

## Electric submersible pumps for waste water containing solids. Spherical clearance 30 and 50 mm.

### TPM, TPV

#### Application

HOMA TP series pumps are suitable for pumping drainage water or waste water. With their 30 and 50 mm spherical clearance they are especially able to pump liquids with larger suspended solids like fibres, textiles etc. They are used for various applications in public and private sector, trade and industry.

**Installation:** Transportable or permanent. Models with float switch control for automatic pump operation, depending on liquid level in the sump.

**Pumped liquid:** Clear water and drainage water, sewage containing soft solids. Max. liquid temperature: 40°C.

**Operation:**  
motor submerged: permanent (S1)  
motor surfaced: short term (S2) or intermittent (S3), see technical data.

#### Design

Fully submersible, compact integrated motor-pump unit consisting of:

**Pump:** Single stage centrifugal pump with horizontal discharge

**Impellers:** M = Open single channel impeller for liquids containing impurities and sludge with solid particles.

V = Vortex impeller for liquids containing a high level of impurities or fibrous matter and containing gas.

**Motor:** Fully submersible, pressure tight electric motor, oil filled. Insulation class F. Degree of protection IP 68.

Thermal monitoring in the winding.

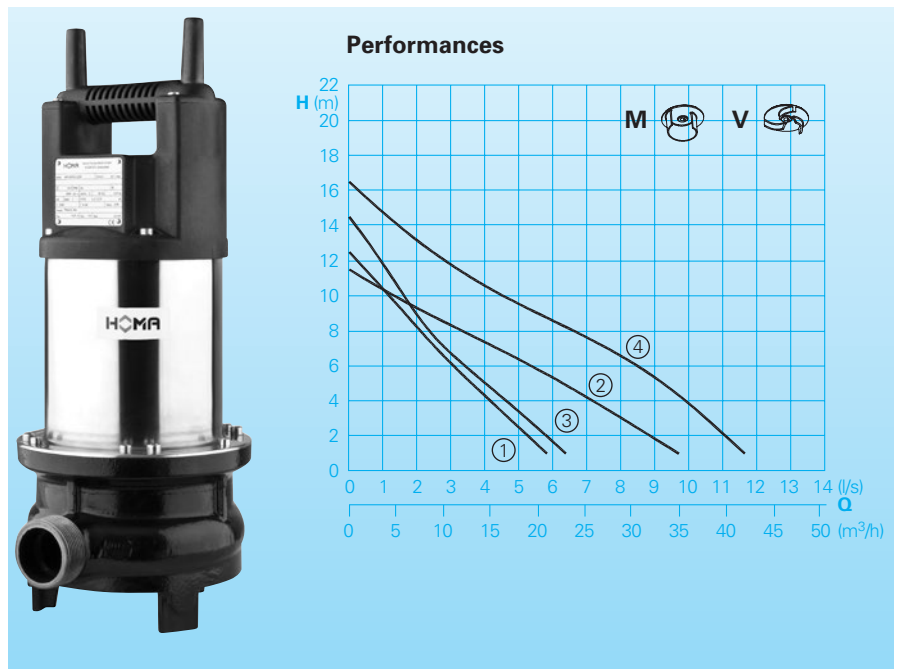
**Cable:**

Model W: H07 RN - F3 G1

Model D: H07 RN - F4 G1

**Shaft/Bearing:** Large diameter stainless rotor shaft, pre-lubricated bearings.

**Seals:** Combination of mechanical seals (silicon-carbide/silicon-carbide) and lip seal in separate oil chamber.



#### Technical Data

Curve No.	Pump type	Motor input P <sub>1</sub> (kW)	Motor output P <sub>2</sub> (kW)	Nominal current (A)	Discharge	Spherical clearance (mm)	Operation S2 (min)	S3* (%)	Weight (kg)
①	TPV 310 W(A)	1,0	0,7	4,4	G 1 ½ A	30	20	40	14
①	TPV 310 D(A)	1,0	0,7	2,0	G 1 ½ A	30	30	50	14
②	TPV 515 W(A)	1,5	1,2	6,5	G 2 A	50	20	40	18
②	TPV 515 D(A)	1,5	1,2	2,5	G 2 A	50	30	50	18
③	TPM 310 W(A)	1,0	0,7	4,4	G 1 ½ A	30	20	40	14
③	TPM 310 D(A)	1,0	0,7	2,0	G 1 ½ A	30	30	50	14
④	TPM 515 W(A)	1,5	1,2	6,5	G 2 A	50	20	40	18
④	TPM 515 D(A)	1,5	1,2	2,5	G 2 A	50	30	50	18

\* Example: 40% = 4 min operation + 6 min break (cycle time 10 min)

Model W: 230 V / 1 Ph

Model D: 400 V / 3 Ph

Speed: 2900 rpm

#### Materials:

Pump housing	Cast iron EN-GJL-250
Impeller, Motor housing	Stainless steel 1.4301
Rotor shaft	Stainless steel 1.4104
Motor housing cover	Composite GFK30
Mechanical seal	SiC
Elastomere	NBR

#### Equipment supplied

Pump with base stand, 10m of cable.

Model W:

with plug type F.

Model D:

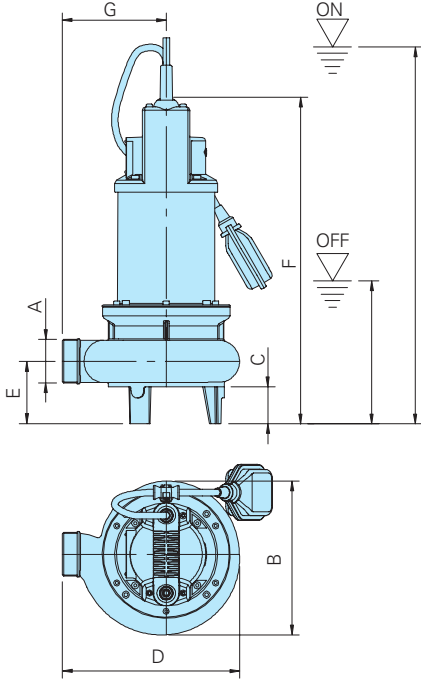
with phase inverter.

Model A:

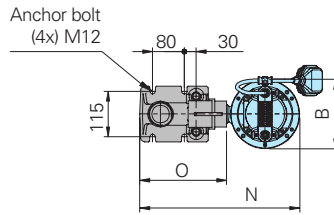
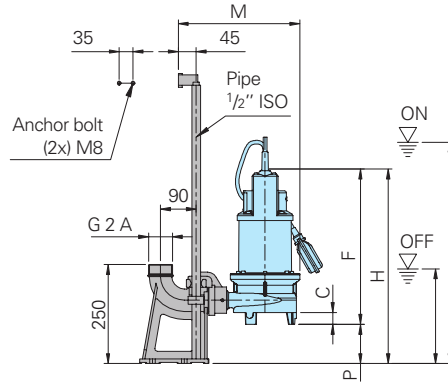
with automatic level control HOMA-Ni-vomatik.

## Dimensions and Installations

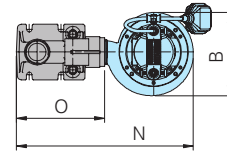
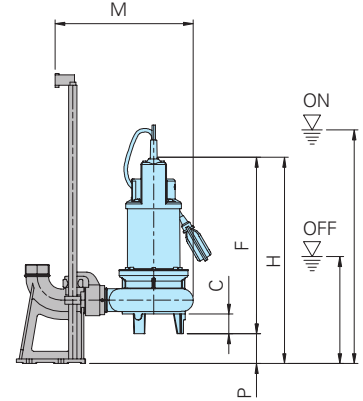
### Free standing pump with base stand



### Free standing pump with base stand KK 50 / 1 1/2" TPV(M) 310



### Free standing pump with base stand KK 50 / 2" TPV(M) 515

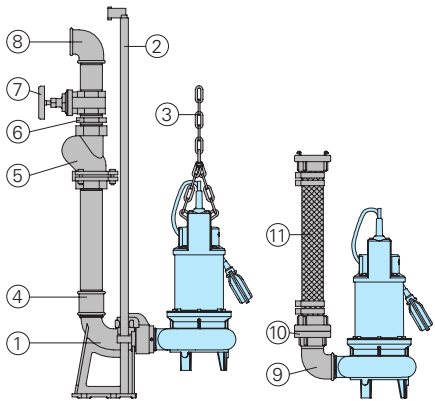


Pump type	A	B	C	D	E	F	G	H	M	N	O	P
TPV(M) 310	G 1 1/2 A	175	30	203	61	392	115	491	307	404	220	99
TPV(M) 515	G 2 A	210	50	242	85	446	142	521	349	447	223	75

all dimensions in mm

Limit value float switch	ON	OFF
Base stand		
TPV(M) 310	410-460	140-190
TPV(M) 515	465-515	195-245
Auto-coupling system		
TPV(M) 310	509-559	239-289
TPV(M) 515	540-590	270-320

### Accessories



Description	Dimension	Part No.
① Auto-coupling system with flange and upper slide rail bracket		
- flanged pump coupling BSP 1 1/2		8604000
- flanged pump coupling BSP 2		8604005
○ Auto-coupling system complete or partial in stainless steel	all types	on request
○ Screw-kits for installation of coupling-system		on request

Description	Dimension	Part No.
② Guide rails, pair, per m		
steel galvanized	Ø 1/2	2190085
stainless steel	Ø 1/2	2190250
③ Lifting chain, per m		
steel galvanized	5 mm Ø	2800350
stainless steel	5 mm Ø	2800353
Shackle for chain		
steel galvanized	5 mm Ø	2801450
stainless steel	5 mm Ø	2801390
④ Galvanized double nipple	BSP 2 F	2109102
	BSP 2 F/	2102210
	BSP 1 1/2 F	
⑤ Cast iron swing check valve	BSP 1 1/2 F	2212902
	BSP 2 F	2212903
⑥ Galvanized double nipple	BSP 1 1/2 M	2009020
	BSP 2 M	2009018
⑦ Bronze gate valve	BSP 1 1/2 F	2216015
	BSP 2 F	2216020
⑧ 90° galvanized elbow	BSP 1 1/2 F	2113605
	BSP 2 F	2113606
T-piece for twin-pump arrangement	BSP 1 1/2 F	2114302
	BSP 2 F	2114306

Description	Dimension	Part No.
⑨ 90° galvanized elbow	BSP 2 F/M	2111506
	BSP 1 1/2 F/M	2111505
⑩ STORZ fixed-coupling	C-1 1/2 F	2010204
	C-2 F	2010005
STORZ hose coupling	C-38 mm Ø	2013002
	C-52 mm Ø	2013003
⑪ Synthetic pressure hose with rubber lining and couplings	C-38 mm Ø	
	length 10 m	2611311
	length 20 m	2611312
	C-52 mm Ø	
	length 10 m	2611310
	length 15 m	2611315
	length 20 m	2611320
	length 30 m	2611330
Reinforced hose, per m	Ø 40 mm	2632038
	Ø 50 mm	2632050
Hose bands	1 1/2"	2304854
	2"	2306009
○ Control panel for single or twin pump stations for automatic operation		on request

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