

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                                 | 48 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                         | 13 l                                  |
| Filling capacity expansion tank               | 44,7 l                                |
| Overall dimensions WxDxH **                   | 600x704x1520 mm                       |
| Net weight                                    | 163 kg                                |
| Power supply (3 Phase)                        | 400V 3~ 50Hz *                        |
| max. current (3 Phase)                        | 72 A                                  |
| Fuse (3 phase)                                | 3x80 A                                |
| power supply convertible (3 phase)            | 440V 3~ 60Hz                          |
| max. current convertible (3 phase)            | 66 A                                  |
| fuse convertible (3 phase)                    | 3x80 A                                |



**Order-No.: 1024.0007.01**

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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.:** **185378** **1.0/13**

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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

Standard delivery conditions - Power cable configuration:

1. Single-phase devices (230V/115V) -> with cable and plug
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

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)