E-MX, E-NG

Pressurized system with integrated control

e-idos® products

Construction

Easy to install, compact and plug and play pressurized system with integrated pressure transducer for automatic control of starting/stopping of the pump when utilization points are opened/closed with a integrated non-return valve into the pump suction.

Pumps:
E-MXP: version with multistage pumps
E-NGX: version with self-priming pumps
E-MXA: version with self-priming multistage pumps

Applications

For water supply.
For domestic use, for garden use and irrigation.

Features

- high efficiency asynchronous single-phase motor
- capacitor less stressed in voltage
- uniform and lower motor temperature
- motor power control
- programmable re-start pressure
- programmable stop pressure
- no hydraulic losses due to the measuring devices
- voltage and current control
- monitoring of maximum starting current

EASY TO INSTALL

Plug And Play solution

ECONOMIC SAVING

High efficiency asynchronous single-phase motor
24 % less energy consumption compared to a standard pump

EASY TO USE

Equipped with a programmable software and, thanks to the analogic pressure sensor, the product allows to set the restart pressure. An ideal solution which allows to reduce or remove the need of a expansion tank

Protections

- dry-run protection
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control

Operating conditions

Liquid temperature: 0 °C to +35 °C (0 °C to +50 °C for E-MXP).
Ambient temperature up to +40 °C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Materials

Component	Material
Pump casing	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Casing cover	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Pump Shaft	Chrome steel 1.4104 EN 10088 (AISI 430)
Plug	Cr-Ni steel 1.4305 EN 10088 (AISI 303)
Suction casing (E-MXA)	PPO-GF20 (Noryl)
Stage casing (E-MXA,E-MXP)	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Diffuser (E-NGX)	PPO-GF20 (Noryl)
Ejector (E-NGX)	PPO-GF20 (Noryl)
Mechanical seal	Carbon - Ceramic - NBR

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 rpm).
Single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Cable: H07RN-F, 3G1,5 mm², length 1,5 m, with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X4.
Constructed in accordance with: EN 60034-1;
EN 60335-1, EN 60335-2-41.

E-MX, E-NG

1-pump pressurized system with integrated control

Performance n ≈ 2800 1/min

kW	HP	l/min	0	5	16,6	33,3	40	50	53,3	60	66,6	75	83,3	100
0,55	0,75	H m	50,0	45,5	37,2	29,6	26,1	21,1						
0,65	0,9		50,9	46	38,8	31	27,4	23,2	22,2					
0,75	1		43,2	40,8	36,4	31,4	29,3	25,9	24,8	23	21,6	19,9		

P_2		Q m^3/h	0	1	1,5	2	2,25	3	3,5	4	4,5	5	5,4	6	6,5
kW	HP	l/min	0	16,6	25	33,3	37,5	50	58,3	66,6	75	83,3	90	100	108,3
0,45	0,6	H m	33,6	30,1	28,0	25,6	24,3	20,5	17,6	14,2					
0,55	0,75		44,7	40,0	37,2	34,2	32,6	27,4	23,6	19,3	14,5				
0,55	0,75		33,8			30,1	29,4	27,1	25,3	23,4	21,2	18,9	16,8	13,8	
0,75	1		44,5			39,4	38,6	35,8	33,5	30,9	28,1	25,1	22,5	18,3	14,4

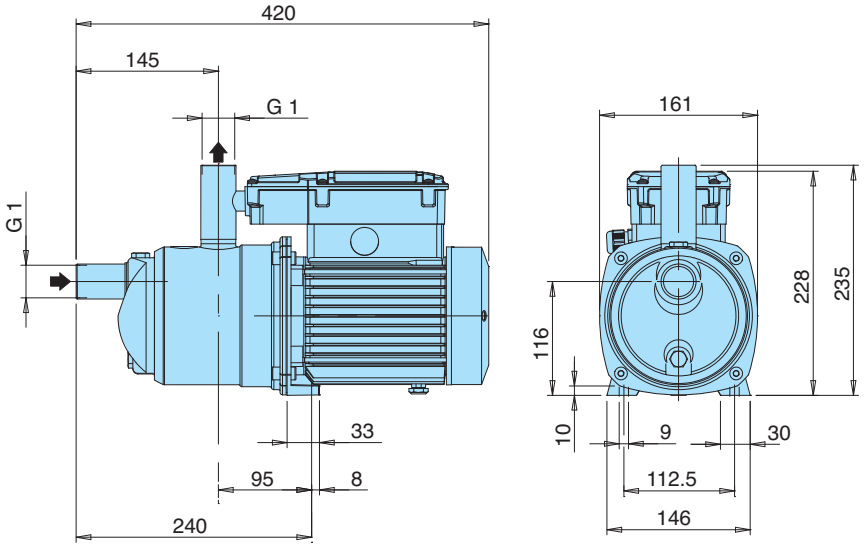
P_2		Q m^3/h	0	2	3	4	4,5	6	7	8	9	10	10,8	12	13
kW	HP	l/min	0	33,3	50	66,6	75	100	116,6	133,2	150	166,6	180	200	216,6
,45x2	0,6x2	H m	33,7	30,5	28,6	26,4	25,2	21,1	17,9	14,4	10,8	7,0			
,55x2	0,75x2		45,1	40,9	38,5	35,8	34,4	29,4	25,6	21,3	16,7	11,9			
,75x2	1x2		55,6	50,4	47,3	43,9	42,1	36,1	31,4	26,3	20,9	15,3			
,55x2	0,75x2		34,0				30,1	27,9	26,2	24,2	22,0	19,6	17,5	13,8	10,2
,75x2	1x2		44,9				39,5	36,9	34,7	32,2	29,4	26,3	23,5	18,9	14,4

P_1 Max. power input.
P_2 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.

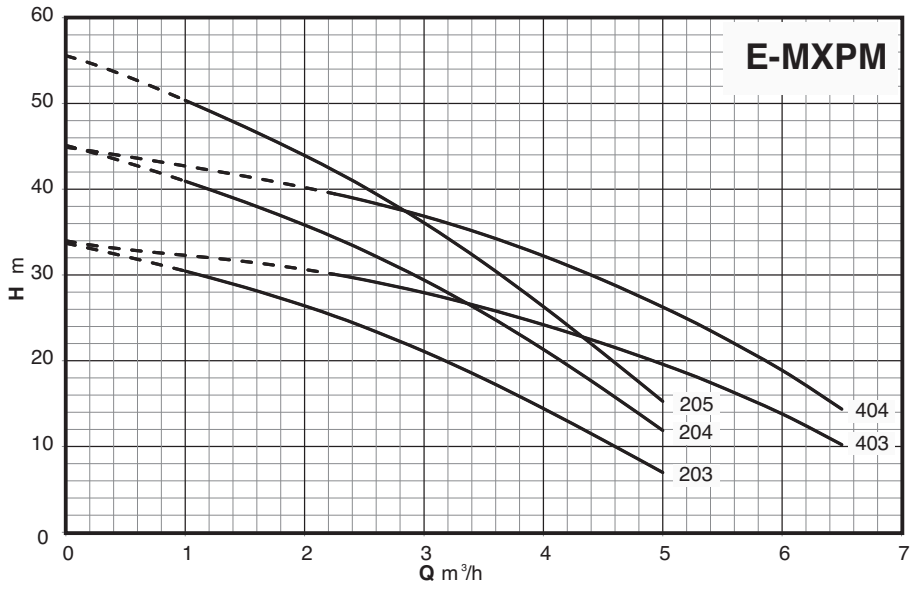
Dimensions and weights

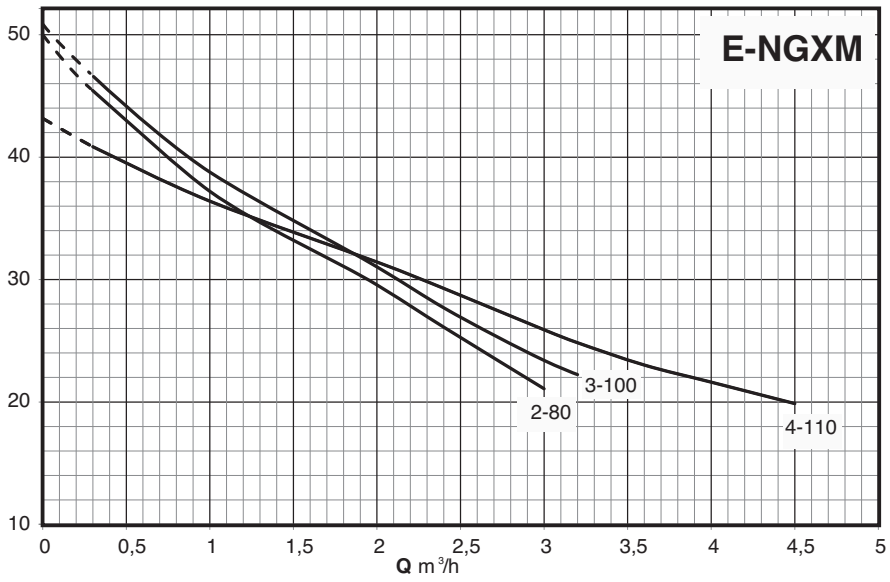


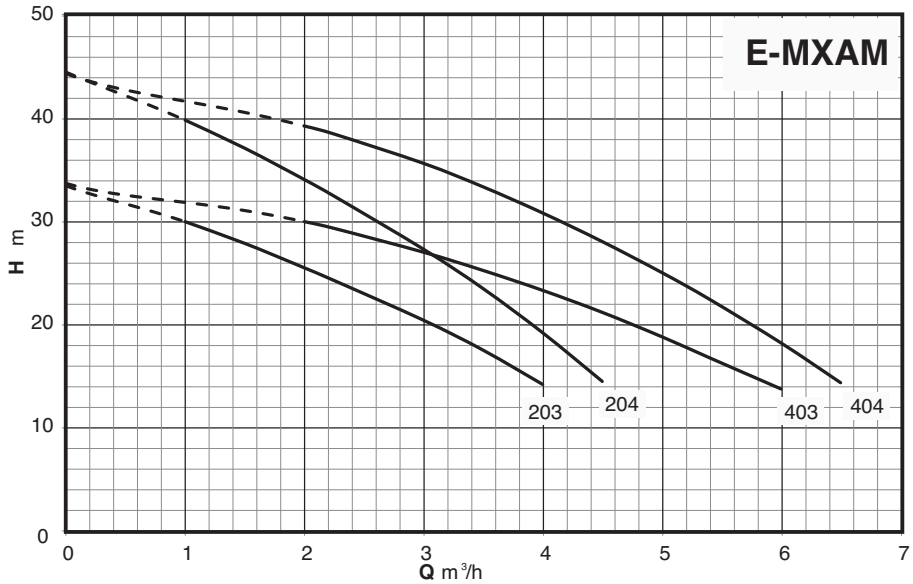
TYPE	Net weight kg (1)
E-MXPM 203-PCD	9,5
E-MXPM 204-PCD	10,8
E-MXPM 205-PCD	11,7
E-MXPM 403-PCD	10,6
E-MXPM 404-PCD	11,5
E-MXAM 203-PCD	9,6
E-MXAM 204-PCD	10,9
E-MXAM 403-PCD	10,7
E-MXAM 404-PCD	11,5
E-NGXM 2/80-PCD	10,0
E-NGXM 3/100-PCD	10,0
E-NGXM 4/100-PCD	10,9

(1) With cable length: 1,5 m

Characteristic curves n ≈ 2800 1/min







BS2F 2E

2-pumps pressurized system with integrated control

Performance n ≈ 2800 1/min

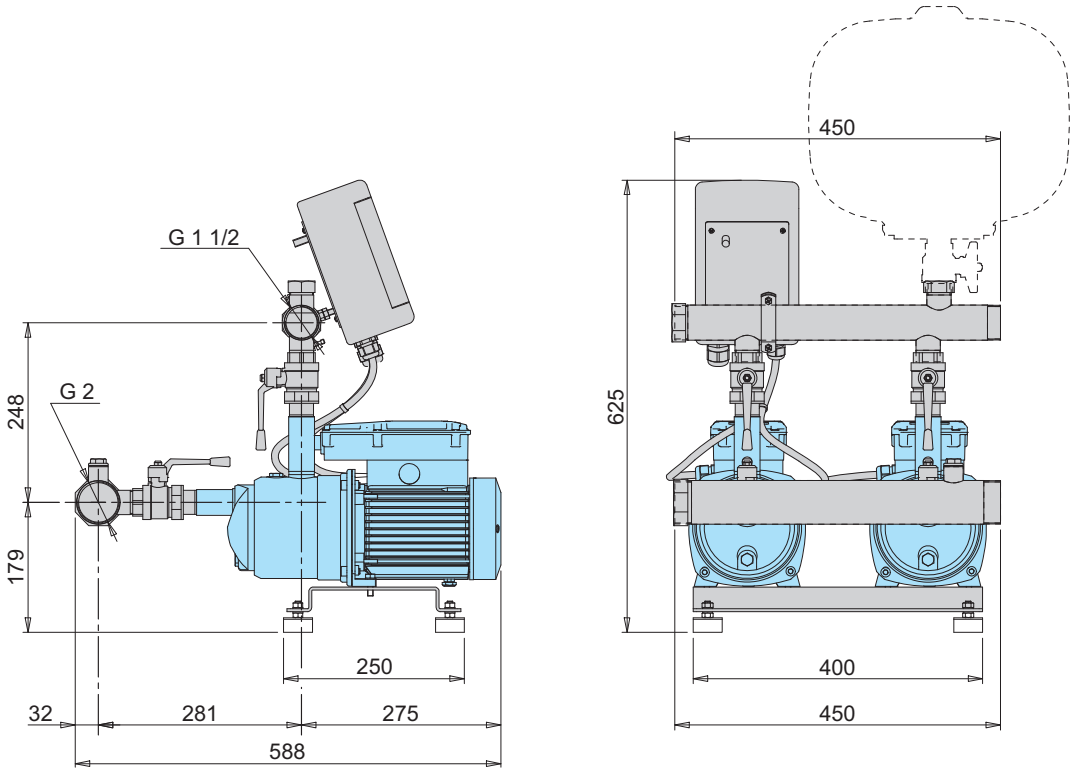
TYPE	P_1	P_2		Q	m^3/h	0	2	3	4	4,5	6	7	8	9	10	10,8	12	13
	kW	kW	HP		l/min	0	33,3	50	66,6	75	100	116,6	133,2	150	166,6	180	200	216,6
BSM2F 2E-MXPM 203-PCD	0,56x2	0,45x2	0,6x2			33,7	30,5	28,6	26,4	25,2	21,1	17,9	14,4	10,8	7,0			
BSM2F 2E-MXPM 204-PCD	0,70x2	0,55x2	0,75x2			45,1	40,9	38,5	35,8	34,4	29,4	25,6	21,3	16,7	11,9			
BSM2F 2E-MXPM 205-PCD	0,89x2	0,75x2	1x2	**H**	m	55,6	50,4	47,3	43,9	42,1	36,1	31,4	26,3	20,9	15,3			
BSM2F 2E-MXPM 403-PCD	0,75x2	0,55x2	0,75x2			34,0				30,1	27,9	26,2	24,2	22,0	19,6	17,5	13,8	10,2
BSM2F 2E-MXPM 404-PCD	1,05x2	0,75x2	1x2			44,9				39,5	36,9	34,7	32,2	29,4	26,3	23,5	18,9	14,4

P_1 Max. power input.
P_2 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



Characteristic curves n ≈ 2800 1/min