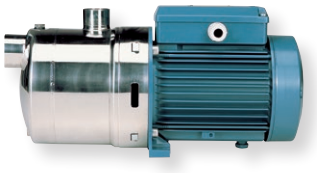
ACCESSORIES AND EXTRAS

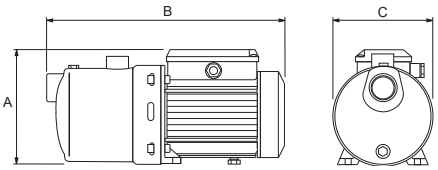
pumps

MULTI-STAGE



Horizontal close coupled multi-stage pump with integrated injector. Its compact and robust design make it ideal for domestic use and civil, industrial, gardening and irrigation applications.

Model	Code	Inlet connection (in inches)	Outlet connection (in inches)	Voltage	Power		Consumption (A)
					kW	CV	
NGXM 2	11001002	1	1	1 ~ 230 Vac	0.45	0.6	3.3
MXHM 204	11011204	1¼	1	1 ~ 230 Vac	0.55	0.75	4.2
MXHM 205	11011205	1¼	1	1 ~ 230 Vac	0.75	1	5.4
MXHM 206	11011206	1¼	1	1 ~ 230 Vac	1.1	1.5	7.4
MXHM 404	11011404	1¼	1	1 ~ 230 Vac	0.75	1	5.4
MXHM 405	11011405	1¼	1	1 ~ 230 Vac	1.1	1.5	7.4
MXHM 406	11011406	1¼	1	1 ~ 230 Vac	1.5	2.2	9.2
MXHM 804	11011804	1½	1	1 ~ 230 Vac	1.5	2.2	9.2
MXH 204	11013204	1¼	1	3 ~ 230/400 Vac	0.55	0.75	2.8 / 1.6
MXH 205	11013205	1¼	1	3 ~ 230/400 Vac	0.75	1	3.5 / 2
MXH 206	11013206	1¼	1	3 ~ 230/400 Vac	1.1	1.5	9.2
MXH 404	11013404	1¼	1	3 ~ 230/400 Vac	0.75	1	3.5 / 2
MXH 405	11013405	1¼	1	3 ~ 230/400 Vac	1.1	1.5	2.7 / 4.7
MXH 406	11013406	1¼	1	3 ~ 230/400 Vac	1.5	2.2	9.2
MXH 804	11013804	1½	1	3 ~ 230/400 Vac	1.5	2.2	6.4 / 3.7
MXH 805	11013805	1½	1	3 ~ 230/400 Vac	1.8	2.5	7.5/4.3
MXH1604	11013904	2"	1½	3 ~ 230/400 Vac	3	4	11.5 / 6.6



DIMENSIONS/MM

Model	A	B	C
NGXM 2	176	362	161
MXHM 204	189	381	160
MXHM 205	189	405	160
MXHM 206	189	450	160
MXHM 404	189	381	160
MXHM 405	192	464	160
MXHM 406	192	500	160
MXHM 804	192	470	160
MXH 204	189	381	160
MXH 205	189	405	160
MXH 206	189	450	160
MXH 404	189	381	160
MXH 405	189	405	160
MXH 406	189	450	160
MXH 804	192	470	160
MXH 805	192	500	160
MXH1604	235	612	160

CHARACTERISTICS:
Voltage: single-phase 230 Vac (MXHM and NGXM models); three-phase 230/400 Vac (MXH models).
Frequency: 50 Hz.
Water temperature: from -15 to 90 ºC.

GENERAL MATERIAL DATA:
AISI 304 stainless-steel pump body.
AISI 304 stainless-steel rotor.
EPDM and PTFE seals.

PRESSURE EQUIPMENT
(domestic)

Pressure boosting sets for the automatic distribution of water in installations where low or medium pressure and flow rates are required.

Model	Code	Pump model	Controller
MXHM 204/ID-2	11101204	MXHM 204A	Electronic regulator
MXHM 205/ID-2	11101205	MXHM 205A	Electronic regulator
MXHM 206/ID-2	11101206	MXHM 206	Electronic regulator
MXHM 404/ID-2	11101404	MXHM 404A	Electronic regulator
MXHM 405/ID-2	11101405	MXHM 405	Electronic regulator
MXHM 406/ID-2	11101406	MXHM 406	Electronic regulator
MXHM 204/24	11111204	MXHM 204A	Pressure switch
MXHM 205/24	11111205	MXHM 205A	Pressure switch
MXHM 206/24	11111206	MXHM 206	Pressure switch
MXHM 404/24	11111404	MXHM 404A	Pressure switch
MXHM 405/24	11111405	MXHM 405	Pressure switch
MXHM 406/24	11111406	MXHM 406	Pressure switch

CHARACTERISTICS:
Voltage: single-phase 230 Vac.
Frequency: 50 Hz.
Check the suitable pump model characteristics.

GENERAL MATERIAL DATA:
AISI 304 stainless-steel pump body.
AISI 304 stainless-steel rotor.
EPDM and PTFE seals.
Electronic pressure regulator with start/stop controller for the pump and vacuum operation protection.
The pressure switch models include a 24-liter accumulator with replaceable membrane.

PRESSURE EQUIPMENT
DOUBLE

Pressure boosting set for the automatic distribution of water in installations that suffer significant fluctuations where medium pressure and flow rates are required.

Model	Code	Pump model	Voltage
1M/MXHM 404	11121404	MXHM 404A	1 ~ 230 Vac
1M/MXHM 405	11121405	MXHM 405	1 ~ 230 Vac
1M/MXHM 406	11121406	MXHM 406	1 ~ 230 Vac
1M/MXHM 804	11121804	MXHM 804	1 ~ 230 Vac
1M/MXH 404	11123404	MXH 404A	3 ~ 230/400 Vac
1M/MXH 405	11123405	MXH 405B	3 ~ 230/400 Vac
1M/MXH 406	11123406	MXH 406	3 ~ 230/400 Vac
1M/MXH 804	11123804	MXH 804	3 ~ 230/400 Vac
1M/MXH 805	11123805	MXH 805A	3 ~ 230/400 Vac
2M/MXHM 205	11141205	2 x MXHM 205A	1 ~ 230 Vac
2M/MXHM 404	11141404	2 x MXHM 404A	1 ~ 230 Vac

Model	Code	Pump model	Voltage
2M/MXHM 405	11141405	2 x MXHM 405	1 ~ 230 Vac
2M/MXHM 406	11141406	2 x MXHM 406	1 ~ 230 Vac
2M/MXHM 804	11141804	2 x MXHM 804	1 ~ 230 Vac
2M/MXH 205	11143205	2 x MXH 205A	3 ~ 230/400 Vac
2M/MXH 404	11143404	2 x MXH 404A	3 ~ 230/400 Vac
2M/MXH 405	11143405	2 x MXH 405B	3 ~ 230/400 Vac
2M/MXH 406	11143406	2 x MXH 406	3 ~ 230/400 Vac
2M/MXH 804	11143804	2 x MXH 804	3 ~ 230/400 Vac
2M/MXH 805	11143805	2 x MXH 805A	3 ~ 230/400 Vac

Accumulator not included.

CHARACTERISTICS:
Voltage: single-phase 230 Vac (MXHM models);
three-phase 230/400 Vac (MXH models).
Frequency: 50 Hz.
Water temperature: from -15 to 90 ºC.

GENERAL MATERIAL DATA:
Stainless-steel multi-stage electropumps.
Control panel.
Membrane accumulator (not included).
Discharge manifold.
Base mount for the pumps.
Check valves.
Ball valves.
Pressure switches.
Manometers.

ACCESSORIES

Model	Code	Description
5AMR-E	11240005	Membrane accumulator 5 l AMR-E ball 1 inch
24AMR-E	11240024	Membrane accumulator 24 l AMR-E ball 1 inch
24AMR-E INOX	11242024	Membrane accumulator 24 l AMR-E INOX ball 1 inch
50AMR-10	11240050	Membrane accumulator 50l AMR-10 bar 1 inch
50AMR-16	11240051	Membrane accumulator 50l AMR-16 bar 1 inch
100AMR-P	11245100	Membrane accumulator 100 l AMR-P vertical with legs
200AMR-B90	11245200	Membrane accumulator 200 l AMR-B90 vertical with legs
C2B 60	11246060	Membrane accumulator 60l vertical plastic
C2B 130	11246130	Membrane accumulator 130l vertical plastic
C2B 200	11246200	Membrane accumulator 200l vertical plastic
IDROMAT-3	11202000	IDROMAT electronic pump regulator
IDROMAT-2	11202002	IDROMAT-2 electronic pump regulator
INSU600	11204600	INSUFLAIR 600 air injector
FSG2	11200000	FSG 2 pump pressure switch
XMXA-06L	11200001	XMXA reverse action pump pressure switch

NEW

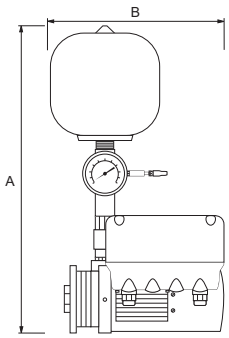
PRESSURE EQUIPMENT
WITH INVERTER

Compact pressure boosting set for the automatic distribution of water in installations where medium pressure and flow rates are required with fluctuations. Great pressure adjustment and control thanks to an advanced inverter and simple and intuitive interface, with the possibility for remote and full connection via a smartphone.

Model	Code	Pump model	Voltage	Power
VARIO/CME 3-4 M	11161034	CME 3-4	1 ~ 230 Vac	1.5 CV
VARIO/CME 5-4 M	11161054	CME 5-4	1 ~ 230 Vac	2 CV
VARIO/CME 5-4 T	11163054	CME 5-4	3 ~ 400 Vac	2 CV
VARIO/CME 10-2T	11163102	CME 10-2	3 ~ 400 Vac	3 CV
VARIO/CME 10-3T	11163103	CME 10-3	3 ~ 400 Vac	5.5 CV

CHARACTERISTICS:
Voltage: single-phase 230 Vac or three-phase 400 Vac, depending on the model.
Frequency: 50/60 Hz.
Protection grade: IP55.
Water temperature: from -20 to 90 ºC.

GENERAL INFORMATION:
Control via integrated inverter, optimized for each model.
Simple and user-friendly interface.
Continuous control and optimization of electricity consumption.
Totalizer for hours and consumption.
High-quality stainless-steel transducer for 0-6 bar.
5-liter accumulator for better low-flow performance.
Non-return valve on outlet.
Glycerin manometer.
Alert and alarm log.
Outlet for programmable alarms or alerts with isolated relay.
4-20 mA outlet with different programmable functions.
Power outlet for 5 Vdc and 24 Vdc sensors.
Programmable input/output for 24 Vdc open collector.
Programmable digital input.
Programmable 0-20 mA / 4-20 mA / 0-5 V / 0-10 V analog input.
GENIbus communication.
Remote control and programming with Bluetooth via smartphone (iOS/Android) through a GO remote interface (optional).



MATERIAL DATA:
CME 3 connection: 1-inch inlet and outlet.
CME 5 connection: 1¼-inch inlet and 1-inch outlet.
CME 10 connection: 1½ inlet and 1-inch outlet.
Cast iron and AISI 304 pump body.
Impeller, chamber and filling caps in AISI 304.
Pump shaft in AISI 431.
Pressure transducer in AISI 630 (contact with liquid) and AISI 316L (body).

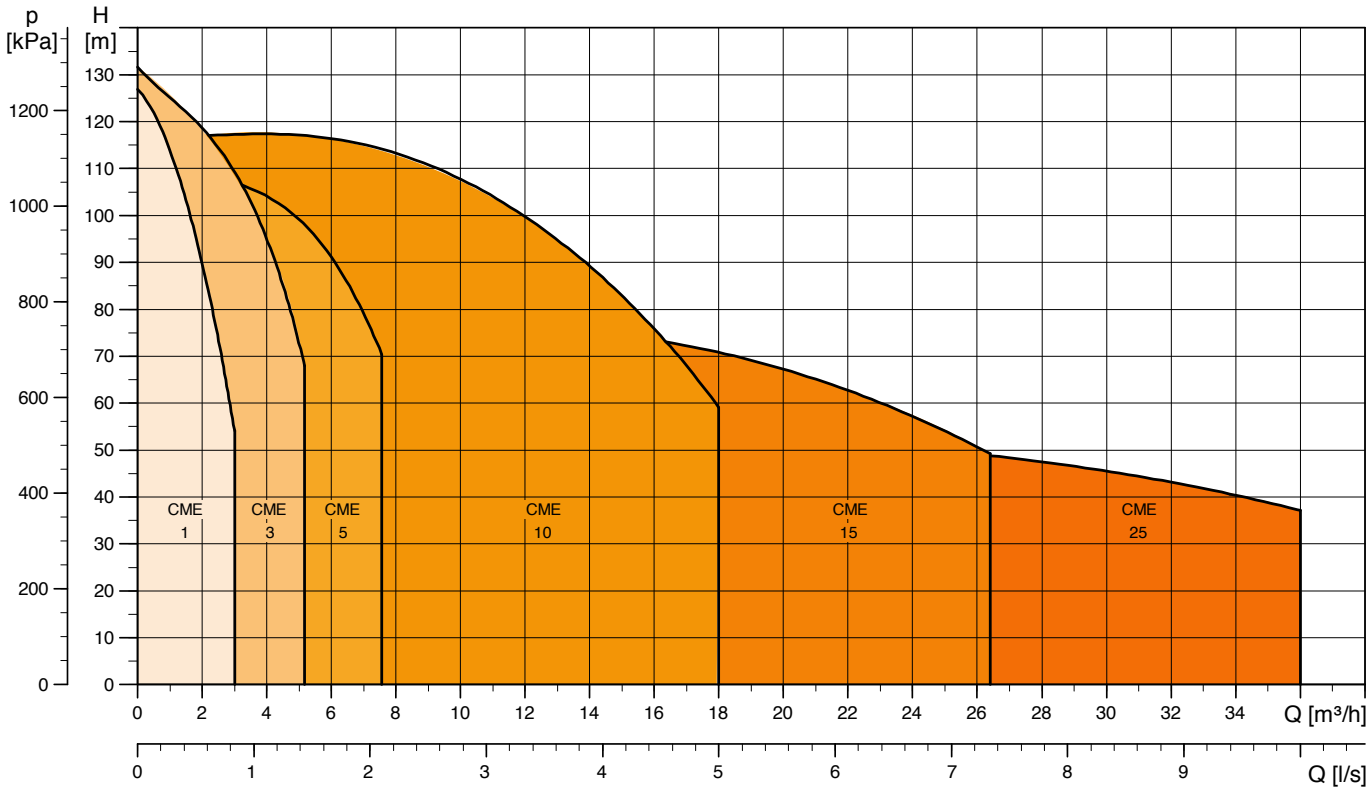
DIMENSIONS/MM

Model	A	B	C
VARIO/CME 3	580	363	210
VARIO/CME 5	616	415	264
VARIO/CME10	750	515	300

OPERATION:
The inverter includes an electronic controller that uses the pressure transducer to monitor the pressure in the network, and it readjusts the flow rate of the pumps to maintain a constant pressure. When the controller detects a constant pressure and the water is not circulating, it starts to reduce the speed of the pump until it stops. There is a small pressure spike in order to re-start the device. To avoid an unwanted stop-start cycle at low consumptions, the system is equipped with a 5-liter accumulator to improve performance in these cases.
Using the arrow buttons, we can directly select the working pressure of our system, within certain limits. For example, on the VARIO/CME model, between 0.7 and 5 bar.
The button panel includes a stop and start button and a display for the status and operation.
The device is pre-configured with an inlet for a level probe or similar for the installation protection in the event of low water.
The controller also has several outputs for alarms or pre-sets. By default, an alarm relay outlet is pre-configured for faults in the equipment, as well as an outlet in case the working pressure drops below 0.6 bar. This allows us to protect the pump from a lack of water, activate an alarm on a central system, etc.
Through the option GO remote accessory, we can connect a smartphone and access all the pump functions and programs. It allows for the adjustment of pump curves, limits, programmable inputs and outputs and for access to power totalizers and instant and accumulated consumption readings.

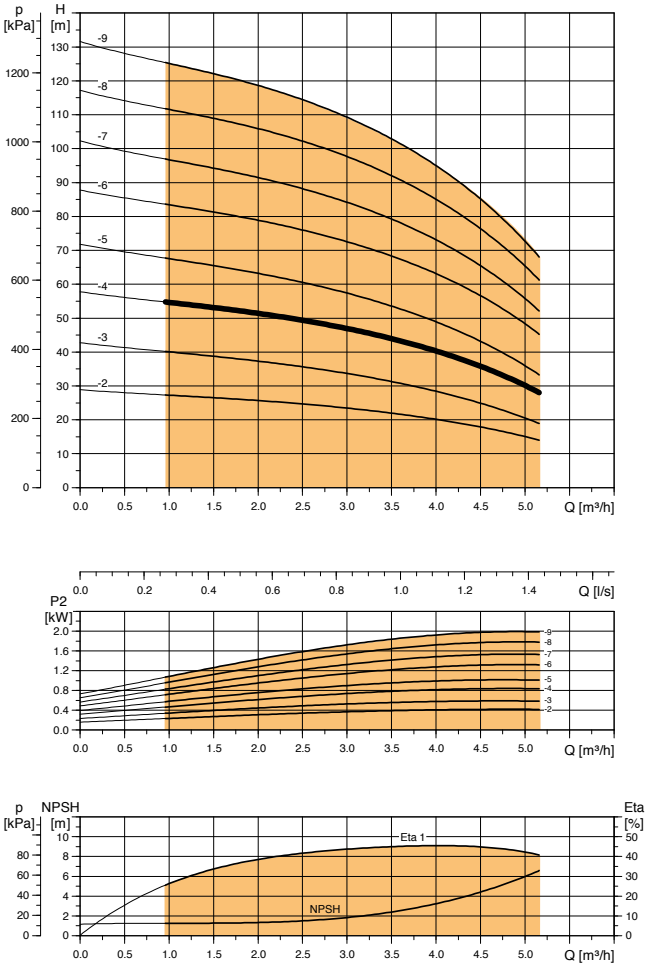
MAIN ADVANTAGES:
The main advantage is the optimization of electricity consumption and the linearity of flow and pressure, resulting in a system that strikes a balance between technical requirement and performance. It is a robust and compact device that allows us to optimize space as external accumulators are not required.

Performance range

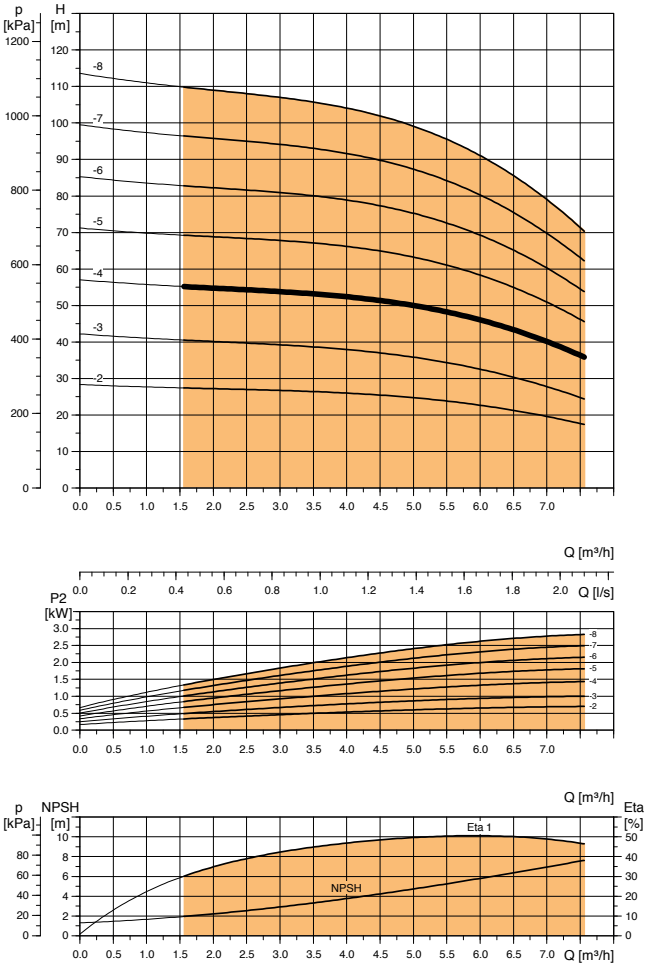


Curves

CME 3



CME 5



NEW

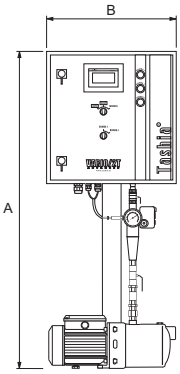
PRESSURE EQUIPMENT
WITH INVERTER

Double pressure boosting set for the automatic distribution of water in installations that suffer significant fluctuations where medium pressure and flow rates are required. Great pressure adjustment and control via an advanced inverter and control panel.

Model	Code	Pump model	Voltage	Power
VARIO/2T-205	11173205	2 x MXH 205	3 ~ 400 Vac	2 x 1 CV
VARIO/2T-405	11173405	2 x MXH 405	3 ~ 400 Vac	2 x 1.5 CV
VARIO/2T-805	11173805	2 x MXH 805	3 ~ 400 Vac	2 x 2.5 CV
VARIO/2T-1604	11173904	2 x MXH 1604	3 ~ 400 Vac	2 x 4 CV

CHARACTERISTICS:
Voltage: single-phase 230 Vac (VARIO/M models); three-phase 400 Vac (VARIO/2T).
Frequency: 50 Hz.
Protection grade: IP65.
Water temperature: from -15 to 90 ºC.

GENERAL INFORMATION:
Control via advanced FR-F840 inverter.
Very user-friendly and easy-to-handle touchscreen.
Screen with multiple colors to indicate status ("On", "Standby" and "Alarm").
Pressure display and selection directly on the screen.
Electronic control for excess pressure and low water.
Switching system and automatic cascade.
Totalizer for use of the pumps.
Automatic alarm reset.
Alarm log.
Alarm output.
Bypass system for non-electronic control.
Electric inlet protection and motor protector.
Manual selection of modes and pumps.
High-quality pressure transducer for 0-6 bar.
Mechanical pressure switch for manual operation.
50-liter accumulator for better low-flow performance.
Ball valve and non-return valve for each pump.
Glycerin manometer.



DIMENSIONS/MM

Model	A	B	C
VARIO/2T	1300	500	700

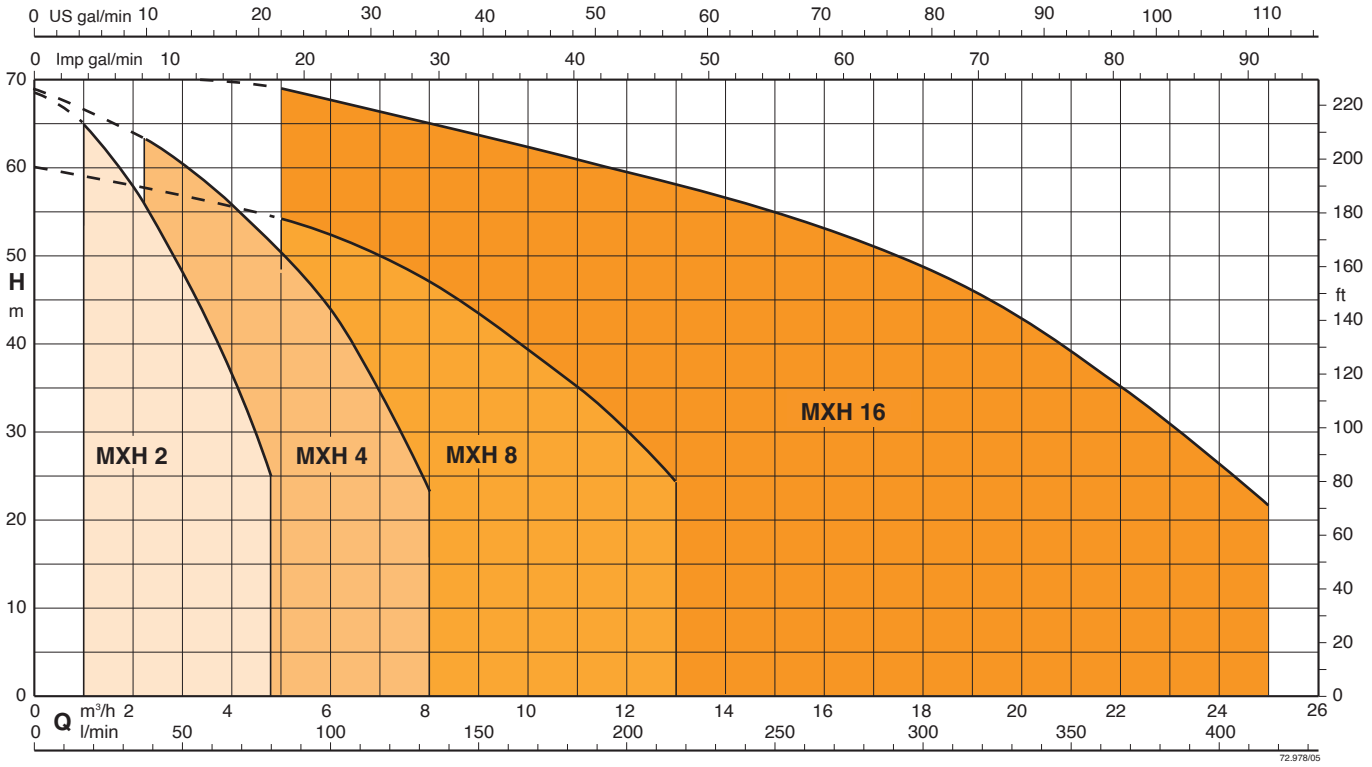
MATERIAL DATA:
Robust AISI 304 structure.
Galvanized 4-mm mount.
Outlet manifold with 2-inch BSP (except 2T-1604 with 2½-inch BSP).
Pump body and rotor in AISI 304.
Pressure transducer in AISI 630 (contact with liquid) and AISI 316L (body).
Robust and metallic IP66 electrical panel with quick-open lever.
Manifold fastening support for easy pump repair.

OPERATION:
The inverter includes an electronic controller (PLC) that uses the pressure transducer to monitor the pressure in the network, and it adjusts the flow rate of the pumps to maintain a constant pressure. When the controller detects a constant pressure and the water is not circulating, it starts to reduce the speed of the pump until it stops. There is a small pressure spike in order to re-start the device. To avoid an unwanted stop-start cycle at low consumptions, the system is equipped with a 50-liter accumulator to improve performance in these cases.
The system incorporates the switching function and automatic cascade. Each time it is activated, a different pump starts up, first 1 then 2. The first pump to start up is the main pump and the inverter adjusts the working frequency. When the main pump reaches its maximum level, the auxiliary pump activates to achieve the desired pressure-flow value. When consumption drops, the auxiliary pump disconnects. This process is managed electronically so it runs naturally and smoothly.
Using the touchscreen, we can directly select the working pressure of our system, within certain limits. For example, on the VARIO/2T model, between 1.5 and 5 bar. The screen has a straightforward and easy-to-handle interface so the user can access the system's basic parameters, such as the pressure setpoint, totalizers and alarm logs.
The screen incorporates a clear multi-color display for viewing the system status from afar; green for pump operation, white for standby and red for alarm. When an alarm sounds, the screen turns red and shows a message indicating the type of alarm. The equipment can be reset and rearmed from this screen.
The system also has a potential-free alarm contact.
In the event of a fault in the electronics, the system is equipped with a (completely manual) pump control, which can be selected by a switch on the equipment panel, without compromising the safety of the system. A pressure switch is used to stop and start the selected pump. If, for any reason, the motor protector triggers, we will receive a visual alarm and the alarm output will be activated.

MAIN ADVANTAGES:
The main advantage is the optimization of electricity consumption and the linearity of flow and pressure, resulting in a system that strikes a balance between technical requirement and performance. It is a robust and compact device that allows us to optimize space as external accumulators are not required.

WE DESIGN, MANUFACTURE AND INSTALL TAILOR-MADE EQUIPMENT BASED ON OUR CLIENTS' NEEDS.

Coverage chart n ≈ 2800 1/min.



Performance n ≈ 2800 1/min.

3 ~	230 V	400 V	1 ~	230 V	P_1	P_2		Q m³/h	0	1	1.5	2	2.5	3	3.5	4	4.25	4.8
	A	A		A	kW	kW	HP	Q l/min	0	16.6	25	33.3	41.6	50	58.3	66.6	70.8	80
MXH 202E	1.7	1	**MXHM 202E**	2.3	0.5	0.33	0.45		22	20.5	19.4	18	16.4	14.2	12	9.9	8.7	5.5
MXH 203E	2.4	1.4	**MXHM 203E**	3	0.65	0.45	0.6		33	31	29	27	24.5	21.7	18.6	15.5	13.8	9
MXH 204/A	2.8	1.6	**MXHM 204/A**	4.2	0.9	0.55	0.75	H m	45	42.5	40.4	37.5	34.5	30.8	26.7	22.4	20.1	14.8
MXH 205/A	3.5	2	**MXHM 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
MXH 206/B	4.7	2.7	**MXHM 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_1	P_2		Q m³/h	0	2.25	3	3.5	4	4.5	5	6	7	8
	A	A		A	kW	kW	HP	Q l/min	0	37.5	50	58.3	66.6	75	83.3	100	116	133
MXH 402E	2.4	1.4	**MXHM 402E**	3	0.65	0.45	0.6		22.5	20	19	18.5	17.5	16	15	12.5	9.5	6
MXH 403/A	2.8	1.6	**MXHM 403/A**	4.2	0.9	0.55	0.75		33	30	29	27.5	26	24.5	23	19.5	15	9.5
MXH 404/A	3.5	2	**MXHM 404/A**	5.4	1.2	0.75	1	H m	44.5	40.5	38	36.5	35	33	31	26	20	12.5
MXH 405/B	4.7	2.7	**MXHM 405**	7.4	1.5	1.1	1.5		56.5	52	50	47.5	45.5	43	40	33.5	26	16.5
MXH 406	6.2	3.6	**MXHM 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_1	P_2		Q m³/h	0	5	6	7	8	9	10	11	12	13
	A	A		A	kW	kW	HP	Q l/min	0	83.3	100	116	133	150	166	183	200	216
MXH 802/A	3.5	2	**MXHM 802/A**	5.4	1.2	0.75	1		22.5	20.5	20	19	18	16.5	15	13	11	8.5
MXH 803	5	2.9	**MXHM 803**	7.4	1.5	1.1	1.5		36	32	30.5	29	27.5	25.5	23	20	17	14
MXH 804	6.2	3.6	**MXHM 804**	9.2	2	1.5	2	H m	48	42.5	41	39	37	34.5	32	28	24	19.5
MXH 805/A	7.5	4.3	**MXHM 805**	11.2	2.5	1.8	2.5		60	54	52	49.5	47	43.5	39.5	35	29.5	24

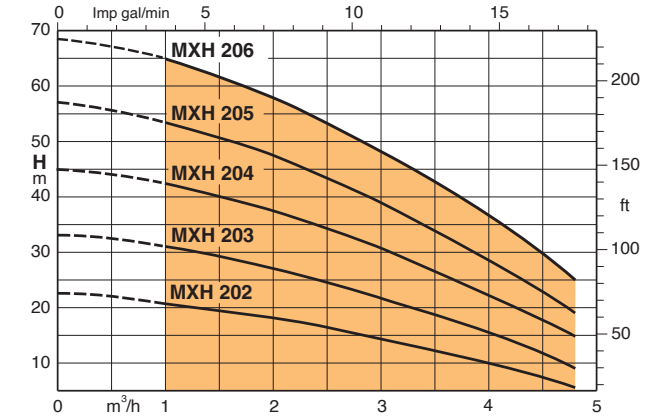
3 ~	230 V	400 V		P_2		Q m³/h	0	5	8	11	14	16	18	20	22	25
	A	A		kW	HP	Q l/min	0	83.3	133	183	233	266	300	333	366	416
MXH 1602	6.2	3.6		1.5	2		24	23	21.7	20.5	18.8	17.5	15.8	14	11.5	6.5
MXH 1603/A	7.5	4.3		1.8	2.5		36	34	31.8	29.5	26.8	24.8	22.4	19.2	15.3	8.8
MXH 1604/A	11.5	6.6		3	4	H m	48	46.5	44.5	41.5	38	36	33	29	23	14
MXH 1605/A		9.6		3.7	5		60	57.5	55	51.5	48	45	42	37.5	31.5	19
MXH 1606/A		9.6		4	5.5		71	68	65	61	56	53	49	44	36	22

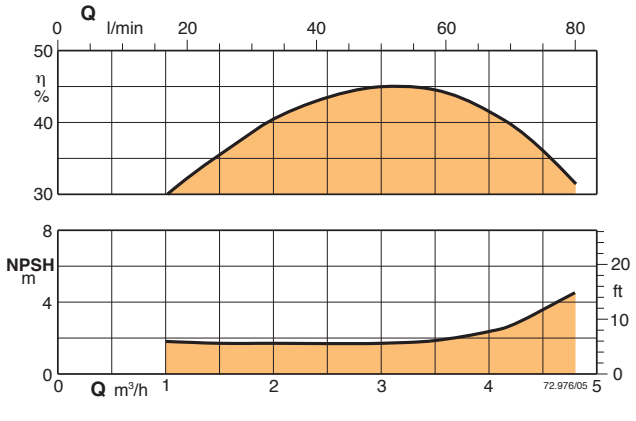
P_1 Maximum absorbed power
P_2 Motor nominal power

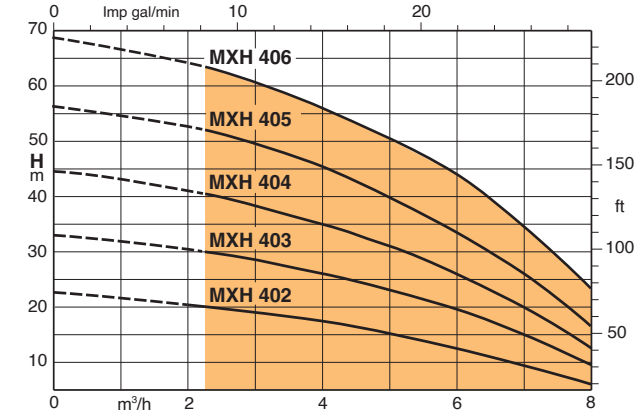
H Total height in m.
Tolerances according to the standard UNE-EN ISO 9906:2012

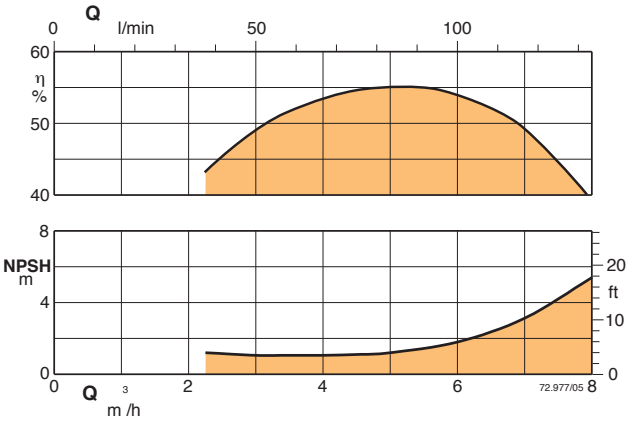
Test results with clean, cold, still water.
For the NPSH value, a safety margin of 0.5 m is recommended

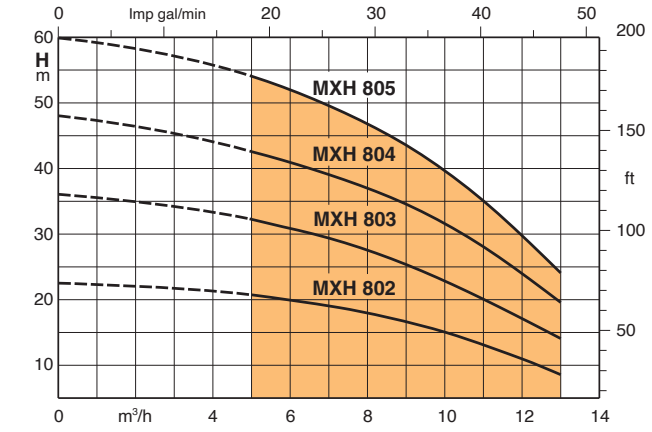
Curves

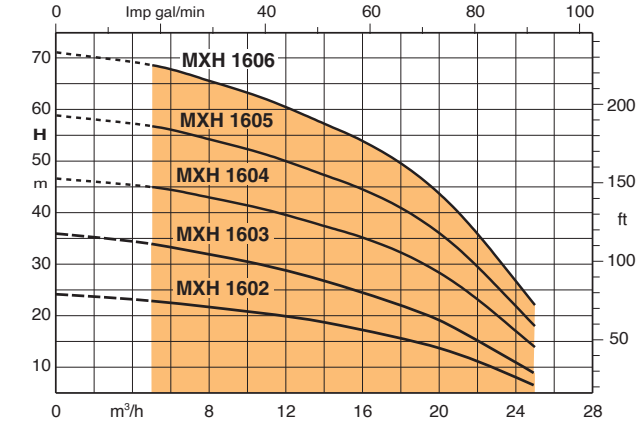

Imp gal/min
MXH 206
MXH 205
MXH 204
MXH 203
MXH 202
H m
ft
m³/h

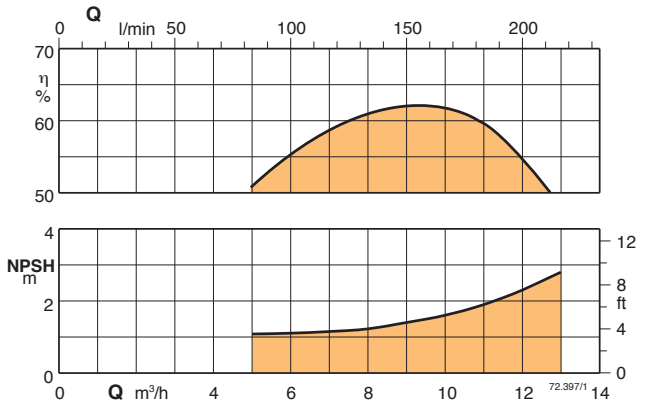

Q l/min
η %
NPSH m
Q m³/h
72.976/05

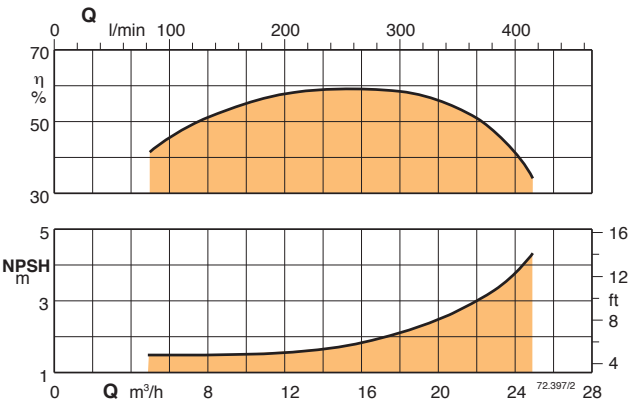

Imp gal/min
MXH 406
MXH 405
MXH 404
MXH 403
MXH 402
H m
ft
m³/h


Q l/min
η %
NPSH m
Q m³/h
72.977/05


Imp gal/min
MXH 805
MXH 804
MXH 803
MXH 802
H m
ft
m³/h


Imp gal/min
MXH 1606
MXH 1605
MXH 1604
MXH 1603
MXH 1602
H m
ft
m³/h


Q l/min
η %
NPSH m
Q m³/h
72.397/1


Q l/min
η %
NPSH m
Q m³/h
72.397/2