

city[®]
pumps



TITAN P

"VORTEX" Fixed installation pumps

PERFORMANCE RANGE

- Flow rate up to **1200 l/min** (72 m³/h)
- Head up to **16 m**

APPLICATION LIMITS

- **10 m** maximum immersion depth with a sufficiently long power cable
- Maximum liquid temperature **+40 °C**
- Solids passage:
 - up to **Ø 50 mm** for TITAN 15-20-30/50P
 - up to **Ø 70 mm** for TITAN 15-20-30/70P
- Minimum immersion depth for continuous service:
 - **390 mm** for TITAN 15-20-30/50P
 - **440 mm** for TITAN 15-20-30/70P

CONSTRUCTION AND SAFETY STANDARDS

- Standard features: base pedestal, threaded delivery counter-flange, guide tube supports
- **10 m** long power cable
- Float switch for single-phase versions

EN 60034-1
IEC 60034-1
CEI 2-3



INSTALLATION AND USE

TITAN P series pumps, made from heavy gauge cast iron offering exceptional sturdiness, abrasion resistance and durability, come equipped with a **VORTEX** impeller and are therefore suitable for draining **waste water, water mixed with mud, liquids containing air or gas**, as well as sludge. They are suitable for use in fixed sewer, tunnel, well and underground car park installations.

OPTIONALS AVAILABLE ON REQUEST

- **CBS** control box for three-phase pumps
- Three-phase dual voltage pumps:
 - 230/400 V or
 - 400/690 V
- Single-phase pumps without float switch
- Other voltages or 60 Hz frequency

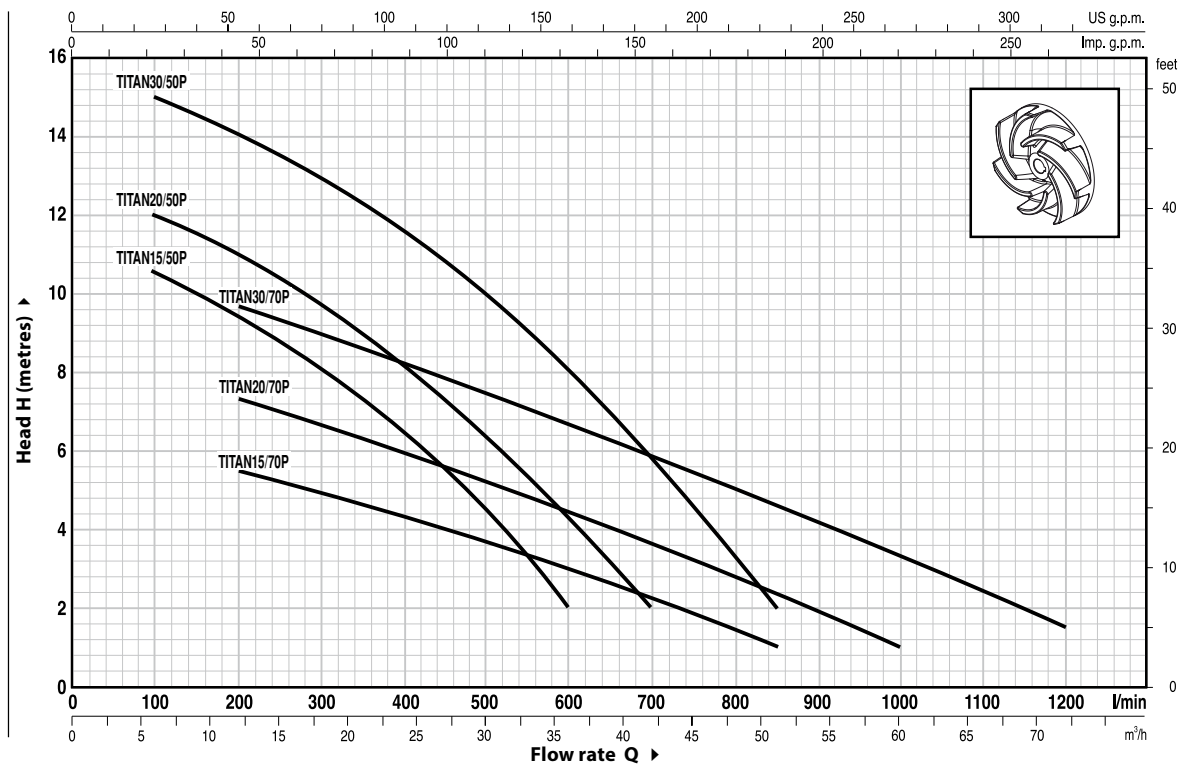
GUARANTEE

2 years subject to terms and conditions

➔ **For the following versions the built-in thermal overload protector must be connected to the control box in order for the guarantee to be considered valid:**

single-phase	three-phase
– TITAN 30/50PM - HP 3	– TITAN 15-20-30/50P - HP 1.5-2-3
– TITAN 30/70PM - HP 3	– TITAN 15-20-30/70P - HP 1.5-2-3

CHARACTERISTIC CURVES AND PERFORMANCE DATA | 50 Hz | n= 2900 1/min | HS= 0 m



MODEL		POWER		Q	Flow rate (l/min)																
Single-phase	Three-phase	kW	HP		0	6	12	18	21	24	27	30	36	42	48	51	54	60	66	72	
TITAN 15/50PM	TITAN 15/50P	1.1	1.5	H metres	11.5	10.5	9.5	8.2	7.2	6.5	5.6	4.5	2								
TITAN 20/50PM	TITAN 20/50P	1.5	2		13	12	11	9.5	9	8	7.2	6.5	4.5	2							
TITAN 30/50PM	TITAN 30/50P	2.2	3		16	15	14	13	12.3	11.5	10.8	10	8	5.9	3.3	2					
TITAN 15/70PM	TITAN 15/70P	1.1	1.5		6.5	–	5.5	5	4.7	4.4	4	3.7	3	2.2	1.5	1					
TITAN 20/70PM	TITAN 20/70P	1.5	2		8.5	–	7.4	6.7	6.3	6	5.6	5.2	4.5	3.6	2.8	2.4	2	1			
TITAN 30/70PM	TITAN 30/70P	2.2	3		11	–	9.7	9	8.6	8.2	7.8	7.5	6.7	5.8	5	4.6	4.2	3.3	2.5	1.5	

Q = Flow rate H = Total manometric head

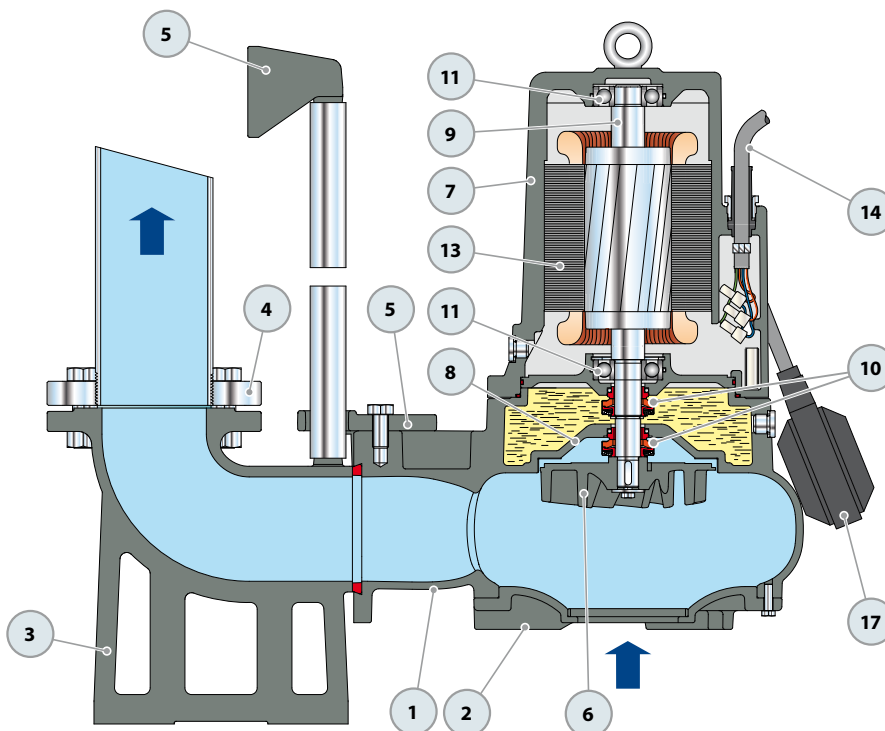
Tolerance of characteristic curves in compliance with EN ISO 9906 App. A.

POS. CONSTRUCTION CHARACTERISTICS

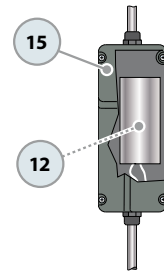
1	PUMP BODY	Cast iron, complete with flanged ports	
2	SUCTION PLATE	Cast iron	
3	BASE PEDESTAL	Cast iron	
4	CONTERFLANGE	Steel, complete with threaded ports in compliance with ISO 228/1	
5	GUIDE TUBE SUPPORTS	Cast iron	
6	IMPELLER	Cast iron VORTEX type	
7	MOTOR CASING	Cast iron	
8	MOTOR CASING PLATE	Cast iron	
9	MOTOR SHAFT	Stainless steel AISI 431	
10	TWO MECHANICAL SEALS SEPARATED BY AN OIL CHAMBER		
	<i>Seal</i>	<i>Shaft</i>	<i>Materials</i>
	<i>Model</i>	<i>Diameter</i>	<i>Stationary ring</i> <i>Rotational ring</i> <i>Elastomer</i>
	STA-20	Ø 20 mm	Ceramic Graphite NBR
	STA-19	Ø 19 mm	Silicon carbide Silicon carbide NBR
11	BEARINGS	6304 ZZ - C3 / 6304 ZZ - C3	

POS. CONSTRUCTION CHARACTERISTICS

12	CAPACITOR	
	<i>Pump</i>	<i>Capacitance</i>
	<i>Single-phase</i>	<i>(230 V or 240 V)</i>
	TITAN 15/50-70PM	31.5 µF 450 VL
	TITAN 20/50-70PM	50 µF 450 VL
	TITAN 30/50-70PM	60 µF 450 VL
13	ELECTRIC MOTOR	
	TITAN 15-20P: single-phase 230 V - 50 Hz with thermal overload protector built-in to the winding.	
	⇒ TITAN 30PM: single-phase 230 V - 50 Hz with motor protector built-in to the winding to be connected to the control box	
	⇒ TITAN P: three-phase 400 V - 50 Hz with motor protector built-in to the winding to be connected to the control box	
	- Insulation: F class	- Protection: IP X8
14	POWER CABLE	10 m long "H07 RN-F" cable
15	CONTROL BOX for TITAN 15-20PM (only for single-phase versions)	Complete with capacitor and manual reset motor protector
16	CONTROL BOX for TITAN 30PM (only for single-phase versions)	CBS 300 MONO series
17	FLOAT SWITCH	

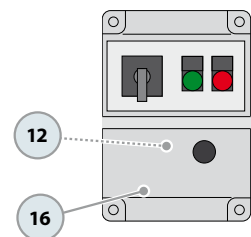


Standard features



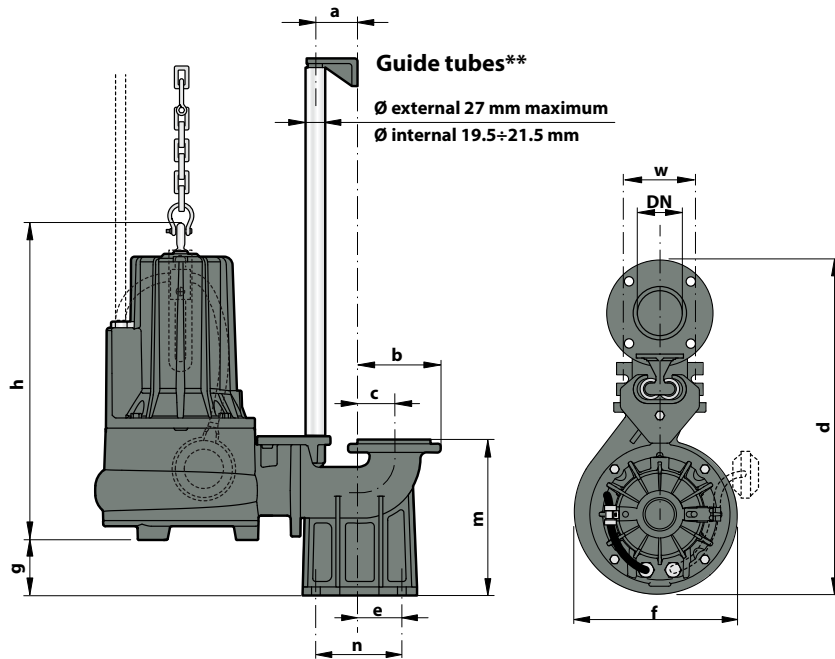
Control box for TITAN 15-20PM (HP 1.5-2.0)
(only for single-phase versions)

Standard features

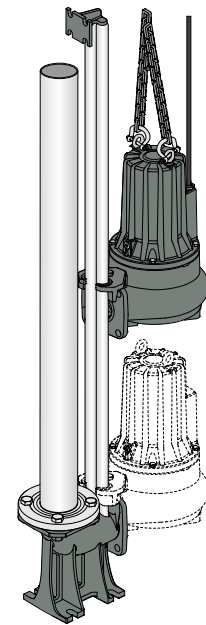


Control box for TITAN 30PM (HP 3.0)
(only for single-phase versions)

DIMENSIONS AND WEIGHT



Typical installation



MODEL		PORT DN	solids passage	DIMENSIONS mm										kg*		
Single-phase	Three-phase			a	b	c	d	e	f	g	h	m	n	w	1~	3~
TITAN 15/50PM	TITAN 15/50P	2½"	Ø 50 mm	60	116	51	490	62	248	52	442	198	120	72	47.3	46.0
TITAN 20/50PM	TITAN 20/50P										457 / 442				48.4	47.1
TITAN 30/50PM	TITAN 30/50P										458				52.3	49.2
TITAN 15/70PM	TITAN 15/70P	3"	Ø 70 mm		150	70	570	85	268	92	458	255	130	112	54.0	52.7
TITAN 20/70PM	TITAN 20/70P										472 / 458				55.1	53.8
TITAN 30/70PM	TITAN 30/70P										472 / 458				59.1	55.9

(*weight includes counterflanges)

(** Guide tubes are for demonstration purposes only. They are not supplied with the TITAN P pumps)

ABSORPTION

MODEL	VOLTAGE (single-phase)	
Single-phase	230 V	240 V
TITAN 15/50PM	8.8 A	8.8 A
TITAN 20/50PM	10.2 A	10.2 A
TITAN 30/50PM	15.6 A	15.6 A
TITAN 15/70PM	8.7 A	8.7 A
TITAN 20/70PM	10.0 A	10.0 A
TITAN 30/70PM	15.0 A	15.0 A

MODEL	VOLTAGE (three-phase)					
Three-phase	230 V	400 V	690 V	240 V	415 V	720 V
TITAN 15/50P	5.9 A	3.4 A	2.0 A	5.9 A	3.4 A	2.0 A
TITAN 20/50P	7.3 A	4.2 A	2.4 A	7.3 A	4.2 A	2.4 A
TITAN 30/50P	9.9 A	5.7 A	3.3 A	9.9 A	5.7 A	3.3 A
TITAN 15/70P	5.7 A	3.3 A	1.9 A	5.7 A	3.3 A	1.9 A
TITAN 20/70P	7.3 A	4.2 A	2.4 A	7.3 A	4.2 A	2.4 A
TITAN 30/70P	9.5 A	5.5 A	3.2 A	9.5 A	5.5 A	3.2 A

PALLETIZATION

MODEL		GROUPAGE / CONTAINER			
Single-phase	Three-phase	n° pumps	H (mm)	kg	
				1~	3~
TITAN 15/50PM	TITAN 15/50P	24	1751	1153	1122
TITAN 20/50PM	TITAN 20/50P	24	1751	1179	1148
TITAN 30/50PM	TITAN 30/50P	24	1751	1273	1197
TITAN 15/70PM	TITAN 15/70P	12	1304	665	650
TITAN 20/70PM	TITAN 20/70P	12	1304	679	663
TITAN 30/70PM	TITAN 30/70P	12	1304	727	688

