

RGE Series Regular Duty Air Heaters

The Ruffneck™ RGE unit heater is designed by Thermon Heating Systems, Inc. for use in regular duty industrial and commercial space heating applications. This heater features Thermon Heating Systems's robust design which surpasses the standards of most competitive models.

Features

- cCSA-US approved for horizontal air flow
- 2 kW to 40 kW output
- 208 V to 600 V
- Field convertible from 1 to 3 phase
- Tubular heating elements
- Individually adjustable air flow louvres
- Permanently lubricated motors
- Overheat protection
- 18-gauge steel cabinet
- Epoxy painted (ASA 61 Grey)
- Optional thermostats and controls
- Optional wall bracket
- Motors mounted outside element bundle
- Ceiling mounting bracket supplied standard

Applications

- Factories
- Warehouses
- Parking garages
- Boiler rooms
- Arenas
- Grandstands
- Mechanical rooms
- Shopping malls
- Display areas
- Stores

Motors

- 2 kW to 10 kW heaters are standard with dual rated motors: 208/240 V single phase. Where necessary, transformers are used to provide proper motor voltage.
- 15 kW to 40 kW heaters are standard with single phase full voltage rated motors.
- Standard motors have permanently lubricated bearings and built-in thermal overloads.
- Totally enclosed ball bearing motors are standard.
- Motor RPM: 1550 unless otherwise stated.
- Motor HP:
 - 2 kW to 10 kW (1/20 HP) /
 - 15 kW to 40 kW (1/10 HP)
- Other ratings available (check with the factory)

In Canada these units are marketed under the Caloritech™ brand name.



Contactors and Transformers

- Factory installed contactors are available when required.
- Transformers are standard when primary voltage is not suitable for motor operation or contactor coil ratings.
- Standard control voltage is 240 V.

Accessories for Field Installation

- FAT 8 field installed built-in thermostat kit 41°F to 100°F (5°C to 38°C)
- RWB210 wall mount bracket (2 kW to 10 kW)
- RWB1540 wall mount bracket (15 kW to 40 kW)
- Remote thermostats available

Optional Factory Installed Features

- Built-in thermostat 41°F to 100°F (5°C to 38°C)
- Fused control circuit
- Manual reset high limit
- **"FAN ONLY"** switch
- Low voltage relay for remote 24 V thermostat
- Epoxy painted fan blade and motor
- Special wattages and voltages
- Special control voltages (240 V is standard)
- Available in special finishes

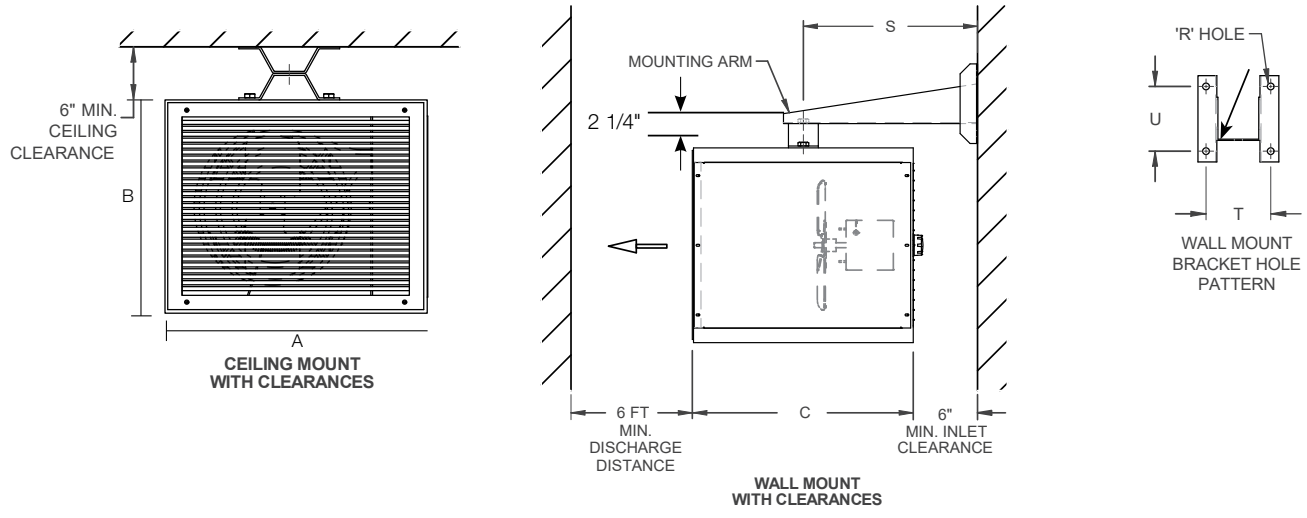


Figure 11

Table 25 – RGE Physical Dimensions - in (mm)

Heater Rating	'A'		'B'		'C' Depth		'D' Hole Dia.		'S'		'T'		'U'	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
2 to 10	17.000	432	14.000	356	15.500	394	0.500	13	12.500	318	4.500	114	4.500	114
15 to 40	24.000	610	19.500	495	22.000	559	0.62	16	17.500	445	6.000	152	6.000	152

Mounting Brackets

Units are supplied with ceiling mounting bracket as standard.

RWB210 - Wall Mounting Bracket for 2 kW to 10 kW heaters.

RWB1540 - Wall Mounting Bracket for 15 kW to 40 kW heaters.

Model Coding

RGE	20	3	C	T	L	-	D
Model Series	Kilowatts	Voltage	Contactors (Optional)	Thermostat (Optional)	Energy Management Controller (Optional)		Other Options
	02 - 2 kW	2 - 208					B - Epoxy painted fan blade and motor
	03 - 3 kW	3 - 240					D - Disconnect switch
	04 - 4 kW	5 - 347					F - Fan only switch
	05 - 5 kW	6 - 416					K - Fused control circuit
	07 - 7.5 kW	7 - 480					M - Manual reset high limit
	10 - 10 kW	8 - 600					N - Low voltage relay (24 V)
	15 - 15 kW						V - 120V control voltage (240 V is standard)
	20 - 20 kW						
	25 - 25 kW						
	30 - 30 kW						
	40 - 40 kW						

Table 26 – Performance Data for RGE Regular Duty Air Heaters

kW (Btu/hr)	Volts	Phase	CFM	Temperature Rise °C (°F)	Motor Volts	Catalog Number			
						Basic Unit	Basic unit with		
							Contactor	Thermostat (1-phase only)	Contactor & Thermostat
2 (6824)	208	1 or 3	460	8 (14)	208 / 240	RGE022	RGE022C	RGE022T	RGE022CT
	240		460	8 (14)		RGE023	RGE023C	RGE023T	RGE023CT
3 (10236)	208		465	12 (21)		RGE032	RGE032C	RGE032T	RGE032CT
	240		465	12 (21)		RGE033	RGE033C	RGE033T	RGE033CT
	600		465	12 (21)		RGE038	RGE038C	RGE038T	RGE038CT
4 (13648)	208		475	16 (28)		RGE042	RGE042C	RGE042T	RGE042CT
	240		475	16 (28)		RGE043	RGE043C	RGE043T	RGE043CT
	480		475	16 (28)		RGE047	RGE047C	RGE047T	RGE047CT
	600		475	16 (28)		RGE048	RGE048C	RGE048T	RGE048CT
5 (17060)	208		480	22 (40)		RGE052	RGE052C	RGE052T	RGE052CT
	240		480	22 (40)		RGE053	RGE053C	RGE053T	RGE053CT
	480		480	22 (40)		RGE057	RGE057C	RGE057T	RGE057CT
	600		480	22 (40)		RGE058	RGE058C	RGE058T	RGE058CT
7.5 (25590)	208		590	24 (43)		RGE072	RGE072C	—	RGE072CT
	240		590	24 (43)		RGE073	RGE073C	—	RGE073CT
	480		590	24 (43)		RGE077	RGE077C	—	RGE077CT
	600	590	24 (43)	RGE078	RGE078C	—	RGE078CT		
10 (34120)	208	760	25 (45)	RGE102	RGE102C	—	RGE102CT		
	240	760	25 (45)	RGE103	RGE103C	—	RGE103CT		
	480	760	25 (45)	RGE107	RGE107C	—	RGE107CT		
	600	760	25 (45)	RGE108	RGE108C	—	RGE108CT		
15 (51180)	208	3	1040	28 (50)	208	RGE152	RGE152C	—	RGE152CT
	240	3	1040	28 (50)	240	RGE153	RGE153C	—	RGE153CT
	480	1 or 3	1040	28 (50)	480	RGE157	RGE157C	—	RGE157CT
	600	1 or 3	1040	28 (50)	600	RGE158	RGE158C	—	RGE158CT
20 (68240)	208	3	1260	31 (55)	208	RGE202	RGE202C	—	RGE202CT
	240	3	1260	31 (55)	240	RGE203	RGE203C	—	RGE203CT
	480	1 or 3	1260	31 (55)	480	RGE207	RGE207C	—	RGE207CT
	600	1 or 3	1260	31 (55)	600	RGE208	RGE208C	—	RGE208CT
25 (85300)	480	3	1500	34 (61)	480	RGE257	RGE257C	—	RGE257CT
	600	3	1500	34 (61)	600	RGE258	RGE258C	—	RGE258CT
30 (102360)	480	3	1500	39 (70)	480	RGE307	RGE307C	—	RGE307CT
	600	3	1500	39 (70)	600	RGE308	RGE308C	—	RGE308CT
40 (136480)	480	3	1500	44 (80)	480	RGE407	RGE407C	—	RGE407CT
	600	3	1500	44 (80)	600	RGE408	RGE408C	—	RGE408CT

To Order Specify

- Catalog number
- Voltage
- Phase
- kW
- Optional features
- Accessories

RGE Series Specification Sheet

Scope

Regular duty electric unit heaters, Ruffneck™ model RGE, as manufactured by Thermon Heating Systems, Inc. complete with ratings and features as specified below.

Ratings

The heater(s) shall be of the regular duty, forced air type, catalog number _____, rated _____ V, _____ phase, _____ Hz, _____ kW.

The heater(s) shall be cCSA_{US} certified to the following standards:

- CSA C22.2 No. 46-M1988 Electric Air Heaters
- UL Standard 1025 Electric Air Heaters

Standard Features

- Units rated 2 kW to 10 kW shall use stainless-steel tubular heating elements; units rated 15 kW to 40 kW shall use finned tubular heating elements to transfer the heat.
- Units shall be field convertible from 1 phase to 3 phase.
- Heater cabinets shall be 18-gauge steel and painted with ASA 61 grey epoxy for rust protection.
- Heaters shall have individually adjustable, aluminum louvres to direct the outlet airflow.
- Motors shall be mounted outside of the element bundle and be of the totally enclosed type with permanently lubricated ball bearings and built-in thermal overloads with ratings as follows:
 - For 2 kW to 10 kW heaters, motors shall be 1/20 HP, 1550 RPM dual rated 208/240 V single phase. For heater voltages above 240 V a transformer shall be included to provide the proper motor voltage.
 - For 15 kW to 40 kW heaters, 1/10 HP, 1550 RPM, full voltage rated, single phase.
- Standard control voltage shall be 240 V. A built-in transformer shall be supplied when the primary voltage differs from the control voltage.
- The heater shall be supplied with built-in overheat protection of the auto-reset, bimetal type.
- The heater shall be supplied with ceiling mount brackets as standard.
- All heaters shall have a ½" x ¾" (12.7 mm x 19.05 mm) multiple conduit knockout. Heaters rated 15 kW to 40 kW shall be provided with an additional 1" x 1¼" (25.4 mm x 31.75 mm) multiple conduit knockout.
- Approximate heater dimensions and weights are as follows:

kW Rating	Height	Width	Depth	Weight
2 to 10 kW	14" (356 mm)	17" (432 mm)	15½" (394 mm)	59 lbs (24 kg)
15 to 40 kW	19½" (495 mm)	24" (610 mm)	22" (559 mm)	104 lbs (47 kg)

Optional Factory Installed Features

The following factory installed optional features (indicated with a check) shall be included:

- Built-in bulb and capillary thermostat, 41°F to 100°F (5°C to 38°C)
- Definite purpose magnetic contactor
- Fused control circuit
- Manual reset high limit
- "FAN-ONLY"** switch
- Low voltage relay for remote 24 V control
- Epoxy painted fan blade and motor

Accessories for Field Installation

The following accessories (indicate with a check) shall be included with the unit for field installation:

- FAT 8 field installed built-in thermostat kit, 41°F to 100°F (5°C to 38°C)
- Wall mount bracket: RWB210 for units rated 2 kW to 10 kW; RWB1540 for units rated 15 kW to 40 kW.