

### Construction

Vertical multi-stage pumps with suction and delivery connections of the same diameter and arranged along the same axis (in-line). Corrosion-resistant bearing sleeves lubricated by the pumped liquid. Removal of the mechanical seal without dismantling the motor (for MXV 25-32-40-50,100 with motors exceeding 4 kW). A pump with thrust bearing and sleeve coupling for use of any standard motor with IM V1 construction.

Version with frequency converter (on request)

### Applications

For water supply systems. For clean non-explosive liquids, without solid, filamentary or abrasive matter (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 +110 °C.  
 Operating environment temperature: up to 40 °C.  
 Maximum permissible pressure in pump casing: 25 bar. (16 bar for pumps with oval flanges).  
 Continuous duty.

### Motor

Standard-type: 2-pole induction motor, 50 Hz (n ≈ 2900 rpm). Construction IM V1 (EN 60034-7). Motor suitable for operation with frequency converter. **IE3 efficiency class for three-phase motors.** Insulation class F. Protection IP 55.  
 three-phase with rated voltage: up to 3 kW 230/400 V; from 4 kW 400/690 V.



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

## MXV 25, 32, 40, 50

All parts that come into contact with the liquid, including wet-end covers, are in chrome-nickel stainless steel AISI 304.

### Materials (wetted parts)

Component	Material
Flange External jacket Suction casing Delivery casing Stage casing Impeller Lower cover Upper cover Spacer sleeve	Stainless Steel 1.4301 EN 10088 (AISI 304)
Pump shaft Plug	Stainless Steel 1.4305 EN 10088 (AISI 303) (for MXV 50 AISI 304)
Bearing sleeve Bearing in stage casing	Corrosion-resistant, cemented carbide Ceramic alumina
Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM.
Wear ring	PPS (PTFE for MXV 40)
O-rings	NBR (EPDM for MXV 50)
Oval Counterflanges	AISI 304 (galvanized steel for MXV 50 O)
Counterflanges (on request)	AISI 304 (Steel Fe 430B for MXV 50)

**Direction of rotation:** clockwise as seen from the motor.

### Variants (to be specified when ordering)

- Pump with flanged ports (F).
- Pump with oval flange ports (O) (for MXV 25,32,40,50).
- Pump without motor.
- Pump with standard motor.

### Other variants (on request)

- O-rings FPM.
- Other mechanical seal.
- Pump with motor of Client's choice (if available).
- Single-phase motor 230 V, up to 2.2 kW.
- Pump with support feet for horizontal installation (H1 or H2).
- Other voltage ratings. Frequency 60 Hz.

## MXV 65, 80, 100

Internal parts in contact with the liquid in chrome-nickel stainless steel, AISI 304 with pump casing and upper cover in cast iron.

### Materials (wetted parts)

Component	Material
Pump casing Upper cover	Cast iron GJL 250 EN 1561
External jacket Stage casing Impeller Spacer sleeve	Stainless Steel 1.4301 EN 10088 (AISI 304)
Pump shaft Plug	Stainless Steel (AISI 303)(AISI 431 for MXV 100) Stainless Steel (AISI 303)(AISI 304 for MXV 100)
Bearing sleeve Bearing in stage casing	Corrosion-resistant, cemented carbide Ceramic alumina (Corrosion-resistant, cemented carbide for MXV 100)
Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM
Wear ring	PTFE
O-rings	NBR (EPDM for MXV 100)
Counterflanges (on request)	Steel 1.0044 EN 10025-2 (Fe 430B)

**Direction of rotation:** anticlockwise as seen from the motor.  
 (clockwise as seen from the motor for MXV 100)

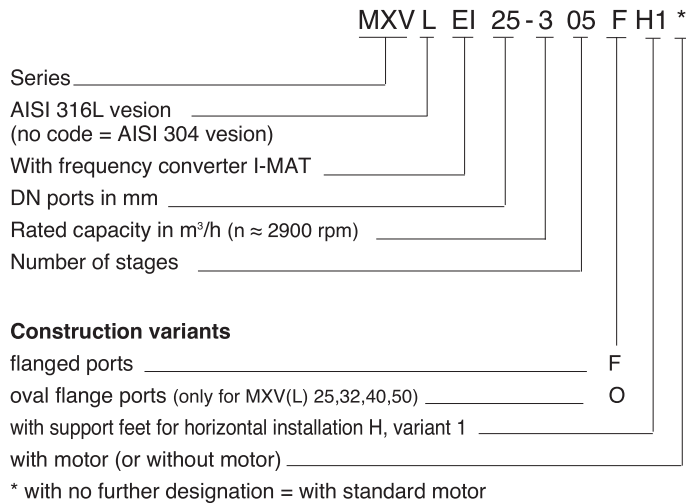
### Variants (to be specified when ordering)

- Pump without motor.
- Pump with standard motor.

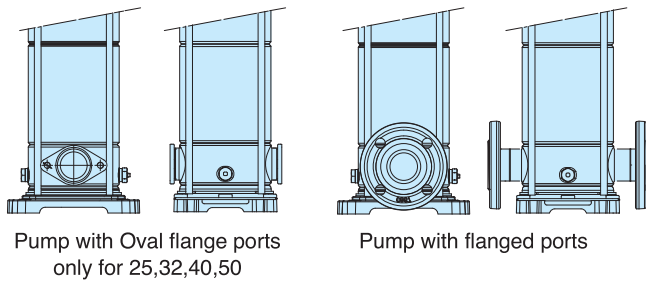
### Other variants (on request)

- O-rings FPM.
- Other mechanical seal.
- Pump with motor of Client's choice (if available).
- Other voltage ratings.
- Frequency 60 Hz.
- Pump with support feet for horizontal installation (H1 or H2) MXV 100 series excluded.

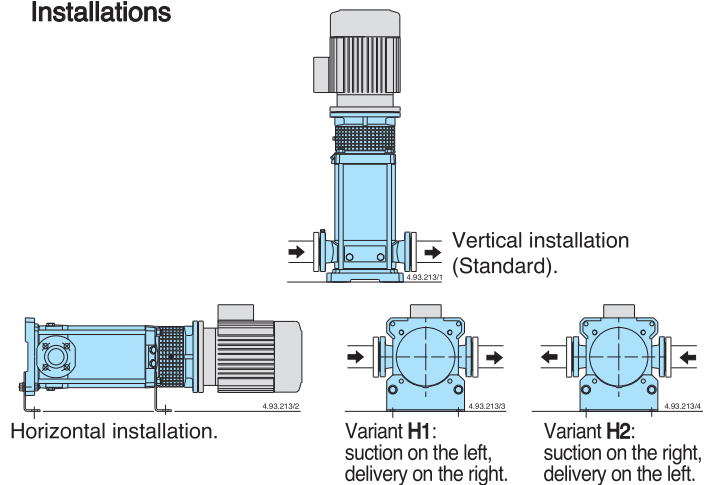
### Designation



### Variants



### Installations



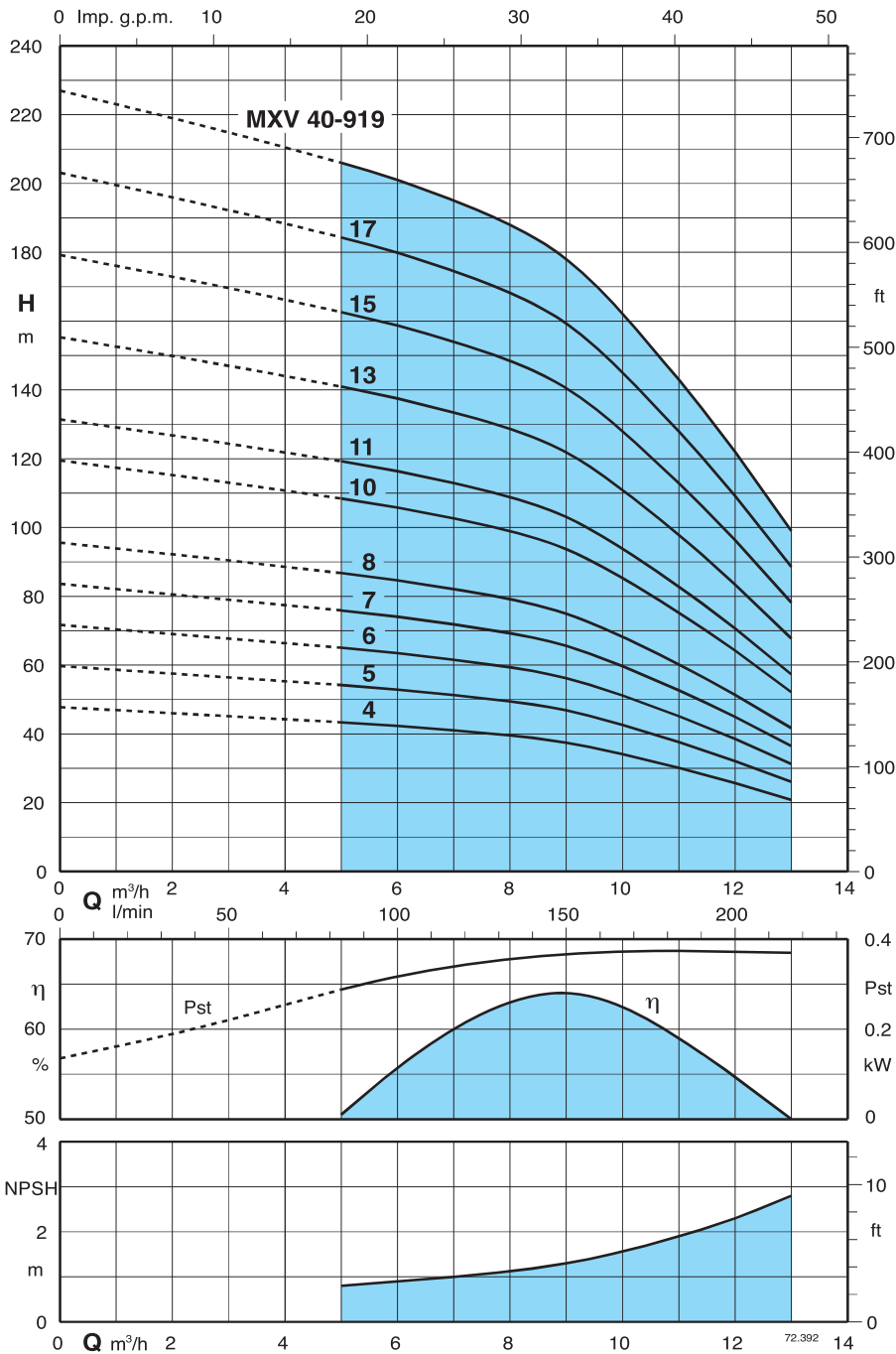
### Variable parts

Pump size MXV			Number of stages	Stage casings with bearing
25-304	32-504	40-904	4	1
25-305	32-505	40-905	5	1
25-306	32-506	40-906	6	1
25-307	32-507	40-907	7	1
25-308	32-508	40-908	8	1
25-310	32-510	40-910	10	1
25-312	32-512	40-911	11	2
		40-912	12	2
		40-913	13	2
25-314	32-514	40-914	14	2
		40-915	15	2
25-316	32-516	40-916	16	2
25-318	32-518	40-918	18	2
25-320		40-917	17	3
		40-919	19	3
		40-920	20	3

### Variable parts

Pump size MXV				Number of stages	Stage casings with bearing
50-1501	50-2001		80-4801	1	1
50-1502	50-2002	65-3202	80-4802	2	1
50-1503	50-2003	65-3203	80-4803	3	1
50-1504	50-2004	65-3204	80-4804	4	1
50-1505	50-2005	65-3205	80-4805	5	1
50-1506	50-2006	65-3206		6	1
50-1507	50-2007	65-3207		7	1
50-1508	50-2008			8	1
50-1509	50-2009	65-3208	80-4806	6	2
			80-4807	7	2
			80-4808	8	2
				9	2
				10	2
				11	2
50-1512	50-2012	65-3212		12	2
50-1513	50-2013			13	2
50-1514	50-2014			14	3
50-1515	50-2015			15	3
50-1516	50-2016			16	3
50-1517	50-2017			17	3

#### 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.

A\* Calpeda motor currents

Pump type	230 V		400 V		Motor power		Q m³/h l/min	0	5	6	7	8	9	10	11	12	13		
	A*	A*	kW	HP	kW	HP													
MXV 40-904	7,4	4,3	1,5	2			0	83,3	100	116,6	133,3	150	166,6	183,3	200	216,6			
MXV 40-905	9,2	5,3	2,2	3	H m		47	43	42	41	40	37	34	30	26	21			
MXV 40-906	9,2	5,3	2,2	3		59	54	53	51	50	47	43	38	32	26				
MXV 40-907	11,4	6,6	3	4		71	65	63	62	59	56	51	45	39	31				
MXV 40-908	11,4	6,6	3	4		83	76	74	72	69	66	60	53	45	36				
MXV 40-910		9,6	4	5,5		95	87	85	82	79	75	69	60	51	42				
MXV 40-911		9,6	4	5,5		119	109	106	103	99	94	86	75	64	52				
MXV 40-913		10,9	5,5	7,5		131	119	116	113	109	103	94	83	71	57				
MXV 40-915		10,9	5,5	7,5		155	141	138	134	129	122	111	98	84	68				
MXV 40-917		14,3	7,5	10		179	163	159	154	149	141	128	113	96	78				
MXV 40-919		14,3	7,5	10		202	184	180	175	168	159	145	128	109	89				
						226	206	201	195	188	178	162	143	122	99				