



### Construction

Horizontal multi-stage close coupled pumps in **chrome-nickel-molybdenum stainless steel AISI 316L**.

Compact and robust construction, without protruding flange and with single-piece lantern bracket and base.

Single-piece barrel casing, with front suction port above pumps axis and radial delivery at top.

Filling and draining plugs on the middle of the pump, accessible from any side (like the terminal box).

### Applications

For water supply.

For clean liquids, without abrasives, which are non-aggressive for stainless steel (with suitable seal materials, on request).

Universal pump, for domestic use, for civil and industrial applications, for garden use and irrigation.

### Operating conditions

Liquid temperature from - 15 °C to + 110 °C.

Ambient temperature up to 40 °C.

Maximum permissible pressure in the pump casing: 8 bar.

Continuous duty.

### Motor

2-pole induction motor, 50 Hz (n ≈ 2800 rpm).

**MXHL:** three-phase 230/400 V ± 10%.

**MXHLM:** single-phase 230 V ± 10%, with thermal protector.

Capacitor inside the terminal box.

Insulation class F. Protection IP 54.

Motor suitable for operation with frequency converter from 1,1 kW.

**Classification scheme IE3 for three-phase motors from 0,75 kW.**

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

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

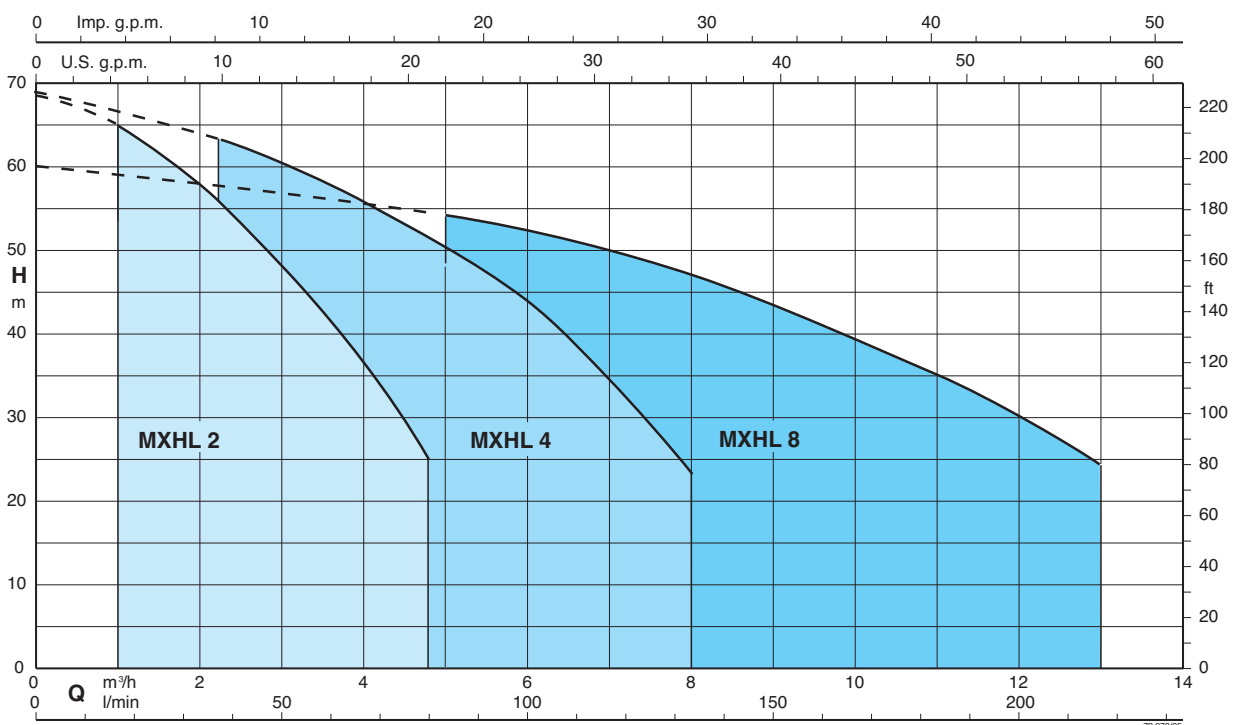
### Materials

Component	Material
Pump casing	Cr-Ni-Mo steel 1.4404 EN 10088 (AISI 316L)
Stage casing	Cr-Ni-Mo steel 1.4404 EN 10088 (AISI 316L)
Wear ring	PTFE
Impeller	Cr-Ni-Mo steel 1.4404 EN 10088 (AISI 316L)
Casing cover	Cr-Ni-Mo steel 1.4404 EN 10088 (AISI 316L)
Spacer sleeve	Cr-Ni-Mo steel 1.4404 EN 10088 (AISI 316L)
Pump shaft	Cr-Ni-Mo steel 1.4404 EN 10088 (AISI 316L)
Plug	Cr-Ni-Mo steel 1.4404 EN 10088 (AISI 316L)
Mechanical seal with seat according to ISO 3069	Ceramic alumina, carbon, EPDM (Other materials on request)

### Special features on request

- Other voltages. - Frequency 60 Hz (as per 60 Hz data sheet).
- Protection IP 55.
- Special mechanical seal
- Pump casing seal rings in FPM.
- Higher or lower liquid or ambient temperatures.
- Motor suitable for operation with frequency converter up to 0,75 kW.

### Coverage chart n ≈ 2800 rpm



### Performance n ≈ 2800 rpm

3 ~	230 V		400 V	1 ~	230 V		P <sub>1</sub>	P <sub>2</sub>		Q	m <sup>3</sup> /h									
	A	A			A	kW		kW	HP		l/min	0	1	1,5	2	2,5	3	3,5	4	4,25
MXHL 202E	1,7	1		MXHLM 202E	2,3	0,5	0,33	0,45	H m	22	20	18,5	17	15,3	13,4	11,4	9,3	8,2	5,6	
MXHL 203E	2,4	1,4		MXHLM 203E	3	0,65	0,45	0,6		33	31	29	27	24,5	21,7	18,6	15,5	13,8	9	
MXHL 204/A	2,8	1,6		MXHLM 204/A	4,2	0,9	0,55	0,75		45	42,5	40,4	37,5	34,5	30,8	26,7	22,4	20,1	14,8	
MXHL 205/B	3,5	2		MXHLM 205/A	5,4	1,2	0,75	1		57	53,5	50,5	47,5	43,5	39	34	28,5	25,8	19	
MXHL 206/C	4,7	2,7		MXHLM 206	7,4	1,5	1,1	1,5		68,5	65	61,5	58	53,5	48	43	36,5	33,5	25	

3 ~	230 V		400 V	1 ~	230 V		P <sub>1</sub>	P <sub>2</sub>		Q	m <sup>3</sup> /h									
	A	A			A	kW		kW	HP		l/min	0	2,25	3	3,5	4	4,5	5	6	7
MXHL 402E	2,4	1,4		MXHLM 402E	3	0,65	0,45	0,6	H m	22,5	20	19	18,5	17,5	16	15	12,5	9,5	6	
MXHL 403/A	2,8	1,6		MXHLM 403/A	4,2	0,9	0,55	0,75		33	30	29	27,5	26	24,5	23	19,5	15	9,5	
MXHL 404/B	3,5	2		MXHLM 404/A	5,4	1,2	0,75	1		44,5	40,5	38	36,5	35	33	31	26	20	12,5	
MXHL 405/C	4,7	2,7		MXHLM 405	7,4	1,5	1,1	1,5		56,5	52	50	47,5	45,5	43	40	33,5	26	16,5	
MXHL 406/A	6,2	3,6		MXHLM 406	9,2	2	1,5	2		68,5	63	60	58	56	53,5	51	44	35	23	

3 ~	230 V		400 V	1 ~	230 V		P <sub>1</sub>	P <sub>2</sub>		Q	m <sup>3</sup> /h												
	A	A			A	kW		kW	HP		l/min	0	5	6	7	8	9	10	11	12	13		
MXHL 802/B	3,5	2		MXHLM 802/A	5,4	1,2	0,75	1	H m	22,5	20,5	20	19	18	16,5	15	13	11	8,5				
MXHL 803/A	4,7	2,7		MXHLM 803	7,4	1,5	1,1	1,5		36	32	30,5	29	27,5	25,5	23	20	17	14				
MXHL 804/A	6,2	3,6		MXHLM 804	9,2	2	1,5	2		48	42,5	41	39	37	34,5	32	28	24	19,5				
MXHL 805/B	7,5	4,3		MXHLM 805	11,2	2,5	1,8	2,5		60	54	52	49,5	47	43,5	39,5	35	29,5	24				
										60	54	52	49,5	47	43,5	39,5	35	29,5	24				

P<sub>1</sub> Max. power input.

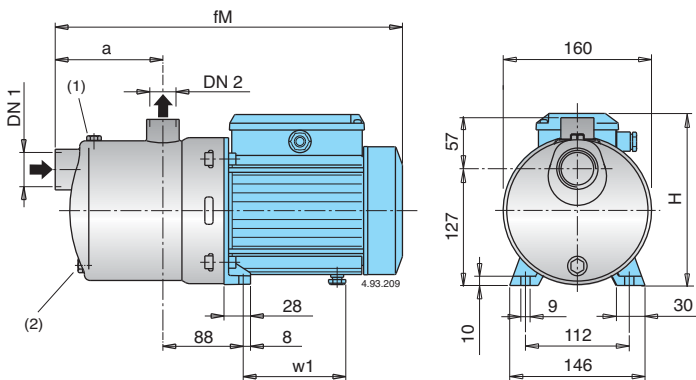
P<sub>2</sub> Rated motor power output.

Test results with clean cold water, without gas content.

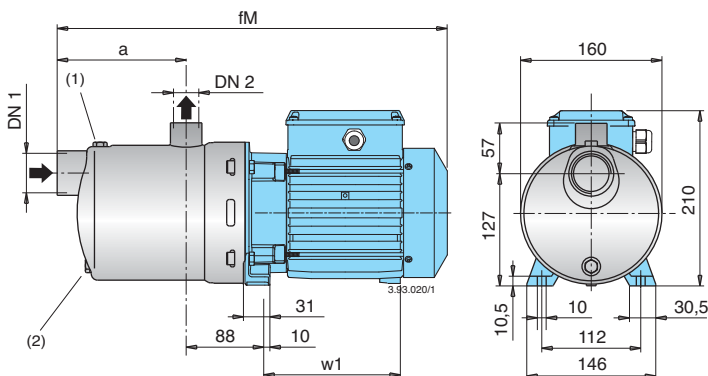
Tolerances according to UNI EN ISO 9906:2012

+ 0,5 m security margin on NPSH-value is necessary.

### Dimensions and weights



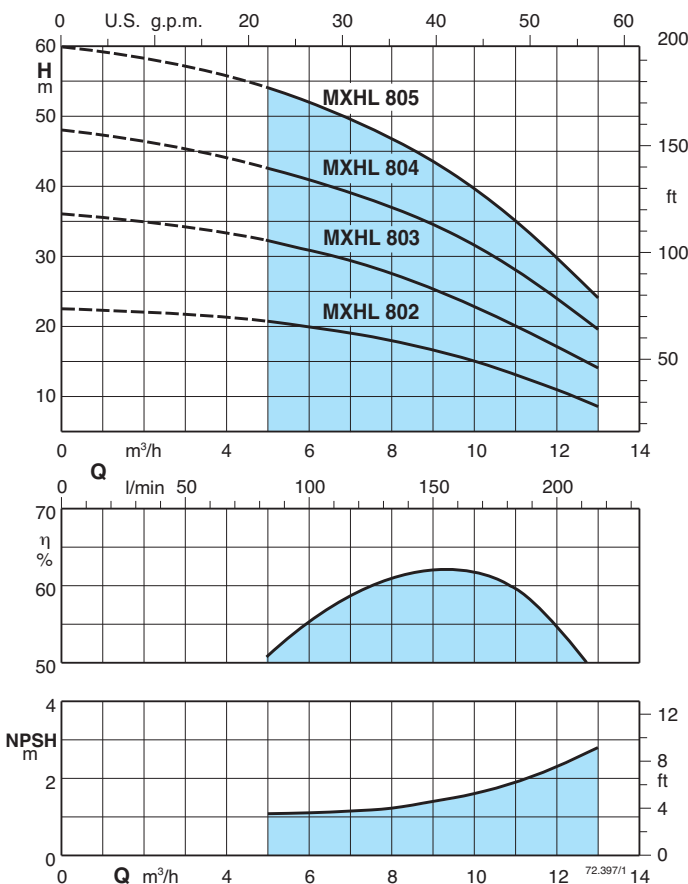
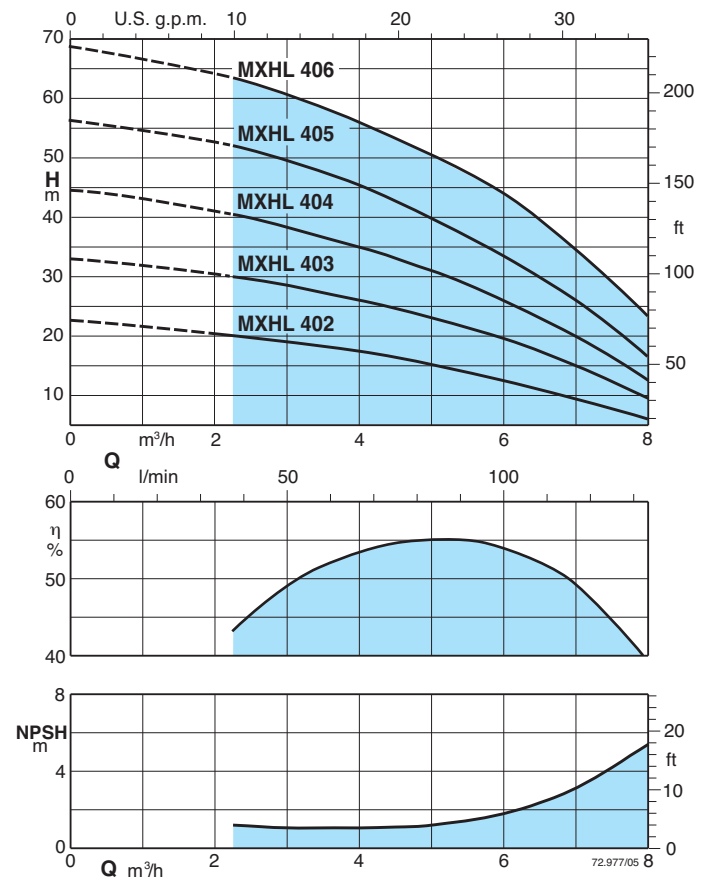
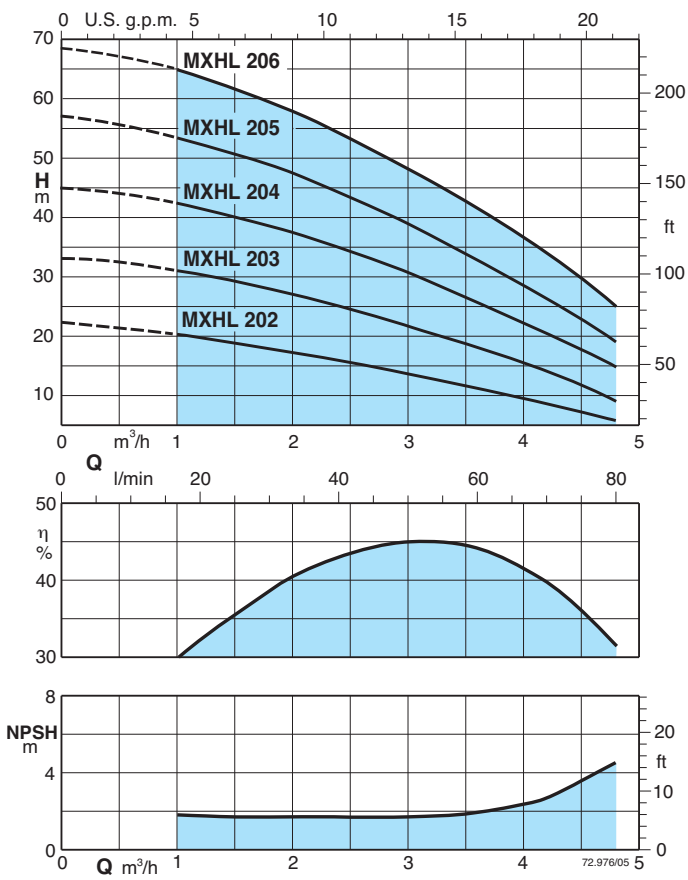
TYPE	DN1	DN2	mm				kg	
			fM	a	H	w1	MXHL	MXHLM
MXHL 202E - MXHLM 202E	G 1 1/4	G 1	331	94	176	98,5	6,8	6,9
MXHL 203E - MXHLM 203E	G 1 1/4	G 1	331	94	176	98,5	7,6	7,7
MXHL 204/A - MXHLM 204/A	G 1 1/4	G 1	381	118	193	112	10	11
MXHL 205/B - MXHLM 205/A	G 1 1/4	G 1	405	142	193	112	12,3	12,5
MXHL 402E - MXHLM 402E	G 1 1/4	G 1	331	94	176	98,5	7,6	7,7
MXHL 403/A - MXHLM 403/A	G 1 1/4	G 1	357	94	193	112	9,3	10,3
MXHL 404/B - MXHLM 404/A	G 1 1/4	G 1	381	118	193	112	11,6	11,8
MXHL 802/B - MXHLM 802/A	G 1 1/2	G 1	381	118	193	112	11,4	11,6



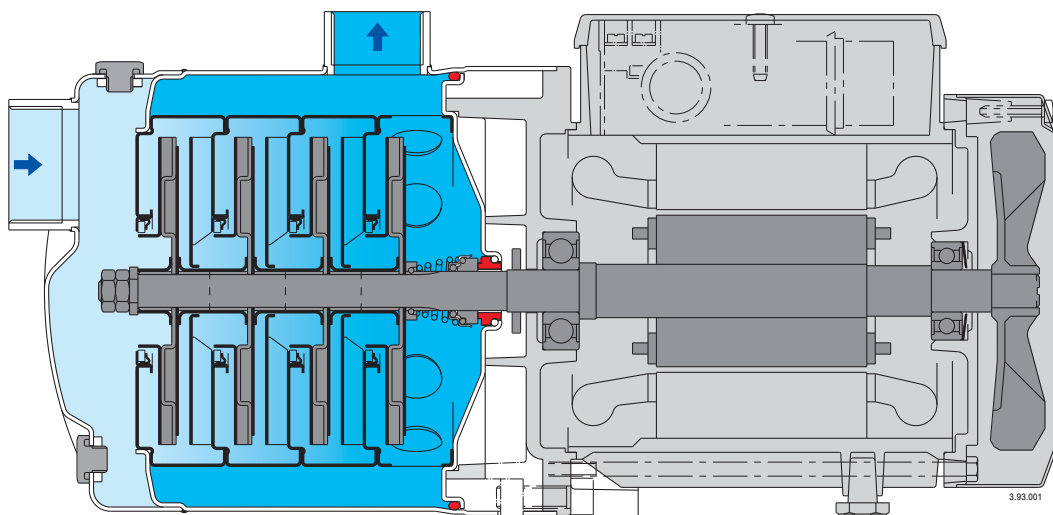
TYPE	DN1	DN2	mm			kg	
			fM	a	w1	MXHL	MXHLM
MXHL 206/C - MXHLM 206	G 1 1/4	G 1	500	166	167	18,5	18,6
MXHL 405/C - MXHLM 405	G 1 1/4	G 1	476	142	167	18	18
MXHL 406/A - MXHLM 406	G 1 1/4	G 1	500	166	167	19,5	20,5
MXHL 803/A - MXHLM 803	G 1 1/2	G 1	452	118	167	15,8	16,9
MXHL 804/A - MXHLM 804	G 1 1/2	G 1	482	148	167	18,2	19,2
MXHL 805/B - MXHLM 805	G 1 1/2	G 1	552	178	207	21,4	22,4

(1) Filling (2) Draining

### Characteristic curves $n \approx 2800$ rpm



### Features



#### **Extra safety**

against running dry, with the suction port above pump axis.

#### **Reliable**

All hydraulic parts in contact with the pumped liquid are of stainless steel.  
For liquids from -15 °C to 110 °C.

#### **Robust**

Single-piece, thick barrel casing.

#### **Compact**

Single-piece lantern bracket and base.  
Without protruding flange.

#### **Greater protection**

against leakage, with the pump casing cover separated from the motor shield.  
Possibility of inspecting the seal through the side apertures between the two walls.  
Greater protection against water entering the motor from outside provided by an extension of the pump casing around the lantern bracket.