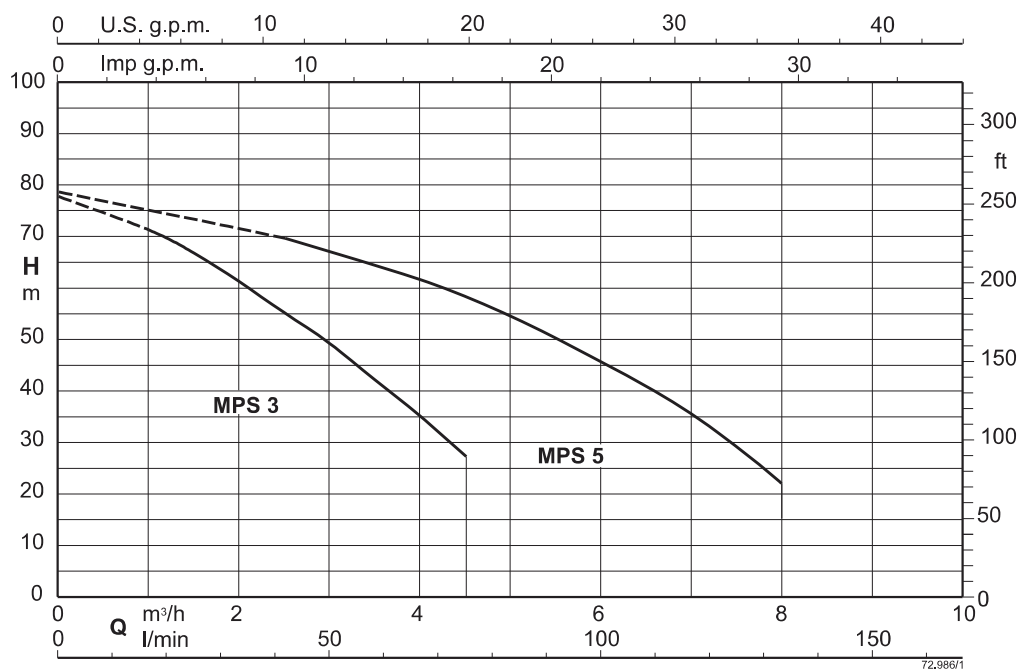


Coverage chart $n \approx 2900$ rpm

Multi-stage submersible pumps
for clean water

Construction

5" Close coupled multi-stage submersible pumps.
 External jacket made of steel 1.4301 EN 10088 (AISI 304) and Noryl stages.
 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 rain water harvesting systems.

Operating conditions

Liquid 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 ($n \approx 2900$ rpm).
MPS: three-phase 230 V $\pm 10\%$;
 400 V $\pm 10\%$.
 Cable: H07RN8-F, length 15 m, without plug.
MPSM: single-phase 230 V $\pm 10\%$, 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).
 Other mechanical seal.
 Cable length 20 m.
 Motor suitable for operation with frequency converter.

Designation

Example: MPSM 304
 MPS = Series
 M = Single-phase (without three-phase indication)
 3 = Rated capacity in m³/h
 04 = Number of impellers

Materials

Components	Materials
delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Suction strainer	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Capacitor cover	PPS Polymer (Grivory)
Oil chamber cover	PPS Polymer (Grivory)
Support ring preload	PPS Polymer (Grivory)
Preload ring stages	PPS Polymer (Grivory)
Upper mechanical seal	Steatite, carbon, NBR
Lower mechanical seal	Carbone, carburo di silicio, NBR
Seal lubrication oil	Oil for food machinery and pharmaceutic use

Coverage chart n ≈ 2900 rpm
Three-phase

Model				Q = Flow													
				m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8
				l/min		16,66	25	33,33	41,66	50	58,33	66,66	75	83,33	100	116	133
				H (m) = Total head													
	400V	P2															
	A	kW	HP														
MPS 303/A	1,4	0,45	0,6		32,5	29,5	27,5	25,5	23	19,5	17	13	10	-	-	-	-
MPS 304/A	1,6	0,55	0,75		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16	-	-	-	-
MPS 305/A	1,9	0,75	1		54	49,5	47	44	40	35	30	25	19	-	-	-	-
MPS 306/A	2,2	0,9	1,2		66,5	61	58	54	49	43	37	30,5	23	-	-	-	-
MPS 307/A	2,6	0,9	1,2		75	71	66,5	61	55	49	42	35	27	-	-	-	-
MPS 503/A	1,6	0,55	0,75		32,2	-	-	-	28,5	27,5	26	24,5	22,5	21,5	18	13,5	8
MPS 504/A	2,2	0,9	1,2		45	-	-	-	39,5	37,8	35,8	33,5	31	28,5	23	16,5	9,5
MPS 505/A	2,6	1,1	1,5		53	-	-	-	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5
MPS 506/A	2,8	1,1	1,5		66,5	-	-	-	58	55,6	53	50	46,3	42,5	34	24,5	14
MPS 507/A	4	1,5	2		78,5	-	-	-	69,5	66,5	64	61,5	58	54,5	45,5	36	22

Single-phase

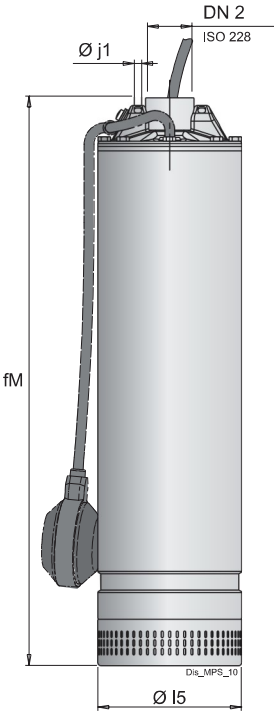
							Q = Flow														
							m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8	
									l/min	16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	100	117	133
Model	230V	Capacitor		P2		P1	H (m) = Total head														
	A	Vc	uf	kW	HP	kW			32,5	29,5	27,5	25,5	23	19,5	17	13	10	-	-	-	-
MPSM 303/A	3,5	450	14	0,45	0,6	0,8			32,5	29,5	27,5	25,5	23	19,5	17	13	10	-	-	-	-
MPSM 304/A	4,1	450	20	0,55	0,75	0,9		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16	-	-	-	-	
MPSM 305/A	5	450	20	0,75	1	1,1		54	49,5	47	44	40	35	30	25	19	-	-	-	-	
MPSM 306/A	6	450	25	0,9	1,2	1,3		66,5	61	58	54	49	43	37	30,5	23	-	-	-	-	
MPSM 307/A	6,6	450	25	0,9	1,2	1,5		75	71	66,5	61	55	49	42	35	27	-	-	-	-	
MPSM 503/A	4,1	450	20	0,55	0,75	0,9		32,2	-	-	-	28,5	27,5	26	24,5	22,5	21,5	18	13,5	8	
MPSM 504/A	6	450	25	0,9	1,2	1,2		45	-	-	-	39,5	37,8	35,8	33,5	31	28,5	23	16,5	9,5	
MPSM 505/A	7	450	25	1,1	1,5	1,5		53	-	-	-	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5	
MPSM 506/A	8,3	450	30	1,1	1,5	1,7		66,5	-	-	-	58	55,6	53	50	46,3	42,5	34	24,5	14	
MPSM 507/A	12	450	35	1,5	2	2,2		78,5	-	-	-	69,5	66,5	64	61,5	58	54,5	45,5	36	22	

P1: Maximum power input.

P2: Rated motor power output.

Head and power values valid for liquids with density $\rho = 1,0 \text{ kg/dm}^3$ and kinematic viscosity $\nu = \text{max } 20 \text{ mm}^2/\text{sec}$. Total head in m

Dimensions and weights



TYPE	DN2	mm			kg
		fM	j1	l5	
MPS 303/A	G 1 1/4	465	7	133	-
MPS 304/A	G 1 1/4	504	7	133	-
MPS 305/A	G 1 1/4	553	7	133	-
MPS 306/A	G 1 1/4	601	7	133	13.4
MPS 307/A	G 1 1/4	601	7	133	-
MPS 503/A	G 1 1/4	504	7	133	-
MPS 504/A	G 1 1/4	553	7	133	13
MPS 505/A	G 1 1/4	553	7	133	-
MPS 506/A	G 1 1/4	622	7	133	-
MPS 507/A	G 1 1/4	671	7	133	-

Cable H07RN8-F,	
230V 3 ~	400V 3 ~
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2
4G1 mm2	4G1 mm2

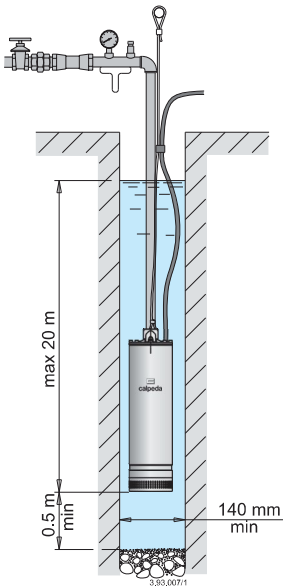
TYPE	DN2	mm			kg
		fM	j1	l5	
MPSM 303/A	G 1 1/4	465	7	133	-
MPSM 304/A	G 1 1/4	504	7	133	-
MPSM 305/A	G 1 1/4	553	7	133	-
MPSM 306/A	G 1 1/4	601	7	133	15
MPSM 307/A	G 1 1/4	601	7	133	-
MPSM 503/A	G 1 1/4	504	7	133	-
MPSM 504/A	G 1 1/4	553	7	133	-
MPSM 505/A	G 1 1/4	553	7	133	-
MPSM 506/A	G 1 1/4	622	7	133	-
MPSM 507/A	G 1 1/4	671	7	133	-

Cable H07RN8-F,	
230V 1 ~	
3G1 mm2	
3G1 mm2	
3G1 mm2	
3G1 mm2	
3G1 mm2	
3G1 mm2	
3G1 mm2	
3G1 mm2	
3G1 mm2	
3G1,5 mm2	
3G2,5 mm2	

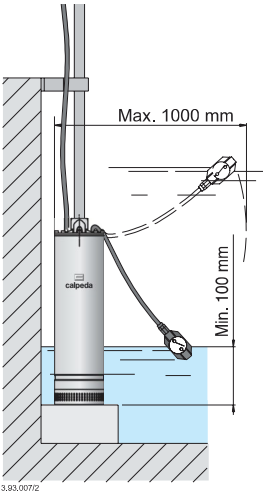
With cable length: 15m

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

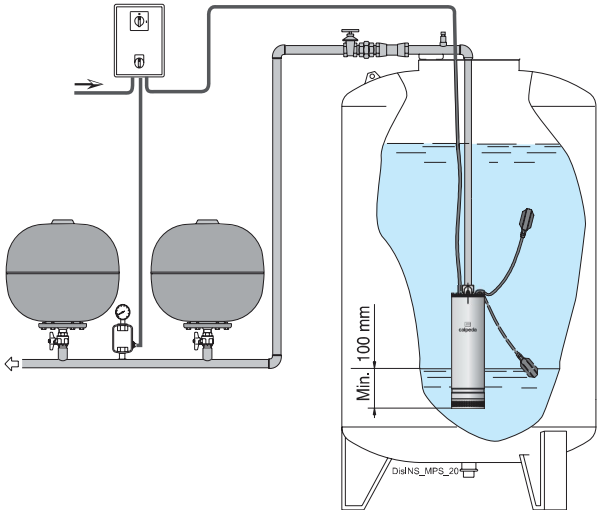
Installation



Pump in suspended position



Pump in the standing position



Examples of installations

Characteristic curves $n \approx 2900$ rpm
