

SEC – X-PRO

EXPLOSION-PROOF SLOPED TOP CONVECTOR HEATER

X-PRO
SÉRIE/SERIES



YOUR ALLY IN HAZARDOUS LOCATIONS

Stelpro's X-pro series explosion-proof convector heater is designed for hazardous locations. Available in a range of wattages (from 0.4 kW to 10 kW) and voltages (120 V to 600 V) along with many controls and options available, this heavy-duty unit is designed to meet your most demanding needs.

■ QUICK AND EASY INSTALLATION

WALL MOUNTING BRACKET COMPATIBLE WITH SELECT COMPETITOR MODELS INCLUDED

■ ROBUST, EXCLUSIVE HEATING ELEMENT

ENGINEERED FOR OPTIMAL, EVEN HEAT DISTRIBUTION

■ PRECISION BUILT-IN THERMOSTAT

CONSISTENT AND RELIABLE TEMPERATURE CONTROL

■ EXTENSIVE MODEL SELECTION

MULTIPLE POWER LEVELS, VOLTAGES, AND PHASES AVAILABLE TO SUIT ANY APPLICATION

■ SMART SLOPED TOP DESIGN

DETERRENT TO USE AS A SHELF OR SEATING SURFACE

COLOUR

- Standard: yellow

FINISH

- Standard: epoxy/polyester powder paint

VOLTAGE

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

MANUFACTURING

- Sloped top, 14-gauge galvanized steel back panel
- 14-gauge carbon steel front and side panels with epoxy/polyester powder-coating.
- Low temperature convection
- Linear high-limit temperature control with automatic reset
- Sealed junction box

ELEMENTS

- Incoloy® 800 tubular heating element with radial-embossed aluminum fins

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

- One year

IDEAL FOR:

HAZARDOUS ENVIRONMENTS* SUCH AS:
Battery storage area, chemical handling/storage area, coal preparation plant, dry cleaning plant, gasoline storage area, grain elevator, oil refinery, paint spraying/storage area, petrochemical plant

*Consult your process engineer to determine the appropriate division and group needed for your application.

°**STELPRO**

Stelpro reserves the right to modify at any time the description, manufacturing, or price of its products. Additionally, Stelpro may apply restocking fees or refuse a refund based on one or more of the following criteria: optional color, custom product, assembly with low-demand options. For the latest product information and prices regarding the products, please visit the website www.stelpro.com.

SEC - 0500 - 240 1 - CL -T3A - (49) (T1, LC, ZZ)

SERIES

WATTS

VOLTS

PHASE

ELECTRICAL ENCLOSURE

DIVISION SYSTEM TEMPERATURE CODE

CABINET LENGTH (IN.)

FACTORY BUILT-IN OPTIONS

T2B (260 °C / 500 °F) DIVISION SYSTEM TEMPERATURE CLASSIFICATION RATING
T2 (300 °C / 572 °F) ZONE SYSTEM TEMPERATURE CLASSIFICATION RATING

TECHNICAL SPECIFICATIONS (1/2)

PRODUCT**	POWER	VOLTS	PHASE	AMPERAGE	LENGTH	CONTROL OPTION		
CODE	KW	V		AMP	IN	T1	BTX1	XET1
SEC-0360-2081-X-T2B-31	3.6	208	1	17.3	31	CL	C120. C24. CL	C24
SEC-0360-2083-X-T2B-31	3.6	208	3	10	31		C120. C24	C24
SEC-0360-2401-X-T2B-31	3.6	240	1	15	31	CL	C120. C24. CL	C24
SEC-0360-2403-X-T2B-31	3.6	240	3	8.7	31		C120. C24	C24
SEC-0360-6001-X-T2B-31	3.6	600	1	6	31		C120. C24	C24
SEC-0360-6003-X-T2B-31	3.6	600	3	3.5	31		C120. C24	C24
SEC-0480-2081-X-T2B-49	4.8	208	1	23.1	49	CL	C120. C24. CL	C24
SEC-0480-2083-X-T2B-49	4.8	208	3	13.3	49		C120. C24	C24
SEC-0480-2401-X-T2B-49	4.8	240	1	20	49	CL	C120. C24. CL	C24
SEC-0480-2403-X-T2B-49	4.8	240	3	11.6	49		C120. C24	C24
SEC-0480-6001-X-T2B-49	4.8	600	1	8	49		C120. C24	C24
SEC-0480-6003-X-T2B-49	4.8	600	3	4.6	49		C120. C24	C24
SEC-0760-2081-X-T2B-59	7.6	208	1	36.5	59	CL	C120. C24. CL	C24
SEC-0760-2083-X-T2B-59	7.6	208	3	21.1	59		C120. C24	C24
SEC-0760-2401-X-T2B-59	7.6	240	1	31.7	59		C120. C24	C24
SEC-0760-2403-X-T2B-59	7.6	240	3	18.3	59		C120. C24	C24
SEC-0760-6001-X-T2B-59	7.6	600	1	12.7	59		C120. C24	C24
SEC-0760-6003-X-T2B-59	7.6	600	3	7.3	59		C120. C24	C24
SEC-1000-6001-X-T2B-71	10	600	1	16.7	71			
SEC-1000-2083-X-T2B-71	10	208	3	27.8	71			
SEC-1000-2403-X-T2B-71	10	240	3	24.1	71			
SEC-1000-6003-X-T2B-71	10	600	3	9.6	71			

*Electrical Enclosure Code: C120 (120VAC), C24 (24VAC), CL (Line voltage) according to thermostat option

**X = C120 (120VAC, large electrical enclosure), C24 (24VAC, large electrical enclosure), CL (Line voltage, small electrical enclosure [Y junction box]).

Large electrical enclosure C124 and C24 include a contactor, transformer, and printed circuit board with fuses.

If using your own temperature control device, a remote contactor may be required. CL control enclosures can be installed on all units. C120 and C24 enclosures are not compatible with units operating at 120 V or with a power rating of 10 kW. 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.

Supply voltage must be within +/- 10% of rated heater voltage. Actual output (kW) = $\frac{[(\text{Line voltage})^2 \div (\text{Rated voltage})^2] \times \text{Rated unit wattage (kW)}}{1000}$

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 (C120 or C24),

or customer supplied, remote mount, "Control Circuit" is required.

Standard color is yellow. 277V and 480V are available upon request.



ALL 10 KW HEATERS

include a 1/4" (6.35 mm) diameter
304 stainless steel safety guard
pre-installed over the outlet grills.

T3A (180 °C / 356 °F) DIVISION SYSTEM TEMPERATURE CLASSIFICATION RATING
T3 (200 °C / 392 °F) ZONE SYSTEM TEMPERATURE CLASSIFICATION RATING

TECHNICAL SPECIFICATIONS (2/2)								
PRODUCT**	POWER	VOLTS	PHASE	AMPERAGE	LENGTH	CONTROL OPTION		
CODE	KW	V		AMP	IN	T1	BTX1	XET1
SEC-0040-3471-X-T3A-31	0.4	347	1	1.2	31	CL	C120. C24. CL	C24
SEC-0060-3471-X-T3A-31	0.6	347	1	1.7	31	CL	C120. C24. CL	C24
SEC-0120-1201-X-T3A-31	1.2	120	1	10	31	CL	CL	
SEC-0120-2081-X-T3A-31	1.2	208	1	5.8	31	CL	C120. C24. CL	C24
SEC-0120-2083-X-T3A-31	1.2	208	3	3.3	31		C120. C24	C24
SEC-0120-2401-X-T3A-31	1.2	240	1	5	31	CL	C120. C24. CL	C24
SEC-0120-2403-X-T3A-31	1.2	240	3	2.9	31		C120. C24	C24
SEC-0120-3471-X-T3A-31	1.2	347	1	3.5	31	CL	C120. C24. CL	C24
SEC-0120-6001-X-T3A-31	1.2	600	1	2	31		C120. C24	C24
SEC-0161-3471-X-T3A-49	1.61	347	1	4.6	49	CL	C120. C24. CL	C24
SEC-0167-3471-X-T3A-71	1.67	347	1	4.8	71	CL	C120. C24. CL	C24
SEC-0180-1201-X-T3A-31	1.8	120	1	15	31	CL	CL	
SEC-0180-2081-X-T3A-31	1.8	208	1	8.7	31	CL	C120. C24. CL	C24
SEC-0180-2083-X-T3A-31	1.8	208	3	5	31		C120. C24	C24
SEC-0180-2401-X-T3A-31	1.8	240	1	7.5	31	CL	C120. C24. CL	C24
SEC-0180-2403-X-T3A-31	1.8	240	3	4.3	31		C120. C24	C24
SEC-0180-6001-X-T3A-31	1.8	600	1	3	31		C120. C24	C24
SEC-0254-3471-X-T3A-59	2.54	347	1	7.3	59	CL	C120. C24. CL	C24
SEC-0334-3471-X-T3A-71	3.34	347	1	9.6	71	CL	C120. C24. CL	C24
SEC-0360-2081-X-T3A-49	3.6	208	1	17.3	49	CL	C120. C24. CL	C24
SEC-0360-2083-X-T3A-49	3.6	208	3	10	49		C120. C24	C24
SEC-0360-2401-X-T3A-49	3.6	240	1	15	49	CL	C120. C24. CL	C24
SEC-0360-2403-X-T3A-49	3.6	240	3	8.7	49		C120. C24	C24
SEC-0360-6001-X-T3A-49	3.6	600	1	6	49		C120. C24	C24
SEC-0360-6003-X-T3A-49	3.6	600	3	3.5	49		C120. C24	C24
SEC-0500-2081-X-T3A-71	5	208	1	24	71		C120. C24	C24
SEC-0500-2083-X-T3A-71	5	208	3	13.9	71		C120. C24	C24
SEC-0500-2401-X-T3A-71	5	240	1	20.8	71	CL	C120. C24. CL	C24
SEC-0500-2403-X-T3A-71	5	240	3	12	71		C120. C24	C24
SEC-0500-6001-X-T3A-71	5	600	1	8.3	71		C120. C24	C24
SEC-0500-6003-X-T3A-71	5	600	3	4.8	71		C120. C24	C24

*Electrical Enclosure Code: C120 (120VAC), C24 (24VAC), CL (Line voltage) according to thermostat option

**X = C120 (120VAC, large electrical enclosure), C24 (24VAC, large electrical enclosure), CL (Line voltage, small electrical enclosure [Y junction box]).

Large electrical enclosure C120 and C24 include a contactor, transformer, and printed circuit board with fuses.

If using your own temperature control device, a remote contactor may be required. CL control enclosures can be installed on all units. C120 and C24 enclosures are not compatible with units operating at 120 V or with a power rating of 10 kW. 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.

Supply voltage must be within +/- 10% of rated heater voltage. Actual output (kW) = [(Line voltage)² ÷ (Rated voltage)²] 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 (C120 or C24), or customer supplied, remote mount, "Control Circuit" is required.

Standard color is yellow. 277V and 480V are available upon request.



ALL 10 KW HEATERS

include a 1/4" (6.35 mm) diameter
304 stainless steel safety guard
pre-installed over the outlet grills.

ACCESSORIES

EXPLOSION-PROOF EXCALIBUR™ SERIES THERMOSTATS



STE-BTX1-N-B (SPDT) HEATING

Wall mount version requires heater electrical enclosure "C120" or "C24" or "CL" depending on model. This is the bi-metal thermostat used on SEC heaters with built-in option code (T1) and electrical enclosure "CL" selected. To use with SEC heater only.

CLASS
Class I, Division 1 & 2, Groups B, C & D
Class II, Division 1, Groups E, F & G
Class II, Division 2, Groups F & G; Class III; T6
Class I, Zone 1 & 2, Ex db, Groups IIA, IIB+H2, T6, Gb
Class I, Zone 1 & 2, AEx db, Groups IIA, IIB+H2, T6, Gb
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

-50°C ≤ T amb ≤ +40°C, IP66, Type 4
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 SEC heaters, heaters with a current draw greater than 22A, or on any 3-phase heaters, then order the heaters with electrical enclosure "C120" or "C24". 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.



STE-XET1-1-W-N-A (ELECTRONIC) HEATING ONLY

Wall mount version requires heater electrical enclosure "C24". If a wall mount thermostat is ordered without heater electrical enclosure "C24", then an external 24VAC power supply and control circuit is required (supplied and installed by others).

CLASS
Class I, Division 1 & 2, Groups B, C & D
Class II, Division 1, Groups E, F & G
Class II, Division 2, Groups F & G; Class III; T6
Class I, Zone 1 & 2, Ex db, Groups IIA, IIB+H2, T6, Gb
Class I, Zone 1 & 2, AEx db, Groups IIA, IIB+H2, T6, Gb
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

-50°C ≤ T amb ≤ +40°C, IP66, Type 4
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

Built-in thermostat field installation kits for SEC series

These two field installed built-in thermostat kits are for adding a STE-BTX1-N-B or STE-XET1-1-W-N-A thermostat to an SEC heater with electrical enclosure "C120" (120VAC) or "C24" (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 STE-BTX1-N-B thermostat on an SEC heater with electrical enclosure "C120" (120VAC) or "C24" (24VAC). Thermostat not included.



XET1-FIK

This kit is suitable for installation of an STE-XET1-1-W-N-A thermostat on an SEC heater with electrical enclosure "C24" (24VAC) only. Thermostat not included.

FIELD RETROFIT KITS

STE-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

STE-XDC-01

DISCONNECT SWITCH - NOT SUITABLE FOR GROUP B OR GROUP IIB+H2 (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



ACCESSORIES

PRODUCT			DESCRIPTION
	KIT	FACTORY INSTALLED	
SEC-T1		X	Built-in thermostat, bi-metal (not available with 600V models, any 3-phase models, or 1-phase models that have a line current exceeding 22A).
SEC-LC		X	Left side electrical enclosure (standard location is on the right side).
ZZ		X	Special build (factory use only).
STE-BTX1-N-B	X		Wall mount bi-metal hazardous location thermostat. For use with SEC series only Note: Requires one heater electrical enclosures C120 or C24 or CL, depending on heater model selected.
STE-XET1-1-W-N-A	X		Wall mount electronic hazardous location thermostat. Note: Requires heater electrical enclosure C24. 1A max continuous, 24Vac
STE-XDC-01	X		Wall mount hazardous location disconnect switch. Note: Not suitable for Group B or Group IIB+H2 (Hydrogen) gas atmosphere. 600V, 50A max
SEC-BTX1-FIK	X		This field installation kit is suitable for installation of a BTX1-N-B thermostat directly to the heater with Electrical Enclosure "C120" (120VAC) or "C24" (24VAC). Thermostat not included.
SEC-XET1-FIK	X		This field installation kit is suitable for installation of an XET1-W-N-A thermostat directly to the Heater with Electrical Enclosure "C24" (24VAC) only. Thermostat not included.
STE-BLK1-W-N-A	X		Heater thermostat conversion kit allows interchangeability from a built-in thermostat, with enclosure "CL" to a wall mount configuration.

ELECTRICAL ENCLOSURE



Electrical Enclosure "CL"
Line voltage



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

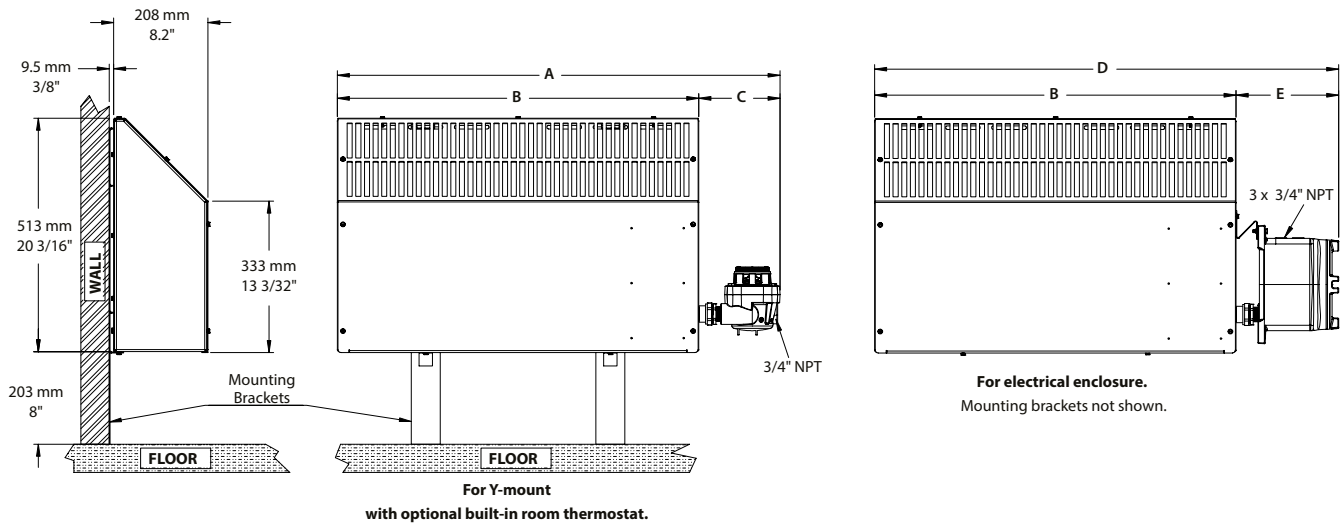


Electrical Enclosure
"C120" (120VAC) or "C24"
(24VAC)



Left side Electrical Enclosure
Option Code "LC"

TECHNICAL DRAWINGS



DIMENSIONS

CABINET LENGTH	A		B		C		D		E		WEIGHT C120/C24 (1 AND 3 PHASE)		WEIGHT CL (3 PHASE)	
IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	KG	LB	KG	LB
31	975	38.4	795	31.3	179	7	1 022	40.2	226	8.9	33.1 / 31.7	73 / 70	24.5	54
49	1 435	56.5	1 257	49.5	179	7	1 482	58.3	226	8.9	45.4 / 44.0	100 / 97	36.7	81
59	1 690	66.5	1 511	59.5	179	7	1 737	68.4	226	8.9	50.8 / 49.4	112 / 109	42.2	93
71	2 003	78.8	1 824	71.8	179	7	2 050	80.7	226	8.9	51.3 / 49.9	113 / 110	49.9	110

*Weight for SEC-0500-X single-phase and three-phase units: 58.5 / 57.1 kg, 129 / 126 lb.