



water passion

1959

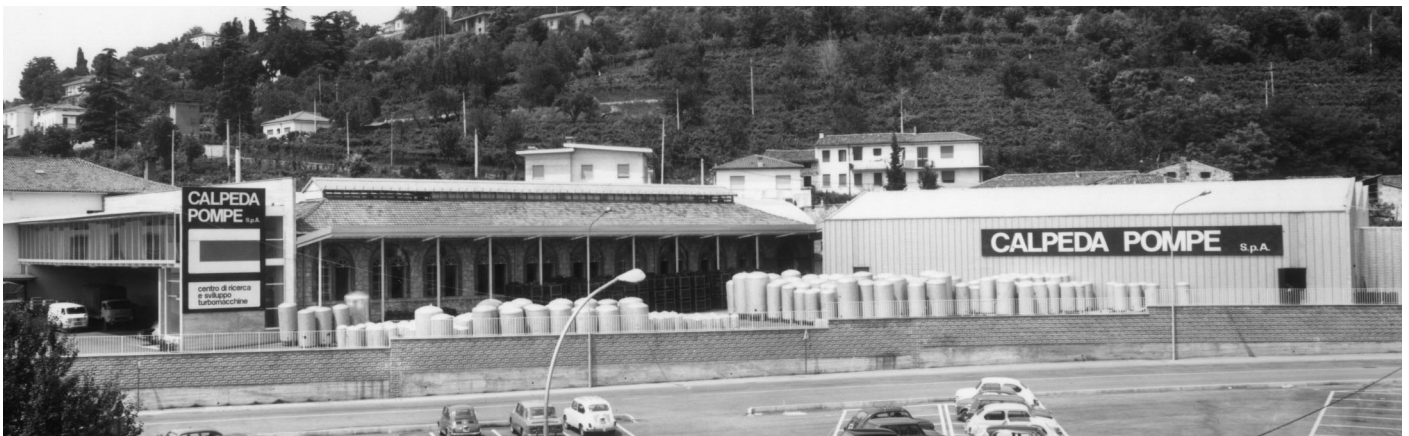
WHO WE ARE

WE WANT TO CONTINUE THAT WHICH WAS STARTED MANY YEARS AGO BY VINICIO METTIFOGO, FOUNDER AND PIONEER.

Calpeda is a family owned company with an history of 61 years.

Today, we are a reality that has evolved over the years, always looking to the future with a spirit that has brought us to being a respected reference point in the great world of water.

Our history has taken our tradition and strength to you, acknowledged for our professionalism, quality, reliability and service.



2020

CALPEDA TODAY

Employees: 250

Offices: Montorso V. (Vicenza) Italy

Main factory: 30,000 sq. metres (covered)

Types of pumps: more than 2,000

Power outputs: from 0.5 kW to 200 kW





Construction

Multi-stage centrifugal submersible pumps with pump jacket in chrome-nickel stainless steel, with vertical delivery port. Motor cooled by the pumped water passing between the motor jacket and the external jacket. Double shaft seal with oil chamber.

Applications

- For clean water containing solids up to 2 mm grain size.
- For draining rooms or emptying tanks.
- Extraction of water from ponds, streams or pits and for rainwater collection.
- For irrigation purposes.

For outdoor use a power supply cable of not less than 10 m should be used in accordance with: EN 60 335-2-41.

Operating conditions

Liquid temperature up to 35° C.
Maximum immersion depth: 5 m.
Minimum water level with float 100 mm.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).

MP: three-phase 230 V ± 10%;
three-phase 400 V ± 10%;

MPM: single-phase 230 V,
with float switch and thermal protector.
Incorporated capacitor.

Insulation class F.

Protection IP X8 (for continuous immersion)

Double impregnation humidity-proof dry winding.

Constructed in accordance with: EN 60034-1;

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

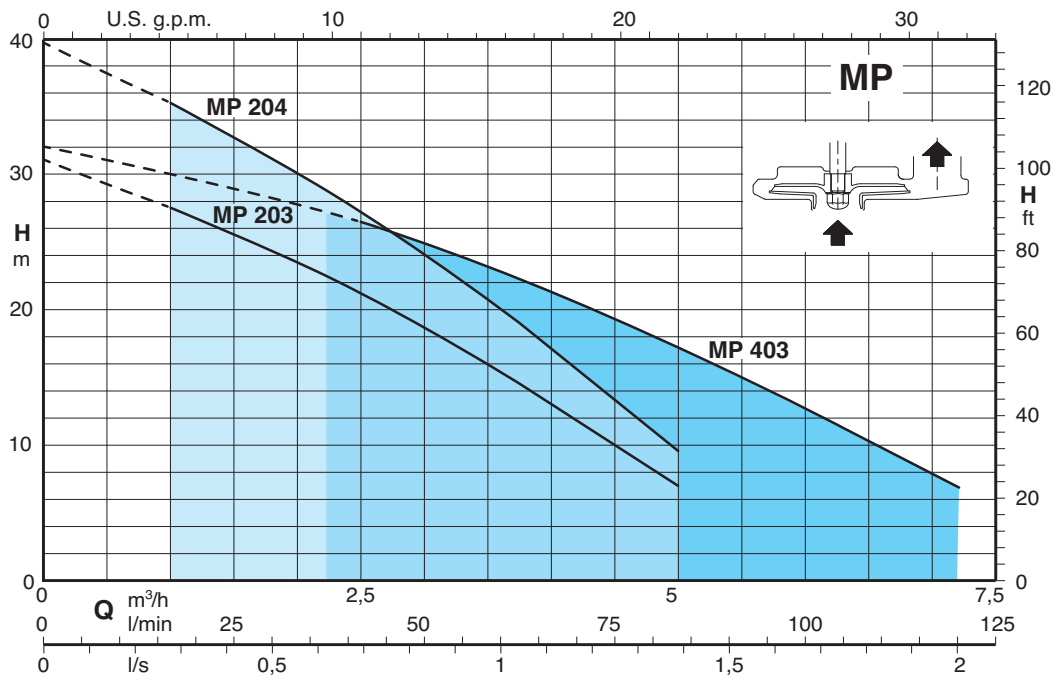
Other features on request

- Other voltages.
- Frequency 60 Hz (as per 60 Hz data sheet).
- Other mechanical seal.
- Cable length 10 m.
- Vertical magnetic float switch.
- Motor suitable for operation with frequency converter.

Materials

Component	Material
Pump casing Impeller Stage casing	PPO-GF20 (Noryl)
Motor jacket Pump jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Strainer Handle	Polypropylene
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Mechanical seal	Ceramic alumina/Carbon/NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

Coverage chart n ≈ 2900 rpm



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Performance n ≈ 2900 rpm

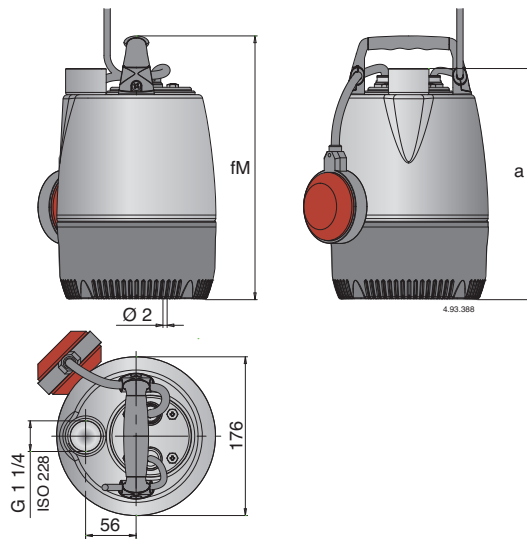
3~	230V 400V		1~	230V Capacitor			P ₁	P ₂		Q											
	A	A		A	μf	Vc		kW	kW		HP	m ³ /h	0	1	1,5	2	2,5	3	3,5	4	4,5
MP 203	2,3	1,3	MPM 203	3,5	12,5	450	0,7	0,37	0,5	H	m	31	27,5	25,5	23,5	21,2	18,6	16	13	10	7
MP 204	2,8	1,6	MPM 204	4,5	16	450	0,95	0,45	0,6		39,5	35	32,5	30	27	24	20,5	17	13,5	9,5	

3~	230V 400V		1~	230V Capacitor			P ₁	P ₂		Q											
	A	A		A	μf	Vc		kW	kW		HP	m ³ /h	0	2,25	3	3,5	4	4,5	5	6	7,2
MP 403	2,8	1,6	MPM 403	4,5	16	450	0,95	0,45	0,6	H	m	32	27,3	25	23,5	21,5	19,5	17	12,5	7	-
											0	37,5	50	58,3	66,6	75	83,3	100	120	-	

P₁ Max. power input. P₂ Rated motor power output. Density ρ = 1000 kg/m³. Kinematic viscosity ν = max 20 mm²/sec.
Tolerances according to UNI EN ISO 9906:2012

Pump type	Power supply cable				Float switch	
	Cable material	Section	Length	Plug CEE 7(VII)	Cable material	Section
MPM 203,204,403	H07RN-F	3G1 mm ²	5 m	SI	H07RN-F	3G1 mm ²
MP 203,204,403	H07RN-F	4G1 mm ²	5 m	NO	NO	-

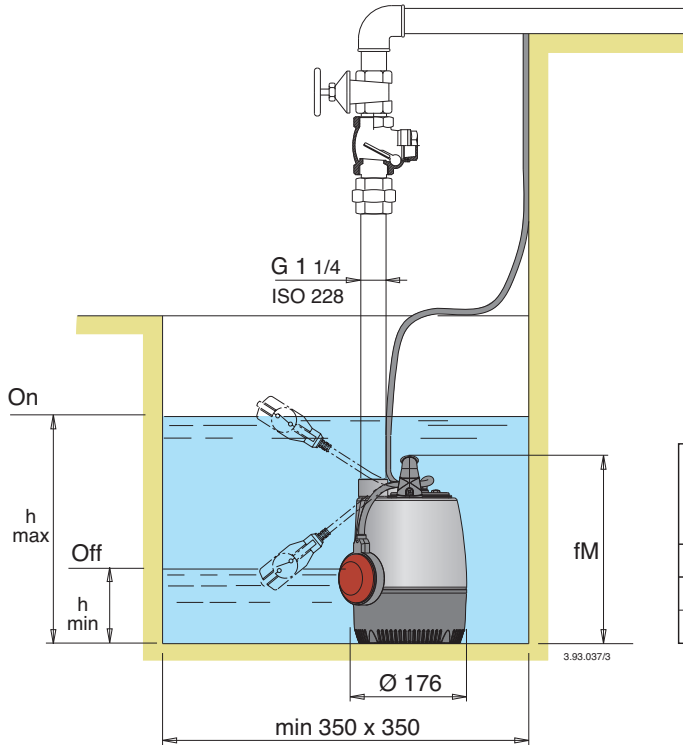
Dimensions and weights



TYPE	Dimensions mm		(1) kg	
	fM	a	MP	MPM
MP 203 - MPM 203	350	315	6,4	6,7
MP 204 - MPM 204	382,5	346,5	8,1	8,1
MP 403 - MPM 403	382,5	346,5	8	8

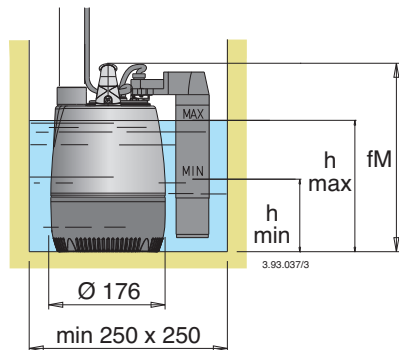
(1) With cable length: 5 m

Installation examples



TYPE	mm	
	h min	h max
MPM 203	185	395
MPM 204	218	428
MPM 403	218	428

Installation examples with vertical magnetic float switch



TYPE	mm	
	h min	h max
MPM 203 GF	185	275
MPM 204 GF	218	308
MPM 403 GF	218	308

Features

G 1 1/4 vertical, upward delivery port for installation in small pits, without the need for an elbow on the pump.

Handle in polypropylene.

Easy inspection of the capacitor area.

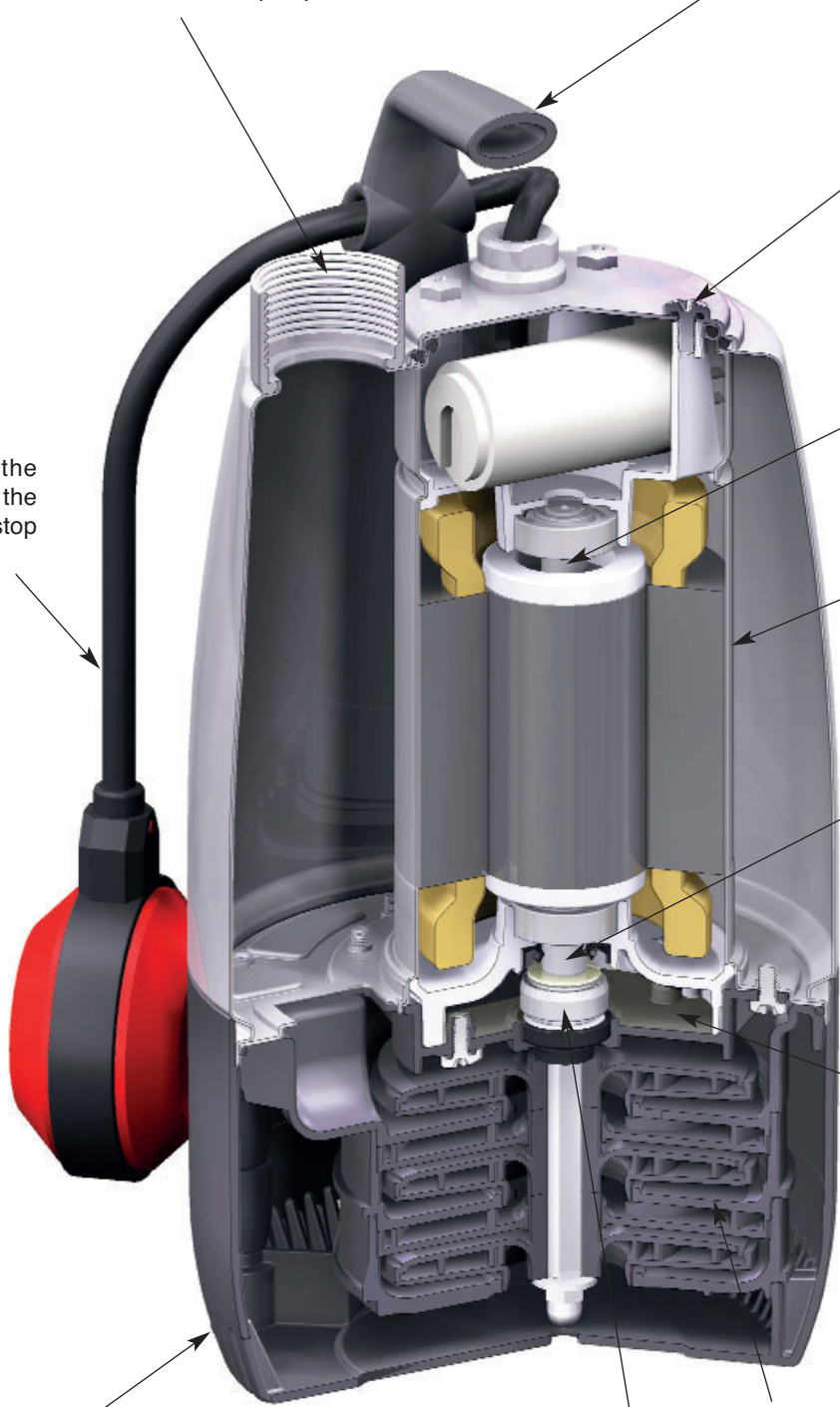
Shaft in chrome-nickel stainless steel.

Motor cooled by the pumped water passing between the motor jacket and the external jacket.

Ceramic stainless steel shaft sleeve.

Oil chamber.

Easy adjustment of the float switch: to allow the adjustment of start/stop pump levels.



Suction strainer that allows the passage of solids up to 2 mm.

Stage casing and Impeller in PPO-GF20 (Noryl)

The double shaft seal with oil chamber separates the motor from the water and provides further protection against accidental operation when dry.

PATENTED



Construction

5" Close coupled multi-stage submersible pumps.
External jacket in stainless steel AISI 304 and stages Noryl.
 MPSM with built-in capacitor, accessible through the delivery casing.
 Hydraulics located below the motor with the motor cooled by the pumped fluid. Safe operation is possible with the motor only partially submerged.
 Double shaft seal with oil chamber.
 The suction strainer prevents the entrance of solids with diameter bigger than 2 mm.

Applications

For water supply from wells, tanks or reservoirs.
 For domestic, civil and industrial applications, for garden use, irrigation and rain water harvesting systems.

Operating conditions

Water temperature up to 35 °C.
 Minimum internal diameter of well: 140 mm.
 Minimum immersion depth: 100 mm.
 Maximum immersion depth: 20 m (with suitable cable length).
 Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 1/min).
MPS : three-phase 230 V ± 10%;
 three-phase 400 V ± 10%.
 Cable: H07RN8-F, length 15 m, without plug.
MPSM : single-phase 230 V ± 10%, with thermal protector.
 Incorporated capacitor.
 Float switch MPSM.. CG (on demand)
 Cable: H07RN8-F, length 15 m, with plug CEI-UNEL 47166.

Insulation class F.
 Protection IP X8 (for continuous immersion).
 Triple impregnation humidity-proof dry winding.
 Constructed in accordance with EN 60335-2-41.

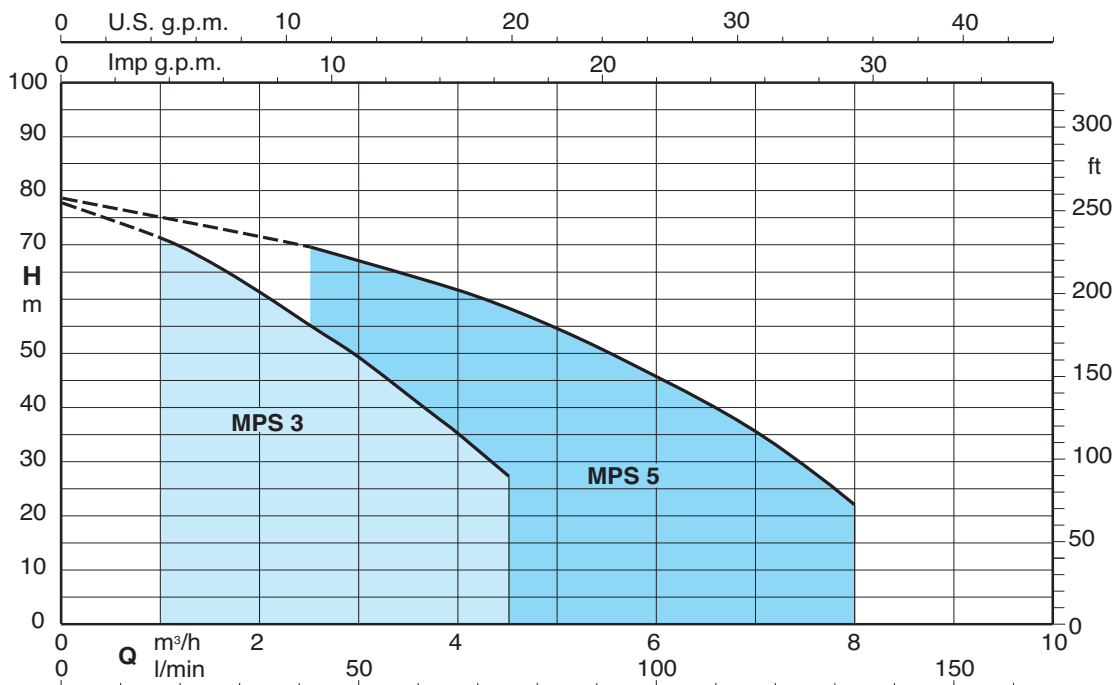
Special features on request

- Other voltages.
- Frequency 60 Hz (as per 60 Hz data sheet).
- Cable length 20 m.
- Motor suitable operation with frequency converter.

Materials

Component	Material
Delivery casing External jacket Suction strainer Motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Stage casing Impeller	PPO-GF20 (Noryl)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Capacitor cover Oil chamber cover Preload ring stages Support ring preload	PPS Polymer (Grivory)
Upper mechanical seal Lower mechanical seal	Steatite, carbon, NBR Carbon, silicon carbide, NBR
Seal lubrication oil	Oil for food machinery and pharmaceutical use

Coverage chart n ≈ 2900 rpm



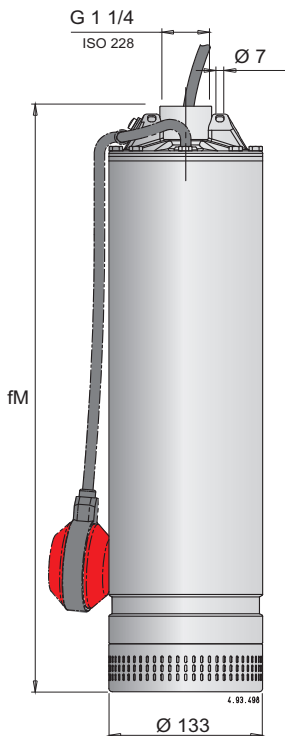
Performance n ≈ 2900 rpm

3 ~	230 V 400 V		1 ~	230 V Capacitor			P ₁		P ₂		Q	H m								
	A	A		A	μF	V	kW	kW	HP	m ³ /h		0	1	1,5	2	2,5	3	3,5	4	4,5
MPS 303	2,4	1,4	MPSM 303	3,5	14	450	0,8	0,45	0,6	H m	32,5	29,5	27,5	25,5	23	19,5	17	13	10	
MPS 304	2,8	1,6	MPSM 304	4,1	20	450	0,9	0,55	0,75		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16	
MPS 305	3,3	1,9	MPSM 305	5	20	450	1,1	0,75	1		54	49,5	46,2	43	30,9	35	30	25	19	
MPS 306	3,8	2,2	MPSM 306	6	25	450	1,3	0,9	1,2		66,5	60,5	57	53	48,5	43,5	38	32	26	
MPS 307	4,5	2,6	MPSM 307	6,6	25	450	1,5	0,9	1,2		75	67,5	63	58	53	47	41	34,5	27	

3 ~	230 V 400 V		1 ~	230 V Capacitor			P ₁		P ₂		Q	H m								
	A	A		A	μF	V	kW	kW	HP	m ³ /h		0	2,5	3	3,5	4	4,5	5	6	7
MPS 503	2,8	1,6	MPSM 503	4,1	20	450	0,9	0,55	0,75	H m	32,2	28,5	27,5	26	24,5	22,5	21,5	18	13,5	8
MPS 504	3,8	2,2	MPSM 504	6	25	450	1,2	0,9	1,2		45	39,5	37,8	35,8	33,5	31	28,5	23	16,5	9,5
MPS 505	4,5	2,6	MPSM 505	7	25	450	1,5	1,1	1,5		53	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5
MPS 506	4,8	2,8	MPSM 506	8,3	30	450	1,7	1,1	1,5		66,5	58	55,6	53	50	46,3	42,5	34	24,5	14
MPS 507	6,9	4	MPSM 507	12	35	450	2,2	1,5	2		78,5	69,5	66,5	64	61,5	58	54,5	45,5	36	22

P1 Max. power input. P2 Rated motor power output. Tolerances according to UNI EN ISO 9906:2012 Test results with clean cold water, without gas content.

Dimensions and weights

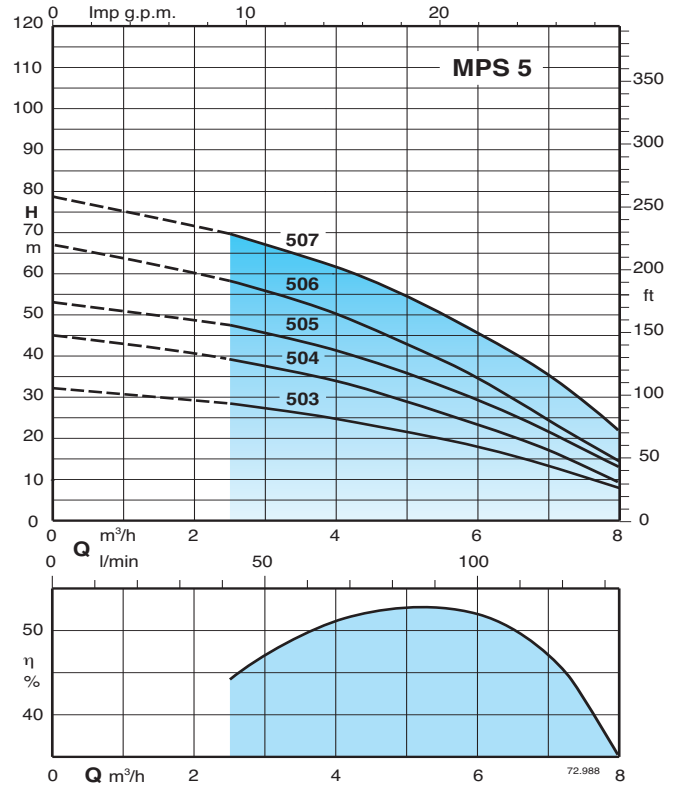
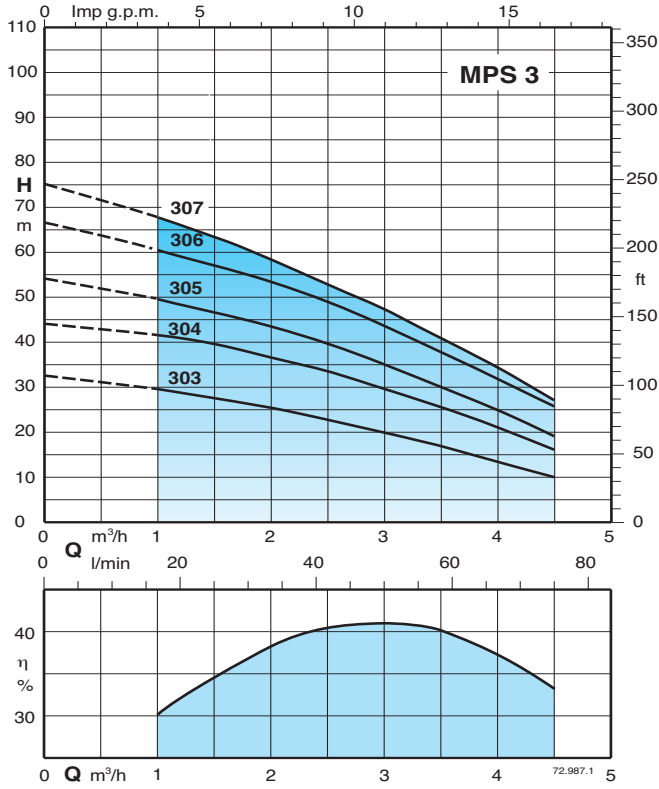


MPSM ... CG
With float switch pump
(on demand)

Weights with cable length: 15 m

Pump	fM mm	kg		Cable H07RN8-F		
		MPS	MPSM	230V 1 ~	230V 3 ~	400V 3 ~
MPS 303 - MPSM 303	465	11	12	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 304 - MPSM 304	504	11,5	12,5	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 305 - MPSM 305	553	12	13	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 306 - MPSM 306	577	13,5	15	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 307 - MPSM 307	601	14	15,5	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 503 - MPSM 503	480	11,5	12,5	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 504 - MPSM 504	529	13,5	14,5	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 505 - MPSM 505	553	14	15	3G1 mm ²	4G1 mm ²	4G1 mm ²
MPS 506 - MPSM 506	622	15,5	17	3G1,5 mm ²	4G1 mm ²	4G1 mm ²
MPS 507 - MPSM 507	671	17	18,5	3G2,5 mm ²	4G1 mm ²	4G1 mm ²

Characteristic curves $n \approx 2900$ rpm



Features

Innovative

Designed to withstand water hammering and the ON-OFF operation of any valve located in the discharge line. The impacts generated by water hammering or by the closing of the valve are fully supported by the capacitor cover, which relieves the stresses on a specific support made on the stainless steel jacket, without affecting the plastic hydraulic part.

Flexible

Allows the inspection of the capacitor without disassembling the pump, through the delivery casing.

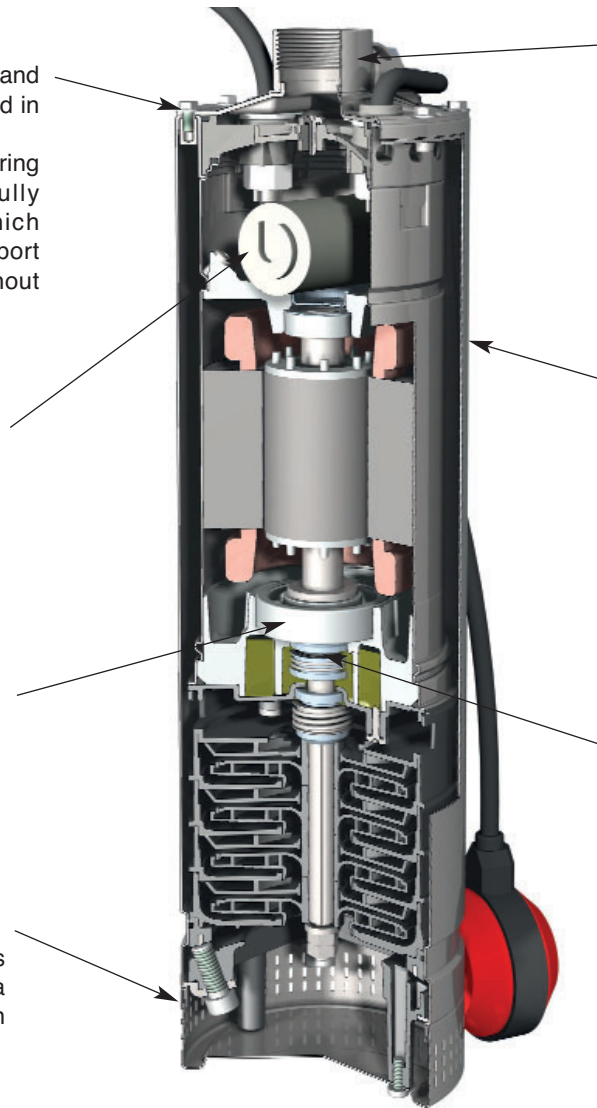
Reliable

The ball bearings and shaft are sized in order to reduce stresses, guaranteeing high reliability in any operating condition.

Low cost installation

Immersed, without suction pipe and valves. The cylindrical suction strainer provides support for the pump when installed on a flat surface or tank bottom. For operation with 100 mm minimum water level.

PATENTED



Robust

Its robust stainless steel external construction allows for the pump to be suspended from the delivery pipe.

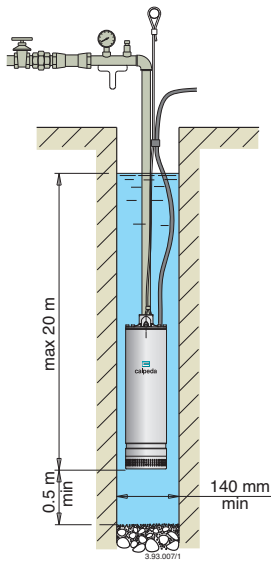
Low-Noise operation

The design of hydraulic parts, the water-filled shroud around the motor and the submerged operation ensures low noise operation.

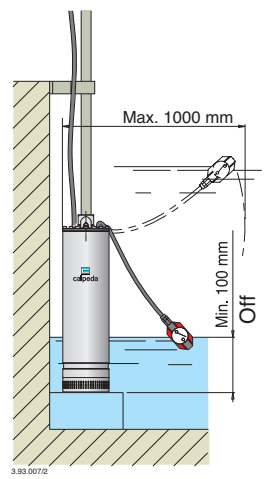
Greater Safety

The double shaft sealing with an oil chamber separates the motor from the water and provides further protection against accidental operation when dry.

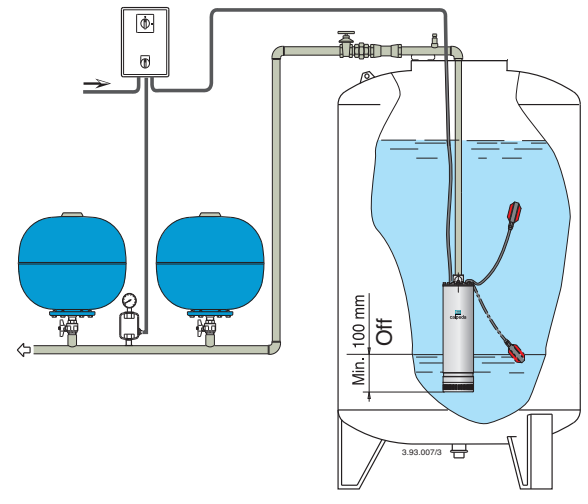
Installation



Pump in suspended position



Pump with float switch (on demand)



Installation example