

Stainless steel submersible pumps for waste water containing solids. Spherical clearance 35-65 mm.

TCV, TCM

Application

HOMA TCV and TCM series pumps are suitable for pumping drainage water and waste water. With 35 up to 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: Permanent or transportable. 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: Intermittent.

Design

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

Pump: Single stage centrifugal pump with horizontal discharge.

Impellers: Model TCV with vortex impeller for liquids containing a high level of impurities or fibrous matter and containing gas. Spherical clearance 35 up to 65 mm.

Model TCM with open single channel impeller for liquids containing impurities and sludge with solid particles. Spherical clearance 65 mm.

Motor: Fully submersible, pressure tight electric motor. Insulation class F. Motor protection IP 68. Single phase motors 230-240 V with thermal sensors embedded in the winding.

Cable:

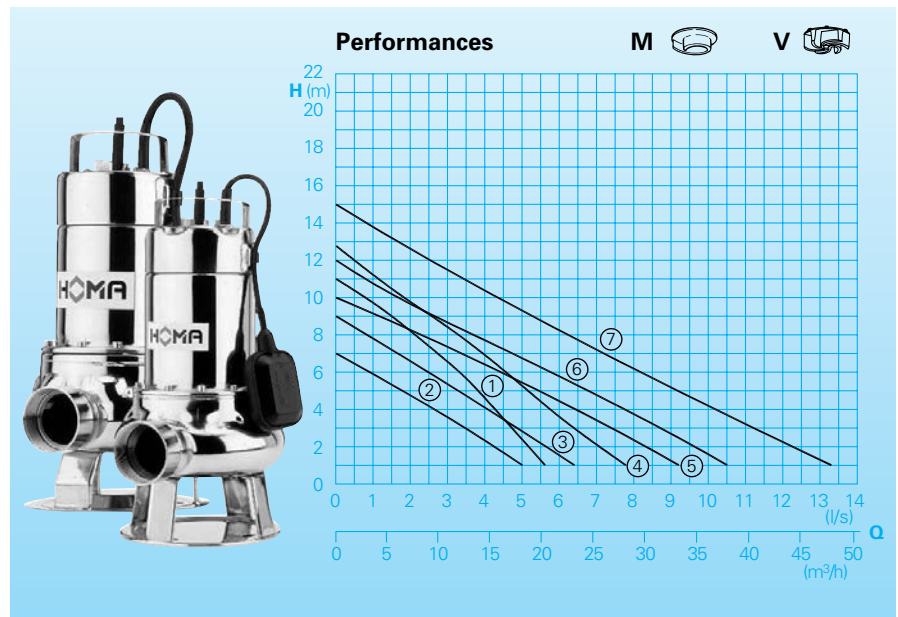
TCV519W(A): H07RN-F4G1

Model W: H07RN-F3G1

Model D: H07RN-F4G1

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

Seals: Combination of mechanical seal and lip seal in a separate oil chamber.



Technical Data

Curve No.	Pump type	Motor-input P ₁ (kW)	Motor-output P ₂ (kW)	Voltage 50 Hz (V)	Nominal current (A)	Discharge	Spherical clearance (mm)	Weight (kg)
①	TCV 408 W(A)	1,0	0,7	230-240/1Ph	4,8	BSP 1 1/2" F	35	8,2
②	TCV 409 W(A)	0,9	0,6	230-240/1Ph	3,9	BSP 2" F	40	10
③	TCV 514 W(A)	1,4	0,75	230-240/1Ph	6,0	BSP 2" F	50	11
④	TCV 519 W(A)	1,9	1,1	230-240/1Ph	9,6	BSP 2" F	50	13
③	TCV 513 D	1,4	0,9	400-415/3Ph	2,4	BSP 2" F	50	11
④	TCV 517 D	2,2	1,2	400-415/3Ph	3,7	BSP 2" F	50	13
⑤	TCV 620 D	2,4	1,4	400-415/3Ph	4,5	BSP 2 1/2" F	65	22
⑥	TCM 616 W(A)	1,6	1,0	230-240/1Ph	8,0	BSP 2 1/2" F	65	21
⑥	TCM 616 D	2,0	1,1	400-415/3Ph	4,3	BSP 2 1/2" F	65	21
⑦	TCM 622 D	2,4	1,4	400-415/3Ph	4,5	BSP 2 1/2" F	65	22

Impeller: TCV = Vortex impeller

TCM = Open single channel impeller

Speed: 2900 rpm

Model A: With automatic level control HOMA-Nivomatik

Materials:

Motor housing, pump housing, impeller	Stainless steel 1.4301
Rotor shaft	Stainless steel 1.4305
Mechanical seal	Carbon-graphit/ chrome steel
Elastomere	Perbonane
Screws	Stainless steel

Equipment supplied

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

Model W (230-240 V/1 Ph):

With 10 m of cable and plug.

Model D (400-415 V/3Ph):

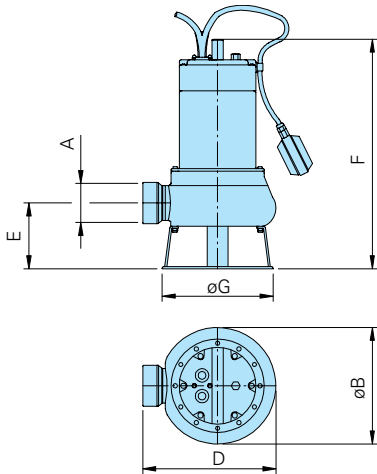
With 10 m of cable. Control boxes D32; DA10/32 available as accessories.

Model A:

With additional automatic level control HOMA-Nivomatik.

Dimensions and Installations

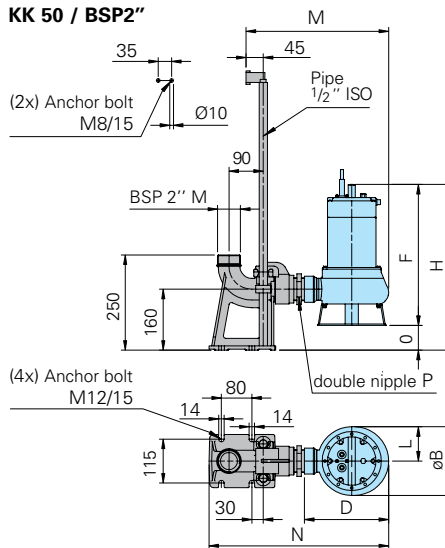
Free standing pump with base stand



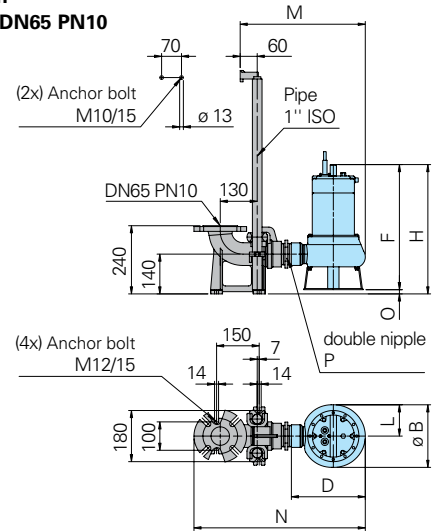
all dimensions in mm

Wet well installation with auto-coupling system

KK 50 / BSP2"

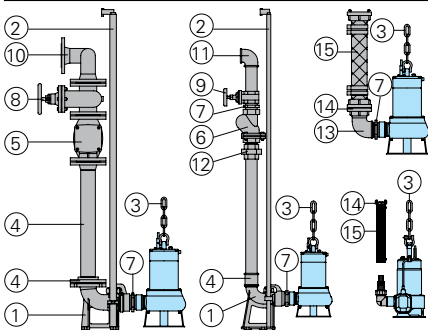


DN65 PN10



Pump type	A	ØB	D	E	F	ØG	H	L	M	N	O	P
TCV 408 WA	BSP1 1/2" F	157	192	83	388	168	465	79	335	433	77	BSP1 1/2" M
TCV 409 WA, TCV 514 WA, TCV 513 D	BSP2" F	180	221	95	370	180	435	90	374	471	65	BSP2" M
TCV 517 D, TCV 519 WA	BSP2" F	180	207	86	407	180	481	90	360	458	74	BSP2" M
TCV 620 D, TCM 616 WA, TCM 616 D, TCM 622 D	BSP2 1/2" F	220	260	125	440	210	455	110	440	603	15	BSP2 1/2" M

Accessories



Part Description	Dimension	Part No.
① Auto-coupling system type, steel galvanized, type KK50/BSP1 1/2" with:		8604000
- Cast iron auto-coupling with thread	BSP 2" M	
- Cast iron flanged pump coupling	BSP 1 1/2" F	
- Cast iron upper slide rail bracker	BSP 1/2"	
Auto-coupling system type, KK65/BSP2", with:		8604005
- Cast iron auto-coupling with thread	BSP 2" M	
- Cast iron flanged pump coupling	BSP 2" F	
- Cast iron upper slide rail bracker	BSP 1/2"	
Auto-coupling system type KK65/BSP 2 1/2", with:		8604015
- Cast iron auto-coupling with flange	DN 65	
- Cast iron flanged pump coupling	BSP 2 1/2" F	
- Cast iron upper slide rail bracker	BSP 1"	
○ Auto-coupling system complete or partial in stainless steel	all types	on request

Part Description	Dimension	Part No.
② Guide rails, pair, per m steel galvanized	BSP 1/2"	2190085
	BSP 1"	2190135
stainless steel	BSP 1/2"	2190250
	BSP 1"	2190252
③ Lifting chain, per m 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
④ Threaded flange	DN 65/ BSP 2 1/2" F	2215060
Flanged pipe	DN 65	on request
Galvanized double nipple	BSP 2" F	2109102
	BSP 2 1/2" F/ BSP 1 1/2" F	2102210
⑤ Cast iron swing check valve	DN 65	2212805
⑥ Cast iron swing check valve	BSP 1 1/2" F	2212902
	BSP 2" F	2212903
	BSP 2 1/2" F	2211513
⑦ Galvanized double nipple	BSP 1 1/2" M	2009020
	BSP 2" M	2009018
	BSP 2 1/2" M	2009025
⑧ Cast iron gate valve	DN 65	2216065
⑨ Cast iron gate valve	BSP 1 1/2" F	2216015
	BSP 2" F	2216020
	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	BSP 1 1/2" F	2113605
	BSP 2" F	2113606
	BSP 2 1/2" F	2113610
T-piece for twin-pump arrangement	BSP 1 1/2" F	2114302
	BSP 2" F	2114306
	BSP 2 1/2" F	2114308

Part Description	Dimension	Part No.
⑫ Galvanized pipe union	BSP 1 1/4" M/F	2114305
	BSP 2" M/F	2114311
	BSP 2 1/2" M/F	2114312
⑬ 90° galvanized elbow	BSP 1 1/2" M/F	2111505
	BSP 2" M/F	2111506
	BSP 2 1/2" M/F	2111705
⑭ Fixed coupling bronze	BSP 1" F	2005323
⑭ STORZ fixed coupling	C-BSP 2" F	2010204
	B-BSP 2 1/2" F	2010502
STORZ-hose coupling	C-52 mm Ø	2013003
	B-75 mm Ø	2013502
STA-tube coupling, bronze	BSP 1 1/2" F	2001513
⑮ Synthetic pressure hose with rubber lining and couplings, C-52 mm Ø	length 10 m	2611310
	length 15 m	2611315
	length 20 m	2611320
	length 30 m	2611330
B-75 mm Ø	length 10 m	2611210
	length 15 m	2611215
	length 20 m	2611220
	length 30 m	2611230
Reinforced hose, per m	1" Ø	2632025
	50 mm Ø	2632050
	75 mm Ø	2632075
PVC-tube, per m	1" Ø	2621000
	1 1/2" Ø	2621500
Hose bands	3/4" - 1"	2302330
	1 1/2"	2304854
	2"	2306009
	85/20	2308520

○ Control panel for single or twin pump stations for automatic operation on request

HOMA
PUMP TECHNOLOGY

HOMA Pumpenfabrik GmbH
P.O.Box 22 63, D-53814 Neunk.-Seelscheid
Tel. +49 (0) 22 47/702-0, Fax +49 (0) 22 47/702-44
e-mail: info@homa-pumpen.de
www.homapumps.com