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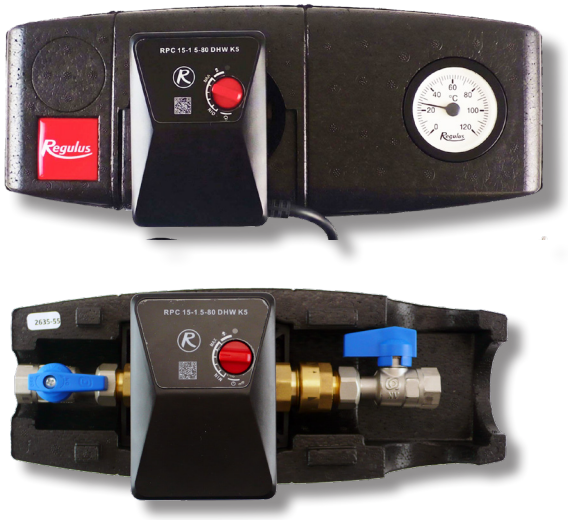


CSE TV ZV RPC 1/2F

Installation and Operation Manual

EN

CSE TV ZV RPC 1/2F PUMP STATION

CSE TV ZV RPC 1/2F

1. Introduction

This pump station is intended to ensure circulation in DHW distribution piping in buildings, or to ensure hot water recirculation in DHW heating systems.

2. Pump Station Description

It consists of a RPC 15 1.5-80 DHW K5 pump incl. power cable 3 m long power cable with plug, insulation, check valve, two ball valves and thermometer.

Main Features	
Application	DHW circuits - recirculation or DHW heating via a heat exchanger
Description	consists of RPC 15 1.5-80 DHW K5 pump incl. power cable 3 m long power cable with plug, insulation, check valve, two ball valves and thermometer
Working fluid	water, drinking water
Installation	to the piping, min. distance of the pipe axis from a wall is 100 mm
Code	**22105**

Data of Pump Station	
Fluid working temperature	5 - 70 °C
Max. working pressure	10 bar
Min. working pressure	0.5 bar
Ambient temperature	5 - 40 °C
Max. relative humidity	80 %, non condensing
Power supply	230 V, 50 Hz
Insulation material	EPP RG 60 g/l
Overall dimensions	310 x 130 x 180 mm
Total weight	2.1 kg
Connections	2x G 1/2“F

3. Direction of Flow through the Pump Station

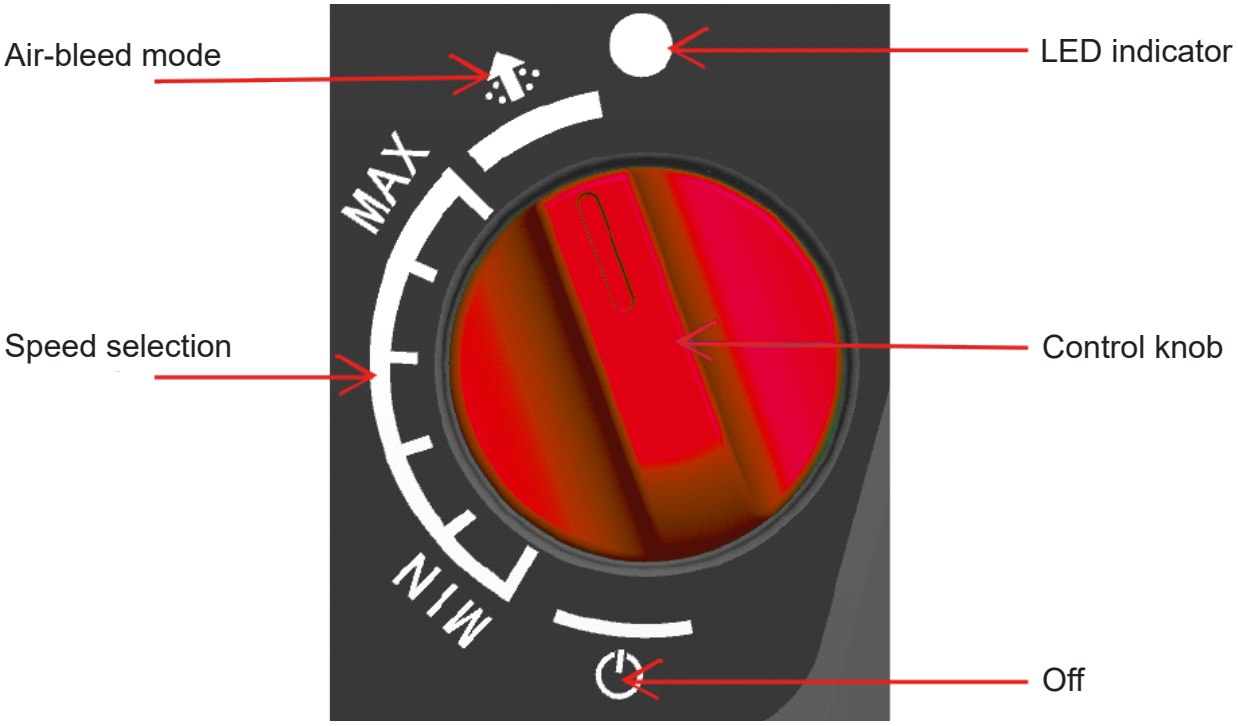
4. RPC 15 1.5-80 DHW K5 Pump

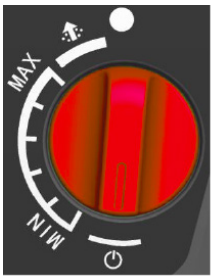
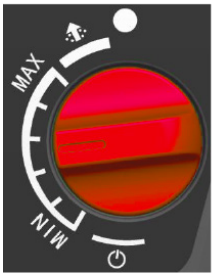
Design

A wet-running circulation pump, G 1/2“ F connection.

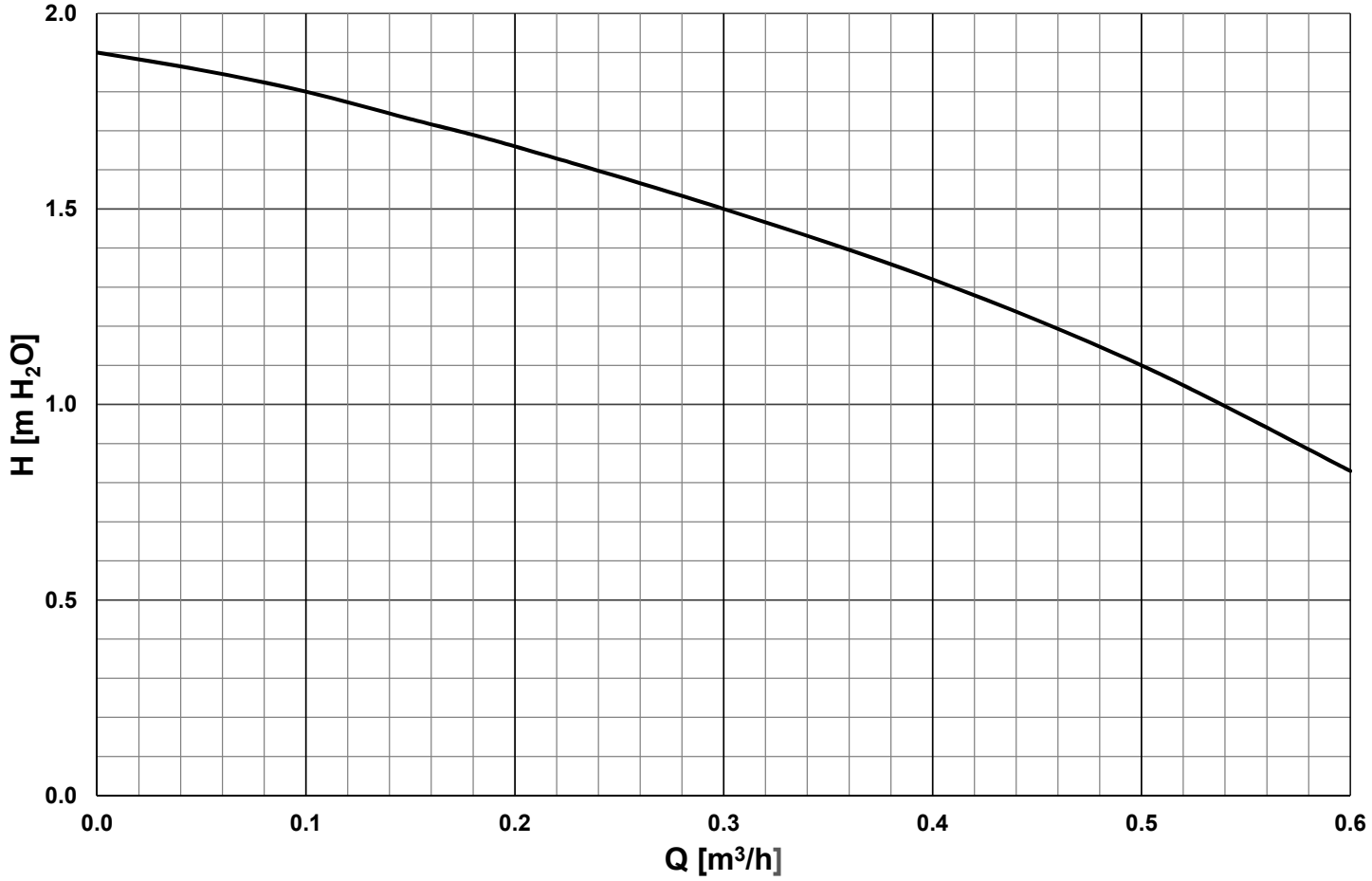
Electric Data	
Power supply	230 V, 50 Hz
Power input (min./max.)	9 W
Current (min./max.)	0.09 A
IP rating	IP44
Motor protection	not needed

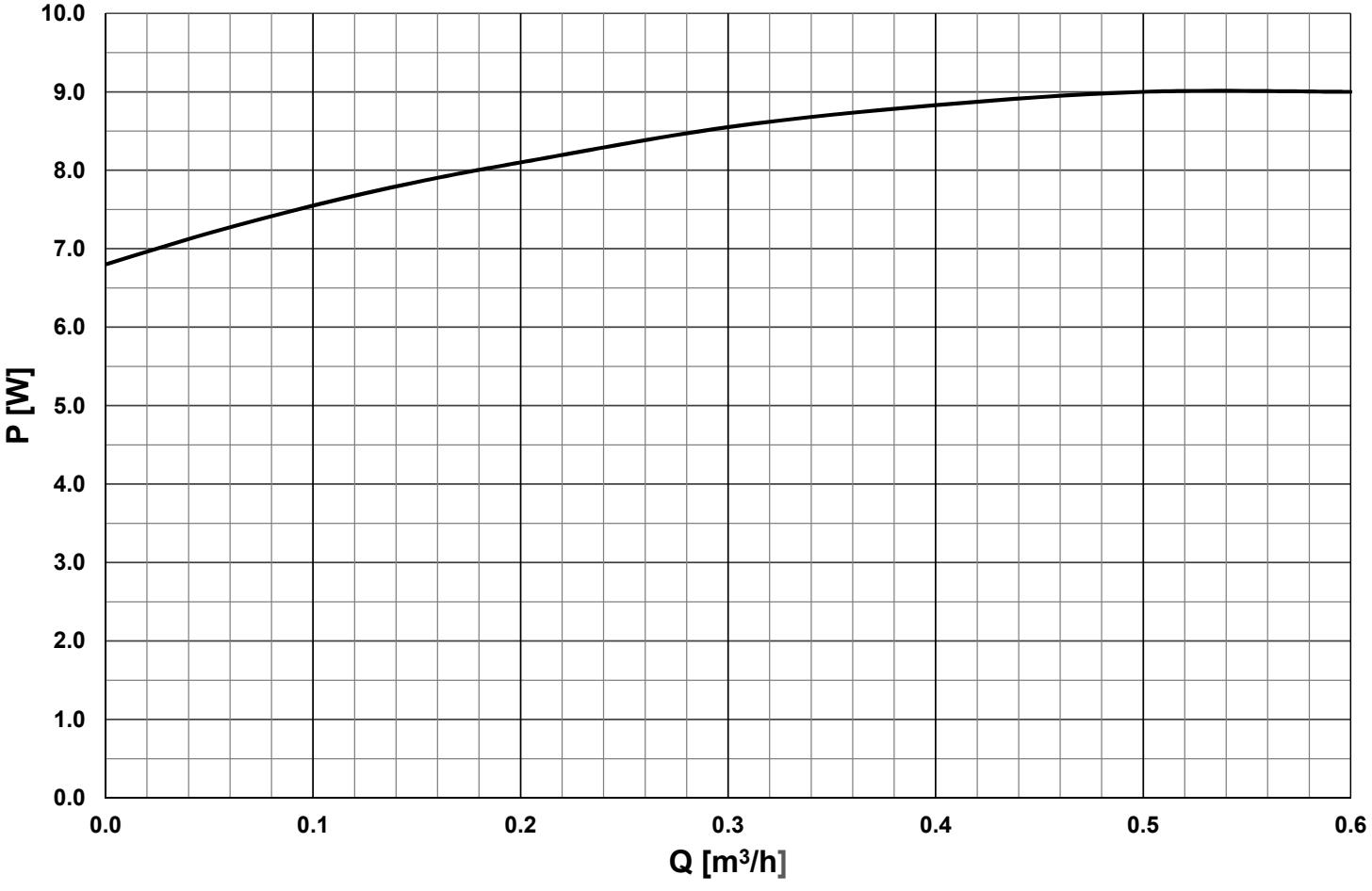
5. Pump Control



OPERATING MODE		CONTROL KNOB POSITION	LED INDICATOR
Off	The pump is not running, the indicator light is off.		/
Normal operation	The control knob is set to a position between minimum and maximum speed, the indicator light is green.		●
Air bleeding	After setting the control knob to the air bleed position, after 2-3 seconds the pump stops for 10 seconds. Then it runs at maximum speed for 50 seconds. This cycle is repeated for 5 minutes, the indicator light flashes green. After this time, the venting mode is automatically terminated, the pump starts running at maximum speed, the indicator light lights up green.		●●● ...

Performance curves





Prohibited positions

Permissible positions

6. Pump Wiring

The pump comes with a 3 m cable with a connector and a plug for the socket. Connect the connector to the counterpart on the pump, insert the plug into the 230V socket and the pump is ready for operation. The pump does not have to be installed by a qualified electrician.

7. FAULTS, THEIR CAUSE AND TROUBLESHOOTING

During repairs and maintenance, the device must be disconnected from the power supply!

FAULT	PROBABLE CAUSE	TROUBLESHOOTING
Pump not running	Loose cable or power interruption	Check the power supply and power cable connection
	Damaged control of operating modes	Replace the pump
	Blocked pump impeller	Disconnect the actuator and clean the pump
Noise in hot water system / pump	Low pump suction pressure	Increase the pump suction pressure above the min. pump suction pressure - see chapt. 2
	Air in the system or pump	Vent the system and the pump
Pump is running but no fluid circulation through system	Closed valve in system	Check that valves are open
	Air in the system	Vent the system

Some types of faults are signaled on the pump with LED lights

FAULT	DESCRIPTION	SIGNAL	PROBABLE CAUSE	TROUBLE-SHOOTING
Blocked pump impeller	If the pump impeller is blocked, the pump will try to restart every 5 seconds. The indicator light flashes alternately green and red. After five unsuccessful attempts, the pump will automatically switch off, the indicator light will continue to flash alternately green and red.		Impurities in the pump	Remove the actuator and clean the pump
Overvoltage or undervoltage	If the voltage is lower than 105 V or higher than 265 V, the pump will turn off, the indicator light will flash three times green and once red. When the voltage returns between the a.m. values, the pump will turn on automatically.		The mains voltage is outside the specified values, the power cable has poor contact.	Check that the power cable is correctly attached and that the mains voltage is correct
Power phase interruption inside the pump	If the power phase inside the pump is interrupted, the pump will attempt to restart every 5 seconds. The indicator light flashes twice green and once red. After five unsuccessful attempts, the pump will automatically switch off, the indicator light still flashes twice green and once red.		Broken motor winding or other interruption of the power phase inside the pump	Replace the pump
Electrical short circuit inside the pump	In case of an electrical short circuit inside the pump, the pump will switch off immediately, the indicator light will flash green four times and red once.		Damaged motor winding or other electrical short circuit inside the pump.	Replace the pump
Pump overheated	If the pump overheats, it will switch off immediately, the indicator light will flash green five times and red once. The pump will switch on automatically after the temperature drops.		Too high water temperature in the system or too much air in the system (pump running "dry").	Decrease the water temperature in the system below the maximum fluid working temperature - see chapter 6, if necessary, check the system for leaks, bleed the system.

If the fault cannot be rectified, contact a specialist technician.

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