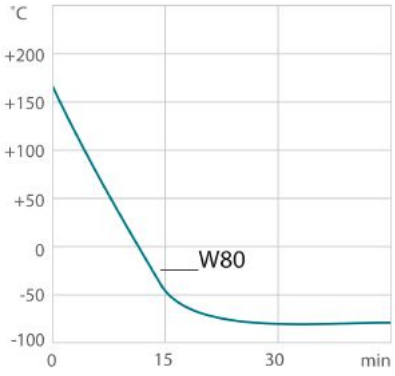
PRESTO W80 Process system

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.

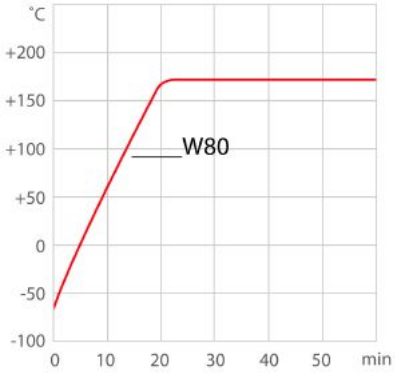
Product features

- 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)

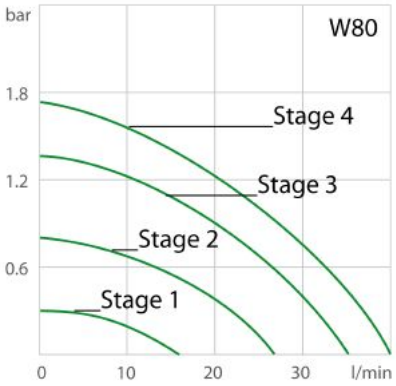
Cool-down time



Heat-up time



Pump capacity



Performance values

208V/60Hz (Nema N5-20 Plug)	
Heating capacity kW	1.5
Viscosity max. cST	50
Pump capacity flow rate l/min	15 ... 38
Pump capacity flow pressure psi	4.4 ... 18.9
Power A	15

Order No.	9421801.14

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	0.65	0.1

*Performance specifications measured in accordance with DIN12876. 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 stage 2	
Refrigerant	R507	Refrigerant	R23
Filling volume g	720	Filling volume g	500
Global Warming Potential for R507	3985	Global Warming Potential for R23	14800
Carbon dioxide equivalent t	2.869	Carbon dioxide equivalent t	7.4

Technical data

Available voltage versions

Order No.	9 421 801
Available voltage versions:	
9421801.03	230V/50Hz (Schuko Plug - CEE 7/4 Plug Type F) (R507)
9421801.04	230V/50Hz (UK Plug Type BS1363A) (R507)
9421801.14	208V/60Hz (Nema N5-20 Plug) (R507)

Cooling

Cooling of compressor	2-stage Water
Cooling water temperature max. °C	35
Cooling water pressure max. psi	87
Cooling water difference pressure psi	7.3
1.0Cooling 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

Digital interface	RS232, RS485 optional, Profibus optional, SD memory card, USB, Ethernet, Modbus, Alarm output, Reg/Eprog optional, Standby-Input 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 displayTemperature display	5.7" TFT Touchscreen
Temperature settingTemperature setting	Touchscreen

Dimensions and volumes

Internal usable expansion volume l	5.6
Minimal process volume l	3.9
Active heat exchanger volume l	1.7
Weight lbs	350.5
Cooling Water Connection in	G¾
Dimensions in. (W × L × H)	16.9 x 25.6 x 49.6

Temperature values

Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-80 ... +250
Temperature stability °C	±0.01 ... ±0.05
Ambient temperature °C	+5 ... +40
Temperature display resolution °C	0.01

Pump connections	M24x1.5 male

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 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

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.

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

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