

# MXH 2,4,8,16 60 Hz Horizontal Multi-Stage Close Coupled Pumps



## Construction

Horizontal multi-stage close coupled pumps in **chrome-nickel stainless steel**.  
 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.

## Motor

2-pole induction motor, 60 Hz (n = 3450 rpm).  
**MXH**: three-phase 220 / 380 V.  
**MXHM**: single-phase 220 V.  
 With thermal protector up to 1.1 kW.  
 Capacitor inside the terminal box.  
 Insulation class F.  
 Protection IP 54.  
**Classification scheme IE2 for three-phase motor from 0,75 kW.**  
 Constructed in accordance with EN 60034-1, EN 60034-30, EN 60335-1, EN 60335-2-41.

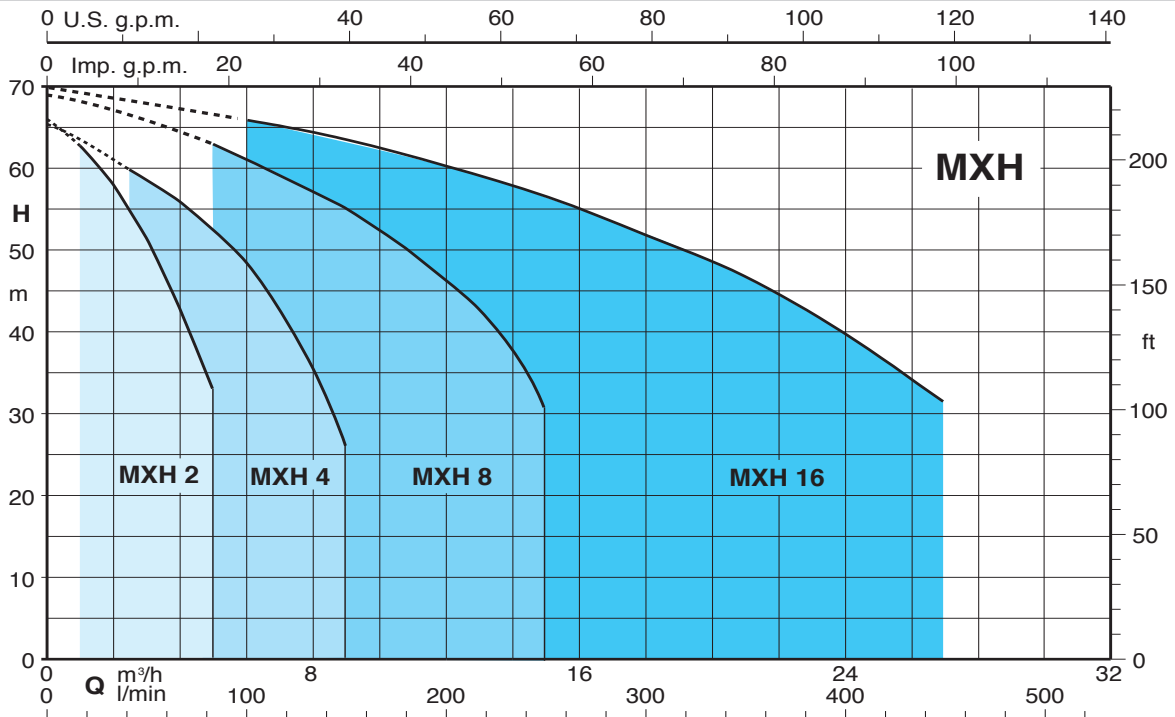
## Materials

Component	Material
Pump casing	Chrome-nickel steel AISI 304
Stage casing	Chrome-nickel steel AISI 304
Wear ring	PTFE
Impeller	Chrome-nickel steel AISI 304
Casing cover	Chrome-nickel steel AISI 304
Spacer sleeve	Chrome-nickel steel AISI 304
Pump shaft	Chrome-nickel steel AISI 303
Plug	Chrome-nickel steel AISI 303
Mechanical seal with seat according to ISO 3069	Ceramic alumina, carbon, EPDM (Other materials on request)

## Special features on request

- Other voltages.
- Protection IP 55.
- Special mechanical seal
- Seal rings in FPM.
- Higher or lower liquid or ambient temperatures.

## Coverage chart n = 3450 rpm



## Performance n ≈ 3450 rpm

	3 ~ 220 V 380 V			1 ~ 220 V			P <sub>2</sub>		Q	m <sup>3</sup> /h									
	A	A	IA/IN	A	IA/IN	kW	HP	0		1	1,5	2	2,5	3	3,5	4	4,5	5	
MXH 201-60E	1,7	1	4,7	MXHM 201-60E	2,3	1,8	0,25	0,34	H m	0	16,6	25	33,3	41,6	50	58,3	66,6	75	83,3
MXH 202-60/A	3,3	1,9	4,3	MXHM 202-60/A	5	3,3	0,55	0,75		16	15,2	14,5	13,7	13	12	10,7	9,6	8,5	7
MXH 203-60/A	4,5	2,6	6,8	MXHM 203-60/A	6,2	3,2	0,75	1		33	31	30	28,5	27	25,5	23,5	21	19	16
MXH 204-60/B	5,7	3,3	5,5	MXHM 204-60	8,5	3	1,1	1,5		49,5	47	45,5	43,5	41	38,5	35,5	32	28,5	24

	3 ~ 220 V 380 V			1 ~ 220 V			P <sub>2</sub>		Q	m <sup>3</sup> /h									
	A	A	IA/IN	A	IA/IN	kW	HP	0		2,5	3	3,5	4	5	6	7	8	9	
MXH 401-60E	2	1,2	4	MXHM 401-60E	2,8	2,7	0,33	0,45	H m	0	41,6	50	58,3	66,6	83,3	100	116	133	150
MXH 402-60/A	4,5	2,6	6,8	MXHM 402-60/A	6,2	3,2	0,75	1		16	14,5	14	13,5	13	11,7	10,2	8,5	6,5	4
MXH 403-60/B	5,7	3,3	5,5	MXHM 403-60	8,5	3	1,1	1,5		32,5	29,5	29	28,5	27,5	26	23,5	20,5	17	12,5
MXH 404-60	7,4	4,3	6,6	MXHM 404-60	10,6	3,8	1,5	2		49	45,5	44,5	43,5	42	39,5	36	31,5	26,5	20

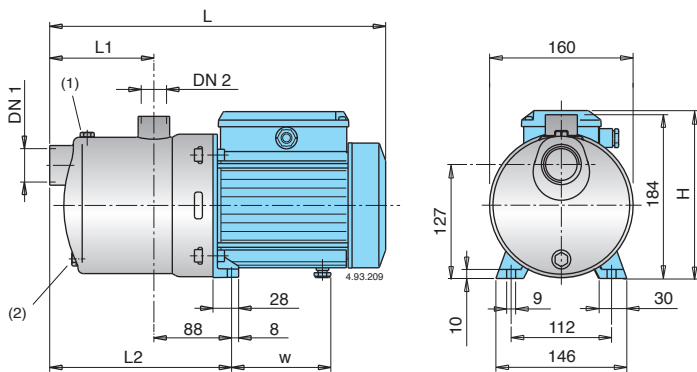
	3 ~ 220 V 380 V			1 ~ 220 V			P <sub>2</sub>		Q	m <sup>3</sup> /h									
	A	A	IA/IN	A	IA/IN	kW	HP	0		5	6,5	8	10	11	12	13	14	15	
MXH 801-60/A	3,3	1,9	4,3	MXHM 801-60/A	5	3,3	0,55	0,75	H m	0	82,3	108	133	166	183	200	216	233	250
MXH 802-60	7,4	4,3	6,6	MXHM 802-60	10,6	3,8	1,5	2		16,5	15,6	14,4	14	12,3	11,3	10	8,8	7,3	5,6
MXH 803-60/A	9	5,2	6				1,8	2,5		33,5	31,3	30,4	29	26,5	25	23	20,5	18	15
MXH 804-60/A	11,1	6,4	7,3				2,2	3		51	47	45	42,5	38,5	36,5	33,5	30,5	26,5	22,5

	3 ~ 220 V 380 V			P <sub>2</sub>		Q	m <sup>3</sup> /h									
	A	A	IA/IN	kW	HP		0	6	9	12	15	18	21	24	27	
MXH 1602-60/A	11,1	6,4	7,3	2,2	3	H m	0	100	150	200	250	300	350	400	450	
MXH 1603-60/A		7,7	8,4	3	4		35	33	31,8	30,2	28,3	26	23,5	20	15,8	
MXH 1604-60/A		11,2	7,8	4	5,5		52,5	49,5	47,7	45,3	42,5	39	35,2	30	23,7	

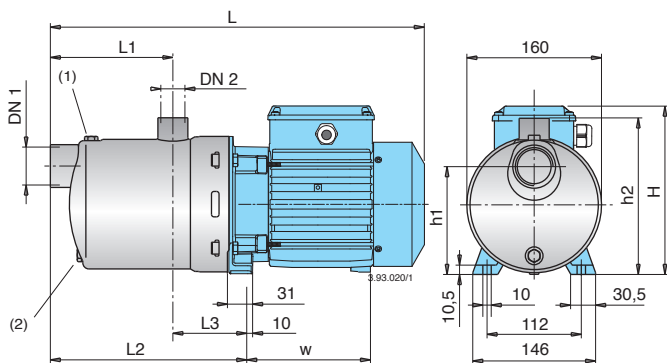
P<sub>2</sub> Rated motor power output.  
IA/IN = D.O.L. starting current / Rated current

Test results with clean cold water, without gas content.  
Tolerances according to ISO 9906, annex A.

## Dimensions and weights



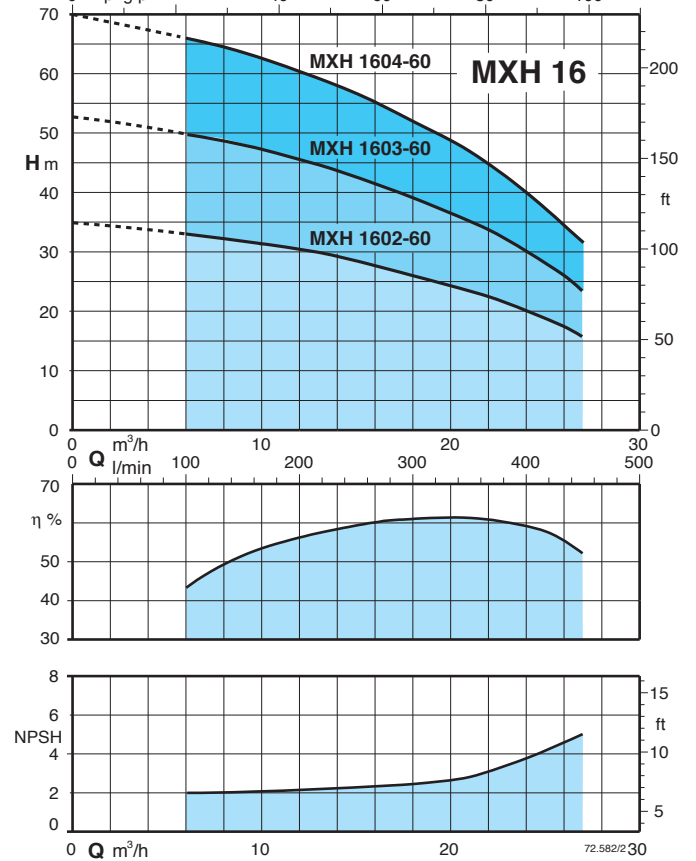
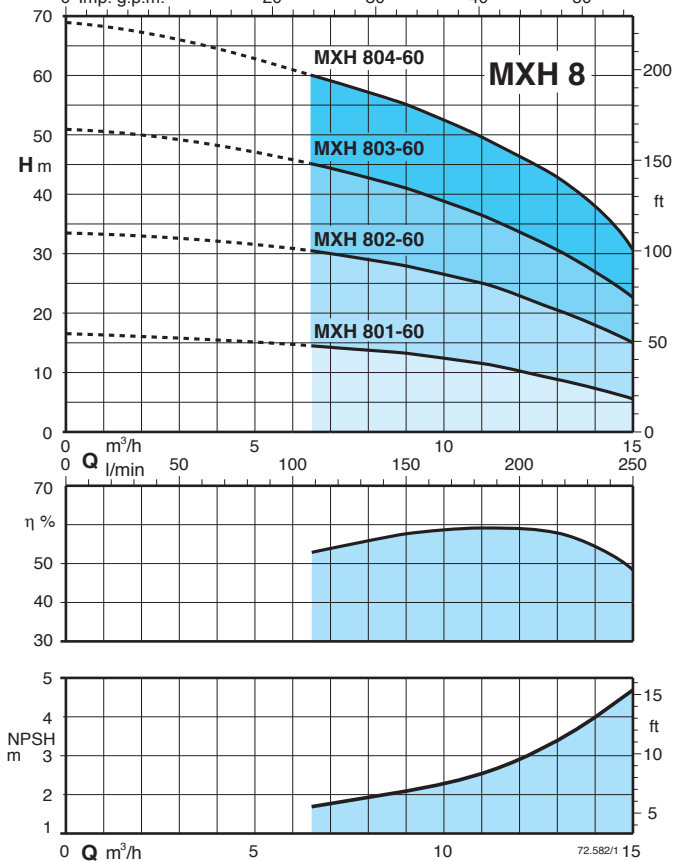
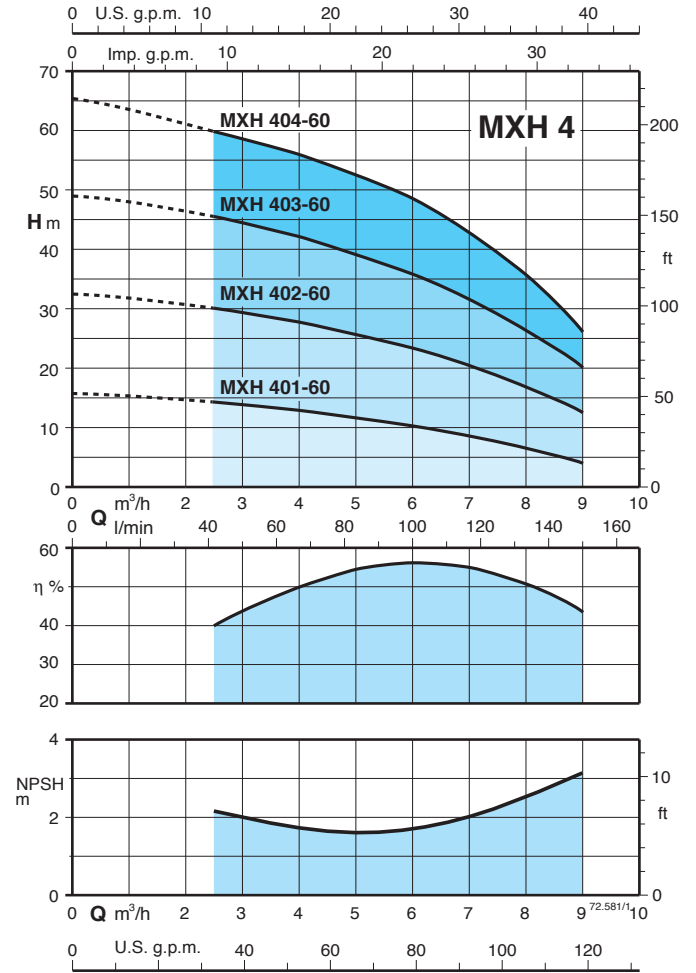
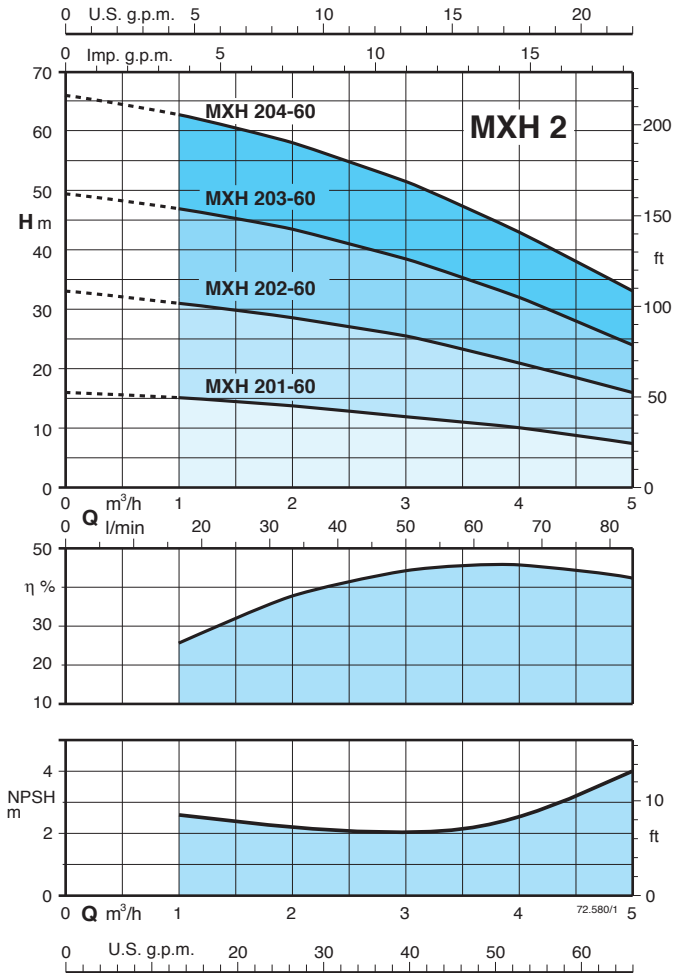
TYPE	DN1	DN2	mm					kg	
			L	L1	L2	H	w	MXH	MXHM
MXH 201-60E - MXHM 201-60E	G 1 1/4	G 1	331	94	182	176	98,5	6,6	6,7
MXH 202-60/A - MXHM 202-60/A	G 1 1/4	G 1	357	94	182	192	112	9,1	10,1
MXH 203-60/A - MXHM 203-60/A	G 1 1/4	G 1	357	94	182	192	112	10,5	11,5
MXH 401-60E - MXHM 401-60E	G 1 1/4	G 1	331	94	182	176	98,5	6,6	6,7
MXH 402-60/A - MXHM 402-60/A	G 1 1/4	G 1	357	94	182	192	112	10	11
MXH 801-60/A - MXHM 801-60/A	G 1 1/2	G 1	381	118	206	192	112	9,7	10,5



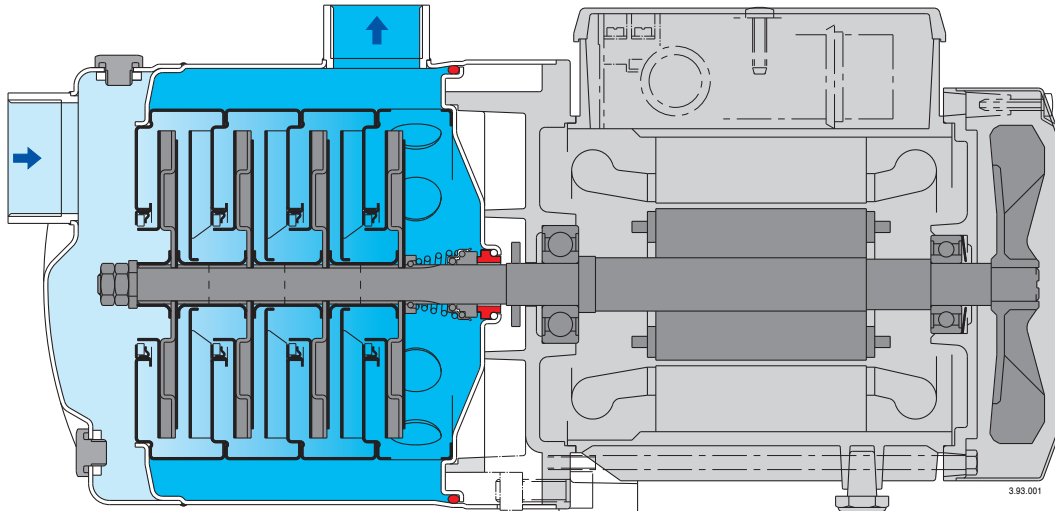
TYPE	DN1	DN2	mm									kg	
			L	L1	L2	L3	h1	h2	H	w	MXH	MXHM	
MXH 204-60/B - MXHM 204-60	G 1 1/4	G 1	453	118	206	88	127	184	210	167	-	17,7	
MXH 403-60/B - MXHM 403-60	G 1 1/4	G 1	429	94	206	88	127	184	210	167	-	17,2	
MXH 404-60 - MXHM 404-60	G 1 1/4	G 1	453	118	206	88	127	184	210	167	18,5	19,2	
MXH 802-60 - MXHM 802-60	G 1 1/2	G 1	453	118	206	88	127	184	210	167	18	18,9	
MXH 803-60/A	G 1 1/2	G 1	493	118	206	88	127	184	210	167	18,3	-	
MXH 804-60/A	G 1 1/2	G 1	522	148	206	88	127	184	210	167	19,8	-	
MXH 1602-60/A	G 2	G 1 1/2	504	128	241	101	117	187	210	167	18,3	-	
MXH 1603-60/A	G 2	G 1 1/2	575	128	241	113	132	202	235	232	30		
MXH 1604-60/A	G 2	G 1 1/2	612	166	279	113	132	202	235	232	31		

(1) Filling (2) Draining

## Characteristic curves n = 3450 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.

# MXHL 60 Hz AISI 316

Horizontal Multi-Stage Close Coupled Pumps



## 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.

## Motor

2-pole induction motor, 60 Hz (n = 3450 rpm).  
**MXHL:** three-phase 220 / 380 V.  
**MXHLM:** single-phase 220 V.  
With thermal protector up to 1.1 kW.  
Capacitor inside the terminal box.  
Insulation class F.  
Protection IP 54.  
**Classification scheme IE2 for three-phase motor from 0,75 kW.**  
Constructed in accordance with EN 60034-1, EN 60034-30, EN 60335-1, EN 60335-2-41.

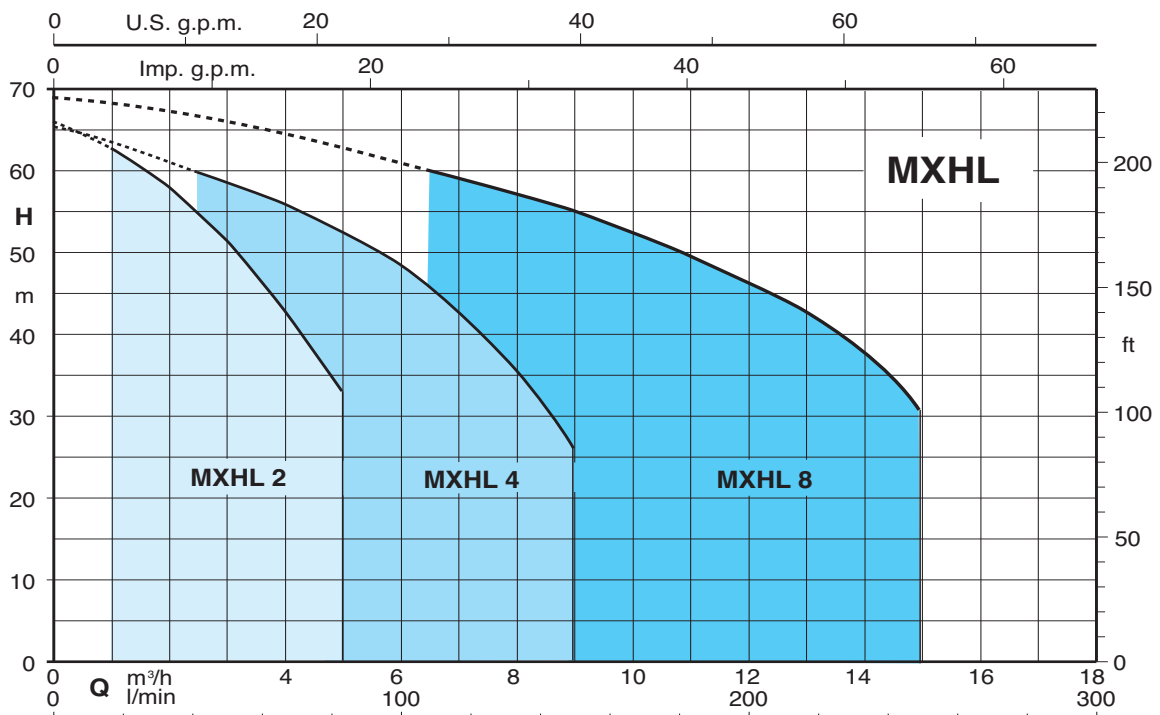
## Materials

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

## Special features on request

- Other voltages.
- Protection IP 55.
- Special mechanical seal
- Seal rings in FPM.
- Higher or lower liquid or ambient temperatures.

## Coverage chart n = 3450 rpm



### Performance $n \approx 3450$ rpm

3 ~ 220 V 380 V				1 ~ 220 V			P <sub>2</sub>		Q											
A	A	IA/IN		A	IA/IN	kW	HP	m <sup>3</sup> /h		l/min										
MXHL 201-60E	1,7	1	4,7	MXHLM 201-60E	2,3	1,8	0,25	0,34	0	0	16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	
MXHL 202-60/A	3,3	1,9	4,3	MXHLM 202-60/A	5	3,3	0,55	0,75	16	15,2	14,5	13,7	13	12	10,7	9,6	8,5	7		
MXHL 203-60/A	4,5	2,6	6,8	MXHLM 203-60/A	6,2	3,2	0,75	1	33	31	30	28,5	27	25,5	23,5	21	19	16		
MXHL 204-60/B	5,7	3,3	5,5	MXHLM 204-60	8,5	3	1,1	1,5	49,5	47	45,5	43,5	41	38,5	35,5	32	28,5	24		
									H <sub>m</sub>	66	63	60,5	58	55	51,5	47,5	43	38,5	33	

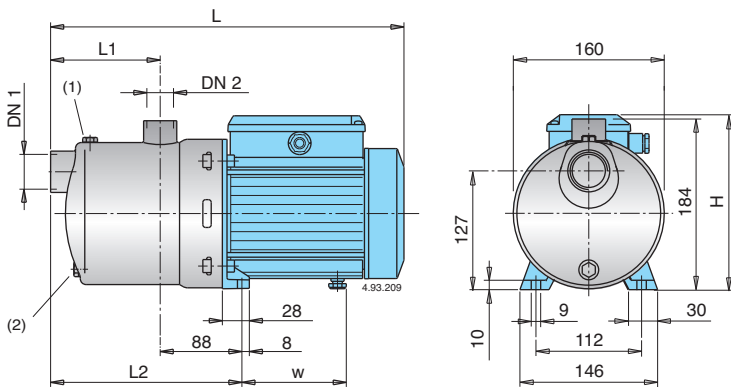
3 ~ 220 V 380 V				1 ~ 220 V			P <sub>2</sub>		Q											
A	A	IA/IN		A	IA/IN	kW	HP	m <sup>3</sup> /h		l/min										
MXHL 401-60E	2	1,2	4	MXHLM 401-60E	2,8	2,7	0,33	0,45	0	0	41,6	50	58,3	66,6	83,3	100	116	133	150	
MXHL 402-60/A	4,5	2,6	6,8	MXHLM 402-60/A	6,2	3,2	0,75	1	16	14,5	14	13,5	13	11,7	10,2	8,5	6,5	4		
MXHL 403-60/B	5,7	3,3	5,5	MXHLM 403-60	8,5	3	1,1	1,5	32,5	29,5	29	28,5	27,5	26	23,5	20,5	17	12,5		
MXHL 404-60	7,4	4,3	6,6	MXHLM 404-60	10,6	3,8	1,5	2	49	45,5	44,5	43,5	42	39,5	36	31,5	26,5	20		
									H <sub>m</sub>	65,5	60	59	57,5	56	52,5	48,5	42,5	35,5	26	

3 ~ 220 V 380 V				1 ~ 220 V			P <sub>2</sub>		Q											
A	A	IA/IN		A	IA/IN	kW	HP	m <sup>3</sup> /h		l/min										
MXHL 801-60/A	3,3	1,9	4,3	MXHLM 801-60/A	5	3,3	0,55	0,75	0	0	5	6,5	8	10	11	12	13	14	15	
MXHL 802-60	7,4	4,3	6,6	MXHLM 802-60	10,6	3,8	1,5	2	0	82,3	108	133	166	183	200	216	233	250		
MXHL 803-60/A	9	5,2	6				1,8	2,5	16,5	15,6	14,4	14	12,3	11,3	10	8,8	7,3	5,6		
MXHL 804-60/A	11,1	6,4	7,3				2,2	3	33,5	31,3	30,4	29	26,5	25	23	20,5	18	15		
									H <sub>m</sub>	51	47	45	42,5	38,5	36,5	33,5	30,5	26,5	22,5	
									H <sub>m</sub>	69	63	60	57,5	53	50,5	47	43	38	31	

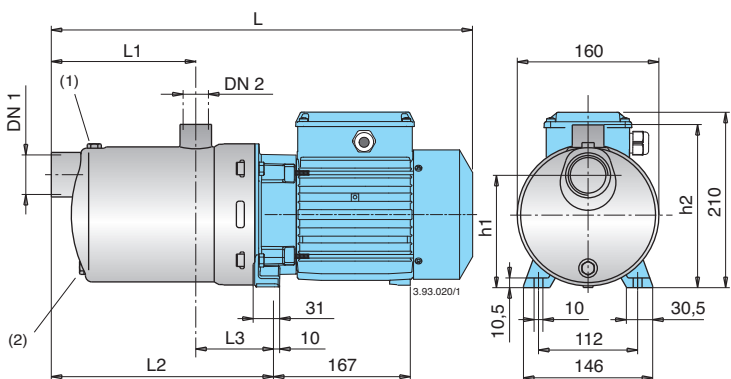
P<sub>2</sub> Rated motor power output.  
IA/IN = D.O.L. starting current / Rated current

Test results with clean cold water, without gas content.  
Tolerances according to ISO 9906, annex A.

### Dimensions and weights



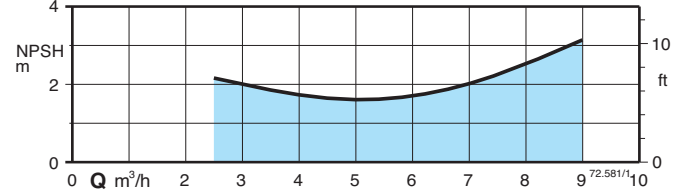
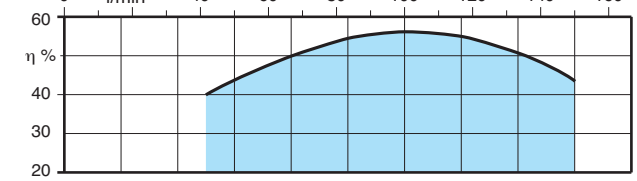
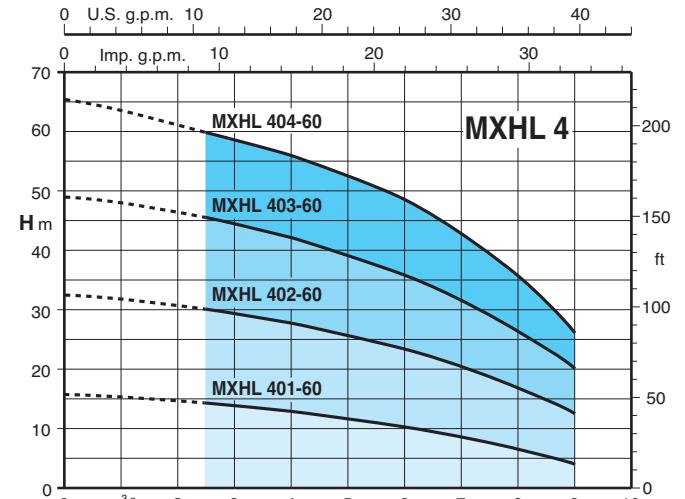
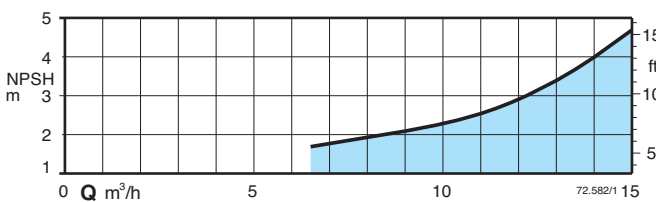
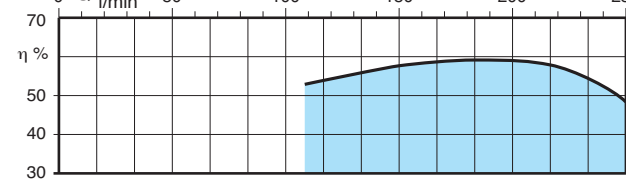
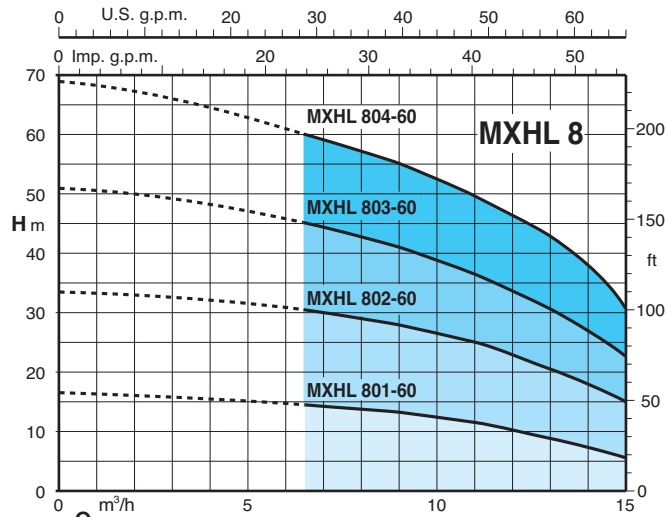
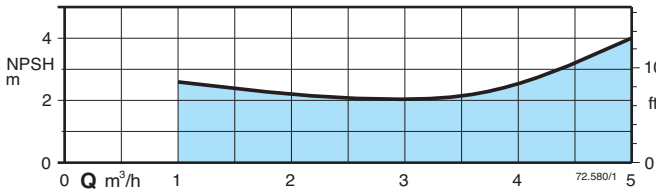
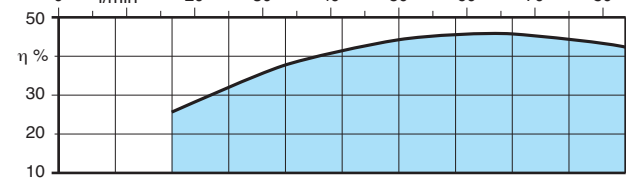
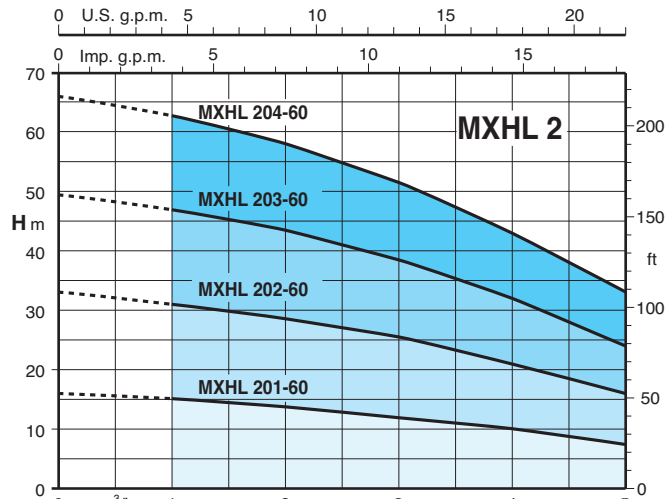
TYPE	DN1	DN2	mm					kg	
			L	L1	L2	H	w	MXHL	MXHLM
MXHL 201-60E - MXHLM 201-60E	G 1 1/4	G 1	331	94	182	176	98,5	6,6	6,7
MXHL 202-60/A - MXHLM 202-60/A	G 1 1/4	G 1	357	94	182	192	112	9,1	10,1
MXHL 203-60/A - MXHLM 203-60/A	G 1 1/4	G 1	357	94	182	192	112	10,5	11,5
MXHL 401-60E - MXHLM 401-60E	G 1 1/4	G 1	331	94	182	176	98,5	6,6	6,7
MXHL 402-60/A - MXHLM 402-60/A	G 1 1/4	G 1	357	94	182	192	112	10	11
MXHL 801-60/A - MXHLM 801-60/A	G 1 1/2	G 1	381	118	206	192	112	9,7	10,5



TYPE	DN1	DN2	mm						kg	
			L	L1	L2	L3	h1	h2	MXHL	MXHLM
MXHL 204-60/B - MXHLM 204-60	G 1 1/4	G 1	453	118	206	88	127	184	-	17,7
MXHL 403-60/B - MXHLM 403-60	G 1 1/4	G 1	429	94	206	88	127	184	-	17,2
MXHL 404-60 - MXHLM 404-60	G 1 1/4	G 1	453	118	206	88	127	184	18,5	19,2
MXHL 802-60 - MXHLM 802-60	G 1 1/2	G 1	453	118	206	88	127	184	18	18,9
MXHL 803-60/A	G 1 1/2	G 1	493	118	206	88	127	184	18,3	-
MXHL 804-60/A	G 1 1/2	G 1	522	148	206	88	127	184	19,8	-

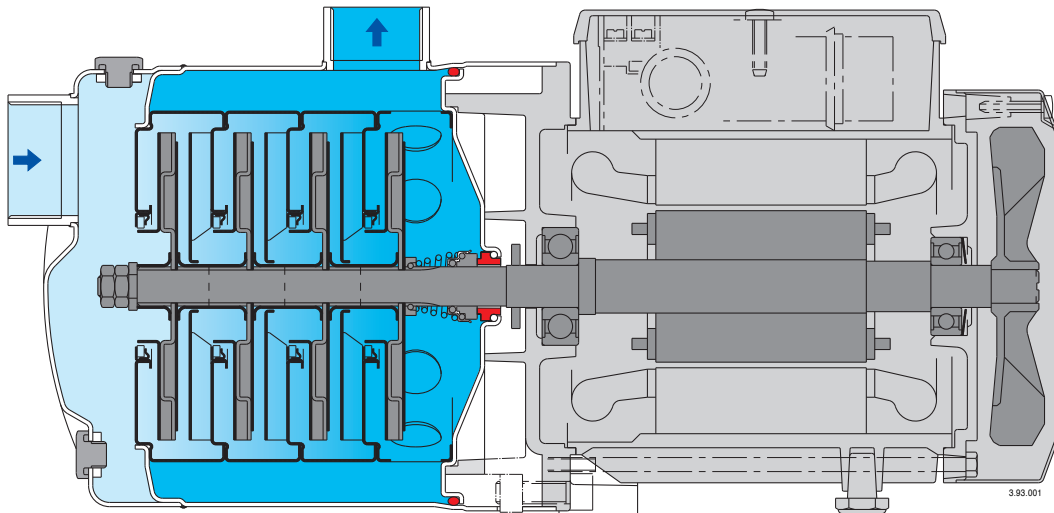
(1) Filling (2) Draining

### Characteristic curves n = 3450 rpm



6.1

### 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.





### Construction

Horizontal multi-stage close coupled pumps in **chrome-nickel stainless steel**.

Compact and robust construction, with compact lantern bracket and motor with feet.

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 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: 10 bar.

### Motor

2-pole induction motor, 60 Hz (n = 3450 rpm).

**MXH:** three-phase 220/380 V, 380/660 V.

Insulation class F.

Protection IP 54.

**Classification scheme IE2.**

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

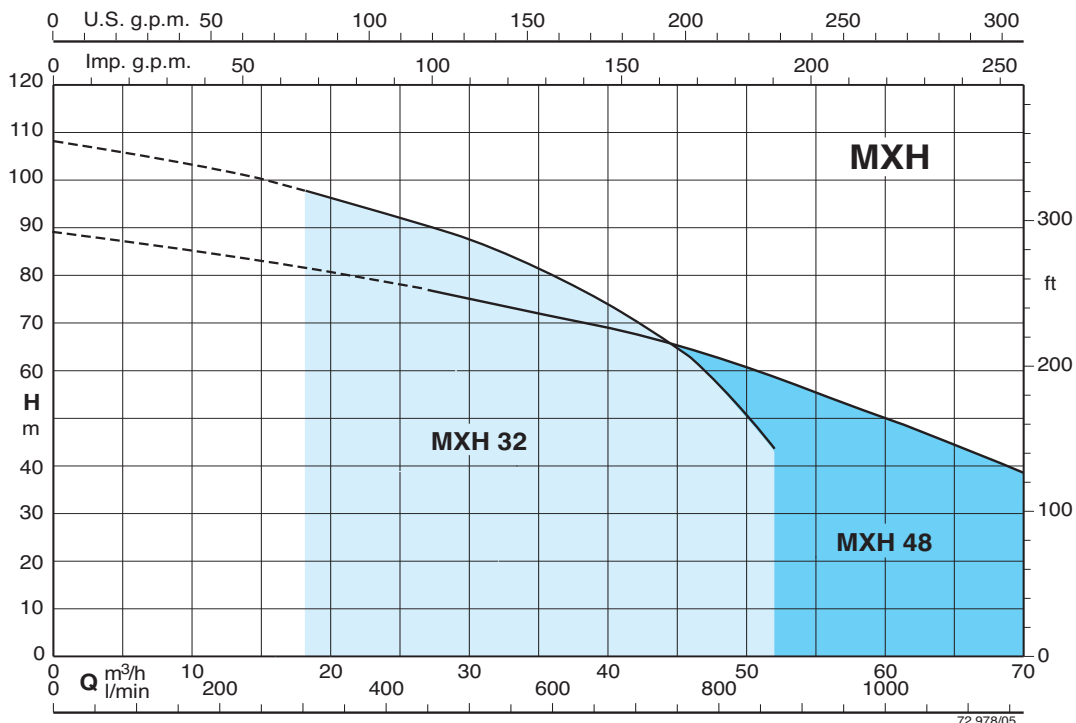
### Materials

Component	Material
Pump casing	Chrome-nickel steel AISI 304
Stage casing	Chrome-nickel steel AISI 304
Wear ring	PTFE
Impeller	Chrome-nickel steel AISI 304
Casing cover	Chrome-nickel steel AISI 304
Spacer sleeve	Chrome-nickel steel AISI 304
Pump shaft	Chrome-nickel steel AISI 316
Plug	Chrome-nickel steel AISI 303
Mechanical seal with seat according to ISO 3069-KU	Ceramic alumina, carbon, EPDM (Other materials on request)

### Special features on request

- Pump with Victaulic ports (MXH-V).
- Pump with flanged ports (MXH-F).
- Other voltages.
- Protection IP 55.
- Special mechanical seal
- Seal rings in FPM.
- Higher or lower ambient temperatures.

### Coverage chart n = 3450 rpm



### Performance n ≈ 3450 rpm

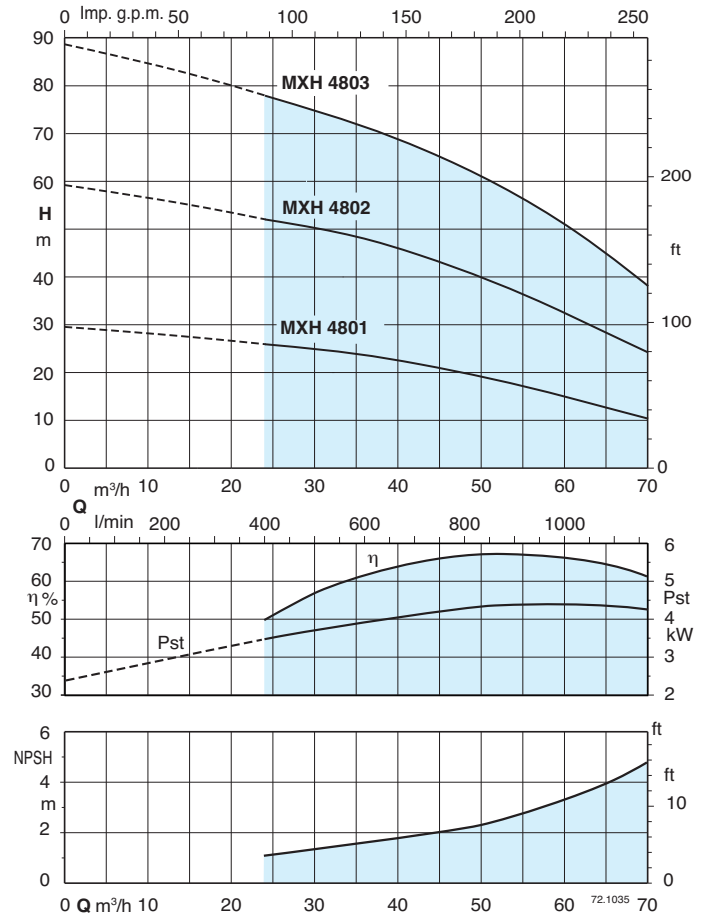
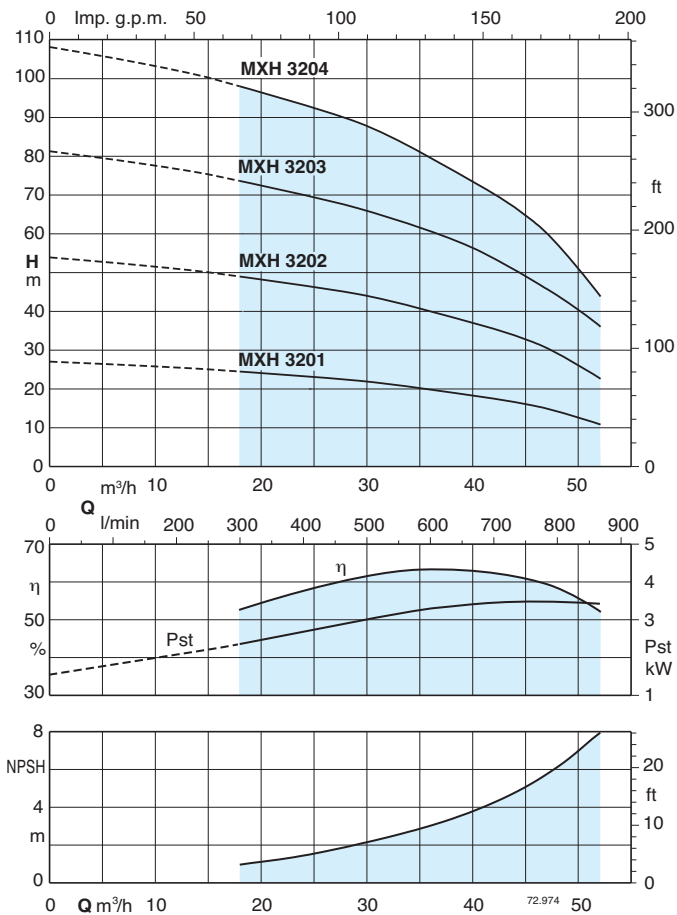
3~	380 V 660 V			P <sub>2</sub>		Q	H <sub>m</sub>									
	A	A	IA/IN	kW	HP		m <sup>3</sup> /h	0	18	22	26	30	34	38	42	47
MXH 3201-60/A	11,2	6,5	7,8	4	5,5	0	0	300	366	433	500	566	633	700	783	866
MXH 3202-60/A	17	9,8	9,2	7,5	10	27	24,5	23,7	23	22	20,5	19	17,5	15	11	
MXH 3203-60/A	25,8	14,9	8,5	11	15	54	49	47,5	46	44	41,5	38,5	35	29	23	
MXH 3204-60/A	33,2	19,2	9,4	15	20	81	73,5	71	69	66,5	63,5	60	55	47,5	37,5	
						108	98	94,5	92	88	82	76	70	60	44	

3~	380 V 660 V			P <sub>2</sub>		Q	H <sub>m</sub>									
	A	A	IA/IN	kW	HP		m <sup>3</sup> /h	0	27	33	39	45	48	54	60	65
MXH 4801-60/A	11,2	6,5	9,8	4	5,5	0	0	450	550	650	750	800	900	1000	1083	1166
MXH 4802-60/A	22	12,7	8,2	9,2	12,5	29,5	25,5	24,5	23	21	20	17,5	15	13	10,5	
MXH 4803-60/A	33,2	19,2	9,4	15	20	59	51	49	46	42,5	40,5	36,5	32	27,5	23,5	
						88,5	78	73,5	69	65	63	58	51	44,5	39	

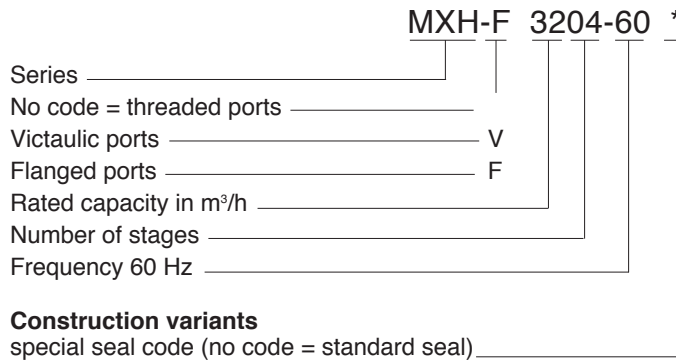
P<sub>2</sub> Rated motor power output.  
IA/IN = D.O.L. starting current / Rated current

Test results with clean cold water, without gas content.  
Tolerances according to ISO 9906, annex A.

### Characteristic curves n = 3450 rpm



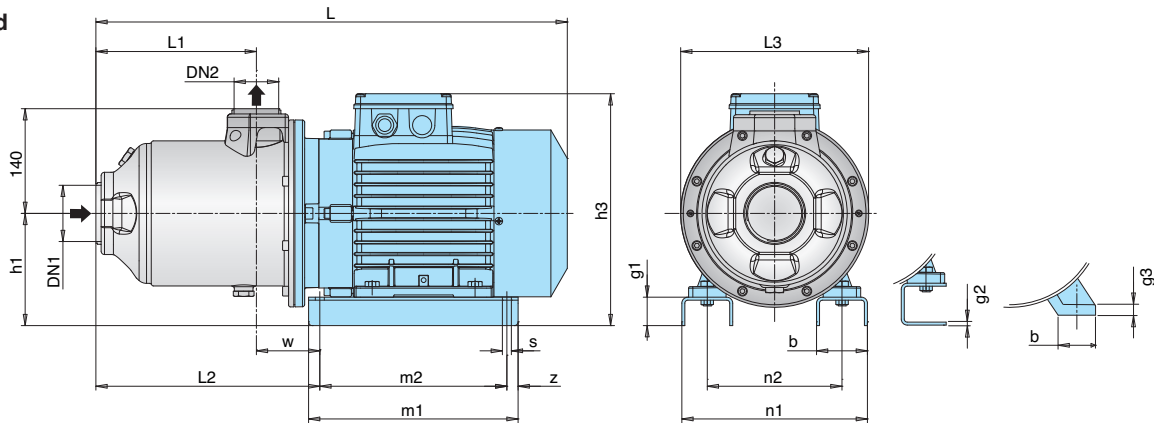
### Designation



6.2

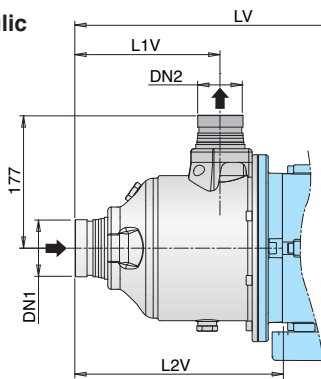
### Dimensions and weights

Threaded ports

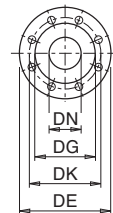
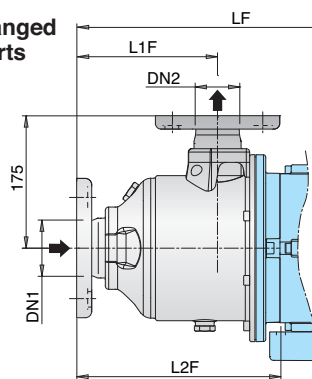


	DN1	DN2	mm																	kg
			ISO 228		L	L1	L2	L3	h1	h3	m1	m2	n1	n2	z	b	s	w	g1	
<b>MXH 3201-60/A</b>	G 2 1/2	G 2	482	120,5	233	250	150	290	205	175	180	140	15	54	10	112	-	6	-	39
<b>MXH 3202-60/A</b>	G 2 1/2	G 2	534	120,5	205	250	150	310	280	250	258	190	15	68	12	84	38	-	-	55,5
<b>MXH 3203-60/A</b>	G 2 1/2	G 2	658	166,5	338	270	132	318	218	178	260	216	20	52	12	171,5	-	-	18	
<b>MXH 3204-60/A</b>	G 2 1/2	G 2	779	212,5	384	270	132	318	218	178	260	216	20	52	12	171,5	-	-	18	
<b>MXH 4801-60/A</b>	G 3	G 2 1/2	545	136	264	250	150	290	205	175	180	140	15	54	10	127	-	6	-	41
<b>MXH 4802-60/A</b>	G 3	G 2 1/2	643	136	323	270	132	318	218	178	260	216	20	52	12	186,5	-	-	18	
<b>MXH 4803-60/A</b>	G 3	G 2 1/2	779	197,5	384	270	132	318	218	178	260	216	20	52	12	186,5	-	-	18	110

Victaulic ports



Flanged ports



	DN1	DN2	mm		
			LV	L1V	L2V
<b>MXH-V 3201-60/A</b>	76,1 (DN65)	60,3 (DN50)	522	160	273
<b>MXH-V 3202-60/A</b>	76,1 (DN65)	60,3 (DN50)	574	160	245
<b>MXH-V 3203-60/A</b>	76,1 (DN65)	60,3 (DN50)	698	206	378
<b>MXH-V 3204-60/A</b>	76,1 (DN65)	60,3 (DN50)	819	252	424
<b>MXH-V 4801-60/A</b>	88,9 (DN80)	76,1 (DN65)	585	175	304
<b>MXH-V 4802-60/A</b>	88,9 (DN80)	76,1 (DN65)	683	175	363
<b>MXH-V 4803-60/A</b>	88,9 (DN80)	76,1 (DN65)	819	237	424

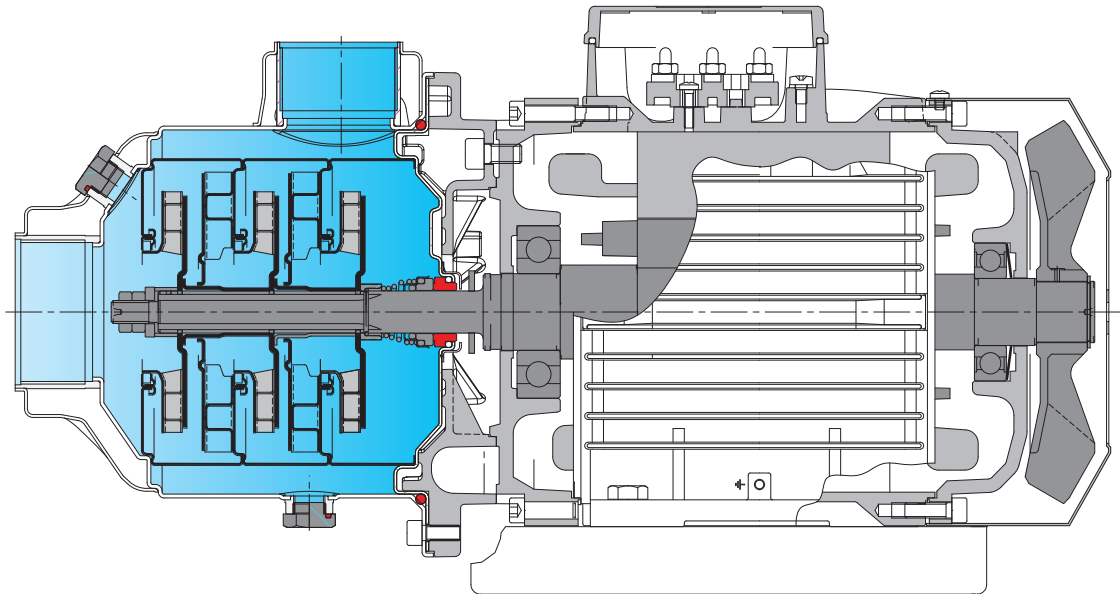
	DN1	DN2	mm		
			LF	L1F	L2F
<b>MXH-F 3201-60/A</b>	65	50	512	151	263
<b>MXH-F 3202-60/A</b>	65	50	564	151	235
<b>MXH-F 3203-60/A</b>	65	50	688	197	368
<b>MXH-F 3204-60/A</b>	65	50	809	243	414
<b>MXH-F 4801-60/A</b>	80	65	565	156	284
<b>MXH-F 4802-60/A</b>	80	65	663	156	343
<b>MXH-F 4803-60/A</b>	80	65	799	218	404

Flanges\* EN 1092-2

DN	DE	DK	DG	Fori	
				N.	Ø
50	165	125	99	4	19
65	185	145	118	4	19
80	200	160	132	8	19

\* ASME 150 lb (ex ANSI 150 lb)

### Features



#### **Flexibility**

Three versions of ports: threaded, flanged and Victaulic.

#### **Extra safety**

With front axis suction port for optimum suction conditions.

#### **Reliable**

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

#### **Robust**

Single-piece, thick barrel casing, open on one side only, with reinforced threaded ports.

#### **Compact**

The bracket between pump and motor is extremely compact.

#### **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.