



Figure 1: Elstein HFS series

Elstein HFS panel heaters are ceramic infrared heaters, which are designed for medium surface ratings up to 38.4 kW/m<sup>2</sup> and operating temperatures up to 700 °C.

HFS series heaters are made using a hollow casting ceramic process. Compared to ceramic IR heaters produced using the full-pour casting process, HFS heaters have a considerably shorter heating-up time.

This technique was successfully used first for HFS heaters and then further developed for subsequent models.

HFS panel heaters are available in four designs and cover the power range from 60 W to 600 W.

Elstein HFS panel heaters have customary market dimensions and can therefore be replaced with heaters with the relevant properties if the requirements change.

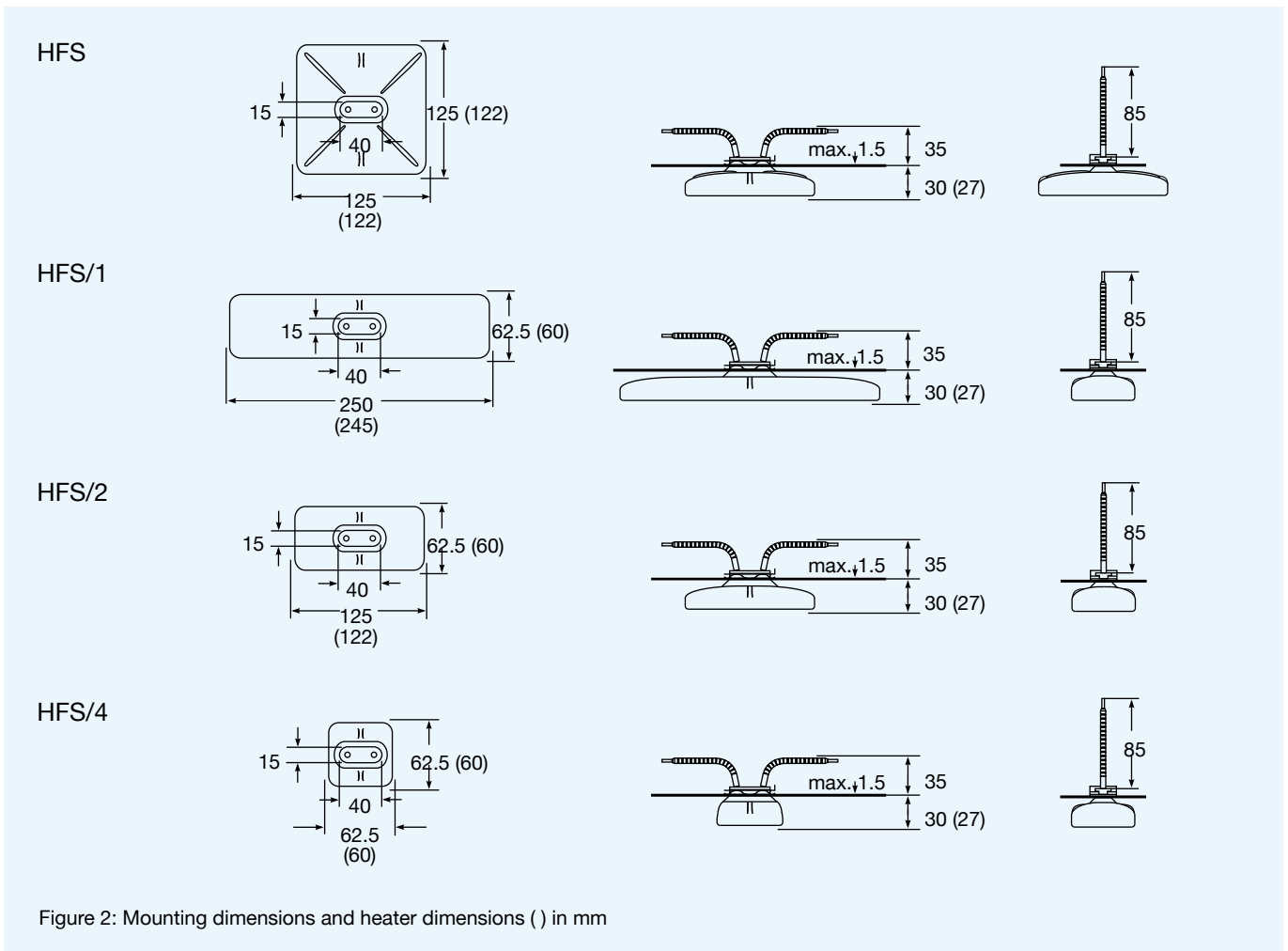
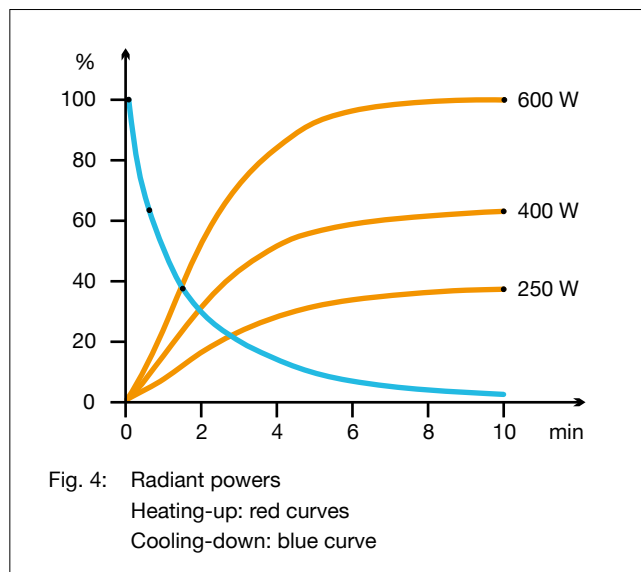
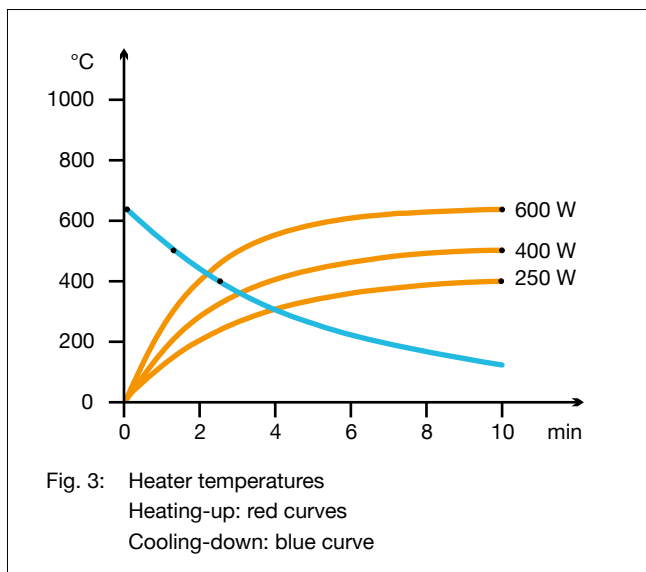



Figure 2: Mounting dimensions and heater dimensions ( ) in mm



Type, weight, wattage	HFS/1, HFS	220 g	250	400	600	W
	HFS/2	125 g	125	200	300	W
	HFS/4	75 g	60	100	150	W
Installable surface rating			16.0	25.6	38.4	kW/m <sup>2</sup>
Typical operating temperature			to 420	to 510	to 630	°C
Maximum permissible temperature			700	700	700	°C
Wavelength range			2 - 10			µm

<p><b>Standard design</b></p> <p>Operating voltage 230 V Ceramic hollow casting White glaze Leads 85 mm Elstein standard socket Mounting set</p>	<p><b>Thermocouple heaters</b></p> <p>Designation T-HFS, T-HFS/1, T-HFS/2, T-HFS/4 Integrated thermocouple Type K (NiCr-Ni) TC leads 100 mm</p> 	<p><b>Variants</b></p> <p>Special wattages Special voltages Extended leads Leads with ring terminals Coloured glazes</p>
--	---	--

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 and 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.