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Figure 31: Elstein FSR series

Elstein FSR panel heaters are ceramic infrared heaters, which are designed for operating temperatures up to 720 °C. Surface ratings of up to 64 kW/m<sup>2</sup> can be installed.

FSR series heaters are made using a full-pour casting ceramic process and are characterised by their concave design. Due to the design of this type, there is a space between the heater and mounting plate, which reduces the heat absorbed by the wiring space.

FSR panel heaters can be used universally and are suitable for assembling radiation areas with any geometry required. They are available in three designs and cover the power range from 60 W to 1000 W.

With its FSR panel heaters, the company Elstein-Werk has been setting design, type, power and quality standards, recognised worldwide since 1952, for ceramic infrared panel heaters.

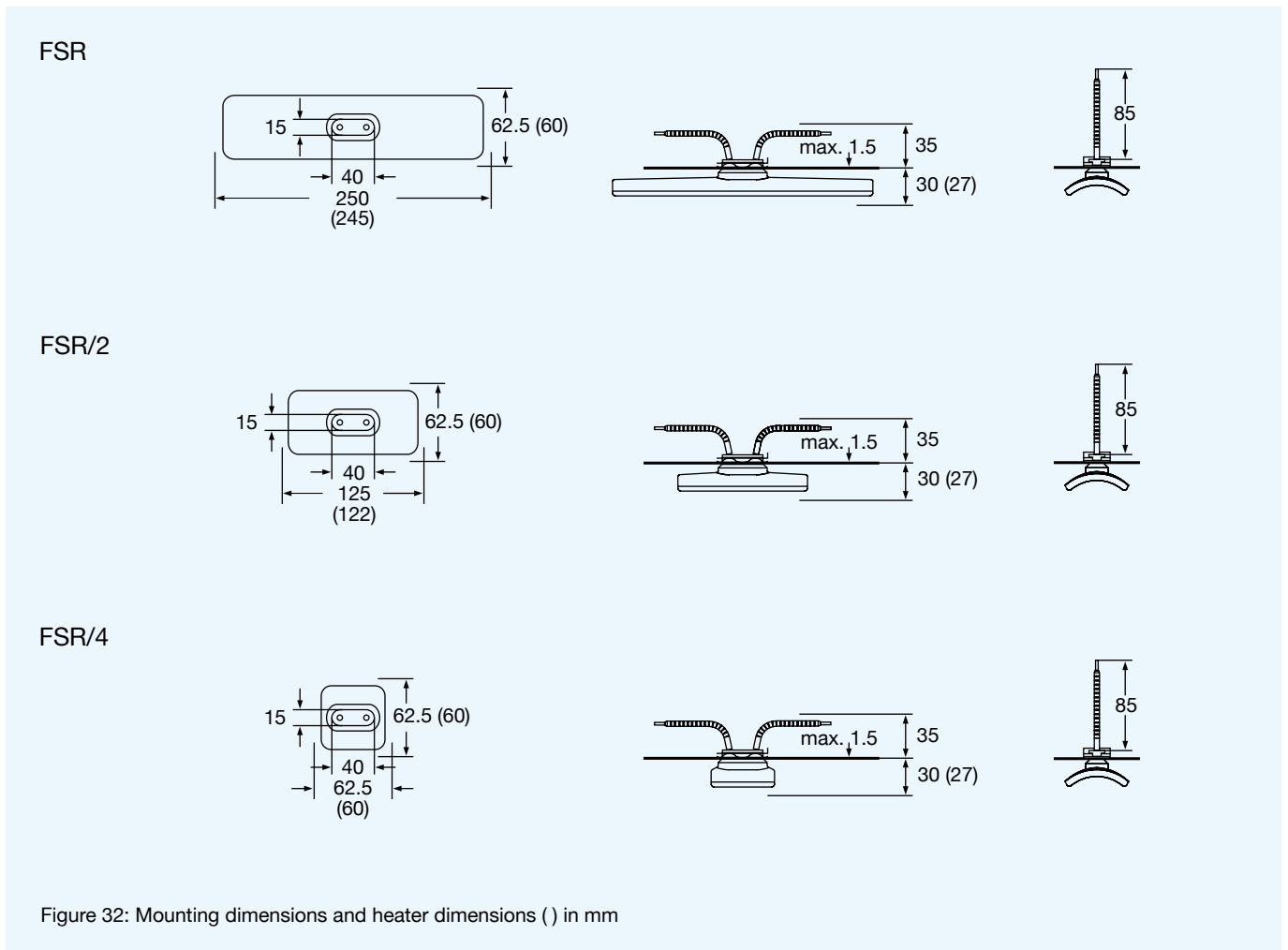
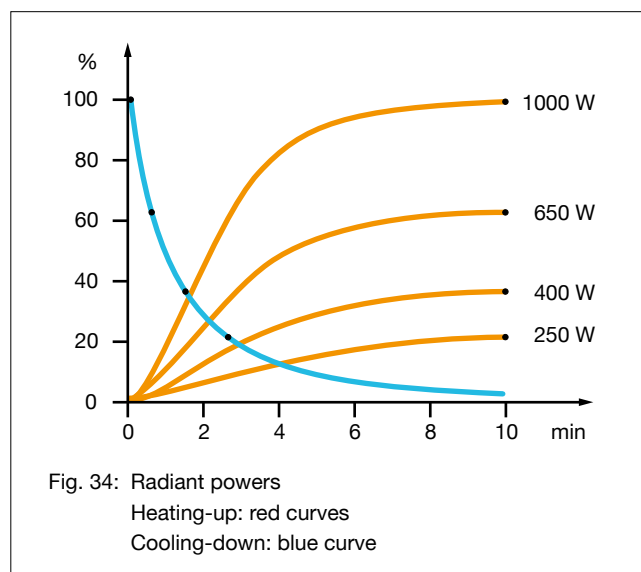
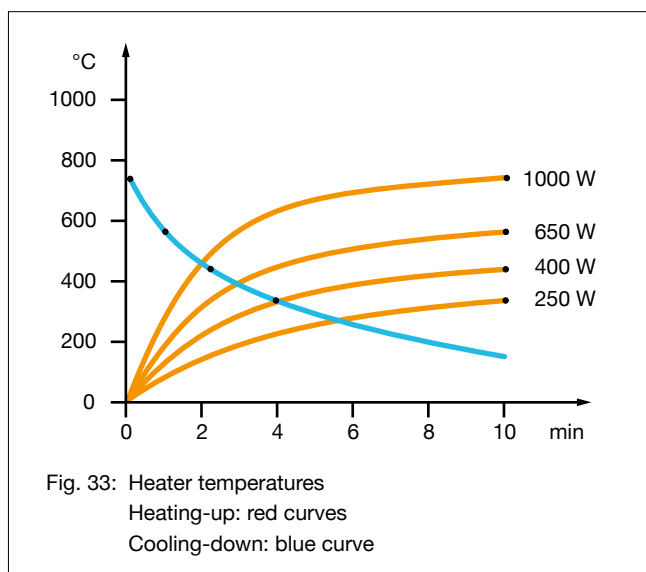


Figure 32: Mounting dimensions and heater dimensions ( ) in mm



Type, weight, wattage	FSR	220 g	250	400	650	1000	W
	FSR/2	125 g	125	200	325	500	W
	FSR/4	75 g	60	100	200	250	W
Installable surface rating			16.0	25.6	41.6	64.0	kW/m <sup>2</sup>
Typical operating temperature			to 400	to 500	to 620	to 720	°C
Maximum permissible temperature			750	750	750	750	°C
Wavelength range			2 - 10				µm

Standard design	Thermocouple heaters	Variants
Operating voltage 230 V Ceramic full-pour casting Leads 85 mm Elstein standard socket Mounting set	Designation T-FSR, T-FSR/2, T-FSR/4 Integrated thermocouple Type K (NiCr-Ni) TC leads 100 mm	Special wattages Special voltages Extended leads Leads with ring terminals Coloured glazes

The power can be controlled using thermocouple heaters together with TRD 1 temperature controllers, TSE thyristor switching units and other accessories.

IR radiation areas can be assembled using REO reflectors, REF construction sets, EBF and EBI construction elements as well as MBO mounting sheets.

The national safety regulations must be complied with for the respective application, for example, the IEC or EN standard 60519-1, Safety in electrical heating installations.

Our instructions for mounting, operation and safety must be observed.