

Electric submersible pumps for waste water containing solids. Vortex impeller, spherical clearance 50 – 65 mm.

TP 50 V

Application

Homa TP 50 series pumps are suitable for pumping drainage water or waste water. With 50 and 65 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.

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 short term up to 60°C.

Operation: Permanent (S1).

Design

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

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

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

Spherical clearance 50 up to 65 mm.


Motor: Fully submersible, pressure tight electric motor. Insulation class H. Degree of protection IP 68. Thermal sensors embedded in the winding on request (standard with TP50V50, TP50V17/2W and model Ex).

Motor start: TP50V13-40: Direct-on-line TP50V50: Direct-on-line or Star-delta-start

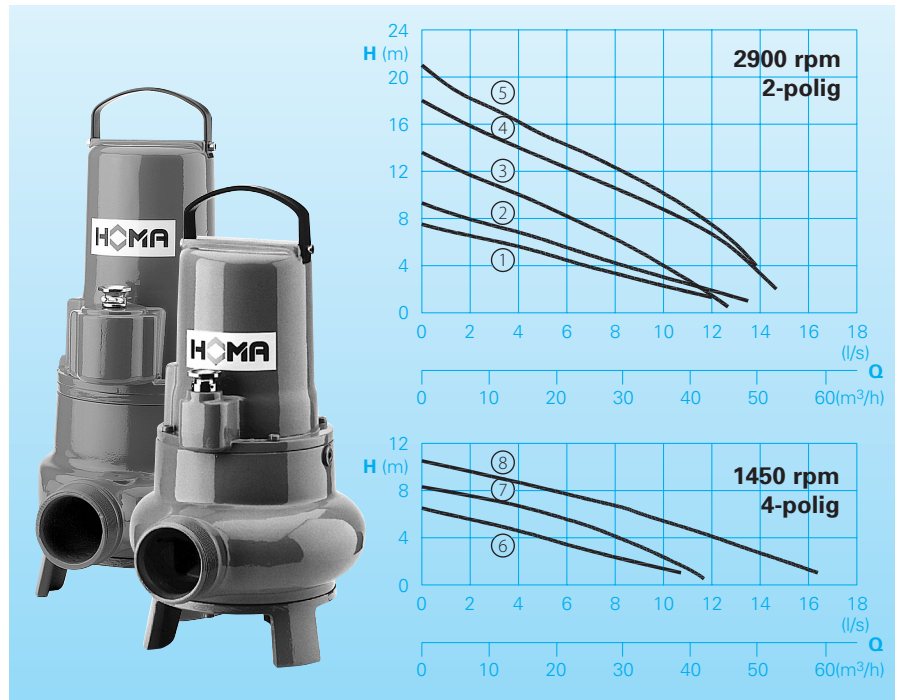
Cable:
TP50V13-40: H07RN-F 4 G 1,5
TP50V13-40Ex: H07PLUS 6 G 1,5
TP50V50(Ex): H07RN-F(PLUS) 10 G 1,5

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  II 2 G Ex c d II B T4(T3)

Performance



Technical Data

Curve No.	Pump type	Motor P ₁ (kW)	P ₂ (kW)	Capacitor* (µF)	Speed (rpm)	Nominal current (A)	Spherical clearance (mm)	Weight (kg)
①	TP 50V 17/2 W (A) (Ex)	1,6	1,2	30	2900	7,6	65	27,0**
②	TP 50V 17/2 D (A) (Ex)	1,6	1,2		2900	2,9	65	27,0**
③	TP 50V 26/2 D (A) (Ex)	2,6	2,1		2900	4,5	50	40,0
④	TP 50V 40/2 D (A) (Ex)	4,0	3,4		2900	6,6	50	45,0
⑤	TP 50V 50/2 DT (Ex)	5,2	4,4		2840	8,7	50	56,0
⑥	TP 50V 11/4 W (A)	1,2	0,9	40	1450	5,8	62	40,0
⑦	TP 50V 11/4 D (A) (Ex)	1,1	0,8		1450	2,4	62	40,0
⑧	TP 50V 13/4 D (A) (Ex)	1,3	1,0		1450	2,6	50	40,0
⑧	TP 50V 23/4 D (A) (Ex)	2,3	1,8		1450	5,0	62	45,0

Model W: 230-240V/1Ph 50Hz

Model D: 400-415V/3Ph 50Hz

Model A: With automatic level control
HOMA-Nivomatik

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

Model Ex: Explosion proof

** **Weight Ex Model:** + 5 kg

Materials

Motor housing, Impeller, pump housing	Cast iron EN-GJL-250
Rotor shaft, screws	Stainless steel
Mechanical seal	Silicon-carbide
Seal kit	Perbonane

Equipment supplied

Pumps with base stand, without auto-coupling (see accessories): **Model W (230 V / 1 Ph):** 10 m of cable. Control box W19; (Standart pump); WT19 (Ex-Ausf.) available as accessories. **Model D (400 V / 3Ph):** 10 m of cable. Control box D32; DT32 available as accessories. **Model A:** With additional automatic level control and control box DA10/32; DA10/12, WA10/19 with overload protection, manual-auto switch. Model WA with integrated capacitor. Model Ex with intrinsically safe relay.

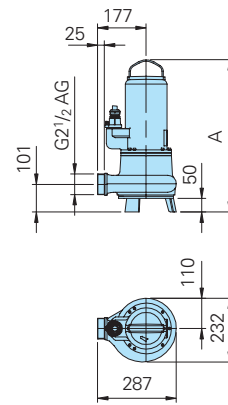
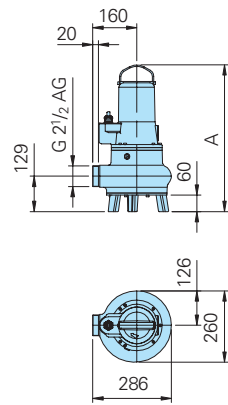
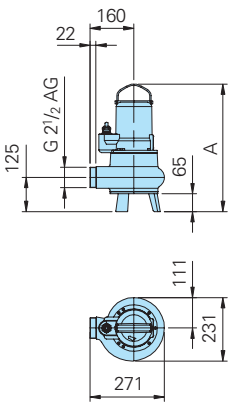
Dimensions and Installations (all dimensions in mm)

Free standing pump with base stand

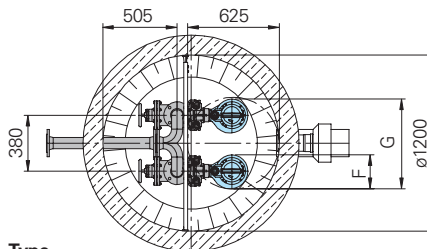
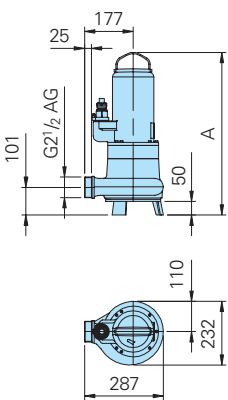
TP50V17/2W+D(Ex)

TP50V11/4W(D)(Ex)
TP50V23/4D(Ex)

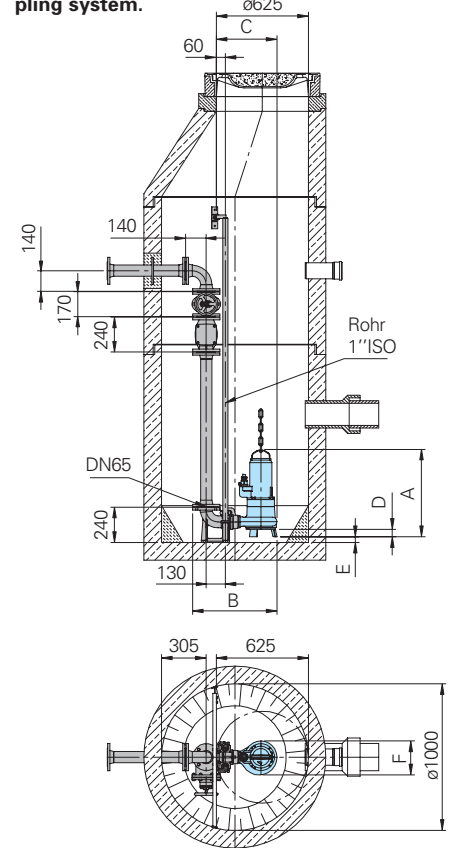
TP50V40/2D(Ex),
TP50V26/2D(Ex), TP50V13/4D(Ex)



TP50V50/2DT(DEX)



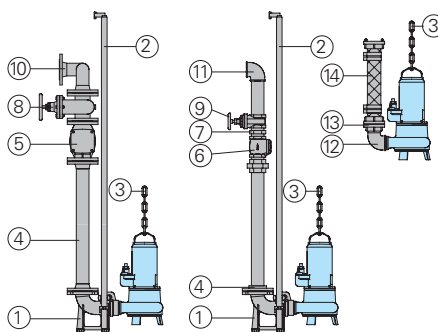
Permanent sump installation with auto-coupling system.



Type

Type	A	B	C	D	E	F	G
TP50V50/2DT(DEX)	593	575	412	50	39	232	612
TP50V40/2D(Ex)	555	575	412	50	39	232	612
TP50V13/4D(Ex), TP50V26/2D(Ex)	518	575	412	50	39	232	612
TP50V17/2W+D(Ex)	465 (472)	559	396	65	16	231	611
TP50V11/4W+D(Ex)	535	573	411	60	11	260	640
TP50V23/4D(Ex)	572	573	411	60	11	260	640

Accessories



Part Description	Dimension	Part No.
① Auto-coupling system with Cast iron auto-coupling with flange		
Cast iron flanged pump coupling		
Cast iron upper slide rail bracket		
KK65/R2 1/2" DN65/R2 1/2"		8604015
○ Auto-coupling system complete or partial in stainless steel	all types	on request

Part Description	Dimension	Part No.
○ Screw-kits for installation of coupling system		on request
○ Inter. upper slide rail bracket	Ø 1" for KK65	7323714
② Guide rails, pair, per m steel galvanized	1" dia.	2190135
stainless steel	1" dia.	2190252
③ Pump chain sets, testet. With shackle, One- or Two-strand, different lengths and load capacities		on request
④ Threaded flange	DN 65/ BSP 2 1/2" F	2215060
Flanged pipe	DN 65	On request
⑤ Cast iron swing check	DN 65	2212805
⑥ Cast iron swing check	BSP 2 1/2" F	2212513
⑦ Galvanized double nipple	BSP 2 1/2" M	2009025
⑧ Cast iron gate valve	DN 65	2216065

Part Description	Dimension	Part No.
⑨ Bronze gate valve	BSP 2 1/2" F	2216025
⑩ 90° flanged elbow	DN 65	2153301
Flanged Y-piece for twin-pump arrangement	3 x DN 65	2160002
	DN 65/65/80	2160004
⑪ 90° galvanized elbow	BSP2 1/2" F	2113610
T-piece for twin-pump arrangement	BSP2 1/2" F	2114308
⑫ 90° galvanized elbow	BSP 2 1/2" F/M	2111705
⑬ STORZ-fixed coupling	B-2 1/2" F	2010502
STORZ-hose coupling	B-75 mm dia.	2013502
⑭ Synthetic pressure hose with rubber lining	length 10 m	2611210
	length 15 m	2611215
and couplings,	length 20 m	2611220
B-75 mm dia.	length 30 m	2611230
Reinforced hose, per m	75 mm dia.	2632075
Hose bands	85/20	2308520
○ Control panel for single or twin pump stations for automatic operation		On request



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