

RHF Silicon Carbide Heated Furnaces to 1600°C

Standard features

- ✓ 1400°C, 1500°C or 1600°C maximum operating temperature
- ✓ 3, 8, 15 or 35 litre chamber volumes
- ✓ Silicon carbide heating elements, providing long life at elevated temperatures & able to withstand the stresses of intermittent operation
- ✓ Carbolite 301 PID controller, with single ramp to set-point & process timer
- ✓ Controllers extend heating performance by compensating for the effects of element ageing
- ✓ Hard wearing refractory brick hearth and door surrounds
- ✓ Low thermal mass chamber insulation for energy efficiency & rapid heating & cooling

Options

specify these at time of order

- ✦ 2 phase electrical supply for 3 litre models (& for RHF 14/8)
- ✦ Over-temperature protection (recommended to protect valuable contents & for unattended operation)
- ✦ 8 or 20 segment programmer
- ✦ RS232, RS485 communications
- ✦ A range of furnace tables & floor stands are available



RHF 16/3/3508P1

Typically reaching 1400°C in under 40 minutes the RHF range provides rapid heating and is ideally suited to the rigorous firing cycles demanded from laboratory furnaces.

Power Supplies for Silicon Carbide Furnaces

The characteristics of the control systems that are used with silicon carbide elements result in maximum power supply requirements that are not as intuitively derived as those for furnaces using other heating technologies. For this reason a more detailed description of the maximum power supply that is required per phase has been included in the specification table.

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Model	Max temp (°C)	Heat-up time (mins)	Dimensions		Volume (litres)	Max power (W)		Thermo-couple type	Weight (kg)	Power supply required per phase
			Internal H x W x D (mm)	External H x W x D (mm) H (door open)		Supply Required (W)				
RHF 14/3	1400	33	120 x 120 x 205	655 x 435 x 610 (905)	2.9	4500 1900	R	42	<i>a1</i> =30A, <i>a2</i> =15A	
RHF 14/8	1400	22	170 x 170 x 270	705 x 505 x 675 (990)	7.8	8000 3200	R	64	<i>a1</i> =50A, <i>a2</i> =25A	
RHF 14/15	1400	35	220 x 220 x 310	810 x 690 x 780 (1105)	15	10000 2900	R	125	<i>a1</i> =62A, <i>h3</i> =22A, <i>d3</i> =38A	
RHF 14/35	1400	38	250 x 300 x 465	885 x 780 x 945 (1245)	35	16000 6000	R	179	<i>h3</i> =35A, <i>d3</i> =60A, <i>k3</i> =35A	
RHF 15/3	1500	45	120 x 120 x 205	655 x 435 x 610 (905)	2.9	4500 2000	R	46	<i>a1</i> =36A, <i>a2</i> =18A	
RHF 15/8	1500	40	170 x 170 x 270	705 x 505 x 675 (990)	7.8	8000 3500	R	61	<i>h3</i> =17.5A, <i>d3</i> =30A, <i>b3</i> =38A, <i>g3</i> =17.5A	
RHF 15/15	1500	46	220 x 220 x 310	810 x 690 x 780 (1105)	15	10000 3000	R	125	<i>a1</i> =75A, <i>h3</i> =25A, <i>e3</i> =43A	
RHF 15/35	1500	46	250 x 300 x 465	885 x 780 x 945 (1245)	35	16000 6200	R	178	<i>h3</i> =35A <i>e3</i> =60A, <i>g3</i> =35A, <i>j3</i> =5A	
RHF 16/3	1600	42	120 x 120 x 205	655 x 435 x 610 (905)	2.9	4500 2300	R	42	<i>a1</i> =36A, <i>a2</i> =8A, <i>a3</i> =30A	
RHF 16/8	1600	35	170 x 170 x 270	705 x 505 x 675 (990)	7.8	8000 4000	R	61	<i>h3</i> =18A, <i>e3</i> =29A, <i>b3</i> =34A, <i>g3</i> =18A, <i>k3</i> =18A	
RHF 16/15	1600	58	220 x 220 x 310	810 x 690 x 780 (1105)	15	10000 3500	R	140	<i>a1</i> =73A, <i>h3</i> =25A, <i>a3</i> =42A, <i>k3</i> =25A	
RHF 16/35	1600	56	250 x 300 x 465	885 x 780 x 945 (1245)	35	16000 1100	R	179	<i>h3</i> =40A, <i>e3</i> =62A, <i>g3</i> =37A, <i>k3</i> =40A	

a1=Single 200-240V, *a2*=380-415V 2 phase + N, *a3*=200-240V 3 phase delta, *b3*=200-208V 3 phase delta, *d3*=200-220V 3 phase delta, *e3*=230-240V 3 phase delta, *g3*=380-415V 3 phase no N, *h3*=380-415V 3 phase + N, *j3*=440-480V 3 phase no N, *k3*=440-480V 3 phase + N



Continuous operating temperature is 100°C below maximum temperature.
Holding power is measured at the continuous operating temperature.