

EXH explosionproof electric air heaters

Cl. I, Div. 1 & 2, Groups C, D
 Cl. II, Div. 1, Groups E, F, G
 Cl. II, Div. 2, Groups F, G
 NEMA 7CD, 9EFG

Explosionproof
 Dust-ignitionproof

3A

Applications:

EXH explosionproof electric heaters are used:

- In areas made hazardous by the presence of flammable gases and vapors, and combustible dusts
- For rugged locations, including oil refineries, petrochemical plants, rigs, pumping stations, turbine compressors, pulp and paper mills, coal mines, grain elevators, etc.
- In areas where flammable vapors or gases or highly combustible dusts may be present due to accidental or abnormal conditions
- For standby heat to prevent process heat loss, or for personnel comfort during maintenance/repair operations

Features:

- Split fan guard for easy access to fan
- Compact design makes handling during installation easy
- Evacuated cores heat up quickly with even heat distribution
- Larger models offer greater kilowatt range, providing more economical means to heat large areas
- Permanently sealed cores improve reliability and make field servicing easier
- Control box provides easy access for installation and maintenance

Certifications and compliances:

- Class I, Divisions 1 & 2, Groups C, D
- Class II, Division 1, Groups E, F, G
- Class II, Division 2, Groups F, G
- UL standard: UL823
- CSA standard: C22.2 Nos. 25, 30, 46
- NEMA 7CD, 9EFG

Standard materials and finishes:

- Fan – aluminum blade; steel spider and hub with $\frac{1}{8}$ " (15.875mm) bore
- Core – steel with integral aluminum fins, vacuum charged and hermetically sealed
- Heating elements – three long life, low watt density, high grade metal sheathed elements
- Heat transfer fluid – long life formulated ethylene glycol and water, freeze protected to -49°F (-45°C)
- Cabinet – 14 gauge (0.075") (1.90mm) steel; epoxy coated with five stage pre-treatment, including iron phosphate
- Conduit – heavy walled, 0.122" (3.1mm) steel cadmium plated

Options:

Description	Suffix
• Built-in disconnect switch.....	D
• Built-in pilot light.....	P
• Three-way switch.....	S
• Built-in thermostat.....	T
• Built-in HRC1 explosionproof thermostat.....	HRC

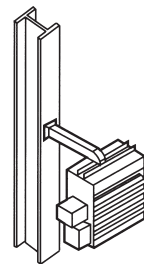
Accessories (ordered separately):

Description	Cat. #
• Basic mounting kit.....	BMK-EXH5
<i>Suitable for applications where the support arm can be bolted or welded directly to structural steel or concrete</i>	
<i>Insert fan size: 12, 16 or 20</i>	
• Wall mounting kit.....	WMK-EXH5
<i>Suitable for mounting on Z sections</i>	
<i>Insert fan size: 12, 16 or 20</i>	
• Hanging mounting kit.....	HMK-EXH5
<i>Simple and economical if adequate overhead structure exists</i>	
<i>Requires 1/2" pipe, cut and threaded (not supplied)</i>	
• Swivel hanging mount kit.....	SHMK-EXH5
<i>Swivels 360°; requires 1/2" pipe, cut and threaded (not supplied)</i>	
<i>Insert fan size: 12, 16 or 20</i>	
• Pipe mounting kit.....	PMKEXH5
<i>Useful in buildings with insufficient strength to use other types of mounts</i>	
<i>Requires 3" pipe</i>	
<i>Insert fan size: 12, 16 or 20</i>	

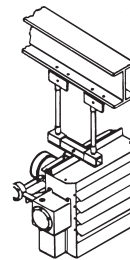


Heater shown has optional built-in thermostat

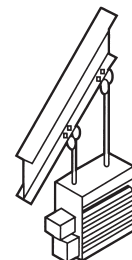
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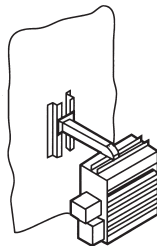
BMK basic mounting kit



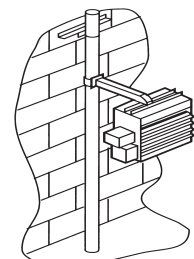
SHMK swivel hanging mounting kit



HMK hanging mounting kit



WMK wall mounting kit



PMK pipe mounting kit

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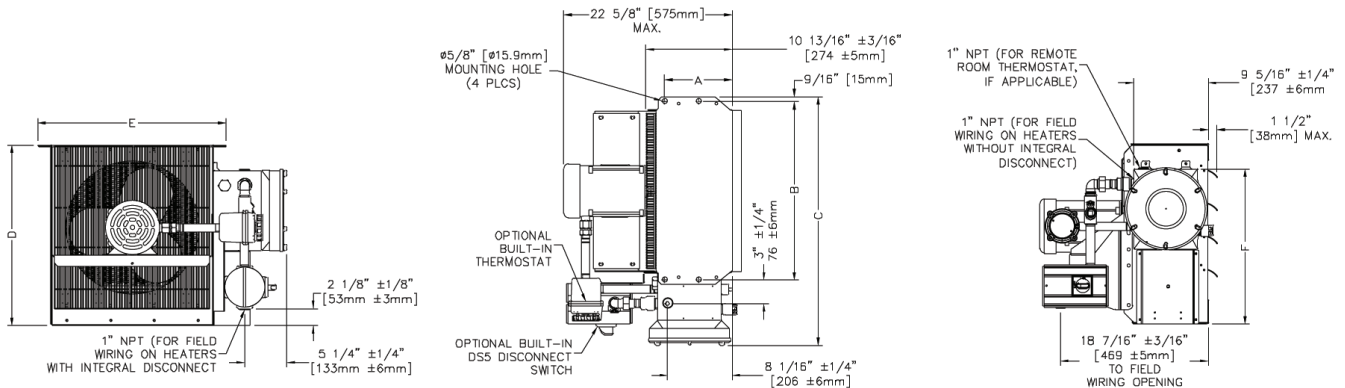
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Specifications:

	Nominal kW	EXH512			EXH516			EXH520		
		3	5	7.5	10	15	20	25	30	35
Maximum altitude	ft. (m.)	12,000 (3,658)	8,000 (2,438)	10,000 (3,048)	7,000 (2,134)	10,000 (3,048)	7,000 (2,134)	10,000 (3,048)	7,000 (2,134)	6,000 (1,829)
Air delivery	at 70°F at 21°C CFM (m ³ /hr)	500 (850)	500 (850)	850 (1,444)	850 (1,444)	1,750 (2,973)	1,750 (2,973)	3,600 (6,116)	3,600 (6,116)	3,950 (6,711)
Horizontal throw	ft. (m.)	15 (4.6)	15 (4.6)	30 (9.1)	30 (9.1)	40 (12.2)	40 (12.2)	70 (21.3)	70 (21.3)	70 (21.3)
Maximum mounting height	ft. (m.)	7 (2.1)	7 (2.1)	10 (3.0)	10 (3.0)	10 (3.0)	10 (3.0)	20 (6.1)	20 (6.1)	20 (6.1)
Motor power	HP (kW)	0.5 (0.187)	0.5 (0.187)	0.5 (0.187)	0.5 (0.187)	0.5 (0.187)	0.5 (0.187)	0.5 (0.373)	0.5 (0.373)	0.5 (0.373)
Fan diameter	in. (mm)	12 (305)	12 (305)	12 (305)	12 (305)	16 (406)	16 (406)	20 (508)	20 (508)	20 (508)
Net weight	lbs. (kg.)	140 (63.5)	140 (63.5)	140 (63.5)	140 (63.5)	168 (76.2)	168 (76.2)	201 (91.2)	201 (91.2)	201 (91.2)
Shipping weight	lbs. (kg.)	194 (88)	194 (88)	194 (88)	194 (88)	218 (98.9)	218 (98.9)	252 (114.3)	252 (114.3)	252 (114.3)
Motor type	Explosionproof. Thermally protected. Permanently lubricated ball bearings. 1725 RPM.									
Fan guard	Split design with close wiring spacing. 1/4" (6.3mm) probe will not enter.									
Heating elements	Three long life, low watt density, high grade metal sheathed elements									
Temperature high limit	Automatic reset type, snap action bimetal, open on temperature rise. Rated 100,000 cycles at 10A, handles 0.128A.									
Control circuit	120V, 0.128A, 15VA									
Control transformer	Multi-tap primary, 120V secondary, 50VA									
Contactors	60 or 100A rated 1,000,000 cycles at maximum capacity, operating at not more than 84% full load. 120V, 15VA fuse protected coil.									
Overpressure protection	Fusible alloy plug 170 psi (1.17 MPa)									
Temperature code rating	T3B 165°C (329°F) Class I & II									
Temperature limitations	Operational; -49°F to 176°F (-45°C to 80°C), short-term to 248°F (120°C)									

Dimensions (in inches):



Dimensional tolerances $\pm 1/8$ " (3.2mm) unless otherwise specified.

Dimension in inches (millimeters)	2.5 - 10kW	12.5 - 20kW	20.9 - 35kW	Dim. tolerance \pm
A	8 ⁷ / ₁₆ (215)	8 ⁷ / ₁₆ (215)	8 ⁷ / ₁₆ (215)	1/8 (3)
B	18 ⁷ / ₁₆ (462)	22 ⁷ / ₁₆ (566)	26 ¹ / ₄ (667)	1/8 (3)
C	27 (686)	31 (787)	35 (889)	3/16 (4)
D	18 ¹ / ₂ (470)	22 ¹ / ₂ (572)	26 ¹ / ₂ (674)	1/8 (3)
E	19 ⁷ / ₁₆ (494)	23 ⁷ / ₁₆ (596)	27 ⁷ / ₁₆ (697)	3/8 (10)
F	17 ¹ / ₂ (444)	19 ¹ / ₂ (495)	21 ³ / ₁₆ (554)	5/16 (8)

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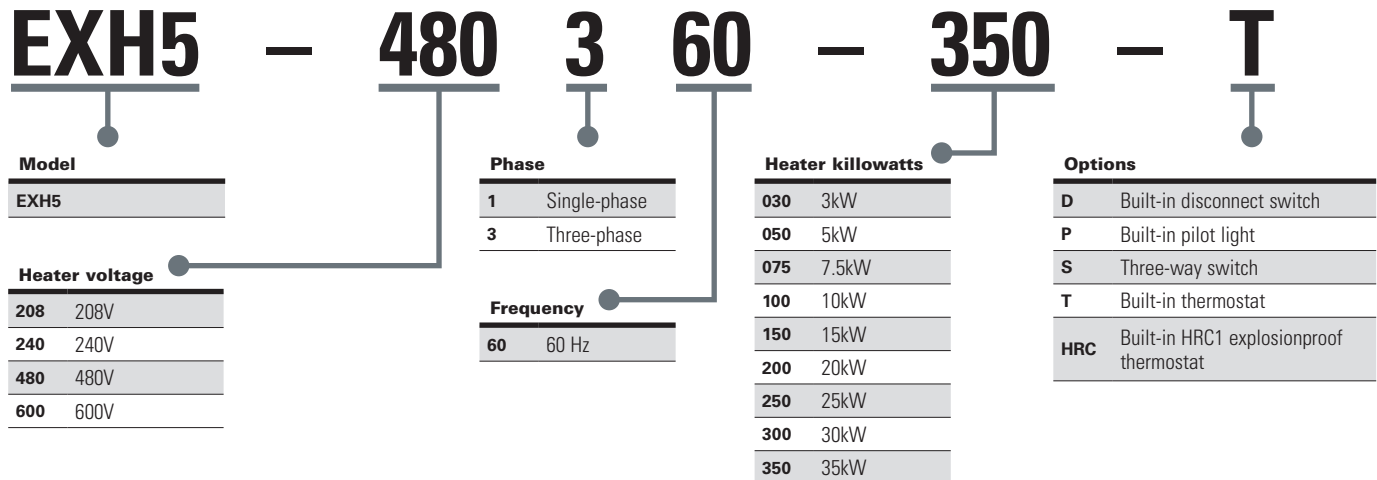
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Ordering information:

Series	Nominal watts (kW)	Voltage	Phase	Cat. #	Maximum total amperage	Temperature rise		Heat output BTU / hr.
						°F	°C	
EXH512	3.0	208	1	EXH5-208160-030	14.4	11.2	6.2	10,250
	3.0	208	3	EXH5-208360-030	8.3	11.2	6.2	10,250
	3.0	240	1	EXH5-240160-030	12.5	11.2	6.2	10,250
	3.0	240	3	EXH5-240360-030	7.2	11.2	6.2	10,250
	3.0	480	1	EXH5-480160-030	6.3	11.2	6.2	10,250
	3.0	480	3	EXH5-480360-030	3.6	11.2	6.2	10,250
	3.0	600	3	EXH5-600360-030	2.9	11.2	6.2	10,250
	5.0	208	1	EXH5-208160-050	24.0	18.6	10.3	17,100
	5.0	208	3	EXH5-208360-050	13.9	18.6	10.3	17,100
	5.0	240	1	EXH5-240160-050	20.8	18.6	10.3	17,100
	5.0	240	3	EXH5-240360-050	12.0	18.6	10.3	17,100
	5.0	480	1	EXH5-480160-050	10.4	18.6	10.3	17,100
	5.0	480	3	EXH5-480360-050	6.0	18.6	10.3	17,100
	5.0	600	3	EXH5-600360-050	4.8	18.6	10.3	17,100
	7.5	208	1	EXH5-208160-075	36.1	27.9	15.5	26,600
	7.5	208	3	EXH5-208360-075	20.8	27.9	15.5	26,600
	7.5	240	1	EXH5-240160-075	31.3	27.9	15.5	26,600
	7.5	240	3	EXH5-240360-075	18.0	27.9	15.5	26,600
	7.5	480	1	EXH5-480160-075	15.6	27.9	15.5	26,600
	7.5	480	3	EXH5-480360-075	9.0	27.9	15.5	26,600
7.5	600	3	EXH5-600360-075	7.2	27.9	15.5	26,600	
10.0	208	3	EXH5-208360-100	27.8	37.2	20.7	34,150	
10.0	240	1	EXH5-240160-100 ^A	41.7	37.2	20.7	34,150	
10.0	240	3	EXH5-240360-100	24.1	37.2	20.7	34,150	
10.0	480	1	EXH5-480160-100	20.8	37.2	20.7	34,150	
10.0	480	3	EXH5-480360-100	12.0	37.2	20.7	34,150	
10.0	600	3	EXH5-600360-100	9.6	37.2	20.7	34,150	
EXH516	15.0	240	3	EXH5-240360-150	36.1	27.1	15.1	51,200
	15.0	480	1	EXH5-480160-150	31.3	27.1	15.1	51,200
	15.0	480	3	EXH5-480360-150	18.0	27.1	15.1	51,200
	15.0	600	3	EXH5-600360-150	14.4	27.1	15.1	51,200
	20.0	480	1	EXH5-480160-200	41.7	36.1	20.1	68,300
	20.0	480	3	EXH5-480360-200	24.1	36.1	20.1	68,300
EXH520	20.0	600	3	EXH5-600360-200	19.2	36.1	20.1	68,300
	25.0	480	3	EXH5-480360-250	30.1	45.2	25.1	85,400
	25.0	600	3	EXH5-600360-250	24.1	45.2	25.1	85,400
	30.0	480	3	EXH5-480360-300	36.1	26.4	14.6	102,360
	30.0	600	3	EXH5-600360-300	28.9	26.4	14.6	102,360
	35.0	480	3	EXH5-480360-350	42.1	30.7	17.1	119,450
35.0	600	3	EXH5-600360-350	33.7	30.7	17.1	119,450	

Part number example

EXH5-480360-350-T



^ANot available with built-in disconnect switch (option D).