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Installation and Operation Manual Wilo Para 25/7 iPWM2 130mm Circulation Pump, 6/4", Molex, 3m cable

**EN** 

## **Wilo-Para iPWM2 Circulation Pump**

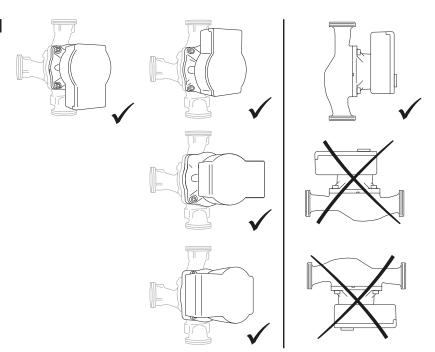
#### 1. General Information



The Wilo Para 25/7 iPWM2 is a wet running circulation pump. The pump speed is controlled by the PWM signal. When the PWM signal is disconnected, the pump stops running (a pump for solar thermal systems). The operating status and possible faults of the pump are indicated by LEDs directly on the pump. The pump is able to send the current flowrate electronically to an external controller. The controller must be equipped with an iPWM read input and a flow calculation function.

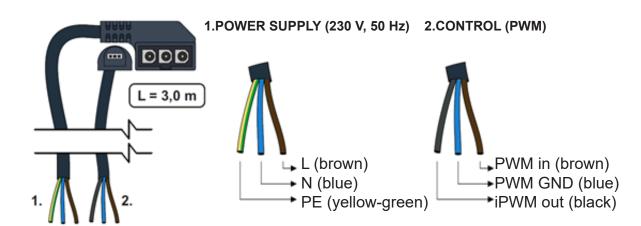
The high efficiency circulation pumps of the PARA iPWM2 series are used exclusively for the circulation of liquids in solar thermal systems. Operating the pump in other systems or in systems containing too little water, air bubbles or not pressurized can lead to its rapid destruction.

# 2. Permitted and Prohibited Pump Positions



## 3. Pump Wiring

The pump must be wired / disconnected by a qualified person in compliance with EN 50110-1! Wilo PARA 25/7 iPWM2 pump wiring



#### 4. Technical Data

Wilo PARA 25/7 iPWM2		
Electric Data		
Power supply	1 ~ 230 V, 50 Hz	
Power input (min./max.)	1.8 / 50 W	
Current (min./max.)	0.02 / 0.43 A	
Max. speed	4700 rpm	
Energy Efficiency Index	≤ 0.20 by EN 16 297/3	
IP rating	IPX4D	
Motor protection	integrated	
Min. pressure at the suction port to avoid cavitation		
Min. pressure at the suction port	0.5 mH <sub>2</sub> O at 50 °C	
	4.4 mH <sub>2</sub> O at 95 °C	
	10.8 mH <sub>2</sub> O at 110 °C	
Operating Parameters		
Fluid working temperature	-10 to 110 °C	
Max. static pressure	10 bar	
Max. ambient temperature	70 °C	

## **5. FAULTS AND THEIR REASONS**

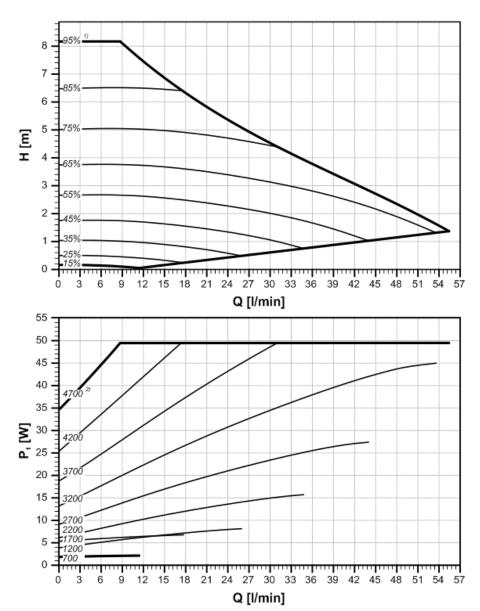


The LED light signals a defect. The pump will switch off (depending on the defect type) and try to restart.

LED Si	gnals	State Description and Possible Fault Reasons
	GREEN IS LIT	1 - pump is running in trouble-free operation
	RED IS LIT	1 - rotor is blocked
		2 - electric motor winding defect
•		1 - power supply lower/higher than 230 V
BLINKING RED	BLINKING RED	2 - electric short circuit in pump
	1	3 - pump overheated
	BLINKING RED AND GREEN	1 - unforced fluid circulation through the pump
		2 - pump speed lower than desired
		3 - air in pump

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

## **6. Performance Curves**



NOTE:

- 1) PWM signal value in %
- 2) speed in 1/min