

Refrigerated Heating Circulator Bath with water-cooled cooling machine. Powerful, variable speed, pressure and suction pump, evaporator (cooler) and housing of stainless steel, CFC and H-CFC free. 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.

The range of functions can be expanded very easily via E-grade at any time by entering a unit specific upgrade code:

E-grade "Exclusive": TAC (True Adaptive Control) - self optimising internal and cascade control, selectable temperature control mode (Internal/Process), programmer with 3 programs (max. 15 steps), ramp function (linear), 5 point calibration, scalable graphic display, favourites menu, display resolution 0,01 K.

E-grade "Professional": Programmer with 10 programs (max. 100 steps), ramp function for temperature gradients (linear and non-linear), 2nd set point, user menus (Administrator level), calendar start.

3-2-2 warranty - registration required.

**Technical data according to DIN 12876**

|                                          |                                   |
|------------------------------------------|-----------------------------------|
| Operating temperature range              | -45...200 °C                      |
| Temperature stability at -10°C           | 0,02 K                            |
| temperature set point / display          | 5,7" colour Touchscreen           |
| Internal temperature sensor              | Pt100                             |
| Sensor external connection               | Pt100                             |
| Safety classification                    | Class III / FL                    |
| Heating power                            | 2 kW                              |
| Cooling power                            |                                   |
| at 100°C                                 | 0,6 kW                            |
| at 20°C                                  | 0,6 kW                            |
| at 0°C                                   | 0,55 kW                           |
| at -10°C                                 | 0,42 kW                           |
| at -20°C                                 | 0,35 kW                           |
| at -30°C                                 | 0,125 kW                          |
| at -40°C                                 | 0,05 kW                           |
| Refrigeration machine                    | water-cooled, natural refrigerant |
| Refrigerant                              | R290                              |
| Refrigerant quantity                     | 0,06 kg                           |
| Gas warning sensor                       | without                           |
| Pressure pump                            |                                   |
| max. delivery                            | 22 l/min                          |
| max. delivery pressure                   | 0,7 bar                           |
| Suction pump                             | yes                               |
| max. delivery (suction)                  | 16 l/min                          |
| max. delivery pressure (suction)         | 0,4 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 15°C     | 34 l/h                            |
| min. cooling water differential pressure | 2 bar                             |
| max. cooling water pressure              | 6 bar                             |
| Bath volume                              | 4,9 l                             |
| min. filling capacity                    | 4,5 l                             |
| Bath capacity with displacement rack     | 2,8 l                             |
| Width bath opening WxD / bath depth      | 205 x 85 / 157 mm                 |



**Order-No.: 2016.0006.01**

## Technical data according to DIN 12876

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|                             |                 |
|-----------------------------|-----------------|
| Overall dimensions WxDxH ** | 300x465x516 mm  |
| Net weight                  | 41 kg           |
| Power supply requirement    | 230V 1~ 50/60Hz |
| max. current                | 11,5 A          |
| Fuse                        | 16 A            |
| Degree of Protection        | IP20            |
| max. ambient temperature    | 40 °C           |
| min. ambient temperature    | 5 °C            |

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**from Serial-No.:**

**177557**

**1.2/17**

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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\*, bath cover\*, Adapter nom. dia. 12mm\*, dummy plugs\*, sleeve nuts thread M16x1\*, hose coupling 3/8", connection tubes, braided hoses for cooling water, drain valve, displacement insert to reduce bath volume, calibration insert

\* 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-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

This unit is US-SNAP and applicable EU law compliant.

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