

PRESTO Highly Dynamic Temperature Control Systems, JULABO



An entirely new generation of highly dynamic temperature control systems by JULABO. The new PRESTO® systems are designed for precise temperature control as well as rapid temperature changes, making them ideal for reactor vessels, material stress tests, or temperature simulations. These instruments cover a working temperature of -92 to +250°C with high cooling and heating capacity. Highly efficient components give these instruments the ability to compensate for exothermic and endothermic reactions with extraordinary speed. Permanent internal monitoring and self-lubricating pumps contribute to the new PRESTO®'s long service life. The integrated 5.7-inch color industrial-grade touch panel is one of the identifying characteristics of the new PRESTO®. It gives the user a clear and well-organized view of important information while greatly improving user-friendliness. Once in operation, the new PRESTO® units are whisper quiet and barely audible in a laboratory. The new PRESTO® units are extremely robust and work reliably even if the ambient temperature climbs as high as +40°C. Multiple interfaces permit remote control of the PRESTO® across networks and in superordinated control systems. Closed side panels without ventilation slits reduce the required footprint of the devices to a minimum.

Benefits and functions:

- Operating temperature range from -92°C to 250°C
- Extremely rapid heating and cooling
- Heating performance from 1.8 kW to 19 kW
- Cooling performance from 0.5 kW to 19 kW
- Magnet-coupled pumps (capacity flow rate up to 80 l/min, pump pressure up to 5.5 bar)
- Air- or water-cooled
- Large, intuitive 5.7" TFT touchscreen
- Short service times

PRESTO highly dynamic temperature control systems down to -40°C

PRESTO A30 and A40/W40 are the entry-level models for the highly dynamic JULABO temperature control system. With a heating performance of up to 2.7 kW and a cooling performance of up to 1.2 kW, these PRESTO systems over an operating temperature range between -40°C and 250°C. The systems are very quiet in operation; thanks to the integrated handles and castors, they are easy to move around in the lab. Digital and analog interfaces are included as a standard.

Technical data:

Temperature stability:	±0.01 – ±0.05°C
External Pt100 sensor connection:	yes
Digital interfaces:	RS232, SD-Card, USB, Ethernet, alarm-off, RS485, 2. external Pt100 sensor connection (only A40(W40))
Integrated programmer:	8 × 60 steps
Pump connections:	M24 × 1.5
Display/resolution:	5.7" TFT/±0.01°C

Cooling capacity	200°C	20°C	0°C	-20°C	-30°C	-40°C
A30	0.5 kW	0.5 kW	0.4 kW	0.17 kW	0.05 kW	–
A40	1.2 kW	1.2 kW	0.9 kW	0.6 kW	0.3 kW	0.1 kW
W40	1.2 kW	1.2 kW	1.0 kW	0.55 kW	0.3 kW	0.06 kW

Type	Temp. range °C	Heating cap. kW	Flow rate l/min	Pressure bar	W × D × H mm	Order No.
① A30	-30 – +250	2.7	25	0.5	250×600×620	10 35 92030
② A40	-40 – +250	2.7	16 – 40	0.3 – 1.7	330×600×670	10 35 92040
③ W40	-40 – +250	2.7	16 – 40	0.3 – 1.7	330×600×670	10 35 92140

PRESTO highly dynamic temperature control systems down to -50°C

The PRESTO A45 and W50 are the most powerful PRESTO models with one-stage cold control. The systems combine maximum heating and cooling power with strong pumps. In the extended version A45T and W50t, they even have a heating performance of 12 kW.

The pump pressure is adjustable and is indicated at the display. Typical applications include temperature control for double-walled reaction vessels, reactor systems, autoclaves, distillations, pilot systems, semiconductor industry etc.

Technical data:

Temperature stability:	±0.05 – ±0.1°C
External Pt100 sensor connection:	yes
Digital interfaces:	RS232, SD-Card, USB, Ethernet, alarm-off, RS485, 2. external Pt100 sensor connection
Integrated programmer:	8 × 60 steps
Pump connections:	M30 × 1.5
Display/resolution:	5.7" TFT/±0.01°C

Cooling capacity	200°C	20°C	0°C	-20°C	-30°C	-40°C
A45	3.4 kW	3.5 kW	3.3 kW	1.8 kW	1.0 kW	0.3 kW
A45t	3.4 kW	3.5 kW	3.3 kW	1.8 kW	1.0 kW	0.3 kW
W50	7.0 kW	7.5 kW	6.5 kW	3.0 kW	1.8 kW	0.6 kW
W50t	7.0 kW	7.5 kW	6.5 kW	3.0 kW	1.8 kW	0.6 kW



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Type	Temp. range °C	Heating cap. kW	Flow rate l/min	Pressure bar	W × D × H mm	Order No.
④ A45	-45 – +250	6	25 – 76	0.48 – 3.2	530×665×1260	10 35 92045
A45t	-45 – +250	12	25 – 76	0.48 – 3.2	530×665×1260	10 35 92046
⑤ W50	-50 – +250	6	25 – 76	0.48 – 3.2	530×665×1260	10 35 92150
W50t	-50 – +250	12	25 – 76	0.48 – 3.2	530×665×1260	10 35 92151

PRESTO highly dynamic temperature control systems down to -85°C

The devices PRESTO A80 and up use two-stage cold control, allowing them to reach temperatures of -80°C and -85°C respectively. Both models are available with air or water cooling. Air-cooled systems can be flexibly positioned; water-cooled systems, while being even quieter in operation, require a water-cooling connection.

Technical data:

Temperature stability: ±0.01 – ±0.05°C (A80/A80t/W80/W80t)
±0.05 – ±0.1°C (A85/A85t/W55/W85/W85t)

External Pt100 sensor connection: yes

Digital interfaces: RS232, SD-Card, USB, Ethernet, alarm-off, RS485,
2. external Pt100 sensor connection

Integrated programmer: 8 × 60 steps

Pump connections: M24 × 1.5 (A80/A80t/W80/W80t)

M30 × 1.5 (A85/A85t/W55/W85/W85t)

Display/resolution: 5.7" TFT/±0.01°C

Cooling capac.	200°C	20°C	0°C	-20°C	-30°C	-40°C	-60°C	-80°C
A80	1.2 kW	1.2 kW	1.2 kW	1.1 kW	1.1 kW	1.1 kW	0.65 kW	0.1 kW
A80t	1.2 kW	1.2 kW	1.2 kW	1.1 kW	1.1 kW	1.1 kW	0.65 kW	0.1 kW
W55	13.5 kW	15 kW	10 kW	4 kW	2.5 kW	1.2 kW		
W80	1.2 kW	1.2 kW	1.2 kW	1.1 kW	1.1 kW	1.1 kW	0.65 kW	0.1 kW
W80t	1.2 kW	1.2 kW	1.2 kW	1.1 kW	1.1 kW	1.1 kW	0.65 kW	0.1 kW
A85	2.8 kW	2.5 kW	2.4 kW	2.4 kW	2.4 kW	2.4 kW	2.2 kW	0.4 kW
A85t	2.8 kW	2.5 kW	2.4 kW	2.4 kW	2.4 kW	2.4 kW	2.2 kW	0.4 kW
W85	2.8 kW	2.5 kW	2.4 kW	2.4 kW	2.4 kW	2.4 kW	2.2 kW	0.4 kW
W85t	2.8 kW	2.5 kW	2.4 kW	2.4 kW	2.4 kW	2.4 kW	2.2 kW	0.4 kW

Type	Temp. range °C	Heating cap. kW	Flow rate l/min	Pressure bar	W × D × H mm	Order No.
⑥ A80	-80 – +250	1.8	16 – 40	0.3 – 1.7	430×650×1260	10 35 92080
A80t	-80 – +250	3.6	16 – 40	0.3 – 1.7	430×650×1260	10 35 92081
W55	-80 – +250	15 @ 400 V 12 @ 208 V	35 – 80	0.48 – 3.2 @ 400 V 0.48 – 3.0 @ 208 V	610×855×1250	10 35 91552
W80	-80 – +250	1.8	16 – 40	0.3 – 1.7	430×650×1260	10 35 92180
W80t	-80 – +250	3.6	16 – 40	0.3 – 1.7	430×650×1260	10 35 92181
⑦ A85	-85 – +250	6	35 – 80	0.48 – 3.2	610×1080×1250	10 35 92085
A85t	-85 – +250	15	35 – 80	0.48 – 3.2	610×1080×1250	10 35 92086
W85	-85 – +250	6	35 – 80	0.48 – 3.2	610×1080×1250	10 35 92185
W85t	-85 – +250	15	35 – 80	0.48 – 3.2	610×1080×1250	10 35 92186



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