

Unistat 950



Refrigerated Heating Circulator with air-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. 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 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, ZH, PT, JA, CS, 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.

The dimensions specified below are approximate and may be subject to change.

Technical data according to DIN 12876

Temperature stability at -10°C0,01 Ktemperature set point / display5,7° colour TouchscreenOrder-No.: 1065.0010.01Resolution of display0,01 KInternal temperature sensorPt100Sensor external connectionPt100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 20°C30 kWcooling power withEthanolat 20°C30 kWcooling power withEthanolat 20°C30 kWcooling power withEthanolat 20°C30 kWcooling power withEthanolat -0°C30 kWcooling power withEthanolat -0°C0 kWcololing power withEthanolat -0°C <th>Operating temperature range</th> <th>-90200 °C</th> <th></th> <th></th>	Operating temperature range	-90200 °C		
Resolution of display0,01 KInternal temperature sensorPt100Sensor external connectionPt100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 200°C30 kWat 200°C30 kWat 200°C30 kWat 20°C30 kWcoling power withEthanolat 20°C30 kWcoling power withEthanolat 20°C30 kWcoling power withEthanolat 20°C30 kWcoling power withEthanolat -0°C30 kWcoling power withEthanolat -0°C30 kWat -0°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigeration machinerefrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Q0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery pressure240 l/min man. delivery pressureDelivery at 1, 0 bar270 l/min	Temperature stability at -10°C	0,01 K		
Internal temperature sensorPt100Sensor external connectionPt100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, accusic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 20°C30 kWat 00°C30 kWcooling power withEthanolat 20°C30 kWcooling power withEthanolat 20°C30 kWcooling power withEthanolat 40°C30 kWat -40°C30 kWat -40°C30 kWat -40°C90 kWat -40°C90 kWat -40°C90 kWat -40°C90 kWat -40°C90 kWat -40°C90 kWat -80°C10 kWRefrigeration machine10 kWRefrigeration machine0Refrigeration Stage (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Qharming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery pressure4 barDelivery at 1,0 bar4 bar	temperature set point / display	5,7" colour Touchscreen	Order-No.:	1065.0010.01
Sensor external connectionP1100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 20°C30 kWat 0°C30 kWcoling power withEthanolat 0°C30 kWat 0°C30 kWcoling power withEthanolat 0°C30 kWcoling power withEthanolat 0°C30 kWcoling power withEthanolat -20°C30 kWat -20°C10 kWat -20°C10 kWat -60°C10 kWRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0NumberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1, 0 bar207 l/min	Resolution of display	0,01 K		
Interface digitalEthernet, USB (Host u. Device), RS232digital iputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 200°C30 kWat 00°C30 kWat 00°C30 kWat 0°C30 kWat 0°C30 kWat 0°C30 kWat 0°C30 kWat -40°C30 kWat -40°C30 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery240 l/minDelivery at 1,0 bar207 l/min	Internal temperature sensor	Pt100		
Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 200°C30 kWat 00°C30 kWat 00°C30 kWat 00°C30 kWat 20°C30 kWat 0°C30 kWat 0°C30 kWat -40°C30 kWat -40°C30 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigeration machineair-cooled, natural refrigerantRefrigerat (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerat 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	Sensor external connection	Pt100		
digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 20°C30 kWat 100°C30 kWat 20°C30 kWcooling power withEthanolat 20°C30 kWcooling power withEthanolat 20°C30 kWcooling power withEthanolat 0°C30 kWat -40°C30 kWat -40°C30 kWat -60°C10 kWRefrigeration machinerefrigerant refrigerantRefrigeration machinenercoold, natural refrigerantRefrigerat (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Qlobal Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery messure4 bar Delivery at 1,0 barDelivery at 1,0 bar207 //min	Interface digital	Ethernet, USB (Host u.		
digital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 200°C30 kWat 200°C30 kWat 20°C30 kWat 20°C30 kWcooling power withEthanolat 0°C30 kWat 0°C30 kWat 0°C30 kWat °C30 kWat °C30 kWat °C30 kWat *60°C4 kWat *60°C10 kWRefrigeration machineai-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery pressure4 barDelivery at 1,0 bar207 //min				
Alarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power36 kWCooling power withThermooilat 200°C30 kWat 100°C30 kWat 20°C30 kWat -20°C30 kWat -20°C30 kWat -40°C30 kWat -40°C10 kWat -80°C10 kWRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	digital input			
Safety classificationIII / FLHeating power36 kWCooling power withThermooilat 20°C30 kWat 100°C30 kWat 20°C30 kWCooling power withEthanolat °C30 kWat °C30 kWat 4°C30 kWat -40°C30 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	digital output	POKO ONE		
Heating power36 kWCooling power withThermooilat 200°C30 kWat 100°C30 kWat 20°C30 kWat 20°C30 kWCooling power withEthanolat 0°C30 kWat °C30 kWat °C30 kWat 40°C30 kWat +40°C30 kWat +80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-170 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	Alarm message	optic, acoustic, relay		
Cooling power withThermooilat 200°C30 kWat 100°C30 kWat 20°C30 kWcooling power withEthanolat 0°C30 kWat -20°C30 kWat -20°C30 kWat -40°C30 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-170 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	Safety classification	III / FL		
at 200°C30 kWat 100°C30 kWat 20°C30 kWCooling power withEthanolat 0°C30 kWat -20°C30 kWat -20°C30 kWat -40°C30 kWat -40°C30 kWat -60°C4 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	Heating power	36 kW		
at 100°C30 kWat 20°C30 kWCooling power withEthanolat 0°C30 kWat -20°C30 kWat -40°C30 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0, 437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	Cooling power with	Thermooil		
at 20°C30 kWCooling power withEthanolat 0°C30 kWat -20°C30 kWat -40°C30 kWat -60°C24 kWat -60°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	at 200°C	30 kW		
Cooling power withEthanolat 0°C30 kWat -20°C30 kWat -40°C30 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerat (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	at 100°C	30 kW		
at 0°C30 kWat -20°C30 kWat -40°C30 kWat -40°C30 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigeration machine0Refrigeration machine0Refrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	at 20°C	30 kW		
at -20°C30 kWat -40°C30 kWat -60°C24 kWat -60°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	÷ ·			
at -40°C30 kWat -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	at 0°C	30 kW		
at -60°C24 kWat -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	at -20°C	30 kW		
at -80°C10 kWRefrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	at -40°C	30 kW		
Refrigeration machineair-cooled, natural refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min		24 kW		
refrigerantRefrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	at -80°C	10 kW		
Refrigerant (ASHRAE, GHS)R-1270 (A3, H220)Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min	Refrigeration machine			
Global Warming Potential (GWP)0Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min				
Refrigerant 2nd stage (ASHRAE, GHS)R-170 (A3, H280)Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min				
Global Warming Potential (GWP)0,437UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min		-		
UN-numberUN 3358Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min				
Circulation pump:MK pumpmax. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min				
max. delivery240 l/minmax. delivery pressure4 barDelivery at 1,0 bar207 l/min				
max. delivery pressure4 barDelivery at 1,0 bar207 l/min				
Delivery at 1,0 bar 207 l/min	-			
•				
	-			
Delivery at 2,0 bar 167 //min	Delivery at 2,0 bar	167 l/min		

Technical data according to DIN 12876

Delivery at 3,0 bar	115 l/min	
Pump connection	flange DN40 PN10/40 EN1092-1	
max. permissible kin. viscosity	100 mm²/s	
min. filling capacity	30	
Filling capacity expansion tank	90 I	
Overall dimensions WxDxH **	3400x2000x3100 mm	
Power supply factory configured (3 Phase)	460V 3~ 60Hz	
Degree of Protection	IP20	
min. ambient temperature	5 °C	
max. ambient temperature	40 °C	

from Serial-No.:

1.0/24

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