

## PRESTO W56x Process system

The water-cooled PRESTO W56x is able to quickly and efficiently control the temperature in applications requiring a great deal of power. Even at low temperatures, this model has large power reserves for demanding external applications.

The PRESTO W56x process system is equipped with a gear pump. As a result, bath fluids with a high viscosity, such as water-glycol mixtures at low temperatures of up to  $-45\text{ }^{\circ}\text{C}$ , can also be used .

The magnetically coupled pump allows the user to optimally adjust pump capacity to suit the application, even over large distances and height differences, as well as for pressure-sensitive applications. Use of the latest thermodynamic technologies means that the cooling capacity is automatically adjusted to the current power requirements. Combined with further optimizations, the PRESTO W56 is both incredibly economical and energy-efficient.



### Water-glycol up to $+150\text{ }^{\circ}\text{C}$

Connection of an expansion kit (accessorie) allows pressurized temperature control with water-glycol up to a working temperature of  $+150\text{ }^{\circ}\text{C}$ .



### Product features

- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)
- Heating capacity up to 27 kW
- Temperature stability  $\pm 0.05\text{ }^{\circ}\text{C}$  ...  $\pm 0.1\text{ }^{\circ}\text{C}$
- Alarm output
- Built-in 5.7" industrial color touchscreen
- Cooling capacity up to 25 kW
- Pump pressure up to 5.5 bar, max. flow rate 70 l/min

### Performance values

400V/3PPE/50Hz (Plug 63A CEE)	
Heating capacity kW	27
Viscosity max. cSt	280
Pump capacity flow pressure l/min	0 ... 70
Pump capacity pressure bar	0.1 ... 5.5
Power consumption A	47

Order number including voltage version		9421563.S1.07					
Cooling capacity 1 (Ethanol)							
°C	20	0	-10	-20	-30	-40	-50
kW <sup>1</sup>	25.8	23.1	16.9	11.5	7.1	3.5	1.4
Cooling capacity 2 (Thermal HL30)							
°C	20	10	0	-10	-20	-30	
kW <sup>1</sup>	25.8	25.1	23.2	16.1	9.4	5.6	
Cooling capacity 3 (Water Glycol 40:60)							
°C	20	10	0	-10	-20	-30	-40
kW <sup>1</sup>	25.6	25.2	23.3	16.2	9.1	5.7	2.3
Refrigerant stage 1							
Refrigerant	R449A						
Filling weight g	2550						
Global Warming Potential for R449A	1397						
Carbon dioxide equivalent t	3.56235						

<sup>1</sup> Performance specifications measured in accordance with DIN 12876. Cooling capacities up to 20 °C measured with ethanol; over 20 °C with thermal oil unless otherwise specified. Performance specifications apply at an ambient temperature of 20 °C. Performance values may differ with other bath fluids.

### Technical data

<b>Available voltage versions</b>		<b>Cooling</b>	
Order No.	9421563	Cooling of compressor	1-stage Water
Available voltage versions:		Cooling water pressure max. bar	6
9421563.S1.07	400V/3PNPE/50Hz (Plug 63A CEE) (R449A)	Max. heat dissipated by unit into cooling water kW	44
9421563.S1.17	480V/3P(N)PE/60Hz (Without Plug) (R449A)	<b>Recommended cooling water properties</b>	
		Cooling water temperature range °C	10 ... 15
		Cooling water difference pressure bar	1.5 ... 6
		Cooling water consumption l/min <sup>2</sup>	14 ... 25
		<b>Permissible cooling water properties</b>	
		Cooling water temperature range °C	5 ... 35
		Cooling water difference pressure bar <sup>3</sup>	0.5 ... 6
		<sup>2</sup> Cooling water consumption may vary outside recommended cooling water properties.	
		<sup>3</sup> At cooling water temperatures of 25 °C and higher, the minimum differential pressure is 1 bar.	
<b>Other</b>		<b>Electronics</b>	
Sound pressure level dbA	72	Interfaces	Alarm output, Ethernet, Modbus TCP/IP, Profibus optional, REG/EPROG optional, RS232, RS485 optional, SD memory card, Standby-Input optional, USB
Classification	Classification III (FL)	External pt100 sensor connection	integrated
IP Code	IP 20		
Pump type	Gear Pump		

2nd external Pt100 sensor connection	accessory
Integrated programmer	8x60 steps
Temperature control	ICC
Absolute temperature calibration	3 Point Calibration
Temperature display	5.7" TFT Touchscreen
Temperature setting	Touchscreen

Dimensions and volumes	
Internal usable expansion volume l	17.5
Minimal process volume l	11
Active heat exchanger volume l	10
Weight kg	385
Cooling Water Connection in	G¾
Total dimensions cm (W x L x H)	60 x 94 x 164
Pump connections	M38x1.5 male

Temperature values	
Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-50 ... +250
Temperature stability °C	±0.05 ... ±0.1
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.01

### All Benefits



**100% Checked.**  
100% testing. 100% quality. Each JULABO Circulator undergoes thorough quality testing before leaving the factory.



**Green technology.**  
Development consistently applied environmentally friendly materials and technologies.



**Touch display. Perfect operation.**  
With the touch display, the user always has an overview of all values and functions. The intuitive and multilingual menu structure enables perfect control.



**Convenience for several users**  
Administrator level for customizing instrument settings, user levels with limited permissions for fast and safe defined access, password protection, all levels adjustable



**100 % Cooling capacity**  
'Active Cooling Control' for cooling available throughout the entire working temperature range, fast cool-down even at higher temperatures



**Intelligent temperature control.**  
Intelligent cascade control - automatic and self-optimizing adaptation of the PID control parameters with external stability of +/- 0.05 °C.



**Control of the external application**  
External Pt100 sensor connection for precise measurement and control directly in the external application



**Highest measuring accuracy**  
'Absolute Temperature Calibration' for manual compensation of a temperature difference, 3-point calibration



**Intelligent pump system**  
Reliable and consistent pump capacity, electronically adjustable pump stages or pressure value, automatic adjustment of pump capacity to viscosity



**Many interfaces.**  
Straight-forward remote control, data management, and integration into process structures. USB, Ethernet, RS232, SD card, and alarm off are permanently integrated. Further interfaces available as accessories.



**Space-saving footprint**  
All connections as well supply and exhaust air are located at the front or rear, no venting grids on the sides, units can be placed close to each other or the application



**Continuous operation up to +40 °C**  
Robust temperature control instrument, continuous operation even at ambient temperatures of up to +40 °C



**Maximum safety.**

Classification III according to DIN12876-1 enables safe operation, even with flammable fluids. Automatic switch-off in the event of high temperature or low liquid level.



**Duplicate safety**

Adjustable high temperature cut-off for internal tank and for integrated expansion vessel



**For flammable bath fluid**

Classification III (FL) according to DIN 12876-1



**Quick support**

If an error occurs, the integrated Black-Box function permits fast diagnosis by the JULABO service team



**JULABO. Quality.**

Highest standards of quality for a long product life.



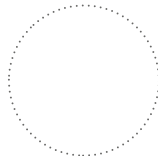
**Quick start.**

Individual JULABO consultation and comprehensive manuals at your disposal.



**Satisfied customers.**

11 subsidiaries and more than 100 partners worldwide guarantee fast and qualified JULABO support.



**Services 24/7.**

Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at [www.julabo.com](http://www.julabo.com).



**Full control**

'Temperature Control Features', for individual optimization, access to all important control parameters, additional settings for band limit, limits, co-speedfactor etc.