huber

Ministat 230



Refrigerated Heating Circulator Bath with air-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 ONF:

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 Temperature stability at -10°C temperature set point / display Internal temperature sensor Sensor external connection Interface digital

Safety classification Heating power Cooling power at 100°C at 20°C at 0°C

at -10°C at -20°C at -30°C at -40°C

Refrigeration machine

Refrigerant Refrigerant quantity Gas warning sensor Pressure pump max. delivery

max. delivery pressure

Suction pump

max. delivery (suction)

max. delivery pressure (suction)

Pump connection

max. permissible kin. viscosity

Bath volume min. filling capacity

Bath capacity with displacement rack Width bath opening WxD / bath depth

sound pressure level +/- 4 dB(A)
Overall dimensions WxDxH **

-40...200 °C 0.02 K

5,7" colour Touchscreen

Pt100 Pt100

Ethernet, USB (Host u. Device), RS232 Class III / FL

2 kW

0,42 kW 0,42 kW 0,38 kW 0,33 kW 0,25 kW 0,14 kW 0,05 kW

air-cooled, natural

refrigerant R290 0,099 kg without

22 I/min 0,7 bar yes 16 I/min 0,4 bar M16x1 male 50 mm²/s 3,2 I

2,8 I 1,7 I

170 x 85 / 135 mm

59 dB(A)

255x450x476 mm



Order-No.: 2015.0005.01

Tel 0781/9603-0

Technical data according to DIN 12876

from Serial-No.:	152163	1.3/19
min. ambient temperature	5 °C	
max. current Fuse Degree of Protection max. ambient temperature	11 A 16 A IP20 40 °C	
Power supply requirement	230V 1~ 50/60Hz	
Net weight	37 kg	

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*, Adapter nom. dia. 12 mm*, dummy plugs*, sleeve nuts thread M16x1*, connection tubes, drain valve, displacement insert to reduce bath volume, calibration insert * standard equipment

Output data valid for: Room temperature 20°C. If the ambient temperature rises, the cooling capacity may drop.

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

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