huber

Unistat 645w

Refrigerated Heating Circulator with water-cooled cooling machine and electronical level indicator. Magnetic coupled circulation pump made of stainless steel. Automatical switch-over and capacity adaption for heating and cooling machine. Copper soldered evaporator, moistened parts and housing made of stainless steel. For externally closed applications. With adjustable overtemperature protection according to DIN 12876. Powerful variable speed pump (soft start) with integrated pressure control with optional external pressure sensor.

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.

4-year warranty - registration required.

Technical data according to DIN 12876

Operating temperature range Temperature stability at -10°C temperature set point / display

Resolution of display Internal temperature sensor Sensor external connection

Interface digital

digital input digital output Alarm message Safety classification Heating power Cooling power with

at 200°C at 100°C

Cooling power with

at 0°C at -20°C at -40°C at -60°C

Refrigeration machine

Refrigerant (ASHRAE, GHS) Global Warming Potential (GWP)

Circulation pump: max. delivery max. delivery pressure Delivery at 1,0 bar Delivery at 1,5 bar Delivery at 2,0 bar

Delivery at 2,5 bar Delivery at 3,0 bar Delivery at 3,5 bar

Pump connection

max. permissible kin. viscosity

-60...200 °C 0.01 K

5,7" colour Touchscreen

0,01 K Pt100 Pt100

Ethernet, USB (Host u. Device), RS232

ECS ONE POKO ONE

optic, acoustic, relay

III / FL 36 kW Thermooil 45 kW 45 kW Ethanol 45 kW 42 kW 21 kW

water-cooled, CFC- and

HCFC-free R-507 (A1, H280)

3985 MK pump 343 l/min 4 bar 300 l/min 276 l/min 250 l/min 219 l/min 183 l/min 136 l/min

flange DN32 PN10/40

EN1092-1 50 mm²/s



Order-No.: 1063.0002.01

Technical data according to DIN 12876

Consumption at water 15°C, flow 0°C

Cooling water connection flange DN32 PN10/40

EN1092-1 5000 l/h 3 bar

min. cooling water differential pressure 3 bar max. cooling water pressure 6 bar min. filling capacity 30 l
Filling capacity expansion tank 30 l

Overall dimensions WxDxH ** 2210x1300x2160 mm

Power supply factory configured (3 Phase) 460V 3~ 60Hz

Pressure equipment category II

Degree of Protection IP20

min. ambient temperature 5 °C

max. ambient temperature 40 °C

from Serial-No.: 1.0/22

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, E-grade "Professional" #9496

Optional accessories:

E-grade "Explore" #10495, external sensor, temperature control / - connection hoses, thermofluids, RS232 adapter cable #55018, further accessories, etc.: see catalog.

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.

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. Materiels 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 / 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

This equipment is compliant to US-SNAP and all applicable EU laws. The US-SNAP end-use for this equipment is the industrial process refrigeration. Certification by a Notified Body upon request.

** 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