

Corrosion-Resistant Washdown Unit Heaters - CCR1 Triton™

Caloritech™ CCR1 Triton™ is a new generation of NEMA 4X corrosion-resistant washdown heaters. The first UL listed Type 4X heater with models ranging from 3 kW to 39 kW.

IMPORTANT: Caloritech™ CCR1 heaters are suitable for non-hazardous locations only. For washdown applications use water pressure less than 70 psi.

Features

- Entire heater is NEMA type 4x
- Epoxy-coated fan blade
- 16-gauge stainless-steel cabinet
- Custom configured stainless steel elements
- Optional built-in accessories
- Stainless steel wall/ceiling mounting kit
- 120 V controls
- Stainless steel temperature high-limit

Benefits

- Increased safety and protection against water penetration
- Added corrosion protection
- Better resistance to corrosion for longer life
- Improved heat distribution and corrosion protection
- Flexibility and reduced field installation costs
- Flexible options for mounting heater
- Better contactor pull-in reliability
- Increased safety and reliability

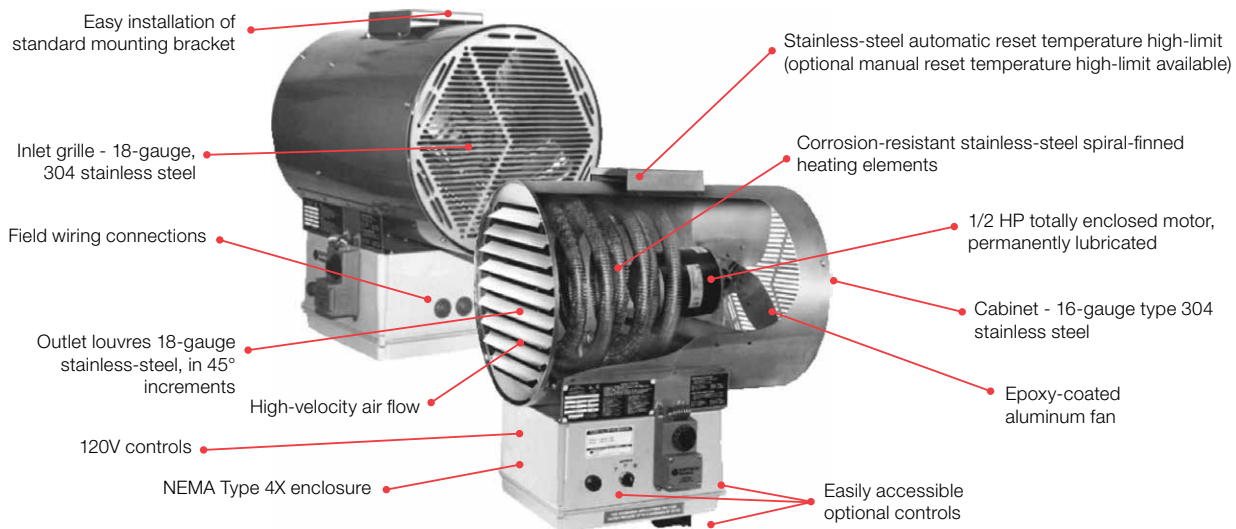


Figure 56

Model Coding

CCR1	-	480	3	60	-	200	-	T
Model Series		Heater Voltage 208V, 240V, 480V, 600V	Phase 1, 3	Hertz 60		Heater Kilowatts 030 - 3 kW 200 - 20 kW 050 - 5 kW 250 - 25 kW 075 - 7.5 kW 300 - 30 kW 100 - 10 kW 390 - 39 kW 150 - 15 kW		D - Built-in door interlocking disconnect switch E - Monel® elements F - Built-in 3-position fan switch ("ON", "OFF", "FAN ONLY") M - Built-in manual reset temperature high-limit P - Built-in pilot light T - Built-in room thermostat
1st Generation								

Table 47 – CCR1 Triton™ 60 Hertz Technical Data

Model	Nominal Power	Unit Voltage	Phase	Unit Current	Air Temperature Rise		Btu/hr
	kW	V		A	°F	°C	
CCR1-208160-030	3	208	1	17.4	13.5	7.5	10250
CCR1-240160-030	3	240	1	15.5			
CCR1-208360-030	3	208	3	11.3			
CCR1-240360-030	3	240	3	10.2			
CCR1-480360-030	3	480	3	5.1			
CCR1-600360-030	3	600	3	3.9			
CCR1-208160-050	5	208	1	27.0	22.5	12.5	17050
CCR1-240160-050	5	240	1	23.8			
CCR1-208360-050	5	208	3	16.9			
CCR1-240360-050	5	240	3	15.0			
CCR1-480360-050	5	480	3	7.5			
CCR1-600360-050	5	600	3	5.8			
CCR1-208160-075	7.5	208	1	39.1	33.8	18.8	25600
CCR1-240160-075	7.5	240	1	34.3			
CCR1-208360-075	7.5	208	3	23.8			
CCR1-240360-075	7.5	240	3	21.0			
CCR1-480360-075	7.5	480	3	10.5			
CCR1-600360-075	7.5	600	3	8.2			
CCR1-240160-100	10	240	1	44.7	45.0	25.0	34100
CCR1-208360-100	10	208	3	30.8			
CCR1-240360-100	10	240	3	27.1			
CCR1-480360-100	10	480	3	13.5			
CCR1-600360-100	10	600	3	10.8			
CCR1-208360-150	15	208	3	44.6	32.6	18.1	51200
CCR1-240360-150	15	240	3	39.1			
CCR1-480360-150	15	480	3	19.5			
CCR1-600360-150	15	600	3	15.4			
CCR1-480360-200	20	480	3	25.6	43.6	24.2	68250
CCR1-600360-200	20	600	3	20.3	43.6	24.2	68250
CCR1-480360-250	25	480	3	31.6	37.5	20.9	85300
CCR1-600360-250	25	600	3	25.1	37.5	20.9	85300
CCR1-480360-300	30	480	3	37.6	45.1	25.0	102350
CCR1-600360-300	30	600	3	29.9	45.1	25.0	102350
CCR1-480360-350	35	480	3	43.6	52.6	29.2	119400
CCR1-600360-350	35	600	3	34.7	52.6	29.2	119400
CCR1-480360-390	39	480	3	48.0	58.6	32.5	133100
CCR1-600360-390	39	600	3	38.5	58.6	32.5	133100

Note:

1. To order a heater with a built-in room thermostat add a "T" suffix to model number.
2. To order a heater with a built-in pilot light add a "P" suffix to model number.
3. To order a heater with a built-in 3-position fan switch (on, off, fan only) add an "F" to model number.
4. To order a heater with a built-in door interlocking disconnect switch add a "D" suffix to model number.
5. To order a heater with a built-in manual reset temperature high-limit add an "M" suffix to model number. Also included is a built-in door interlocking disconnect switch to meet UL requirements. This option replaces the automatic reset temperature high-limit.

Note: To order a heater that meets U.S. Coast Guard regulations, order built-in control option #5 above.



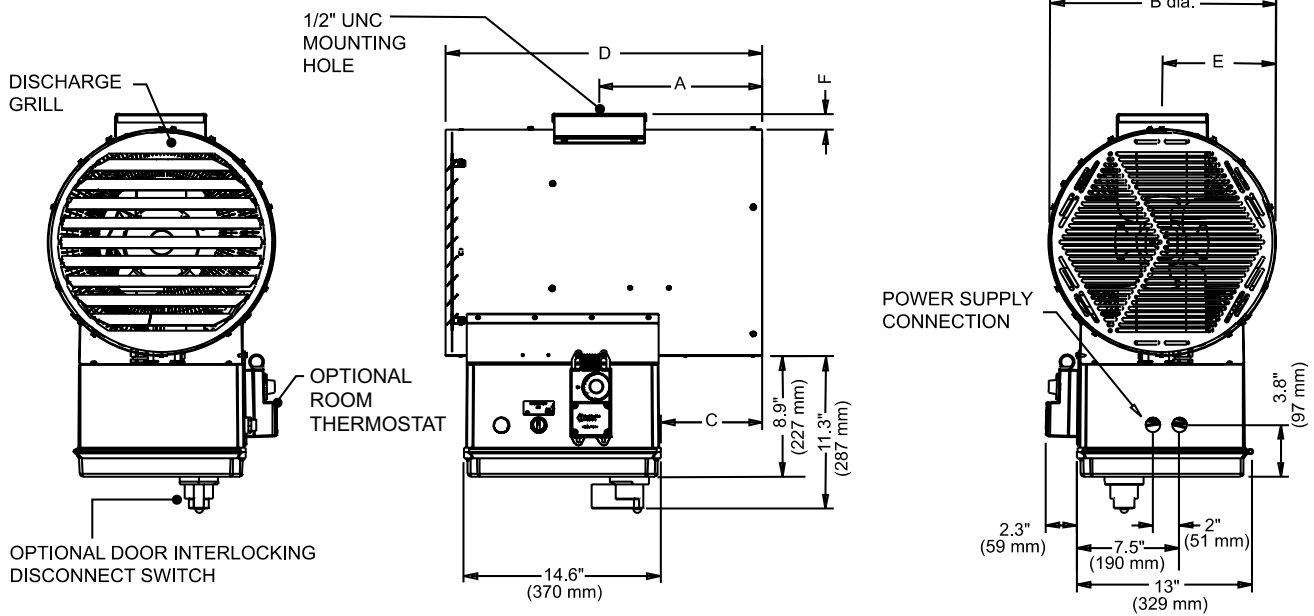


Figure 52 – CCR1 Triton™ Physical Dimensions

Table 48 – Dimensions

Dimensions	A		B		C		D		E		F	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
3 to 10 kW	12.5"	318	12.8"	325	8.5"	216	24.4"	620	6.4"	162.5	0.9"	23
15 and 20 kW	12.1"	307	16.7"	425	7.5"	190	23.4"	595	8.4"	212.5	1.2"	30
25 to 39 kW	12.1"	307	20.7"	526	7.5"	190	23.4"	595	10.3"	262.5	1.3"	33

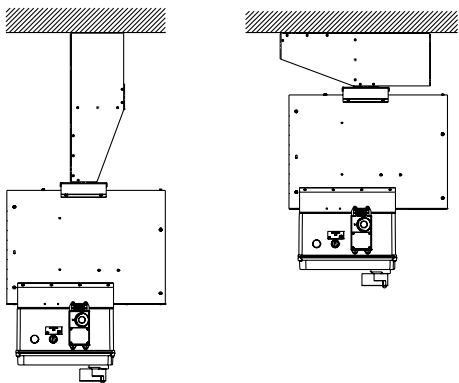


Figure 53 – Ceiling Mount (using factory supplied mounting bracket, included with each heater)

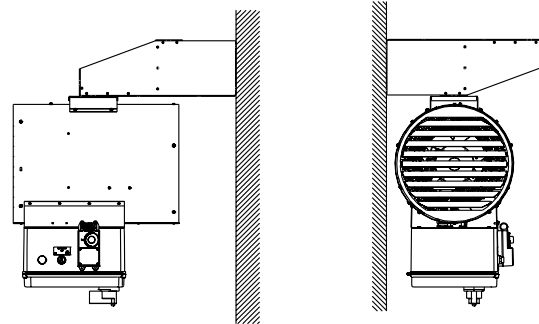


Figure 54 – Wall Mount (using factory supplied mounting bracket, included with each heater)

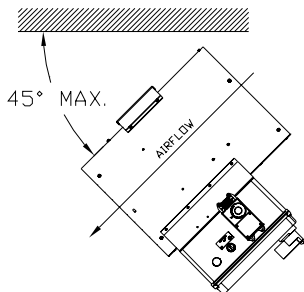


Figure 55 – Heater can be mounted up to a 45° angle (customer-supplied bracket)

Table 49 – General Specifications

		3, 5, 7.5, 10	15, 20	25, 30, 35, 39
Air Delivery	CFM	700	1450	2100
	m ³ /hr	20	41	60
Approximate Air Velocity	ft/min	785	950	288
	m/s	240	288	276
Fan Diameter	in	12	16	20
	mm	305	406	508
Horizontal Air Throw	ft	22	35	44
	m	6.7	10.7	13.4
Maximum Mounting Height* (Horizontal to Underside)	ft	8.5	11.5	12.3
	m	2.6	3.5	3.7
Maximum Mounting Height* (45° decline to underside)	ft	12.8	18.0	18.8
	m	3.9	5.5	5.7
Minimum Mounting Height	ft	6.0		
	m	1.8		
Net Weight	lbs	75.0	90.0	130
	kg	34.1	40.9	59.1
Shipping Weight	lbs	125.0	140.0	180
	kg	56.8	40.9	81.8

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|---|--|
| <p>1. Approvals UL listed to U.S. & Canadian safety standards. Type 4X.</p> <p>Complies with U.S. Coast Guard electrical engineering regulations subchapter J (46 CFR Parts 110-113) when manual reset temperature high-limit is ordered</p> <p>2. Enclosure NEMA Type 4X non-metallic enclosure</p> <p>3. Motor Type Thermally protected, ½ HP, 1725 RPM, permanently lubricated ball bearings</p> <p>4. Fan Epoxy coated, aluminium blade, steel spider</p> <p>5. Mounting Bracket Type 304 stainless steel universal mounting bracket
Minimum 16-gauge (0.06" / 1.52 mm)</p> <p>6. Heating Elements Type 321 stainless steel sheath with Type 304 stainless steel spiral fins</p> <p>7. Temperature High-Limit Automatic reset, stainless steel bulb and capillary</p> <p>Optional manual reset, stainless steel bulb and capillary. Replaces automatic reset.</p> | <p>8. Temperature Limitations Storage: -4°F to 140°F (-20°C to 40°C)
Operating: -4°F to 104°F (-20°C to 60°C)</p> <p>9. Control Circuit 120 Vac</p> <p>10. Optional Built-in Thermostat NEMA Type 4X thermostat</p> <p>11. Control Transformer Multi-tap primary, 120V secondary, 50 VA</p> <p>12. Contactors 40 or 75 amp. Rated for 500,000 mechanical operations. 120V, 15 VA coil</p> <p>13. Cabinet Material Type 304 stainless-steel, 16-gauge (0.06" / 1.52 mm)
All external fasteners are stainless steel</p> <p>14. Inlet Grille Type 304 stainless steel, ¼" (6.3 mm) maximum openings
Minimum 18-gauge (0.05" / 1.21 mm)</p> <p>15. Discharge Grille Type 304 stainless steel. Rotatable in 45° increments
Minimum 18-gauge (0.05" / 1.21 mm)</p> |
|---|--|

Note:

* Maximum mounting height to ensure warm air reaches the floor. Contact factory for suitable applications.