

## Electric submersible pumps for waste water containing solids. Single channel impeller, spherical clearance 50 mm.

### TP 50 M

#### Application

HOMA TP 50 series pumps are suitable for pumping drainage water or waste water. With 50 mm spherical clearance they are 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.

DIN EN 12050-2: Conformity and design approved and controlled by LGA, certificate No. 0220119.

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

Pumped medium: Clear water and drainage water, sewage containing soft solids. Max. medium temperature: 35°C short term up to 60°C.

Operation: Intermittent.

#### Design

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

Pump: Single stage centrifugal pump with horizontal discharge BSP 2 1/2" F.

Impeller: M = Closed single channel impeller for liquids containing impurities and sludge with solid particles. Spherical clearance 50 mm.

Motor: Fully submersible, pressure tight electric motor. Insulation class F. Degree of protection IP 68. Thermal sensors embedded in the winding on request (standard with model Ex).

Motor Start:

TP50M12-37: Direct-on-line

TP50M50: Direct-on-line or Star-delta-start

Cable:

TP50M12-37: H07RN-F 4 G 1,5

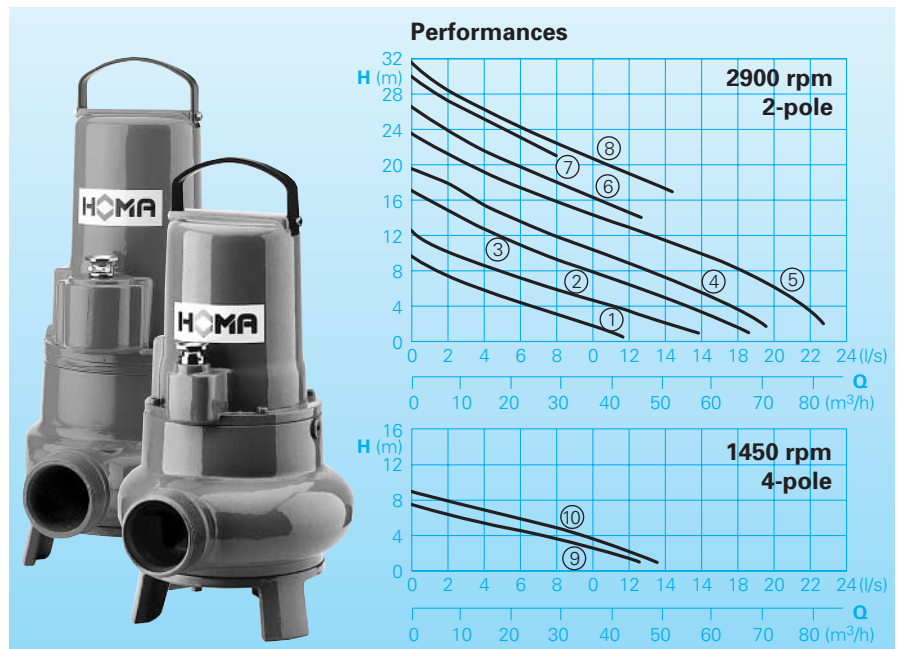
TP50M12-37(Ex): H07(PLUS) 6 G 1,5

TP50M50(Ex): H07RN-F(PLUS) 10 G 1,5

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

Seals: Combination of mechanical seals (silicon-carbide/silicon-carbide) in a separate oil chamber (models above 1,8 kW). Models up to 1,6 kW with mechanical seal and lip seal. Oil inspection from outside.

Explosion protection: All models available with explosion proof motors according to  $\text{Ex II 2 G EEx d [ib] IIBT4}$ .



#### Technical Data

Curve No.	Pump type	Motor- input P <sub>1</sub> (kW)	Motor- output P <sub>2</sub> (kW)	Capacitor* (μF)	Speed (rpm)	Nominal current (A)	Spherical clearance (mm)	Weight (kg) Standard model	Model Ex
①	TP50 M12/2W(A)(Ex)	1,1	0,8	25	2900	4,8	50	26	31
②	TP50 M17/2W(A)(Ex)	1,6	1,2	30	2900	7,6	50	27	32
①	TP50 M11/2D (A)(Ex)	1,0	0,8		2900	1,9	50	26	31
②	TP50 M14/2D (A)(Ex)	1,3	1,0		2900	2,5	50	27	32
③	TP50 M23/2D (A)(Ex)	2,3	1,8		2900	3,8	50	40	40
④	TP50 M26/2D (A)(Ex)	2,6	2,1		2900	4,5	50	40	40
⑤	TP50 M37/2D (A)(Ex)	3,7	3,2		2900	6,5	50	45	45
⑥	TP50 M37/2 MD (Ex)	4,0	3,2		2900	6,6	50	45	45
⑦	TP50 M37/2 HD (A)(Ex)	3,7	3,2		2900	6,5	50	45	45
⑧	TP50 M50/2 DT (Ex)	5,2	4,4		2840	8,7	50	56	56
⑨	TP50 M12/4W(A)	1,2	0,9	40	1450	5,8	50	40	40
⑩	TP50 M13/4D(A)(Ex)	1,3	1,0		1450	2,6	50	40	40

Model W: 230-240 V / 1 Ph

Model D: 400-415 V / 3 Ph

\* Capacitor: For the operation it is necessary to install a capacitor in the control box.

Model A: With automatic level control HOMA-Nivomatik

Model Ex: Explosion proof

#### Materials:

Motor housing, pump housing	Cast iron GG 25
Impeller- up to 1,6 kW - other types	Polypropylene GFK Cast iron GG 25
Wear ring	Bronze
Mechanical seal	Silicon-carbide
Rotor shaft, screws	Stainless steel
Seal kit	Perbonane

#### Equipment supplied

Pumps with base stand, without auto-coupling (see accessories):

Model W (230-240 V/1 Ph): 10 m of cable. Controlbox WA10/19(Ex) see accessories.

Model D (400-415 V/3 Ph): 10 m of cable.

Model A: With additional automatic level control, control box DA10/32; DA10/12; WA10/19 with overload protection, manual-auto switch and 10 m of cable. integrated capacitor. Model Ex with intrinsically safe relay.

