

# GEM SERIES

## HIGH EFFICIENCY MULTI-POSITION ELECTRIC HEAT DX COOL AIR HANDLERS

### Product Dimensions & Specifications



#### WARRANTY

One year limited parts warranty

#### OPTIONS

See options menu

#### MANUFACTURED IN THE USA

Representative image only.

Some models may vary in appearance.

Due to continuous product improvement, specifications are subject to change

without notice.



Rev. Date: 10/29/20

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#### STANDARD FEATURES

##### APPLICATION VERSATILITY

Upflow or horizontal right as shipped (field-convertible for down-flow or horizontal left applications). For use with either R22 or R410A when proper metering device is used.

##### MOTOR

Constant torque ECM speeds and torques are controlled by software embedded in the motor to maintain constant torque. Motors are pre-programmed at the factory.

##### LOW LEAKAGE CABINET

Less than 2% air leakage from cabinet when tested in accordance with ASHRAE standard 193. Unit must be installed according to Aspen installation instructions. Sturdy, fully insulated galvanized steel cabinet; stick pins ensure 1/2" insulation remains in place. Unit ships with disposable filter.

##### MODULAR ELECTRIC HEAT KITS

Heat kits available with either circuit breakers or terminal blocks. Available from 3 to 30 KW. Models with electric heat include sequencers and temperature limit switches for safe, efficient operation. Modules are easily installed in the field using molex plugs or can be ordered factory-installed. Controls are accessible from the front for easy service. Electrical connections can be made from the top or left. Fan time delay relay standard for increased efficiency.

##### BLOWER

Direct drive blowers circulate air quietly and efficiently. Motor speeds and torques programmed in the motor. Blowers mounted on rails so they can be easily removed for service.

##### ELECTRONIC CIRCUIT BOARD

Electronic circuit board provides 30 secs ON/OFF blower time delay extracting more heat/cool from the coil. Automotive-style pull fuse protection on the circuit board to provide low voltage and transformer protection.

##### DX COIL

High efficiency rifled copper tubes/enhanced aluminum fins provide maximum heat transfer. All coils immersion tested at 500 psi then nitrogen pressurized and factory sealed for maximum reliability. Liquid-line Schrader allows pre-installation pressure testing. Available with either orifice or TXV metering device factory installed. Field-installable bolt-on TXVs are also available. Rugged, UV safe, GLP drain pan holds minimal condensate while eliminating the possibility of corrosion. All drain connections are 3/4" FPT. Access door allows for coil cleaning.



## HEATING AND COOLING PERFORMANCE AND ELECTRICAL DATA

MODEL	ELECTRIC HEAT KIT MODEL	PERFORMANCE DATA						ELECTRICAL DATA			
		HEATING (KW)		HEAT KIT ONLY AMPS		HEATING CAPACITY (MBTUH)		MINIMUM CIRCUIT AMPACITY (MCA)		MAX BREAKER OR FUSE SIZE	
		208V	240V	208V	240V	208V	240V	208V	240V	208V	240V
GEM 18/19	E(C,T)S00	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.5	15	15
	E(C,T)S03	2.3	3.0	11.1	12.5	7.8	10.2	17.0	19.1	20	20
	E(C,T)S05	3.8	5.0	18.3	20.8	13.0	17.1	25.1	28.5	25	30
	E(C,T)S08	6.1	8.0	29.3	33.3	20.8	27.3	39.6	45.2	40	45
	E(C,T)S10	7.6	10.0	36.5	41.7	25.9	34.1	46.8	53.5	50	60
GEM 24/25	E(C,T)S00	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.5	15	15
	E(C,T)S03	2.3	3.0	11.1	12.5	7.8	10.2	17.0	19.1	20	20
	E(C,T)S05	3.8	5.0	18.3	20.8	13.0	17.1	25.1	28.5	25	30
	E(C,T)S08	6.1	8.0	29.3	33.3	20.8	27.3	39.6	45.2	40	45
	E(C,T)S10	7.6	10.0	36.5	41.7	25.9	34.1	46.8	53.5	50	60
GEM 30/31	E(C,T)S00	0.0	0.0	0.0	0.0	0.0	0.0	5.1	5.1	15	15
	E(C,T)S03	2.3	3.0	11.1	12.5	7.8	10.2	18.6	20.8	20	25
	E(C,T)S05	3.8	5.0	18.3	20.8	13.0	17.1	26.8	30.1	30	30
	E(C,T)S08	6.1	8.0	29.3	33.3	20.8	27.3	41.3	46.8	45	50
	E(C,T)S10	7.6	10.0	36.5	41.7	25.9	34.1	48.4	55.1	50	60
	E(C,T)S15	11.3	15.0	54.3	62.5	38.6	51.2	48.4/21.6	55.1/25	50/25	60/25
GEM 36/37	E(C,T)S00	0.0	0.0	0.0	0.0	0.0	0.0	5.1	5.1	15	15
	E(C,T)S03	2.3	3.0	11.1	12.5	7.8	10.2	18.6	20.8	20	25
	E(C,T)S05	3.8	5.0	18.3	20.8	13.0	17.1	26.8	30.1	30	30
	E(C,T)S08	6.1	8.0	29.3	33.3	20.8	27.3	41.3	46.8	45	50
	E(C,T)S10	7.6	10.0	36.5	41.7	25.9	34.1	48.4	55.1	50	60
	E(C,T)S15	11.3	15.0	54.3	62.5	38.6	51.2	48.4/21.6	55.1/25	50/25	60/25
GEM 42/43	F(C,T)L00	0.0	0.0	0.0	0.0	0.0	0.0	9.5	9.5	20	20
	E(C,T)L05	3.8	5.0	18.3	20.8	13.0	17.1	31.1	34.5	35	40
	E(C,T)L10	7.6	10.0	36.5	41.7	25.9	34.1	52.8	59.5	60	60
	E(C,T)L15	11.3	15.0	54.3	62.5	38.6	51.2	52.8/21.6	59.5/25	60/25	60/25
	E(C,T)L20	15.0	20.0	72.1	83.3	51.2	68.3	52.8/43.3	59.5/50	60/45	60/50
	E(C,T)L25	18.8	25.0	90.4	104.2	64.2	85.3	52.8/ 43.3/21.6	59.5/50/25	60/45/25	60/50/25
	E(C,T)L30	22.5	30.0	108.2	125.0	76.8	102.4	52.8/ 43.3/43.3	59.5/50/50	60/45/45	60/50/50
GEM 48/49	F(C,T)L00	0.0	0.0	0.0	0.0	0.0	0.0	9.5	9.5	20	20
	E(C,T)L05	3.8	5.0	18.3	20.8	13.0	17.1	31.1	34.5	35	40
	E(C,T)L10	7.6	10.0	36.5	41.7	25.9	34.1	52.8	59.5	60	60
	E(C,T)L15	11.3	15.0	54.3	62.5	38.6	51.2	52.8/21.6	59.5/25	60/25	60/25
	E(C,T)L20	15.0	20.0	72.1	83.3	51.2	68.3	52.8/43.3	59.5/50	60/45	60/50
	E(C,T)L25	18.8	25.0	90.4	104.2	64.2	85.3	52.8/ 43.3/21.6	59.5/50/25	60/45/25	60/50/25
	E(C,T)L30	22.5	30.0	108.2	125.0	76.8	102.4	52.8/ 43.3/43.3	59.5/50/50	60/45/45	60/50/50
GEM 60/61/62	F(C,T)L00	0.0	0.0	0.0	0.0	0.0	0.0	9.5	9.5	20	20
	E(C,T)L05	3.8	5.0	18.3	20.8	13.0	17.1	31.1	34.5	35	40
	E(C,T)L10	7.6	10.0	36.5	41.7	25.9	34.1	52.8	59.5	60	60
	E(C,T)L15	11.3	15.0	54.3	62.5	38.6	51.2	52.8/21.6	59.5/25	60/25	60/25
	E(C,T)L20	15.0	20.0	72.1	83.3	51.2	68.3	52.8/43.3	59.5/50	60/45	60/50
	E(C,T)L25	18.8	25.0	90.4	104.2	64.2	85.3	52.8/ 43.3/21.6	59.5/50/25	60/45/25	60/50/25
	E(C,T)L30	22.5	30.0	108.2	125.0	76.8	102.4	52.8/ 43.3/43.3	59.5/50/50	60/45/45	60/50/50

### BLOWER DATA

MODEL	SPEED TAP	MOTOR AMPS	MOTOR BHP	MOTOR HP	CFM V. EXTERNAL STATIC*						
					0.10	0.20	0.30	0.40	0.50	0.60	0.70
GEM 18/19/24/25	T5	1.7	0.23	1/3	932	894	862	827	800	762	
	T4	0.9	0.12		750	706	674	627	600	561	
	T3	0.7	0.10		600	565	539	502	480	449	
	T2	17.0	2.32		932	894	862	827	800	762	
	T1	0.9	0.12		750	706	674	627	600	561	
GEM 30/31/36/37	T5	2.2	0.30	1/2	1291	1280	1252	1227	1200	1171	
	T4	1.4	0.19		1122	1091	1066	1034	1000	982	
	T3	1.2	0.16		898	873	853	827	800	786	
	T2	1.0	0.14		745	698	668	630	600	558	
	T1	2.2	0.30		1291	1280	1252	1227	1200	1171	
GEM 42/43/48/49/60/61/62	T5	6.3	0.86	1	2018	1987	1961	1922	1889	1856	1823
	T4	4.0	0.55		1738	1696	1667	1636	1598	1566	1527
	T3	2.9	0.40		1546	1521	1482	1439	1396	1360	1321
	T2	2.3	0.31		1367	1342	1303	1260	1217	1181	1142
	T1	6.3	0.86		2018	1987	1961	1922	1889	1856	1823

\*Wet coil

### AIR HANDLER CHASSIS NOMENCLATURE

GEM	18	F	-001
GEM = 240V Constant Torque ECM Multi-Position Air Handler	Nominal tonnage (MBTUH)	<u>Metering device</u> 4 = R410A non-bleed A/C or H/P TXV B = R22 20% bleed A/C or H/P TXV F = R22 Flo-rater G = R410A Flo-rater X = R22 non-bleed A/C or H/P TXV	Option Code

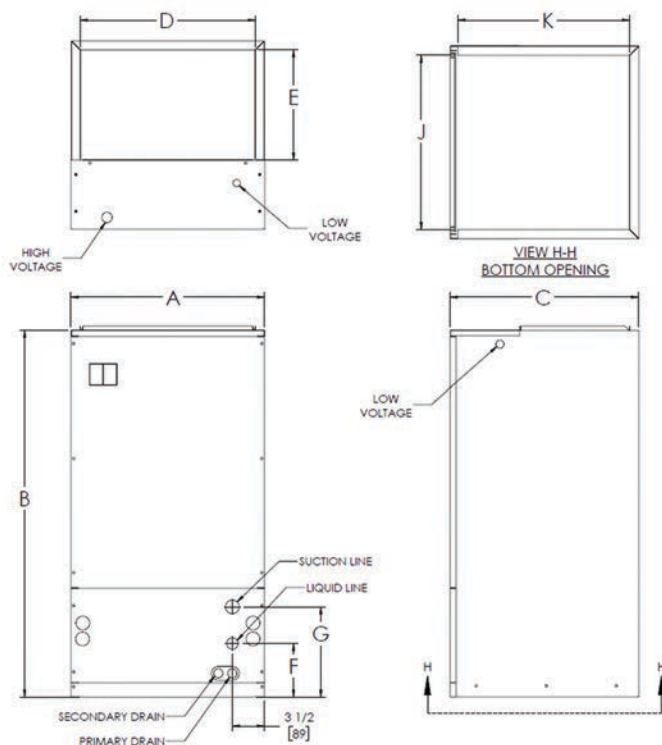
### ELECTRIC HEAT KIT NOMENCLATURE

E	C	S	03
Electric Heat	<u>Interruption</u> C = Circuit Breaker T = Terminal Block P = Circuit Breaker w/Single Point	S = 18-37 L = 42-61	<u>Heat Strip</u> 00 = NO Heat 03 = 3 KW 05 = 5 KW 06 = 6 KW 08 = 8 KW 10 = 10 KW 15 = 15 KW 20 = 20 KW 25 = 25 KW 30 = 30 KW

**DIMENSIONS AND SPECIFICATIONS (In. [mm]) (Fig 1)**

MODEL	A	B	C	D	E	F	G	J	K	FILTER SIZE	PISTON SIZE	SHIP WEIGHT (LBS)	SKID QTY
GEM18+E*	21 [533]	40 [1016]	20-1/2 [521]	18-3/4 [476]	12 [305]	7-1/4 [184]	10-1/4 [260]	18-1/2 [470]	18-1/2 [470]	16X20	0.055	99	4
GEM19/24/25+E*	21 [533]	40 [1016]	20-1/2 [521]	18-3/4 [476]	12 [305]	8-1/4 [209]	12-1/4 [311]	18-1/2 [470]	18-1/2 [470]	16X20	0.059	100	4
GEM30+E*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	8-1/4 [209]	14-1/4 [362]	18-1/2 [470]	18-1/2 [470]	16X20	0.068	118	4
GEM36+E*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	10-1/4 [260]	16-1/4 [412]	18-1/2 [470]	18-1/2 [470]	16X20	0.068	118	4
GEM31/37+E*	21 [533]	49-1/4 [1251]	20-1/2 [521]	18-3/4 [476]	12 [305]	10-1/4 [260]	16-1/4 [412]	18-1/2 [470]	18-1/2 [470]	16X20	0.074	147	4
GEM42+E*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	11 [279]	16 [406]	22 [559]	18-1/2 [470]	20X20	0.080	153	4
GEM48+E*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	13 [330]	18 [457]	22 [559]	18-1/2 [470]	20X20	0.084	180	4
GEM43/49/60/62+E*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	13 [330]	18 [457]	22 [559]	18-1/2 [470]	20X20	0.084	180	4
GEM61+E*	24-1/2 [622]	57 [1448]	20-1/2 [521]	22-1/4 [565]	14-3/4 [375]	15 [381]	20 [508]	22 [559]	18-1/2 [470]	20X20	0.092	200	4

**Fig 1**



Copper stub out diameter: Suction: 3/4" 18-37, 7/8" 43-62, Liquid: 3/8"



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