



### Application

- Can be used to transfer clean water or other liquids similar to water in physical and chemical properties
- Heating systems with constant or variable flows
- Heating systems with variable flow-pipe temperature
- Heating systems where night setback is desired
- Heating systems where the differential pressure of the pump is too high during periods of reduced flow demand
- Heating systems where requires a fully automatic adjustment of the performance to flow demands
- Pressure boosting of water heaters
- Circulation and pressure boosting of domestic water

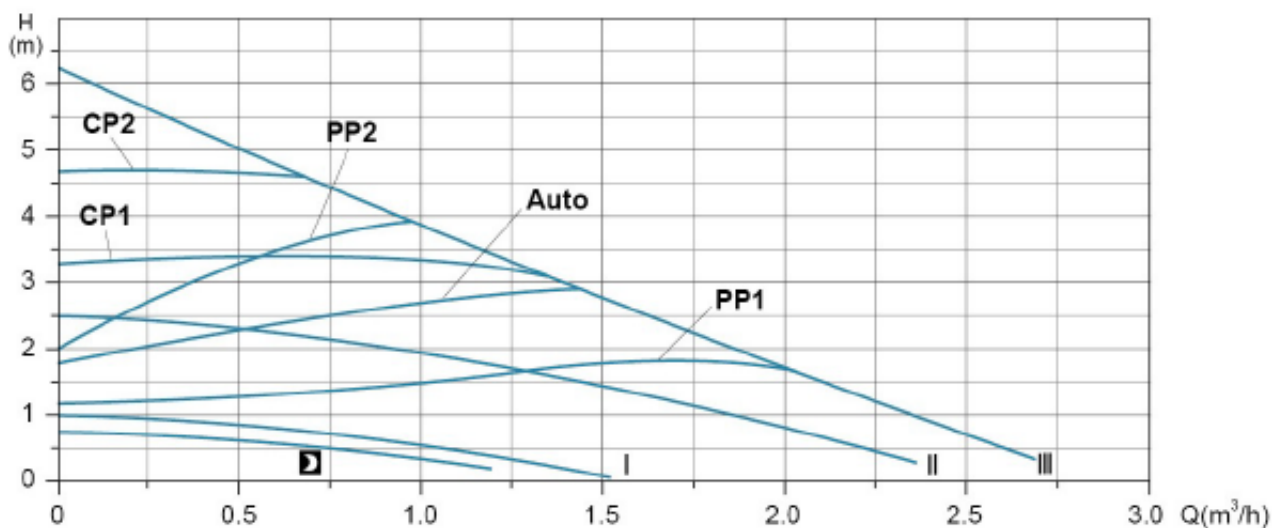
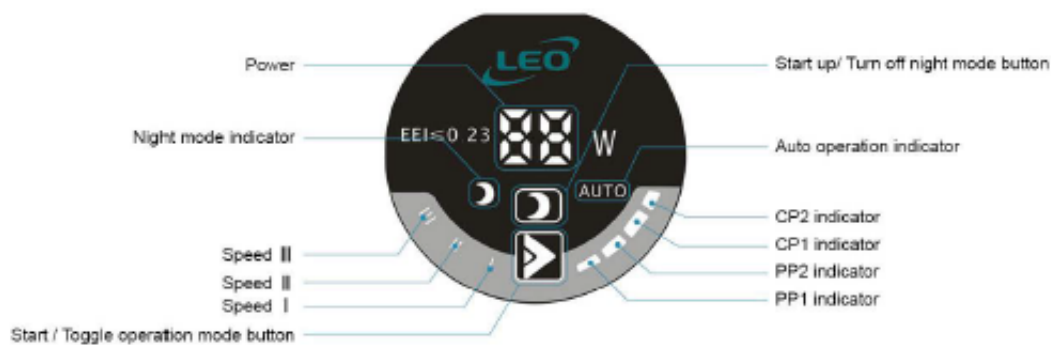
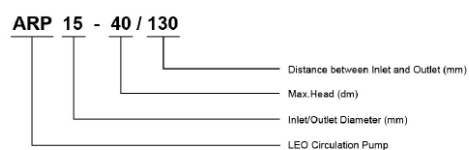
### Pump

- Compact design with perfect integrated control unit
- Anti-rust cast iron pump body
- Noryl impeller with heat resistant up to 150°C
- 99% alumina ceramic shaft
- Liquid temperature: 2°C to 110°C

### Motor

- Insulation class: H
- Protection class: IP42
- 99% alumina ceramic bearing
- Copper winding
- Power /frequency(V/Hz): 220-240/50
- EEI:  $\leq 0.23$ , which complies with the Eup Directive

### Identification Codes



## THE DIFFERENT WAYS IN WHICH THE ARP CIRCULATOR WORKS

### **Automatic** mode

Optimizes performance by automatically finding the optimal set point for the heating system. This ensures that the performance of the circulator corresponds to the actual needs. Automatic mode can reduce the amount of electricity bills by 10% compared to other conventional variable-speed circulators.

In this mode, the pump is set to a proportional pressure regulation.

### **Proportional** mode

It adapts the speed of the circulator to the demand for heat in the home and corresponds to the installation of thermostatic valve radiators.

#### **Proportional mode PP1**

The operating point of the ARP circulator moves up or down on the lowest proportional pressure curve, depending on the heat demand in the home. Pressure is reduced to reduced demand for heat and increased as demand increases.

#### **Proportional mode PP2**

The operating point of the ARP circulator moves up or down on the highest proportional pressure curve, depending on the heat demand in the home. Pressure is reduced to reduced demand for heat and increased as demand increases.

### **Constant Pressure Mode**

The mode provides the same pressure while changing the flow. This mode of regulation is mainly used in floor heating systems.

#### **CP1 constant pressure mode**

The operating point of the ARP circulator will move up or down the highest constant pressure curve, depending on the heat demand in the home. The pressure is kept constant, regardless of the demand for heat.

#### **CP2 constant pressure mode**

The operating point of the ARP circulator will move up or down the lowest constant pressure curve, depending on the heat demand in the home. The pressure is kept constant, regardless of the demand for heat.

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### **Constant Speed Mode**

The constant speed mode offers three fixed speed options in permanent operation. Performance cannot change with demand and this mode is suitable for installations without thermostatic valve radiators or hot water tank installations.

#### **Speed III mode**

At speed III, the ARP circulator is set to operate at its maximum speed in all operating conditions.

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The quick purge of the circulator can be achieved by adjusting speed III for a short period of time.

### Speed II mode

At speed II, the ARP circulator is set to operate on the intermediate curve under all operating conditions.

### Speed I mode

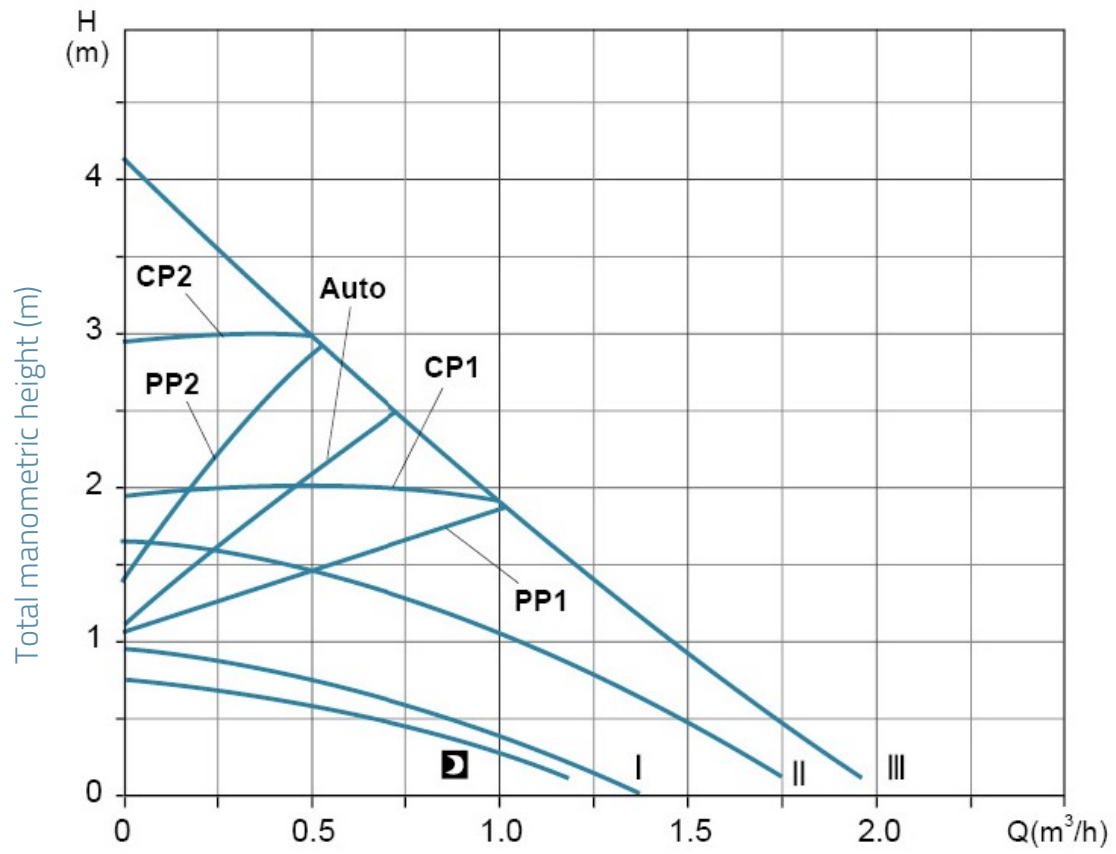
At speed I, the ARP circulator is set to operate on the lowest curve under all operating conditions.

### Night mode

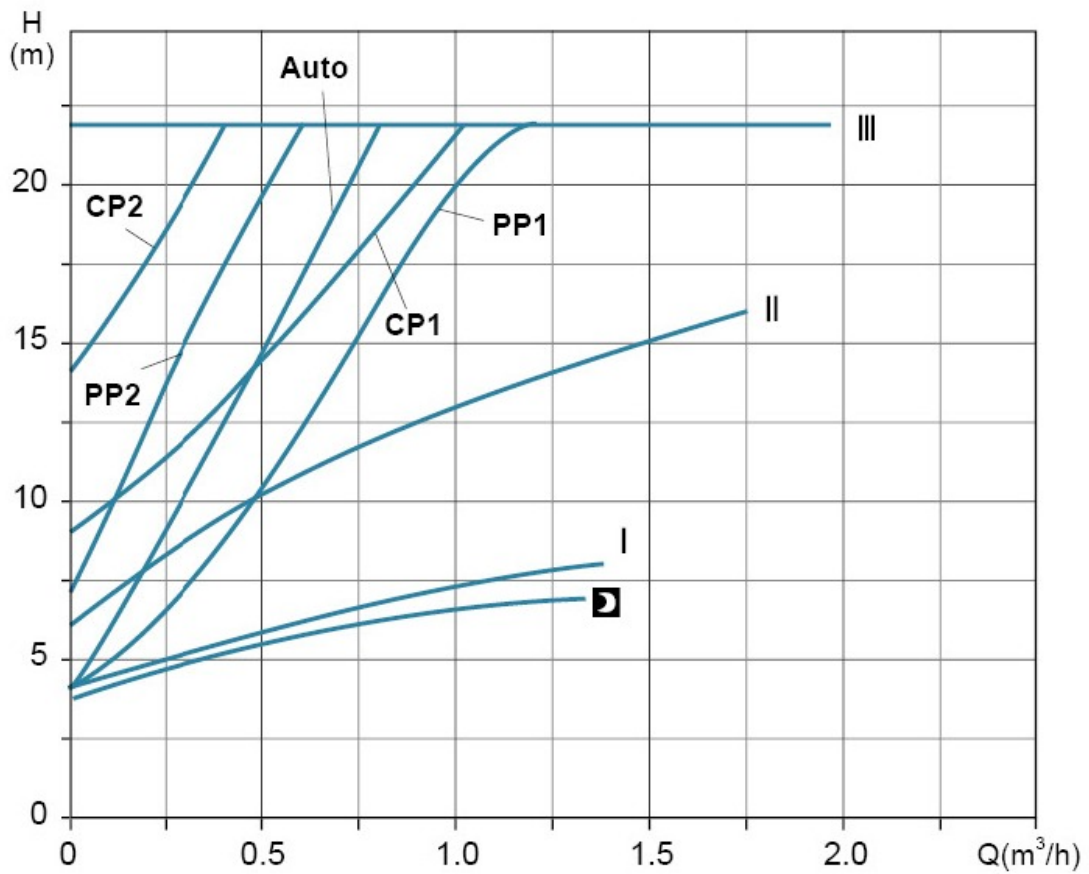
The ARP circulator switches to automatic night-time lowering mode, i.e. minimum performance and energy consumption, provided certain conditions are met.

Model	Voltage /Frequency (V/Hz)	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Power (W)	Inlet/Outlet	Pipe Size (inch)	EEI	G.W. (kg)	Packing Size (mm)
ARP15-40/130	220-240/50	2	4.1	22	Φ15	G1×G1	≤0.23	2.26	154×143×153
ARP15-50/130	220-240/50	2.3	5.2	32	Φ15	G1×G1	≤0.23	2.26	154×143×153
ARP15-60/130	220-240/50	2.6	6.2	45	Φ15	G1×G1	≤0.23	2.26	154×143×153
ARP20-40/130	220-240/50	2	4	22	Φ20	G1.25×G1.25	≤0.23	2.33	154×143×153
ARP20-50/130	220-240/50	2.3	5.1	32	Φ20	G1.25×G1.25	≤0.23	2.33	154×143×153
ARP20-60/130	220-240/50	2.6	6.1	45	Φ20	G1.25×G1.25	≤0.23	2.33	154×143×153
ARP25-40/130	220-240/50	2.1	4	22	Φ25	G1.5×G1.5	≤0.23	2.39	154×143×153
ARP25-40/180	220-240/50	2	4	22	Φ25	G1.5×G1.5	≤0.23	2.56	198×143×160
ARP25-50/130	220-240/50	2.3	5	32	Φ25	G1.5×G1.5	≤0.23	2.39	154×143×153
ARP25-50/180	220-240/50	2.3	5	32	Φ25	G1.5×G1.5	≤0.23	2.56	198×143×160
ARP25-60/130	220-240/50	2.4	6.1	45	Φ25	G1.5×G1.5	≤0.23	2.39	154×143×153
ARP25-60/180	220-240/50	2.7	6	45	Φ25	G1.5×G1.5	≤0.23	2.56	198×143×160
ARP32-40/180	220-240/50	2.2	4	22	Φ32	G2×G2	≤0.23	2.75	198×143×160
ARP32-50/180	220-240/50	2.5	5.1	32	Φ32	G2×G2	≤0.23	2.75	198×143×160
ARP32-60/180	220-240/50	2.8	6.1	45	Φ32	G2×G2	≤0.23	2.75	198×143×160

# Hydraulic performance

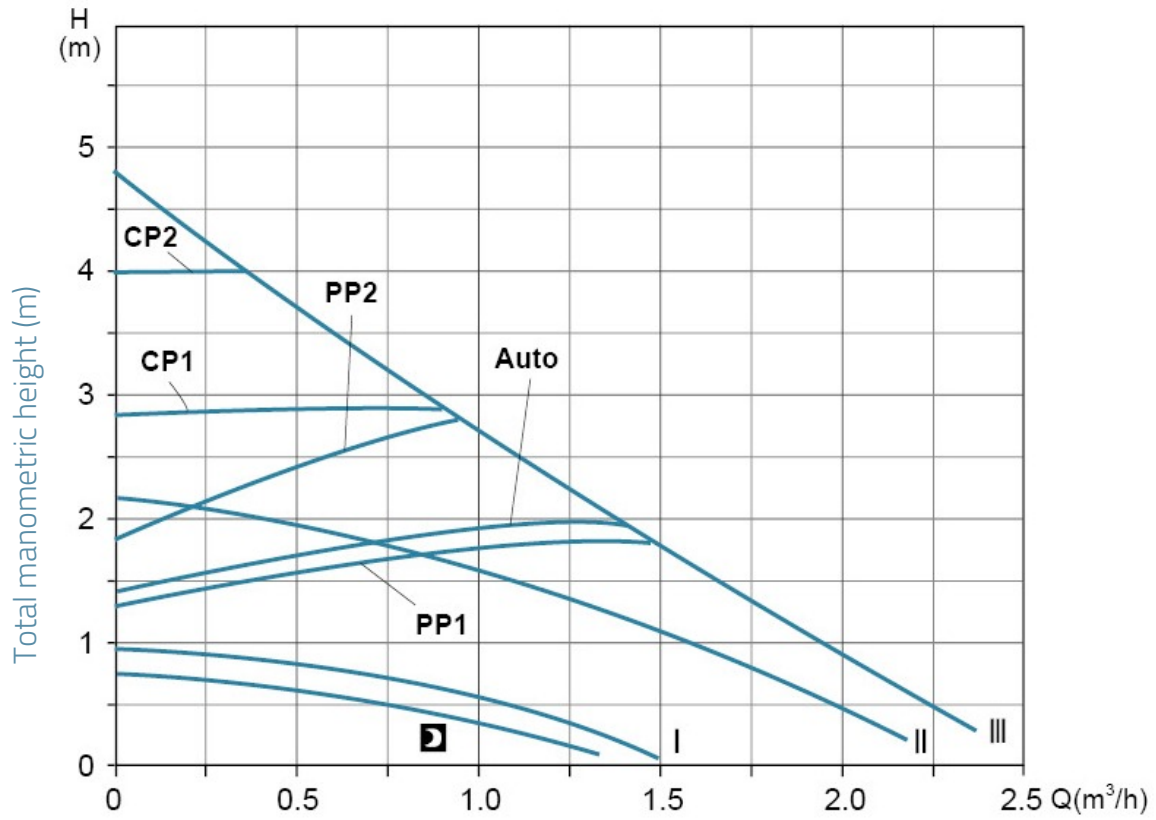


ARPXX-40 Q-H

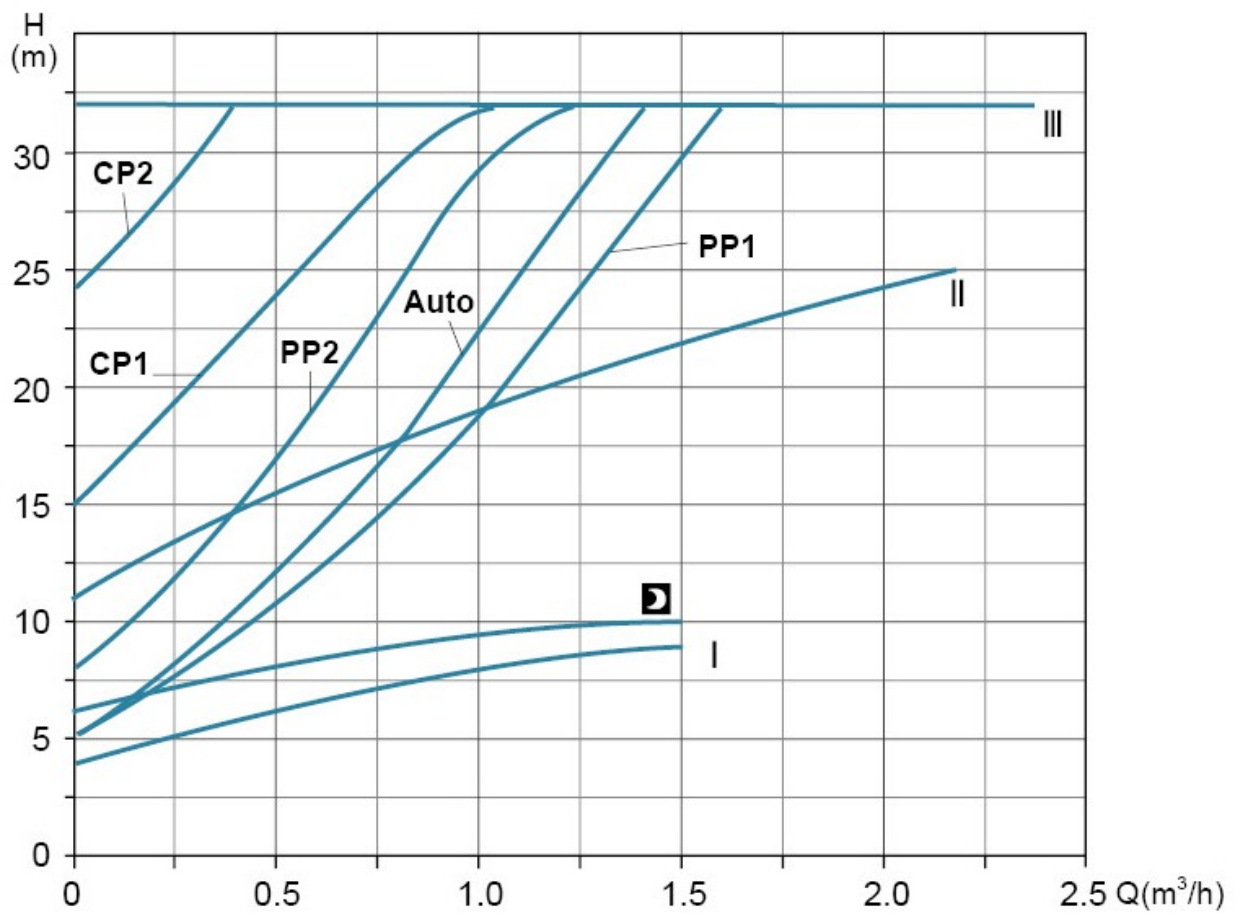


ARPXX-40 Q-P1

## Hydraulic performance

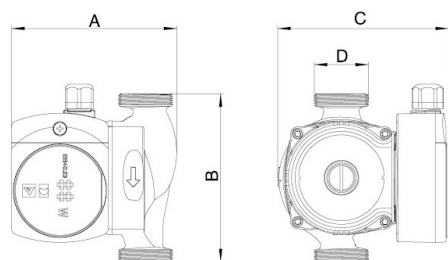


ARPXX-50 Q-H



ARPXX-50 Q-P1

## Dimensions



MODEL	A	B	C	D
ARP15-40/130	130	130	135	1
ARP20-60/130	130	130	135	1½
ARP25-40/130	130	130	135	1½
ARP25-40/180	130	130	135	1½
ARP25-50/130	130	130	135	1½
ARP25-50/180	130	180	135	1½
ARP25-60/130	130	130	135	1½
ARP25-60/180	130	180	135	1½
ARP32-40/180	135	180	135	2
ARP32-50/180	135	180	135	2
ARP32-60/180	135	180	135	2
ARP15-50/130	130	130	135	1
ARP15-60/130	130	130	135	1
ARP20-40/130	130	130	135	1½
ARP20-50/130	130	130	130	1½

## Exploded view

No.	Type	Materials
1	Pump body	cast iron HT200
2	Wear ring	
3	O-ring	EPDM rubber
4	Impeller	noryl (PPO)
7	Pump bottom	
8	Bearing	
9	Bearing	
10	Bearing	noryl-fiberglass PP-GF30
11	Rotor	
12	Bearing	noryl-fiberglass PP-GF30
13	Jacket	AISI 304 stainless steel
15	Drain plug	
16	Seal	
17	Stator (alone)	

