

# GRUNDFOS AP12

The Grundfos AP12 series share many of the features of the KP series.

The AP12 series comprises four models, featuring motors with 0.4 kW, 0.6 kW, 0.8 kW, and 1.1 kW respectively.



## Permanent installation or portable use

The AP12 pumps are designed for the slightly more demanding domestic drainage jobs. The pump fits into narrow drainage pits, and the use of stainless steel makes the pumps virtually maintenance free. The strainer, which will allow solids up to 12 mm to pass, can be dismantled for cleaning without the use of special tools.

The AP12 pumps are suitable for the following applications:

- Groundwater lowering
- Pumping from drainage pits
- Pumping from surface water pits with inflow from roof gutters, shafts, tunnels etc.
- Emptying of ponds, tanks etc.

## Stainless steel

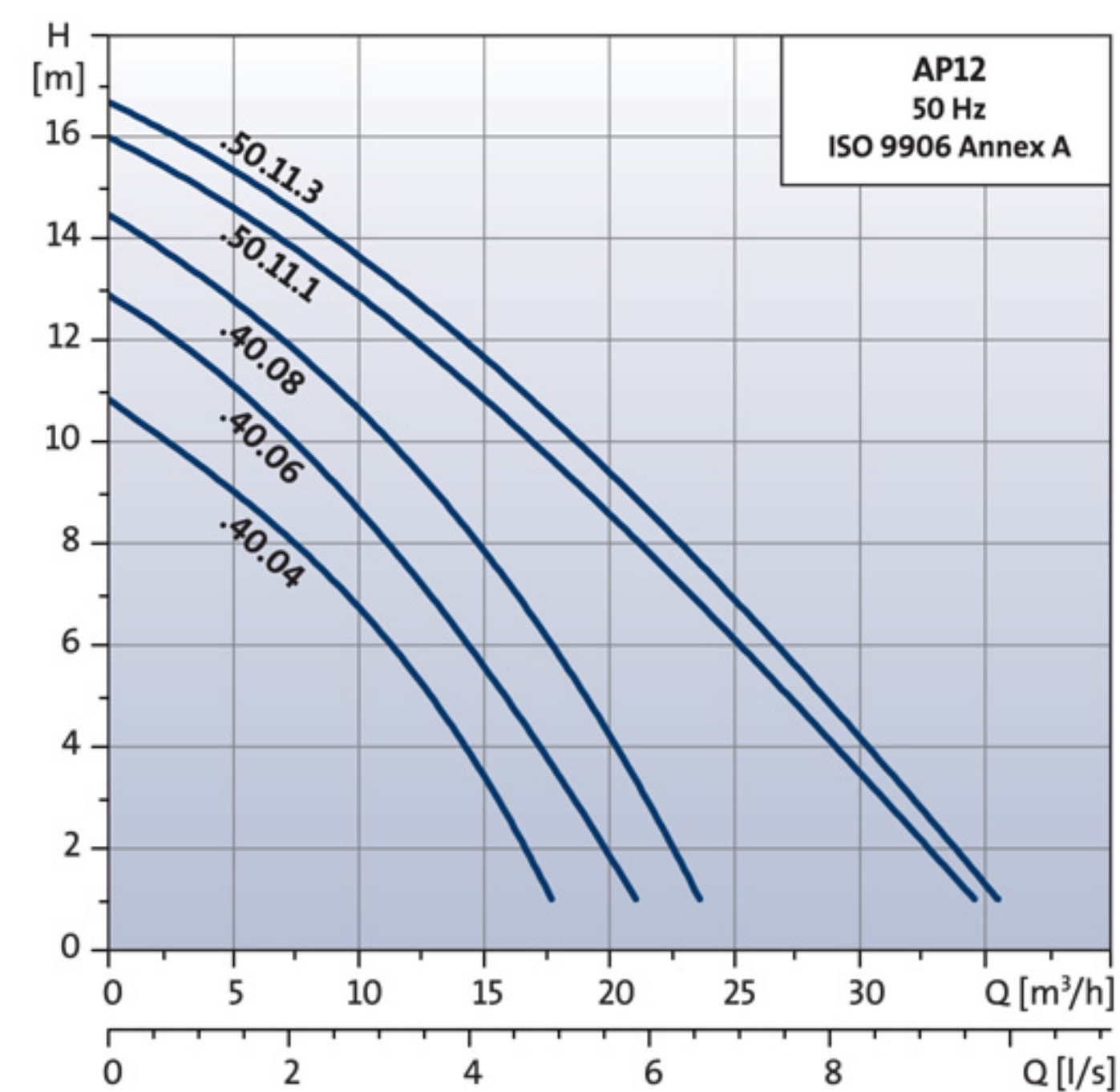
The AP12 pumps are made with a stainless steel pump sleeve and housing, made in one piece. The suction strainer is clipped on to the housing and can easily be removed for cleaning. The strainer prevents the passage of large solids while ensuring a slow flow into the pump. As a result, most impurities will be deposited outside the pump.

The pump housing is fitted with an internal riser pipe, which ensures high efficiency. The riser pipe has a number of holes, which enable efficient cooling of the motor.

## Cable plug

The mains cable entry of the AP12 pump is of the socket and plug connection type. This makes quick and easy dismantling possible and ensures a hermetically sealed cable connection.

## Performance overview



## Pumped liquids

AP12 pumps are suitable for pumping of:

- Clean, non-aggressive water
- Grey wastewater without solid particles or fibres
- Drainage water with solids up to 12 mm size

## Liquid temperature

Min. liquid temperature: 0°C

Max. liquid temp. at continuous operation: 50°C.

For periods not exceeding 2 minutes at intervals of at least 30 minutes: 70°C.

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

## Non-return valve

In order to prevent backflow, a non-return valve is available as an accessory.

## Impeller

The AP12 impeller is made of stainless steel. It is of a semi-open type with L-shaped impeller blades. The blades curve backwards in order to reduce any harmful effects from solid particles and to reduce power consumption.

## Approvals

PA-I No. 4104 VDE.

## Motor

The AP12 motor is an asynchronous, dry motor with deep-groove ball bearings greased for life. The pumped liquid cools the motor. Welding hermetically seals the motor unit and no filling compounds have been used, i.e. the motor is air-filled.

At the top of the motor, single-phase pumps have a capacitor housing with capacitor and sockets for the motor cable and the float switch. Oil is used as a barrier fluid between the pumped liquid and the motor unit.

Enclosure class: IP68.

Insulation class: F (155°C).

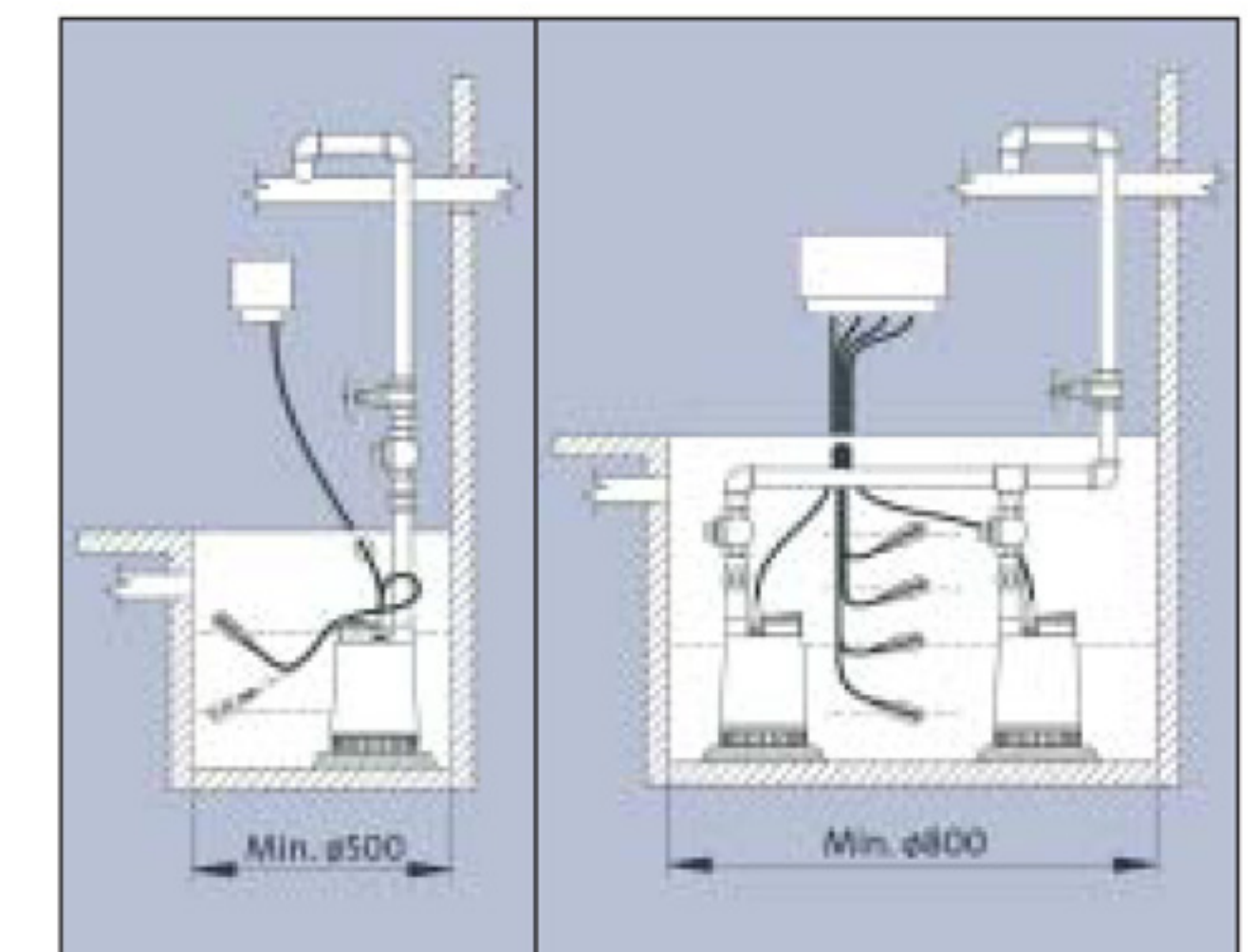
## Installation

The AP12 pumps are available for manual or automatic operation. For manual on/off operation, the pump is supplied without a float switch.

For automatic operation, the pump can be supplied with a built-in float switch (single-phase models). Three-phase models can be supplied with a separate float switch and control box. For two-pump installation the LCD control panels are available as accessories.

Pumps fitted with float switches can also be used for manual on/off operation if the float switch is fixed in an upwards-pointing position.

The pumps can be used in a vertical, horizontal or tilted position, as long as the discharge port remains the uppermost part of the pump.



## Technical data, pump type and product numbers AP12 single-phase

Pump type	Voltage	Plug type	P <sub>1</sub> [kW]	P <sub>2</sub> [kW]	I <sub>N</sub> [A]	Weight [kg]	3 m cable Product no.	10 m cable Product no.
AP12.40.04	1x230	Schuko	0.8	0.4	3.0	11.0		96011016
AP12.40.04.A	1x230	Schuko	0.8	0.4	3.0	11.0	96011017	96011018
AP12.40.04	1x230	Denmark	0.8	0.4	3.0	11.0		96011019
AP12.40.04.A	1x230	Denmark	0.8	0.4	3.0	11.0	96011020	96023924
AP12.40.04	1x230	Switzerland	0.8	0.4	3.0	11.0		96011022
AP12.40.04.A	1x230	Switzerland	0.8	0.4	3.0	11.0	96011020	96023917
AP12.40.04	1x230	Italy	0.8	0.4	3.0	11.0		96011034
AP12.40.04.A	1x230	Italy	0.8	0.4	3.0	11.0	96011035	
AP12.40.04	1x230	Australia	0.8	0.4	3.0	11.0		96011032
AP12.40.04.A	1x230	Australia	0.8	0.4	3.0	11.0	96011033	96023914
AP12.40.04	1x230		0.8	0.4	3.0	11.0		96011014
AP12.40.04.A	1x230		0.8	0.4	3.0	11.0	96011015	
AP12.40.06	1x230	Schuko	1.0	0.6	4.4	11.0		96001720
AP12.40.06.A	1x230	Schuko	1.0	0.6	4.4	11.0	96001735	96001779
AP12.40.06	1x230	Denmark	1.0	0.6	4.4	11.0		96001717
AP12.40.06.A	1x230	Denmark	1.0	0.6	4.4	11.0		96000125
AP12.40.06	1x230	Switzerland	1.0	0.6	4.4	11.0		96001723
AP12.40.06.A	1x230	Switzerland	1.0	0.6	4.4	11.0	96001738	
AP12.40.06	1x230	Italy	1.0	0.6	4.4	11.0		96001726
AP12.40.06.A	1x230	Italy	1.0	0.6	4.4	11.0	96001741	
AP12.40.06	1x230	Australia	1.0	0.6	4.4	11.0		96001729
AP12.40.06.A	1x230	Australia	1.0	0.6	4.4	11.0	96001744	
AP12.40.06	1x230		1.0	0.6	4.4	11.0		96001732
AP12.40.06.A	1x230		1.0	0.6	4.4	11.0	96001747	
AP12.40.08	1x230	Schuko	1.3	0.8	5.9	13.2		96001869
AP12.40.08.A	1x230	Schuko	1.3	0.8	5.9	13.2	96001798	96010980
AP12.40.08	1x230	Denmark	1.3	0.8	5.9	13.2		96000168
AP12.40.08.A	1x230	Denmark	1.3	0.8	5.9	13.2		96001795
AP12.40.08	1x230	Switzerland	1.3	0.8	5.9	13.2		96001870
AP12.40.08.A	1x230	Switzerland	1.3	0.8	5.9	13.2	96001801	
AP12.40.08	1x230	Italy	1.3	0.8	5.9	13.2		96001871
AP12.40.08.A	1x230	Italy	1.3	0.8	5.9	13.2	96001804	
AP12.40.08	1x230	Australia	1.3	0.8	5.9	13.2		96001872
AP12.40.08.A	1x230	Australia	1.3	0.8	5.9	13.2	96001807	
AP12.40.08	1x230		1.3	0.8	5.9	13.2		96001873
AP12.40.08.A	1x230		1.3	0.8	5.9	13.2	96001867	
AP12.50.11	1x230	Schuko	1.9	1.1	8.5	15.7		96001958
AP12.50.11.A	1x230	Schuko	1.9	1.1	8.5	15.7	96001965	96010981
AP12.50.11	1x230	Denmark	1.9	1.1	8.5	15.7		96001938
AP12.50.11.A	1x230	Denmark	1.9	1.1	8.5	15.7		96001963
AP12.50.11	1x230	Switzerland	1.9	1.1	8.5	15.7		96001959
AP12.50.11.A	1x230	Switzerland	1.9	1.1	8.5	15.7	96001967	
AP12.50.11	1x230	Italy	1.9	1.1	8.5	15.7		96001960
AP12.50.11.A	1x230	Italy	1.9	1.1	8.5	15.7	96001969	
AP12.50.11	1x230	Australia	1.9	1.1	8.5	15.7		96001961
AP12.50.11.A	1x230	Australia	1.9	1.1	8.5	15.7	96001971	
AP12.50.11	1x230		1.9	1.1	8.5	15.7		96001962
AP12.50.11.A	1x230		1.9	1.1	8.5	15.7	96001973	

### Cable plug

The mains cable entry of the AP12 pump is of the socket and plug connection type. This makes quick and easy dismantling possible and ensures a hermetically sealed cable connection.

### Type key

Example	AP	12	.40	.08	.A	1
Type range						
Maximum particle size [mm]						
Nominal diameter of discharge port [mm]						
Motor output P <sub>2</sub> /100 [W]						
Level switch:						
A = automatic operation (with level switch)						
= manual operation (without level switch)						
Voltage supply:						
1 = single-phase						
3 = three-phase						

## Electrical data, pump type and product numbers AP12 three-phase

Pump type	Voltage	P <sub>1</sub> [kW]	P <sub>2</sub> [kW]	I <sub>N</sub> [A]	Weight [kg]	10 m cable without plug Product no.	10 m cable with CEE plug Product no.
AP12.40.04	3x400	0.8	0.4	3.0	11.0	96011024	96023925
AP12.40.04.A	3x400	0.8	0.4	3.0	11.0	96011025	96023871
AP12.40.04	3x230	0.8	0.4	2.2	9.7	96011030	
AP12.40.04.A	3x230	0.8	0.4	2.2	12.0	96011031	
AP12.40.04	3x200	0.8	0.4	1.2	9.7	96011021	
AP12.40.04.A	3x200	0.8	0.4	1.2	12.0	96011039	
AP12.40.06	3x400	1.0	0.6	4.4	11.0	96001652	
AP12.40.06.A	3x400	1.0	0.6	4.4	11.0	96010923	96023872
AP12.40.06	3x230	1.0	0.6	2.9	10.7	96010628	
AP12.40.06.A	3x230	1.0	0.6	2.9	13.0	96010957	
AP12.40.06	3x200	1.0	0.6	1.6	10.7	96010881	
AP12.40.06.A	3x200	1.0	0.6	1.6	10.7	96010922	
AP12.40.08	3x400	1.3	0.8	5.9	12.6	96001791	
AP12.40.08.A	3x400	1.3	0.8	5.9	12.6	96010925	96023873
AP12.40.08	3x230	1.2	0.8	3.7	12.0	96010630	
AP12.40.08.A	3x230	1.2	0.8	3.7	14.3	96010958	
AP12.40.08	3x200	1.2	0.8	2.1	12.0	96010832	
AP12.40.08.A	3x200	1.2	0.8	2.1	14.3	96010924	
AP12.50.11	3x400	1.9	1.1	8.5	15.1	96001975	
AP12.50.11.A	3x400	1.9	1.1	8.5	15.1	96010927	96023874
AP12.50.11	3x230	1.9	1.1	6.4	15.6	96010634	
AP12.50.11.A	3x230	1.9	1.1	6.4	17.9	96010959	
AP12.50.11	3x200	1.9	1.1	3.2	15.6	96010838	
AP12.50.11.A	3x200	1.9	1.1	3.2	17.9	96010926	

### Dimensions

Pump type	Dimensions [mm]		
	A	B	S
AP12.40.04	321	216	Rp 1 1/2"
AP12.40.06	321	216	Rp 1 1/2"
AP12.40.08	346	216	Rp 1 1/2"
AP12.50.11	357	241	Rp 2"

### Materials

Description	Materials	DIN W.-No.	AISI
Pump housing	Stainless steel	1.4301	304
Riser pipe	Stainless steel	1.4301	304
Impeller	Stainless steel	1.4301	304
Pump sleeve	Stainless steel	1.4401	316
Shaft	Stainless steel	1.4305	
Bearings	Heavy-duty prelubricated ball bearings		
O-ring	NBR rubber		
Screws	Stainless steel	1.4301	304
Oil	Shell Ondina 15, non-toxic		
Mechanical shaft seal	silicon carbide/ silicon carbide NBR rubber Stainless steel	1.4301	304

### Dimensional sketch

