

Explosion-Proof Natural Convection Heater - XB

The Norseman™ XB Series convection heater, with ratings up to 5000 watts, is designed for heating spaces where explosive substances are or may be present. The Norseman™ XB is available with either _CCSA_{US} or CE ATEX approvals. All units can be fitted with an externally adjustable thermostat.

With the Norseman™ XB, you get a safe and reliable heater with a handsome appearance and state-of-the-art design.

Applications

Typical applications for the Norseman™ XB include:

- Control cabinets and small enclosures
- Storage rooms for paints and cleaners
- Grain elevators
- Flour mills
- Spray booths
- Gas plants
- Pump houses
- Marine and offshore
- Oil platforms
- Cleaning and dyeing plants

Selection of Temperature Code

Refer to the atmospheric condition table (Table 2, page 6) at the beginning of this catalog for detailed selection data for the temperature code.

To minimize cost and physical size of the heater, select the heater with the highest temperature code that suits the environment. In Table 8 and Table 9, page 14 a check mark (✓) under the temperature code indicates that the surface temperature of the heater will not exceed the coded value listed in the atmospheric conditions table (Table 2, page 6) at the beginning of this catalog.

Model Coding* - _CCSA_{US}

XB	-	4	300	T3B	3	-	1	-	T
Model Series		Heat Sink Length in (mm)	Wattage Watts x 10	Temperature Code	Heater Voltage		Phase		Options
		1 - 5.2 (130)		T3B - 329°F (165°C)	1 - 120V		1 - 1 Phase		T - Thermostat
		3 - 11.8 (300)		T3A - 356°F (180°C)	2 - 208V		3 - 3 Phase		R - Moisture-Resistant Design
		4 - 18.5 (470)		T2D - 215°C (419°F)	3 - 240V				M - Special Mechanical Features
		6 - 25.2 (640)		T2C - 230°C (446°F)	7 - 480V				E - Special Electrical Feature
					8 - 600V				H - High Ambient (70°C)

*This nomenclature illustration is intended primarily to explain how a product part number is defined. Not all wattage, size and temperature code combinations are available. Please consult Table 9, page 14 for availability.

Construction & Installation

The Norseman™ XB explosion-proof convection heaters utilize Thermon Heating Systems' unique copper free aluminum extruded convector and patented **x-Max**® terminal housing. Large convector surface area and high mass fins ensure safe and efficient low temperature heat transfer to the environment. Convectors are black anodized to resist oxidation and maximize heat transfer.

The **x-Max**® housing can be equipped with multiple tapped conduit entries throughout its length to facilitate installation. A track and trolley system and threaded covers at each end allow easy access to internal components.

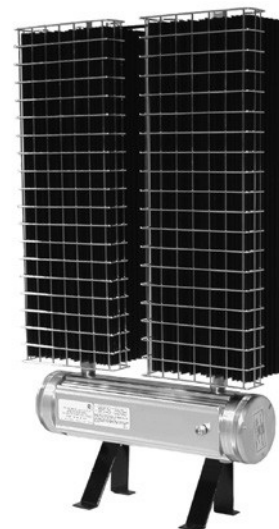
All units, except the single heat sink units, have a built-in terminal block for simplified electrical connection.

The Norseman™ XB units are intended for wall or floor mounting with the heater positioned vertically as shown. Dual purpose brackets for floor or wall mounting and wire guards are supplied as standard.

Special Wattage & Lengths

Table 10, page 14 lists the maximum design wattages for the four standard heat sink lengths and configurations.

If standard units listed in Table 8 and Table 9, page 14 do not suit your application, a special unit based on Table 10, page 14 can be supplied (check factory).



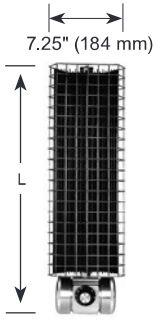


Figure 6 – XB Single Unit (XB1)

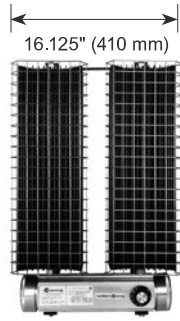


Figure 7 – XB Double Unit (XB2)

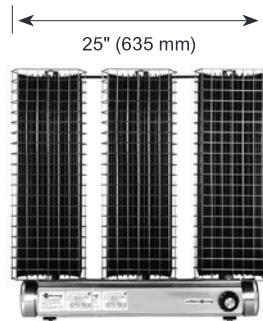


Figure 8 –XB Triple Unit (XB3)

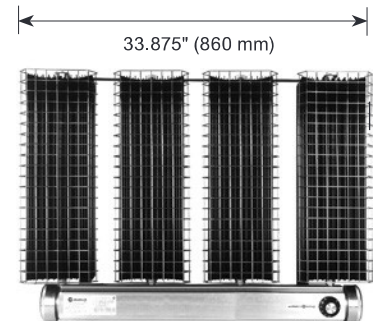


Figure 9 – XB Quadruple Unit (XB4)

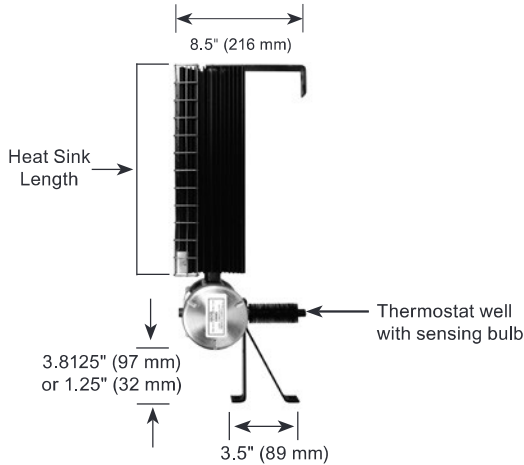


Figure 10 – XB Side View Floor Mounting

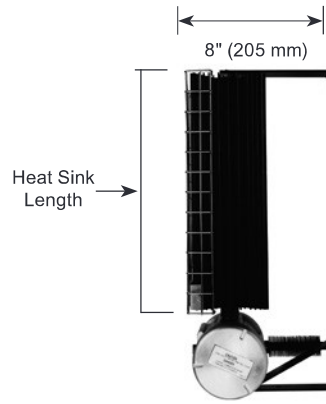


Figure 11 – XB Side View Wall Mounting

Table 8 – Norseman™ XB Explosion-Proof Natural Convection Heaters - Standard XB Heaters

W	Standard Voltages									'L' Dim. in (mm)	Temperature Code				Weight lbs (kg)	Part No.	
	120			208			240				T2D	T3B	T4A	T6		Class I Div. 1, 2, Groups A, B, C & D Class II Div. 1, Groups E, F & G Class III Div. 1	Class I Div. 1, Groups A, B, C & D
	1Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø								
475			-		-	-	-	-	-	10.0 (254)					10 (4.5)		XB1-1047T2D
750			-		-	-	-	-	-	16.7 (424)					15 (6.8)		XB1-3075T2D
1000			-		-	✓	-	✓	-	23.4 (594)					20 (9.1)		XB1-4100T2D
1250			-		-	✓	-	✓	-	30.1 (765)					25 (11.3)		XB1-6125T2D
1500	✓		✓	✓	✓	✓	-	-	-	16.7 (424)	✓		-		30 (13.6)	-	XB2-3150T2D
2000			✓		✓	✓	✓	✓	✓	23.4 (594)					40 (18.1)		XB2-4200T2D
3000			✓		✓	✓	✓	✓	✓	23.4 (594)					60 (27.2)		XB3-4300T2D
3750			✓		✓	✓	✓	✓	✓	30.1 (765)					75 (34.0)		XB3-6375T2D
4500	-		✓		✓	✓	✓	✓	✓	30.1 (765)					100 (45.4)		XB4-6450T2D

Table 9 – Norseman™ XB Explosion-Proof Natural Convection Heaters - Other Models Available

W	Standard Voltages										'L' Dim. in (mm)	Temperature Code				Weight lbs (kg)	Part No.	
	120		208		240		480		600			T2D	T3B	T4A	T6		Class I Div 1, 2 Group A, B, C & D Class II Div 1 Group E, F & G Class III Div 1	Class I Div 1 Group A, B, C & D
	1Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø	3Ø	1Ø						3Ø		
50	-	-	-	-	-	-	-	-	-	-	10.0 (254)	✓	✓	✓	10 (4.5)	XB1-1005T6	-	
100	-	-	-	-	-	-	-	-	-	-	10.0 (254)	✓	✓	-	10 (4.5)	XB1-1010T4A	-	
175	-	-	-	-	-	-	-	-	-	-	10.0 (254)	✓	✓	-	10 (4.5)	XB1-1017T4A	-	
200	✓	-	✓	-	-	-	-	-	-	-	30.1 (765)	✓	✓	✓	25 (11.3)	XB1-6020T6	-	
300	-	-	-	-	-	-	-	-	-	-	10.0 (254)	✓	-	-	10 (4.5)	XB1-1030T3B	-	
400	✓	✓	✓	✓	-	-	-	-	-	-	30.1 (765)	✓	✓	✓	50 (22.7)	XB2-6040T6	-	
450	✓	-	✓	-	✓	-	✓	-	✓	-	30.1 (765)	✓	✓	-	25 (11.3)	XB1-6045T4A	-	
475	✓	-	✓	-	-	-	-	-	-	-	16.7 (424)	✓	-	-	15 (6.8)	XB1-3047T3B	-	
600	✓	✓	✓	✓	-	-	-	-	-	-	30.1 (765)	✓	✓	✓	75 (34.0)	XB3-6060T6	-	
750	-	-	-	-	-	-	-	-	-	-	10.0 (254)	-	-	-	20 (9.1)	-	XB2-1075T2D	
800	✓	✓	✓	✓	-	-	-	-	-	-	30.1 (765)	✓	✓	✓	100 (45.4)	XB4-6080T6	-	
850	✓	-	✓	-	✓	-	✓	-	✓	-	30.1 (765)	✓	✓	-	50 (22.7)	XB2-6085T4A	-	
1000	-	-	-	-	-	-	-	-	-	-	10.0 (254)	-	-	-	30 (13.6)	-	XB3-1100T2D	
1000	✓	✓	✓	✓	-	-	-	-	-	-	23.4 (594)	✓	-	-	40 (18.1)	XB2-4100T3B	-	
1000	✓	✓	✓	✓	-	✓	-	-	-	-	16.7 (424)	✓	-	-	45 (20.4)	XB3-3100T3B	-	
1250	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	✓	-	75 (34.0)	XB3-6125T4A	-	
1250	-	-	-	-	-	-	-	-	-	-	10.0 (254)	-	-	-	30 (13.6)	-	XB3-1125T2D	
1350	✓	✓	✓	-	✓	-	✓	-	✓	-	30.1 (765)	-	-	-	25 (11.3)	-	XB1-6135T2D	
1500	-	-	-	-	-	-	-	-	-	-	10.0 (254)	-	-	-	40 (18.1)	-	XB4-1150T2D	
1500	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	23.4 (594)	✓	-	-	60 (27.2)	XB3-4150T3B	-	
1500	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	-	-	50 (22.7)	XB2-6150T3B	-	
1600	✓	✓	✓	✓	✓	✓	✓	✓	-	-	30.1 (765)	✓	✓	-	100 (45.4)	XB4-6160T4A	-	
2000	✓	✓	✓	✓	-	-	-	-	-	-	16.7 (424)	-	-	-	45 (20.4)	-	XB3-3200T2D	
2250	✓	✓	✓	✓	-	-	-	-	-	-	23.4 (594)	✓	-	-	80 (36.3)	XB4-4225T3B	-	
2250	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	-	-	75 (34.0)	XB3-6225T3B	-	
2500	✓	✓	✓	✓	✓	✓	✓	✓	-	-	16.7 (424)	-	-	-	60 (27.2)	-	XB4-3250T2D	
2500	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	-	-	-	50 (22.7)	-	XB2-6250T2D	
3000	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	-	-	100 (45.4)	XB4-6300T3B	-	
3750	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	23.4 (594)	-	-	-	80 (36.3)	-	XB4-4375T2D	
5000	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	-	-	100 (45.4)	-	XB4-6500T2D	

Table 10 – Norseman™ Maximum Heater Wattages

Heat Sink Length	Type	Temperature Code			
		T2D	T3B	T4A	T6
5" (130 mm)	XB1	475	300	190	95
	XB2	938	-	-	-
	XB3	1314	-	-	-
	XB4	1524	-	-	-
12" (300 mm)	XB1	783	498	294	142
	XB2	1520	988	570	266
	XB3	2173	-	-	-
	XB4	2608	-	-	-
19" (470 mm)	XB1	1021	684	380	209
	XB2	2033	1282	722	342
	XB3	3049	1881	1026	456
	XB4	3780	-	-	-
25" (640 mm)	XB1	1353	831	451	237
	XB2	2688	1615	864	408
	XB3	4018	2308	1254	612
	XB4	5130	3230	1653	836

Thermostats

Thermon Heating Systems offers a wide variety of explosion-proof thermostats to suit most every need.

All Norseman™ XB series heaters can be fitted with integral line voltage thermostats which are available either externally adjustable or tamper-proof; factory installed or as field installed kit.

Remote thermostat mounting is also available.

Refer to Explosion-Proof Thermostats - XT, page 20 of this Norseman™ catalog when selecting the appropriate thermostat for the desired application.

Accessories

Wire Guards and Baffles: All units are equipped with wire guards.

'Gull wing' shaped bright aluminum rear baffles are standard with Norseman™ XB units rated for T2D temperature code (shipped separately).

Table 11 – High Ambient Norseman™ XB Explosion-Proof Natural Convection Heaters

W	Standard Voltages									'L' Dim. in (mm)	Temperature Code			Weight lbs (kg)	Part No. Class I Div 1, 2, Group A, B, C & D Class II Div 1 Group E, F & G Class III Div 1
	120		208		240		480		600		T3	T3C	T4A		
	1Ø	1Ø 3Ø	1Ø 3Ø	1Ø 3Ø	1Ø 3Ø	1Ø 3Ø	1Ø 3Ø	1Ø 3Ø							
50		-	-	-	-	-	-	-	-	10.0 (254)	✓	✓	✓	10 (4.5)	XB1-1005T4A
100		-	-	-	-	-	-	-	-	10.0 (254)	✓	✓	-	10 (4.5)	XB1-1010T3C
175		-	-	-	-	-	-	-	-	10.0 (254)	✓	✓	-	10 (4.5)	XB1-1017T3C
200		✓	-	✓	-	-	-	-	-	30.1 (765)	✓	✓	✓	25 (11.3)	XB1-6020T4A
300		-	-	-	-	-	-	-	-	10.0 (254)	✓	-	-	10 (4.5)	XB1-1030T3
400		✓	✓	✓	✓	-	-	-	-	30.1 (765)	✓	✓	✓	50 (22.7)	XB2-6040T4A
450		✓	-	✓	-	✓	-	✓	-	30.1 (765)	✓	✓	-	25 (11.3)	XB1-6045T3C
475		✓	-	✓	-	-	-	-	-	16.7 (424)	✓	-	-	15 (6.8)	XB1-3047T3
600		✓	✓	✓	✓	-	-	-	-	30.1 (765)	✓	✓	✓	75 (34.0)	XB3-6060T4A
800	✓	✓	✓	✓	✓	-	-	-	-	30.1 (765)	✓	✓	✓	100 (45.4)	XB4-6080T4A
850		✓	-	✓	-	✓	-	✓	-	30.1 (765)	✓	✓	-	50 (22.7)	XB2-6085T3C
1000		✓	✓	✓	✓	-	-	-	-	23.4 (594)	✓	-	-	40 (18.1)	XB2-4100T3
1000		✓	✓	✓	✓	-	✓	-	-	16.7 (424)	✓	-	-	45 (20.4)	XB3-3100T3
1250		✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	✓	-	75 (34.0)	XB3-6125T3C
1500		✓	✓	✓	✓	-	✓	✓	✓	23.4 (594)	✓	-	-	60 (27.2)	XB3-4150T3
1500		✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	-	-	50 (22.7)	XB2-6150T3
1600		✓	✓	✓	✓	✓	✓	✓	-	30.1 (765)	✓	✓	-	100 (45.4)	XB4-6160T3C
2250		✓	✓	✓	✓	-	-	-	-	23.4 (594)	✓	-	-	80 (36.3)	XB4-4225T3
2250		✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	-	-	75 (34.0)	XB3-6225T3
3000		✓	✓	✓	✓	✓	✓	✓	✓	30.1 (765)	✓	-	-	100 (45.4)	XB4-6300T3

Table 12 – High Ambient Norseman™ Maximum Heater Wattages

Heat Sink Length	Type	Temperature Code		
		T3	T3C	T4A
5" (130 mm)	XB1	300	190	95
12" (300 mm)	XB1	498	294	142
	XB2	988	570	266
	XB3	1425	-	-
19" (470 mm)	XB1	684	380	209
	XB2	1282	722	342
	XB3	1881	1026	456
	XB4	2375	-	-
25" (640 mm)	XB1	831	451	237
	XB2	1615	864	408
	XB3	2308	1254	612
	XB4	3230	1653	836

High Ambient Option

The Norseman™ XB Series heater is now available with a high ambient hazardous location rating up to 70°C. This option is ideal for high ambient chemical storage facilities or gas sampling applications. Refer to Table 11, page 15 for Norsemen™ XB units available in high ambient.

Thermostats

Thermon Heating Systems offers a wide variety of explosion-proof thermostats to suit most every need.

All Norseman™ XB series heaters can be fitted with integral line voltage thermostats which are available either externally adjustable or tamper-proof; factory installed or as field installed kit.

Remote thermostat mounting is also available.

Refer to Explosion-Proof Thermostats - XT, page 20 of this Norseman™ catalog when selecting the appropriate thermostat for the desired application.

Accessories

Wire Guards: All units are equipped with wire guards.

Norseman™ XB Explosion-Proof Natural Convection Heater Standard Features (CE ATEX)

Suitable for the following hazardous location classification:

- EX II 2G Ex d IIC T3 or T4 Gb ITS 05ATEX13473 (See Table 13, page 16)
- Universal support leg for wall or floor mounting
- High surface area black anodized heat emitter with integral tubular heating elements
- Patented **x-Max**® housing with slide out terminal block trolley simplifies installation and servicing
- Nickel plated wire guards on all models

Table 13 – Norseman™ XB Explosion-Proof Natural Convection Heater Specifications for T3 and T4 Units, Hazardous Location Rating (CE ATEX)

W	Reference Figure (p. 21)	V	Phase	'L' Dim.	Approx. Weight	Part No.	T-Code	W	Reference Figure (p. 21)	V	Phase	'L' Dim.	Approx. Weight	Part No.	T-Code			
				in (mm)	lbs (kg)							in (mm)	lbs (kg)					
399	6	110	1	16.7 (424)	15 (6.8)	XB1-3040T3B	T3	8	2101	220	1	23.4 (594)	60 (27.2)	XB3-4210T3	T3			
475	6	120				XB1-3047T3B	T3							XB3-4230T3				
399	6	220				XB1-3040T3B	T3							XB3-4250T3				
436	6	230				XB1-3043T3B	T3							XB3-6252T3				
475	6	240				XB1-3047T3B	T3							XB3-6276T3				
840	7	110				23.4 (594)	40 (18.1)							XB2-4084T3B		T3	3000	240
1000	7	120		XB2-4100T3B	T3							1260	380	3		XB3-4126T3B		
840	7	220		XB2-4084T3B	T3							1378	400	3		23.4 (594)	60 (27.2)	XB3-4138T3B
918	7	230		XB2-4092T3B	T3							1500	415	3		XB3-4150T3B		
1000	7	240		XB2-4100T3B	T3							1891	380	3		30.1 (765)	75 (34.0)	XB3-6189T3B
1260	8	110		23.4 (594)	60 (27.2)							XB3-4126T3B	T3	2066		400	3	30.1 (765)
1500	8	120				XB3-4150T3B	T3					2250	415	3		XB3-6225T3B		
1260	8	220	XB3-4126T3B			T3	2101	380	3	23.4 (594)	60 (27.2)	XB3-4210T3						
1378	8	230	XB3-4138T3B			T3	2296	400	3	XB3-4230T3								
1500	8	240	XB3-4150T3B			T3	2500	415	3	XB3-4250T3								
714	7	220	30.1 (765)			50 (22.7)	XB2-6071T4A	T4	2521	380	3	30.1 (765)	75 (34.0)	XB3-6252T3				
781	7	230		XB2-6078T4A	T4		2755	400	3	XB3-6276T3								
850	7	240		XB2-6085T4A	T4		3000	415	3	XB3-6300T3								
1891	8	220	30.1 (765)	75 (34.0)	XB3-6189T3B	T3												
2066	8	230			XB3-6207T3B	T3												
2250	8	240			XB3-6225T3B	T3												