# huber

## **HB45**

Heating Circulator with self-absorbent circulation pump. Heating, housing and pump of stainless steel. Use for external open systems. 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.

4-year warranty - registration required.

#### Please note:

The machine is developed exclusively for external open operation, and does not possess an expansion tank. The filling of the thermofluid, and allowance for the temperature dependent volume changes is only possible via an externally connected application.

#### Technical data according to DIN 12876

from Serial-No.:	404280		1.0/20
max. ambient temperature	40 °C		
min. ambient temperature	5 °C		
Fuse	2x20 A		
max. current	15,5 A		
Power supply requirement	208V 2~ 60Hz		
Net weight	19 kg		
Degree of Protection	IP20		
Overall dimensions WxDxH	185x440x405 mm		
min. filling capacity	3,5		
Pump connection	M24x1,5 male		
Delivery at 0,5 bar	18 l/min		
max. delivery pressure	0,9 bar		
max. delivery	55 l/min		
Circulation pump:			
Heating power	3 kW		
Safety classification	II / FL		
interface digital	Device), RS232		
Interface digital	Ethernet, USB (Host u.		
Internal temperature sensor External sensor	Pt100 Pt100		
Absolute accuracy	setup for calibration		
temperature set point / display	5,7" colour Touchscreen		
Temperature stability at 70°C	0,1 K	Order-No.:	2030.0002.01
Resolution of display	0,01 K		
Operating temperature range	45250 °C		

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

Included Accessories: mini-usb cable #54949

### Technical data according to DIN 12876

Optional accessories:

temperature control / - connection hoses, external sensor thermofluids, further accessories, etc.: see catalog.

Note: Pump connections: 60° "Y" arrangement to DIN 3863, pipework/flexible tempering hoses: With union to DIN 3863.

Output data valid for: Room temperature 20°C

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

Attention: leakage current externe Temperierung

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
- \*\* Please respect space requirements. See operating conditions at www.huber-online.com

Peter Huber Kältemaschinenbau SE Werner-von-Siemens-Str. 1 D-77656 Offenburg Tel 0781/9603-0 Fax 0781/57211 www.huber-online.com