

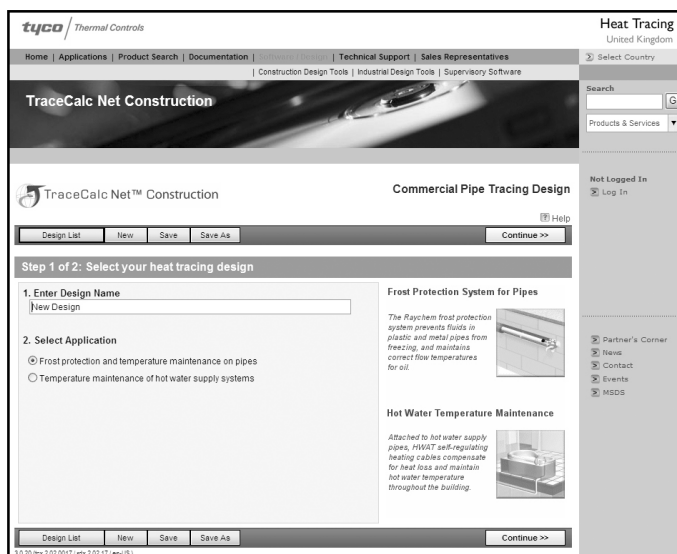
Raychem Trace Heating Product Systems

Trace Heating Systems - Design Guide

Heater Selection

Raychem's newly launched "TraceCalc.Net Construction" online software allows engineers to input specific project data and gain a complete project design including heat losses, power requirements, electrical loadings, as well as a complete bill of materials for the project. The service is online so no software download is required to company computers. Register now for you private design account.

www.tycothermal.com/uk/english/heat_tracing/software/construction_design/



Cable type	Hot water temperature maintenance				Frost protection for pipes				Frost protection for gutters & downpipes		Snow melting for ramps, access ways & footpaths			
	HWAT-L	HWAT-M	HWAT-R	FS-A-2X	FS-B-2X	FS-C-2X	FS-C10-2X	GM-2X	8BTV-2-CT	EM2-XR	EM2-MI	EM2-CM	EM4-CW	
Nominal voltage	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	230 VAC	400 VAC	
Nominal power output (on insulated metal pipes)	7 W/m at 45°C	9 W/m at 55°C	12 W/m at 70°C	10 W/m at 5°C	26 W/m at 5°C	31 W/m at 5°C 22 W/m at 40°C	10 W/m at 5°C	36 W/m in ice & 18 W/m in air at 0°C	18 W/m in air at 0°C 18 W/m in ice at 0°C	90 W/m at 0°C	50 W/m	300 W/m ²	25 W/m	
C-type circuit-breaker according to selected kit	max. 20A	max. 20A	max. 20A	max. 16A	max. 16A	max. 16A	max. 20 A	max. 20A	max. 20A	max. 50A	max. 20A	max. 20A	max. 20A	
Max. circuit length	180 m 20 A	100 m 20 A	100 m 20 A	150 m 16 A	105 m 16 A	90 m 16 A	180 m 20 A	80 m 20 A	80 m 20 A	85 m 50 A	136 m	21 m (12.6m ²)	250 m	
Min. bending radius	10 mm	10 mm	10 mm	10 mm	10 mm	10 mm	10 mm	10 mm	12.7 mm (at 20°)	50 mm	50 mm	-	30 mm	
Max. continuous exposure temperature	65°C	65°C	80°C	65°C	65°C	95°C	90°C	65°C	65°C	100°C	250°C	65°C	65°C	
Max. exposure temperature (power on-condition -800 h. cumulative)	85°C	85°C	90°C	85°C	85°C	95°C	90°C	85°C	85°C	110°C	250°C	65°C	65°C	
Max. dimensions in mm (W x H)	13.8 x 6.8	13.7 x 7.6	16.1 x 6.7	13.7 x 6.2	13.7 x 6.2	12.7 x 5.3	16 x 6.8	13.7 x 6.2	16.1 x 16.2	18.9 x 9.5	min 4.8 max 6.3	5.0 x 7.0	5.0 x 7.0	
Weight	0.12 kg/m	0.12 kg/m	0.14 kg/m	0.13 kg/m	0.13 kg/m	0.13 kg/m	0.14 kg/m	0.13 kg/m	0.13 kg/m	0.27 kg/m	-	-	-	
Approvals	BS / ÖVE / VDE / SEV / CSTB / SVGW / DVGW / CE / VDE											CE / VDE		
Control units	QWT-05 HWAT-ECO	HWAT-ECO	HWAT-ECO	AT-TS-13 AT-TS-14 RAYSTAT-CONTROL-10 RAYSTAT-ECO-10 RAYSTAT-CONTROL-11-DIN	AT-TS-13 AT-TS-14 RAYSTAT-CONTROL-10 RAYSTAT-ECO-10 RAYSTAT-CONTROL-11-DIN	AT-TS-13 AT-TS-14 RAYSTAT-CONTROL-10 RAYSTAT-CONTROL-11-DIN	AT-TS-13 AT-TS-14 RAYSTAT-CONTROL-10* RAYSTAT-ECO-10 RAYSTAT-CONTROL-11-DIN	EMDR-10 HTS-D	-	VIA-DU-20	VIA-DU-20	VIA-DU-20	VIA-DU-20	
Connection system														
Junction box	-	-	-	-	-	JB16-02	JB16-02	-	JB16-02	VIA-JB2	VIA-JB2	VIA-JB2	VIA-JB2	
Connection kit	RayClic	RayClic	RayClic	RayClic	RayClic	CE20-01	CE20-01	RayClic	CE25-21 E-06	VIA-CE1	Pre-installed			
Support bracket	included in the kit	included in the kit	included in the kit	included in the kit	included in the kit	JB-SB-08	JB-SB-08	included in the kit	JB-SB-08	-	-	-	-	

* For max circuit, Raystat controller will be required

Raychem integrated electrical safety and system control panels		
Product Range	Application	Number of circuits available (xx=number of circuit)
SBS-xx-SV	Multi-circuit frost protection of pipes	3, 6, 9, and 12 circuit configurations
SBS-xx-HV-ECO-10	Multi-circuit hot water temperature maintenance	1, 3, 6 and 9 circuit configurations
SBS-xx-SNR	Multi-circuit frost protection of sprinkler pipes (including redundant circuit switching in accordance with BS EN 12845)	1, 2, 3, 4, 5, and 6 pipe configurations. (Therefore up to 12 heater circuits including the redundant heater.)
SBS-xx-VV-20	Multi-surface heating control for ramps and accessways with EM2-XR self regulation heater technology	3, 6, 9, and 12 circuit configurations
SBS-xx-MV-20	Multi-surface heating control for ramps and accessways with EM2-MI mineral insulated heater technology	3, 6, 9, 12, 15, and 18 circuit configurations
SBS-xx-EV-10	Multi-circuit heating control for gutter, roof and drain ice and snow protection	3, 6, 9, and 12 circuit configurations

* If the extensive standard range of panels does not precisely fit the project needs, a bespoke panel service can be offered

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