

# KP

## Stainless steel drainage pumps

The KP pump is designed for liquid transfer and drainage of clean or slightly dirty waste water with the pump completely or partly submerged in the liquid.

The pump can be used for automatic as well as manual operation and can be installed permanently or used as a portable pump.

**50 Hz**



TM01 1491 4697

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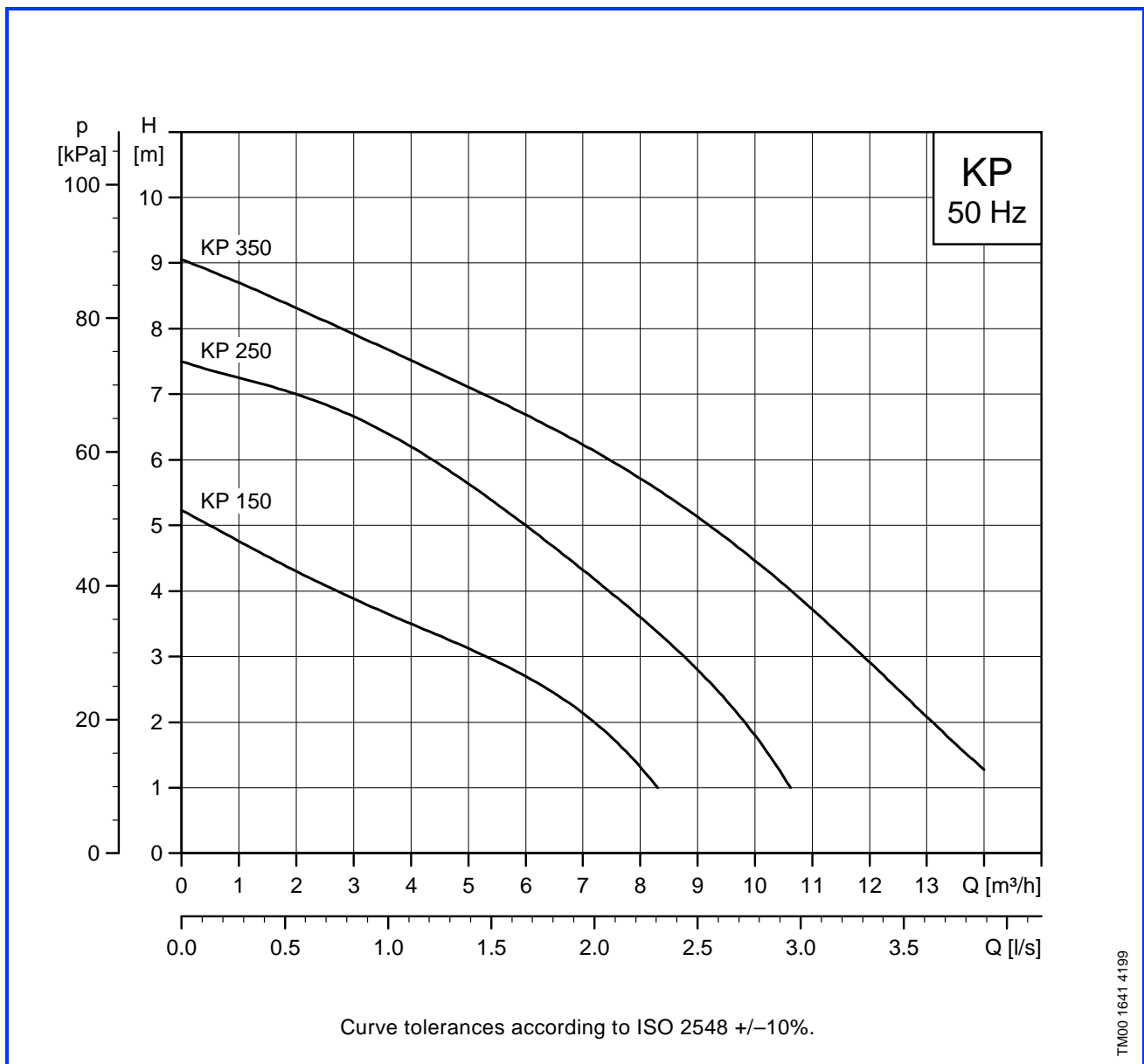
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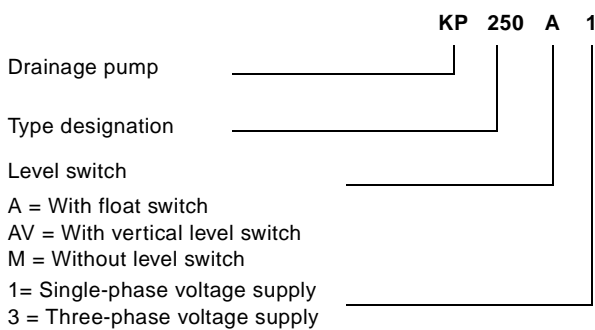
## Performance range



## Applications

- Drainage of cellars or buildings.
- Pumping of domestic waste water without toilet waste.
- Groundwater lowering.
- Drainage in places exposed to flooding.
- Emptying applications, eg. in pools, tanks and vessels.
- Dewatering of construction sites and excavations without gravel and stones.
- Pumping applications within agriculture, dairy industry, horticulture and process industry.

## Type key



## Pumped liquids

### Pumps without level switch or with float switch:

The pump is suitable for the pumping of:

- Clean, non-aggressive water
- Slightly dirty (grey) waste water

If the pump has been used for other liquids than clean water, it should be flushed with clean water immediately after use.

The open impeller construction ensures a free passage of solids up to a diameter of  $\varnothing 10$  mm.

### Pumps with vertical level switch:

The pump must only be used for pumping of clean ground water and drain water.

## Operating range

Installation depth: max. 10 metres below liquid level.

Min. liquid temperature: 0°C.

Max. liquid temperature at continuous operation:

Pump type	Single-phase version	Three-phase version
KP 150	50°C	
KP 250	50°C	50°C
KP 350	50°C	50°C

During continuous pumping the suction strainer must always be completely covered by the liquid.

Max. liquid temperature: 70°C for periods not exceeding 2 minutes at intervals of at least 30 minutes.

## Pump

Single-stage, submersible, stainless steel, drainage pump in a robust design with upwards-pointing discharge port placed on top of the pump.

The pump can be supplied with or without level switch and with mains cable 3 to 10 metres. Please contact Grundfos.

The water enters the pump through the oblong holes of the suction strainer preventing the passage of large solids.

The sturdy impeller has single curved vanes with bevelled front edges that prevent fibres from jamming the impeller. The guide vanes in the pump housing not only guide the liquid but also lift sand grains into the liquid flow and thus prevent blocking by sand.

The outer casing is made in one piece. The mains cable and the cable of the level switch are combined in one vulcanized and watertight plug, which is secured to the socket of the hermetically sealed stator housing.

## Motor

The motor is a single- or three-phase, asynchronous canned motor with liquid-filled rotor chamber and water lubricated bearings. The motor is cooled by the pumped liquid around the motor.

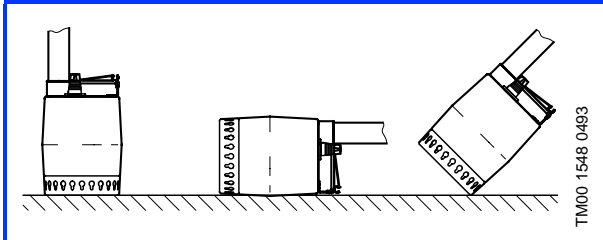
Enclosure class: IP 68  
Insulation class: F

All single-phase and three-phase motors incorporate automatic thermal overload protection which cuts out the motor in case of overload.

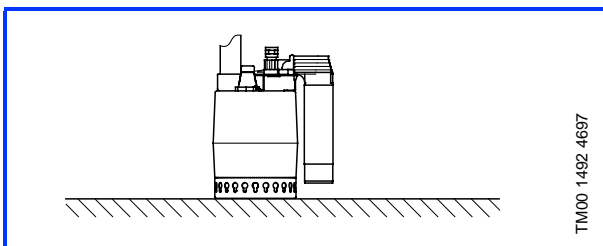
**Note:** When it has cooled to normal temperature, the motor will restart automatically.

## Installation

Pumps without level switch or with float switch can be used in vertical position with the discharge port uppermost or in horizontal or tilted position with the discharge port as the highest point of the pump.



Pumps with vertical level switch must be used in vertical position.



The KP pump is well suited for permanent installation.

## Level switches

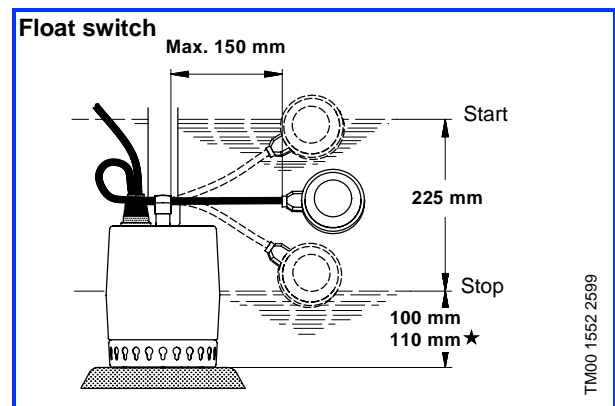
A level switch, which gives impulses to start/stop between two levels of liquid, is connected to pumps intended for automatic operation. This type of installation requires a non-return valve in the discharge pipe or in the pump. The pumps are available with two different types of level switches.

- Min. liquid level: – manual operation: 14 mm.  
– automatic operation: See below.

### Pumps with float switch:

A clamp on the handle of the pump holds the cable of the level switch. The difference in level between start and stop can be adjusted by changing the free cable length between the handle of the pump and the level switch.

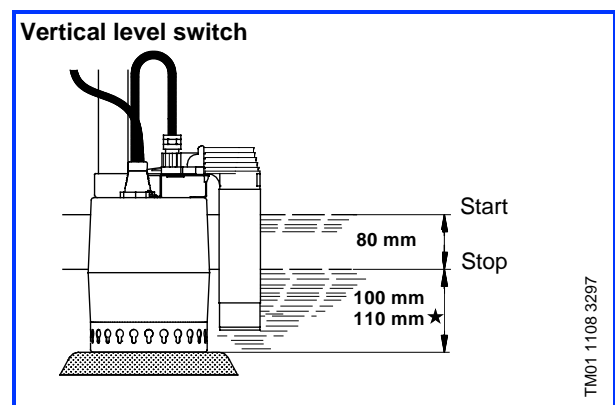
Dimensions for KP 350 are marked with "★".



### Pumps with vertical level switch:

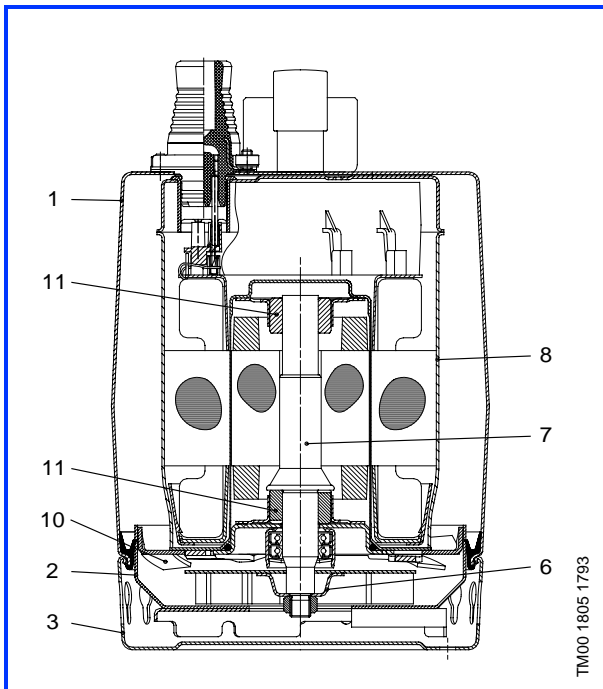
For pumps with vertical level switch, the difference in level between start and stop is not adjustable.

Dimensions for KP 350 are marked with "★".



## Materials

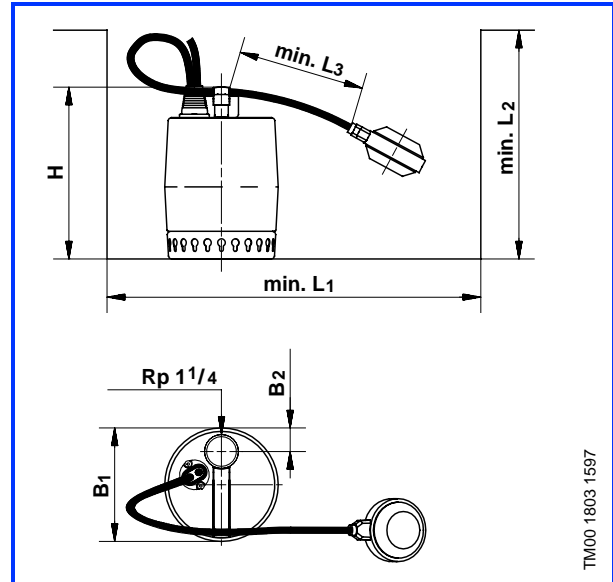
Pos. no.	Components	Materials	DIN W.-no.	AISI
1	Outer casing	Stainless steel	1.4301	304
2	Pump housing	Stainless steel	1.4301	304
3	Suction strainer	Stainless steel	1.4301	304
6	Impeller	Stainless steel	1.4301	304
7	Shaft	Stainless steel	1.4057	431
8	Stator housing	Stainless steel	1.4301	304
10	Guide vanes	Stainless steel	1.4301	304
11	Bearings	Carbon		
	O-rings, seal rings	NBR		
	Cables	H 07 RN-F		



## Dimensions and weights

Pump type	H [mm]	B1 [mm]	B2 [mm]	L1 [mm]	L2 [mm]	L3 [mm]	Weight up to [kg]
KP 150	225	149	31	350★	400	70	6.3
KP 250	225	149	31	350★	400	70	7.2
KP 350	235	149	31	350★	410	70	8.0

★ With vertical level switch: 250 mm.



## Electrical data

Pump type	Voltage	P <sub>1</sub> [W]	I <sub>n</sub> [A]
KP 150	1 x 220-230 V	300	1.3
KP 150	1 x 230-240 V	300	1.3
KP 250	1 x 220-230 V	480	2.3
KP 250	1 x 230-240 V	480	2.2
KP 250	3 x 380-415 V	480	0.8
KP 350	1 x 220-240 V	700	3.2
KP 350	3 x 380-400 V	700	1.3

## Accessories

### Hose couplings

Screwed, polyamide couplings in three dimensions:

Hose couplings	Product number
G 1¼ x ø25	ID 35 88
G 1¼ x ø32	ID 35 89
G 1¼ x ø40	ID 35 90

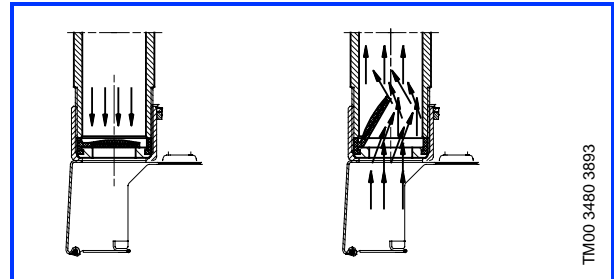
### Non-return valve (PA-I approved)

Rp 1¼, internally threaded at both ends.

Product number. GW 3908.

### KP non-return valve (PA-I approved)

The KP non-return valve consists of a flap made of reinforced rubber and a stainless steel retainer. The valve is located in the pump discharge port, secured by the discharge pipe which seals against the top of the valve.



Product no. 00 01 52 11.



V7 05 91 65 11 99	<b>GB</b>
Repl. V7 05 91 65 04 98	

Subject to alterations.

