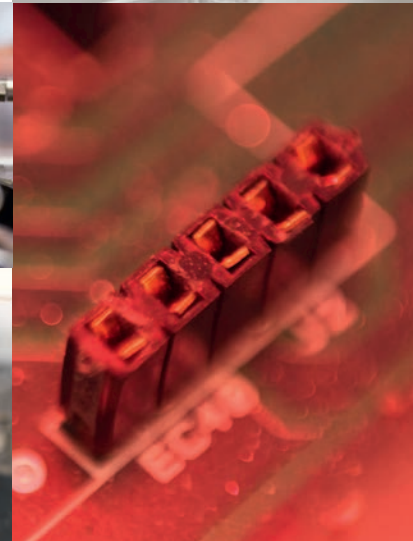
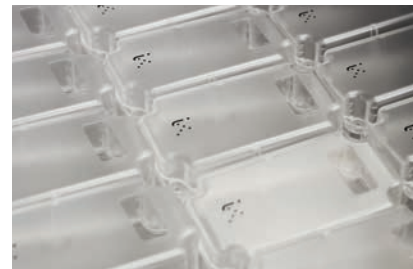


4 Electric heating controllers



CONTROLLERS WITH PI-CONTROL, 230...400 V AC, WALL MOUNTING

Wall mounted electric heating controller intended for control of radiators or electric heating coils. It is a complete controller with built-in sensor and setpoint adjustment. It pulses the whole load on/off and utilises time-proportional triac control. Both automatic control function adaptation, P- or PI-control and supply voltage adaptation, 230 V / 400 V.



CTR-M



CTR-D



CTR-ADD

Technical data	
Supply voltage	230...400 (210 - 415 V ~ 50/60 Hz 16 A)
Ambient temperature	0...30 °C
P-band	20 K (rapid temperature changes), 1.5 K (slow temperature changes)
I-time	6 min (rapid temperature changes)
Pulse period	60 s
Power dissipation	20 W of heat at full load
Dimensions	95 x 153 x 41 mm
Protection class	IP20

Inputs/outputs (I/Os)	
Setpoint range	0...30 °C (the external sensor determines the temperature range)
Night setback	0...10 K
Output load	Resistive load, max 16 A, min 1 A

Article	Description	Mounting
CTR-M	Electric heating controller with min./max. limitation	Wall
CTR/D	Electric heating controller	DIN-rail
CTR-ADD	Add-on unit	Wall
CTR-X/D	Electric heating controller for external 0...10 V DC control signal	DIN-rail

ELECTRIC HEATING CONTROLLER FOR EXTERNAL INPUT SIGNAL 0-10 V, 230 V AC OR 400 V AC, WALL MOUNTING

Electric heating controller for controlling electric heating batteries, electric panels etc. It operates on an input signal from an external controller.



CTR230X010



CTR400X010

Technical data	
Supply voltage	...230X...: 230 V ~ (207...253 V ~ 50/60 Hz 16 A) ...400X...: 400 V ~ (360...440 V ~ 50/60 Hz 16 A)
Ambient temperature	0...30 °C , non-condensing
Pulse period	6/60/120 s , adjustable
Dimensions, external (WxHxD)	93 x 153 x 40 mm
Mounting	Wall
Protection class	IP20

Article	Description	Supply voltage
CTR230X010	Electric heating controller for external 0...10 V DC control signal	230 V AC
CTR400X010	Electric heating controller for external 0...10 V DC control signal	400 V AC

ELECTRIC HEATING CONTROLLER FOR WALL MOUNTING, 3-PHASE, 210...415 V

The controller can be used with internal or external setpoint. Automatic control function adaptation, P- or PI-control. The controller can also be set to be controlled by an external 0...10 V DC signal.



CTR2000

Technical data	
Supply voltage	3-phase, 210...255 / 380...415 V AC, automatic adaptation
Setpoint	0...30 °C (the sensor determines the range)
Max. load	Max. 25 A, min. 3 A/phase
Sensor inputs	Two, main and min./max. limiting sensors (NTC sensor)
Control signal	0...10 V DC (external signal)
Mounting	Wall
Protection class	IP30
P-band	Supply air temperature control: 20 K, fixed Room temperature control: 1.5 K, fixed
I-time (supply air temperature control)	6 min, fixed
Pulse period	6...120 s
Dimensions	160 x 207 x 94 mm

Article	Description
CTR2000	Electric heating controller

4

SLAVE BOARD FOR ELECTRIC HEATING CONTROLLERS

CTR-S1 is intended for use together with the electric heating controller CTR2000, in order to control extra loads.



CTR-S1

Article	Description
CTR-S1	Slave board for control of extra loads (+17 kW)

ELECTRIC HEATING CONTROLLER FOR DIN-RAIL MOUNTING, 3-PHASE, 210...415 V, 25 A

For control of electric heating coils or radiators. The controllers pulse the whole load on/off and utilise time-proportional triac control. Automatic control function adaptation, P- or PI-control. The controllers can also be set to be controlled by an external 0...10 V DC signal.



CTR25

Technical data

Supply voltage	3-phase, 210...255 / 380...415 V AC, automatic adaptation
Ambient temperature	0...40 °C
Mounting	DIN-rail
Dimensions (WxHxD)	195 x 200 x 95 mm
Protection class	IP20
P-band	Supply air temperature control: 20 K, fixed Room temperature control: 1.5 K, fixed
I-time	6 min, fixed
Pulse period	6...60
Load	25 A
Output	25 A, 3 x 400 V AC, 17 kW (3 x 230 V, 10 kW)

Inputs

Setpoint	0...30 °C (the sensor determines the range)
Setpoint	0...30 °C (the sensor determines the range)
Setpoint	0...30 °C (the sensor determines the range)
Sensor inputs	Two, main and max./min. limiting sensors (NTC sensor). Note: Does not apply to TTC25X.
Sensor inputs	Two, main and max./min. limiting sensors (NTC sensor). Note: Does not apply to TTC25X.
Sensor inputs	Two, main and max./min. limiting sensors (NTC sensor). Note: Does not apply to TTC25X.
Control signal	0...10 V DC

Article	For use with Regin NTC sensor	For external 0...10 V DC control signal only	External 0...10 V DC control signal option
CTR25	X	-	X



To control larger electrical loads, see the step controllers SC4 and SC6.

ELECTRIC HEATING CONTROLLER FOR DIN-RAIL MOUNTING, 3-PHASE, 210...415 V, 40 A

For control of electric heating coils or radiators. The controllers pulse the whole load on/off and utilise time-proportional triac control. Automatic control function adaptation, P- or PI-control. The controllers can also be set to be controlled by an external 0...10 V DC signal.



CTR40

Technical data	
Supply voltage	3-phase, 210...255 / 380...415 V AC, automatic adaptation
Ambient temperature	0...40 °C
Mounting	DIN-rail
Dimensions (WxHxD)	195 x 220 x 95 mm
Protection class	IP20
P-band	Supply air temperature control: 20 K, fixed Room temperature control: 1.5 K, fixed
I-time	6 min, fixed
Pulse period	6...60 s
Load	40 A
Output	40 A, 3 x 400 V AC, 27 kW (3 x 230 V, 16 kW)
Inputs	
Setpoint	0...30 °C (the sensor determines the range)
Sensor inputs	Two, main and max./min. limiting sensors (NTC sensor).
Control signal	0...10 V DC

Article	Description	External 0...10 V DC control signal option
CTR40	Electric heating controller with temperature control	X



To control larger electrical loads, see the step controllers SC4 and SC6.

ELECTRIC HEATING CONTROLLER FOR DIN-RAIL MOUNTING, 3-PHASE, 400 V, 80 A

For control of electric heating coils or radiators. The controllers pulse the whole load on/off and utilise time-proportional triac control. Automatic control function adaptation, P- or PI-control. The controllers can also be set to be controlled by an external 0...10 V DC signal.



CTR80

Technical data	
Supply voltage	3-phase, 400 V AC $\pm 10\%$
Ambient temperature	0...40 °C
Mounting	DIN-rail
Dimensions (WxHxD)	195 x 220 x 105 mm
Protection class	IP20
P-band	Supply air temperature control: 20 K, fixed Room temperature control: 1.5 K, fixed
I-time	6 min, fixed
Pulse period	6...120 s
Load	80 A
Output	80 A, 3 x 400 V AC, 55 kW
Inputs	
Setpoint	0...30 °C (the sensor determines the range)
Sensor inputs	Two, main and max./min. limiting sensors (NTC sensor).
Control signal	0...10 V DC

Article	Description	External 0...10 V DC control signal option
CTR80	Electric heating controller with temperature control	X



To control larger electrical loads, see the step controllers SC4 and SC6.