KANTHAL®

SUPERTHAL® HT
HIGH-TEMPERATURE HEATING MODULES

TECHNICAL SPECIFICATION

UP TO 1675°C (3050°F) FURNACE TEMPERATURE

Superthal® standard heating modules – half-cylinders and muffles – are designed for an element temperature of up to 1600°C (2910°F).

By using a newly developed special Kanthal® Super molybdenum disilicide ($MoSi_2$) heating element material, the maximum temperature is now increased to 1725°C (3140°F) for Superthal® HT half-cylinder type, enabling up to 1675°C (3050°F) furnace temperature.

Superthal® HT heating modules can be operated vertically and are available in standard sizes or as specially designed heating packages with heating modules, back insulation and stainless steel casing.

On request, Kanthal® can assist in calculating and manufacturing complete heating packages.

APPLICATIONS

Vertical tube furnaces for a furnace temperature of up to 1650 – 1675°C (3000 – 3050°F).

SPECIAL FEATURES:

— Reduced energy consumption
— Precise temperature control
— Uniform temperature distribution
— Rapid cycling

TECHNICAL SPECIFICATIONS

SPECIFICATIONS

The extra high temperature is achieved by using a new Kanthal® Super type of element material, combined with special supporting hooks and high grade ceramic fiber. The electric contacts are attached on the module and ready to be connected.

Vertical use only.

The modules are mainly used together in rows or sets in special tubular furnaces or other heating systems. Each module can be individually controlled to ensure a uniform temperature profile and fast and accurate ramping.

Kanthal® can assist in designing and building special heating systems on request.

PRODUCT NAME

Superthal® SHC HT.

PROPERTIES

TYPE	INNER DIAMETER*		OUTER DIAMETER		RESISTANCE	VOLTAGE	POWER
	MM	IN	MM	IN	Ω	V	W
Superthal® SHC100 HT	55	2.2	300	11.8	0.25	23	2130
Superthal® SHC150 HT	105	4.1	350	13.8	0.38	35	3250
Superthal® SHC200 HT	155	6.1	400	15.7	0.51	47.2	4400
Superthal® SHC250 HT	205	8.1	450	17.7	0.64	59.3	5500
Superthal® SHC300 HT	255	10.0	500	19.7	0.77	71.4	6600

Data at element temperature 1700°C (3090°F)
Surface loading 14.2 W/cm² (92 W/in²)
Current 90–95 A
Element length 150 mm (5.9 in)
Overall length 200 mm (7.9 in)
* Free inner diameter inside element

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