

Submersible waste water pumps
Discharge BSP 3" / DN 80.
Vortex impeller, spherical clearance 50 – 65 mm.

TP 53 V

Application

HOMA TP 53 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, certificate No. 0220119.

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: 35°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 3" M.

Impeller: V = 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 TP53V50, TP53V17/2W and model Ex).

Motor Start:

TP53V13-14: Direct-on-line

TP53V50: Direct-on-line or Star-delta-start

Cable:

TP53V13-40: H07RN-F 4 G 1,5

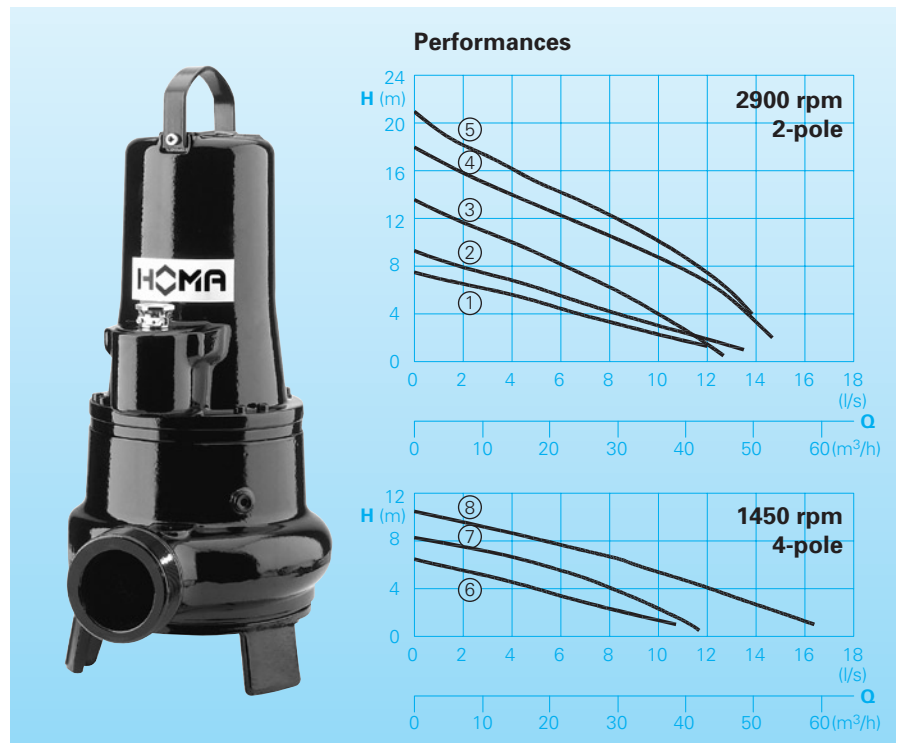
TP53V13-40Ex: H07PLUS 6 G 1,5

TP53V50(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 up to 1,6 kW/2-pole with mechanical seal and lip seal. Oil inspection from outside.

Explosion protection: All models available with explosion proof motors according to  II 2 G EEx d [ib] IIBT4.



Technical Data

Curve No.	Pump type	Motor input P ₁ (kW)	Motor output P ₂ (kW)	Capacitor* (µF)	Speed (rpm)	Nominal current (A)	Spherical clearance (mm)	Weight (kg) Standard	Weight (kg) Model Ex
①	TP53 V17/2W (A)(Ex)	1,6	1,2	30	2900	7,6	65	27	32
②	TP53 V17/2D (A)(Ex)	1,6	1,2		2900	2,9	65	27	32
③	TP53 V26/2D (A)(Ex)	2,6	2,1		2900	4,5	50	40	40
④	TP53 V40/2D (A)(Ex)	4,0	3,4		2900	6,6	50	45	45
⑤	TP53 V50/2DT (DEx)	5,2	4,4		2840	8,7	50	56	56
⑥	TP53 V11/4W (A)(Ex)	1,2	0,9	40	1450	5,8	62	40	40
⑦	TP53 V11/4D (A)(Ex)	1,1	0,8		1450	2,4	62	40	40
⑧	TP53 V13/4D (A)(Ex)	1,3	1,0		1450	2,6	50	40	40
⑧	TP53 V23/4D (A)(Ex)	2,3	1,8		1450	5,0	62	45	45

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, impeller	Cast iron GG 25/EN-GJL-250
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. Control box W19; WT19 available as accessories.

Model D (400-415 V / 3Ph): 10 m of cable. Control box D32; DT32 available as accessories.

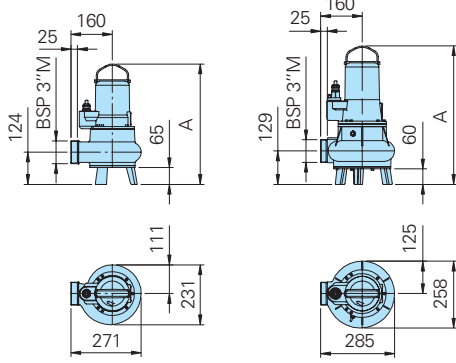
Model A: With additional automatic level control and control box DA10/32; DA10/12 with overload protection, manual-auto switch and 10-m of cable. 1Ph-model with integrated capacitor. Model Ex with intrinsically safe relay.

Dimensions and Installations / Free standing pump with base stand

TP53V17/2W+D(Ex)

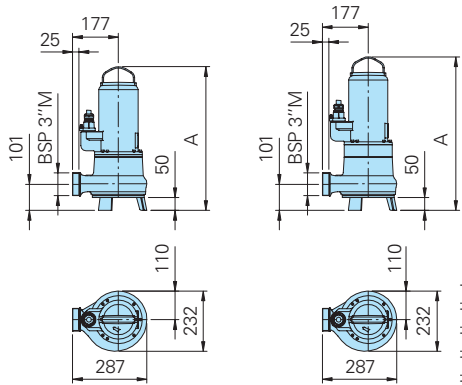
TP53V11/4W(D)(Ex)
TP53V23/4D(Ex)

Permanent sump installation with auto-coupling system.

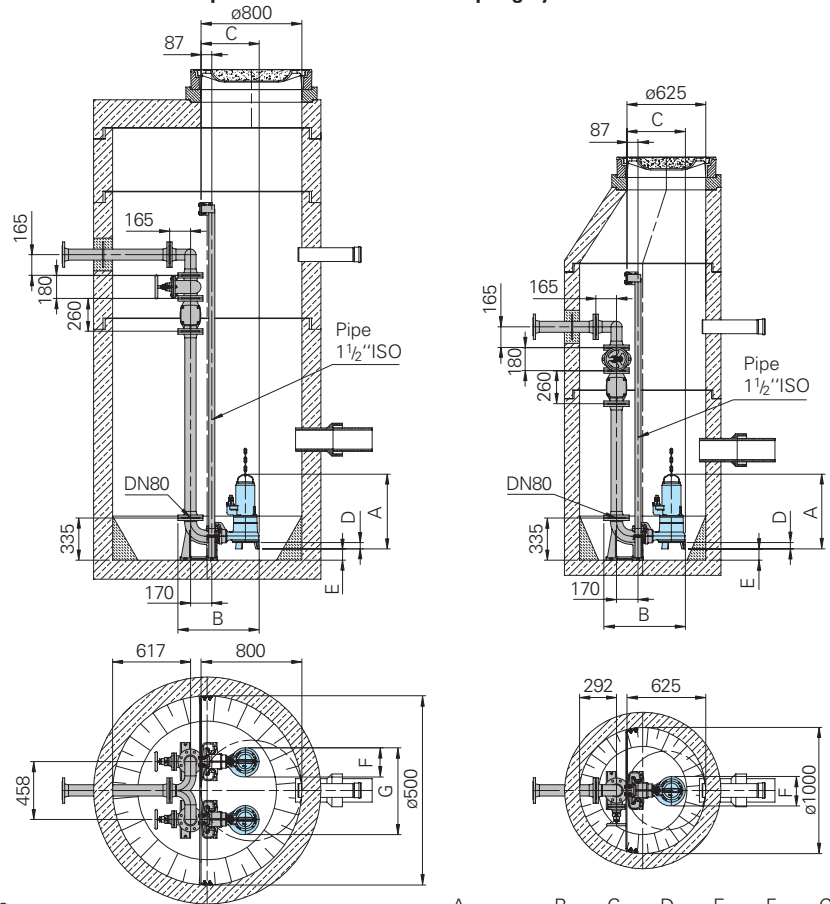


TP53V40/2D(Ex)
TP53V26/2D(Ex)
TP53V13/4D(Ex)

TP53V50/2DT(DEx)

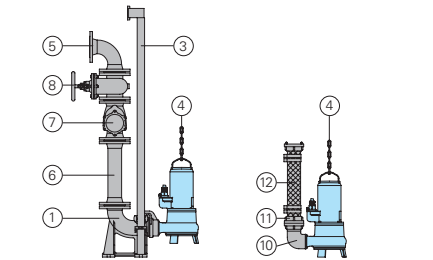


all dimensions in mm



Type	A	B	C	D	E	F	G
TP53V50/2DT(DEx)	593	645	462	50	89	232	690
TP53V40/2D(Ex)	555	645	462	50	89	232	690
TP53V13/4D(Ex), TP53V26/2D(Ex)	518	645	462	50	89	232	690
TP53V17/2W + D(Ex)	465 (472)	629	446	65	66	231	689
TP53V11/4W+D(Ex)	535	648	465	60	61	258	716
TP53V23/4D(Ex)	572	648	465	60	61	258	716

Accessories



Part Description	Dimension	Part No.
① Cast iron autocoupling system with auto-coupling with flange DN 80 and upper slide rail bracket BSP 1 1/2"		
- Type KK80/R3" with flanged pump coupling	BSP 3" F	8604035
- Type KK80/80 with flanged pump coupling	DN 80	8604025
○ Auto-coupling system complete or partial in stainless steel	all types	on request
○ Screw-kits for installation of coupling system		on request

Part Description	Dimension	Part No.
Threaded flange	DN 80/BSP3" F	2215080
③ Guide rails, pair, per m steel galvanized stainless steel	1 1/2" dia.	2190155
	1 1/2" dia.	2190254
④ Lifting chain steel galvanized	5 mm dia.	2800350
stainless steel	5 mm dia.	2800353
Shackle steel galvanized	for chain 5 mm dia.	2801450
stainless steel	for chain 5 mm dia.	2801390
⑤ 90° flanged elbow	DN 80	2153302
	DN 100	2153303
Flanged Y-piece for twin pump arrangement, horizontal discharge (vertical discharge on request)	3x DN 80	2160006
	DN 80/80/100	2160008
	3x DN 100	2160010
⑥ Flanged discharge pipe with gasket and fixing bolts, per m	DN 80	2152081
	DN 100	2152201
Discharge pipe, per additional m	DN 80	2150080
	DN 100	2150100
Flanged reducer		On request
⑦ Flanged swing check valve with gasket and fixing bolts	DN 80	2212807
	DN 100	2212809

Part Description	Dimension	Part No.
⑧ Flanged gate valve with gasket and fixing bolts	DN 80	2216080
	DN 100	2216100
⑩ 90° elbow	BSP 3" F/M	2111805
Flanged 90° elbow	DN 80	2153302
Threaded flange	DN 80/BSP 3" F	2215080
⑪ STORZ-fixed coupling	B-3" F	2010602
STORZ-hose coupling	B-75 mm dia.	2013502
⑫ Reinforced hose with 2 B-size half couplings, 75 mm dia.	length 2 m	2161042
	length 3 m	2161043
	length 5 m	2161045
Flanged reinforced hose 90 mm dia., DN 80	length 2 m	2161032
	length 3 m	2161033
	length 5 m	2161035
Reinforced hose per m	75 mm dia.	2632075
	90 mm dia.	2632090
Flanged spigot DN 80	90 mm dia.	2171014
Hose band	85/20	2308520
	92/20	2309220
○ Control panel for single or twin pump stations for automatic operation		On request



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