

Unistat T345w HT

Heating Circulator with electronic level indicator for closed systems and open baths. Powerful - regulated - cooling, saves water, unpressurised. Stepper motor controlled HT cooler (High temperature cooler) and water cooled heat exchanger. Water exit temperature limited to 55°C. No steam exits on cooling with circulation temperatures over 100°C. Magnetic coupled circulation pump made of stainless steel. Automatical capacity adaption for heating. Expansion tank (not thermoregulated) for closed systems, lockable for open baths. Heat exchanger, moistened parts and housing made of stainless steel. 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

Minimum temperature with water cooling15 °Ctemperature set point / display0,01 KInternal temperature sensorPt100Sensor external connectionPt100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKC ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power at 460V72 kWHeating power at 400V72 kWHeating power at 380V64 kWCooling power40 kWat 200°C40 kWat 200°C24 kWCirculation pump:MK pumpmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. coling water consumption at water temp. 15°C1600 l/hCooling water consumption at water temp. 15°C1600 l/hCooling water consumption at water temp. 15°C1600 l/hCooling water pressure1 barmax. cooling water pressure6 barmin. filing capacity expansion tank55 lOveral differential pressure6 barmin. filing capacity expansion tank55 lOveral dimensions WXDxH **800x16600 mmNet weight472 kgPower supply (3 Phase)380-460V 3- 50/60Hz	Operating temperature range	65300 °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 power at 460V72 kWHeating power at 380V64 kWCooling power40 kWat 200°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump: max. deliveryMK pumpmax. delivery90 l/minmax. delivery5,5 barPump connectionM381,5 malemax, delivery pressure5,5 barPump connectionG1 1/4 malemin. cooling water consumption at water temp. 15°C1600 l/hCooling water consumption at water temp. 15°C600 l/hCooling water gressure6 barmin. cooling water gressure6 barmin. cooling water gressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH**800x1060x1600 mmNet weight472 kg	Minimum temperature with water cooling			
Internal temperature sensorPt100Sensor external connectionPt100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power at 460V72 kWHeating power at 400V72 kWHeating power at 380V64 kWCooling power40 kWat 200°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery pressure5,5 barPump connection338x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water consumption at water temp. 15°C1600 l/hCooling water consumption at water temp. 15°C65 l armax. cooling water pressure6 barmin. cooling water pressure100min. filling capacity33 lFilling capacity expansion tank55 lOverald dimensions WxDxH**800x10600 mmNet weight472 kg		•	Order-No.:	1042.0004.01
Sensor external connectionPt100Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power at 460V72 kWHeating power at 400V72 kWHeating power at 380V64 kWCooling power40 kWat 300°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery90 //minmax. delivery pressure55 barPump connectionM38x1,5 malemax. delivery pressure50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water consumption at water temp. 15°C6 barmin. cooling water differential pressure6 barmin. cooling water differential pressure6 barmin. filling capacity33 lFilling capacity50 lNet weight40000 mmNet weight472 kg				
Interface digitalEthernet, USB (Host u. Device), RS232digital inputECS ONEdigital outputPOKC ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power at 460V72 kWHeating power at 400V72 kWHeating power at 380V64 kWCooling power40 kWat 200°C40 kWat 200°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM381,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water consumption at water temp. 15°C6 barmin. cooling water pressure6 barmin. cooling water pressure6 barmax. cooling water pressure55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	Internal temperature sensor			
Device), RS232digital inputECS ONEdigital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power at 460V72 kWHeating power at 400V72 kWHeating power at 380V64 kWCooling power40 kWat 300°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water differential pressure1 barmax. cooling water pressure6 barmin. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	Sensor external connection	Pt100		
digital input ECS ONE digital output POKO ONE Alarm message optic, acoustic, relay Safety classification II / FL Heating power at 460V 72 kW Heating power at 460V 72 kW Heating power at 380V 64 kW Cooling power 40 kW at 200°C 40 kW at 200°C 40 kW at 100°C 24 kW Circulation pump: MK pump max. delivery pressure 5.5 bar Pump connection M38x1,5 male max. permissible kin. viscosity 50 mm²/s Cooling water consumption at water temp. 15°C 1600 l/h Cooling water pressure 6 bar min. cooling water pressure 6 bar min. cooling water pressure 6 bar min. filling capacity 33 l Filling capacity expansion tank 55 l Overall dimensions WxDxH ** 800x1060x1600 mm	Interface digital			
digital outputPOKO ONEAlarm messageoptic, acoustic, relaySafety classificationIII / FLHeating power at 460V72 kWHeating power at 400V72 kWHeating power at 380V64 kWCooling power40 kWat 300°C40 kWat 200°C40 kWat 200°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water pressure1 barmax. cooling water pressure6 barmin. cooling water pressure5,5 lPump connection33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg				
Alarm message optic, acoustic, relay Safety classification III / FL Heating power at 460V 72 kW Heating power at 400V 72 kW Heating power at 380V 64 kW Cooling power 40 kW at 200°C 40 kW at 200°C 40 kW at 100°C 24 kW Circulation pump: MK pump max. delivery pressure 5,5 bar Pump connection M38x1,5 male max. coling water consumption at water temp. 15°C 1600 l/h Cooling water pressure 6 bar min. cooling water pressure 6 bar min. filling capacity expansion tank 55 l Overall dimensions WxDxH ** 800x1060x1600 mm Net weight 472 kg	÷ .			
Safety classification III / FL Heating power at 460V 72 kW Heating power at 400V 72 kW Heating power at 380V 64 kW Cooling power 40 kW at 300°C 40 kW at 100°C 24 kW Circulation pump: 40 kW max. delivery 90 l/min max. delivery pressure 5,5 bar Pump connection M38x1,5 male max. permissible kin. viscosity 50 mm²/s Cooling water consumption at water temp. 15°C 1600 l/h Cooling water pressure 6 bar min. cooling water pressure 6 bar min. filling capacity 33 l Filling capacity expansion tank 55 l Overall dimensions WxDxH ** 800x1060x1600 mm Net weight 472 kg				
Heating power at 460V72 kWHeating power at 400V72 kWHeating power at 380V64 kWCooling power40 kWat 300°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water pressure6 barmin. filling capacity33 IFilling capacity expansion tank55 IOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	-			
Heating power at 400V 72 kW Heating power at 380V 64 kW Cooling power 40 kW at 300°C 40 kW at 200°C 40 kW at 100°C 24 kW Circulation pump: MK pump max. delivery pressure 90 l/min max. delivery pressure 5,5 bar Pump connection M38x1,5 male max. permissible kin. viscosity 50 mm²/s Cooling water consumption at water temp. 15°C 1600 l/h Cooling water connection G1 1/4 male min. cooling water pressure 6 bar max. cooling water pressure 55 l Pilling capacity expansion tank 55 l Overall dimensions WxDxH ** 800x1060x1600 mm Net weight 472 kg				
Heating power at 380V64 kWCooling power40 kWat 300°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg				
Cooling powerat 300°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg		. =		
at 300°C40 kWat 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg		64 kW		
at 200°C40 kWat 100°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water pressure6 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg				
at 100°C24 kWCirculation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg				
Circulation pump:MK pumpmax. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg				
max. delivery90 l/minmax. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	at 100°C	24 kW		
max. delivery pressure5,5 barPump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	Circulation pump:	MK pump		
Pump connectionM38x1,5 malemax. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	max. delivery	90 l/min		
max. permissible kin. viscosity50 mm²/sCooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	max. delivery pressure	-		
Cooling water consumption at water temp. 15°C1600 l/hCooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	Pump connection	M38x1,5 male		
Cooling water connectionG1 1/4 malemin. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 IFilling capacity expansion tank55 IOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	max. permissible kin. viscosity	50 mm²/s		
min. cooling water differential pressure1 barmax. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	Cooling water consumption at water temp. 15°C	1600 l/h		
max. cooling water pressure6 barmin. filling capacity33 lFilling capacity expansion tank55 lOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	Cooling water connection	G1 1/4 male		
min. filling capacity33 IFilling capacity expansion tank55 IOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	min. cooling water differential pressure	1 bar		
Filling capacity expansion tank55 IOverall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	max. cooling water pressure	6 bar		
Overall dimensions WxDxH **800x1060x1600 mmNet weight472 kg	min. filling capacity	33		
Net weight 472 kg	Filling capacity expansion tank	55 I		
	Overall dimensions WxDxH **	800x1060x1600 mm		
Power supply (3 Phase) 380-460V 3~ 50/60Hz	Net weight	472 kg		
	Power supply (3 Phase)	380-460V 3~ 50/60Hz		
max. current (3 Phase) 115 A	max. current (3 Phase)	115 A		
Fuse (3 phase) 3x125A	Fuse (3 phase)	3x125A		

from Serial-No.:	527351	1.0/23
min. ambient temperature	5 °C	
max. ambient temperature	40 °C	
Degree of Protection	IP20	
Pressure equipment category	Art. 4.3 PED	

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 Kabel #54949

Optional accessories:

Com.G@te, Software, temperature control / - connection hoses, thermofluids, 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 1 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 Attention: leakage current > 3,5mA

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

Note on all Unistat T models:

These devices do not have an active refrigeration system.

Water cooled: Target temperatures (down to the minimum 65°C) can only be achieved with appropriate heat loss from the application or suitable water cooling.

Air cooled: The heat loss must be between 0.1kW and 2.8kW, depending on the unit. In order to reach 65°C the ambient temperature must be well below 60°C.

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