PRESTO W56 Process system

The water-cooled PRESTO W56 can temperature control applications with high performance requirements very quickly and efficiently. Even at low temperatures it has large power reserves for challenging 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.

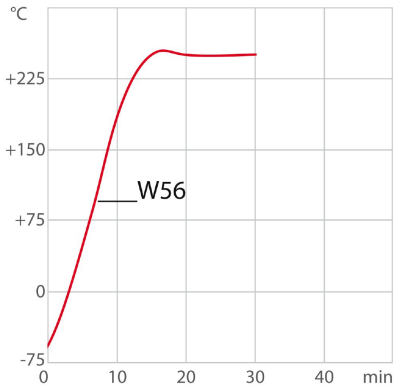
Water-glycol up to +150 °C

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

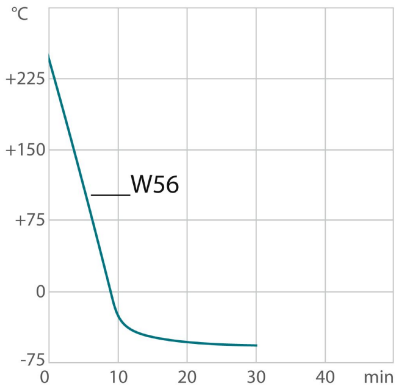
- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)
- Cooling capacity up to 25 kW
- Heating capacity up to 27 kW
- Temperature stability ±0.05 °C ... ±0.1 °C
- Alarm output
- Built-in 5.7'' industrial color touchscreen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

Heat-up time



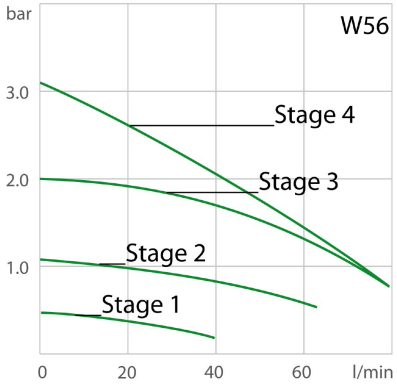
Medium: Thermal HL

Cool-down time



Medium: Thermal HL

Pump capacity



Performance values

480V/3P(N)PE/60Hz (Without Plug)	
Heating capacity kW	27
Viscosity max. cSt	50
Pump capacity flow rate l/min	0 ... 80
Pump capacity flow pressure psi	1.5 ... 43.5
Power consumption A	40

Order No. 9421562.17

Cooling capacity 1 (Ethanol)

°C	20	0	-10	-20	-30	-40	-50
kW	25.8	23.1	16.9	11.5	7.1	3.5	1.4

*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.

Cooling capacity 2 (Thermal HL30)

°C	20	10	0	-10	-20	-30
kW	25.8	25.1	23.2	16.5	9.4	5.6

*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.

Cooling capacity 3 (Water Glycol 40:60)

°C	20	10	0	-10	-20	-30
kW	25.6	25.2	23.3	16.2	9.1	5.7

*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.

Refrigerant stage 1	
Refrigerant	R449A
Filling weight g	2550
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	3.56235

Technical data

Available voltage versions	
Order No.	9 421 562
Available voltage versions:	
9421562.07	400V/3PPE/50Hz (Plug 63A CEE) (R449A)
9421562.17	480V/3P(N)PE/60Hz (Without Plug) (R449A)

Cooling	
Cooling of compressor	1-stage Water
Cooling water temperature range °C	35
Cooling water pressure max. psi	87
Cooling water difference pressure psi	7.3
Cooling water consumption l/min	14 ... 25

Other	
Sound pressure level dbA	72
Classification	Classification III (FL)

Electronics

IP Code	IP 20
Pump type	Centrifugal Pump

Interfaces	Alarm output, Ethernet, Modbus, RS232, USB, SD memory card, Standby-Input optional, REG/EPROG optional, Profibus optional, RS485 optional
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 lbs	848.8
Cooling Water Connection in	G¾
Dimensions in. (W × L × H)	23.6 x 37 x 64.6
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
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.

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