

## PRESTO W56 Process system

The water-cooled PRESTO W56 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 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. In combination with additional optimizations, this makes the PRESTO W56 very economical and energy-efficient.

### Water-glycol up to +150 °C

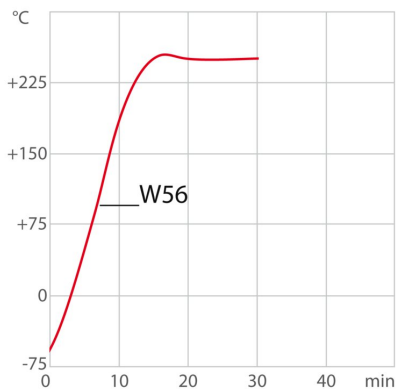
The PRESTO W56 contains a technical innovation: Connection of an expansion kit (accessorie) allows pressurized temperature control with water-glycol up to a working temperature of +150 °C.



### Product features

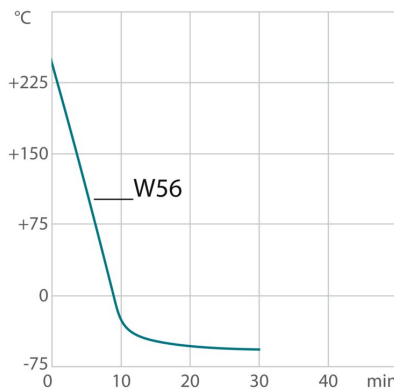
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)
- Heating capacity up to 27 kW
- Temperature stability  $\pm 0.05$  °C ...  $\pm 0.1$  °C
- Alarm output
- Built-in 5.7" industrial color touchscreen
- Cooling capacity up to 25 kW
- Pump pressure up to 3 bar, max. flow rate 80 l/min

#### Heat-up time



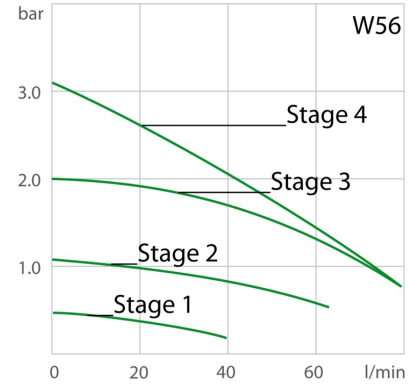
Medium: Thermal HL

#### Cool-down time



Medium: Thermal HL

#### Pump capacity



## Performance values

<b>400V/3PPE/50Hz (Plug 63A CEE)</b>	
Heating capacity kW	27
Viscosity max. cSt	50
Pump capacity flow rate l/min	0 ... 80
Pump capacity flow pressure bar	0.1 ... 3
Power consumption A	47

Order No.	9421562.07							
<b>Cooling capacity 1 (Ethanol)</b>								
°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	
<b>Cooling capacity 2 (Thermal HL30)</b>								
°C	20	10	0	-10	-20	-30		
kW <sup>1</sup>	25.8	25.1	23.2	16.5	9.4	5.6		
<b>Cooling capacity 3 (Water Glycol 40:60)</b>								
°C	20	10	0	-10	-20	-30	-40	
kW <sup>1</sup>	25.6	25.2	23.3	16.2	9.1	5.7	1.2	
<b>Cooling capacity 4 (Thermal HL60)</b>								
°C	200	20	0	-10	-20	-30	-40	-50
kW <sup>1</sup>	19	24.6	20.3	15.1	10	6.3	3.1	1.1
<b>Refrigerant stage 1</b>								
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.	9 421 562	Cooling of compressor	1-stage Water
Available voltage versions:		Cooling water pressure max. bar	6
9421562.07	400V/3PPE/50Hz (Plug 63A CEE) (R449A)	Max. heat dissipated by unit into cooling water kW	44
9421562.17	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.

Other	
Sound pressure level dbA	72
Classification	Classification III (FL)
IP Code	IP 20
Pump type	Centrifugal Pump

Electronics	
Interfaces	Alarm output, Ethernet, Modbus, Profibus optional, REG/EPROG optional, RS232, RS485 optional, SD memory card, Standby-Input optional, USB
External pt100 sensor connection	integrated
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	G $\frac{3}{4}$
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	-56 ... +250
Temperature stability °C	±0.05 ... ±0.1
Ambient temperature °C	+5 ... +40
Setting the resolution of the temperature display °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.