PRESTO W58x Process system

The water-cooled PRESTO W58x is able to quickly and efficiently control the temperature in applications requiring a great deal of power. This model features has an impressive cooling capacity of 33 kW at 20°C, thus ensuring that it maintains large power reserves over its entire working temperature range, especially at temperatures around -30°C to -40°C, which are often necessary for automotive testing.

The PRESTO W58x process system is equipped with a gear pump. As a result, bath fluids with a high viscosity, such as water-glycol mixtures at low temperatures of up to -45 °C, can also be used .

The magnetically coupled pump allows the user to optimally adjust pump capacity to suit the application, even over large distances and height differences, as well as for pressure-sensitive applications. Use of the latest thermodynamic technologies means that the cooling capacity is automatically adjusted to the current power requirements. Combined with further optimizations, the PRESTO W58x is both incredibly economical and energy-efficient.

Water-glycol up to +150 °C

The PRESTO W56 contains a technical innovation: Connection of an expansion kit (accessorie) allows pressurized temperature control with water-glycol up to a working temperature of +150 °C.

Product features

- External Pt100 sensor connection
- Analog connections, RS485, Profibus DP (accessory)
- Second external Pt100 sensor connection (accessory)
- Heating capacity up to 27 kW
- Temperature stability ±0.05 °C ... ±0.1 °C
- Alarm output
- Built-in 5.7'' industrial color touchscreen
- Pump pressure up to 5.5 bar, max. flow rate 70 l/min

Performance values

400V/3PPE/50Hz (Plug 63A CEE)	
Heating capacity kW	27
Viscosity max. cSt	280
Pump capacity flow rate l/min	0 ... 70
Pump capacity flow pressure bar	0.1 ... 5.5
Power consumption A	54

Order No.	9421583.S1.07

Cooling capacity 1 (Ethanol)						
°C	20	0	-10	-20	-30	-40
kW [1]	33	32	28	19	12	7

Cooling capacity 2 (Water Glycol 40:60)						
°C	20	0	-10	-20	-30	-40
kW [1]	33	32	25	16	10	5.5

Refrigerant stage 1	
Refrigerant	R449A
Filling weight g	3100
Global Warming Potential for R449A	1397
Carbon dioxide equivalent t	4.3307

[1] Performance specifications measured in accordance with DIN 12876. 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.

Technical data

Available voltage versions	
Order No.	9 421 583
Available voltage versions:	
9421583.S1.07	400V/3PPE/50Hz (Plug 63A CEE) (R449A)
9421583.S1.17	480V/3P(N)PE/60Hz (Without Plug) (R449A)

Cooling	
Cooling of compressor	1-stage Water
Cooling water pressure max. bar	6
Max. heat dissipated by unit into cooling water kW	56

Recommended cooling water properties	
Cooling water temperature range °C	10 ... 15
Cooling water difference pressure bar	3 ... 6
Cooling water consumption l/min [2]	21 ... 28

Permissible cooling water properties	
Cooling water temperature range °C	5 ... 35
Cooling water difference pressure bar [3]	1.5 ... 6

[2] Cooling water consumption may vary outside recommended cooling water properties.
[3] At cooling water temperatures of 25 °C and higher, the minimum differential pressure is 1 bar.

Other	
Sound pressure level dbA	72
Classification	Classification III (FL)
IP Code	IP 20
Pump type	Gear Pump

Electronics	
Interfaces	Alarm output, Ethernet, Modbus, Profibus optional, REG/EPROG optional, RS232, RS485 optional, SD memory card, Standby-Input optional, USB
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

Internal usable expansion volume l	17.5
Minimal process volume l	13
Active heat exchanger volume l	12
Weight kg	486
Cooling Water Connection in	G¾
Dimensions cm (W × L × H)	70 x 108 x 174
Pump connections	M38x1.5 male

Temperature values

Setting the resolution of the temperature display °C	0.01
Working temperature range °C	-50 ... +250
Temperature stability °C	±0.05 ... ±0.1
Ambient temperature °C	+5 ... +40
Setting the resolution of the temperature display °C	0.01