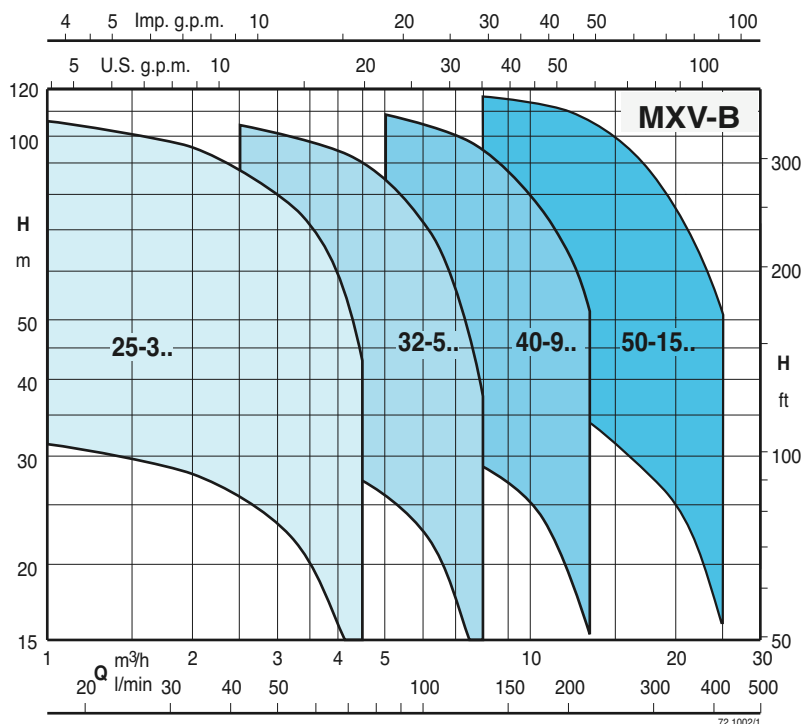




The electropumps MXV-B.. series comply with the European Regulation no. 547/2012.

Coverage chart $n \approx 2900$ rpm



Construction

Vertical multi-stage close coupled pumps with suction and delivery connections of the same diameter and arranged along the same axis (in-line).

All parts that come into contact with the liquid, are in chrome-nickel stainless steel with corrosion-resistant bearing sleeves lubricated by the pumped liquid.

Version with frequency converter (on request)

Applications

For water supply systems.

For clean non-explosive liquids, without solid, filamentary or abrasive matter and non-aggressive for stainless steel (with adaptation of sealing materials on request).

A universal pump for civil and industrial use, for pressure-boosting systems, high-pressure washing plants, irrigation, agricultural uses and sport installations.

Operating conditions

Temperature of liquid: from -15 °C to $+90$ °C.

Operating environment temperature: up to 40 °C.

Maximum permissible pressure in pump casing: 16 bar.

Continuous duty (S3 60% for 1,5 kW).

Motor

2-pole induction motor, 50 Hz ($n \approx 2900$ rpm).

MXV-B: three-phase 230/400 V $\pm 10\%$ up to 3 kW;

400/690 V $\pm 10\%$ from 3,7 to 7,5 kW.

MXV-BM: single-phase 230 V $\pm 10\%$, with thermal protector.

Capacitor inside the terminal box.

Insulation class F.

Protection IP 54.

Three-phase motor suitable for operation with frequency converter.

IE2 efficiency class for single-phase motors up to 1,1 kW.

IE3 efficiency class for three-phase motors.

Constructed in accordance with: EN 60034-1, EN 60034-30-1.

EN 60335-1, EN 60335-2-41.

Materials (wetted parts)

Component	Material
External jacket	
Suction casing	
Delivery casing	Chrome-nickel steel
Stage casing	1.4301 EN 10088 (AISI 304)
Impeller	
Lower cover	
Upper cover	
Spacer sleeve	
Pump shaft	Chrome-nickel steel
Plug	1.4301 EN 10088 (AISI 304)
Mechanical seal	
ISO 3069 - KU	Ceramic alumina/Carbon/EPDM
Wear ring	PPS
O-ring	NBR
Oval Counterflanges	AISI 304 (galvanized steel for MXV-B 50)

Special features on request

- Other voltages.
- Frequency 60 Hz.
- Protection IP 55.
- Special mechanical seal
- Pump casing seal rings in FPM.
- Higher or lower liquid or ambient temperatures.

Designation

MXV-B M EI 25-305 O

Series _____

Single-phase motor (up to 2.2 kW) _____

With frequency converter I-MAT _____

DN ports in mm _____

Rated capacity in m³/h _____

Number of stages _____

Oval Flanges _____

Pumps with frequency converter

The **MXV-B EI** pumps are available with power from 0,75 kW up to 7,5 kW, the pumps are equipped with **I-MAT** installed on board which allows to realize a variable-speed system extremely compact and efficient, ideal in applications of water supply and in the distribution of hot and cold water.

The pump is equipped with transducers suitable for operation and is already programmed at the factory.

Advantages

- Energy saving
- Compact design
- Easy to use
- Programmable to suit the system requirements
- Reliability

Costruction

The system comprises of:

- Pump
- Induction motor
- I-MAT Frequency converter
- Motor adapter for the motor mounting of the frequency converter
- Connection cable between frequency converter and induction motor
- Transducers

Main features

Rated motor power output from 0,75 kW to 7,5 kW

Control range from 1750 to 2900 rpm (2-pole)

Protection against dry running

Protection against operations with closed connection ports

Protection against system leakages

Protection against overcurrent in the motor

Protection against overvoltage and undervoltage of the power supply

Protection against current unbalances between phases

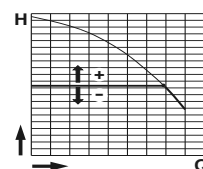


Operating modes



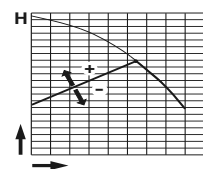
Constant pressure mode with pressure transducer

In this mode, the system maintains the preset pressure when the flow required by the installation changes.



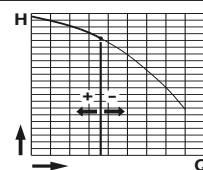
Proportional pressure mode with pressure transducer

In this mode the system changes the working pressure according to the required flow rate.



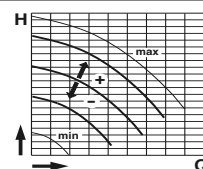
Constant flow mode with flow meter

In this mode the system maintains a constant flow rate value in a point of the installation according to the required pressure.



Fixed speed mode with setting of the speed preferential rotation.

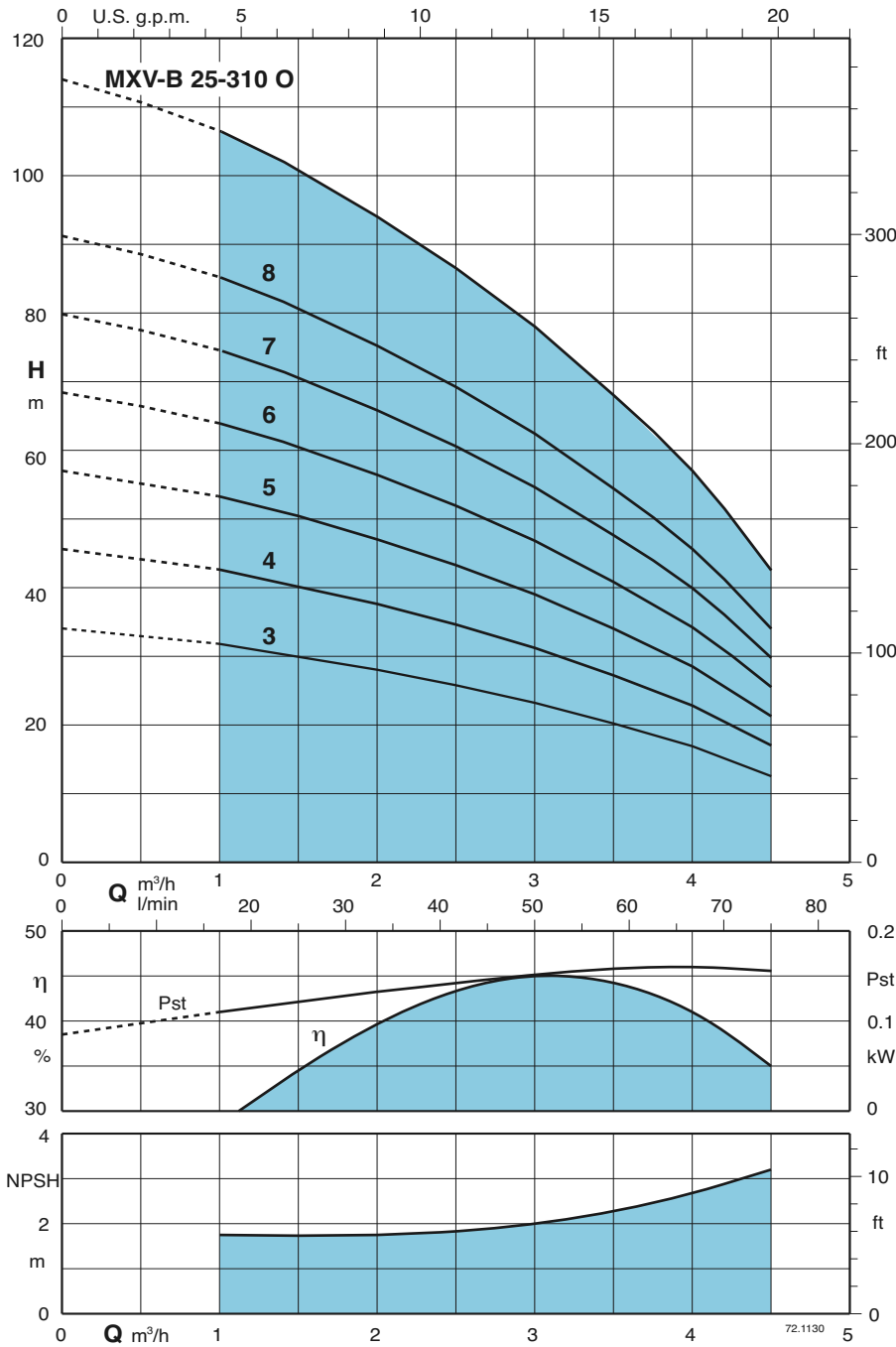
In this mode, by changing the working frequency, you may choose any operational curve included within the working range.



Constant temperature mode with temperature transducer

In this mode the system keeps the temperature constant inside a system by changing the speed of the pump.

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

Tolerances in accordance with UNI EN ISO 9906:2012

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

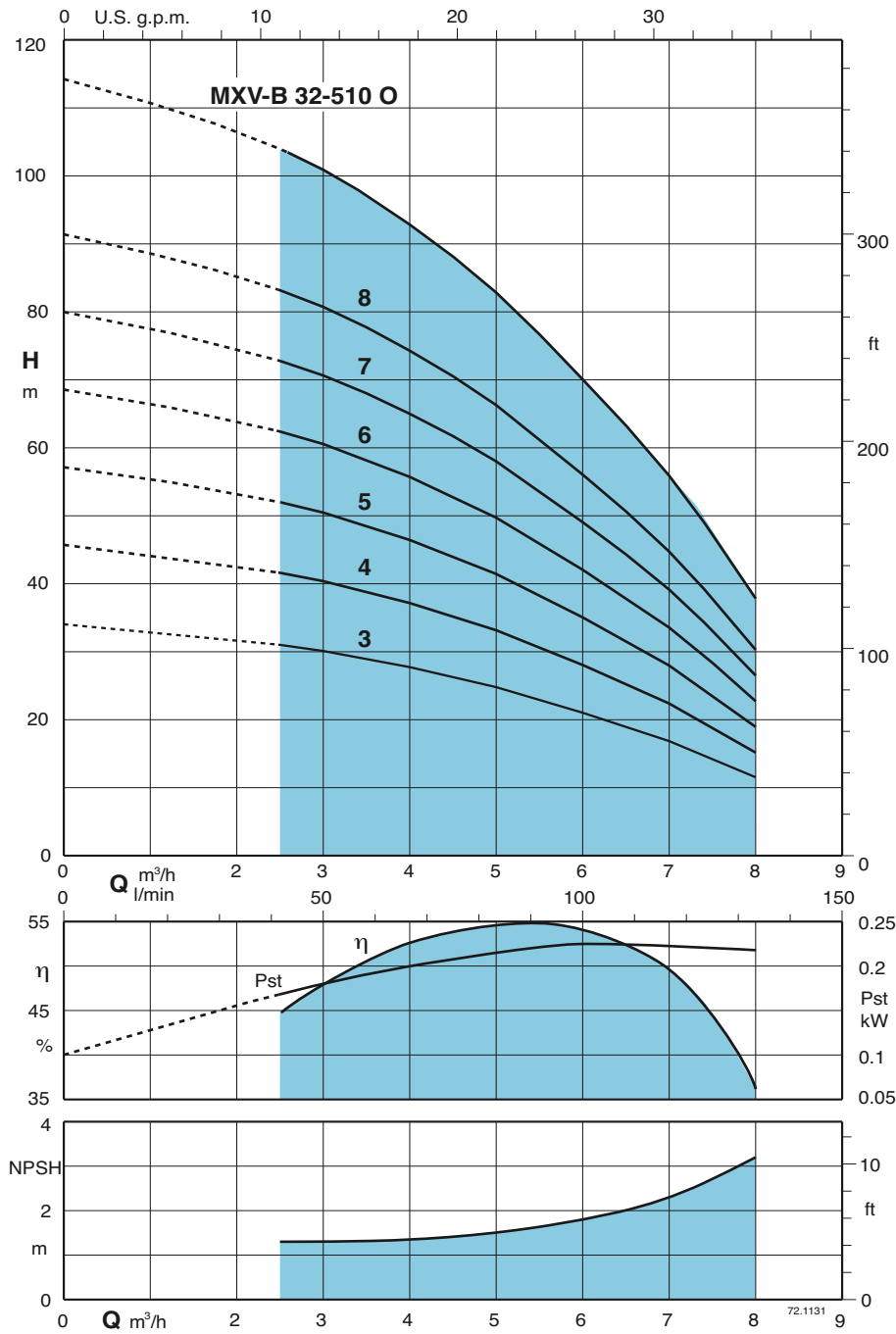
Pst = Power with reference to one stage.

P1 Max. power input.

P2 Rated motor power output.

3 ~	230 V 400 V		1 ~	230 V P1		P2		m³/h Q l/min	H								
	A	A		A	kW	kW	HP		0	1	1,5	2	2,5	3	3,5	4	4,5
MXV-B 25-303 O	4	2,3	MXV-BM 25-303 O	5,8	1,1	0,75	1	0	16,6	25	33,3	41,6	50	58,3	66,6	75	
MXV-B 25-304 O	4	2,3	MXV-BM 25-304 O	5,8	1,1	0,75	1	34	32	30	28	26	23,5	20,5	17	12,5	
MXV-B 25-305 O	4	2,3	MXV-BM 25-305 O	5,8	1,1	0,75	1	44	42,5	40	37,5	34,5	31	27	22,5	17	
MXV-B 25-306 O	4,7	2,7	MXV-BM 25-306 O	7,4	1,5	1,1	1,5	56	53	50	47	43	39	34	28	21	
MXV-B 25-307 O	4,7	2,7	MXV-BM 25-307 O	7,4	1,6	1,1	1,5	68	63,5	60,5	56	51,5	46,5	40,5	34	25	
MXV-B 25-308 O	7,5	4,3	MXV-BM 25-308 O	9,2	2	1,5	2	79,5	74	70,5	65,5	60	54,5	47,5	39,5	30	
MXV-B 25-310 O	7,5	4,3	MXV-BM 25-310 O	9,2	2,3	1,5	2	91	85	80,5	75	69	62	54	45,5	34	
								114	106	101	94	86	78	68	57	42	

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

Tolerances in accordance with UNI EN ISO 9906:2012

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

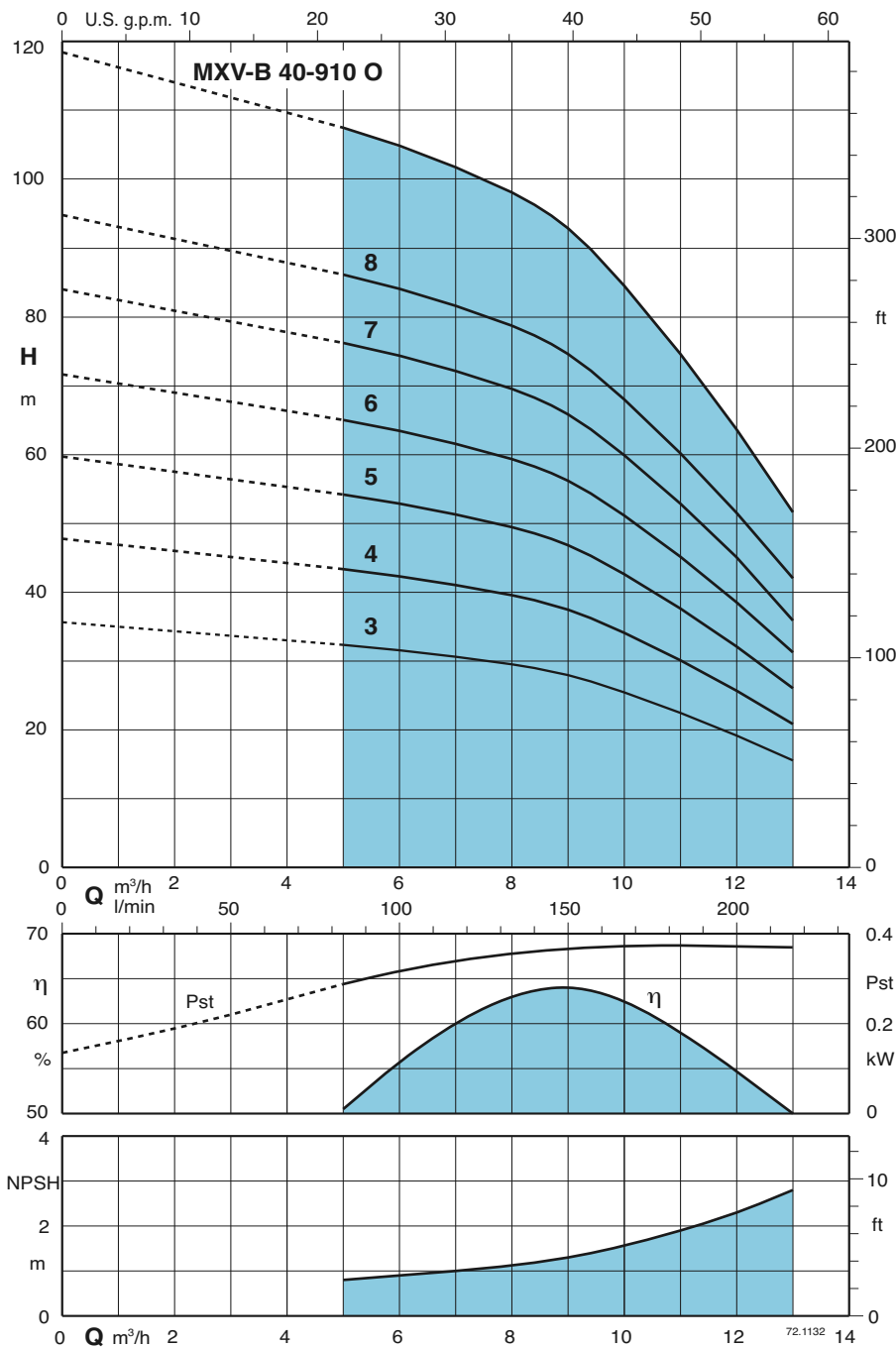
Pst = Power with reference to one stage.

P1 Max. power input.

P2 Rated motor power output.

3 ~	230 V 400 V		1 ~	230 V P1		P2		m³/h Q l/min	H									
	A	A		A	kW	kW	HP		0	2,5	3	3,5	4	4,5	5	6	7	8
MXV-B 32-503 O	4	2,3	MXV-BM 32-503 O	5,8	1,1	0,75	1	0	41,6	50	58,3	66,6	75	83,3	100	116,6	133,3	
MXV-B 32-504 O	4,7	2,7	MXV-BM 32-504 O	7,4	1,5	1,1	1,5	34	31	30,5	29	28	26,5	25	21	17	11,5	
MXV-B 32-505 O	4,7	2,7	MXV-BM 32-505 O	7,4	1,6	1,1	1,5	45	41,5	40	38,5	36,5	34,5	32,5	27,5	22	14,5	
MXV-B 32-506 O	7,5	4,3	MXV-BM 32-506 O	9,2	2	1,5	2	56	51,5	50	48	46	43,5	41	34,5	27,5	18,5	
MXV-B 32-507 O	7,5	4,3	MXV-BM 32-507 O	9,2	2,3	1,5	2	68	62	60	58	55,5	52,5	49,5	42	33,5	22,5	
MXV-B 32-508 O	9,15	5,3				2,2	3	79,5	72,5	70,5	68	65	61,5	58	49	39	26,5	
MXV-B 32-510 O	9,15	5,3				2,2	3	91	83	80,5	78	74	70	66	56	44,5	30	
								114	104	101	97,5	93	88	83	70	56	38	

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

Tolerances in accordance with UNI EN ISO 9906:2012

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

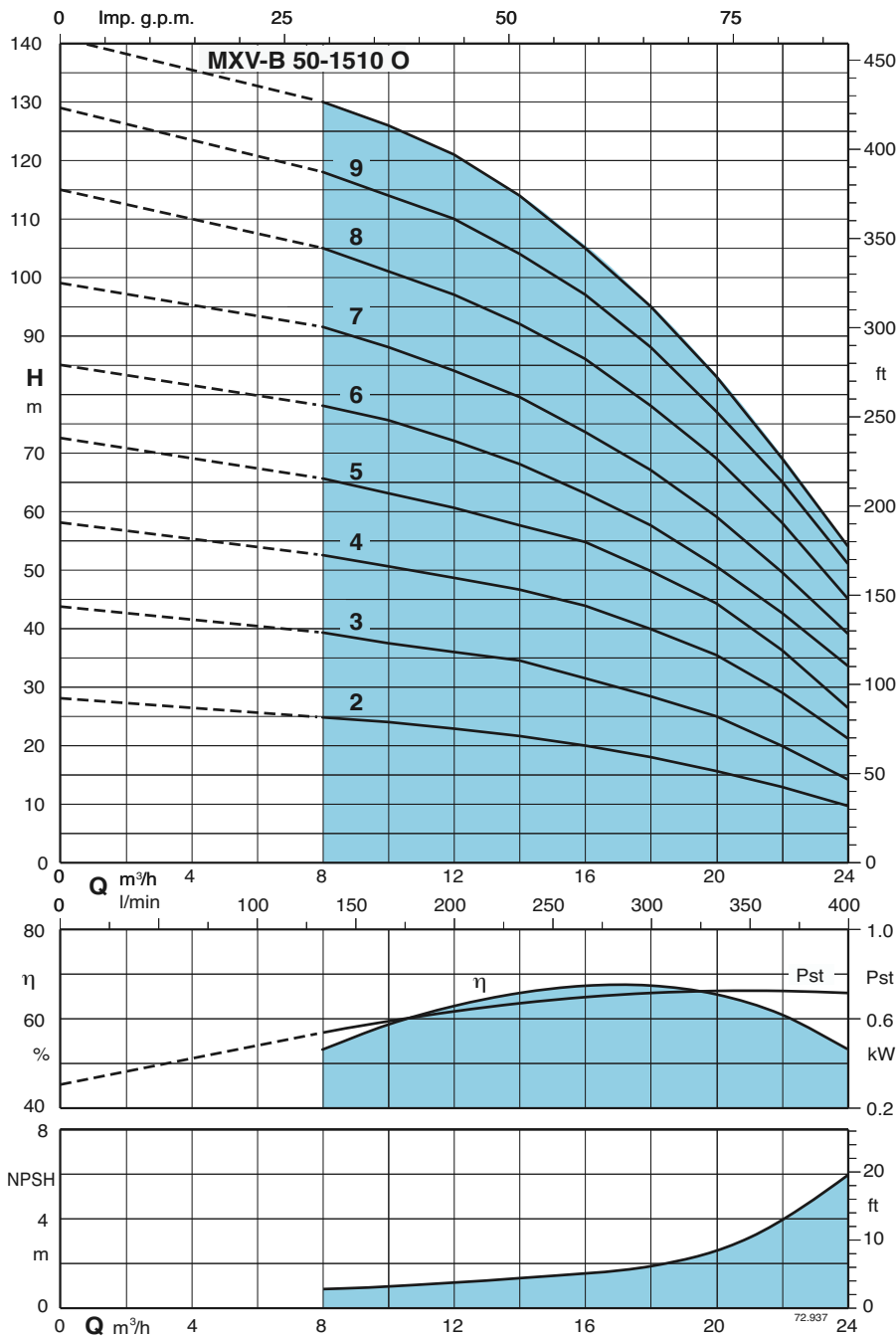
Pst = Power with reference to one stage.

P1 Max. power input.

P2 Rated motor power output.

3 ~	230 V 400 V		1 ~	230 V P1		P2		m³/h Q l/min	H m												
	A	A		A	kW	kW	HP		0	5	6	7	8	9	10	11	12	13			
MXV-B 40-903 O	4,7	2,7	MXV-BM 40-903 O	7,4	1,6	1,1	1,5	0	0	83,3	100	116,6	133,3	150	166,6	183,3	200	216,6			
MXV-B 40-904 O	7,5	4,3	MXV-BM 40-904 O	9,2	2,3	1,5	2	35,5	32,5	31,5	31	29,5	28	25,5	22,5	19,5	15,5				
MXV-B 40-905 O	9,15	5,3				2,2	3	47	43	42	41	40	37	34	30	26	21				
MXV-B 40-906 O	9,15	5,3				2,2	3	59	54	53	51	50	47	43	38	32	26				
MXV-B 40-907 O	11,5	6,6				3	4	71	65	63	62	59	56	51	45	39	31				
MXV-B 40-908 O	11,5	6,6				3	4	83	76	74	72	69	66	60	53	45	36				
MXV-B 40-910 O		9,6				3,7	5	95	87	85	82	79	75	69	60	51	42				
								119	109	106	103	99	94	86	75	64	52				

Characteristic curves and performance $n \approx 2900$ rpm



Test results with clean cold water, without gas content.

A safety margin of + 0.5 m is recommended for the NPSH value.

Tolerances in accordance with UNI EN ISO 9906:2012

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$.

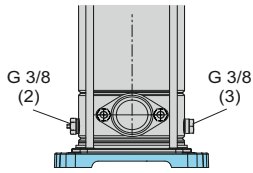
Pst = Power with reference to one stage.

P1 Max. power input.

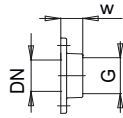
P2 Rated motor power output.

3 ~	230 V 400 V		kW	HP	Q	H									
	A	A				m	0	8	10	12	14	16	18	20	22
MXV-B 50-1502 O	7,4	4,3	1,5	2	0	27,9	24,6	23,8	22,7	21,4	19,8	17,8	15,4	12,7	9,5
MXV-B 50-1503 O	9,2	5,3	2,2	3	8	43,6	39,1	37,3	35,8	34,3	31,3	28,2	24,8	19,7	14,0
MXV-B 50-1504 O	11,4	6,6	3	4	10	58,0	52,4	50,5	48,5	46,5	43,7	39,8	35,3	28,9	21,1
MXV-B 50-1505 O		9,6	4	5,5	12	72,5	65,5	63,0	60,5	57,5	54,7	49,7	44,1	36,1	26,3
MXV-B 50-1506 O		10,9	5,5	7,5	14	85	78	75,5	72	68	63	57,5	50,5	42,5	33,5
MXV-B 50-1507 O		10,9	5,5	7,5	16	99	91,5	88	84	79,5	73,5	67	59	49,5	39
MXV-B 50-1508 O		10,9	5,5	7,5	18	115	105	101	97	92	86	78	69	58	45
MXV-B 50-1509 O		14,3	7,5	10	20	129	118	114	110	104	97	88	77	65	51
MXV-B 50-1510 O		14,3	7,5	10	22	141	130	126	121	114	105	95	83	69	54

Dimensions and weights



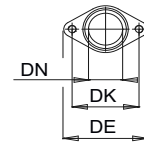
Oval Counterflanges



PN 16

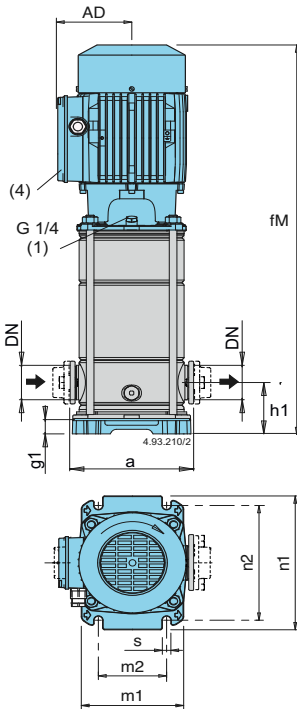
DN	G	w	Holes	
			N.	Ø
25	1	23	2	12
32	1 1/4	23	2	12
40	1 1/2	26	2	15
50	2	34	2	15

Oval Flanges



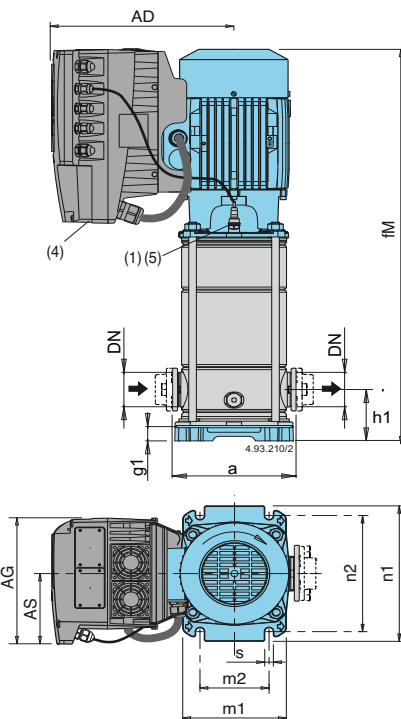
PN 16

DN	DE	DK	Holes	
			N.	Ø
25	95	75	2	M10
32	95	75	2	M10
40	125	100	2	M12
50	125	100	2	M12



- (1) Filling
- (2) Air vent suction side
- (3) Draining
- (4) Standard position of terminal box

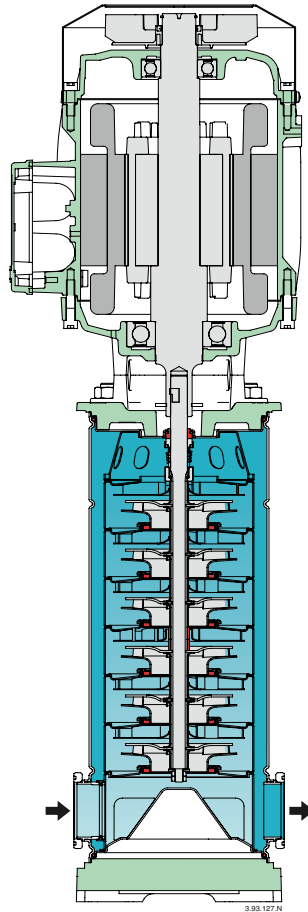
Pump	Motore P2		mm												Net weight	
	kW	HP	DN	a	h1	fM	AD	n1	n2	m1	m2	s	g1	3 ~ kg	1 ~ kg	
MXV-B(M) 25-303 O	0,75	1	25	160	50	553	128	205	180	165	100	13	20	22.6	23.3	
MXV-B(M) 25-304 O	0,75	1	25	160	50	553	128	205	180	165	100	13	20	22.8	23.5	
MXV-B(M) 25-305 O	0,75	1	25	160	50	577	128	205	180	165	100	13	20	23.5	25.6	
MXV-B(M) 25-306 O	1,1	1,5	25	160	50	601	128	205	180	165	100	13	20	26.3	26	
MXV-B(M) 25-307 O	1,1	1,5	25	160	50	625	128	205	180	165	100	13	20	26.9	26.8	
MXV-B(M) 25-308 O	1,5	2	25	160	50	649	128	205	180	165	100	13	20	29	29	
MXV-B(M) 25-310 O	1,5	2	25	160	50	697	128	205	180	165	100	13	20	30	29.8	
MXV-B(M) 32-503 O	0,75	1	32	160	50	553	128	205	180	165	100	13	20	22.5	-	
MXV-B(M) 32-504 O	1,1	1,5	32	160	50	553	128	205	180	165	100	13	20	24.8	-	
MXV-B(M) 32-505 O	1,1	1,5	32	160	50	577	128	205	180	165	100	13	20	25.5	24.3	
MXV-B(M) 32-506 O	1,5	2	32	160	50	601	128	205	180	165	100	13	20	27.7	27.6	
MXV-B(M) 32-507 O	1,5	2	32	160	50	625	128	205	180	165	100	13	20	28	27.7	
MXV-B 32-508 O	2,2	3	32	160	50	689	128	205	180	165	100	13	20	32	32	
MXV-B 32-510 O	2,2	3	32	160	50	737	128	205	180	165	100	13	20	33.4	-	
MXV-B(M) 40-903 O	1,1	1,5	40	200	80	601	128	250	215	190	130	14	30,5	28.5	-	
MXV-B(M) 40-904 O	1,5	2	40	200	80	601	128	250	215	190	130	14	30,5	30.5	30.3	
MXV-B 40-905 O	2,2	3	40	200	80	671	128	250	215	190	130	14	30,5	34.3	-	
MXV-B 40-906 O	2,2	3	40	200	80	701	128	250	215	190	130	14	30,5	35.2	-	
MXV-B 40-907 O	3	4	40	200	80	755	138	250	215	190	130	14	30,5	42.5	-	
MXV-B 40-908 O	3	4	40	200	80	789	138	250	215	190	130	14	30,5	43.3	-	
MXV-B 40-910 O	3,7	5	40	200	80	849	138	250	215	190	130	14	30,5	48.3	-	
MXV-B 50-1502 O	1,5	2	50	200	90	598	128	250	215	196	130	13	25	-	-	
MXV-B 50-1503 O	2,2	3	50	200	90	686	128	250	215	196	130	13	25	-	-	
MXV-B 50-1504 O	3	4	50	200	90	762	138	250	215	196	130	13	25	-	-	
MXV-B 50-1505 O	4	5,5	50	200	90	810	138	250	215	196	130	13	25	-	-	
MXV-B 50-1506 O	5,5	7,5	50	200	90	886	160	250	215	196	130	13	25	-	-	
MXV-B 50-1507 O	5,5	7,5	50	200	90	934	160	250	215	196	130	13	25	-	-	
MXV-B 50-1508 O	5,5	7,5	50	200	90	982	160	250	215	196	130	13	25	-	-	
MXV-B 50-1509 O	7,5	10	50	200	90	1030	160	250	215	196	130	13	25	-	-	
MXV-B 50-1510 O	7,5	10	50	200	90	1078	160	250	215	196	130	13	25	-	-	



- (1) Filling
- (2) Air vent suction side
- (3) Draining
- (4) Standard position of I-MAT
- (5) Pressure transducer

Pump	Motor P2		mm														Net weight kg
	kW	HP	DN	a	h1	fM	AD	AG	AS	n1	n2	m1	m2	s	g1		
MXV-B EI 25-303 O	0,75	1	25	160	50	553	286	190	105	205	180	165	100	13	20	-	
MXV-B EI 25-304 O	0,75	1	25	160	50	553	286	190	105	205	180	165	100	13	20	29.6	
MXV-B EI 25-305 O	0,75	1	25	160	50	577	286	190	105	205	180	165	100	13	20	30.3	
MXV-B EI 25-306 O	1,1	1,5	25	160	50	601	286	190	105	205	180	165	100	13	20	-	
MXV-B EI 25-307 O	1,1	1,5	25	160	50	625	286	190	105	205	180	165	100	13	20	32.4	
MXV-B EI 25-308 O	1,5	2	25	160	50	649	286	190	105	205	180	165	100	13	20	-	
MXV-B EI 25-310 O	1,5	2	25	160	50	697	286	190	105	205	180	165	100	13	20	36.6	
MXV-B EI 32-503 O	0,75	1	32	160	50	553	286	190	105	205	180	165	100	13	20	-	
MXV-B EI 32-504 O	1,1	1,5	32	160	50	553	286	190	105	205	180	165	100	13	20	25.3	
MXV-B EI 32-505 O	1,1	1,5	32	160	50	577	286	190	105	205	180	165	100	13	20	-	
MXV-B EI 32-506 O	1,5	2	32	160	50	601	286	190	105	205	180	165	100	13	20	35	
MXV-B EI 32-507 O	1,5	2	32	160	50	625	286	190	105	205	180	165	100	13	20	35.2	
MXV-B EI 32-508 O	2,2	3	32	160	50	689	286	210	118	205	180	165	100	13	20	-	
MXV-B EI 32-510 O	2,2	3	32	160	50	737	286	210	118	205	180	165	100	13	20	-	
MXV-B EI 40-903 O	1,1	1,5	40	200	80	601	286	190	105	250	215	190	130	14	30,5	-	
MXV-B EI 40-904 O	1,5	2	40	200	80	601	286	190	105	250	215	190	130	14	30,5	-	
MXV-B EI 40-905 O	2,2	3	40	200	80	671	286	210	118	250	215	190	130	14	30,5	-	
MXV-B EI 40-906 O	2,2	3	40	200	80	701	286	210	118	250	215	190	130	14	30,5	41	
MXV-B EI 40-907 O	3	4	40	200	80	755	294	210	118	250	215	190	130	14	30,5	-	
MXV-B EI 40-908 O	3	4	40	200	80	789	294	210	118	250	215	190	130	14	30,5	42.4	
MXV-B EI 40-910 O	3,7	5	40	200	80	849	294	210	118	250	215	190	130	14	30,5	-	
MXV-B EI 50-1502 O	1,5	2	50	200	90	598	286	210	118	250	215	196	130	13	25	-	
MXV-B EI 50-1503 O	2,2	3	50	200	90	686	286	210	118	250	215	196	130	13	25	-	
MXV-B EI 50-1504 O	3	4	50	200	90	762	294	210	118	250	215	196	130	13	25	-	
MXV-B EI 50-1505 O	4	5,5	50	200	90	810	294	210	118	250	215	196	130	13	25	-	
MXV-B EI 50-1506 O	5,5	7,5	50	200	90	886	321	210	118	250	215	196	130	13	25	-	
MXV-B EI 50-1507 O	5,5	7,5	50	200	90	934	321	210	118	250	215	196	130	13	25	-	
MXV-B EI 50-1508 O	5,5	7,5	50	200	90	982	321	210	118	250	215	196	130	13	25	-	
MXV-B EI 50-1509 O	7,5	10	50	200	90	1030	368	281	153	250	215	196	130	13	25	-	
MXV-B EI 50-1510 O	7,5	10	50	200	90	1078	368	281	153	250	215	196	130	13	25	-	

Features



Wider Range of Application

All parts that come into contact with the liquid, including wet-end covers, are in chrome-nickel stainless steel.

With corrosion-resistant seal rings and guide ring.

Low Cost Installation

Vertical construction with reduced pump height for installation in small spaces.

In-line connections to simplify the piping layout with the possibility of inserting the pump in straight pipe-lines.

Disassembly, inspection or cleaning of internal parts without removal of piping.

Robust and Reliable

The suction and discharge nozzles arranged in-line absorb the forces of the piping on the pump without the creation of distorting loads causing local friction and early wears.

The lantern brackets compact and robust design maintains a sure alignment between rotating and fixed parts, reducing vibration.

The upper cover design prevents entrapment of air around the mechanical seal.

Low-Noise Operation

The water filled shroud around the stages and thick external walls, work together for low-noise operation.