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Installation and Operation Manual CSE OTS ZV G60 PUMP STATION with check valve, for heating systems

EN

1. Introduction

CSE OTS ZV G60 pump station is designed to be installed in unmixed hydraulic circuits in heating systems where a check valve is required. The pump station provides circulation through the concerned heating circuit, preventing circulation in a reverse direction through the circuit.

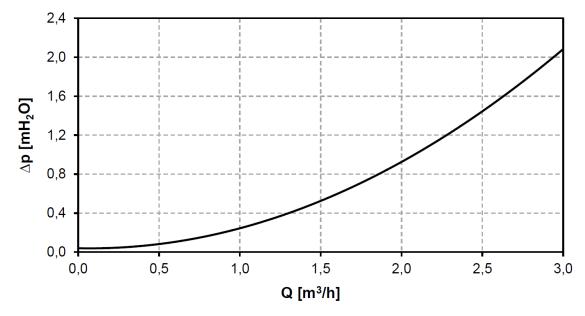
2. Pump Station Description

The pump station consist of a UPM3 FLEX AS pump incl. power and control cables, a ball valve with check valve, a ball valve with union nut, thermometer and insulation.

Main Features	
Application	flow to heating systems
Description	it consist of a UPM3 FLEX AS pump, a ball valve with check valve, a ball valve with union nut, thermometer and insulation
Working fluid	water; water/glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1)
Installation	on the flow pipe to heating system, min. distance of the pipe axis from a wall is 100 mm
Code	19088

Data for CSE OTS ZV G Pump Station				
Fluid working temperature	5 - 95 °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	325 x 140 x 150 mm			
Total weight	2.9 kg			
Connections	2x G 1" F			

Pressure Drop Graph



3. Pump Station Installation

The pump station is designed to be installed directly to a pipe, min. distance of the pipe axis from a

wall is 100 mm.

FLOW DIRECTION



Prohibited positions





Permissible positions









4. UPM3 FLEX AS 25-60 Pump

Design

Wet-running circulation pump with G 6/4" M connection.

Electric Data	
Power supply	230 V, 50 Hz
Power input (min./max.)	2/42 W
Current (min./max.)	0.04/0.40 A
IP rating	IP44
Max. speed	5288 rpm
Weighted average power	≤ 20 W
Energy Efficiency Index	≤ 0.20 by EN 16 297/3
Motor protection	not needed



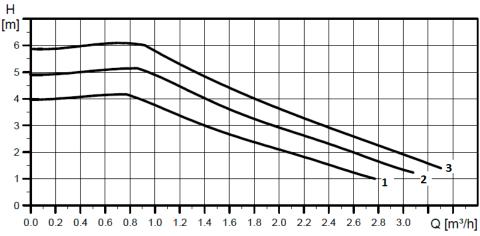
Pump control

The circulation pump can be controlled by an external PWM signal (profile for use in heating systems) or without a PWM signal by selecting a pump performance curve.

A maximum curve of a pump working range can be defined.

- with PWM signal the pump speed changes with the signal value up to the maximum of the selected curve
- without PWM signal the pump runs at the max. speed according to the selected curve

Performance curves



Curve	Max. H	Max. P₁
	(upper graph	(lower graph)
1	4 m	25 W
2	5 m	34 W
3	6 m	42 W

P1 [W]	Γ																	
50 -																	_ 3	
40 - 30 -																_ 2		
20 -					_										1			
10 -																		
0 -					-	,							-					-
0	.0 0	.2 0	.4 0	.6 0	.8 1	.0 1	.2 1	.4 1	.6 1	.8 2	.0 2	.2 2	.4 2	6 2	.8 3	.0	Q [n	n³/h]

Performance display



For clarity, the marking of the LEDs is further omitted.

DISPLAY	PERFORMANCE CURVE	STATE	Max. H (upper graph)
	1	LOW PERFORMANCE	4 m
	2	MEDIUM PERFORMANCE	5 m
	3	HIGH PERFORMANCE	6 m

WARNING: LEDs may be mirrored, depending on the specific pump type.

FLASHING FREQUENCY OF GREEN LED	RECEIVING PWM SIGNAL
1 flash per second	NO
12 flashes per second	YES

When switched on, the pump runs at factory settings or the last setting. The display shows the current pump performance.

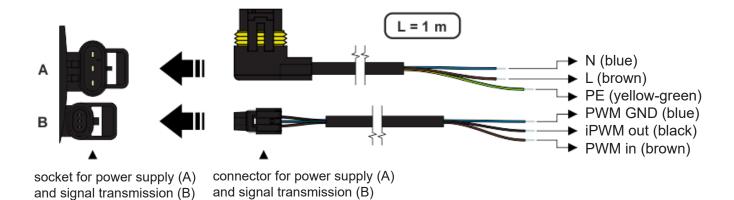
Setting selection for UPM3

To select your desired setting, press the button repeatedly until you find the setting you need (see the pic. above). If you pass the desired setting, you have to go one more round until it appears again.

Error display

DISPLAY	CONTROL MODE
	Seized pump
	Too low power supply voltage
	Electric fault

Pump wiring



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