

PRESTO A80t 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.

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
- Heating capacity up to 3.4 kW
- Cooling capacity up to 1.2 kW
- 5,7" industrial color TFT touch screen
- Ports for USB, Ethernet, RS232, Modbus
- SD-Card slot
- Analog connections, RS485, Profibus DP (accessory)



Technical data

Available voltage versions		Cooling	
Order No.	9 420 801.T	Cooling of compressor	2-stage Air
Available voltage versions:			
9 420 801.07	400V/3PNPE/50Hz (Plug 16A CEE)		
9 420 801.16	208-220V/3PPE/60Hz (Without Plug)		
9 420 801.06	230V/3PPE/50Hz (Plug 32A CEE)		
Other		Electronics	
Sound pressure level dbA	68	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
Pump type Magnetically coupled	1	Absolute temperature calibration	3 Point Calibration
		Temperature display	5.7" TFT Touchscreen
		Temperature setting	Touchscreen
Dimensions and volumes		Temperature values	
Internal usable expansion volume l	5.6	Setting the resolution of the temperature display °C	0.01
Minimal process volume l	3.9	Working temperature range °C	-80.0 ... +250.0
Active heat exchanger volume l	1.7	Temperature stability °C	+/-0.01 ... +/-0.05
Weight lbs	368.2	Ambient temperature °C	+5.0 ... +40.0
Dimensions in. (W x L x H)	16.9 x 25.6 x 49.6	Temperature display resolution °C	0.01
Pump connections	M24x1.5 male		

Performance values

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 psi 4.4 ... 24.7

Power 16 A

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 psi 4.4 ... 21.8

Power 15 A

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 psi 4.4 ... 24.7

Power 15 A

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 psi	4.4 ... 24.7
Power	20 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.