

# Unistat 905

Refrigerated Heating Circulator with air-cooled cooling machine and optical 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. As well as for externally closed and also externally open 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

temperature set point / display5,7" colour TouchscreenResolution of display0,01 KInternal temperature sensorP1100Sensor external connectionP1100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relayIII / FLHeating powerCooling power withThermooilat 20°C4 kWat 100°C3,8 kWCooling power withEthanolat -20°C3,5 kWat -20°C3,5 kWat -40°C3,5 kWat -80°C0,7 kWat -80°C0,7 kWRefrigerant Quantity Zhenga7,5 kgRefrigerant quantity GWP)2,5 kgRefrigerant quantity GWP)14800Global Warming Potential (GWP)14800Global Warming Potential (GWP)14800Refrigerant quantity Ad stage0,75 kgCriculation pump: max. delivery messure0,9 barDelivery at 0,2 bar43 l/minDelivery at 0,2 bar25 barDelivery at 0,6 bar25 bar	Operating temperature range Temperature stability at -10°C	-90250 °C 0,01 K	
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at -80°C0,7 kWRefrigeration machineair-cooled, CFC- and HCFC-freeRefrigerant (ASHRAE, GHS)R-452A (A1, H280)Global Warming Potential (GWP)2141Refrigerant quantity2,5 kgRefrigerant 2nd stage (ASHRAE, GHS)R-23 (A1, H280)Global Warming Potential (GWP)14800Global Warming Potential (GWP)0,75 kgCirculation pump:MK pumpmax. delivery48 l/minmax. delivery pressure0,9 barDelivery at 0,2 bar36 l/minDelivery at 0,4 bar36 l/min	at -40°C	3,5 kW	
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Global Warming Potential (GWP)2141Refrigerant quantity2,5 kgRefrigerant 2nd stage (ASHRAE, GHS)R-23 (A1, H280)Global Warming Potential (GWP)14800Global Warming Potential (GWP)0,75 kgCirculation pump:0,75 kgCirculation pump:MK pumpmax. delivery48 l/minmax. delivery pressure0,9 barDelivery at 0,2 bar36 l/minDelivery at 0,4 bar36 l/min	Refrigeration machine		
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Global Warming Potential (GWP)14800Order-No.: 1054.0004.01Refrigerant quantity 2nd stage0,75 kgCirculation pump:MK pumpmax. delivery48 l/minmax. delivery pressure0,9 barDelivery at 0,2 bar43 l/minDelivery at 0,4 bar36 l/min	Refrigerant quantity	2,5 kg	
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Refrigerant quantity 2nd stage0,75 kgCirculation pump:MK pumpmax. delivery48 l/minmax. delivery pressure0,9 barDelivery at 0,2 bar43 l/minDelivery at 0,4 bar36 l/min	Global Warming Potential (GWP)	14800	Order-No.: 1054.0004.01
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max. delivery pressure0,9 barDelivery at 0,2 bar43 l/minDelivery at 0,4 bar36 l/min	Circulation pump:	MK pump	
Delivery at 0,2 bar43 l/minDelivery at 0,4 bar36 l/min	max. delivery	48 l/min	
Delivery at 0,4 bar 36 l/min	max. delivery pressure	0,9 bar	
Delivery at 0,4 bar 36 l/min	Delivery at 0,2 bar	43 l/min	
		36 l/min	
		28 bar	

### Technical data according to DIN 12876

from Serial-No.:	407363	1.0/20
max. ambient temperature	35 °C	
min. ambient temperature	5 °C	
Degree of Protection	IP20	
Pressure equipment category	1	
Fuse (3 phase)	3x20A	
max. current (3 Phase)	19,5 A	
Power supply factory configured (3 Phase)	400V 3~ 50Hz	
Net weight	272 kg	
Overall dimensions WxDxH **	540x654x1500 mm	
Filling capacity expansion tank	5,3 I	
min. filling capacity	3,2 I	
max. permissible kin. viscosity	50 mm²/s	
Pump connection	M30x1,5 male	
Delivery at 0,8 bar	17 l/min	

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, SpyLight-Software, Com.G@te Namur, PC-Com.G@te-cable, Holder for Com.G@te #10018, Com.G@te-extension cable: upon request, RS232 adapter cable #55018, Thermofluid, external pressure sensor, metal hoses, external sensor, connecting cable, isolation sleeve for external open applications, float switch in sight glass for extended security, 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. 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 / 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