

Explosion-Proof Heater Model FX5



Model Code:

FX5	480	3	60	350	W
A	B	C	D	E	F
A: Model Series, 5th Generation					
B: 208V, 240V, 480V, 600V					
C: 1-Phase, 3-Phase					
D: 50 Hertz, 60 Hertz					
E: Heater Kilowatts					
F: Welded Core					



- Rated for Class 1, Div. 1 & 2 applications
- Explosion proof motor
- Aluminum fan
- High temperature limit
- Multiple wattages available
- Wall or ceiling mount
- 14 gauge powder coated steel
- 3-year limited warranty

Explosion-Proof Heater

FX5 heaters are cULus certified for use in hazardous locations. They are designed for the harshest environments such as: dry indoor industrial applications, oil refineries, petrochemical plants, pulp and paper mills, grain elevators, hazardous waste storage facilities, wastewater treatment plants, etc., where specific explosive gases or dusts may be present. The FX5 offers a larger junction box for easier installation, additional limit controls and a heavy duty core. The heater core assembly is contained in a sturdy, epoxy-coated 14-gauge steel cabinet, which also carries the motor and fan assembly. Adjustable louvres allow directional control of the airflow. A narrow gap, two-piece fan guard is provided to shield all moving parts. All fasteners are zinc plated for corrosion protection. FX heaters are built to last. All FX products are subjected to exhaustive technical analysis and testing during design and development, and are manufactured under a registered quality assurance program. As a result, they have consistently proven their safety and reliability. For hazardous location heating, rely on the King FX5 heater for the most dependable, trouble-free service available. Suitable for the following hazardous location classifications: •Class I, Divisions 1 & 2, Groups C & D, •Class II, Divisions 1 & 2, Groups E, F & G, •Class I, Zones 1 & 2, Groups IIA & IIB, •Temperature Code T3B 165°C (329°F)

Engineering Specifications

Contractor shall supply and install FX5 Series unit heaters manufactured by King Electrical Mfg. Company. Heaters shall be of the wattage and voltage as indicated on the plans.

Hazardous Locations Classifications: Class I, Divisions 1 & 2, Group C & D
• Class II, Divisions 1 & 2, Group E, F & G • Class I, Zones 1 & 2, Group IIA & IIB • Temperature Code T3B 165°C (329°F)

Motor Type: Explosion-proof. Thermally protected. Permanently lubricated ball bearings.

Fan: Aluminum blade. Steel spider and hub with 5/8" (15 mm) bore.

Fan Guard: Split design with close wire spacing. 1/4" (6.3 mm) diameter probe will not enter.

Mounting Holes: Four 9/16" (14 mm) diameter holes at the top of heater.

Heating Elements: Long-life metal-sheathed elements (Propylene Glycol).

Temperature High-Limit: Automatic reset type, snap-action bimetal, open on temperature rise. Rated 100,000 cycles at 10 amp, handles 0.128 amps, plus an additional ambient high limit.

Control Circuit: 120V, 0.128 amps, 15VA. (Grounded).

Optional Built-In Thermostat: Explosion-proof 2°C to 28°C (36°F to 82°F).

Control Transformer: Multiple voltage primary, 120V secondary, 25VA.

Contactors: 40 or 75 amp. Rated for 500,000 mechanical operations. 120V, 15VA coil (separately fuse-protected).

Cabinet Material: 14-gauge (0.075" / 1 mm) epoxy powder coated steel.

Optional Heresite® coating available for corrosive atmospheres with an optional stainless-steel casing.

Core: HD Core

Conduit Material: Heavy wall, 0.122" (3 mm), steel

Overpressure Protection: Preset 100psig (690kPa) pressure relief valve, aluminum body, no serviceable parts.

Operational Temperature Range: -20°C to 40°C (-4°F to 104°F)

Junction Box (HxWxD): 10.25" (230 mm) x 8.00" (180 mm) x 9.12" (205 mm).

Field Connection: Two 1" NPT

Weight (for 15kW unit): 168 lbs (76.36 kgs)

Weight With Disconnect (for 15kW unit): 180 lbs (81.82 kgs)

Optional Built-In Disconnect Switch: DS5 uses x-Max® construction

Optional Pilot Light: Explosion-proof light fixture with replaceable bulb

Optional 3-Way Switch: Explosion-proof 3 position fan switch (on, off, fan only)

WARRANTY: Under normal use the Company warrants to the purchaser that defects in material or workmanship will be repaired or replaced without charge for a period of 36 months from date of shipment. Any claim for warranty must be reported to the sales office where the product was purchased for authorized repair or replacement within the terms of this warranty.

Note:(*) Exceeds the 48 amp. circuit limit of NEC 424-22 (*) 480 1 Phase units are certified Class I, Div. 1, Group D and Class II, Div.1, Groups F and G.

Minimum conductor size for 30°C (86°F) ambient. Derate conductor for ambient temperature. Use minimum 90°C (194°F) insulation.

Heater is functioning normally if at rated voltage the amp draw is within 10% of the value in this table.

Operation at lower voltage will result in reduced heat output and amp draw.

Explosion-Proof Heater Model FX5

Ordering Information - Performance Data for 60 Hertz FX5, Temperature Code T3B 165°C (329°F)

MODEL	VOLTS	PHASE	NOMINAL WATTAGE (kW)	AMPS	OPTIONAL BUILT-IN DISCONNECT SWITCH	AIR TEMP. RISE	BTU/HR
FX5-208160-030	208	1	3	14.4	DS5	11.2°F (6.2°C)	10,250
FX5-208360-030	208	3	3	8.3	DS5	11.2°F (6.2°C)	10,250
FX5-240160-030	240	1	3	12.5	DS5	11.2°F (6.2°C)	10,250
FX5-240360-030	240	3	3	7.2	DS5	11.2°F (6.2°C)	10,250
FX5-480160-030 ¹	480	1	3	6.3	DS5	11.2°F (6.2°C)	10,250
FX5-480360-030	480	3	3	3.6	DS5	11.2°F (6.2°C)	10,250
FX5-600360-030	600	3	3	2.9	DS5	11.2°F (6.2°C)	10,250
FX5-208160-050	208	1	5	24.0	DS5	18.6°F (10.3°C)	17,050
FX5-208360-050	208	3	5	13.9	DS5	18.6°F (10.3°C)	17,050
FX5-240160-050	240	1	5	20.8	DS5	18.6°F (10.3°C)	17,050
FX5-240360-050	240	3	5	12.0	DS5	18.6°F (10.3°C)	17,050
FX5-480160-050 ¹	480	1	5	10.4	DS5	18.6°F (10.3°C)	17,050
FX5-480360-050	480	3	5	6.0	DS5	18.6°F (10.3°C)	17,050
FX5-600360-050	600	3	5	4.8	DS5	18.6°F (10.3°C)	17,050
FX5-208160-075	208	1	7.5	36.1	DS5	27.9°F (15.5°C)	25,600
FX5-208360-075	208	3	7.5	20.8	DS5	27.9°F (15.5°C)	25,600
FX5-240160-075	240	1	7.5	31.3	DS5	27.9°F (15.5°C)	25,600
FX5-240360-075	240	3	7.5	18.0	DS5	27.9°F (15.5°C)	25,600
FX5-480160-075 ¹	480	1	7.5	15.6	DS5	27.9°F (15.5°C)	25,600
FX5-480360-075	480	3	7.5	9.0	DS5	27.9°F (15.5°C)	25,600
FX5-600360-075	600	3	7.5	7.2	DS5	27.9°F (15.5°C)	25,600
FX5-208160-100*	208	1	10	48.1	NOT AVAILABLE	37.2°F (20.6°C)	34,100
FX5-208360-100	208	3	10	27.8	DS5	37.2°F (20.6°C)	34,100
FX5-240160-100	240	1	10	41.7	DS5	37.2°F (20.6°C)	34,100
FX5-240360-100	240	3	10	24.1	DS5	37.2°F (20.6°C)	34,100
FX5-480160-100 ¹	480	1	10	20.8	DS5	37.2°F (20.6°C)	34,100
FX5-480360-100	480	3	10	12.0	DS5	37.2°F (20.6°C)	34,100
FX5-600360-100	600	3	10	9.6	DS5	37.2°F (20.6°C)	34,100
FX5-240160-150*	240	1	15	62.5	NOT AVAILABLE	27.1°F (15.1°C)	51,200
FX5-240360-150	240	3	15	36.1	DS5	27.1°F (15.1°C)	51,200
FX5-480160-150 ¹	480	1	15	31.3	DS5	27.1°F (15.1°C)	51,200
FX5-480360-150	480	3	15	18.0	DS5	27.1°F (15.1°C)	51,200
FX5-600360-150	600	3	15	14.4	DS5	27.1°F (15.1°C)	51,200
FX5-480160-200 ¹	480	1	20	41.7	DS5	36.1°F (20.1°C)	68,250
FX5-480360-200	480	3	20	24.1	DS5	36.1°F (20.1°C)	68,250
FX5-600360-200	600	3	20	19.2	DS5	36.1°F (20.1°C)	68,250
FX5-480360-250	480	3	25	30.1	DS5	22.0°F (12.2°C)	68,250
FX5-600360-250	600	3	25	24.1	DS5	36.1°F (20.1°C)	68,250
FX5-480360-300	480	3	30	36.1	DS5	26.4°F (14.6°C)	102,350
FX5-600360-300	600	3	30	28.9	DS5	26.4°F (14.6°C)	102,350
FX5-480360-350	480	3	35	42.1	DS5	30.7°F (17.1°C)	119,450
FX5-600360-350	600	3	35	33.7	DS5	30.7°F (17.1°C)	119,450

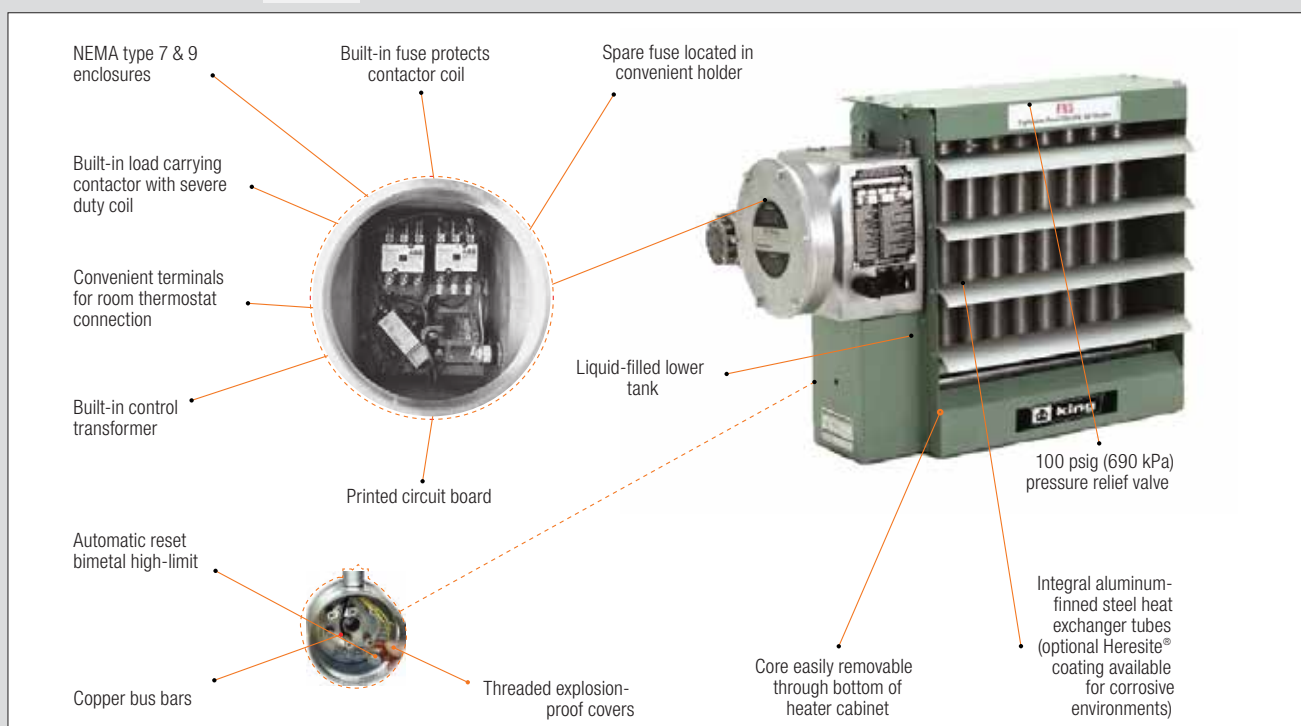
Options

ADD SUFFIX	DESCRIPTION
-T	Built-in thermostat.
-D	Built-in disconnect switch.
-P	Built-in pilot light.
-S	3-way switch.
-H	High "off" (deenergized) ambient temperatures.
-C	Heresite
-A	Stainless-steel cabinet.

Explosion-Proof Heater Model FX5

Ordering Information - Performance Data for 50 Hertz FX5, Temperature Code T3B 165°C (329°F)

MODEL	VOLTS	PHASE	NOMINAL WATTAGE (kW)	AMPS	OPTIONAL BUILT-IN DISCONNECT SWITCH	AIR TEMP. RISE	BTU/HR
FX5-220150-025	220	1	2.5	11.4	DS5	11.2°F (6.3°C)	8,550
FX5-220150-042	220	1	4.2	19.1	DS5	19.0°F (10.5°C)	14,350
FX5-220150-063	220	1	6.3	28.6	DS5	28.5°F (15.7°C)	21,500
FX5-220150-084	220	1	8.4	38.2	DS5	37.8°F (21.1°C)	28,700
FX5-220150-126*	220	1	12.6	57.3	NOT AVAILABLE	27.5°F (15.2°C)	43,000
FX5-230150-028	230	1	2.8	12.2	DS5	12.5°F (7.0°C)	9,550
FX5-230150-046	230	1	4.6	20.0	DS5	20.7°F (11.5°C)	16,000
FX5-230150-069	230	1	6.9	30.0	DS5	31.1°F (17.2°C)	23,550
FX5-230150-138*	230	1	13.8	59.9	NOT AVAILABLE	30.1°F (16.6°C)	47,100
FX5-380350-025	380	3	2.5	3.8	DS5	11.2°F (6.3°C)	8,550
FX5-380350-042	380	3	4.6	6.4	DS5	19.0°F (10.5°C)	14,350
FX5-380350-063	380	3	8.4	9.6	DS5	28.5°F (15.7°C)	21,500
FX5-380350-084	380	3	6.3	12.8	DS5	37.8°F (21.1°C)	28,700
FX5-380350-125	380	3	12.5	19.0	DS5	27.5°F (15.2°C)	43,000
FX5-380350-209	380	3	20.9	31.8	DS5	22.0°F (12.1°C)	71,350
FX5-400350-028	400	3	2.8	4.0	DS5	12.5°F (7.0°C)	9,550
FX5-400350-046	400	3	4.6	6.6	DS5	20.7°F (11.5°C)	15,700
FX5-400350-069	400	3	6.9	10.0	DS5	31.1°F (17.2°C)	23,550
FX5-400350-093	400	3	9.3	13.4	DS5	42.0°F (23.2°C)	31,750
FX5-400350-139	400	3	13.9	20.1	DS5	30.2°F (16.7°C)	74,450
FX5-400350-185	400	3	18.5	26.7	DS5	40.2°F (22.3°C)	63,150
FX5-400350-231	400	3	23.1	33.3	DS5	24.2°F (13.5°C)	78,850
FX5-415350-037	415	3	3.7	5.1	DS5	16.6°F (9.2°C)	12,650
FX5-415350-075	415	3	7.5	10.4	DS5	33.8°F (18.7°C)	25,600
FX5-415350-149	415	3	14.9	20.7	DS5	32.5°F (18.1°C)	50,850
FX5-415350-224	415	3	22.4	31.2	DS5	23.5°F (13.1°C)	76,450
FX5-440350-042	440	3	4.2	5.5	DS5	19.0°F (10.5°C)	14,350
FX5-440350-084	440	3	8.4	11.0	DS5	37.8°F (21.1°C)	28,700
FX5-440350-168	440	3	16.8	27.5	DS5	36.5°F (20.3°C)	57,350
FX5-440350-209	440	3	20.9	27.5	DS5	22.1°F (12.2°C)	71,350



Explosion-Proof Heater Model FX5

Specifications - 60 Hertz FX5

NOMINAL WATTAGE (kW)	MAX. ALTITUDE (FT)	AIR DELIVERY @70°F (CFM)	HORIZONTAL THROW (FT)	MAX. MOUNTING HEIGHT (FT)	MOTOR POWER (W)	MOTOR SPEED (RPM)	FAN DIAMETER (in)	NET WEIGHT (lbs)		SHIPPING WEIGHT (lbs)	
								WITH DS5	WITHOUT DS5	WITH DS5	WITHOUT DS5
3	12,000	850	30	10	373	1,725	12	152	140	206	194
5	8,000	850	30	10	373	1,725	12	152	140	206	194
7.5	10,000	850	30	10	373	1,725	12	152	140	206	194
10	7,000	850	30	10	373	1,725	12	152	140	206	194
15	10,000	1,750	40	10	373	1,725	16	180	168	230	218
20	7,000	1,750	40	10	373	1,725	16	180	168	230	218
25	10,000	3,600	70	20	373	1,725	20	213	201	264	252
30	7,000	3,600	70	20	373	1,725	20	213	201	264	252
35	6,000	3,600	70	20	373	1,725	20	213	201	264	252

Manufacturer reserves the right to replace motors with suitable alternate. Weights are an approximate maximum

Specifications - 50 Hertz FX5

NOMINAL WATTAGE (kW)	MAX. ALTITUDE (FT)	AIR DELIVERY @70°F (CFM)	HORIZONTAL THROW (FT)	MAX. MOUNTING HEIGHT (FT)	MOTOR POWER (W)	MOTOR SPEED (RPM)	FAN DIAMETER (in)	NET WEIGHT (lbs)		SHIPPING WEIGHT (lbs)	
								WITH DS5	WITHOUT DS5	WITH DS5	WITHOUT DS5
2.5	12,000	700	25	10	187	1,437	12	152	140	206	194
3.7 & 4.2	8,000	700	25	10	187	1,437	12	152	140	206	194
6.3 & 7.5	10,000	700	25	10	187	1,437	12	152	140	206	194
8.4	7,000	700	25	10	187	1,437	12	152	140	206	194
12.5 & 12.6	10,000	1,450	35	10	187	1,437	16	180	168	230	218
14.9 & 16.7	7,000	1,450	35	10	187	1,437	16	180	168	230	218
20.9	10,000	3,000	60	20	187	1,437	16	213	201	264	252
22.4	7,000	3,000	60	20	187	1,437	16	213	201	264	252

Manufacturer reserves the right to replace motors with suitable alternate. Weights are an approximate maximum

