

## Washdown/Corrosion Resistant Unit Heater



The INDEECO TRIAD® unit heater is the perfect solution to the problem of heating people or equipment in non-hazardous environments where moisture and corrosion exist. Advantages of the TRIAD® include:

- **Built-in Controls:** All necessary safety and temperature controls are included in a single package. Components and motor are factory-wired to a single terminal block for field wiring, eliminating the chance for field error and reducing installation costs.
- **Single Point Electrical Hook-up:** Heater, fan motor and controls are all connected to the same branch circuit.
- **Corrosion Resistant:** Stainless steel construction, powder-coated aluminum fan blade and nonmetallic NEMA 4X terminal enclosure resist corrosion found in sewage treatment plants, swimming pool areas, car washes, paper mills and marine installations.
- **Washable:** This watertight construction can be hosed down without disconnecting the heater, which makes it ideal for coal handling areas, steel mills, foundries, ships, wood finishing plants, cement, sand, grain and food processing facilities.

### Applications

- Car Washes
- Cement Plants
- Coal Handling Areas
- Dairies
- Food Processing Plants
- Marine and Offshore
- Power Generating Stations
- Steel Mills and Foundries
- Swimming Pool Areas
- Wastewater Treatment Plants

## Standard Construction Features

**Heating Elements** – Industrial grade, Type 316 stainless steel tubular elements with stainless steel fins, manufactured by INDEECO.

**Fan Motor Assembly** – Totally enclosed, epoxy coated, UL Recognized motor with permanently lubricated ball bearings for longer life. Designed to resist moisture and corrosion. Factory-wired to NEMA 4X enclosure. Fitted with a powder-coated, aluminum fan blade suitable for corrosive salt spray environments.

**Housing** – Heating elements and motor are enclosed in a round, heavy 16-gauge stainless steel shroud.

**Inlet/Outlet Grilles** – Adjustable, stainless steel, louvered outlet grille can be rotated 90° to direct airflow up, down, left or right. Heavy gauge, stainless steel rear grille protects against accidental contact with the fan blade.

**Control Enclosure** – The non-metallic enclosure, which houses the element terminals and built-in controls, will not rust and meets NEMA 4X hose-down requirements.

**Built-in Controls** – Include automatic reset overtemperature cutout, fan delay relay, controlling contactor, transformer for 24-volt control circuit, terminal block for field wiring and a separate motor contactor (when required).

**Mounting Bracket** – The heater comes complete with a stainless steel swivel mounting bracket which can be used either for wall or ceiling mounting. Four field-supplied 3/8-16 threaded rods can also be used for ceiling installation.

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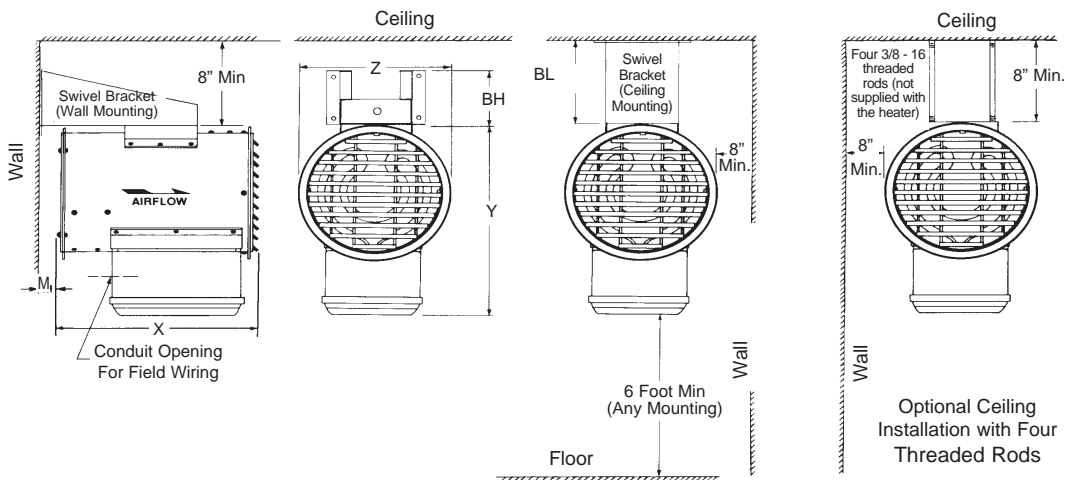
### Factory Built-in Options

Code	Description	Availability Code (2)
B	Delete swivel mounting bracket. Heater installs from the ceiling with field furnished threaded rods.	AS
C	Epoxy painted stainless steel parts, housing, grilles and fan blade	C
D	Power disconnect switch	AS
E	Monel finned tubular elements	C
L	"Heater on" pilot light	AS
M	Secondary manual reset overtemperature cutout. Required for U.S. Coast Guard and ABS Approved designs.	AS
S	Three-position selector switch (heater-standby-fan)	AS
T	1- Stage Built-in thermostat 40 to 100° F (5 to 38° C) range	AS
	2- Stage Built-in thermostat 40 to 120° F (5 to 49° C) range (Option "X" required)	C
V	120 volt control circuit, fused secondary and grounded	AS
X	2-Stage Control	C

(2) AS = Assembly Stock, C = Custom. Assembly Stock heaters ordered with custom options are subject to longer delivery.

### Remote Room Thermostat – See page 98.

Dimensions, Airflows and Weights		KW		
		2 - 7.5	7.6 - 12	12.1 - 47
Overall Heater Dimensions	"X" Inch (cm)	15½ (39)	15½ (39)	26 (66)
	"Y" Inch (cm)	21½ (55)	21½ (55)	28 (71)
	"Z" Inch (cm)	13 (33)	13 (33)	20 (51)
Mounting Hole Dimensions	"BH" Inch (cm)	4¼ (11)	4¼ (11)	7⅞ (18)
	"BL" Inch (cm)	19½ (50)	19½ (50)	22¼ (57)
	"M" Inch (cm)	8½ (22)	8½ (22)	3¼ (8)
Airflow Characteristics	Air Volume CFM (cubic meters/hr)	700 (1189)	1450 (2463)	2400 (4077)
	Air Throw Feet (m)	26 (8)	43 (13)	50 (15)
	Outlet Velocity FPM (meters/min)	760 (232)	1575 (481)	1200 (366)
Weight	Net Lbs (kgs)	56 (25)	56 (25)	115 (52)
	Shipping Lbs (kgs)	70 (32)	70 (32)	130 (60)



Standard Wall and Ceiling Installation with Swivel Mounting Bracket

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### TRIAD® Unit Heater Listing

For Non-Hazardous Areas

KW	Volts	Ph	Total Amps (1)	Approximate Air Temperature Rise °F (°C)	Motor			Catalog Number	2-Stage Control	Availability Code (2)(3)
					HP	Volts	Ph			
2	120	1	21	9 (5)	1/4	120	1	234-U11R-0020B	1B	AS
	208	1	12	9 (5)	1/4	208	1	234-U11R-0020C	1B	
	240	1	11	9 (5)	1/4	240	1	234-U11R-0020J	1B	
	277	1	10	9 (5)	1/4	277	1	234-U11R-0020N	1B	
3	120	1	29	14 (8)	1/4	120	1	234-U11N-0030B	1B	
	208	1	17	14 (8)	1/4	208	1	234-U11N-0030C	1B	
	240	1	15	14 (8)	1/4	240	1	234-U11N-0030J	1B	
	277	1	13	14 (8)	1/4	277	1	234-U11N-0030N	1B	
	480	1	8	14 (8)	1/4	480	1	234-U11N-0030T	1B	
	208	3	11	14 (8)	1/4	208	1	234-U11N-0030D	1A	
	240	3	10	14 (8)	1/4	240	1	234-U11N-0030K	1A	
	480	3	5	14 (8)	1/4	480	1	234-U11N-0030U	1A	
600	3	4	14 (8)	1/4	600	1	234-U11N-0030Z	1A		
5	208	1	27	24 (13)	1/4	208	1	234-U11R-0050C	1B	
	240	1	23	24 (13)	1/4	240	1	234-U11R-0050J	1B	
	277	1	20	24 (13)	1/4	277	1	234-U11R-0050N	1B	
	480	1	12	24 (13)	1/4	480	1	234-U11R-0050T	1B	
	208	3	16	24 (13)	1/4	208	1	234-U11N-0050D	1A	
	240	3	15	24 (13)	1/4	240	1	234-U11N-0050K	1A	
	480	3	8	24 (13)	1/4	480	1	234-U11N-0050U	1A	
	600	3	6	24 (13)	1/4	600	1	234-U11N-0050Z	1A	
7.5	208	1	39	35 (19)	1/4	208	1	234-U11N-0080C	1B	
	240	1	34	35 (19)	1/4	240	1	234-U11N-0080J	1B	
	277	1	29	35 (19)	1/4	277	1	234-U11N-0080N	1B	
	480	1	17	35 (19)	1/4	480	1	234-U11N-0080T	1B	
	208	3	23	35 (19)	1/4	208	1	234-U11N-0080D	1A	
	240	3	21	35 (19)	1/4	240	1	234-U11N-0080K	1A	
	480	3	11	35 (19)	1/4	480	1	234-U11N-0080U	1A	
	600	3	9	35 (19)	1/4	600	1	234-U11N-0080Z	1A	
9	208	1	46	20 (11)	1/4	208	1	234-U11N-0090C	1B	
	240	1	40	20 (11)	1/4	240	1	234-U11N-0090J	1B	
	277	1	35	20 (11)	1/4	277	1	234-U11N-0090N	1B	
	480	1	20	20 (11)	1/4	480	1	234-U11N-0090T	1B	
	208	3	28	20 (11)	1/4	208	1	234-U11N-0090D	1A	
	240	3	24	20 (11)	1/4	240	1	234-U11N-0090K	1A	
	480	3	12	20 (11)	1/4	480	1	234-U11N-0090U	1A	
	600	3	10	20 (11)	1/4	600	1	234-U11N-0090Z	1A	
10	240	1	44	22 (12)	1/4	240	1	234-U11N-0100J	1B	
	277	1	39	22 (12)	1/4	277	1	234-U11N-0100N	1B	
	480	1	22	22 (12)	1/4	480	1	234-U11N-0100T	1B	
	208	3	30	22 (12)	1/4	208	1	234-U11N-0100D	1A	
	240	3	27	22 (12)	1/4	240	1	234-U11N-0100K	1A	
	480	3	14	22 (12)	1/4	480	1	234-U11N-0100U	1A	
	600	3	11	22 (12)	1/4	600	1	234-U11N-0100Z	1A	
	12	277	1	46	26 (14)	1/4	277	1	234-U11N-0120N	
480		1	27	26 (14)	1/4	480	1	234-U11N-0120T	1B	
208		3	36	26 (14)	1/4	208	1	234-U11N-0120D	1A	
240		3	32	26 (14)	1/4	240	1	234-U11N-0120K	1A	
480		3	16	26 (14)	1/4	480	1	234-U11N-0120U	1A	
600		3	13	26 (14)	1/4	600	1	234-U11N-0120Z	1A	
12.5		208	3	37	17 (9)	1/4	208	1	234-U11L-0130D	1A
		240	3	33	17 (9)	1/4	240	1	234-U11L-0130K	1A
	480	3	17	17 (9)	1/4	480	1	234-U11L-0130U	1A	
	600	3	14	17 (9)	1/4	600	1	234-U11L-0130Z	1A	
15	208	3	44	21 (12)	1/4	208	1	234-U11L-0150D	1A	
	240	3	39	21 (12)	1/4	240	1	234-U11L-0150K	1A	
	480	3	20	21 (12)	1/4	480	1	234-U11L-0150U	1A	
	600	3	16	21 (12)	1/4	600	1	234-U11L-0150Z	1A	
20	480	3	26	28 (16)	1/4	480	1	234-U11L-0200U	1A	
	600	3	21	28 (16)	1/4	600	1	234-U11L-0200Z	1A	
25	480	3	32	35 (19)	1/4	480	1	234-U11A-0250U	1B	
	600	3	26	35 (19)	1/4	600	1	234-U11A-0250Z	1B	
30	480	3	38	42 (23)	1/4	480	1	234-U11A-0300U	1B	
	600	3	31	42 (23)	1/4	600	1	234-U11A-0300Z	1B	
35	480	3	44	48 (27)	1/4	480	1	234-U11A-0350U	1B	
	600	3	35	48 (27)	1/4	600	1	234-U11A-0350Z	1B	
38.4	480	3	48	54 (30)	1/4	480	1	234-U11A-0390U	1B	
	600	3	38	54 (30)	1/4	600	1	234-U11A-0390Z	1B	
47	600	3	47	64 (36)	1/4	600	1	234-U11A-0470Z	1B	



(1) Total Amps = Heating element amps and motor amps.  
 (2) Availability Code: AS = Assembly Stock,  
 (3) Stock heaters ordered with custom options subject to longer delivery.  
 NOTE: 2-Stage heaters can be field wired as single stage.  
 1A = Optional 2-stage control, unbalanced (option 'X').  
 1B = Optional 2-stage control, balanced (option 'X')