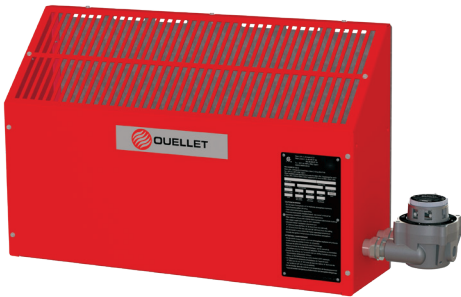


# OPXA Explosion-Proof Sloped Top Convector Heater



## Features

### Color

- Standard: red.

### Voltage

- 120V, 208V, 240V, 277V, 347V, 480V, 600V, 1 or 3-phase.

### Construction

- Sloped top. 14-gauge galvanized steel back panel. 14-gauge carbon steel front and side panels with epoxy/polyester powder-coating.

### Heating element

- Low temperature convection.
- Linear high-limit temperature control with automatic reset.
- Sealed junction box.
- Incoloy® 800 tubular heating element with radial-embossed aluminum fins.

### Watt density

- Varies according to temperature code.

### Standards

- CSA C22.2 No.30, No. 60079-0, No.60079-1, No.46, No. 60529, No. 94.2.
- ANSI/UL 823, 60079-0, 60079-1.
- ANSI/IEC 60529.
- UL 50E.

### Classification

- North American Hazardous Location:
- Class I, Division 1 and 2, Groups B, C and D (T2B or T3A).

- Class I, Zone 1 and 2, Ex db, Groups IIA, IIB+H2, Gb
- Class I, Zone 1 and 2, AEx db, Groups IIA, IIB+H2, Gb
- Ta = -50 °C to +40 °C, IP66, Type 4, (T2 ou T3).

### Temperature code

- Division System – T2B 260 °C (500 °F) or T3A 180 °C (356 °F).
- Zone System – T2 300 °C (572 °F) or T3 200 °C (392 °F).

### Ingress protection

- IP66 and Type 4.

### Control

- Built-in thermostat or wall thermostat available.

### Installation

- Built-in wall bracket.
- Minimum mounting distances of 8 in. (20 cm) above the floor and 18 in. (45 cm) from the ceiling.

### Warranty

- 1-year warranty against defects.

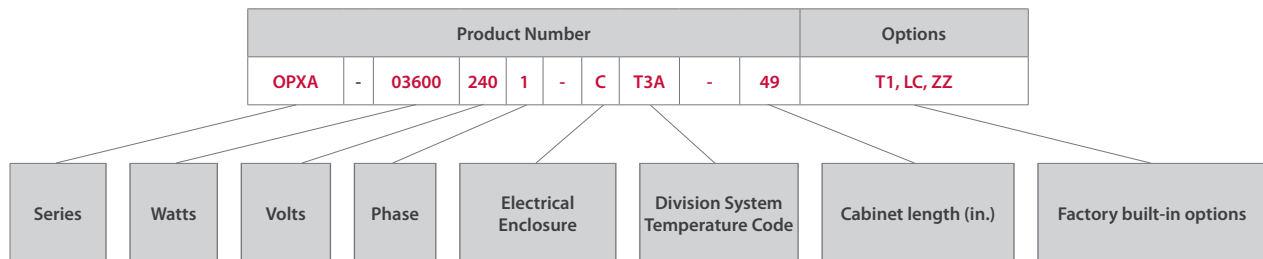
### Application

- Paint room, chemical storage, petrochemical plant, oil refinery, dry cleaning plant, mining industry.

Consult the Electrical Code in your area before installing this unit

## Codification example

Required sequence when ordering



			Electrical Enclosure Code: A (120VAC), B (24VAC), C (Line voltage) according to thermostat option					
kW	Volts (ph)	Amp.	Product # <sup>1</sup> To order, replace the "X" with the electrical enclosure code A or B or C	Built-in bi-metal thermostat T1	Wall mount bi-metal thermostat OUE-BTX1-N-B	Wall mount elec- tronic thermostat OUE-XET1-1-W- N-A	Your own control device	Cabinet length in.
<b>T2B (260 °C / 500 °F) Division System Temperature Classification Rating</b>								
<b>T2 (300 °C / 572 °F) Zone System Temperature Classification Rating</b>								
3.6	208 (1)	17.3	OPXA03600-2081-X-T2B-31	C	A or B or C	B	A or B or C	31
3.6	208 (3)	10.0	OPXA03600-2083-X-T2B-31	Not available	A or B	B	A or B or C	31
3.6	240 (1)	15.0	OPXA03600-2401-X-T2B-31	C	A or B or C	B	A or B or C	31
3.6	240 (3)	8.7	OPXA03600-2403-X-T2B-31	Not available	A or B	B	A or B or C	31
3.6	277 (1)	13.0	OPXA03600-2771-X-T2B-31	C	A or B or C	B	A or B or C	31
3.6	480 (1)	7.5	OPXA03600-4801-X-T2B-31	C	A or B or C	B	A or B or C	31
3.6	480 (3)	4.3	OPXA03600-4803-X-T2B-31	Not available	A or B	B	A or B or C	31
4.8	208 (1)	23.1	OPXA04800-2081-X-T2B-49	Not available	A or B	B	A or B or C	49
4.8	208 (3)	13.3	OPXA04800-2083-X-T2B-49	Not available	A or B	B	A or B or C	49
4.8	240 (1)	20.0	OPXA04800-2401-X-T2B-49	C	A or B or C	B	A or B or C	49
4.8	240 (3)	11.5	OPXA04800-2403-X-T2B-49	Not available	A or B	B	A or B or C	49
4.8	277 (1)	17.3	OPXA04800-2771-X-T2B-49	C	A or B or C	B	A or B or C	49
4.8	480 (1)	10.0	OPXA04800-4801-X-T2B-49	C	A or B or C	B	A or B or C	49
4.8	480 (3)	5.8	OPXA04800-4803-X-T2B-49	Not available	A or B	B	A or B or C	49
7.6	208 (1)	36.5	OPXA07600-2081-X-T2B-59	Not available	A or B	B	A or B or C	59
7.6	208 (3)	21.1	OPXA07600-2083-X-T2B-59	Not available	A or B	B	A or B or C	59
7.6	240 (1)	31.7	OPXA07600-2401-X-T2B-59	Not available	A or B	B	A or B or C	59
7.6	240 (3)	18.3	OPXA07600-2403-X-T2B-59	Not available	A or B	B	A or B or C	59
7.6	277 (1)	27.4	OPXA07600-2771-X-T2B-59	Not available	A or B	B	A or B or C	59
7.6	480 (1)	15.8	OPXA07600-4801-X-T2B-59	C	A or B or C	B	A or B or C	59
7.6	480 (3)	9.1	OPXA07600-4803-X-T2B-59	Not available	A or B	B	A or B or C	59
10	208 (3)	27.8	OPXA10000-2083-X-T2B-71 <sup>2</sup>	Not available	Not available	Not available	C	71
10	240 (3)	24.1	OPXA10000-2403-X-T2B-71 <sup>2</sup>	Not available	Not available	Not available	C	71
10	480 (1)	20.8	OPXA10000-4801-X-T2B-59 <sup>2</sup>	C	Not available	Not available	C	71
10	480 (3)	12.0	OPXA10000-4803-X-T2B-59 <sup>2</sup>	Not available	Not available	Not available	C	71
<b>T3A (180 °C / 356 °F) Division System Temperature Classification Rating</b>								
<b>T3 (200 °C / 392 °F) Zone System Temperature Classification Rating</b>								
1.2	120 (1)	10.0	OPXA01200-1201-X-T3A-31	C	C	Not available	C	31
1.2	208 (1)	5.8	OPXA01200-2081-X-T3A-31	C	A or B or C	B	A or B or C	31
1.2	208 (3)	3.3	OPXA01200-2083-X-T3A-31	Not available	A or B	B	A or B or C	31
1.2	240 (1)	5.0	OPXA01200-2401-X-T3A-31	C	A or B or C	B	A or B or C	31
1.2	240 (3)	2.9	OPXA01200-2403-X-T3A-31	Not available	A or B	B	A or B or C	31
1.2	277 (1)	4.3	OPXA01200-2771-X-T3A-31	C	A or B or C	B	A or B or C	31
1.2	480 (1)	2.5	OPXA01200-4801-X-T3A-31	C	A or B or C	B	A or B or C	31
1.8	120 (1)	15.0	OPXA01800-1201-X-T3A-31	C	C	Not available	C	31
1.8	208 (1)	8.7	OPXA01800-2081-X-T3A-31	C	A or B or C	B	A or B or C	31
1.8	208 (3)	5.0	OPXA01800-2083-X-T3A-31	Not available	A or B	B	A or B or C	31
1.8	240 (1)	7.5	OPXA01800-2401-X-T3A-31	C	A or B or C	B	A or B or C	31
1.8	240 (3)	4.3	OPXA01800-2403-X-T3A-31	Not available	A or B	B	A or B or C	31
1.8	277 (1)	6.5	OPXA01800-2771-X-T3A-31	C	A or B or C	B	A or B or C	31
1.8	480 (1)	3.8	OPXA01800-4801-X-T3A-31	C	A or B or C	B	A or B or C	31
1.8	480 (3)	2.2	OPXA01800-4803-X-T3A-31	Not available	A or B	B	A or B or C	31
3.6	208 (1)	17.3	OPXA03600-2081-X-T3A-49	C	A or B or C	B	A or B or C	49
3.6	208 (3)	10.0	OPXA03600-2083-X-T3A-49	Not available	A or B	B	A or B or C	49
3.6	240 (1)	15.0	OPXA03600-2401-X-T3A-49	C	A or B or C	B	A or B or C	49
3.6	240 (3)	8.7	OPXA03600-2403-X-T3A-49	Not available	A or B	B	A or B or C	49
3.6	480 (1)	7.5	OPXA03600-4801-X-T3A-49	C	A or B or C	B	A or B or C	49
3.6	480 (3)	4.3	OPXA03600-4803-X-T3A-49	Not available	A or B	B	A or B or C	49
5	208 (1)	24.0	OPXA05000-2081-X-T3A-71	Not available	A or B	B	A or B or C	71
5	208 (3)	13.9	OPXA05000-2083-X-T3A-71	Not available	A or B	B	A or B or C	71
5	240 (1)	20.8	OPXA05000-2401-X-T3A-71	C	A or B or C	B	A or B or C	71
5	240 (3)	12.0	OPXA05000-2403-X-T3A-71	Not available	A or B	B	A or B or C	71
5	480 (1)	10.4	OPXA05000-4801-X-T3A-71	C	A or B or C	B	A or B or C	71
5	480 (3)	6.0	OPXA05000-4803-X-T3A-71	Not available	A or B	B	A or B or C	71

<sup>1</sup> X = A (120VAC, large electrical enclosure), B (24VAC, large electrical enclosure), C (Line voltage, small electrical enclosure [Y junction box]).  
 Large electrical enclosure A and B include a contactor, transformer, and printed circuit board with fuses.  
 If using your own temperature control device, a remote contactor may be required. Customers can also supply their own remote mount control circuit/enclosure.  
 Ensure control devices comply to local electrical code and meets the heater's electrical ratings and is suitable for the area's hazardous atmosphere classification.  
<sup>2</sup> All 10 kW heaters include a 1/4" (6.35 mm) diameter 304 stainless steel safety guard pre-installed over the outlet grills.  
 Supply voltage must be within +/- 10% of rated heater voltage. Actual output (kW) = [(Line voltage)<sup>2</sup> ÷ (Rated voltage)<sup>2</sup>] x Rated unit wattage (kW).  
 For best heat distribution and comfort, a wall mount thermostat is recommended.  
 Note: BTX1 and XET1 thermostats are not designed to switch three-phase heaters directly. A factory built-in electrical enclosure (A or B), or customer supplied, remote mount, "Control Circuit" is required.  
 Standard color is red.  
 600 are available upon request.

# OPXA

## Accessories

### Explosion-Proof ExCaliber™ Series Thermostats

#### OUE-BTX1-N-B (SPDT) heating or cooling:

This is the bi-metal thermostat used on OPXA heaters with built-in option code (T1) and electrical enclosure "C" selected. Wall mount version requires electrical enclosure "A" or "B" or "C" depending on model.



Class I, Division 1 & 2, Groups B, C & D	Class I, Zone 1 & 2, Ex db, Groups IIA, IIB+H <sub>2</sub> , T6, Gb
Class II, Division 1, Groups E, F & G	Class I, Zone 1 & 2, AEx db, Groups IIA, IIB+H <sub>2</sub> , T6, Gb
Class II, Division 2, Groups F & G; Class III; T6-50°C ≤ T amb ≤ +40°C, IP66, Type 4	Class II, Zone 21 & 22, Ex tb, Groups IIIA, IIIB & IIIC, T85°C, Db Class II, Zone 21 & 22, AEx tb, Groups IIIA, IIIB & IIIC, T85°C, Db

Temperature adjustment range: 40°F to 80°F (5°C to 25°C); 3/4" - NPT conduit opening on top and bottom. 22A resistive load, 480VAC Max; 1/2 HP@125 VAC; 1 HP@ 250VAC (suitable for 24V or 120V control circuit).

Note: If ExCaliber™ series wall mount thermostats are being used with 600V OPXA heaters, heaters with a current draw greater than 22A, or on any 3-phase heaters, then order the heaters with electrical enclosure "A" or "B". If using your own temperature control device, a remote contactor may be required. Ensure control devices comply to local electrical code and meets the heater's electrical ratings and is suitable for the area's hazardous atmosphere classification.

#### OUE-XET1-1-W-N-A (electronic) heating only:

Wall mount version requires heater electrical enclosure "B". If a wall mount thermostat is ordered without heater electrical enclosure "B", then an external 24VAC power supply and control circuit is required (supplied and installed by others).



Class I, Division 1 & 2, Groups B, C & D	Class I, Zone 1 & 2, Ex db, Groups IIA, IIB+H <sub>2</sub> , T6, Gb
Class II, Division 1, Groups E, F & G	Class I, Zone 1 & 2, AEx db, Groups IIA, IIB+H <sub>2</sub> , T6, Gb
Class II, Division 2, Groups F & G; Class III; T6-50°C ≤ T amb ≤ +40°C, IP66, Type 4	Class II, Zone 21 & 22, Ex tb, Groups IIIA, IIIB & IIIC, T85°C, Db Class II, Zone 21 & 22, AEx tb, Groups IIIA, IIIB & IIIC, T85°C, Db

Temperature adjustment range: 40°F to 80°F (5°C to 25°C); 3/4" - NPT conduit opening on top and bottom. 20 to 36VAC 50/60 Hz; 1A max. continuous (suitable for 24V control circuit only).

### Field Installation & Retrofit Kits

#### Built-in thermostat field installation kits for OPXA series:

These two field installed built-in thermostat kits are for adding a

OUE-BTX1-N-B or OUE-XET1-1-W-N-A thermostat to an OPXA heater with electrical enclosure "A" (120VAC) or "B" (24VAC) and includes the electrical wires, 3/4" conduit seal, conduit nipples, sealing compound (water/cement plastic pouch) and sealing fiber. The conduit seal is certified for use in Class I, Division 1, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III. Installation must be inspected on site as per the local electrical code.



#### BTX1-FIK:

This kit is suitable for installation of a OUE-BTX1-N-B thermostat on an OPXA heater with electrical enclosure "A" (120VAC) or "B" (24VAC). Thermostat not included.

#### XET1-FIK:

This kit is suitable for installation of an OUE-XET1-1-W-N-A thermostat on an OPXA heater with electrical enclosure "B" (24VAC) only. Thermostat not included.



#### OUE-BLK1-W-N-A field retrofit kit:

The heater thermostat conversion kit allows simple interchangeability from a built-in thermostat to a wall mount configuration.

### Explosion-Proof Disconnect Switch, Remote Mount

#### OUE-XDC-01: Disconnect switch - Not suitable for Group B or Group IIB+H<sub>2</sub> (Hydrogen) gas atmosphere:

Class I, Division 1 & 2, Groups C & D; Class II, Division 1, Groups E, F & G; Class II, Division 2, Groups F & G; Class III

Class I, Zone 1 & 2, Grp IIA & IIB, T5

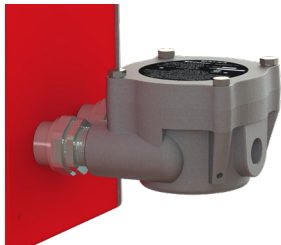
600V, 50A max.; 15 HP@208/240V, 3-phase; 30 HP@480/600V, 3-phase; 2 HP@120V, 1-phase; 7.5 HP@240V, 1-phase



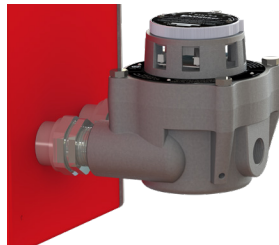
Options

Product # Kit	Product # Factory installed*	Description
-	T1	Built-in thermostat, bi-metal (not available with 3-phase models, or 1-phase models that have a line current exceeding 22A)
-	LC	Left side electrical enclosure (standard location is on the right side)
-	ZZ	Special build (factory use only)
OUE-BTX1-N-B	-	Wall mount bi-metal hazardous location thermostat. Note: Requires one heater electrical enclosures A or B or C, depending on heater model selected.
OUE-XET1-1-W-N-A	-	Wall mount electronic hazardous location thermostat. Note: Requires heater electrical enclosure B.
OUE-XDC-01	-	Wall mount hazardous location disconnect switch. Note: Not suitable for Group B or Group IIB+H2 (Hydrogen) gas atmosphere.
BTX1-FIK	-	This field installation kit is suitable for installation of a OUE-BTX1-N-B thermostat directly to the heater with Electrical Enclosure "A" (120VAC) or "B" (24VAC). Thermostat not included.
XET1-FIK	-	This field installation kit is suitable for installation of an OUE-XET1-1-W-N-A thermostat directly to the Heater with Electrical Enclosure "B" (24VAC) only. Thermostat not included.
BLK1-W-N-A	-	Heater thermostat conversion kit allows interchangeability from a built-in thermostat, with enclosure "C" to a wall mount configuration.

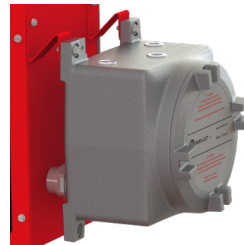
Electrical Enclosure



Electrical Enclosure "C"  
Line voltage



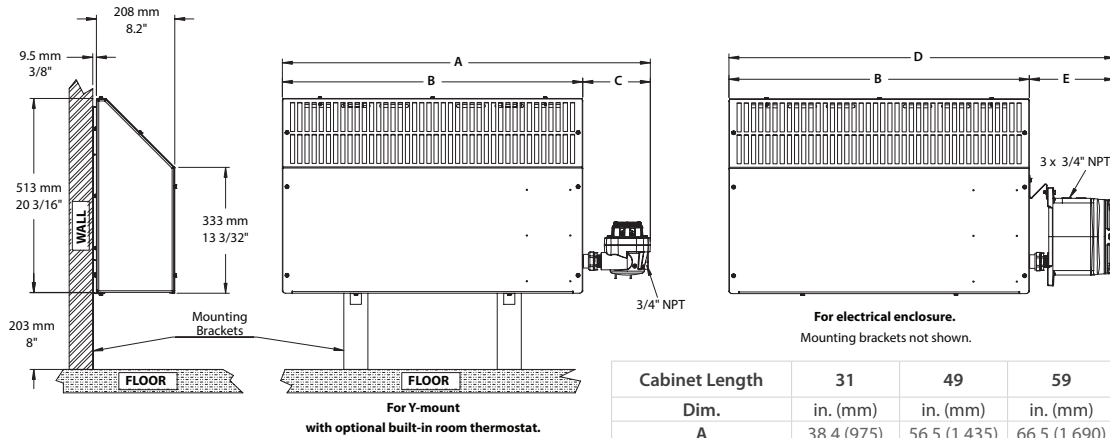
Electrical Enclosure "C"  
Line voltage with optional built-in thermostat "T1"



Electrical Enclosure  
"A" (120VAC) or "B" (24VAC)



Left side Electrical Enclosure  
Option Code "LC"



Cabinet Length	31	49	59	71
Dim.	in. (mm)	in. (mm)	in. (mm)	in. (mm)
A	38.4 (975)	56.5 (1 435)	66.5 (1 690)	78.8 (2 003)
B	31.3 (795)	49.5 (1 257)	59.5 (1 511)	71.8 (1 824)
C	7 (179)	7 (179)	7 (179)	7 (179)
D	40.2 (1 022)	58.3 (1 482)	18 (457)	80.7 (2 050)
E	8.9 (226)	8.9 (226)	8.9 (226)	8.9 (226)