PRESTO W80t Process System

As air- or water-cooled versions, the A80 and W80 units with 2-stage refrigeration unit offer high cooling and heating capacities for lowest temperatures down to -80 °C.

Your advantages

- 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
- 5,7” industrial color TFT touch screen
- USB connection
- Ethernet
- SD-Card slot
- RS232
- Modbus
- RS485 (Accessory)
- Profibus DP (Accessory)
- CCC Anschlüsse für Alarm-Ausgang, Pt100-Externfühler und Standby-Eingang
- Removable ventilation grid
- Heating capacity up to 3.4 kW
- Cooling capacity up to 1.2 kW

Technical data

Available voltage versions	
Order No.	9 421 801.T
Available voltage versions:	
9 421 801.T.07	400V/3PNPE/50Hz (Plug 16A CEE)
9 421 801.T.16	208-220V/3PPE/60Hz (Without Plug)
9 421 801.T.06	230V/3PPE/50Hz (Plug 32A CEE)

Cooling	
Cooling of compressor	2-stage Water
Cooling water pressure max. bar	6 ... 5.5
Cooling water difference pressure bar	0.5
Cooling water consumption l/min	2

Other	
Sound pressure level dba	64
Classification	Classification III (FL)
IP Code	IP 20
Pump type	Centrifugal Pump
Pump type Magnetically coupled	1

Electronics	
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	
Filling volume expansion vessel l	8
Internal usable expansion volume l	5.6
Minimal process volume l	3.9
Active heat exchanger volume l	1.7
Weight kg	164
Cooling Water Connection in	G¾
Dimensions cm (W × L × H)	43 x 65 x 126
Pump connections	M24x1.5 male

Temperature values	
Setting display resolution °C	0.01
Working temperature range °C	-80.0 ... +250.0
Temperature stability °C	+/-0.01 ... +/-0.05
Ambient temperature °C	+5.0 ... +40.0
Temperature display resolution °C	0.01

Power and capacities

400V/3PNPE/50Hz (Plug 16A CEE)

400V/3PNPE/50Hz									
Heating capacity kW	3.4								
Cooling capacity (Ethanol)									
°C	200	100	20	0	-20	-30	-40	-60	-80
kW	1.2	1.2	1.2	1.2	1.1	1.1	1.1	0.65	0.1
Viscosity max. cST	50								
Refrigerant	R507								
Filling volume g	1140								
Global Warming Potential for R507	3985								
Carbon dioxide equivalent t	4.543								
Refrigerant	R23								
Filling volume g	500								
Global Warming Potential for R23	14800								
Carbon dioxide equivalent t	7.4								
Pump capacity flow rate l/min	16 ... 40								
Pump capacity flow pressure bar	0.3 ... 1.7								

208-220V/3PPE/60Hz (Without Plug)

208V/60Hz									
Heating capacity kW	2.8								
Cooling capacity (Ethanol)									
°C	200	100	20	0	-20	-30	-40	-60	-80
kW	1.2	1.2	1.2	1.2	1.1	1.1	1.1	0.65	0.1
Viscosity max. cST	50								
Refrigerant	R507								
Filling volume g	1140								
Global Warming Potential for R507	3985								
Carbon dioxide equivalent t	4.543								
Refrigerant	R23								
Filling volume g	500								
Global Warming Potential for R23	14800								
Carbon dioxide equivalent t	7.4								
Pump capacity flow rate l/min	15 ... 38								
Pump capacity flow pressure bar	0.3 ... 1.5								

220V/60Hz									
Heating capacity kW	3.1								
Cooling capacity (Ethanol)									
°C	200	100	20	0	-20	-30	-40	-60	-80
kW	1.2	1.2	1.2	1.2	1.1	1.1	1.1	0.65	0.1
Viscosity max. cST	50								
Refrigerant	R507								
Filling volume g	1140								
Global Warming Potential for R507	3985								
Carbon dioxide equivalent t	4.543								
Refrigerant	R23								
Filling volume g	500								
Global Warming Potential for R23	14800								
Carbon dioxide equivalent t	7.4								
Pump capacity flow rate l/min	16 ... 40								
Pump capacity flow pressure bar	0.3 ... 1.7								

230V/3PPE/50Hz (Plug 32A CEE)

230V/3PPE/50Hz									
Heating capacity kW	3.4								
Cooling capacity (Ethanol)									
°C	200	100	20	0	-20	-30	-40	-60	-80
kW	1.2	1.2	1.2	1.2	1.1	1.1	1.1	0.65	0.1
Viscosity max. cST	50								

Refrigerant	R507
Filling volume g	1140
Global Warming Potential for R507	3985
Carbon dioxide equivalent t	4.543
Refrigerant	R23
Filling volume g	500
Global Warming Potential for R23	14800
Carbon dioxide equivalent t	7.4
Pump capacity flow rate l/min	16 ... 40
Pump capacity flow pressure bar	0.3 ... 1.7

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

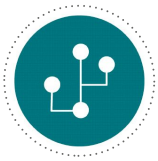
Intelligent temperature control.
Intelligent cascade control - automatic and self-optimizing adaptation of the PID control parameters with external stability of +/- 0.05 °C.

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

JULABO. Quality.
Highest standards of quality for a long product life.

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

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

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

Quick start.
Individual JULABO consultation and comprehensive manuals at your disposal.

Services 24/7.
Around the clock availability. You can find suitable accessories, data sheets, manuals, case studies, and more at www.julabo.com.