

50 Hz



e-MP Series

MPA, MPR, MPD, MPV

HIGH PRESSURE
MULTISTAGE PUMPS ACCORDING TO ISO 5199

Cod. 191002221 Rev. C Ed.01/2018

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a xylem brand

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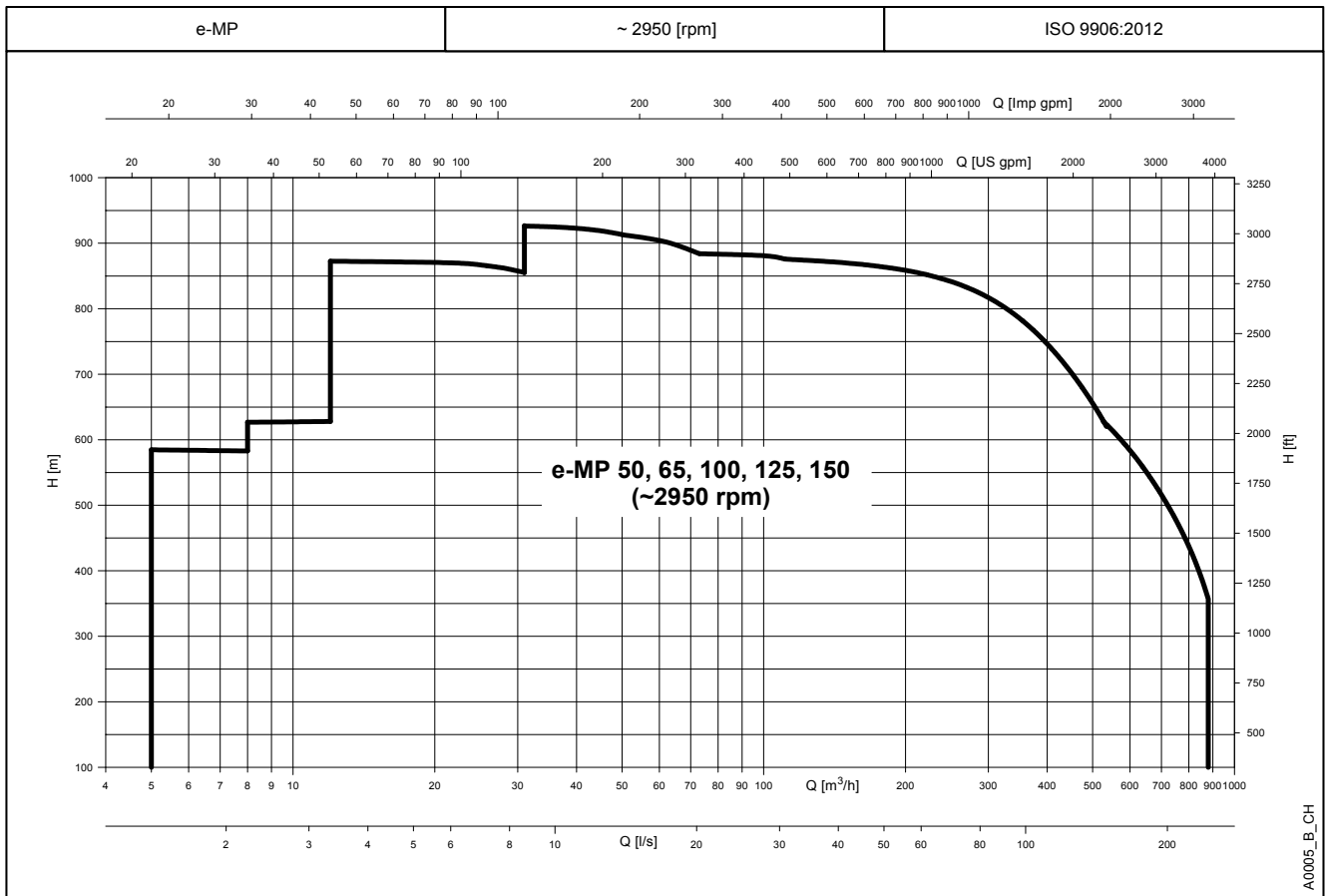
For more information, please, see page 151-152.

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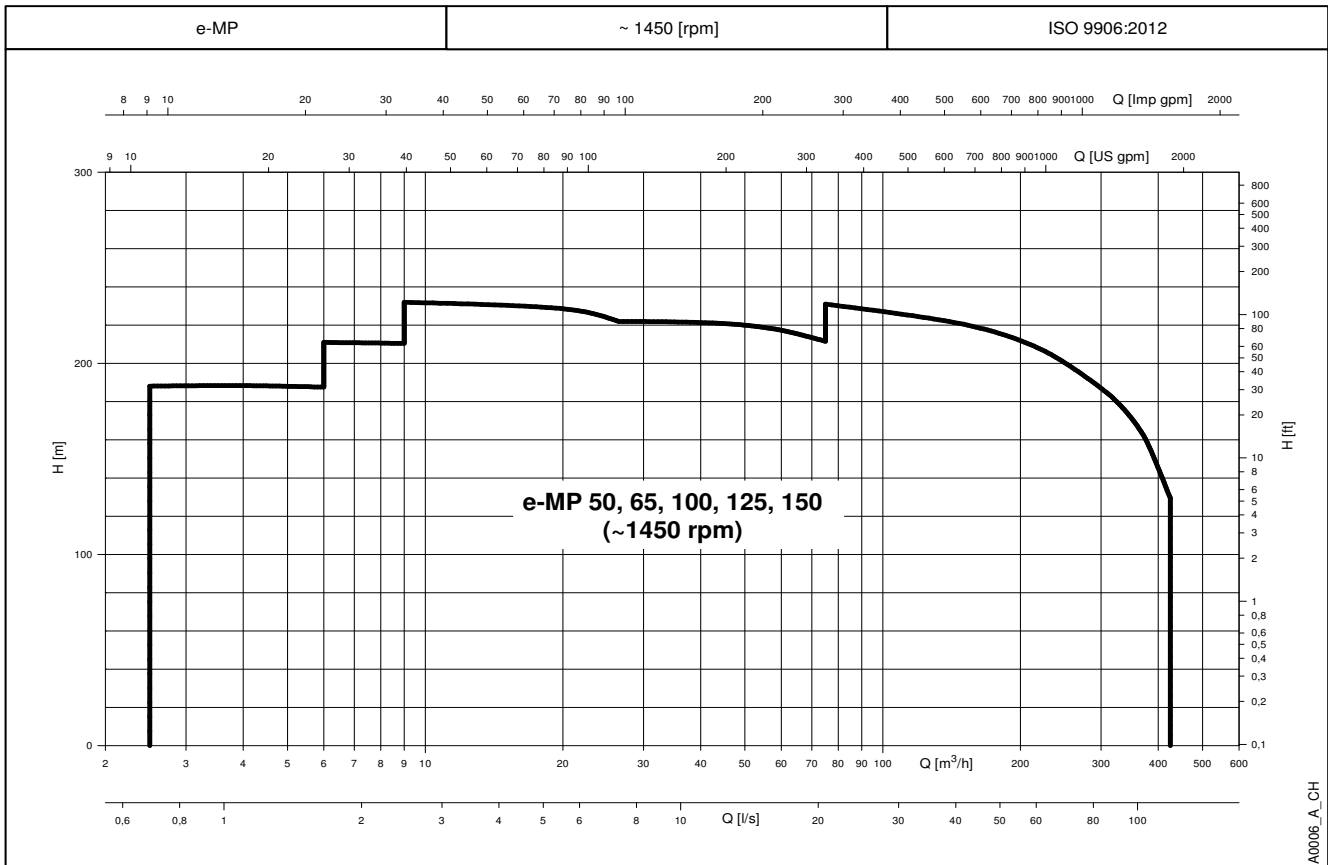
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e-MP SERIES

HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES



HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES



e-MP SERIES

HIGH PRESSURE MULTISTAGE RING SECTION PUMPS

Markets and applications:

➤ **General industry**

All productive industries, i.e. steel, sugar, timber, tire and rubber, pulp and paper, car, food and beverage.

Applications: Cooling and heating circuits for industrial processes, sprinkler systems, washing/cleaning systems, firefighting systems, filter systems, water transport, booster systems, water treatment systems.

➤ **Oil and gas**

on-shore platform, off-shore platforms, refineries, fracking.

Applications: Transport of crude oil, sea water/water injection, firefighting systems, water transport, water treatment.

➤ **Power plants**

Renewable energy, hydropower, biomass, geothermal, fossil power.

Applications: Boiler feed, condensate pumping, deaerator, water injection, water transport, auxiliary systems, firefighting systems, cooling and heating circuits, district cooling and heating system.

➤ **Mining**

Applications: Dewatering (filtered water), water transport, firefighting systems.

➤ **Agriculture**

Applications: water transport, irrigation.

➤ **Leisure industry**

i.e. skiing resorts, leisure parks, spas.

Applications: Snow making (feeding the snow canons), water transport, water boosting.

➤ **Public utilities**

i.e. water works, desalination plants, drainage and flood protection, tunnels.

Applications: District cooling and heating systems, water transport, water treatment systems, desalination, reverse osmosis, nanofiltration, firefighting systems, booster systems.

➤ **Commercial building service**

Applications: Water transport, booster systems, firefighting systems, HVAC systems.

➤ **Others**

i.e. Auxiliary applications in chemical industry, all water boosting applications.

Applications: Boiler feed, condensate pumping, deaerator, water injection, water transport, auxiliary systems, firefighting systems, cooling and heating circuits, district cooling and heating system.

Pumpable fluids:

- | | |
|------------------------------------|-------------------------|
| ➤ Water | ➤ Hot water |
| ➤ Grey/used water | ➤ Condensate |
| ➤ Ground water | ➤ Cooling/heating water |
| ➤ Potable water (ACS, DM 174/2004) | ➤ Solvents |
| ➤ Thermal water | ➤ Lubricants |
| ➤ Sea water in all regions | ➤ Crude oil |
| ➤ Brackish water | ➤ Oil emulsions |
| ➤ Feed water | ➤ Fuels |

Pump design:

The **e-MP** series is a highly efficient and flexible multistage ring section pump.

4 mechanical models build the basic platform for various horizontal and vertical configurations to meet requirements for the defined markets, applications and liquids.

**e-MP SERIES
DESIGN VERSIONS**

CONFIGURATION	DESCRIPTION
<p>Model MPA</p> 	<p>Closed radial Impeller and U-turn diffuser design</p> <ul style="list-style-type: none"> • Horizontal shaft design • Axial suction nozzle • Radial discharge nozzle (left, top, right) • Drive on discharge side • Radial/Axial roller bearing on drive side • Plain bearing on suction side • Axial thrust balancing by drum design • Shaft sealing on discharge side only • Bare shaft or pump unit • Driver: electric motor - IEC or NEMA standard • IC-engine, turbine • Temperature range: (-25°C) -10°C to 140°C (180°C) • Inlet pressure: up to 10 bar
<p>Model MPR</p> 	<p>Closed radial Impeller and U-turn diffuser design</p> <ul style="list-style-type: none"> • Horizontal shaft design • Axial suction nozzle • Radial suction nozzle (left, top, right) • Radial discharge nozzle (left, top, right) • Drive on discharge side • Radial/Axial roller bearing on drive side • Plain bearing on suction side • Axial thrust balancing by drum design • Shaft sealing on discharge side only • Bare shaft or pump unit • Driver: electric motor - IEC or NEMA standard • IC-engine, turbine • Temperature range: (-25°C) -10°C to 140°C (180°C) • Inlet pressure: up to 10 bar
<p>Model MPD</p> 	<p>Closed radial Impeller and U-turn diffuser design</p> <ul style="list-style-type: none"> • Horizontal shaft design • Axial suction nozzle • Radial suction nozzle (left, top, right) • Radial discharge nozzle (left, top, right) • Drive on discharge side (optional suction side) • Radial/Axial roller bearing on drive side • Radial roller bearing on suction side • Axial thrust balancing by drum design • Shaft sealing on suction and discharge side • Bare shaft or pump unit • Driver: electric motor - IEC or NEMA standard • IC-engine, turbine • Temperature range: (-25°C) -10°C to 140°C (180°C) • Inlet pressure: up to 40 bar
<p>Model MPV</p> 	<p>Closed radial Impeller and U-turn diffuser design</p> <ul style="list-style-type: none"> • Vertical shaft design • Radial suction nozzle (0°, 90°, 180°, 270°) • Radial discharge nozzle (0°, 90°, 180°, 270°) • Drive on discharge side • Radial/Axial roller bearing on drive side • Plain bearing on suction side • Axial thrust balancing by drum design • Shaft sealing on discharge side only • Bare shaft or pump unit • Driver: electric motor - IEC or NEMA standard up to 355kW (400kW) • Temperature range: (-25°C) -10°C to 140°C • Inlet pressure: up to 10 bar

e-MP SERIES GENERAL CHARACTERISTICS

STAGE NUMBERS & POWER LIMITS AT 50 Hz - 63 bar										
SIZE	HYDRAULIC	DESIGN	MPA		MPR		MPD		MPV	
		SPEED [rpm]	2950	1475	2950	1475	2950	1475	2950	1475
50	A	Max. Stages	15	18	15	18	15	18	15	18
		Max. Power [kW]	75	11	75	11	75	11	75	11
	B	Max. Stages	15	18	15	18	15	18	14	18
		Max. Power [kW]	110	15	110	15	110	15	90	15
65	A	Max. Stages	10	15	10	15	10	15	7	15
		Max. Power [kW]	132	30	132	30	132	30	90	30
	B	Max. Stages	10	15	10	15	10	15	5	13
		Max. Power [kW]	200	37	200	37	200	37	90	30
100	A	Max. Stages	7	11	7	11	7	11	7	11
		Max. Power [kW]	250	55	250	55	250	55	250	55
	B	Max. Stages	7	11	7	11	7	11	6	11
		Max. Power [kW]	315	75	315	75	315	75	250	75
125	A	Max. Stages	5	8	5	8	5	8	5	8
		Max. Power [kW]	450	90	450	90	450	90	400	90
	B	Max. Stages	5	8	5	8	5	8	3	8
		Max. Power [kW]	630	132	630	132	630	132	400	132
150	A	Max. Stages	4	6	4	6	4	6	2	6
		Max. Power [kW]	900	160	900	160	900	160	400	160
	B	Max. Stages	4	6	4	6	4	6	2	6
		Max. Power [kW]	1250	250	1250	250	1250	250	400	250

MP_models-50-63-en_b_sc

STAGE NUMBERS & POWER LIMITS AT 50 Hz - 100 bar										
SIZE	HYDRAULIC	DESIGN	MPA		MPR		MPD		MPV	
		SPEED [rpm]	2950	1475	2950	1475	2950	1475	2950	1475
50	A	Max. Stages	--	--	--	--	--	--	--	--
		Max. Power [kW]	--	--	--	--	--	--	--	--
	B	Max. Stages	--	--	--	--	--	--	--	--
		Max. Power [kW]	--	--	--	--	--	--	--	--
65	A	Max. Stages	15	--	15	--	15	--	--	--
		Max. Power [kW]	200	--	200	--	200	--	--	--
	B	Max. Stages	14	--	14	--	14	--	--	--
		Max. Power [kW]	250	--	250	--	250	--	--	--
100	A	Max. Stages	11	--	11	--	11	--	--	--
		Max. Power [kW]	400	--	400	--	400	--	--	--
	B	Max. Stages	10	--	10	--	10	--	--	--
		Max. Power [kW]	440	--	440	--	440	--	--	--
125	A	Max. Stages	8	--	8	--	8	--	--	--
		Max. Power [kW]	750	--	750	--	750	--	--	--
	B	Max. Stages	7	--	7	--	7	--	--	--
		Max. Power [kW]	820	--	820	--	820	--	--	--
150	A	Max. Stages	6	--	6	--	6	--	--	--
		Max. Power [kW]	1250	--	1250	--	1250	--	--	--
	B	Max. Stages	5	--	5	--	5	--	--	--
		Max. Power [kW]	1300	--	1300	--	1300	--	--	--

MP_models-50-100-en_b_sc

PUMP SIZE	FLOW AT 2900 rpm			FLOW AT 1450 rpm		
	Q _{MIN} SHORT TIME OPERATION* [m³/h]	Q _{MIN} PERMANENT OPERATION [m³/h]	Q _{BEP} [m³/h]	Q _{MIN} SHORT TIME OPERATION* [m³/h]	Q _{MIN} PERMANENT OPERATION [m³/h]	Q _{BEP} [m³/h]
50A	4,0	10,0	31,5	1,8	5,0	16,0
50B	6,0	15,0	43,5	3,0	6,5	21,5
65A	8,0	25,0	72,0	4,0	11,0	35,0
65B	10,0	34,0	95,0	5,0	15,0	47,0
100A	14,0	50,0	125,0	7,0	20,0	60,0
100B	20,0	72,0	180,0	10,0	26,0	85,0
125A	30,0	120,0	272,0	15,0	40,0	133,0
125B	45,0	160,0	350,0	22,0	50,0	170,0
150A	60,0	250,0	500,0	30,0	75,0	250,0
150B	80,0	340,0	680,0	40,0	100,0	330,0

*SHORT TIME OPERATION = 10%

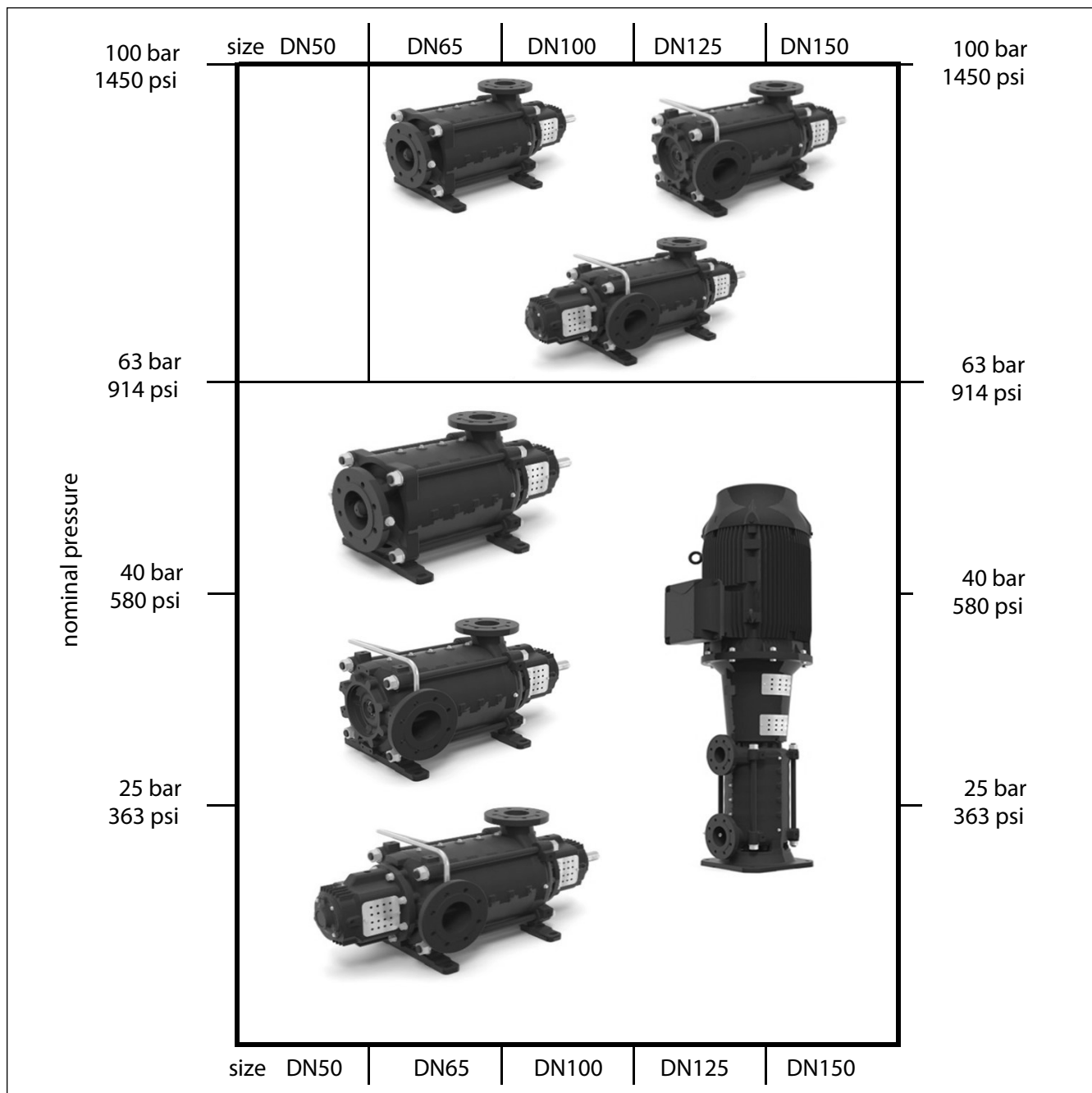
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**e-MP SERIES
OPERATING DATA**

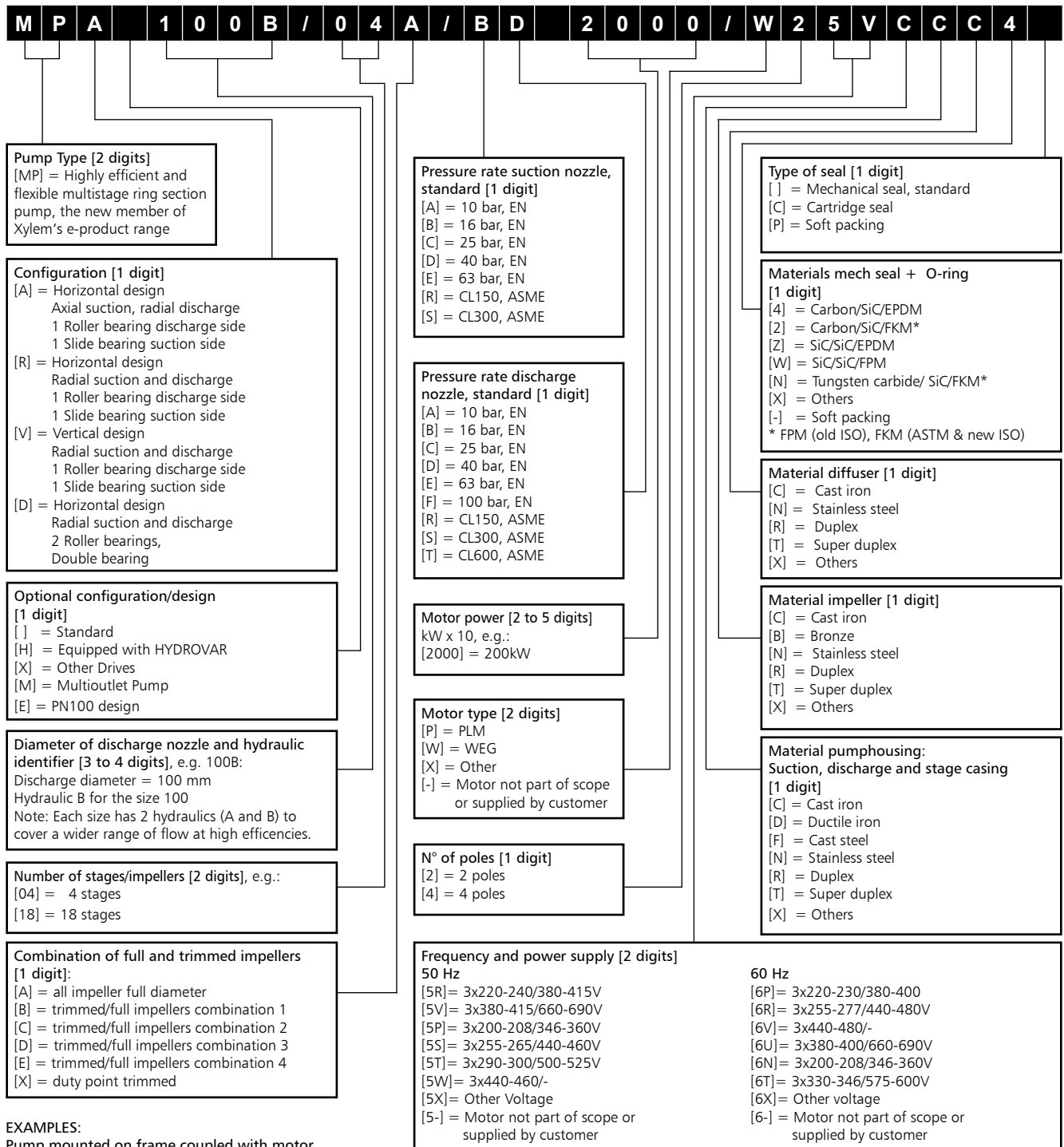
DATA	VALUE
Mechanical sizes	DN50 to DN150
Power	2-pole operation: 5,5 kW to 1.250 kW (2-pole) / 7,5 hp to 1.700 hp 4-pole operation: 2,2 kW to 250 kW (4-pole) / 3 hp to 335 hp
Heads	up to 950 m / 3.100 ft
Flows	up to 850 m ³ /h / 3.740 USg.p.m
Temperature	-25°C to + 140°C, optional 180°C / -13°F to +284°F, optional 356°F
Operating pressures	up to 100 bar / 1.450 psi

En-Rev_B

OPERATING RANGE BY SIZE AND DESIGN



e-MP SERIES IDENTIFICATION CODE



EXAMPLES:

Pump mounted on frame coupled with motor
MPA100B/04A/BD2000/W25VCC4

Series e-MP, horizontal configuration, axial suction inlet, radial discharge nozzle, size DN100, hydraulic B, 4 stages/impellers, all impellers with full diameter, 16 bar suction nozzle, 40 bar discharge nozzle, coupled with a 200kW motor from WEG with 2 poles for 50Hz 3x380-415/660-690V supply, frame mounted, suction and discharge casing material made of cast iron, impellers and diffusers made of cast iron, mechanical seal Carbon/SiC, o-rings made of EPDM, mechanical seal.

Pump mounted on frame, with coupling, motor not part of scope or supplied by customer
MPA100B/04A/BD2000/-25-CCC4

Series e-MP, horizontal configuration, axial suction inlet, radial discharge nozzle, size DN100, hydraulic B, 4 stages/impellers, all impellers with full diameter, 16 bar suction nozzle, 40 bar discharge nozzle, frame mounted, coupling and coupling guard included, prepared to assemble a 200kW, 2 pole motor, 50Hz, suction and discharge casing material made of cast iron, impellers and diffusers made of cast iron, mechanical seal Carbon/SiC, o-rings made of EPDM, mechanical seal.

Bareshaft pump
MPA100B/04A/BD/-25-CCC4

Series e-MP, horizontal configuration, axial suction inlet, radial discharge nozzle, size DN100, hydraulic B, 4 stages/impellers, all impellers with full diameter, 16 bar suction nozzle, 40 bar discharge nozzle, 2 pole motor, 50Hz, suction and discharge casing material made of cast iron, impellers and diffusers made of cast iron, mechanical seal Carbon/SiC, o-rings made of EPDM, mechanical seal.

e-MP SERIES IDENTIFICATION CODE AND DESIGN OVERVIEW

Example:

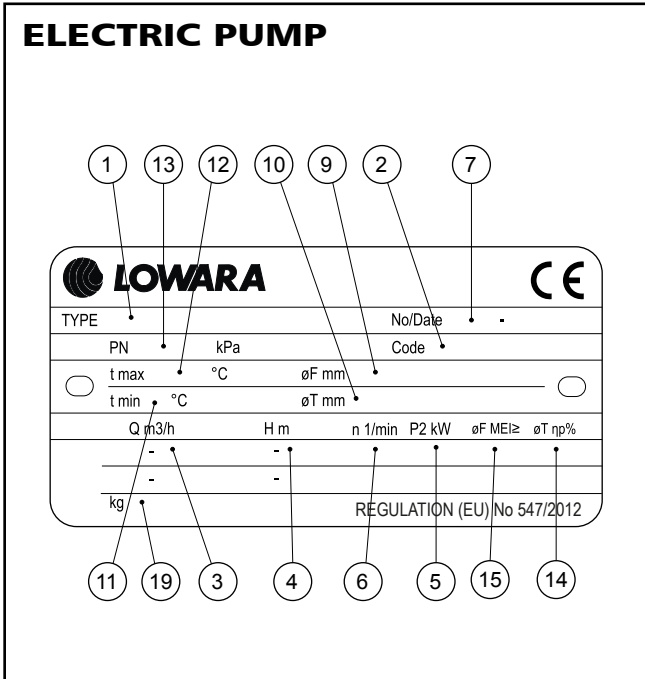
MPA100B/04A/BD2000/W25VCCC4

Digits	Description
MP	Highly efficient and flexible multistage ring section pump Various design features for optimized efficiency values over the complete performance range offering configuration flexibility for a wide range of applications in different markets.
A	Mechanical model Total 4 models to meeting different installation requirements 3 horizontal models: MPA, MPR, MPD 1 vertical model: MPV Pumphousing: Suction casings are available with radial and axial arranged nozzles Discharge casings are available with radial arranged nozzles Radial casing nozzles (suction and discharge) can be turned in 90°C steps Sealing: by O-rings Bearings: Depending on mechanical model: Drive end: Roller bearing (grease or oil lubricated) Non drive end: Roller bearing (grease or oil lubricated) or plain bearing (lubricated by pumped liquid) Coupling and Coupling Guard: Horizontal models: Flexible coupling with and without spacer Vertical model: Close coupled with flexible coupling.
100	Mechanical size (nominal discharge nozzle diameter in mm) Total 5 mechanical sizes: DN50, DN65, DN100, DN125, DN150 to cover best efficiencies points (BEP) over the flow performance range.
B	Hydraulic identifier Total 10 hydraulics: 2 hydraulics (A,B) by mechanical size to increase the coverage of best efficiency points (BEP) over the flow performance range.
04A	Number of stages and impeller trimming identification Up to 18 stages (mechanical size 50) 4 standard impeller trimmings and optional trim of impellers exactly to the required duty point for an optimized efficiency. Impeller design: closed radial with curved vanes.
BD	Nominal pressure identification for suction and discharge pumphousing Housing for nominal pressures, flanges are available for EN and ASME standard: EN: 10, 16, 25, 40, 63, 100bar ASME: CL150, CL300, CL600.
2000	Motor power kW x 10
W2	Motor type and number of poles standard IEC and NEMA motors with 2 and 4poles engineered to order drive options: diesel engine, turbine.
5V	Frequency and power supply identification 50Hz and 60Hz 3 phase power supply for various voltages, up to high voltage.
CCC	Material identification for pumphousing (suction, discharge and stage casing), impeller and diffuser Pumphousing: cast iron, ductile iron, steel, stainless steel (AISI 316), duplex stainless steel, super duplex stainless steel Impeller: cast iron, bronze, stainless steel (AISI 316), duplex stainless steel, super duplex stainless steel Diffuser: cast iron, stainless steel (AISI 316), duplex stainless steel, super duplex stainless steel.
4()	Material identification for mechanical seal and O-ring and type of seal Elastomers: EPM, FKM Shaft sealing: mechanical seal (EN 12756), cartridge seal (single, single quench, double) packing.

En-Rev_A

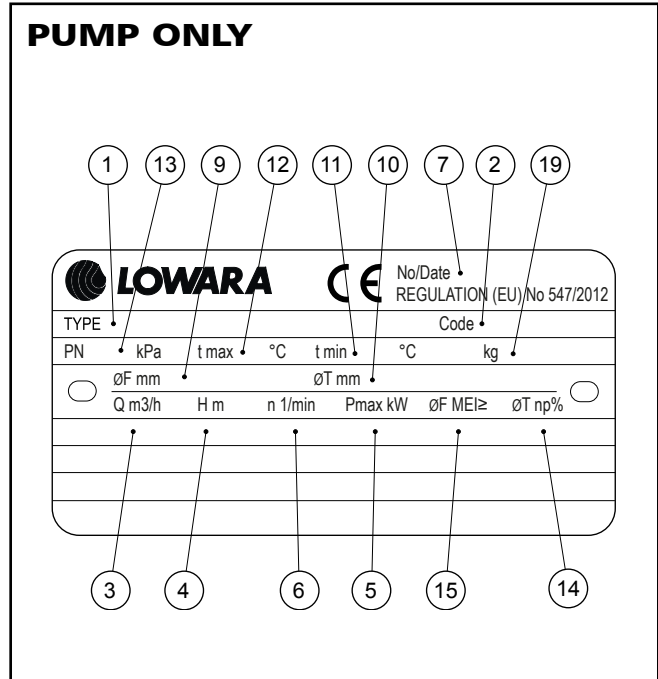
**e-MP SERIES
RATING PLATE**

ELECTRIC PUMP



LOWARA		CE	
TYPE	No/Date		
PN	kPa	Code	
t max °C	°C	øF mm	øT mm
t min °C	°C	øF mm	øT mm
Q m ³ /h	H m	n 1/min	P ₂ kW
øF MEI ≥	øT ηp%	REGULATION (EU) No 547/2012	
kg			

PUMP ONLY



LOWARA		CE		No/Date		REGULATION (EU) No 547/2012	
TYPE	Code			kg			
PN	kPa	t max °C	t min °C				
øF mm	øT mm						
Q m ³ /h	H m	n 1/min	P _{max} kW	øF MEI ≥	øT ηp%		

LEGEND

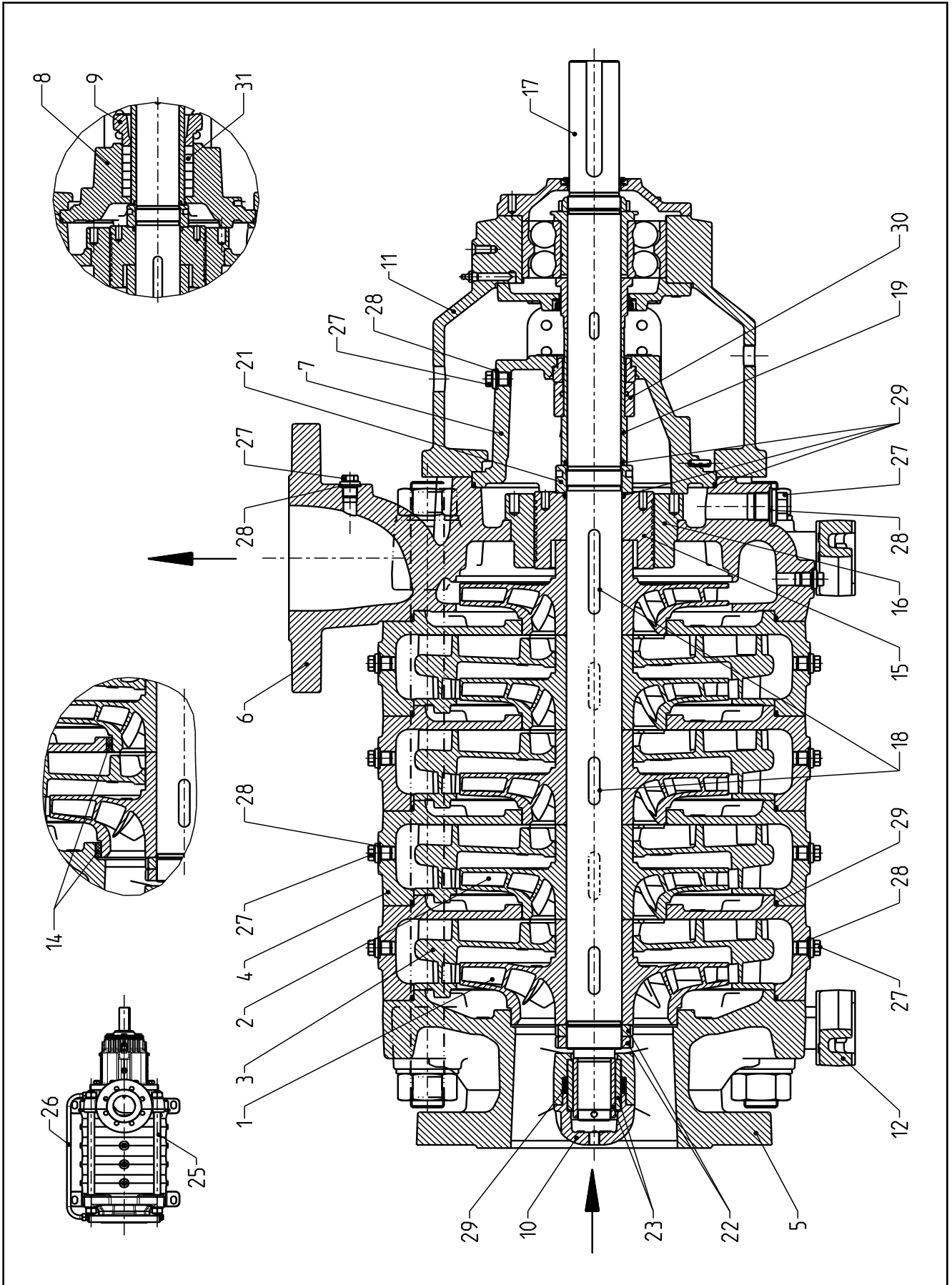
- 1 - Electric pump unit type
- 2 - Electric pump unit code
- 3 - Flow range
- 4 - Head range
- 5 - Nominal or maximum pump power
- 6 - Speed
- 7 - Serial number, or order number + order position number
- 9 - Full impeller diameter (only filled in for trimmed impellers)
- 10 - Trimmed impeller diameter (only filled in for trimmed impellers)
- 11 - Minimum operating liquid temperature
- 12 - Maximum operating liquid temperature
- 13 - Maximum operating pressure
- 14 - Hydraulic efficiency in best efficiency point (50 Hz)
- 15 - Minimum efficiency index MEI, as per Regulation (EU) No 547/2012 (50 Hz)
- 19 - Weight

LEGEND

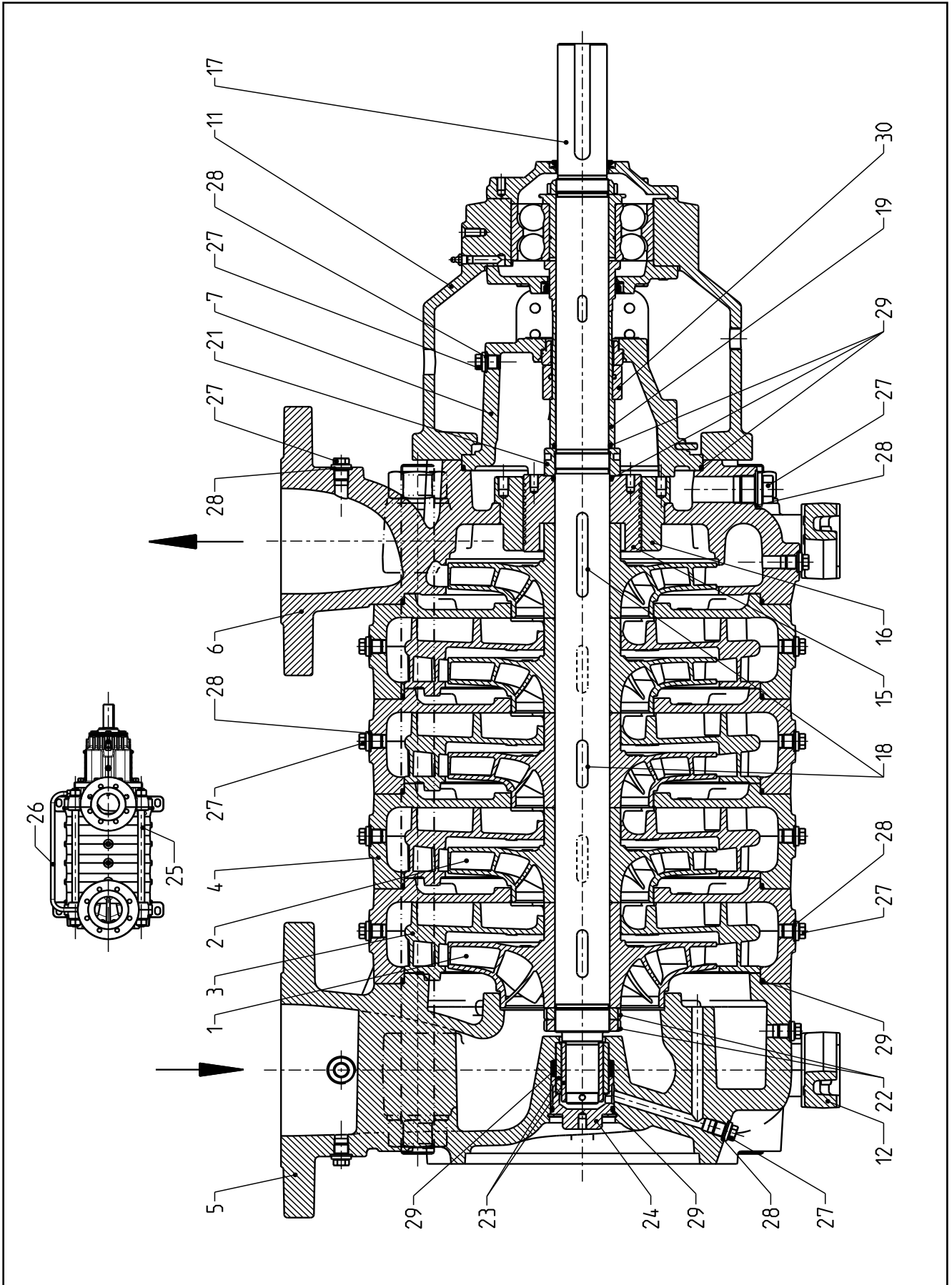
- 1 - Pump type
- 2 - Pump code
- 3 - Flow range
- 4 - Head range
- 5 - Maximum absorbed pump power
- 6 - Speed
- 7 - Serial number, or order number + order position number
- 9 - Full impeller diameter (only filled in for trimmed impellers)
- 10 - Trimmed impeller diameter (only filled in for trimmed impellers)
- 11 - Minimum operating liquid temperature
- 12 - Maximum operating liquid temperature
- 13 - Maximum operating pressure
- 14 - Hydraulic efficiency in best efficiency point (50 Hz)
- 15 - Minimum efficiency index MEI, as per Regulation (EU) No 547/2012 (50 Hz)
- 19 - Weight

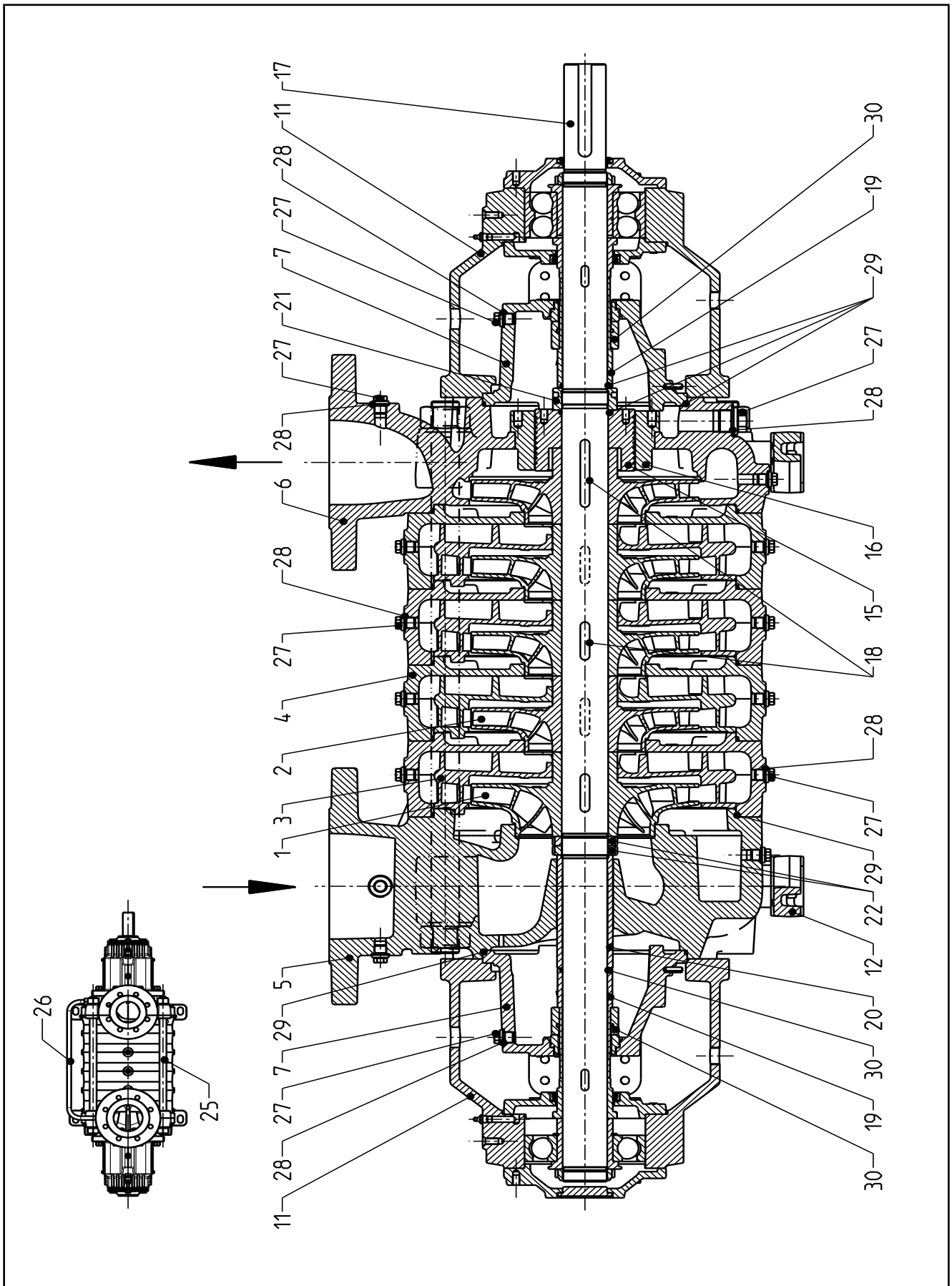
Note for electric pump unit: refer to motor data plate for electrical data.

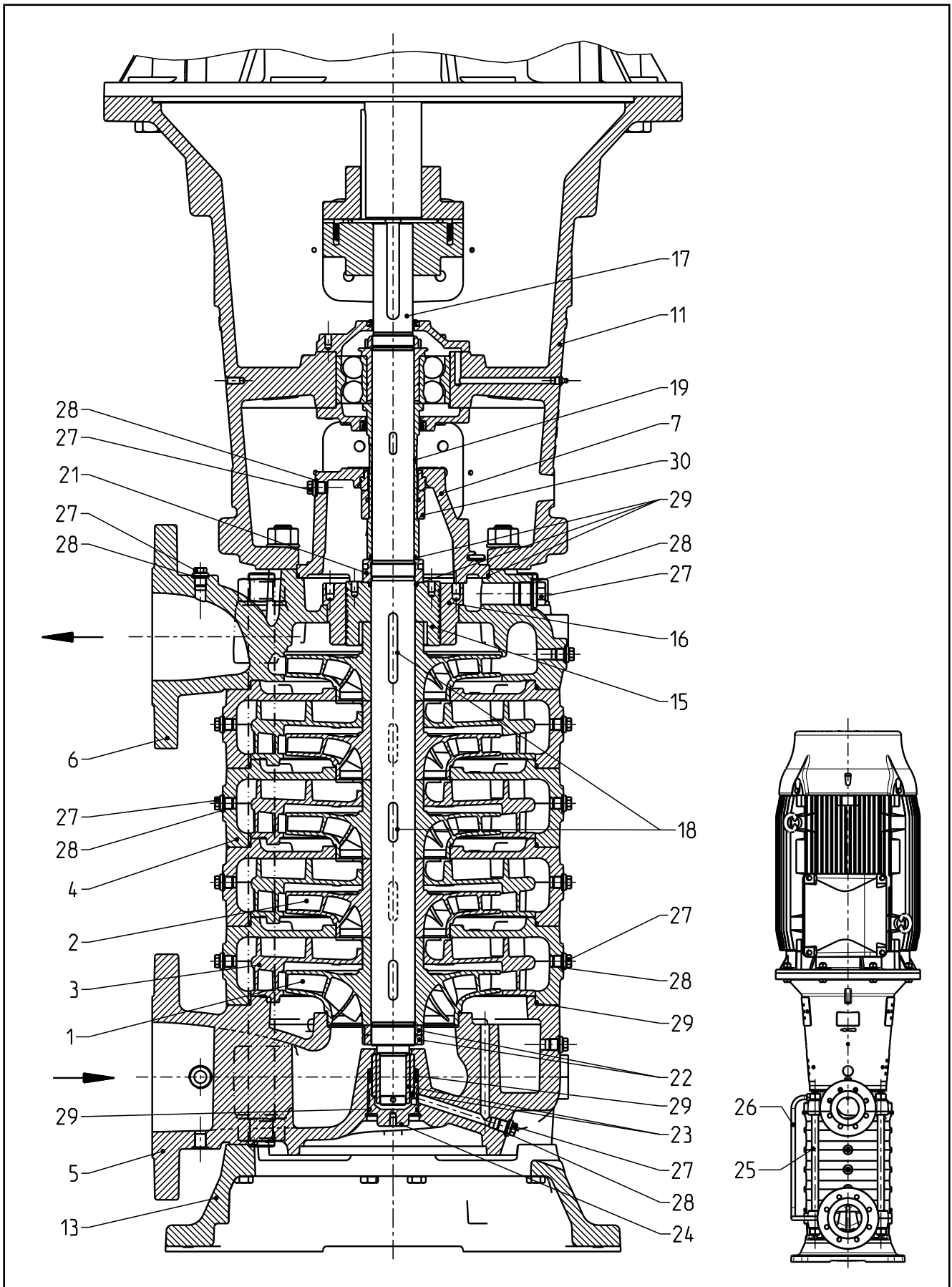
**MPA SERIES
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS**



**MPR SERIES
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS**



**MPD SERIES
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS**

MPV SERIES
ELECTRIC PUMP CROSS-SECTION AND MAIN COMPONENTS


e-MP SERIES TABLE OF MATERIAL REFERENCE STANDARDS

COMPONENTS	MATERIALS	REFERENCE STANDARDS	
		EUROPE	USA ^{*)}
JL1020	Cast Iron	EN 1561 - GJL-150	ASTM Class 25
JL1030	Cast Iron	EN 1561 - GJL-200	ASTM Class 30
JL1040	Cast Iron	EN 1561 - GJL-250	ASTM Class 35
JS1030	Ductile Iron	EN 1563 - GJS-400-15	ASTM 65-45-12
CC480K	Bronze	EN 1982 - CuSn10-C	ASTM C90700
1.4408	Austenitic Stainless Steel	EN 10213-4 - GX5CrNiMo19-11-2	ASTM CF8M
1.4517	Duplex Stainless Steel	EN 10213-4 - GX2CrNiMoCuN25-6-3-3	ASTM CD4MCuN
1.4469	Super Duplex Stainless Steel	EN 10213-4 - GX2CrNiMoCuN26-7-4	ASTM CE3MN
1.0038	Carbon Steel	EN 10025 - S235JR	ASTM Grade C, D
1.4057	Stainless Steel	EN 10088-1 - X17CrNiMo16-2	ASTM 431
1.4571	Stainless Steel	EN 10088-1 - X6CrNiMo17-12-2	ASTM 316Ti
1.4539	Austenitic Stainless Steel	EN 10088-1 - X1CrNiMo25-20-5	ASTM 904L
1.4462	Duplex Stainless Steel	EN 10088-1 - X2CrNiMo22-5-3	ASTM F51
1.4410	Super Duplex Stainless Steel	EN 10088-1 - X2CrNiMo25-7-4	ASTM F53
1.0619	Cast steel	EN 10213 - GP240GH	ASTM A216 WCB
EPDM	Ethylen-Propylen-Dien-Elastomer	-	-
FKM/FPM	Fluoro-Elastomer	-	-
AFM34	Asbestos free synthetic fiber	-	-

*) ... Similar Grade

MP_materials-50-en_c_tc

TABLE OF MATERIAL CODE

Material Code	COMPONENTS						
	Impeller	Diffuser	Casing	Shaft	Shaft Sleeve	Relief Pipe	Plain Bearing
CCC	Cast Iron	Cast Iron	Cast Iron	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
CBC	Bronze	Cast Iron	Cast Iron	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
CNC	Stainless Steel	Cast Iron	Cast Iron	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
DCC	Cast Iron	Cast Iron	Ductile Iron	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
DBC	Bronze	Cast Iron	Ductile Iron	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
DNC	Stainless Steel	Cast Iron	Ductile Iron	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
NNN	Stainless Steel	Stainless Steel	Stainless Steel	Duplex	Duplex	Stainless Steel	Tungsten Carbide
RNN	Stainless Steel	Stainless Steel	Duplex	Duplex	Duplex	Stainless Steel	Tungsten Carbide
RRR	Duplex	Duplex	Duplex	Duplex	Duplex	Austenitic Steel	Tungsten Carbide
TTT	Super Duplex	Super Duplex	Super Duplex	Super Duplex	Super Duplex	Austenitic Steel	Tungsten Carbide
FCC	Cast Iron	Cast Iron	Cast steel	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
FNC	Stainless Steel	Cast Iron	Cast steel	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide
FNN	Stainless Steel	Stainless Steel	Cast steel	Stainless Steel	Stainless Steel	Stainless Steel	Tungsten Carbide

MP_material-en_b_tc

e-MP SERIES
TABLE OF MATERIALS CAST IRON VERSION

REF. N.	PART	PUMP MATERIAL CODE (STANDARD)		
		CCC	CBC	CNC
	MAXIMAL WORKING PRESSURE [bar]	40	40	40
1	SUCTION IMPELLER	JL1030 ⁵⁾	CC480K ⁵⁾	1.4408
2	IMPELLER	JL1030 ⁵⁾	CC480K ⁵⁾	1.4408
3	DIFFUSER	JL1020		
4	STAGE CASING	JL1040 ⁴⁾		
5	SUCTION CASING	JL1040		
6	DISCHARGE CASING	JL1040		
7	SEAL COVER	JL1040		
8	STUFFING BOX COVER	JL1040		
9	STUFFING BOX GLAND	JL1040		
10	SLIDE BEARING CAP	JL1040		
11	BEARING BRACKET / MOTOR ADAPTER	JL1040		
12	PUMP FOOT HORIZONTAL	JL1040 ¹⁾		
13	PUMP FOOT VERTICAL	JL1040		
14	WEAR RING (optional)	optional (1.4462)		
15	DRUM	1.4057		
16	DRUM BUSH	JL1040		
17	SHAFT	1.4057		
18	KEY	1.4571		
19	SHAFT SLEEVE	1.4057		
20	SPACER SLEEVE	1.4057		
21	SHAFT NUT	1.4057		
22	IMPELLER NUT	A4 ²⁾		
23	PLAIN BEARING (SLEEVE & BUSH)	Tungsten Carbide (9% Ni-Binder)		
24	PLAIN BEARING COVER	1.4057		
25	TIE ROD	ETG100		
26	CIRCULATION PIPE	1.4571		
27	PLUG	Galvanized Steel		
28	GASKET	AFM34 ³⁾		
29	O-RING	EPDM (FPM/FKM)		
30	MECHANICAL SEAL	CARBON/SIC/EP		
31	SOFT PACKING	ramie fibre packing with special PTFE-impregnation		
	NUT, WASHER & SCREW	Galvanized Steel		

1) ... 1.0038 for Size 125 and 150

2) ... 1.4401 / 1.4404 / 1.4571

3) ... Asbestos free synthetic fiber AFM34

4) ... JS1030 for Size 50 and 65

5) ... 1.4408 for Size 150

e-MP SERIES
TABLE OF MATERIALS DUCTILE IRON VERSION

REF. N.	PART	PUMP MATERIAL CODE (STANDARD)		
		D C C	D B C	D N C
	MAXIMAL WORKING PRESSURE [bar]	63	63	63
1	SUCTION IMPELLER	JL1030 ⁴⁾	CC480K ⁴⁾	1.4408
2	IMPELLER	JL1030 ⁴⁾	CC480K ⁴⁾	1.4408
3	DIFFUSER		JL1020	
4	STAGE CASING		JS1030	
5	SUCTION CASING		JS1030	
6	DISCHARGE CASING		JS1030	
7	SEAL COVER		JS1030	
8	STUFFING BOX COVER		JS1030	
9	STUFFING BOX GLAND		JL1040	
10	SLIDE BEARING CAP		JL1040	
11	BEARING BRACKET / MOTOR ADAPTER		JL1040	
12	PUMP FOOT HORIZONTAL		JL1040 ¹⁾	
13	PUMP FOOT VERTICAL		JL1040	
14	WEAR RING (optional)		optional (1.4462)	
15	DRUM		1.4057	
16	DRUM BUSH		JL1040	
17	SHAFT		1.4057	
18	KEY		1.4571	
19	SHAFT SLEEVE		1.4057	
20	SPACER SLEEVE		1.4057	
21	SHAFT NUT		1.4057	
22	IMPELLER NUT		A4 ²⁾	
23	PLAIN BEARING (SLEEVE & BUSH)		Tungsten Carbide (9% Ni-Binder)	
24	PLAIN BEARING COVER		1.4057	
25	TIE ROD		ETG100	
26	CIRCULATION PIPE		1.4571	
27	PLUG		Galvanized Steel	
28	GASKET		AFM34 ³⁾	
29	O-RING		EPDM (FPM/FKM)	
30	MECHANICAL SEAL		CARBON/SIC/EP	
31	SOFT PACKING		ramie fibre packing with special PTFE-impregnation	
	NUT, WASHER & SCREW		Galvanized Steel	

1) ... 1.0038 for Size 125 and 150

2) ... 1.4401 / 1.4404 / 1.4571

3) ... Asbestos free synthetic fiber AFM34

4) ... 1.4408 for Size 150

e-MP SERIES
TABLE OF MATERIALS STAINLESS STEEL VERSION

REF. N.	PART	PUMP MATERIAL CODE (STANDARD)			OPTIONAL
		N N N	R N N	R R R	TTT
	MAXIMAL WORKING PRESSURE [bar]	40	63	63	63
1	SUCTION IMPELLER	1.4408	1.4408	1.4517	1.4469
2	IMPELLER	1.4408	1.4408	1.4517	1.4469
3	DIFFUSER	1.4408	1.4408	1.4517	1.4469
4	STAGE CASING	1.4408	1.4408	1.4517	1.4469
5	SUCTION CASING	1.4408	1.4517	1.4517	1.4469
6	DISCHARGE CASING	1.4408	1.4517	1.4517	1.4469
7	SEAL COVER	1.4408	1.4408	1.4517	1.4469
8	STUFFING BOX COVER	1.4408	1.4408	n/a	n/a
9	STUFFING BOX GLAND	1.4408 ¹⁾	1.4408 ¹⁾	n/a	n/a
10	SLIDE BEARING CAP	1.4462	1.4462	1.4462	1.4410
11	BEARING BRACKET / MOTOR ADAPTER	JL1040			
12	PUMP FOOT HORIZONTAL	JL1040 ²⁾			
13	PUMP FOOT VERTICAL	JL1040			
14	WEAR RING (optional)	1.4462	1.4462	1.4462	1.4410
15	DRUM	1.4462	1.4462	1.4462	1.4410
16	DRUM BUSH	1.4404	1.4404	1.4462	1.4410
17	SHAFT	1.4462	1.4462	1.4462	1.4410
18	KEY	1.4571	1.4571	1.4462 (1.4410)	1.4410
19	SHAFT SLEEVE	1.4462	1.4462	1.4462	1.4410
20	SPACER SLEEVE	1.4462	1.4462	1.4462	1.4410
21	SHAFT NUT	1.4410	1.4410	1.4410	1.4410
22	IMPELLER NUT	A4 ³⁾	A4 ³⁾	1.4410	1.4410
23	PLAIN BEARING (SLEEVE & BUSH)	Tungsten Carbide (9% Ni-Binder)			
24	PLAIN BEARING COVER	1.4462	1.4462	1.4462	1.4410
25	TIE ROD	ETG100			
26	CIRCULATION PIPE	1.4571	1.4571	1.4539	
27	PLUG	1.4571	1.4571	1.4462	1.4410
28	GASKET	AFM34 ⁴⁾			
29	O-RING	EPDM (FPM/FKM)			
30	MECHANICAL SEAL	CARBON/SIC/EP		CARBON/SIC/EP ⁵⁾	CARBON/SIC/EP ⁶⁾
31	SOFT PACKING	ramie fibre / PTFE-impregnation		n/a	n/a
	NUT, WASHER & SCREW	Galvanized Steel			

1) ... 1.4571 for Size 100, 125 and 150

2) ... 1.0038 for Size 125 and 150

3) ... 1.4401 / 1.4404 / 1.4571

4) ... Asbestos free synthetic fiber AFM34

5) ... Metal parts Duplex Steel

6) ... Metal parts Hastelloy C4

e-MP SERIES - PN 100
TABLE OF MATERIALS CAST IRON VERSION

REF. N.	PART	PUMP MATERIAL CODE (STANDARD)		
		DCC	DBC	DNC
	MAXIMAL WORKING PRESSURE [bar]	100	100	100
1	SUCTION IMPELLER	JL1030 ⁵⁾	CC480K ⁵⁾	1.4408
2	IMPELLER	JL1030 ⁵⁾	CC480K ⁵⁾	1.4408
3	DIFFUSER	JL1020		
4	STAGE CASING	JS1030 ¹⁾		
5	SUCTION CASING	JS1030		
6	DISCHARGE CASING	1.0619		
7	SEAL COVER	JS1030		
8	STUFFING BOX COVER	JS1030		
9	STUFFING BOX GLAND	1.4408 ²⁾		
10	SLIDE BEARING CAP	JL1040		
11	BEARING BRACKET / MOTOR ADAPTER	JL1040		
12	PUMP FOOT HORIZONTAL	1.0038		
14	WEAR RING (optional)	optional (1.4462)		
15	DRUM	1.4057		
16	DRUM BUSH	JL1040		
17	SHAFT	1.4057		
18	KEY	1.4571		
19	SHAFT SLEEVE	1.4057		
20	SPACER SLEEVE	1.4057		
21	SHAFT NUT	1.4057		
22	IMPELLER NUT	A4 ³⁾		
23	PLAIN BEARING (SLEEVE & BUSH)	Tungsten Carbide (9% Ni-Binder)		
24	PLAIN BEARING COVER	1.4057		
25	TIE ROD	ETG100		
26	CIRCULATION PIPE	1.4571		
27	PLUG	Galvanized Steel		
28	GASKET	GYLON® (STD3501E) ⁴⁾		
29	O-RING	EPDM (FPM/FKM)		
30	MECHANICAL SEAL	CARBON/SIC/EP		
31	SOFT PACKING	ramie fibre packing with special PTFE-impregnation		
	NUT, WASHER & SCREW	Galvanized Steel		

1) ... 1.0619 for Size 150

2) ... 1.0038 for Size 125 and 150

3) ... 1.4401 / 1.4404 / 1.4571

4) ... PTFE

5) ... 1.4408 for Size 150

e-MP SERIES - PN100
TABLE OF MATERIALS DUCTILE IRON VERSION

REF. N.	PART	PUMP MATERIAL CODE (STANDARD)		
		FCC	FNC	FNN
	MAXIMAL WORKING PRESSURE [bar]	100	100	100
1	SUCTION IMPELLER	JL1030 ⁴⁾	1.4408	1.4408
2	IMPELLER	JL1030 ⁴⁾	1.4408	1.4408
3	DIFFUSER	JL1020		1.4408
4	STAGE CASING	1.0619		
5	SUCTION CASING	1.0619		
6	DISCHARGE CASING	1.0619		
7	SEAL COVER	1.4517		
8	STUFFING BOX COVER	1.4517		
9	STUFFING BOX GLAND	1.4408 ¹⁾		
10	SLIDE BEARING CAP	JL1040		1.4462
11	BEARING BRACKET / MOTOR ADAPTER	JL1040		
12	PUMP FOOT HORIZONTAL	1.0038		
14	WEAR RING (optional)	1.4462		
15	DRUM	1.4057		
16	DRUM BUSH	JL1040		1.4404
17	SHAFT	1.4057		
18	KEY	1.4571		
19	SHAFT SLEEVE	1.4057		
20	SPACER SLEEVE	1.4057		
21	SHAFT NUT	1.4057		
22	IMPELLER NUT	A4 ²⁾		
23	PLAIN BEARING (SLEEVE & BUSH)	Tungsten Carbide (9% Ni-Binder)		
24	PLAIN BEARING COVER	1.4057		
25	TIE ROD	ETG100		
26	CIRCULATION PIPE	1.4571		
27	PLUG	Galvanized Steel		1.4571
28	GASKET	GYLON® (STD3501E) ³⁾		
29	O-RING	EPDM (FPM/FKM)		
30	MECHANICAL SEAL	CARBONE/SIC/EP		
31	SOFT PACKING	ramie fibre packing with special PTFE-impregnation		
	NUT, WASHER & SCREW	Galvanized Steel		

1) ... 1.4571 for Size 100-125-150

2) ... 1.4401 / 1.4404 / 1.4571

3) ... PTFE

4) ... 1.4408 for Size 150

e-MP SERIES - PN100

TABLE OF MATERIALS STAINLESS STEEL VERSION

REF. N.	PART	PUMP MATERIAL CODE (STANDARD)		OPTIONAL
		R N N	R R R	TTT
	MAXIMAL WORKING PRESSURE [bar]	100	100	100
1	SUCTION IMPELLER	1.4408	1.4517	1.4469
2	IMPELLER	1.4408	1.4517	1.4469
3	DIFFUSER	1.4408	1.4517	1.4469
4	STAGE CASING	1.4517	1.4517	1.4469
5	SUCTION CASING	1.4517	1.4517	1.4469
6	DISCHARGE CASING	1.4517	1.4517	1.4469
7	SEAL COVER	1.4517	1.4517	1.4469
8	STUFFING BOX COVER	1.4517	n/a	n/a
9	STUFFING BOX GLAND	1.4408 ¹⁾	n/a	n/a
10	SLIDE BEARING CAP	1.4462	1.4462	1.4410
11	BEARING BRACKET / MOTOR ADAPTER	JL1040		
12	PUMP FOOT HORIZONTAL	1.0038		
14	WEAR RING (optional)	1.4462	1.4462	1.4410
15	DRUM	1.4462	1.4462	1.4410
16	DRUM BUSH	1.4404	1.4462	1.4410
17	SHAFT	1.4462	1.4462	1.4410
18	KEY	1.4571	1.4462 (1.4410)	
19	SHAFT SLEEVE	1.4462	1.4462	1.4410
20	SPACER SLEEVE	1.4462	1.4462	1.4410
21	SHAFT NUT	1.4410	1.4410	1.4410
22	IMPELLER NUT	A4 ²⁾	1.4410	1.4410
23	PLAIN BEARING (SLEEVE & BUSH)	Tungsten Carbide (9% Ni-Binder)		
24	PLAIN BEARING COVER	1.4462	1.4462	1.4410
25	TIE ROD	ETG100		
26	CIRCULATION PIPE	1.4571	1.4539	
27	PLUG	1.4571	1.4462	1.4410
28	GASKET	GYLON® (STD3501E) ³⁾		
29	O-RING	EPDM (FPM/FKM)		
30	MECHANICAL SEAL	CARBON/SIC/EP	CARBONE/SIC/EP ⁴⁾	CARBONE/SIC/EP ⁵⁾
31	SOFT PACKING	ramie fibre / PTFE-impregnation	n/a	n/a
	NUT, WASHER & SCREW	Galvanized Steel		

1) ... 1.4571 for Size 100, 125 and 150

2) ... 1.4401 / 1.4404 / 1.4571

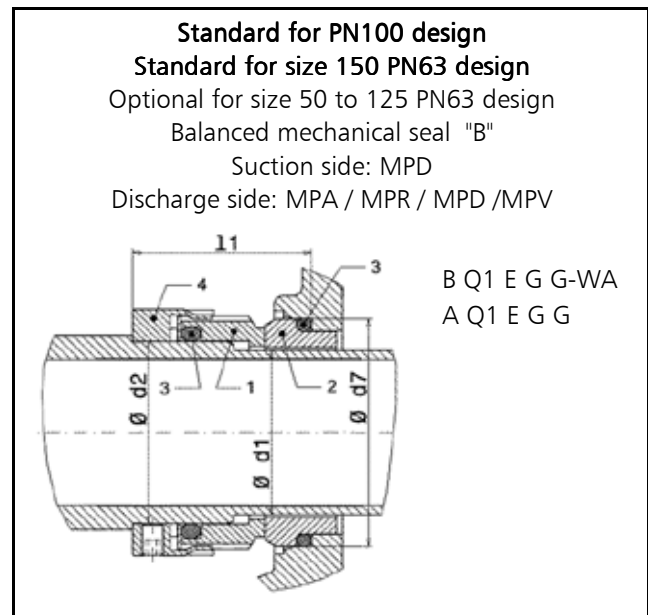
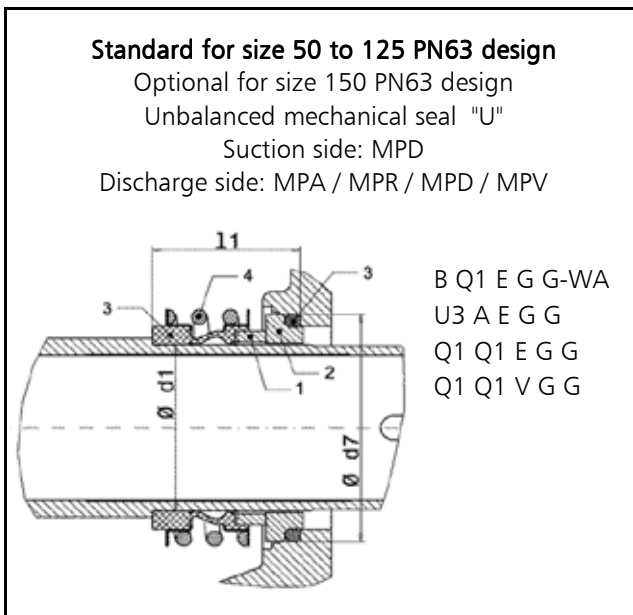
3) ... PTFE

4) ... Metal parts Duplex Steel

5) ... Metal parts Hastelloy C4

e-MP SERIES MECHANICAL SEALS

(Mechanical seal with mounting dimensions according to EN 12756 and ISO 3069 WITH L_{1k})



LIST OF MATERIALS

A0036-EN_B_CH

POSITION 1 - 2	POSITION 3	POSITION 4
B : Resin impregnated carbon	E : EPDM	G : AISI 316
A : Antimony impregnated carbon	V : FKM (FPM)	
Q₁ : Silicon carbide		
U₃ : Tungsten carbide		

MP_Mech_Seal-en_a_tm

TYPE OF SEAL

TYPE	POSITION			
	1 ROTATING ASSEMBLY	2 FIXED ASSEMBLY	3 ELASTOMERS	4 SPRINGS
B Q1 E G G - WA	B	Q1	E	G
U3 A E G G	U3	A	E	G
Q1 Q1 E G G	Q1	Q1	E	G
Q1 Q1 V G G	Q1	Q1	V	G
A Q1 E G G	A	Q1	E	G

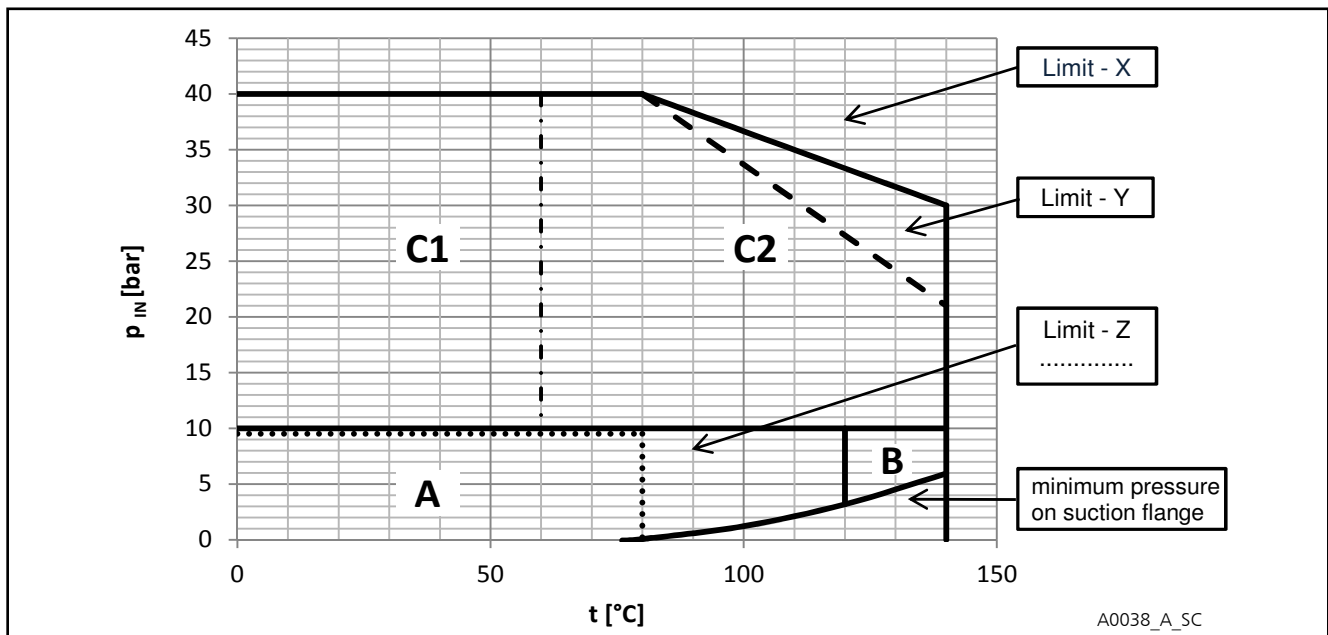
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TABLE OF DIMENSIONS

PUMP SIZE	DIMENSIONS [mm]			
	Ø d1	Ø d2	Ø d7	l1 (=l _{1k})
50	38	43	56	45
65	43	48	61	45
100	55	60	75	47,5
125	65	70	85	52,5
150	75	80	97	60

MP_MS_dim-en_a_td

e-MP SERIES MECHANICAL SEAL SELECTION DIAGRAM



P_{IN} ... Pump inlet pressure at suction flange [bar]

AREA	DESCRIPTION	TYPE OF MECHANICAL SEAL
A	up to 10 bar inlet pressure at maximum 120°C Standard mechanical seal: Carbon/SiC/EPDM with drinking water approval	B Q1 E G G-WA (UNBALANCED) *
B	up to 10 bar inlet pressure and more than 120°C (maximum 140°C) Standard mechanical seal: Tungsten Carbide/Carbon/EPDM	U3 A E G G (UNBALANCED) *
C1	up to 40 bar inlet pressure at maximum 60°C Standard mechanical seal: Carbon/SiC/EPDM with drinking water approval	B Q1 E G G-WA (BALANCED)
C2	up to 40 bar inlet pressure at maximum 140°C (see limits) Standard mechanical seal: Carbon/SiC/EPDM	A Q1 E G G (BALANCED)

*) ... only for size 50 to 125

MP_Mech_Seal-en_a_td

LIMIT CURVES DEPENDING ON PUMP HYDRAULICS AND MOTOR SPEED

Pump size	Speed (rpm)			
	3600	3000	1800	1500
50	X	X	X	X
65	X	X	X	X
100	Y	X	X	X
125	Y	Y	X	X
150	n/a	Y	X	X

NOTE. Limit - Z ... Limit for material combination SiC/SiC/EPDM (Q1 Q1 E G G) or SiC/SiC/FKM (FPM) (Q1 Q1 V G G)

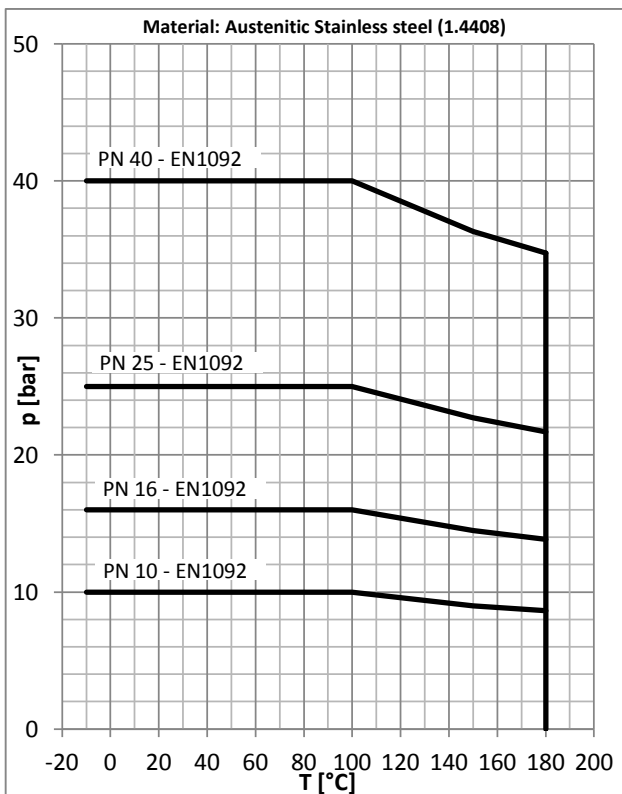
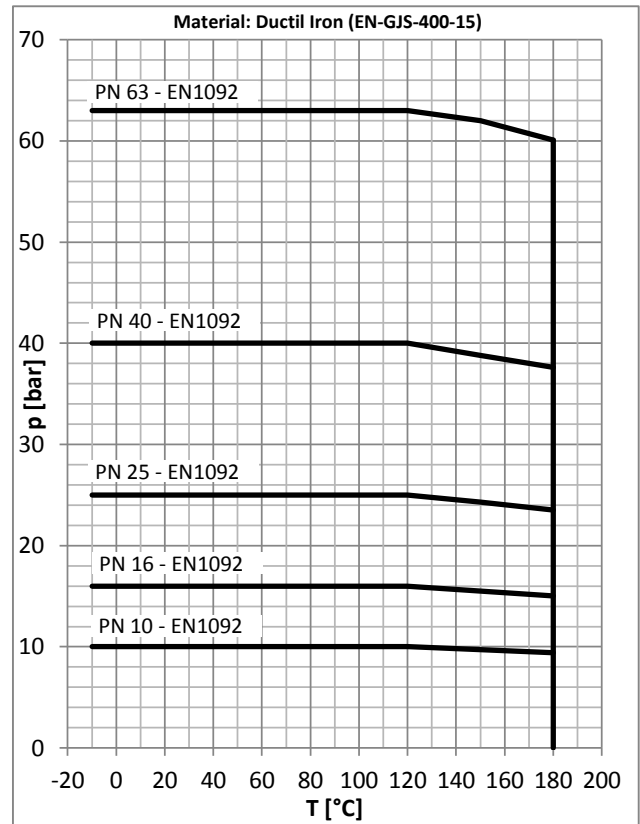
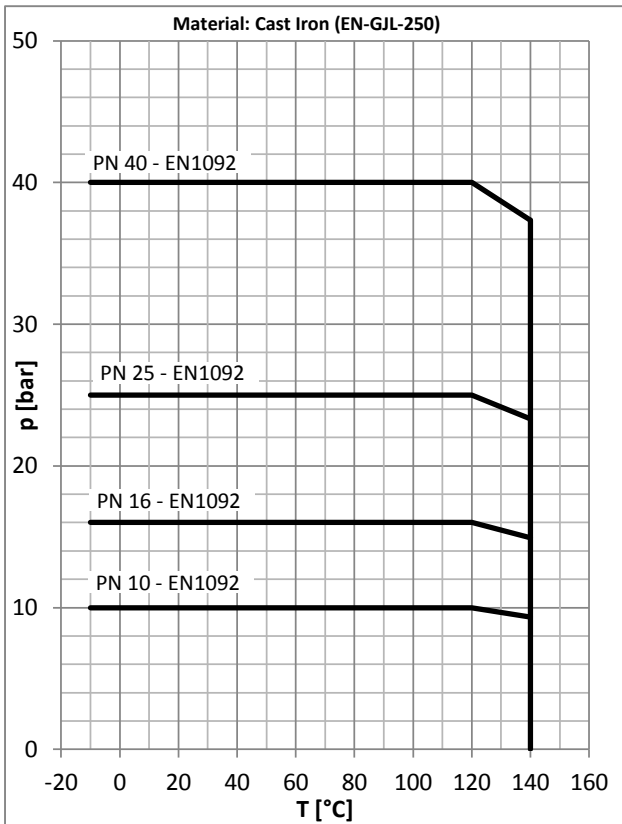
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GENERAL CONSIDERATIONS

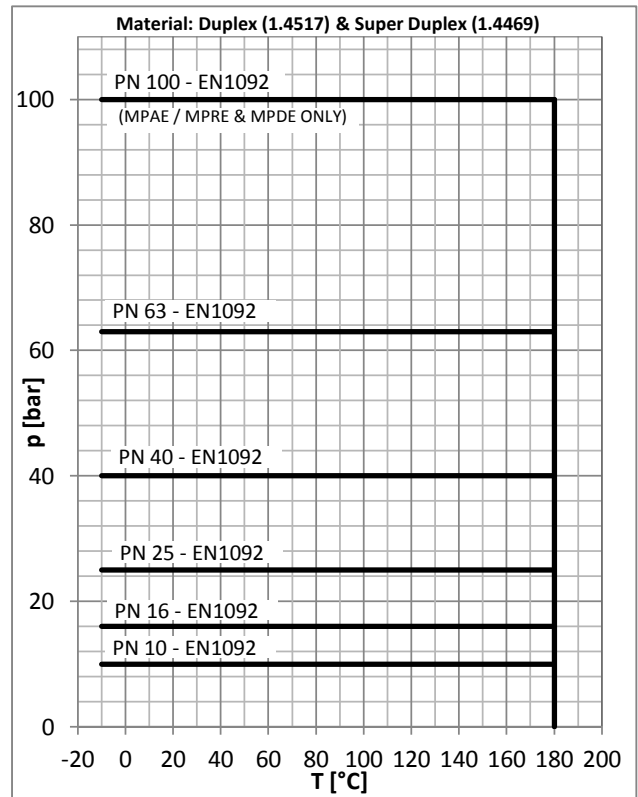
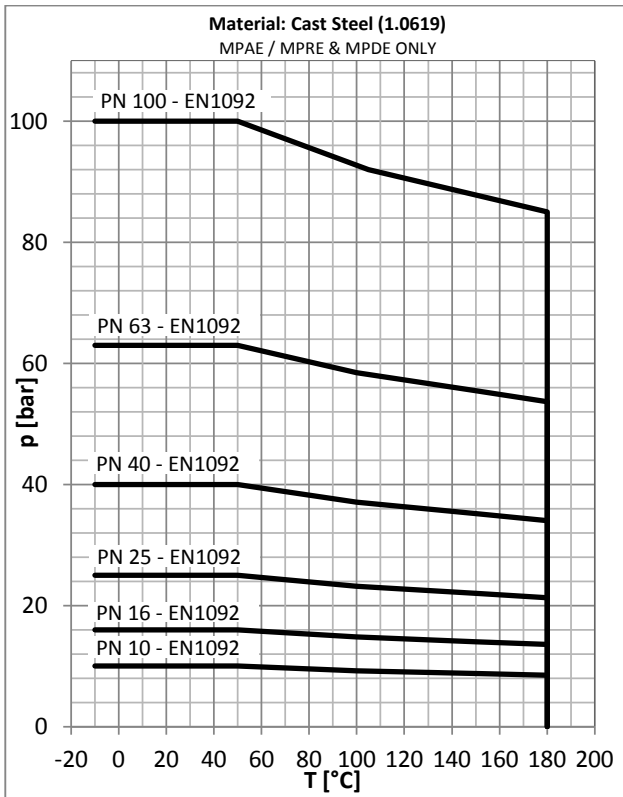
This diagram and selection table is valid for clean water (solids < 10 mg/l) or water for feeding boilers, partially or totally demineralized.

If the water temperature exceeds 80 °C, minimum inlet pressure must be guaranteed.

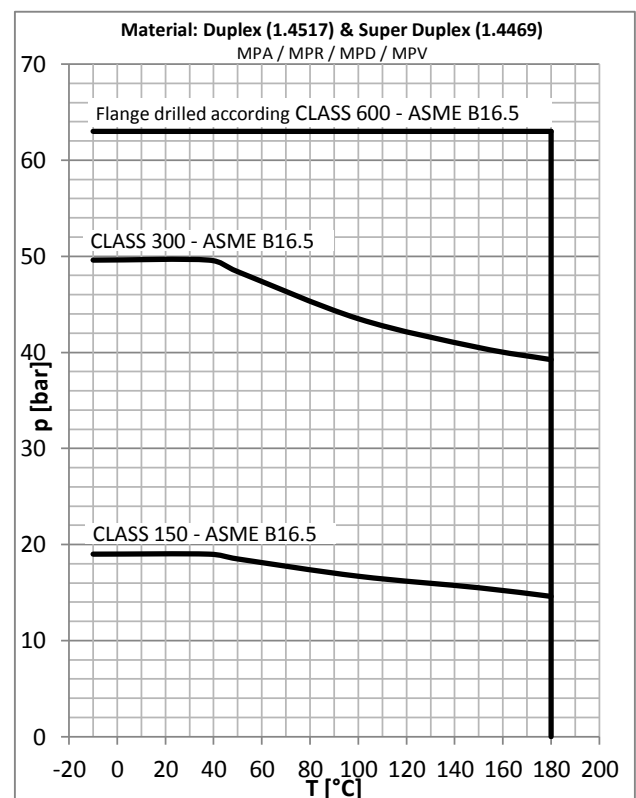
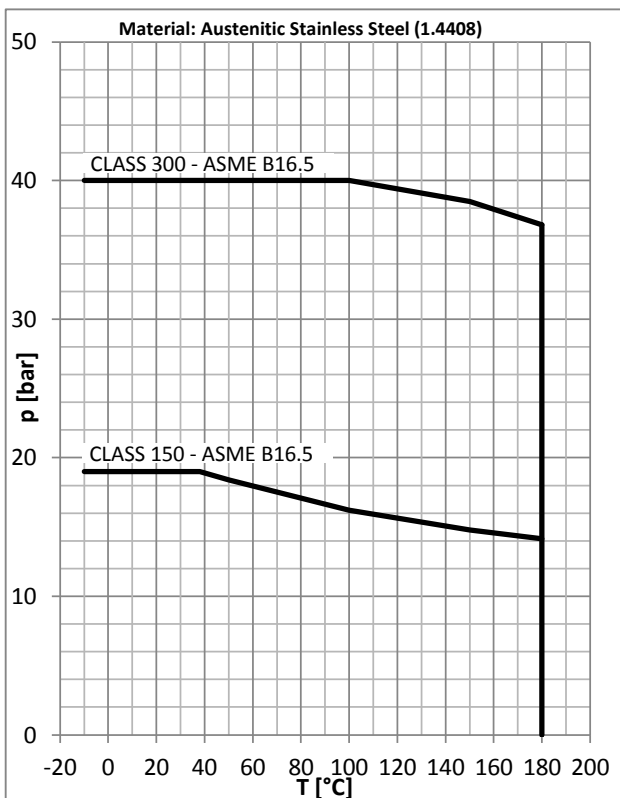
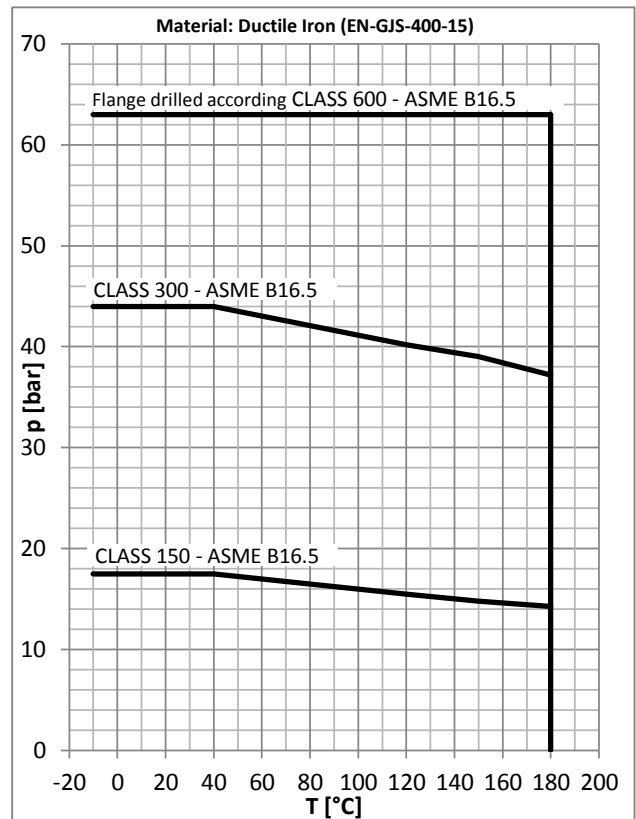
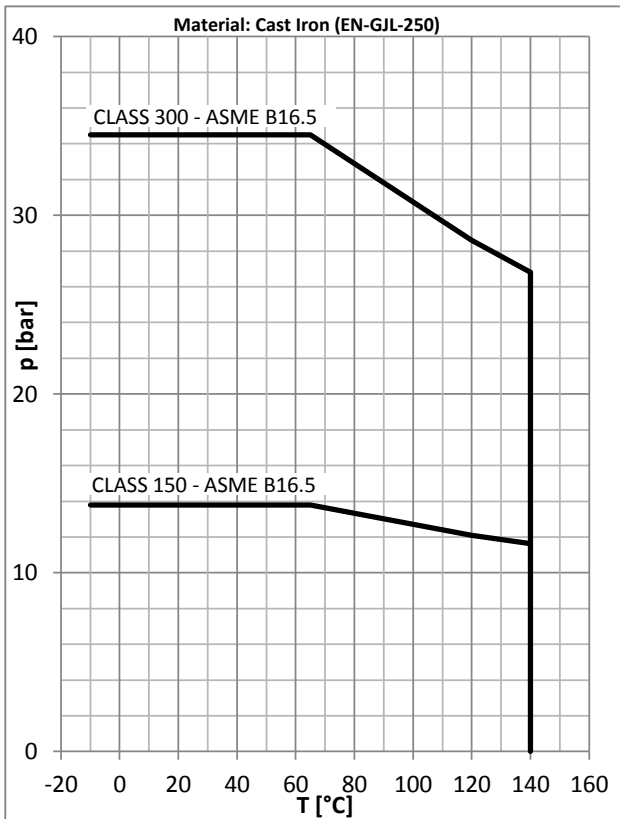
e-MP SERIES
PRESSURE / TEMPERATURE LIMITS FOR PUMP FLANGES
ACCORDING TO EN 1092 AND CASING MATERIAL



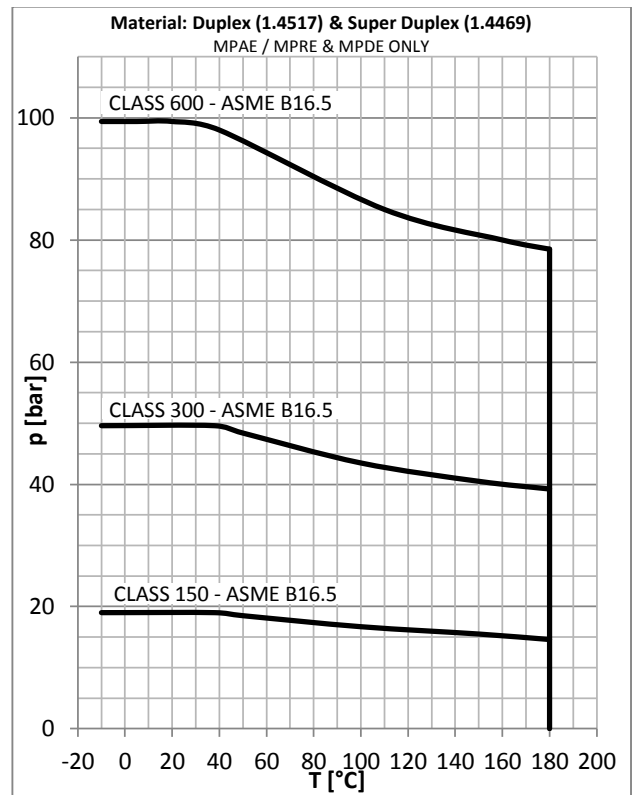
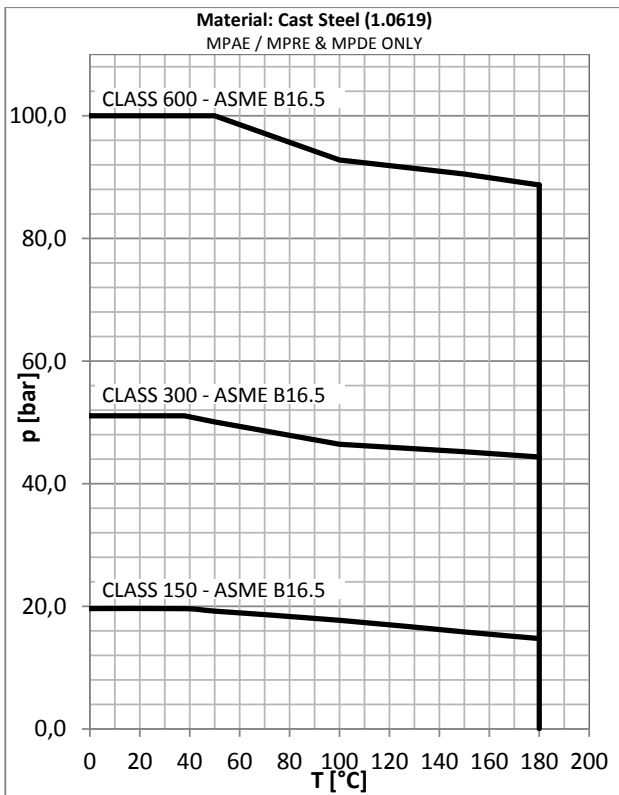
e-MP SERIES
PRESSURE / TEMPERATURE LIMITS FOR PUMP FLANGES
ACCORDING TO EN 1092 AND CASING MATERIAL



e-MP SERIES
PRESSURE / TEMPERATURE LIMITS FOR PUMP FLANGES
ACCORDING TO ASME B16.5 AND CASING MATERIAL



**e-MP SERIES
PRESSURE / TEMPERATURE LIMITS FOR PUMP FLANGES
ACCORDING TO ASME B16.5 AND CASING MATERIAL**



e-MP SERIES SOLIDS HANDLING

The following sand content values are indications and can vary depending on the type and form of sand.

Pump size	50A	50B	65A	65B	100A	100B	125A	125B	150A	150B
Max. free passage (mm)	4,5	6	6	7,5	8	11	12	14	14	18
Recommended start-up filter (μm)	800						1000			

Sand Content					
Pump Design Material	e-MPA	e-MPR	e-MPV	e-MPD	
Speed	2-pole		4-pole	e-MPD	
				2-pole	4-pole
CCC/CNC/CBC/DCC/DNC/DBC* (mg/l)	100		100	100	150
NNN/RNN** (mg/l)	100		100	150	200
RRR/TTT** (mg/l)	100		100	200	300

Configuration recommendations:

eMP-mining-en_a_td

a) * Optional wear rings made of duplex are recommended for all material configurations.

** Wear rings standard for all material configurations.

b) Optional cartridge seals in SiC-SiC is recommended for all configurations.

e-MP SERIES MOTORS

With the “Energy using Products” (EuP 2005/32/EC) and “Energy related Products” (ErP 2009/125/EC) directives, the European Commission has established requirements for promoting the use of products with low power consumption.

The various products considered include **three-phase 50 Hz surface motors with power outputs ranging from 0,75 to 375 kW**, also when integrated with other products, with characteristics as defined by the specific **Regulations (EC) No 640/2009** and **(EU) No 4/2014** implementing the requirements of the EuP and ErP Directives.

In accordance with regulations, the **three-phase 50 Hz surface motors with power outputs ranging from 0,75 to 375 kW** have IE3 as minimum level of efficiency or IE2 fitted with variable speed drive. IE2 motor can be supplied without frequency converter as the obligation to have that device is related to when the motor is working and not when placed on the market.

- Short-circuit squirrel-cage motor, enclosed construction with external ventilation (TEFC).
- Rated power from 5,5 to 1250 kW for 2-pole range and from 2,2 to 250 kW for 4-pole range.
- **IP55** protection degree.
- Insulation class **155 (F)**.
- **Standard** three-phase surface motors $\geq 0,75$ kW and < 375 kW supplied as **IE3**.
- IE efficiency level according to EN 60034-30:2009 and EN 60034-30-1:2014 ($\geq 0,75$ kW and < 375 kW).
- Electrical performances according to EN 60034-1.
- Metric cable gland according to EN 50262.
- **Standard voltage**
Three-phase version:
220-240/380-415 V 50 Hz for power up to 3 kW.
380-415/660-690 V 50 Hz for power above 3 kW.
Overload protection to be provided by the user.
- **PTC included** as standard only for WEG motors (one per phase, 155°C).
- Maximum ambient temperature: 40 °C.

e-MP SERIES
THREE-PHASE MOTORS AT 50 Hz, 2 POLES (from 5,5 to 18,5 kW)

P _N kW	Efficiency η_N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
5,5	90,2	90,5	89,5	90,3	90,2	88,8	90,1	89,8	88,0	3
7,5	90,6	91,0	90,2	90,8	90,8	89,6	90,7	90,5	89,0	
11	91,8	92,3	91,9	92,2	92,5	91,8	92,3	92,4	91,5	
15	92,7	93,3	92,9	93,1	93,3	92,7	92,5	92,4	91,2	
18,5	92,6	93,2	93,0	92,9	93,3	92,8	92,9	93,1	92,4	

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage					
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						MIPV - B5	cos ϕ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model											
5,5	PLM132		132	MIPV / MIPD - B3 MPV - B5	2	50	0,83	10,0	17,9	3,3	4,7	
7,5	PLM132		132				0,85	10,2	24,4	3,4	4,8	
11	PLM160		160				0,88	8,6	35,6	2,4	4,1	
15	PLM160		160				0,88	9,5	48,6	2,7	4,3	
18,5	PLM160		160				0,88	9,8	59,9	2,8	4,5	

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **			
	Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	380 V	400 V	415 V	660 V	690 V					
	I _N (A)									
5,5	10,7	10,6	10,7	6,2	6,1	~2925	See note.	≤ 1000	-15 /+ 40	No
7,5	14,4	14,1	14,2	8,3	8,2	~2920				
11	20,4	19,6	19,2	11,8	11,3	~2935				
15	27,5	26,6	26,1	15,9	15,3	~2940				
18,5	34,0	33,0	32,7	19,6	19,0	~2940				

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

eMP-mot_5_5-18_5-en_a_te

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

e-MP SERIES

THREE-PHASE MOTORS AT 50 Hz, 2 POLES (from 22 to 200 kW)

P _N kW	Efficiency η_N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
22	92,7	92,7	92,4	92,9	93,0	92,3	92,7	92,8	92,0	3
30	93,3	93,2	92,6	93,5	93,2	92,2	93,3	93,0	91,8	
37	93,7	93,6	93,0	93,8	93,4	92,6	93,7	93,2	92,0	
45	94,0	94,0	93,8	94,2	94,5	94,2	94,3	94,0	94,0	
55	94,3	94,3	93,8	94,4	94,4	93,6	94,4	94,3	93,4	
75	94,7	94,7	93,9	94,9	94,8	93,7	94,9	94,7	93,5	
90	95,0	95,0	94,5	95,2	95,2	94,3	95,2	95,2	94,2	
110	95,4	95,4	94,6	95,4	95,3	94,3	95,4	95,2	94,1	
132	95,6	95,5	94,7	95,6	95,4	94,5	95,6	95,4	94,3	
160	95,8	95,8	95,3	95,8	95,8	95,1	95,8	95,8	94,9	
200	96,0	96,2	95,8	96,0	96,2	95,7	96,0	96,2	95,6	

P _N kW	Manufacturer	IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	WEG Equipamentos Elétricos S.A. Reg. No. 07.175.725/0010-50 Jaraguá do Sul - SC (Brazil)					cos ϕ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model									
22	W22 180M	180	MPA/ MPV/ MPD - B3 MPV - B5	2	50	0,86	8,3	71	2,7	3,6
30	W22 200L	200				0,85	7,7	97	3,0	3,0
37	W22 200L	200				0,84	7,7	119	3,1	3,0
45	W22 225S/M	225				0,89	7,7	145	2,4	3,1
55	W22 250S/M	250				0,88	7,8	178	2,7	3,3
75	W22 280S/M	280				0,88	7,5	241	2,0	3,1
90	W22 280S/M	280				0,89	7,6	289	2,1	3,1
110	W22 315S/M	315				0,88	7,5	353	1,9	3,0
132	W22 315S/M	315				0,89	7,6	423	2,1	3,1
160	W22 315S/M	315				0,89	7,4	513	2,0	2,9
200	W22 315L	315				0,90	7,6	642	2,3	2,9

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **		
	Δ		Y				Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V				
	I _N (A)								
22	41,4	39,7	39,3	23,9	22,9	~2950	See note: ≤ 1000	-15 /+ 40	No
30	56,2	54,5	54,6	32,4	31,5	~2960			
37	69,0	67,8	67,0	39,8	39,1	~2960			
45	80,8	77,5	75,4	46,6	44,7	~2960			
55	98,5	95,6	93,2	56,9	55,2	~2960			
75	135,0	130,0	126,0	77,9	75,1	~2975			
90	162,0	153,0	149,0	93,5	88,3	~2975			
110	197,0	189,0	184,0	113,7	109,1	~2980			
132	233,0	224,0	218,0	134,5	129,3	~2980			
160	282,0	271,0	264,0	162,8	156,5	~2980			
200	348,0	334,0	326,0	200,9	192,8	~2975			

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

e-MP SERIES
THREE-PHASE MOTORS AT 50 Hz, 2 POLES (from 250 to 630 kW)

P _N kW	Efficiency η_N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
250	96,0	96,0	96,4	96,0	96,2	95,7	96,0	96,2	95,6	3
315	96,0	96,0	95,0	96,0	96,0	95,5	95,8	95,6	95,2	
355	95,8	95,5	95,3	95,8	95,6	95,3	95,8	95,6	95,3	
400	96,3	96,2	95,9	96,4	96,2	95,8	96,5	96,2	95,7	
450	96,4	96,2	95,9	96,4	96,2	95,8	96,4	96,2	95,7	
500	-	-	-	96,6	96,5	95,8	-	-	-	
560	-	-	-	96,6	96,5	5,8	-	-	-	
630	-	-	-	96,7	96,6	96,0	-	-	-	

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	WEG Equipamentos Elétricos S.A. Reg. No. 07.175.725/0010-50 Jaraguá do Sul - SC (Brazil)						cos ϕ (4/4)	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
250	W22 315L		315	MPV / MPV / MPD - B3 MPV - B5	2	50	0,91	7,8	802	2,7	2,9
315	W22 355M/L		355				0,91	7,7	1010	2,1	2,5
355	W22 355M/L		355				0,91	7,9	1136	2,2	2,8
400	W22 355A/B		355				0,91	7,6	1280	2,4	2,8
450	W22 355A/B		355				0,91	7,5	1440	2,5	2,7
500	W50 400J/H		400				0,90	7,1	1603	1,3	2,5
560	W50 400J/H		400				0,90	7,1	1793	1,3	2,5
630	W50 400J/H		400				0,91	7,5	2020	1,3	2,5

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **			
	Δ			Y			See note.	Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V					
	I _N (A)									
250	430	413	398	248	238	~2980	≤ 1000	-15 /+ 40	No	
315	542	520	497	313	300	~2980				
355	619	588	567	357	339	~2985				
400	694	658	634	401	380	~2985				
450	779	740	714	450	427	~2985				
500	-	830	-	-	479	~2980				
560	-	930	-	-	537	~2980				
630	-	1030	-	-	595	~2980				

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

eMP-mot_250-630-en_a_te

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

e-MP SERIES

THREE-PHASE MOTORS AT 50 Hz, 2 POLES (from 710 to 1250 kW)

P _N kW	Efficiency η_N %									IE
	Y 3000 V			4/4	3/4	2/4	4/4	3/4	2/4	
	4/4	3/4	2/4							
710	96,5	96,5	96,0							n/a
800	96,6	96,6	96,1							
900	96,7	96,7	96,1							
1000	96,7	96,7	96,1							
1100	96,0	95,9	95,1							
1250	96,2	96,1	95,4							

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 3000 V / 50 Hz Voltage				
	WEG Equipamentos Eletricos S.A. Reg. No. 07.175.725/0010-50 Jaragua do Sul - SC (Brazil)						cos ϕ (4/4)	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
710	W50 - 450J/H		450	MPA/ MPP/ MPD - B3	2	50	0,88	6,5	2272	0,7	2,5
800	W50 - 450J/H		450				0,90	6,3	2562	0,7	2,5
900	W50 - 450J/H		450				0,90	6,5	2883	0,7	2,5
1000	W50 - 450J/H		450				0,88	6,5	3196	0,9	2,5
1100	HGF - 500		500				0,89	7,0	3516	0,7	2,5
1250	HGF - 500		500				0,89	7,0	3995	0,7	2,5

P _N kW	Voltage U _N V				n _N min ⁻¹	Operating conditions **		
	Δ		Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
			3000 V					
	I _N (A)							
710			161		~2985	≤ 1000	-15 /+ 40	No
800			177		~2982			
900			199		~2981			
1000			227		~2988			
1100			248		~2988			
1250			281		~2988			

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

e-MP SERIES

THREE-PHASE MOTORS AT 50 Hz, 4 POLES (from 2,2 to 15 kW)

P _N kW	Efficiency η_N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
2,2	87,6	88,6	87,4	87,6	88,6	87,4	87,6	88,6	87,4	3
3	88,5	88,6	86,8	88,5	88,6	86,8	88,5	88,6	86,8	
4	88,6	89,2	88,9	88,6	89,2	88,4	88,8	89,1	87,9	
5,5	90,4	91,0	90,5	90,9	91,1	90,2	90,9	90,9	89,7	
7,5	90,4	91,2	91,1	90,7	91,3	90,8	90,9	91,2	90,4	
11	91,5	92,4	92,4	91,9	92,5	92,0	91,9	92,2	91,4	
15	92,5	93,0	92,7	92,5	92,7	91,8	92,2	92,2	90,8	

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	Xylem Service Italia Srl Reg. No. 07520560967 Montecchio Maggiore Vicenza - Italia						cos ϕ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _N
	Model										
2,2	PLM4100		100	MPA/MPV/MPD - B3 MPV - B5	4	50	0,78	7,5	14,5	2,4	3,7
3	PLM4100		100				0,74	7,8	19,7	2,5	4,2
4	PLM4112		112				0,79	8,3	26,3	3,2	4,0
5,5	PLM4132		132				0,76	7,6	35,9	2,9	3,7
7,5	PLM4132		132				0,79	7,7	49,1	2,7	3,6
11	PLM4160		160				0,81	7,2	71,5	2,5	3,3
15	PLM4160		160				0,77	8,2	97,2	3,0	4,0

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **			
	Δ			Y			See note.	Altitude Above Sea Level (m)	T. amb min/max °C	ATEX
	380 V	400 V	415 V	660 V	690 V					
	I _N (A)									
2,2	4,7	4,6	4,6	2,7	2,7	~1450	≤ 1000	-15/+ 40	No	
3	6,6	6,6	6,6	3,8	3,8	~1455				
4	8,4	8,2	8,2	4,9	4,8	~1450				
5,5	11,7	11,5	11,4	6,8	6,6	~1460				
7,5	15,5	15,2	15,1	9,0	8,8	~1455				
11	21,9	21,4	21,3	12,6	12,3	~1465				
15	30,5	30,7	31,4	17,6	17,7	~1470				

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

e-MP SERIES

THREE-PHASE MOTORS AT 50 Hz, 4 POLES (from 18,5 to 250 kW)

P _N kW	Efficiency η_N %									IE
	Δ 380 V Y 660 V			Δ 400 V Y 690 V			Δ 415 V			
	4/4	3/4	2/4	4/4	3/4	2/4	4/4	3/4	2/4	
18,5	93,1	92,9	92,5	93,3	92,9	92,2	93,4	92,8	91,8	3
22	93,4	93,1	92,8	93,6	93,0	92,4	93,6	92,8	91,9	
30	94,1	94,1	93,5	94,2	94,0	93,0	94,2	93,9	92,5	
37	94,3	94,5	94,1	94,6	94,6	94,0	94,7	94,6	93,8	
45	94,7	94,7	94,3	94,8	94,8	94,2	94,8	94,8	94,0	
55	95,1	94,9	94,7	95,3	95,0	94,6	95,4	94,9	94,4	
75	95,4	95,2	94,8	95,6	95,2	94,7	95,7	95,2	94,6	
90	95,6	95,4	95,1	95,8	95,5	95,0	95,9	95,5	94,9	
110	96,2	95,9	95,5	96,3	95,9	95,4	96,3	95,8	95,2	
132	96,3	96,0	95,6	96,4	96,0	95,5	96,4	95,9	95,3	
160	96,3	96,2	95,8	96,5	96,2	95,7	96,6	96,2	95,5	
200	96,5	96,5	96,2	96,7	96,5	96,1	96,7	96,5	95,9	
250	96,8	96,6	96,4	96,9	96,6	96,2	96,9	96,5	96,0	

P _N kW	Manufacturer		IEC SIZE	Construction Design	N. of Poles	f _N Hz	Data for 400 V / 50 Hz Voltage				
	WEG Equipamentos Eletricos S.A. Reg. No. 07.175.725/0010-50 Jaragua do Sul - SC (Brazil)						cos ϕ	I _s / I _N	T _N Nm	T _s /T _N	T _m /T _n
	Model										
18,5	W22 180M4		180	MPA/MPRV/MPD - B3 MPV - B5	4	50	0,82	7,30	120	2,70	3,00
22	W22 180L4		180				0,83	7,30	143	2,80	3,30
30	W22 200L4		200				0,82	7,30	194	2,50	3,00
37	W22 225S/M4		225				0,86	7,80	239	2,70	3,00
45	W22 225S/M4		225				0,85	7,90	290	2,80	3,20
55	W22 250S/M4		250				0,86	7,90	355	2,80	3,30
75	W22 280S/M4		280				0,87	7,60	482	2,30	2,80
90	W22 280S/M4		280				0,86	7,40	579	2,30	2,80
110	W22 315S/M4		315				0,86	7,50	705	2,60	2,70
132	W22 315S/M4		315				0,86	7,60	846	2,90	3,00
160	W22 315S/M4		315				0,87	7,60	1025	2,60	2,60
200	W22 315L4		315				0,87	7,60	1282	2,50	2,50
250	W22 315L4		315				0,86	8,00	1602	2,70	2,60

P _N kW	Voltage U _N V					n _N min ⁻¹	Operating conditions **			
	Δ			Y			Altitude Above Sea Level (m)	T. amb min/max °C	ATEX	
	380 V	400 V	415 V	660 V	690 V					
	I _N (A)									
18,5	35,90	34,90	34,40	20,70	20,20	~1470	See note	≤ 1000	-20 / +40	No
22	42,10	40,90	40,40	24,20	23,70	~1470				
30	57,70	56,10	55,40	33,20	32,50	~1480				
37	68,50	65,60	63,90	39,40	38,00	~1480				
45	83,90	79,40	78,60	48,30	46,00	~1480				
55	100,0	96,90	94,40	57,60	56,20	~1480				
75	136,0	130,0	127,0	78,30	75,40	~1485				
90	164,0	158,0	154,0	94,40	91,60	~1485				
110	200,0	192,0	187,0	115,0	111,0	~1490				
132	239,0	230,0	224,0	138,0	133,0	~1490				
160	287,0	275,0	268,0	165,0	159,0	~1490				
200	358,0	343,0	335,0	206,0	199,0	~1490				
250	451,0	433,0	422,0	260,0	251,0	~1490				

** Operating conditions to be referred to motor only. About electric pump, refer to limits in user's manual.

Note: Observe the regulations and codes locally in force regarding sorted waste disposal.

e-MP SERIES NOISE LEVEL

The tables below show the mean sound pressure levels (L_p) measured at 1 meter distance in a free field according to EN ISO 11203.

The noise values are measured on 50 Hz motors and have a tolerance of 3 dB (A) according to EN ISO 4871.

NOISE LEVEL OF PUMP WITH STANDARD MOTOR

SOUND PRESSURE LEVEL L _p A [dB(A)]				
POWER [kW]	SPEED [min ⁻¹]			
	2950	1450	3550	1750
2,2	63,2	57,9	65,7	58,4
3	67,6	59,0	70,3	59,5
4	65,5	60,8	67,8	61,3
5,5	68,1	61,8	70,6	62,3
7,5	68,4	63,0	70,8	63,4
11	69,0	65,6	71,2	66,2
15	69,6	66,7	71,6	67,2
18,5	70,1	67,4	71,9	67,9
22	70,6	68,1	72,2	68,5
30	73,9	69,7	76,1	70,1
37	74,3	70,5	76,4	70,9
45	75,9	71,2	78,1	71,6
55	76,3	72,1	78,3	72,5
75	78,7	74,4	81,0	74,9
90	79,0	75,0	81,2	75,5
110	79,4	76,2	81,4	76,8
132	79,8	76,9	81,7	77,3
160	80,2	77,6	82,0	78,0
200	81,3	78,9	83,0	79,3
250	81,8	79,7	83,5	80,0
315	83,3		85,1	81,1
355	83,7		85,3	81,6
400	85,5		87,5	82,5
450	85,7		87,6	
500	84,0		85,2	
560	84,5		85,5	
630	84,9		85,9	
710	85,8		86,9	
800	86,2		87,2	
900	86,7		87,7	
1000	87,1		88,0	
1100	87,9		89,0	
1250	88,3		89,4	

NOISE LEVEL OF PUMP WITHOUT MOTOR

SOUND PRESSURE LEVEL L _p A [dB(A)]				
POWER [kW]	SPEED [min ⁻¹]			
	2950	1450	3550	1750
2,2	57,2	56,2	57,4	56,5
3	58,6	57,7	58,9	58,0
4	60,0	59,1	60,2	59,3
5,5	61,5	60,5	61,7	60,8
7,5	62,9	62,0	63,2	62,3
11	64,8	63,8	65,0	64,1
15	66,2	65,3	66,5	65,6
18,5	67,2	66,3	67,5	66,6
22	68,1	67,1	68,3	67,4
30	69,5	68,6	69,8	68,9
37	70,5	69,6	70,8	69,9
45	71,5	70,5	71,7	70,8
55	72,4	71,4	72,6	71,7
75	73,8	72,9	74,1	73,2
90	74,8	73,8	75,0	74,1
110	75,7	74,7	75,9	75,0
132	76,5	75,6	76,7	75,8
160	77,4	76,5	77,6	76,7
200	78,5	77,6	78,7	77,8
250	79,5	78,6	79,8	78,8
315	80,6		80,9	79,9
355	81,2		81,4	80,5
400	81,8		82,0	81,1
450	82,4		82,6	
500	82,8		83,1	
560	83,4		83,6	
630	83,9		84,2	
710	84,5		84,7	
800	85,0		85,2	
900	85,7		85,9	
1000	86,1		86,4	
1100	86,6		86,8	
1250	87,2		87,5	

eMP-noise_a_tr

ErP 2009/125/EC

e-MP SERIES PUMPS

With the “Energy using Products” (EuP 2005/32/EC) and “Energy related Products” (ErP 2009/125/EC) directives, the European Commission has established requirements for promoting the use of products with low power consumption.

The **Commission Regulation (EU) No 547/2012** has implemented two directives with regard to ecodesign requirements for **some types of clean water pumps** placed on the market and put into service inside EU zone as stand-alone units or integrated in other products.

For “*multistage vertical water pumps*” (MS-V for the Regulation) the efficiency assessment refers to:

- just the pump and not the pump and motor assembly (electric or combustion);
- pumps with more than one impeller;
- pumps with impellers mounted on a vertical shaft;
- pumps with a nominal pressure PN not higher than 25 bar (2500 kPa);
- pumps with a maximum nominal flow not greater than 100 m³/h (27,78*10⁻³ m³/s);
- pumps designed to operate at a speed of 2900 rpm (for electric pumps this means 50 Hz 2-pole electric motors);
- use with clean water at a temperature ranging from -10°C to 120°C (the test is performed with cold water at a temperature not higher than 40°C).

According to the definitions established in the Regulation MPV versions correspond to the “multistage vertical pump” while designs MPA, MPD and MPR as well as all MPV with nominal head higher than 25 bar do not fall under this regulation. This regulation states that water pumps shall have a minimum index MEI coming from a dedicated formula which considers hydraulic efficiency values at ‘best efficiency point’ (BEP), 75 % of the flow at BEP (Part load – PL) and 110 % of the flow at BEP (Over load – OL).

The Regulation also establishes the following deadlines.

from	minimum efficiency index (MEI)
1 st January 2015	MEI ≥ 0,4

Regulation (EU) n. 547/2012 – Annex II – point 2 (Product information requirements)

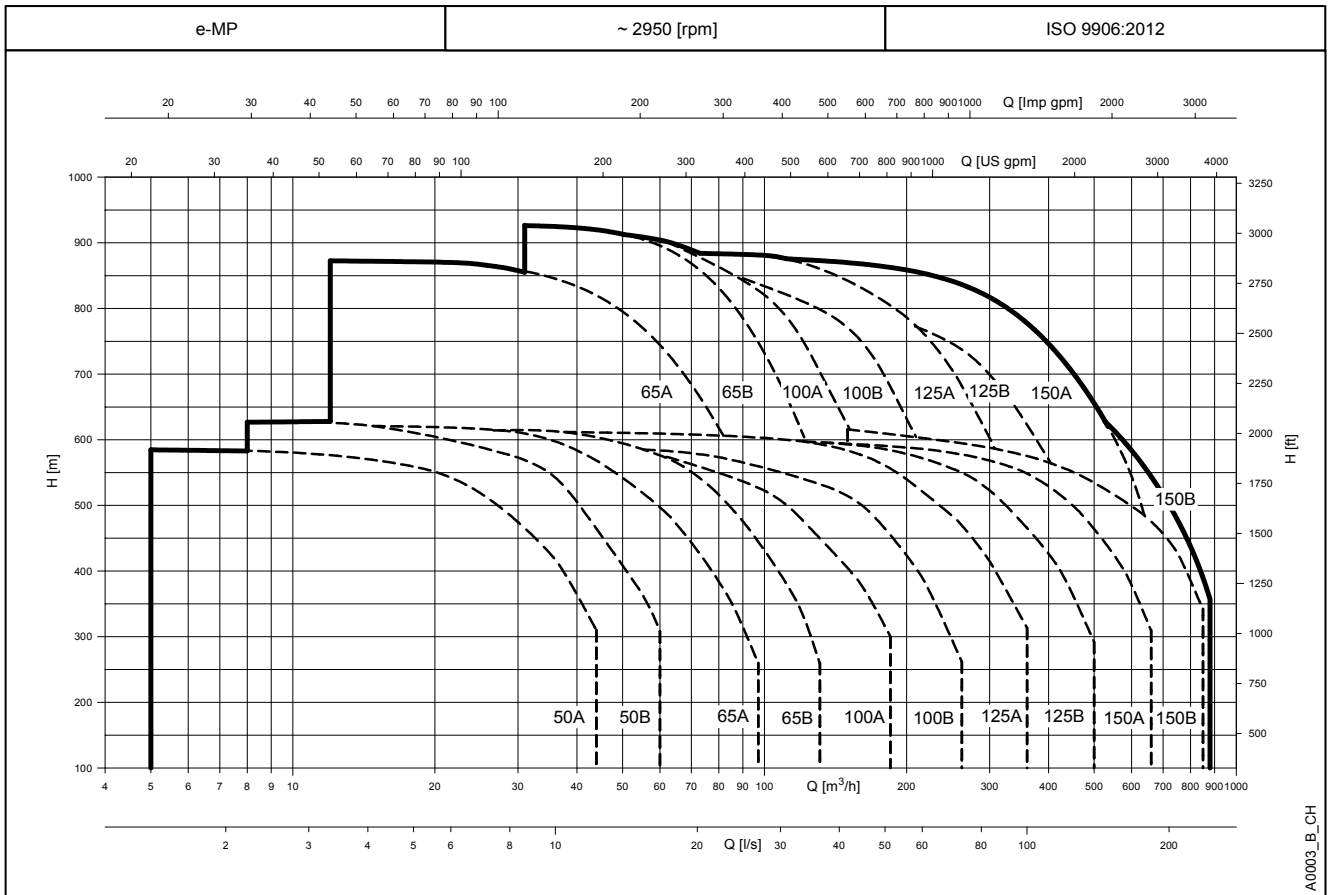
1. Minimum efficiency index: see MEI values in specific table below.
2. “The benchmark for most efficient water pumps is MEI ≥ 0,70”.
3. Year of manufacture: 2017.
4. Manufacturer: Xylem Service Italia Srl - Reg. No 07520560967 - Montecchio Maggiore, Vicenza, Italy.
5. Pump performance curves, including the performance curve: see the Operating Characteristics graphs in the following pages.
6. “The efficiency of a pump with a 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 of a single stage”.
7. “The operation of this 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”.
8. Information relevant for disassembly, recycling or disposal at end-of-life: observe the current laws and by-laws governing sorted waste disposal. Consult the product operating manual.
9. “Designed for use below – 10 °C only”: note not applicable to these products.
10. “Designed for use above 120 °C only”: note not applicable to these products.
11. Specific instructions for pumps as per points 9 and 10: not applicable to these products.
12. “Information on benchmark efficiency is available at”: www.europump.org (Ecodesign section).
13. The benchmark efficiency graphs with MEI = 0.7 and MEI = 0.4 are available at www.europump.org, Ecodesign, Efficiency charts (refer to “MS-V”).

MINIMUM EFFICIENCY INDEX (MEI)

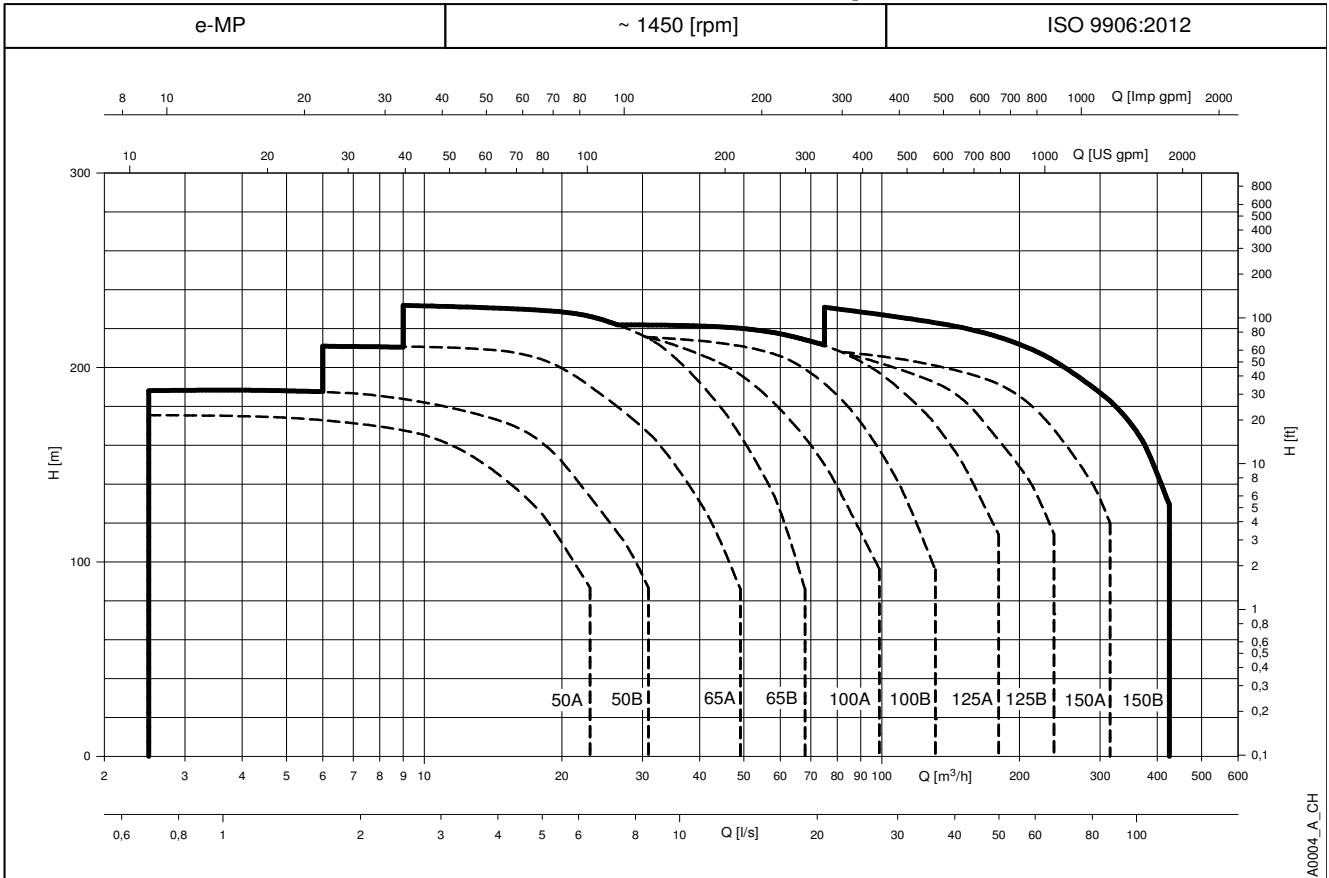
PUMP SIZE	Minimum efficiency index (MEI)
MPV50A	≥ 0,7
MPV50B	≥ 0,7
MPV65A	≥ 0,7
MPV65B	≥ 0,7

e-MP SERIES

HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 2 POLES

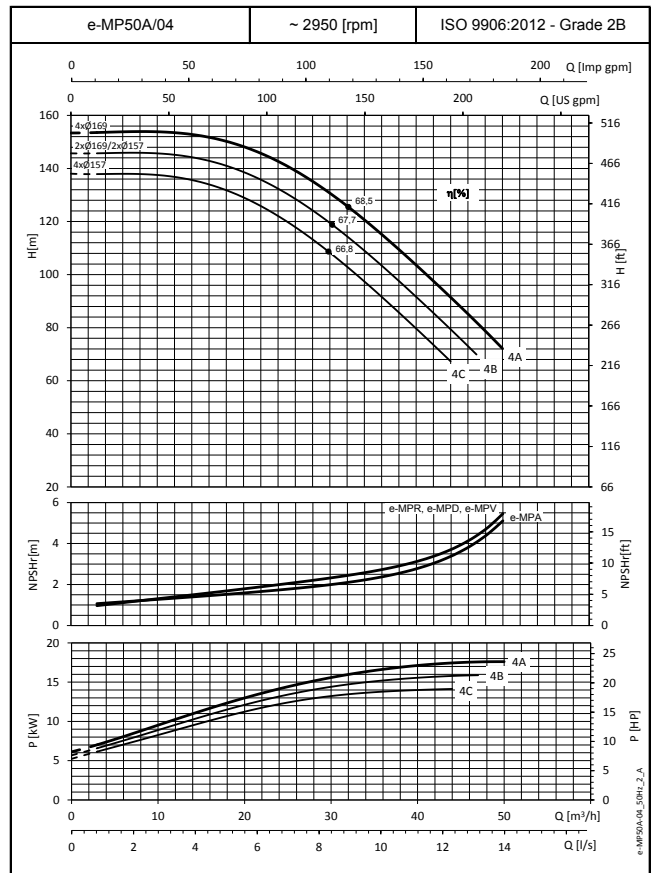
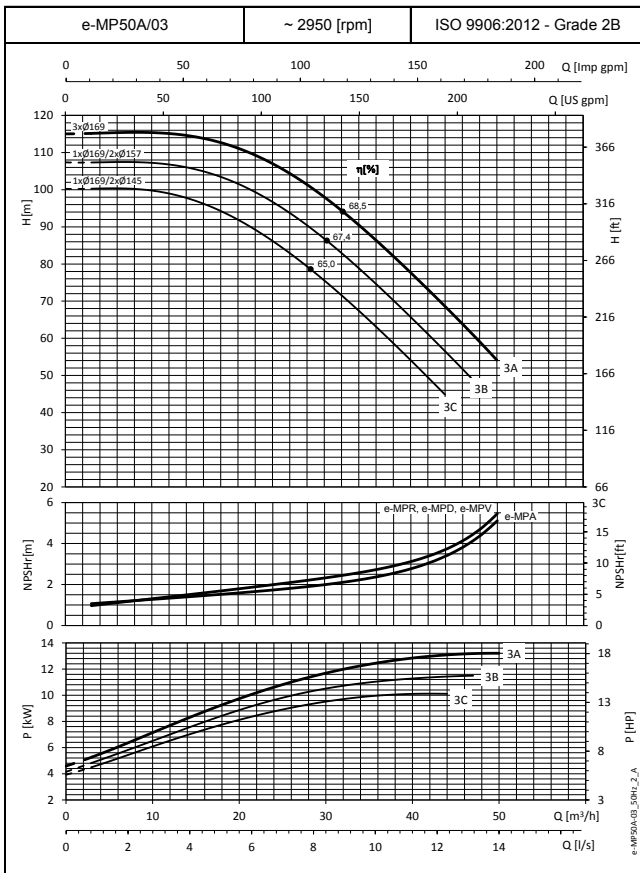
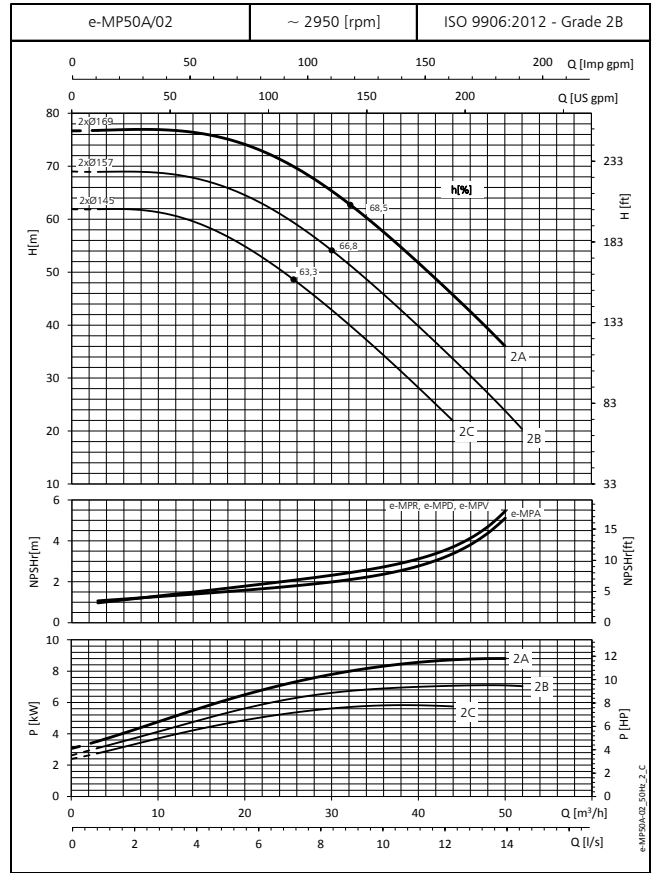
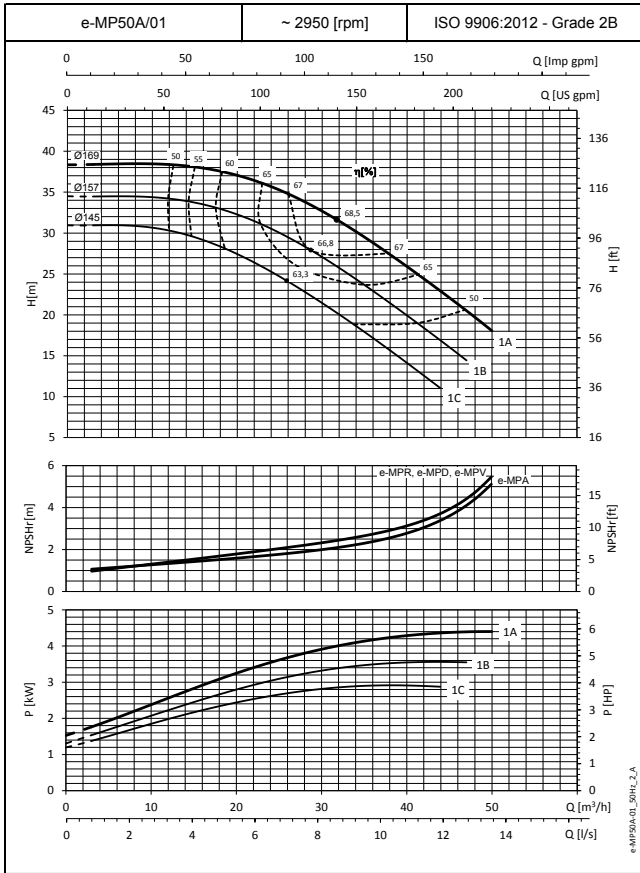


HYDRAULIC PERFORMANCE RANGE AT 50 Hz, 4 POLES



e-MP50A SERIES

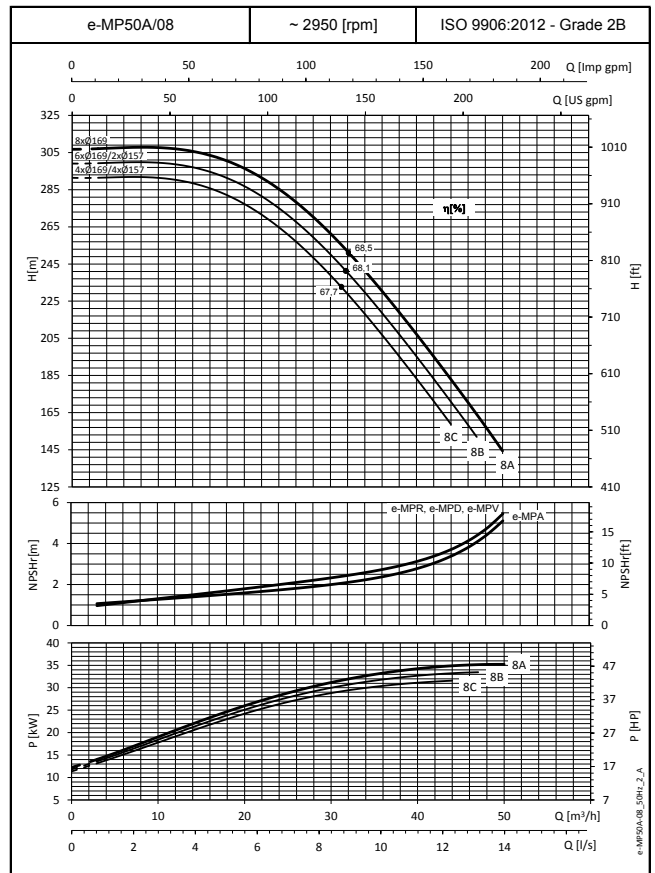
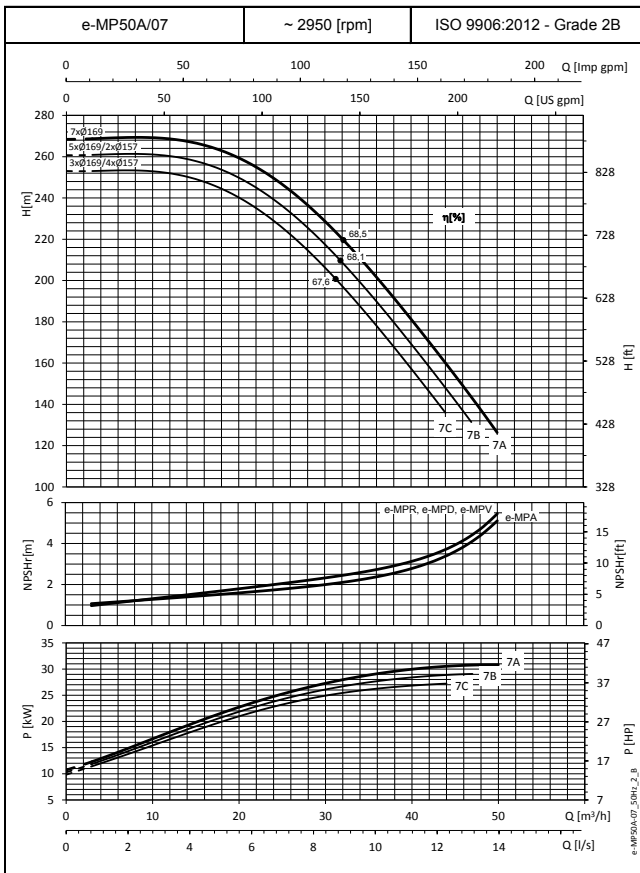
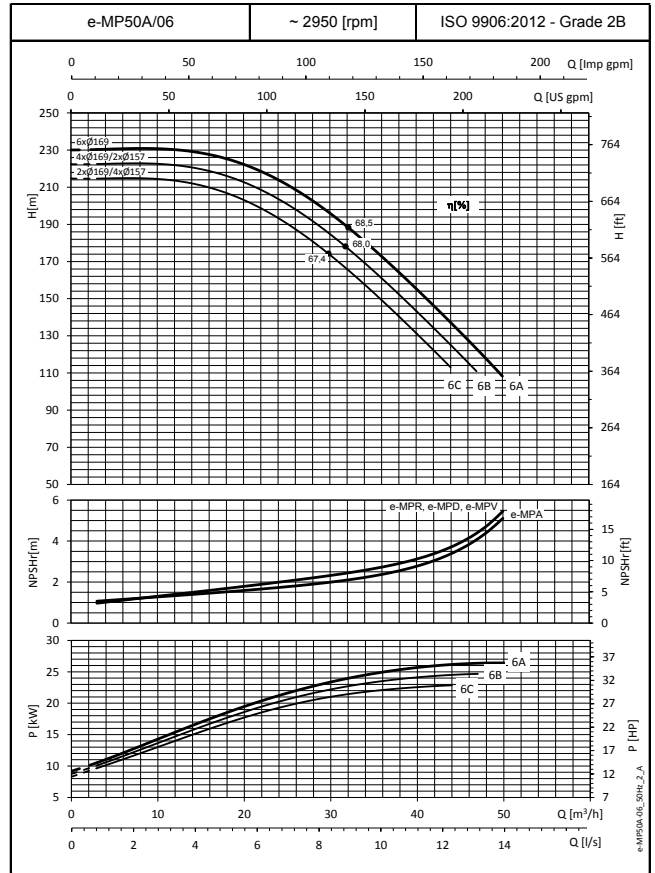
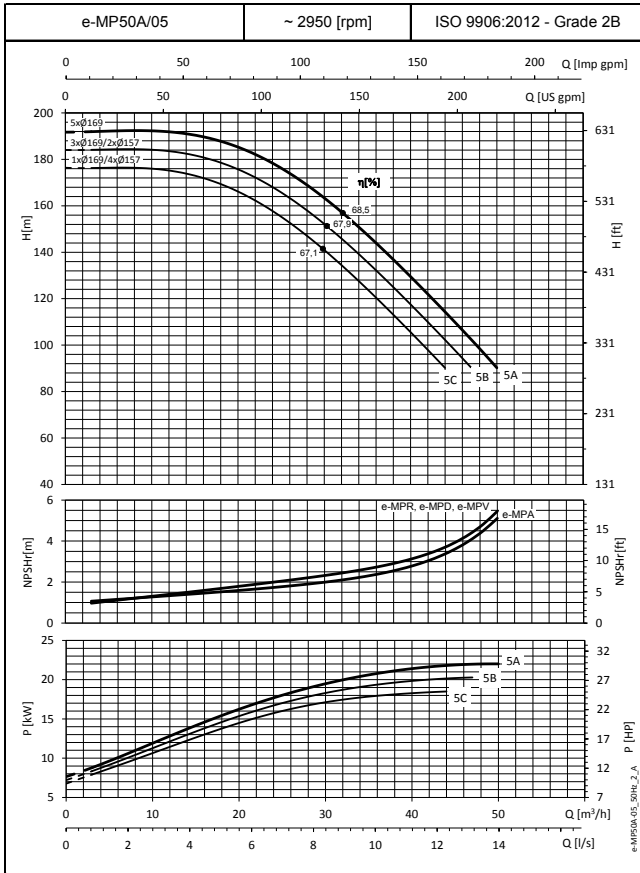
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP50A SERIES

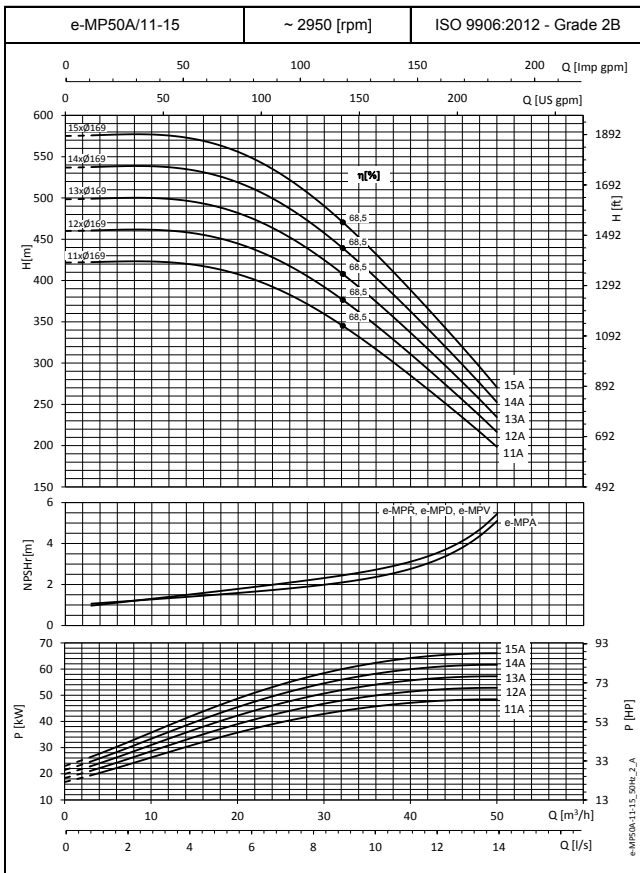
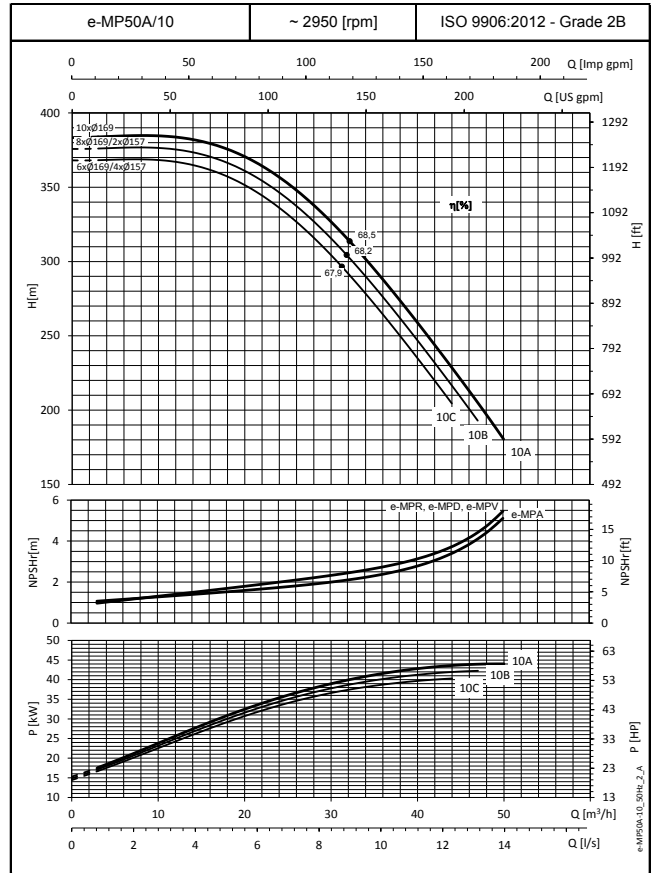
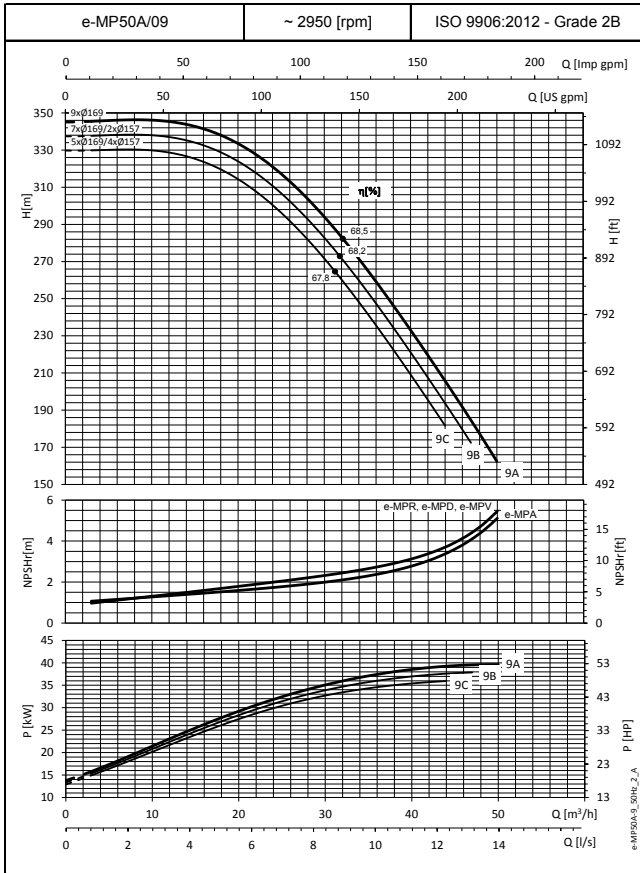
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP50A SERIES

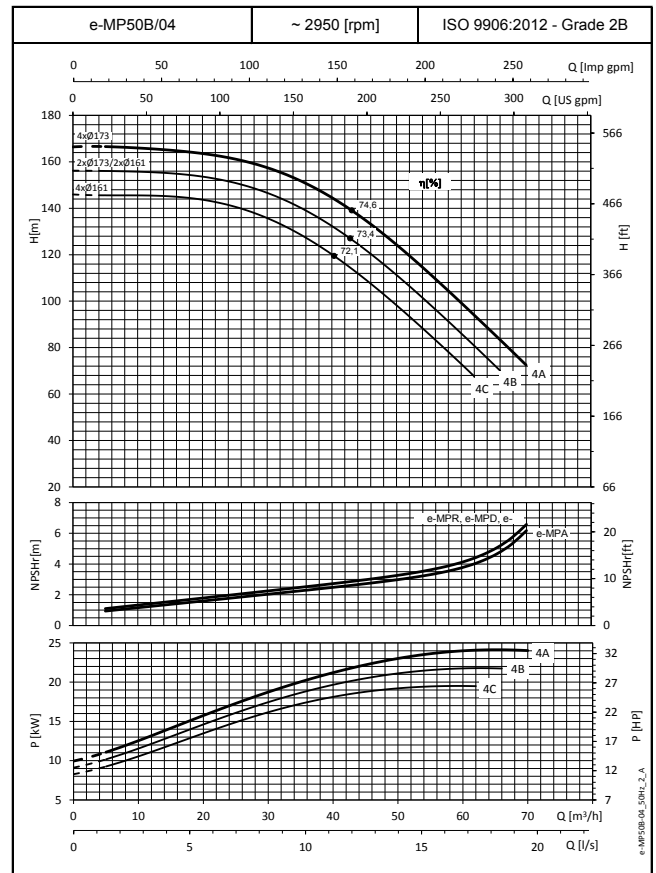
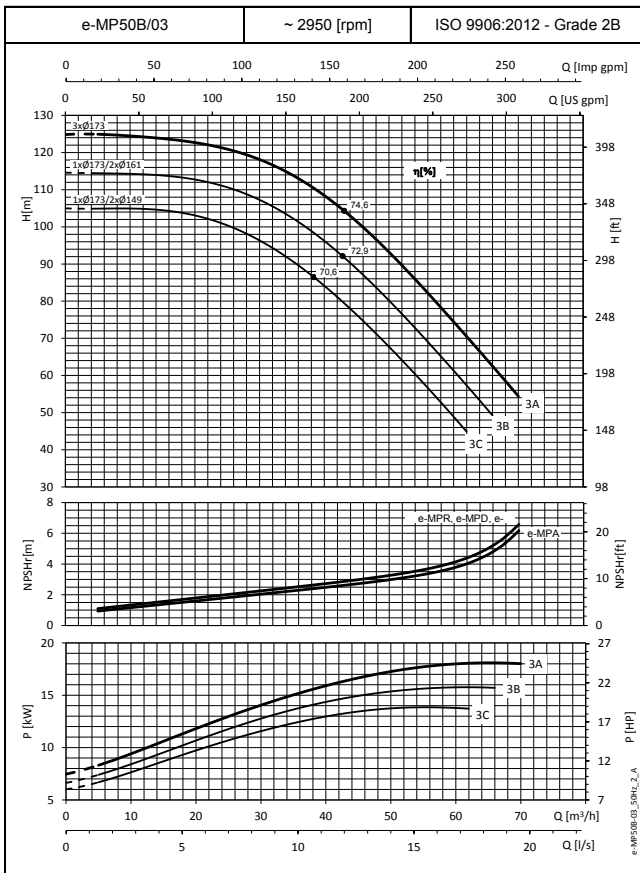
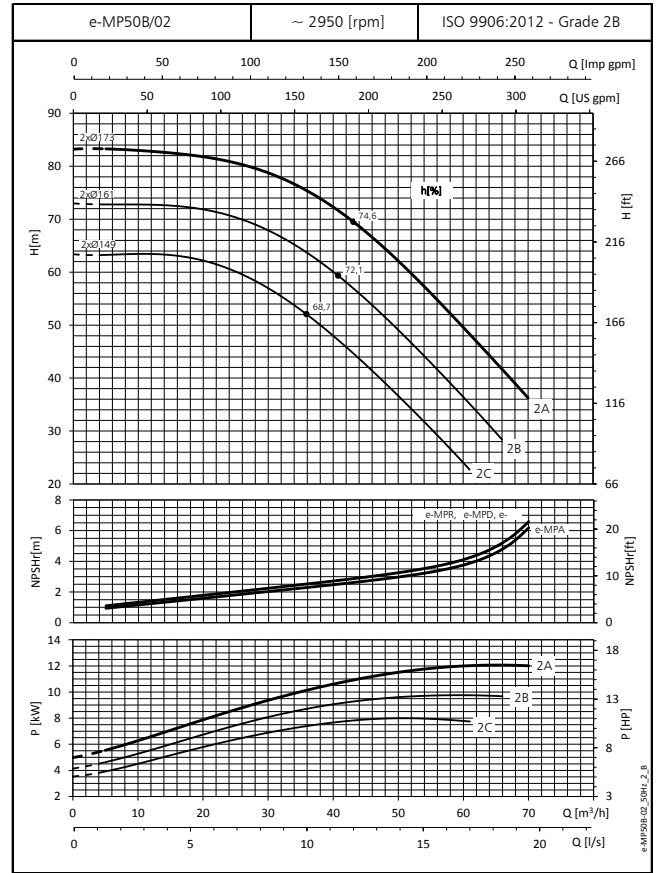
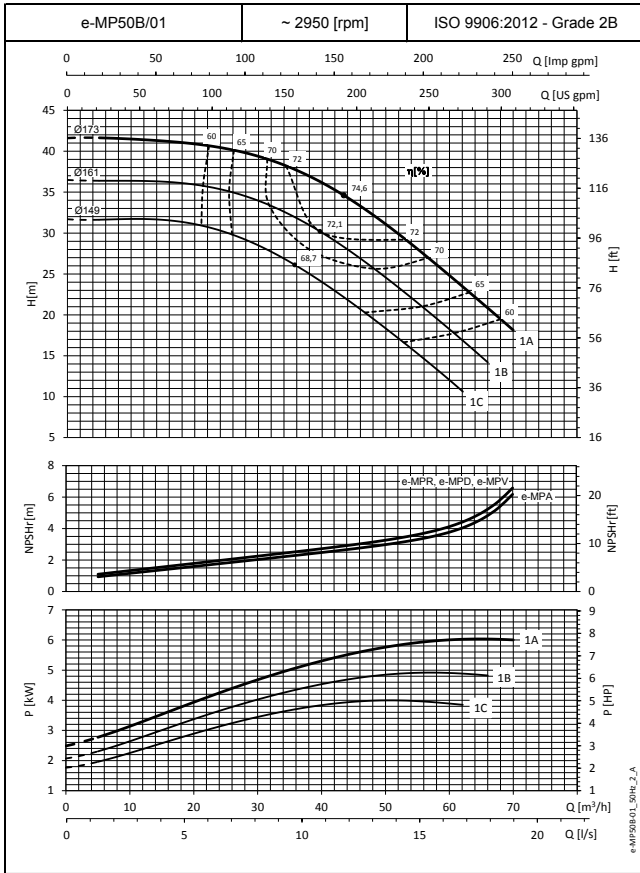
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP50B SERIES

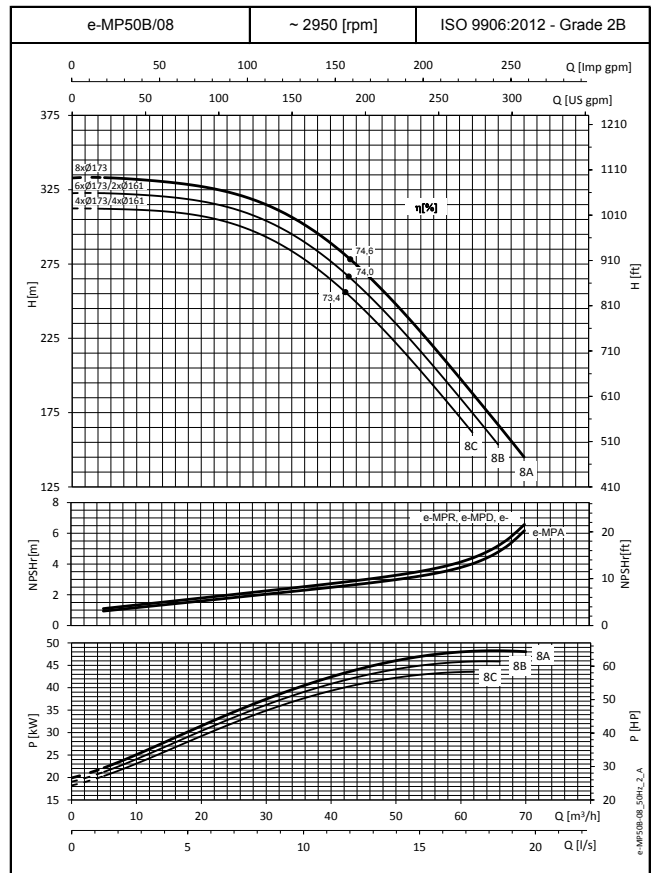
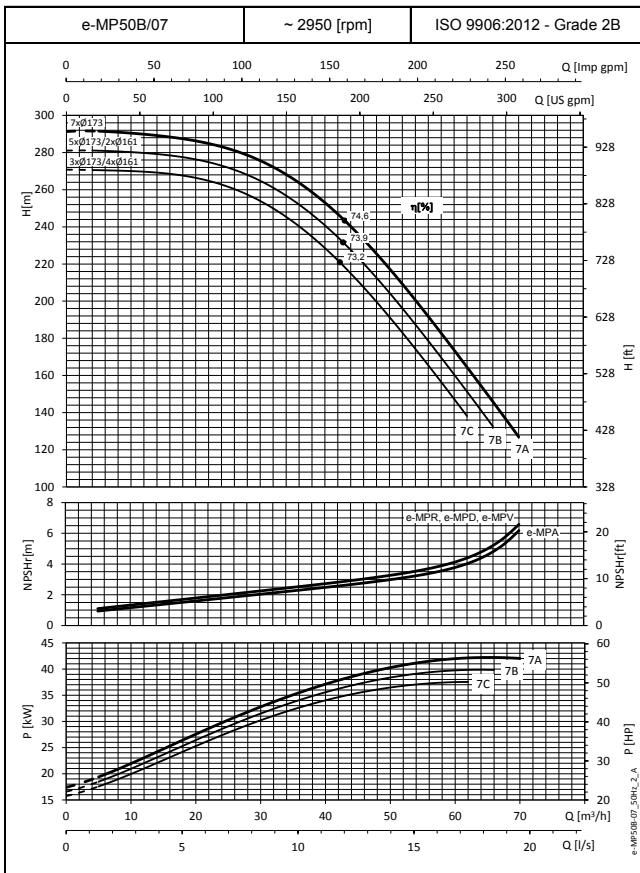
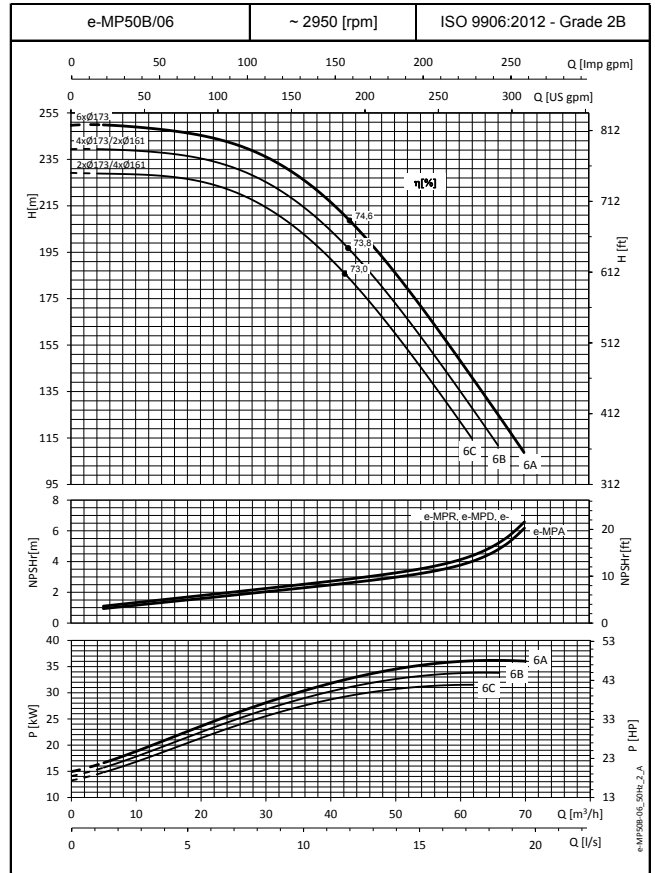
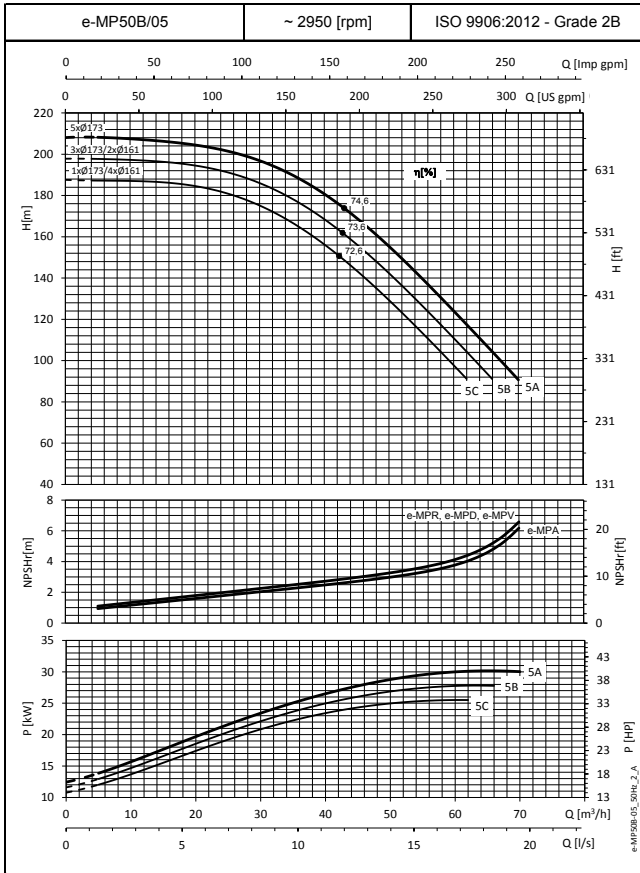
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP50B SERIES

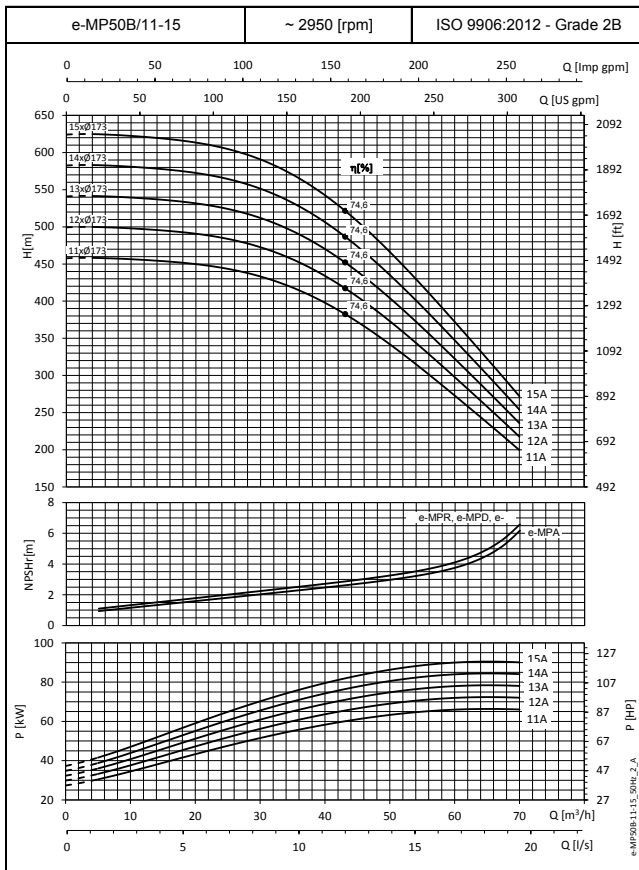
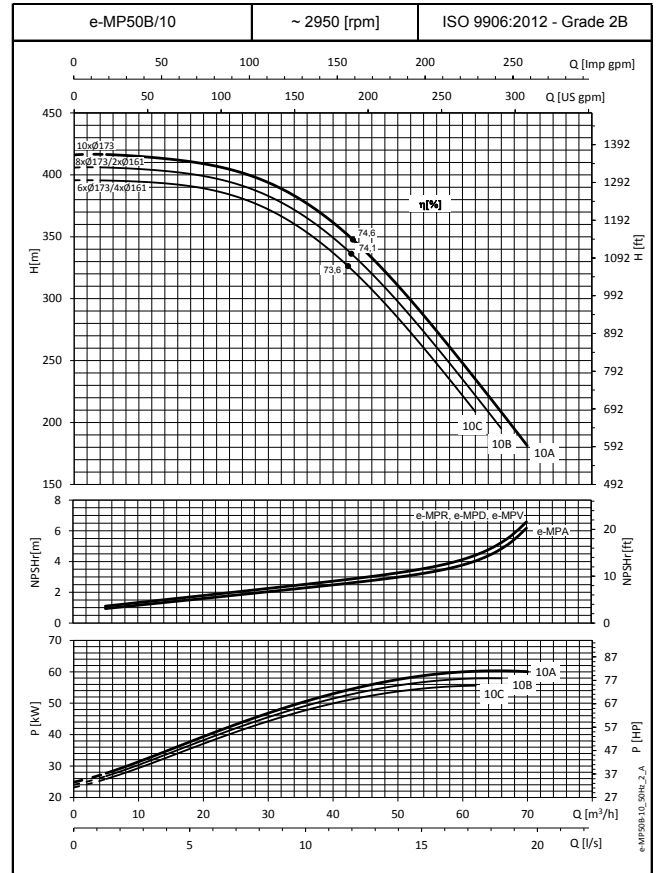
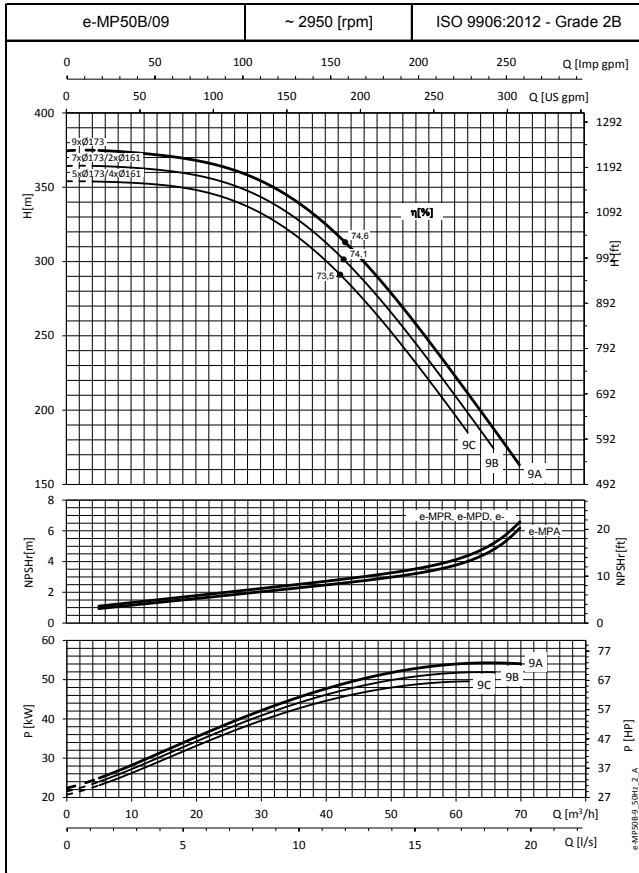
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP50B SERIES

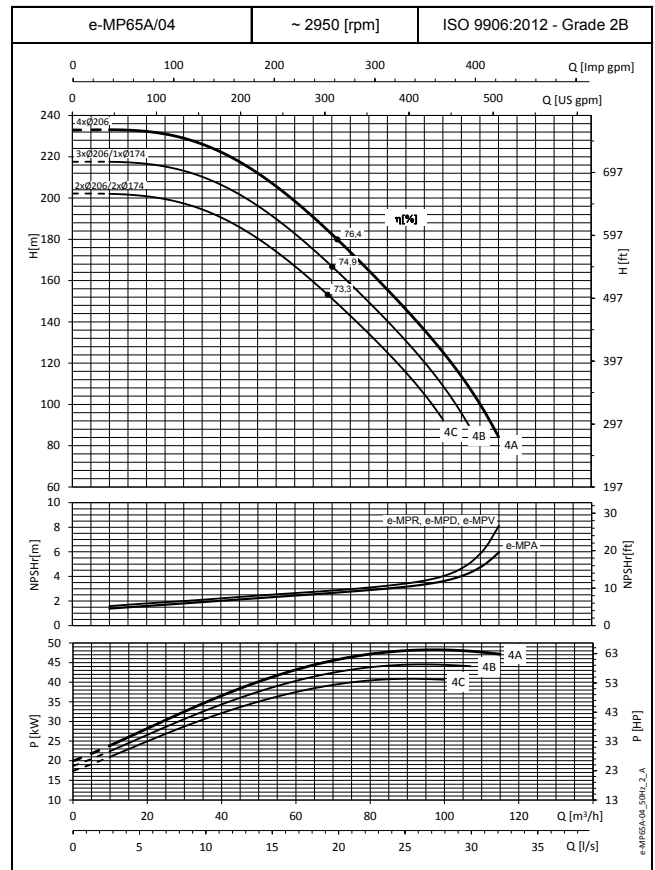
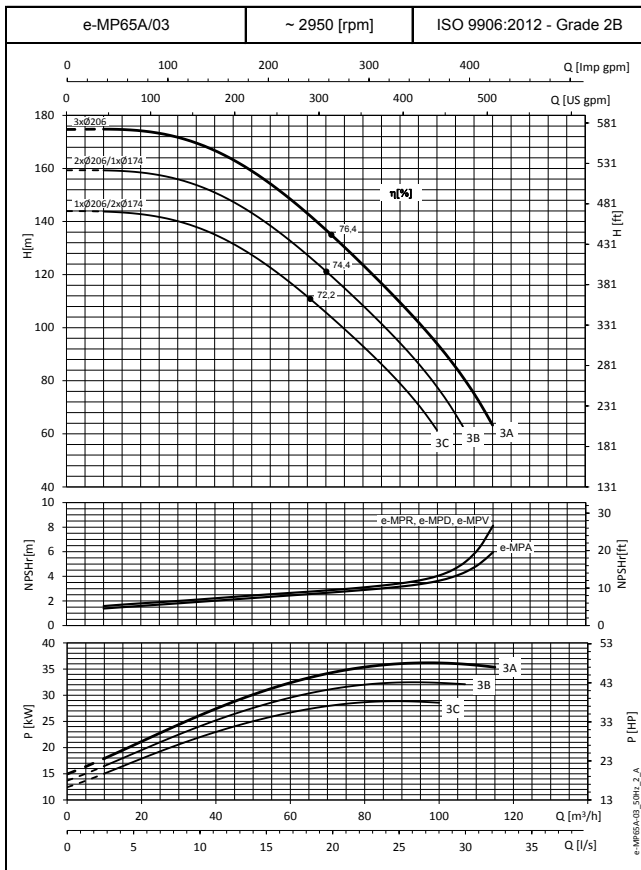
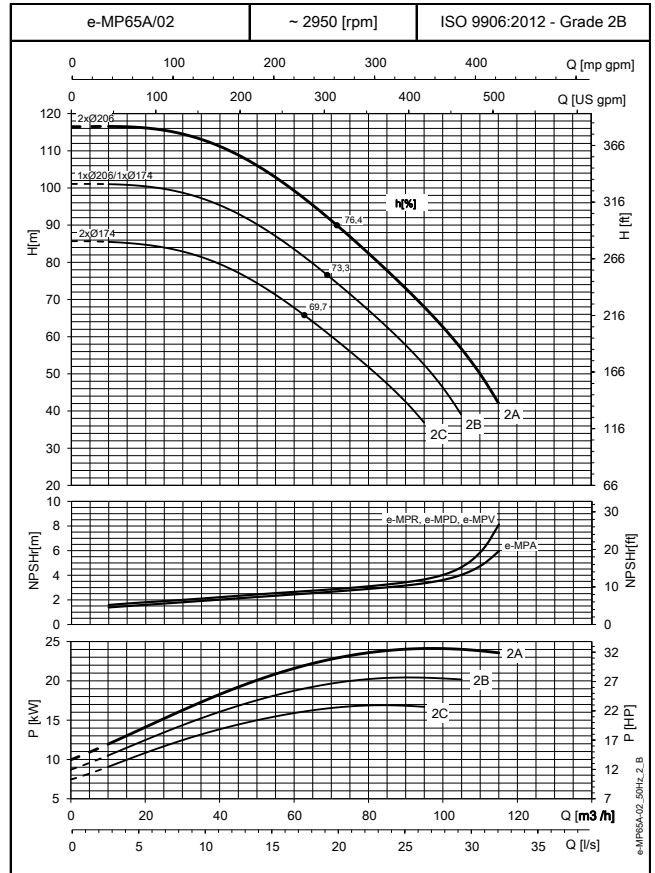
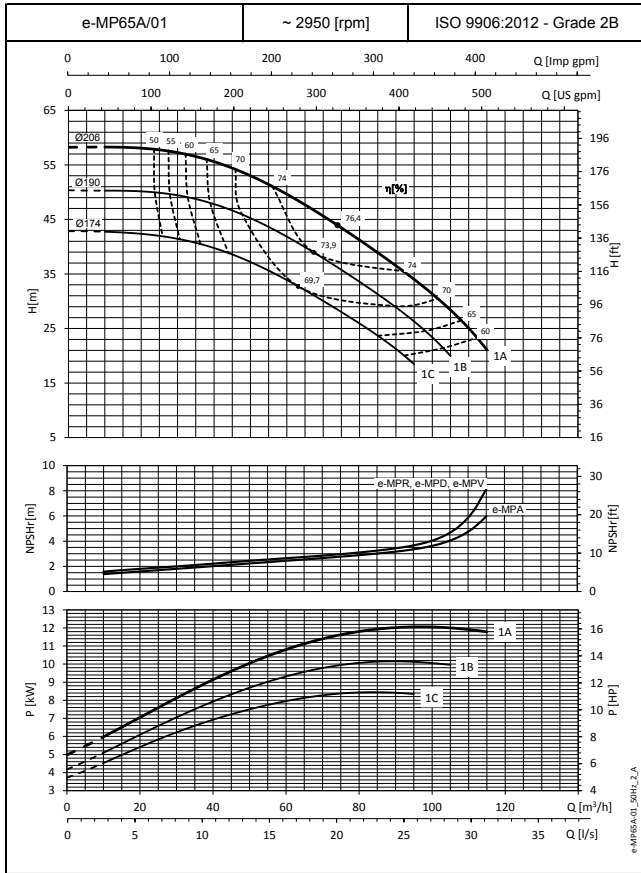
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65A SERIES

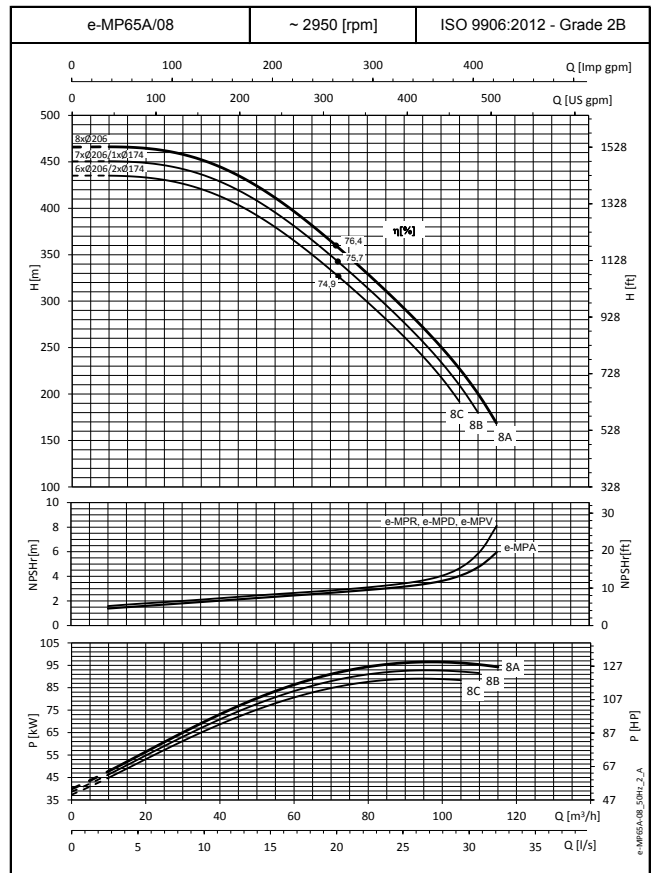
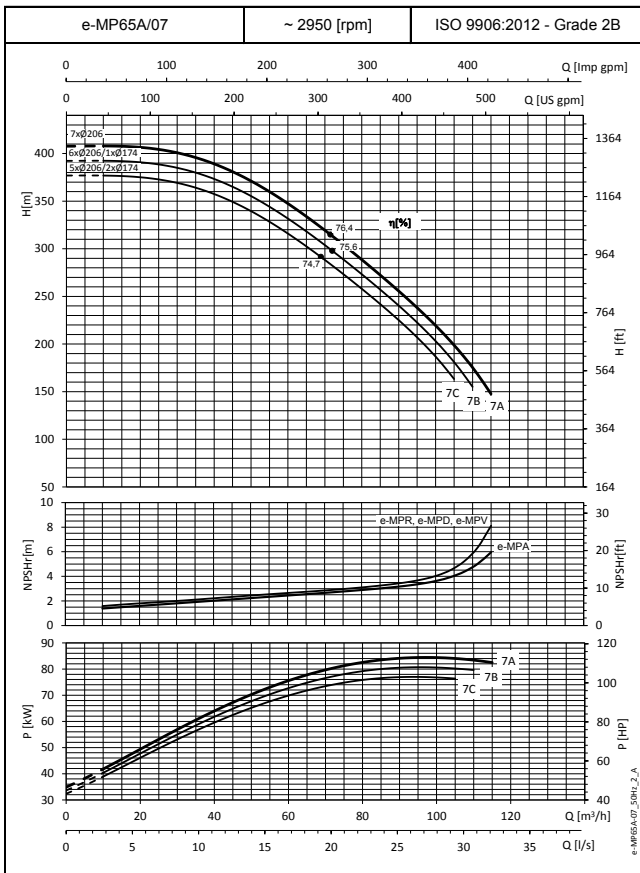
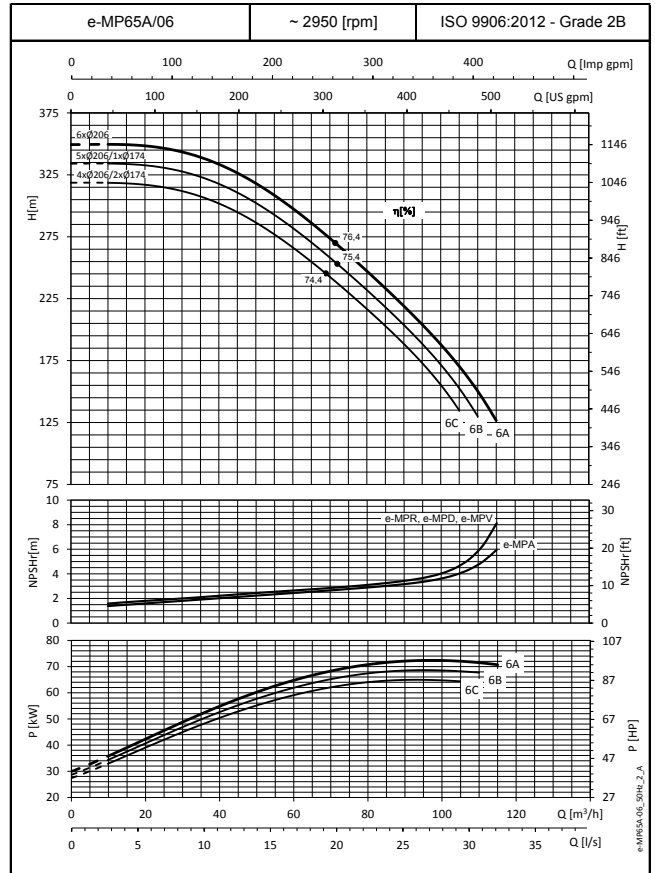
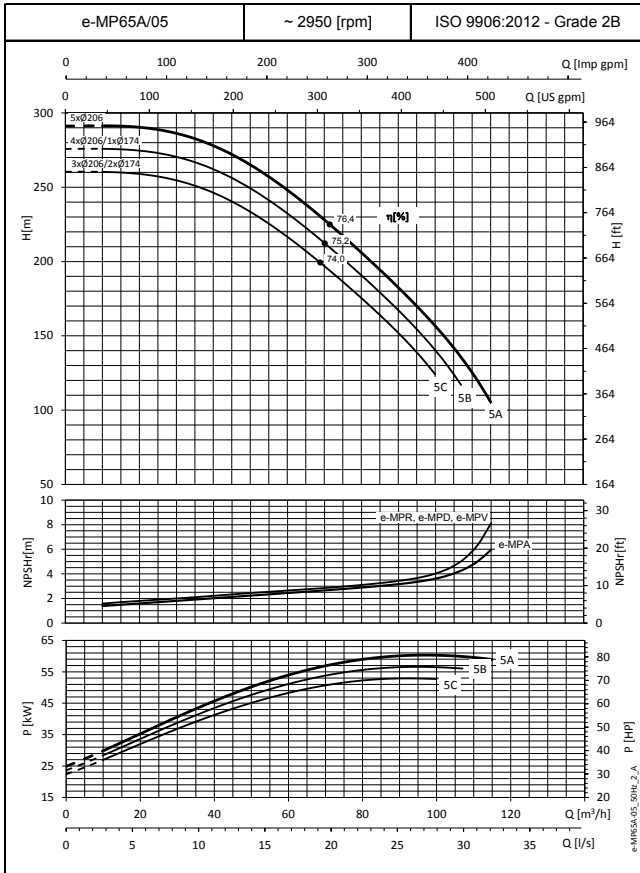
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65A SERIES

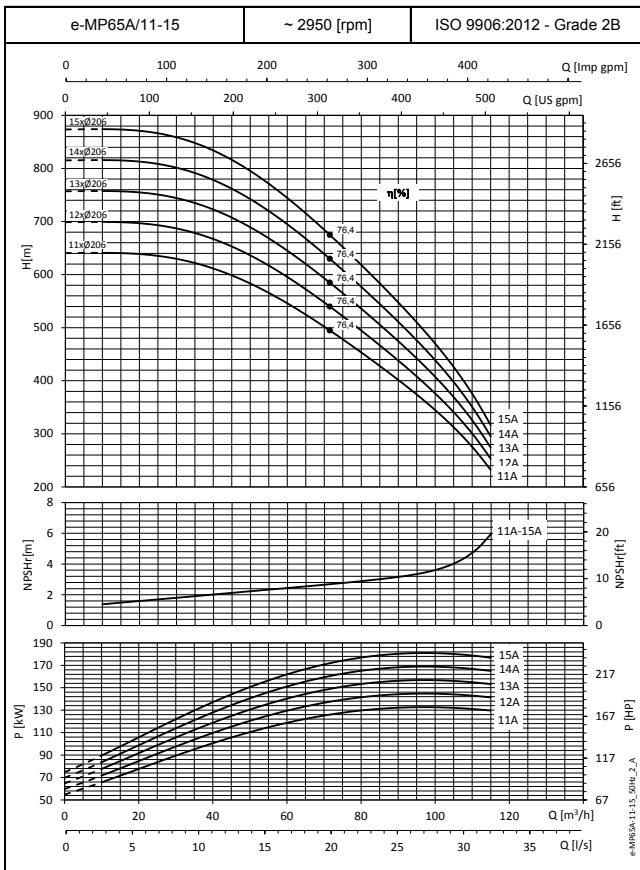
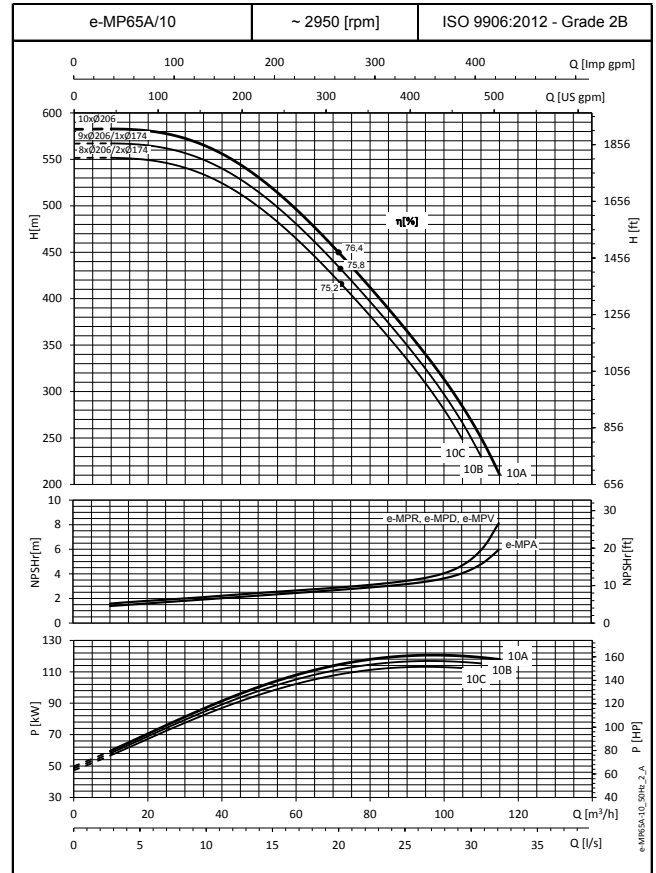
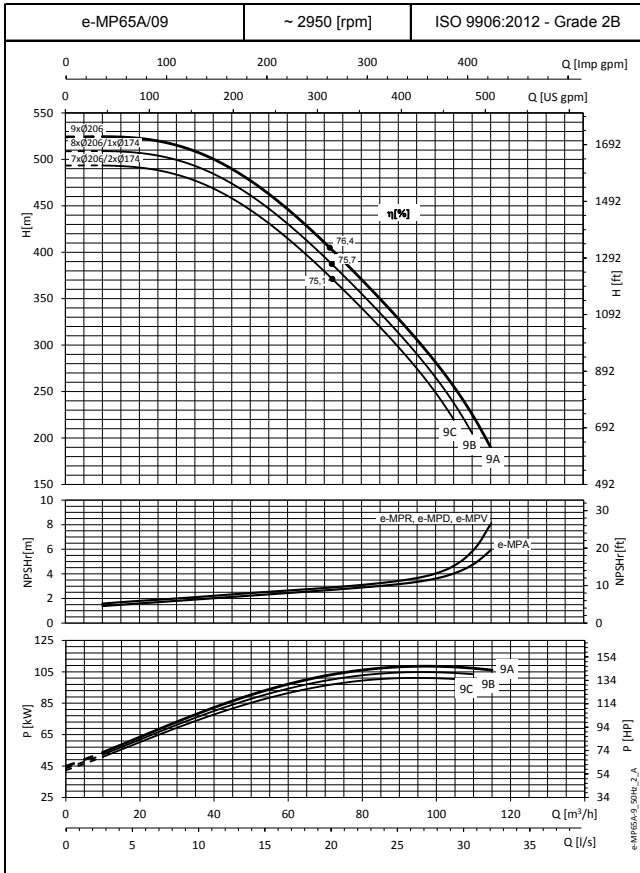
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65A SERIES

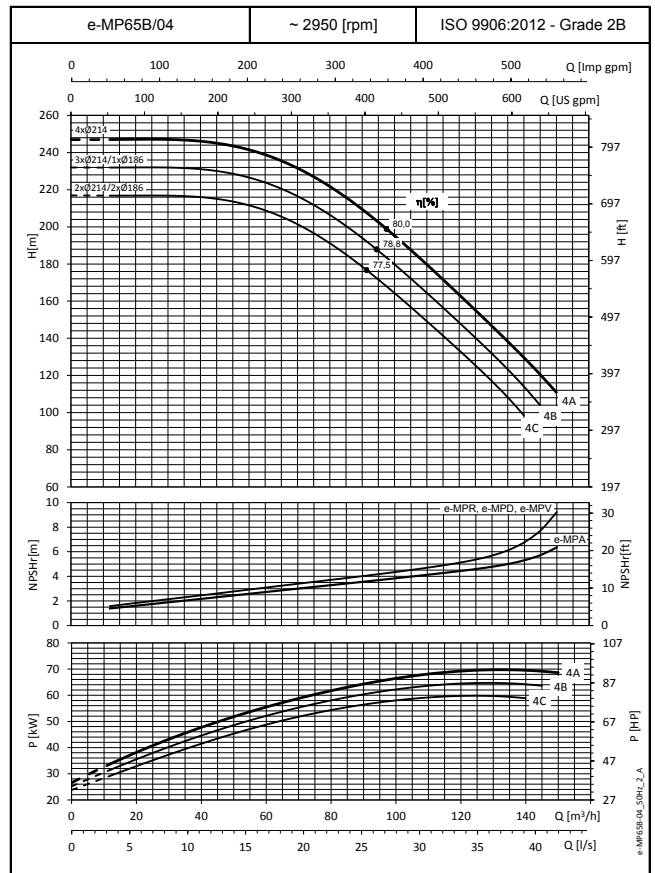
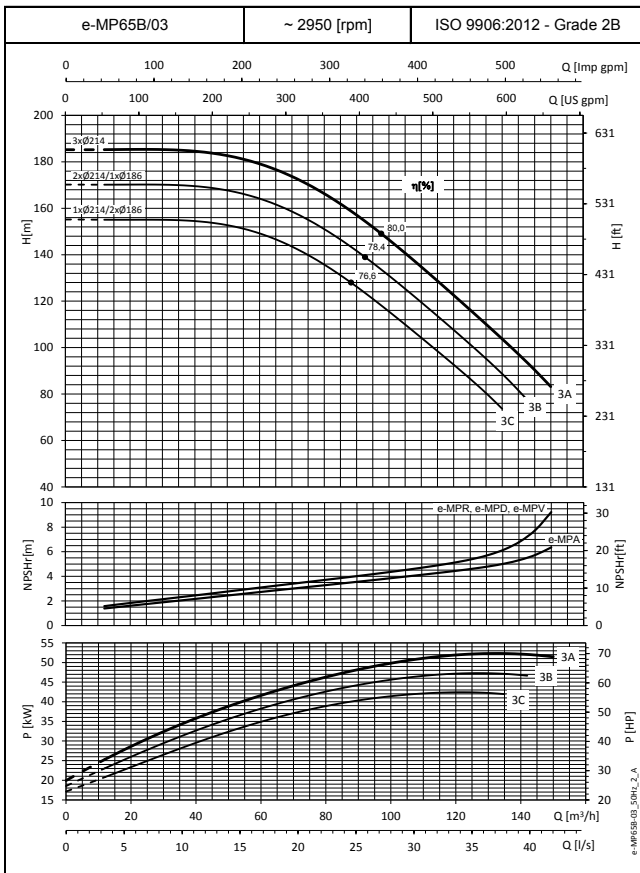
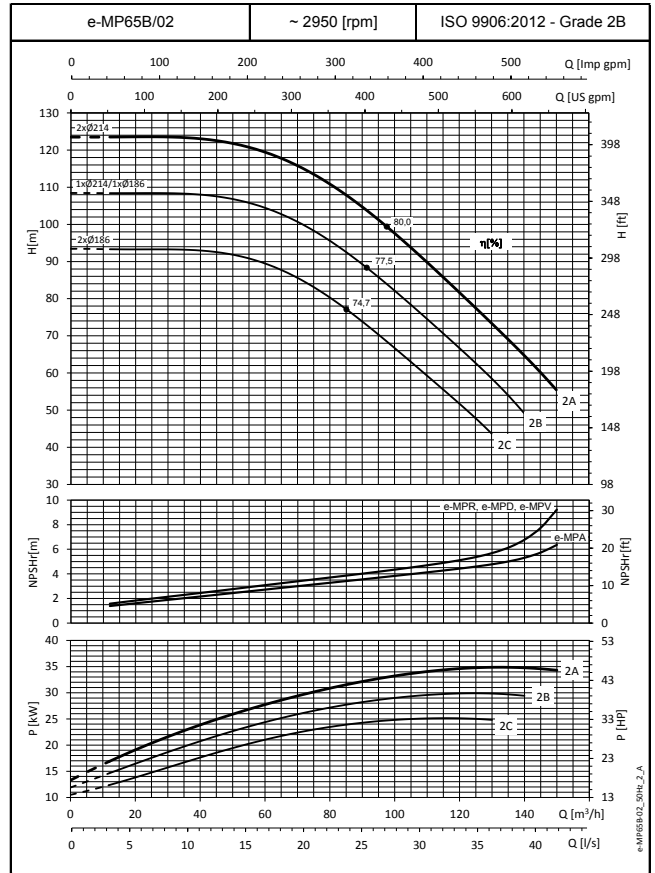
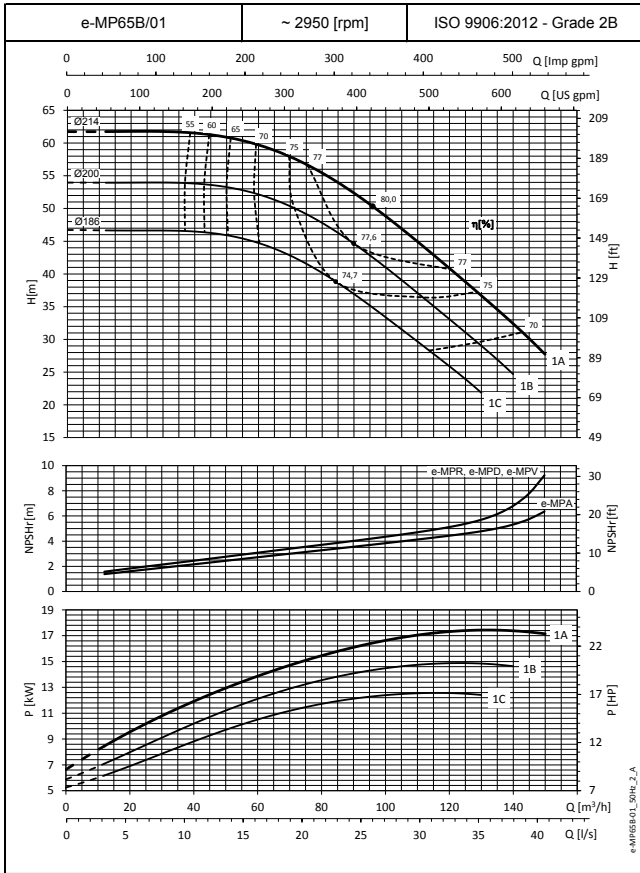
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65B SERIES

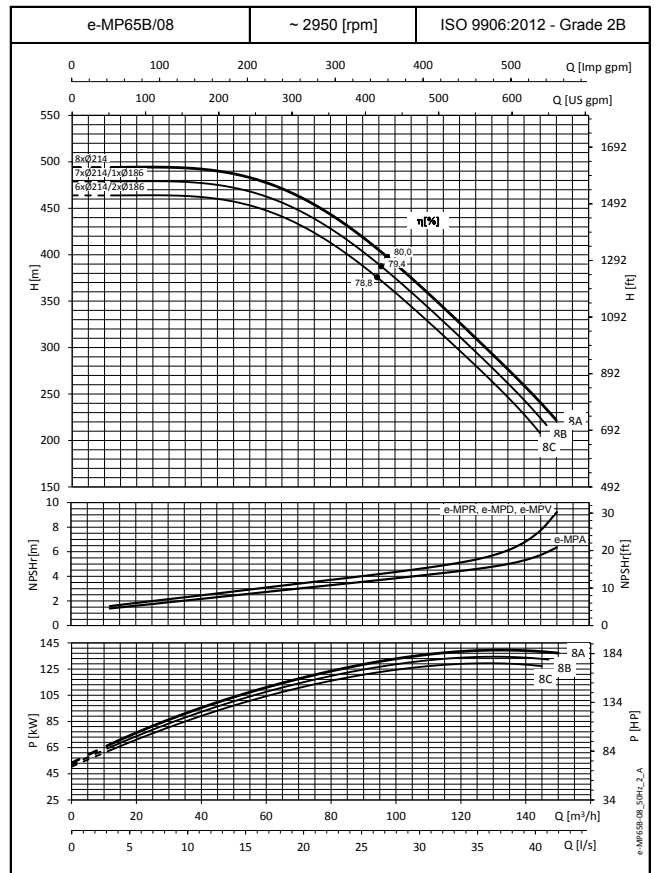
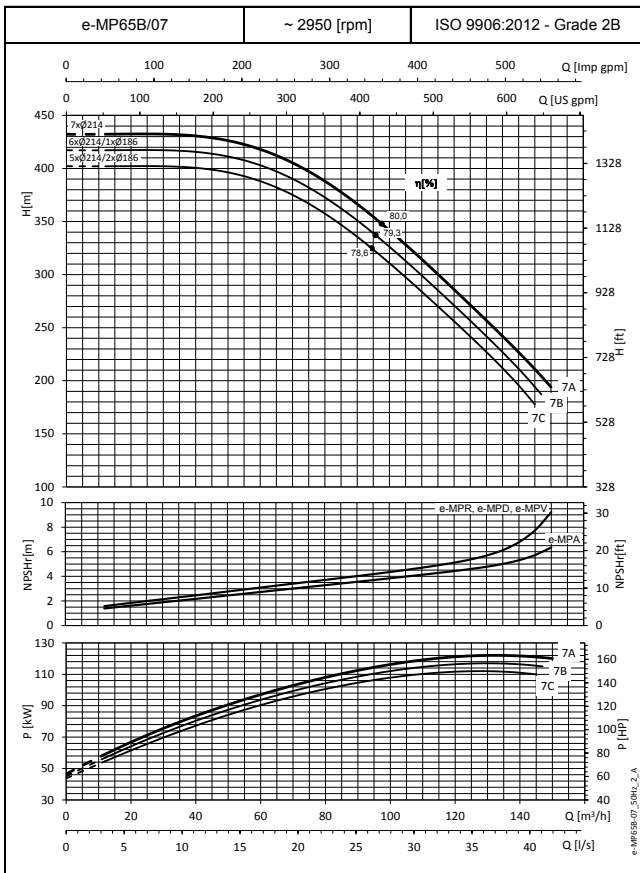
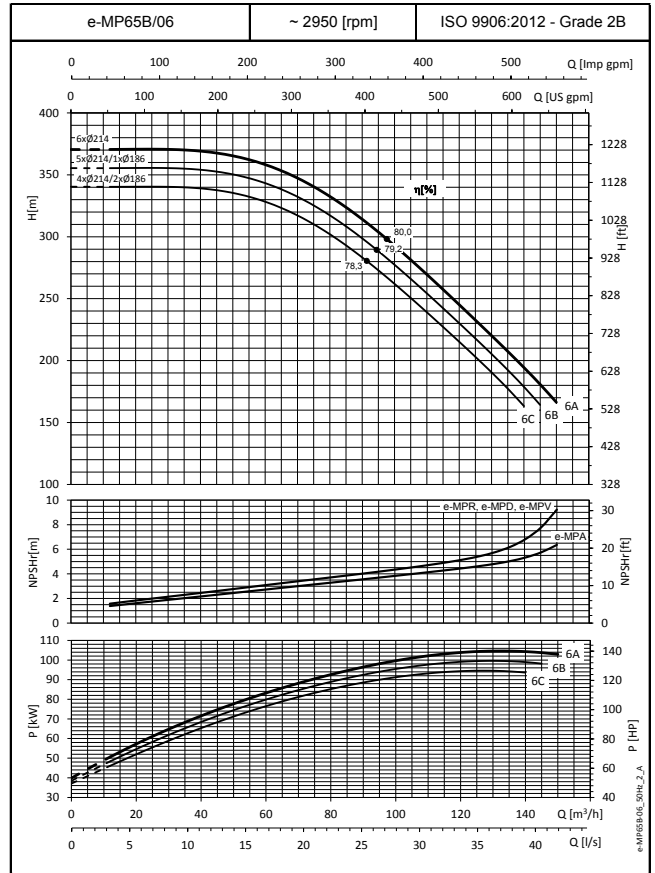
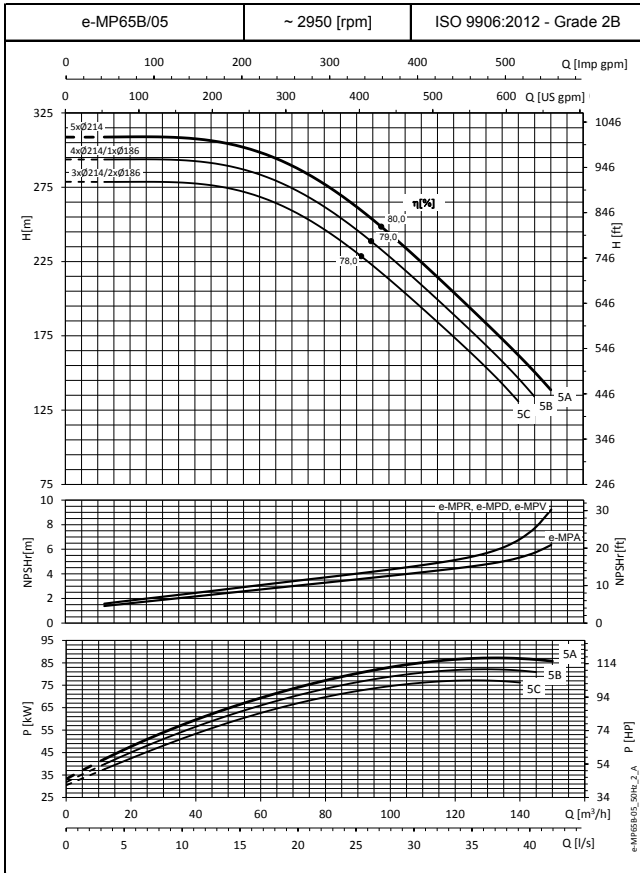
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65B SERIES

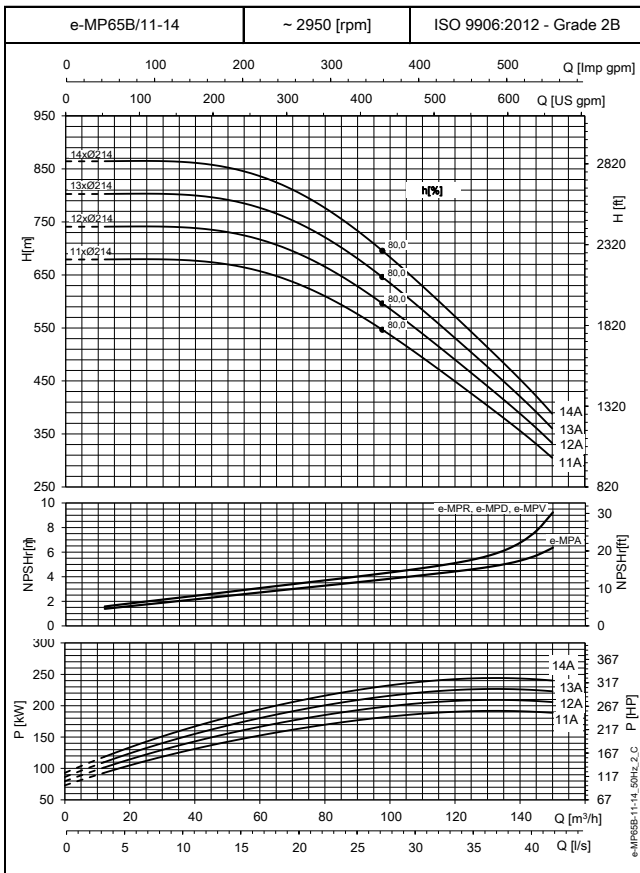
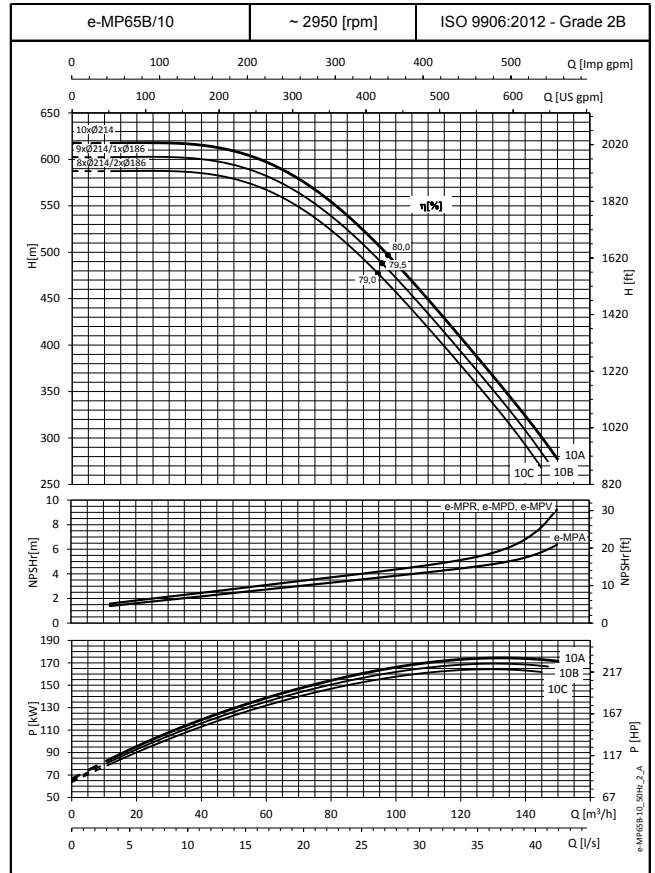
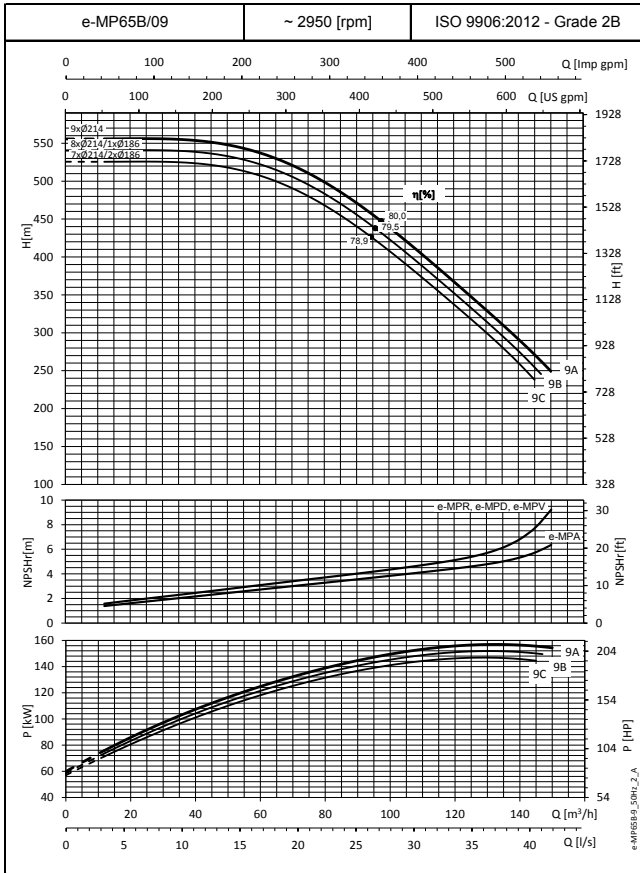
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65B SERIES

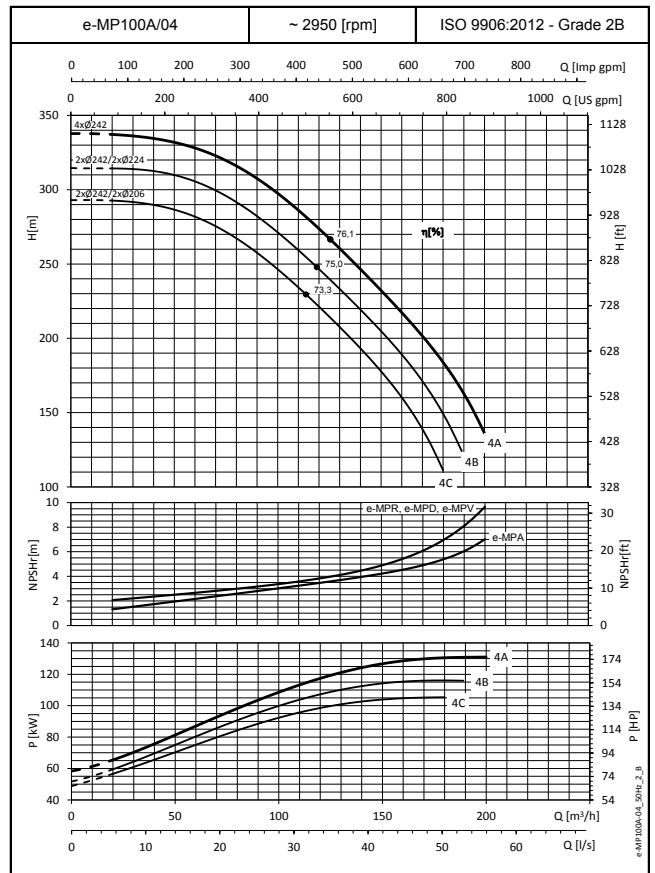
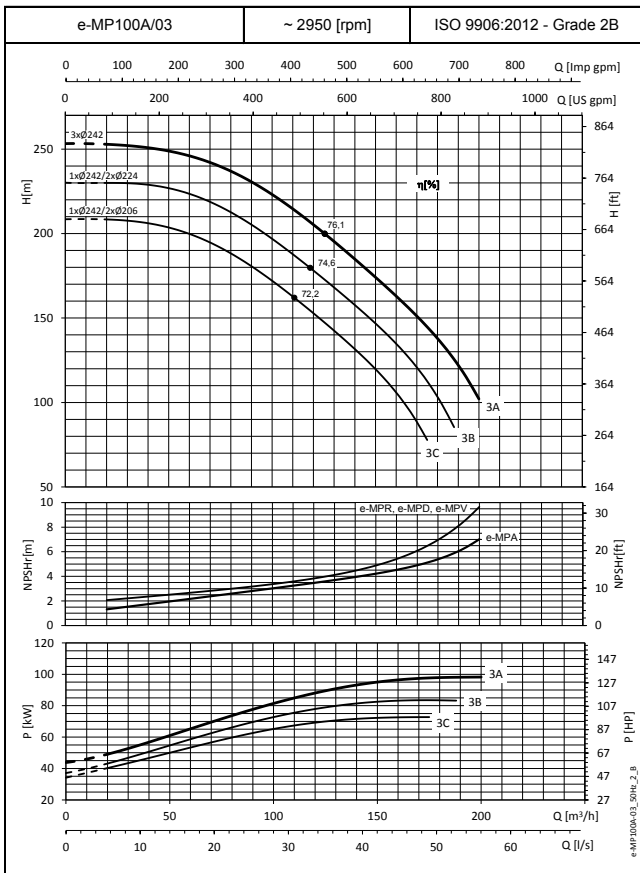
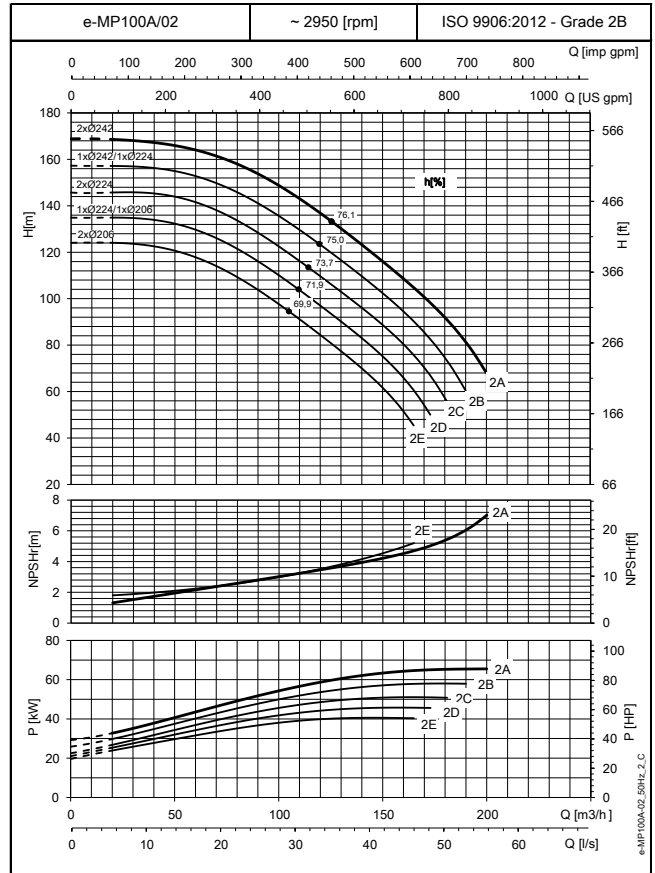
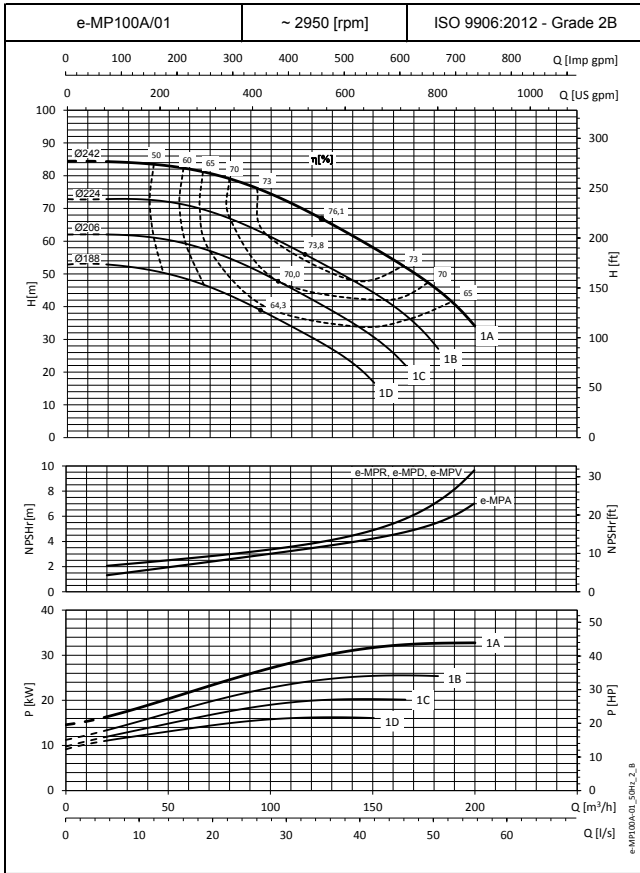
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP100A SERIES

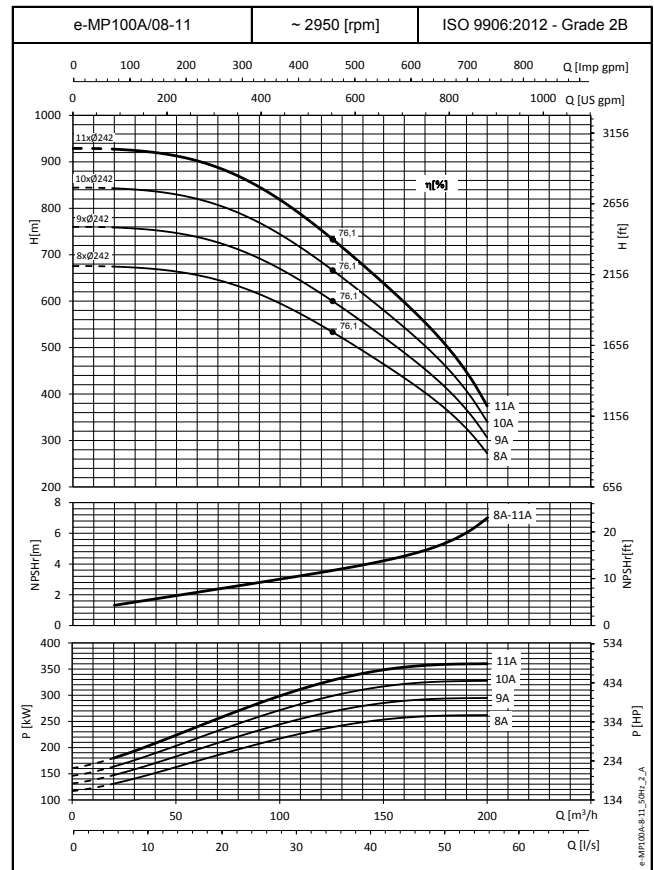
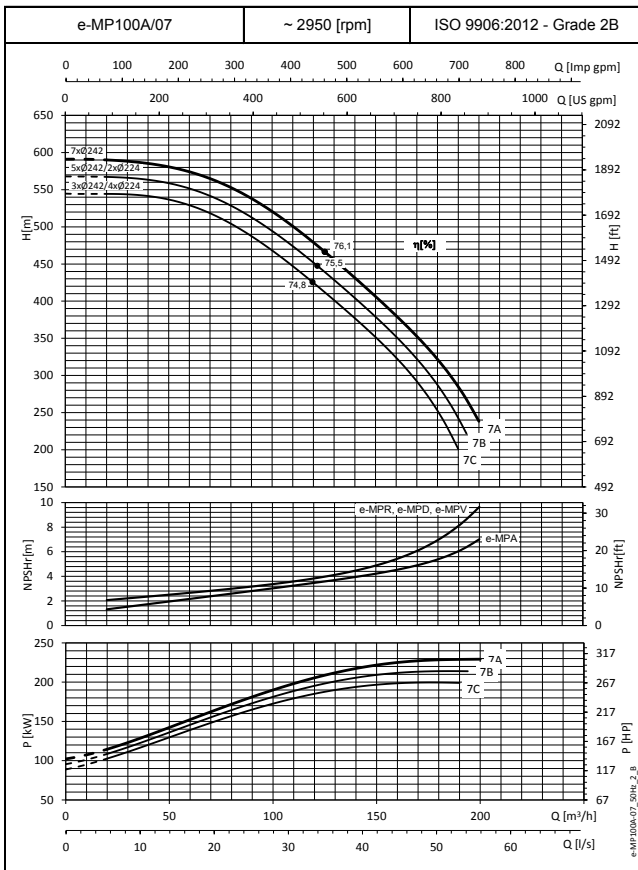
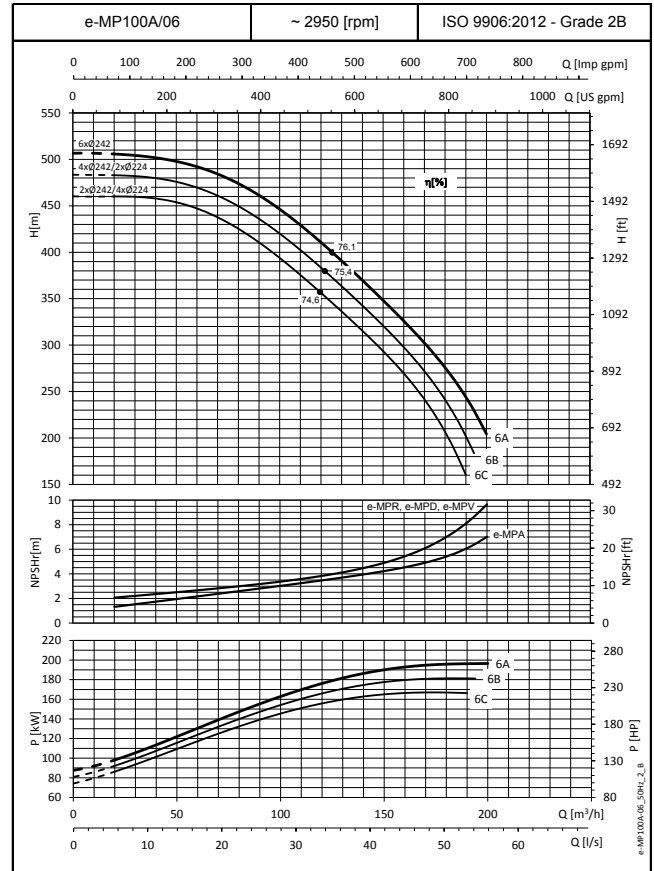
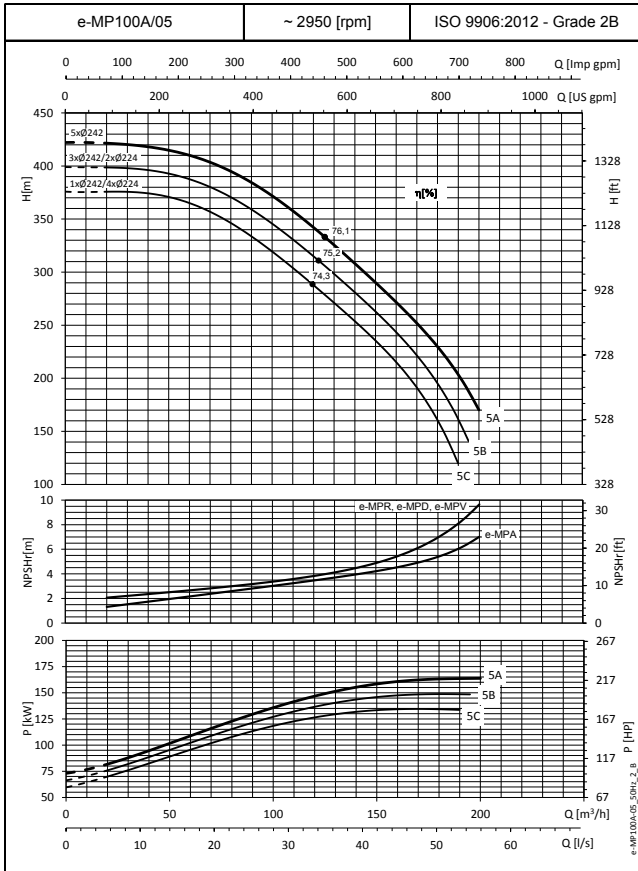
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP100A SERIES

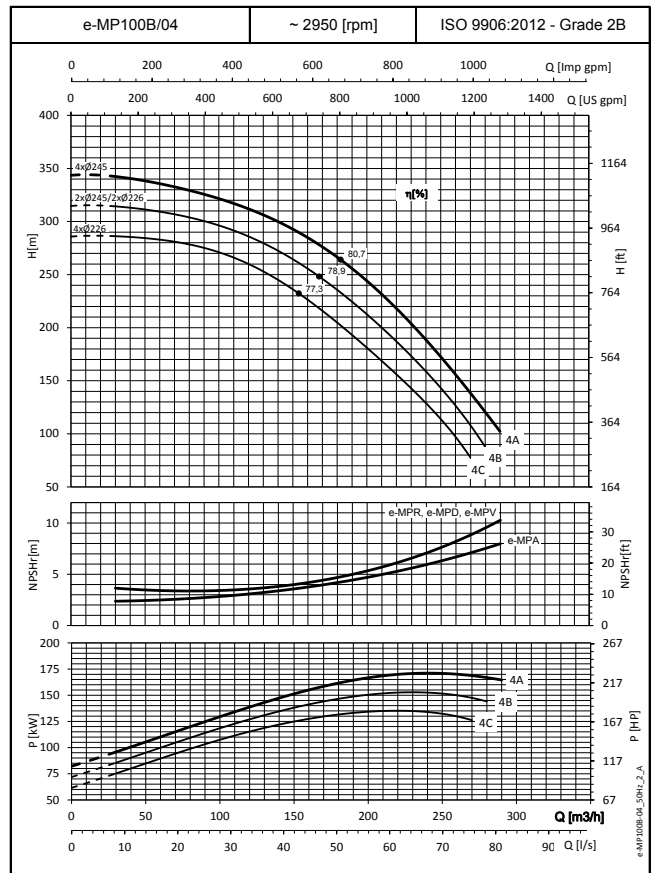
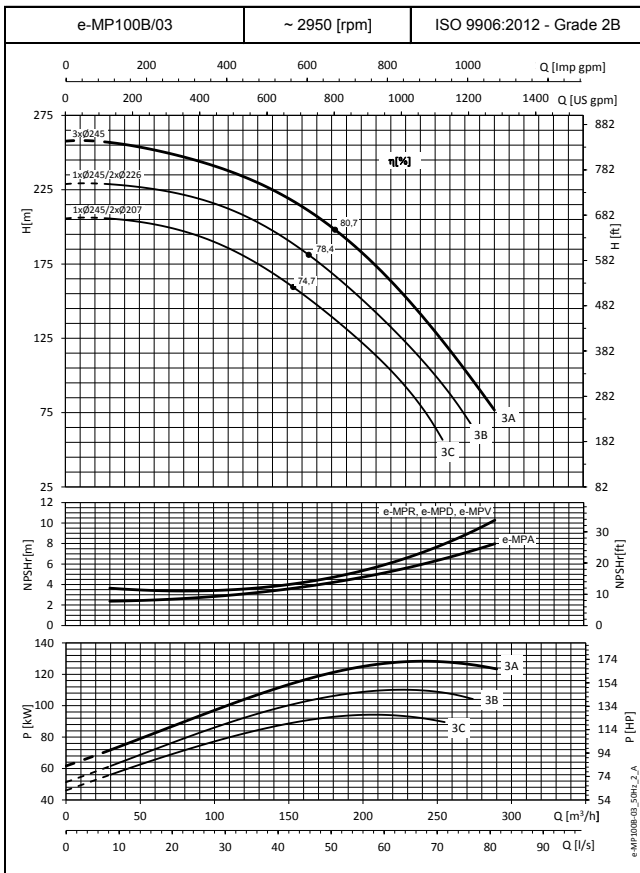
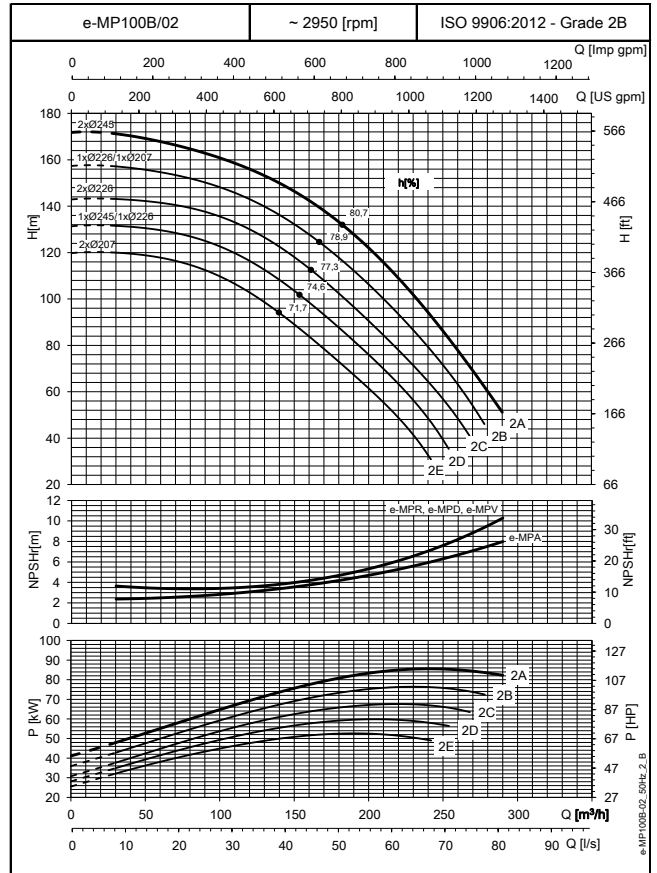
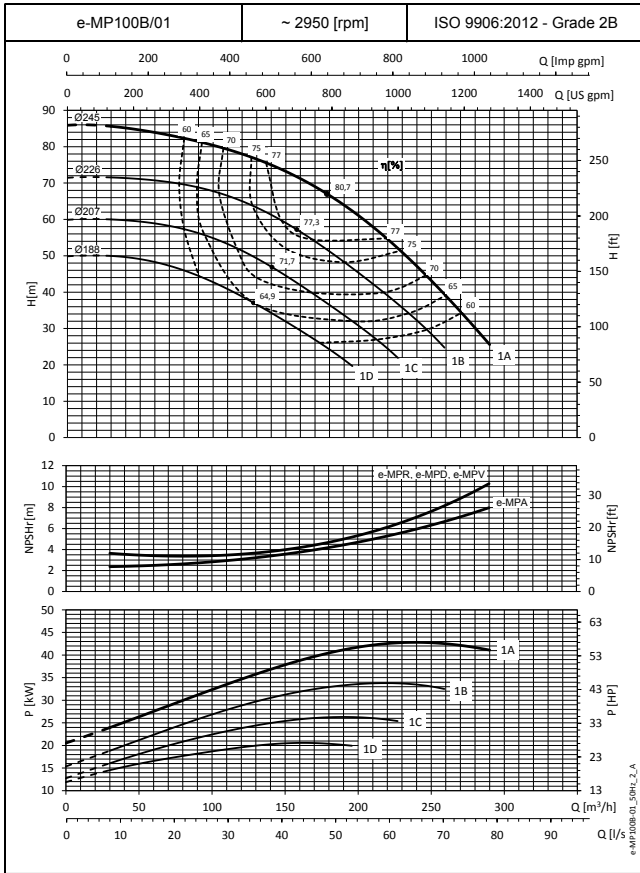
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

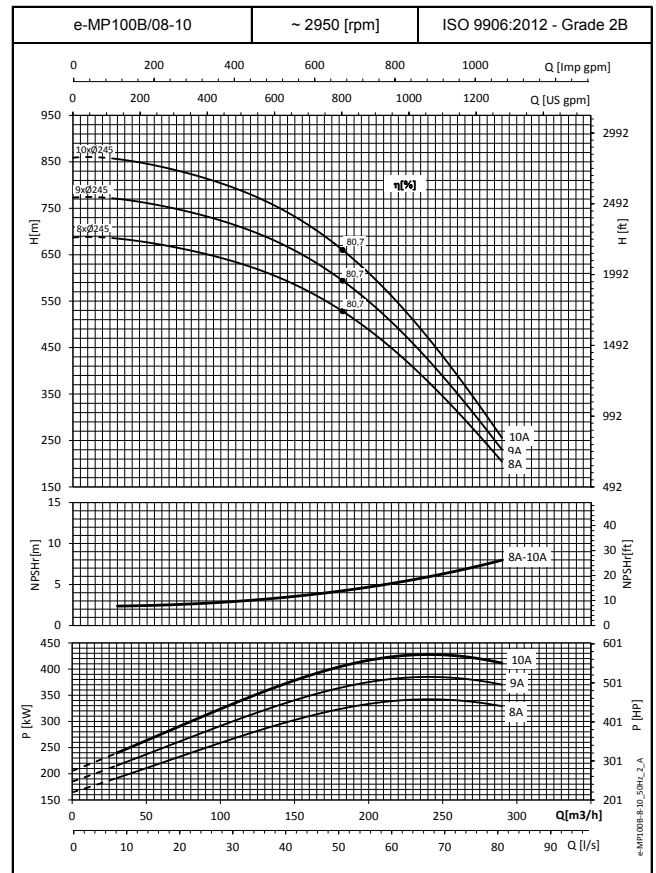
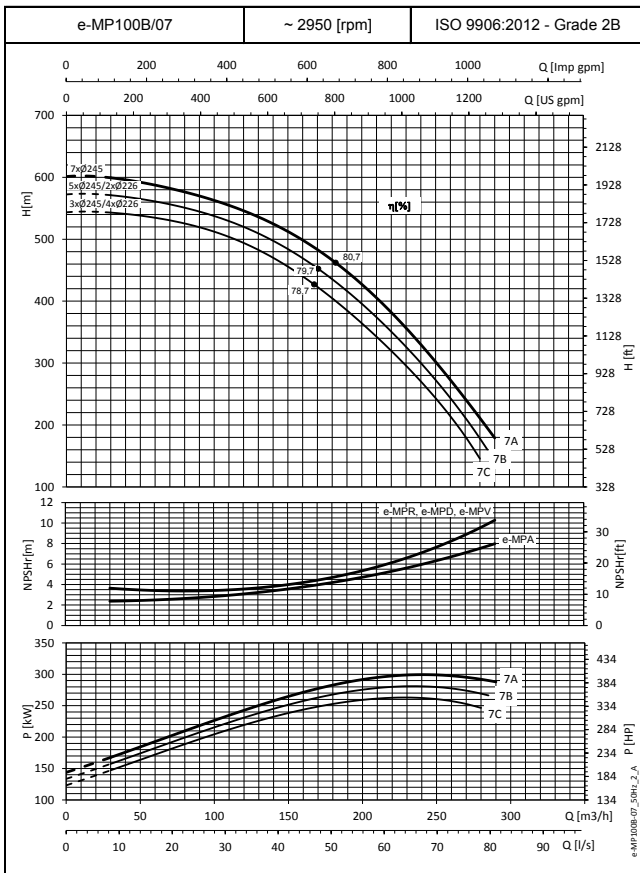
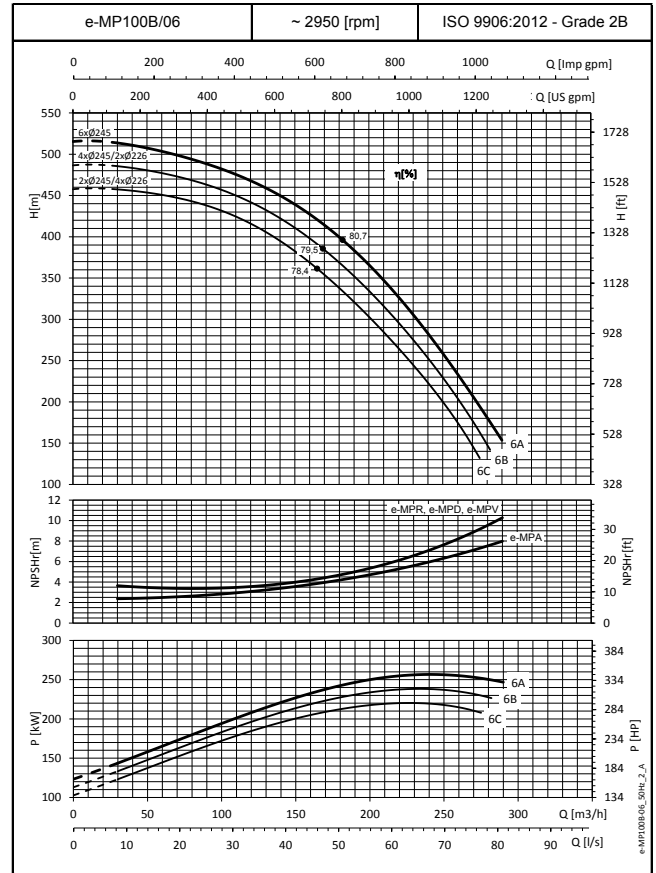
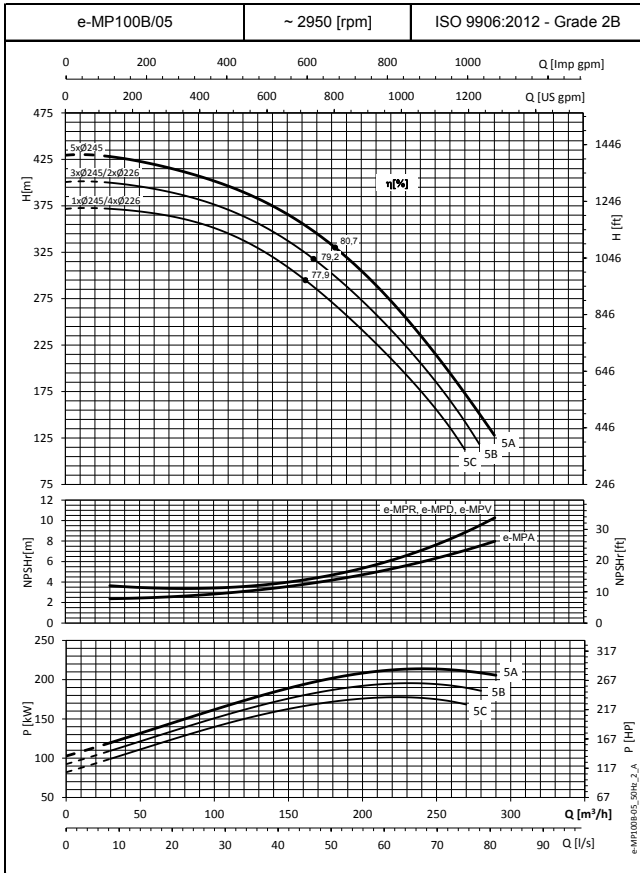
e-MP100B SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

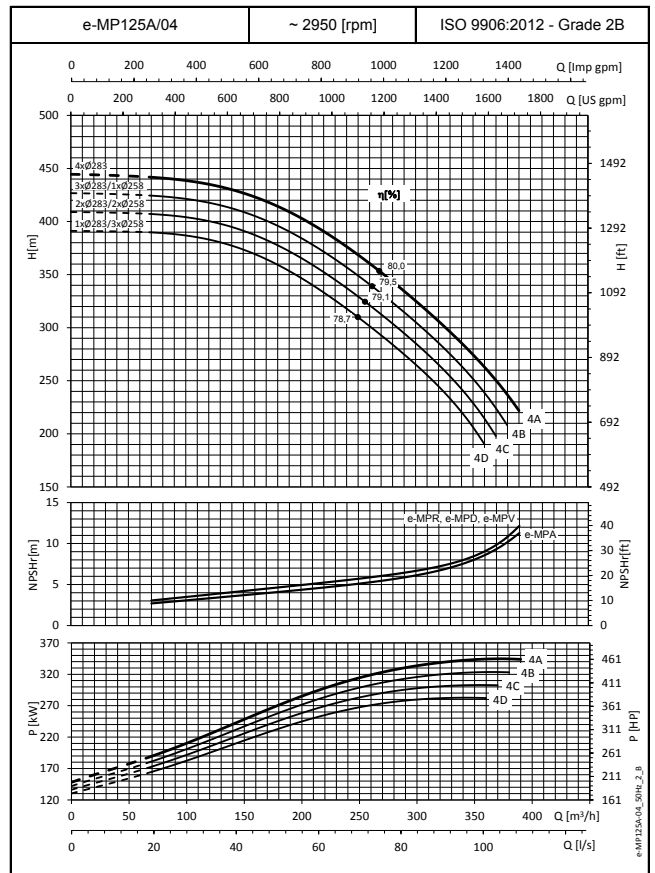
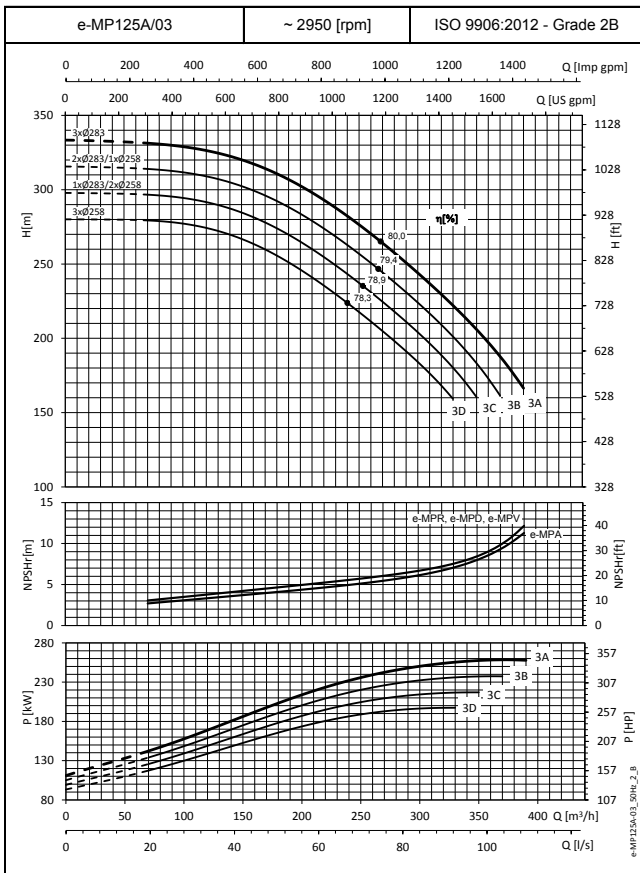
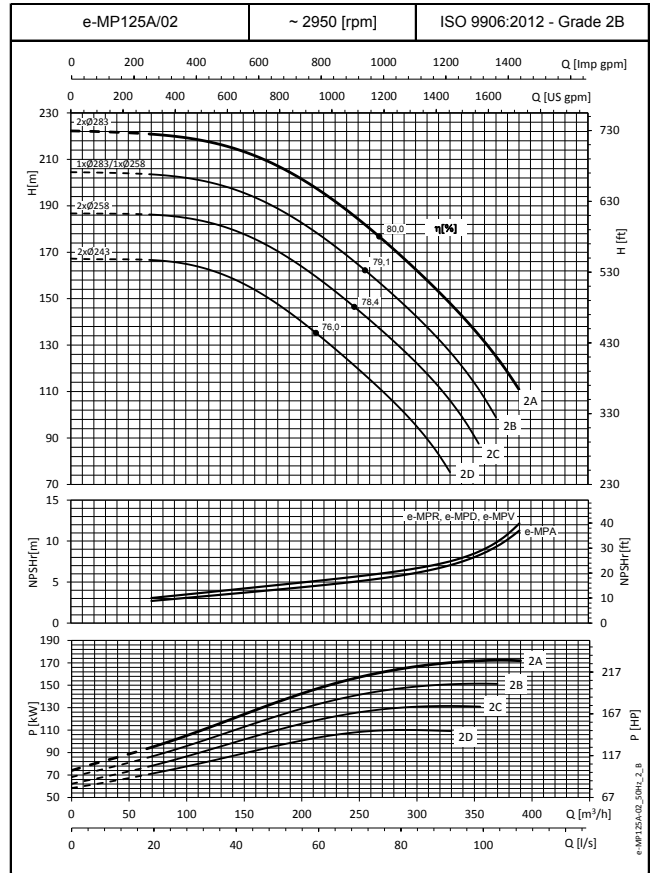
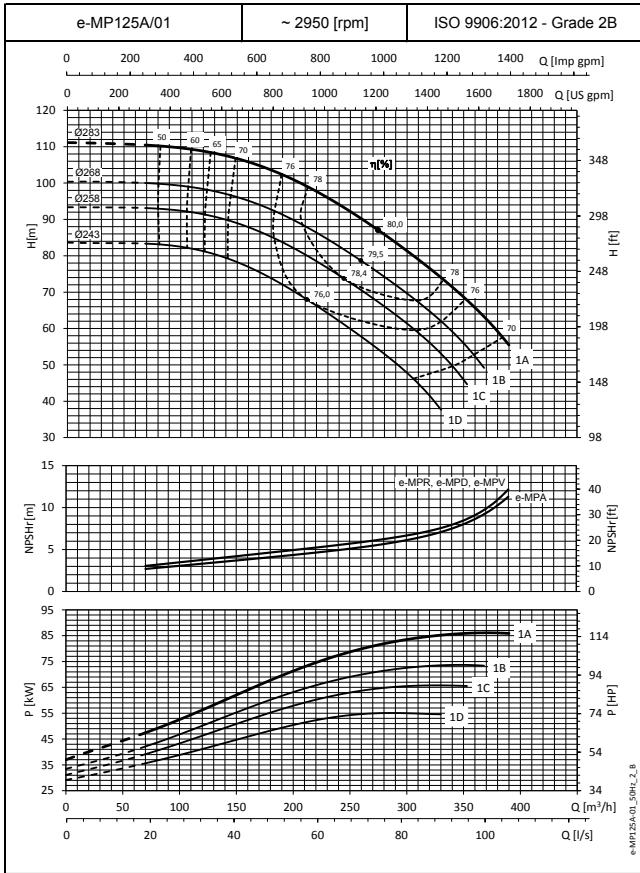
e-MP100B SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

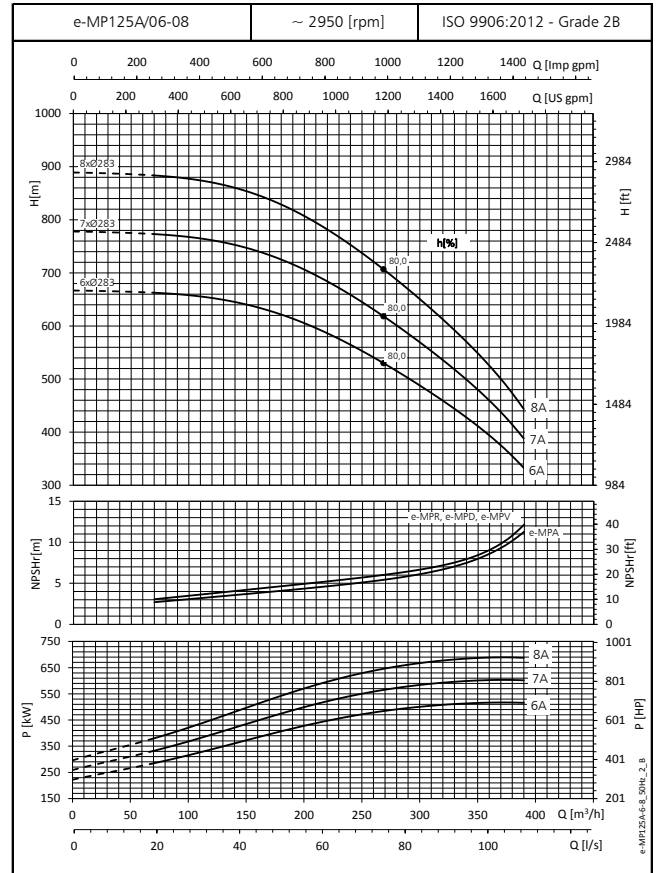
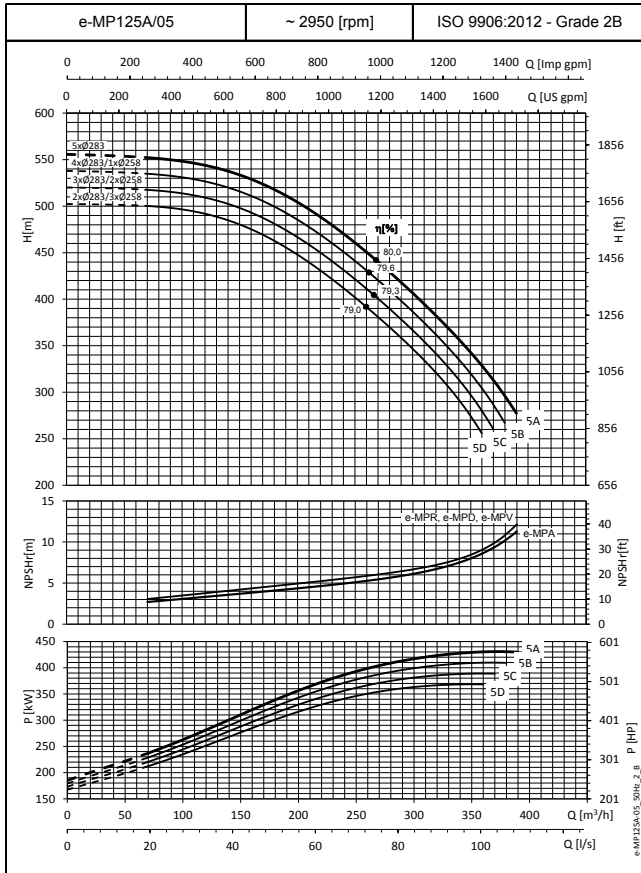
e-MP125A SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

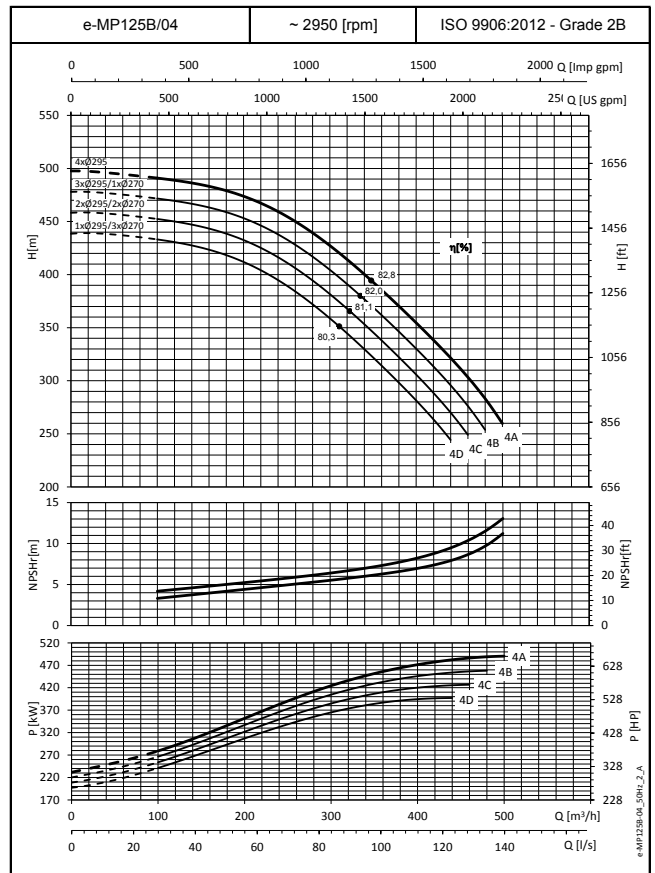
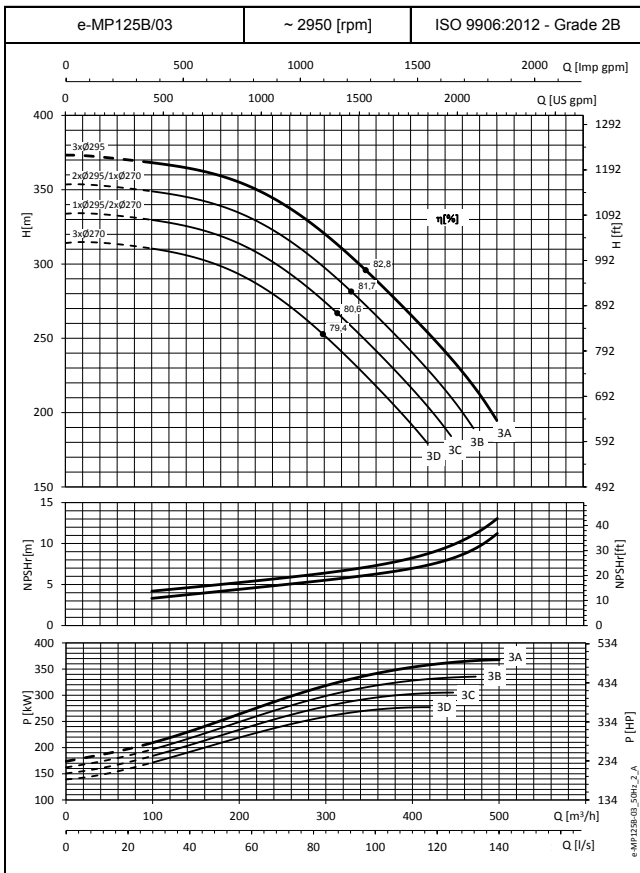
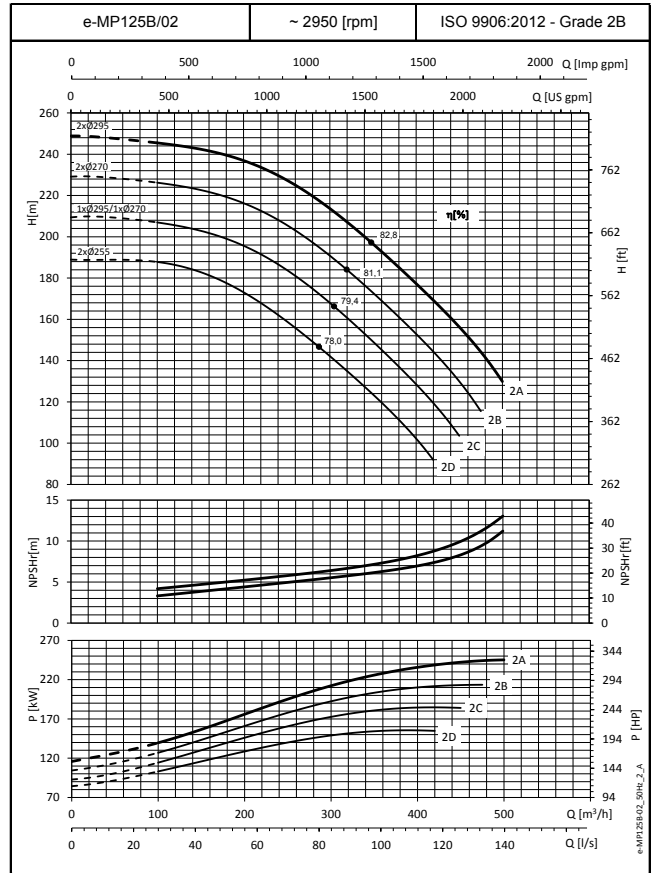
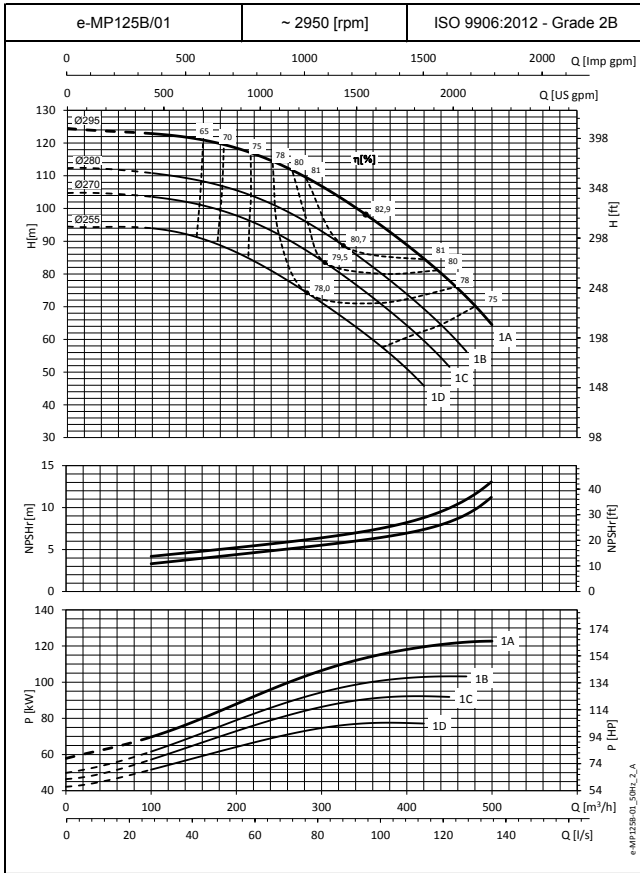
e-MP125A SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

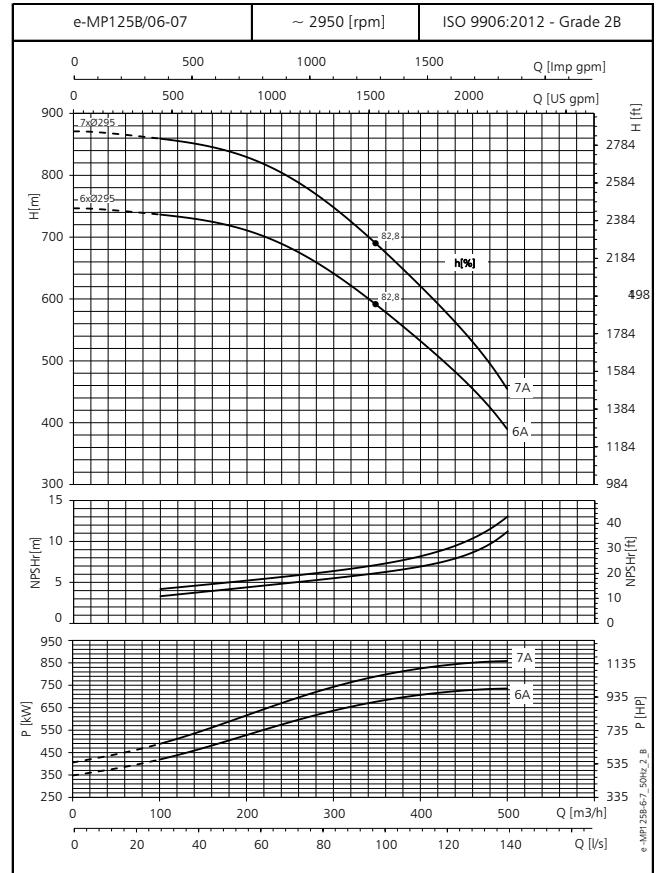
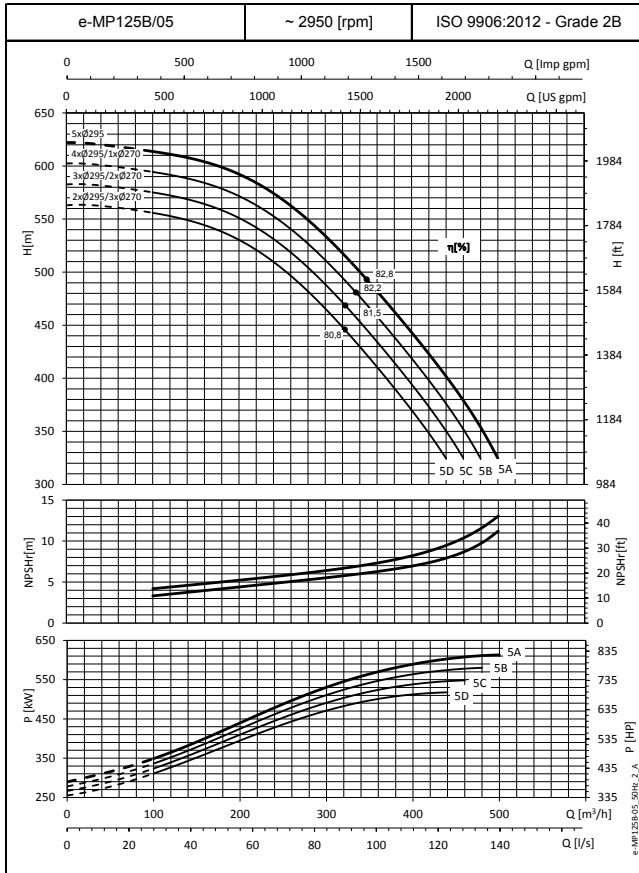
e-MP125B SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

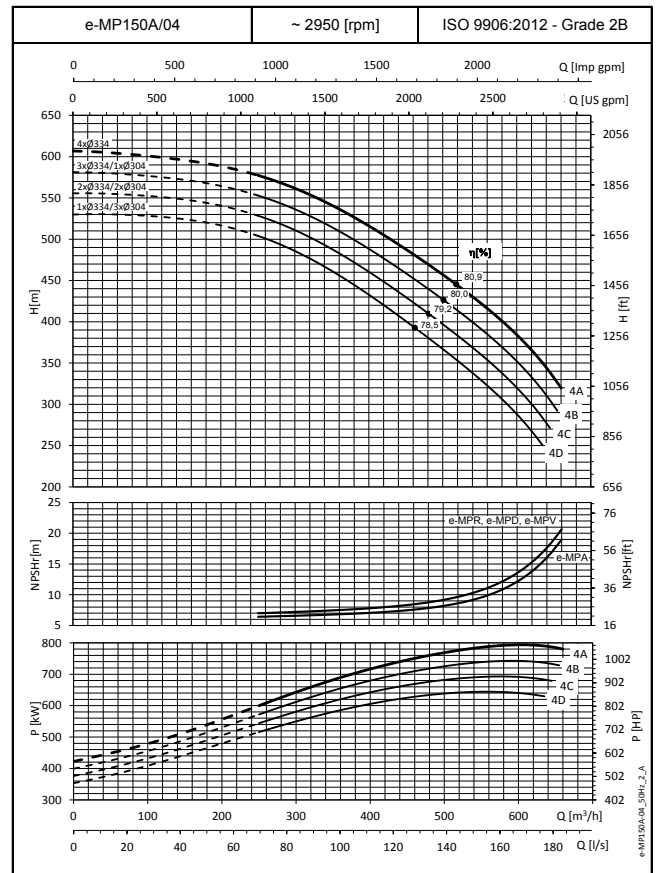
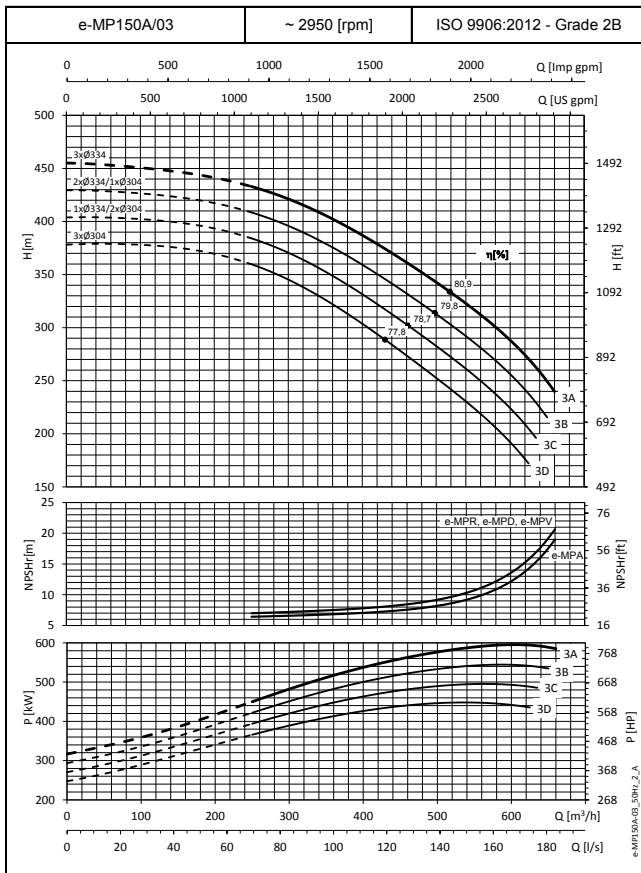
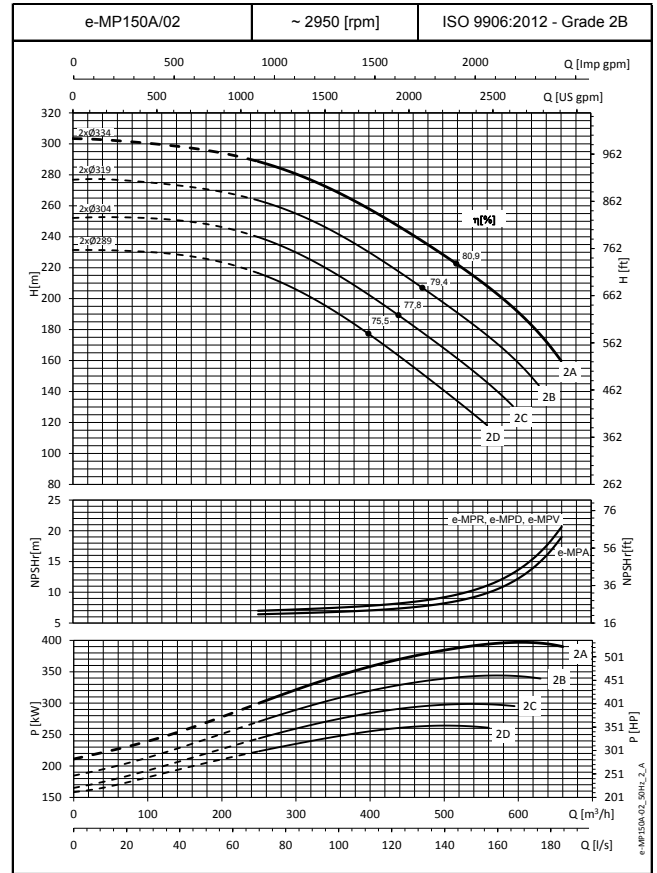
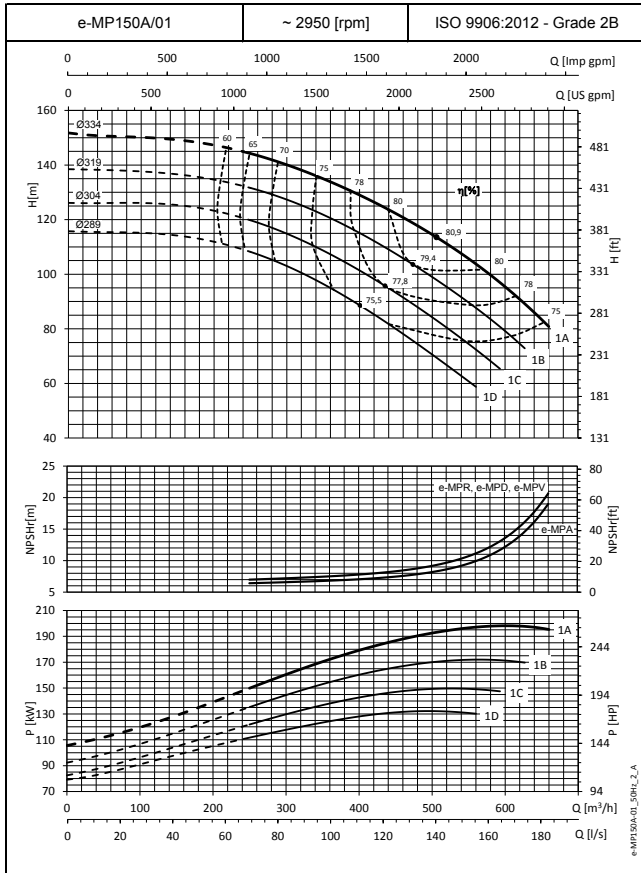
e-MP125B SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

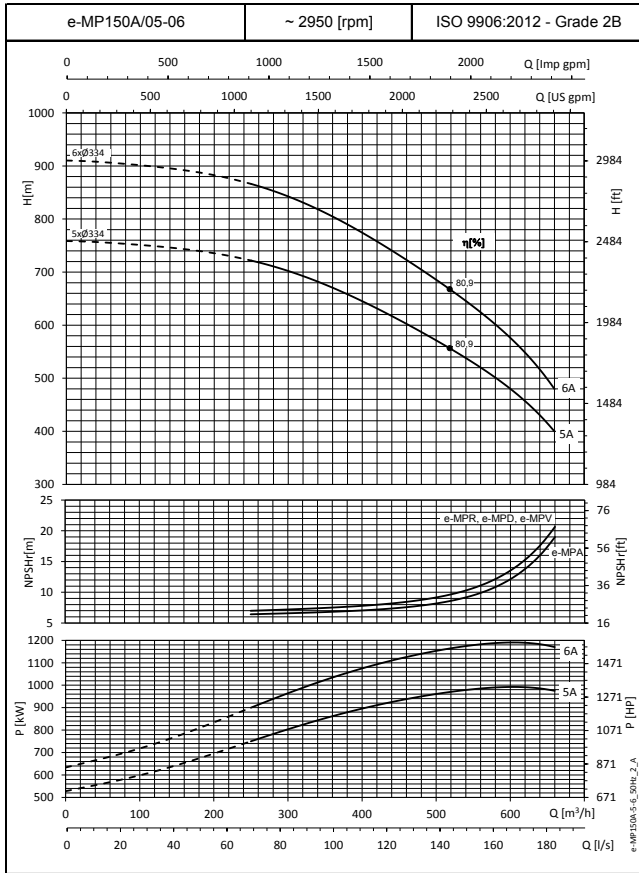
e-MP150A SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



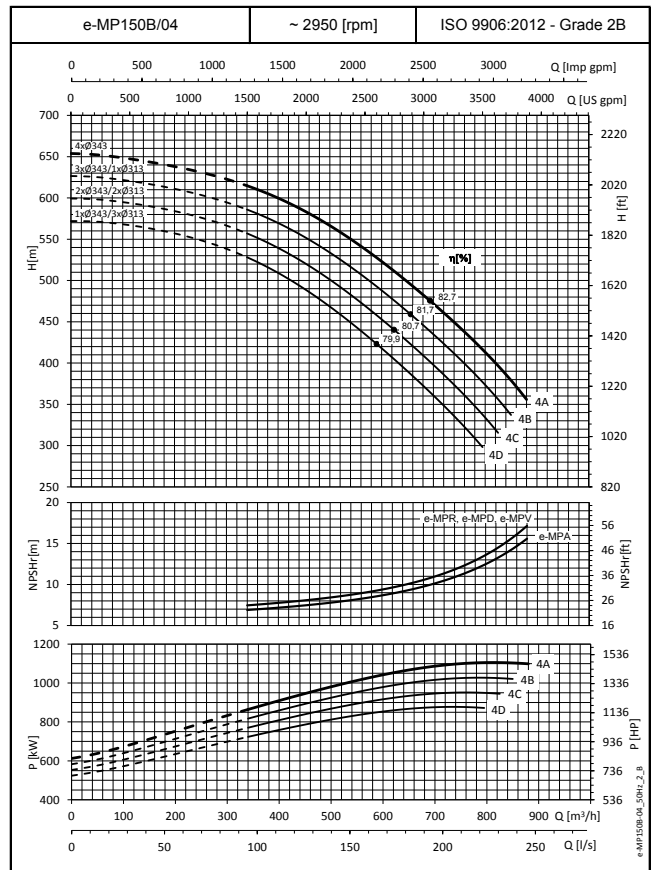
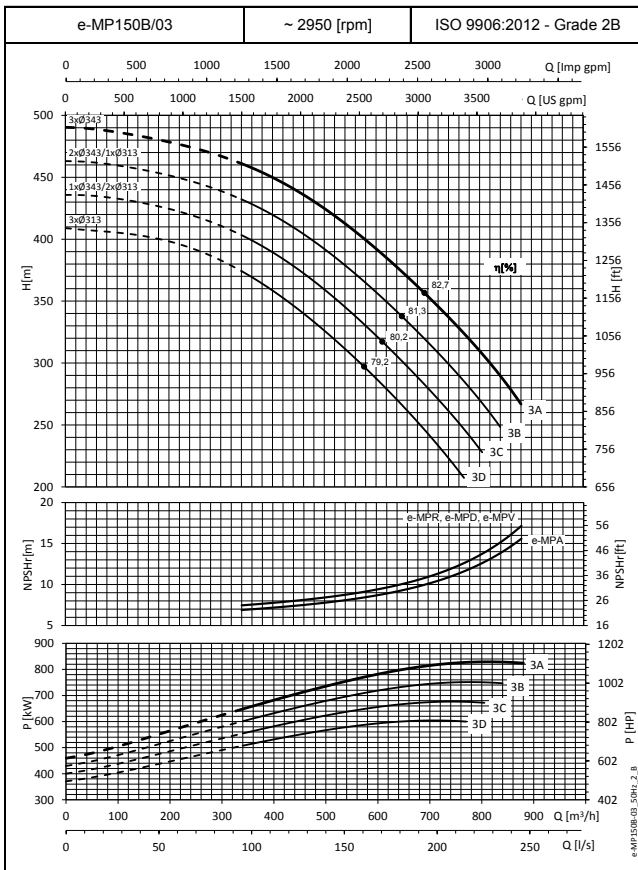
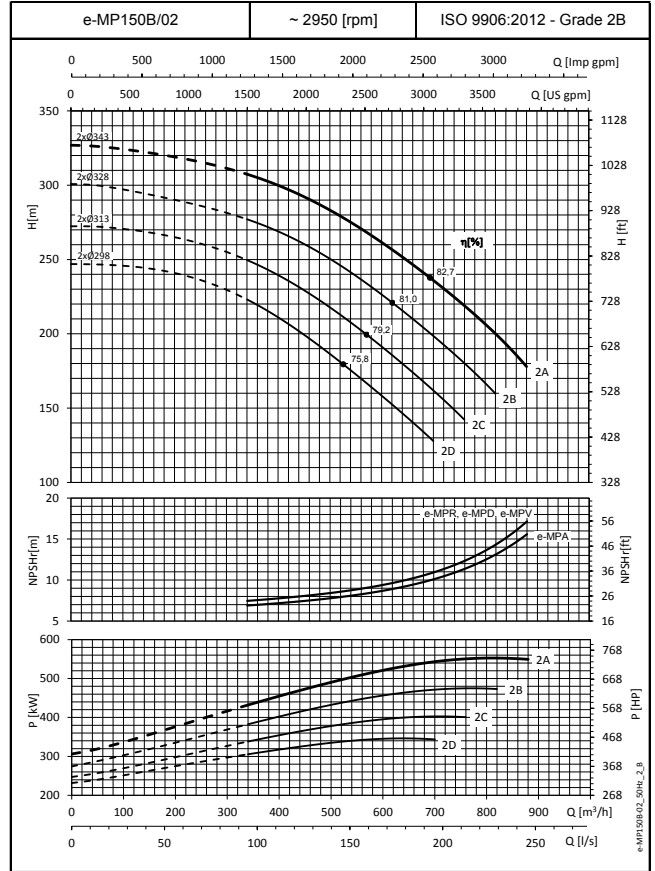
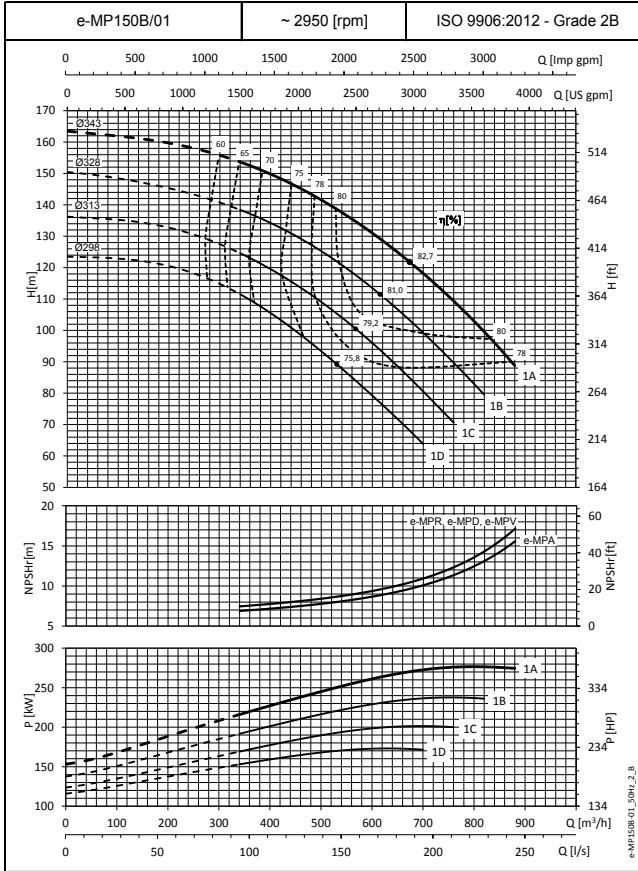
These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP150A SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



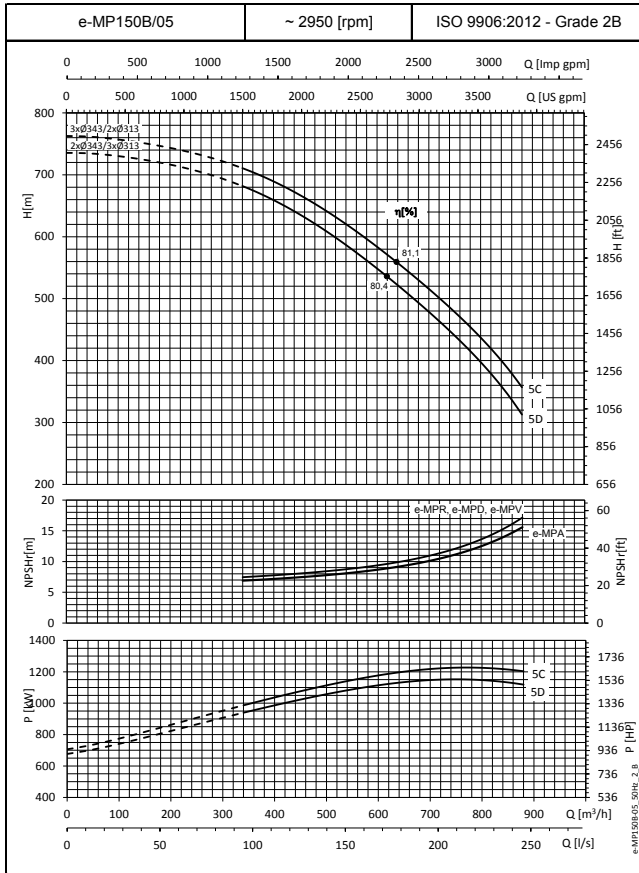
These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP150B SERIES OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

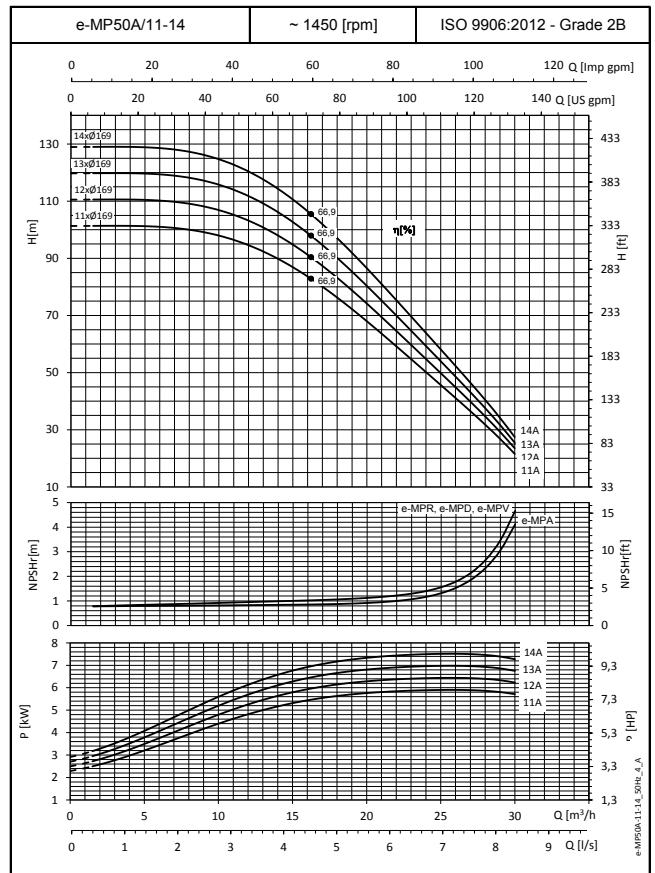
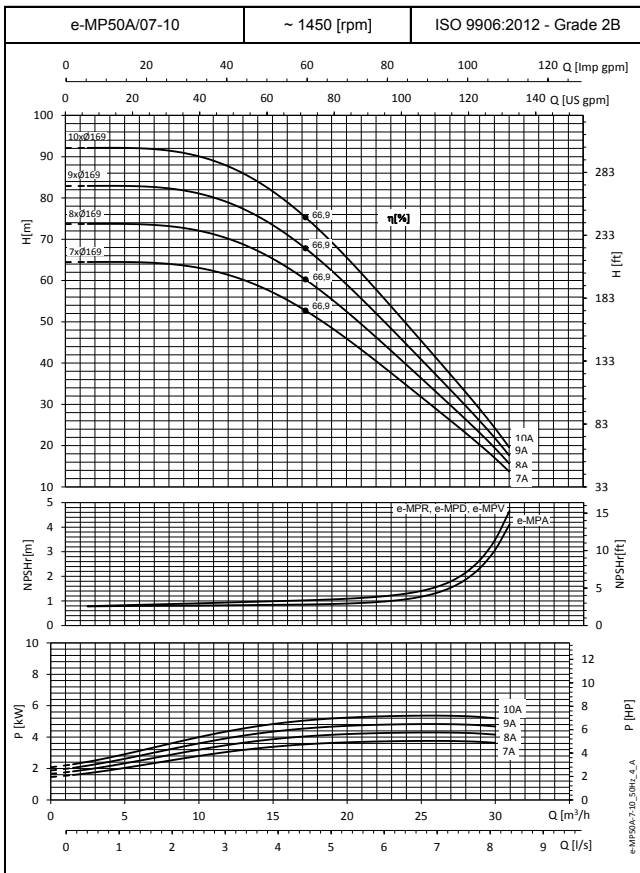
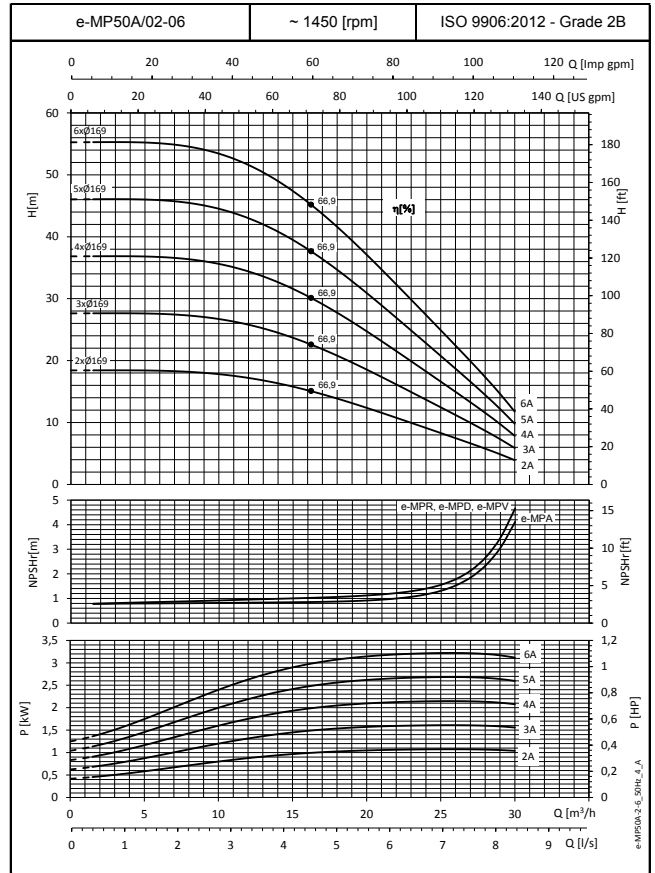
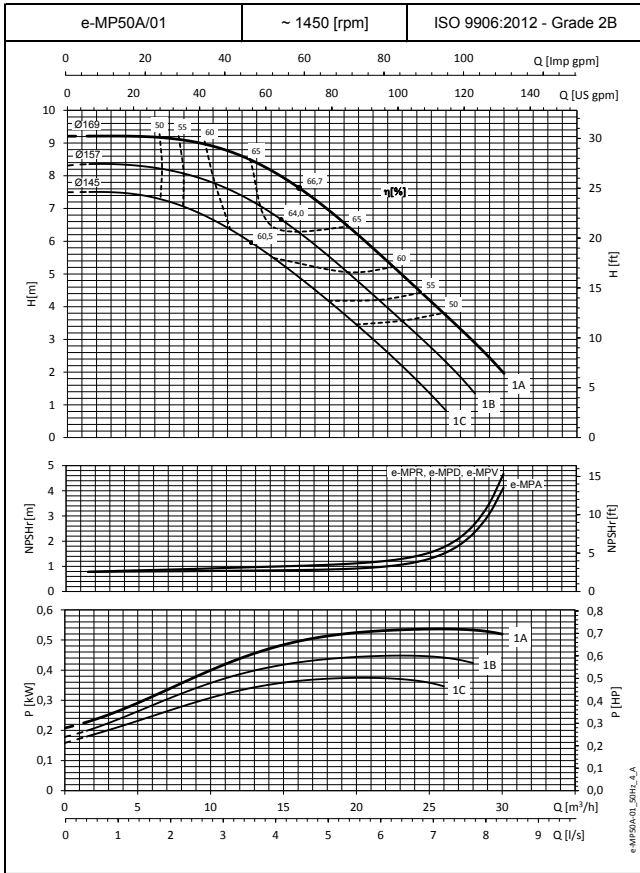
**e-MP150B SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 2 POLES**



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

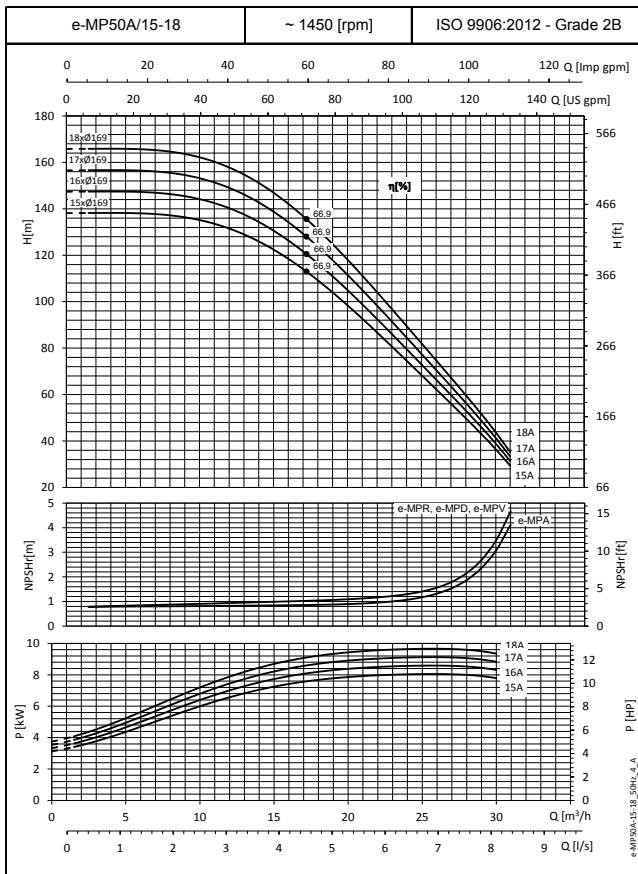
e-MP50A SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

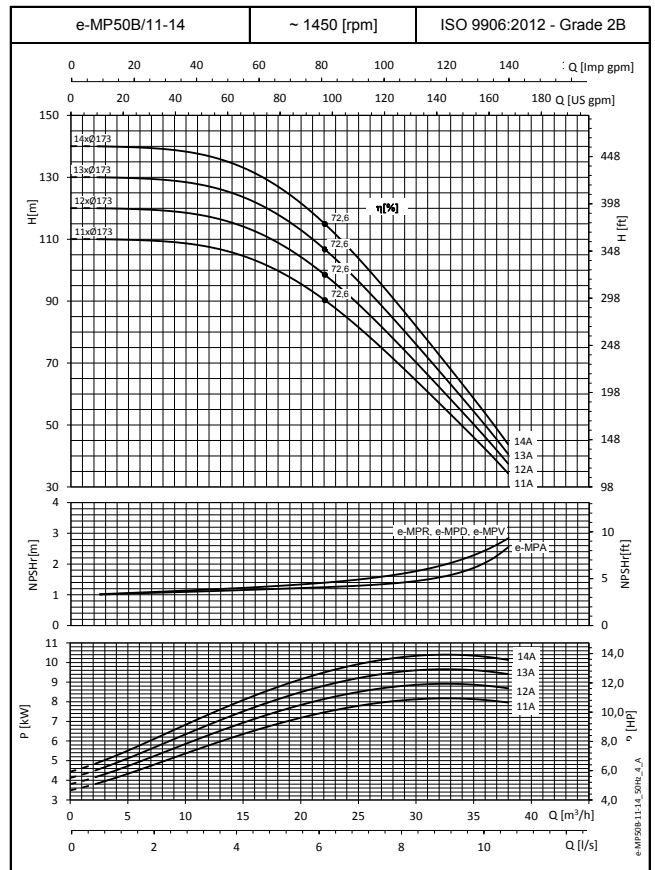
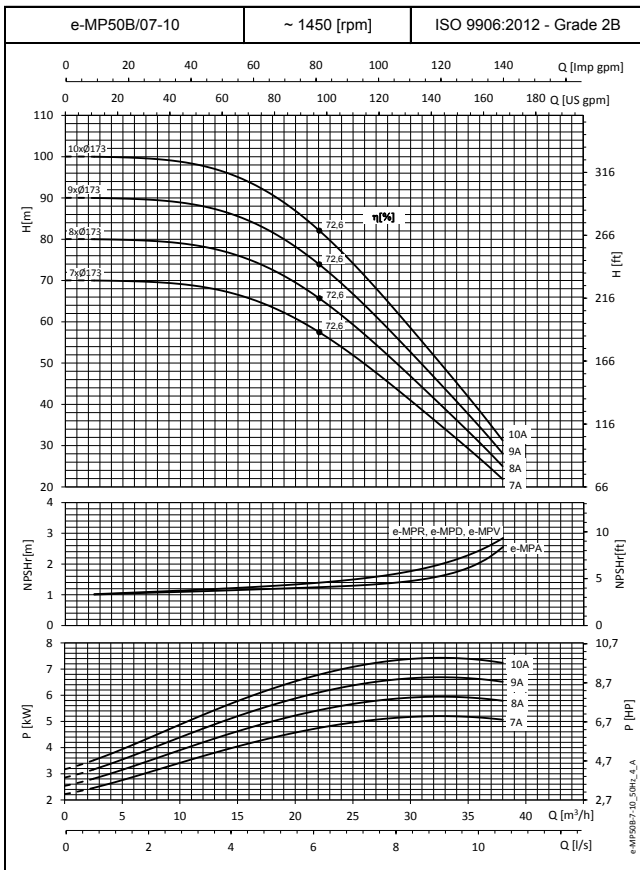
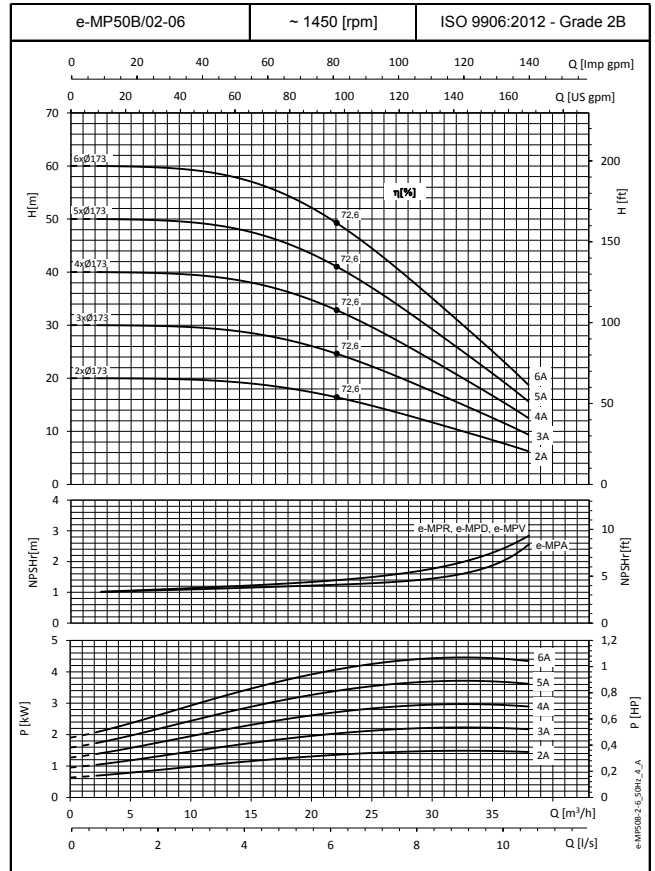
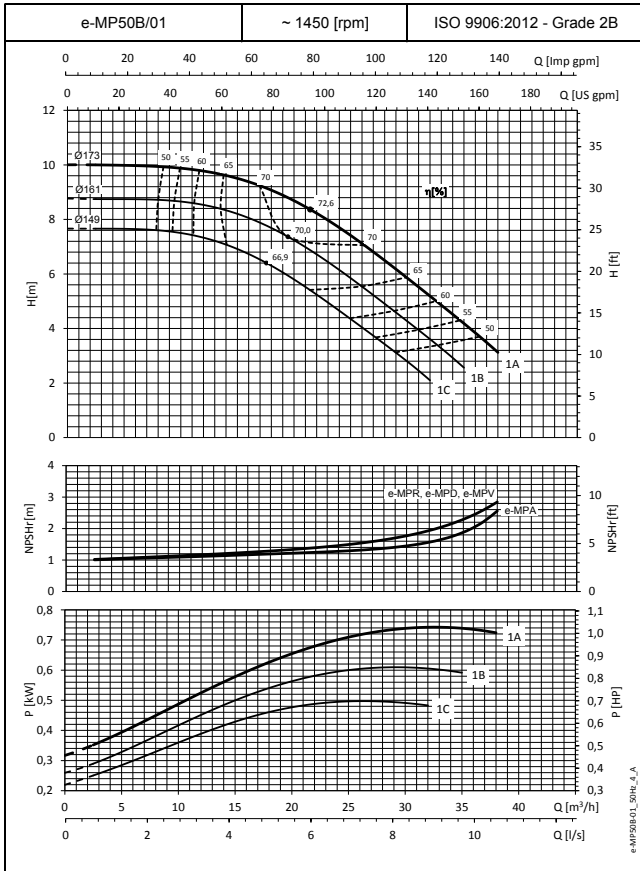
e-MP50A SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

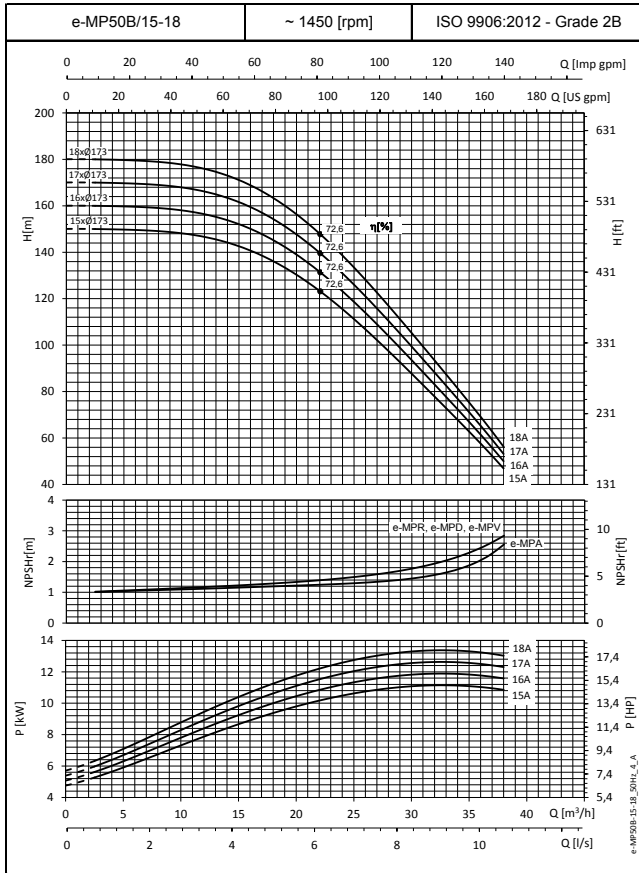
e-MP50B SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

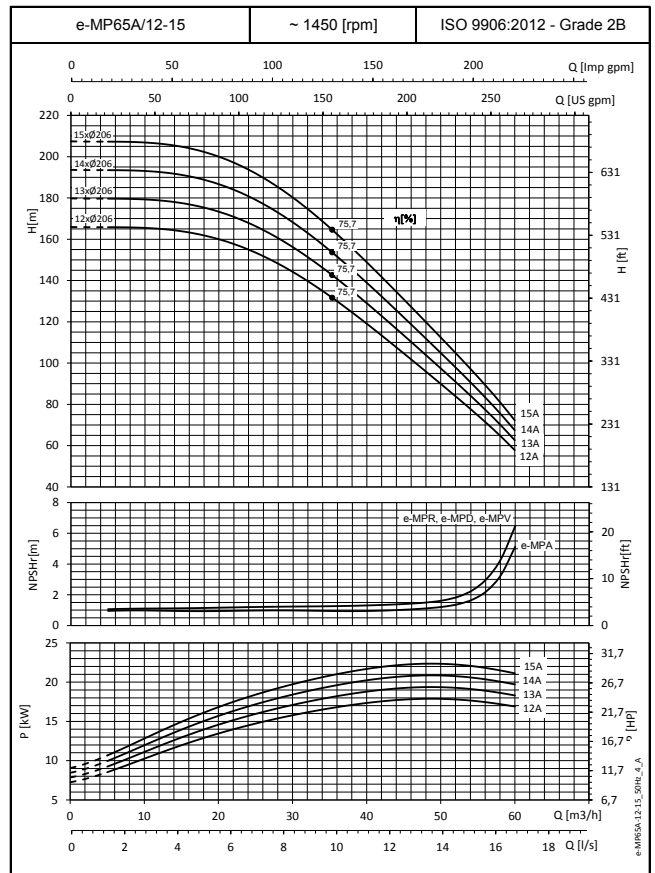
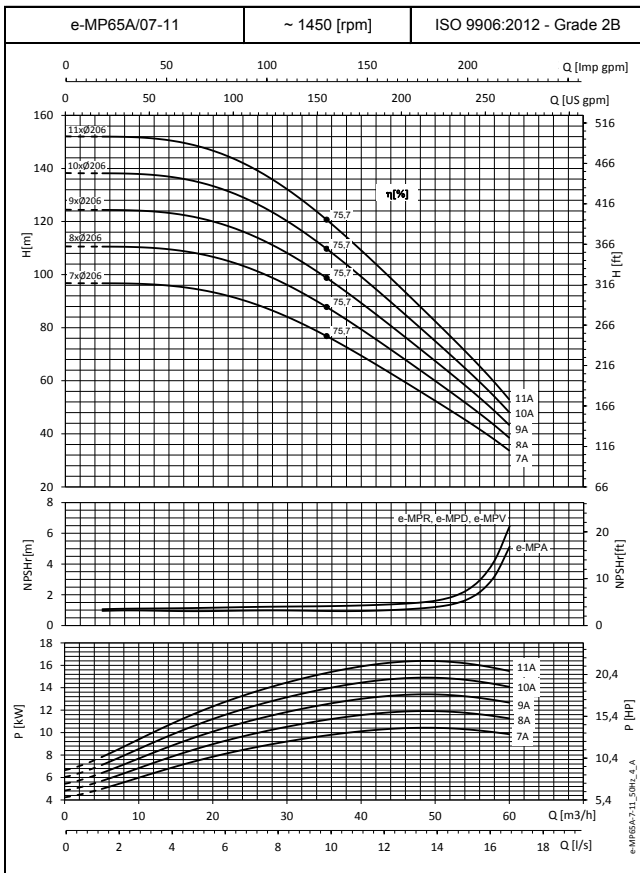
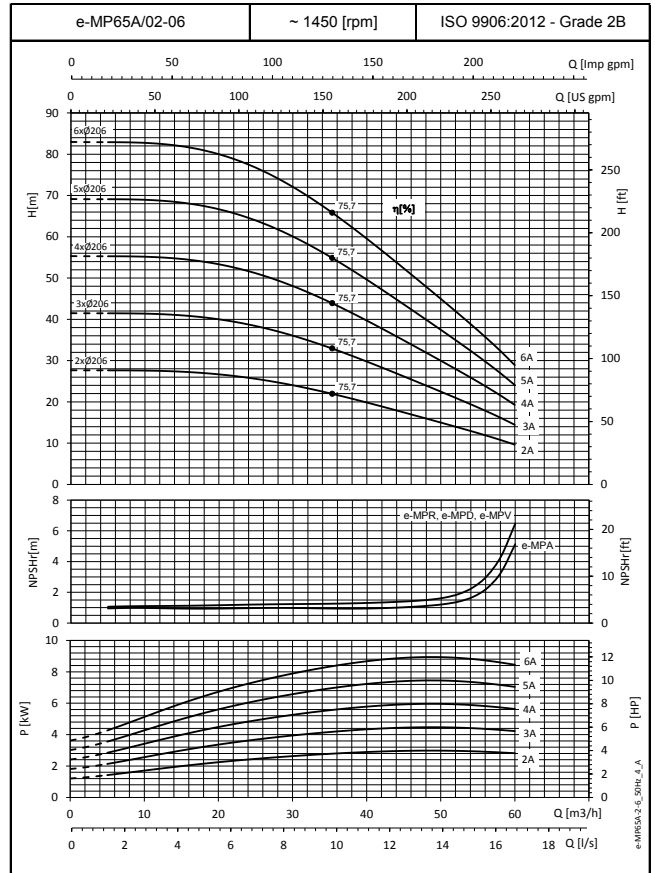
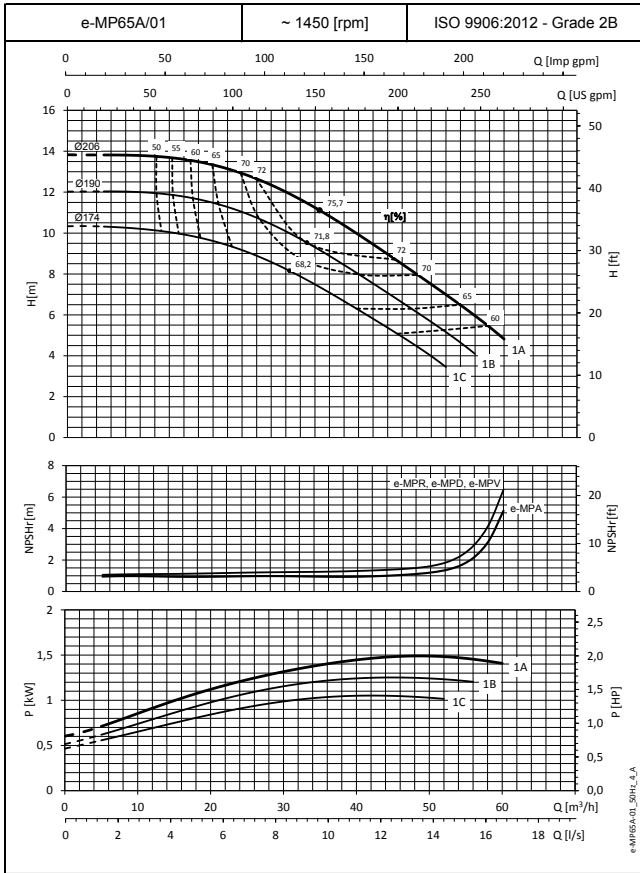
e-MP50B SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65A SERIES

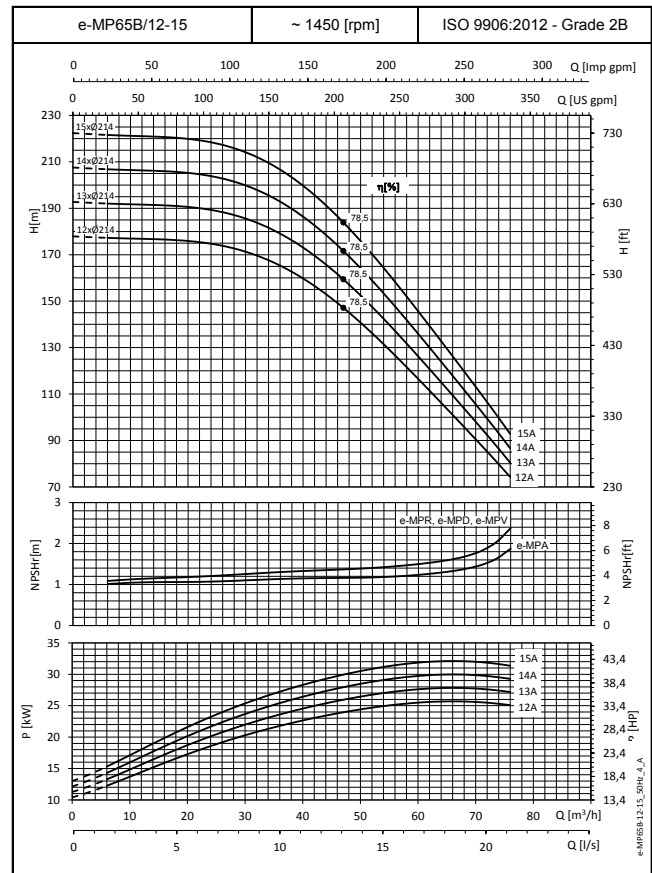
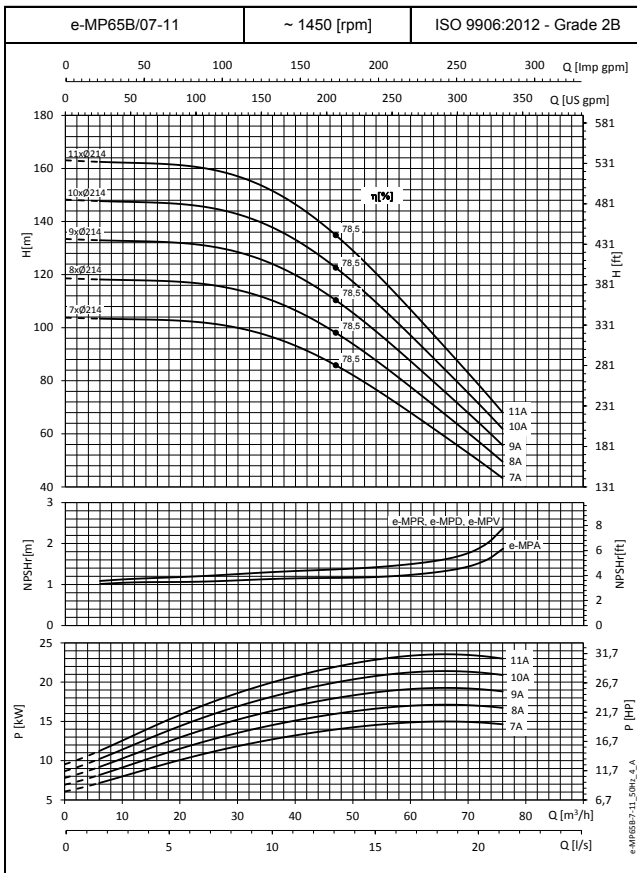
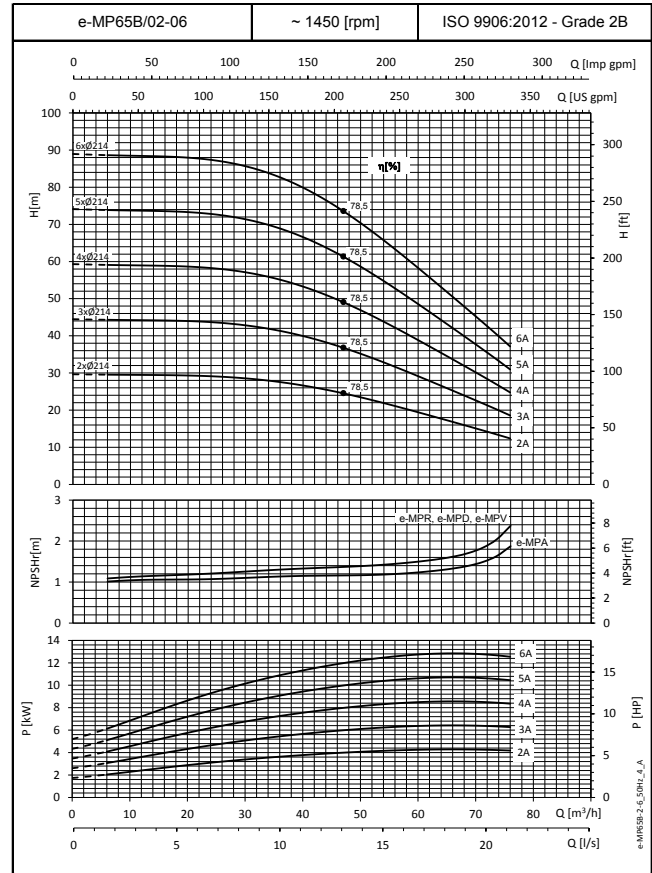
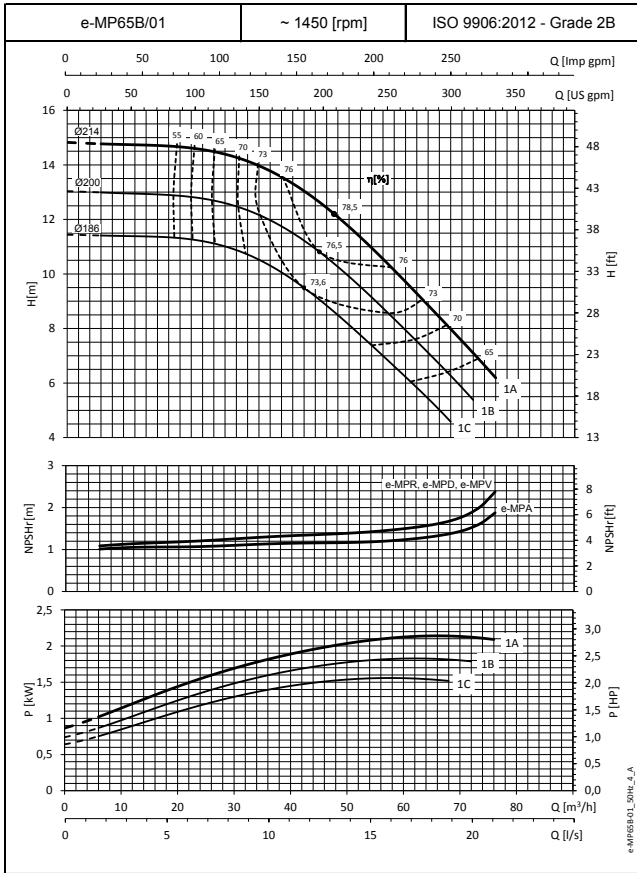
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP65B SERIES

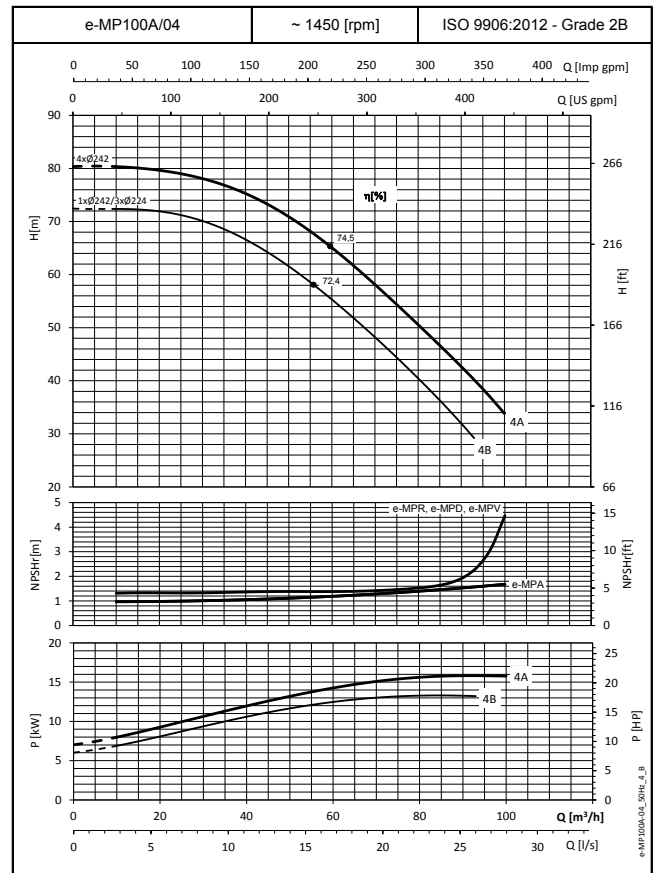
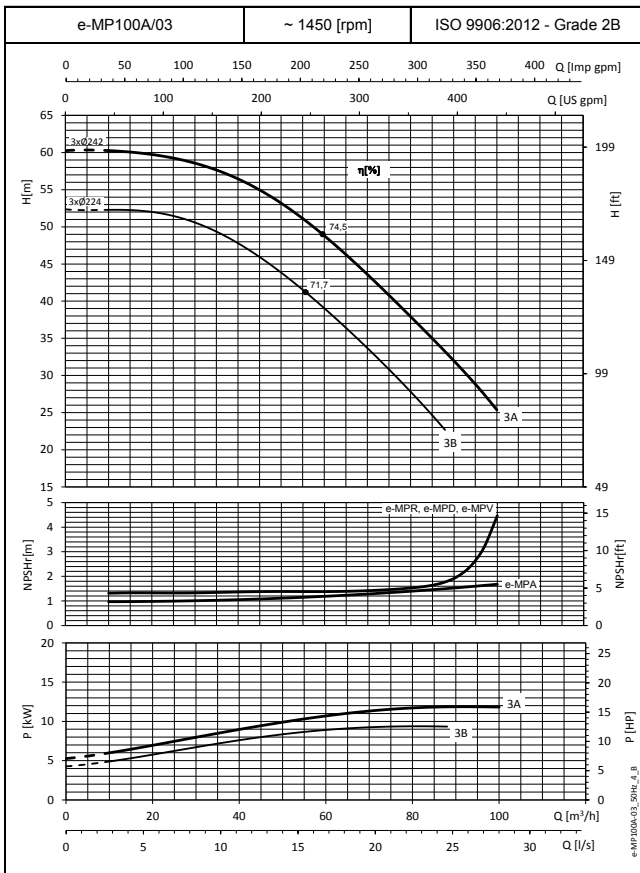
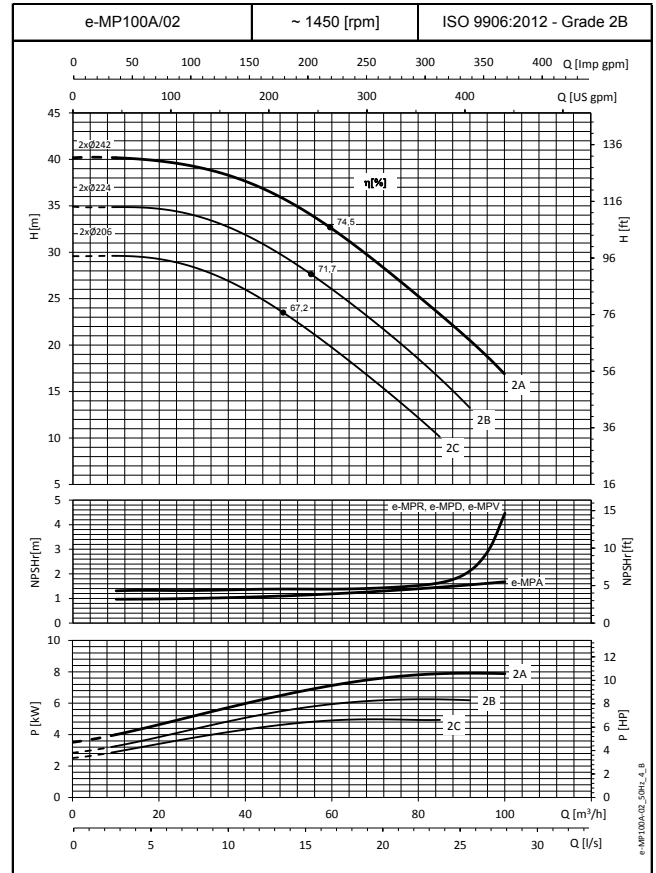
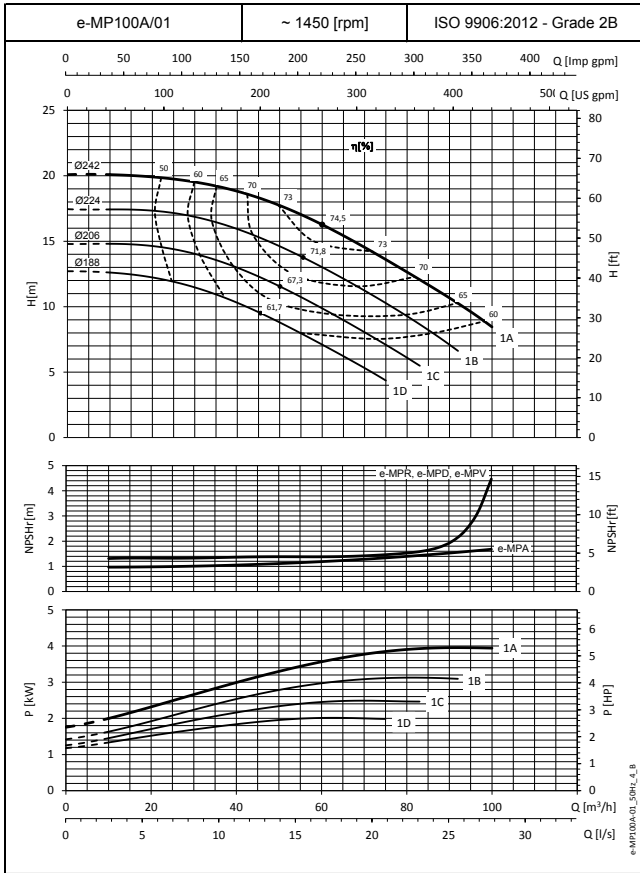
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP100A SERIES

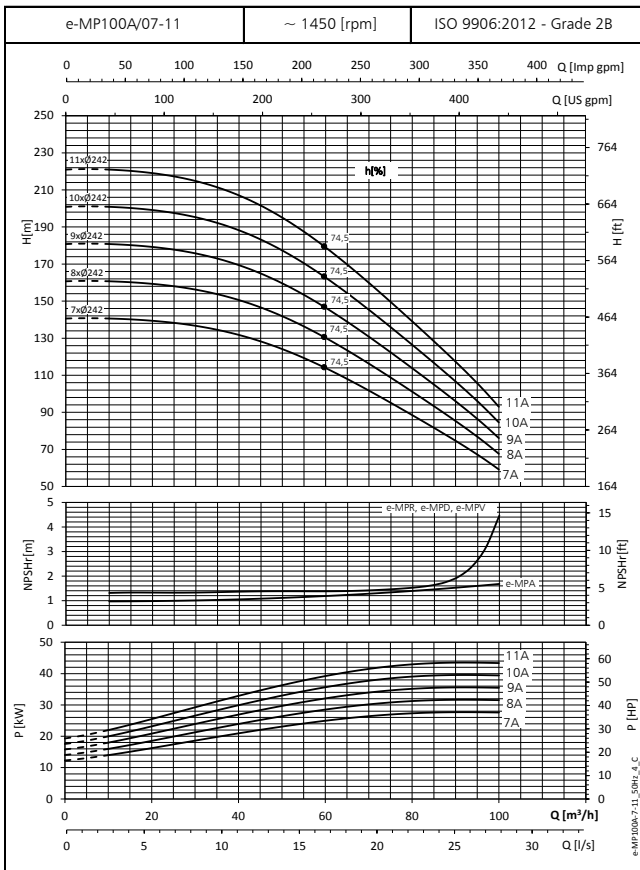
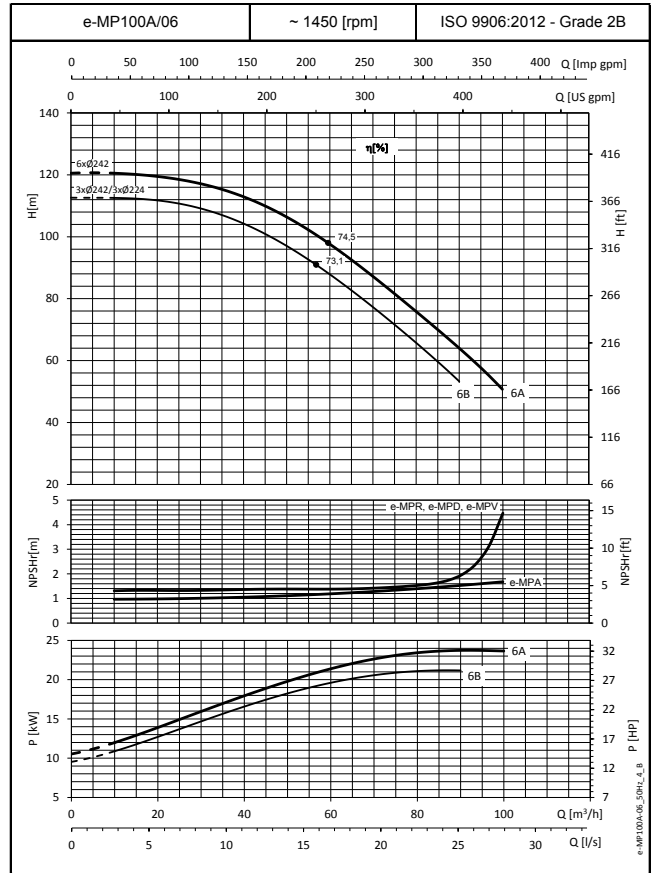
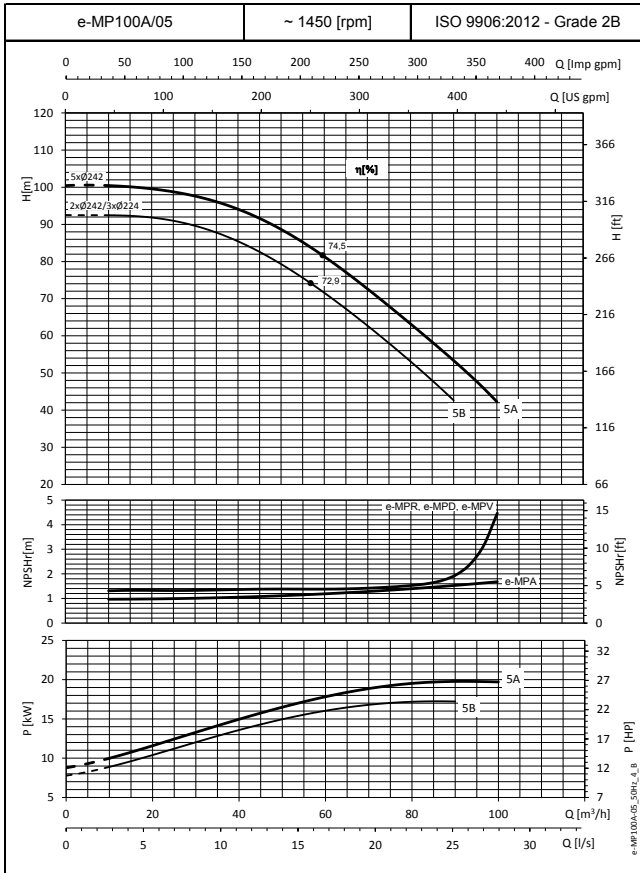
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP100A SERIES

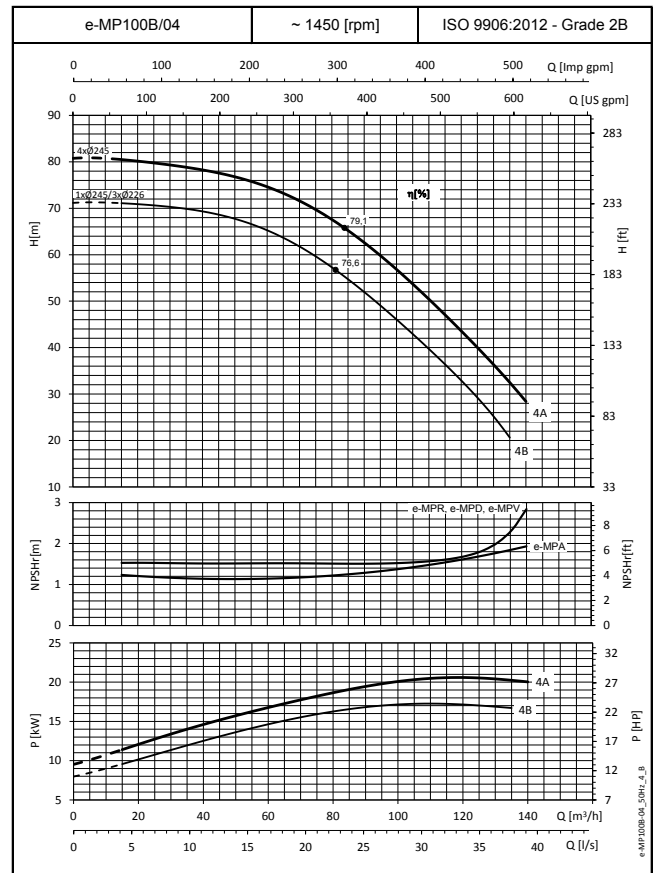
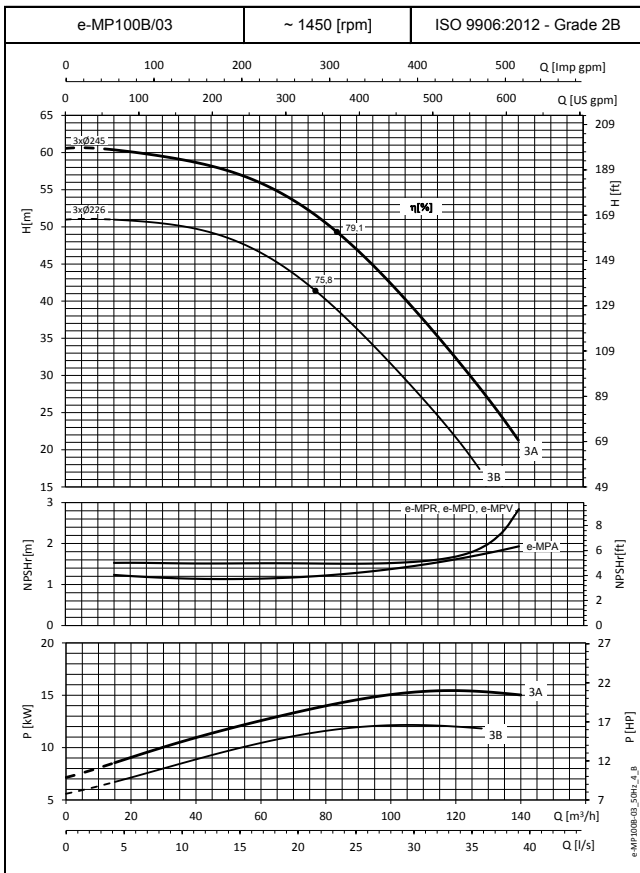
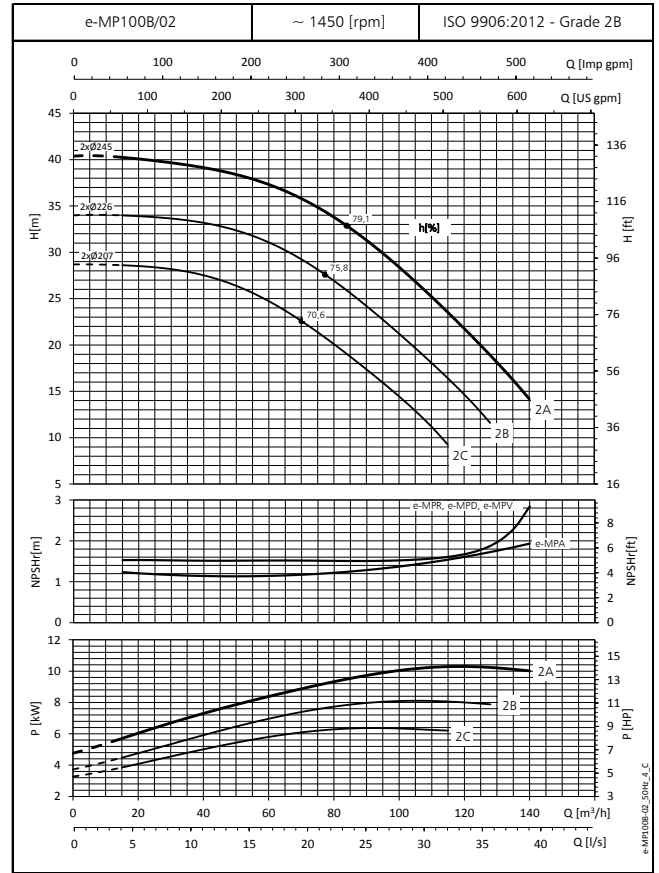
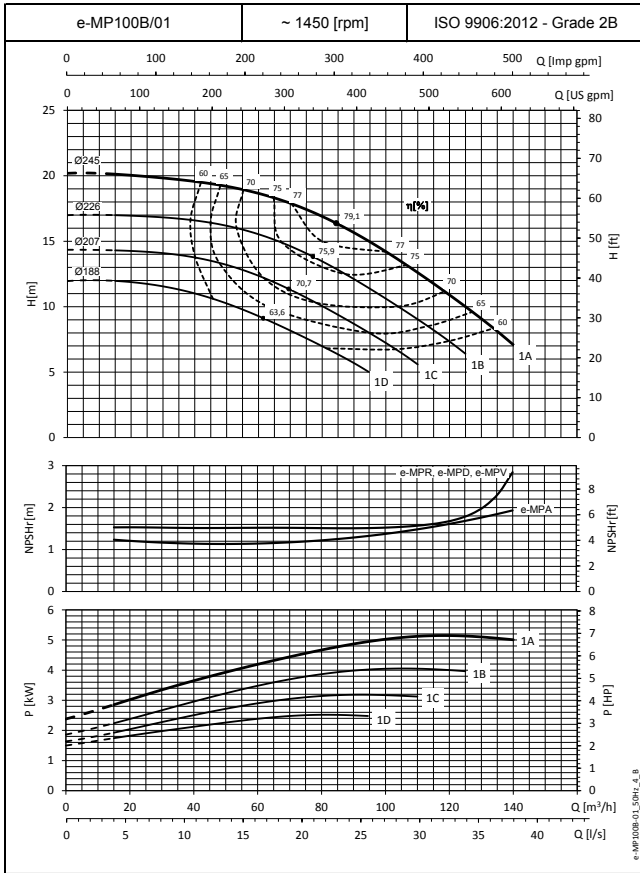
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP100B SERIES

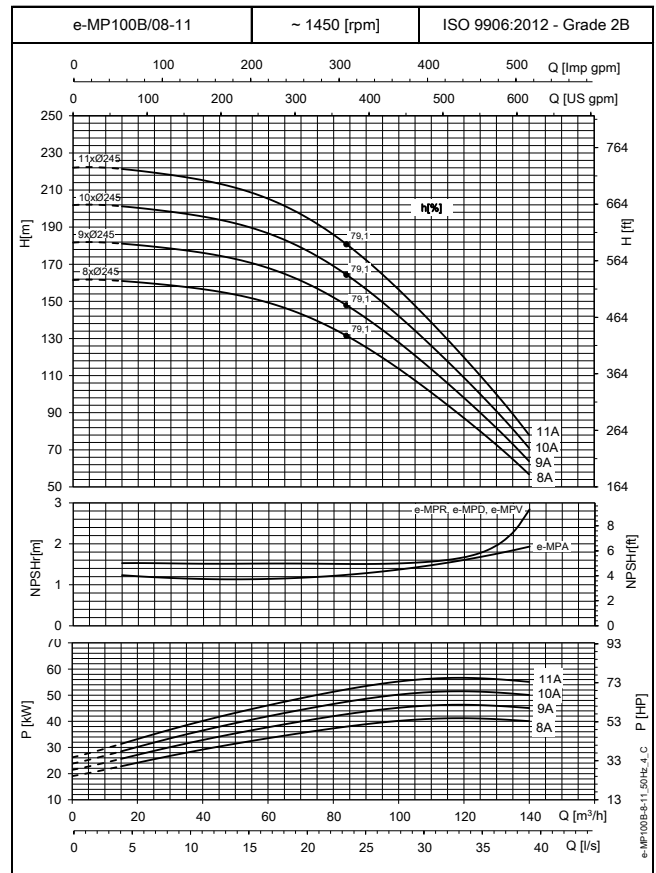
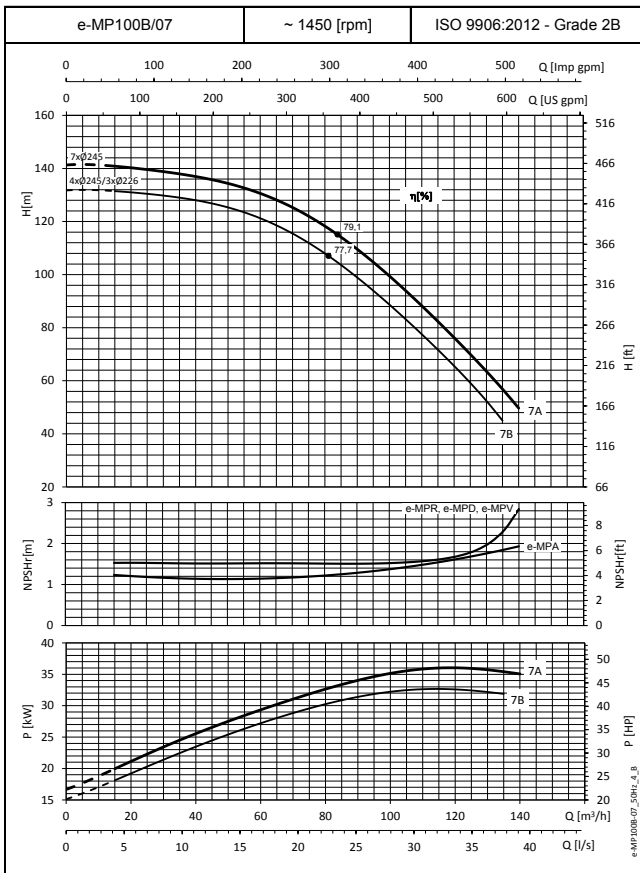
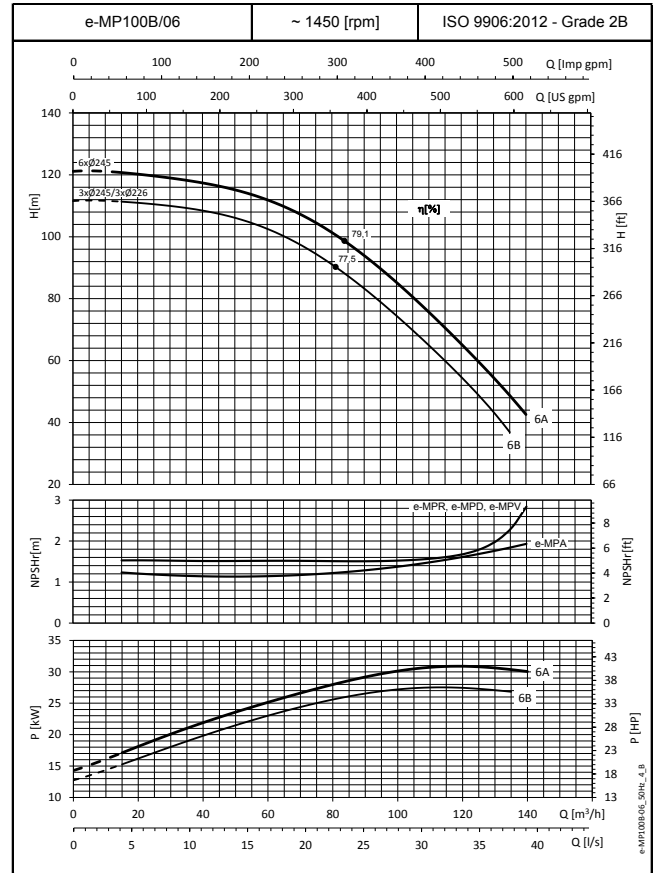
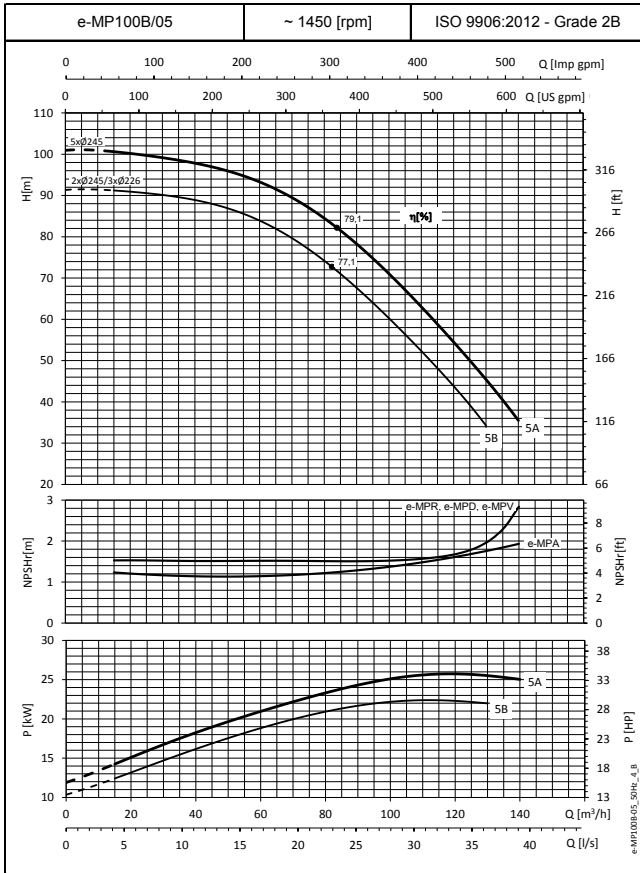
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP100B SERIES

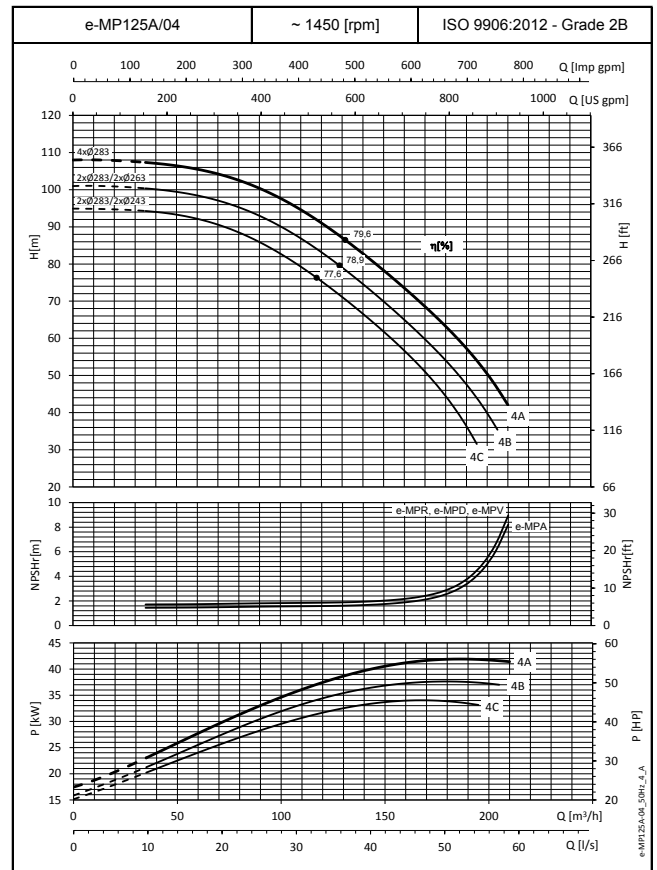
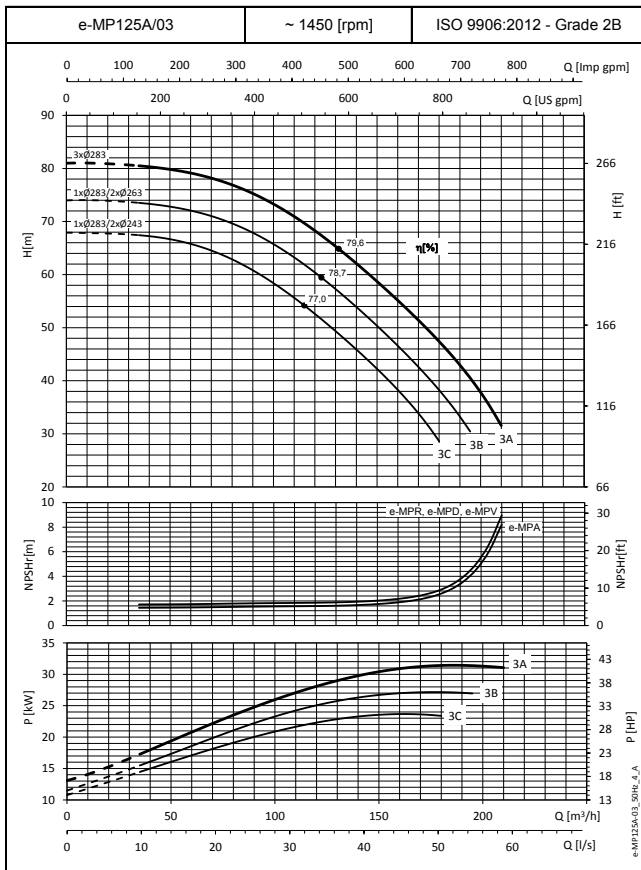
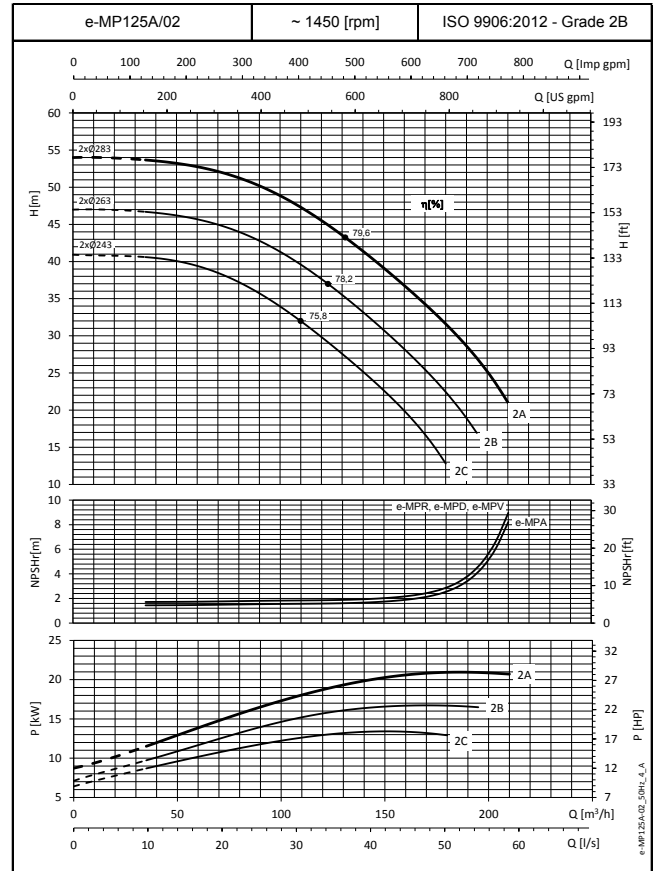
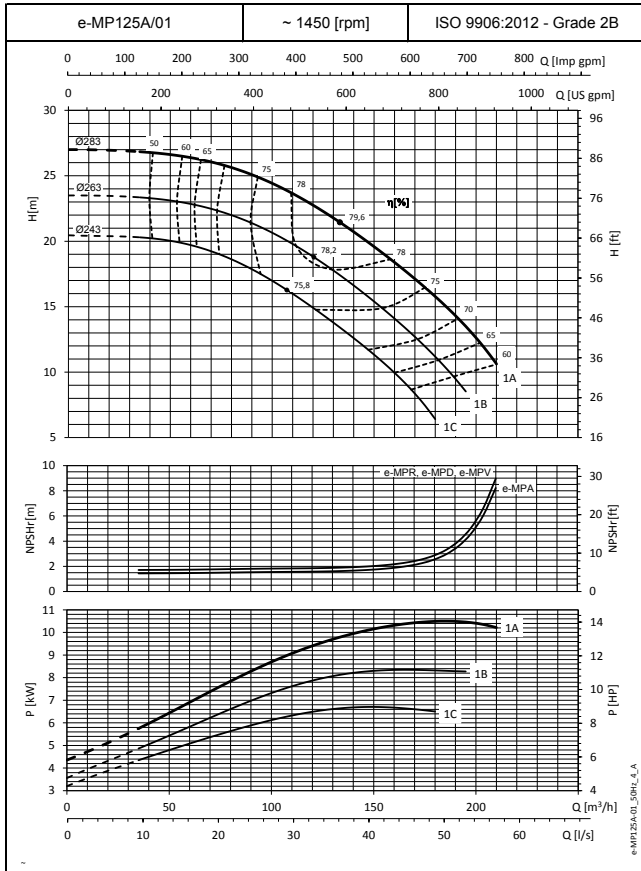
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

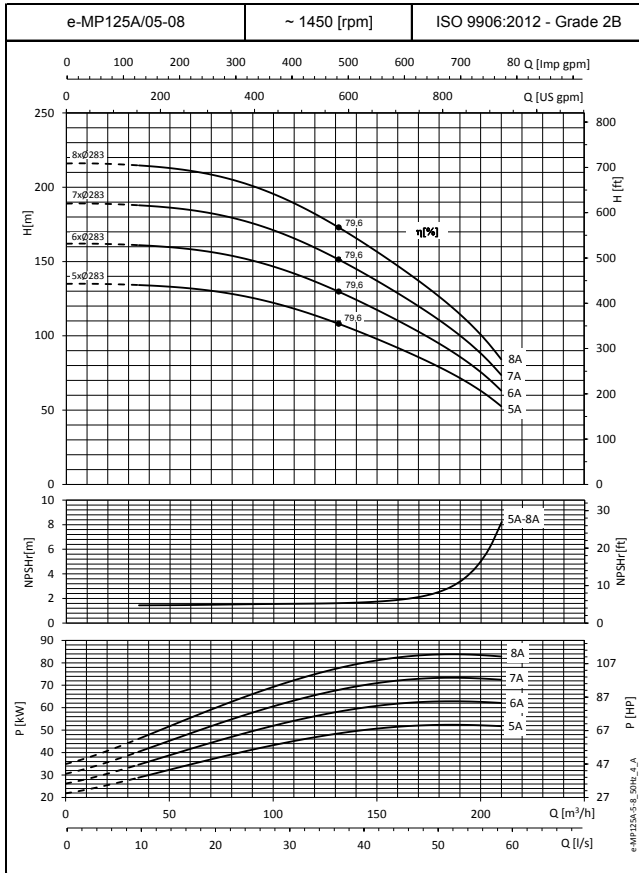
e-MP125A SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

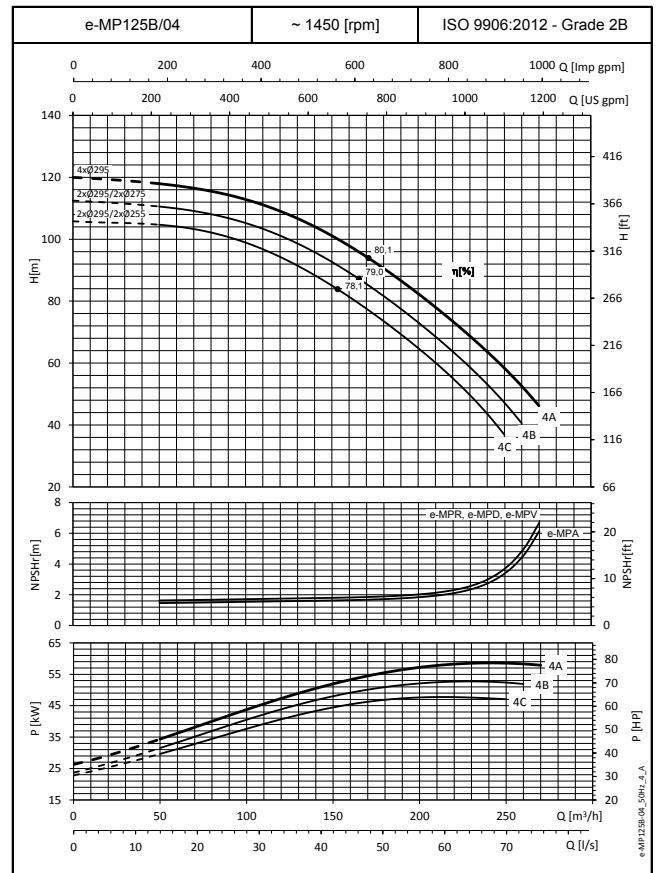
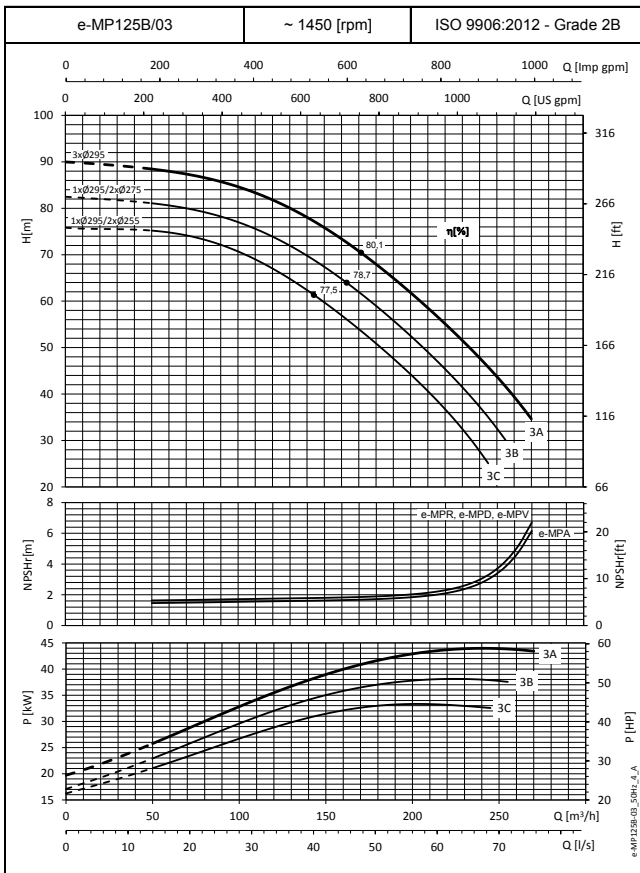
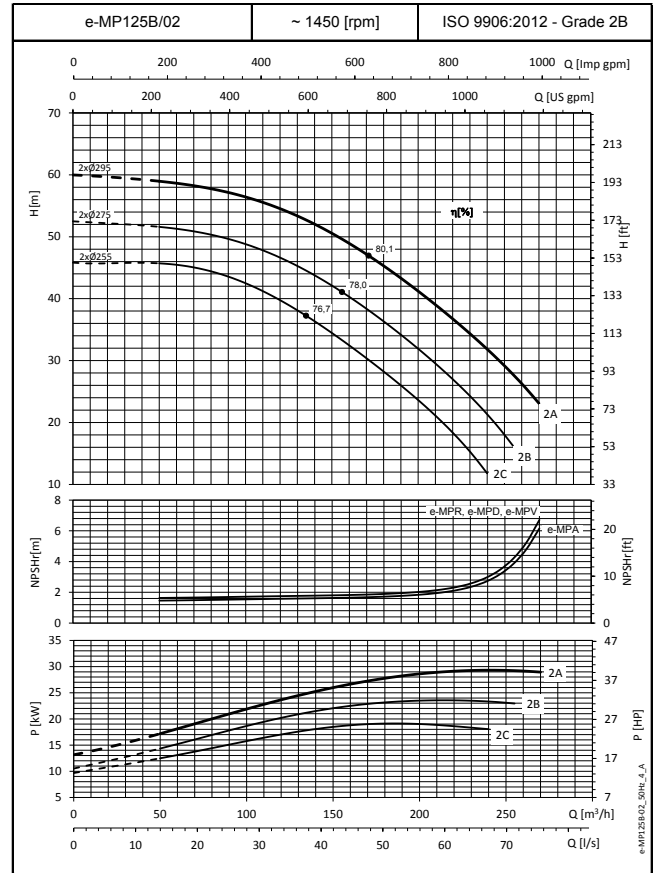
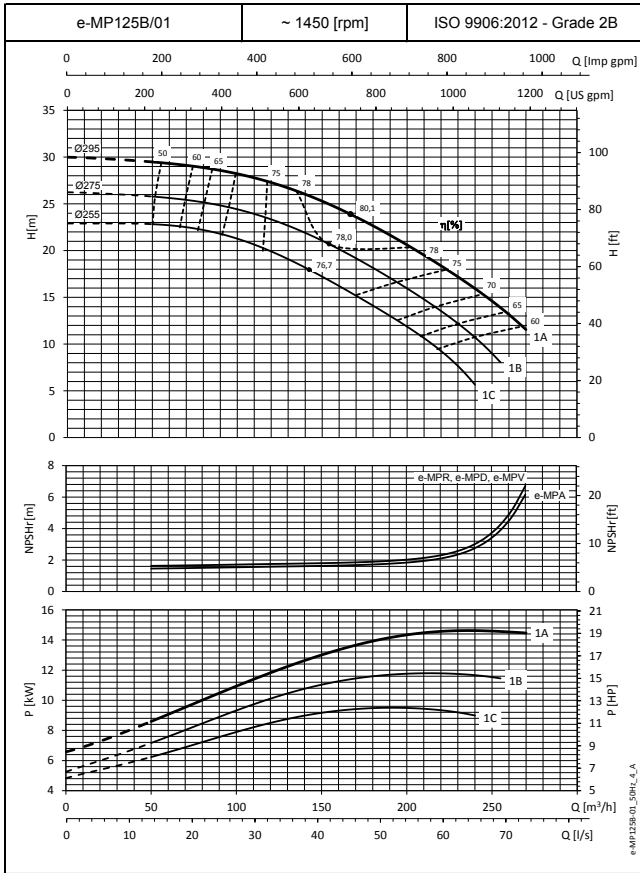
e-MP125A SERIES
OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

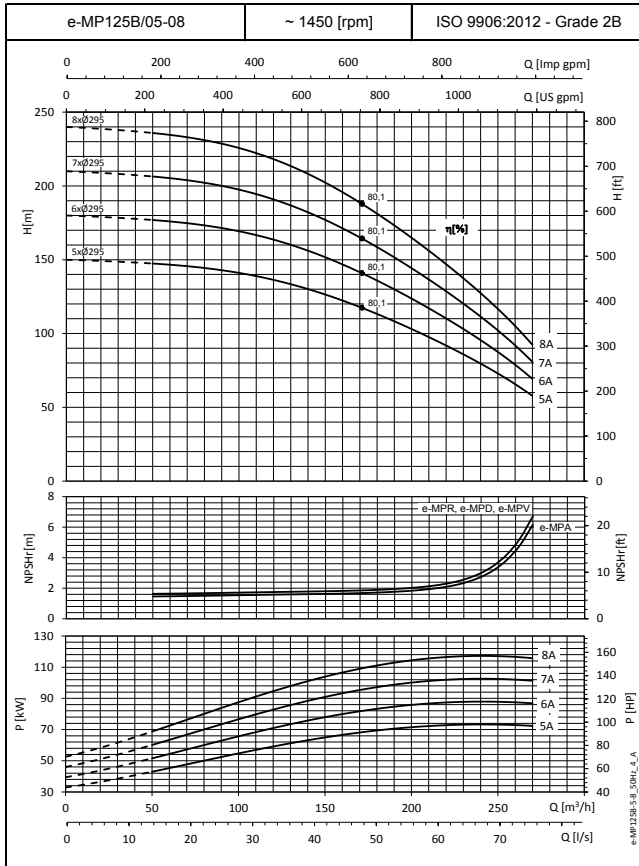
e-MP125B SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

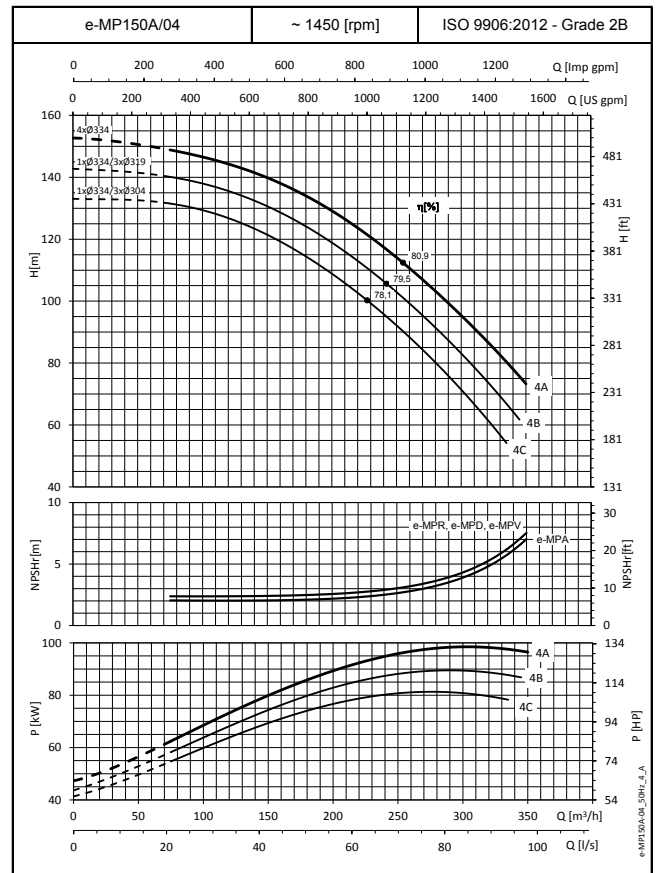
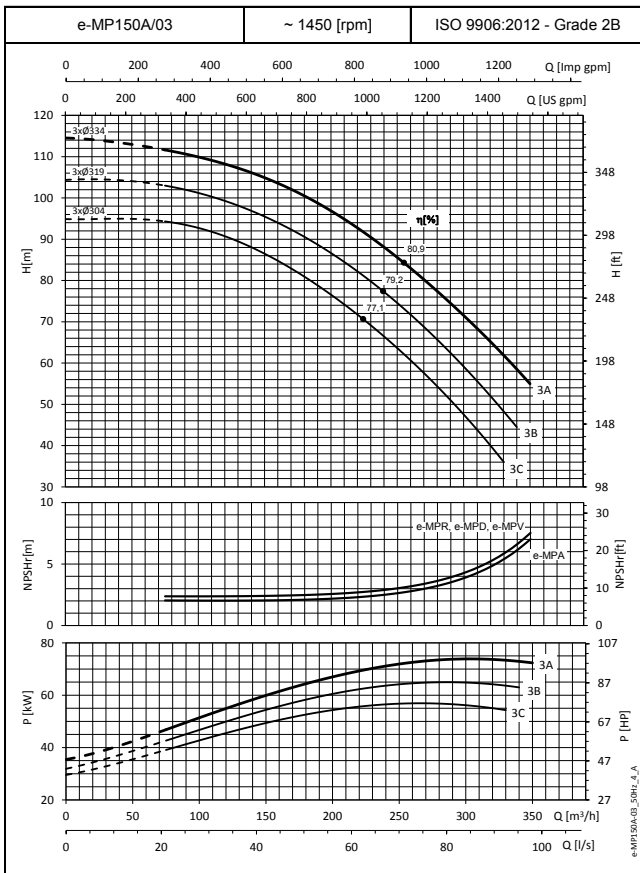
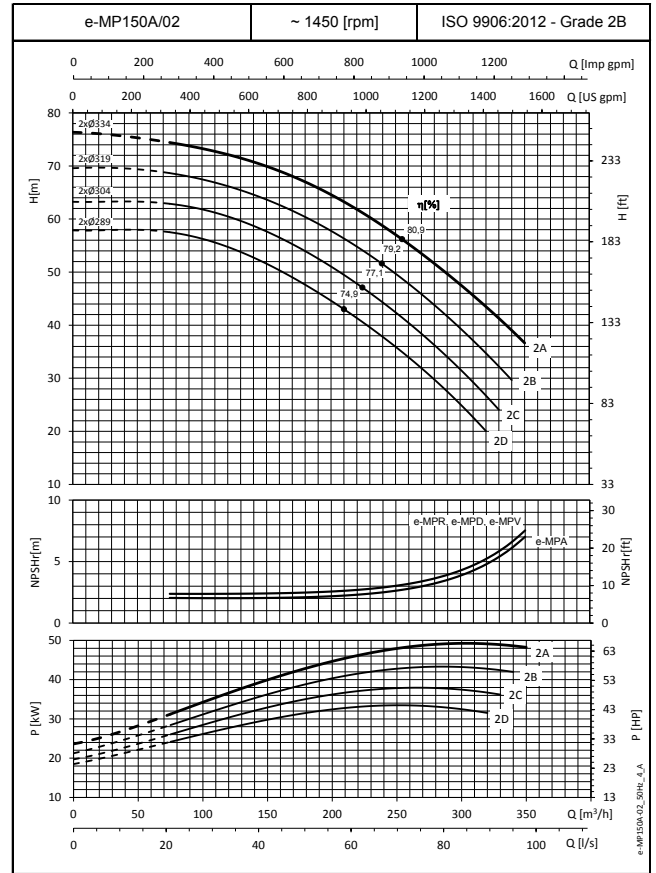
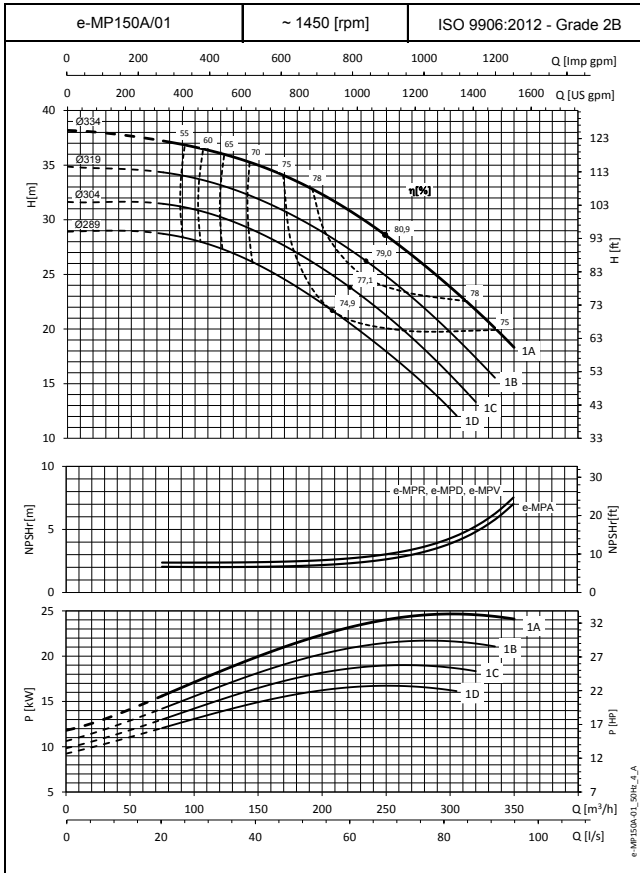
e-MP125B SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

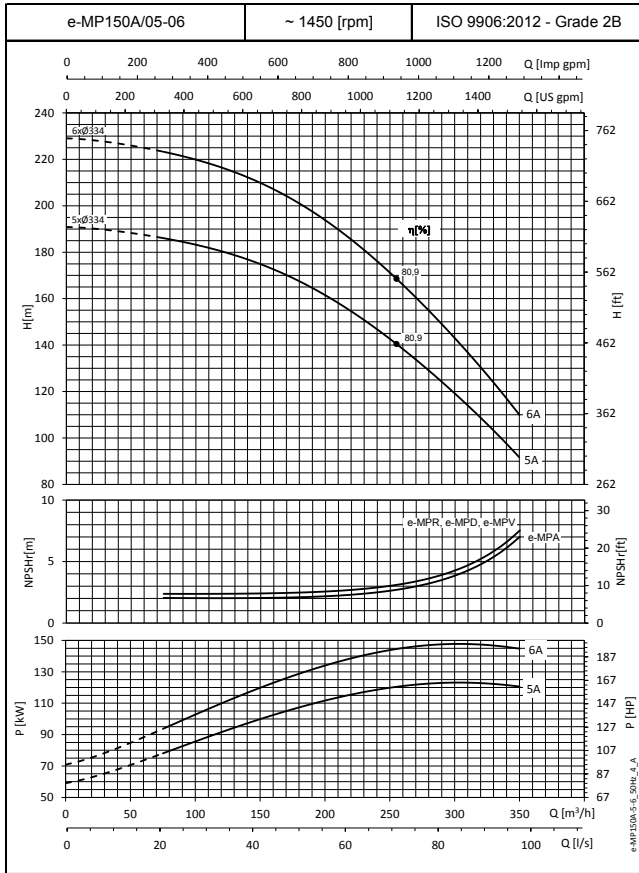
e-MP150A SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

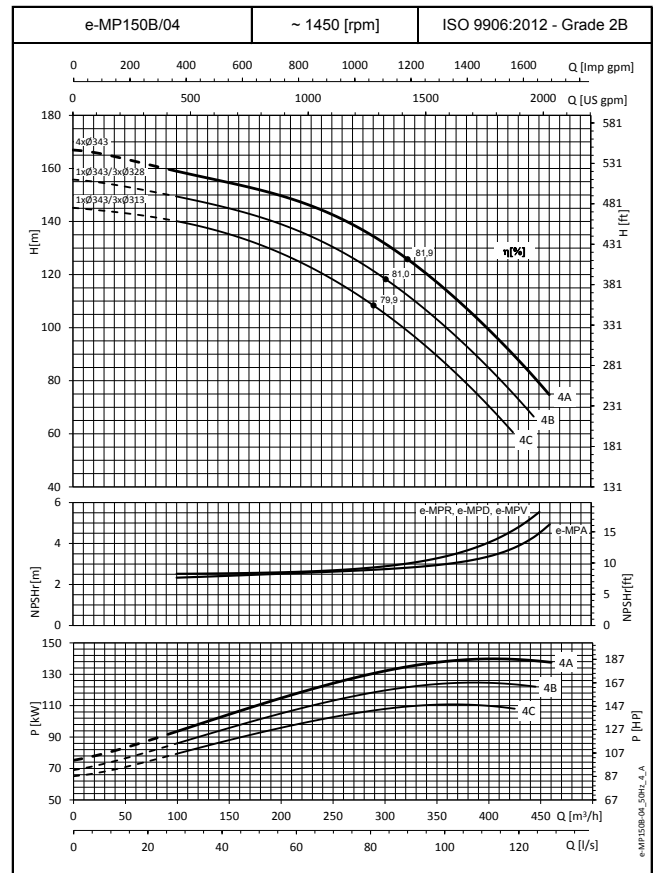
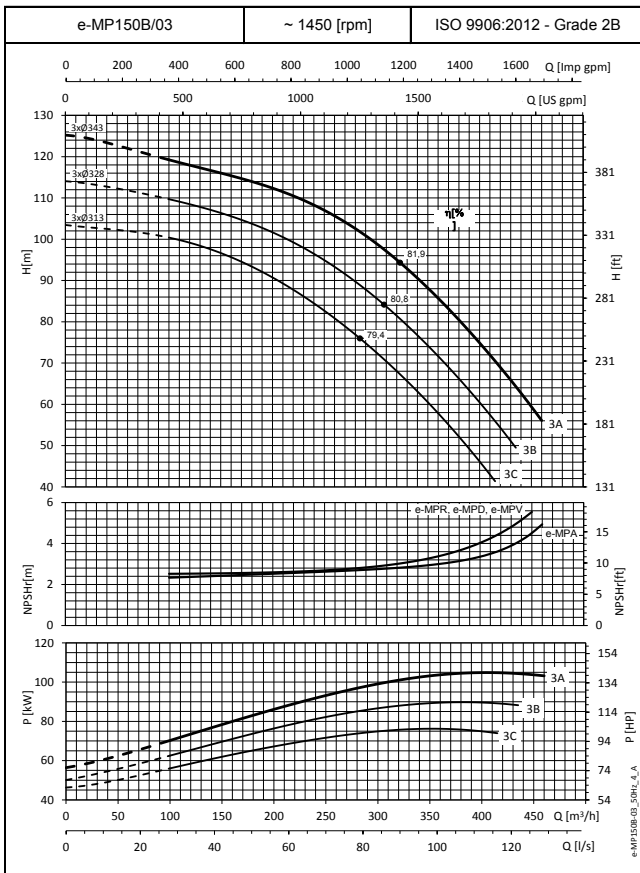
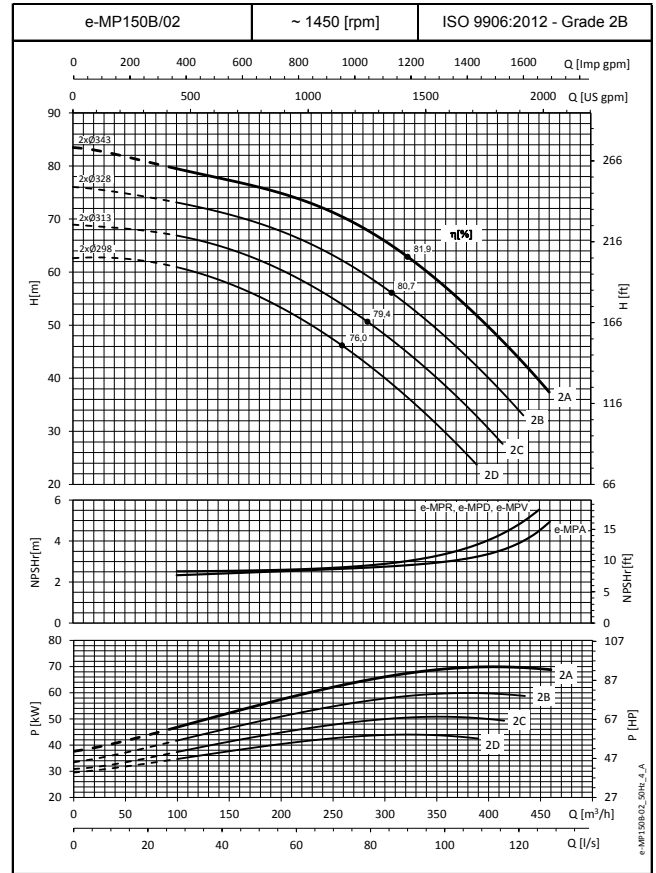
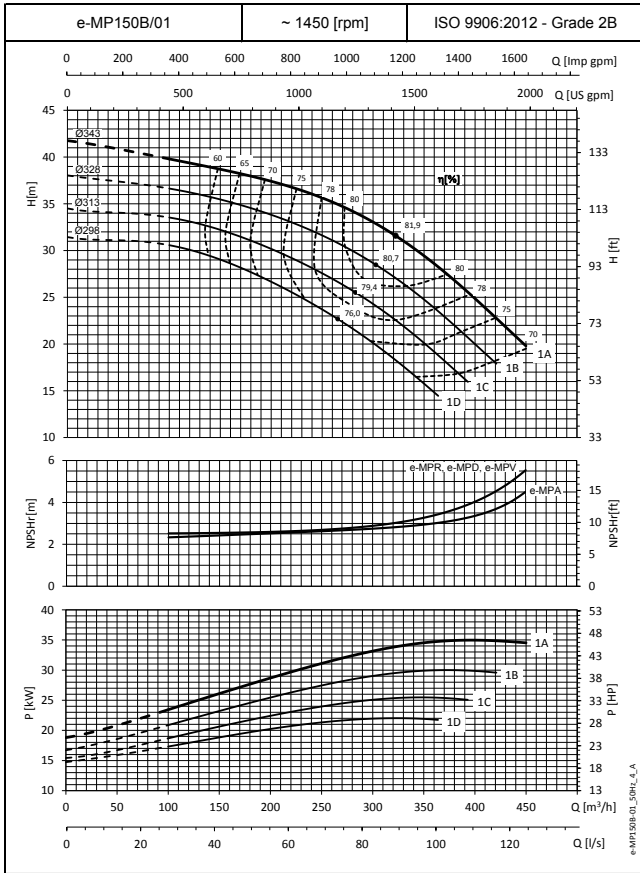
e-MP150A SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

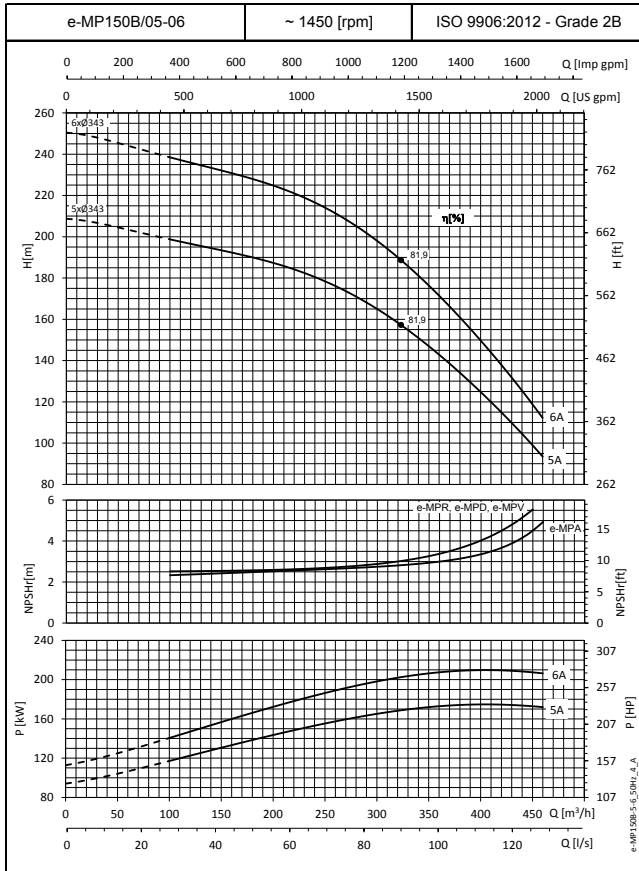
e-MP150B SERIES

OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

e-MP150B SERIES OPERATING CHARACTERISTICS AT 50 Hz, 4 POLES



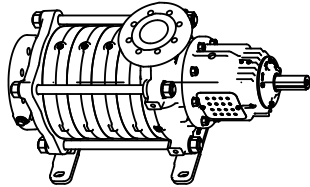
These performances are valid for cold water with density $\rho = 1 \text{ Kg/dm}^3$ and viscosity $\nu = 1 \text{ mm}^2/\text{sec}$.

DIMENSIONS AND WEIGHTS

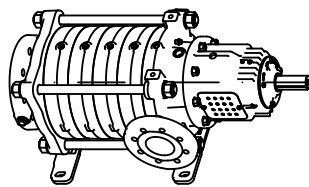
**MPA, MPD AND MPR SERIES
NOZZLE POSITION**

MPA:

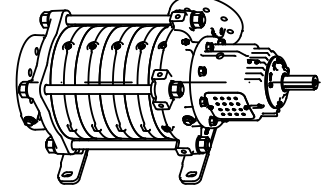
A0



AL

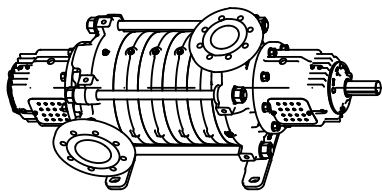


AR

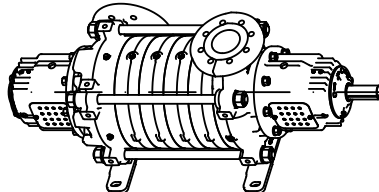


MPD, MPR:

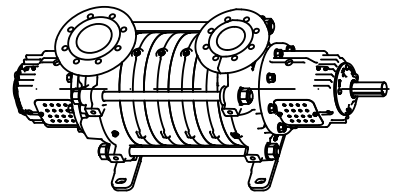
L0



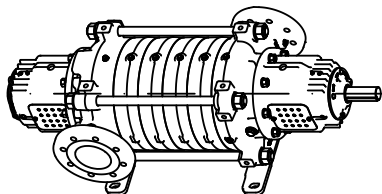
R0



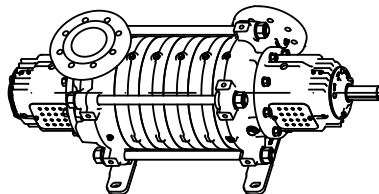
00



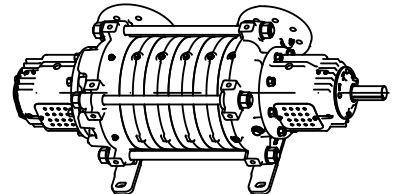
LR



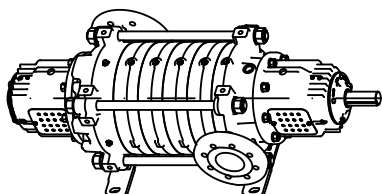
OR



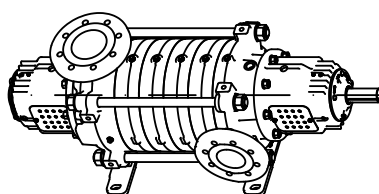
RR



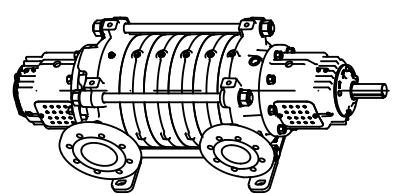
RL



OL



LL



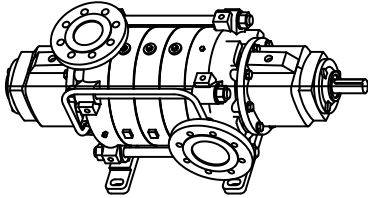
Note: Nozzle position LL, 00, RR is not possible for pumps with 1 and 2 stages

e-MP-NOZ-EN_b_DD

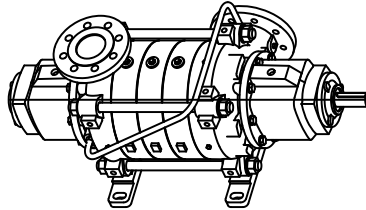
To be selected in Xylect

**MPD SERIES - DRIVE ON SUCTION SIDE
NOZZLE POSITION**

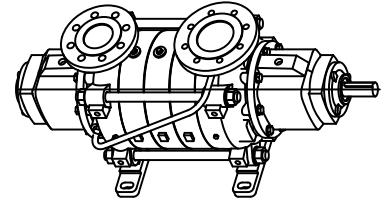
LOS



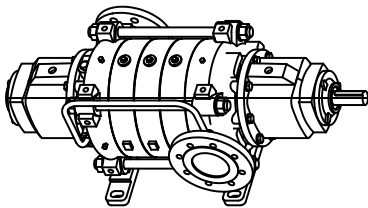
ROS



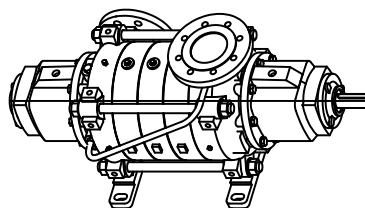
OOS



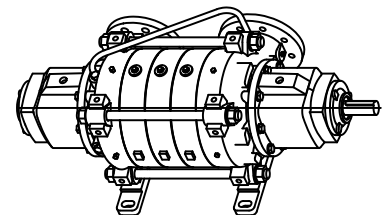
LRS



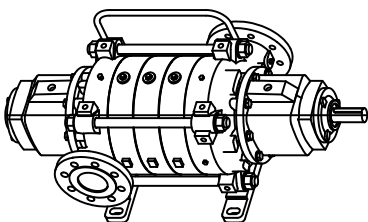
ORS



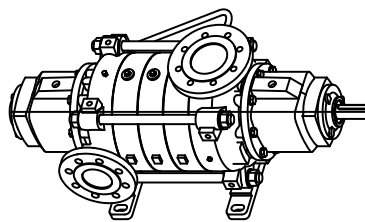
RRS



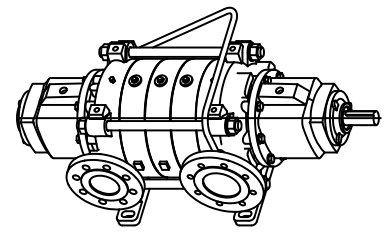
RLS



OLS



LLS

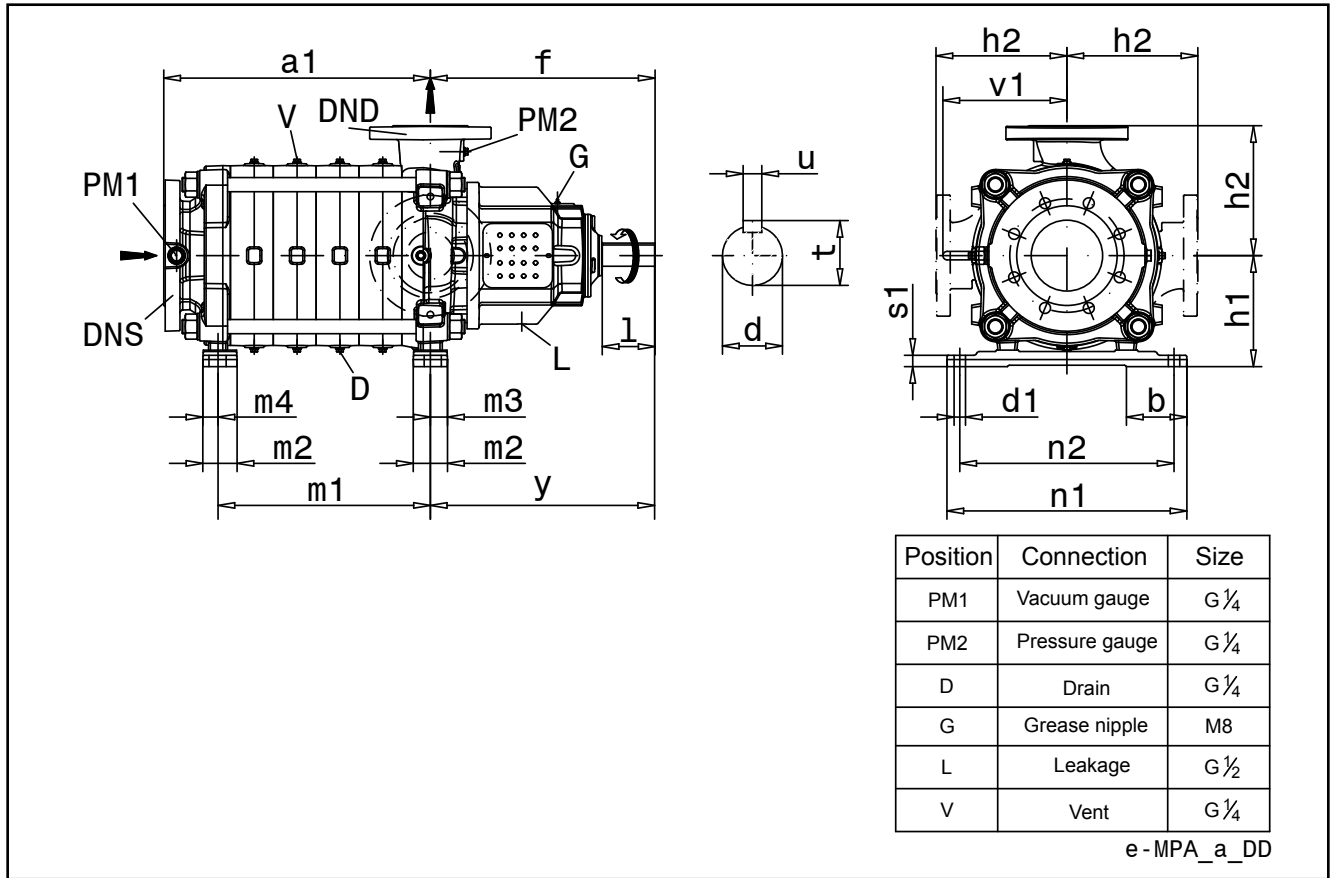


Note: Nozzle position LLS, OOS, RRS is not possible for pumps with 1 and 2 stages.

e-MPDs-NOZ-EN_a_DD

To be selected in Xylect

**MPA SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz**



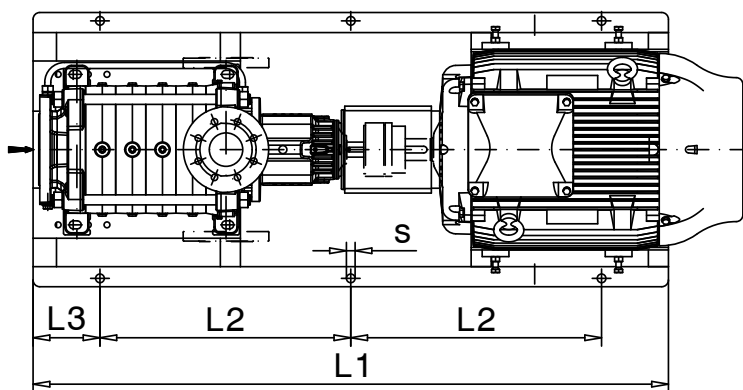
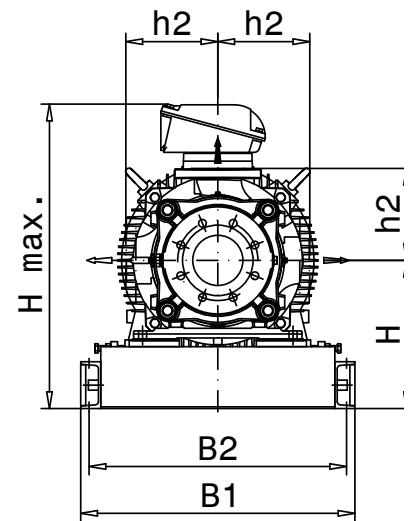
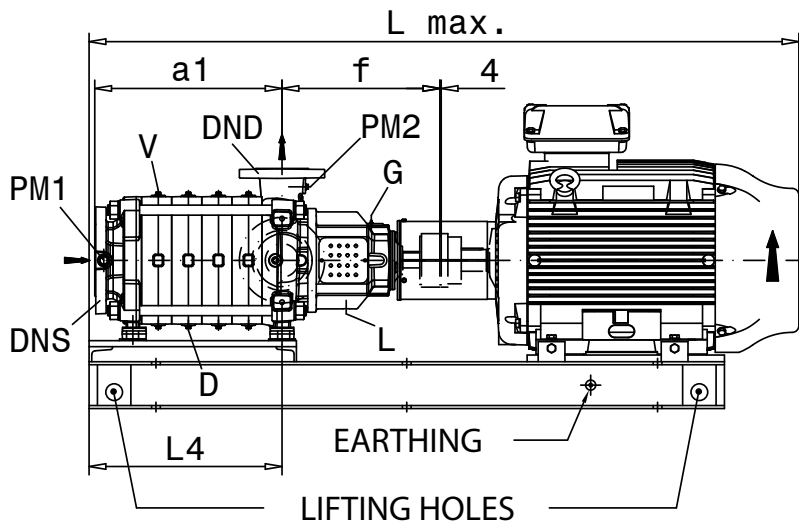
PUMP TYPE	DIMENSIONS [mm]																						
	MPA						Pump dimensions						Feet dimensions						Shaft end				
Size	DNS	DND	f	h1	h2	v1	y	m2	m3	m4	n1	n2	b	d1	s1	d	t	u	l				
50	100	50	350	150	200	200	350	54	24	27	332	290	90	14	21	28j6	31	8	70				
65	125	65	393	190	225	225	393	60	30	30	410	365	99	19	20	35k6	38	10	80				
100	150	100	472	235	275	275	472	72	36	36	504	450	125	24	24	45k6	48.5	14	110				
125	200	125	488	300	325	325	488	90	45	45	610	560	209	26	50	52k6	56	16	110				
150	250	150	585	350	400	400	585	100	40	40	735	680	260	26	50	60m6	64	18	140				

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 125-126.

e-MPA-en_b_td

SIZE	50			65			100			125			150		
	NUMBER OF STAGES	a1	m1	G [kg]	a1	m1	G [kg]	a1	m1	G [kg]	a1	m1	G [kg]	a1	m1
2	200	116	89	248	145	141	290	176	242	388	219	430	442	277	701
3	262	178	101	326	223	165	380	266	280	500	331	497	574	409	824
4	324	240	113	404	301	189	470	356	318	612	443	564	706	541	947
5	386	302	125	482	379	213	560	446	356	724	555	631	838	673	1070
6	448	364	137	560	457	237	650	536	394	836	667	698	970	805	1193
7	510	426	149	638	535	261	740	626	432	948	779	765			
8	572	488	161	716	613	285	830	716	470	1060	891	832			
9	634	550	173	794	691	309	920	806	508						
10	696	612	185	872	769	333	1010	896	546						
11	758	674	197	950	847	357	1100	986	584						
12	820	736	209	1028	925	381									
13	882	798	221	1106	1003	405									
14	944	860	233	1184	1081	429									
15	1006	922	245	1262	1159	453									
16	1068	984	257												
17	1130	1046	269												
18	1192	1108	281												

e-MPA-stage-en_b_td

MPA SERIES - Size 50, 65, 100, 125
DIMENSIONS AND WEIGHTS AT 50 Hz


Position	Connection	Size
PM1	Vacuum gauge	G ¼
PM2	Pressure gauge	G ¼
D	Drain	G ¼
G	Grease nipple	M8
L	Leakage	G ½
V	Vent	G ¼

e-MPA-AS-EN_a_DD

MPA SERIES - Size 50 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPA Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]																WEIGHT G [kg]	COUPLING TYPE
					DNS	DND	a1	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax			
50	2	132S/M	5,5	-	100	50	200	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1005	195	B80B	
		132S/M	7,5	-	100	50	200	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1005	191	B80B	
		160M	11	-	100	50	200	350	490	450	1100	350	200	204	288	200	6xØ19 (M16)	528	1162	259	B95A	
		160M	15	-	100	50	200	350	490	450	1100	350	200	204	288	200	6xØ19 (M16)	528	1162	260	B95A	
		100L	-	2,2	100	50	200	350	484	450	850	275	150	204	233	200	6xØ15 (M12)	433	1000	167	B80A	
	3	160M	11	-	100	50	262	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	275	B95A	
		160M	15	-	100	50	262	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	276	B95A	
		160L	19	-	100	50	262	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	283	B95A	
		180M	22	-	100	50	262	350	490	450	1200	400	200	266	308	200	6xØ19 (M16)	589	1284	344	B110B	
		100L	-	2,2	100	50	262	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1124	184	B80A	
		100L	-	3	100	50	262	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1124	188	B80A	
	4	160M	15	-	100	50	324	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	288	B95A	
		160L	19	-	100	50	324	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	295	B95A	
		180M	22	-	100	50	324	350	490	450	1300	450	200	390	308	200	6xØ19 (M16)	589	1408	361	B110B	
		200L	30	-	100	50	324	350	650	610	1300	450	200	328	328	200	6xØ19 (M16)	647	1449	449	B125A	
		100L	-	3	100	50	324	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1124	200	B80A	
	5	112M	-	4	100	50	324	350	484	450	1050	375	150	390	233	200	6xØ15 (M12)	433	1186	218	B80A	
		180M	22	-	100	50	386	350	490	450	1300	450	200	390	308	200	6xØ19 (M16)	589	1408	373	B110B	
		200L	30	-	100	50	386	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1573	473	B125A	
		200L	37	-	100	50	386	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1573	489	B125A	
		100L	-	3	100	50	386	350	484	450	1100	400	150	452	233	200	6xØ15 (M12)	433	1248	213	B80A	
	6	112M	-	4	100	50	386	350	484	450	1050	375	150	390	233	200	6xØ15 (M12)	433	1186	230	B80A	
		200L	30	-	100	50	448	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1573	485	B125A	
		200L	37	-	100	50	448	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1573	501	B125A	
	7	112M	-	4	100	50	448	350	484	450	1200	450	150	514	233	200	6xØ15 (M12)	433	1310	245	B80A	
		132S/M	-	5,5	100	50	448	350	490	450	1200	450	150	452	250	200	6xØ19 (M16)	450	1291	257	B80B	
		200L	30	-	100	50	510	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1697	498	B125A	
		200L	37	-	100	50	510	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1697	514	B125A	
		225S/M	45	-	100	50	510	350	660	610	1600	600	200	576	368	200	6xØ19 (M16)	752	1786	673	B125A	
	8	112M	-	4	100	50	510	350	484	450	1200	450	150	514	233	200	6xØ15 (M12)	433	1310	257	B80A	
		132S/M	-	5,5	100	50	510	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1415	272	B80B	
		200L	37	-	100	50	572	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1697	526	B125A	
		225S/M	45	-	100	50	572	350	660	610	1600	600	200	576	368	200	6xØ19 (M16)	752	1786	685	B125A	
		250S/M	55	-	100	50	572	350	720	670	1700	650	200	576	393	200	6xØ19 (M16)	791	1895	773	B140A	
	9	132S/M	-	5,5	100	50	572	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1415	284	B80B	
		132S/M	-	7,5	100	50	572	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1415	284	B80B	
		225S/M	45	-	100	50	634	350	660	610	1700	650	200	700	368	200	6xØ19 (M16)	752	1910	699	B125A	
		250S/M	55	-	100	50	634	350	720	670	1800	700	200	700	393	200	6xØ19 (M16)	791	2019	786	B140A	
		280S/M	75	-	100	50	634	350	820	770	1900	750	200	700	448	200	6xØ19 (M16)	913	2125	1060	B160A	
	10	132S/M	-	5,5	100	50	634	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1539	298	B80B	
		132S/M	-	7,5	100	50	634	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1539	298	B80B	
		225S/M	45	-	100	50	696	350	660	610	1700	650	200	700	368	200	6xØ19 (M16)	752	1910	711	B125A	
		250S/M	55	-	100	50	696	350	720	670	1800	700	200	700	393	200	6xØ19 (M16)	791	2019	798	B140A	
		280S/M	75	-	100	50	696	350	820	770	1900	750	200	700	448	200	6xØ19 (M16)	913	2125	1072	B160A	
	11	132S/M	-	7,5	100	50	696	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1539	310	B80B	
		160M	-	11	100	50	696	350	490	450	1600	600	200	700	288	200	6xØ19 (M16)	528	1658	352	B95A	
		250S/M	55	-	100	50	758	350	720	670	1900	750	200	824	393	200	6xØ19 (M16)	791	2143	812	B140A	
		280S/M	75	-	100	50	758	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2249	1087	B160A	
		132S/M	-	7,5	100	50	758	350	490	450	1600	650	150	824	250	200	6xØ19 (M16)	450	1663	325	B80B	
	12	160M	-	11	100	50	758	350	490	450	1700	650	200	824	288	200	6xØ19 (M16)	528	1782	365	B95A	
280S/M		75	-	100	50	820	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2249	1099	B160A		
280S/M		90	-	100	50	820	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2249	1125	B160A		
132S/M		-	7,5	100	50	820	350	490	450	1600	650	150	824	250	200	6xØ19 (M16)	450	1663	337	B80B		
160M		-	11	100	50	820	350	490	450	1700	650	200	824	288	200	6xØ19 (M16)	528	1782	377	B95A		
13	280S/M	75	-	100	50	882	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2373	1117	B160A		
	280S/M	90	-	100	50	882	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2373	1143	B160A		
	132S/M	-	7,5	100	50	882	350	490	450	1700	700	150	948	250	200	6xØ19 (M16)	450	1787	350	B80B		
	160M	-	11	100	50	882	350	490	450	1850	725	200	948	288	200	6xØ19 (M16)	528	1906	393	B95A		
14	280S/M	75	-	100	50	944	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2373	1129	B160A		
	280S/M	90	-	100	50	944	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2373	1155	B160A		
	160M	-	11	100	50	944	350	490	450	1850	725	200	948	288	200	6xØ19 (M16)	528	1906	405	B95A		
	160L	-	15	100	50	944	350	490	450	1850	725	200	948									

MPA SERIES - Size 65 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPA Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm] [kW]	1500 [rpm] [kW]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE
					DNS	DND	a1	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
65	2	160L	18,5	-	125	65	248	393	560	520	1150	375	200	253	313	225	6xØ19 (M16)	553	1254	328	B95D
		180M	22	-	125	65	248	393	560	520	1200	400	200	253	313	225	6xØ19 (M16)	594	1314	389	B110D
		200L	30	-	125	65	248	393	650	610	1250	425	200	253	323	225	6xØ19 (M16)	642	1417	469	B125B
		200L	37	-	125	65	248	393	650	610	1250	425	200	253	323	225	6xØ19 (M16)	642	1417	485	B125B
		112M	-	4	125	65	248	393	550	510	950	325	150	253	293	225	6xØ19 (M16)	518	1092	261	B95B
		132S/M	-	5,5	125	65	248	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1213	269	B95C
	3	200L	37	-	125	65	326	393	650	610	1400	500	200	409	323	225	6xØ19 (M16)	642	1573	516	B125B
		225S/M	45	-	125	65	326	393	660	610	1450	525	200	409	373	225	6xØ19 (M16)	757	1662	670	B125B
		250S/M	55	-	125	65	326	393	720	670	1550	575	200	409	393	225	6xØ19 (M16)	791	1771	755	B140B
		132S/M	-	5,5	125	65	326	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1213	293	B95C
	4	132S/M	-	7,5	125	65	326	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1213	293	B95C
		225S/M	45	-	125	65	404	393	660	610	1450	525	200	409	373	225	6xØ19 (M16)	757	1662	694	B125B
		250S/M	55	-	125	65	404	393	720	670	1550	575	200	409	393	225	6xØ19 (M16)	791	1771	779	B140B
		280S/M	75	-	125	65	404	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	1955	1049	B160B
	5	132S/M	-	7,5	125	65	404	393	550	510	1300	500	150	487	293	225	6xØ19 (M16)	518	1369	323	B95C
		160M	-	11	125	65	404	393	560	520	1350	475	200	409	313	225	6xØ19 (M16)	553	1410	360	B95D
		280S/M	75	-	125	65	482	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	1955	1073	B160B
		280S/M	90	-	125	65	482	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	1955	1099	B160B
		315S/M	110	-	125	65	482	393	860	810	1950	775	200	487	513	225	6xØ26 (M20)	1043	2128	1414	B160B
	6	160M	-	11	125	65	482	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1566	386	B95D
		160L	-	15	125	65	482	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1566	431	B110C
		280S/M	75	-	125	65	560	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2111	1102	B160B
		280S/M	90	-	125	65	560	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2111	1128	B160B
		315S/M	110	-	125	65	560	393	860	810	2100	850	200	643	513	225	6xØ26 (M20)	1043	2284	1444	B160B
	7	160M	-	11	125	65	560	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1566	410	B95D
		160L	-	15	125	65	560	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1566	455	B110C
		280S/M	90	-	125	65	638	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2111	1152	B160B
		315S/M	132	-	125	65	638	393	860	810	2100	850	200	643	513	225	6xØ26 (M20)	1043	2284	1543	B160B
	8	160M	-	11	125	65	638	393	560	520	1650	625	200	721	313	225	6xØ19 (M16)	553	1722	437	B95D
		180M	-	18,5	125	65	638	393	560	520	1600	600	200	643	313	225	6xØ19 (M16)	594	1704	526	B110D
		315S/M	110	-	125	65	716	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2440	1497	B160B
		315S/M	160	-	125	65	716	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2440	1640	B160B
	9	160L	-	15	125	65	716	393	560	520	1650	625	200	721	313	225	6xØ19 (M16)	553	1722	506	B110C
		180M	-	18,5	125	65	716	393	560	520	1750	675	200	799	313	225	6xØ19 (M16)	594	1860	553	B110D
		315S/M	110	-	125	65	794	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2440	1521	B160B
		315S/M	132	-	125	65	794	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2440	1596	B160B
		315S/M	160	-	125	65	794	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2440	1664	B160B
		315L	200	-	125	65	794	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1088	2549	1843	B180A
	10	160L	-	15	125	65	794	393	560	520	1800	700	200	877	313	225	6xØ19 (M16)	553	1878	533	B110C
		180L	-	22	125	65	794	393	560	520	1750	675	200	799	313	225	6xØ19 (M16)	594	1898	598	B110D
		315S/M	132	-	125	65	872	393	860	810	2400	950	250	955	513	225	6xØ26 (M20)	1043	2596	1625	B160B
		315L	200	-	125	65	872	393	860	810	2400	950	250	955	513	225	6xØ26 (M20)	1088	2705	1872	B180A
	11	180M	-	18,5	125	65	872	393	560	520	1900	750	200	955	313	225	6xØ19 (M16)	594	2016	604	B110D
		200L	-	30	125	65	872	393	650	610	1950	775	200	955	323	225	6xØ19 (M16)	642	2119	696	B125B
	12	180M	-	22	125	65	950	393	560	520	1900	750	200	955	313	225	6xØ19 (M16)	594	2016	628	B110D
		200L	-	30	125	65	950	393	650	610	1950	775	200	955	323	225	6xØ19 (M16)	642	2119	720	B125B
	13	180L	-	22	125	65	1028	393	560	520	2050	825	200	1111	313	225	6xØ19 (M16)	594	2210	676	B110D
		200L	-	30	125	65	1028	393	650	610	2100	850	200	1111	323	225	6xØ19 (M16)	642	2275	747	B125B
	14	180L	-	22	125	65	1106	393	560	520	2050	825	200	1111	313	225	6xØ19 (M16)	594	2210	700	B110D
		200L	-	30	125	65	1106	393	650	610	2100	850	200	1111	323	225	6xØ19 (M16)	642	2275	771	B125B
	15	200L	-	30	125	65	1184	393	650	610	2300	900	250	1267	323	225	6xØ19 (M16)	642	2431	801	B125B
		225S/M	-	37	125	65	1184	393	660	610	2350	925	250	1267	373	225	6xØ19 (M16)	757	2550	956	B140B
	15	200L	-	30	125	65	1262	393	650	610	2300	900	250	1267	323	225	6xØ19 (M16)	642	2431	825	B125B
		225S/M	-	37	125	65	1262	393	660	610	2350	925	250	1267	373	225	6xØ19 (M16)	757	2550	980	B140B

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 125-126.

e-MPA-AS-65-en_b_tld

MPA SERIES - Size 100 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPA Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]		1500 [rpm]		DIMENSIONS [mm]														WEIGHT G [kg]	COUPLING TYPE
			[kW]	[kW]	DNS	DND	a1	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax			
100	2	225S/M	45	-	150	100	290	472	720	670	1450	525	200	307	378	275	6xØ19 (M16)	762	1639	751	B125C	
		250S/M	55	-	150	100	290	472	720	670	1550	575	200	307	398	275	6xØ19 (M16)	796	1748	832	B140C	
		280S/M	75	-	150	100	290	472	820	770	1600	600	200	307	443	275	6xØ26 (M20)	908	1854	1082	B160C	
		280S/M	90	-	150	100	290	472	820	770	1600	600	200	307	443	275	6xØ26 (M20)	908	1854	1108	B160C	
		315S/M	110	-	150	100	290	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2117	1419	B160C	
		132S/M	-	5,5	150	100	290	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1268	407	B110E	
		132S/M	-	7,5	150	100	290	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1268	407	B110E	
	160M	-	11	150	100	290	472	710	670	1350	475	200	307	363	275	6xØ19 (M16)	638	1387	433	B110F		
	3	280S/M	90	-	150	100	380	472	820	770	1800	700	200	487	443	275	6xØ26 (M20)	908	2034	1162	B160C	
		315S/M	110	-	150	100	380	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2117	1457	B160C	
		315S/M	132	-	150	100	380	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2117	1532	B160C	
315S/M		160	-	150	100	380	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2117	1600	B160C		
160M		-	11	150	100	380	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1567	484	B110F		
160L		-	15	150	100	380	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1567	528	B110F		
180M	-	18,5	150	100	380	472	710	670	1450	525	200	397	363	275	6xØ19 (M16)	644	1537	572	B110G			
4	315S/M	132	-	150	100	470	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2297	1616	B160C		
	315S/M	160	-	150	100	470	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2297	1684	B160C		
	315L	200	-	150	100	470	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2406	1862	B180B		
	160L	-	15	150	100	470	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1567	566	B110F		
	180M	-	18,5	150	100	470	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1717	617	B110G		
	180L	-	22	150	100	470	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1755	638	B110G		
5	315S/M	160	-	150	100	560	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2297	1722	B160C		
	315L	200	-	150	100	560	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2406	1900	B180B		
	315L	250	-	150	100	560	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2406	1974	B180B		
	180L	-	22	150	100	560	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1755	676	B110G		
	200L	-	30	150	100	560	472	710	670	1800	700	200	667	363	275	6xØ19 (M16)	682	1910	741	B125C		
6	315L	200	-	150	100	650	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2586	1947	B180B		
	315L	250	-	150	100	650	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2586	2021	B180B		
	355M/L	315	-	150	100	650	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2645	2771	B200A		
	200L	-	30	150	100	650	472	710	670	1800	700	200	667	363	275	6xØ19 (M16)	682	1910	779	B125C		
	225S/M	-	37	150	100	650	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2119	930	B140C		
7	315L	250	-	150	100	740	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2586	2059	B180B		
	355M/L	315	-	150	100	740	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2645	2809	B200A		
	355M/L	355	-	150	100	740	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2645	2798	B200A		
	200L	-	30	150	100	740	472	720	670	1950	775	200	847	383	275	6xØ19 (M16)	702	2090	841	B125C		
	225S/M	-	37	150	100	740	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2119	968	B140C		
	225S/M	-	45	150	100	740	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2119	995	B140C		
8	225S/M	-	37	150	100	830	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2299	1033	B140C		
	225S/M	-	45	150	100	830	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2299	1060	B140C		
9	225S/M	-	45	150	100	920	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2299	1098	B140C		
	250S/M	-	55	150	100	920	472	720	670	2200	900	200	937	418	275	6xØ26 (M20)	816	2378	1194	B160C		
10	225S/M	-	45	150	100	1010	472	720	670	2300	900	250	1117	398	275	6xØ26 (M20)	782	2479	1140	B140C		
	250S/M	-	55	150	100	1010	472	720	670	2350	925	250	1117	418	275	6xØ26 (M20)	816	2558	1236	B160C		
11	250S/M	-	55	150	100	1100	472	720	670	2350	925	250	1117	418	275	6xØ26 (M20)	816	2558	1274	B160C		
	280S/M	-	75	150	100	1100	472	820	770	2400	950	250	1117	443	275	6xØ26 (M20)	908	2664	1509	B180C		

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 125-126.

e-MPA-AS-100-en_b_td

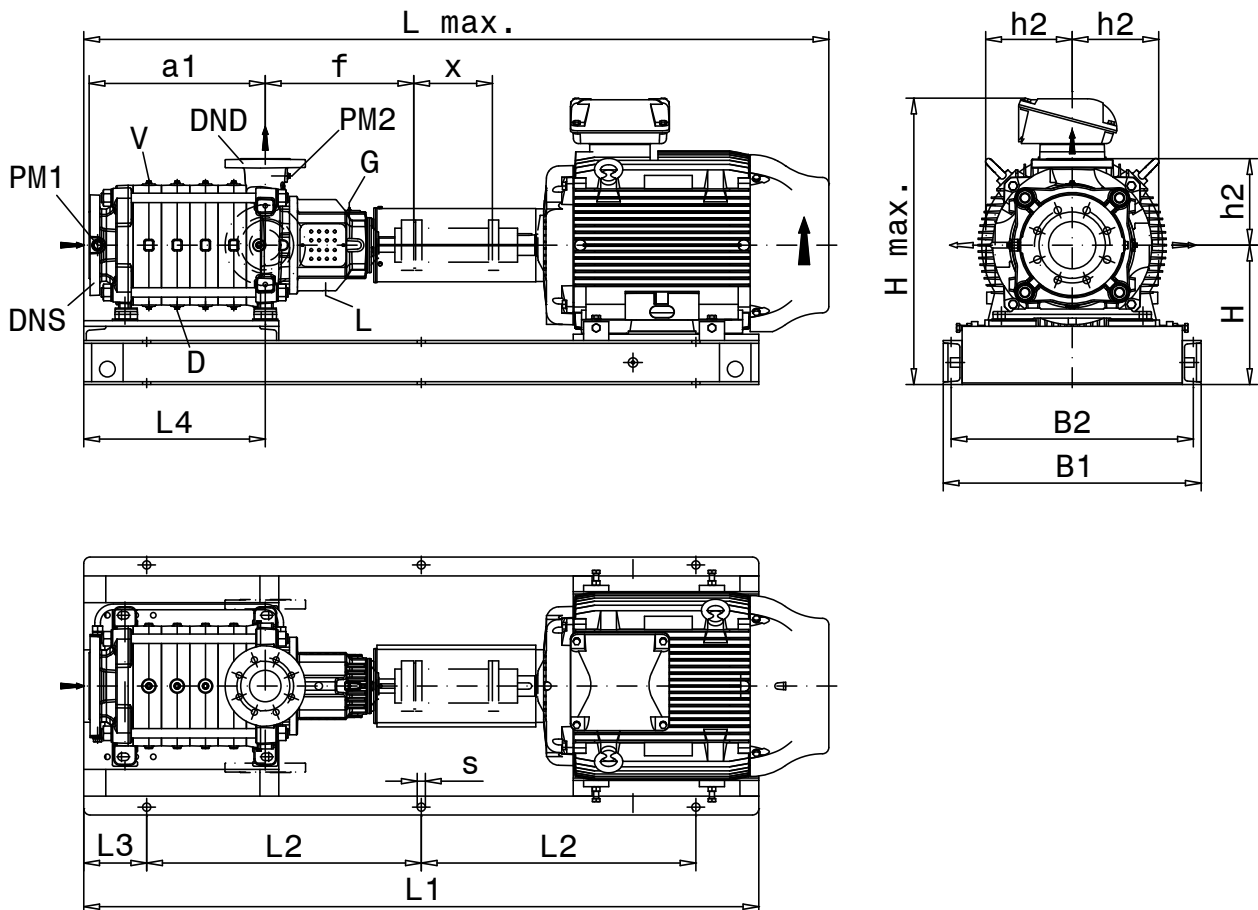
MPA SERIES - Size 125 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPA Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE
					DNS	DND	a1	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
125	2	315S/M	132	-	200	125	388	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2126	1669	B160D
		315S/M	160	-	200	125	388	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2126	1737	B160D
		315L	200	-	200	125	388	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2235	1915	B180D
		315L	250	-	200	125	388	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2235	1989	B180D
		355M/L	315	-	200	125	388	488	1000	930	2050	825	200	390	588	325	6xØ29 (M24)	1208	2294	2739	B200C
		160L	-	15	200	125	388	488	750	710	1400	500	200	390	428	325	6xØ19 (M16)	753	1486	698	B125D
		180M	-	18,5	200	125	388	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1546	741	B125E
		180L	-	22	200	125	388	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1584	762	B125E
		200L	-	30	200	125	388	488	750	710	1500	550	200	390	428	325	6xØ19 (M16)	753	1649	821	B125F
	225S/M	-	37	200	125	388	488	760	710	1550	575	200	390	448	325	6xØ19 (M16)	832	1768	964	B140D	
	3	315L	250	-	200	125	500	488	860	810	2050	825	200	502	508	325	6xØ26 (M20)	1083	2347	2065	B180D
		355M/L	315	-	200	125	500	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2406	2822	B200C
		355M/L	355	-	200	125	500	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2406	2811	B200C
		355A/B	400	-	200	125	500	488	1000	930	2300	900	250	502	588	325	6xØ29 (M24)	1313	2601	3152	B225C
		200L	-	30	200	125	500	488	750	710	1600	600	200	502	428	325	6xØ19 (M16)	753	1761	896	B125F
		225S/M	-	37	200	125	500	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	1880	1039	B140D
		225S/M	-	45	200	125	500	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	1880	1066	B140D
	250S/M	-	55	200	125	500	488	760	710	1750	675	200	502	453	325	6xØ19 (M16)	851	1959	1161	B160D	
	4	355M/L	315	-	200	125	612	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2518	2925	B200C
		355M/L	355	-	200	125	612	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2518	2914	B200C
		355A/B	400	-	200	125	612	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	2713	3254	B225C
		355A/B	450	-	200	125	612	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	2713	3404	B225C
		400J/H	500	-	200	125	612	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3106	4384	B225D
		400J/H	560	-	200	125	612	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3106	4383	RWS228D
		225S/M	-	45	200	125	612	488	760	710	1800	700	200	614	448	325	6xØ19 (M16)	832	1992	1144	B140D
		250S/M	-	55	200	125	612	488	760	710	1850	725	200	614	453	325	6xØ19 (M16)	851	2071	1235	B160D
	280S/M	-	75	200	125	612	488	820	770	1950	775	200	614	468	325	6xØ26 (M20)	933	2177	1479	B180E	
	5	355A/B	400	-	200	125	724	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	2825	3332	B225C
		355A/B	450	-	200	125	724	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	2825	3482	B225C
		400J/H	500	-	200	125	724	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3218	4465	B225D
		400J/H	560	-	200	125	724	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3218	4464	RWS228D
		400J/H	630	-	200	125	724	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3218	4557	RWS252A
		280S/M	-	75	200	125	724	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2289	1549	B180E
	280S/M	-	90	200	125	724	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2289	1602	B180E	
	6	280S/M	-	75	200	125	836	488	820	770	2150	875	200	838	468	325	6xØ26 (M20)	933	2401	1618	B180E
		315S/M	-	110	200	125	836	488	860	810	2400	950	250	838	508	325	6xØ26 (M20)	1038	2604	1968	B200D
	7	280S/M	-	90	200	125	948	488	820	770	2250	925	200	950	468	325	6xØ26 (M20)	933	2513	1741	B180E
		315S/M	-	110	200	125	948	488	860	810	2500	1000	250	950	508	325	6xØ26 (M20)	1038	2716	2038	B200D
	8	315S/M	-	110	200	125	1060	488	860	810	2650	1075	250	1062	508	325	6xØ26 (M20)	1038	2828	2113	B200D

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 125-126.

e-MPA-AS-125-en_b_td

**MPA SERIES - Size 150 WITH SPACER COUPLING
DIMENSIONS AND WEIGHTS AT 50 Hz**



Position	Connection	Size
PM1	Vacuum gauge	G ¼
PM2	Pressure gauge	G ¼
D	Drain	G ¼
G	Grease nipple	M8
L	Leakage	G ½
V	Vent	G ¼

e-MPA-SC-A_a_DD

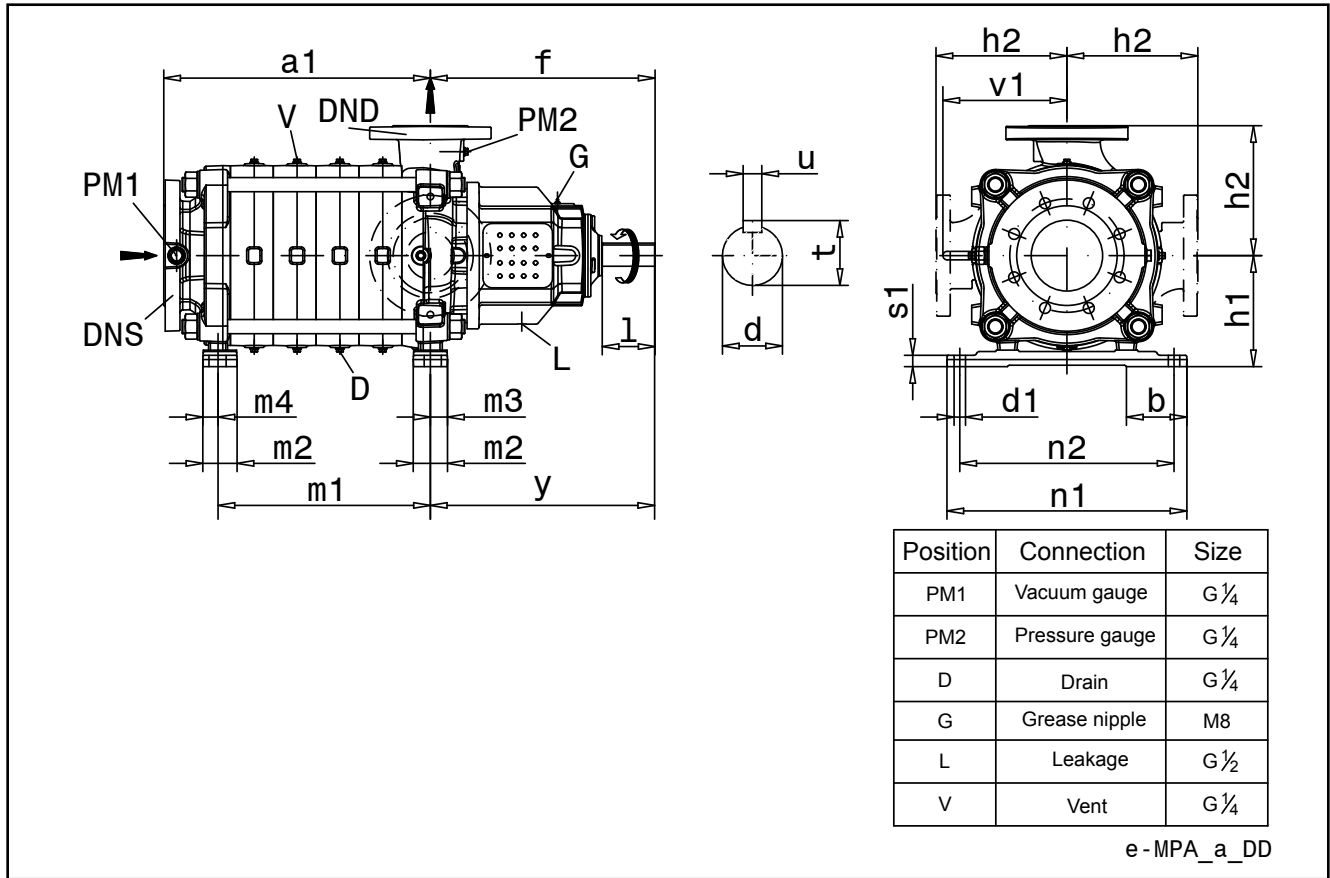
MPA SERIES - Size 150 WITH SPACER COUPLING DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPA Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]		1500 [rpm]		DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE
			[kW]	[kW]	DNS	DND	a1	f	x	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax			
150	2	355M/L	315	-	250	150	442	585	250	1000	930	2500	1000	250	467	583	400	6xØ29 (M24)	1203	2714	3036	H200E	
		355M/L	355	-	250	150	442	585	250	1000	930	2500	1000	250	467	583	400	6xØ29 (M24)	1203	2714	3025	H200E	
		355A/B	400	-	250	150	442	585	250	1000	930	2600	1050	250	467	583	400	6xØ29 (M24)	1308	2909	3369	H225E	
		355A/B	450	-	250	150	442	585	250	1000	930	2600	1050	250	467	583	400	6xØ29 (M24)	1308	2909	3519	H225E	
		400J/H	560	-	250	150	442	585	250	1140	1070	2900	1150	300	467	692	400	6xØ29 (M24)	1092	3302	4471	NAN212D	
		400J/H	630	-	250	150	442	585	250	1140	1070	2900	1150	300	467	692	400	6xØ29 (M24)	1092	3302	4556	NAN212D	
		225S/M	-	37	250	150	442	585	250	910	860	2000	800	200	467	498	400	6xØ19 (M16)	898	2188	1289	H140F	
		225S/M	-	45	250	150	442	585	250	910	860	2000	800	200	467	498	400	6xØ19 (M16)	898	2188	1316	H140F	
		250S/M	-	55	250	150	442	585	250	910	860	2050	825	200	467	498	400	6xØ19 (M16)	898	2267	1420	H160E	
		280S/M	-	75	250	150	442	585	250	910	860	2150	875	200	467	523	400	6xØ26 (M20)	988	2373	1649	H180G	
	400J/H	500	-	250	150	574	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3434	4689	H225F		
	400J/H	560	-	250	150	574	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3434	4670	NAN212D		
	400J/H	630	-	250	150	574	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3434	4755	NAN212D		
	450J/H	710	-	250	150	574	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3608	6324	NAN212E		
	450J/H	800	-	250	150	574	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3608	6374	NAN212E		
	450J/H	900	-	250	150	574	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3608	6379	NAN225C		
	0	280S/M	-	75	250	150	574	585	250	910	860	2300	900	250	599	523	400	6xØ26 (M20)	988	2505	1795	H180G	
		280S/M	-	90	250	150	574	585	250	910	860	2300	900	250	599	523	400	6xØ26 (M20)	988	2505	1848	H180G	
		315S/M	-	110	250	150	574	585	250	930	880	2500	1000	250	599	543	400	6xØ26 (M20)	1073	2708	2138	H200F	
		315S/M	-	132	250	150	574	585	250	930	880	2500	1000	250	599	543	400	6xØ26 (M20)	1073	2708	2199	H200F	
		450J/H	710	-	250	150	706	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3740	6465	NAN212E	
		450J/H	800	-	250	150	706	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3740	6515	NAN212E	
		450J/H	900	-	250	150	706	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3740	6519	NAN225C	
		450J/H	1000	-	250	150	706	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3740	6799	NAN225C	
		280S/M	-	90	250	150	706	585	250	910	860	2400	950	250	731	523	400	6xØ26 (M20)	988	2637	1973	H180G	
		315S/M	-	110	250	150	706	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	2840	2268	H200F	
	315S/M	-	132	250	150	706	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	2840	2329	H200F		
	315S/M	-	160	250	150	706	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	2840	2434	H200F		
	5	315S/M	-	132	250	150	838	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1073	2972	2459	H200F	
		315S/M	-	160	250	150	838	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1073	2972	2564	H200F	
315L		-	200	250	150	838	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1118	3087	2761	H225F		
6	315S/M	-	160	250	150	970	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1073	3104	2689	H200F		
	315L	-	200	250	150	970	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1118	3219	2886	H225F		
	315L	-	250	250	150	970	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1118	3219	3008	H225F		

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 125-126.

e-MPA-SC-AS-150-EN_b_td

MPAE SERIES - PN100
DIMENSIONS AND WEIGHTS AT 50 Hz



PUMP TYPE	DIMENSIONS [mm]																			
	MPA Size	Pump dimensions						Feet dimensions						Shaft end						
		DNS	DND	f	h1	h2	v1	y	m2	m3	m4	n1	n2	b	d1	s1	d	t	u	l
65	125	65	393	190	250	250	393	60	30	30	410	365	99	19	25	35k6	38	10	80	
100	150	100	472	235	300	300	472	72	36	36	504	450	125	24	30	45k6	48.5	14	110	
125	200	125	488	300	350	350	488	90	45	45	610	560	209	26	45	52k6	56	16	110	
150	250	150	585	350	425	425	585	100	40	40	735	680	260	26	40	60m6	64	18	140	

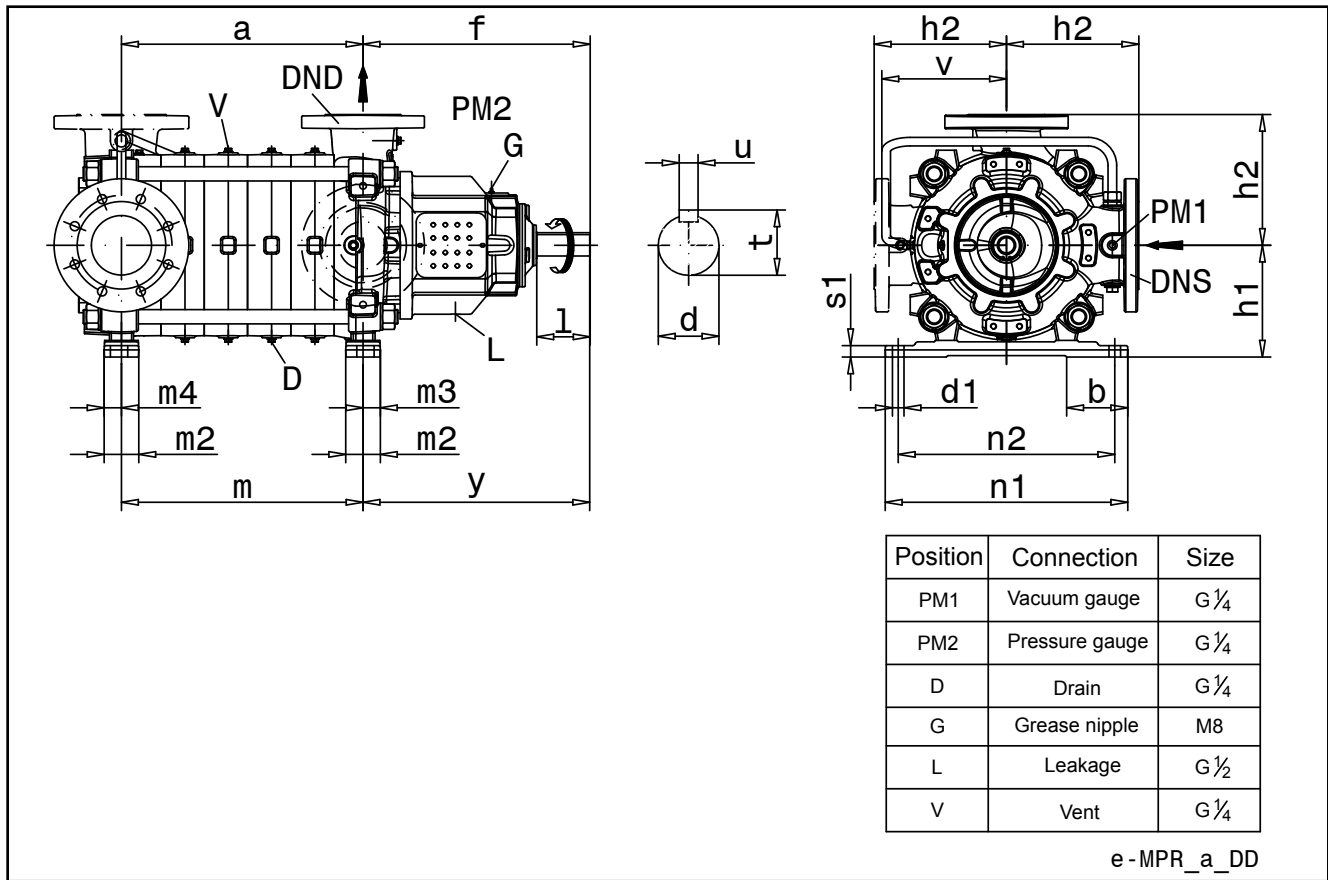
NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 125-126.

e-MPAE-en_a_td

SIZE NUMBER OF STAGES	65			100			125			150		
	a1	m1	G [kg]	a1	m1	G [kg]	a1	m1	G [kg]	a1	m1	G [kg]
3	-	-	-	-	-	-	-	-	-	574	409	987
4	-	-	-	-	-	-	612	443	660	706	541	1131
5	-	-	-	-	-	-	724	555	744	838	673	1275
6	-	-	-	680	536	504	836	667	828	970	805	1419
7	-	-	-	770	626	558	948	779	912			
8	-	-	-	860	716	612	1060	891	996			
9	804	691	329	950	806	666						
10	882	769	354	1040	896	720						
11	960	847	379	1130	986	774						
12	1038	925	404									
13	1116	1003	429									
14	1194	1081	454									
15	1272	1159	479									

e-MPAE-stage-en_a_td

MPR SERIES DIMENSIONS AND WEIGHTS AT 50 Hz



PUMP TYPE MPR	DIMENSIONS [mm]																		
	Size	Pump dimensions						Feet dimensions						Shaft end					
		DNS	DND	f	h1	h2	v	y	m2	m3	m4	n1	n2	b	d1	s1	d	t	u
50	80	50	350	150	200	200	350	54	24	27	332	290	90	14	21	28j6	31	8	70
65	100	65	393	190	225	225	393	60	30	30	410	365	99	19	20	35k6	38	10	80
100	125	100	472	235	275	275	472	72	36	36	504	450	125	24	24	45k6	48,5	14	110
125	150	125	488	300	325	325	488	90	45	45	610	560	209	26	50	52k6	56	16	110
150	200	150	585	350	400	400	585	100	40	40	735	680	260	26	50	60m6	64	18	140

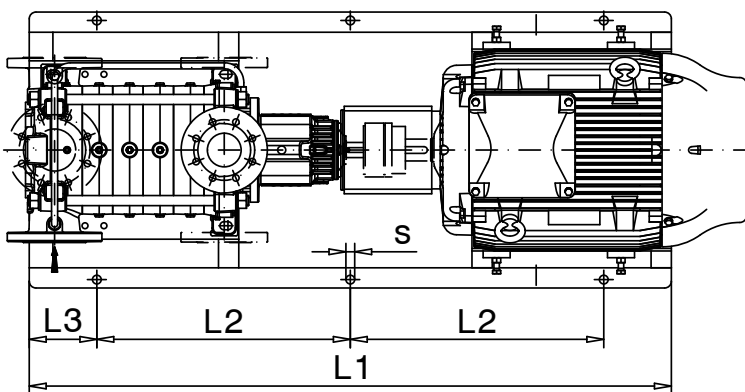
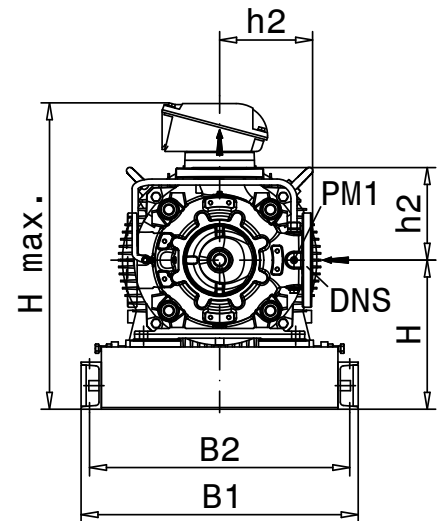
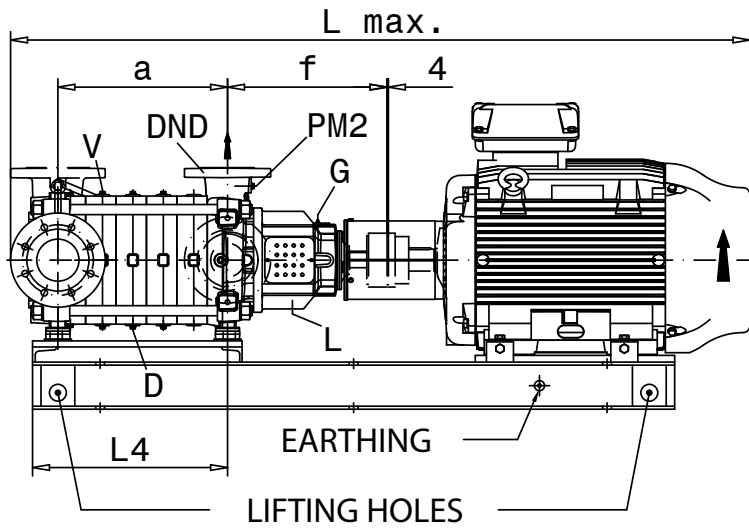
NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPR-en_c_td

SIZE NUMBER OF STAGES	50			65			100			125			150		
	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]
1	87	87	84	110	110	125	142	142	226	173	173	383	210	230	635
2	149	149	96	188	188	149	232	232	264	285	285	450	342	362	763
3	211	211	108	266	266	173	322	322	302	397	397	517	474	494	891
4	273	273	120	344	344	197	412	412	340	509	509	584	606	626	1019
5	335	335	132	422	422	221	502	502	378	621	621	651	738	758	1147
6	397	397	144	500	500	245	592	592	416	733	733	718	870	890	1275
7	459	459	156	578	578	269	682	682	454	845	845	785			
8	521	521	168	656	656	293	772	772	492	957	957	852			
9	583	583	180	734	734	317	862	862	530						
10	645	645	192	812	812	341	952	952	568						
11	707	707	204	890	890	365	1042	1042	606						
12	769	769	216	968	968	389									
13	831	831	228	1046	1046	413									
14	893	893	240	1124	1124	437									
15	955	955	252	1202	1202	461									
16	1017	1017	264												
17	1079	1079	276												
18	1141	1141	288												

e-MPR-stage-en_c_td

MPR SERIES - Size 50, 65, 100, 125
DIMENSIONS AND WEIGHTS AT 50 Hz



Position	Connection	Size
PM1	Vacuum gauge	G ¼
PM2	Pressure gauge	G ¼
D	Drain	G ¼
G	Grease nipple	M8
L	Leakage	G ½
V	Vent	G ¼

e-MPR-AS-EN_a_DD

MPR SERIES - Size 50

DIMENSIONS AND WEIGHTS AT 50 Hz



PUMP TYPE MPR Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]		1500 [rpm]		DIMENSIONS [mm]													WEIGHT G [kg]	COUPLING TYPE
			[kW]	[kW]	DNS	DND	a	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
50	1	132S/M	5,5	-	80	50	87	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1005	190	B80B
		132S/M	7,5	-	80	50	87	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1005	186	B80B
		100L	-	2,2	80	50	87	350	484	450	850	275	150	204	233	200	6xØ15 (M12)	433	1000	162	B80A
	2	132S/M	5,5	-	80	50	149	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1055	202	B80B
		132S/M	7,5	-	80	50	149	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1055	198	B80B
		160M	11	-	80	50	149	350	490	450	1100	350	200	204	288	200	6xØ19 (M16)	528	1212	266	B95A
		160M	15	-	80	50	149	350	490	450	1100	350	200	204	288	200	6xØ19 (M16)	528	1212	267	B95A
		100L	-	2,2	80	50	149	350	484	450	850	275	150	204	233	200	6xØ15 (M12)	433	1050	174	B80A
		160M	11	-	80	50	211	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	282	B95A
	3	160M	15	-	80	50	211	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	283	B95A
		160L	18,5	-	80	50	211	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1286	290	B95A
		180M	22	-	80	50	211	350	490	450	1200	400	200	266	308	200	6xØ19 (M16)	589	1334	351	B110B
		100L	-	2,2	80	50	211	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1124	191	B80A
		100L	-	3	80	50	211	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1124	195	B80A
	4	160M	15	-	80	50	273	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1336	295	B95A
		160L	18,5	-	80	50	273	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1336	302	B95A
		180M	22	-	80	50	273	350	490	450	1300	450	200	390	308	200	6xØ19 (M16)	589	1408	368	B110B
		200L	30	-	80	50	273	350	650	610	1300	450	200	328	328	200	6xØ19 (M16)	647	1499	456	B125A
		100L	-	3	80	50	273	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1174	207	B80A
	5	112M	-	4	80	50	273	350	484	450	1050	375	150	390	233	200	6xØ15 (M12)	433	1186	225	B80A
		180M	22	-	80	50	335	350	490	450	1300	450	200	390	308	200	6xØ19 (M16)	589	1458	380	B110B
		200L	30	-	80	50	335	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1573	480	B125A
		200L	37	-	80	50	335	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1573	496	B125A
		100L	-	3	80	50	335	350	484	450	1100	400	150	452	233	200	6xØ15 (M12)	433	1248	220	B80A
	6	112M	-	4	80	50	335	350	484	450	1050	375	150	390	233	200	6xØ15 (M12)	433	1236	237	B80A
		200L	30	-	80	50	397	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1623	492	B125A
		200L	37	-	80	50	397	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1623	508	B125A
		112M	-	4	80	50	397	350	484	450	1200	450	150	514	233	200	6xØ15 (M12)	433	1310	252	B80A
	7	132S/M	-	5,5	80	50	397	350	490	450	1200	450	150	452	250	200	6xØ19 (M16)	450	1341	264	B80B
		200L	30	-	80	50	459	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1697	505	B125A
		200L	37	-	80	50	459	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1697	521	B125A
		225S/M	45	-	80	50	459	350	660	610	1600	600	200	576	368	200	6xØ19 (M16)	752	1786	680	B125A
		112M	-	4	80	50	459	350	484	450	1200	450	150	514	233	200	6xØ15 (M12)	433	1360	264	B80A
	8	132S/M	-	5,5	80	50	459	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1415	279	B80B
		200L	37	-	80	50	521	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1747	533	B125A
		225S/M	45	-	80	50	521	350	660	610	1600	600	200	576	368	200	6xØ19 (M16)	752	1836	692	B125A
		250S/M	55	-	80	50	521	350	720	670	1700	650	200	576	393	200	6xØ19 (M16)	791	1945	780	B140A
	9	132S/M	-	5,5	80	50	521	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1465	291	B80B
		132S/M	-	7,5	80	50	521	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1465	291	B80B
		225S/M	45	-	80	50	583	350	660	610	1700	650	200	700	368	200	6xØ19 (M16)	752	1910	706	B125A
		250S/M	55	-	80	50	583	350	720	670	1800	700	200	700	393	200	6xØ19 (M16)	791	2019	793	B140A
		280S/M	75	-	80	50	583	350	820	770	1900	750	200	700	448	200	6xØ19 (M16)	913	2125	1067	B160A
	10	132S/M	-	5,5	80	50	583	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1539	305	B80B
		132S/M	-	7,5	80	50	583	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1539	305	B80B
		225S/M	45	-	80	50	645	350	660	610	1700	650	200	700	368	200	6xØ19 (M16)	752	1960	718	B125A
		250S/M	55	-	80	50	645	350	720	670	1800	700	200	700	393	200	6xØ19 (M16)	791	2069	805	B140A
		280S/M	75	-	80	50	645	350	820	770	1900	750	200	700	448	200	6xØ19 (M16)	913	2175	1079	B160A
	11	132S/M	-	7,5	80	50	645	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1589	317	B80B
		160M	-	11	80	50	645	350	490	450	1600	600	200	700	288	200	6xØ19 (M16)	528	1708	359	B95A
		250S/M	55	-	80	50	707	350	720	670	1900	750	200	824	393	200	6xØ19 (M16)	791	2143	819	B140A
		280S/M	75	-	80	50	707	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2249	1094	B160A
		132S/M	-	7,5	80	50	707	350	490	450	1600	650	150	824	250	200	6xØ19 (M16)	450	1663	332	B80B
	12	160M	-	11	80	50	707	350	490	450	1700	650	200	824	288	200	6xØ19 (M16)	528	1782	372	B95A
		280S/M	75	-	80	50	769	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2299	1106	B160A
		280S/M	90	-	80	50	769	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2299	1132	B160A
		132S/M	-	7,5	80	50	769	350	490	450	1600	650	150	824	250	200	6xØ19 (M16)	450	1713	344	B80B
		160M	-	11	80	50	769	350	490	450	1700	650	200	824	288	200	6xØ19 (M16)	528	1832	384	B95A
	13	280S/M	75	-	80	50	831	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2373	1124	B160A
		280S/M	90	-	80	50	831	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2373	1150	B160A
		160M	-	7,5	80	50	831	350	490	450	1700	700	150	948	250	200	6xØ19 (M16)	450	1787	357	B80B
		160M	-	11	80	50	831	350	490	450	1850	725	200	948	288	200	6xØ19 (M16)	528	1906	400	B95A
	14	280S/M	75	-	80	50	893	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2423	1136	B160A
		280S/M	90	-	80	50	893	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2423	1162	B160A
		160M	-	11	80	50	893	350	490	450	1850	725	200	948	288	200	6xØ19 (M16)	528	1956	412	B95A
	15	160L	-	15	80	50	893	350	490	450	1850	725	200	948	288	200	6xØ19 (M16)	528	1956	457	B110A
		280S/M	75	-	80	50	955	350	820	770	2250	925	200	1072	448	200	6xØ19 (M16)	913	2497	1150	B160A
		315S/M	110	-	80	50	955	350	860	810	2350	925	250	1072	503	200	6xØ26 (M20)	1033	2670	1445	B160A
		160M	-	11	80	50	955	350	490	450	1950	775	200	1072	288	200	6xØ19 (M16)	528	2030	426	B95A
	16	160L	-	15	80	50	955	350	490	450	1950	775	200	1072	288	200	6xØ19 (M16)	528	2030	470	B110A
		160M	-	11	80	50	1017	350	490	450	1950	775	200	1072	288	20					

MPR SERIES - Size 65 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPR Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE
					DNS	DND	a	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
65	1	160M	15	-	100	65	110	393	560	520	1150	375	200	253	313	225	6xØ19 (M16)	553	1254	305	B95D
		160L	18,5	-	100	65	110	393	560	520	1150	375	200	253	313	225	6xØ19 (M16)	553	1254	312	B95D
		100L	-	2,2	100	65	110	393	550	510	950	325	150	253	293	225	6xØ19 (M16)	518	1092	225	B95B
	2	160L	18,5	-	100	65	188	393	560	520	1150	375	200	253	313	225	6xØ19 (M16)	553	1317	336	B95D
		180M	22	-	100	65	188	393	560	520	1200	400	200	253	313	225	6xØ19 (M16)	594	1377	397	B110D
		200L	30	-	100	65	188	393	650	610	1250	425	200	253	323	225	6xØ19 (M16)	642	1480	477	B125B
		200L	37	-	100	65	188	393	650	610	1250	425	200	253	323	225	6xØ19 (M16)	642	1480	493	B125B
		112M	-	4	100	65	188	393	550	510	950	325	150	253	293	225	6xØ19 (M16)	518	1155	269	B95B
		132S/M	-	5,5	100	65	188	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1213	277	B95C
	3	200L	37	-	100	65	266	393	650	610	1400	500	200	409	323	225	6xØ19 (M16)	642	1573	524	B125B
		225S/M	45	-	100	65	266	393	660	610	1450	525	200	409	373	225	6xØ19 (M16)	757	1662	678	B125B
		250S/M	55	-	100	65	266	393	720	670	1550	575	200	409	393	225	6xØ19 (M16)	791	1771	763	B140B
		132S/M	-	5,5	100	65	266	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1276	301	B95C
		132S/M	-	7,5	100	65	266	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1276	301	B95C
	4	225S/M	45	-	100	65	344	393	660	610	1450	525	200	409	373	225	6xØ19 (M16)	757	1725	702	B125B
		250S/M	55	-	100	65	344	393	720	670	1550	575	200	409	393	225	6xØ19 (M16)	791	1834	787	B140B
		280S/M	75	-	100	65	344	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	1955	1057	B160B
		132S/M	-	7,5	100	65	344	393	550	510	1300	500	150	487	293	225	6xØ19 (M16)	518	1369	331	B95C
		160M	-	11	100	65	344	393	560	520	1350	475	200	409	313	225	6xØ19 (M16)	553	1473	368	B95D
	5	280S/M	75	-	100	65	422	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	2018	1081	B160B
		280S/M	90	-	100	65	422	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	2018	1107	B160B
		315S/M	110	-	100	65	422	393	860	810	1950	775	200	487	513	225	6xØ26 (M20)	1043	2191	1422	B160B
		160M	-	11	100	65	422	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1566	394	B95D
		160L	-	15	100	65	422	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1566	439	B110C
	6	280S/M	75	-	100	65	500	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2111	1110	B160B
		280S/M	90	-	100	65	500	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2111	1136	B160B
		315S/M	110	-	100	65	500	393	860	810	2100	850	200	643	513	225	6xØ26 (M20)	1043	2284	1452	B160B
		160M	-	11	100	65	500	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1629	418	B95D
		160L	-	15	100	65	500	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1629	463	B110C
	7	280S/M	90	-	100	65	578	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2174	1160	B160B
		315S/M	132	-	100	65	578	393	860	810	2100	850	200	643	513	225	6xØ26 (M20)	1043	2347	1551	B160B
		160M	-	11	100	65	578	393	560	520	1650	625	200	721	313	225	6xØ19 (M16)	553	1722	445	B95D
		180M	-	18,5	100	65	578	393	560	520	1600	600	200	643	313	225	6xØ19 (M16)	594	1767	534	B110D
	8	315S/M	110	-	100	65	656	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2440	1505	B160B
		315S/M	160	-	100	65	656	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2440	1648	B160B
		160L	-	15	100	65	656	393	560	520	1650	625	200	721	313	225	6xØ19 (M16)	553	1785	514	B110C
		180M	-	18,5	100	65	656	393	560	520	1750	675	200	799	313	225	6xØ19 (M16)	594	1860	561	B110D
	9	315S/M	110	-	100	65	734	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2503	1529	B160B
		315S/M	132	-	100	65	734	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2503	1604	B160B
		315S/M	160	-	100	65	734	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2503	1672	B160B
		315L	200	-	100	65	734	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1088	2612	1851	B180A
		160L	-	15	100	65	734	393	560	520	1800	700	200	877	313	225	6xØ19 (M16)	553	1878	541	B110C
		180L	-	22	100	65	734	393	560	520	1750	675	200	799	313	225	6xØ19 (M16)	594	1961	606	B110D
	10	315S/M	132	-	100	65	812	393	860	810	2400	950	250	955	513	225	6xØ26 (M20)	1043	2596	1633	B160B
		315L	200	-	100	65	812	393	860	810	2400	950	250	955	513	225	6xØ26 (M20)	1088	2705	1880	B180A
		180M	-	18,5	100	65	812	393	560	520	1900	750	200	955	313	225	6xØ19 (M16)	594	2016	612	B110D
		200L	-	30	100	65	812	393	650	610	1950	775	200	955	323	225	6xØ19 (M16)	642	2119	704	B125B
	11	180M	-	18,5	100	65	890	393	560	520	1900	750	200	955	313	225	6xØ19 (M16)	594	2079	636	B110D
		200L	-	30	100	65	890	393	650	610	1950	775	200	955	323	225	6xØ19 (M16)	642	2182	728	B125B
	12	180L	-	22	100	65	968	393	560	520	2050	825	200	1111	313	225	6xØ19 (M16)	594	2210	684	B110D
		200L	-	30	100	65	968	393	650	610	2100	850	200	1111	323	225	6xØ19 (M16)	642	2275	755	B125B
	13	180L	-	22	100	65	1046	393	560	520	2050	825	200	1111	313	225	6xØ19 (M16)	594	2273	708	B110D
		200L	-	30	100	65	1046	393	650	610	2100	850	200	1111	323	225	6xØ19 (M16)	642	2338	779	B125B
	14	200L	-	30	100	65	1124	393	650	610	2300	900	250	1267	323	225	6xØ19 (M16)	642	2431	809	B125B
		225S/M	-	37	100	65	1124	393	660	610	2350	925	250	1267	373	225	6xØ19 (M16)	757	2550	964	B140B
	15	200L	-	30	100	65	1202	393	650	610	2300	900	250	1267	323	225	6xØ19 (M16)	642	2494	833	B125B
		225S/M	-	37	100	65	1202	393	660	610	2350	925	250	1267	373	225	6xØ19 (M16)	757	2613	988	B140B

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPR-AS-65-en_d_td

MPR SERIES - Size 100 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPR Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE
					DNS	DND	a	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
100	1	200L	37	-	125	100	142	472	710	670	1400	500	200	307	363	275	6xØ19 (M16)	682	1550	587	B125C
		250S/M	55	-	125	100	142	472	720	670	1550	575	200	307	398	275	6xØ19 (M16)	796	1748	816	B140C
		132S/M	-	5,5	125	100	142	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1268	391	B110E
	2	225S/M	45	-	125	100	232	472	720	670	1450	525	200	307	378	275	6xØ19 (M16)	762	1704	773	B125C
		250S/M	55	-	125	100	232	472	720	670	1550	575	200	307	398	275	6xØ19 (M16)	796	1813	854	B140C
		280S/M	75	-	125	100	232	472	820	770	1600	600	200	307	443	275	6xØ26 (M20)	908	1919	1104	B160C
		280S/M	90	-	125	100	232	472	820	770	1600	600	200	307	443	275	6xØ26 (M20)	908	1919	1130	B160C
		315S/M	110	-	125	100	232	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2117	1441	B160C
		132S/M	-	5,5	125	100	232	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1333	429	B110E
		132S/M	-	7,5	125	100	232	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1333	429	B110E
		160M	-	11	125	100	232	472	710	670	1350	475	200	307	363	275	6xØ19 (M16)	638	1452	455	B110F
		3	280S/M	90	-	125	100	322	472	820	770	1800	700	200	487	443	275	6xØ26 (M20)	908	2034	1184
	315S/M		110	-	125	100	322	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2182	1479	B160C
	315S/M		132	-	125	100	322	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2182	1554	B160C
	315S/M		160	-	125	100	322	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2182	1622	B160C
	160M		-	11	125	100	322	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1567	506	B110F
	160L		-	15	125	100	322	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1567	550	B110F
	180M		-	18,5	125	100	322	472	710	670	1450	525	200	397	363	275	6xØ19 (M16)	644	1602	594	B110G
	4	315S/M	132	-	125	100	412	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2297	1638	B160C
		315S/M	160	-	125	100	412	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2297	1706	B160C
		315L	200	-	125	100	412	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2406	1884	B180B
		160L	-	15	125	100	412	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1632	588	B110F
		180M	-	18,5	125	100	412	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1717	639	B110G
		180L	-	22	125	100	412	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1755	660	B110G
	5	315S/M	160	-	125	100	502	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2362	1744	B160C
		315L	200	-	125	100	502	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2471	1922	B180B
		315L	250	-	125	100	502	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2471	1996	B180B
		180L	-	22	125	100	502	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1820	698	B110G
		200L	-	30	125	100	502	472	710	670	1800	700	200	667	363	275	6xØ19 (M16)	682	1910	763	B125C
	6	315L	200	-	125	100	592	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2586	1969	B180B
		315L	250	-	125	100	592	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2586	2043	B180B
		355M/L	315	-	125	100	592	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2645	2793	B200A
		200L	-	30	125	100	592	472	710	670	1800	700	200	667	363	275	6xØ19 (M16)	682	1975	801	B125C
		225S/M	-	37	125	100	592	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2119	952	B140C
	7	315L	250	-	125	100	682	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2651	2081	B180B
		355M/L	315	-	125	100	682	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2710	2831	B200A
		355M/L	355	-	125	100	682	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2710	2820	B200A
		200L	-	30	125	100	682	472	720	670	1950	775	200	847	383	275	6xØ19 (M16)	702	2090	863	B125C
		225S/M	-	37	125	100	682	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2184	990	B140C
		225S/M	-	45	125	100	682	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2184	1017	B140C
	8	225S/M	-	37	125	100	772	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2299	1055	B140C
		225S/M	-	45	125	100	772	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2299	1082	B140C
	9	225S/M	-	45	125	100	862	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2364	1120	B140C
		250S/M	-	55	125	100	862	472	720	670	2200	900	200	937	418	275	6xØ26 (M20)	816	2443	1216	B160C
	10	225S/M	-	45	125	100	952	472	720	670	2300	900	250	1117	398	275	6xØ26 (M20)	782	2479	1162	B140C
		250S/M	-	55	125	100	952	472	720	670	2350	925	250	1117	418	275	6xØ26 (M20)	816	2558	1258	B160C
	11	250S/M	-	55	125	100	1042	472	720	670	2350	925	250	1117	418	275	6xØ26 (M20)	816	2623	1296	B160C
		280S/M	-	75	125	100	1042	472	820	770	2400	950	250	1117	443	275	6xØ26 (M20)	908	2729	1531	B180C

e-MPR-AS-100-en_d_td

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

For flanges dimensions see drawing on pages 127-128.

MPR SERIES - Size 125 DIMENSIONS AND WEIGHTS AT 50 Hz

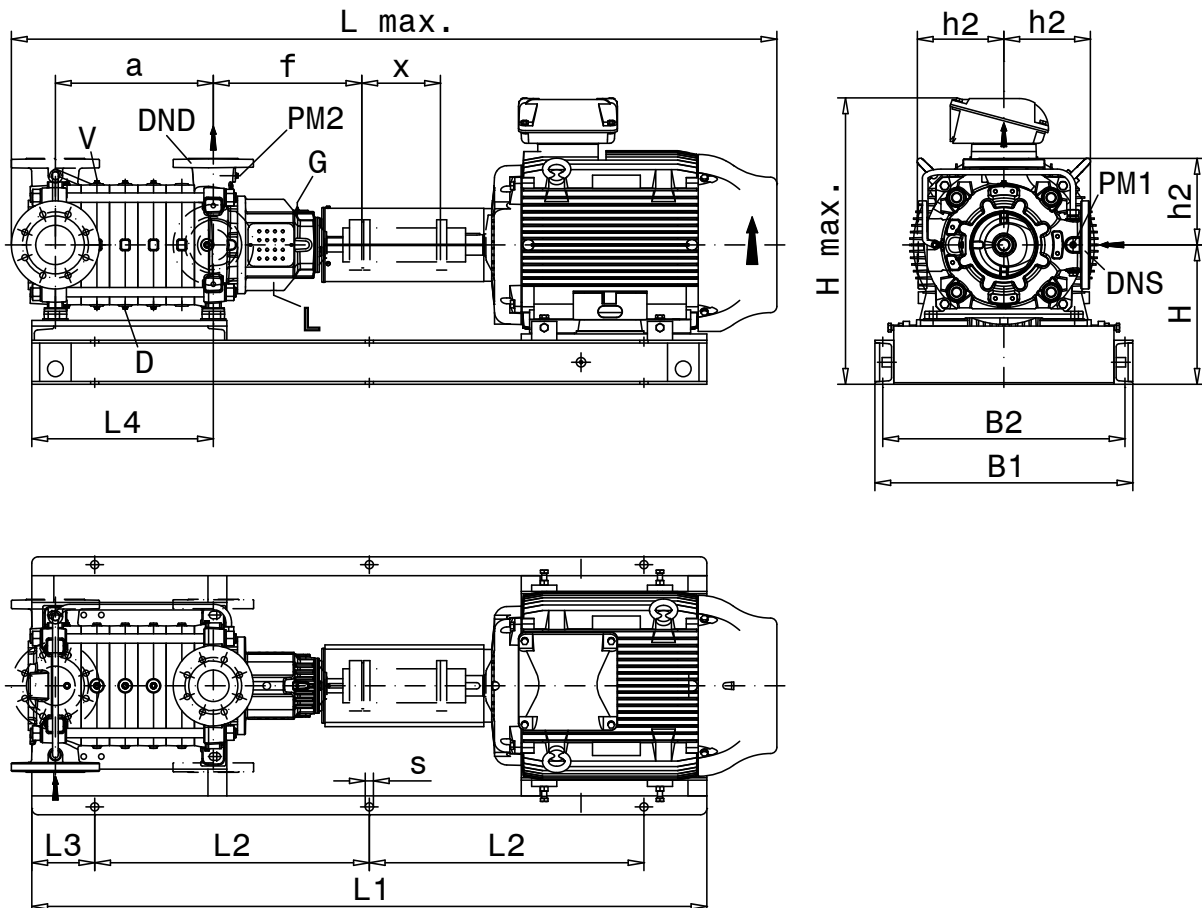
PUMP TYPE MPR Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE
					DNS	DND	a	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
125	1	315S/M	110	-	150	125	173	488	860	810	1800	700	200	278	508	325	6xØ26 (M20)	1038	2069	1533	B160D
		315S/M	132	-	150	125	173	488	860	810	1800	700	200	278	508	325	6xØ26 (M20)	1038	2069	1608	B160D
		160M	-	11	150	125	173	488	750	710	1300	450	200	278	428	325	6xØ19 (M16)	753	1429	599	B125D
		180M	-	18,5	150	125	173	488	750	710	1350	475	200	278	428	325	6xØ19 (M16)	753	1489	686	B125E
	2	315S/M	132	-	150	125	285	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2181	1689	B160D
		315S/M	160	-	150	125	285	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2181	1757	B160D
		315L	200	-	150	125	285	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2290	1935	B180D
		315L	250	-	150	125	285	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2290	2009	B180D
		355M/L	315	-	150	125	285	488	1000	930	2050	825	200	390	588	325	6xØ29 (M24)	1208	2349	2759	B200C
		160L	-	15	150	125	285	488	750	710	1400	500	200	390	428	325	6xØ19 (M16)	753	1541	718	B125D
		180M	-	18,5	150	125	285	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1601	761	B125E
		180L	-	22	150	125	285	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1639	782	B125E
		200L	-	30	150	125	285	488	750	710	1500	550	200	390	428	325	6xØ19 (M16)	753	1704	841	B125F
		225S/M	-	37	150	125	285	488	760	710	1550	575	200	390	448	325	6xØ19 (M16)	832	1823	984	B140D
	3	315L	250	-	150	125	397	488	860	810	2050	825	200	502	508	325	6xØ26 (M20)	1083	2402	2085	B180D
		355M/L	315	-	150	125	397	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2461	2842	B200C
		355M/L	355	-	150	125	397	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2461	2831	B200C
		355A/B	400	-	150	125	397	488	1000	930	2300	900	250	502	588	325	6xØ29 (M24)	1313	2656	3172	B225C
		200L	-	30	150	125	397	488	750	710	1600	600	200	502	428	325	6xØ19 (M16)	753	1816	916	B125F
		225S/M	-	37	150	125	397	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	1935	1059	B140D
		225S/M	-	45	150	125	397	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	1935	1086	B140D
	250S/M	-	55	150	125	397	488	760	710	1750	675	200	502	453	325	6xØ19 (M16)	851	2014	1181	B160D	
	4	355M/L	315	-	150	125	509	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2573	2945	B200C
		355M/L	355	-	150	125	509	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2573	2934	B200C
		355A/B	400	-	150	125	509	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	2768	3274	B225C
		355A/B	450	-	150	125	509	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	2768	3424	B225C
		400J/H	500	-	150	125	509	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3161	4404	B225D
		400J/H	560	-	150	125	509	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3161	4403	RWS228D
		225S/M	-	45	150	125	509	488	760	710	1800	700	200	614	448	325	6xØ19 (M16)	832	2047	1164	B140D
		250S/M	-	55	150	125	509	488	760	710	1850	725	200	614	453	325	6xØ19 (M16)	851	2126	1255	B160D
	280S/M	-	75	150	125	509	488	820	770	1950	775	200	614	468	325	6xØ26 (M20)	933	2232	1499	B180E	
	5	355A/B	400	-	150	125	621	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	2880	3352	B225C
		355A/B	450	-	150	125	621	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	2880	3502	B225C
		400J/H	500	-	150	125	621	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3273	4485	B225D
		400J/H	560	-	150	125	621	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3273	4484	RWS228D
		400J/H	630	-	150	125	621	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3273	4577	RWS252A
		280S/M	-	75	150	125	621	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2344	1569	B180E
	6	280S/M	-	90	150	125	621	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2344	1622	B180E
		280S/M	-	75	150	125	733	488	820	770	2150	875	200	838	468	325	6xØ26 (M20)	933	2456	1638	B180E
	7	315S/M	-	110	150	125	733	488	860	810	2400	950	250	838	508	325	6xØ26 (M20)	1038	2659	1988	B200D
280S/M		-	90	150	125	845	488	820	770	2250	925	200	950	468	325	6xØ26 (M20)	933	2568	1761	B180E	
8	315S/M	-	110	150	125	845	488	860	810	2500	1000	250	950	508	325	6xØ26 (M20)	1038	2771	2058	B200D	
	315S/M	-	110	150	125	957	488	860	810	2650	1075	250	1062	508	325	6xØ26 (M20)	1038	2883	2133	B200D	

NOTE: Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

e-MPR-AS-125-en_d_td

For flanges dimensions see drawing on pages 127-128.

MPR SERIES - Size 150 WITH SPACER COUPLING
DIMENSIONS AND WEIGHTS AT 50 Hz



Position	Connection	Size
PM1	Vacuum gauge	G ¼
PM2	Pressure gauge	G ¼
D	Drain	G ¼
G	Grease nipple	M8
L	Leakage	G ½
V	Vent	G ¼

e-MPR-SC-AS_a_DD

MPR SERIES - Size 150 WITH SPACER COUPLING DIMENSIONS AND WEIGHTS AT 50 Hz

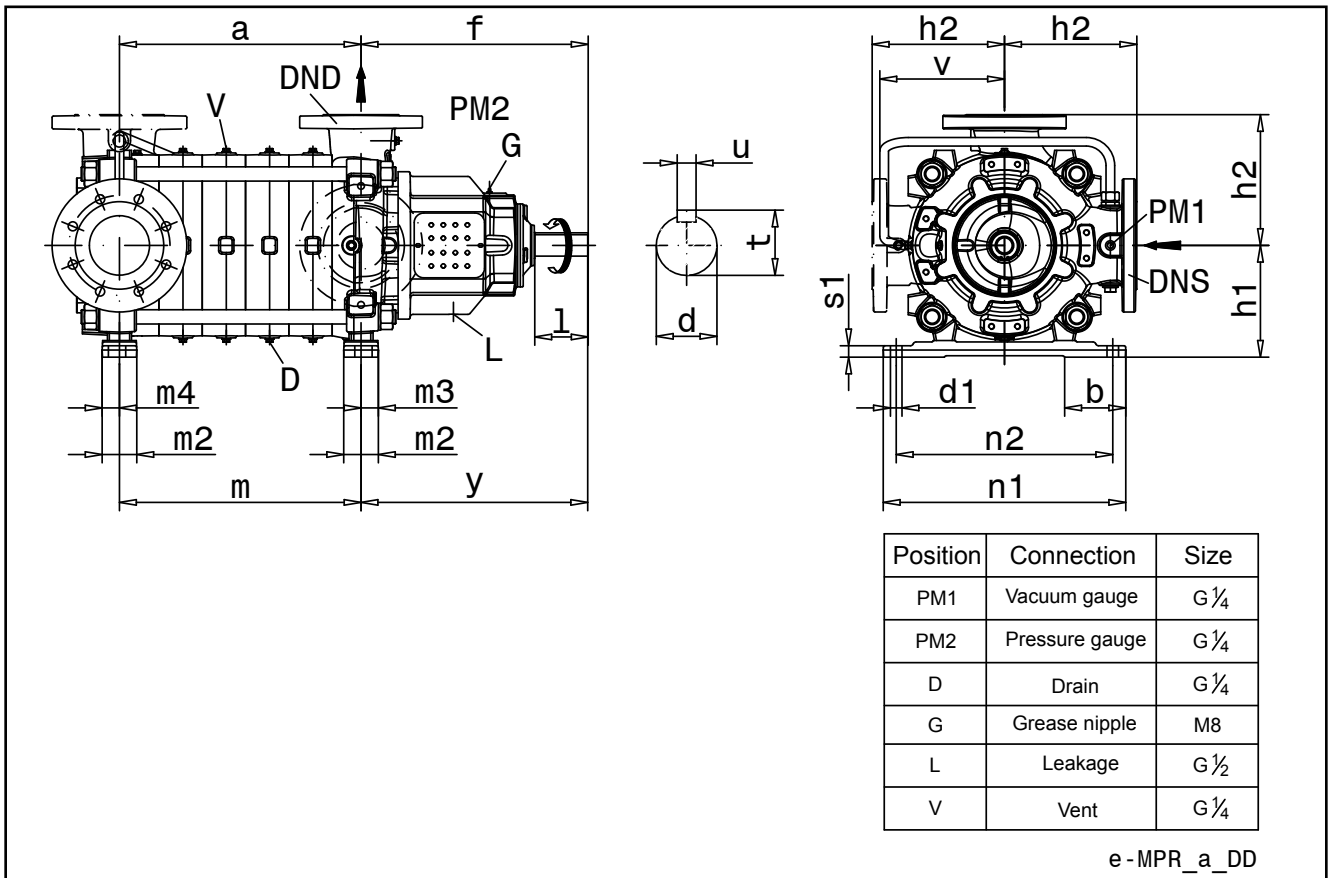
PUMP TYPE MPR Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]																WEIGHT G [kg]	COUPLING TYPE
					DNS	DND	a	f	x	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
150	1	315S/M	132	-	200	150	210	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1073	2479	1904	H160E
		315S/M	160	-	200	150	210	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1073	2479	1972	H160E
		315L	200	-	200	150	210	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1118	2588	2152	H180F
		315L	250	-	200	150	210	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1118	2588	2226	H180F
		355M/L	315	-	200	150	210	585	250	1000	930	2350	925	250	335	583	400	6xØ29 (M24)	1203	2647	2954	H200E
		200L	-	30	200	150	210	585	250	900	860	1800	700	200	335	483	400	6xØ19 (M16)	883	2002	1073	H140E
	225S/M	-	37	200	150	210	585	250	910	860	1850	725	200	335	498	400	6xØ19 (M16)	898	2121	1211	H140F	
	355M/L	315	-	200	150	342	585	250	1000	930	2500	1000	250	467	583	400	6xØ29 (M24)	1203	2779	3098	H200E	
	355M/L	355	-	200	150	342	585	250	1000	930	2500	1000	250	467	583	400	6xØ29 (M24)	1203	2779	3087	H200E	
	355A/B	400	-	200	150	342	585	250	1000	930	2600	1050	250	467	583	400	6xØ29 (M24)	1308	2974	3431	H225E	
	355A/B	450	-	200	150	342	585	250	1000	930	2600	1050	250	467	583	400	6xØ29 (M24)	1308	2974	3581	H225E	
	400J/H	560	-	200	150	342	585	250	1140	1070	2900	1150	300	467	692	400	6xØ29 (M24)	1092	3367	4533	NAN212D	
	400J/H	630	-	200	150	342	585	250	1140	1070	2900	1150	300	467	692	400	6xØ29 (M24)	1092	3367	4618	NAN212D	
	225S/M	-	37	200	150	342	585	250	910	860	2000	800	200	467	498	400	6xØ19 (M16)	898	2253	1351	H140F	
	225S/M	-	45	200	150	342	585	250	910	860	2000	800	200	467	498	400	6xØ19 (M16)	898	2253	1378	H140F	
	250S/M	-	55	200	150	342	585	250	910	860	2050	825	200	467	498	400	6xØ19 (M16)	898	2332	1482	H160E	
	280S/M	-	75	200	150	342	585	250	910	860	2150	875	200	467	523	400	6xØ26 (M20)	988	2438	1711	H180G	
	400J/H	500	-	200	150	474	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3499	4756	H225F	
	400J/H	560	-	200	150	474	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3499	4737	NAN212D	
	400J/H	630	-	200	150	474	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3499	4822	NAN212D	
	450J/H	710	-	200	150	474	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3673	6391	NAN212E	
	450J/H	800	-	200	150	474	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3673	6441	NAN212E	
	450J/H	900	-	200	150	474	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3673	6446	NAN225C	
	280S/M	-	75	200	150	474	585	250	910	860	2300	900	250	599	523	400	6xØ26 (M20)	988	2570	1862	H180G	
	280S/M	-	90	200	150	474	585	250	910	860	2300	900	250	599	523	400	6xØ26 (M20)	988	2570	1915	H180G	
	315S/M	-	110	200	150	474	585	250	930	880	2500	1000	250	599	543	400	6xØ26 (M20)	1073	2773	2205	H200F	
	315S/M	-	132	200	150	474	585	250	930	880	2500	1000	250	599	543	400	6xØ26 (M20)	1073	2773	2266	H200F	
	450J/H	710	-	200	150	606	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3805	6537	NAN212E	
	450J/H	800	-	200	150	606	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3805	6587	NAN212E	
	450J/H	900	-	200	150	606	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3805	6591	NAN225C	
	450J/H	1000	-	200	150	606	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	3805	6871	NAN225C	
	280S/M	-	90	200	150	606	585	250	910	860	2400	950	250	731	523	400	6xØ26 (M20)	988	2702	2045	H180G	
	315S/M	-	110	200	150	606	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	2905	2340	H200F	
	315S/M	-	132	200	150	606	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	2905	2401	H200F	
	315S/M	-	160	200	150	606	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	2905	2506	H200F	
	315S/M	-	132	200	150	738	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1073	3037	2536	H200F	
	315S/M	-	160	200	150	738	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1073	3037	2641	H200F	
	315L	-	200	200	150	738	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1118	3152	2838	H225F	
	315S/M	-	160	200	150	870	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1073	3169	2771	H200F	
	315L	-	200	200	150	870	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1118	3284	2968	H225F	
	315L	-	250	200	150	870	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1118	3284	3090	H225F	

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

e-MPR-SC-AS-150-en_b_td

For flanges dimensions see drawing on pages 127-128.

MPRE SERIES - PN100
DIMENSIONS AND WEIGHTS AT 50 Hz



PUMP TYPE	DIMENSIONS [mm]																		
	MPR	Pump dimensions						Feet dimensions						Shaft end					
		Size	DNS	DND	f	h1	h2	v	y	m2	m3	m4	n1	n2	b	d1	s1	d	t
65	100	65	393	190	250	250	393	60	30	30	410	365	99	19	25	35k6	38	10	80
100	125	100	472	235	300	300	472	72	36	36	504	450	125	24	30	45k6	48,5	14	110
125	150	125	488	300	350	350	488	90	45	45	610	560	209	26	45	52k6	56	16	110
150	200	150	585	350	425	425	585	100	40	40	735	680	260	26	40	60m6	64	18	140

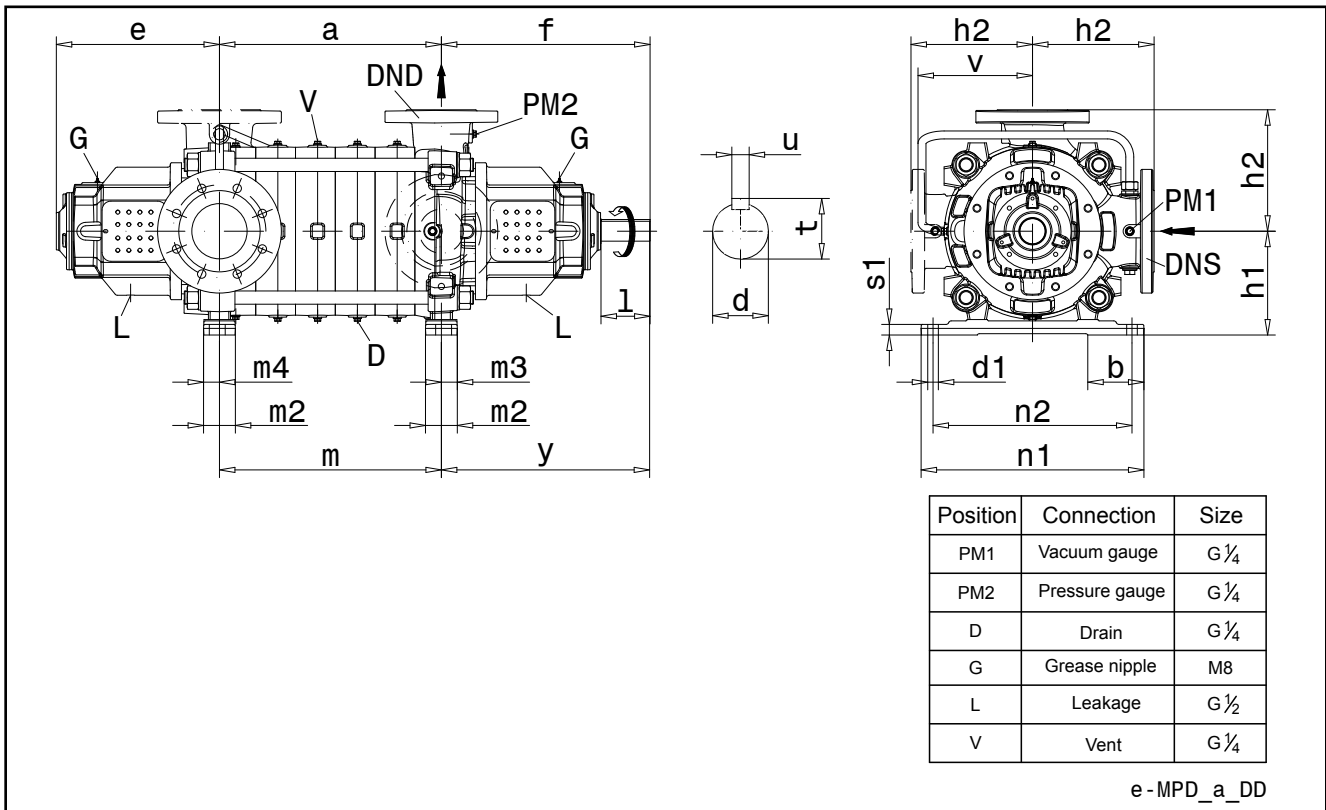
NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPRE-en_a_td

SIZE	65			100			125			150		
	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]
NUMBER OF STAGES												
3	-	-	-	-	-	-	-	-	-	474	494	1004
4	-	-	-	-	-	-	509	509	686	606	626	1148
5	-	-	-	-	-	-	621	621	770	738	758	1292
6	-	-	-	592	592	518	733	733	854	870	890	1436
7	-	-	-	682	682	572	845	845	938			
8	-	-	-	772	772	626	957	957	1022			
9	734	734	351	862	862	680						
10	812	812	376	952	952	734						
11	890	890	401	1042	1042	788						
12	968	968	426									
13	1046	1046	451									
14	1124	1124	476									
15	1202	1202	501									

e-MPRE-stage-en_a_td

MPD SERIES DIMENSIONS AND WEIGHTS AT 50 Hz



PUMP TYPE MPD Size	DIMENSIONS [mm]																			
	DNS			Pump dimensions					Feet dimensions							Shaft end				
	DNS	DND	e	f	h1	h2	v	y	m2	m3	m4	n1	n2	b	d1	s1	d	t	u	l
50	80	50	283	350	150	200	200	350	54	24	27	332	290	90	14	21	28j6	31	8	70
65	100	65	320	393	190	225	225	393	60	30	30	410	365	99	19	20	35k6	38	10	80
100	125	100	369	472	235	275	275	472	72	36	36	504	450	125	24	24	45k6	48,5	14	110
125	150	125	392	488	300	325	325	488	90	45	45	610	560	209	26	50	52k6	56	16	110
150	200	150	470	585	350	400	400	585	100	40	40	735	680	260	26	50	60m6	64	18	140

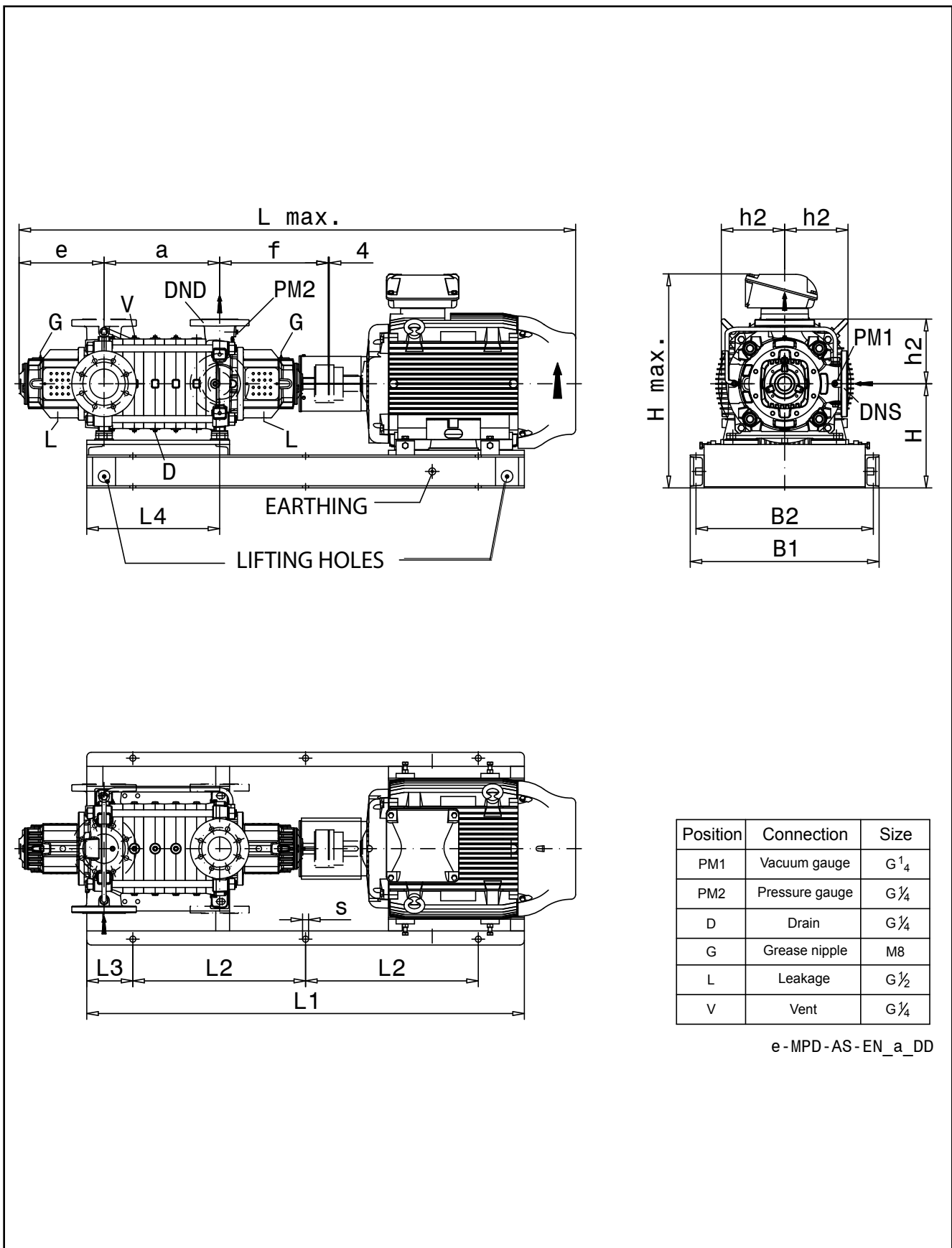
NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPD-en_b_td

SIZE NUMBER OF STAGES	50			65			100			125			150		
	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]
1	87	87	104	110	110	155	142	142	269	173	173	446	210	230	731
2	149	149	116	188	188	179	232	232	307	285	285	513	342	362	859
3	211	211	128	266	266	203	322	322	345	397	397	580	474	494	987
4	273	273	140	344	344	227	412	412	383	509	509	647	606	626	1115
5	335	335	152	422	422	251	502	502	421	621	621	714	738	758	1243
6	397	397	164	500	500	275	592	592	459	733	733	781	870	890	1371
7	459	459	176	578	578	299	682	682	497	845	845	848			
8	521	521	188	656	656	323	772	772	535	957	957	915			
9	583	583	200	734	734	347	862	862	573						
10	645	645	212	812	812	371	952	952	611						
11	707	707	224	890	890	395	1042	1042	649						
12	769	769	236	968	968	419									
13	831	831	248	1046	1046	443									
14	893	893	260	1124	1124	467									
15	955	955	272	1202	1202	491									
16	1017	1017	284												
17	1079	1079	296												
18	1141	1141	308												

e-MPD-stage-en_c_td

MPD SERIES - Size 50, 65, 100, 125
DIMENSIONS AND WEIGHTS AT 50 Hz



Position	Connection	Size
PM1	Vacuum gauge	G ¹ / ₄
PM2	Pressure gauge	G ¹ / ₄
D	Drain	G ¹ / ₄
G	Grease nipple	M8
L	Leakage	G ¹ / ₂
V	Vent	G ¹ / ₄

e-MPD-AS-EN_a_DD

MPD SERIES - Size 50

DIMENSIONS AND WEIGHTS AT 50 Hz

a xylem brand

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]																WEIGHT G [kg]	COUPLING TYPE
					[kW]	[kW]	DNS	DND	a	e	f	B1	B2	L1	L2	L3	L4	H	h2	s		
50	1	132S/M	5,5	-	80	50	87	283	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1171	210	B80B
		132S/M	7,5	-	80	50	87	283	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1171	206	B80B
		100L	-	2,2	80	50	87	283	350	484	450	850	275	150	204	233	200	6xØ15 (M12)	433	1166	182	B80A
	2	132S/M	5,5	-	80	50	149	283	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1233	222	B80B
		132S/M	7,5	-	80	50	149	283	350	490	450	950	325	150	204	250	200	6xØ19 (M16)	450	1233	218	B80B
		160M	11	-	80	50	149	283	350	490	450	1100	350	200	204	288	200	6xØ19 (M16)	528	1390	286	B95A
		160M	15	-	80	50	149	283	350	490	450	1100	350	200	204	288	200	6xØ19 (M16)	528	1390	287	B95A
		100L	-	2,2	80	50	149	283	350	484	450	850	275	150	204	233	200	6xØ15 (M12)	433	1228	194	B80A
		160M	11	-	80	50	211	283	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1452	302	B95A
	3	160M	15	-	80	50	211	283	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1452	303	B95A
		160L	18,5	-	80	50	211	283	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1452	310	B95A
		180M	22	-	80	50	211	283	350	490	450	1200	400	200	266	308	200	6xØ19 (M16)	589	1512	371	B110B
		100L	-	2,2	80	50	211	283	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1290	211	B80A
		100L	-	3	80	50	211	283	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1290	215	B80A
		160M	15	-	80	50	273	283	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1514	315	B95A
	4	160L	18,5	-	80	50	273	283	350	490	450	1200	400	200	328	288	200	6xØ19 (M16)	528	1514	322	B95A
		180M	22	-	80	50	273	283	350	490	450	1300	450	200	390	308	200	6xØ19 (M16)	589	1574	388	B110B
		200L	30	-	80	50	273	283	350	650	610	1300	450	200	328	328	200	6xØ19 (M16)	647	1677	476	B125A
		100L	-	3	80	50	273	283	350	484	450	1000	350	150	328	233	200	6xØ15 (M12)	433	1352	227	B80A
		112M	-	4	80	50	273	283	350	484	450	1050	375	150	390	233	200	6xØ15 (M12)	433	1352	245	B80A
		180M	22	-	80	50	335	283	350	490	450	1300	450	200	390	308	200	6xØ19 (M16)	589	1636	400	B110B
	5	200L	30	-	80	50	335	283	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1739	500	B125A
		200L	37	-	80	50	335	283	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1739	516	B125A
		100L	-	3	80	50	335	283	350	484	450	1100	400	150	452	233	200	6xØ15 (M12)	433	1414	240	B80A
		112M	-	4	80	50	335	283	350	484	450	1050	375	150	390	233	200	6xØ15 (M12)	433	1414	257	B80A
		200L	30	-	80	50	397	283	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1801	512	B125A
	6	200L	37	-	80	50	397	283	350	650	610	1450	525	200	452	328	200	6xØ19 (M16)	647	1801	528	B125A
		112M	-	4	80	50	397	283	350	484	450	1200	450	150	514	233	200	6xØ15 (M12)	433	1476	272	B80A
		132S/M	-	5,5	80	50	397	283	350	490	450	1200	450	150	452	250	200	6xØ19 (M16)	450	1519	284	B80B
		200L	30	-	80	50	459	283	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1863	525	B125A
	7	200L	37	-	80	50	459	283	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1863	541	B125A
		225S/M	45	-	80	50	459	283	350	660	610	1600	600	200	576	368	200	6xØ19 (M16)	752	1952	700	B125A
		112M	-	4	80	50	459	283	350	484	450	1200	450	150	514	233	200	6xØ15 (M12)	433	1538	284	B80A
		132S/M	-	5,5	80	50	459	283	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1581	299	B80B
		200L	37	-	80	50	521	283	350	650	610	1550	575	200	576	328	200	6xØ19 (M16)	647	1925	553	B125A
	8	225S/M	45	-	80	50	521	283	350	660	610	1600	600	200	576	368	200	6xØ19 (M16)	752	2014	712	B125A
		250S/M	55	-	80	50	521	283	350	720	670	1700	650	200	576	393	200	6xØ19 (M16)	791	2123	800	B140A
		132S/M	-	5,5	80	50	521	283	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1643	311	B80B
		132S/M	-	7,5	80	50	521	283	350	490	450	1350	525	150	576	250	200	6xØ19 (M16)	450	1643	311	B80B
		225S/M	45	-	80	50	583	283	350	660	610	1700	650	200	700	368	200	6xØ19 (M16)	752	2076	726	B125A
	9	250S/M	55	-	80	50	583	283	350	720	670	1800	700	200	700	393	200	6xØ19 (M16)	791	2185	813	B140A
		280S/M	75	-	80	50	583	283	350	820	770	1900	750	200	700	448	200	6xØ19 (M16)	913	2291	1087	B160A
		132S/M	-	5,5	80	50	583	283	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1705	325	B80B
		132S/M	-	7,5	80	50	583	283	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1705	325	B80B
		225S/M	45	-	80	50	645	283	350	660	610	1700	650	200	700	368	200	6xØ19 (M16)	752	2138	738	B125A
	10	250S/M	55	-	80	50	645	283	350	720	670	1800	700	200	700	393	200	6xØ19 (M16)	791	2247	825	B140A
		280S/M	75	-	80	50	645	283	350	820	770	1900	750	200	700	448	200	6xØ19 (M16)	913	2353	1099	B160A
		132S/M	-	7,5	80	50	645	283	350	490	450	1450	575	150	700	250	200	6xØ19 (M16)	450	1767	337	B80B
		160M	-	11	80	50	645	283	350	490	450	1600	600	200	700	288	200	6xØ19 (M16)	528	1886	379	B95A
		250S/M	55	-	80	50	707	283	350	720	670	1900	750	200	824	393	200	6xØ19 (M16)	791	2309	839	B140A
		280S/M	75	-	80	50	707	283	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2415	1114	B160A
	11	132S/M	-	7,5	80	50	707	283	350	490	450	1600	650	150	824	250	200	6xØ19 (M16)	450	1829	352	B80B
		160M	-	11	80	50	707	283	350	490	450	1700	650	200	824	288	200	6xØ19 (M16)	528	1948	392	B95A
		280S/M	75	-	80	50	769	283	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2477	1126	B160A
		280S/M	90	-	80	50	769	283	350	820	770	2000	800	200	824	448	200	6xØ19 (M16)	913	2477	1152	B160A
	12	132S/M	-	7,5	80	50	769	283	350	490	450	1600	650	150	824	250	200	6xØ19 (M16)	450	1891	364	B80B
		160M	-	11	80	50	769	283	350	490	450	1700	650	200	824	288	200	6xØ19 (M16)	528	2010	404	B95A
		280S/M	75	-	80	50	831	283	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2539	1144	B160A
		280S/M	90	-	80	50	831	283	350	820	770	2150	875	200	948	448	200	6xØ19 (M16)	913	2539	117	

MPD SERIES - Size 65 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]																	WEIGHT G [kg]	COUPLING TYPE	
					[kW]	[kW]	DNS	DND	a	e	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax			Lmax
65	1	160M	15	-	100	65	110	320	393	560	520	1150	375	200	253	313	225	6xØ19 (M16)	553	1431	335	B95D		
		160L	18,5	-	100	65	110	320	393	560	520	1150	375	200	253	313	225	6xØ19 (M16)	553	1431	342	B95D		
		100L	-	2,2	100	65	110	320	393	550	510	950	325	150	253	293	225	6xØ19 (M16)	518	1269	255	B95B		
	2	160L	18,5	-	100	65	188	320	393	560	520	1150	375	200	253	313	225	6xØ19 (M16)	553	1509	366	B95D		
		180M	22	-	100	65	188	320	393	560	520	1200	400	200	253	313	225	6xØ19 (M16)	594	1569	427	B110D		
		200L	30	-	100	65	188	320	393	650	610	1250	425	200	253	323	225	6xØ19 (M16)	642	1672	507	B125B		
		200L	37	-	100	65	188	320	393	650	610	1250	425	200	253	323	225	6xØ19 (M16)	642	1672	523	B125B		
		112M	-	4	100	65	188	320	393	550	510	950	325	150	253	293	225	6xØ19 (M16)	518	1347	299	B95B		
		132S/M	-	5,5	100	65	188	320	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1390	307	B95C		
	3	200L	37	-	100	65	266	320	393	650	610	1400	500	200	409	323	225	6xØ19 (M16)	642	1750	554	B125B		
		225S/M	45	-	100	65	266	320	393	660	610	1450	525	200	409	373	225	6xØ19 (M16)	757	1839	708	B125B		
		250S/M	55	-	100	65	266	320	393	720	670	1550	575	200	409	393	225	6xØ19 (M16)	791	1948	793	B140B		
		132S/M	-	5,5	100	65	266	320	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1468	331	B95C		
		132S/M	-	7,5	100	65	266	320	393	550	510	1100	400	150	331	293	225	6xØ19 (M16)	518	1468	331	B95C		
	4	225S/M	45	-	100	65	344	320	393	660	610	1450	525	200	409	373	225	6xØ19 (M16)	757	1917	732	B125B		
		250S/M	55	-	100	65	344	320	393	720	670	1550	575	200	409	393	225	6xØ19 (M16)	791	2026	817	B140B		
		280S/M	75	-	100	65	344	320	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	2132	1087	B160B		
		132S/M	-	7,5	100	65	344	320	393	550	510	1300	500	150	487	293	225	6xØ19 (M16)	518	1546	361	B95C		
		160M	-	11	100	65	344	320	393	560	520	1350	475	200	409	313	225	6xØ19 (M16)	553	1665	398	B95D		
	5	280S/M	75	-	100	65	422	320	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	2210	1111	B160B		
		280S/M	90	-	100	65	422	320	393	820	770	1700	650	200	487	443	225	6xØ26 (M20)	908	2210	1137	B160B		
		315S/M	110	-	100	65	422	320	393	860	810	1950	775	200	487	513	225	6xØ26 (M20)	1043	2383	1452	B160B		
		160M	-	11	100	65	422	320	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1743	424	B95D		
		160L	-	15	100	65	422	320	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1743	469	B110C		
	6	280S/M	75	-	100	65	500	320	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2288	1140	B160B		
		280S/M	90	-	100	65	500	320	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2288	1166	B160B		
		315S/M	110	-	100	65	500	320	393	860	810	2100	850	200	643	513	225	6xØ26 (M20)	1043	2461	1482	B160B		
		160M	-	11	100	65	500	320	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1821	448	B95D		
		160L	-	15	100	65	500	320	393	560	520	1500	550	200	565	313	225	6xØ19 (M16)	553	1821	493	B110C		
	7	280S/M	90	-	100	65	578	320	393	820	770	1850	725	200	643	443	225	6xØ26 (M20)	908	2366	1190	B160B		
		315S/M	132	-	100	65	578	320	393	860	810	2100	850	200	643	513	225	6xØ26 (M20)	1043	2539	1581	B160B		
		160M	-	11	100	65	578	320	393	560	520	1650	625	200	721	313	225	6xØ19 (M16)	553	1899	475	B95D		
		180M	-	18,5	100	65	578	320	393	560	520	1600	600	200	643	313	225	6xØ19 (M16)	594	1959	564	B110D		
	8	315S/M	110	-	100	65	656	320	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2617	1535	B160B		
		315S/M	160	-	100	65	656	320	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2617	1678	B160B		
		160L	-	15	100	65	656	320	393	560	520	1650	625	200	721	313	225	6xØ19 (M16)	553	1977	544	B110C		
		180M	-	18,5	100	65	656	320	393	560	520	1750	675	200	799	313	225	6xØ19 (M16)	594	2037	591	B110D		
	9	315S/M	110	-	100	65	734	320	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2695	1559	B160B		
		315S/M	132	-	100	65	734	320	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2695	1634	B160B		
		315S/M	160	-	100	65	734	320	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1043	2695	1702	B160B		
		315L	200	-	100	65	734	320	393	860	810	2250	925	200	799	513	225	6xØ26 (M20)	1088	2804	1881	B180A		
		160L	-	15	100	65	734	320	393	560	520	1800	700	200	877	313	225	6xØ19 (M16)	553	2055	571	B110C		
		180L	-	22	100	65	734	320	393	560	520	1750	675	200	799	313	225	6xØ19 (M16)	594	2153	636	B110D		
	10	315S/M	132	-	100	65	812	320	393	860	810	2400	950	250	955	513	225	6xØ26 (M20)	1043	2773	1663	B160B		
		315L	200	-	100	65	812	320	393	860	810	2400	950	250	955	513	225	6xØ26 (M20)	1088	2882	1910	B180A		
		180M	-	18,5	100	65	812	320	393	560	520	1900	750	200	955	313	225	6xØ19 (M16)	594	2193	642	B110D		
		200L	-	30	100	65	812	320	393	650	610	1950	775	200	955	323	225	6xØ19 (M16)	642	2296	734	B125B		
	11	180M	-	18,5	100	65	890	320	393	560	520	1900	750	200	955	313	225	6xØ19 (M16)	594	2271	666	B110D		
		200L	-	30	100	65	890	320	393	650	610	1950	775	200	955	323	225	6xØ19 (M16)	642	2374	758	B125B		
	12	180L	-	22	100	65	968	320	393	560	520	2050	825	200	1111	313	225	6xØ19 (M16)	594	2387	714	B110D		
		200L	-	30	100	65	968	320	393	650	610	2100	850	200	1111	323	225	6xØ19 (M16)	642	2452	785	B125B		
	13	180L	-	22	100	65	1046	320	393	560	520	2050	825	200	1111	313	225	6xØ19 (M16)	594	2465	738	B110D		
		200L	-	30	100	65	1046	320	393	650	610	2100	850	200	1111	323	225	6xØ19 (M16)	642	2530	809	B125B		
	14	200L	-	30	100	65	1124	320	393	650	610	2300	900	250	1267	323	225	6xØ19 (M16)	642	2608	839	B125B		
		225S/M	-	37	100	65	1124	320	393	660	610	2350	925	250	1267	373	225	6xØ19 (M16)	757	2727	994	B140B		
	15	200L	-	30	100	65	1202	320	393	650	610	2300	900	250	1267	323	225	6xØ19 (M16)	642	2686	863	B125B		
		225S/M	-	37	100	65	1202	320	393	660	610	2350	925	250	1267	373	225	6xØ19 (M16)	757	2805	1018	B140B		

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPD-AS-65-en_c_td

MPD SERIES - Size 100 DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE	
					[kW]	[kW]	DNS	DND	a	e	f	B1	B2	L1	L2	L3	L4	H	h2			s
100	1	200L	37	-	125	100	142	369	472	710	670	1400	500	200	307	363	275	6xØ19 (M16)	682	1754	630	B125C
		250S/M	55	-	125	100	142	369	472	720	670	1550	575	200	307	398	275	6xØ19 (M16)	796	1952	859	B140C
		132S/M	-	5,5	125	100	142	369	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1472	434	B110E
	2	225S/M	45	-	125	100	232	369	472	720	670	1450	525	200	307	378	275	6xØ19 (M16)	762	1933	816	B125C
		250S/M	55	-	125	100	232	369	472	720	670	1550	575	200	307	398	275	6xØ19 (M16)	796	2042	897	B140C
		280S/M	75	-	125	100	232	369	472	820	770	1600	600	200	307	443	275	6xØ26 (M20)	908	2148	1147	B160C
		280S/M	90	-	125	100	232	369	472	820	770	1600	600	200	307	443	275	6xØ26 (M20)	908	2148	1173	B160C
		315S/M	110	-	125	100	232	369	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2321	1484	B160C
		132S/M	-	5,5	125	100	232	369	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1562	472	B110E
		132S/M	-	7,5	125	100	232	369	472	710	670	1200	400	200	307	358	275	6xØ19 (M16)	633	1562	472	B110E
		160M	-	11	125	100	232	369	472	710	670	1350	475	200	307	363	275	6xØ19 (M16)	638	1681	498	B110F
	3	280S/M	90	-	125	100	322	369	472	820	770	1800	700	200	487	443	275	6xØ26 (M20)	908	2238	1227	B160C
		315S/M	110	-	125	100	322	369	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2411	1522	B160C
		315S/M	132	-	125	100	322	369	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2411	1597	B160C
		315S/M	160	-	125	100	322	369	472	860	810	1900	750	200	397	503	275	6xØ26 (M20)	1033	2411	1665	B160C
		160M	-	11	125	100	322	369	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1771	549	B110F
		160L	-	15	125	100	322	369	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1771	593	B110F
	4	180M	-	18,5	125	100	322	369	472	710	670	1450	525	200	397	363	275	6xØ19 (M16)	644	1831	637	B110G
		315S/M	132	-	125	100	412	369	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2501	1681	B160C
		315S/M	160	-	125	100	412	369	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2501	1749	B160C
		315L	200	-	125	100	412	369	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2610	1927	B180B
		160L	-	15	125	100	412	369	472	710	670	1550	575	200	487	363	275	6xØ19 (M16)	638	1861	631	B110F
		180M	-	18,5	125	100	412	369	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1921	682	B110G
	5	180L	-	22	125	100	412	369	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	1959	703	B110G
		315S/M	160	-	125	100	502	369	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1033	2591	1787	B160C
		315L	200	-	125	100	502	369	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2700	1965	B180B
		315L	250	-	125	100	502	369	472	860	810	2100	850	200	577	503	275	6xØ26 (M20)	1078	2700	2039	B180B
		180L	-	22	125	100	502	369	472	710	670	1650	625	200	577	363	275	6xØ19 (M16)	644	2049	741	B110G
	6	200L	-	30	125	100	502	369	472	710	670	1800	700	200	667	363	275	6xØ19 (M16)	682	2114	806	B125C
		315L	200	-	125	100	592	369	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2790	2012	B180B
		315L	250	-	125	100	592	369	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2790	2086	B180B
		355M/L	315	-	125	100	592	369	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2849	2836	B200A
		200L	-	30	125	100	592	369	472	710	670	1800	700	200	667	363	275	6xØ19 (M16)	682	2204	844	B125C
	7	225S/M	-	37	125	100	592	369	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2323	995	B140C
		315L	250	-	125	100	682	369	472	860	810	2300	900	250	757	503	275	6xØ26 (M20)	1078	2880	2124	B180B
		355M/L	315	-	125	100	682	369	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2939	2874	B200A
		355M/L	355	-	125	100	682	369	472	1000	930	2400	950	250	757	583	275	6xØ29 (M24)	1203	2939	2863	B200A
		200L	-	30	125	100	682	369	472	720	670	1950	775	200	847	383	275	6xØ19 (M16)	702	2294	906	B125C
		225S/M	-	37	125	100	682	369	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2413	1033	B140C
	8	225S/M	-	45	125	100	682	369	472	720	670	1950	775	200	757	378	275	6xØ19 (M16)	762	2413	1060	B140C
		225S/M	-	37	125	100	772	369	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2503	1098	B140C
	9	225S/M	-	45	125	100	772	369	472	720	670	2150	875	200	937	398	275	6xØ26 (M20)	782	2503	1125	B140C
		250S/M	-	55	125	100	862	369	472	720	670	2200	900	200	937	418	275	6xØ26 (M20)	816	2672	1259	B160C
	10	225S/M	-	45	125	100	952	369	472	720	670	2300	900	250	1117	398	275	6xØ26 (M20)	782	2683	1205	B140C
		250S/M	-	55	125	100	952	369	472	720	670	2350	925	250	1117	418	275	6xØ26 (M20)	816	2762	1301	B160C
	11	250S/M	-	55	125	100	1042	369	472	720	670	2350	925	250	1117	418	275	6xØ26 (M20)	816	2852	1339	B160C
		280S/M	-	75	125	100	1042	369	472	820	770	2400	950	250	1117	443	275	6xØ26 (M20)	908	2958	1574	B180C

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPD-AS-100-en_c_td

MPD SERIES - Size 125 DIMENSIONS AND WEIGHTS AT 50 Hz

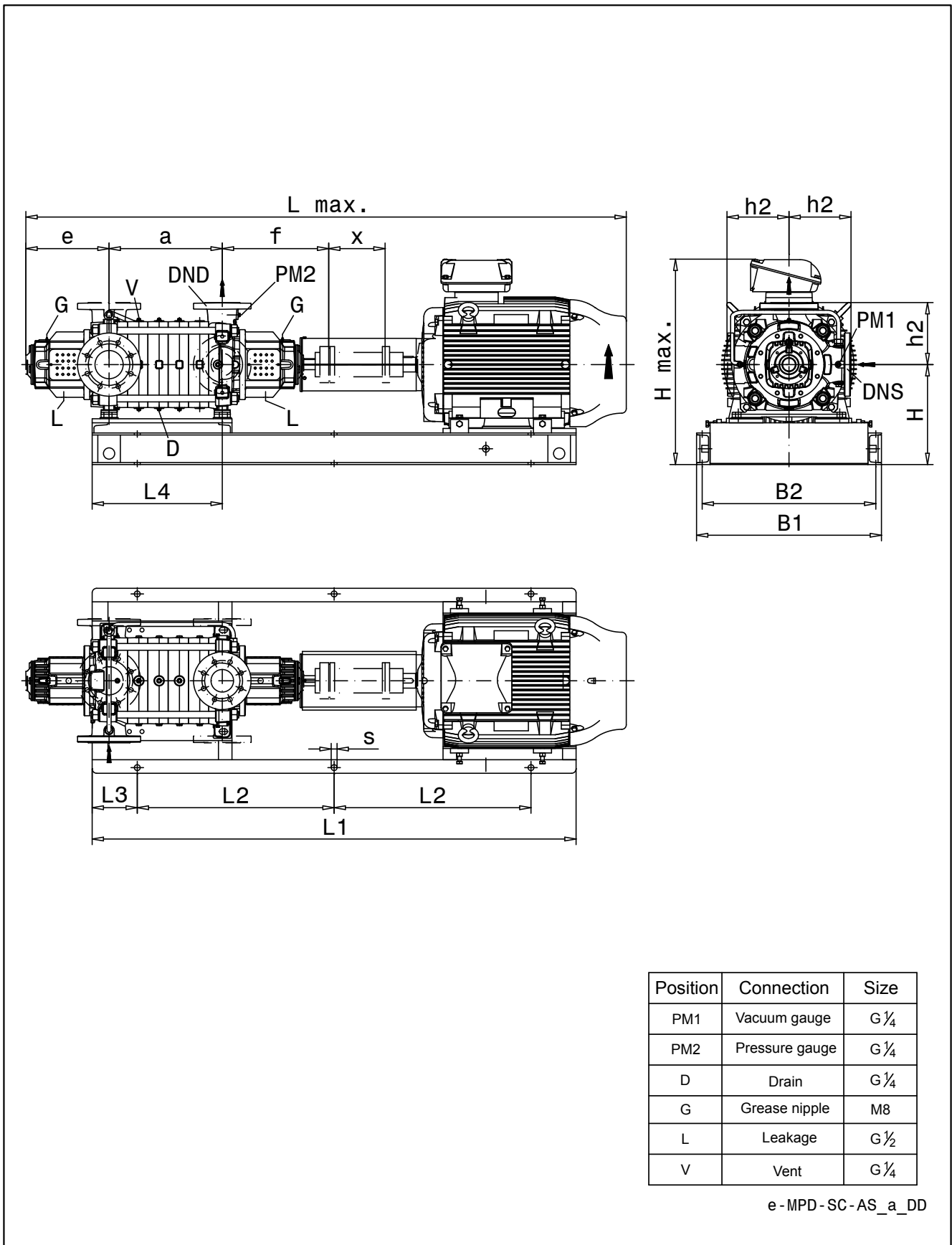
PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE		
					DNS	DND	a	e	f	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax			Lmax	
125	1	315S/M	110	-	150	125	173	392	488	860	810	1800	700	200	278	508	325	6xØ26 (M20)	1038	2301	1596	B160D	
		315S/M	132	-	150	125	173	392	488	860	810	1800	700	200	278	508	325	6xØ26 (M20)	1038	2301	1671	B160D	
		160M	-	11	150	125	173	392	488	750	710	1300	450	200	278	428	325	6xØ19 (M16)	753	1661	662	B125D	
		180M	-	18,5	150	125	173	392	488	750	710	1350	475	200	278	428	325	6xØ19 (M16)	753	1721	749	B125E	
	2	315S/M	132	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2413	1752	B160D	
		315S/M	160	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2413	1820	B160D	
		315L	200	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2522	1998	B180D	
		315L	250	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2522	2072	B180D	
		355M/L	315	-	150	125	285	392	488	1000	930	2050	825	200	390	588	325	6xØ29 (M24)	1208	2581	2822	B200C	
		160L	-	15	150	125	285	392	488	750	710	1400	500	200	390	428	325	6xØ19 (M16)	753	1773	781	B125D	
		180M	-	18,5	150	125	285	392	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1833	824	B125E	
		180L	-	22	150	125	285	392	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1871	845	B125E	
		200L	-	30	150	125	285	392	488	750	710	1500	550	200	390	428	325	6xØ19 (M16)	753	1936	904	B125F	
		225S/M	-	37	150	125	285	392	488	760	710	1550	575	200	390	448	325	6xØ19 (M16)	832	2055	1047	B140D	
		3	315L	250	-	150	125	397	392	488	860	810	2050	825	200	502	508	325	6xØ26 (M20)	1083	2634	2148	B180D
			355M/L	315	-	150	125	397	392	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2693	2905	B200C
	355M/L		355	-	150	125	397	392	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2693	2894	B200C	
	355A/B		400	-	150	125	397	392	488	1000	930	2300	900	250	502	588	325	6xØ29 (M24)	1313	2888	3235	B225C	
	200L		-	30	150	125	397	392	488	750	710	1600	600	200	502	428	325	6xØ19 (M16)	753	2048	979	B125F	
	225S/M		-	37	150	125	397	392	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	2167	1122	B140D	
	225S/M		-	45	150	125	397	392	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	2167	1149	B140D	
	250S/M		-	55	150	125	397	392	488	760	710	1750	675	200	502	453	325	6xØ19 (M16)	851	2246	1244	B160D	
	4	355M/L	315	-	150	125	509	392	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2805	3008	B200C	
		355M/L	355	-	150	125	509	392	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2805	2997	B200C	
		355A/B	400	-	150	125	509	392	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	3000	3337	B225C	
		355A/B	450	-	150	125	509	392	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	3000	3487	B225C	
		400J/H	500	-	150	125	509	392	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3393	4467	B225D	
		400J/H	560	-	150	125	509	392	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3393	4466	RWS228D	
		225S/M	-	45	150	125	509	392	488	760	710	1800	700	200	614	448	325	6xØ19 (M16)	832	2279	1227	B140D	
		250S/M	-	55	150	125	509	392	488	760	710	1850	725	200	614	453	325	6xØ19 (M16)	851	2358	1318	B160D	
	5	280S/M	-	75	150	125	509	392	488	820	770	1950	775	200	614	468	325	6xØ26 (M20)	933	2464	1562	B180E	
		355A/B	400	-	150	125	621	392	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	3112	3415	B225C	
		355A/B	450	-	150	125	621	392	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	3112	3565	B225C	
		400J/H	500	-	150	125	621	392	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3505	4548	B225D	
		400J/H	560	-	150	125	621	392	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3505	4547	RWS228D	
		400J/H	630	-	150	125	621	392	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3505	4640	RWS252A	
		280S/M	-	75	150	125	621	392	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2576	1632	B180E	
		280S/M	-	90	150	125	621	392	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2576	1685	B180E	
	6	280S/M	-	75	150	125	733	392	488	820	770	2150	875	200	838	468	325	6xØ26 (M20)	933	2688	1701	B180E	
		315S/M	-	110	150	125	733	392	488	860	810	2400	950	250	838	508	325	6xØ26 (M20)	1038	2891	2051	B200D	
	7	280S/M	-	90	150	125	845	392	488	820	770	2250	925	200	950	468	325	6xØ26 (M20)	933	2800	1824	B180E	
		315S/M	-	110	150	125	845	392	488	860	810	2500	1000	250	950	508	325	6xØ26 (M20)	1038	3003	2121	B200D	
	8	315S/M	-	110	150	125	957	392	488	860	810	2650	1075	250	1062	508	325	6xØ26 (M20)	1038	3115	2196	B200D	

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.

e-MPD-AS-125-en_c_td

For flanges dimensions see drawing on pages 127-128.

MPD SERIES - Size 150 WITH SPACER COUPLING
DIMENSIONS AND WEIGHTS AT 50 Hz



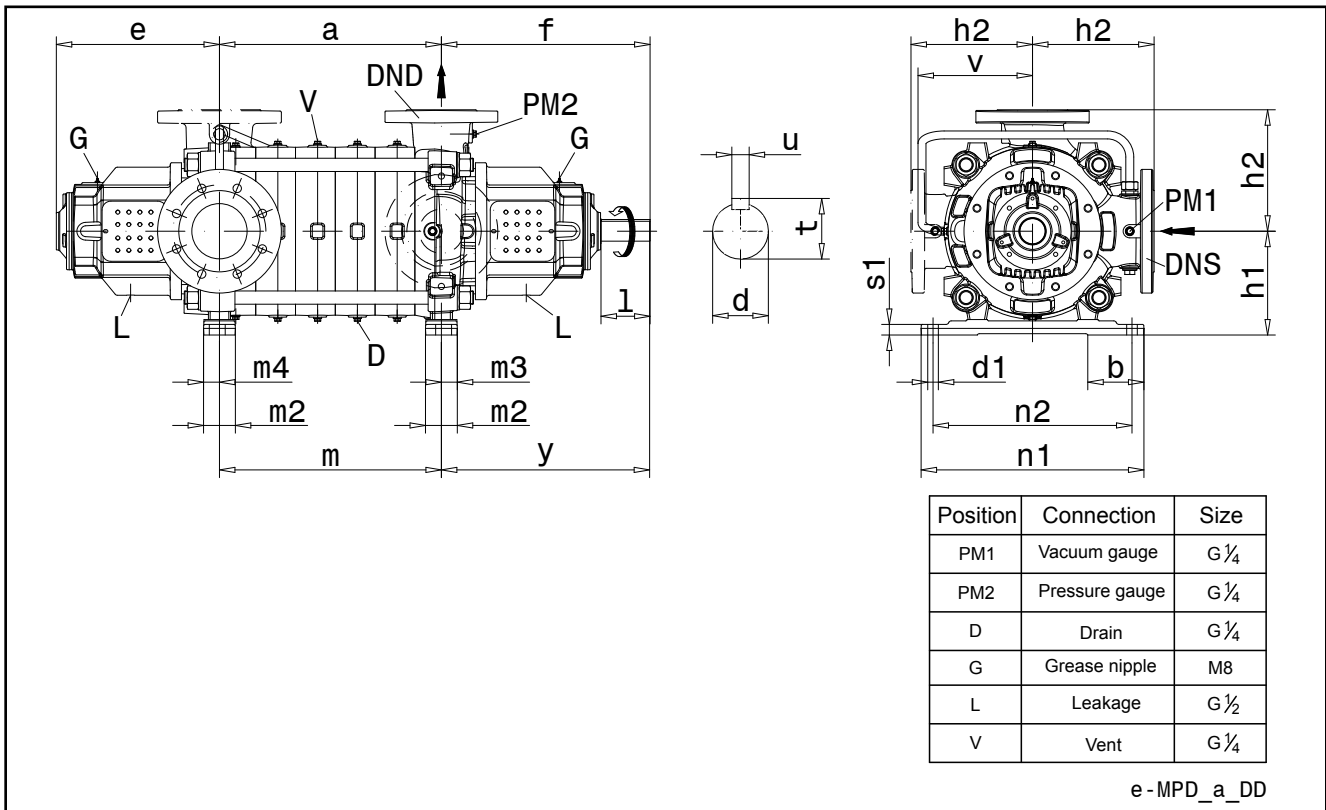
MPD SERIES - Size 150 WITH SPACER COUPLING DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]		1500 [rpm]		DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE
			[kW]	[kW]	DNS	DND	a	f	e	x	B1	B2	L1	L2	L3	L4	H	h2	s	Hmax	Lmax		
150	1	315S/M	132	-	200	150	210	470	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1073	2759	2000	H160E
		315S/M	160	-	200	150	210	470	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1073	2759	2068	H160E
		315L	200	-	200	150	210	470	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1118	2868	2248	H180F
		315L	250	-	200	150	210	470	585	250	930	880	2250	925	200	335	543	400	6xØ26 (M20)	1118	2868	2322	H180F
		355M/L	315	-	200	150	210	470	585	250	1000	930	2350	925	250	335	583	400	6xØ29 (M24)	1203	2927	3050	H200E
		200L	-	30	200	150	210	470	585	250	900	860	1800	700	200	335	483	400	6xØ19 (M16)	883	2282	1169	H140E
		225S/M	-	37	200	150	210	470	585	250	910	860	1850	725	200	335	498	400	6xØ19 (M16)	898	2401	1307	H140F
	2	355M/L	315	-	200	150	342	470	585	250	1000	930	2500	1000	250	467	583	400	6xØ29 (M24)	1203	3059	3194	H200E
		355M/L	355	-	200	150	342	470	585	250	1000	930	2500	1000	250	467	583	400	6xØ29 (M24)	1203	3059	3183	H200E
		355A/B	400	-	200	150	342	470	585	250	1000	930	2600	1050	250	467	583	400	6xØ29 (M24)	1308	3254	3527	H225E
		355A/B	450	-	200	150	342	470	585	250	1000	930	2600	1050	250	467	583	400	6xØ29 (M24)	1308	3254	3677	H225E
		400J/H	560	-	200	150	342	470	585	250	1140	1070	2900	1150	300	467	692	400	6xØ29 (M24)	1092	3647	4629	NAN212D
		400J/H	630	-	200	150	342	470	585	250	1140	1070	2900	1150	300	467	692	400	6xØ29 (M24)	1092	3647	4714	NAN212D
		225S/M	-	37	200	150	342	470	585	250	910	860	2000	800	200	467	498	400	6xØ19 (M16)	898	2533	1447	H140F
		225S/M	-	45	200	150	342	470	585	250	910	860	2000	800	200	467	498	400	6xØ19 (M16)	898	2533	1474	H140F
		250S/M	-	55	200	150	342	470	585	250	910	860	2050	825	200	467	498	400	6xØ19 (M16)	898	2612	1578	H160E
	280S/M	-	75	200	150	342	470	585	250	910	860	2150	875	200	467	523	400	6xØ26 (M20)	988	2718	1807	H180G	
	3	400J/H	500	-	200	150	474	470	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3779	4852	H225F
		400J/H	560	-	200	150	474	470	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3779	4833	NAN212D
		400J/H	630	-	200	150	474	470	585	250	1140	1070	3050	1225	300	599	692	400	6xØ29 (M24)	1092	3779	4918	NAN212D
		450J/H	710	-	200	150	474	470	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3953	6487	NAN212E
		450J/H	800	-	200	150	474	470	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3953	6537	NAN212E
		450J/H	900	-	200	150	474	470	585	250	1260	1170	3150	1275	300	599	782	400	6xØ29 (M24)	1342	3953	6542	NAN225C
		280S/M	-	75	200	150	474	470	585	250	910	860	2300	900	250	599	523	400	6xØ26 (M20)	988	2850	1958	H180G
		280S/M	-	90	200	150	474	470	585	250	910	860	2300	900	250	599	523	400	6xØ26 (M20)	988	2850	2011	H180G
		315S/M	-	110	200	150	474	470	585	250	930	880	2500	1000	250	599	543	400	6xØ26 (M20)	1073	3053	2301	H200F
	315S/M	-	132	200	150	474	470	585	250	930	880	2500	1000	250	599	543	400	6xØ26 (M20)	1073	3053	2362	H200F	
	4	450J/H	710	-	200	150	606	470	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	4085	6633	NAN212E
		450J/H	800	-	200	150	606	470	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	4085	6683	NAN212E
		450J/H	900	-	200	150	606	470	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	4085	6687	NAN225C
		450J/H	1000	-	200	150	606	470	585	250	1260	1170	3300	1350	300	731	782	400	6xØ29 (M24)	1342	4085	6967	NAN225C
		280S/M	-	90	200	150	606	470	585	250	910	860	2400	950	250	731	523	400	6xØ26 (M20)	988	2982	2141	H180G
		315S/M	-	110	200	150	606	470	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	3185	2436	H200F
		315S/M	-	132	200	150	606	470	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	3185	2497	H200F
	315S/M	-	160	200	150	606	470	585	250	930	880	2650	1075	250	731	543	400	6xØ26 (M20)	1073	3185	2602	H200F	
	5	315S/M	-	132	200	150	738	470	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1073	3317	2632	H200F
		315S/M	-	160	200	150	738	470	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1073	3317	2737	H200F
		315L	-	200	200	150	738	470	585	250	930	880	2800	1100	300	863	543	400	6xØ26 (M20)	1118	3432	2934	H225F
	6	315S/M	-	160	200	150	870	470	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1073	3449	2867	H200F
		315L	-	200	200	150	870	470	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1118	3564	3064	H225F
		315L	-	250	200	150	870	470	585	250	930	880	2900	1150	300	995	543	400	6xØ26 (M20)	1118	3564	3186	H225F

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPD-SC-AS-150-EN_b_td

MPDE SERIES - PN100 DIMENSIONS AND WEIGHTS AT 50 Hz



PUMP TYPE MPD Size	DIMENSIONS [mm]																			
	Pump dimensions										Feet dimensions						Shaft end			
	DNS	DND	e	f	h1	h2	v	y	m2	m3	m4	n1	n2	b	d1	s1	d	t	u	l
65	100	65	320	393	190	250	250	393	60	30	30	410	365	99	19	25	35k6	38	10	80
100	125	100	369	472	235	300	300	472	72	36	36	504	450	125	24	30	45k6	48,5	14	110
125	150	125	392	488	300	350	350	488	90	45	45	610	560	209	26	45	52k6	56	16	110
150	200	150	470	585	350	425	425	585	100	40	40	735	680	260	26	40	60m6	64	18	140

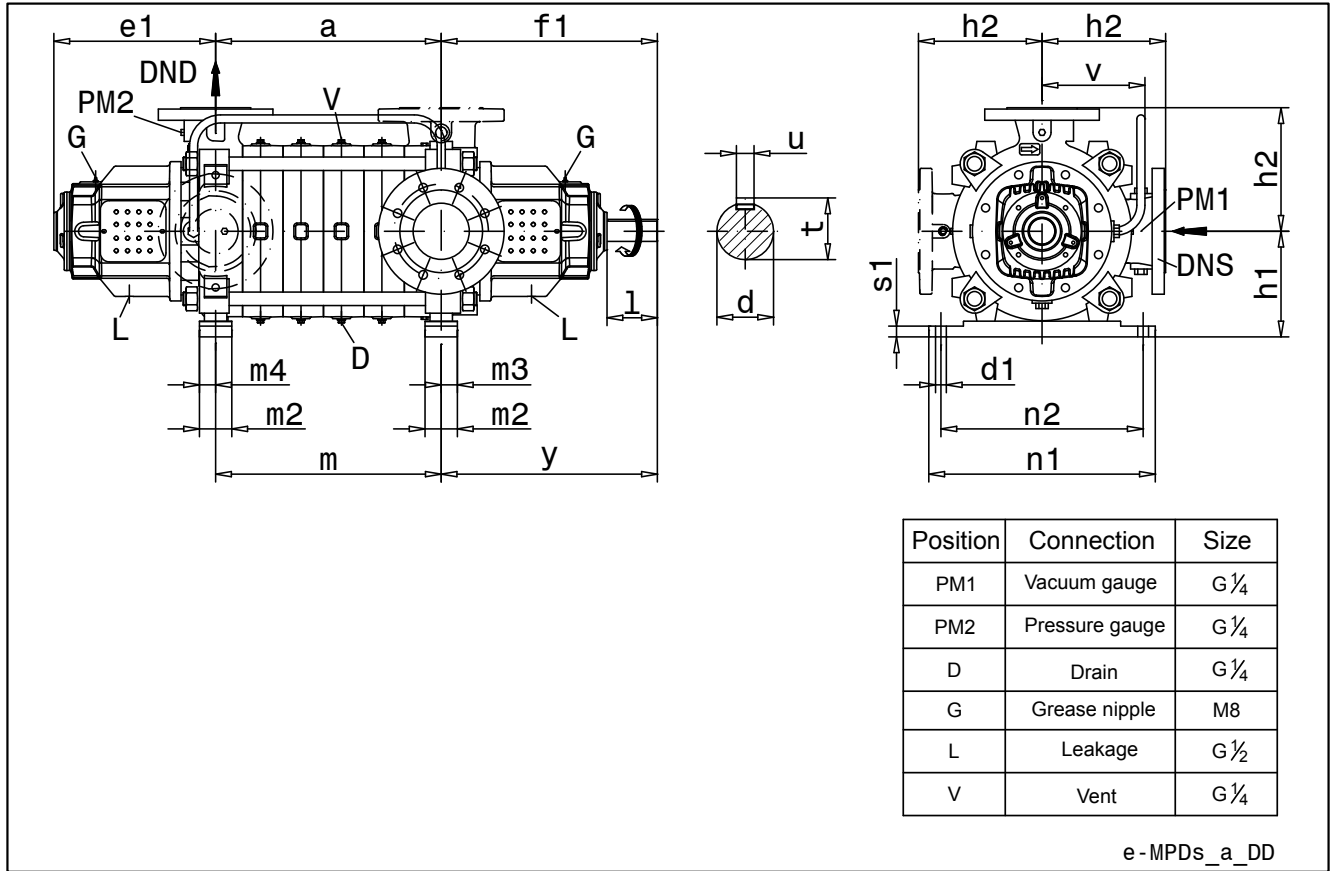
NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPDE-en_a_td

SIZE NUMBER OF STAGES	65			100			125			150		
	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]
3	-	-	-	-	-	-	-	-	-	474	494	1093
4	-	-	-	-	-	-	509	509	748	606	626	1237
5	-	-	-	-	-	-	621	621	832	738	758	1381
6	-	-	-	592	592	559	733	733	916	870	890	1525
7	-	-	-	682	682	613	845	845	1000			
8	-	-	-	772	772	667	957	957	1084			
9	734	734	378	862	862	721						
10	812	812	403	952	952	775						
11	890	890	428	1042	1042	829						
12	968	968	453									
13	1046	1046	478									
14	1124	1124	503									
15	1202	1202	528									

e-MPDE-stage-en_b_td

**MPD SERIES - DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz**



PUMP TYPE MPD Size	DIMENSIONS [mm]																			
	Pump dimensions							Feet dimensions							Shaft end					
DNS	DND	e1	f1	h1	h2	v	y	m2	m3	m4	n1	n2	b	d1	s1	d	t	u	l	
50	80	50	275	353	150	200	200	350	54	27	24	332	290	90	14	21	28j6	31	8	65
65	100	65	309	405	190	225	225	393	60	42	18	410	365	99	19	20	35k6	38	10	80
100	125	100	360	481	235	275	275	472	72	45	27	504	450	125	24	24	45k6	48,5	14	110
125	150	125	374	506	300	325	325	488	90	63	27	610	560	209	26	50	52k6	56	16	110
150	200	150	440	605	350	400	400	585	100	40	40	735	680	260	26	50	60m6	64	18	130

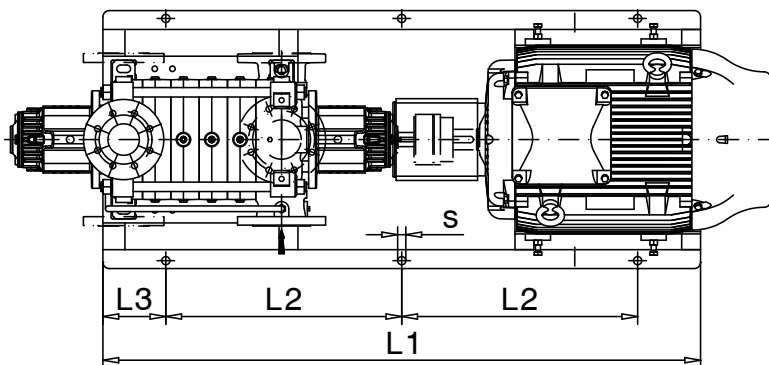
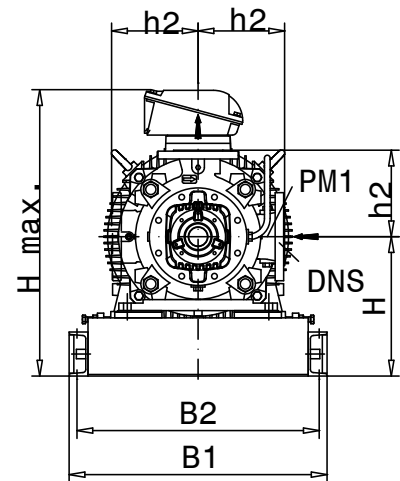
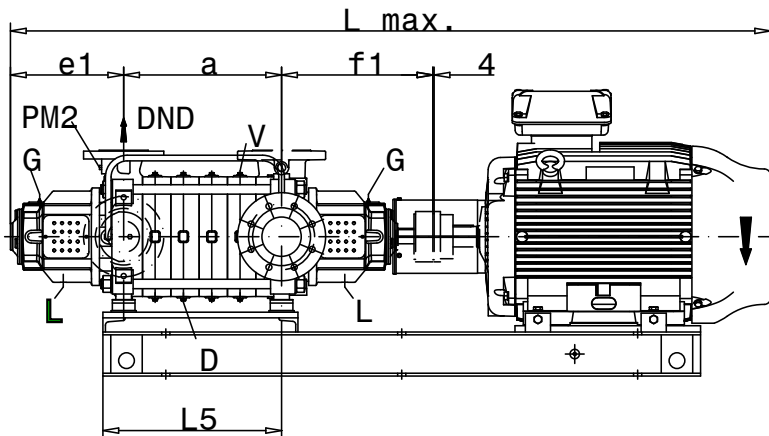
NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPDs-en_a_td

SIZE NUMBER OF STAGES	50			65			100			125			150		
	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]
1	87	87	104	110	110	155	142	142	269	173	173	446	210	230	731
2	149	149	116	188	188	179	232	232	307	285	285	513	342	362	859
3	211	211	128	266	266	203	322	322	345	397	397	580	474	494	987
4	273	273	140	344	344	227	412	412	383	509	509	647	606	626	1115
5	335	335	152	422	422	251	502	502	421	621	621	714	738	758	1243
6	397	397	164	500	500	275	592	592	459	733	733	781	870	890	1371
7	459	459	176	578	578	299	682	682	497	845	845	848			
8	521	521	188	656	656	323	772	772	535	957	957	915			
9	583	583	200	734	734	347	862	862	573						
10	645	645	212	812	812	371	952	952	611						
11	707	707	224	890	890	395	1042	1042	649						
12	769	769	236	968	968	419									
13	831	831	248	1046	1046	443									
14	893	893	260	1124	1124	467									
15	955	955	272	1202	1202	491									
16	1017	1017	284												
17	1079	1079	296												
18	1141	1141	308												

e-MPDs-stage-en_a_td

MPD SERIES - Size 50, 65, 100, 125
DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz



Position	Connection	Size
PM1	Vacuum gauge	G ¼
PM2	Pressure gauge	G ¼
D	Drain	G ¼
G	Grease nipple	M8
L	Leakage	G ½
V	Vent	G ¼

e-MPDs-AS_a_DD

MPD SERIES - Size 50
DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]		1500 [rpm]		DIMENSIONS [mm]															WEIGHT	COUPLING TYPE
			[kW]	[kW]	DNS	DND	a	e1	f1	B1	B2	L1	L2	L3	L5	H	h2	s	Hmax	Lmax	G [kg]		
50	1	132S/M	5,5	-	80	50	87	275	353	490	450	950	325	150	201	250	200	6xØ19 (M16)	450	1166	210	B80B	
		132S/M	7,5	-	80	50	87	275	353	490	450	950	325	150	201	250	200	6xØ19 (M16)	450	1166	206	B80B	
	2	100L	-	2,2	80	50	87	275	353	484	450	850	275	150	201	233	200	6xØ15 (M12)	433	1161	182	B80A	
		132S/M	5,5	-	80	50	149	275	353	490	450	950	325	150	201	250	200	6xØ19 (M16)	450	1228	222	B80B	
	3	132S/M	7,5	-	80	50	149	275	353	490	450	950	325	150	201	250	200	6xØ19 (M16)	450	1228	218	B80B	
		160M	11	-	80	50	149	275	353	490	450	1100	350	200	201	288	200	6xØ19 (M16)	528	1385	286	B95A	
	4	160M	15	-	80	50	149	275	353	490	450	1100	350	200	201	288	200	6xØ19 (M16)	528	1385	287	B95A	
		100L	-	2,2	80	50	149	275	353	484	450	850	275	150	201	233	200	6xØ15 (M12)	433	1223	194	B80A	
	5	160M	11	-	80	50	211	275	353	490	450	1200	400	200	325	288	200	6xØ19 (M16)	528	1447	302	B95A	
		160M	15	-	80	50	211	275	353	490	450	1200	400	200	325	288	200	6xØ19 (M16)	528	1447	303	B95A	
	6	160L	18,5	-	80	50	211	275	353	490	450	1200	400	200	325	288	200	6xØ19 (M16)	528	1447	310	B95A	
		180M	22	-	80	50	211	275	353	490	450	1200	400	200	263	308	200	6xØ19 (M16)	589	1507	371	B110B	
	7	100L	-	2,2	80	50	211	275	353	484	450	1000	350	150	325	233	200	6xØ15 (M12)	433	1285	211	B80A	
		100L	-	3	80	50	211	275	353	484	450	1000	350	150	325	233	200	6xØ15 (M12)	433	1285	215	B80A	
	8	160M	15	-	80	50	273	275	353	490	450	1200	400	200	325	288	200	6xØ19 (M16)	528	1509	315	B95A	
		160L	18,5	-	80	50	273	275	353	490	450	1200	400	200	325	288	200	6xØ19 (M16)	528	1509	322	B95A	
	9	180M	22	-	80	50	273	275	353	490	450	1300	450	200	387	308	200	6xØ19 (M16)	589	1569	388	B110B	
		200L	30	-	80	50	273	275	353	650	610	1300	450	200	325	328	200	6xØ19 (M16)	647	1672	476	B125A	
	10	100L	-	3	80	50	273	275	353	484	450	1000	350	150	325	233	200	6xØ15 (M12)	433	1347	227	B80A	
		112M	-	4	80	50	273	275	353	484	450	1050	375	150	387	233	200	6xØ15 (M12)	433	1347	245	B80A	
	11	180M	22	-	80	50	335	275	353	490	450	1300	450	200	387	308	200	6xØ19 (M16)	589	1631	400	B110B	
		200L	30	-	80	50	335	275	353	650	610	1450	525	200	449	328	200	6xØ19 (M16)	647	1734	500	B125A	
	12	200L	37	-	80	50	335	275	353	650	610	1450	525	200	449	328	200	6xØ19 (M16)	647	1734	516	B125A	
		100L	-	3	80	50	335	275	353	484	450	1100	400	150	449	233	200	6xØ15 (M12)	433	1409	240	B80A	
	13	112M	-	4	80	50	335	275	353	484	450	1050	375	150	387	233	200	6xØ15 (M12)	433	1409	257	B80A	
		200L	30	-	80	50	397	275	353	650	610	1450	525	200	449	328	200	6xØ19 (M16)	647	1796	512	B125A	
	14	200L	37	-	80	50	397	275	353	650	610	1450	525	200	449	328	200	6xØ19 (M16)	647	1796	528	B125A	
		112M	-	4	80	50	397	275	353	484	450	1200	450	150	511	233	200	6xØ15 (M12)	433	1471	272	B80A	
	15	132S/M	-	5,5	80	50	397	275	353	490	450	1200	450	150	449	250	200	6xØ19 (M16)	450	1514	284	B80B	
		200L	30	-	80	50	459	275	353	650	610	1550	575	200	573	328	200	6xØ19 (M16)	647	1858	525	B125A	
	16	200L	37	-	80	50	459	275	353	650	610	1550	575	200	573	328	200	6xØ19 (M16)	647	1858	541	B125A	
		225S/M	45	-	80	50	459	275	353	660	610	1600	600	200	573	368	200	6xØ19 (M16)	752	1947	700	B125A	
	17	112M	-	4	80	50	459	275	353	484	450	1200	450	150	511	233	200	6xØ15 (M12)	433	1533	284	B80A	
		132S/M	-	5,5	80	50	459	275	353	490	450	1350	525	150	573	250	200	6xØ19 (M16)	450	1576	299	B80B	
	18	200L	37	-	80	50	521	275	353	650	610	1550	575	200	573	328	200	6xØ19 (M16)	647	1920	553	B125A	
		225S/M	45	-	80	50	521	275	353	660	610	1600	600	200	573	368	200	6xØ19 (M16)	752	2009	712	B125A	
	19	250S/M	55	-	80	50	521	275	353	720	670	1700	650	200	573	393	200	6xØ19 (M16)	791	2118	800	B140A	
		132S/M	-	5,5	80	50	521	275	353	490	450	1350	525	150	573	250	200	6xØ19 (M16)	450	1638	311	B80B	
	20	132S/M	-	7,5	80	50	521	275	353	490	450	1350	525	150	573	250	200	6xØ19 (M16)	450	1638	311	B80B	
		225S/M	45	-	80	50	583	275	353	660	610	1700	650	200	697	368	200	6xØ19 (M16)	752	2071	726	B125A	
	21	250S/M	55	-	80	50	583	275	353	720	670	1800	700	200	697	393	200	6xØ19 (M16)	791	2180	813	B140A	
		280S/M	75	-	80	50	583	275	353	820	770	1900	750	200	697	448	200	6xØ19 (M16)	913	2286	1087	B160A	
	22	132S/M	-	5,5	80	50	583	275	353	490	450	1450	575	150	697	250	200	6xØ19 (M16)	450	1700	325	B80B	
		132S/M	-	7,5	80	50	583	275	353	490	450	1450	575	150	697	250	200	6xØ19 (M16)	450	1700	325	B80B	
	23	225S/M	45	-	80	50	645	275	353	660	610	1700	650	200	697	368	200	6xØ19 (M16)	752	2133	738	B125A	
		250S/M	55	-	80	50	645	275	353	720	670	1800	700	200	697	393	200	6xØ19 (M16)	791	2242	825	B140A	
	24	280S/M	75	-	80	50	645	275	353	820	770	1900	750	200	697	448	200	6xØ19 (M16)	913	2348	1099	B160A	
		132S/M	-	7,5	80	50	645	275	353	490	450	1450	575	150	697	250	200	6xØ19 (M16)	450	1762	337	B80B	
	25	160M	-	11	80	50	645	275	353	490	450	1600	600	200	697	288	200	6xØ19 (M16)	528	1881	379	B95A	
		250S/M	55	-	80	50	707	275	353	720	670	1900	750	200	821	393	200	6xØ19 (M16)	791	2304	839	B140A	
	26	280S/M	75	-	80	50	707	275	353	820	770	2000	800	200	821	448	200	6xØ19 (M16)	913	2410	1114	B160A	
		132S/M	-	7,5	80	50	707	275	353	490	450	1600	650	150	821	250	200	6xØ19 (M16)	450	1824	352	B80B	
	27	160M	-	11	80	50	707	275	353	490	450	1700	650	200	821	288	200	6xØ19 (M16)	528	1943	392	B95A	
		280S/M	75	-	80	50	769	275	353	820	770	2000	800	200	821	448	200	6xØ19 (M16)	913	2472	1126	B160A	
	28	280S/M	90	-	80	50	769	275	353	820	770	2000	800	200	821	448	200	6xØ19 (M16)	913	2472	1152	B160A	
		132S/M	-	7,5	80	50	769	275	353	490	450	1600	650	150	821	250	200	6xØ19 (M16)	450	1886	364	B80B	
	29	160M	-	11	80	50	769	275	353	490	450	1700	650	200	821	288	200	6xØ19 (M16)	528	2005	404	B95A	
		280S/M	75	-	80	50	831	275	353	820	770	2150	875	200	945	448	200	6xØ19 (M16)	913	2534	1144	B160A	

MPD SERIES - Size 65
DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]		1500 [rpm]		DIMENSIONS [mm]																WEIGHT G [kg]	COUPLING TYPE
			[kW]	[kW]	DNS	DND	a	e1	f1	B1	B2	L1	L2	L3	L5	H	h2	s	Hmax	Lmax				
65	1	160M	15	-	100	65	110	309	405	560	520	1150	375	200	241	313	225	6xØ19 (M16)	553	1432	335	B95D		
		160L	18,5	-	100	65	110	309	405	560	520	1150	375	200	241	313	225	6xØ19 (M16)	553	1432	342	B95D		
		100L	-	2,2	100	65	110	309	405	550	510	950	325	150	241	293	225	6xØ19 (M16)	518	1270	255	B95B		
	2	160L	18,5	-	100	65	188	309	405	560	520	1150	375	200	241	313	225	6xØ19 (M16)	553	1510	366	B95D		
		180M	22	-	100	65	188	309	405	560	520	1200	400	200	241	313	225	6xØ19 (M16)	594	1570	427	B110D		
		200L	30	-	100	65	188	309	405	650	610	1250	425	200	241	323	225	6xØ19 (M16)	642	1673	507	B125B		
		200L	37	-	100	65	188	309	405	650	610	1250	425	200	241	323	225	6xØ19 (M16)	642	1673	523	B125B		
		112M	-	4	100	65	188	309	405	550	510	950	325	150	241	293	225	6xØ19 (M16)	518	1348	299	B95B		
		132S/M	-	5,5	100	65	188	309	405	550	510	1100	400	150	319	293	225	6xØ19 (M16)	518	1391	307	B95C		
	3	200L	37	-	100	65	266	309	405	650	610	1400	500	200	397	323	225	6xØ19 (M16)	642	1751	554	B125B		
		225S/M	45	-	100	65	266	309	405	660	610	1450	525	200	397	373	225	6xØ19 (M16)	757	1840	708	B125B		
		250S/M	55	-	100	65	266	309	405	720	670	1550	575	200	397	393	225	6xØ19 (M16)	791	1949	793	B140B		
		132S/M	-	5,5	100	65	266	309	405	550	510	1100	400	150	319	293	225	6xØ19 (M16)	518	1469	331	B95C		
		132S/M	-	7,5	100	65	266	309	405	550	510	1100	400	150	319	293	225	6xØ19 (M16)	518	1469	331	B95C		
	4	225S/M	45	-	100	65	344	309	405	660	610	1450	525	200	397	373	225	6xØ19 (M16)	757	1918	732	B125B		
		250S/M	55	-	100	65	344	309	405	720	670	1550	575	200	397	393	225	6xØ19 (M16)	791	2027	817	B140B		
		280S/M	75	-	100	65	344	309	405	820	770	1700	650	200	475	443	225	6xØ26 (M20)	908	2133	1087	B160B		
		132S/M	-	7,5	100	65	344	309	405	550	510	1300	500	150	475	293	225	6xØ19 (M16)	518	1547	361	B95C		
		160M	-	11	100	65	344	309	405	560	520	1350	475	200	397	313	225	6xØ19 (M16)	553	1666	398	B95D		
	5	280S/M	75	-	100	65	422	309	405	820	770	1700	650	200	475	443	225	6xØ26 (M20)	908	2211	1111	B160B		
		280S/M	90	-	100	65	422	309	405	820	770	1700	650	200	475	443	225	6xØ26 (M20)	908	2211	1137	B160B		
		315S/M	110	-	100	65	422	309	405	860	810	1950	775	200	475	513	225	6xØ26 (M20)	1043	2384	1452	B160B		
		160M	-	11	100	65	422	309	405	560	520	1500	550	200	553	313	225	6xØ19 (M16)	553	1744	424	B95D		
		160L	-	15	100	65	422	309	405	560	520	1500	550	200	553	313	225	6xØ19 (M16)	553	1744	469	B110C		
	6	280S/M	75	-	100	65	500	309	405	820	770	1850	725	200	631	443	225	6xØ26 (M20)	908	2289	1140	B160B		
		280S/M	90	-	100	65	500	309	405	820	770	1850	725	200	631	443	225	6xØ26 (M20)	908	2289	1166	B160B		
		315S/M	110	-	100	65	500	309	405	860	810	2100	850	200	631	513	225	6xØ26 (M20)	1043	2462	1482	B160B		
		160M	-	11	100	65	500	309	405	560	520	1500	550	200	553	313	225	6xØ19 (M16)	553	1822	448	B95D		
		160L	-	15	100	65	500	309	405	560	520	1500	550	200	553	313	225	6xØ19 (M16)	553	1822	493	B110C		
	7	280S/M	90	-	100	65	578	309	405	820	770	1850	725	200	631	443	225	6xØ26 (M20)	908	2367	1190	B160B		
		315S/M	132	-	100	65	578	309	405	860	810	2100	850	200	631	513	225	6xØ26 (M20)	1043	2540	1581	B160B		
		160M	-	11	100	65	578	309	405	560	520	1650	625	200	709	313	225	6xØ19 (M16)	553	1900	475	B95D		
		180M	-	18,5	100	65	578	309	405	560	520	1600	600	200	631	313	225	6xØ19 (M16)	594	1960	564	B110D		
	8	315S/M	110	-	100	65	656	309	405	860	810	2250	925	200	787	513	225	6xØ26 (M20)	1043	2618	1535	B160B		
		315S/M	160	-	100	65	656	309	405	860	810	2250	925	200	787	513	225	6xØ26 (M20)	1043	2618	1678	B160B		
		160L	-	15	100	65	656	309	405	560	520	1650	625	200	709	313	225	6xØ19 (M16)	553	1978	544	B110C		
		180M	-	18,5	100	65	656	309	405	560	520	1750	675	200	787	313	225	6xØ19 (M16)	594	2038	591	B110D		
	9	315S/M	110	-	100	65	734	309	405	860	810	2250	925	200	787	513	225	6xØ26 (M20)	1043	2696	1559	B160B		
		315S/M	132	-	100	65	734	309	405	860	810	2250	925	200	787	513	225	6xØ26 (M20)	1043	2696	1634	B160B		
		315S/M	160	-	100	65	734	309	405	860	810	2250	925	200	787	513	225	6xØ26 (M20)	1043	2696	1702	B160B		
		315L	200	-	100	65	734	309	405	860	810	2250	925	200	787	513	225	6xØ26 (M20)	1088	2805	1881	B180A		
		160L	-	15	100	65	734	309	405	560	520	1800	700	200	865	313	225	6xØ19 (M16)	553	2056	571	B110C		
		180L	-	22	100	65	734	309	405	560	520	1750	675	200	787	313	225	6xØ19 (M16)	594	2154	636	B110D		
	10	315S/M	132	-	100	65	812	309	405	860	810	2400	950	250	943	513	225	6xØ26 (M20)	1043	2774	1663	B160B		
		315L	200	-	100	65	812	309	405	860	810	2400	950	250	943	513	225	6xØ26 (M20)	1088	2883	1910	B180A		
		180M	-	18,5	100	65	812	309	405	560	520	1900	750	200	943	313	225	6xØ19 (M16)	594	2194	642	B110D		
		200L	-	30	100	65	812	309	405	650	610	1950	775	200	943	323	225	6xØ19 (M16)	642	2297	734	B125B		
	11	180M	-	18,5	100	65	890	309	405	560	520	1900	750	200	943	313	225	6xØ19 (M16)	594	2272	666	B110D		
		200L	-	30	100	65	890	309	405	650	610	1950	775	200	943	323	225	6xØ19 (M16)	642	2375	758	B125B		
	12	180L	-	22	100	65	968	309	405	560	520	2050	825	200	1099	313	225	6xØ19 (M16)	594	2388	714	B110D		
		200L	-	30	100	65	968	309	405	650	610	2100	850	200	1099	323	225	6xØ19 (M16)	642	2453	785	B125B		
	13	180L	-	22	100	65	1046	309	405	560	520	2050	825	200	1099	313	225	6xØ19 (M16)	594	2466	738	B110D		
		200L	-	30	100	65	1046	309	405	650	610	2100	850	200	1099	323	225	6xØ19 (M16)	642	2531	809	B125B		
	14	200L	-	30	100	65	1124	309	405	650	610	2300	900	250	1255	323	225	6xØ19 (M16)	642	2609	839	B125B		
		225S/M	-	37	100	65	1124	309	405	660	610	2350	925	250	1255	373	225	6xØ19 (M16)	757	2728	994	B140B		
	15	200L	-	30	100	65	1202	309	405	650	610	2300	900	250	1255	323	225	6xØ19 (M16)	642	2687	863	B125B		
		225S/M	-	37	100	65	1202	309	405	660	610	2350	925	250	1255	373	225	6xØ19 (M16)	757	2806	1018	B140B		

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
 For flanges dimensions see drawing on pages 127-128.

e-MPDs-AS-65-en_b_1d

MPD SERIES - Size 100
DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE	
					[kW]	[kW]	DNS	DND	a	e1	f1	B1	B2	L1	L2	L3	L5	H	h2			s
100	1	200L	37	-	125	100	142	360	481	710	670	1400	500	200	298	363	275	6xØ19 (M16)	682	1754	630	B125C
		250S/M	55	-	125	100	142	360	481	720	670	1550	575	200	298	398	275	6xØ19 (M16)	796	1952	859	B140C
		132S/M	-	5,5	125	100	142	360	481	710	670	1200	400	200	298	358	275	6xØ19 (M16)	633	1472	434	B110E
	2	225S/M	45	-	125	100	232	360	481	720	670	1450	525	200	298	378	275	6xØ19 (M16)	762	1933	816	B125C
		250S/M	55	-	125	100	232	360	481	720	670	1550	575	200	298	398	275	6xØ19 (M16)	796	2042	897	B140C
		280S/M	75	-	125	100	232	360	481	820	770	1600	600	200	298	443	275	6xØ26 (M20)	908	2148	1147	B160C
		280S/M	90	-	125	100	232	360	481	820	770	1600	600	200	298	443	275	6xØ26 (M20)	908	2148	1173	B160C
		315S/M	110	-	125	100	232	360	481	860	810	1900	750	200	388	503	275	6xØ26 (M20)	1033	2321	1484	B160C
		132S/M	-	5,5	125	100	232	360	481	710	670	1200	400	200	298	358	275	6xØ19 (M16)	633	1562	472	B110E
		132S/M	-	7,5	125	100	232	360	481	710	670	1200	400	200	298	358	275	6xØ19 (M16)	633	1562	472	B110E
		160M	-	11	125	100	232	360	481	710	670	1350	475	200	298	363	275	6xØ19 (M16)	638	1681	498	B110F
3	280S/M	90	-	125	100	322	360	481	820	770	1800	700	200	478	443	275	6xØ26 (M20)	908	2238	1227	B160C	
	315S/M	110	-	125	100	322	360	481	860	810	1900	750	200	388	503	275	6xØ26 (M20)	1033	2411	1522	B160C	
	315S/M	132	-	125	100	322	360	481	860	810	1900	750	200	388	503	275	6xØ26 (M20)	1033	2411	1597	B160C	
	315S/M	160	-	125	100	322	360	481	860	810	1900	750	200	388	503	275	6xØ26 (M20)	1033	2411	1665	B160C	
	160M	-	11	125	100	322	360	481	710	670	1550	575	200	478	363	275	6xØ19 (M16)	638	1771	549	B110F	
	160L	-	15	125	100	322	360	481	710	670	1550	575	200	478	363	275	6xØ19 (M16)	638	1771	593	B110F	
4	180M	-	18,5	125	100	322	360	481	710	670	1450	525	200	388	363	275	6xØ19 (M16)	644	1831	637	B110G	
	315S/M	132	-	125	100	412	360	481	860	810	2100	850	200	568	503	275	6xØ26 (M20)	1033	2501	1681	B160C	
	315S/M	160	-	125	100	412	360	481	860	810	2100	850	200	568	503	275	6xØ26 (M20)	1033	2501	1749	B160C	
	315L	200	-	125	100	412	360	481	860	810	2100	850	200	568	503	275	6xØ26 (M20)	1078	2610	1927	B180B	
	160L	-	15	125	100	412	360	481	710	670	1550	575	200	478	363	275	6xØ19 (M16)	638	1861	631	B110F	
5	180M	-	18,5	125	100	412	360	481	710	670	1650	625	200	568	363	275	6xØ19 (M16)	644	1921	682	B110G	
	180L	-	22	125	100	412	360	481	710	670	1650	625	200	568	363	275	6xØ19 (M16)	644	1959	703	B110G	
	315S/M	160	-	125	100	502	360	481	860	810	2100	850	200	568	503	275	6xØ26 (M20)	1033	2591	1787	B160C	
	315L	200	-	125	100	502	360	481	860	810	2100	850	200	568	503	275	6xØ26 (M20)	1078	2700	1965	B180B	
	315L	250	-	125	100	502	360	481	860	810	2100	850	200	568	503	275	6xØ26 (M20)	1078	2700	2039	B180B	
6	180L	-	22	125	100	502	360	481	710	670	1650	625	200	568	363	275	6xØ19 (M16)	644	2049	741	B110G	
	200L	-	30	125	100	502	360	481	710	670	1800	700	200	658	363	275	6xØ19 (M16)	682	2114	806	B125C	
	315L	200	-	125	100	592	360	481	860	810	2300	900	250	748	503	275	6xØ26 (M20)	1078	2790	2012	B180B	
	315L	250	-	125	100	592	360	481	860	810	2300	900	250	748	503	275	6xØ26 (M20)	1078	2790	2086	B180B	
7	355M/L	315	-	125	100	592	360	481	1000	930	2400	950	250	748	583	275	6xØ29 (M24)	1203	2849	2836	B200A	
	200L	-	30	125	100	592	360	481	710	670	1800	700	200	658	363	275	6xØ19 (M16)	682	2204	844	B125C	
	225S/M	-	37	125	100	592	360	481	720	670	1950	775	200	748	378	275	6xØ19 (M16)	762	2323	995	B140C	
	315L	250	-	125	100	682	360	481	860	810	2300	900	250	748	503	275	6xØ26 (M20)	1078	2880	2124	B180B	
	355M/L	315	-	125	100	682	360	481	1000	930	2400	950	250	748	583	275	6xØ29 (M24)	1203	2939	2874	B200A	
8	355M/L	355	-	125	100	682	360	481	1000	930	2400	950	250	748	583	275	6xØ29 (M24)	1203	2939	2863	B200A	
	200L	-	30	125	100	682	360	481	720	670	1950	775	200	838	383	275	6xØ19 (M16)	702	2294	906	B125C	
	225S/M	-	37	125	100	682	360	481	720	670	1950	775	200	748	378	275	6xØ19 (M16)	762	2413	1033	B140C	
9	225S/M	-	45	125	100	682	360	481	720	670	1950	775	200	748	378	275	6xØ19 (M16)	762	2413	1060	B140C	
	225S/M	-	37	125	100	772	360	481	720	670	2150	875	200	928	398	275	6xØ26 (M20)	782	2503	1098	B140C	
10	225S/M	-	45	125	100	772	360	481	720	670	2150	875	200	928	398	275	6xØ26 (M20)	782	2503	1125	B140C	
	250S/M	-	55	125	100	862	360	481	720	670	2150	875	200	928	398	275	6xØ26 (M20)	782	2593	1163	B140C	
11	250S/M	-	55	125	100	862	360	481	720	670	2200	900	200	928	418	275	6xØ26 (M20)	816	2672	1259	B160C	
	225S/M	-	45	125	100	952	360	481	720	670	2300	900	250	1108	398	275	6xØ26 (M20)	782	2683	1205	B140C	
11	250S/M	-	55	125	100	952	360	481	720	670	2350	925	250	1108	418	275	6xØ26 (M20)	816	2762	1301	B160C	
	280S/M	-	75	125	100	1042	360	481	720	670	2400	950	250	1108	443	275	6xØ26 (M20)	816	2852	1339	B160C	
11	280S/M	-	75	125	100	1042	360	481	820	770	2400	950	250	1108	443	275	6xØ26 (M20)	908	2958	1574	B180C	

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
 For flanges dimensions see drawing on pages 127-128.

e-MPDs-AS-100-en_b_td

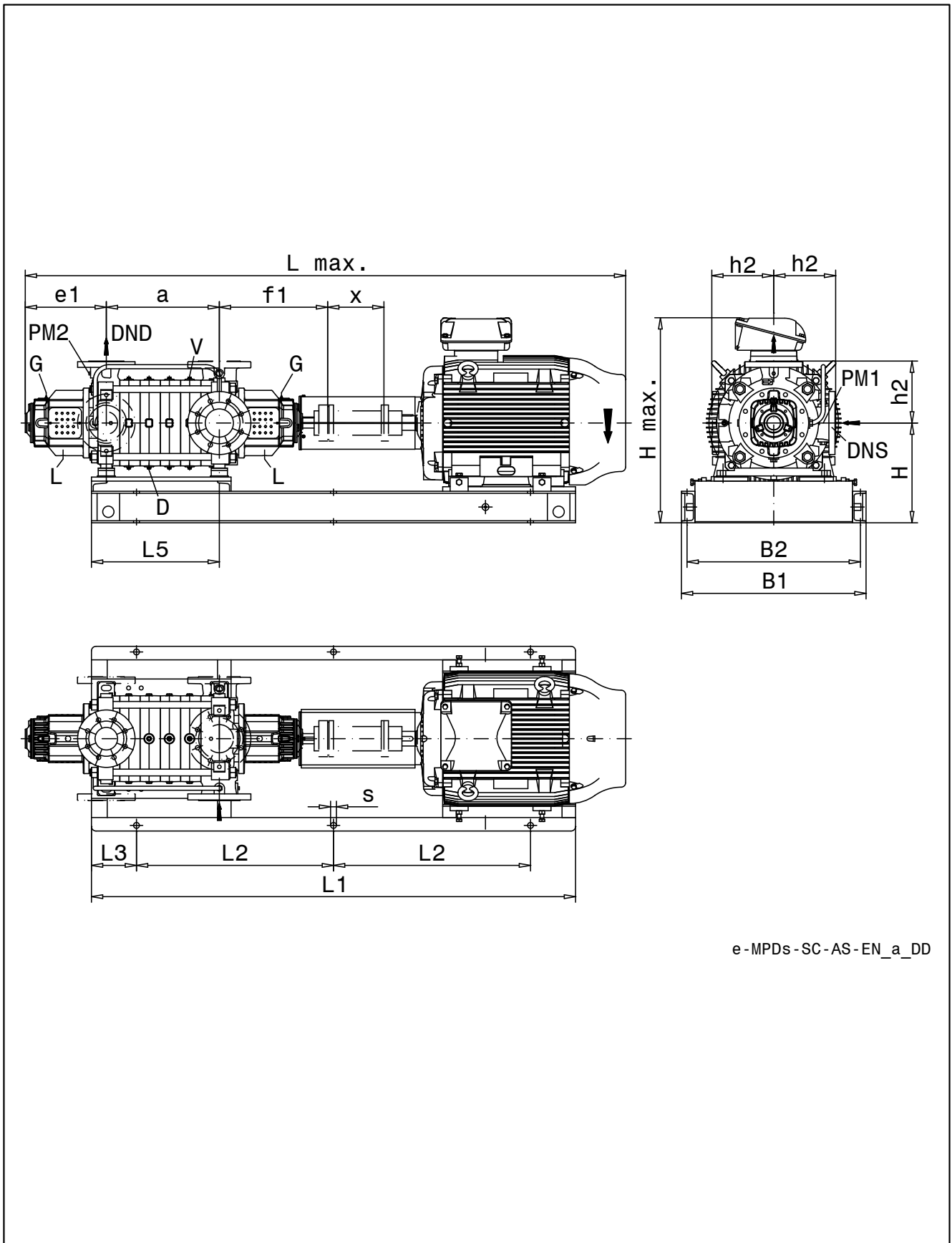
MPD SERIES - Size 125
DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]	1500 [rpm]	DIMENSIONS [mm]															WEIGHT G [kg]	COUPLING TYPE	
					DNS	DND	a	e1	f1	B1	B2	L1	L2	L3	L5	H	h2	s	Hmax			Lmax
125	1	315S/M	110	-	150	125	173	392	488	860	810	1800	700	200	278	508	325	6xØ26 (M20)	1038	2301	1596	B160D
		315S/M	132	-	150	125	173	392	488	860	810	1800	700	200	278	508	325	6xØ26 (M20)	1038	2301	1671	B160D
		160M	-	11	150	125	173	392	488	750	710	1300	450	200	278	428	325	6xØ19 (M16)	753	1661	662	B125D
		180M	-	18,5	150	125	173	392	488	750	710	1350	475	200	278	428	325	6xØ19 (M16)	753	1721	749	B125E
	2	315S/M	132	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2413	1752	B160D
		315S/M	160	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1038	2413	1820	B160D
		315L	200	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2522	1998	B180D
		315L	250	-	150	125	285	392	488	860	810	1950	775	200	390	508	325	6xØ26 (M20)	1083	2522	2072	B180D
		355M/L	315	-	150	125	285	392	488	1000	930	2050	825	200	390	588	325	6xØ29 (M24)	1208	2581	2822	B200C
		160L	-	15	150	125	285	392	488	750	710	1400	500	200	390	428	325	6xØ19 (M16)	753	1773	781	B125D
		180M	-	18,5	150	125	285	392	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1833	824	B125E
		180L	-	22	150	125	285	392	488	750	710	1450	525	200	390	428	325	6xØ19 (M16)	753	1871	845	B125E
		200L	-	30	150	125	285	392	488	750	710	1500	550	200	390	428	325	6xØ19 (M16)	753	1936	904	B125F
		225S/M	-	37	150	125	285	392	488	760	710	1550	575	200	390	448	325	6xØ19 (M16)	832	2055	1047	B140D
	3	315L	250	-	150	125	397	392	488	860	810	2050	825	200	502	508	325	6xØ26 (M20)	1083	2634	2148	B180D
		355M/L	315	-	150	125	397	392	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2693	2905	B200C
		355M/L	355	-	150	125	397	392	488	1000	930	2200	900	200	502	588	325	6xØ29 (M24)	1208	2693	2894	B200C
		355A/B	400	-	150	125	397	392	488	1000	930	2300	900	250	502	588	325	6xØ29 (M24)	1313	2888	3235	B225C
		200L	-	30	150	125	397	392	488	750	710	1600	600	200	502	428	325	6xØ19 (M16)	753	2048	979	B125F
		225S/M	-	37	150	125	397	392	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	2167	1122	B140D
		225S/M	-	45	150	125	397	392	488	760	710	1650	625	200	502	448	325	6xØ19 (M16)	832	2167	1149	B140D
		250S/M	-	55	150	125	397	392	488	760	710	1750	675	200	502	453	325	6xØ19 (M16)	851	2246	1244	B160D
	4	355M/L	315	-	150	125	509	392	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2805	3008	B200C
		355M/L	355	-	150	125	509	392	488	1000	930	2300	900	250	614	588	325	6xØ29 (M24)	1208	2805	2997	B200C
		355A/B	400	-	150	125	509	392	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	3000	3337	B225C
		355A/B	450	-	150	125	509	392	488	1000	930	2400	950	250	614	588	325	6xØ29 (M24)	1313	3000	3487	B225C
		400J/H	500	-	150	125	509	392	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3393	4467	B225D
		400J/H	560	-	150	125	509	392	488	1140	1070	2700	1050	300	614	692	325	6xØ29 (M24)	1067	3393	4466	RWS228D
		225S/M	-	45	150	125	509	392	488	760	710	1800	700	200	614	448	325	6xØ19 (M16)	832	2279	1227	B140D
		250S/M	-	55	150	125	509	392	488	760	710	1850	725	200	614	453	325	6xØ19 (M16)	851	2358	1318	B160D
	5	280S/M	-	75	150	125	509	392	488	820	770	1950	775	200	614	468	325	6xØ26 (M20)	933	2464	1562	B180E
		355A/B	400	-	150	125	621	392	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	3112	3415	B225C
		355A/B	450	-	150	125	621	392	488	1000	930	2550	1025	250	726	588	325	6xØ29 (M24)	1313	3112	3565	B225C
		400J/H	500	-	150	125	621	392	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3505	4548	B225D
		400J/H	560	-	150	125	621	392	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3505	4547	RWS228D
		400J/H	630	-	150	125	621	392	488	1140	1070	2850	1125	300	726	692	325	6xØ29 (M24)	1067	3505	4640	RWS252A
		280S/M	-	75	150	125	621	392	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2576	1632	B180E
		280S/M	-	90	150	125	621	392	488	820	770	2050	825	200	726	468	325	6xØ26 (M20)	933	2576	1685	B180E
	6	280S/M	-	75	150	125	733	392	488	820	770	2150	875	200	838	468	325	6xØ26 (M20)	933	2688	1701	B180E
		315S/M	-	110	150	125	733	392	488	860	810	2400	950	250	838	508	325	6xØ26 (M20)	1038	2891	2051	B200D
	7	280S/M	-	90	150	125	845	392	488	820	770	2250	925	200	950	468	325	6xØ26 (M20)	933	2800	1824	B180E
		315S/M	-	110	150	125	845	392	488	860	810	2500	1000	250	950	508	325	6xØ26 (M20)	1038	3003	2121	B200D
	8	315S/M	-	110	150	125	957	392	488	860	810	2650	1075	250	1062	508	325	6xØ26 (M20)	1038	3115	2196	B200D

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
 For flanges dimensions see drawing on pages 127-128.

e-MPDs-AS-125-en_b_td

MPD SERIES - Size 150
WITH SPACER COUPLING, DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz



e-MPDs-SC-AS-EN_a_DD

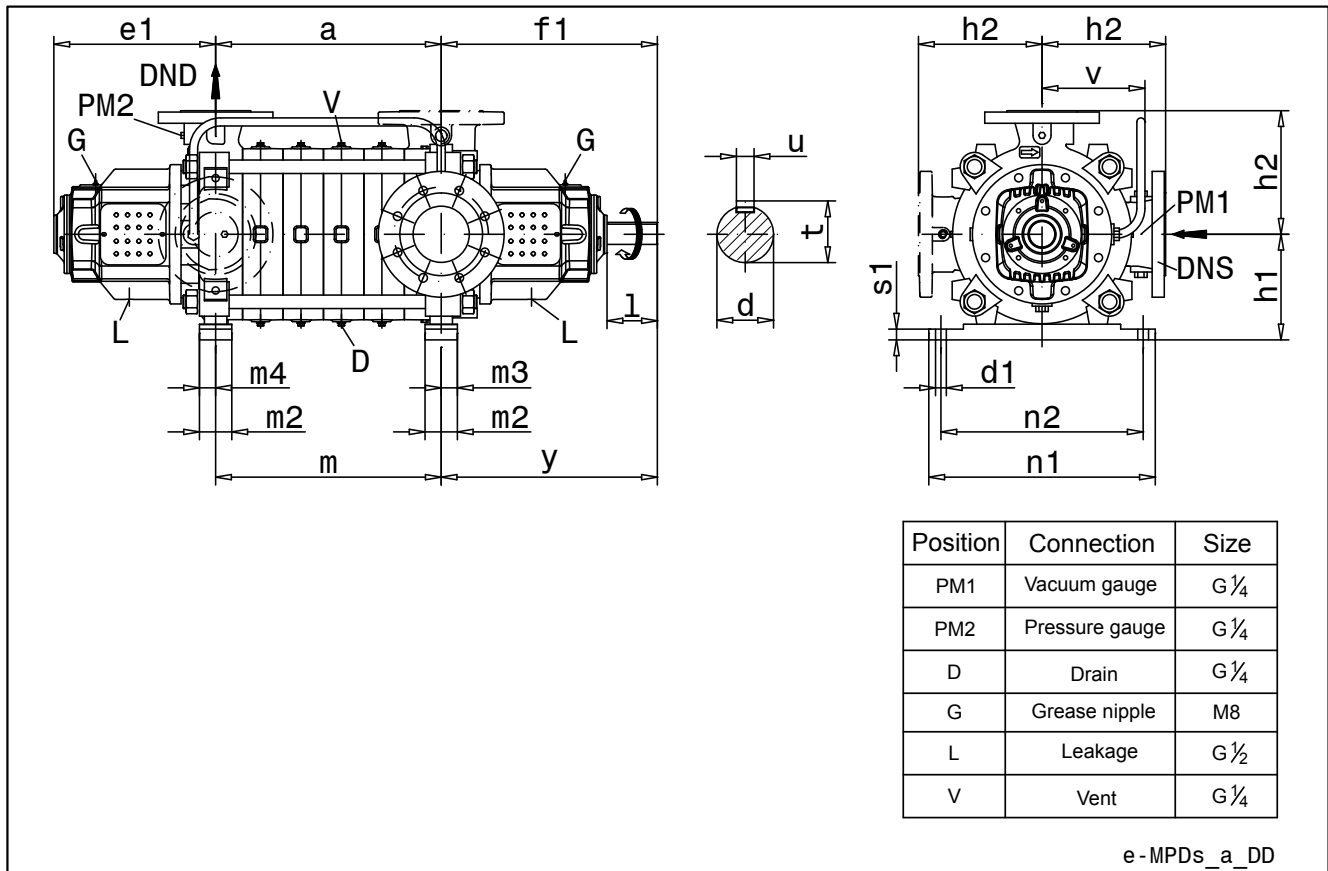
MPD SERIES - Size 150
WITH SPACER COUPLING, DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPD Size	NUMBER OF STAGES	IEC MOTOR FRAME	3000 [rpm]		1500 [rpm]		DIMENSIONS [mm]																WEIGHT G [kg]	COUPLING TYPE
			[kW]	[kW]	DNS	DND	a	e1	f1	x	B1	B2	L1	L2	L3	L5	H	h2	s	Hmax	Lmax			
150	1	315S/M	132	-	200	150	210	440	605	250	930	880	2250	925	200	315	543	400	6xØ26 (M20)	1073	2749	2000	H160E	
		315S/M	160	-	200	150	210	440	605	250	930	880	2250	925	200	315	543	400	6xØ26 (M20)	1073	2749	2068	H160E	
		315L	200	-	200	150	210	440	605	250	930	880	2250	925	200	315	543	400	6xØ26 (M20)	1118	2858	2248	H180F	
		315L	250	-	200	150	210	440	605	250	930	880	2250	925	200	315	543	400	6xØ26 (M20)	1118	2858	2322	H180F	
		355M/L	315	-	200	150	210	440	605	250	1000	930	2350	925	250	315	583	400	6xØ29 (M24)	1203	2917	3050	H200E	
		200L	-	30	200	150	210	440	605	250	900	860	1800	700	200	315	483	400	6xØ19 (M16)	883	2272	1169	H140E	
	2	225S/M	-	37	200	150	210	440	605	250	910	860	1850	725	200	315	498	400	6xØ19 (M16)	898	2391	1307	H140F	
		355M/L	315	-	200	150	342	440	605	250	1000	930	2500	1000	250	447	583	400	6xØ29 (M24)	1203	3049	3194	H200E	
		355M/L	355	-	200	150	342	440	605	250	1000	930	2500	1000	250	447	583	400	6xØ29 (M24)	1203	3049	3183	H200E	
		355A/B	400	-	200	150	342	440	605	250	1000	930	2600	1050	250	447	583	400	6xØ29 (M24)	1308	3244	3527	H225E	
		355A/B	450	-	200	150	342	440	605	250	1000	930	2600	1050	250	447	583	400	6xØ29 (M24)	1308	3244	3677	H225E	
		400J/H	560	-	200	150	342	440	605	250	1140	1070	2900	1150	300	447	692	400	6xØ29 (M24)	1092	3637	4629	NAN212D	
		400J/H	630	-	200	150	342	440	605	250	1140	1070	2900	1150	300	447	692	400	6xØ29 (M24)	1092	3637	4714	NAN212D	
		225S/M	-	37	200	150	342	440	605	250	910	860	2000	800	200	447	498	400	6xØ19 (M16)	898	2523	1447	H140F	
	3	225S/M	-	45	200	150	342	440	605	250	910	860	2000	800	200	447	498	400	6xØ19 (M16)	898	2523	1474	H140F	
		250S/M	-	55	200	150	342	440	605	250	910	860	2050	825	200	447	498	400	6xØ19 (M16)	898	2602	1578	H160E	
		280S/M	-	75	200	150	342	440	605	250	910	860	2150	875	200	447	523	400	6xØ26 (M20)	988	2708	1807	H180G	
		400J/H	500	-	200	150	474	440	605	250	1140	1070	3050	1225	300	579	692	400	6xØ29 (M24)	1092	3769	4852	H225F	
		400J/H	560	-	200	150	474	440	605	250	1140	1070	3050	1225	300	579	692	400	6xØ29 (M24)	1092	3769	4833	NAN212D	
		400J/H	630	-	200	150	474	440	605	250	1140	1070	3050	1225	300	579	692	400	6xØ29 (M24)	1092	3769	4918	NAN212D	
		450J/H	710	-	200	150	474	440	605	250	1260	1170	3150	1275	300	579	782	400	6xØ29 (M24)	1342	3943	6487	NAN212E	
		450J/H	800	-	200	150	474	440	605	250	1260	1170	3150	1275	300	579	782	400	6xØ29 (M24)	1342	3943	6537	NAN212E	
		450J/H	900	-	200	150	474	440	605	250	1260	1170	3150	1275	300	579	782	400	6xØ29 (M24)	1342	3943	6542	NAN225C	
		280S/M	-	75	200	150	474	440	605	250	910	860	2300	900	250	579	523	400	6xØ26 (M20)	988	2840	1958	H180G	
	4	280S/M	-	90	200	150	474	440	605	250	910	860	2300	900	250	579	523	400	6xØ26 (M20)	988	2840	2011	H180G	
		315S/M	-	110	200	150	474	440	605	250	930	880	2500	1000	250	579	543	400	6xØ26 (M20)	1073	3043	2301	H200F	
		315S/M	-	132	200	150	474	440	605	250	930	880	2500	1000	250	579	543	400	6xØ26 (M20)	1073	3043	2362	H200F	
		450J/H	710	-	200	150	606	440	605	250	1260	1170	3300	1350	300	711	782	400	6xØ29 (M24)	1342	4075	6633	NAN212E	
		450J/H	800	-	200	150	606	440	605	250	1260	1170	3300	1350	300	711	782	400	6xØ29 (M24)	1342	4075	6683	NAN212E	
		450J/H	900	-	200	150	606	440	605	250	1260	1170	3300	1350	300	711	782	400	6xØ29 (M24)	1342	4075	6687	NAN225C	
		450J/H	1000	-	200	150	606	440	605	250	1260	1170	3300	1350	300	711	782	400	6xØ29 (M24)	1342	4075	6967	NAN225C	
		280S/M	-	90	200	150	606	440	605	250	910	860	2400	950	250	711	523	400	6xØ26 (M20)	988	2972	2141	H180G	
	5	315S/M	-	110	200	150	606	440	605	250	930	880	2650	1075	250	711	543	400	6xØ26 (M20)	1073	3175	2436	H200F	
		315S/M	-	132	200	150	606	440	605	250	930	880	2650	1075	250	711	543	400	6xØ26 (M20)	1073	3175	2497	H200F	
		315S/M	-	160	200	150	606	440	605	250	930	880	2650	1075	250	711	543	400	6xØ26 (M20)	1073	3175	2602	H200F	
		315S/M	-	132	200	150	738	440	605	250	930	880	2800	1100	300	843	543	400	6xØ26 (M20)	1073	3307	2632	H200F	
		315S/M	-	160	200	150	738	440	605	250	930	880	2800	1100	300	843	543	400	6xØ26 (M20)	1073	3307	2737	H200F	
		315L	-	200	200	150	738	440	605	250	930	880	2800	1100	300	843	543	400	6xØ26 (M20)	1118	3422	2934	H225F	
	6	315S/M	-	160	200	150	870	440	605	250	930	880	2900	1150	300	975	543	400	6xØ26 (M20)	1073	3439	2867	H200F	
		315L	-	200	200	150	870	440	605	250	930	880	2900	1150	300	975	543	400	6xØ26 (M20)	1118	3554	3064	H225F	
		315L	-	250	200	150	870	440	605	250	930	880	2900	1150	300	975	543	400	6xØ26 (M20)	1118	3554	3186	H225F	

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
 For flanges dimensions see drawing on pages 127-128.

e-MPDs-SC-AS-150-EN_b_td

MPDE SERIES - PN100
DRIVE ON SUCTION SIDE
DIMENSIONS AND WEIGHTS AT 50 Hz



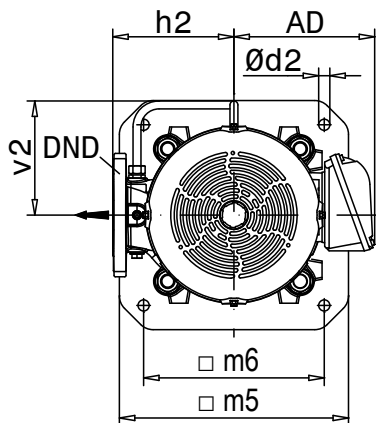
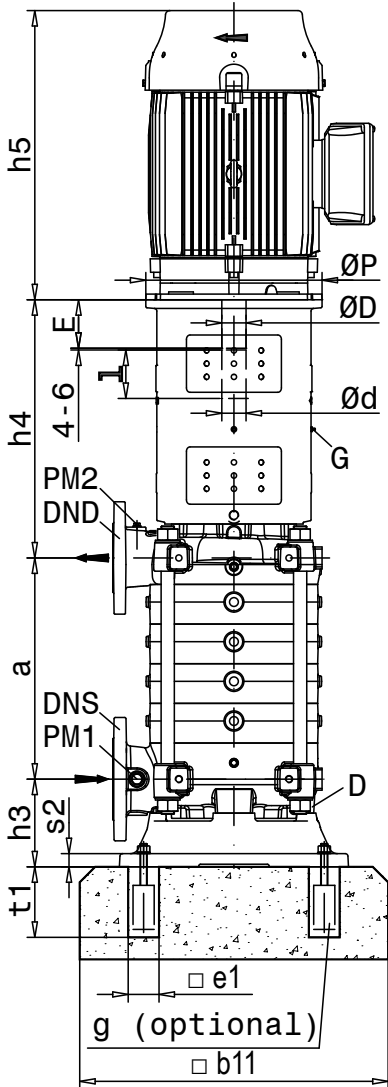
PUMP TYPE MPD	DIMENSIONS [mm]																			
	Pump dimensions								Feet dimensions								Shaft end			
	Size	DNS	DND	e1	f1	h1	h2	v	y	m2	m3	m4	n1	n2	b	d1	s1	d	t	u
65	100	65	309	405	190	250	250	393	60	42	18	410	365	99	19	25	35k6	38	10	80
100	125	100	360	481	235	300	300	472	72	45	27	504	450	125	24	30	45k6	48,5	14	110
125	150	125	374	506	300	350	350	488	90	63	27	610	560	209	26	45	52k6	56	16	110
150	200	150	440	605	350	425	425	585	100	40	40	735	680	260	26	40	60m6	64	18	130

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request. e-MPDEs-en_a_td
 For flanges dimensions see drawing on pages 127-128.

SIZE NUMBER OF STAGES	65			100			125			150		
	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]	a	m	G [kg]
3	-	-	-	-	-	-	-	-	-	474	494	1093
4	-	-	-	-	-	-	509	509	748	606	626	1237
5	-	-	-	-	-	-	621	621	832	738	758	1381
6	-	-	-	592	592	559	733	733	916	870	890	1525
7	-	-	-	682	682	613	845	845	1000			
8	-	-	-	772	772	667	957	957	1084			
9	734	734	378	862	862	721						
10	812	812	403	952	952	775						
11	890	890	428	1042	1042	829						
12	968	968	453									
13	1046	1046	478									
14	1124	1124	503									
15	1202	1202	528									

e-MPDEs-stage-en_a_td

**MPV SERIES
DIMENSIONS AND WEIGHTS AT 50 Hz**



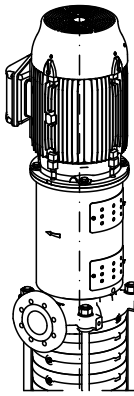
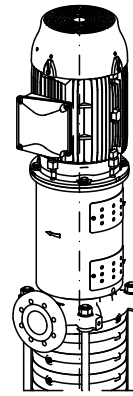
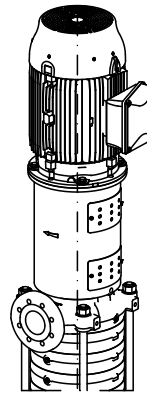
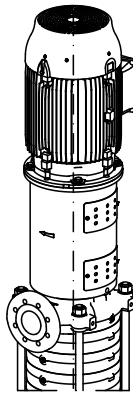
terminal box position

code-K1

code-K2

code-K3

code-K4



standard

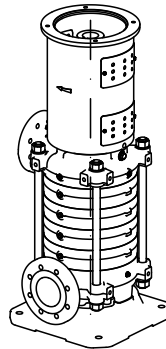
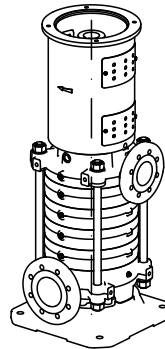
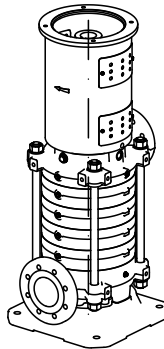
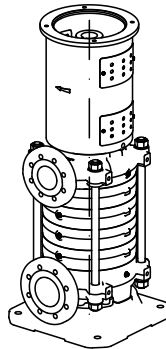
nozzle position

code-00

code-0G

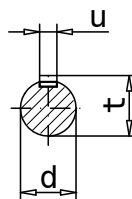
code-0L

code-0R



design 0G: standard for 1 and 2 stages (00 not possible)
design 00: standard for 3 or more stages

pump shaft end



MPV SERIES DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE MPV Size	DIMENSIONS [mm]																
	Pump dimensions													Base dimensions			
	DNS	DND	h2	h3	d2	m5	m6	s2	v2	d	t	u	l	b11	e1	t1	g
50	80	50	200	136	20	375	280	24	200	28j6	31	8	70	580	80	300	M16x300
65	100	65	225	165	20	440	340	27	225	35k6	38	10	80	640	80	300	M16x300
100	125	100	275	199	25	520	410	30	275	45k6	48,5	14	110	720	90	300	M20x300
125	150	125	325	225	30	620	480	34	325	52k6	56	16	110	820	100	400	M24x400
150	200	150	400	248	35	750	570	34	400	60m6	64	18	135	1000	120	400	M30x400

NOTE. Pumps supplied with flanges according to EN 1092-2 as standard; available ASME B16.5 version on request.
For flanges dimensions see drawing on pages 127-128.

e-MPV-en_b_td

Size Number of stages	50		65		100		125		150	
	a	G1 [kg]	a	G1 [kg]	a	G1 [kg]	a	G1 [kg]	a	G1 [kg]
1	87	89	110	133	142	236	173	389	210	642
2	149	101	188	157	232	274	285	456	342	770
3	211	113	266	181	322	312	397	523	474	898
4	273	125	344	205	412	350	509	590	606	1026
5	335	137	422	229	502	388	621	657	738	1154
6	397	149	500	253	592	426	733	724	870	1282
7	459	161	578	277	682	464	845	791		
8	521	173	656	301	772	502	957	858		
9	583	185	734	325	862	540				
10	645	197	812	349	952	578				
11	707	209	890	373	1042	616				
12	769	221	968	397						
13	831	233	1046	421						
14	893	245	1124	445						
15	955	257	1202	469						
16	1017	269								
17	1079	281								
18	1141	293								

e-MPV-stage-en_b_td

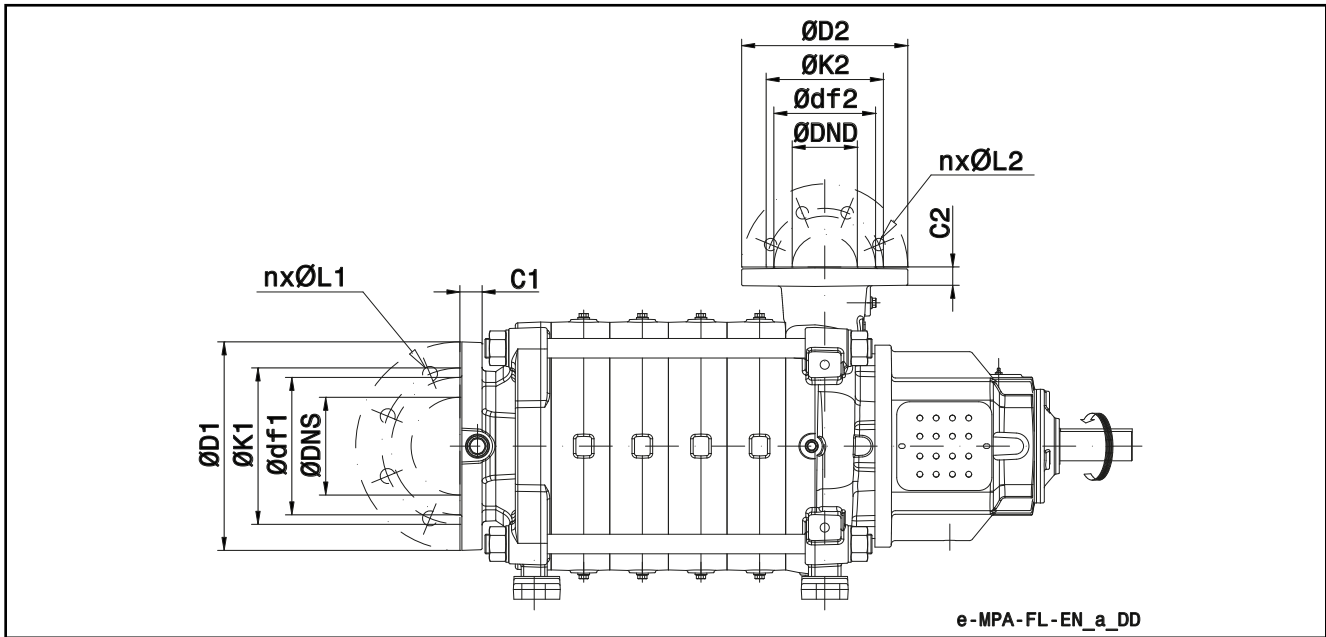
MPV SERIES DIMENSIONS AND WEIGHTS AT 50 Hz

PUMP TYPE	MPV Size	3000 [rpm] [kW]	1500 [rpm] [kW]	Pump dimensions										Motor dimensions					
				50		65		100		125		150		h5	P	D	E	AD	G3 [kg]
				h4	G2 [kg]	h4	G2 [kg]	h4	G2 [kg]	h4	G2	h4	G2 [kg]						
100L	-	2,2	414	29,8	-	-	-	-	-	-	-	-	322	250	28 j6	60	168	29	
100L	-	3	414	29,8	-	-	-	-	-	-	-	-	353	250	28 j6	60	168	35,4	
112M	-	4	414	29,8	-	-	-	-	-	-	-	-	398	250	28 j6	60	168	57,2	
132S	5,5	-	434	32,1	-	-	-	-	-	-	-	-	375	300	38 k6	80	168	37,4	
132S	-	5,5	434	32,1	477	44,4	-	-	-	-	-	-	405	300	38 k6	80	191	62,8	
132S	7,5	-	434	32,1	-	-	-	-	-	-	-	-	367	300	38 k6	80	191	55,8	
132M	-	7,5	434	32,1	477	44,4	-	-	-	-	-	-	405	300	38 k6	80	191	67,4	
160M	11	-	464	38,2	-	-	-	-	-	-	-	-	428	350	42 k6	110	191	70,4	
160M	-	11	464	38,2	507	46,8	586	69,9	602	85,5	-	-	494	350	42 k6	110	240	86,2	
160M	15	-	464	38,2	507	46,8	-	-	-	-	-	-	494	350	42 k6	110	240	102	
160L	19	-	464	38,2	507	46,8	-	-	-	-	-	-	494	350	42 k6	110	240	110,6	
160L	-	15	464	39,3	507	47,9	586	69,9	602	85,5	-	-	494	350	42 k6	110	240	128,4	
180M	22	-	464	39,3	507	47,9	-	-	-	-	-	-	494	350	48k6	110	240	121,2	
180M	-	19	-	-	507	47,9	586	69,9	602	85,5	-	-	554	350	48k6	110	281	172	
180L	-	22	-	-	507	47,9	586	69,9	602	85,5	-	-	592	350	48k6	110	281	193	
200L	30	-	464	43,8	507	55,9	-	-	-	-	-	-	657	400	55m6	110	319	232	
200L	-	30	-	-	507	55,9	586	72	602	81,7	-	-	657	400	55m6	110	319	247	
200L	37	-	464	43,8	507	55,9	586	72	-	-	-	-	657	400	55m6	110	319	248	
225S/M	-	37	-	-	-	-	616	82,7	632	94,6	-	-	746	450	60m6	140	384	375	
225S/M	45	-	464	50,4	507	58,5	586	79,3	-	-	-	-	746	450	55m6	110	384	381	
225S/M	-	45	-	-	-	-	616	82,7	632	94,6	-	-	746	450	60m6	140	384	402	
250M	55	-	494	68,8	537	72,9	616	98,2	-	-	-	-	825	550	60m6	140	398	452	
250M	-	55	-	-	-	-	616	100,4	632	105,1	724	140,5	825	550	65m6	140	398	489	
280S/M	75	-	494	71	537	75,1	616	100,4	-	-	-	-	931	550	65m6	140	465	674	
280S/M	-	75	-	-	-	-	616	104,1	632	108,8	724	144,2	931	550	75m6	140	465	705	
280S/M	90	-	494	71	537	75,1	616	100,4	-	-	-	-	931	550	65m6	140	465	700	
280S/M	-	90	-	-	-	-	-	-	632	108,8	724	144,2	931	550	75m6	140	465	758	
315S/M	110	-	-	-	-	-	616	116	632	124,2	-	-	1104	660	65m6	140	530	913	
315S/M	132	-	-	-	-	-	616	116	632	124,2	754	159,4	1104	660	65m6	140	530	988	
315S/M	-	110	-	-	-	-	-	-	662	134,4	754	167,6	1104	660	80m6	170	530	974	
315S/M	-	132	-	-	-	-	-	-	-	-	754	167,6	1104	660	80m6	170	530	1035	
315S/M	160	-	-	-	-	-	616	116	632	124,2	754	159,4	1104	660	65m6	140	530	1056	
315S/M	-	160	-	-	-	-	-	-	-	-	754	167,6	1104	660	80m6	170	530	1140	
315L	200	-	-	-	-	-	616	119,7	632	127,9	754	163,1	1213	660	65m6	140	575	1230	
315L	-	200	-	-	-	-	-	-	-	-	754	171,6	1219	660	80m6	170	575	1328	
315L	250	-	-	-	-	-	616	119,7	632	127,9	754	163,1	1213	660	65m6	140	575	1304	
315L	-	250	-	-	-	-	-	-	-	-	754	171,6	1219	660	80m6	170	575	1450	
355M/L	315	-	-	-	-	-	-	-	632	160,5	794	211,4	1272	800	75m6	140	620	1936	
355M/L	355	-	-	-	-	-	-	-	632	160,5	794	211,4	1272	800	75m6	140	620	1925	
355A/B	400	-	-	-	-	-	-	-	632	164,5	794	215,4	1467	800	75m6	140	725	2250	
355A/B	450	-	-	-	-	-	-	-	632	164,5	794	215,4	1467	800	75m6	140	725	2400	

Total pump unit weight G = weight G1 + weight G2 + weight G3 (±5%)

e-MPV-AS-en_c_td

MPA SERIES FLANGE DIMENSIONS (EN1092-1, EN1092-2)



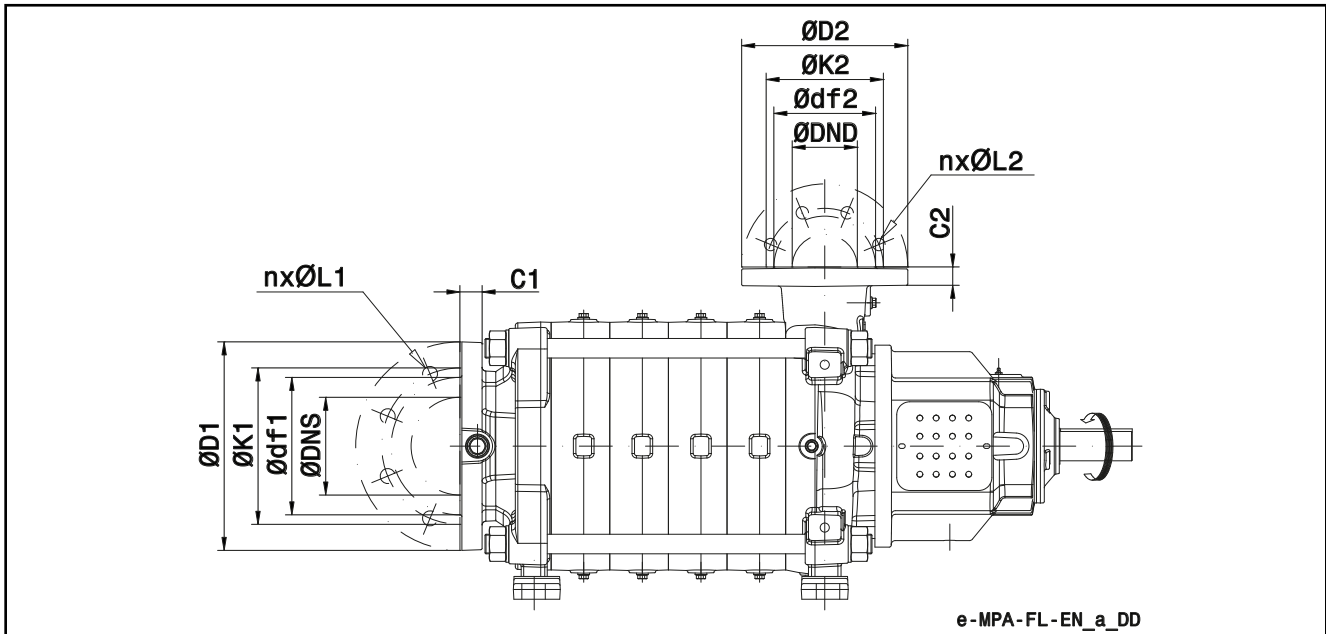
e-MPA-FL-EN_a_DD

PUMP TYPE	DIMENSIONS (mm)															
	MPA Size	Suction side						Discharge side								
	DNS	PN	D1	K1	C1	df1	n x ØL1	DND	PN	D2	K2	C2	df2	n x ØL2		
Cast Iron EN-GJL-250 (EN1092-2)	50	100	10/16	235	180	28	156	8x19	50	10/40	180	125	28	99	4x19	
	50	100	25/40	235	190	28	156	8x23	50							
	65	125	10/16	270	210	30	184	8x19	65	10/16	190	145	24	118	4x19	
	65	125	25/40	270	220	30	184	8x28	65	25/40	190	145	24	118	8x19	
	100	150	10/16	320	240	34	211	8x23	100	10/16	255	180	28	156	8x19	
	100	150	25/40	320	250	34	211	8x28	100	25/40	255	190	28	156	8x23	
	125	200	10	380	295	40	266	8x23	125	10/16	280	210	30	184	8x19	
	125	200	16	380	295	40	266	12x23	125	25/40	280	220	30	184	8x28	
	125	200	25	380	310	40	266	12x28								
	125	200	40	380	320	40	266	12x31								
150	250	10	450	350	46	319	12x23	150	10/16	355	240	39	216	8x23		
150	250	16	450	355	46	319	12x28	150	25/40	355	250	39	216	8x28		
150	250	25	450	370	46	330	12x31									
150	250	40	450	385	46	345	12x34									
Ductile Iron EN-GLS-400-15 (EN1092-2)	50	100	10/16	235	180	28	156	8x19	50	10/40	180	135	28	99	4x19	
	50	100	25/40	235	190	28	156	8x23	50	63	180	135	28	99	4x23	
	65	125	10/16	270	210	30	184	8x19	65	10/16	205	145	28	118	4x19	
	65	125	25/40	270	220	30	184	8x28	65	25/40	205	145	28	118	8x19	
	65								65	63	205	160	28	118	8x23	
	100	150	10/16	320	240	34	211	8x23	100	10/16	275	180	33	156	8x19	
	100	150	25/40	320	250	34	211	8x28	100	25/40	275	190	33	156	8x23	
	100								100	63	275	200	33	156	8x28	
	125	200	10	380	295	40	266	8x23	125	10/16	330	210	37	184	8x19	
	125	200	16	380	295	40	266	12x23	125	25/40	330	220	37	184	8x28	
125	200	25	380	310	40	266	12x28	125	63	330	240	37	184	8x31		
125	200	40	380	320	40	266	12x31									
150	250	10	450	350	46	319	12x23	150	10/16	355	240	39	216	8x23		
150	250	16	450	355	46	319	12x28	150	25/40	355	250	39	216	8x28		
150	250	25	450	370	46	330	12x31	150	63	355	280	39	216	8x34		
150	250	40	450	385	46	345	12x34									
Cast Steel 1.4408, 1.4517 (EN1092-1)	50	100	10/16	235	180	24	160	8x18	50	10/40	180	125	26	102	4x18	
	50	100	25/40	235	190	24	160	8x22	50	63	180	135	26	102	4x22	
	65	125	10/16	270	210	26	188	8x18	65	10/16	205	145	26	122	4x18	
	65	125	25/40	270	220	26	188	8x26	65	25/40	205	145	26	122	8x18	
	65								65	63	205	160	26	122	8x22	
	65								65	100	220	170	34	122	8x26	
	100	150	10/16	320	240	28	216	8x22	100	10/16	275	180	30	162	8x18	
	100	150	25/40	320	250	28	216	8x26	100	25/40	275	190	30	162	8x22	
	100								100	63	275	200	30	162	8x26	
	100								100	100	275	210	40	162	8x30	
	125	200	10	380	295	34	268	8x22	125	10/16	330	210	34	188	8x18	
	125	200	16	380	295	34	268	12x22	125	25/40	330	220	34	188	8x26	
	125	200	25	380	310	34	278	12x26	125	63	330	240	34	188	8x30	
	125	200	40	380	320	34	285	12x30	125	100	330	250	40	188	8x33	
	150	250	10	450	350	38	320	12x22	150	10/16	355	240	36	216	8x22	
150	250	16	450	355	38	320	12x26	150	25/40	355	250	36	216	8x26		
150	250	25	450	370	38	335	12x30	150	63	355	280	36	216	8x33		
150	250	40	450	385	38	345	12x33	150	100	355	290	44	218	12x33		

NOTE: Value D, C and df may vary from standard

e-MPA-FL-EN-en_b_td

MPA SERIES FLANGE DIMENSIONS (ASME B16.5)

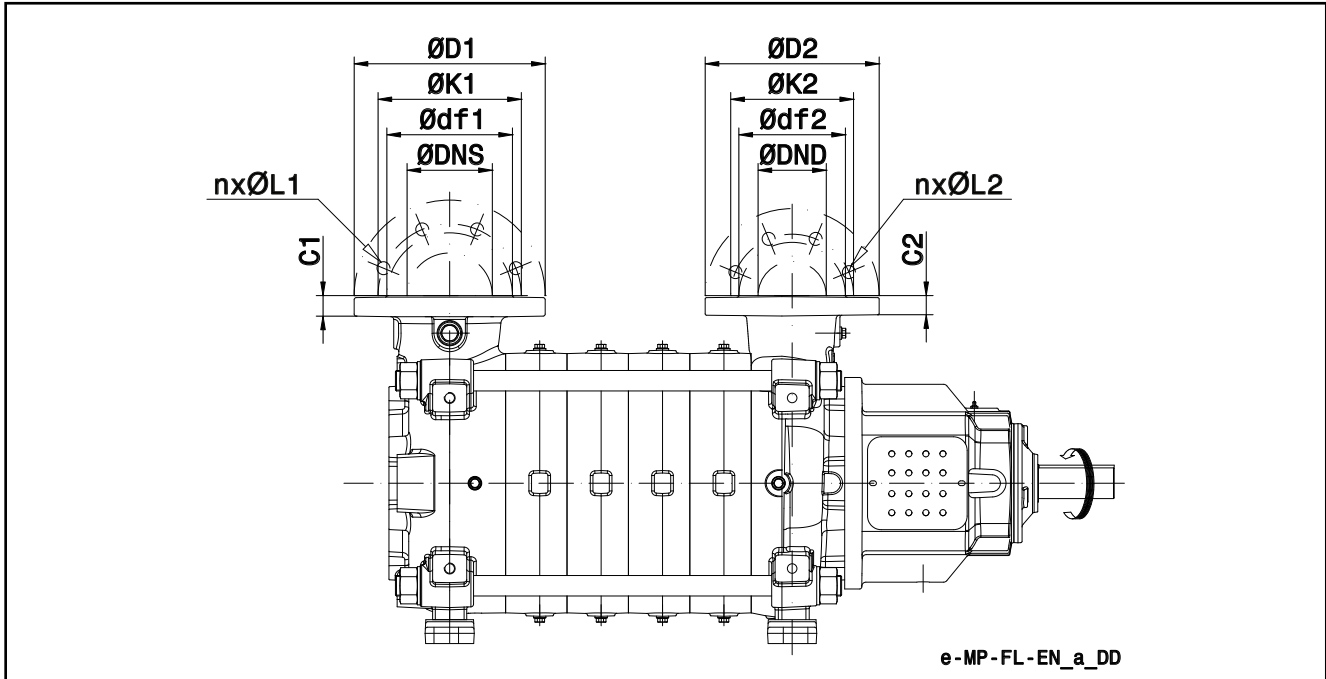


PUMP TYPE MPA Size	DIMENSIONS (mm)														
	Suction side								Discharge side						
	DNS	CLASS	D1	K1	C1	df1	n x ØL1	DND	CLASS	D2	K2	C2	df2	n x ØL2	
Cast Iron EN-GJL-250 (ASME B16.5)	50	4"	150	235	191	28	156	8x18	2"	150	180	121	28	99	4x18
	50								2"	300	180	127	28	99	8x18
	65	5"	150	270	216	30	184	8x22	2 1/2"	150	190	140	24	118	4x18
	65								2 1/2"	300	190	150	24	118	8x22
	100	6"	150	320	242	34	211	8x22	4"	150	255	191	28	156	8x18
	100	6"	300	320	270	34	211	12xM20	4"	300	255	200	28	156	8x22
	125	8"	150	380	299	40	266	8x22	5"	150	280	216	30	184	8x22
	125	8"	300	380	330	40	266	12x26	5"	300	280	235	30	184	8x22
	150	10"	150	450	362	46	324	12x26	6"	150	355	242	39	216	8x22
150	10"	300	450	388	46	324	16x29,5	6"	300	355	270	39	216	12x22	
Ductile Iron EN-GJS-400-15 (ASME B16.5)	50	4"	150	235	191	28	156	8x18	2"	150	180	121	28	99	4x18
	50								2"	300/600	180	127	28	99	8x18
	65	5"	150	270	216	30	184	8x22	2 1/2"	150	205	140	28	118	4x18
	65	5"	300	280	235	30	186	8x22	2 1/2"	300/600	205	150	28	118	8x22
	100	6"	150	320	242	34	211	8x22	4"	150	275	191	33	156	8x18
	100	6"	300	320	270	34	211	12xM20	4"	300	275	200	33	156	8x22
	100								4"	600	275	216	33	156	8x26
	125	8"	150	380	299	40	266	8x22	5"	150	330	216	37	184	8x22
	125	8"	300	380	330	40	266	12x26	5"	300	330	235	37	184	8x22
	125								5"	600	330	267	37	184	8x29,5
	150	10"	150	450	362	46	324	12x26	6"	150	355	242	39	216	8x22
	150	10"	300	450	388	46	324	16x29,5	6"	300	355	270	39	216	12x22
150								6"	600	355	292	39	216	12x29,5	
Cast Steel 1.4408, 1.4517 (ASME B16.5)	50	4"	150	235	191	24	160	8x18	2"	150	180	121	26	102	4x18
	50								2"	300/600	180	127	26	102	8x18
	65	5"	150	270	216	26	188	8x22	2 1/2"	150	205	140	26	122	4x18
	65	5"	300	280	235	26	188	8x22	2 1/2"	300/600	205	150	26	122	8x22
	100	6"	150	320	242	28	216	8x22	4"	150	275	191	30	162	8x18
	100	6"	300	320	270	28	216	12xM20	4"	300	275	200	30	162	8x22
	100								4"	600	275	216	30	162	8x26
	125	8"	150	380	299	34	270	8x22	5"	150	330	216	34	188	8x22
	125	8"	300	380	330	34	270	12x26	5"	300	330	235	34	188	8x22
	125								5"	600	330	267	34	188	8x29,5
	150	10"	150	450	362	38	324	12x26	6"	150	355	242	36	216	8x22
	150	10"	300	450	388	38	324	16x29,5	6"	300	355	270	36	216	12x22
	150								6"	600	355	292	36	216	12x29,5

NOTE: Value D, C and df may vary from standard

e-MPA-FL-ASME-en_b_td

**MPD, MPR, MPV SERIES
FLANGE DIMENSIONS (EN1092-1, EN1092-2)**

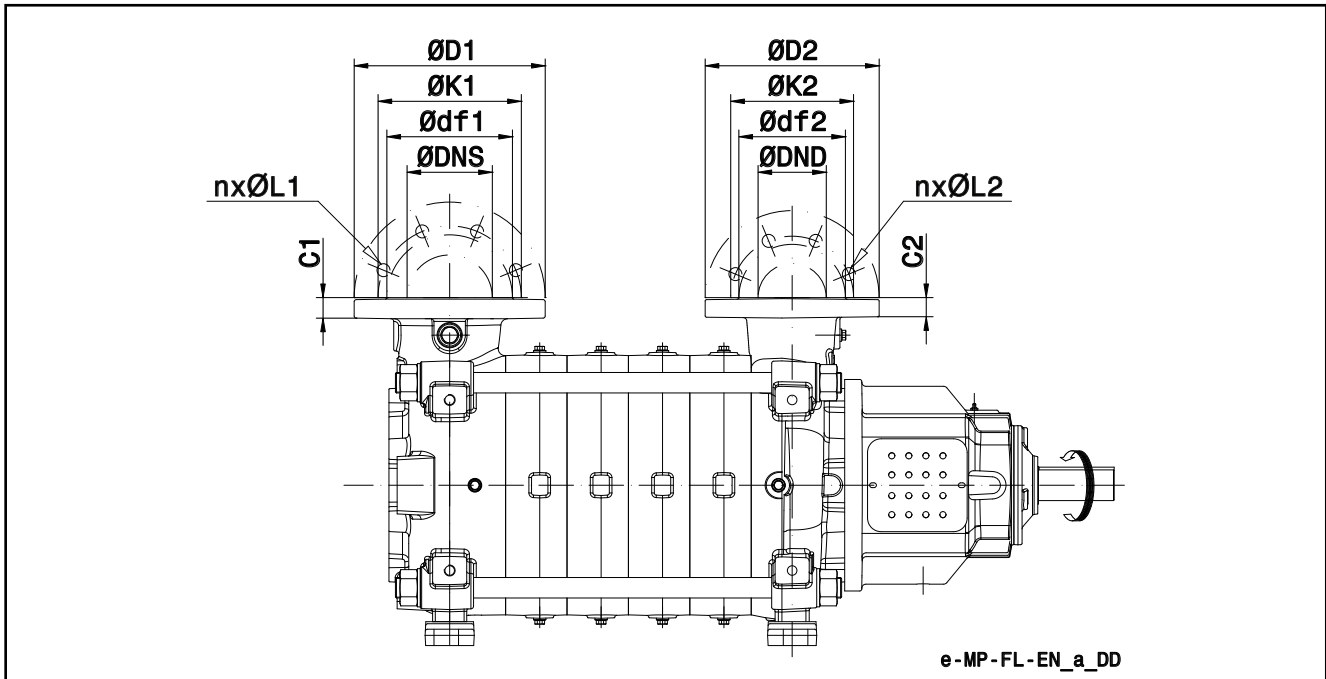


e-MP-FL-EN_a_DD

PUMP TYPE MPD, MPR, MPV	Size	DIMENSIONS (mm)													
		Suction side							Discharge side						
		DNS	PN	D1	K1	C1	df1	n x ØL1	DND	PN	D2	K2	C2	df2	n x ØL2
Cast Iron EN-GJL-250 (EN1092-2)	50	80	10/40	210	160	26	132	8x19	50	10/40	180	125	28	99	4x19
	65	100	10/16	255	180	28	156	8x19	65	10/16	190	145	24	118	4x19
	65	100	25/40	255	190	28	156	8x23	65	25/40	190	145	24	118	8x19
	100	125	10/16	280	210	30	184	8x19	100	10/16	255	180	28	156	8x19
	100	125	25/40	280	220	30	184	8x28	100	25/40	255	190	28	156	8x23
	125	150	10/16	320	240	34	216	8x23	125	10/16	280	210	30	184	8x19
	125	150	25/40	320	250	34	216	8x28	125	25/40	280	220	30	184	8x28
	150	200	10	380	295	40	266	8x23	150	10/16	355	240	39	216	8x23
	150	200	16	380	295	40	266	12x23	150	25/40	355	250	39	216	8x28
	150	200	25	380	310	40	274	12x28							
150	200	40	380	320	40	284	12x31								
Ductile Iron EN-GJL-400-15 (EN1092-2)	50	80	10/40	210	160	26	132	8x19	50	10/40	180	125	28	99	4x19
	50								50	63	180	135	28	99	4x23
	65	100	10/16	255	180	28	156	8x19	65	10/16	205	145	28	118	4x19
	65	100	25/40	255	190	28	156	8x23	65	25/40	205	145	28	118	8x19
	65	100	63	255	200	33	157	8x28	65	63	205	160	28	118	8x23
	100	125	10/16	280	210	30	184	8x19	100	10/16	275	180	33	156	8x19
	100	125	25/40	280	220	30	184	8x28	100	25/40	275	190	33	156	8x23
	100	125	63	295	240	37	184	8x31	100	63	275	200	33	156	8x28
	125	150	10/16	320	240	34	216	8x23	125	10/16	330	210	37	184	8x19
	125	150	25/40	320	250	34	216	8x28	125	25/40	330	220	37	184	8x28
	125	150	63	345	280	39	216	8x34	125	63	330	240	37	184	8x31
	150	200	10	380	295	40	266	8x23	150	10/16	355	240	39	216	8x23
	150	200	16	380	295	40	266	12x23	150	25/40	355	250	39	216	8x28
	150	200	25	380	310	40	274	12x28	150	63	355	280	39	216	8x34
150	200	40	380	320	40	284	12x31								
150	200	63	415	345	46	284	12x37								
Cast Steel 1.4408, 1.4517 (EN1092-1)	50	80	10/40	210	160	24	138	8x18	50	10/40	180	125	26	102	4x18
	50								50	63	180	135	26	102	4x22
	65	100	10/16	255	180	24	158	8x18	65	10/16	205	145	26	122	4x18
	65	100	25/40	255	190	24	158	8x22	65	25/40	205	145	26	122	8x18
	65	100	63	255	200	30	162	8x26	65	63	205	160	26	122	8x22
	65								65	100	220	170	34	122	8x26
	100	125	10/16	280	210	26	188	8x18	100	10/16	275	180	30	162	8x18
	100	125	25/40	280	220	26	188	8x26	100	25/40	275	190	30	162	8x22
	100	125	63	295	240	34	188	8x30	100	63	275	200	30	162	8x26
	100								100	100	275	210	40	162	8x30
	125	150	10/16	320	240	28	212	8x22	125	10/16	330	210	34	188	8x18
	125	150	25/40	320	250	28	212	8x26	125	25/40	330	220	34	188	8x26
	125	150	63	345	280	36	216	8x33	125	63	330	240	34	188	8x30
	125								125	100	330	250	40	188	8x33
	150	200	10	380	295	34	268	8x22	150	10/16	355	240	36	216	8x22
	150	200	16	380	295	34	268	12x22	150	25/40	355	250	36	216	8x26
	150	200	25	380	310	34	278	12x26	150	63	355	280	36	216	8x33
	150	200	40	380	320	34	285	12x30	150	100	355	290	44	218	12x33
150	200	63	415	345	42	285	12x36								

NOTE: Value D, C and df may vary from standard

**MPD, MPR, MPV SERIES
FLANGE DIMENSIONS (ASME B16.5)**



e-MP-FL-EN_a_DD

PUMP TYPE MPD, MPR, MPV	DIMENSIONS (mm)														
	Size	Suction side							Discharge side						
		DNS	CLASS	D1	K1	C1	df1	n x ØL1	DND	CLASS	D2	K2	C2	df2	n x ØL2
Cast Iron EN-GJL-250 (ASME B16.5)	50	3"	150	210	153	26	132	4x18	2"	150	180	121	28	99	4x18
	50	3"	300	210	168	26	132	8x22	2"	300	180	127	28	99	8x18
	65	4"	150	255	191	28	156	8x18	2 1/2"	150	190	140	24	118	4x18
	65	4"	300	255	200	28	156	8x22	2 1/2"	300	190	150	24	118	8x22
	100	5"	150	280	216	30	184	8x22	4"	150	255	191	28	156	8x18
	100	5"	300	280	235	30	184	8x22	4"	300	255	200	28	156	8x22
	125	6"	150	320	242	34	216	8x22	5"	150	280	216	30	184	8x22
	125	6"	300	320	270	34	216	12x22	5"	300	280	235	30	184	8x22
	150	8"	150	380	299	40	270	8x22	6"	150	355	242	39	216	8x22
150	8"	300	380	330	40	270	12x26	6"	300	355	270	39	216	12x22	
Ductile Iron EN-GJS-400-15 (ASME B16.5)	50	3"	150	210	153	26	132	4x18	2"	150	180	121	28	99	4x18
	50	3"	300	210	168	26	132	8x22	2"	300/600	180	127	28	99	8x18
	65	4"	150	255	191	28	156	8x18	2 1/2"	150	205	140	28	118	4x18
	65	4"	300	255	200	28	156	8x22	2 1/2"	300/600	205	150	28	118	8x22
	100	5"	150	280	216	30	184	8x22	4"	150	275	191	33	156	8x18
	100	5"	300	280	235	30	184	8x22	4"	300	275	200	33	156	8x22
	100								4"	600	275	216	33	156	8x26
	125	6"	150	320	242	34	216	8x22	5"	150	330	216	37	184	8x22
	125	6"	300	320	270	34	216	12x22	5"	300	330	235	37	184	8x22
	125								5"	600	330	267	37	184	8x29,5
	150	8"	150	380	299	40	270	8x22	6"	150	355	242	39	216	8x22
150	8"	300	380	330	40	270	12x26	6"	300	355	270	39	216	12x22	
150								6"	600	355	292	39	216	12x29,5	
Cast Steel 1.4408, 1.4517 (ASME B16.5)	50	3"	150	210	153	24	138	4x18	2"	150	180	121	26	102	4x18
	50	3"	300	210	168	24	138	8x22	2"	300	180	127	26	102	8x18
	65	4"	150	255	191	24	158	8x18	2 1/2"	150	205	140	26	122	4x18
	65	4"	300	255	200	24	158	8x22	2 1/2"	300/600	205	150	26	122	8x22
	100	5"	150	280	216	26	188	8x22	4"	150	275	191	30	162	8x18
	100	5"	300	280	235	26	188	8x22	4"	300	275	200	30	162	8x22
	100								4"	600	275	216	30	162	8x26
	125	6"	150	320	242	28	212	8x22	5"	150	330	216	34	188	8x22
	125	6"	300	320	270	28	212	12x22	5"	300	330	235	34	188	8x22
	125								5"	600	330	267	34	188	8x29,5
	150	8"	150	380	299	34	270	8x22	6"	150	355	242	36	216	8x22
	150	8"	300	380	330	34	270	12x26	6"	300	355	270	36	216	12x22
150								6"	600	355	292	36	216	12x29,5	

NOTE: Value D, C and df may vary from standard

e-MP-FL-ASME-en_a_td

**e-MP
with HYDROVAR®
(HVL series)**

MP.H SERIES (e-MP WITH HYDROVAR)

Background and context

For all pumping needs in commercial or residential building and in industry applications, the demand for intelligent pumping systems is constantly growing. Controlled systems offer many advantages: reduced operating costs for the lifetime of the pump, lower environmental impact, longer lifetime of piping systems and networks.

For this reason, Lowara has developed the MP.H: an intelligent pumping system which assures high level performance with energy consumption tailored to the system's demand.

Benefits of e-MP with HYDROVAR

Saving: MP.H transforms the e-MP pumps into variable speed intelligent pumping systems. Thanks to the HYDROVAR, the speed of each pump varies so as to maintain a constant flow, a constant pressure, or a differential pressure. In doing so, at any point in time, the pump only receives the energy required. This in turns allows for considerable savings, especially for systems that have varying loads throughout the day.

Easy installation and space-saving: MP.H saves time and space during installation. The Hydrovar is delivered already mounted on the motor (for models up to 22kW). The hydrovar is kept cool by the motor fan and does not require a control panel. In order to function, only fuses on the supply line are needed (Check your local electrical installation regulations).

Key Features of the HYDROVAR

- **No need for additional pressure sensors:**
The MP.H is fitted as standard with two pressure transmitters, normally fitted on the flanges.
- **No need for special pumps or motors.**
- **MP.H is already pre-wired.**
- **No need for IN LINE filters.**
HYDROVAR already includes the THDi filter embedded as standard.
- **No need for bypass or safety systems:**
The MP.H will immediately switch off when demand drops to zero or when it exceeds maximum pump capacity; thus making installation of additional safety devices unnecessary.
- **Anti-condensation device:**
The HYDROVAR is fitted with anti-condensation devices which switch on when the pump is in standby in order to prevent condensation forming in the unit.

HYDROVAR HVL: 1,5 kW to 22 kW, can be mounted to motor or wall

HYDROVAR SMART: Over 22 kW, combines all HYDROVAR intelligence with any frequency drive, and can be installed anywhere due to its slim design (e.g. inside of the control panel)

Features	HYDROVAR HVL	HYDROVAR SMART
Fits onto any standard asynchronous motor	•	-
Advanced motor control	•	•
THDi filter embedded	•	on request
Extended communication capabilities	•	•
Easy to commission and operate	•	•
Multi-pump capability	up to 8	up to 4

MP.H SERIES (e-MP WITH HYDROVAR)

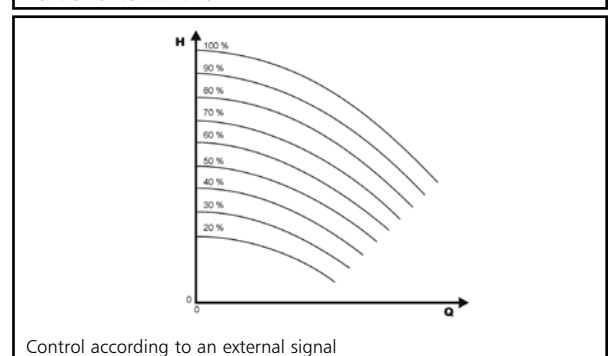
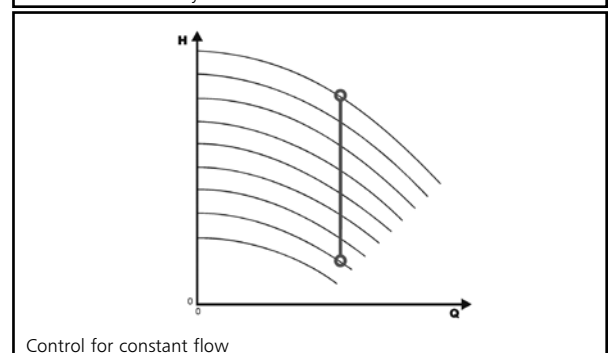
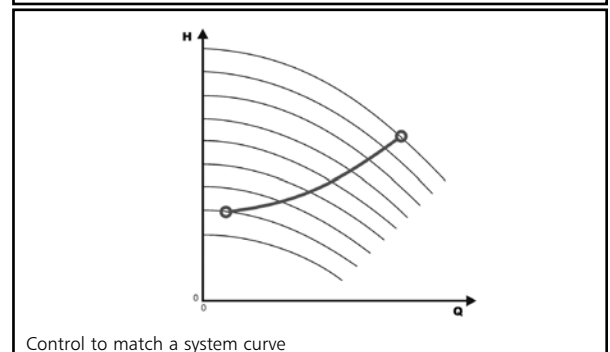
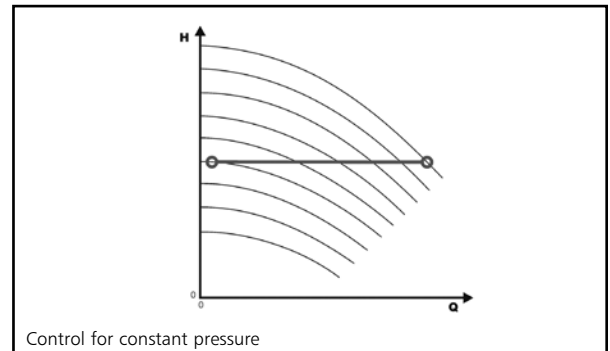
The basic function of the HYDROVAR device is to control the pump to meet the system demands.

HYDROVAR performs these functions by:

- 1) Measuring the system pressure or flow via a transmitter mounted on the pump's delivery side.
- 2) Calculating the motor speed to maintain the correct flow or pressure.
- 3) Sending out a signal to the pump to start the motor, increase speed, decrease speed or stop.
- 4) In the case of multiple pump installations, HYDROVAR will automatically provide for the cyclic changeover of the pumps' starting sequence.

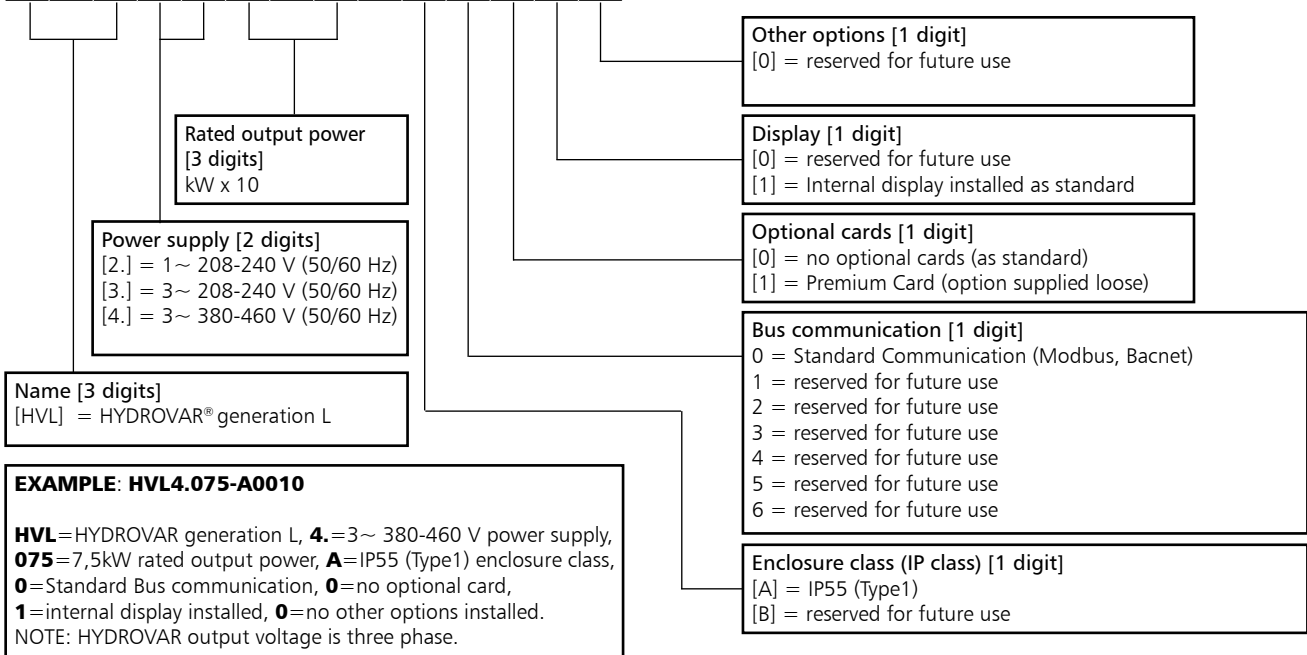
In addition to these basic functions, HYDROVAR can perform controls only manageable by the most advanced computerized control systems. Some examples are:

- Stop the pump(s) at zero demand.
- Stop the pump(s) in case of water failure on the suction side (protection against dry running).
- Stop the pump if the required delivery exceeds the pump's capacity (protection against cavitation caused by excessive demand), or automatically switch on the next pump in a multiple series.
- Protect the pump and motor from over-voltage, under-voltage, overload, and earth fault.
- Vary the pump speed: acceleration and deceleration time.
- Compensate for increased flow resistance at high flow rates.
- Conduct automatic tests at set intervals.
- Monitor the converter and motor operating hours.
- Display the energy consumption (kWh).
- Display all functions on an LCD in different languages (Italian, English, French, German, Spanish, Portuguese, Dutch, etc...).
- Send a signal to a remote control system which is proportional to the pressure and frequency.
- Communicate with external control system via Modbus (RS 485 interface) and Bacnet as standard.



HYDROVAR HVL IDENTIFICATION CODE

H V L 4 . 0 7 5 - A 0 0 1 0



DIMENSIONS AND WEIGHTS



TYPE	MODELS			DIMENSIONS (mm)				WEIGHT Kg
	/2	/3	/4	L	B	H	X	
SIZE A	HVL2.015 ÷ 2.022	HVL3.015 ÷ 3.022	HVL4.015 ÷ 4.040	216	205	170	243	5,6
SIZE B	HVL2.030 ÷ 2.040	HVL3.030 ÷ 3.055	HVL4.055 ÷ 4.110	276	265	185	305	10,5
SIZE C	-	HVL3.075 ÷ 3.110	HVL4.150 ÷ 4.220	366	337	200	407	15,6

HVL_dim-en_b_td

HYDROVAR HVL EMC COMPATIBILITY

EMC requirements

HYDROVAR fulfills the product standard EN61800-3:2004 + A1:2012, which defines categories (C1 to C4) for device application areas.

Depending on the motor cable length, a classification of HYDROVAR by category (based on EN61800-3) is reported in the following tables:

HVL	HYDROVAR classification by categories based on EN61800-3
2.015 ÷ 2.040	C1 (*)
3.015 ÷ 3.110	C2 (*)
4.015 ÷ 4.220	C2 (*)

(*) 0,75 motor cable length; contact Xylem for further information

En-Rev_A

CARD

Premium Card HYDROVAR (optional)

For the e-MPH series, the Premium Card comes fitted as option on the standalone HYDROVAR.

This allows to control up to five fix speed pumps via an external panel.

The Premium Card will allow additional features listed below:

- 2 additional Analog Inputs
- 2 Analog Outputs
- 1 additional digital input
- 5 relays.



OPTIONAL COMPONENTS

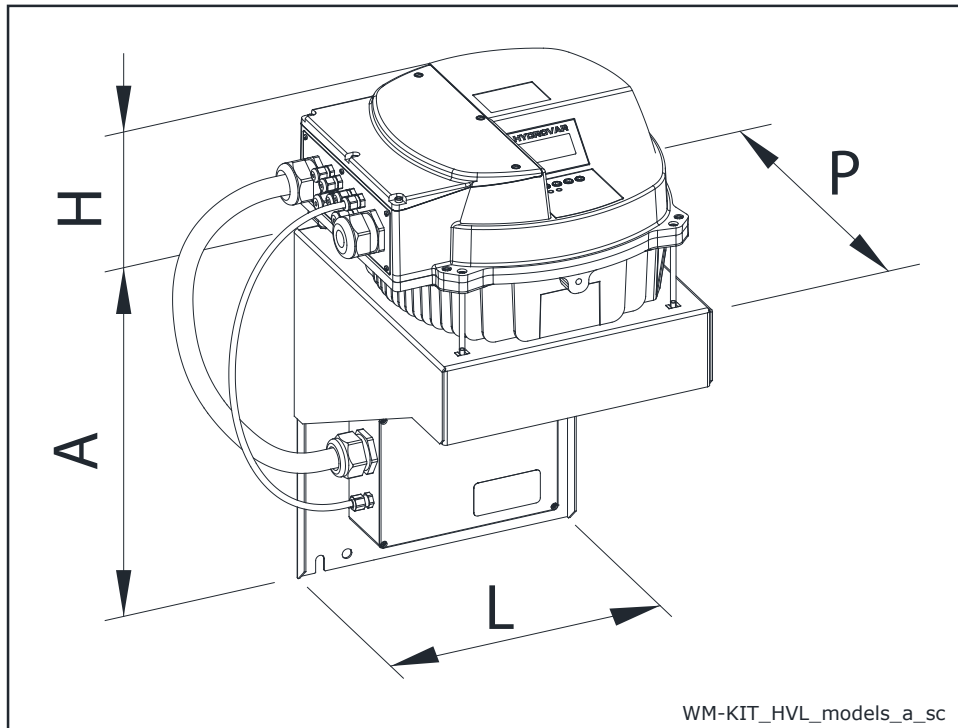
Sensors

The following sensors are available for HYDROVAR:

- a. Pressure-transducer
- b. Differential pressure-transducer
- c. Temperature-sensor
- d. Flow indicator (orifice plate, inductive flow meter)
- e. Level-sensor.

HYDROVAR HVL (WALL MOUNTING KIT) DIMENSIONS AND WEIGHTS

As an option a HYDROVAR wall mounting kit is also available. This is used where mounting on the pump unit is impossible or where you would like the controls in another location. These are available for the new generation HYDROVAR HVL 2.015-4.220 (22 kW). The speed of the cooling fan modulates with the HYDROVAR usage which optimizes energy consumption and also reduces noise.

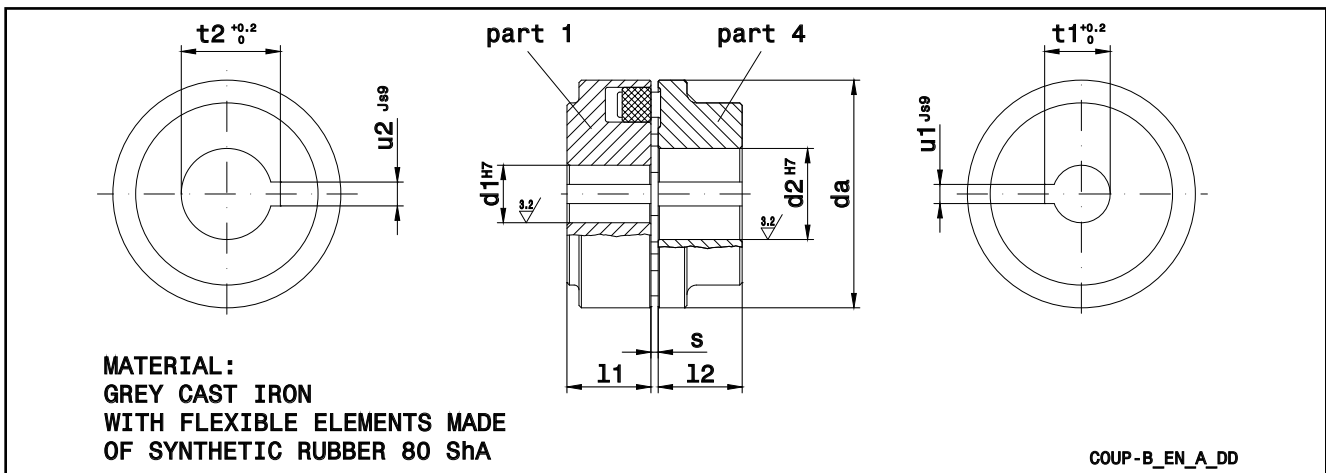


WM KIT TYPE	kW	WM KIT POWER SUPPLY	HVL SIZE	DIMENSIONS (mm)				WEIGHT (kg)	
				A	H	L	P	HVL	WM KIT
WM KIT HVL 2.015	1,5	1~ 230V	A	220	170	202	232	5,6	2,6
WM KIT HVL 2.022	2,2			220	170	202	232	5,6	2,6
WM KIT HVL 2.030	3		B	240	175	258	290	10,5	8,2
WM KIT HVL 2.040	4			320	175	288	305	10,5	5,4
WM KIT HVL 3.015	1,5	3~ 230V	A	220	170	202	232	5,6	2,6
WM KIT HVL 3.022	2,2			220	170	202	232	5,6	2,6
WM KIT HVL 3.030	3		B	240	175	258	290	10,5	8,2
WM KIT HVL 3.040	4			240	175	258	290	10,5	8,2
WM KIT HVL 3.055	5,5		C	240	175	258	290	10,5	8,2
WM KIT HVL 3.075	7,5			400	200	325	365	15,6	11,6
WM KIT HVL 3.110	11		400	200	325	365	15,6	11,6	
WM KIT HVL 4.015	1,5		3~ 400V	A	240	170	258	290	5,6
WM KIT HVL 4.022	2,2	240			170	258	290	5,6	8,2
WM KIT HVL 4.030	3	240			170	258	290	5,6	8,2
WM KIT HVL 4.040	4	240			170	258	290	5,6	8,2
WM KIT HVL 4.055	5,5	B		240	175	258	290	10,5	8,2
WM KIT HVL 4.075	7,5			240	175	258	290	10,5	8,2
WM KIT HVL 4.110	11	C		320	175	288	305	10,5	5,4
WM KIT HVL 4.150	15			400	200	325	365	15,6	11,6
WM KIT HVL 4.185	18,5			400	200	325	365	15,6	11,6
WM KIT HVL 4.220	22			400	200	325	365	15,6	11,6

WM-KIT_HVL_models-EN_b_td

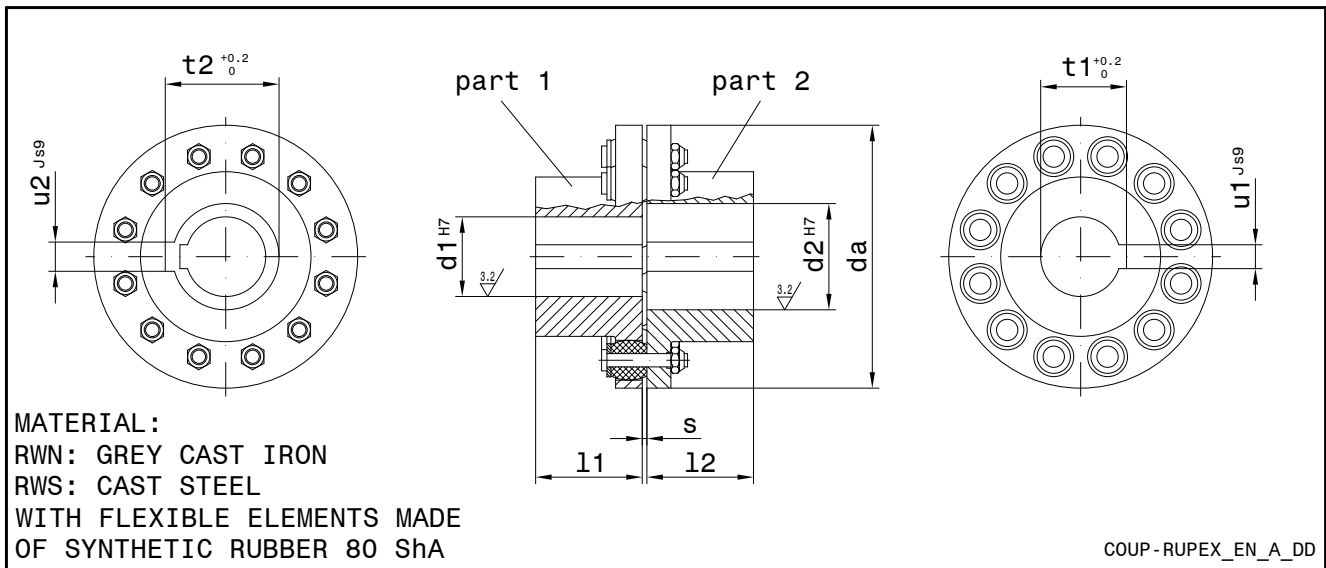
ACCESSORIES

FLEXIBLE COUPLING DIMENSIONS



REF.	DENOMINATION	DIMENSIONS (mm)										
		d _a	PART 1 PUMP-SIDE HALF COUPLING					PART 4 MOTOR-SIDE HALF COUPLING				
			d ₁ H7	l ₁	u ₁ js9	t ₁ 0 ^{+0.2}	s	d ₂ H7	l ₂	u ₂ js9	t ₂ 0 ^{+0.2}	
B80A	B 80 x 28 x 28	80	28	30	8	31,3	2÷4	28	30	8	31,3	
B80B	B 80 x 28 x 38	80	28	30	8	31,3	2÷4	38	30	10	41,3	
B95A	B 95 x 28 x 42	95	28	35	8	31,3	2÷4	42	35	12	45,3	
B95B	B 95 x 35 x 28	95	35	35	10	38,3	2÷4	28	35	8	31,3	
B95C	B 95 x 35 x 38	95	35	35	10	38,3	2÷4	38	35	10	41,3	
B95D	B 95 x 35 x 42	95	35	35	10	38,3	2÷4	42	35	12	45,3	
B110A	B 110 x 28 x 42	110	28	40	8	31,3	2÷4	42	40	12	45,3	
B110B	B 110 x 28 x 48	110	28	40	8	31,3	2÷4	48	40	14	51,8	
B110C	B 110 x 35 x 42	110	35	40	10	38,3	2÷4	42	40	12	45,3	
B110D	B 110 x 35 x 48	110	35	40	10	38,3	2÷4	48	40	14	51,8	
B110E	B 110 x 45 x 38	110	45	40	14	48,8	2÷4	38	40	10	41,3	
B110F	B 110 x 45 x 42	110	45	40	14	48,8	2÷4	42	40	12	45,3	
B110G	B 110 x 45 x 48	110	45	40	14	48,8	2÷4	48	40	14	51,8	
B125A	B 125 x 28 x 55	125	28	50	8	31,3	2÷4	55	50	16	59,3	
B125B	B 125 x 35 x 55	125	35	50	10	38,3	2÷4	55	50	16	59,3	
B125C	B 125 x 45 x 55	125	45	50	14	48,8	2÷4	55	50	16	59,3	
B125D	B 125 x 52 x 42	125	52	50	16	56,3	2÷4	42	50	12	45,3	
B125E	B 125 x 52 x 48	125	52	50	16	56,3	2÷4	48	50	14	51,8	
B125F	B 125 x 52 x 55	125	52	50	16	56,3	2÷4	55	50	16	59,3	
B140A	B 140 x 28 x 60	140	28	55	8	31,3	2÷4	60	55	18	64,4	
B140B	B 140 x 35 x 60	140	35	55	10	38,3	2÷4	60	55	18	64,4	
B140C	B 140 x 45 x 60	140	45	55	14	48,8	2÷4	60	55	18	64,4	
B140D	B 140 x 52 x 60	140	52	55	16	56,3	2÷4	60	55	18	64,4	
B140E	B 140 x 60 x 55	140	60	55	18	64,4	2÷4	55	55	16	59,3	
B140F	B 140 x 60 x 60	140	60	55	18	64,4	2÷4	60	55	18	64,4	
B160A	B 160 x 28 x 65	160	28	60	8	31,3	2÷6	65	60	18	69,4	
B160B	B 160 x 35 x 65	160	35	60	10	38,3	2÷6	65	60	18	69,4	
B160C	B 160 x 45 x 65	160	45	60	14	48,8	2÷6	65	60	18	69,4	
B160D	B 160 x 52 x 65	160	52	60	16	56,3	2÷6	65	60	18	69,4	
B160E	B 160 x 60 x 65	160	60	60	18	64,4	2÷6	65	60	18	69,4	
B180A	B 180 x 35 x 65	180	35	70	10	38,3	2÷6	65	70	18	69,4	
B180B	B 180 x 45 x 65	180	45	70	14	48,8	2÷6	65	70	18	69,4	
B180C	B 180 x 45 x 75	180	45	70	14	48,8	2÷6	75	70	20	79,9	
B180D	B 180 x 52 x 65	180	52	70	16	56,3	2÷6	65	70	18	69,4	
B180E	B 180 x 52 x 75	180	52	70	16	56,3	2÷6	75	70	20	79,9	
B180F	B 180 x 60 x 65	180	60	70	18	64,4	2÷6	65	70	18	69,4	
B180G	B 180 x 60 x 75	180	60	70	18	64,4	2÷6	75	70	20	79,9	
B200A	B 200 x 45 x 75	200	45	80	14	48,8	2÷6	75	80	20	79,9	
B200B	B 200 x 45 x 80	200	45	80	14	48,8	2÷6	80	80	22	85,4	
B200C	B 200 x 52 x 75	200	52	80	16	56,3	2÷6	75	80	20	79,9	
B200D	B 200 x 52 x 80	200	52	80	16	56,3	2÷6	80	80	22	85,4	
B200E	B 200 x 60 x 75	200	60	80	18	64,4	2÷6	75	80	20	79,9	
B200F	B 200 x 60 x 80	200	60	80	18	64,4	2÷6	80	80	22	85,4	
B225A	B 225 x 45 x 75	225	45	90	14	48,8	2÷6	75	90	20	79,9	
B225B	B 225 x 45 x 80	225	45	90	14	48,8	2÷6	80	90	22	85,4	
B225C	B 225 x 52 x 75	225	52	90	16	56,3	2÷6	75	90	20	79,9	
B225D	B 225 x 52 x 80	225	52	90	16	56,3	2÷6	80	90	22	85,4	
B225E	B 225 x 60 x 75	225	60	90	18	64,4	2÷6	75	90	20	79,9	
B225F	B 225 x 60 x 80	225	60	90	18	64,4	2÷6	80	90	22	85,4	
B250A	B 250 x 60 x 100	250	60	100	18	64,4	4÷6	100	100	28	106,4	

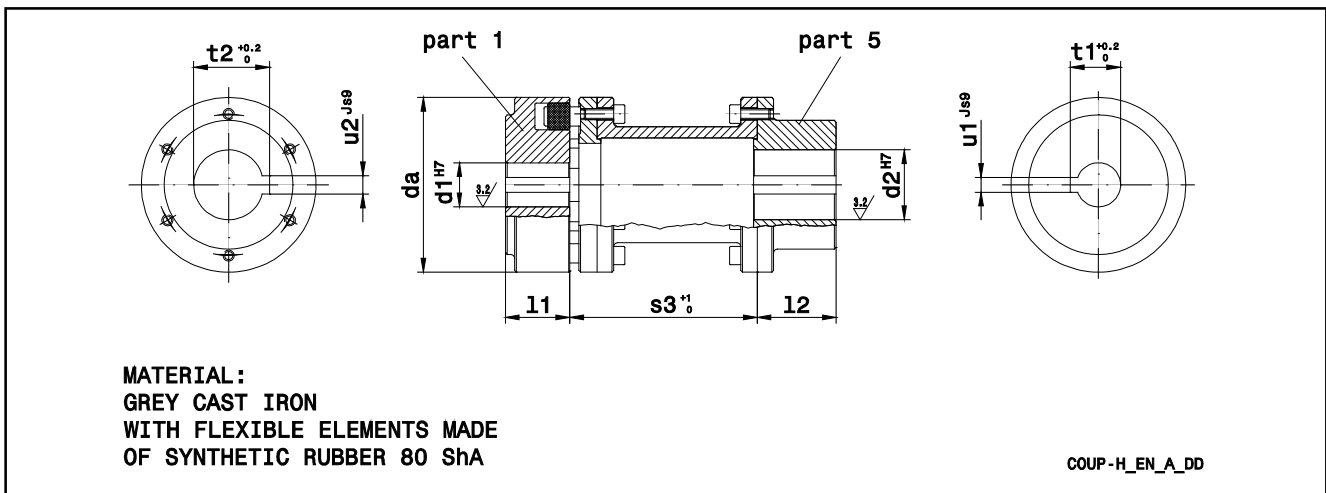
FLEXIBLE COUPLING DIMENSIONS



REF.	DENOMINATION	DIMENSIONS (mm)									
		d_a	PART 1 PUMP-SIDE HALF COUPLING				PART 2 MOTOR-SIDE HALF COUPLING				
			d_1^{H7}	l_1	u_1^{js9}	$t_1^{+0.2}$	s	d_2^{H7}	l_2	u_2^{js9}	$t_2^{+0.2}$
RWN198A	RWN 198 x 35 x 75	198	35	80	10	38,3	3,5	75	80	20	79,9
RWN198B	RWN 198 x 45 x 75	198	45	80	14	48,8	3,5	75	80	20	79,9
RWN198C	RWN 198 x 52 x 75	198	52	80	16	56,3	3,5	75	80	20	79,9
RWS228A	RWS 228 x 45 x 75	228	45	90	14	48,8	3,5	75	90	20	79,9
RWS228B	RWS 228 x 45 x 80	228	45	90	14	48,8	3,5	80	90	22	85,4
RWS228C	RWS 228 x 52 x 75	228	52	90	16	56,3	3,5	75	90	20	79,9
RWS228D	RWS 228 x 52 x 80	228	52	90	16	56,3	3,5	80	90	22	85,4
RWS228E	RWS 228 x 52 x 85	228	52	90	16	56,3	3,5	85	90	22	90,4
RWS228F	RWS 228 x 60 x 80	228	60	90	18	64,4	3,5	80	90	22	85,4
RWS252A	RWS 252 x 52 x 80	252	52	100	16	56,3	3,5	80	100	22	85,4
RWS252B	RWS 252 x 52 x 85	252	52	100	16	56,3	3,5	85	100	22	90,4
RWS252C	RWS 252 x 60 x 80	252	60	100	18	64,4	3,5	80	100	22	85,4
RWS252D	RWS 252 x 60 x 85	252	60	100	18	64,4	3,5	85	100	22	90,4
RWS285A	RWS 285 x 52 x 85	285	52	110	16	56,3	4,5	85	110	22	90,4
RWS285B	RWS 285 x 60 x 80	285	60	110	18	64,4	4,5	80	110	22	85,4
RWS285C	RWS 285 x 60 x 85	285	60	110	18	64,4	4,5	85	110	22	90,4

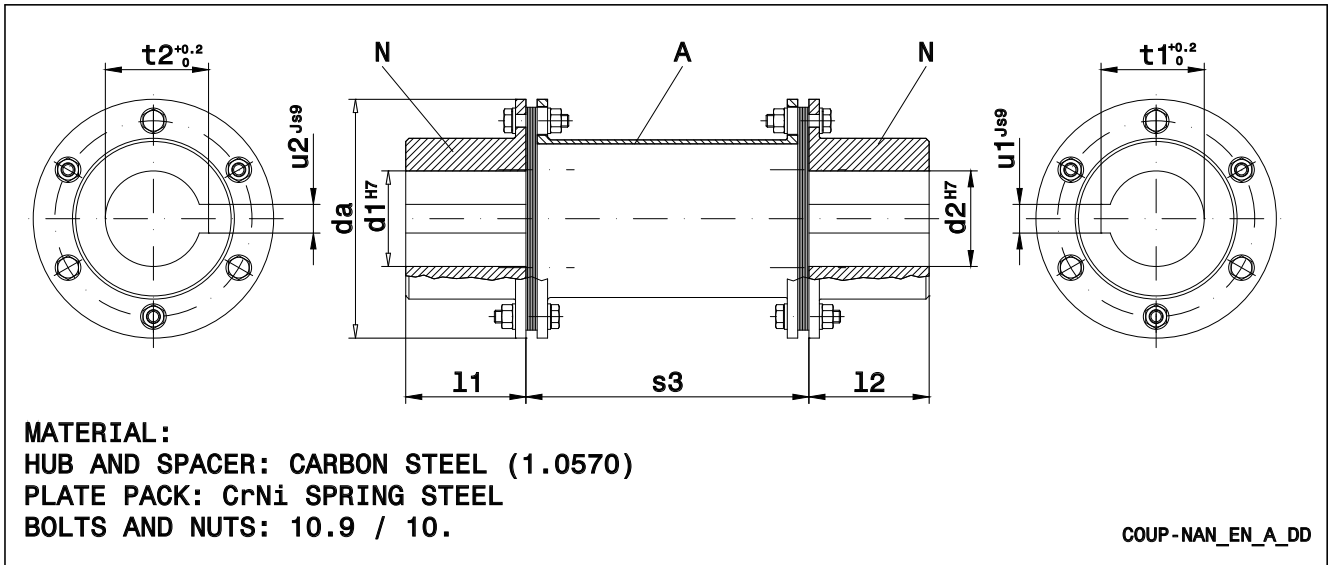
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SPACER COUPLING DIMENSIONS



REF.	DENOMINATION	DIMENSIONS (mm)									
		PART 1						PART 4			
		PUMP-SIDE HALF COUPLING						MOTOR-SIDE HALF COUPLING			
SIZE x d ₁ x d ₂	d _a	s ₃ ^{+0.1}	d ₁ ^{H7}	l ₁	u ₁ ^{JS9}	t ₁ ^{+0.2}	d ₂ ^{H7}	l ₂	u ₂ ^{JS9}	t ₂ ^{+0.2}	
H80A	H 80-140 x 28 x 28	80	140	28	30	8	31,3	28	45	8	31,3
H95A	H 95-140 x 28 x 38	95	140	28	35	8	31,3	38	45	10	41,3
H95B	H 95-140 x 28 x 42	95	140	28	35	8	31,3	42	45	12	45,3
H95C	H 95-140 x 35 x 28	95	140	35	35	10	38,3	28	45	8	31,3
H95D	H 95-140 x 35 x 38	95	140	35	35	10	38,3	38	45	10	41,3
H95E	H 95-140 x 35 x 42	95	140	35	35	10	38,3	42	45	12	45,3
H110A	H 110-140 x 28 x 42	110	140	28	40	8	31,3	42	50	12	45,3
H110B	H 110-140 x 28 x 48	110	140	28	40	8	31,3	48	50	14	51,8
H110C	H 110-140 x 35 x 42	110	140	35	40	10	38,3	42	50	12	45,3
H110D	H 110-140 x 35 x 48	110	140	35	40	10	38,3	48	50	14	51,8
H110E	H 110-180 x 45 x 38	110	180	45	40	14	48,8	38	60	10	41,3
H110F	H 110-180 x 45 x 42	110	180	45	40	14	48,8	42	60	12	45,3
H110G	H 110-180 x 45 x 48	110	180	45	40	14	48,8	48	60	14	51,8
H125A	H 125-140 x 28 x 55	125	140	28	50	8	31,3	55	50	16	59,3
H125B	H 125-140 x 35 x 55	125	140	35	50	10	38,3	55	50	16	59,3
H125C	H 125-180 x 45 x 55	125	180	45	50	14	48,8	55	60	16	59,3
H125D	H 125-180 x 52 x 42	125	180	52	50	16	56,3	42	60	12	45,3
H125E	H 125-180 x 52 x 48	125	180	52	50	16	56,3	48	60	14	51,8
H125F	H 125-180 x 52 x 55	125	180	52	50	16	56,3	55	60	16	59,3
H140A	H 140-140 x 28 x 60	140	140	28	55	8	31,3	60	65	18	64,4
H140B	H 140-140 x 35 x 60	140	140	35	55	10	38,3	60	65	18	64,4
H140C	H 140-180 x 45 x 60	140	180	45	55	14	48,8	60	65	18	64,4
H140D	H 140-180 x 52 x 60	140	180	52	55	16	56,3	60	65	18	64,4
H140E	H 140-250 x 60 x 55	140	250	60	55	18	64,4	55	80	16	59,3
H140F	H 140-250 x 60 x 60	140	250	60	55	18	64,4	60	80	18	64,4
H160A	H 160-140 x 28 x 65	160	140	28	60	8	31,3	65	70	18	69,4
H160B	H 160-140 x 35 x 65	160	140	35	60	10	38,3	65	70	18	69,4
H160C	H 160-180 x 45 x 65	160	180	45	60	14	48,8	65	70	18	69,4
H160D	H 160-180 x 52 x 65	160	180	52	60	16	56,3	65	70	18	69,4
H160E	H 160-250 x 60 x 65	160	250	60	60	18	64,4	65	80	18	69,4
H180A	H 180-140 x 35 x 65	180	140	35	70	10	38,3	65	80	18	69,4
H180B	H 180-180 x 45 x 65	180	180	45	70	14	48,8	65	80	18	69,4
H180C	H 180-180 x 45 x 75	180	180	45	70	14	48,8	75	80	20	79,9
H180D	H 180-180 x 52 x 65	180	180	52	70	16	56,3	65	80	18	69,4
H180E	H 180-180 x 52 x 75	180	180	52	70	16	56,3	75	80	20	79,9
H180F	H 180-250 x 60 x 65	180	250	60	70	18	64,4	65	80	18	69,4
H180G	H 180-250 x 60 x 75	180	250	60	70	18	64,4	75	80	20	79,9
H200A	H 200-180 x 45 x 75	200	180	45	80	14	48,8	75	90	20	79,9
H200B	H 200-180 x 45 x 80	200	180	45	80	14	48,8	80	90	22	85,4
H200C	H 200-180 x 52 x 75	200	180	52	80	16	56,3	75	90	20	79,9
H200D	H 200-180 x 52 x 80	200	180	52	80	16	56,3	80	90	22	85,4
H200E	H 200-250 x 60 x 75	200	250	60	80	18	64,4	75	90	20	79,9
H200F	H 200-250 x 60 x 80	200	250	60	80	18	64,4	80	90	22	85,4
H225A	H 225-180 x 45 x 75	225	180	45	90	14	48,8	75	100	20	79,9
H225B	H 225-180 x 45 x 80	225	180	45	90	14	48,8	80	100	22	85,4
H225C	H 225-180 x 52 x 75	225	180	52	90	16	56,3	75	100	20	79,9
H225D	H 225-180 x 52 x 80	225	180	52	90	16	56,3	80	100	22	85,4
H225E	H 225-250 x 60 x 75	225	250	60	90	18	64,4	75	100	20	79,9
H225F	H 225-250 x 60 x 80	225	250	60	90	18	64,4	80	100	22	85,4
H250A	H 250-250 x 60 x 100	250	250	60	100	18	64,4	100	110	28	106,4

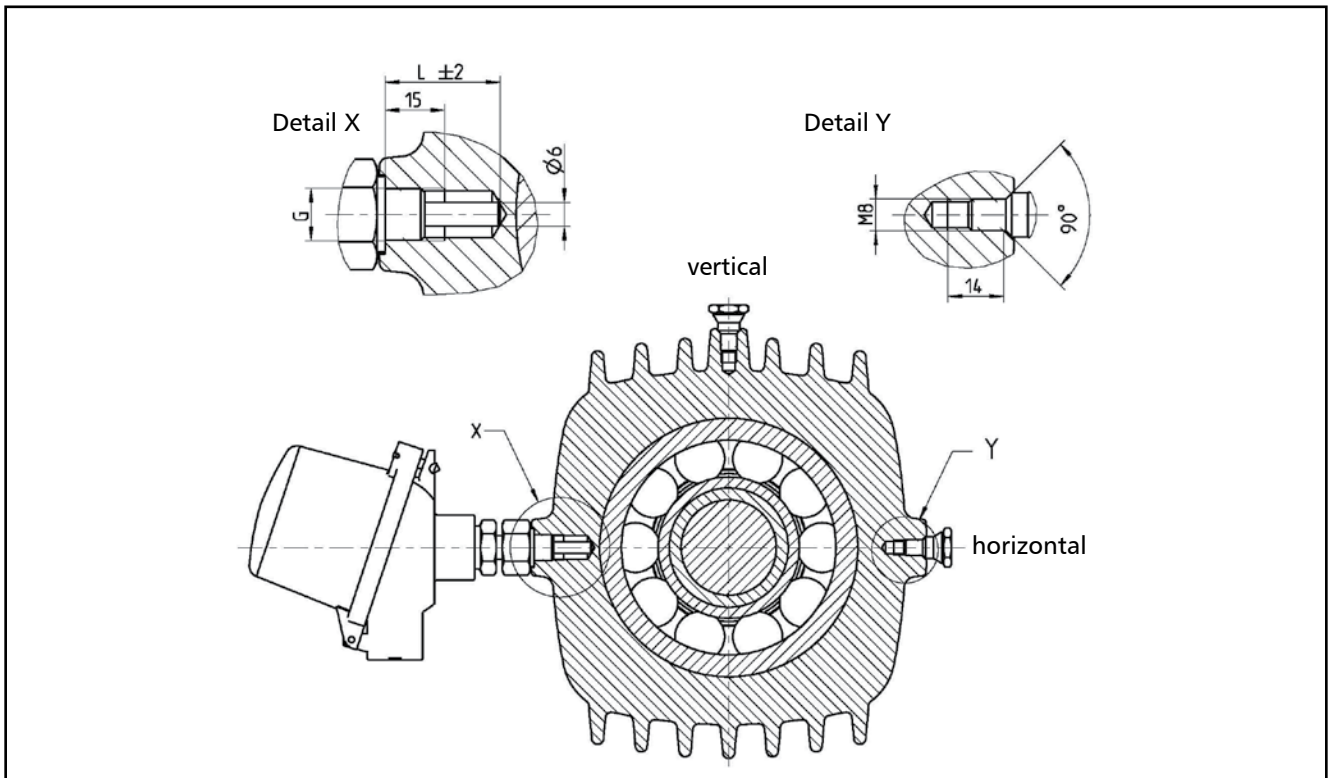
SPACER COUPLING DIMENSIONS



REF.	DENOMINATION SIZE x l x d ₁ x d ₂	DIMENSIONS (mm)										
		da	PART N PUMP-SIDE HALF COUPLING					PART N MOTOR-SIDE HALF COUPLING				
			s ₃ 0 ⁺¹	d ₁ H7	l ₁	u ₁ js9	t ₁ 0 ^{+0.2}	d ₂ H7	l ₂	u ₂ js9	t ₂ 0 ^{+0.2}	
NAN176A	NAN 176-140 x 35 x 75	176	140	35	85	10	38,3	75	85	20	79,9	
NAN176B	NAN 176-180 x 45 x 75	176	180	45	85	14	48,8	75	85	20	79,9	
NAN176C	NAN 176-180 x 52 x 75	176	180	52	85	16	56,3	75	85	20	79,9	
NAN185A	NAN 185-180 x 45 x 75	185	180	45	90	14	48,8	75	90	20	79,9	
NAN185B	NAN 185-180 x 45 x 80	185	180	45	90	14	48,8	80	90	22	85,4	
NAN185C	NAN 185-180 x 52 x 75	185	180	52	90	16	56,3	75	90	20	79,9	
NAN185D	NAN 185-180 x 52 x 80	185	180	52	90	16	56,3	80	90	22	85,4	
NAN212A	NAN 212-180 x 45 x 80	212	180	45	100	14	48,8	80	100	22	85,4	
NAN212B	NAN 212-180 x 52 x 80	212	180	52	100	16	56,3	80	100	22	85,4	
NAN212C	NAN 212-180 x 52 x 85	212	180	52	100	16	56,3	85	100	22	90,4	
NAN212D	NAN 212-250 x 60 x 80	212	250	60	100	18	64,4	80	100	22	85,4	
NAN212E	NAN 212-250 x 60 x 85	212	250	60	100	18	64,4	85	100	22	90,4	
NAN225A	NAN 225-180 x 52 x 85	225	180	52	105	16	56,3	85	105	22	90,4	
NAN225B	NAN 225-250 x 60 x 80	225	250	60	105	18	64,4	80	105	22	85,4	
NAN225C	NAN 225-250 x 60 x 85	225	250	60	105	18	64,4	85	105	22	90,4	
NAN256A	NAN 256-250 x 60 x 80	256	250	60	120	18	64,4	80	120	22	85,4	

Coup-NAN_en_a_td

SENSOR CONNECTOR AND SENSORS FOR PUMP-MONITORING AND DIAGNOSTIC SYSTEMS



Bearing temperature (X)¹

PUMP SIZE	G [inch]	MPA, MPR, MPD	MPV
		L [mm]	L [mm]
50	G1/4	25	80
65	G1/4	25	94
100	G1/4	30	101
125	G1/4	30	114
150	G1/4	30	130

Bearing vibrations sensors (Y)²

1 = Bearing temperature sensor: eg. PT100 - (4 to 20 mA)[]

2 = Bearing vibration nipple: eg. SPM 32000

Different adapters for customer requirements possible[]

eMP-sensor_b_td

REPORTS AND DECLARATIONS

REPORTS AND DECLARATIONS

i) Test reports

a) Factory Test Report

(not available for all pump types; contact Customer Service in advance)

- Test report compiled at the end of the assembly line, including flow-head performance test (ISO 9906:2012) and tightness test.

b) Audit Test Report

- Test report for electric pumps compiled in the test room, comprising flow-head-pump input-pump efficiency performance test (ISO 9906:2012)

c) NPSH Test Report

- Test report for electric pumps compiled in the test room, comprising flow-NPSH performance test (ISO 9906:2012)

d) Noise Test Report

- Report indicating sound pressure and power measurements (EN ISO 20361, EN ISO 11203, EN ISO 4871)

e) Vibration Test Report

- Report indicating vibration measurements (ISO 10816-1)

ii) Declaration of product conformity with the technical requirements indicated in the order

a) EN 10204:2004 - type 2.1

- does not include test results on supplied or similar products.

b) EN 10204:2004 - type 2.2

- includes test results (materials certificates) on similar products.

iii) Issue of a further EC Declaration of Conformity,

- in addition to the one accompanying the product, it comprises references to European law and the main technical standards (e.g.: MD 2006/42/EC, EMCD 2004/108/EC, ErP 2009/125/EC).

N.B.: if the request is made after receipt of the product, communicate the code (name) and serial number (date + progressive number).

iv) Manufacturer's declaration of conformity

- relative to one of more types of products without indicating specific codes and serial numbers.

v) Other certificates and/or documentation on request

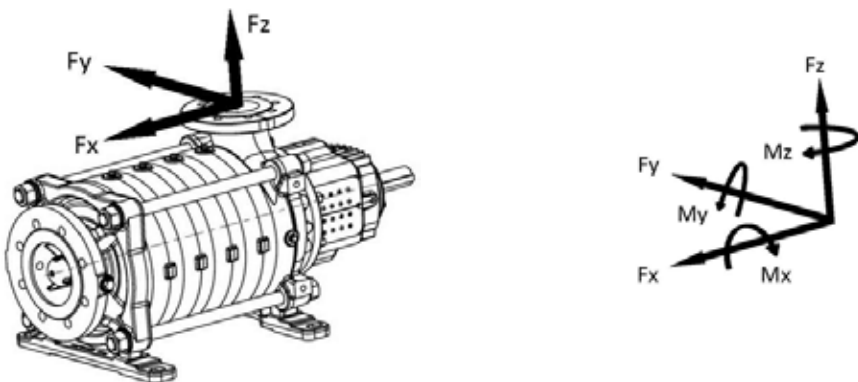
- subject to availability or feasibility.

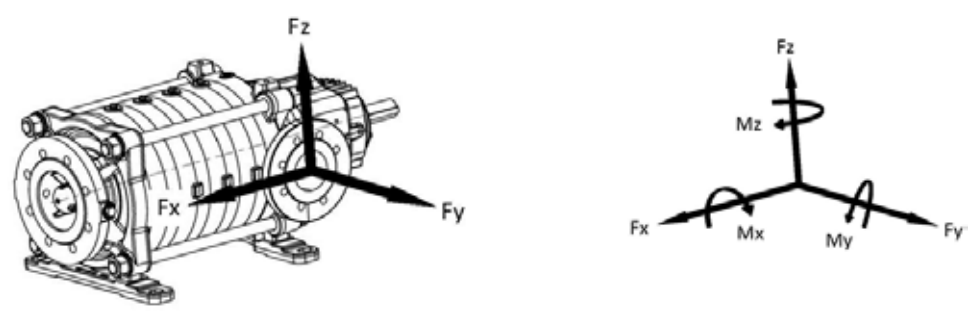
vi) Duplication of certificates and/or documentation on request

- subject to availability or feasibility.

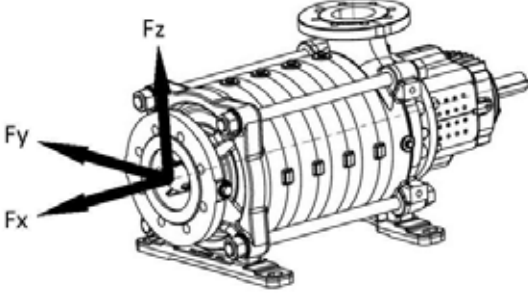
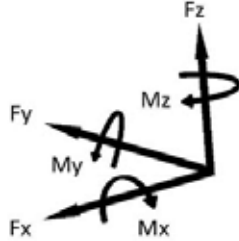
TECHNICAL APPENDIX

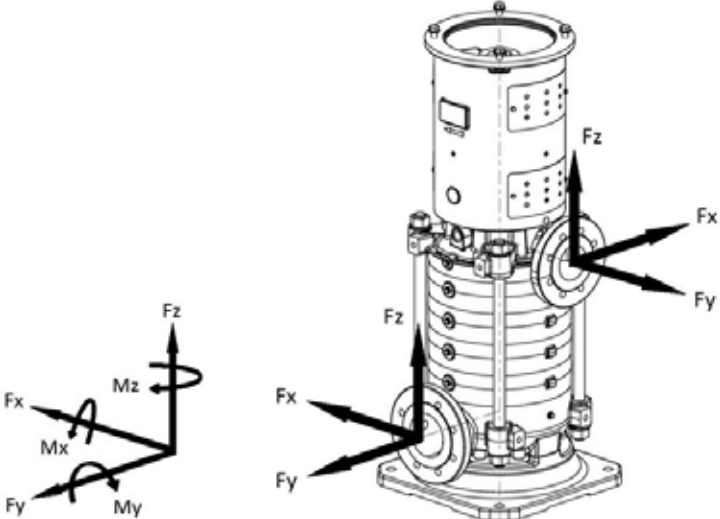
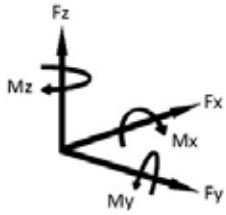
e-MP SERIES
FORCES AND MOMENTS AT PUMP FLANGES

PERMISSIBLE FORCES AND MOMENTS AT PUMP FLANGES								
Forces and moments for horizontal pump similar to ISO5199								
Top flange (eMPA / e-MPR / e-MPD)								
								
	Material code: CCC, CBC, CNC							
DN	F _x	F _y	F _z	ΣF	M _x	M _y	M _z	ΣM
50	450	405	495	782	389	249	302	552
65	555	510	630	982	424	284	319	602
80	675	615	750	1182	459	302	354	654
100	900	810	1005	1574	512	337	407	735
125	1065	960	1185	1860	634	424	564	949
150	1350	1215	1500	2356	774	512	617	1114
200	1800	1620	2010	3147	1037	704	827	1501
	Material code: DCC, DBC, DNC, NNN, RNN, RRR, TTT							
DN	F _x	F _y	F _z	ΣF	M _x	M _y	M _z	ΣM
900	810	990	1564	778	498	603	1104	
1110	1020	1260	1965	848	568	638	1204	
1350	1230	1500	2363	918	603	708	1307	
1800	1620	2010	3147	1023	673	813	1471	
2130	1920	2370	3720	1268	848	1128	1898	
2700	2430	3000	4711	1548	1023	1233	2228	
3600	3240	4020	6294	2073	1408	1653	3003	

Side flange (eMPA / e-MPR / e-MPD)								
								
	Material code: CCC, CBC, CNC							
DN	F _x	F _y	F _z	ΣF	M _x	M _y	M _z	ΣM
50	450	495	405	782	389	249	302	552
65	555	630	510	982	424	284	319	602
80	675	750	615	1182	459	302	354	654
100	900	1005	810	1574	512	337	407	735
125	1065	1185	960	1860	634	424	564	949
150	1350	1500	1215	2356	774	512	617	1114
200	1800	2010	1620	3147	1037	704	827	1501
	Material code: DCC, DBC, DNC, NNN, RNN, RRR, TTT							
DN	F _x	F _y	F _z	ΣF	M _x	M _y	M _z	ΣM
900	990	810	1564	778	498	603	1104	
1110	1260	1020	1965	848	568	638	1204	
1350	1500	1230	2363	918	603	708	1307	
1800	2010	1620	3147	1023	673	813	1471	
2130	2370	1920	3720	1268	848	1128	1898	
2700	3000	2430	4711	1548	1023	1233	2228	
3600	4020	3240	6294	2073	1408	1653	3003	

e-MP SERIES
FORCES AND MOMENTS AT PUMP FLANGES

PERMISSIBLE FORCES AND MOMENTS AT PUMP FLANGES																
Forces and moments for horizontal pump similar to ISO5199																
End flange (eMPA)																
																
DN	Material code: CCC, CBC, CNC								Material code: DCC, DBC, DNC, NNN, RNN, RRR, TTT							
	Fx	Fy	Fz	ΣF	Mx	My	Mz	ΣM	Fx	Fy	Fz	ΣF	Mx	My	Mz	ΣM
[N]	[N]	[N]	[N]	[N]	[Nm]	[Nm]	[Nm]	[Nm]	[N]	[N]	[N]	[N]	[Nm]	[Nm]	[Nm]	[Nm]
100	1005	900	810	1574	512	337	407	735	2010	1800	1620	3147	1023	673	813	1471
125	1185	1065	960	1860	634	424	564	949	2370	2130	1920	3720	1268	848	1128	1898
150	1500	1350	1215	2356	774	512	617	1114	3000	2700	2430	4711	1548	1023	1233	2228
200	2010	1800	1620	3147	1037	704	827	1501	4020	3600	3240	6294	2073	1408	1653	3003
250	2505	2235	2025	3921	1457	1002	1177	2124	5010	4470	4050	7841	2913	2003	2353	4247

Forces and moments for vertical pump similar to ISO5199																
Side flange (eMPV)																
																
DN	Material code: CCC, CBC, CNC								Material code: DCC, DBC, DNC, NNN, RNN, RRR, TTT							
	Fx	Fy	Fz	ΣF	Mx	My	Mz	ΣM	Fx	Fy	Fz	ΣF	Mx	My	Mz	ΣM
[N]	[N]	[N]	[N]	[N]	[Nm]	[Nm]	[Nm]	[Nm]	[N]	[N]	[N]	[N]	[Nm]	[Nm]	[Nm]	[Nm]
50	450	495	405	782	389	249	302	552	900	990	810	1564	778	498	603	1104
65	555	630	510	982	424	284	319	602	1110	1260	1020	1965	848	568	638	1204
80	675	750	615	1182	459	302	354	654	1350	1500	1230	2363	918	603	708	1307
100	900	1005	810	1574	512	337	407	735	1800	2010	1620	3147	1023	673	813	1471
125	1065	1185	960	1860	634	424	564	949	2130	2370	1920	3720	1268	848	1128	1898
150	1350	1500	1215	2356	774	512	617	1114	2700	3000	2430	4711	1548	1023	1233	2228
200	1800	2010	1620	3147	1037	704	827	1501	3600	4020	3240	6294	2073	1408	1653	3003

NPSH

The minimum operating values that can be reached at the pump suction end are limited by the onset of cavitation.

Cavitation is the formation of vapour-filled cavities within liquids where the pressure is locally reduced to a critical value, or where the local pressure is equal to, or just below the vapour pressure of the liquid.

The vapour-filled cavities flow with the current and when they reach a higher pressure area the vapour contained in the cavities condenses. The cavities collide, generating pressure waves that are transmitted to the walls. These, being subjected to stress cycles, gradually become deformed and yield due to fatigue. This phenomenon, characterized by a metallic noise produced by the hammering on the pipe walls, is called incipient cavitation.

The damage caused by cavitation may be magnified by electrochemical corrosion and a local rise in temperature due to the plastic deformation of the walls. The materials that offer the highest resistance to heat and corrosion are alloy steels, especially austenitic steel. The conditions that trigger cavitation may be assessed by calculating the total net suction head, referred to in technical literature with the acronym NPSH (Net Positive Suction Head).

The NPSH represents the total energy (expressed in m.) of the liquid measured at suction under conditions of incipient cavitation, excluding the vapour pressure (expressed in m.) that the liquid has at the pump inlet.

To find the static height h_z at which to install the machine under safe conditions, the following formula must be verified:

$$h_p + h_z \geq (NPSH_r + 0.5) + h_f + h_{pv} \quad \textcircled{1}$$

where:

h_p is the absolute pressure applied to the free liquid surface in the suction tank, expressed in m. of liquid; h_p is the quotient between the barometric pressure and the specific weight of the liquid.

h_z is the suction lift between the pump axis and the free liquid surface in the suction tank, expressed in m.; h_z is negative when the liquid level is lower than the pump axis.

h_f is the flow resistance in the suction line and its accessories, such as: fittings, foot valve, gate valve, elbows, etc.

h_{pv} is the vapour pressure of the liquid at the operating temperature, expressed in m. of liquid. h_{pv} is the quotient between the P_v vapour pressure and the liquid's specific weight.

0,5 is the safety factor.

The maximum possible suction head for installation depends on the value of the atmospheric pressure (i.e. the elevation above sea level at which the pump is installed) and the temperature of the liquid.

To help the user, with reference to water temperature (4° C) and to the elevation above sea level, the following tables show the drop in hydraulic pressure head in relation to the elevation above sea level, and the suction loss in relation to temperature.

Water temperature (°C)	20	40	60	80	90	110	120
Suction loss (m)	0,2	0,7	2,0	5,0	7,4	15,4	21,5

Elevation above sea level (m)	500	1000	1500	2000	2500	3000
Suction loss (m)	0,55	1,1	1,65	2,2	2,75	3,3

Friction loss is shown in the tables Flow Resistance of this catalogue. To reduce it to a minimum, especially in cases of high suction head (over 4-5 m.) or within the operating limits with high flow rates, we recommend using a suction line having a larger diameter than that of the pump's suction port. It is always a good idea to position the pump as close as possible to the liquid to be pumped.

Make the following calculation:

Liquid: water at ~15°C $\gamma = 1 \text{ kg/dm}^3$

Flow rate required: 25 m³/h

Head for required delivery: 70 m.

Suction lift: 3,5 m.

The selection is an 33SV3G075T pump whose NPSH required value is, at 25 m³/h, of 2 m.

For water at 15 °C

$$h_p = P_a / \gamma = 10,33\text{m}, h_{pv} = P_v / \gamma = 0,174\text{m} (0,01701 \text{ bar})$$

The H_f flow resistance in the suction line with foot valves is ~ 1,2 m.

By substituting the parameters in formula $\textcircled{1}$ with the numeric values above, we have:

$$10,33 + (-3,5) \geq (2 + 0,5) + 1,2 + 0,17$$

from which we have: 6,8 > 3,9

The relation is therefore verified.

VAPOUR PRESSURE
VAPOUR PRESSURE p_s AND ρ DENSITY OF WATER TABLE

t °C	T K	p_s bar	ρ kg/dm ³	t °C	T K	p_s bar	ρ kg/dm ³	t °C	T K	p_s bar	ρ kg/dm ³
0	273,15	0,00611	0,9998	55	328,15	0,15741	0,9857	120	393,15	1,9854	0,9429
1	274,15	0,00657	0,9999	56	329,15	0,16511	0,9852	122	395,15	2,1145	0,9412
2	275,15	0,00706	0,9999	57	330,15	0,17313	0,9846	124	397,15	2,2504	0,9396
3	276,15	0,00758	0,9999	58	331,15	0,18147	0,9842	126	399,15	2,3933	0,9379
4	277,15	0,00813	1,0000	59	332,15	0,19016	0,9837	128	401,15	2,5435	0,9362
5	278,15	0,00872	1,0000	60	333,15	0,1992	0,9832	130	403,15	2,7013	0,9346
6	279,15	0,00935	1,0000	61	334,15	0,2086	0,9826	132	405,15	2,867	0,9328
7	280,15	0,01001	0,9999	62	335,15	0,2184	0,9821	134	407,15	3,041	0,9311
8	281,15	0,01072	0,9999	63	336,15	0,2286	0,9816	136	409,15	3,223	0,9294
9	282,15	0,01147	0,9998	64	337,15	0,2391	0,9811	138	411,15	3,414	0,9276
10	283,15	0,01227	0,9997	65	338,15	0,2501	0,9805	140	413,15	3,614	0,9258
11	284,15	0,01312	0,9997	66	339,15	0,2615	0,9799	145	418,15	4,155	0,9214
12	285,15	0,01401	0,9996	67	340,15	0,2733	0,9793	155	428,15	5,433	0,9121
13	286,15	0,01497	0,9994	68	341,15	0,2856	0,9788	160	433,15	6,181	0,9073
14	287,15	0,01597	0,9993	69	342,15	0,2984	0,9782	165	438,15	7,008	0,9024
15	288,15	0,01704	0,9992	70	343,15	0,3116	0,9777	170	443,15	7,920	0,8973
16	289,15	0,01817	0,9990	71	344,15	0,3253	0,9770	175	448,15	8,924	0,8921
17	290,15	0,01936	0,9988	72	345,15	0,3396	0,9765	180	453,15	10,027	0,8869
18	291,15	0,02062	0,9987	73	346,15	0,3543	0,9760	185	458,15	11,233	0,8815
19	292,15	0,02196	0,9985	74	347,15	0,3696	0,9753	190	463,15	12,551	0,8760
20	293,15	0,02337	0,9983	75	348,15	0,3855	0,9748	195	468,15	13,987	0,8704
21	294,15	0,24850	0,9981	76	349,15	0,4019	0,9741	200	473,15	15,550	0,8647
22	295,15	0,02642	0,9978	77	350,15	0,4189	0,9735	205	478,15	17,243	0,8588
23	296,15	0,02808	0,9976	78	351,15	0,4365	0,9729	210	483,15	19,077	0,8528
24	297,15	0,02982	0,9974	79	352,15	0,4547	0,9723	215	488,15	21,060	0,8467
25	298,15	0,03166	0,9971	80	353,15	0,4736	0,9716	220	493,15	23,198	0,8403
26	299,15	0,03360	0,9968	81	354,15	0,4931	0,9710	225	498,15	25,501	0,8339
27	300,15	0,03564	0,9966	82	355,15	0,5133	0,9704	230	503,15	27,976	0,8273
28	301,15	0,03778	0,9963	83	356,15	0,5342	0,9697	235	508,15	30,632	0,8205
29	302,15	0,04004	0,9960	84	357,15	0,5557	0,9691	240	513,15	33,478	0,8136
30	303,15	0,04241	0,9957	85	358,15	0,5780	0,9684	245	518,15	36,523	0,8065
31	304,15	0,04491	0,9954	86	359,15	0,6011	0,9678	250	523,15	39,776	0,7992
32	305,15	0,04753	0,9951	87	360,15	0,6249	0,9671	255	528,15	43,246	0,7916
33	306,15	0,05029	0,9947	88	361,15	0,6495	0,9665	260	533,15	46,943	0,7839
34	307,15	0,05318	0,9944	89	362,15	0,6749	0,9658	265	538,15	50,877	0,7759
35	308,15	0,05622	0,9940	90	363,15	0,7011	0,9652	270	543,15	55,058	0,7678
36	309,15	0,05940	0,9937	91	364,15	0,7281	0,9644	275	548,15	59,496	0,7593
37	310,15	0,06274	0,9933	92	365,15	0,7561	0,9638	280	553,15	64,202	0,7505
38	311,15	0,06624	0,9930	93	366,15	0,7849	0,9630	285	558,15	69,186	0,7415
39	312,15	0,06991	0,9927	94	367,15	0,8146	0,9624	290	563,15	74,461	0,7321
40	313,15	0,07375	0,9923	95	368,15	0,8453	0,9616	295	568,15	80,037	0,7223
41	314,15	0,07777	0,9919	96	369,15	0,8769	0,9610	300	573,15	85,927	0,7122
42	315,15	0,08198	0,9915	97	370,15	0,9094	0,9602	305	578,15	92,144	0,7017
43	316,15	0,09639	0,9911	98	371,15	0,9430	0,9596	310	583,15	98,70	0,6906
44	317,15	0,09100	0,9907	99	372,15	0,9776	0,9586	315	588,15	105,61	0,6791
45	318,15	0,09582	0,9902	100	373,15	1,0133	0,9581	320	593,15	112,89	0,6669
46	319,15	0,10086	0,9898	102	375,15	1,0878	0,9567	325	598,15	120,56	0,6541
47	320,15	0,10612	0,9894	104	377,15	1,1668	0,9552	330	603,15	128,63	0,6404
48	321,15	0,11162	0,9889	106	379,15	1,2504	0,9537	340	613,15	146,05	0,6102
49	322,15	0,11736	0,9884	108	381,15	1,3390	0,9522	350	623,15	165,35	0,5743
50	323,15	0,12335	0,9880	110	383,15	1,4327	0,9507	360	633,15	186,75	0,5275
51	324,15	0,12961	0,9876	112	385,15	1,5316	0,9491	370	643,15	210,54	0,4518
52	325,15	0,13613	0,9871	114	387,15	1,6362	0,9476	374,15	647,30	221,20	0,3154
53	326,15	0,14293	0,9862	116	389,15	1,7465	0,9460				
54	327,15	0,15002	0,9862	118	391,15	1,8628	0,9445				

G-at_npsb_b_sc

TABLE OF FLOW RESISTANCE IN 100 m OF STRAIGHT CAST IRON PIPELINE (HAZEN-WILLIAMS FORMULA C = 100)

FLOW RATE		NOMINAL DIAMETER in mm and inches																	
m ³ /h	l/min		15	20	25	32	40	50	65	80	100	125	150	175	200	250	300	350	400
			1/2"	3/4"	1"	1 1/4"	1 1/2"	2	2 1/2"	3"	4"	5"	6"	7"	8"	10"	12"	14"	16"
0,6	10	v	0,94	0,53	0,34	0,21	0,13												
		hr	16	3,94	1,33	0,40	0,13												
0,9	15	v	1,42	0,80	0,51	0,31	0,20												
		hr	33,9	8,35	2,82	0,85	0,29												
1,2	20	v	1,89	1,06	0,68	0,41	0,27	0,17											
		hr	57,7	14,21	4,79	1,44	0,49	0,16											
1,5	25	v	2,36	1,33	0,85	0,52	0,33	0,21											
		hr	87,2	21,5	7,24	2,18	0,73	0,25											
1,8	30	v	2,83	1,59	1,02	0,62	0,40	0,25											
		hr	122	30,1	10,1	3,05	1,03	0,35											
2,1	35	v	3,30	1,86	1,19	0,73	0,46	0,30											
		hr	162	40,0	13,5	4,06	1,37	0,46											
2,4	40	v		2,12	1,36	0,83	0,53	0,34	0,20										
		hr		51,2	17,3	5,19	1,75	0,59	0,16										
3	50	v		2,65	1,70	1,04	0,66	0,42	0,25										
		hr		77,4	26,1	7,85	2,65	0,89	0,25										
3,6	60	v		3,18	2,04	1,24	0,80	0,51	0,30										
		hr		108	36,6	11,0	3,71	1,25	0,35										
4,2	70	v		3,72	2,38	1,45	0,93	0,59	0,35										
		hr		144	48,7	14,6	4,93	1,66	0,46										
4,8	80	v		4,25	2,72	1,66	1,06	0,68	0,40										
		hr		185	62,3	18,7	6,32	2,13	0,59										
5,4	90	v			3,06	1,87	1,19	0,76	0,45	0,30									
		hr			77,5	23,3	7,85	2,65	0,74	0,27									
6	100	v			3,40	2,07	1,33	0,85	0,50	0,33									
		hr			94,1	28,3	9,54	3,22	0,90	0,33									
7,5	125	v			4,25	2,59	1,66	1,06	0,63	0,41									
		hr			142	42,8	14,4	4,86	1,36	0,49									
9	150	v				3,11	1,99	1,27	0,75	0,50	0,32								
		hr				59,9	20,2	6,82	1,90	0,69	0,23								
10,5	175	v				3,63	2,32	1,49	0,88	0,58	0,37								
		hr				79,7	26,9	9,07	2,53	0,92	0,31								
12	200	v				4,15	2,65	1,70	1,01	0,66	0,42								
		hr				102	34,4	11,6	3,23	1,18	0,40								
15	250	v				5,18	3,32	2,12	1,26	0,83	0,53	0,34							
		hr				154	52,0	17,5	4,89	1,78	0,60	0,20							
18	300	v					3,98	2,55	1,51	1,00	0,64	0,41							
		hr					72,8	24,6	6,85	2,49	0,84	0,28							
24	400	v					5,31	3,40	2,01	1,33	0,85	0,54	0,38						
		hr					124	41,8	11,66	4,24	1,43	0,48	0,20						
30	500	v					6,63	4,25	2,51	1,66	1,06	0,68	0,47						
		hr					187	63,2	17,6	6,41	2,16	0,73	0,30						
36	600	v						5,10	3,02	1,99	1,27	0,82	0,57	0,42					
		hr						88,6	24,7	8,98	3,03	1,02	0,42	0,20					
42	700	v						5,94	3,52	2,32	1,49	0,95	0,66	0,49					
		hr						118	32,8	11,9	4,03	1,36	0,56	0,26					
48	800	v						6,79	4,02	2,65	1,70	1,09	0,75	0,55					
		hr						151	42,0	15,3	5,16	1,74	0,72	0,34					
54	900	v						7,64	4,52	2,99	1,91	1,22	0,85	0,62					
		hr						188	52,3	19,0	6,41	2,16	0,89	0,42					
60	1000	v							5,03	3,32	2,12	1,36	0,94	0,69	0,53				
		hr							63,5	23,1	7,79	2,63	1,08	0,51	0,27				
75	1250	v							6,28	4,15	2,65	1,70	1,18	0,87	0,66				
		hr							96,0	34,9	11,8	3,97	1,63	0,77	0,40				
90	1500	v							7,54	4,98	3,18	2,04	1,42	1,04	0,80				
		hr							134	48,9	16,5	5,57	2,29	1,08	0,56				
105	1750	v							8,79	5,81	3,72	2,38	1,65	1,21	0,93				
		hr							179	65,1	21,9	7,40	3,05	1,44	0,75				
120	2000	v							6,63	4,25	2,72	1,89	1,39	1,06	0,68				
		hr							83,3	28,1	9,48	3,90	1,84	0,96	0,32				
150	2500	v							8,29	5,31	3,40	2,36	1,73	1,33	0,85				
		hr							126	42,5	14,3	5,89	2,78	1,45	0,49				
180	3000	v								6,37	4,08	2,83	2,08	1,59	1,02	0,71			
		hr								59,5	20,1	8,26	3,90	2,03	0,69	0,28			
210	3500	v								7,43	4,76	3,30	2,43	1,86	1,19	0,83			
		hr								79,1	26,7	11,0	5,18	2,71	0,91	0,38			
240	4000	v								8,49	5,44	3,77	2,77	2,12	1,36	0,94			
		hr								101	34,2	14,1	6,64	3,46	1,17	0,48			
300	5000	v									6,79	4,72	3,47	2,65	1,70	1,18			
		hr									51,6	21,2	10,0	5,23	1,77	0,73			
360	6000	v									8,15	5,66	4,16	3,18	2,04	1,42			
		hr									72,3	29,8	14,1	7,33	2,47	1,02			
420	7000	v										6,61	4,85	3,72	2,38	1,65	1,21		
		hr										39,6	18,7	9,75	3,29	1,35	0,82		
480	8000	v										7,55	5,55	4,25	2,72	1,89	1,39		
		hr										50,7	23,9	12,49	4,21	1,73	0,82		
540	9000	v										8,49	6,24	4,78	3,06	2,12	1,56	1,19	
		hr										63,0	29,8	15,5	5,24	2,16	1,02	0,53	
600	10000	v											6,93	5,31	3,40	2,36	1,73	1,33	
		hr											36,2	18,9	6,36	2,62	1,24	0,65	

hr = flow resistance for 100 m of straight pipeline (m)

V = water speed (m/s)

G-at-pct-en_b_th

FLOW RESISTANCE TABLE OF FLOW RESISTANCE IN BENDS, VALVES AND GATES

The flow resistance is calculated using the equivalent pipeline length method according to the table below:

ACCESSORY TYPE	DN											
	25	32	40	50	65	80	100	125	150	200	250	300
	Equivalent pipeline length (m)											
45° bend	0,2	0,2	0,4	0,4	0,6	0,6	0,9	1,1	1,5	1,9	2,4	2,8
90° bend	0,4	0,6	0,9	1,1	1,3	1,5	2,1	2,6	3,0	3,9	4,7	5,8
90° smooth bend	0,4	0,4	0,4	0,6	0,9	1,1	1,3	1,7	1,9	2,8	3,4	3,9
Union tee or cross	1,1	1,3	1,7	2,1	2,6	3,2	4,3	5,3	6,4	7,5	10,7	12,8
Gate valve	-	-	-	0,2	0,2	0,2	0,4	0,4	0,6	0,9	1,1	1,3
Foot check valve	1,1	1,5	1,9	2,4	3,0	3,4	4,7	5,9	7,4	9,6	11,8	13,9
Non return valve	1,1	1,5	1,9	2,4	3,0	3,4	4,7	5,9	7,4	9,6	11,8	13,9

G-a-pcv-en_b_th

The table is valid for the Hazen Williams coefficient $C=100$ (cast iron pipework);

for steel pipework, multiply the values by 1,41;

for stainless steel, copper and coated cast iron pipework, multiply the values by 1,85;

When the **equivalent pipeline length** has been determined, the flow resistance is obtained from the table of flow resistance.

The values given are guideline values which are bound to vary slightly according to the model, especially for gate valves and non-return valves, for which it is a good idea to check the values supplied by manufacturers.

VOLUMETRIC CAPACITY

Litres per minute l/min	Cubic metres per hour m ³ /h	Cubic feet per hour ft ³ /h	Cubic feet per minute ft ³ /min	Imperial gallon per minute Imp. gal/min	U.S. gallon per minute US gal/min
1,000	0,0600	2,1189	0,0353	0,2200	0,2642
16,6667	1,0000	35,3147	0,5886	3,6662	4,4029
0,4719	0,0283	1,0000	0,0167	0,1038	0,1247
28,3168	1,6990	60,0000	1,0000	6,2288	7,4805
4,5461	0,2728	9,6326	0,1605	1,0000	1,2009
3,7854	0,2271	8,0208	0,1337	0,8327	1,0000

PRESSURE AND HEAD

Newton per square metre N/m ²	kilo Pascal kPa	bar bar	Pound force per square inch psi	Metre of water m H ₂ O	Millimetre of mercury mm Hg
1,0000	0,0010	1 x 10 ⁻⁵	1,45 x 10 ⁻⁴	1,02 x 10 ⁻⁴	0,0075
1 000,0000	1,0000	0,0100	0,1450	0,1020	7,5006
1 x 10 ⁵	100,0000	1,0000	14,5038	10,1972	750,0638
6 894,7570	6,8948	0,0689	1,0000	0,7031	51,7151
9 806,6500	9,8067	0,0981	1,4223	1,0000	73,5561
133,3220	0,1333	0,0013	0,0193	0,0136	1,0000

LENGTH

Millimetre mm	Centimetre cm	Metre m	Inch in	Foot ft	Yard yd
1,0000	0,1000	0,0010	0,0394	0,0033	0,0011
10,0000	1,0000	0,0100	0,3937	0,0328	0,0109
1 000,0000	100,0000	1,0000	39,3701	3,2808	1,0936
25,4000	2,5400	0,0254	1,0000	0,0833	0,0278
304,8000	30,4800	0,3048	12,0000	1,0000	0,3333
914,4000	91,4400	0,9144	36,0000	3,0000	1,0000

VOLUME

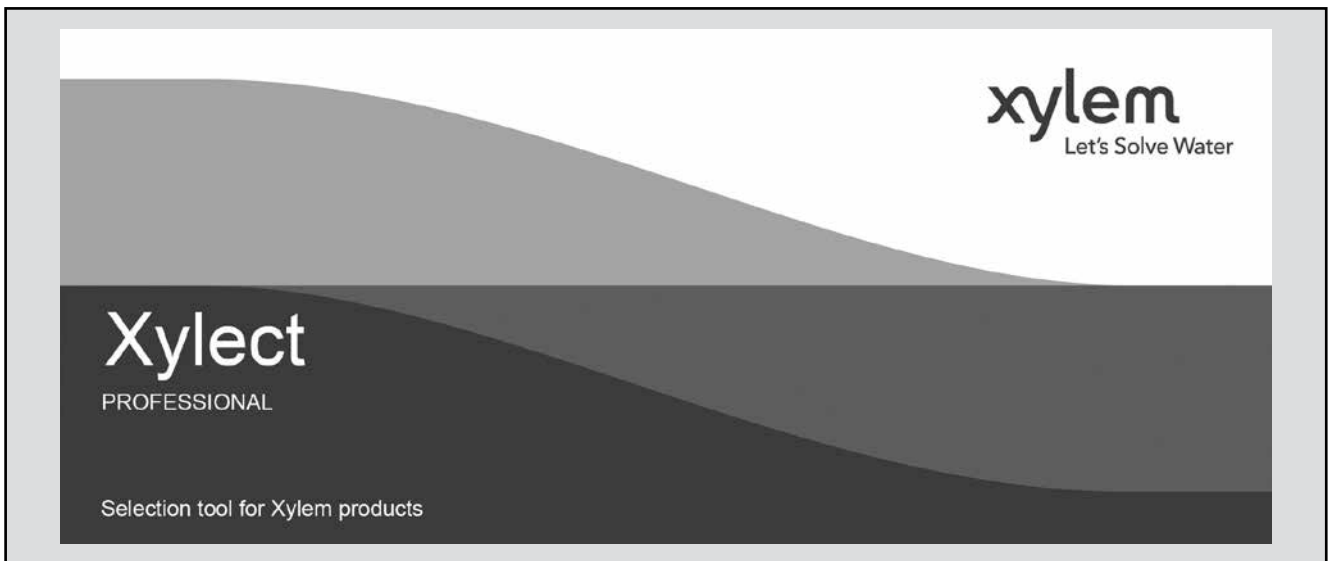
Cubic metre m ³	Litre L	Millilitre ml	Imperial gallon imp. gal.	U.S. gallon US gal.	Cubic foot ft ³
1,0000	1 000,0000	1 x 10 ⁶	219,9694	264,1720	35,3147
0,0010	1,0000	1 000,0000	0,2200	0,2642	0,0353
1 x 10 ⁻⁶	0,0010	1,0000	2,2 x 10 ⁻⁴	2,642 x 10 ⁻⁴	3,53 x 10 ⁻⁵
0,0045	4,5461	4 546,0870	1,0000	1,2009	0,1605
0,0038	3,7854	3 785,4120	0,8327	1,0000	0,1337
0,0283	28,3168	28 316,8466	6,2288	7,4805	1,0000

TEMPERATURE

Water	Kelvin K	Celsius °C	Fahrenheit °F	$^{\circ}\text{F} = ^{\circ}\text{C} \times \frac{9}{5} + 32$ $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times \frac{5}{9}$
icing	273,1500	0,0000	32,0000	
boiling	373,1500	100,0000	212,0000	

G-at_pp-en_b_sc

FURTHER PRODUCT SELECTION AND DOCUMENTATION Xylect™



Xylect™ is pump solution selection software with an extensive online database of product information across the entire Lowara range of pumps and related products, with multiple search options and helpful project management facilities. The system holds up-to-date product information on thousands of products and accessories.

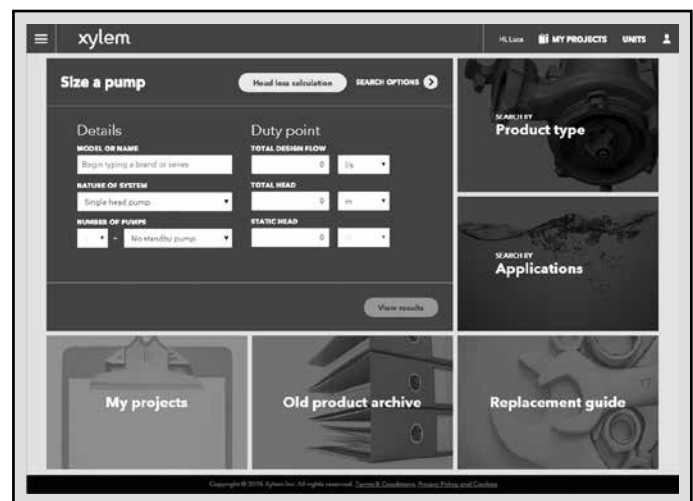
The possibility to search by applications and the detailed information output given makes it easy to make the optimal selection without having detailed knowledge about the Lowara products.

The search can be made by:

- Application
- Product type
- Duty point

Xylect™ gives a detailed output:

- List with search results
- Performance curves (flow, head, power, efficiency, NPSH)
- Motor data
- Dimensional drawings
- Options
- Data sheet printouts
- Document downloads incl dxf files



The search by application guides users not familiar with the product range to the right choice.

FURTHER PRODUCT SELECTION AND DOCUMENTATION

Xylect™



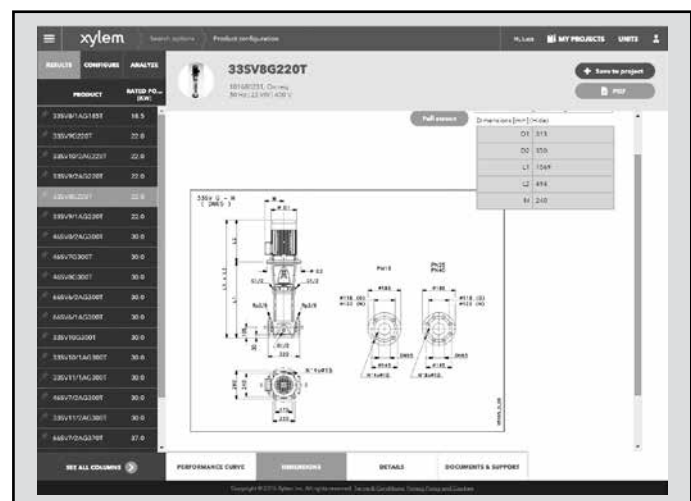
The detailed output makes it easy to select the optimal pump from the given alternatives.

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- Set own standard units
- Create and save projects
- Share projects with other Xylect™ users

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Dimensional drawings appear on the screen and can be downloaded in dxf format.

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