

RHF – High Temperature Chamber Furnaces

The RHF range of silicon carbide heated high temperature chamber furnaces comprises four chamber sizes, each available with three maximum operating temperatures of 1400 °C, 1500 °C and 1600 °C.

Robust construction and high quality elements provide rapid heating rates (typically reaching 1400 °C in under 40 minutes) and a long reliable working life.

Standard features

- 1400 °C, 1500 °C or 1600 °C maximum operating temperature
- 3, 8, 15 or 35 litre chamber volumes
- Silicon carbide heating elements provide long life and are able to withstand the stresses of intermittent operation
- Carbolite 301 PID controller with single ramp to setpoint & process timer
- Hard wearing refractory brick door surround and silicon carbide hearth
- Low thermal mass insulation for energy efficiency & rapid heating & cooling



RHF 15/3

Options (specify these at time of order)

- Over-temperature protection (recommended to protect valuable contents & for unattended operation)
- A range of sophisticated digital controllers, multi-segment programmers and data loggers is available. These can be fitted with RS232, RS485 or Ethernet communications (see pages 88-91)



RHF 16/35

Power supplies for silicon carbide furnaces

A characteristic of the control systems used with silicon carbide elements results in a power supply which will be larger than expected eg RHF 14/3 at 4500 W =

- Single phase / 200 – 240 V / 30 A or
- 2 phase / 380 – 415 V / 15 A per phase.

Please see the specification table for power supply details.

Technical data

Model	Max temp (°C)	Heat-up time (mins)	Dimensions: Internal H x W x D (mm)	Dimensions: External H x W x D (mm) H (door open)	Volume (litres)	Holding power (W)	Max power (W)	Thermocouple type	Weight (kg)	Power supply		
										Volt	Phase	Ampere per phase
RHF 14/3	1400	33	120 x 120 x 205	655 x 435 x 610 (905) (Bench-top)	3	1900	4500	R	42	200 – 240 380 – 415	single phase 2 phase + N	30 15
RHF 14/8	1400	22	170 x 170 x 270	705 x 505 x 675 (990) (Bench-top)	8	3200	8000	R	64	200 – 240 380 – 415	single phase 2 phase + N	50 25
RHF 14/15	1400	35	220 x 220 x 310	810 x 690 x 780 (1105) (Bench-top)	15	2900	10000	R	125	200 – 240 380 – 415 200 – 220	single phase 3 phase + N 3 phase delta	62 22 38
RHF 14/35	1400	38	250 x 300 x 465	885 x 780 x 945 (1245) (Bench-top)	35	6000	16000	R	179	380 – 415 200 – 220 440 – 480	3 phase + N 3 phase delta 3 phase no N	35 60 35
RHF 15/3	1500	45	120 x 120 x 205	655 x 435 x 610 (905) (Bench-top)	3	2000	4500	R	46	200 – 240 380 – 415	single phase 2 phase + N	36 18
RHF 15/8	1500	40	170 x 170 x 270	705 x 505 x 675 (990) (Bench-top)	8	3500	8000	R	61	380 – 415 200 – 220 200 – 208 380 – 415	3 phase + N 3 phase delta 3 phase delta 3 phase delta	17.5 30 38 17.5
RHF 15/15	1500	46	220 x 220 x 310	810 x 690 x 780 (1105) (Bench-top)	15	3000	10000	R	125	200 – 240 380 – 415 230 – 240	single phase 3 phase + N 3 phase delta	75 25 43
RHF 15/35	1500	46	250 x 300 x 465	885 x 780 x 945 (1245) (Bench-top)	35	6200	16000	R	178	380 – 415 200 – 240 380 – 415 440 – 480	3 phase + N 3 phase delta 3 phase no N 3 phase + N	35 60 35 35
RHF 16/3	1600	42	120 x 120 x 205	655 x 435 x 610 (905) (Bench-top)	3	2300	4500	R	42	200 – 240 380 – 415 200 – 240	single phase 2 phase + N 3 phase delta	36 18 30
RHF 16/8	1600	35	170 x 170 x 270	705 x 505 x 675 (990) (Bench-top)	8	4000	8000	R	61	380 – 415 220 – 240 200 – 208 380 – 415 440 – 480	3 phase + N 3 phase delta 3 phase delta 3 phase no N 3 phase no N	18 29 34 18 18
RHF 16/15	1600	58	220 x 220 x 310	810 x 690 x 780 (1105) (Bench-top)	15	3500	10000	R	140	200 – 240 380 – 415 200 – 240 440 – 480	single phase 3 phase + N 3 phase delta 3 phase + N	73 25 42 25
RHF 16/35	1600	56	250 x 300 x 465	1530 x 900 x 1020 (1885) (Floor-standing)	35	7000	16000	R	270	380 – 415 220 – 240 380 – 415 440 – 480	3 phase + N 3 phase delta 3 phase no N 3 phase + N	40 62 37 40

- i Please note:**
- Maximum continuous operating temperature is 100°C below maximum temperature
 - Heat up time is measured to 100°C below max, using an empty chamber
 - Holding power is measured at continuous operating temperature