CONNECT AND PROTECT

Accessories

nVent
SCHROFF

HEATERS FROM 10 W TO 150 W

10 / 20 W

50 / 100 / 150 W

- Compact heater without fan
- Simple and fast assembly with clip-on attachment
- Broad range voltage input AC/DC 120 ... 240 V
- Low surface temperature, protective insulation, and temperature limitation with PTC resistance

DELIVERY INCLUDES (completely assembled)

Item	Qty	Description
1	1	Heater element, voltage AC/DC 100 ... 240 V; PTC resistor, self-regulating
2	1	Heating body housing, plastic UL94 V-0; type of fixing: Clip for 35 mm DIN rail EN 60715
3	1	Connection: 2-pin (10 W, 20 W) and/or 4-pin (50 W, 100 W, 150 W) terminal, 2.5 mm², torque 0.8 Nm max.

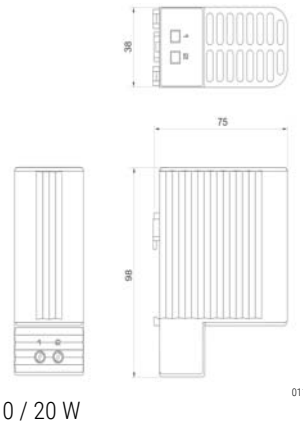
ORDER INFORMATION

Description	Part no.
10 W	**60715-220**
20 W	**60715-221**
50 W	**60715-222**
100 W	**60715-223**
150 W	**60715-224**

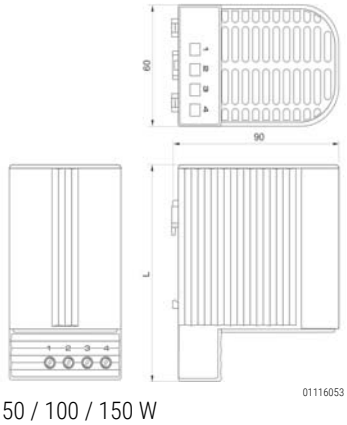
NOTE

- Thermostat for heating see page 4.65
- Hygrostat see page 4.68

Dimension drawing



10 / 20 W



50 / 100 / 150 W

TECHNICAL DATA

	10 W	20 W	50 W	100 W	150 W
Heater output in W	10	20	50	100	150
Max. switch-on current in A	1.0	2.5	2.5	4.5	8.0
Pre-fuse, delay-action in A	2.0	4.0	4.0	8.0	10.0
Type of protection	IP 20	IP 20	IP 20	IP 20	IP 20
Class of protection	II	II	II	II	II
Dimensions H × W × D in mm	98 × 38 × 75	98 × 38 × 75	110 × 60 × 90	110 × 60 × 90	150 × 60 × 90
Weight in kg	0.2	0.3	0.3	0.3	0.5
Connection	2-pin terminal, 2.5 mm², torque 0.8 Nm		4-pin terminal, 2.5 mm², torque 0.8 Nm		
Surface temperature in °C	< + 80°C, with exception of above mesh surface				
Test seal	CE, UL, VDE, EAC, RoHS				
Mounting	Clip-on attachment for 35 mm DIN rail (EN 60715)				

HEATERS WITH HEATER FANS FROM 150 W TO 400 W

01116004

- Compact heater with fan, small, compact design with high heater output
- Simple and fast assembly with clip-on attachment or bolt fixing
- Dynamic heating up and temperature limitation by PTC technology
- Quiet

DELIVERY INCLUDES (completely assembled)

Item	Qty	Description
1	1	Heater element, voltage 230 V_{AC}, resistor (PTC resistance) self-regulating
2	1	Heating body housing, plastic UL94 V-0; type of fixing: Clip for 35 mm DIN rail EN 60715
3	1	Axial fan, airflow from bottom to top
4	1	Connection: 2-pin terminal, 2.5 mm², torque 0.8 Nm max.

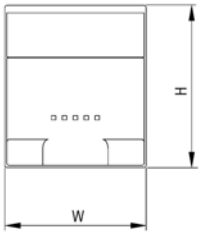
ORDER INFORMATION

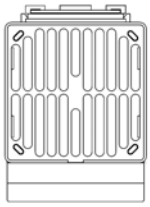
Description	Part no.
150 W	**60715-225**
250 W	**60715-226**
400 W	**60715-227**

NOTE

- Thermostat for heating see page 4.65
- Hygrostat see page 4.68

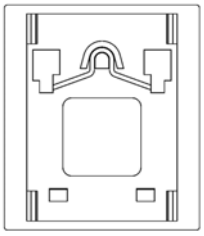
Dimension drawing





01116050

Clip attachment



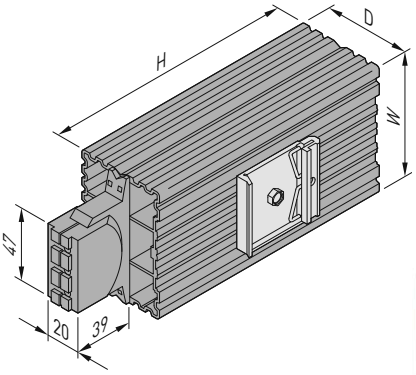
01116051

TECHNICAL DATA

	150 W	250 W	400 W
Heater output in W	150	250	400
Max. switch-on current in A	9.0	12	15
Pre-fuse, delay-action in A	10	10	16
Axial fan, free blowing output	13.8 m²/h	45 m²/h	45 m²/h
Type of protection	IP 20	IP 20	IP 20
Class of protection	II	II	II
Dimensions H x W x D in mm	75 x 65x 90	90 x 85 x 111	90 x 85 x 111
Weight in kg	0.3	0.5	0.5
Surface temperature in °C	< + 50°C, with exception of above mesh surface		< + 65°C, with exception of above mesh surface
Connection	2-pin terminal, 2.5 mm², torque 0.8 Nm max.		
Test seal	CE, UL, VDE, EAC, RoHS		
Mounting	Clip-on attachment for 35 mm DIN rail (EN 60715)		

Part number in bold face type: ready for shipping within 2 working days
Part number in normal type: ready for shipping within 10 working days

HEATERS FROM 30 W TO 150 W



Support rail

- Radiator heater (without fan)
- Simple and fast assembly with clip-on attachment and press-on terminal connection
- Wide input voltage range 110 ... 250 V_{AC}
- Temperature limiting with PTC resistor

DELIVERY COMPRISES (completely assembled)

Item	Qty	Description
1	1	Heater element, voltage range 110 ... 250 V_{AC}; resistor (PTC) self-regulating
2	1	Heating body, Al extrusion, anodised Fixing: clip for 35 mm DIN rail EN 50022
3	1	Connection: type 30, with connecting cable (3 x 0.5 mm^2, 300 mm long, black); type 45, 100, 150 with press-on terminal connection (for stranded/rigid wire 3 x 0.5 ... 2.5 mm^2)

ORDER INFORMATION

Description	30 Part no.	45 Part no.	100 Part no.	150 Part no.
Heaters from 30 W to 150 W	**60715-020**	**60715-021**	**60715-023**	**60715-030**
Support rail DIN rail EN 50022 (35 mm), length 215 mm, 1 piece				**20715-001**

TECHNICAL DATA

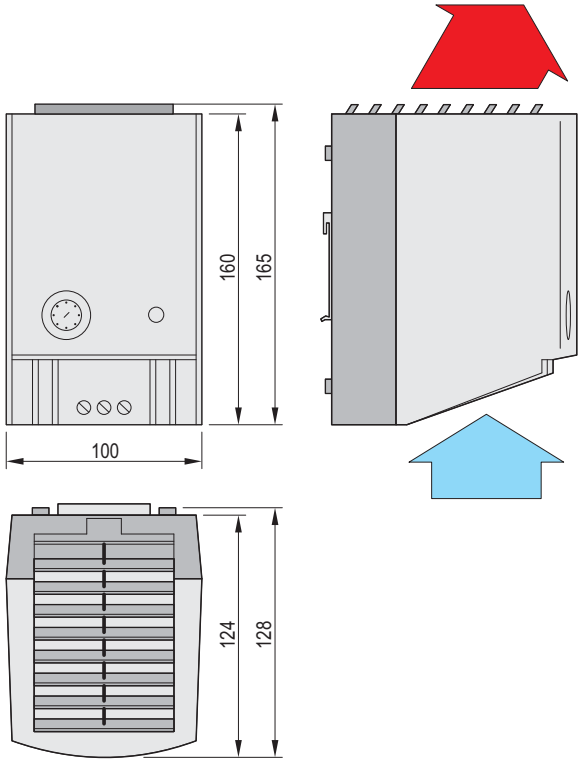
	30 W	45 W	100 W	150 W
Heater output in W	30	45	100	150
Surface temperature in °C	approx. 100	approx. 105	approx. 130	approx.140
Max. switch-on current in A	3,0	3,5	4.0	9,0
Type of protection	IP 54	IP 20	IP 20	IP 20
Class of protection	I	I	I	I
Dimensions H × W × D in mm	70 × 25 × 50	69 × 70 × 50	144 × 70 × 50	224 × 70 × 50
Weight in kg	0.2	0.3	0.5	0.7
Test seal	VDE, CE, UL (File E150057)	CE, UL (File E150057)	CE, UL (File E150057)	CE, UL (File E150057)
Assembly	Clip-on attachment for 35 mm DIN rail (EN 50022)			

NOTE

- Thermostat for heating see page 4.65
- Hygrostat see page 4.68

HEATER FANS 475/550 W

01108030



01108069

00508013

Support rail

- Heater with fan and thermostat
- Simple and fast assembly with clip-on attachment
- 3-pin terminal clamp, separate heater/fan connection
- Thermostat from 0 ... 60 °C
- Temperature limiting with PTC resistor

DELIVERY COMPRISES (completely assembled)

Item	Qty	Description
1	1	Plastic housing, polycarbonate (RAL 9002, grey white), clip for 35 mm DIN rail EN 50022
2	1	Heater element, 230 V_{AC}, resistor (PTC) self-regulating
3	1	Thermostat
4	1	230 V_{AC} fan

ORDER INFORMATION

Description	Part no.
Heater 475 W	**60715-017**
Heater 550 W	**60715-018**
Support rail DIN rail EN 50022 (35 mm), length 215 mm, 1 piece	**20715-001**

TECHNICAL DATA

Voltage range	230 VAC			
Frequency	50 Hz	60 Hz	50 Hz	60 Hz
Heater output	**475 W**	550 W	**550 W**	650 W
Air capacity of axial fan	35 m^3/h	39 m^3/h	45 m^3/h	50 m^3/h
Current at switch-on approx.	11 A		13 A	
Weight	0.9 kg		1.1 kg	
Heater element	Resistor (PTC), self-regulating			
Connection	3-pin connecting terminal, 2.5 mm^2, separate connection heating/fan			
Thermostat	Adjustment range 0 ... 60 °C			
Control lamp of control system	Glow lamp			
Temperature control	In the event of fan failure			
Type of protection	IP 20			
Class of protection	II			
Assembly	Clip-on attachment for 35 mm DIN rail (EN 50022)			
Dimensions	Height 165 mm, width 100 mm, depth 128 mm			

Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

HEATER FAN 400 W, MODULAR

01108007

Example of a complete heater unit: 1: heater, 2: fan, 3: protective grille, 4: connection cable

01108006

Heater element

00508013

Support rail

- Modular system consisting of:
  heater element, fan, protective grille and connecting cable
- Fan not included in delivery extent; please order fan with desired air capacity separately
- Simple and fast assembly with clip-on attachment
- Overheating protection through thermal switch

DELIVERY COMPRISES (completely assembled)

Item	Qty	Description
1	1	Heater element, high-performance cartridge
2	1	Connecting cable fan - heating distributor, length 0.3 m
3	1	GND/earth cable, ring tag - open end, length 0.3 m
4	1	Clip-on attachment for DIN rail with assembly kit

ORDER INFORMATION

Description	230 V_{AC} Part no.
Heater fan 400 W, modular	**60715-029**
Support rail DIN rail EN 50022 (35 mm), length 215 mm, 1 piece	**20715-001**

TECHNICAL DATA

Voltage range	230 V_{AC}
Current at switch-on	1.8 A
Heater output	400 W
Air capacity m^3/h	Please choose desired fan
Surface temperature with fan	Approx. 140 °C
Type of protection	IP 20
Class of protection	I, with GND/earthing
Dimensions: height x width x depth in mm	22 x 120 x 160
Assembly	Clip for 35 mm DIN rail EN 50022

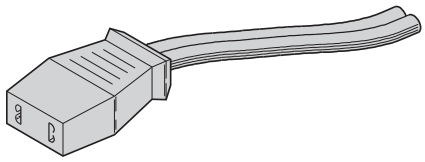
NOTE

- **Attention**: Danger of overheating, never use heater without fan
- Fan see page 4.63
- Thermostat for heating see page 4.65
- Hygrostat see page 4.68

AC FANS FOR HEATING 400 W

01108005

Connecting cable



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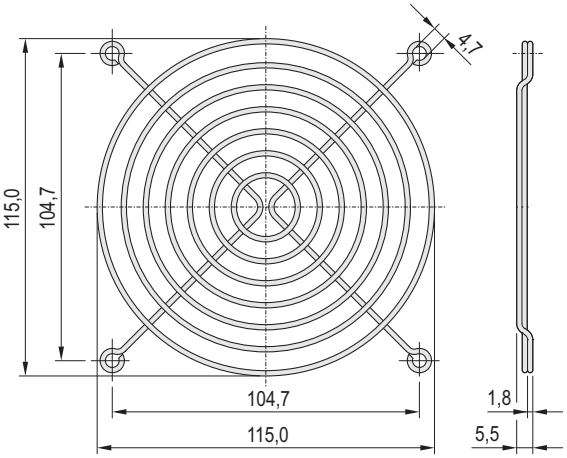


01108055

Protective grille

- The fan is screwed below the heater and the cable is connected to the heater (please order connecting cable and protective grille separately)

DELIVERY COMPRISES

Item	Qty	Description
1	1	Fan (width 119 mm, depth 119 mm)

ORDER INFORMATION

	Height mm	Airflow volume m^3/h	115 V_{AC} Part no.	230 V_{AC} Part no.
Type A	25	84	**20713-146**	**20713-142**
Type B	25	108	**20713-147**	**20700-001**
Type C	38	162	**20713-244**	**20713-243**
PVC (2 x 0.75 mm^2), 1 m long with 2 Faston connectors 2.8 x 0.5 mm to DIN 46343 T1, 1 piece				**21101-246**
Protective grille, metal, to screw-on				**60197-019**

DIMENSIONS AC fans

Type	Type A		Type B		Type C	
Frequency in Hz	50	60	50	60	50	60
Airflow volume in m^3/h	84	90	108	120	162	192
Noise level per fan in dB(A)	29	30	34	38	37	41
Max. static pressure in Pa	23	21	41	41	73	88
Max. ambient temperature in °C	70	70	70	70	70	70
Power consumption in W	8	7	14	11	15	14
Dimensions: height in mm (width 119 mm × depth 119 mm)	25		25		38	

NOTE

- Please order connection cable and protective grille separately

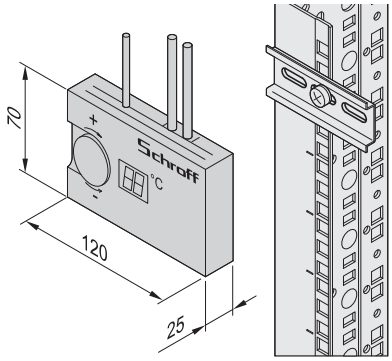
Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

SPEED CONTROL FOR FANS WITH C13 PLUG

01111001

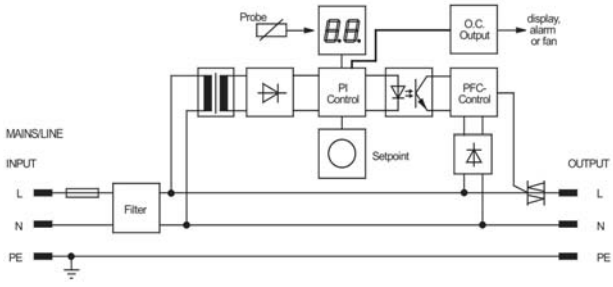
01111002

Speed controller with connecting cables



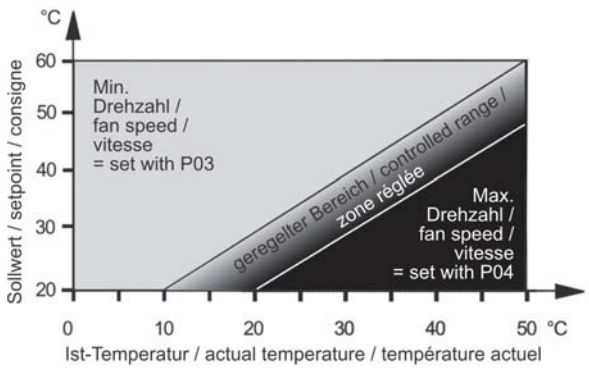
01105055

Block diagram



01111050

Speed varies in relation to temperature



01111051

- Suitable for all AC fans and fan units (up to 300 W) with IEC 60320 C13 plug (plug & play)
- Simple to mount on the support rail provided
- Simple adjustment of switch-on temperature (with knob and digital display)
- External sensor can be fitted at a desired measurement point
- Open-collector output (parametrisable)
  - Alarm output (active/passive)
  - DC fans (PWM output)
  - Remote display (via optional digital display with front panel)

DELIVERY COMPRISES

NEW

Item	Qty	Description
1	1	Speed controller; input/output voltages 115 ... 240 V_{AC}, see Technical Data
2	1	Temperature sensor, cable length 1.5 m
3	1	Fan cable, 2 m, with IEC 60320 socket
4	1	Mains cable, 3 m, with connecting plug
5	1	Support rail, St, zinc-plated (EN 50022)
6	1	Assembly kit

ORDER INFORMATION

Speed control for fans with C13 plug	Part no.
Mains cable SCHUKO/UTE plug	**60715-005**
Mains cable IEC 60320 C13 plug	**60715-006**
Accessories	
Thermostat with digital display 230 VAC , 1 piece	**Page 4.67**
Thermostat with digital display 115 VAC , 1 piece	**Page 4.67**
Connecting cable for DC fans or alarm output Length 2 m, 2-wire (0.34 mm^2), 1 piece	**60715-007**

TECHNICAL DATA

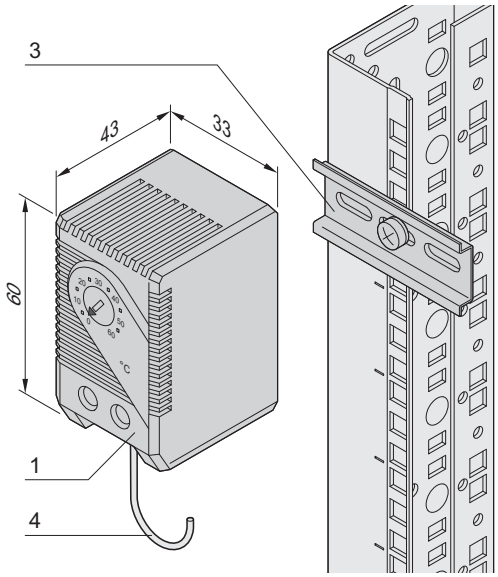
Voltage range	115 ... 240 V_{AC} (90 ... 264 V_{AC})
Frequency	48 ... 62 Hz
Power consumption	max. 4 VA
Display	LCD display, height 13 mm, red
Max. connection power	300 W (230 V_{AC}), 150 W (115 V_{AC})
Max. continuous current	1.3 A
Adjustment range	+20 ... +60 °C with potentiometer
Fan speed frequency	25 ... 100 %
Sensor	External NTC resistor
Sensor connection	AMP plug contact and cable, 1.5 m, 2 x 0.22 mm
In case of sensor failure	Max. speed
Fan connection	Cable 2 m with C13 IEC 60320 socket
Open-collector output	AMP plug contact, programmable function, $V_{max.}$ 30 V_{DC}, $I_{max.}$ 30 mA
Mains connection	Cable 3 m with plug
Mechanics	Case, IP 30, plastic, weight 0.5 kg, mounts on horizontal rail with lip DIN EN 50022
Dimensions	Width 120 mm, height 70 mm, depth 25 mm
Environmental conditions	0 ... 60°C, max. 85 % rel. humidity, non-condensing

NOTE

- Thermostat with digital display, see page 4.67

THERMOSTAT WITH INTEGRATED TEMPERATURE SENSOR

01108004



01108050

01108009

Connection cable: 2-pin, ferrules - IEC socket

01108010

Connection cable: 2-pin, ferrules - 3-pin, ferrules

- To control fans or heaters
- Adjustment range 5 ... 60 °C
- Individual adaptation with three separate components: thermostat (for cooling or heating), assembly material, connecting cable (IEC connector or ferrules)
- 2 versions
  - for heating
  - for cooling

DELIVERY COMPRISES

Item	Qty	Description
1	1	Thermostat, width 33 mm, height 60 mm, depth 43 mm; clip-on attachment for 35 mm DIN rail EN 50022, switched voltage 120 ... 250 V_{AC}
2	1	User manual

ORDER INFORMATION

Description	Part no. for cooling	Part no. for heating
Thermostat with integrated temperature sensor	**60715-136**	**60715-137**
Accessories		
Item 3 DIN rail (EN 50022) 35 mm; length 75 mm; with fixing materials kit, PU 1 set		**21120-178**
Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan IEC socket; 1 piece		**62150-201**
Item 4 Connection cable, SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan/heater, 3-pin, ferrules, 1 piece		**62150-264**

DIMENSIONS

Thermostat	for cooling (make contact), blue control button	for heating (break contact), red control button
Adjustment range	0 ... 60 °C	
Switching temperature difference	7 K (± 4 K tolerance)	
Sensing element	Thermobimetal (snap-action contact)	
Contact resistance	<10 m?	
Lifespan	>100000 cycles	
Max. switch performance	10 A at 250 V_{AC}, 15 A at 120 V_{AC}; 30 W at DC voltage	
Connection	2-pin clamp, up to 2.5 mm^2, torque max. 0.5 Nm	
Case	Plastic, in accordance with UL 94 V-0, light grey	
Dimensions	Height 60 mm, width 33 mm, depth 43 mm	
Assembly	Clip for 35 mm DIN rail, EN 50022	
Weight	40 g	
Operating/storage temperature	-20 ... +80 °C/-45 ... +80 °C	
Protection class	IP 20	

Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

THERMOSTAT WITH INTEGRATED TEMPERATURE SENSOR

01102008

- To control heaters or fans
- Adjustment range 5 ... 60 °C

DELIVERY COMPRISES

Item	Qty	Description
1	1	Thermostat with clip-on attachment for 35 mm DIN rail EN 50022, voltage 200 ... 250 V_{AC} and 100 ... 130 V_{AC}
2	1	Support rail, length 200 mm
3	1	Connection cable, length 1.5 m
4	1	Strain relief
5	1	Assembly kit for cabinet assembly

ORDER INFORMATION

Description	Part no.
Thermostat with integrated temperature sensor	**20715-002**

TECHNICAL DATA

Dimensions	Height: 75 mm, width: 75 mm, depth: 25 mm
Adjustment range	5 ... 60 °C
Switch difference	0,5 K
Supply voltage	200 ... 250 V_{AC}
Contact load (ohmic load/inductive load)	Heat (terminals 1 - 2) 10 A / 4 A Cool (terminals 1 - 3) 5 A / 2 A
Contacts	Changeover contact, single pole
Type of assembly	Bolt-on, snap mounting for slide rail

THERMOSTAT WITH EXTERNAL TEMPERATURE SENSOR

01102007

- To control heaters or fans
- External sensor can be positioned near the critical sub-assembly
- Adjustment range 20 ... 60 °C, switch difference 3 ... 10 K

CE

DELIVERY COMPRISES

Item	Qty	Description
1	1	Thermostat with external temperature sensor, sensor length approx. 1.7 m
2	1	Mounting plate for cabinet assembly, Al, 2.5 mm
3	1	Assembly kit

ORDER INFORMATION

Description	Part no.
Thermostat with external temperature sensor	**20715-003**

TECHNICAL DATA

Dimension (height x width x depth)	93 mm x 68 mm x 44 mm
Adjustment range	20 ... 60 °C
Switching difference	3 ... 10 K
Mains/line voltage	90 ... 260 V_{AC}
Contact load (ohmic load/inductive load)	24 A/10 A
Contacts	Change-over, single pin
Assembly	Screw-fixed

THERMOSTAT WITH DIGITAL DISPLAY

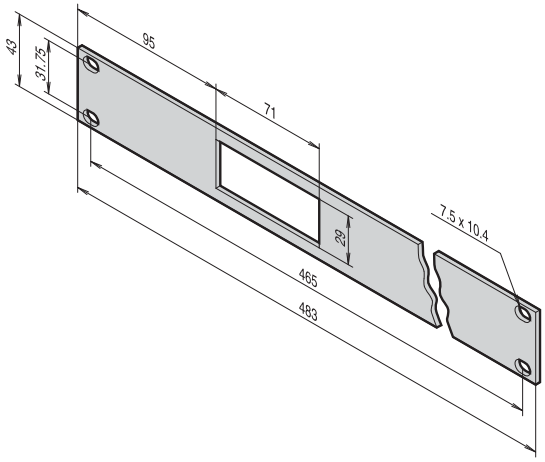
01197001

- Adjustment range from -50 to +100 °C (switch difference 0 ... 10 °C)
- Display switchable from °C to °F
- Programmable (secured against unauthorised operation)
- 3-character red segment display

ORDER INFORMATION

Description	Part no.
Thermostat with digital display, 230 V_{AC}	**60715-132**
Thermostat with digital display, 115 V_{AC}	**60715-133**
Front panel 1 U, RAL 7035 with cut-out for thermostat	**30118-315**
Front panel 1 U, anodised with cut-out for thermostat	**30118-267**
Front panel 1 U, RAL 7021 with cut-out for thermostat	**30118-360**

Front panel 1 U



SZA45550

TECHNICAL DATA

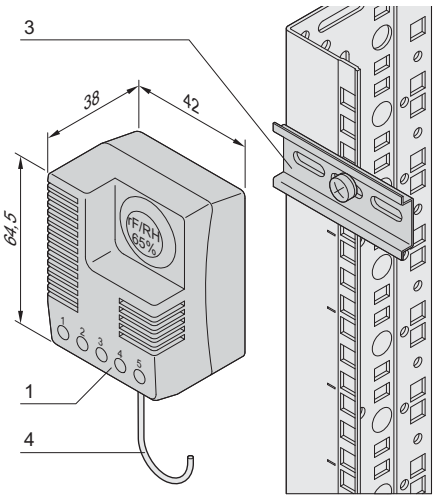
Operating voltage	115 V_{AC} or 230 V_{AC}
Power consumption	Approx. 3.5 W
Dimensions	Height: 35 mm, width: 76 mm, depth: 59 mm
Assembly cut-out	28.8 x 70.5 mm
Adjustment range	–50 ... +100 °C
Switch difference	0 ... 10 K selectable
Data safeguarding at power failure	Non-volatile memory
Contact load (ohmic load/inductive load)	8 A/3 A (ohmic/inductive load)
Input/sensor	PTC resistance, -55 ... +120 °C, cable length 3 m
Contacts	Relay, changeover contact, single pin
Protection class to front	IP 54
Connection	Screw-on terminals, 2.5 mm^2
Fixing	With clamping bracket
Type of assembly	Can be screwed on

Part number in bold face type: ready for despatch within 2 working days
Part number in normal type: ready for despatch within 10 working days

HYGROSTAT

01116006

Hygrostat with adjustable and permanently set relative humidity



01108051

01108009

connecting cable, connection cable, 2-pole, ferrule - IEC-(female) connector; input jack; bush; socket

01108010

connecting cable, connection cable, 2-pole, ferrules - ferrules

- Adjustable or fixed relative air humidity
- Switches fan or heaters when the set value is reached
- Visual display
- Integrated LED lights up when the connected consumer is switched on
- Individual adaptation with three separate components: Hygrostat, assembly material, connecting cable (input with SCHUKO/UTE connector; output with IEC connector or open end) please order separately

DELIVERY INCLUDES (assembled)

Item	Qty	Description
1	1	Hygrostat, width 42 mm, height 64.5 mm, depth 38 mm; clip-on attachment for 35 mm DIN rail EN 50022
2	1	User manual

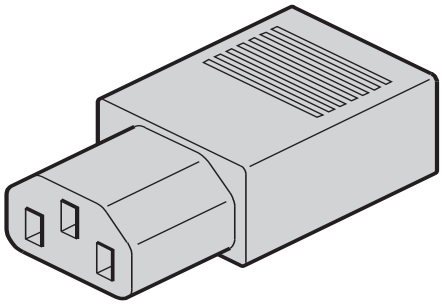
ORDER INFORMATION

Description	Part no.
Hygrostat, fixed, 65 % air humidity	**60715-138**
Hygrostat, adjustable, 40 ... 90 % air humidity	**60715-213**
Accessories	
DIN rail (EN 50022) Item 3 35 mm; length 75 mm; with fixing materials kit, PU 1 set	**21120-178**
Connection cable Item 4 SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan IEC socket; 1 piece	**62150-201**
Connection cable Item 4 SCHUKO/UTE connector, cable length 1.5 m; connection on thermostat/hygrostat, 2-pin, ferrules; connection on fan/heater, 3-pin, ferrules, 1 piece	**62150-264**

TECHNICAL DATA

Supply voltage	230 V_{AC}, 50/60 Hz	
Default setting for relative air humidity	65 % fixed	40 ... 90% adjustable
Switch difference	5 % air humidity (w 1 % air humidity tolerance at 25 °C)	
Switch contact	Changeover contact (relay)	
Lifespan	> 50,000 cycles	
Max. switching capacity	8 A (16 A for 10 s)	
Mains supply	2-pin terminal, up to 2.5 mm^2, torque max. 0.5 Nm	
Output change-over relay	3-pin terminal, up to 2.5 mm^2, torque max. 0.5 Nm	
Case	Plastic, in accordance with UL 94 V-0, light gray	
Dimensions	Height 64.5 mm, width 42 mm, depth 38 mm	
Type of assembly	Clip for 35 mm DIN rail, EN 50022	
Weight	65 g	
Operating/storage temperature	0 ... +60 °C/-20 ... +70 °C	
Max. storage humidity	90 % air humidity (non-condensing)	
Type of protection	IP 20	

IEC INPUT PLUG



KTA45246

- For connection of fans
- Bolted housing made of heat-resistant plastic (UL 94 V-0)
- 10 A/250 V_{AC}, protection class I

ORDER INFORMATION

Description	Part no.
IEC input plug	**60715-046**

Part number in bold face type: ready for shipping within 2 working days
Part number in normal type: ready for shipping within 10 working days

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