

## PRESTO W50t Process system

The rapid compensation of reactions even at higher ambient temperatures is the domain of the water-cooled W50 units. High heating and cooling capacity paired with powerful pumps.



### Product features

- For highly precise, external temperature applications
- Rapid heating and cooling
- Wide working temperature ranges without changing fluids
- Highest performance with small footprint
- Space-saving design optimizes space utilization in your lab
- Pump pressure up to 3.2 bar, max. flow rate 76 l/min
- Temperature stability  $\pm 0.05$  °C ...  $\pm 0.1$  °C
- 5,7" industrial color TFT touch screen
- Connections for USB, Ethernet, RS232, and Alarm output
- Modbus
- SD-Card slot
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)

### Technical data

<b>Available voltage versions</b>		<b>Cooling</b>	
Order No.	9 421 502.T	Cooling of compressor	1-stage Water
Available voltage versions:		Cooling water pressure max. psi	87 ... 79.8
9 421 502.07	400V/3PNPE/50Hz (Plug 32A CEE)	Cooling water difference pressure psi	7.3
9 421 502.16	208-230V/3PPE/60Hz (Without Plug)	1.0Cooling water consumption l/min	8 ... 12
9 421 502.06	230V/3PPE/50Hz (Plug 63A CEE)		
<b>Other</b>		<b>Electronics</b>	
Sound pressure level dbA	65	External pt100 sensor connection	integrated
Classification	Classification III (FL)	2nd external Pt100 sensor connection	accessory
IP Code	IP 20	Integrated programmer	8x60 steps
Pump type	Centrifugal Pump	Temperature control	ICC
		Absolute temperature calibration	3 Point Calibration
		Temperature displayTemperature display	5.7" TFT Touchscreen
		Temperature settingTemperature setting	Touchscreen
<b>Dimensions and volumes</b>		<b>Temperature values</b>	
Internal usable expansion volume l	7.5	Setting the resolution of the temperature display °C	0.01
Minimal process volume l	7.5	Working temperature range °C	-50.0 ... +250.0
Active heat exchanger volume l	3.5	Temperature stability °C	+/-0.05 ... +/-0.1
Weight lbs	463	Ambient temperature °C	+5.0 ... +40.0
Cooling Water Connection in	G $\frac{3}{4}$	Temperature display resolution °C	0.01
Dimensions in. (W x L x H)	20.9 x 26.2 x 49.6		
Pump connections	M30x1.5 male		

### Performance values

## 400V/3PNPE/50Hz (Plug 32A CEE)

400V/3PNPE/50Hz							
Heating capacity kW	12						
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	-40
kW	7	7.5	6.5	4.5	2.8	1.6	0.6
Viscosity max. cST	50						
Refrigerant	R452A						
Filling volume g	1100						
Global Warming Potential for R452A	2140						
Carbon dioxide equivalent t	2.354						
Pump capacity flow rate l/min	35 ... 76						
Pump capacity flow pressure psi	7 ... 46.4						
Power	25 A						

## 208-230V/3PPE/60Hz (Without Plug)

208V/3PPE/60Hz							
Heating capacity kW	10						
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	-40
kW	7	7.5	6.5	5	3	1.8	0.6
Viscosity max. cST	50						
Refrigerant	R507						
Filling volume g	0						
Global Warming Potential for R507	3985						
Carbon dioxide equivalent t	0						
Pump capacity flow rate l/min	35 ... 76						
Pump capacity flow pressure psi	7 ... 43.5						
Power	36 A						

230V/3PPE/60Hz							
Heating capacity kW	12						
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	-40
kW	7	7.5	6.5	5	3	1.8	0.6
Viscosity max. cST	50						
Refrigerant	R507						
Filling volume g	0						
Global Warming Potential for R507	3985						
Carbon dioxide equivalent t	0						
Pump capacity flow rate l/min	35 ... 76						
Pump capacity flow pressure psi	7 ... 46.4						
Power	39 A						

## 230V/3PPE/50Hz (Plug 63A CEE)

230V/3PPE/50Hz							
Heating capacity kW	12						
Cooling capacity (Ethanol)							
°C	200	20	0	-10	-20	-30	-40
kW	7	7.5	6.5	4.5	2.8	1.6	0.6
Viscosity max. cST	50						
Refrigerant	R452A						
Filling volume g	1100						
Global Warming Potential for R452A	2140						
Carbon dioxide equivalent t	2.354						
Pump capacity flow rate l/min	35 ... 76						
Pump capacity flow pressure psi	7 ... 46.4						
Power	39 A						

All Benefits



**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.



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



**Control from 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



**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.



**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).