

Heating Circulator for closed systems and open baths. Powerful - regulated - cooling, saves water, unpressurised. Stepper motor controlled HT cooler (High temperature cooler) and water cooled heat exchanger. Water exit temperature limited to 55° C. No steam exits on cooling with circulation temperatures over 100° C. Closed circulation pump made of stainless steel with cooled shaft seal with free shaft, without bearing in the liquid. Automatical capacity adaption for heating. Expansion tank (not thermoregulated) for closed systems, lockable for open baths. Copper soldered heat exchanger, moistened parts and housing made of stainless steel. With adjustable overtemperature protection according to DIN 12876.

#### 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.

3-2-2 warranty - registration required.

#### Technical data according to DIN 12876

Operating temperature range	65...300 °C
Minimum temperature with water cooling	15 °C
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	Class III / FL
Heating power	24 kW
Cooling power	
at 300°C	10 kW
at 200°C	10 kW
at 100°C	6 kW
Circulation pump:	
max. delivery	60 l/min
max. delivery pressure	2.5 bar
Pump connection	M30x1,5 male
max. permissible kin. viscosity	50 mm <sup>2</sup> /s
Cooling water consumption at water temp. 15°C	240 l/h
Cooling water connection	G1/2 male
min. cooling water differential pressure	3 bar
max. cooling water pressure	6 bar
min. filling capacity	3,5 l
Filling capacity expansion tank	24 l
Overall dimensions WxDxH **	460x556x1330 mm
Net weight	138 kg
Power supply (3 Phase)	400V 3~ 50Hz *
max. current (3 Phase)	37 A
Fuse (3 phase)	3x40 A
power supply convertible (3 phase)	440V 3~ 60Hz
max. current convertible (3 phase)	34 A
fuse convertible (3 phase)	3x40 A



**Order-No.: 1004.0025.01**

## Technical data according to DIN 12876

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Degree of Protection	IP20
max. ambient temperature	40 °C
min. ambient temperature	5 °C

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**from Serial-No.:** **169669** **1.0/12**

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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: E-grade "Professional" #9496\*, mini-USB cable #54949\*, E-grade "Explore" #10495, Com.G@te Namur, PC-Com.G@te-cabel, Holder for Com.G@te #10018, Com.G@te-extension cable: upon request, SpyLight-Software, Thermofluid, external pressure sensor, metal hoses, external sensor, connecting cable, float switch in sight glass for extended security.

Note: Pump connections: Bore shape Y (60°) according to DIN 3863, pipework/flexible tempering hoses: Ball socket according to DIN 3863, sleeve nut according to DIN 3870.

\* standard equipment

Output data valid for: Room temperature 20°C, cooling water inlet 15°C and 3 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 + / - 10%, as long as the frequency tolerance does not run in the opposite direction.

Example: -10% voltage and + 3% frequency -> not allowed !

-10% voltage and -3% frequency -> allowed.

Information to Electromagnetic compatibility:

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

Alternative (factory set) power supply - please quote configuration at time of ordering.

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