4 40-200/1.5	3DP4 40-200/1.5		2	1.5	IE2	82.0	83.5	83.0	1.81	5.9	3.4
3DS4 40-200/1.5	3DP4 40-200/1.5				IE3	84.1	85.2	85.3	1.80	6.2	3.6
3DS4 50-125/0.55R	3DP4 50-125/0.55R	80	0.75	0.55	-	67.0	69.0	70.0	0.80	2.8	1.6
3DS4 50-125/0.55	3DP4 50-125/0.55		0.75	0.55	-	67.0	69.0	70.0	0.80	2.8	1.6
3DS4 50-160/1.1R	3DP4 50-160/1.1R	90L	1.5	1.1	IE2	81.4	82.7	82.5	1.33	4.3	2.5
3DS4 50-160/1.1R	3DP4 50-160/1.1R				IE3	83.3	84.3	84.1	1.30	4.3	2.5
3DS4 50-160/1.1	3DP4 50-160/1.1		1.5	1.1	IE2	81.4	82.7	82.5	1.33	4.3	2.5
3DS4 50-160/1.1	3DP4 50-160/1.1				IE3	83.3	84.3	84.1	1.30	4.3	2.5
3DS4 50-200/1.5R	3DP4 50-200/1.5R		2	1.5	IE2	82.0	83.5	83.0	1.81	5.9	3.4
3DS4 50-200/1.5R	3DP4 50-200/1.5R				IE3	84.1	85.2	85.3	1.80	6.2	3.6
3DS4 50-200/1.5	3DP4 50-200/1.5		2	1.5	IE2	82.0	83.5	83.0	1.81	5.9	3.4
3DS4 50-200/1.5	3DP4 50-200/1.5				IE3	84.1	85.2	85.3	1.80	6.2	3.6
3DS4 50-200/2.2	3DP4 50-200/2.2	100 L	3	2.2	IE2	84.0	85.3	85.1	2.61	8.8	5.1
3DS4 50-200/2.2	3DP4 50-200/2.2				IE3	83.2	86.2	86.7	2.58	10.2	5.9
3DS4 65-125/0.55	3DP4 65-125/0.55	80	0.75	0.55	-	67.0	69.0	70.0	0.80	2.8	1.6
3DS4 65-125/0.75	3DP4 65-125/0.75		1	0.75	IE2	79.2	80.3	80.2	0.95	3.1	1.8
3DS4 65-125/0.75	3DP4 65-125/0.75				IE3	80.7	81.5	82.5	0.92	3.1	1.8
3DS4 65-125/1.1	3DP4 65-125/1.1	90L	1.5	1.1	IE2	81.4	82.7	82.5	1.33	4.3	2.5
3DS4 65-125/1.1	3DP4 65-125/1.1				IE3	83.3	84.3	84.1	1.30	4.3	2.5
3DS4 65-160/1.1	3DP4 65-160/1.1		1.5	1.1	IE2	81.4	82.7	82.5	1.33	4.3	2.5
3DS4 65-160/1.1	3DP4 65-160/1.1				IE3	83.3	84.3	84.1	1.30	4.3	2.5
3DS4 65-160/1.5	3DP4 65-160/1.5		2	1.5	IE2	82.0	83.5	83.0	1.81	5.9	3.4
3DS4 65-160/1.5	3DP4 65-160/1.5				IE3	84.1	85.2	85.3	1.80	6.2	3.6
3DS4 65-160/2.2	3DP4 65-160/2.2	100 L	3	2.2	IE2	84.0	85.3	85.1	2.61	8.8	5.1
3DS4 65-160/2.2	3DP4 65-160/2.2				IE3	83.2	86.2	86.7	2.58	10.2	5.9
3DS4 65-200/2.2R	3DP4 65-200/2.2R		3	2.2	IE2	84.0	85.3	85.1	2.61	8.8	5.1
3DS4 65-200/2.2R	3DP4 65-200/2.2R				IE3	83.2	86.2	86.7	2.58	10.2	5.9
3DS4 65-200/2.2	3DP4 65-200/2.2		3	2.2	IE2	84.0	85.3	85.1	2.61	8.8	5.1
3DS4 65-200/2.2	3DP4 65-200/2.2				IE3	83.2	86.2	86.7	2.58	10.2	5.9
3DS4 65-200/3	3DP4 65-200/3		4	3	IE2	85.3	86.6	86.4	3.47	11.3	6.5
3DS4 65-200/3	3DP4 65-200/3				IE3	85.1	87.1	87.7	3.44	11.8	6.8

3D SERIES

NORMALISED AND MONOBLOCK CENTRIFUGAL ELECTROPUMPS CONFORMING TO EN 733 (EX DIN 24255)

NOISE DATA TABLE 3D4 SERIES — 4 poles

Model	P_2		L_{pA} - dB(A)*
3D4	[HP]	[kW]	
3D4 32-125/0.25	0.33	0.25	
3D4 32-160/0.37R	0.5	0.37	
3D4 32-160/0.37	0.5	0.37	
3D4 32-200/0.55R	0.75	0.55	
3D4 32-200/0.55	0.75	0.55	
3D4 32-200/0.75	1	0.75	
3D4 40-125/0.37R	0.5	0.37	
3D4 40-125/0.37	0.5	0.37	
3D4 40-160/0.55R	0.75	0.55	
3D4 40-160/0.55	0.75	0.55	
3D4 40-200/1.10R	1.5	1.1	
3D4 40-200/1.10	1.5	1.1	
3D4 40-200/1.50	2	1.5	
3D4 50-125/0.55R	0.75	0.55	
3D4 50-125/0.55	0.75	0.55	<70
3D4 50-160/1.10R	1.5	1.1	
3D4 50-160/1.10	1.5	1.1	
3D4 50-200/1.50R	2	1.5	
3D4 50-200/1.50	2	1.5	
3D4 50-200/2.20	3	2.20	
3D4 65-125/0.55	0.75	0.55	
3D4 65-125/0.75	1	0.75	
3D4 65-125/1.10	1.5	1.1	
3D4 65-160/1.10	1.5	1.1	
3D4 65-160/1.50	2	1.5	
3D4 65-160/2.20	3	2.20	
3D4 65-200/2.20R	3	2.20	
3D4 65-200/2.20	3	2.20	
3D4 65-200/3.00	4	3	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

NOISE DATA TABLE 3DS4 - 3DP4 SERIES — 4 poles

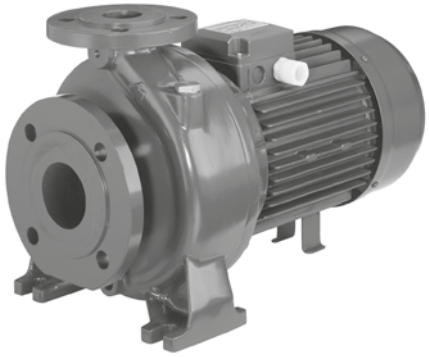
Model		P_2		L_{pA} - dB(A)*
3DS4	3DP4	[HP]	[kW]	
3DS4 32-125/0.25	3DP4 32-125/0.25	0.33	0.25	
3DS4 32-160/0.37R	3DP4 32-160/0.37R	0.5	0.37	
3DS4 32-160/0.37	3DP4 32-160/0.37	0.5	0.37	
3DS4 32-200/0.55R	3DP4 32-200/0.55R	0.75	0.55	
3DS4 32-200/0.55	3DP4 32-200/0.55	0.75	0.55	
3DS4 32-200/0.75	3DP4 32-200/0.75	1	0.75	
3DS4 40-125/0.37R	3DP4 40-125/0.37R	0.5	0.37	
3DS4 40-125/0.37	3DP4 40-125/0.37	0.5	0.37	
3DS4 40-160/0.55R	3DP4 40-160/0.55R	0.75	0.55	
3DS4 40-160/0.55	3DP4 40-160/0.55	0.75	0.55	
3DS4 40-200/1.10R	3DP4 40-200/1.10R	1.5	1.1	
3DS4 40-200/1.10	3DP4 40-200/1.10	1.5	1.1	
3DS4 40-200/1.50	3DP4 40-200/1.50	2	1.5	
3DS4 50-125/0.55R	3DP4 50-125/0.55R	0.75	0.55	
3DS4 50-125/0.55	3DP4 50-125/0.55	0.75	0.55	<70
3DS4 50-160/1.10R	3DP4 50-160/1.10R	1.5	1.1	
3DS4 50-160/1.10	3DP4 50-160/1.10	1.5	1.1	
3DS4 50-200/1.50R	3DP4 50-200/1.50R	2	1.5	
3DS4 50-200/1.50	3DP4 50-200/1.50	2	1.5	
3DS4 50-200/2.20	3DP4 50-200/2.20	3	2.20	
3DS4 65-125/0.55	3DP4 65-125/0.55	0.75	0.55	
3DS4 65-125/0.75	3DP4 65-125/0.75	1	0.75	
3DS4 65-125/1.10	3DP4 65-125/1.10	1.5	1.1	
3DS4 65-160/1.10	3DP4 65-160/1.10	1.5	1.1	
3DS4 65-160/1.50	3DP4 65-160/1.50	2	1.5	
3DS4 65-160/2.20	3DP4 65-160/2.20	3	2.20	
3DS4 65-200/2.20R	3DP4 65-200/2.20R	3	2.20	
3DS4 65-200/2.20	3DP4 65-200/2.20	3	2.20	
3DS4 65-200/3.00	3DP4 65-200/3.00	4	3	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron



Cast iron monobloc centrifugal pumps conforming to en 733.

APPLICATIONS

- Handling of clean water for civil, agricultural, industrial uses and for pressurisation units, heating plants and air conditioning plants
- Irrigation in farming companies
- Sports facilities
- Washing plants

TECHNICAL DETAILS

- Available with various special sealing systems

PUMP TECHNICAL DATA

- Temperature of the liquid:
  -5°C ÷ +90°C (MD)
  -5°C ÷ +110°C (MD version H-HS-HW-HSW)
  -5°C ÷ +120°C (MD version E)
  -10°C ÷ +90°C (MMD)
- Maximum working pressure: 10 bar
- MEI > 0.4
  For further information please see our Data Book on the web site www.ebaraeurope.com

MOTOR TECHNICAL DATA

- IE3 high energy-efficiency motors starting from 5.5kW (MD)
- IE2 high energy-efficiency motors starting from 0.75kW and IE3 starting from 7.5kW (MMD)
- Self-ventilated 2-pole and 4-pole asynchronous motors
- Insulation class F
- IP55 protection degree
- 230/400V ±10% 50Hz three phase voltage up to 4 kW included, 400/690V ±10% (from 5.5 kW and above) three phase voltage, 50 Hz
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

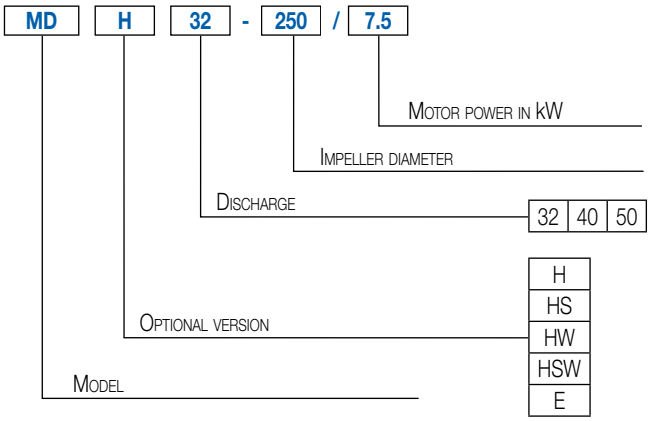
MATERIALS

- Cast iron pump body and support
- AISI 304 shaft - part in contact with the liquid (MD), in AISI 420 (MMD)
- Mechanical seal in:
  - Carbon/Ceramic/NBR (MD)
  - Silicon Carbide/Silicon Carbide/NBR (MMD)
- Impeller in:
  - AISI 304 (MD)
  - cast iron (MMD)

ACCESSORIES (On request)

- Galvanised counterflanges

MD IDENTIFICATION CODE



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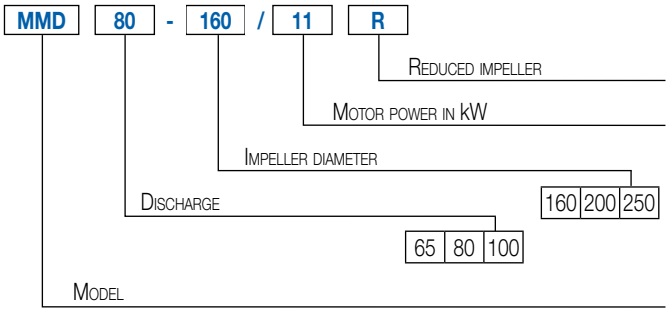


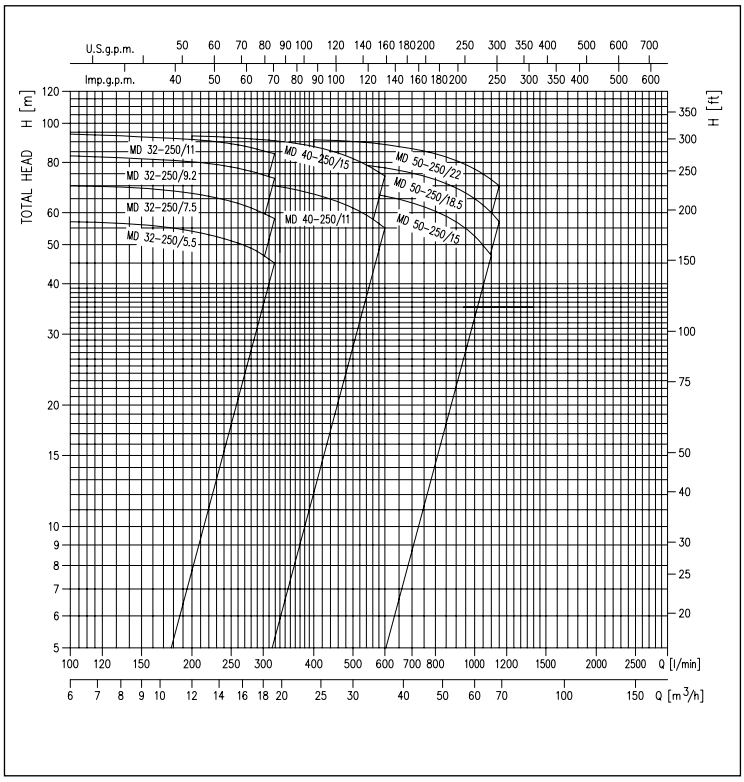
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

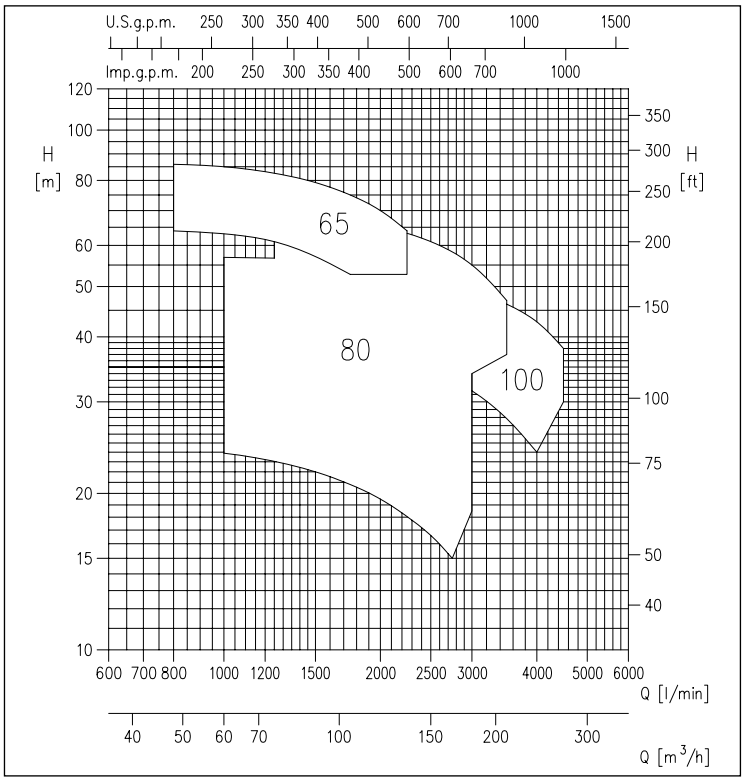
MD PERFORMANCE CHART — 2 Poles

at 2900 min^{-1} (according to ISO 9906 Attachment A)



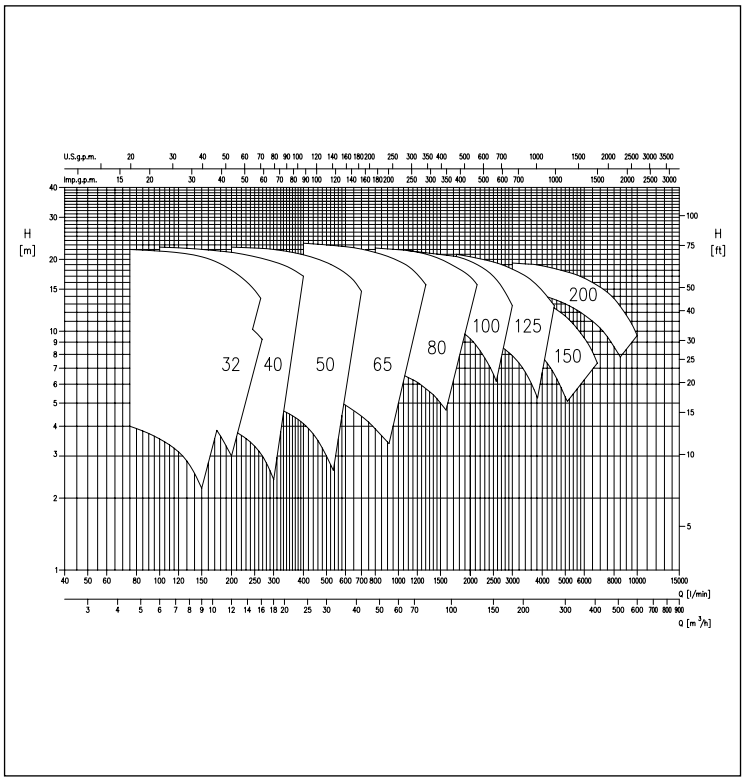
MMD PERFORMANCE CHART — 2 Poles

at 2900 min^{-1} (according to ISO 9906 Attachment A)



MMD PERFORMANCE CHART — 4 Poles

at 1400 min^{-1} (according to ISO 9906 Attachment A)



MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MD PERFORMANCE CHART

2 Poles

Model	P_2		Q = Flow Rate															
			l/min	100	200	250	280	320	400	550	600	667	700	800	1000	1100	1150	1200	1300
	[HP]	[kW]	m^3/h	6	12	15	17	19	24	33	36	40	42	48	60	66	69	72	78
			H=Head [m]																
MD 32-250/5.5	7.5	5.5		56.5	53.0	50.4	48.6	45.7	38.0	-	-	-	-	-	-	-	-	-	-
MD 32-250/7.5	10	7.5		70.0	67.1	64.5	62.7	60.0	53.0	-	-	-	-	-	-	-	-	-	-
MD 32-250/9.2	12.5	9.2		81.2	78.2	75.8	74.0	71.4	65.0	-	-	-	-	-	-	-	-	-	-
MD 32-250/11	15	11		89.0	86.0	84.0	82.0	79.0	73.0	-	-	-	-	-	-	-	-	-	-
MD 40-250/11	15	11		-	74.0	73.0	72.2	71.0	68.2	60.1	56.3	49.8	46.0	-	-	-	-	-	-
MD 40-250/15	20	15		-	92.7	92.1	91.7	90.8	88.1	81.2	78.0	72.9	70.0	-	-	-	-	-	-
MD 50-250/15	20	15		-	-	-	-	-	71.2	69.2	68.2	66.6	65.7	62.6	54.2	49.0	46.1	43.0	-
MD 50-250/18.5	25	18.5		-	-	-	-	-	81.5	79.5	78.5	77.0	76.1	73.2	66.0	61.4	58.9	56.1	50.0
MD 50-250/22	30	22		-	-	-	-	-	91.6	89.7	88.9	87.6	86.9	84.3	77.4	73.0	70.4	67.7	61.5

MMD PERFORMANCE CHART

2 Poles

Model	P_2		Q = Flow Rate													
			l/min	800	1000	1250	1500	1750	2000	2250	2500	2750	3000	3500	4000	4500
	[HP]	[kW]	m^3/h	48	60	75	90	105	120	135	150	165	180	210	240	270
			H=Head [m]													
MMD 65-250/22	30	22		64.0	63.0	61.0	57.0	53.0	-	-	-	-	-	-	-	-
MMD 65-250/30	40	30		77.0	76.0	74.0	70.0	66.0	60.0	53.0	-	-	-	-	-	-
MMD 65-250/37	55	37		86.0	85.0	83.0	79.0	75.0	70.0	64.0	-	-	-	-	-	-
MMD 80-160/11	15	11		-	24.0	23.0	22.0	21.0	19.5	18.0	16.5	15.0	-	-	-	-
MMD 80-160/15R	20	15		-	28.5	28.0	27.0	26.0	24.5	23.0	21.5	20.0	18.5	-	-	-
MMD 80-160/15	20	15		-	34.0	33.3	32.5	31.8	31.0	29.0	27.5	26.0	24.3	-	-	-
MMD 80-200/18.5	25	18.5		-	42.0	41.0	40.0	38.5	37.0	35.0	33.0	30.5	28.0	-	-	-
MMD 80-200/22	30	22		-	47.0	46.5	45.5	44.5	43.0	41.0	39.0	37.0	34.0	-	-	-
MMD 80-200/30	40	30		-	55.0	54.0	53.0	52.0	51.0	49.0	47.0	45.0	43.0	37.0	-	-
MMD 80-200/37	55	37		-	57.0	57.0	56.5	56.0	55.0	54.0	52.5	51.0	48.0	42.0	-	-
MMD 80-250/37	55	37		-	-	67.5	67.0	66.2	65.0	63.3	61.0	58.3	55.0	47.0	-	-
MMD 100-200/22	30	22		-	-	-	38.5	38.0	37.0	36.0	34.5	33.0	31.5	28.0	24.0	-
MMD 100-200/30	40	30		-	-	-	47.0	46.3	45.6	44.8	43.7	42.4	41.0	38.0	34.6	30.0
MMD 100-200/37	55	37		-	-	-	53.5	53.5	53.0	52.0	51.0	50.0	49.0	46.0	43.0	38.0

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MMD4 PERFORMANCE CHART

4 Poles

Model	P2		Q = Flow Rate																	
			l/min	75	100	125	150	175	200	225	250	275	300	350	400	450	500	550	600	650	700
	[HP]	[kW]	m³/h	5	6	8	9	11	12	14	15	17	18	21	24	27	30	33	36	39	42
			H=Head [m]																		
MMD4 32-250/1.1	1.5	1.1		18.5	18.0	17.5	17.0	15.9	14.5	12.8	11.0	-	-	-	-	-	-	-	-	-	-
MMD4 32-250/1.5	2	1.5		22.0	21.6	21.2	20.5	19.4	18.0	16.5	15.0	13.0	-	-	-	-	-	-	-	-	-
MMD4 40-250/1.5	2	1.5		-	18.3	18.0	17.7	17.4	17.0	16.7	16.2	15.6	15.0	13.7	12.0	-	-	-	-	-	-
MMD4 40-250/2.2	3	2.2		-	22.5	22.3	22.0	21.7	21.4	21.2	20.5	20.2	19.5	18.5	17.0	-	-	-	-	-	-
MMD4 50-250/2.2	3	2.2		-	-	-	-	-	18.5	18.3	18.1	17.8	17.5	17.0	16.2	15.5	14.5	13.5	12.5	11.3	10.0
MMD4 50-250/3	4	3		-	-	-	-	-	22.5	22.4	22.3	22.2	22.0	21.5	20.9	20.2	19.4	18.5	17.5	16.3	14.7

Model	P2		Q = Flow Rate																	
			l/min	500	550	600	650	700	800	900	1000	1100	1200	1300	1400	1500	1750	2000	2250
	[HP]	[kW]	m³/h	30	33	36	39	42	48	54	60	66	72	78	84	90	105	120	135
			H=Head [m]																
MMD4 65-250/4	5.5	4		19.5	19.3	19.1	18.8	18.5	17.5	16.5	15.5	14.0	12.5	10.4	-	-	-	-	-
MMD4 65-250/5.5	7.5	5.5		23.0	22.8	22.6	22.4	22.2	21.4	20.6	19.7	18.7	17.3	15.7	14.0	-	-	-	-
MMD4 80-160/1.5	2	1.5		-	-	7.7	7.6	7.5	7.3	7.0	6.7	6.4	6.1	5.7	5.4	5.0	-	-	-
MMD4 80-160/2.2	3	2.2		-	-	9.7	9.6	9.5	9.3	9.0	8.8	8.5	8.2	7.9	7.5	7.1	6.0	-	-
MMD4 80-200/3	4	3		-	-	12.0	11.9	11.7	11.5	11.3	11.0	10.5	10.0	9.5	9.0	8.5	7.0	-	-
MMD4 80-200/4	5.5	4		-	-	14.4	14.3	14.2	14.0	13.8	13.5	13.1	12.6	12.2	11.6	11.0	9.0	6.5	-
MMD4 80-250/5.5	7.5	5.5		-	-	-	-	-	19.2	18.9	18.5	18.0	17.6	17.1	16.5	16.0	14.0	12.0	-
MMD4 80-250/7.5	10	7.5		-	-	-	-	-	22.3	22.1	21.9	21.7	21.3	21.0	20.5	20.0	18.5	16.9	14.5

Model	P2		Q = Flow Rate																						
			l/min	900	1000	1200	1500	1750	2000	2250	2500	2750	3000	3500	3700	4000	4500	5000	5500	6500	7000	8500	9000	9500	10000
	[HP]	[kW]	m³/h	54	60	72	90	105	120	135	150	165	180	210	222	240	270	300	330	390	420	510	540	570	60
			H=Head [m]																						
MMD4 100-200/4	5.5	4		12.3	12.2	11.8	11.2	10.3	9.3	8.0	6.6	4.8	-	-	-	-	-	-	-	-	-	-	-	-	-
MMD4 100-200/5.5	7.5	5.5		14.5	14.4	14.0	13.4	12.8	12.0	11.0	9.8	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-
MMD4 100-250/7.5	10	7.5		-	19.5	19.1	18.5	17.5	16.5	15.2	14.0	12.0	-	-	-	-	-	-	-	-	-	-	-	-	-
MMD4 100-250/11	15	11		-	22.0	21.8	21.5	20.5	19.5	18.5	17.0	15.0	12.8	-	-	-	-	-	-	-	-	-	-	-	-
MMD4 125-200/5.5	7.5	5.5		-	-	-	10.5	10.3	9.9	9.5	9.1	8.5	7.9	6.4	5.7	-	-	-	-	-	-	-	-	-	-
MMD4 125-200/7.5R	10	7.5		-	-	-	11.8	11.6	11.3	11.0	10.6	10.2	9.6	8.3	7.7	6.7	-	-	-	-	-	-	-	-	-
MMD4 125-200/7.5	10	7.5		-	-	-	-	12.9	12.7	12.4	12.1	11.7	11.2	10.1	9.6	8.7	7.1	-	-	-	-	-	-	-	-
MMD4 125-200/11	15	11		-	-	-	-	14.3	14.1	13.8	13.6	13.2	12.8	11.8	11.3	10.6	9.2	7.6	-	-	-	-	-	-	-
MMD4 125-250/11	15	11		-	-	-	-	17.2	16.7	16.2	15.5	14.8	13.9	12.0	11.3	10.0	-	-	-	-	-	-	-	-	-
MMD4 125-250/15	20	15		-	-	-	-	21.0	20.5	20.1	19.5	18.9	18.2	16.6	16.0	14.8	12.8	-	-	-	-	-	-	-	-
MMD4 150-200/7.5	10	7.5		-	-	-	-	-	11.0	10.7	10.4	10.1	9.7	8.8	8.4	7.8	6.6	5.3	-	-	-	-	-	-	-
MMD4 150-200/11R	15	11		-	-	-	-	-	12.0	11.8	11.6	11.2	10.9	10.2	9.8	9.2	8.0	6.8	5.6	-	-	-	-	-	-
MMD4 150-200/11	15	11		-	-	-	-	-	-	-	13.7	13.5	13.2	12.5	12.2	11.7	10.8	9.8	8.7	6.1	-	-	-	-	-
MMD4 150-200/15	20	15		-	-	-	-	-	-	-	15.2	14.9	14.7	14.2	13.8	13.4	12.5	11.6	10.5	8.2	6.8	-	-	-	-
MMD4 200-250/18.5R	25	18.5		-	-	-	-	-	-	-	-	-	14.9	14.5	14.3	14.1	13.6	13.0	12.3	11.0	10.3	7.8	-	-	-
MMD4 200-250/18.5	25	18.5		-	-	-	-	-	-	-	-	-	15.9	15.5	15.3	15.2	14.7	14.2	13.6	12.3	11.6	9.1	8.2	-	-
MMD4 200-250/22R	30	22		-	-	-	-	-	-	-	-	-	-	18.0	17.8	17.6	17.1	16.6	16.0	14.7	13.9	11.2	10.1	9.0	-
MMD4 200-250/22	30	22		-	-	-	-	-	-	-	-	-	-	19.1	18.9	18.8	18.3	17.8	17.3	16.0	15.3	12.7	11.7	10.7	9.6

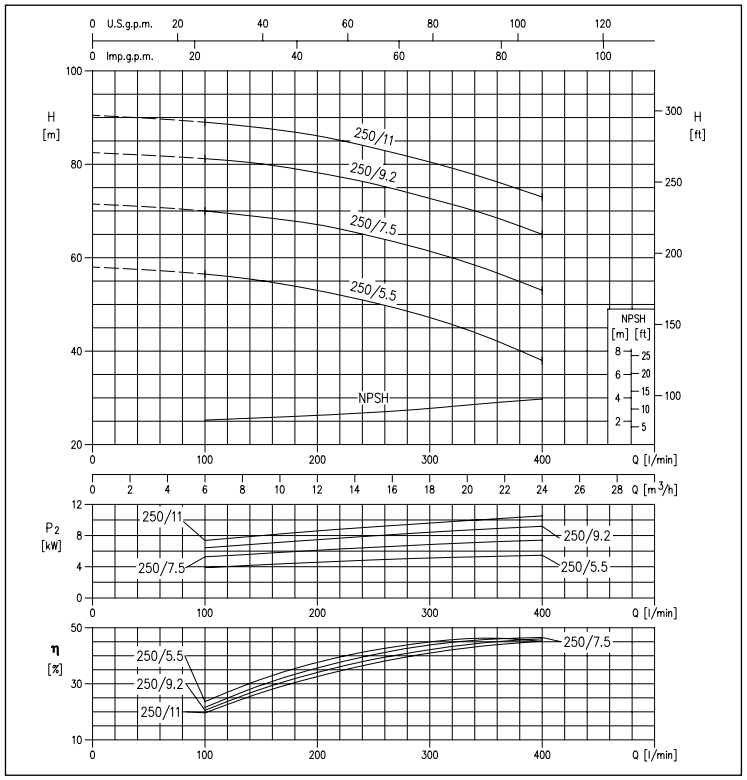
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

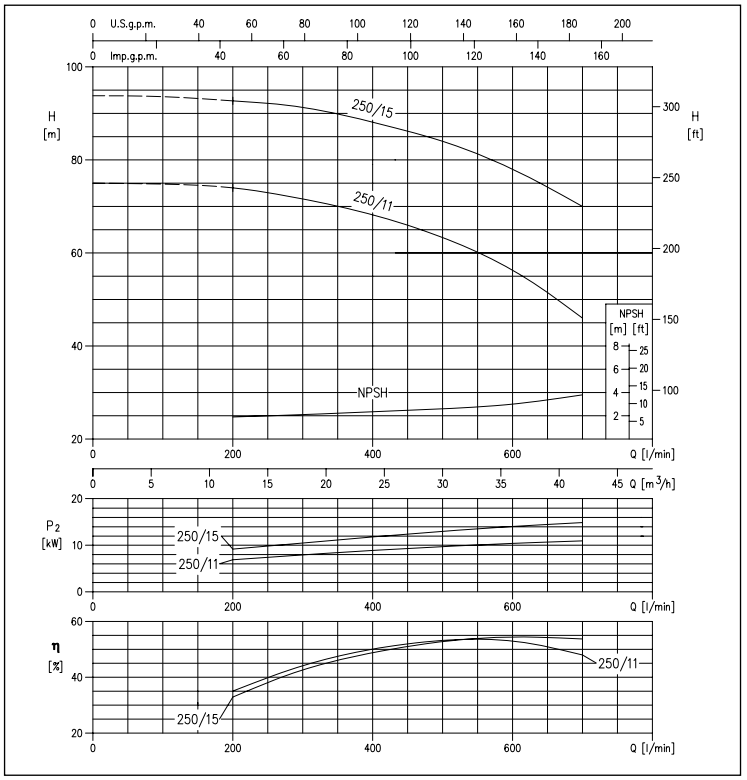
PERFORMANCE CURVES MD 32-250 series — 2 Poles

(according to ISO 9906 Attachment A)



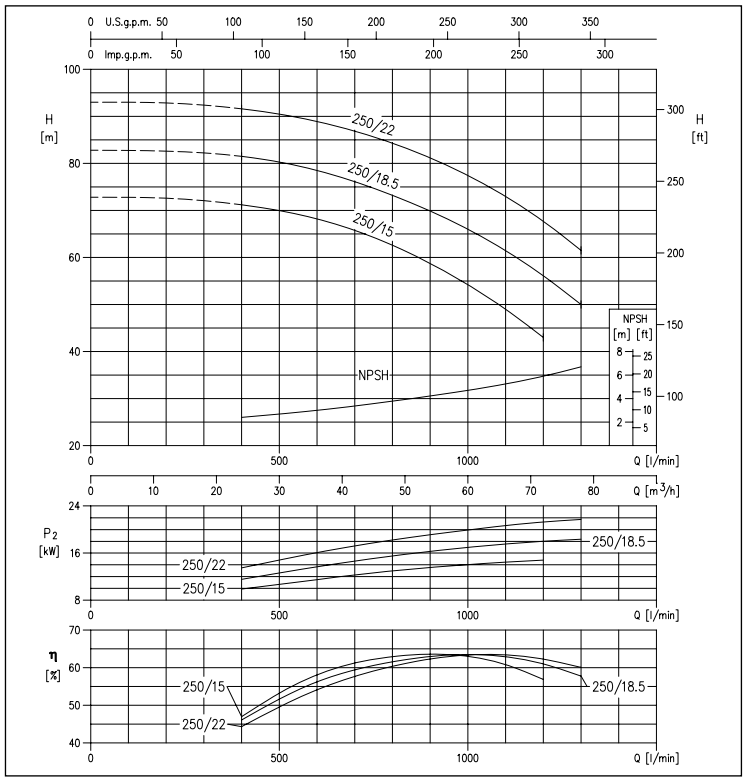
PERFORMANCE CURVES MD 40-250 series — 2 Poles

(according to ISO 9906 Attachment A)



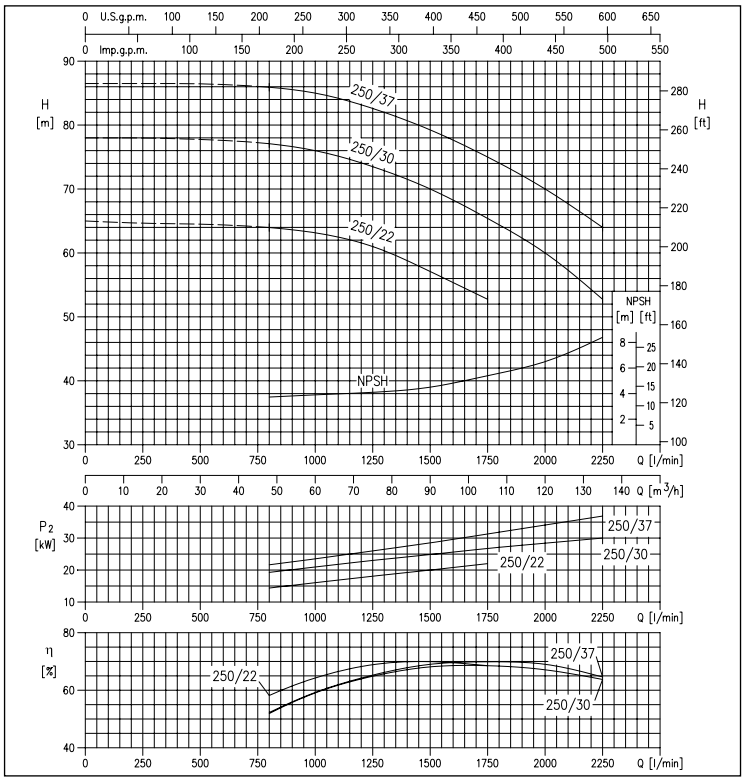
PERFORMANCE CURVES MD 50-250 series — 2 Poles

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES MD 65-250 series — 2 Poles

(according to ISO 9906 Attachment A)



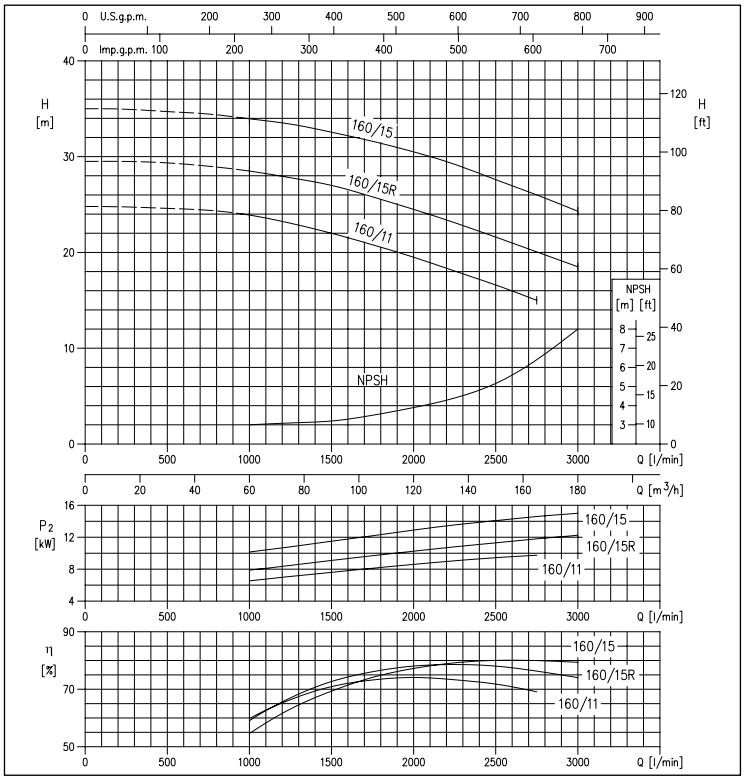
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

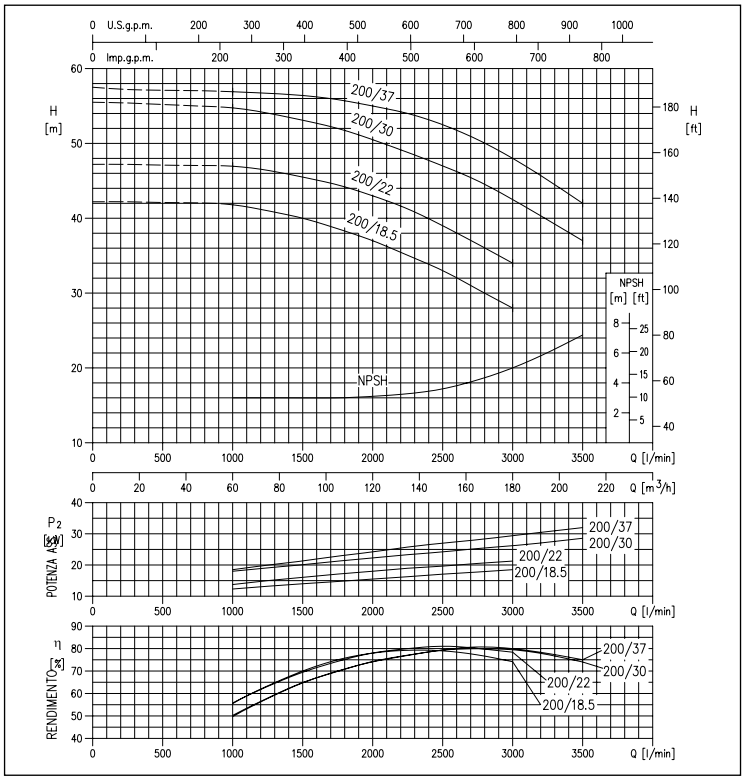
PERFORMANCE CURVES MMD 80-160 series — 2 Poles

(according to ISO 9906 Attachment A)



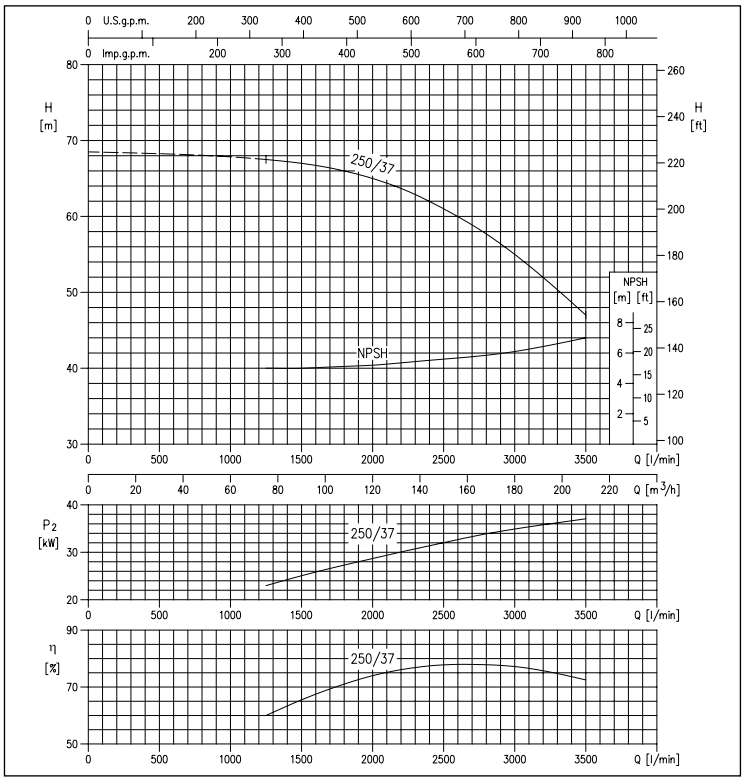
PERFORMANCE CURVES MMD 80-200 series — 2 Poles

(according to ISO 9906 Attachment A)



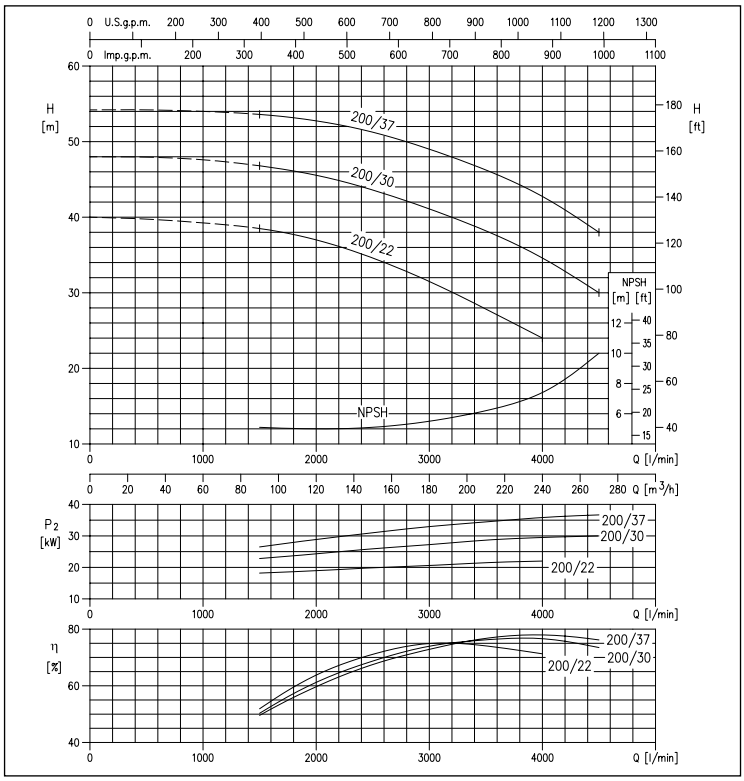
PERFORMANCE CURVES MMD 80-250 series — 2 Poles

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES MMD 100-200 series — 2 Poles

(according to ISO 9906 Attachment A)



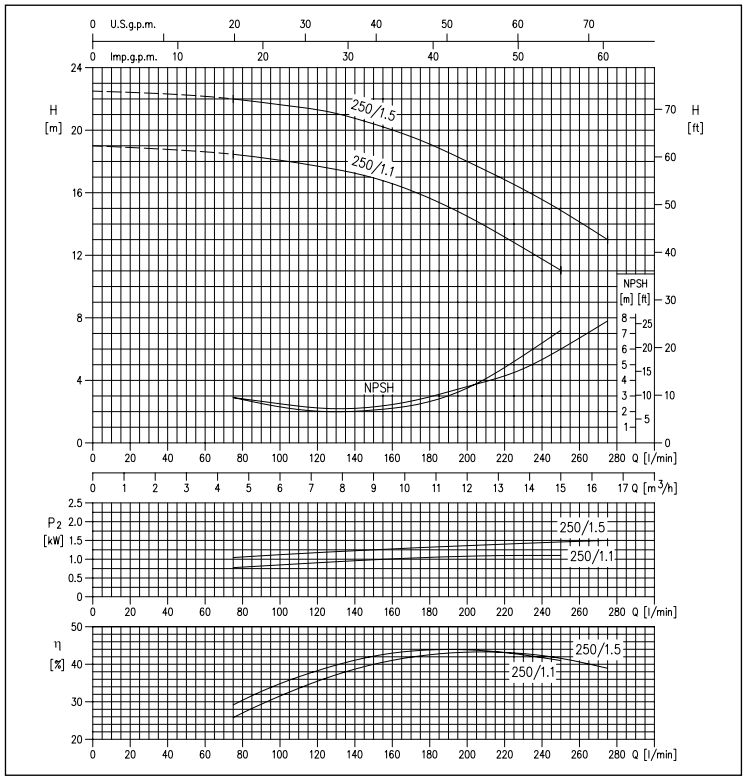
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

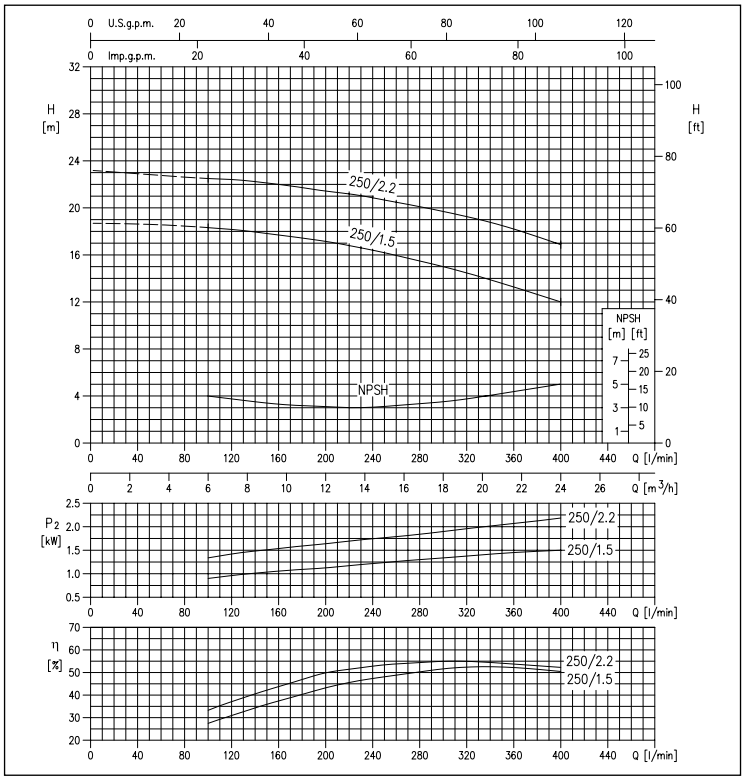
PERFORMANCE CURVES MMD4 32-250 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



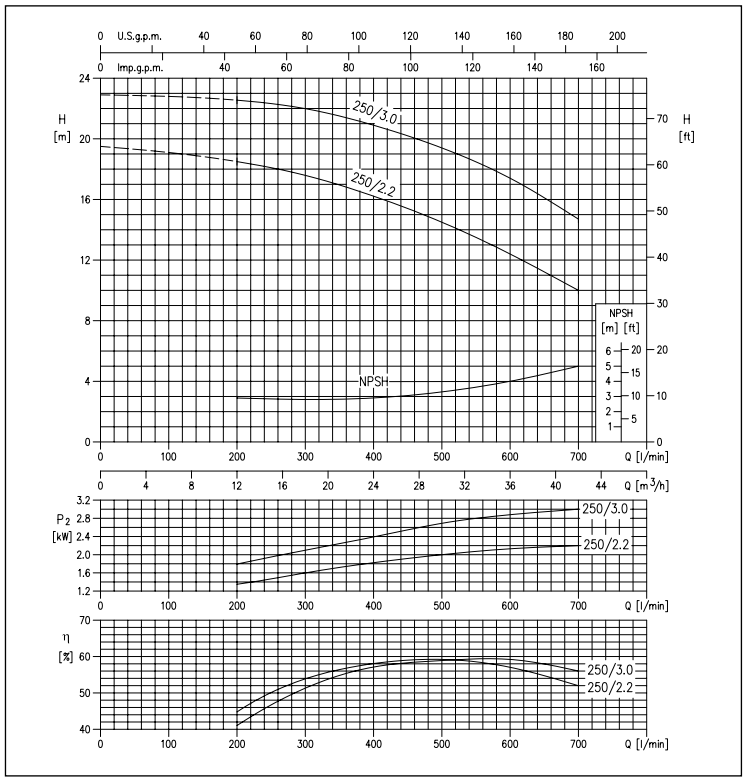
PERFORMANCE CURVES MMD4 40-250 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



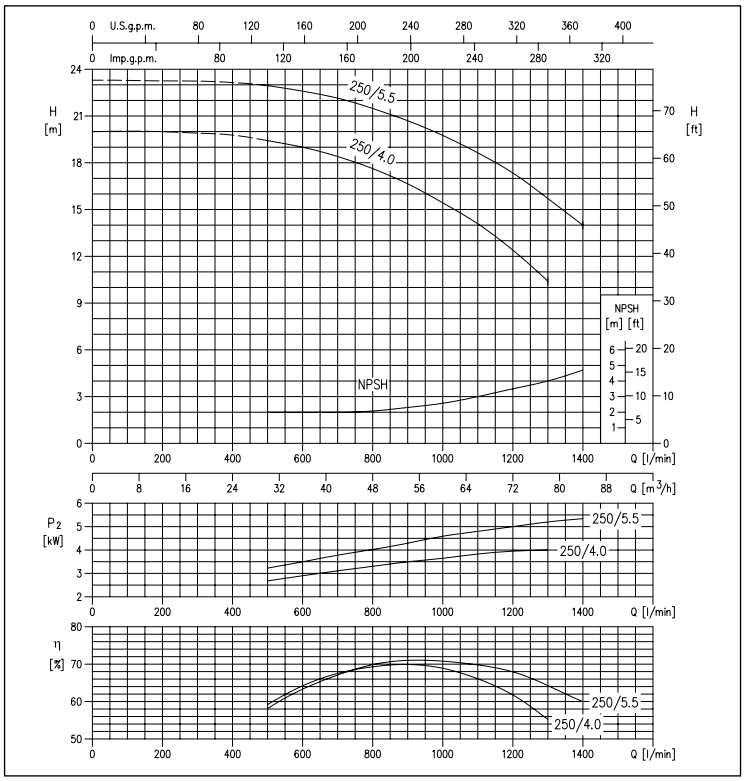
PERFORMANCE CURVES MMD4 50-250 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES MMD4 65-250 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



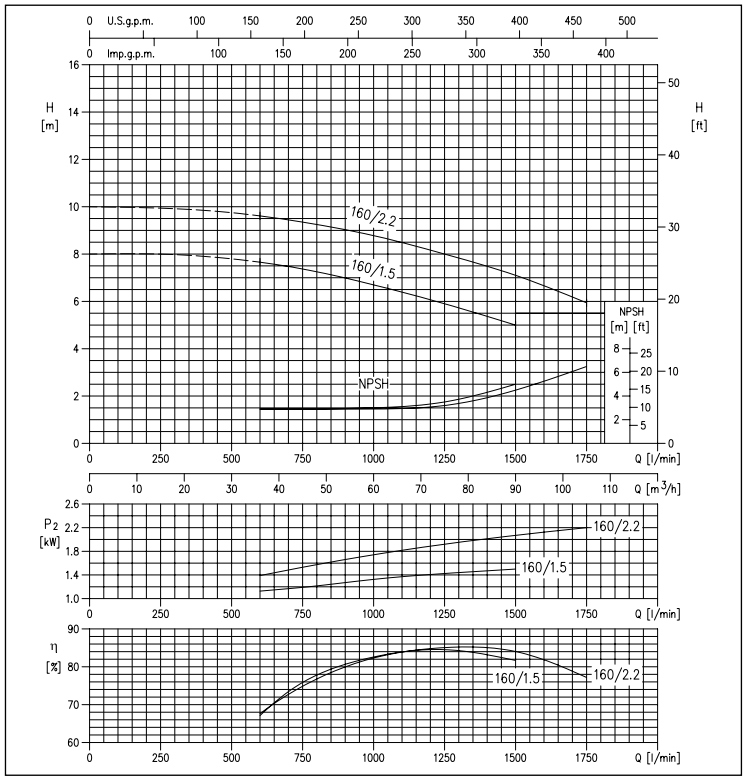
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

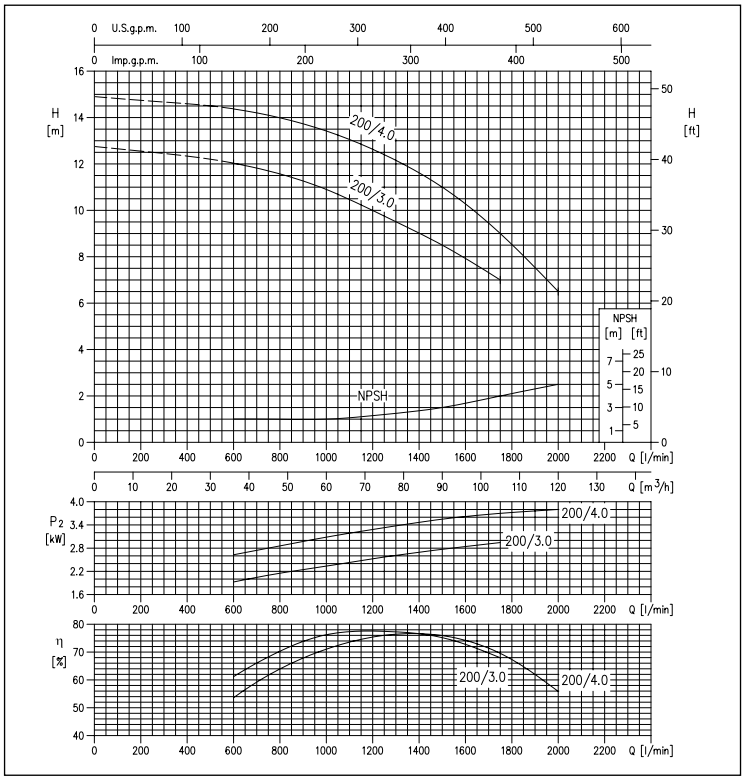
PERFORMANCE CURVES MMD4 80-160 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



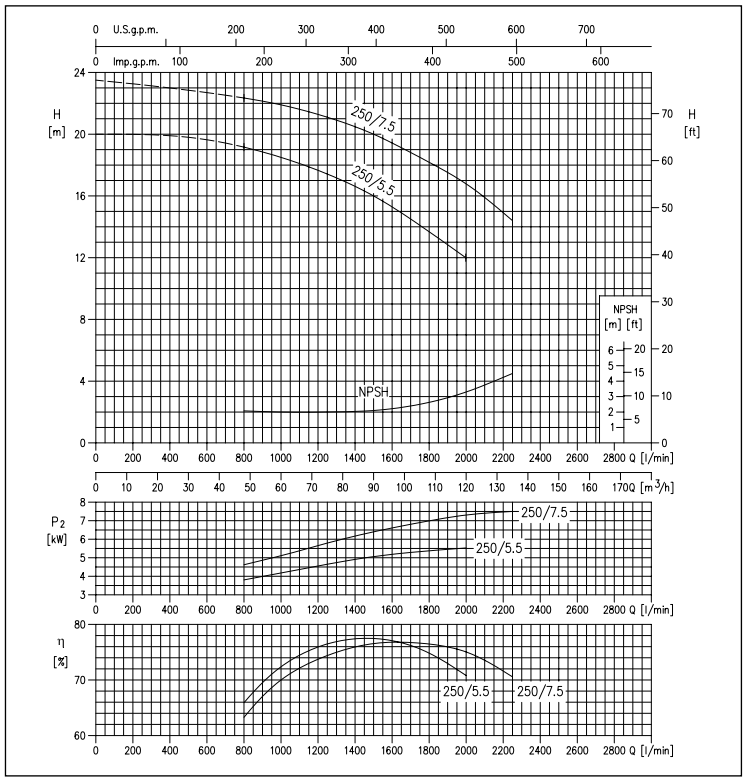
PERFORMANCE CURVES MMD4 80-200 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES MMD4 80-250 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



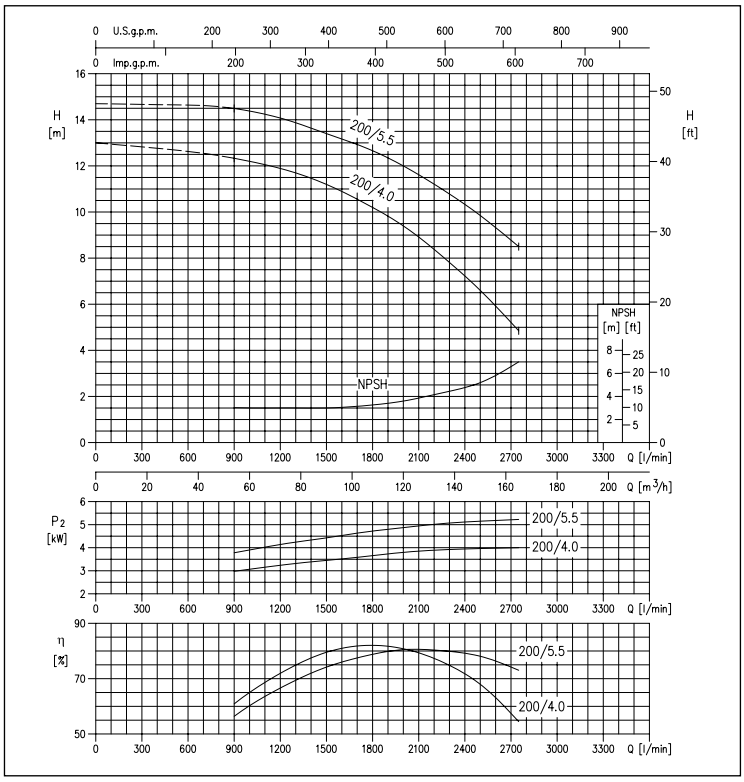
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

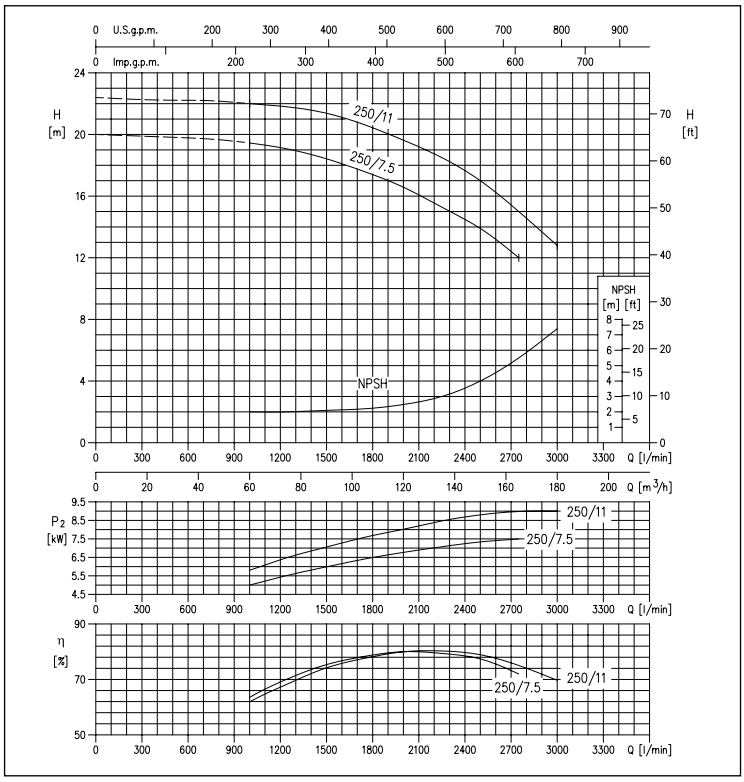
PERFORMANCE CURVES MMD4 100-200 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



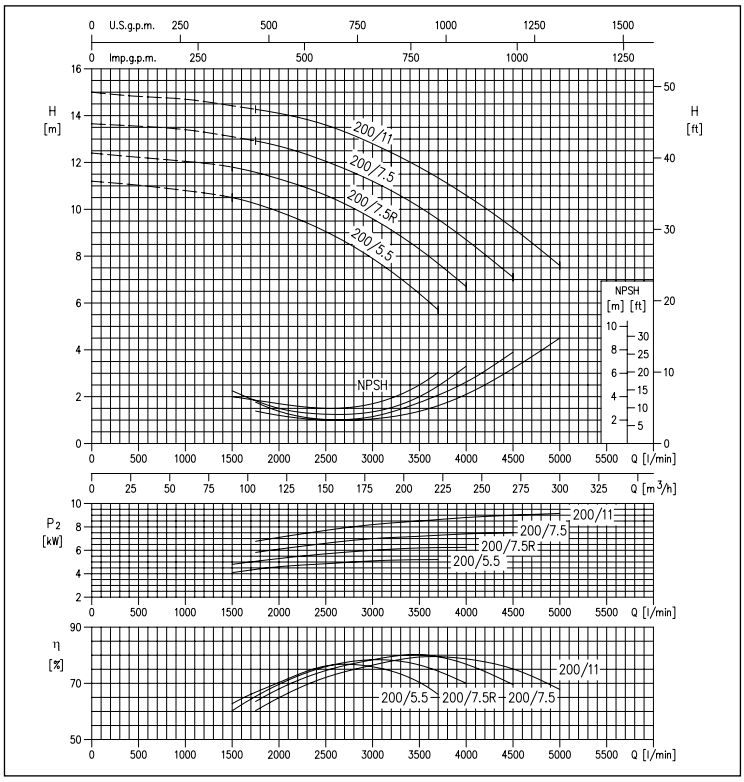
PERFORMANCE CURVES MMD4 100-250 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



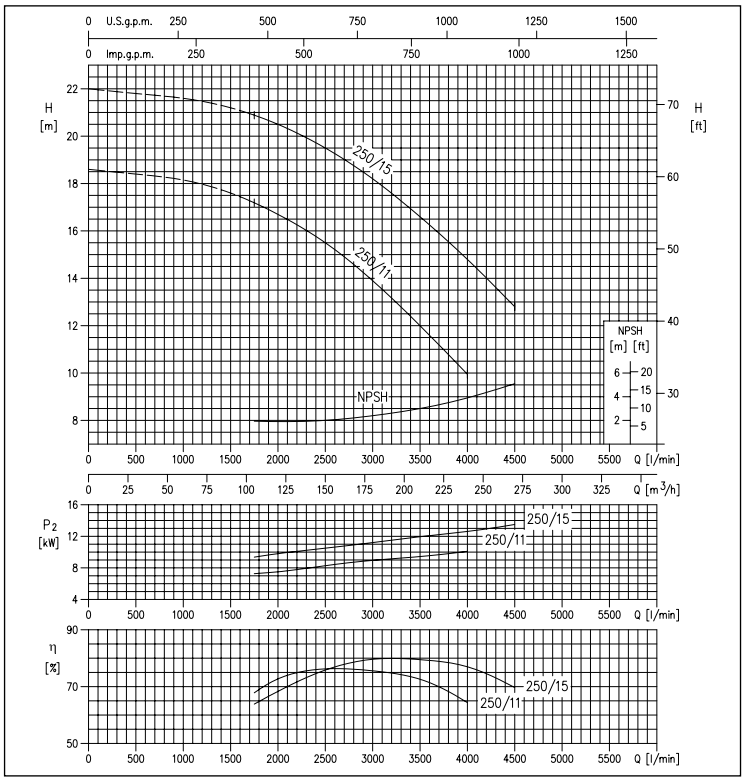
PERFORMANCE CURVES MMD4 125-200 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES MMD4 125-250 SERIES — 4 Poles

(according to ISO 9906 Attachment A)



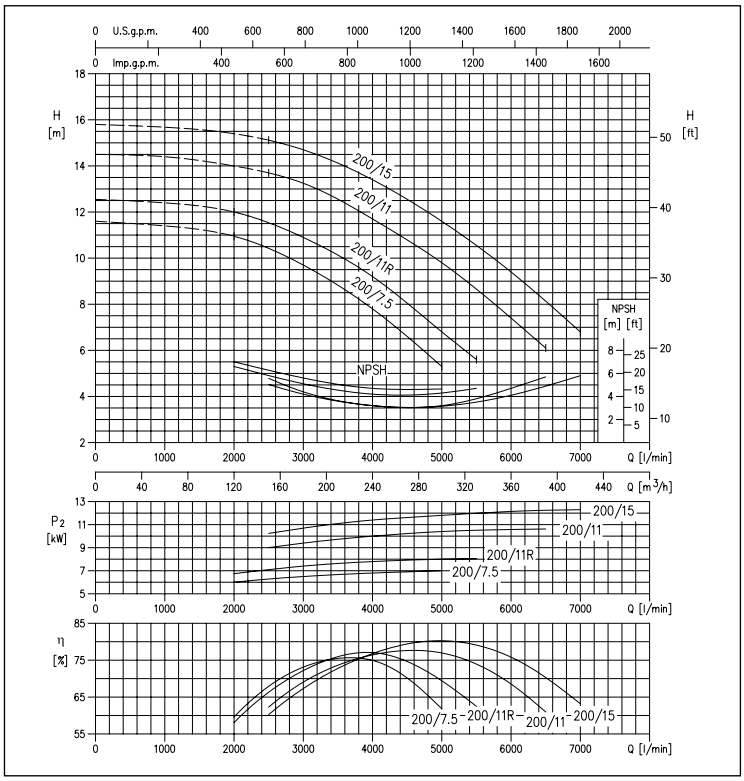
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

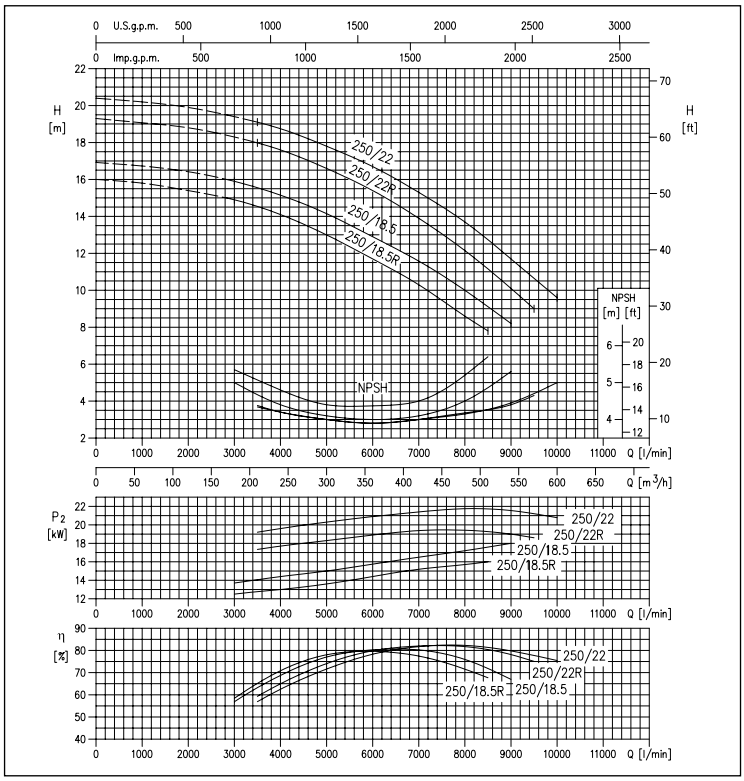
PERFORMANCE CURVES MMD4 150-200 SERIES 4 Poles

(according to ISO 9906 Attachment A)



PERFORMANCE CURVES MMD4 200-250 SERIES 4 Poles

(according to ISO 9906 Attachment A)



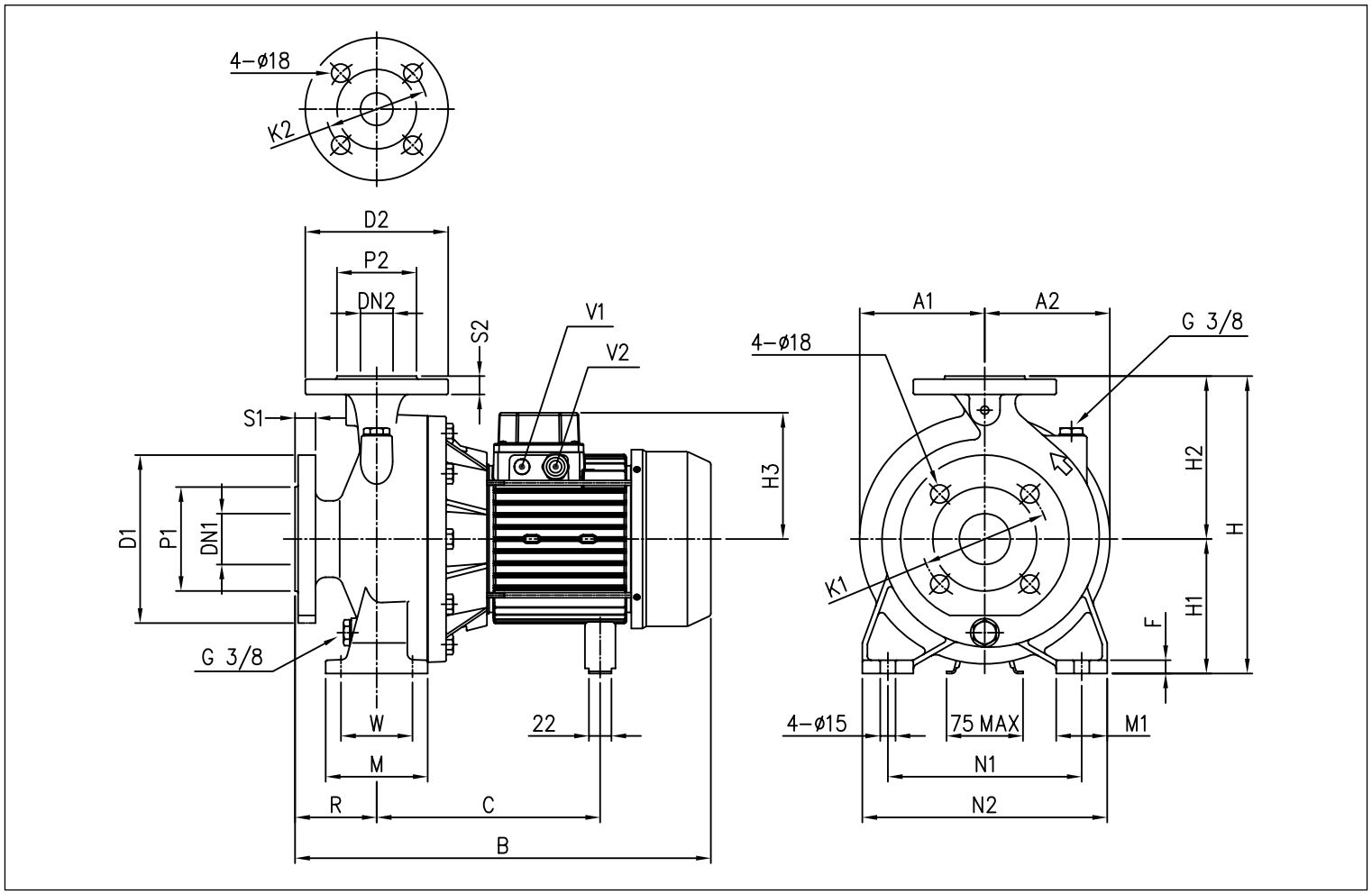
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MD DIMENSIONS - up to 11 kW

2 Poles



DIMENSIONAL TABLE

Model	Dimensions [mm]																										Weight [kg]	
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	H3	R	W	M	M1	N1	N2	A1	A2	B	B *	C	F	V1	V2		*
MD 32-250/5.5	50	102	125	165	20	32	78	100	140	18	405	180	225	150	100	95	125	65	250	320	176	176	539	539	275	15	PG 13.5	PG 16	74.2	74.2
MD 32-250/7.5	50	102	125	165	20	32	78	100	140	18	405	180	225	150	100	95	125	65	250	320	176	176	537	557	275	15	PG 13.5	PG 16	-	77.7
MD 32-250/9.2	50	102	125	165	20	32	78	100	140	18	405	180	225	178	100	95	125	65	250	320	176	176	589	589	354	15	PG 13.5	PG 21	-	94.5
MD 32-250/11	50	102	125	165	20	32	78	100	140	18	405	180	225	178	100	95	125	65	250	320	176	176	589	589	354	15	PG 13.5	PG 21	-	97.4
MD 40-250/11	65	122	145	185	20	40	88	110	150	18	405	180	225	178	100	95	125	65	250	320	176	176	589	589	354	15	PG 13.5	PG 21	-	100.4

* Models with IE3 motor only

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MD DIMENSIONS - starting from 15 kW and over

2 Poles

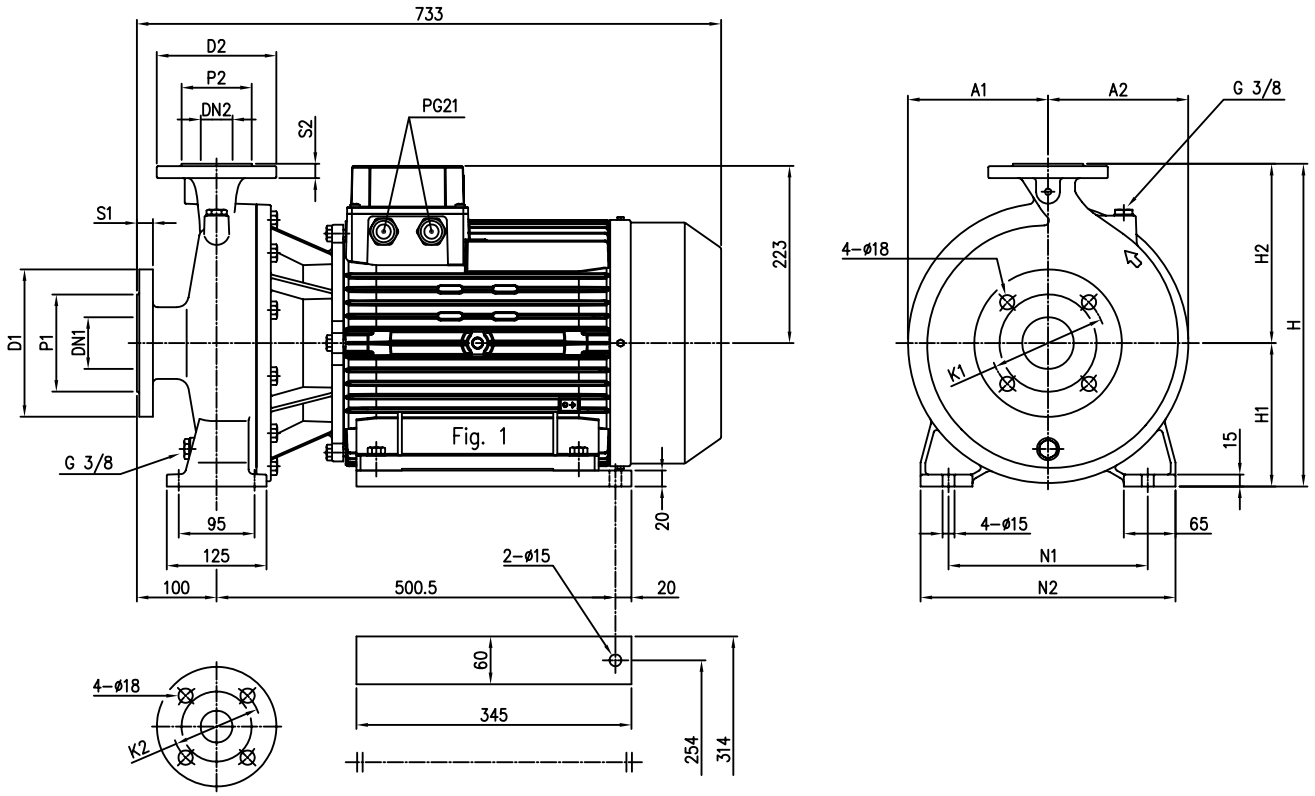


Fig. 1

DIMENSIONAL TABLE

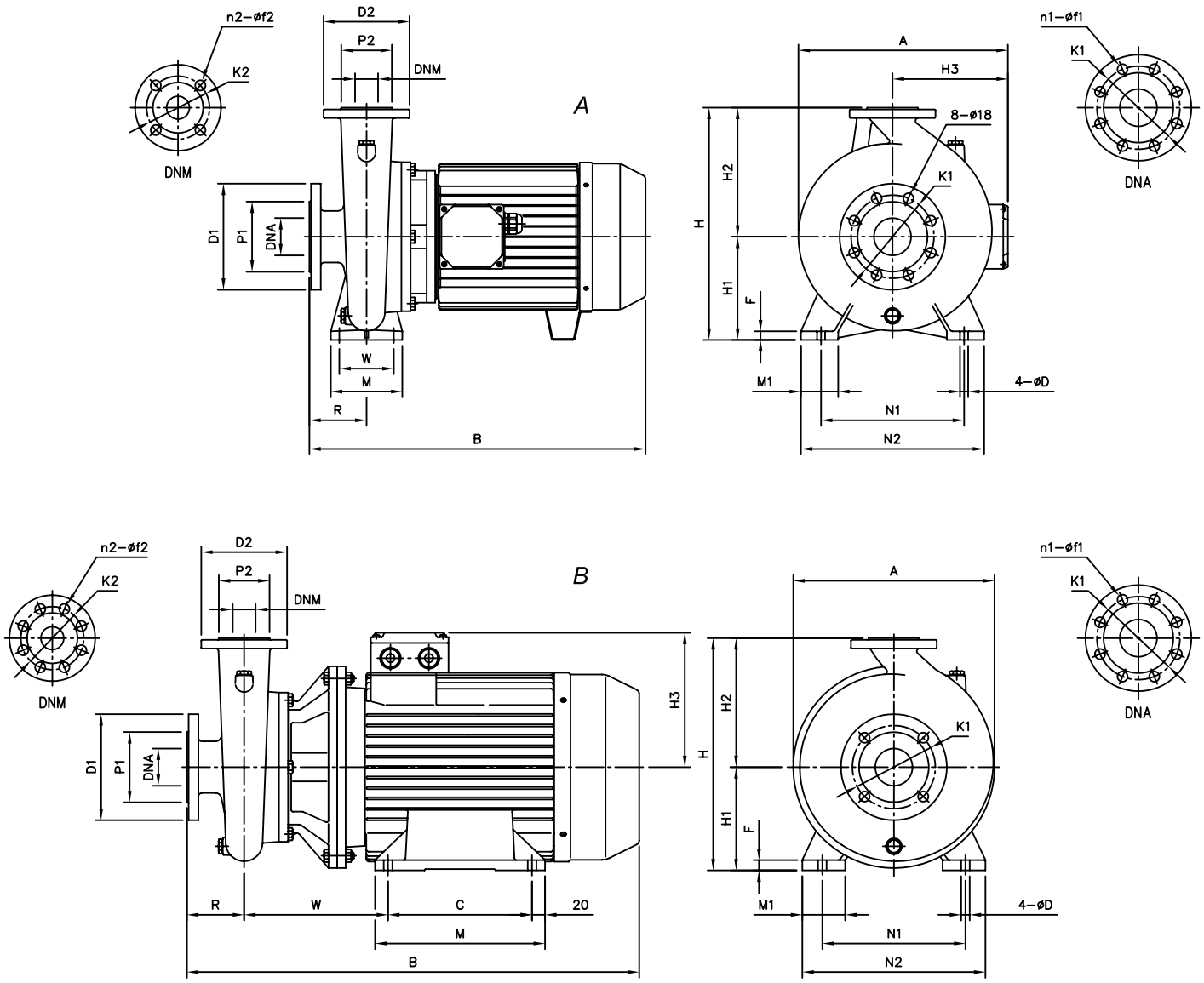
Model	Dimensions [mm]																	Weight [kg]
	DN1 Ø	P1 Ø	K1 Ø	D1 Ø	S1	DN2 Ø	P2 Ø	K2 Ø	D2 Ø	S2	H	H1	H2	N1	N2	A1	A2	
MD 40-250/15	65	122	145	185	20	40	88	110	150	18	405	180	225	250	320	176	176	105.1
MD 50-250/15	65	122	145	185	20	50	102	125	165	20	405	180	225	250	320	176	176	106.1
MD 50-250/18.5	65	122	145	185	20	50	102	125	165	20	405	180	225	250	320	176	176	136.3
MD 50-250/22	65	122	145	185	20	50	102	125	165	20	405	180	225	250	320	176	176	161.1

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MMD DIMENSIONS

2 Poles



DIMENSIONAL TABLE

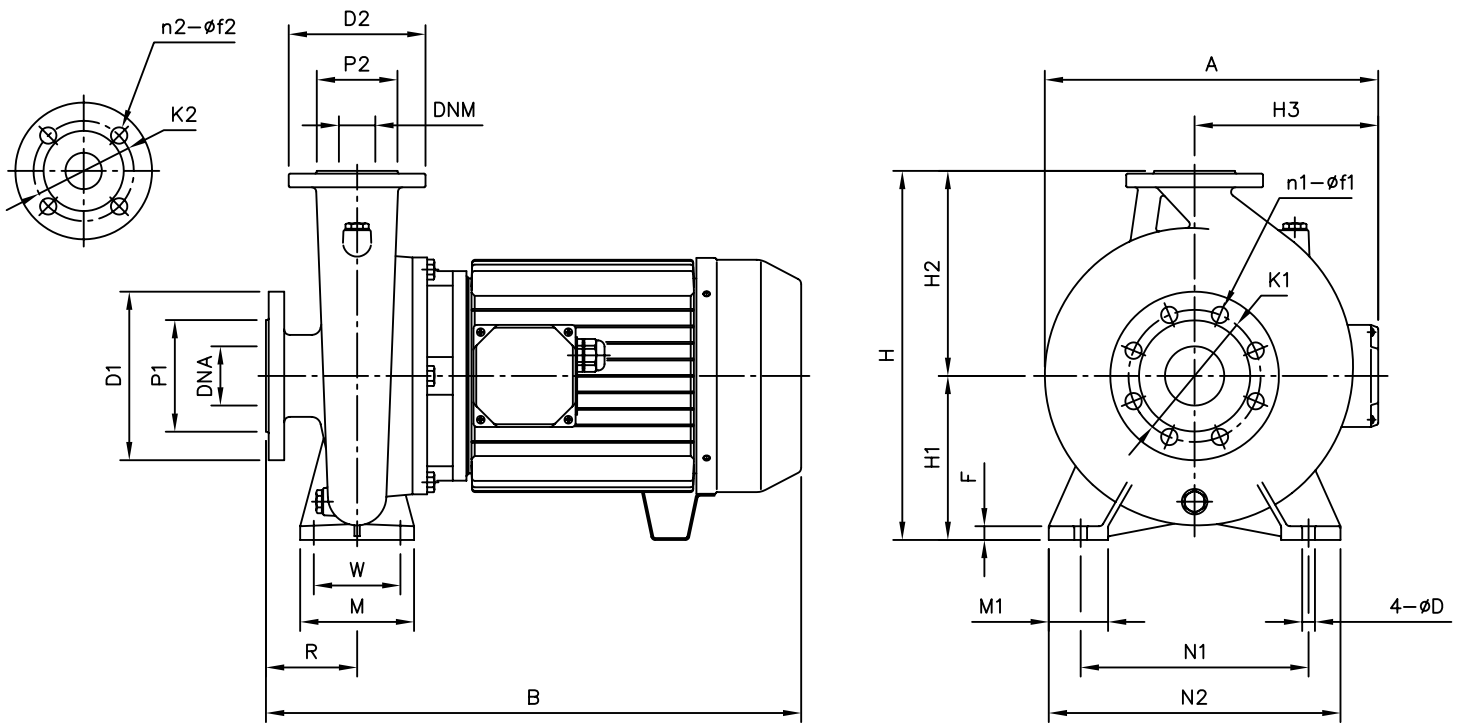
Model	Fig.	DNA	n1	f1	P1	K1	D1	DNM	n2	f2	P2	K2	D2	H	H1	H2	H3	R	W	N1	M	N2	M1	F	A	B	C	D	Weight [kg]
														Dimensions [mm]															
MMD 65-250/22	B	80	8	18	138	160	200	65	4	18	122	145	185	430	180	250	238	100	280	254	420	320	60	20	365	814	370	14	141.0
MMD 65-250/30	B	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	330	100	325	318	345	380	60	24	365	952	305	18	264.0
MMD 65-250/37	B	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	330	100	325	318	345	380	60	24	365	952	305	18	297.0
MMD 80-160/11	A	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	194	125	95	250	125	320	65	14	315	679	-	14	87.0
MMD 80-160/15R	A	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	194	125	95	250	125	320	65	14	315	730	-	14	90.0
MMD 80-160/15	A	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	194	125	95	250	125	320	65	14	315	730	-	14	90.0
MMD 80-200/18.5	B	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	238	125	280	254	420	320	60	20	360	839	370	14	137.0
MMD 80-200/22	B	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	238	125	280	254	420	320	60	20	360	839	370	14	147.0
MMD 80-200/30	B	100	8	18	158	180	220	80	8	18	138	160	200	450	200	250	330	125	325	318	345	380	60	24	400	977	305	18	284.0
MMD 80-200/37	B	100	8	18	158	180	220	80	8	18	138	160	200	450	200	250	330	125	325	318	345	380	60	24	400	977	305	18	317.0
MMD 80-250/37	B	100	8	18	158	180	220	80	8	18	138	160	200	480	200	280	330	125	325	318	345	380	60	24	400	977	305	18	320.0
MMD 100-200/22	B	125	8	18	188	210	250	100	8	18	158	180	220	460	180	280	238	125	280	254	420	320	60	20	380	839	370	14	157.0
MMD 100-200/30	B	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	330	125	325	318	345	380	60	24	400	977	305	18	294.0
MMD 100-200/37	B	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	330	125	325	318	345	380	60	24	400	977	305	18	327.0

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MMD4 DIMENSIONS - up to 65

4 Poles



DIMENSIONAL TABLE

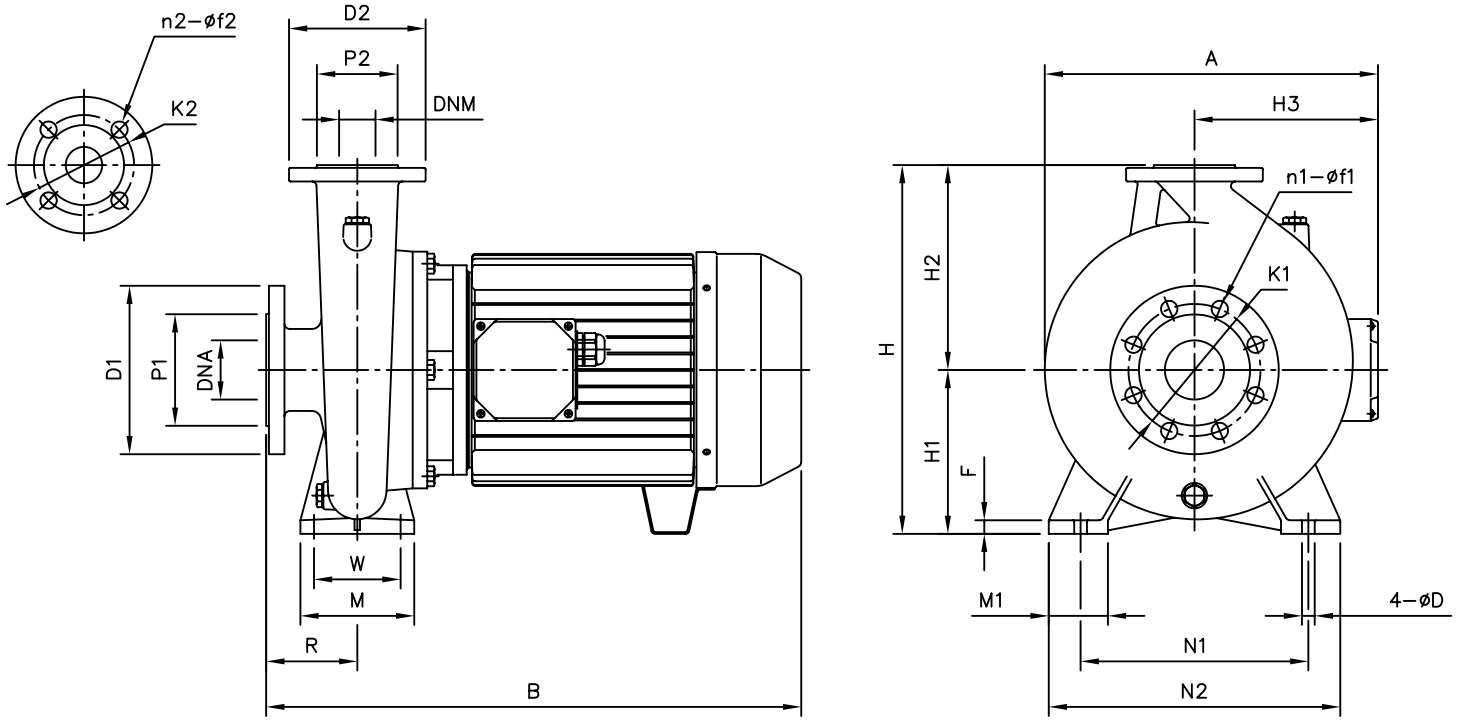
Model	Dimensions [mm]																											Weight [kg]
	DNA	n1	f1	P1	K1	D1	DNM	n2	f2	P2	K2	D2	H	H1	H2	H3	R	W	N1	M	N2	M1	F	A	B	D	
MMD4 32-250/1.1	50	4	18	102	125	165	32	4	14	78	100	140	405	180	225	138	100	95	250	125	320	65	12	320	476	14	50.0
MMD4 32-250/1.5	50	4	18	102	125	165	32	4	14	78	100	140	405	180	225	138	100	95	250	125	320	65	12	320	476	14	51.0
MMD4 40-250/1.5	65	4	18	122	145	185	40	4	18	88	110	150	405	180	225	138	100	95	250	125	320	65	12	325	476	14	49.0
MMD4 40-250/2.2	65	4	18	122	145	185	40	4	18	88	110	150	405	180	225	145	100	95	250	125	320	65	12	325	515	14	55.0
MMD4 50-250/2.2	65	4	18	122	145	185	50	4	18	102	125	165	405	180	225	145	100	95	250	125	320	65	14	333	515	14	58.0
MMD4 50-250/3	65	4	18	122	145	185	50	4	18	102	125	165	405	180	225	145	100	95	250	125	320	65	14	333	549	14	65.0
MMD4 65-250/4	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	160	100	120	280	160	360	80	14	365	549	14	79.0
MMD4 65-250/5.5	80	8	18	138	160	200	65	4	18	122	145	185	450	200	250	194	100	120	280	160	360	80	14	365	606	14	103.0

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MMD4 DIMENSIONS - from 80 to 200

4 Poles



DIMENSIONAL TABLE

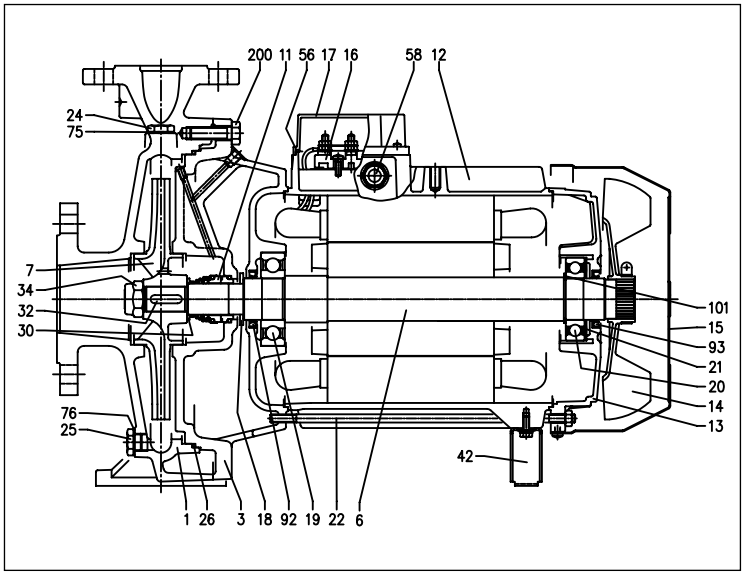
Model	Dimensions [mm]																										Weight [kg]
	DNA	n1	f1	P1	K1	D1	DNM	n2	f2	P2	K2	D2	H	H1	H2	H3	R	W	N1	M	N2	M1	F	A	B	D	
MMD4 80-160/1.5	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	138	125	95	250	125	320	65	14	330	501	14	46.0
MMD4 80-160/2.2	100	8	18	158	180	220	80	8	18	138	160	200	405	180	225	145	125	95	250	125	320	65	14	330	540	14	52.0
MMD4 80-200/3	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	145	125	95	280	125	345	65	12	355	586	14	68.0
MMD4 80-200/4	100	8	18	158	180	220	80	8	18	138	160	200	430	180	250	160	125	95	280	125	345	65	12	355	574	14	72.0
MMD4 80-250/5.5	100	8	18	158	180	220	80	8	18	138	160	200	480	200	280	194	125	120	315	160	400	80	14	400	631	18	109.0
MMD4 80-250/7.5	100	8	18	158	180	220	80	8	18	138	160	200	480	200	280	194	125	120	315	160	400	80	14	400	671	18	119.0
MMD4 100-200/4	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	160	125	120	280	160	360	80	14	385	574	18	77.0
MMD4 100-200/5.5	125	8	18	188	210	250	100	8	18	158	180	220	480	200	280	194	125	120	280	160	360	80	14	385	631	18	103.0
MMD4 100-250/7.5	125	8	18	188	210	250	100	8	18	158	180	220	505	225	280	194	140	120	315	160	400	80	14	420	686	18	125.0
MMD4 100-250/11	125	8	18	188	210	250	100	8	18	158	180	220	505	225	280	238	140	120	315	160	400	80	14	420	779	18	168.0
MMD4 125-200/5.5	150	8	22	212	240	285	125	8	18	188	210	250	565	250	280	194	140	120	315	160	400	80	14	470	657	18	137.0
MMD4 125-200/7.5R	150	8	22	212	240	285	125	8	18	188	210	250	565	250	315	194	140	120	315	160	400	80	14	470	697	18	147.0
MMD4 125-200/7.5	150	8	22	212	240	285	125	8	18	188	210	250	565	250	315	194	140	120	315	160	400	80	14	470	697	18	147.0
MMD4 125-200/11	150	8	22	212	240	285	125	8	18	188	210	250	565	250	315	238	140	120	315	160	400	80	14	470	790	18	190.0
MMD4 125-250/11	150	8	22	212	240	285	125	8	18	188	210	250	605	250	355	238	140	120	315	160	400	80	16	470	790	18	196.0
MMD4 125-250/15	150	8	22	212	240	285	125	8	18	188	210	250	605	250	355	238	140	120	315	160	400	80	16	470	854	18	216.0
MMD4 150-200/7.5	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	194	160	155	450	200	550	100	22	550	717	24	180.0
MMD4 150-200/11R	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	238	160	155	450	200	550	100	22	550	810	24	223.0
MMD4 150-200/11	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	238	160	155	450	200	550	100	22	550	810	24	223.0
MMD4 150-200/15	200	12	22	268	295	340	150	8	22	212	240	285	680	280	400	238	160	155	450	200	550	100	22	550	874	24	229.0
MMD4 200-250/18.5R	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	962	24	368.0
MMD4 200-250/18.5	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	962	24	368.0
MMD4 200-250/22R	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	1002	24	383.0
MMD4 200-250/22	250	12	25	320	355	405	200	12	22	268	295	340	765	315	450	238	200	155	450	200	550	100	22	630	1002	24	383.0

MD - MMD

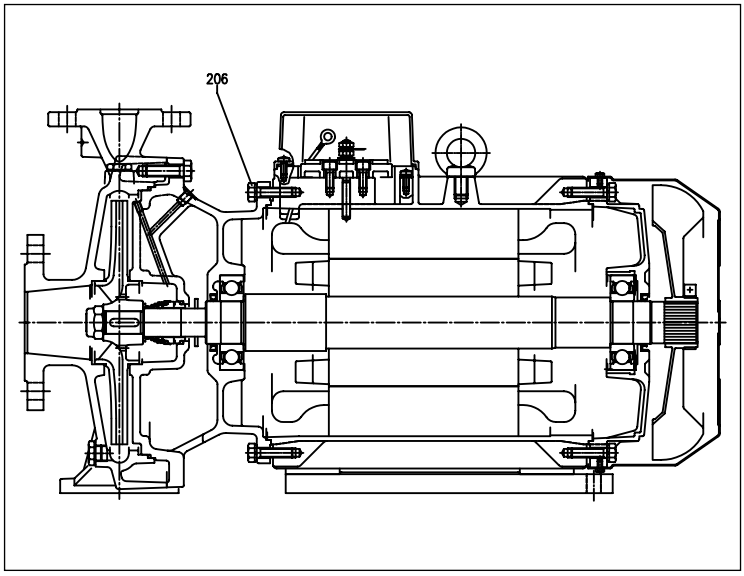
MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

SECTIONAL VIEW MD up to 11 kW



SECTIONAL VIEW MD from 15 kW and over



MATERIALS TABLE

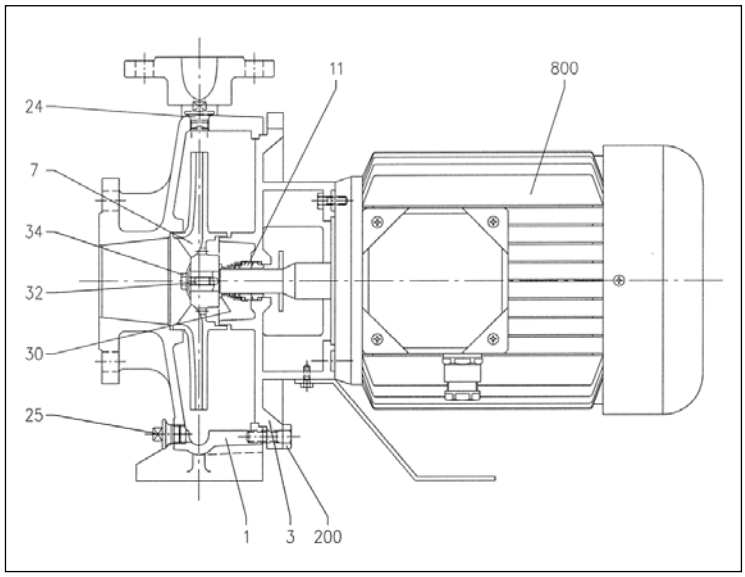
Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	Cast iron EN-GJL-200-EN 1561	24	Plug	Brass
3	Motor bracket	Cast iron EN-GJL-200-EN 1561	25	Plug	Brass
6	Shaft	AISI 304 (part in contact with the liquid)	26	O-Ring	NBR [1]
7	Impeller	AISI 304	30	Spacer	AISI 304
11	Mechanical seal	Carbon/Ceramic/NBR	32	Key	AISI 316
12	Motor frame	-	34	Impeller nut	AISI 304
13	Motor cover	Aluminium	42	Motor support	Fe P04
14	Fan	PP	56	Terminal box cover gasket	NBR
15	Fan cover	Galvanised steel Fe P04	58	Cable gland	-
16	Terminal Box	-	75	Washer	Aluminium
17	Terminal Box cover	Aluminium	76	Washer	Aluminium
18	Splash washer	NBR	92	Seal ring	-
19	Bearing (pump side)	-	93	Seal ring	-
20	Bearing (motor side)	-	101	Seeger ring (only for 9.2 and 11kW)	Carbon steel TC 80
21	Adjustment ring	Stainless steel C70	200	Screw	Galvanised steel
22	Tie-rod	Galvanised Fe 42 (up to 11kW) Galvanised steel (from 15kW and over)	260	Screw	Galvanised steel (from 15kW and over)

[1]= FKM for H-HS-HW-HSW versions; EPDM for E version

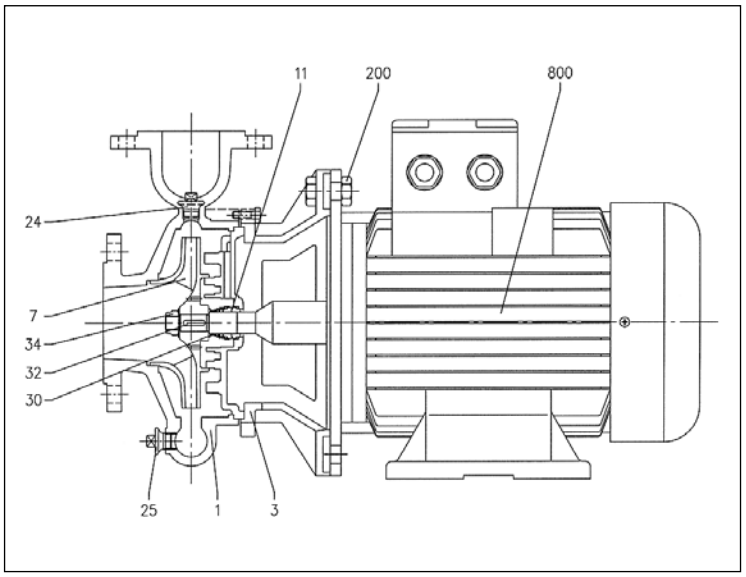
MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733
in cast iron

SECTIONAL VIEW MMD-MMD4 up to MEC 132



SECTIONAL VIEW MMD-MMD4 from MEC 160 and over



MATERIALS TABLE

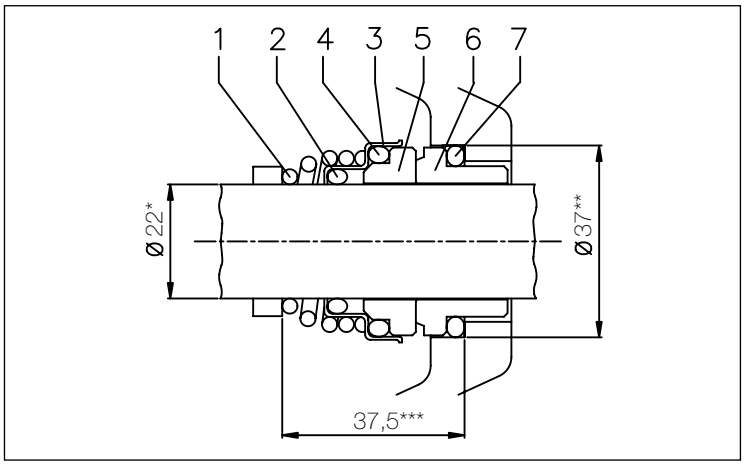
Ref.	Name	Materials	Ref.	Name	Materials
1	Pump casing	Cast iron EN-GJL-200-EN 1561	30	Spacer	Stainless steel
3	Motor bracket	Cast iron EN-GJL-200-EN 1561	32	Key	Stainless steel
7	Impeller	Cast iron EN-GJL-200-EN 1561	34	Impeller nut	Stainless steel
11	Mechanical seal	Silicon Carbide/Silicon Carbide/NBR	200	Screw (pump body)	Stainless steel
24	Plug	Stainless steel	800	Motor	Aluminum (up to MEC 160) Cast iron (from MEC 180 and over)
25	Plug	Stainless steel			

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

MD MECHCANICAL SEAL standard



MATERIALS TABLE

Ref.	Name	Materials
1	Spring	AISI 316
2	O-Ring	NBR
3	Structure/frame	AISI 304
4	O-Ring	NBR
5	Rotating part	Ceramic
6	Fixed part	Carbon
7	O-Ring	NBR

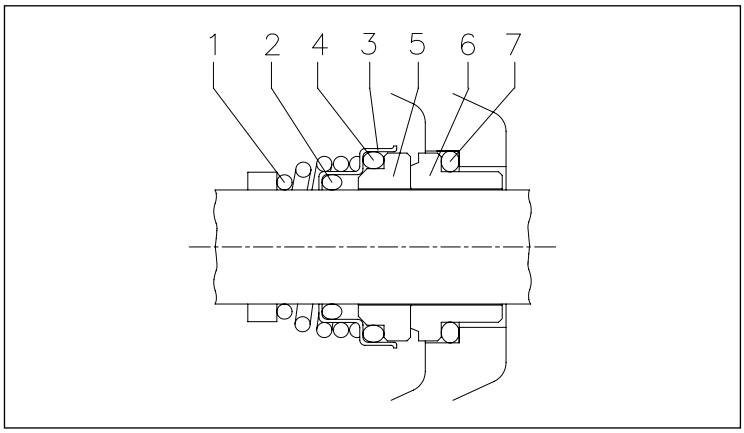
* Ø30 from 9.2kW and over
** Ø45 from 9.2kW and over
*** 42.5mm from 9.2kW and over

MD SPECIAL MECHANICAL SEALS (on request)

Name	Materials				
	H Version	HS Version	HW Version	HSW Version	E Version
Spring	AISI 316	AISI 316	AISI 316	AISI 316	AISI 316
O-Ring	FKM	FKM	FKM	FKM	EPDM
Structure/frame	AISI 304 / AISI 316*	AISI 316	AISI 316	AISI 316	AISI 304
O-Ring	FKM	FKM	FKM	FKM	EDPM
Rotating part	Ceramic	Silicon Carbide	Tungsten Carbide	Silicon Carbide	Ceramic
Fixed part	Carbon	Silicon Carbide	Tungsten Carbide	Tungsten Carbide	Carbon
O-Ring	FKM	FKM	FKM	FKM	EPDM

* Only for Ø30

MMD-MMD4 MECHANICAL SEAL



MATERIALS TABLE

Ref.	Name	Materials
1	Spring	AISI 316
2	O-Ring	NBR
3	Structure/frame	AISI 316
4	O-Ring	NBR
5	Rotating part	Silicon Carbide
6	Fixed part	Silicon Carbide
7	O-Ring	NBR

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

ELECTRIC DATA TABLE MD

2 Poles

Model Three phase	P_2 [HP]	P_2 [kW]	Efficiency Three phase	Efficiency (%) Three phase η % 50%	75%	100%	P_1 Three phase [kW]	Absorbed Current [A] Three phase 400V	690V
MD 32-250/5.5	7.5	5.5	IE2	82.9	86.0	87.4	6.29	10.4	6.0
	7.5	5.5	IE3	89.2	90.6	90.4	6.09	10.6	6.1
MD 32-250/7.5	10	7.5	IE3	89.0	90.7	90.8	8.26	13.6	7.9
MD 32-250/9.2	12.5	9.2	IE3	90.1	90.8	90.9	10.12	17.2	10.0
MD 32-250/11	15	11	IE3	90.4	91.2	91.8	11.98	21.3	12.3
MD 40-250/11	15	11	IE3	90.4	91.2	91.8	11.98	21.3	12.3
MD 40-250/15	20	15	IE3	91.2	92.0	91.9	16.32	27.7	17.3
MD 50-250/15	20	15	IE3	91.2	92.0	91.9	16.32	27.7	17.3
MD 50-250/18.5	25	18.5	IE3	91.6	93.0	92.6	19.98	35.0	20.3
MD 50-225/22	30	22	IE3	92.0	93.1	93.2	23.58	39.7	23.6

ELECTRIC DATA TABLE MMD

2 Poles

Model Three phase	P_2 [HP]	P_2 [kW]	Efficiency Three phase	Efficiency (%) Three phase η % 50%	75%	100%	P_1 Three phase [kW]	Absorbed Current [A] Three phase 400V	690V
MMD 65-250/22	30	22	IE3	92.2	93.7	92.7	23.75	39.4	22.5
MMD 65-250/30	40	30	IE3	91.4	93.3	93.3	32.12	52.1	30.0
MMD 65-250/37	50	37	IE3	91.8	93.7	93.7	39.47	62.6	36.0
MMD 80-160/11	15	11	IE3	90.0	90.8	91.2	12.27	19.9	11.5
MMD 80-160/15R	20	15	IE3	91.0	92.2	91.9	16.33	26.8	15.5
MMD 80-160/15	20	15	IE3	91.0	92.2	91.9	16.33	26.8	15.5
MMD 80-200/18.5	25	18.5	IE3	91.6	92.8	92.4	20.12	33.0	19.0
MMD 80-200/22	30	22	IE3	92.2	93.7	92.7	23.75	39.4	22.5
MMD 80-200/30	40	30	IE3	91.4	93.3	93.3	32.12	52.1	30.0
MMD 80-200/37	50	37	IE3	91.8	93.7	93.7	39.47	62.6	36.0
MMD 80-250/37	50	37	IE3	91.8	93.7	93.7	39.47	62.6	36.0
MMD 100-200/22	30	22	IE3	92.2	93.7	92.7	23.75	39.4	22.5
MMD 100-200/30	40	30	IE3	91.4	93.3	93.3	32.12	52.1	30.0
MMD 100-200/37	50	37	IE3	91.8	93.7	93.7	39.47	62.6	36.0

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

ELECTRIC DATA TABLE MMD4

4 Poles

Model Three phase	P_2 [HP]	P_2 [kW]	Efficiency Three phase	Efficiency (%) Three phase η % 50%	75%	100%	P_1 Three phase [kW]	Absorbed Current [A] Three phase 230V	400V	690V
MMD4 32-250/1.1	1.5	1.1	IE2	81.4	82.7	82.5	1.33	4.3	2.5	-
MMD4 32-250/1.5	2	1.5	IE2	81.0	83.5	83.0	1.81	5.9	3.4	-
MMD4 40-250/1.5	2	1.5	IE2	81.0	83.5	83.0	1.81	5.9	3.4	-
MMD4 40-250/2.2	3	2.2	IE2	84.0	85.3	85.1	2.61	8.9	5.1	-
MMD4 50-250/2.2	3	2.2	IE2	84.0	85.3	85.1	2.61	8.9	5.1	-
MMD4 50-250/3	4	3	IE2	82.6	84.7	86.4	3.47	11.3	6.5	-
MMD4 65-250/4	5.5	4	IE2	86.0	87.3	87.1	4.59	14.8	8.5	-
MMD4 65-250/5.5	7.5	5.5	IE2	87.5	88.3	88.1	6.16	-	11.4	6.6
MMD4 80-160/1.5	2	1.5	IE2	81.0	83.5	83.0	1.81	5.9	3.4	-
MMD4 80-160/2.2	3	2.2	IE2	84.0	85.3	85.1	2.61	8.9	5.1	-
MMD4 80-200/3	4	3	IE2	82.6	84.7	86.4	3.47	11.3	6.5	-
MMD4 80-200/4	5.5	4	IE2	86.0	87.3	87.1	4.59	14.8	8.5	-
MMD4 80-250/5.5	7.5	5.5	IE2	87.5	88.3	88.1	6.16	-	11.4	6.6
MMD4 80-250/7.5	10	7.5	IE3	88.5	89.4	89.2	8.41	-	16.4	9.5
MMD4 100-200/4	5.5	4	IE2	86.0	87.3	87.1	4.59	14.8	8.5	-
MMD4 100-200/5.5	7.5	5.5	IE2	87.5	88.3	88.1	6.16	-	11.4	6.6
MMD4 100-250/7.5	10	7.5	IE3	88.5	89.4	89.2	8.41	-	16.4	9.5
MMD4 100-250/11	15	11	IE3	89.4	90.3	90.1	12.49	-	22.0	12.7
MMD4 125-200/5.5	7.5	5.5	IE2	87.5	88.3	88.1	6.16	-	11.4	6.6
MMD4 125-200/7.5R	10	7.5	IE3	88.5	89.4	89.2	8.41	-	16.4	9.5
MMD4 125-200/7.5	10	7.5	IE3	88.5	89.4	89.2	8.41	-	16.4	9.5
MMD4 125-200/11R	15	11	IE3	89.4	90.3	90.1	12.49	-	22.0	12.7
MMD4 125-250/11	15	11	IE3	89.4	90.3	90.1	12.49	-	22.0	12.7
MMD4 125-250/15	20	15	IE3	90.6	91.2	91.0	16.87	-	29.0	16.7
MMD4 150-200/7.5	10	7.5	IE3	88.5	89.4	89.2	8.41	-	16.4	9.5
MMD4 150-200/11R	15	11	IE3	89.4	90.3	90.1	12.49	-	22.0	12.7
MMD4 150-200/11	15	11	IE3	89.4	90.3	90.1	12.49	-	22.0	12.7
MMD4 150-200/15	20	15	IE3	90.6	91.2	91.0	16.87	-	29.0	16.7
MMD4 200-250/18.5R	22	18.5	IE3	90.7	92.6	92.6	19.96	-	34.3	19.8
MMD4 200-250/18.5	22	18.5	IE3	90.7	92.6	92.6	19.96	-	34.3	19.8
MMD4 200-250/22R	30	22	IE3	91.1	93.0	93.0	23.67	-	40.2	23.2
MMD4 200-250/22	30	22	IE3	91.1	93.0	93.0	23.67	-	40.2	23.2

MD - MMD

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

NOISE DATA TABLE MD — 2 Poles

Model Three phase	P_2 [HP]	P_2 [kW]	L_{pA} - dB(A)*
MD 32-250/5.5	7.5	5.5	75
MD 32-250/7.5	10	7.5	
MD 32-250/9.2	12.5	9.2	80
MD 32-250/11	15	11	
MD 40-250/11	15	11	80
MD 40-250/15	20	15	83-82
MD 50-250/15	20	15	83-82
MD 50-250/18.5	25	18.5	
MD 50-250/22	30	22	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

NOISE DATA TABLE MMD — 2 Poles

Model Three phase	P_2 [HP]	P_2 [kW]	L_{pA} - dB(A)*
MMD 65-250/22	30	22	81
MMD 65-250/30	40	30	83
MMD 65-250/37	50	37	
MMD 80-160/11	15	11	80
MMD 80-160/15R	20	15	
MMD 80-160/15	20	15	
MMD 80-200/18.5	25	18.5	81
MMD 80-200/22	30	22	
MMD 80-200/30	40	30	83
MMD 80-200/37	50	37	
MMD 80-250/37	50	37	
MMD 100-200/22	30	22	81
MMD 100-200/30	40	30	83
MMD 100-200/37	50	37	

* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

NOISE DATA TABLE MMD4 — 4 Poles

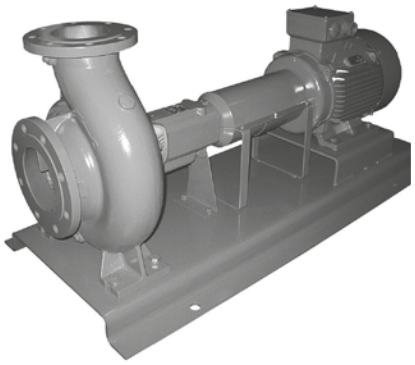
Model Three phase	P_2 [HP]	P_2 [kW]	L_{pA} - dB(A)*
MMD4 32-250/1.1	1.5	1.1	<70
MMD4 32-250/1.5	2	1.5	
MMD4 40-250/1.5	2	1.5	
MMD4 40-250/2.2	3	2.2	
MMD4 50-250/2.2	3	2.2	
MMD4 50-250/3.0	4	3	72
MMD4 65-250/4.0	5.5	4	78
MMD4 65-250/5.5	7.5	5.5	
MMD4 80-160/1.5	2	1.5	<70
MMD4 80-160/2.2	3	2.2	
MMD4 80-200/3	4	3	72
MMD4 80-200/4	5.5	4	78
MMD4 80-250/5.5	7.5	5.5	
MMD4 80-250/7.5	10	7.5	80
MMD4 100-200/4	5.5	4	78
MMD4 100-200/5.5	7.5	5.5	
MMD4 100-250/7.5	10	7.5	80
MMD4 100-250/11	15	11	
MMD4 125-200/5.5	7.5	5.5	78
MMD4 125-200/7.5R	10	7.5	80
MMD4 125-200/7.5	10	7.5	
MMD4 125-200/11R	15	11	
MMD4 125-250/11	15	11	
MMD4 125-250/15	20	15	
MMD4 150-200/7.5	10	7.5	
MMD4 150-200/11R	15	11	
MMD4 150-200/11	15	11	
MMD4 150-200/15	20	15	
MMD4 200-250/18.5R	22	18.5	81
MMD4 200-250/18.5	22	18.5	
MMD4 200-250/22R	30	22	
MMD4 200-250/22	30	22	

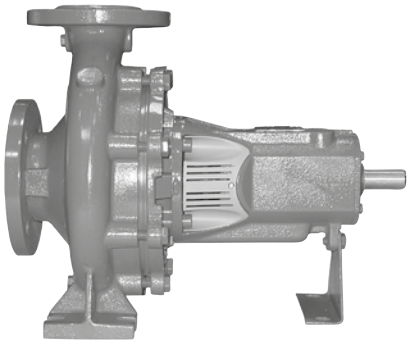
* Mean value of several measurements at 1 m distance around the pump.
Tolerance ± 2.5 dB.

ENR

MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron





Standardised centrifugal pumps deriving from EN 733 (former DIN 24255).

APPLICATIONS

- Water supply to civil, agricultural and industrial plants
- Pressure boosting
- Fire-fighting, heating and air conditioning systems
- Pumping industrial liquids
- Refining plants, aqueducts and irrigation

TECHNICAL DETAILS

- Sturdy structure
- Possibility of use in fire-fighting units
- They can be inserted into machinery units for industrial use

PUMP TECHNICAL DATA

- Maximum pressure: 14.7 bar
- Temperature of the liquid: -20°C ÷ 120°C
- Suction and discharge flanges according to DIN 2532 (standard)
- MEI > 0.4

MOTOR TECHNICAL DATA

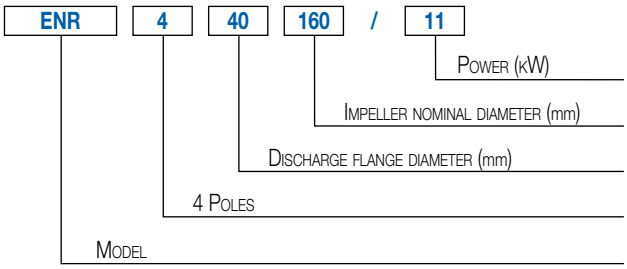
- High efficiency motors IE2 starting from 0.75kW to 5.5kW
  IE3 starting from 0.75kW
- Self-ventilated 2-pole and 4-pole asynchronous motors
- Class of insulation F
- IP 55 protection degree
- 400/690V ± 10% three phase voltage, 50 Hz

MATERIALS

- Impeller in cast iron (or bronze)
- Cast iron pump casing
- Shaft in AISI 420 stainless steel
- Mechanical seal in Silicon Carbide/Carbon/EPDM

- **For further information please see our Data Book on the web site www.ebaraeurope.com**
- **For further information, quotations and availability please contact our sales network**

IDENTIFICATION CODE

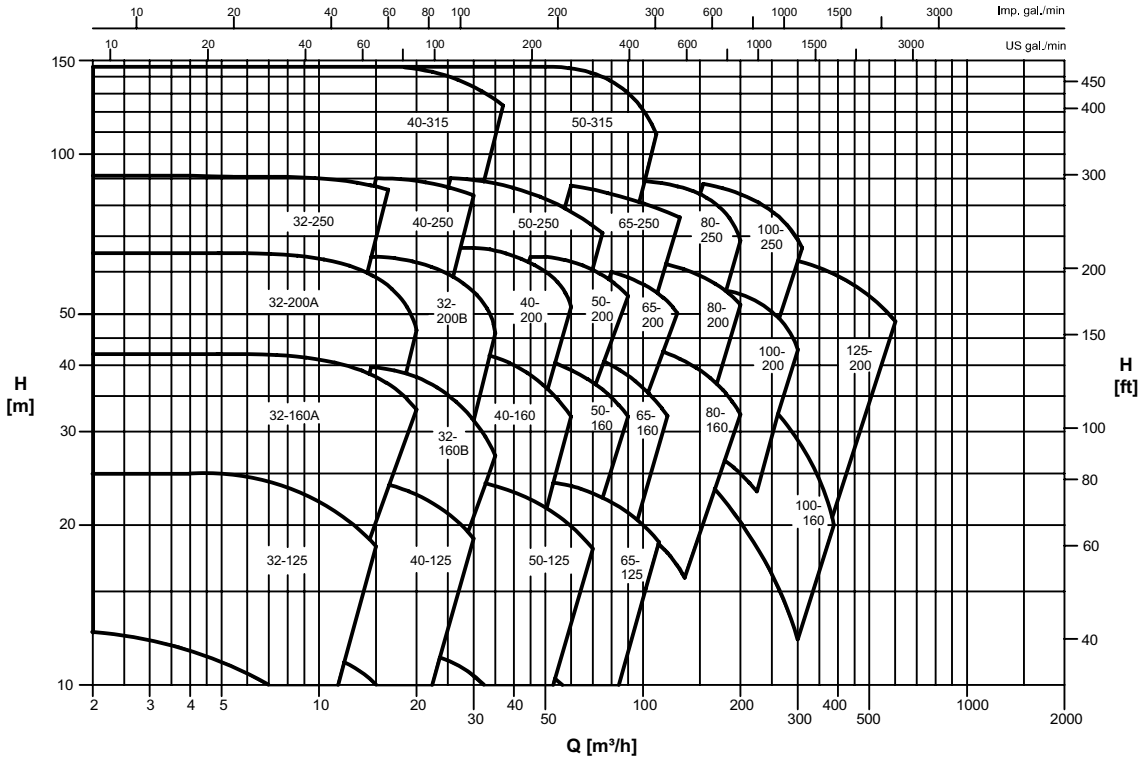


ENR

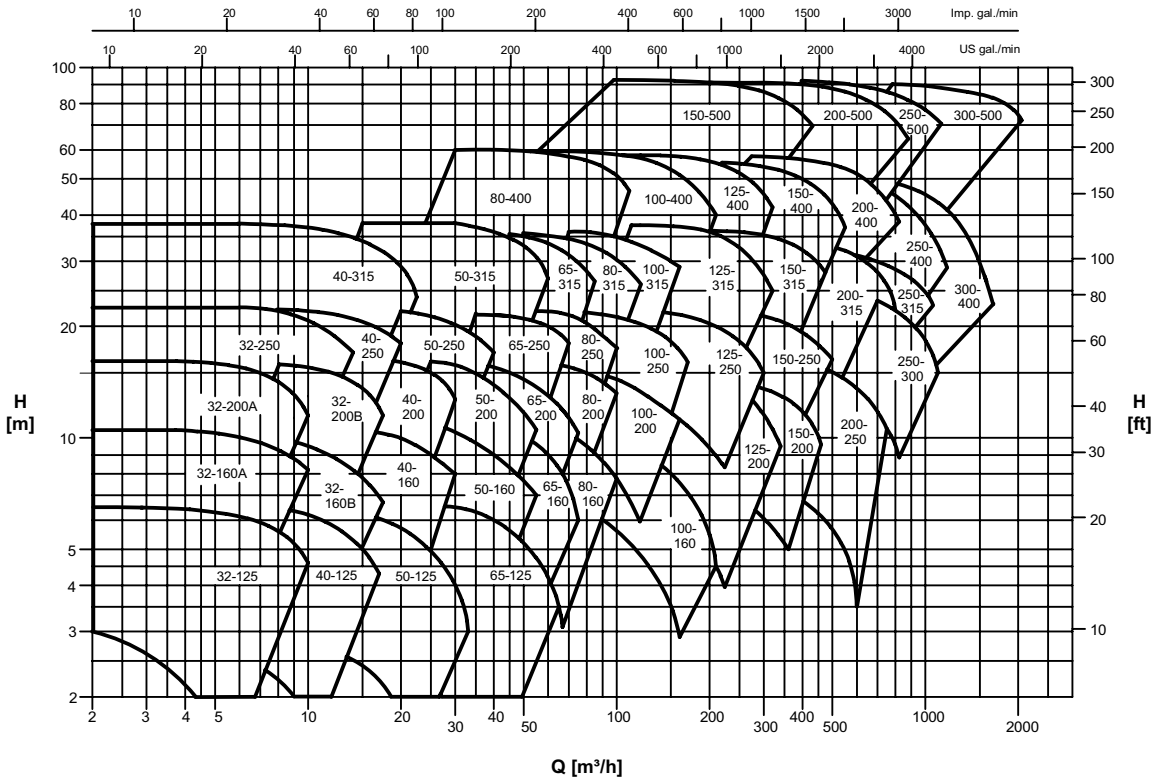
MONOBLOC CENTRIFUGAL ELECTRIC PUMP IN COMPLIANCE WITH EN 733

in cast iron

PERFORMANCE CURVES ENR series (according to ISO 9906 Attachment A) — 2 Poles



PERFORMANCE CURVES ENR series (according to ISO 9906 Attachment A) — 4 Poles



EP (SD) SERIES

ELECTRICAL PANELS FOR SUBMERGED AND SURFACE-MOUNTED PUMPS

Protection and control electrical panels for one, two or three electropumps (versions with 4 or more electropumps can be supplied on request). Manual or automatic operation through pressure switches or floats. Moreover, there are 2 clamps for connecting a minimum level float or minimum level pressure switch for monitoring to prevent dry running. The intervention stops the electropumps and is signalled through appropriate indicator lights on the electrical panel. The electrical panels protect the motors against overload and phase failure. Any protection devices that intervene are signalled on the panel itself and remotely through clean contacts (if a remote control box is connected). The protection device against overload and phase failure resets automatically three times, and manually after the fouth intervention (any interventions, from 1 to 3, are cancelled one hour after the last intervention).

TECHNICAL DETAILS

- P.MIN = Operation against dry running (controlled through a minimum level float or pressure switch) with automatic reset once the water returns
- PR = Electropump/s start ans stop control
- Automatic exchange of the restart order on multiple electropump control panel versions
- Motor protection against overload with automatic reset for three times and manual reset for the fourth time
- Motor line protection against short-circuits with fuses for motor start-up
- Transformer and auxiliary circuit protection with fuses
- Remote signalling, through NC-NA clean contact, of the protection devices that intervene
- Operational continuity of the panel even with KL1 exchange module excluded (only for 2EP SD panels)

TECHNICAL DATA

- Power supply 230V + 10-15% 50/60 Hz (single phase)
  230V + 10-15% 50/60 Hz (three phase)
- Temperature: from -10°C to +40°C
- Protection degree: IP55
- Reference standards: EN 60204-1, EN 60439-1, EN 61000-6-3, EN 61000-6-1 (for civil environments)

ELECTRIC DATA TABLE 1EP

Model Single phase 230V +10-15% - 50Hz	[HP]	[kW]	Nominal curr. [A]	Protection range [A]
1EP 0.37-2.2 M UA	0.55 ÷ 3	0.37 ÷ 2.2	16	3.2 ÷ 16

Model Three phase 400V +10-15% - 50Hz	[HP]	[kW]	Nominal curr. [A]	Protection range [A]
1EP 2.2 T	0.55 ÷ 3	0.37 ÷ 2.2	6	3.2 ÷ 16
1EP 7.5 T	4 ÷ 10	3 ÷ 7.5	16	3.2 ÷ 16
1EP 11 SD UA	15	10	25	9 ÷ 15
1EP 15 SD UA	20	15	31	12 ÷ 18
1EP 18.5 SD UA	25	18.5	36	16 ÷ 24
1EP 22 SD UA	30	22	50	23 ÷ 32
1EP 30 SD UA	40	30	62	30 ÷ 40
1EP 37 SD UA	50	37	77	37 ÷ 50

EP (SD) SERIES

ELECTRICAL PANELS FOR SUBMERSED AND SURFACE ELECTRIC PUMPS

ELECTRIC DATA TABLE 2EP

Model Single phase 230V +10-15% - 50Hz	[HP]	[kW]	Nominal curr. [A]	Protection range [A]
2EP 0.37 M UA E. (*)	0.55 +0.55	0.37+0.37	3	1÷12
2EP 0.55 M UA E. (*)	0.75 +0.75	0.55 +0.55	4.5	1÷12
2EP 0.75 M UA E. (*)	1+1	0.75 +0.75	7	1÷12
2EP 1.1 M UA E. (*)	1.5+1.5	1.1 +1.1	9	1÷12
2EP 1.5 M UA E. (*)	2+2	1.5+1.5	12	1÷12
2EP 2.2 M UA E. (*)	3+3	2.2 +2.2	16	12÷24

(*) Electrical panels without capacitor.

Model Three phase 400V +10-15% - 50Hz	[HP]	[kW]	Nominal curr. [A]	Protection range [A]
2EP 0.37 T UA	0.55 +0.55	0.37+0.37	1.5	1÷12
2EP 0.55 T UA	0.75 +0.75	0.55 +0.55	2	1÷12
2EP 0.75 T UA	1+1	0.75 +0.75	2	1÷12
2EP 1.1 T UA	1.5+1.5	1.1 +1.1	3	1÷12
2EP 1.5 T UA	2+2	1.5+1.5	4	1÷12
2EP 2.2 T UA	3+3	2.2 +2.2	6	1÷12
2EP 3 T UA	4+4	3+3	8	1÷12
2EP 4 T UA	5.5 +5.5	4+4	9	1÷12
2EP 5.5 T UA	7.5 +7.5	5.5 +5.5	12	12÷24
2EP 7.5 T UA	10+10	7.5 +7.5	16	12÷24
2EP 11 SD UA	15+15	11+11	20	9÷15
2EP 15 SD UA	20+20	15+15	31	14÷23
2EP 18.5 SD UA	25+25	18.5 +18.5	36	14÷23
2EP 22 SD UA	30+30	22+22	50	20÷33

ELECTRIC DATA TABLE 3EP

Model Three phase 400V +10-15% - 50Hz	[HP]	[kW]	Nominal curr. [A]	Protection range [A]
3EP 0.55 T UA	0.75 +0.75 +0.75	0.55 +0.55 +0.55	2	1÷12
3EP 1.1 T UA	1.5 +1.5 +1.5	1.1 +1.1 +1.1	3	1÷12
3EP 1.5 T UA	2 + 2 + 2	1.5 +1.5 +1.5	4	1÷12
3EP 2.2 T UA	3 + 3 + 3	2.2 +2.2 +2.2	6	1÷12
3EP 3.7 T UA	5 + 5 + 5	3.7 +3.7 +3.7	8	1÷12
3EP 5.5 T UA	7.5 +7.5 +7.5	5.5 +5.5 +5.5	12	12÷24
3EP 7.5 T UA	10 + 10 + 10	7.5 +7.5 +7.5	16	12÷24
3EP 9.25 SD UA	12.5 +12.5 +12.5	9.2 +9.2 +9.2	10.5	12÷24
3EP 11 SD UA	15 + 15 + 15	11 + 11 + 11	20	9÷15
3EP 15 SD UA	20 + 20 + 20	15 + 15 + 15	31	14÷23
3EP 18.5 SD UA	25 + 25 + 25	18.5 +18.5 +18.5	36	14÷23
3EP 22 SD UA	30 + 30 + 30	22 + 22 + 22	50	20÷33

1EPBH

ELECTRICAL PANELS FOR SUBMERSED AND SURFACE ELECTRIC PUMPS

Protection and control panels for a submersed or surface electric pump with direct start-up. The control panel can manually and automatically control an electric pump. In the automatic function, the electric pump is controlled by pressure switch, the float or signals that come from the electric probes or from the floats.

TECHNICAL DETAILS

- Protection against dry running (control using an electric probe) with automatic reset and water return
- Reservoir filling level control with two electric probes or floats
- Reservoir emptying level control with two electric probes or floats
- Cosφ module, optional for controlling against dry running without the use of the electric probes
- Motor protection against overloads and an automatic reset phase for three interventions, manual at the fourth
- Pump protection against excessive start-ups
- Overload and board protection, against short circuits, with fuses
- Remote displaying with NC-NO potential free contact of the present fault or alarm float
- Clamps for connecting any single phase motor starter capacitor
- Clamps for connecting a pressure switch
- Clamps for connecting an alarm float

TECHNICAL DATA

- Power supply 230V +10-15% 50/60 Hz (single phase)
  400V +10-15% 50/60 Hz (three phase + N)
- Temperature: from -10°C to +40°C
- Protection degree: IP55
- Reference standards: EN 60204-1, EN 60439-1, EN 61000-6-2, EN 61000-6-4 (for domestic and light industry application)

ELECTRIC DATA TABLE

Model Single phase 230V +10-15% - 50Hz	[HP]	[kW]	[A] max.	Recommended capacitor µF	[V]
1EPBH 0.37 M	0.5	0.37	2.6	16/20	450
1EPBH 0.55 M	0.75	0.55	4	20/25	450
1EPBH 0.75 M	1	0.75	5.5	35	450
1EPBH 1.1 M	1.5	1.1	8	40	450
1EPBH 1.5 M	2	1.5	9.5	50/60	450
1EPBH 2.2 M	3	2.2	15	70/80	450

Electrical panels without capacitor

Model Three phase 400V +10-15% - 50Hz	[HP]	[kW]	[A] max.
1EPBH 0.37÷1.1 T	0.5÷1.5	0.37÷1.1	1.6÷3.4
1EPBH 1.5 T	2	1.5	4.6
1EPBH 2.2 T	3	2.2	6.2
1EPBH 3 T	4	3	8
1EPBH 4 T	5.5	4	10.2
1EPBH 5.5 T	7.5	5.5	14.4
1EPBH 7.5 T	10	7.5	19.5
1EPBH 9.2÷11 T AVS 2E*	12.5 ÷ 15	9.2 ÷ 11	10
1EPBH 15 T AVS 2E*	20	15	32
1EPBH 18.5 T AVS 2E*	25	18.5	38
1EPBH 22 T AVS 2E*	30	22	45
1EPBH 30 T AVS 2E*	40	30	55
1EPBH 37 T AVS 2E*	50	37	70
1EPBH 45 T AVS 2E*	60	45	80

* Start with reactance

1EPBH

ELECTRICAL PANELS FOR SUBMERSED AND SURFACE ELECTRIC PUMPS

ELECTRIC DATA TABLE THREE PHASE 6" SUBMERSED MOTORS

Model Three phase 400V +10-15% - 50Hz	[HP]	[kW]	[A] max [OY]	[A] max [WY]
1EPBH 4 T	5.5	4	8.9	9.3
1EPBH 5.5 T	7.5	5.5	12.4	12.5
1EPBH 7.5 T	10	7.5	17.2	16
1EPBH 9.2÷11 T AVSE 2E*	12.5÷15	9.2÷11	22÷23.9	20.7÷23.3
1EPBH 15 T AVSE 2E*	20	15	31.4	31.3
1EPBH 18.5 T AVSE 2E*	25	18.5	41.5	38.5
1EPBH 22 T AVSE 2E*	30	22	46.5	45.3
1EPBH 30 T AVSE 2E*	40	30	63	63.5
1EPBH 37 T AVSE 2E*	50	37	79.2	73
1EPBH 45 T AVSE 2E*	60	45	-	89.5

*= Start with -2 isolators

ELECTRIC DATA TABLE THREE PHASE 8" SUBMERSED MOTORS

Model Three phase 400V +10-15% - 50Hz	[HP]	[kW]	[A] max [WY]
1EPBH 30 T AVSE 2E*	40	30	61
1EPBH 37 T AVSE 2E*	50	37	74
1EPBH 45 T AVSE 2E*	60	45	89
1EPBH 55 T AVSE 2E*	75	55	108
1EPBH 75 T AVSE 2E*	100	75	145
1EPBH 93 T AVSE 2E*	125	93	190
1EPBH 110 T AVSE 2E*	150	110	222

*= Start with -2 isolators

SP SERIES

ELECTRIC CONTROL PANELS WITH INVERTERS

Control panels with inverter SP series modulate the operation of electro pumps responding to the pressure transducer control (measured by flow rate or other external signal 4-20 mA) adjusting the speed of the electric pumps to maintain constant the system demand.

VERSION

- "FC": Control panel for one electric pump with inverter
- "EFC": Control panel for two or more electric pumps with single inverter but with electric pumps exchange
- "MFC": Control panel for two or more electric pumps, with one inverter for each individual electric pump

TECHNICAL DATA

- Power supply voltage: 400V ±10%,
- Three phases without aid of the neutral
- Power supply frequency: 50 Hz or 60 Hz
- Power for every motor: from 0.75 kW and above
- Types of start-up and power supply for all pumps:
  - during the start-up phase, the inverter powers the pump with a voltage ramp, the other pumps have direct or star/delta start-up according to the electric power
  - during emergency functioning (controlled by pressure switches) all of the pumps function according to the power size with at direct or start/delta start-up
- Limits of use (environment temperature): from -10° to +40° C
- Protection degree: IP55 up to 3 kW
  IP44 for greater powers
- Reference standards:
  Safety and functional standards applied:
  - EN 60204-1; Security electrical equipment
  - EN 60439-1; Switchgear and controlgear assemblies.
    EMC standards applied:
  - CEI EN 61000-6-1; immunity for residential, commercial and light industrial environments
  - CEI EN 61000-6-2; industrial immunity
  - CEI EN 61000-6-3; emission for residential, commercial and light industrial environments
  - CEI EN 61000-6-4; industrial emission
  - CEI EN 61000-3-2; harmonic current emission <= 16A (use XL.L line inductance to be installed on request, see ref. 8.1, 8.2)
- Emissions: conformity for residential environments
- Immunity: conformity for industrial environments
- Minimum output frequency: 30 Hz

E-drive

FREQUENCY INVERTER FOR THE CONTROL OF ELECTRIC PUMPS

E-*drive* is a device for the control and protection of pumping systems based on frequency variations in the power supply of the pump.
E-*drive* can be connected to any pump on the market, it manages operation to maintain set physical quantities constant (pressure, flow or temperature of fluid or more) depending on the conditions of use. In this way the pump is operated only as and when needed without wasting energy and as such extending its life.

APPLICATIONS

- Domestic and industrial water supply
- Irrigation
- Heating and air conditioning
- Filtering and pressure washing

TECHNICAL DETAILS

- Energy and financial savings
- Easy system installation and at a lower cost
- Longer system life
- Increased reliability

TECHNICAL DATA

- Power supply frequency: 50-60 Hz (+/-2%)
- Max working ambient temperature under a nominal load: 40°C (104 °F)
- Max altitude under a nominal load: 1000 m
- Protection degree: IP55 (NEMA 4)
- Configurable digital outputs NO or NC:
  1. running motor signal
  2. alarm
  3. pump control DOL 1
  4. pump control DOL 2
- Analogue inputs, (10 or 15 Vdc):
  1. 4-20 mA
  2. 4-20 mA
  3. 4-20 mA/0-10 Vdc (configurable)
  4. 4-20 mA/0-10 Vdc (configurable)
- 4 Digital inputs, configurable NO or NC, to start and stop the motor
- Serial RS485

ELECTRIC DATA TABLE

Model	V_{in} +/- 15% [V]	Max. V_{out} [V]	I_{out} [A]	P_2 typical motor [kW]	Dimensions [mm]
E-*drive* 1500	1 ~ 230	1 x 230	9	1.1	181x181x228
		3 x 230	7	1.5	
E-*drive* 3000	1 ~ 230	1 x 230	9	1.1	
		3 x 230	11	3	
E-*drive* 2200	3 x 400	3 x 400	6	2.2	
E-*drive* 4000	3 x 400	3 x 400	9	4	
E-*drive* 5500	3 x 400	3 x 400	14	5.5	260x260x180
E-*drive* 7500	3 x 400	3 x 400	18	7.5	
E-*drive* 11000	3 x 400	3 x 400	25	11	
E-*drive* 15000	3 x 400	3 x 400	30	15	
E-*drive* 18500*	3 x 400	3 x 400	38	18.5	680x410x260
E-*drive* 22000*	3 x 400	3 x 400	48	22	
E-*drive* 30000*	3 x 400	3 x 400	65	30	
E-*drive* 37000*	3 x 400	3 x 400	75	37	
E-*drive* 45000*	3 x 400	3 x 400	85	45	

* Supplied with the standard wall mounting kit

PRESSCOMFORT

PRESSURE REGULATOR

PRESSCOMFORT is an automatic electronic appliance, destined to regulate functioning of the electric pumps, without using booster reservoirs. This unit manages the automatic start and stop of the pump when opening or closing any tap or valve of the installation. When the pump starts, it keeps running while it exits any tap opened in the system, giving the network the required flow rate. In there is no suction air, the pump stop automatically.
PRESSCOMFORT allows:
- manual restore (RESET key)
- automatic restore after 1, 6, 12 or 24 hours.
If on suction the water returns to a pressure exceeding the fixed value for pump start-up, PRESSCOMFORT is restored automatically.

TECHNICAL DETAILS

- Replaces the traditional expansion tank, probe, float
- Available with or without cable
- Automatic regulation
- Adjustable start-up pressure
- Incorporated non-return valve
- Functioning indicator
- Connection cable on the pump terminal box (for wired version only)
- Power supply cable (1.5 m) with standard socket (for wired version only)

TECHNICAL DATA

- Maximum temperature of the water: 60° C
- Maximum flow rate: 10,000 l/h
- Start-up pressure: 1.5-2.5 bar
- Maximum use pressure: 10 bar ±10%
- Power supply voltage: 220V - 50/60 Hz
- Maximum current intensity: 10A
- IP 55 protection degree
- G1 connections (pump and outlet side)
- Weight: 0.6 kg

E-POWER

VARIABLE SPEED CONTROL SYSTEM

METALLIC PIPING
WITHOUT ANY VALVE

Electronic device based on inverter technology for electric pumps control. It controls the start-up and stop of the electric pump and modulates the motor rotations based on the water intake, maintaining a constant preset working pressure. It ensures high comfort for the end user, significant energy savings and longer life of the plant, typical advantages of inverter autoclave systems, including dry running protection for the electric pump

TECHNICAL DETAILS

- Installation on metallic piping without valve:
  - optimum cooling
  - no pressure drops
- Master/slave operation for the realisation of units of up to 2 pumps
- Very few parameters for commissioning (desired pressure, pump current)
- ON/OFF input for minimum level float or remote switch
- Output relays for alarm signal or second pump control
- Simple and intuitive display interface
- Gradual start and stop (water hammering reduced)
- Several guards with programmable automatic reset

TECHNICAL DATA

- Installation: on pipe
- Installation position: any
- Connections: 1”¼ male
- Power supply voltage: single phase 230V
- Output voltage (pump): three phase 230V
- Phase current: max 10 A
- Maximum pump power: 2.2 kW
- Output Frequency: 5÷60Hz
- Display: 2 digit alphanumeric
- Protection degree: IP 65
- Working temperature: 5÷40 °C
- Pressure set point: 0.3÷8 bar
- Maximum overpressure: 12 bar
- Electric safety: EN60730
- Electromagnetic compatibility: EN61000 (specific standards in the CE certificate)
- Protections:
  - Dry running
  - Over/under voltage
  - Short circuit
  - Over-current
  - Over temperature
  - Insufficient pressure
  - Sensor failure
- Pressure boosting units: up to two pumps
- Weight: 2 kg

PRESSURE LOSS TABLE

Pressure drop (Pc) in metres of column of water for every one hundred metres of new cast iron pipe. Speed of the liquid in the pipe in metres/second.

Flow rate [m³/h]		Internal diameter [mm]																										
		25	32	40	50	60	70	80	90	100	125	150	175	200	225	250	275	300	350	400	450	500	600	700	800	900	1000
3	Pc % Vm/s	17 1.70	6 1.03	1.6 0.67	0.54 0.43	0.25 0.29	0.13 0.22	0.06 0.16	0.03 0.13	0.02 0.10																	
6	Pc % Vm/s		24 2.06	6 1.34	2 0.85	0.9 0.58	0.43 0.44	0.21 0.32	0.13 0.26	0.08 0.20	0.026 0.13																
9	Pc % Vm/s			12.5 2.08	4.3 1.32	1.8 0.89	0.9 0.65	0.46 0.5	0.25 0.39	0.15 0.32	0.06 0.20															
12	Pc % Vm/s			20 2.76	7 1.76	3.2 1.19	1.5 0.88	0.75 0.67	0.44 0.53	0.25 0.43	0.09 0.27	0.03 0.18														
15	Pc % Vm/s				12 2.2	5.2 1.49	2.4 1.1	1.25 0.87	0.7 0.66	0.42 0.54	0.15 0.34	0.06 0.24														
18	Pc % Vm/s				17 2.64	7 1.78	3.5 1.3	1.7 1	1 0.78	0.6 0.64	0.2 0.4	0.08 0.28														
21	Pc % Vm/s				22 3.35	8.8 2.08	4.2 1.54	2.2 1.17	1.3 0.93	0.75 0.75	0.26 0.48	0.1 0.32	0.05 0.24													
24	Pc % Vm/s					12 2.38	5.7 1.76	3 1.34	1.7 1.06	1 0.86	0.36 0.54	0.14 0.36	0.07 0.28													
27	Pc % Vm/s					14 2.7	7 1.97	3.5 1.45	2 1.17	1.25 0.96	0.42 0.6	0.17 0.42	0.08 0.31													
30	Pc % Vm/s					17 2.98	8.2 2.2	4.2 1.74	2.5 1.32	1.5 1.08	0.5 0.68	0.2 0.48	0.09 0.34													
36	Pc % Vm/s					25 3.58	12 2.63	6.3 2	3.5 1.58	2 1.28	0.75 0.82	0.3 0.57	0.14 0.42	0.07 0.32												
42	Pc % Vm/s						16 3.07	8.5 2.34	4.5 1.85	2.7 1.5	0.85 0.96	0.33 0.66	0.18 0.48	0.08 0.37												
48	Pc % Vm/s						21 3.51	10 2.68	6 2.12	3.6 1.72	1.2 1.08	0.45 0.72	0.22 0.56	0.12 0.43	0.06 0.34											
54	Pc % Vm/s						25 3.94	13.5 3	7.6 2.34	4.5 1.92	1.5 1.2	0.55 0.84	0.28 0.63	0.14 0.48	0.08 0.38											
60	Pc % Vm/s							16 3.32	9 2.64	5.5 2.16	1.8 1.36	0.7 0.96	0.33 0.68	0.17 0.53	0.1 0.42											
75	Pc % Vm/s							24 4.17	14 3.31	8 2.68	2.76 1.72	1 1.18	0.49 0.87	0.24 0.67	0.14 0.53	0.08 0.43										
90	Pc % Vm/s								20 3.97	12.5 3.24	3.8 2.04	1.45 1.44	0.74 1.02	0.36 0.8	0.2 0.63	0.14 0.51	0.08 0.42									
105	Pc % Vm/s								26 4.6	16.5 3.74	5.3 2.41	1.95 1.66	0.9 1.22	0.47 0.93	0.27 0.74	0.16 0.59	0.1 0.49									
120	Pc % Vm/s									21.5 4.31	6.9 2.72	2.6 1.93	1.2 1.35	0.61 1.06	0.36 0.84	0.2 0.68	0.14 0.56	0.08 0.47								
135	Pc % Vm/s									26 4.81	9 3.07	3.3 2.13	1.5 1.56	0.76 1.19	0.45 0.95	0.25 0.76	0.17 0.63	0.1 0.53								
150	Pc % Vm/s										11 3.44	4 2.36	1.9 1.74	0.95 1.34	0.55 1.05	0.3 0.86	0.21 0.70	0.12 0.59	0.06 0.43							
165	Pc % Vm/s										13 3.75	4.7 2.61	2.2 1.91	1.13 1.46	0.65 1.15	0.37 0.94	0.24 0.77	0.15 0.65	0.08 0.48							
180	Pc % Vm/s										15.2 4.09	5.5 2.83	2.6 2.08	1.3 1.59	0.76 1.26	0.43 1.02	0.29 0.84	0.18 0.71	0.09 0.52							
210	Pc % Vm/s										21 4.70	7.4 3.32	3.5 2.43	1.8 1.86	1.1 1.49	0.6 1.19	0.37 0.98	0.24 0.82	0.12 0.61	0.06 0.47						
240	Pc % Vm/s											9.4 3.78	4.3 2.77	2.3 2.12	1.3 1.68	0.75 1.36	0.48 1.12	0.3 0.95	0.15 0.69	0.08 0.53						
270	Pc % Vm/s											12 4.26	5.5 3.13	2.8 2.39	1.62 1.90	0.9 1.53	0.58 1.26	0.35 1.07	0.18 0.78	0.09 0.59						
300	Pc % Vm/s											14 4.75	7.5 3.47	3.4 2.66	2 2.10	1.1 1.71	0.74 1.40	0.46 1.18	0.22 0.86	0.11 0.67	0.07 0.53					
360	Pc % Vm/s												9 4.15	4.7 3.17	2.8 2.53	1.6 2.04	1 1.68	0.65 1.41	0.32 1.04	0.16 0.79	0.09 0.63	0.05 0.51				
420	Pc % Vm/s												11.6 4.86	6.2 3.72	3.5 2.94	2 2.37	1.3 1.96	0.82 1.64	0.41 1.22	0.21 0.94	0.12 0.76	0.07 0.59	0.03 0.41			
480	Pc % Vm/s													8.5 4.24	4.9 3.36	2.9 2.72	1.9 2.24	1.2 1.90	0.6 1.38	0.3 1.06	0.17 0.84	0.09 0.69	0.04 0.47			
540	Pc % Vm/s													11 4.78	6.5 3.80	3.7 3.06	2.35 2.52	1.52 2.13	0.75 1.56	0.38 1.19	0.22 0.94	0.12 0.76	0.05 0.53			
600	Pc % Vm/s													12.2 5.30	7.4 4.20	4.3 3.40	2.7 2.81	1.7 2.36	0.9 1.73	0.45 1.34	0.25 1.06	0.13 0.86	0.055 0.61	0.024 0.44		
660	Pc % Vm/s														9 4.61	5.2 3.76	3.3 3.07	2.1 2.59	1.1 1.89	0.54 1.46	0.3 0.15	0.16 0.93	0.06 0.65	0.03 0.48		
720	Pc % Vm/s														10 5.05	6 4.08	3.8 3.37	2.5 2.84	1.3 2.08	0.52 1.65	0.35 1.26	0.19 1.02	0.075 0.71	0.035 0.52		
780	Pc % Vm/s															7.3 4.43	4.5 3.65	3 3.08	1.5 2.26	0.75 1.73	0.42 1.36	0.23 1.11	0.08 0.77	0.04 0.56		
840	Pc % Vm/s															8 4.76	5.4 3.95	3.4 3.31	1.7 2.43	0.85 1.86	0.48 1.47	0.26 1.19	0.1 0.83	0.047 0.61		
900	Pc % Vm/s															9 5.1	5.8 4.22	3.75 3.54	1.9 2.60	0.96 2.00	0.53 1.57	0.29 1.27	0.11 0.88	0.053 0.65		
960	Pc % Vm/s																6.5 4.49	4.3 3.78	2.1 2.77	1.1 2.13	0.6 1.68	0.32 1.36	0.12 0.95	0.06 0.70		
20	Pc % Vm/s																7.2 4.76	4.6 4.01	2.45 2.94	1.2 2.26	0.67 1.78	0.35 1.44	0.14 1.00	0.065 0.77	0.033 0.54		
1080	Pc % Vm/s																	5.4 4.26	2.8 3.12	1.4 2.38	0.78 1.86	0.43 1.53	0.16 1.06	0.073 0.78	0.073 0.57		
1140	Pc % Vm/s																	6 4.49	3.2 3.29	1.53 2.53	0.86 1.99	0.46 1.65	0.175 1.12	0.08 0.84	0.043 0.61	0.073 0.52	
1200	Pc % Vm/s																	6.5 4.72	3.4 3.45	1.7 2.68	0.93 2.12	0.5 1.72	0.19 1.23	0.09 0.88	0.046 0.63	0.04 0.54	0.025 0.4

It is possible to estimate the pressure drops caused by accessories with the following comparisons:

-Foot valve: like 15 m of piping
-Non-return valve: like 10 m of piping
-Gate: like 5 m of piping
-Bends and elbows: like 5 m of piping

For piping different to the new cast iron ones, multiply the data in the table by the following coefficients:

- stainless steel 0.8
- PVC 0.7
- gres. 1.17
- rolled steel. 0.8
- galvanised steel. 0.8
- slightly rusty pipes. 1.25
- rusty pipes with a lot of deposits 2.1

Recommended discharge diameter

Recommended suction diameter

SPECIFIC PERFORMANCE

The specifications below qualify the curves shown in our catalogues and Data Book (see www.ebaraeurope.com).
All the performance curves are calculated according to ISO 9906 Attachment A.

Tolerance according to ISO 9906 Attachment A.
The curves refer to an effective speed of the 50 asynchronous motors.
The measurements are made with water temperature of 20°C and cinematic viscosity of ν= 1 mm^2/s (1 cSt).
The NPSH curve is a mean curve obtained under the same conditions as the performance curves.
The continuous curves indicate the recommended working range. The dotted curve is only a guide.
In order to prevent the risk of overheating, the pumps must not be used at a flow rate below 10% of the maximum efficiency flow rate.

During selection of the pumps, there is a safety margin of at least 1 m.

Symbols: Q = Volume flow rate [m3/h]
H = Total head [m]
P1 = Power absorbed by the electric line
P2 = Power at motor axis (power absorbed by the pump)
η = Pump efficiency
NPSH = Net positive suction head required by the pump
MEI = Minimum Efficiency Index

The minimum efficiency index (MEI) is a measure of the quality of a pump size in respect to its mean efficiency.
The minimum efficiency index is based on the hydraulic efficiency and on the head at the best efficiency point.

The efficiency of a pump with trimmed impeller is usually lower than that of a pump with the full impeller diameter.
The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption.
The minimum efficiency index (MEI) is based on the full impeller diameter.

The operation of the water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

DNV·GL

MANAGEMENT SYSTEM CERTIFICATE

Certificato No./Certificate No.: CERT-17819-2006-AQ-VEN-SINCERT
Data prima emissione/Initial date: 13 ottobre 2006
Validità/Valid: 10 ottobre 2015 - 10 ottobre 2018

Si certifica che il sistema di gestione di/This is to certify that the management system of

EBARA PUMPS EUROPE S.p.A.

Via Pacinotti, 32 - 36040 Brendola (VI) - Italy

È conforme ai requisiti della norma per il Sistema di Gestione Qualità/
has been found to conform to the Quality Management System standard:

UNI EN ISO 9001:2008 (ISO 9001:2008)

Questa certificazione è valida per il seguente campo applicativo:
Progettazione, produzione, vendita e commercializzazione di pompe e sistemi di pompaggio
(Settore EA: 18 - 17 - 14)

This certificate is valid for the following scope:
Design, manufacture, sales and trade of pumps and pumping systems
(EA Sector: 18 - 17 - 14)

Luogo e Data/Place and date:
Vimercate, 06 agosto 2015

ACCREDIA

Per l'Organismo di Certificazione/
For the Certification Body
Vittore Marangon
Management Representative

La validità del presente Certificato è subordinata al rispetto delle condizioni contenute nel Contratto di Certificazione/
Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

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