

Hydraulically sealed Refrigerated Heating Circulator with water-cooled refrigerating unit. With atmospheric open expansion tank and optical level indicator. For externally closed applications. Powerful, variable speed pump, housing of stainless steel, CFC and H-CFC free. With adjustable overtemperature protection according to DIN 12876. High system performance (watt/litre) due to minimized internal volume. No HTF vapour and no moisture absorption because the expansion tank is thermally passive.

### Pilot ONE:

The new Pilot ONE controller with pioneering technology and advanced control functions brings numerous advantages to routine work. The extensive features list includes a brilliant 5,7" TFT touchscreen display, USB and network connections, an integrated technical glossary and language support in 13 languages (EN, DE, FR, IT, ES, RU, CN, PT, JP, CZ, PL, KO, TR). The Pilot ONE has a convenient navigation system with easily remembered icons and menu categories which are colour sorted to make routine work simpler. Thanks to a favourites menu and One-Click operator guidance all important information is always just a few keystrokes away. Software wizards also help you to set up, ensuring correct settings. The USB port allows connection of the system to a PC or notebook. Together with the Spy software, requirements such as remote control or data transmission are easily achieved in a cost-effective manner. Network integration is easy with the internet port.

### further functions:

E-grade Professional installed as standard, TAC (True Adaptive Control) - self optimising internal and cascade control, selectable temperature control mode (Internal/Process), programmer with 10 programs (max. 100 steps), ramp function (linear and non-linear), 5 point calibration, scalable graphic display, favourites menu, display resolution 0,01 K, integrated technical glossary, 2nd set point, user menus (Administrator level), calendar start, wallpaper selection.

4-year warranty - registration required.

### Technical data according to DIN 12876

Operating temperature range	-40...200 °C
Temperature stability at -10°C	0,01 K
temperature set point / display	5,7" colour Touchscreen
Resolution of display	0,01 K
Internal temperature sensor	Pt100
Sensor external connection	Pt100
Interface digital	Ethernet, USB (Host u. Device), RS232
digital input	ECS ONE
digital output	POKO ONE
Alarm message	optic, acoustic, relay
Safety classification	III / FL
Heating power	1,5 kW
Cooling power with	Thermooil
at 200°C	0,48 kW
at 150°C	0,48 kW
at 100°C	0,48 kW
at 50°C	0,48 kW
at 20°C	0,48 kW
Cooling power with	Ethanol
at 0°C	0,45 kW
at -20°C	0,27 kW
at -30°C	0,16 kW
at -40°C	0,04 kW
Refrigeration machine	water-cooled, natural refrigerant
Refrigerant (ASHRAE, GHS)	R290 (A3, H220)
Refrigerant quantity	0,06 kg
Gas warning sensor	without
Circulation pump:	
max. delivery	25 l/min
max. delivery pressure	0,9 bar
Pump connection	M16x1 male
max. permissible kin. viscosity	50 mm <sup>2</sup> /s
Cooling water connection	G1/2 male
Consumption at water 15°C, flow 0°C	23 l/h
min. cooling water differential pressure	2 bar



**Order-No.: 1030.0009.01**

## Technical data according to DIN 12876

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max. cooling water pressure	6 bar
min. filling capacity	1,5 l
Filling capacity expansion tank	2 l
Overall dimensions WxDxH **	260x450x504 mm
Net weight	45 kg
sound pressure level +/- 4 dB(A)	54 dB(A)
Power supply requirement	110-120V 1~ 60Hz
max. current	14 A
Fuse	16 A
Degree of Protection	IP20
min. ambient temperature	5 °C
max. ambient temperature	40 °C

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**from Serial-No.:** **544325** **1.2/23**

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Technical details and dimensions are subject to change. No liability is accepted for errors or omissions. Illustrations can deviate from the original.

Accessories and periphery: mini-USB cable #54949\*, E-grade "Professional" #9496\*, E-grade "Explore" #10495, Adapter nom. dia. 12\*, sleeve nuts M16x1 male\*, Com.G@te Namur

\* standard equipment

Output data valid for: Room temperature 20°C, cooling water inlet 15°C and 2 bar differential pressure between cooling water inlet and - outlet. This temperature control unit has been designed to operate with cooling water up to 20°C. As the cooling water temperature increases, drop in the cooling power should be expected, and also an increased cooling water flow rate possible. Materials used in the cooling water circuit include: copper, Stainless steel 1.4401, MS, PA, PPE, PTFE and EPDM. Please use suitable cooling water.

in accordance with EN60034-1 the following voltage and frequency tolerances are valid:

Voltage + / - 5% with a simultaneous frequency tolerance of + / - 2%

Example -5% voltage and + 2% frequency -> not allowed!

-5% voltage and - 2% frequency -> allowed

Information to Electromagnetic compatibility:

Classification (disturbance) to EN55011: Class A, Group 1

Standard delivery conditions - Power cable configuration:

1. Single / two-phase devices (100V to 240V) --> with power cable and country-specific plug (please specify when ordering)
2. Three-phase devices with current consumption less than 63A --> with cable, without plug
3. Three-phase devices with current consumption greater than 63A --> without cable, without plug

This equipment is compliant to US-SNAP and all applicable EU laws. The US-SNAP end-use for this equipment is the industrial process refrigeration. Certification by a Notified Body upon request.

\*\* Please respect space requirements. See operating conditions at [www.huber-online.com](http://www.huber-online.com)