

37MPRA

**Outdoor Unit Single Zone Ductless System
Sizes 6 to 18**



Product Data



Fig. 1 – Typical Unit

A220408

NOTE: Images are for illustration purposes only. Actual models may differ slightly.

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INDUSTRY LEADING FEATURES / BENEFITS

A PERFECT BLEND BETWEEN BUDGET LIMITS, ENERGY SAVINGS AND COMFORT

The ductless systems are a matched combination of an outdoor condensing unit and an indoor fan coil unit connected only by refrigerant tubing and wires.

The ductless system permits creative solutions to design problems such as:

- **Add-ons to current space (an office or family room addition)**
- **Special space requirements**
- **When changes in the load cannot be handled by the existing system**
- **When adding air conditioning to spaces that are heated by hydronic or electric heat and have no ductwork**
- **Historical renovations or any application where preserving the look of the original structure is essential.**

The ideal compliment to your ducted system when it is impractical or prohibitively expensive to use ductwork.

The compact indoor fan coil units take up very little space in the room and do not obstruct windows. The fan coils are attractively styled to blend with most room decors. Advanced system components incorporate innovative technology to provide reliable cooling performance at low sound levels.

BENEFITS

Inverter Technology

The inverter driven compressor is designed to run at various input power frequencies (Hz) which controls the compressor's motor speed.

Ductless systems are inherently economical to operate. Individual rooms are heated or cooled only when required, and since the air is delivered directly to the space, there is no need to use additional energy to move the air in the ductwork. This economical operation is enhanced further when the inverter system output matches the load resulting in a more efficient system.

Even Temperature – The control package, including the inverter, monitors the outdoor and indoor temperatures as they relate to the selected indoor set point and adjusts the compressor speed to match the load and keep the system operating continuously rather than cycling and creating temperature swings. This translates to higher comfort levels for the occupants.

Rapid Pull Down/Warm-Up – Comfort is increased by the inverter system's ability to ramp up the compressor speed enabling the system to reach the user selected room temperature set point quicker.

Humidity Control – Running the system for longer periods and continuously varying the compressor speed enhances the humidity.

Individual Room Comfort

Maximum comfort is provided because each space can be controlled individually based on the usage pattern.

Low Sound Levels

When noise is a concern, ductless systems are the answer. The indoor units are whisper quiet. There are no compressors indoors, either in the conditioned space or directly over it, and there is none of the noise usually generated by air being forced through the ductwork.

When sound ordinances and proximity to neighbors demand quiet operation, the ductless systems unit is the right choice. With the inverter technology, these units run at lower speeds most of the time resulting in reduced sound levels.

Easy-To-Use Controls

The systems have microprocessor-based controls to provide the ultimate in comfort and efficiency. The user friendly wired and wireless remote controls provide the interface between the user and the unit.

Secure Operation

If security is an issue, outdoor and indoor units are connected only by refrigerant piping and wiring to prevent intruders from crawling through ductwork or wall openings. In addition, since the ductless system can be installed close to an outside wall so coils are protected from vandals and severe weather.

Fast Installation

This compact ductless system is simple to install. Only wires and piping need to run between the indoor and outdoor units. These units are fast and easy to install ensuring minimal disruption to customers in homes or the workplace. This makes the ductless systems the equipment of choice for retrofit applications.

Simple Servicing and Maintenance

Removing the top panel of the outdoor unit provides immediate access to the control compartment, providing the service technician access to the diagnostic LEDs to facilitate the troubleshooting process. In addition, the draw-thru design of the outdoor unit means that dirt accumulates on the outside surface of the coil. Coils can be cleaned quickly from the inside using a pressure hose and detergent.

On the indoor units, service and maintenance expense is reduced due to the permanent easy to clean filters. Also, error codes are displayed on the front panel to alert the user to certain system malfunctions.

Built-in Reliability

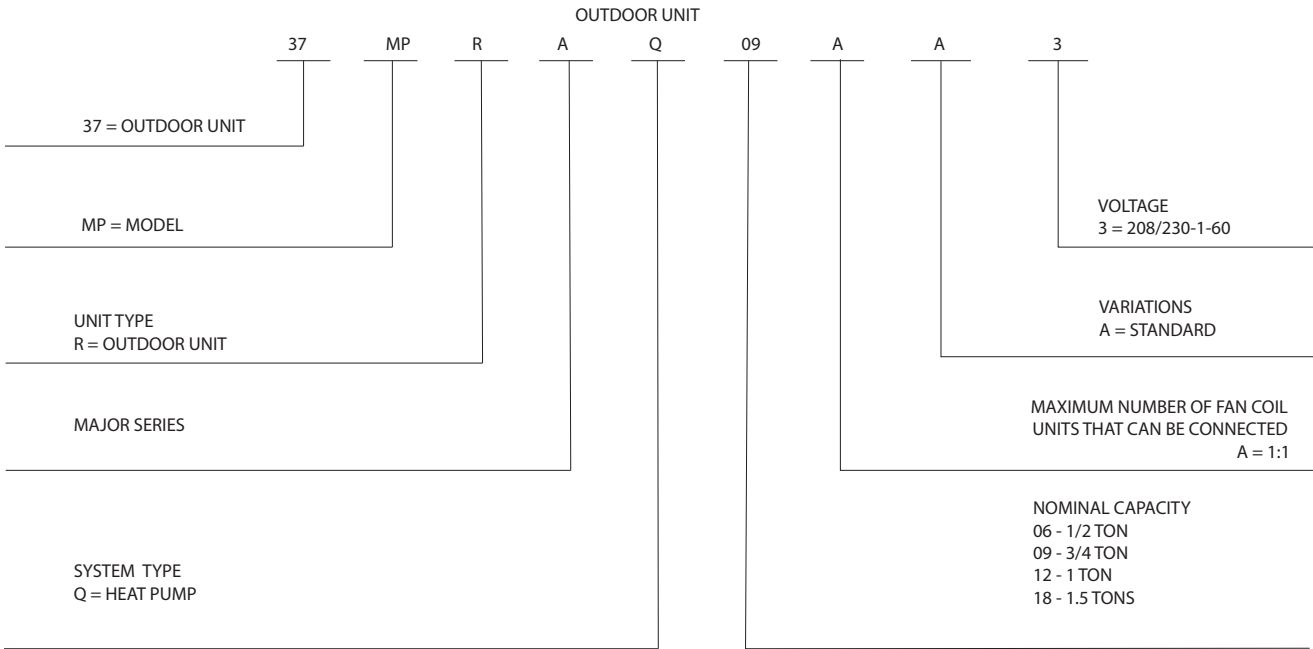
Ductless system indoor and outdoor units are designed to provide years of trouble-free operation. Both the indoor and outdoor units are well protected. Whenever the microprocessor detects abnormal conditions, the unit stops and an error code appears.

Inverter systems provide additional reliability due to the soft start. This refers to the ability of the inverter to start the compressor motor using reduced voltage and reduced current. This feature is beneficial from an electrical standpoint (eliminates current spikes) as well as an overall reliability standpoint due to reduced stress on all associated system components.

Agency Listings

All systems are listed with AHRI (Air conditioning, Heating, and Refrigeration Institute) and are certified per UL 60335-2-40 standard.

MODEL NUMBER NOMENCLATURE



STANDARD FEATURES AND ACCESSORIES

Ease Of Installation	
Low Voltage Controls	S
Comfort Features	
Microprocessor Controls	S
Auto Restart Function	S
Auto Changeover	S
Low Ambient Cooling	S
Low Ambient Heating	S
Energy Saving Features	
Inverter Driven Compressor	S
Safety And Reliability	
3 Minute Time Delay For Compressor	S
High Compressor Discharge Temperature	S
Low Voltage Protection	S
Compressor Overload Protection	S
Compressor Over Current Protection	S
IPM Module Protection	S
Condenser High Temp Protection in Cooling Mode	S
Aluminum Golden Hydrophilic pre-coated fins	S
Ease Of Service And Maintenance	
Diagnostics	S
Liquid Line Pressure Taps	S
Application Flexibility	
Crankcase Heater	S
Base pan Heater	S

Legend

S - Standard

A - Accessory

Table 1 — Accessories

PART NAME	QTY.
Outdoor unit	1
Literature package including installation instructions	1
Mounting parts for the outdoor unit (helps with vibration prevention during unit operation)	4
Drain Joint	1
Drain Hose	1

Table 2 — Basepan Plugs

Outdoor Unit Model Number	Basepan Base Rubber Plugs RCD Part Number	Quantity per unit
37MPRAQ06AA3	12600801A00077	25
37MPRAQ09AA3		
37MPRAQ12AA3		
37MPRAQ18AA3	12600801A00117	5

NOTE: The base pan is built in with multiple holes for proper drainage during defrost. For applications where it is required to seal the holes and re-direct the condensate drain, rubber plugs are available through RCD.

Outdoor Units

Crankcase Heater

The crankcase heater is standard on all unit sizes. Heater clamps must be placed around the compressor oil sump.

Base pan Heater

The base pan heater is standard on all unit sizes.

Unit Sizes

Table 3 — Unit Sizes

SYSTEM TONS	kBTUh	VOLTAGE - PHASE	OUTDOOR MODEL
0.5	6,000	208/230-1	37MPRAQ06AA3
0.75	9,000	208/230-1	37MPRAQ09AA3
1	12,000	208/230-1	37MPRAQ12AA3
1.5	18,000	208/230-1	37MPRAQ18AA3

DIMENSIONS

Table 4 – Dimensions and Weights

System Size		6K	9K	12K	18K
		(208/230 V)	(208/230 V)	(208/230 V)	(208/230 V)
Height (H)	in (mm)	26.50 (673)	26.50 (673)	26.50 (673)	31.89 (810)
Width (W)	in (mm)	35.04 (890)	35.04 (890)	35.04 (890)	37.24 (946)
Depth (D)	in (mm)	13.46 (342)	13.46 (342)	13.46 (342)	16.14 (410)
Weight -Net	lbs. (kg)	99.65 (45.2)	99.65 (45.2)	99.65 (45.2)	130.29 (59.1)

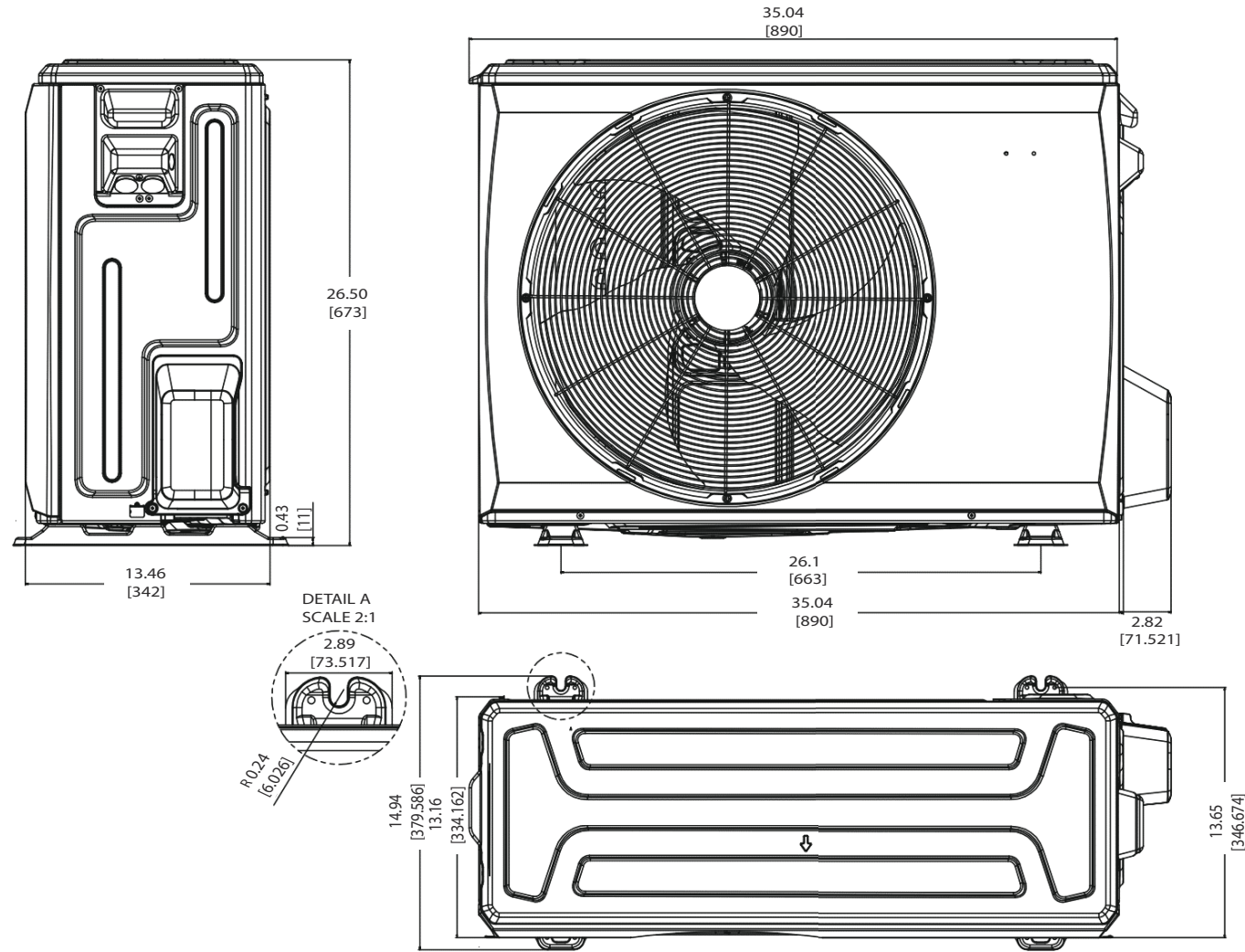


Fig. 2 – Size 6K/9K/12K

DIMENSIONS (CONT.)

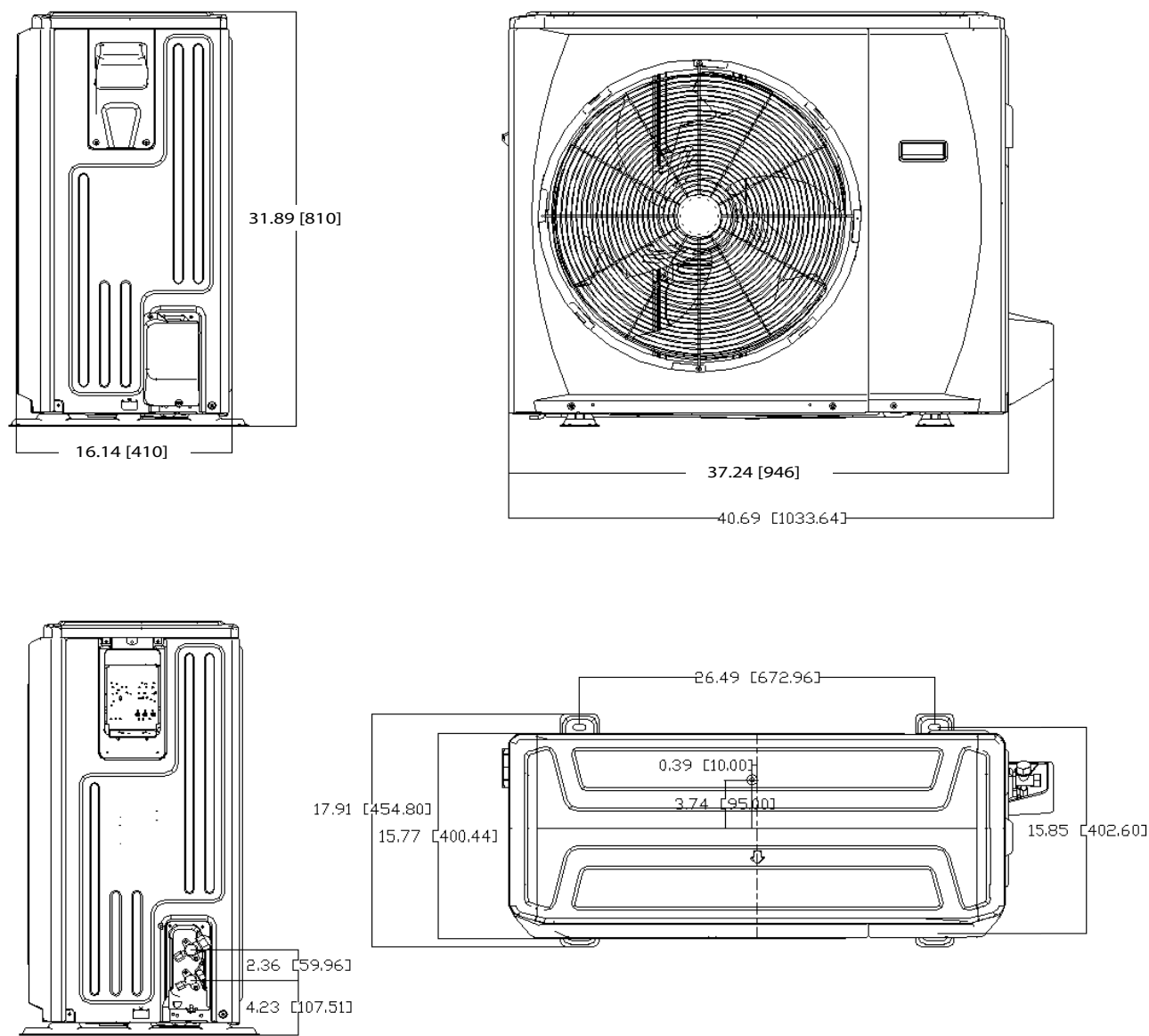


Fig. 3 – Sizes 18K

CLEARANCES

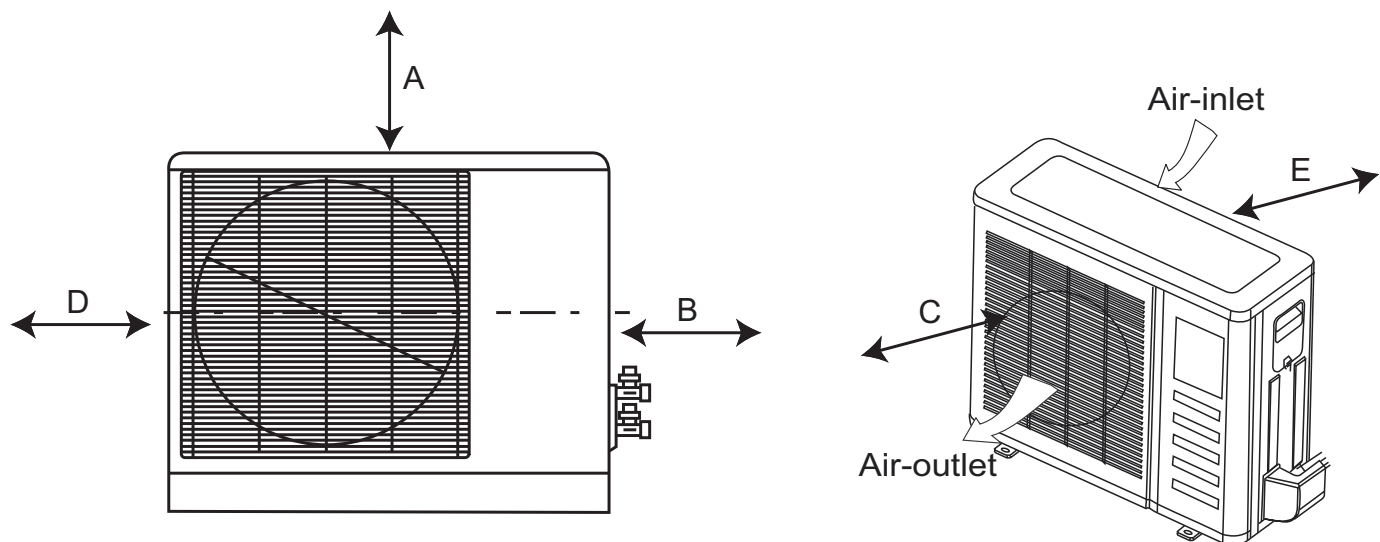


Fig. 4 – Unit Clearances

A22197

UNIT	MINIMUM VALUE in. (mm)
A	20 (508)
B	14 (356)
C	20 (508)
D	4 (101)
E	4 (101)

NOTE: The outdoor unit must be mounted at least 2in. (50mm) above the maximum anticipated snow depth.

SPECIFICATIONS

Table 5 – Specifications

Outdoor model			37MPRAQ06AA3	37MPRAQ09AA3	37MPRAQ12AA3	37MPRAQ18AA3
Power supply		V;Ph;Hz	208/230V;1Ph;60HZ			
COMPRESSOR SPECIFICATIONS	Model		KTM110D79UFZA3	KTM110D79UFZA3	KTM110D79UFZA3	KTM240D46UKT2
	Type		ROTARY			
	Brand		GMCC			
	Capacity	W	3437	3437	3437	7600
		Btu/h	11727	11727	11727	25931
	Input	W	867	867	867	2045
	RLA	A	7	7	7	9.30
	Refrigerant Oil		ESTER OIL			
	Oil Type		VG74	VG74	VG74	VG74
Oil Charge	fl. Oz	16.91	16.91	16.91	20.97	
OUTDOOR FAN SPECIFICATIONS	Material	-	Acrylonitrile Styrene +20%GF			
	Type	-	ZL-535*133*12-3KFN	ZL-535*133*12-3KFN	ZL-535*133*12-3KFN	ZL-560*139*12-3KN
	Diameter	inch	21.1	21.1	21.1	22.0
		mm	535	535	535	560
	Height	inch	5.2	5.2	5.2	5.5
		mm	133	133	133	139

Table 5 – Specifications (Continued)

Outdoor model			37MPRAQ06AA3	37MPRAQ09AA3	37MPRAQ12AA3	37MPRAQ18AA3
OUTDOOR MOTOR SPECIFICATIONS	Model	-	ZKFN-80-10-1L	ZKFN-80-10-1L	ZKFN-80-10-1L	ZKFN-120-8-2
	Type	-	DC	DC	DC	DC
	Input	W	75.0	75.0	75.0	120
	Max. input	W	291.4	291.4	291.4	176
	Output	W	56.3	56.3	56.3	90
	FLA	A	0.7	0.7	0.7	1.3
	Rated HP	HP	0.08	0.08	0.08	0.12
	Range of current	Amps	0.38~2.18	0.38~2.18	0.38~2.18	0.79~1.67
	RLA	Amps	0.69	0.69	0.69	1.30
	Speed	rev/min	700/600/450	700/600/450	700/600/450	950/800/500
	Rated RPM	rev/min	700	700	700	950
	Insulation class	-	B	B	B	E
	Safe class	-	IP24	IP24	IP24	IPX4
OUTDOOR REFRIGERANT COIL SPECIFICATIONS	Number of rows	Rows	1.6	1.6	1.6	2
	Tube outside dia.	inch	0.276	0.276	0.276	0.276
		mm	Φ7	Φ7	Φ7	Φ7
	Nominal Tube Wall	mm	0.00945 (0.24)	0.00945 (0.24)	0.00945 (0.24)	0.00945 (0.24)
	Tube Enhancement	Yes/No	Yes	Yes	Yes	Yes
	Tube Material		Copper			
	Tube pitch (a)x row pitch (b)	inch	0.83× 0.87	0.83× 0.87	0.83× 0.87	1× 0.87
		mm	21x22	21x22	21x22	25.4x22
	Fin Spacing	FPI	20	20	20	20
		mm	1.3	1.3	1.3	1.3
	Fin type		Plain fin			
	Fin Material		Gold hydrophilic aluminum			
	Coil length x height x width	inch	35.43x23.98x0.87+21.26x23.98x0.87	35.43x23.98x0.87+21.26x23.98x0.87	35.43x23.98x0.87+21.26x23.98x0.87	39.17x30x1.73
		mm	900*609*22+540*609*22	900*609*22+540*609*22	900*609*22+540*609*22	995x762x44
	Face area	ft ²	5.90	5.90	5.90	8.16
	Number of circuits	#	4	4	4	8
	High Burst Pressure	Psi (MPa)	550(3.79)	550(3.79)	550(3.79)	550(3.79)
	Low Burst Pressure	Psi (MPa)	340(2.34)	340(2.34)	340(2.34)	340(2.34)

Table 5 – Specifications (Continued)

Outdoor model			37MPRAQ06AA3	37MPRAQ09AA3	37MPRAQ12AA3	37MPRAQ18AA3
PIPING AND REFRIGERANT INFORMATION	Refrigerant Type	Type	R454B	R454B	R454B	R454B
	Charge Amount	lb. (kg)	2.76(1.25)	2.76(1.25)	2.76(1.25)	3.97(1.80)
	Additional refrigerant charge	Oz/ft (g/m)	0.16(15)	0.16(15)	0.16(15)	0.32(30)
	Liquid Pipe (size - connection type)	In (mm)	1/4in (6.35mm)	1/4in (6.35mm)	1/4in (6.35mm)	3/8in (9.52mm)
	Suction Pipe (size - connection type)	In (mm)	3/8in (9.52mm)	3/8in (9.52mm)	3/8in (9.52mm)	5/8in (15.9mm)
	Min. Piping Length	ft. (m)	9.8 (3)	9.8 (3)	9.8 (3)	9.8 (3)
	Standard Piping Length	ft. (m)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)
	Max. Piping Length with no additional refrigerant charge per System	ft. (m)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)
	Total Maximum Piping Length per system	ft. (m)	82.02(25)	82.02(25)	82.02(25)	164.04(50)
	Max. outdoor-indoor height difference (OU higher than IU)	ft. (m)	49.21(15)	49.21(15)	49.21(15)	82.02(25)
	Max. outdoor-indoor height difference (IU higher than OU)	ft. (m)	49.21(15)	49.21(15)	49.21(15)	82.02(25)
AIRFLOW SPECS	Outdoor (CFM)	CFM	1472.3	1472.3	1472.3	2235.29
SOUND DATA	Outdoor Sound Pressure Level	dB(A)	57	57	57	61.5

ELECTRICAL DATA

Table 6 – Electrical Data

Electrical Data					
Outdoor Unit		6K	9K	12K	18K
		(208/230V)	(208/230V)	(208/230V)	(208/230V)
Minimum Circuit Ampacity (MCA)	A	16	16	16	24.9
Maximum Overcurrent Protection Ampacity (MOP)	A	20	20	20	25
Voltage-Phase-Frequency		208/230-1-60			
Max – Min Voltage Range		253-187			
Cooling (with high tier high wall IDU)					
RLA	(A)	2.1	3.1	3.7	5.5
Power consumption	(W)	343	529	840	1200
Heating (with high tier high wall IDU)					
RLA	(A)	3.9	4.3	4.3	5.9
Power consumption	(W)	660	977	977	1332

PERFORMANCE - HIGH WALL

Table 7 – Performance Data

Indoor Unit Type			High Tier High Wall Indoor Units			
Indoor Model			45MPHAQ06XA3	45MPHAQ09XA3	45MPHAQ12XA3	45MPHAQ18XA3
Outdoor Model			37MPRAQ06AA3	37MPRAQ09AA3	37MPRAQ12AA3	37MPRAQ18AA3
Power supply		V;Ph;Hz	208/230V;1Ph;60HZ			
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	6000	9000	12000	18000
	Cooling Capacity Range	Btu/h	3100~16500	3100~16500	3100~16500	12600~27900
	SEER2	Btu/h.W	35.1	33.5	29.5	25.8
	EER2 (DOE A2 - 95°F)	Btu/h.W	17.5	17	14.3	15
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	9000	12000	12000	20000
	Heating Capacity Range	Btu/h	4100~17200	4100~17200	4100~17200	9700~29700
	COP (DOE H12 - 47°F)	W/W	4	3.6	3.6	4.4
	HSPF2 IV	Btu/h.W	15.6	14.6	12.7	16.2
	HSPF2 V	Btu/h.W	13.5	11.5	9.5	12.9
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	6900	9500	13200	19500
	EER2 (DOE B2 - 82°F)	Btu/h.W	25.8	25.6	20.8	21
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	11000	11000	11000	19300
	COP (DOE H32 - 17°F)	W/W	2.4	2.4	2.4	3.01
	Heating Maximum Capacity (17°F)	Btu/h	14500	14500	14500	23200
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	13500	13500	13500	22600
	COP (DOE H42 - 5°F)	W/W	2	2	2	2.34
	Heating Maximum Capacity (5°F)	Btu/h	13500	13500	13500	22600

to change, at any time, specifications and designs without

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

Table 9 – 9K Cooling Performance (Continued)

AIRFLOW (CFM)	OUTDOOR DB (°F)	ID WB (°F)	60.8°F(16.0°C)					64.4°F(18.0°C)					67°F(19.4°C)					71.6°F(22.0°C)				
			73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C
		ID DB (°F) °C																				
423	-22°F(-30.0°C)	TC	7742	7739	7737	7782	8011	8083	8078	8075	8074	8068	8324	8320	8314	8313	8307	8781	8778	8772	8770	8757
		S/T	0.77	0.87	0.96	0.99	0.99	0.63	0.73	0.81	0.82	0.93	0.53	0.63	0.71	0.73	0.82	0.38	0.46	0.54	0.55	0.64
		PI	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.53	0.53	0.53	0.53	0.53	0.54	0.54	0.54	0.54	0.54
	-13°F(-25.0°C)	TC	8387	8384	8382	8430	8679	8756	8752	8748	8747	8741	9018	9013	9007	9006	9000	9513	9510	9503	9501	9486
		S/T	0.77	0.88	0.97	1.00	1.00	0.63	0.73	0.81	0.83	0.93	0.54	0.63	0.71	0.73	0.83	0.39	0.46	0.54	0.56	0.65
		PI	0.56	0.56	0.56	0.56	0.56	0.55	0.56	0.56	0.56	0.56	0.55	0.55	0.55	0.55	0.55	0.56	0.56	0.56	0.56	0.56
	-4°F(-20.0°C)	TC	9032	9029	9027	9079	9346	9430	9425	9420	9420	9413	9711	9706	9700	9699	9692	10244	10242	10234	10231	10216
		S/T	0.78	0.88	0.97	1.00	1.00	0.63	0.73	0.82	0.83	0.93	0.54	0.64	0.72	0.73	0.83	0.39	0.47	0.55	0.56	0.65
		PI	0.58	0.58	0.58	0.58	0.58	0.57	0.58	0.58	0.58	0.58	0.57	0.57	0.57	0.57	0.57	0.58	0.58	0.58	0.58	0.58
	0°F(-17.8°C)	TC	9330	9326	9362	9434	9695	9737	9730	9724	9723	9722	10023	10017	10008	10006	9997	10563	10560	10560	10561	10569
		S/T	0.78	0.89	0.99	1.00	1.00	0.64	0.74	0.83	0.84	0.95	0.54	0.64	0.73	0.74	0.84	0.39	0.47	0.55	0.57	0.66
		PI	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.59	0.59	0.59	0.59	0.59
	5°F(-15.0°C)	TC	9605	9613	9743	9788	10087	10061	10064	10065	10065	10114	10391	10390	10393	10393	10394	11012	11008	11008	11009	11015
		S/T	0.79	0.90	1.00	1.00	1.00	0.64	0.75	0.84	0.85	0.96	0.54	0.65	0.73	0.75	0.85	0.39	0.47	0.55	0.57	0.66
		PI	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.61	0.60	0.61	0.61	0.61
	14°F(-10.0°C)	TC	10226	10222	10265	10354	10676	10739	10733	10728	10727	10722	11111	11105	11097	11095	11086	11809	11806	11797	11794	11776
		S/T	0.78	0.89	0.99	1.00	1.00	0.64	0.74	0.82	0.84	0.94	0.54	0.64	0.72	0.74	0.83	0.39	0.47	0.55	0.56	0.65
		PI	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27	1.27
	17°F(-8.3°C)	TC	10445	10448	10576	10637	10980	10970	10971	10973	10973	11025	11320	11324	11331	11332	11335	12073	12069	12070	12072	12084
		S/T	0.79	0.89	1.00	1.00	1.00	0.64	0.74	0.83	0.85	0.95	0.55	0.65	0.73	0.75	0.85	0.39	0.47	0.55	0.57	0.66
		PI	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.50	1.50	1.50	1.50	1.50
	23°F(-5.0°C)	TC	9915	9929	10091	10140	10472	10424	10427	10428	10428	10490	10792	10791	10795	10795	10797	11487	11484	11484	11486	11494
		S/T	0.80	0.91	1.00	1.00	1.00	0.65	0.75	0.84	0.86	0.97	0.54	0.65	0.74	0.75	0.85	0.39	0.47	0.56	0.57	0.66
		PI	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.30	1.30	1.30	1.30	1.30	1.30	1.32	1.32	1.32	1.32	1.33
	35°F(1.7°C)	TC	8989	8989	9007	9017	9249	9420	9419	9419	9420	9420	9723	9722	9721	9721	9722	10286	10284	10282	10283	10281
		S/T	0.75	0.85	0.93	0.94	1.00	0.62	0.71	0.79	0.80	0.89	0.53	0.62	0.69	0.71	0.80	0.39	0.46	0.53	0.54	0.63
		PI	0.84	0.84	0.84	0.84	0.87	0.89	0.89	0.89	0.89	0.89	0.93	0.93	0.93	0.93	0.93	1.01	1.01	1.01	1.01	1.01
	41°F(5.0°C)	TC	10265	10265	10294	10308	10600	10755	10754	10754	10754	10764	11099	11098	11097	11097	11099	11738	11735	11733	11734	11733
		S/T	0.76	0.86	0.94	0.96	1.00	0.62	0.72	0.80	0.81	0.90	0.53	0.62	0.70	0.71	0.81	0.39	0.46	0.53	0.55	0.64
		PI	0.93	0.93	0.93	0.93	0.96	0.98	0.98	0.98	0.98	0.98	1.03	1.03	1.03	1.03	1.03	1.12	1.12	1.12	1.12	1.12
	47°F(8.3°C)	TC	11541	11541	11586	11606	11963	12090	12089	12089	12089	12107	12475	12474	12473	12473	12474	13191	13188	13187	13186	13185
		S/T	0.77	0.87	0.95	0.97	1.00	0.63	0.72	0.81	0.82	0.91	0.53	0.63	0.71	0.72	0.82	0.39	0.46	0.54	0.55	0.64
		PI	1.01	1.01	1.02	1.02	1.06	1.08	1.08	1.08	1.08	1.08	1.13	1.13	1.13	1.13	1.13	1.23	1.23	1.23	1.23	1.23
	50°F(10.0°C)	TC	11157	11340	11719	11786	12237	11813	11820	11858	11874	12251	12278	12294	12301	12302	12357	13163	13169	13201	13205	13222
		S/T	0.87	1.00	1.00	1.00	1.00	0.69	0.81	0.92	0.94	1.00	0.57	0.69	0.80	0.81	0.93	0.39	0.49	0.58	0.60	0.71
		PI	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
	59°F(15.0°C)	TC	10649	10905	11289	11357	11814	11299	11304	11360	11382	11828	11768	11781	11785	11786	11864	12667	12670	12695	12698	12710
		S/T	0.88	1.00	1.00	1.00	1.00	0.70	0.83	0.94	0.97	1.00	0.58	0.71	0.81	0.83	0.96	0.39	0.50	0.59	0.61	0.73
		PI	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
	68°F(20.0°C)	TC	10153	10481	10866	10935	11395	10788	10791	10876	10947	11407	11257	11266	11270	11270	11398	12155	12159	12179	12181	12190
		S/T	0.91	1.00	1.00	1.00	1.00	0.72	0.85	0.97	1.00	1.00	0.59	0.72	0.84	0.86	0.99	0.40	0.50	0.61	0.62	0.75
		PI	0.70	0.70	0.70	0.70	0.71	0.70	0.70	0.70	0.70	0.71	0.71	0.71	0.71	0.71	0.71	0.72	0.72	0.72	0.72	0.72
	77°F(25.0°C)	TC	9641	10010	10399	10468	10930	10268	10273	10391	10480	10943	10737	10749	10754	10766	10953	11628	11639	11665	11668	11680
		S/T	0.92	1.00	1.00	1.00	1.00	0.72	0.87	0.99	1.00	1.00	0.59	0.73	0.85	0.86	1.00	0.40	0.51	0.61	0.63	0.76
		PI	0.52	0.52	0.52	0.52	0.53	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
	82°F(27.8°C)	TC	9726	10138	10542	10614	11097	10368	10385	10555	10627	11110	10853	10868	10873	10890	11120	11772	11787	11817	11820	11834
		S/T	0.94	1.00	1.00	1.00	1.00	0.73	0.87	1.00	1.00	1.00	0.60	0.74	0.86	0.87	1.00	0.40	0.51	0.62	0.63	0.76
		PI	0.54	0.54	0.54	0.54	0.55	0.54	0.54	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
	86°F(30.0°C)	TC	10250	10725	11160	11237	11761	10927	10950	11174	11251	11770	11449	11462	11480	11491	11781	12433	12451	12480	12483	12496
		S/T	0.95	1.00	1.00	1.00	1.00	0.74	0.88	1.00	1.00	1.00	0.60	0.75	0.86	0.88	1.00	0.40	0.51	0.62	0.64	0.77
		PI	0.70	0.71	0.71	0.71	0.72	0.71	0.71	0.71	0.71	0.72	0.71	0.71	0.71	0.71	0.72	0.72	0.72	0.72	0.72	0.72

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

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Table 11 – 18K Cooling Performance (Continued)

AIRFLOW (CFM)	OUTDOOR DB (°F)	ID WB (°F)	60.8°F(16.0°C)					64.4°F(18.0°C)					67°F(19.4°C)					71.6°F(22.0°C)				
			73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C
		ID DB (°F) °C																				
412	-22°F(-30.0°C)	TC	15702	15698	15695	15695	16017	16409	16404	16400	16399	16394	16910	16904	16899	16897	16890	17850	17845	17838	17838	17826
		S/T	0.74	0.83	0.91	0.93	0.99	0.61	0.70	0.77	0.79	0.88	0.52	0.61	0.68	0.70	0.78	0.38	0.45	0.52	0.54	0.62
		PI	1.07	1.08	1.08	1.08	1.07	1.07	1.07	1.07	1.07	1.07	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
	-13°F(-25.0°C)	TC	17010	17007	17003	17003	17352	17776	17771	17766	17765	17760	18319	18313	18307	18305	18297	19337	19332	19325	19324	19311
		S/T	0.75	0.84	0.92	0.93	1.00	0.61	0.70	0.78	0.79	0.88	0.52	0.61	0.69	0.70	0.79	0.38	0.46	0.53	0.54	0.62
		PI	1.11	1.12	1.12	1.12	1.11	1.10	1.11	1.11	1.11	1.11	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
	-4°F(-20.0°C)	TC	18319	18315	18311	18311	18687	19144	19138	19133	19132	19126	19728	19722	19715	19713	19705	20825	20819	20811	20810	20797
		S/T	0.75	0.84	0.92	0.94	1.00	0.61	0.71	0.78	0.79	0.88	0.53	0.61	0.69	0.70	0.79	0.39	0.46	0.53	0.54	0.63
		PI	1.15	1.15	1.16	1.16	1.15	1.14	1.14	1.14	1.14	1.15	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
	0°F(-17.8°C)	TC	18918	18912	18908	18908	19379	19761	19754	19747	19745	19737	20358	20350	20341	20339	20326	21466	21462	21459	21458	21461
		S/T	0.75	0.85	0.93	0.95	1.00	0.62	0.71	0.79	0.80	0.90	0.53	0.62	0.70	0.71	0.80	0.39	0.46	0.53	0.55	0.63
		PI	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
	5°F(-15.0°C)	TC	19493	19495	19556	19583	20156	20442	20441	20444	20445	20469	21123	21122	21123	21124	21128	22421	22415	22415	22414	22416
		S/T	0.76	0.86	0.94	0.96	1.00	0.62	0.72	0.80	0.81	0.90	0.53	0.62	0.70	0.72	0.81	0.39	0.46	0.54	0.55	0.64
		PI	1.18	1.18	1.18	1.18	1.17	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.20	1.20	1.20	1.20	1.20
	14°F(-10.0°C)	TC	21439	21434	21430	21429	22038	22534	22527	22521	22520	22513	23317	23309	23301	23299	23289	24805	24798	24788	24787	24771
		S/T	0.75	0.85	0.93	0.95	1.00	0.62	0.71	0.79	0.80	0.89	0.53	0.62	0.69	0.71	0.79	0.39	0.46	0.53	0.54	0.63
		PI	0.86	0.86	0.86	0.86	0.86	0.85	0.86	0.86	0.86	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
	17°F(-8.3°C)	TC	22083	22076	22133	22164	22829	23211	23203	23208	23209	23233	24024	24023	24027	24029	24036	25600	25592	25594	25593	25599
		S/T	0.76	0.86	0.94	0.96	1.00	0.62	0.72	0.80	0.81	0.90	0.53	0.62	0.70	0.71	0.80	0.39	0.46	0.53	0.55	0.63
		PI	0.75	0.75	0.75	0.75	0.75	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.75	0.75	0.75	0.75	0.75
	23°F(-5.0°C)	TC	20290	20291	20374	20410	21081	21354	21354	21357	21358	21392	22119	22118	22121	22122	22126	23584	23577	23578	23577	23581
		S/T	0.77	0.87	0.95	0.97	1.00	0.62	0.72	0.80	0.82	0.91	0.53	0.63	0.71	0.72	0.81	0.39	0.46	0.54	0.55	0.64
		PI	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.76	0.76	0.76	0.76	0.76	0.77	0.77	0.77	0.77	0.77
	35°F(1.7°C)	TC	16884	16883	16883	16883	17100	17723	17720	17718	17718	17719	18312	18311	18308	18308	18307	19413	19408	19405	19404	19403
		S/T	0.73	0.81	0.89	0.90	1.00	0.60	0.68	0.76	0.77	0.85	0.52	0.60	0.67	0.68	0.76	0.39	0.47	0.52	0.53	0.60
		PI	0.71	0.71	0.71	0.71	0.72	0.75	0.75	0.75	0.75	0.75	0.78	0.78	0.78	0.78	0.78	0.85	0.84	0.84	0.84	0.84
	41°F(5.0°C)	TC	20171	20219	20219	20225	20558	21219	21215	21213	21214	21214	21921	21919	21915	21915	21914	23230	23225	23220	23219	23217
		S/T	0.74	0.82	0.90	0.91	1.00	0.60	0.69	0.76	0.78	0.86	0.52	0.60	0.67	0.69	0.77	0.39	0.45	0.52	0.53	0.61
		PI	0.92	0.92	0.92	0.92	0.94	0.98	0.98	0.98	0.98	0.98	1.02	1.02	1.02	1.02	1.02	1.11	1.11	1.11	1.11	1.11
	47°F(8.3°C)	TC	23559	23558	23558	23581	24045	24715	24711	24709	24709	24709	25530	25527	25523	25523	25522	27046	27040	27035	27034	27032
		S/T	0.74	0.83	0.91	0.92	1.00	0.61	0.70	0.77	0.78	0.87	0.52	0.61	0.68	0.69	0.78	0.39	0.45	0.52	0.53	0.62
		PI	1.13	1.13	1.13	1.14	1.16	1.21	1.21	1.21	1.21	1.21	1.26	1.26	1.26	1.26	1.26	1.38	1.38	1.38	1.38	1.38
	50°F(10.0°C)	TC	22885	22982	23631	23765	24663	24243	24258	24265	24290	24694	25227	25242	25256	25258	25295	27106	27096	27128	27135	27172
		S/T	0.83	0.95	1.00	1.00	1.00	0.66	0.78	0.87	0.88	1.00	0.55	0.66	0.76	0.77	0.88	0.39	0.48	0.56	0.58	0.68
		PI	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
	59°F(15.0°C)	TC	22055	22212	22997	23134	24054	23435	23446	23481	23503	24085	24432	24445	24457	24458	24518	26350	26339	26365	26371	26399
		S/T	0.85	0.97	1.00	1.00	1.00	0.67	0.79	0.89	0.91	1.00	0.56	0.68	0.77	0.79	0.90	0.39	0.48	0.57	0.59	0.69
		PI	1.35	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37
	68°F(20.0°C)	TC	21243	21600	22385	22524	23459	22633	22642	22704	22732	23489	23636	23649	23657	23658	23750	25570	25559	25584	25589	25609
		S/T	0.87	1.00	1.00	1.00	1.00	0.69	0.81	0.91	0.93	1.00	0.57	0.69	0.79	0.81	0.93	0.39	0.49	0.58	0.60	0.71
		PI	1.42	1.42	1.43	1.43	1.44	1.43	1.43	1.43	1.43	1.44	1.44	1.44	1.44	1.44	1.44	1.46	1.46	1.46	1.46	1.46
	77°F(25.0°C)	TC	20403	20879	21679	21821	22775	21813	21824	21908	21943	22804	22826	22845	22857	22858	22976	24784	24772	24811	24818	24846
		S/T	0.88	1.00	1.00	1.00	1.00	0.69	0.82	0.93	0.95	1.00	0.57	0.70	0.80	0.82	0.94	0.39	0.49	0.59	0.60	0.72
		PI	1.50	1.50	1.51	1.51	1.52	1.51	1.51	1.51	1.51	1.52	1.52	1.52	1.52	1.52	1.52	1.53	1.53	1.53	1.53	1.53
	82°F(27.8°C)	TC	20038	20583	21393	21537	22503	21443	21455	21558	21600	22533	22462	22486	22498	22500	22641	24435	24439	24470	24477	24508
		S/T	0.88	1.00	1.00	1.00	1.00	0.70	0.83	0.94	0.96	1.00	0.58	0.70	0.81	0.83	0.96	0.39	0.49	0.59	0.61	0.72
		PI	1.56	1.57	1.57	1.58	1.58	1.58	1.57	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.58	1.60	1.60	1.60	1.60	1.60
	86°F(30.0°C)	TC	19854	20481	21302	21447	22425	21260	21270	21397	21454	22455	22285	22309	22319	22321	22493	24271	24273	24308	24315	24343
		S/T	0.90	1.00	1.00	1.00	1.00	0.71	0.84	0.96	0.98	1.00	0.58	0.71	0.82	0.84	0.97	0.39	0.50	0.60	0.61	0.73
		PI	1.64	1.65	1.65	1.66	1.66	1.65	1.65	1.65	1.66	1.66	1.66	1.66	1.66	1.66	1.66	1.68	1.			

Table 11 – 18K Cooling Performance (Continued)

AIRFLOW (CFM)	OUTDOOR DB (°F)	ID WB (°F)	60.8°F(16.0°C)					64.4°F(18.0°C)					67°F(19.4°C)					71.6°F(22.0°C)				
		ID DB °F °C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C	73.4°F 23.0°C	77.0°F 25.0°C	80.0°F 26.7°C	80.6°F 27.0°C	84.2°F 29.0°C
618	-22°F(-30.0°C)	TC	17750	17744	17739	17842	18368	18532	18522	18514	18512	18499	19085	19075	19063	19060	19047	20133	20127	20112	20107	20077
		S/T	0.77	0.87	0.96	0.99	0.99	0.63	0.73	0.81	0.82	0.93	0.53	0.63	0.71	0.73	0.82	0.38	0.46	0.54	0.55	0.64
		PI	1.19	1.19	1.19	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.17	1.17	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
	-13°F(-25.0°C)	TC	19230	19223	19218	19329	19898	20076	20065	20056	20055	20041	20676	20665	20651	20649	20634	21810	21804	21788	21783	21750
		S/T	0.77	0.88	0.97	1.00	1.00	0.63	0.73	0.81	0.83	0.93	0.54	0.63	0.71	0.73	0.83	0.39	0.46	0.54	0.56	0.65
		PI	1.23	1.23	1.23	1.23	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
	-4°F(-20.0°C)	TC	20709	20702	20696	20816	21429	21621	21609	21599	21597	21583	22266	22254	22240	22237	22222	23488	23482	23464	23458	23423
		S/T	0.78	0.88	0.97	1.00	1.00	0.63	0.73	0.82	0.83	0.93	0.54	0.64	0.72	0.73	0.83	0.39	0.47	0.55	0.56	0.65
		PI	1.27	1.27	1.27	1.27	1.27	1.26	1.26	1.27	1.27	1.27	1.26	1.26	1.26	1.26	1.26	1.27	1.27	1.27	1.27	1.27
	0°F(-17.8°C)	TC	21392	21383	21466	21629	22228	22325	22308	22295	22293	22289	22980	22967	22946	22943	22922	24218	24211	24212	24215	24233
		S/T	0.78	0.89	0.99	1.00	1.00	0.64	0.74	0.83	0.84	0.95	0.54	0.64	0.73	0.74	0.84	0.39	0.47	0.55	0.57	0.66
		PI	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.28	1.29	1.29	1.29	1.29	1.29
	5°F(-15.0°C)	TC	22021	22041	22339	22441	23127	23069	23074	23076	23076	23190	23824	23822	23828	23829	23832	25247	25240	25240	25242	25256
		S/T	0.79	0.90	1.00	1.00	1.00	0.64	0.75	0.84	0.85	0.96	0.54	0.65	0.73	0.75	0.85	0.39	0.47	0.55	0.57	0.66
		PI	1.29	1.29	1.29	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.31	1.31	1.31	1.31	1.31	1.33	1.33	1.33	1.33	1.33
	14°F(-10.0°C)	TC	24223	24214	24314	24527	25288	25439	25424	25412	25410	25396	26318	26305	26285	26282	26259	27973	27964	27944	27938	27895
		S/T	0.78	0.89	0.99	1.00	1.00	0.64	0.74	0.82	0.84	0.94	0.54	0.64	0.72	0.74	0.83	0.39	0.47	0.55	0.56	0.65
		PI	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.95	0.95	0.95	0.95	0.95
	17°F(-8.3°C)	TC	24985	24991	25297	25443	26262	26239	26242	26247	26248	26372	27076	27086	27104	27105	27112	28877	28868	28871	28877	28903
		S/T	0.79	0.89	1.00	1.00	1.00	0.64	0.74	0.83	0.85	0.95	0.55	0.65	0.73	0.75	0.85	0.39	0.47	0.55	0.57	0.66
		PI	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.83	0.83	0.83	0.83	0.83
	23°F(-5.0°C)	TC	22920	22952	23326	23440	24206	24097	24103	24106	24107	24249	24946	24946	24953	24954	24959	26555	26547	26548	26551	26569
		S/T	0.80	0.91	1.00	1.00	1.00	0.65	0.75	0.84	0.86	0.97	0.54	0.65	0.74	0.75	0.85	0.39	0.47	0.56	0.57	0.66
		PI	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.84	0.84	0.84	0.84	0.84	0.85	0.85	0.85	0.85	0.85
	35°F(1.7°C)	TC	19097	19097	19134	19156	19648	20013	20010	20011	20011	20012	20656	20655	20652	20652	20655	21852	21847	21843	21846	21842
		S/T	0.75	0.85	0.93	0.94	1.00	0.62	0.71	0.79	0.80	0.89	0.53	0.62	0.69	0.71	0.80	0.39	0.46	0.53	0.54	0.63
		PI	0.78	0.78	0.78	0.78	0.81	0.82	0.82	0.82	0.82	0.83	0.86	0.86	0.86	0.86	0.86	0.94	0.94	0.94	0.94	0.94
	41°F(5.0°C)	TC	22868	22869	22932	22963	23615	23960	23957	23958	23958	23979	24727	24724	24722	24722	24725	26150	26144	26139	26141	26138
		S/T	0.76	0.86	0.94	0.96	1.00	0.62	0.72	0.80	0.81	0.90	0.53	0.62	0.70	0.71	0.81	0.39	0.46	0.53	0.55	0.64
		PI	1.02	1.02	1.02	1.03	1.06	1.08	1.08	1.08	1.08	1.08	1.13	1.13	1.13	1.13	1.13	1.23	1.23	1.23	1.23	1.23
	47°F(8.3°C)	TC	26641	26641	26743	26790	27614	27908	27904	27905	27905	27947	28797	28794	28792	28792	28794	30450	30442	30440	30439	30434
		S/T	0.77	0.87	0.95	0.97	1.00	0.63	0.72	0.81	0.82	0.91	0.53	0.63	0.71	0.72	0.82	0.39	0.46	0.54	0.55	0.64
		PI	1.25	1.25	1.26	1.26	1.32	1.34	1.34	1.34	1.34	1.34	1.40	1.40	1.40	1.40	1.40	1.53	1.53	1.53	1.53	1.53
	50°F(10.0°C)	TC	25842	26264	27142	27297	28343	27360	27377	27465	27501	28376	28438	28474	28491	28493	28621	30486	30501	30575	30584	30624
		S/T	0.87	1.00	1.00	1.00	1.00	0.69	0.81	0.92	0.94	1.00	0.57	0.69	0.80	0.81	0.93	0.39	0.49	0.58	0.60	0.71
		PI	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
	59°F(15.0°C)	TC	24928	25529	26427	26586	27656	26450	26461	26592	26644	27688	27548	27577	27589	27590	27772	29652	29659	29718	29724	29753
		S/T	0.88	1.00	1.00	1.00	1.00	0.70	0.83	0.94	0.97	1.00	0.58	0.71	0.81	0.83	0.96	0.39	0.50	0.59	0.61	0.73
		PI	1.50	1.50	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.52	1.52	1.52	1.52	1.52
	68°F(20.0°C)	TC	24042	24818	25731	25893	26982	25545	25553	25753	25921	27012	26657	26679	26686	26687	26991	28784	28793	28839	28844	28865
		S/T	0.91	1.00	1.00	1.00	1.00	0.72	0.85	0.97	1.00	1.00	0.59	0.72	0.84	0.86	0.99	0.40	0.50	0.61	0.62	0.75
		PI	1.57	1.58	1.59	1.59	1.60	1.59	1.59	1.59	1.59	1.60	1.60	1.60	1.60	1.60	1.60	1.62	1.62	1.62	1.62	1.62
	77°F(25.0°C)	TC	23115	24001	24932	25097	26206	24618	24630	24913	25127	26237	25742	25772	25784	25814	26261	27880	27905	27968	27975	28005
		S/T	0.92	1.00	1.00	1.00	1.00	0.72	0.87	0.99	1.00	1.00	0.59	0.73	0.85	0.86	1.00	0.40	0.51	0.61	0.63	0.76
		PI	1.66	1.67	1.67	1.67	1.68	1.67	1.67	1.67	1.67	1.68	1.68	1.68	1.68	1.68	1.68	1.70	1.70	1.70	1.70	1.70
	82°F(27.8°C)	TC	22702	23665	24608	24775	25902	24200	24240	24638	24805	25931	25333	25366	25379	25419	25955	27478	27513	27582	27589	27622
		S/T	0.94	1.00	1.00	1.00	1.00	0.73	0.87	1.00	1.00	1.00	0.60	0.74	0.86	0.87	1.00	0.40	0.51	0.62	0.63	0.76
		PI	1.73	1.74	1.75	1.75	1.75	1.74	1.74	1.75	1.75	1.76	1.75	1.75	1.75	1.75	1.76	1.77	1.77	1.77	1.77	1.77
	86°F(30.0°C)	TC	22480	23522	24476	24645	25793	23965	24015	24505	24674	25814	25108	25138	25177	25200	25838	27266	27306	27370	27377	27405
		S/T	0.95	1.00	1.00	1.00	1.00	0.74	0.88	1.00	1.00	1.00	0.60	0.75	0.86	0.88	1.00	0.40	0.51	0.62	0.64	0.77
		PI	1.82	1.83	1.83	1.84	1.85	1.83	1.83	1.83	1.84	1.85	1.84	1.84	1.84	1.84	1.85	1.86	1.86	1.86	1.86	1.86
	95°F(35.0°C)	TC	22262	22301	2278																	

HEATING PERFORMANCE

6K HEATING PERFORMANCE

Table 12 – 6K Heating Performance

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
152	-22°F(-30.0°C)	3520	3450	3433	1540	1526	1.35	1.36	1.36	1.36	1.37
	-13°F(-25.0°C)	4509	4419	4397	1896	1879	1.40	1.41	1.41	1.42	1.42
	-4°F(-20.0°C)	4945	4846	4822	2080	2061	1.40	1.41	1.41	1.42	1.42
	0°F(-17.8°C)	5777	5662	5634	2430	2408	1.48	1.49	1.50	1.50	1.50
	5°F(-15.0°C)	6818	6681	6648	2867	2841	1.58	1.60	1.60	1.60	1.61
	14°F(-10.0°C)	7018	6878	6843	2951	2925	1.52	1.53	1.53	1.53	1.54
	17°F(-8.3°C)	7085	6943	6908	2979	2952	1.49	1.50	1.51	1.51	1.52
	22°F(-5.6°C)	6996	6856	6821	2942	2915	1.42	1.43	1.44	1.44	1.44
	27°F(-2.8°C)	6906	6768	6734	2904	2878	1.35	1.36	1.36	1.37	1.37
	32°F(-0.0°C)	6817	6681	6647	2867	2841	1.28	1.29	1.29	1.29	1.30
	35°F(1.7°C)	6764	6628	6595	2844	2819	1.24	1.25	1.25	1.25	1.26
	37°F(2.8°C)	7034	6893	6858	2958	2931	1.24	1.25	1.25	1.25	1.26
	42°F(5.6°C)	7708	7554	7516	3241	3212	1.25	1.26	1.26	1.26	1.27
	44.6°F(7.0°C)	7978	7818	7779	3355	3325	1.25	1.26	1.26	1.26	1.27
	47°F(8.3°C)	8383	8215	8174	3525	3493	1.25	1.26	1.27	1.27	1.27
	52°F(11.1°C)	8150	7987	7947	3427	3396	1.10	1.10	1.11	1.11	1.11
	57°F(13.9°C)	7918	7760	7721	3330	3300	0.94	0.95	0.95	0.95	0.95
	59°F(15.0°C)	7825	7668	7630	3290	3261	0.87	0.88	0.88	0.89	0.89
	62°F(16.7°C)	7685	7532	7494	3232	3203	0.78	0.79	0.79	0.79	0.79
	64.4°F(18.0°C)	7574	7422	7385	3185	3156	0.70	0.71	0.71	0.71	0.72
69.8°F(21.0°C)	7323	7176	7141	3079	3052	0.53	0.54	0.54	0.54	0.54	
75.2°F(24.0°C)	7072	6931	6896	2974	2947	0.36	0.37	0.37	0.37	0.37	
211	-22°F(-30.0°C)	4598	4506	4483	2997	2970	1.59	1.60	1.60	1.61	1.61
	-13°F(-25.0°C)	5775	5659	5631	3690	3657	1.65	1.66	1.66	1.67	1.67
	-4°F(-20.0°C)	6334	6207	6176	4048	4011	1.65	1.66	1.66	1.67	1.67
	0°F(-17.8°C)	7399	7251	7215	4729	4686	1.74	1.76	1.76	1.76	1.77
	5°F(-15.0°C)	8731	8557	8514	5580	5530	1.86	1.88	1.88	1.88	1.89
	14°F(-10.0°C)	8988	8808	8764	5744	5692	1.78	1.80	1.80	1.80	1.81
	17°F(-8.3°C)	9074	8892	8848	5799	5746	1.76	1.77	1.77	1.78	1.78
	22°F(-5.6°C)	8959	8780	8736	5726	5674	1.67	1.69	1.69	1.69	1.70
	27°F(-2.8°C)	8845	8668	8625	5653	5602	1.59	1.60	1.60	1.61	1.61
	32°F(-0.0°C)	8731	8556	8514	5580	5529	1.50	1.52	1.52	1.52	1.53
	35°F(1.7°C)	8662	8489	8447	5536	5486	1.45	1.47	1.47	1.47	1.48
	37°F(2.8°C)	9008	8828	8784	5757	5705	1.46	1.47	1.47	1.48	1.48
	42°F(5.6°C)	9872	9675	9626	6309	6252	1.47	1.48	1.48	1.48	1.49
	44.6°F(7.0°C)	10218	10013	9963	6530	6471	1.47	1.48	1.48	1.49	1.49
	47°F(8.3°C)	10736	10521	10469	6861	6799	1.47	1.49	1.49	1.49	1.50
	52°F(11.1°C)	10438	10230	10178	6671	6611	1.29	1.30	1.30	1.30	1.31
	57°F(13.9°C)	10141	9938	9888	6481	6422	1.10	1.11	1.11	1.12	1.12
	59°F(15.0°C)	10022	9821	9772	6404	6347	1.03	1.04	1.04	1.04	1.05
	62°F(16.7°C)	9843	9646	9598	6290	6234	0.92	0.93	0.93	0.93	0.93
	64.4°F(18.0°C)	9700	9506	9459	6199	6143	0.83	0.84	0.84	0.84	0.84
69.8°F(21.0°C)	9379	9191	9145	5994	5940	0.63	0.63	0.63	0.64	0.64	
75.2°F(24.0°C)	9057	8876	8832	5788	5736	0.43	0.43	0.43	0.43	0.44	

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

Table 12 – 6K Heating Performance (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
423	-22°F(-30.0°C)	6005	5885	5856	5832	5780	1.67	1.68	1.69	1.69	1.70
	-13°F(-25.0°C)	7396	7248	7212	7183	7118	1.73	1.75	1.75	1.76	1.76
	-4°F(-20.0°C)	8112	7949	7910	7878	7807	1.73	1.75	1.75	1.75	1.76
	0°F(-17.8°C)	9477	9287	9241	9204	9121	1.83	1.85	1.85	1.86	1.86
	5°F(-15.0°C)	11183	10959	10904	10861	10763	1.96	1.98	1.98	1.98	1.99
	14°F(-10.0°C)	11511	11281	11225	11180	11079	1.88	1.89	1.90	1.90	1.91
	17°F(-8.3°C)	11621	11388	11331	11286	11184	1.85	1.86	1.87	1.87	1.88
	22°F(-5.6°C)	11474	11245	11189	11144	11044	1.76	1.77	1.78	1.78	1.79
	27°F(-2.8°C)	11328	11102	11046	11002	10903	1.67	1.69	1.69	1.69	1.70
	32°F(-0.0°C)	11182	10958	10904	10860	10762	1.58	1.60	1.60	1.60	1.61
	35°F(1.7°C)	11094	10872	10818	10775	10678	1.53	1.54	1.55	1.55	1.56
	37°F(2.8°C)	11537	11306	11250	11205	11104	1.53	1.55	1.55	1.55	1.56
	42°F(5.6°C)	12643	12390	12328	12279	12169	1.54	1.56	1.56	1.56	1.57
	44.6°F(7.0°C)	13086	12824	12760	12709	12595	1.55	1.56	1.56	1.57	1.57
	47°F(8.3°C)	13750	13475	13407	13354	13234	1.55	1.56	1.57	1.57	1.58
	52°F(11.1°C)	13369	13101	13036	12984	12867	1.36	1.37	1.37	1.37	1.38
	57°F(13.9°C)	12987	12728	12664	12613	12500	1.16	1.17	1.17	1.18	1.18
	59°F(15.0°C)	12835	12578	12515	12465	12353	1.08	1.09	1.09	1.10	1.10
	62°F(16.7°C)	12606	12354	12292	12243	12133	0.97	0.97	0.98	0.98	0.98
	64.4°F(18.0°C)	12423	12175	12114	12065	11957	0.87	0.88	0.88	0.88	0.89
	69.8°F(21.0°C)	12012	11771	11712	11666	11561	0.66	0.67	0.67	0.67	0.67
	75.2°F(24.0°C)	11600	11368	11311	11266	11164	0.45	0.45	0.46	0.46	0.46
558	-22°F(-30.0°C)	7691	7537	7500	7470	7402	1.69	1.70	1.70	1.71	1.71
	-13°F(-25.0°C)	9472	9283	9236	9199	9117	1.75	1.77	1.77	1.77	1.78
	-4°F(-20.0°C)	10389	10181	10130	10090	9999	1.75	1.76	1.77	1.77	1.78
	0°F(-17.8°C)	12137	11894	11835	11787	11681	1.85	1.87	1.87	1.87	1.88
	5°F(-15.0°C)	14322	14035	13965	13909	13784	1.98	2.00	2.00	2.00	2.01
	14°F(-10.0°C)	14743	14448	14376	14318	14189	1.90	1.91	1.91	1.92	1.93
	17°F(-8.3°C)	14883	14585	14512	14454	14324	1.87	1.88	1.89	1.89	1.90
	22°F(-5.6°C)	14696	14402	14330	14272	14144	1.78	1.79	1.80	1.80	1.81
	27°F(-2.8°C)	14508	14218	14147	14091	13964	1.69	1.70	1.71	1.71	1.72
	32°F(-0.0°C)	14321	14035	13964	13909	13783	1.60	1.61	1.62	1.62	1.63
	35°F(1.7°C)	14209	13925	13855	13799	13675	1.55	1.56	1.56	1.57	1.57
	37°F(2.8°C)	14776	14480	14408	14350	14221	1.55	1.56	1.57	1.57	1.58
	42°F(5.6°C)	16193	15869	15789	15726	15585	1.56	1.57	1.57	1.58	1.58
	44.6°F(7.0°C)	16759	16424	16342	16277	16130	1.56	1.58	1.58	1.58	1.59
	47°F(8.3°C)	17610	17258	17171	17103	16949	1.57	1.58	1.58	1.59	1.59
	52°F(11.1°C)	17122	16779	16695	16628	16479	1.37	1.38	1.38	1.39	1.39
	57°F(13.9°C)	16633	16301	16219	16154	16009	1.17	1.18	1.19	1.19	1.19
	59°F(15.0°C)	16438	16109	16029	15965	15821	1.09	1.10	1.11	1.11	1.11
	62°F(16.7°C)	16145	15822	15743	15680	15539	0.98	0.98	0.99	0.99	0.99
	64.4°F(18.0°C)	15911	15593	15515	15453	15313	0.88	0.89	0.89	0.89	0.90
	69.8°F(21.0°C)	15384	15076	15000	14940	14806	0.67	0.67	0.68	0.68	0.68
	75.2°F(24.0°C)	14856	14559	14486	14428	14299	0.46	0.46	0.46	0.46	0.46

LEGEND

DB - Dry Bulb
TC - Total Net Capacity (1000 Btu/hour)

Input - Total Power (kW)
COP - W/W

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

9K HEATING PERFORMANCE

Table 13 – 9K Heating Performance

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
152	-22°F(-30.0°C)	3520	3450	3433	1540	1526	1.35	1.36	1.36	1.36	1.37
	-13°F(-25.0°C)	4509	4419	4397	1896	1879	1.40	1.41	1.41	1.42	1.42
	-4°F(-20.0°C)	4945	4846	4822	2080	2061	1.40	1.41	1.41	1.42	1.42
	0°F(-17.8°C)	5777	5662	5634	2430	2408	1.48	1.49	1.50	1.50	1.50
	5°F(-15.0°C)	6818	6681	6648	2867	2841	1.58	1.60	1.60	1.60	1.61
	14°F(-10.0°C)	7018	6878	6843	2951	2925	1.52	1.53	1.53	1.53	1.54
	17°F(-8.3°C)	7085	6943	6908	2979	2952	1.49	1.50	1.51	1.51	1.52
	22°F(-5.6°C)	6996	6856	6821	2942	2915	1.42	1.43	1.44	1.44	1.44
	27°F(-2.8°C)	6906	6768	6734	2904	2878	1.35	1.36	1.36	1.37	1.37
	32°F(-0.0°C)	6817	6681	6647	2867	2841	1.28	1.29	1.29	1.29	1.30
	35°F(1.7°C)	6764	6628	6595	2844	2819	1.24	1.25	1.25	1.25	1.26
	37°F(2.8°C)	7034	6893	6858	2958	2931	1.24	1.25	1.25	1.25	1.26
	42°F(5.6°C)	7708	7554	7516	3241	3212	1.25	1.26	1.26	1.26	1.27
	44.6°F(7.0°C)	7978	7818	7779	3355	3325	1.25	1.26	1.26	1.26	1.27
	47°F(8.3°C)	8383	8215	8174	3525	3493	1.25	1.26	1.27	1.27	1.27
	52°F(11.1°C)	8150	7987	7947	3427	3396	1.10	1.10	1.11	1.11	1.11
	57°F(13.9°C)	7918	7760	7721	3330	3300	0.94	0.95	0.95	0.95	0.95
	59°F(15.0°C)	7825	7668	7630	3290	3261	0.87	0.88	0.88	0.89	0.89
	62°F(16.7°C)	7685	7532	7494	3232	3203	0.78	0.79	0.79	0.79	0.79
	64.4°F(18.0°C)	7574	7422	7385	3185	3156	0.70	0.71	0.71	0.71	0.72
	69.8°F(21.0°C)	7323	7176	7141	3079	3052	0.53	0.54	0.54	0.54	0.54
	75.2°F(24.0°C)	7072	6931	6896	2974	2947	0.36	0.37	0.37	0.37	0.37
211	-22°F(-30.0°C)	4598	4506	4483	2997	2970	1.59	1.60	1.60	1.61	1.61
	-13°F(-25.0°C)	5775	5659	5631	3690	3657	1.65	1.66	1.66	1.67	1.67
	-4°F(-20.0°C)	6334	6207	6176	4048	4011	1.65	1.66	1.66	1.67	1.67
	0°F(-17.8°C)	7399	7251	7215	4729	4686	1.74	1.76	1.76	1.76	1.77
	5°F(-15.0°C)	8731	8557	8514	5580	5530	1.86	1.88	1.88	1.88	1.89
	14°F(-10.0°C)	8988	8808	8764	5744	5692	1.78	1.80	1.80	1.80	1.81
	17°F(-8.3°C)	9074	8892	8848	5799	5746	1.76	1.77	1.77	1.78	1.78
	22°F(-5.6°C)	8959	8780	8736	5726	5674	1.67	1.69	1.69	1.69	1.70
	27°F(-2.8°C)	8845	8668	8625	5653	5602	1.59	1.60	1.60	1.61	1.61
	32°F(-0.0°C)	8731	8556	8514	5580	5529	1.50	1.52	1.52	1.52	1.53
	35°F(1.7°C)	8662	8489	8447	5536	5486	1.45	1.47	1.47	1.47	1.48
	37°F(2.8°C)	9008	8828	8784	5757	5705	1.46	1.47	1.47	1.48	1.48
	42°F(5.6°C)	9872	9675	9626	6309	6252	1.47	1.48	1.48	1.48	1.49
	44.6°F(7.0°C)	10218	10013	9963	6530	6471	1.47	1.48	1.48	1.49	1.49
	47°F(8.3°C)	10736	10521	10469	6861	6799	1.47	1.49	1.49	1.49	1.50
	52°F(11.1°C)	10438	10230	10178	6671	6611	1.29	1.30	1.30	1.30	1.31
	57°F(13.9°C)	10141	9938	9888	6481	6422	1.10	1.11	1.11	1.12	1.12
	59°F(15.0°C)	10022	9821	9772	6404	6347	1.03	1.04	1.04	1.04	1.05
	62°F(16.7°C)	9843	9646	9598	6290	6234	0.92	0.93	0.93	0.93	0.93
	64.4°F(18.0°C)	9700	9506	9459	6199	6143	0.83	0.84	0.84	0.84	0.84
	69.8°F(21.0°C)	9379	9191	9145	5994	5940	0.63	0.63	0.63	0.64	0.64
	75.2°F(24.0°C)	9057	8876	8832	5788	5736	0.43	0.43	0.43	0.43	0.44

Table 13 – 9K Heating Performance (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
423	-22°F(-30.0°C)	6005	5885	5856	5832	5780	1.67	1.68	1.69	1.69	1.70
	-13°F(-25.0°C)	7396	7248	7212	7183	7118	1.73	1.75	1.75	1.76	1.76
	-4°F(-20.0°C)	8112	7949	7910	7878	7807	1.73	1.75	1.75	1.75	1.76
	0°F(-17.8°C)	9477	9287	9241	9204	9121	1.83	1.85	1.85	1.86	1.86
	5°F(-15.0°C)	11183	10959	10904	10861	10763	1.96	1.98	1.98	1.98	1.99
	14°F(-10.0°C)	11511	11281	11225	11180	11079	1.88	1.89	1.90	1.90	1.91
	17°F(-8.3°C)	11621	11388	11331	11286	11184	1.85	1.86	1.87	1.87	1.88
	22°F(-5.6°C)	11474	11245	11189	11144	11044	1.76	1.77	1.78	1.78	1.79
	27°F(-2.8°C)	11328	11102	11046	11002	10903	1.67	1.69	1.69	1.69	1.70
	32°F(-0.0°C)	11182	10958	10904	10860	10762	1.58	1.60	1.60	1.60	1.61
	35°F(1.7°C)	11094	10872	10818	10775	10678	1.53	1.54	1.55	1.55	1.56
	37°F(2.8°C)	11537	11306	11250	11205	11104	1.53	1.55	1.55	1.55	1.56
	42°F(5.6°C)	12643	12390	12328	12279	12169	1.54	1.56	1.56	1.56	1.57
	44.6°F(7.0°C)	13086	12824	12760	12709	12595	1.55	1.56	1.56	1.57	1.57
	47°F(8.3°C)	13750	13475	13407	13354	13234	1.55	1.56	1.57	1.57	1.58
	52°F(11.1°C)	13369	13101	13036	12984	12867	1.36	1.37	1.37	1.37	1.38
	57°F(13.9°C)	12987	12728	12664	12613	12500	1.16	1.17	1.17	1.18	1.18
	59°F(15.0°C)	12835	12578	12515	12465	12353	1.08	1.09	1.09	1.10	1.10
	62°F(16.7°C)	12606	12354	12292	12243	12133	0.97	0.97	0.98	0.98	0.98
	64.4°F(18.0°C)	12423	12175	12114	12065	11957	0.87	0.88	0.88	0.88	0.89
	69.8°F(21.0°C)	12012	11771	11712	11666	11561	0.66	0.67	0.67	0.67	0.67
	75.2°F(24.0°C)	11600	11368	11311	11266	11164	0.45	0.45	0.46	0.46	0.46
558	-22°F(-30.0°C)	7691	7537	7500	7470	7402	1.69	1.70	1.70	1.71	1.71
	-13°F(-25.0°C)	9472	9283	9236	9199	9117	1.75	1.77	1.77	1.77	1.78
	-4°F(-20.0°C)	10389	10181	10130	10090	9999	1.75	1.76	1.77	1.77	1.78
	0°F(-17.8°C)	12137	11894	11835	11787	11681	1.85	1.87	1.87	1.87	1.88
	5°F(-15.0°C)	14322	14035	13965	13909	13784	1.98	2.00	2.00	2.00	2.01
	14°F(-10.0°C)	14743	14448	14376	14318	14189	1.90	1.91	1.91	1.92	1.93
	17°F(-8.3°C)	14883	14585	14512	14454	14324	1.87	1.88	1.89	1.89	1.90
	22°F(-5.6°C)	14696	14402	14330	14272	14144	1.78	1.79	1.80	1.80	1.81
	27°F(-2.8°C)	14508	14218	14147	14091	13964	1.69	1.70	1.71	1.71	1.72
	32°F(-0.0°C)	14321	14035	13964	13909	13783	1.60	1.61	1.62	1.62	1.63
	35°F(1.7°C)	14209	13925	13855	13799	13675	1.55	1.56	1.56	1.57	1.57
	37°F(2.8°C)	14776	14480	14408	14350	14221	1.55	1.56	1.57	1.57	1.58
	42°F(5.6°C)	16193	15869	15789	15726	15585	1.56	1.57	1.57	1.58	1.58
	44.6°F(7.0°C)	16759	16424	16342	16277	16130	1.56	1.58	1.58	1.58	1.59
	47°F(8.3°C)	17610	17258	17171	17103	16949	1.57	1.58	1.58	1.59	1.59
	52°F(11.1°C)	17122	16779	16695	16628	16479	1.37	1.38	1.38	1.39	1.39
	57°F(13.9°C)	16633	16301	16219	16154	16009	1.17	1.18	1.19	1.19	1.19
	59°F(15.0°C)	16438	16109	16029	15965	15821	1.09	1.10	1.11	1.11	1.11
	62°F(16.7°C)	16145	15822	15743	15680	15539	0.98	0.98	0.99	0.99	0.99
	64.4°F(18.0°C)	15911	15593	15515	15453	15313	0.88	0.89	0.89	0.89	0.90
	69.8°F(21.0°C)	15384	15076	15000	14940	14806	0.67	0.67	0.68	0.68	0.68
	75.2°F(24.0°C)	14856	14559	14486	14428	14299	0.46	0.46	0.46	0.46	0.46

LEGEND

DB - Dry Bulb

TC - Total Net Capacity (1000 Btu/hour)

Input - Total Power (kW)

COP - W/W

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

12K HEATING PERFORMANCE

Table 14 – 12K Heating Performance

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
152	-22°F(-30.0°C)	3520	3450	3433	1540	1526	1.35	1.36	1.36	1.36	1.37
	-13°F(-25.0°C)	4509	4419	4397	1896	1879	1.40	1.41	1.41	1.42	1.42
	-4°F(-20.0°C)	4945	4846	4822	2080	2061	1.40	1.41	1.41	1.42	1.42
	0°F(-17.8°C)	5777	5662	5634	2430	2408	1.48	1.49	1.50	1.50	1.50
	5°F(-15.0°C)	6818	6681	6648	2867	2841	1.58	1.60	1.60	1.60	1.61
	14°F(-10.0°C)	7018	6878	6843	2951	2925	1.52	1.53	1.53	1.53	1.54
	17°F(-8.3°C)	7085	6943	6908	2979	2952	1.49	1.50	1.51	1.51	1.52
	22°F(-5.6°C)	6996	6856	6821	2942	2915	1.42	1.43	1.44	1.44	1.44
	27°F(-2.8°C)	6906	6768	6734	2904	2878	1.35	1.36	1.36	1.37	1.37
	32°F(-0.0°C)	6817	6681	6647	2867	2841	1.28	1.29	1.29	1.29	1.30
	35°F(1.7°C)	6764	6628	6595	2844	2819	1.24	1.25	1.25	1.25	1.26
	37°F(2.8°C)	7034	6893	6858	2958	2931	1.24	1.25	1.25	1.25	1.26
	42°F(5.6°C)	7708	7554	7516	3241	3212	1.25	1.26	1.26	1.26	1.27
	44.6°F(7.0°C)	7978	7818	7779	3355	3325	1.25	1.26	1.26	1.26	1.27
	47°F(8.3°C)	8383	8215	8174	3525	3493	1.25	1.26	1.27	1.27	1.27
	52°F(11.1°C)	8150	7987	7947	3427	3396	1.10	1.10	1.11	1.11	1.11
	57°F(13.9°C)	7918	7760	7721	3330	3300	0.94	0.95	0.95	0.95	0.95
	59°F(15.0°C)	7825	7668	7630	3290	3261	0.87	0.88	0.88	0.89	0.89
	62°F(16.7°C)	7685	7532	7494	3232	3203	0.78	0.79	0.79	0.79	0.79
	64.4°F(18.0°C)	7574	7422	7385	3185	3156	0.70	0.71	0.71	0.71	0.72
	69.8°F(21.0°C)	7323	7176	7141	3079	3052	0.53	0.54	0.54	0.54	0.54
	75.2°F(24.0°C)	7072	6931	6896	2974	2947	0.36	0.37	0.37	0.37	0.37
211	-22°F(-30.0°C)	4598	4506	4483	2997	2970	1.59	1.60	1.60	1.61	1.61
	-13°F(-25.0°C)	5775	5659	5631	3690	3657	1.65	1.66	1.66	1.67	1.67
	-4°F(-20.0°C)	6334	6207	6176	4048	4011	1.65	1.66	1.66	1.67	1.67
	0°F(-17.8°C)	7399	7251	7215	4729	4686	1.74	1.76	1.76	1.76	1.77
	5°F(-15.0°C)	8731	8557	8514	5580	5530	1.86	1.88	1.88	1.88	1.89
	14°F(-10.0°C)	8988	8808	8764	5744	5692	1.78	1.80	1.80	1.80	1.81
	17°F(-8.3°C)	9074	8892	8848	5799	5746	1.76	1.77	1.77	1.78	1.78
	22°F(-5.6°C)	8959	8780	8736	5726	5674	1.67	1.69	1.69	1.69	1.70
	27°F(-2.8°C)	8845	8668	8625	5653	5602	1.59	1.60	1.60	1.61	1.61
	32°F(-0.0°C)	8731	8556	8514	5580	5529	1.50	1.52	1.52	1.52	1.53
	35°F(1.7°C)	8662	8489	8447	5536	5486	1.45	1.47	1.47	1.47	1.48
	37°F(2.8°C)	9008	8828	8784	5757	5705	1.46	1.47	1.47	1.48	1.48
	42°F(5.6°C)	9872	9675	9626	6309	6252	1.47	1.48	1.48	1.48	1.49
	44.6°F(7.0°C)	10218	10013	9963	6530	6471	1.47	1.48	1.48	1.49	1.49
	47°F(8.3°C)	10736	10521	10469	6861	6799	1.47	1.49	1.49	1.49	1.50
	52°F(11.1°C)	10438	10230	10178	6671	6611	1.29	1.30	1.30	1.30	1.31
	57°F(13.9°C)	10141	9938	9888	6481	6422	1.10	1.11	1.11	1.12	1.12
	59°F(15.0°C)	10022	9821	9772	6404	6347	1.03	1.04	1.04	1.04	1.05
	62°F(16.7°C)	9843	9646	9598	6290	6234	0.92	0.93	0.93	0.93	0.93
	64.4°F(18.0°C)	9700	9506	9459	6199	6143	0.83	0.84	0.84	0.84	0.84
	69.8°F(21.0°C)	9379	9191	9145	5994	5940	0.63	0.63	0.63	0.64	0.64
	75.2°F(24.0°C)	9057	8876	8832	5788	5736	0.43	0.43	0.43	0.43	0.44

Table 14 – 12K Heating Performance (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
423	-22°F(-30.0°C)	6005	5885	5856	5832	5780	1.67	1.68	1.69	1.69	1.70
	-13°F(-25.0°C)	7396	7248	7212	7183	7118	1.73	1.75	1.75	1.76	1.76
	-4°F(-20.0°C)	8112	7949	7910	7878	7807	1.73	1.75	1.75	1.75	1.76
	0°F(-17.8°C)	9477	9287	9241	9204	9121	1.83	1.85	1.85	1.86	1.86
	5°F(-15.0°C)	11183	10959	10904	10861	10763	1.96	1.98	1.98	1.98	1.99
	14°F(-10.0°C)	11511	11281	11225	11180	11079	1.88	1.89	1.90	1.90	1.91
	17°F(-8.3°C)	11621	11388	11331	11286	11184	1.85	1.86	1.87	1.87	1.88
	22°F(-5.6°C)	11474	11245	11189	11144	11044	1.76	1.77	1.78	1.78	1.79
	27°F(-2.8°C)	11328	11102	11046	11002	10903	1.67	1.69	1.69	1.69	1.70
	32°F(-0.0°C)	11182	10958	10904	10860	10762	1.58	1.60	1.60	1.60	1.61
	35°F(1.7°C)	11094	10872	10818	10775	10678	1.53	1.54	1.55	1.55	1.56
	37°F(2.8°C)	11537	11306	11250	11205	11104	1.53	1.55	1.55	1.55	1.56
	42°F(5.6°C)	12643	12390	12328	12279	12169	1.54	1.56	1.56	1.56	1.57
	44.6°F(7.0°C)	13086	12824	12760	12709	12595	1.55	1.56	1.56	1.57	1.57
	47°F(8.3°C)	13750	13475	13407	13354	13234	1.55	1.56	1.57	1.57	1.58
	52°F(11.1°C)	13369	13101	13036	12984	12867	1.36	1.37	1.37	1.37	1.38
	57°F(13.9°C)	12987	12728	12664	12613	12500	1.16	1.17	1.17	1.18	1.18
	59°F(15.0°C)	12835	12578	12515	12465	12353	1.08	1.09	1.09	1.10	1.10
	62°F(16.7°C)	12606	12354	12292	12243	12133	0.97	0.97	0.98	0.98	0.98
	64.4°F(18.0°C)	12423	12175	12114	12065	11957	0.87	0.88	0.88	0.88	0.89
	69.8°F(21.0°C)	12012	11771	11712	11666	11561	0.66	0.67	0.67	0.67	0.67
	75.2°F(24.0°C)	11600	11368	11311	11266	11164	0.45	0.45	0.46	0.46	0.46
558	-22°F(-30.0°C)	7691	7537	7500	7470	7402	1.69	1.70	1.70	1.71	1.71
	-13°F(-25.0°C)	9472	9283	9236	9199	9117	1.75	1.77	1.77	1.77	1.78
	-4°F(-20.0°C)	10389	10181	10130	10090	9999	1.75	1.76	1.77	1.77	1.78
	0°F(-17.8°C)	12137	11894	11835	11787	11681	1.85	1.87	1.87	1.87	1.88
	5°F(-15.0°C)	14322	14035	13965	13909	13784	1.98	2.00	2.00	2.00	2.01
	14°F(-10.0°C)	14743	14448	14376	14318	14189	1.90	1.91	1.91	1.92	1.93
	17°F(-8.3°C)	14883	14585	14512	14454	14324	1.87	1.88	1.89	1.89	1.90
	22°F(-5.6°C)	14696	14402	14330	14272	14144	1.78	1.79	1.80	1.80	1.81
	27°F(-2.8°C)	14508	14218	14147	14091	13964	1.69	1.70	1.71	1.71	1.72
	32°F(-0.0°C)	14321	14035	13964	13909	13783	1.60	1.61	1.62	1.62	1.63
	35°F(1.7°C)	14209	13925	13855	13799	13675	1.55	1.56	1.56	1.57	1.57
	37°F(2.8°C)	14776	14480	14408	14350	14221	1.55	1.56	1.57	1.57	1.58
	42°F(5.6°C)	16193	15869	15789	15726	15585	1.56	1.57	1.57	1.58	1.58
	44.6°F(7.0°C)	16759	16424	16342	16277	16130	1.56	1.58	1.58	1.58	1.59
	47°F(8.3°C)	17610	17258	17171	17103	16949	1.57	1.58	1.58	1.59	1.59
	52°F(11.1°C)	17122	16779	16695	16628	16479	1.37	1.38	1.38	1.39	1.39
	57°F(13.9°C)	16633	16301	16219	16154	16009	1.17	1.18	1.19	1.19	1.19
	59°F(15.0°C)	16438	16109	16029	15965	15821	1.09	1.10	1.11	1.11	1.11
	62°F(16.7°C)	16145	15822	15743	15680	15539	0.98	0.98	0.99	0.99	0.99
	64.4°F(18.0°C)	15911	15593	15515	15453	15313	0.88	0.89	0.89	0.89	0.90
	69.8°F(21.0°C)	15384	15076	15000	14940	14806	0.67	0.67	0.68	0.68	0.68
	75.2°F(24.0°C)	14856	14559	14486	14428	14299	0.46	0.46	0.46	0.46	0.46

LEGEND

DB - Dry Bulb

TC - Total Net Capacity (1000 Btu/hour)

Input - Total Power (kW)

COP - W/W

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

18K HEATING PERFORMANCE**Table 15 – 18K Heating Performance**

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
152	-22°F(-30.0°C)	9296	9110	9064	5634	5583	2.01	2.02	2.03	2.03	2.04
	-13°F(-25.0°C)	11742	11507	11449	6842	6781	2.15	2.17	2.17	2.18	2.19
	-4°F(-20.0°C)	14633	14340	14268	8527	8450	2.20	2.21	2.22	2.22	2.23
	0°F(-17.8°C)	16007	15686	15608	9327	9244	2.28	2.30	2.31	2.31	2.32
	5°F(-15.0°C)	17724	17369	17282	10328	10235	2.39	2.41	2.42	2.42	2.43
	14°F(-10.0°C)	18119	17756	17667	10558	10463	2.43	2.45	2.46	2.46	2.47
	17°F(-8.3°C)	18250	17885	17796	10635	10539	2.45	2.47	2.47	2.48	2.49
	22°F(-5.6°C)	19171	18788	18694	11172	11071	2.45	2.47	2.47	2.48	2.49
	27°F(-2.8°C)	20092	19690	19592	11708	11603	2.45	2.47	2.47	2.48	2.49
	32°F(0.0°C)	21013	20593	20490	12245	12135	2.45	2.47	2.47	2.48	2.49
	35°F(1.7°C)	21565	21134	21028	12567	12454	2.45	2.47	2.47	2.48	2.49
	37°F(2.8°C)	21509	21079	20973	12534	12421	2.36	2.38	2.38	2.39	2.40
	42°F(5.6°C)	21368	20940	20836	12452	12340	2.15	2.16	2.17	2.17	2.18
	44.6°F(7.0°C)	21311	20885	20781	12419	12307	2.06	2.08	2.08	2.09	2.09
	47°F(8.3°C)	21226	20802	20698	12369	12258	1.93	1.95	1.95	1.96	1.96
	52°F(11.1°C)	20810	20394	20292	12127	12018	1.79	1.80	1.80	1.81	1.82
	57°F(13.9°C)	20394	19986	19887	11884	11777	1.64	1.65	1.66	1.66	1.67
	59°F(15.0°C)	20228	19823	19724	11787	11681	1.58	1.60	1.60	1.60	1.61
	62°F(16.7°C)	19978	19579	19481	11642	11537	1.50	1.51	1.51	1.51	1.52
	64.4°F(18.0°C)	19779	19383	19286	11526	11422	1.43	1.44	1.44	1.44	1.45
	69.8°F(21.0°C)	19329	18943	18848	11264	11162	1.27	1.28	1.28	1.28	1.29
	75.2°F(24.0°C)	18880	18502	18410	11002	10903	1.11	1.12	1.12	1.13	1.13
211	-22°F(-30.0°C)	10694	10480	10427	8204	8130	2.36	2.38	2.38	2.39	2.40
	-13°F(-25.0°C)	13246	12981	12916	9965	9875	2.53	2.55	2.56	2.56	2.57
	-4°F(-20.0°C)	16507	16177	16096	12418	12306	2.58	2.61	2.61	2.62	2.63
	0°F(-17.8°C)	18056	17695	17607	13584	13461	2.69	2.71	2.71	2.72	2.73
	5°F(-15.0°C)	19993	19594	19496	15041	14906	2.81	2.84	2.84	2.85	2.86
	14°F(-10.0°C)	20439	20030	19930	15376	15238	2.86	2.89	2.89	2.90	2.91
	17°F(-8.3°C)	20587	20176	20075	15488	15348	2.88	2.90	2.91	2.91	2.92
	22°F(-5.6°C)	21626	21194	21088	16269	16123	2.88	2.90	2.91	2.91	2.92
	27°F(-2.8°C)	22665	22212	22101	17051	16897	2.88	2.90	2.91	2.91	2.92
	32°F(0.0°C)	23704	23230	23114	17832	17672	2.88	2.90	2.91	2.91	2.92
	35°F(1.7°C)	24327	23840	23721	18301	18136	2.88	2.90	2.91	2.91	2.92
	37°F(2.8°C)	24263	23778	23659	18253	18089	2.78	2.80	2.81	2.81	2.82
	42°F(5.6°C)	24104	23622	23504	18133	17970	2.52	2.55	2.55	2.56	2.57
	44.6°F(7.0°C)	24040	23560	23442	18085	17923	2.42	2.44	2.45	2.45	2.46
	47°F(8.3°C)	23945	23466	23349	18014	17851	2.27	2.29	2.30	2.30	2.31
	52°F(11.1°C)	23475	23006	22891	17660	17502	2.10	2.12	2.12	2.13	2.14
	57°F(13.9°C)	23006	22546	22433	17307	17152	1.93	1.95	1.95	1.95	1.96
	59°F(15.0°C)	22818	22362	22250	17166	17012	1.86	1.88	1.88	1.89	1.89
	62°F(16.7°C)	22537	22086	21976	16954	16802	1.76	1.77	1.78	1.78	1.79
	64.4°F(18.0°C)	22311	21865	21756	16785	16634	1.68	1.69	1.69	1.70	1.70
	69.8°F(21.0°C)	21805	21368	21262	16403	16256	1.49	1.51	1.51	1.51	1.52
	75.2°F(24.0°C)	21298	20872	20767	16022	15878	1.31	1.32	1.32	1.32	1.33

Table 15 – 18K Heating Performance (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB(°F)	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions(DB °F)					Indoor Conditions(DB °F)				
		60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)	60.8°F (16.0°C)	68°F (20.0°C)	70°F (21.1°C)	71.6°F (22.0°C)	75.2°F (24.0°C)
423	-22°F(-30.0°C)	12302	12056	11996	11948	11840	2.48	2.50	2.51	2.51	2.52
	-13°F(-25.0°C)	14942	14643	14570	14511	14381	2.66	2.69	2.69	2.70	2.71
	-4°F(-20.0°C)	18621	18248	18157	18084	17922	2.72	2.74	2.75	2.75	2.76
	0°F(-17.8°C)	20369	19961	19862	19782	19604	2.83	2.85	2.86	2.86	2.87
	5°F(-15.0°C)	22554	22103	21992	21904	21707	2.96	2.99	2.99	3.00	3.01
	14°F(-10.0°C)	23056	22595	22482	22392	22191	3.01	3.04	3.04	3.05	3.06
	17°F(-8.3°C)	23224	22759	22646	22555	22352	3.03	3.05	3.06	3.07	3.08
	22°F(-5.6°C)	24396	23908	23788	23693	23480	3.03	3.05	3.06	3.07	3.08
	27°F(-2.8°C)	25568	25056	24931	24831	24608	3.03	3.05	3.06	3.07	3.08
	32°F(-0.0°C)	26739	26205	26074	25969	25736	3.03	3.05	3.06	3.07	3.08
	35°F(1.7°C)	27442	26894	26759	26652	26412	3.03	3.05	3.06	3.07	3.08
	37°F(2.8°C)	27371	26823	26689	26582	26343	2.92	2.95	2.95	2.96	2.97
	42°F(5.6°C)	27191	26647	26514	26408	26170	2.66	2.68	2.68	2.69	2.70
	44.6°F(7.0°C)	27119	26577	26444	26338	26101	2.55	2.57	2.58	2.58	2.59
	47°F(8.3°C)	27011	26471	26339	26233	25997	2.39	2.41	2.42	2.42	2.43
	52°F(11.1°C)	26482	25952	25822	25719	25488	2.21	2.23	2.23	2.24	2.25
	57°F(13.9°C)	25952	25433	25306	25205	24978	2.03	2.05	2.05	2.06	2.07
	59°F(15.0°C)	25741	25226	25100	24999	24774	1.96	1.98	1.98	1.98	1.99
	62°F(16.7°C)	25423	24914	24790	24691	24468	1.85	1.87	1.87	1.87	1.88
	64.4°F(18.0°C)	25169	24665	24542	24444	24224	1.77	1.78	1.78	1.79	1.79
	69.8°F(21.0°C)	24597	24105	23984	23889	23674	1.57	1.58	1.59	1.59	1.60
	75.2°F(24.0°C)	24025	23545	23427	23333	23123	1.38	1.39	1.39	1.39	1.40
558	-22°F(-30.0°C)	13878	13600	13532	13478	13357	2.51	2.53	2.53	2.54	2.55
	-13°F(-25.0°C)	16855	16518	16436	16370	16223	2.69	2.71	2.72	2.72	2.73
	-4°F(-20.0°C)	21005	20585	20482	20400	20217	2.75	2.77	2.78	2.78	2.79
	0°F(-17.8°C)	22977	22518	22405	22315	22115	2.86	2.88	2.89	2.89	2.90
	5°F(-15.0°C)	25442	24933	24809	24709	24487	2.99	3.02	3.02	3.03	3.04
	14°F(-10.0°C)	26009	25489	25361	25260	25033	3.04	3.07	3.07	3.08	3.09
	17°F(-8.3°C)	26198	25674	25546	25443	25214	3.06	3.08	3.09	3.10	3.11
	22°F(-5.6°C)	27520	26969	26835	26727	26487	3.06	3.08	3.09	3.10	3.11
	27°F(-2.8°C)	28842	28265	28124	28011	27759	3.06	3.08	3.09	3.10	3.11
	32°F(-0.0°C)	30164	29560	29413	29295	29031	3.06	3.08	3.09	3.10	3.11
	35°F(1.7°C)	30957	30338	30186	30065	29795	3.06	3.08	3.09	3.10	3.11
	37°F(2.8°C)	30876	30258	30107	29986	29717	2.95	2.98	2.98	2.99	3.00
	42°F(5.6°C)	30673	30060	29909	29790	29522	2.68	2.71	2.71	2.72	2.73
	44.6°F(7.0°C)	30592	29980	29830	29711	29444	2.58	2.60	2.60	2.61	2.62
	47°F(8.3°C)	30470	29861	29712	29593	29327	2.42	2.44	2.44	2.45	2.46
	52°F(11.1°C)	29873	29276	29129	29013	28752	2.23	2.25	2.26	2.26	2.27
	57°F(13.9°C)	29276	28690	28547	28433	28177	2.05	2.07	2.07	2.08	2.09
	59°F(15.0°C)	29037	28456	28314	28201	27947	1.98	2.00	2.00	2.00	2.01
	62°F(16.7°C)	28679	28105	27965	27853	27602	1.87	1.89	1.89	1.89	1.90
	64.4°F(18.0°C)	28392	27824	27685	27574	27326	1.78	1.80	1.80	1.81	1.81
	69.8°F(21.0°C)	27747	27192	27056	26948	26705	1.59	1.60	1.60	1.61	1.61
	75.2°F(24.0°C)	27102	26560	26427	26321	26084	1.39	1.40	1.41	1.41	1.41

LEGEND

DB - Dry Bulb

TC - Total Net Capacity (1000 Btu/hour)

Input - Total Power (kW)

COP - W/W

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

APPLICATION DATA

Unit Selection

Select equipment that either matches or supports slightly more than the anticipated peak load. This provides better humidity control, fewer unit cycles, and less part-load operation. For units used in spaces with high sensible loads, base equipment selection on unit sensible load, not on total anticipated load. Adjust for anticipated room wet bulb temperature to avoid undersizing the equipment.

UNIT MOUNTING (OUTDOOR)

Refer to the unit's installation instructions for further details.

Unit leveling - For reliable operation, units should be level in all planes.

Clearance - Minimum clearance (see Fig. 4) must be provided for airflow. The condensing units are designed for free-flow application. Air inlets and outlets should not be restricted.

Unit location - A location which is convenient to installation and not exposed to strong winds. A location that can bear the weight of the outdoor unit and where the outdoor unit can be mounted in a level position. **Do not** install the indoor or outdoor units in a location with special environmental conditions. For those applications, contact your sales representative.

SYSTEM OPERATING CONDITIONS

OPERATING RANGE MIN / MAX °F (°C)		
	COOLING	HEATING
Outdoor DB	-22 / 122 (-30 / 50)	-22 / 75 (-30 / 24)

NOTE: Reference the product installation instructions for more information.

METERING DEVICES

The outdoor unit has an electronic expansion valve to manage the refrigerant flow of the connected fan coil.

DRAIN CONNECTIONS

Install drains to meet the local sanitation codes.

REFRIGERANT LINES

General refrigerant line sizing:

1. The outdoor units are shipped with a full charge of R-454B refrigerant. All charges, line sizing, and capacities are based on runs of 25 ft. (7.6 m). For runs over 25 ft. (7.6 m), review the *Long Line Applications* section for the proper charge adjustments.
2. Refrigerant lines should not be buried in the ground. If it is necessary to bury the lines, do not bury more than 36-in (914mm). Provide a minimum 6-in (152 mm) vertical rise to the service valves to prevent refrigerant migration.
3. Both lines must be insulated. Use a minimum of 1/2-in. (12.7 mm) thick insulation. Closed-cell insulation is recommended in all long-line applications.
4. Special consideration should be given to isolating the interconnecting tubing from the building structure. Isolate the tubing so vibration or noise is not transmitted into the structure.

Long Line Applications:

1. No change in line sizing is required.
2. Add refrigerant per the "Additional Charge" table below.

Table 16 – Additional Charge

UNIT SIZE	Total Piping Length, ft (m)		Additional Charge, oz/ft. (m)		
	Min	Max	>10 - 25 (3 - 8)	>25 - 98 (8 - 30)	
6	9.8 (3)	82 (25)	None	0.16	
9					
12		164(50)		0.32	
18					

WIRING

All wires must be sized per NEC (National Electrical Code) or CEC (Canadian Electrical Code) and local codes. Use Electrical Data table MCA (minimum circuit amps) and MOCP (maximum over current protection) to correctly size the wires and the disconnect fuse or breakers respectively.

Recommended Connection Method for Power and Communication Wiring:

The main power is supplied to the outdoor unit. The field supplied 14/3 stranded wire with ground with a 600 volt insulation rating, power/communication wiring from the outdoor unit to indoor unit consists of four (4) wires and provides the power for the indoor unit. Two wires are line voltage AC power, one is communication wiring (S) and the other is a ground wire. Wiring between indoor and outdoor unit is polarity sensitive. The use of BX wire is NOT recommended.

If installed in a high Electromagnetic field (EMF) area and communication issues exists, a 14/2 stranded shielded wire can be used to replace L2 and (S) between outdoor unit and indoor unit landing the shield onto ground in the outdoor unit only.

⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

Wires should be sized based on NEC and local codes.

⚠ CAUTION

EQUIPMENT DAMAGE HAZARD

Failure to follow this caution may result in equipment damage or improper operation.

Be sure to comply with local codes while running wire from the indoor unit to the outdoor unit.

Every wire must be connected firmly. Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist. Ensure all wiring is tightly connected.

No wire should touch the refrigerant tubing, compressor or any moving parts.

Disconnecting means must be provided and shall be located within sight and readily accessible from the air conditioner.

Connecting cable with conduit shall be routed through the hole in the conduit panel.

AIR FLOW DATA

Unit Size	6K	9K	12K	18K
Outdoor (CFM)	1472.3	1472.3	1472.3	2235.29

SOUND PRESSURE

SYSTEM SIZE		9K	12K	18K
		(208/230 V)	(208/230 V)	(208/230 V)
Outdoor Sound Pressure Level	dB(A)	56.5	56.5	54.0
Outdoor Sound Power Level	dB(A)	64.5	64.5	62.0

ELECTRICAL DATA

Outdoor Unit Size		6K	9K	12K	18K
Power (Voltage-Phase-Frequency)	V-P-H	208/230-1-60			
MCA (Minimum Circuit Ampacity)	A	16	16	16	24.9
MOP (Maximum Overcurrent Protection Ampacity)	A	20	20	20	25
Min – Max Voltage Range	V	187-253			

*Permissible limits of the voltage range at which the unit will operate satisfactorily.

WIRING DIAGRAMS

NOTE: Refer to the actual wiring diagram and connection label on the unit.

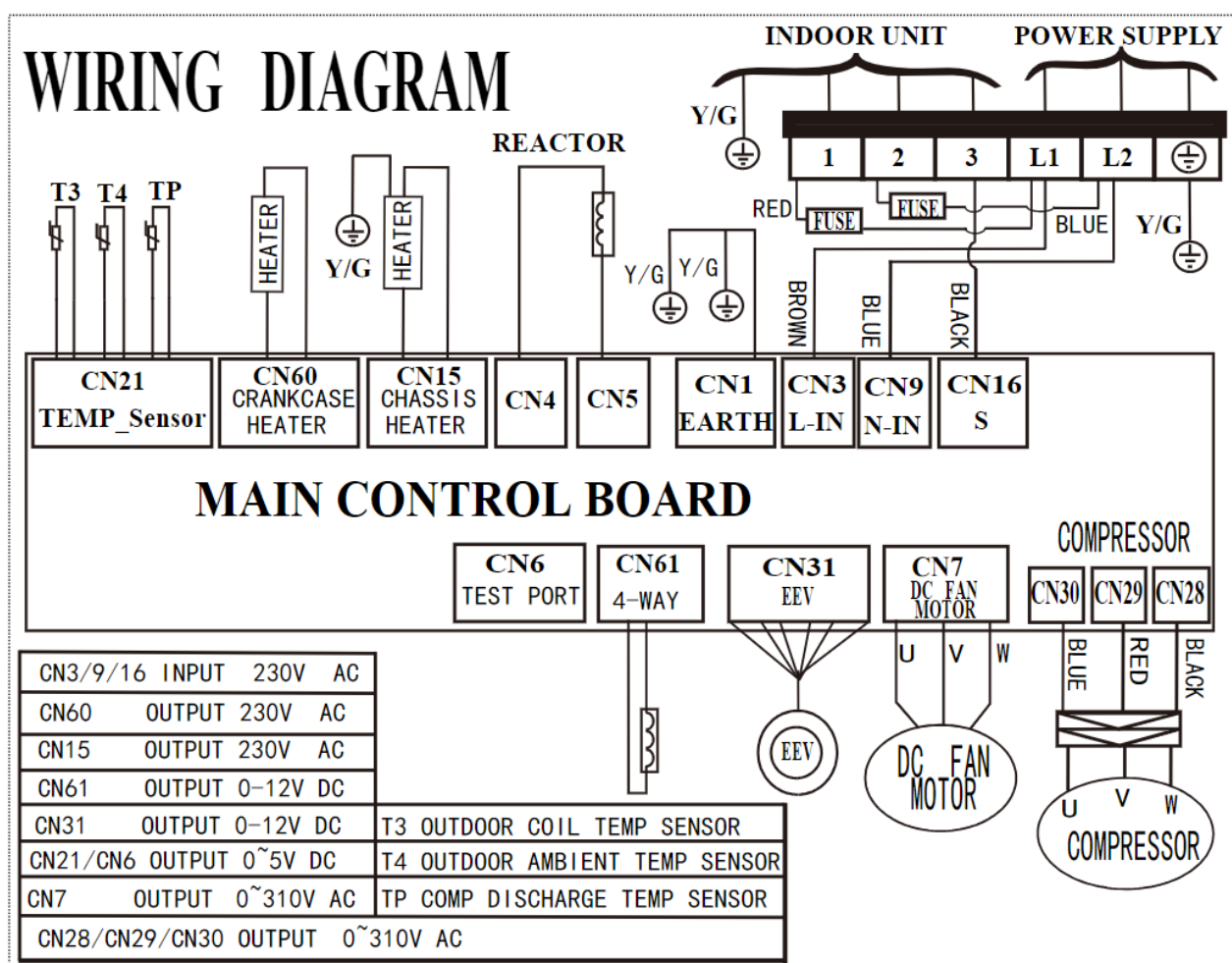


Fig. 5 – Wiring Diagram - Size 6K - 12K

WIRING DIAGRAMS (CONT.)

NOTE: Refer to the actual wiring diagram and connection label on the unit.

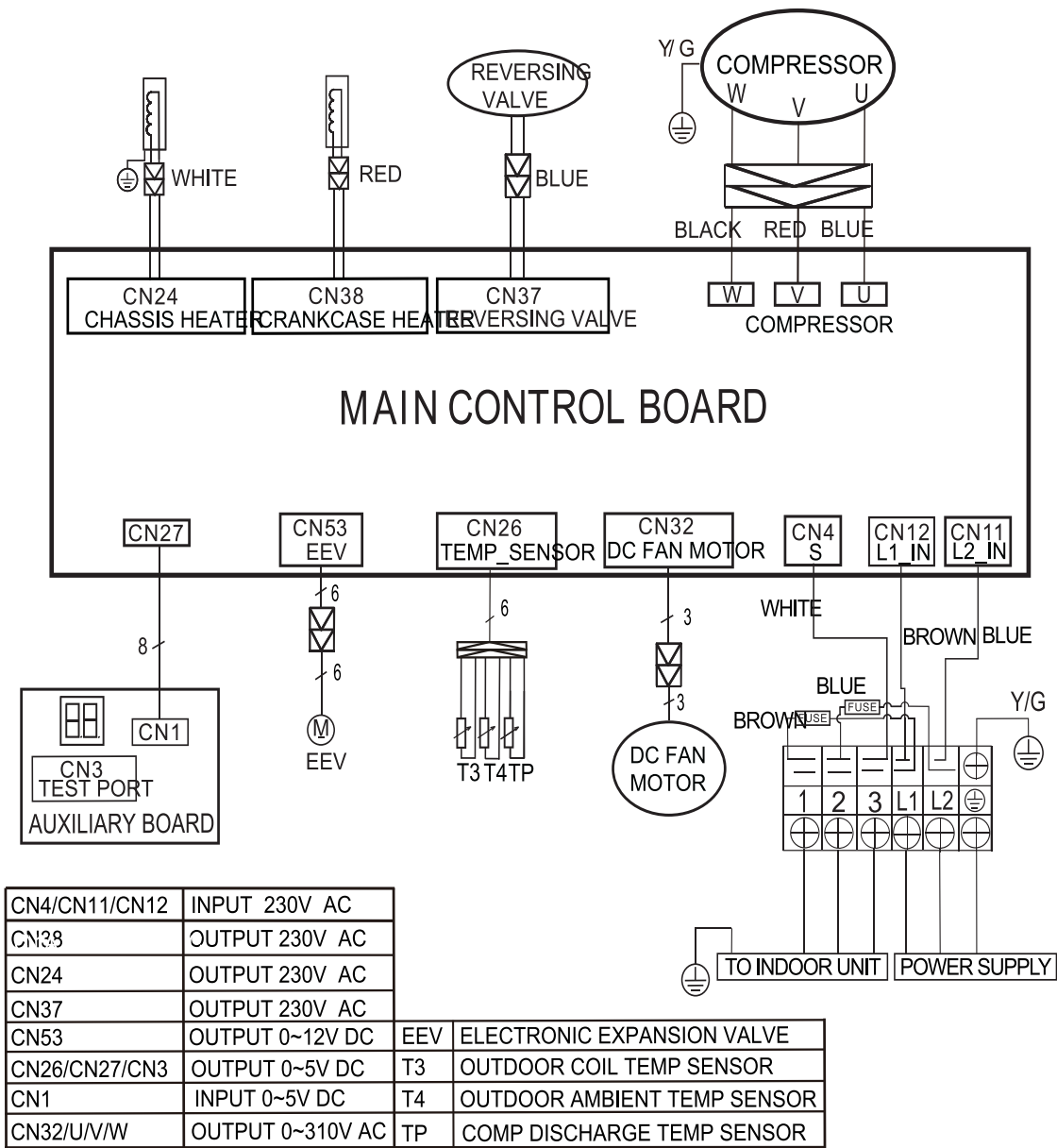


Fig. 6 —Wiring Diagram - Size 18K

GUIDE SPECIFICATIONS

OUTDOOR SINGLE-ZONE DUCTLESS SYSTEM

Size Range: 1/2 to 1-1/2 Ton Nominal Cooling and Heating Capacity

Model Number: **37MPRA**

Part 1 - GENERAL

1.01 System Description

- a. Outdoor air-cooled split system compressor sections suitable for on-the-ground, rooftop, wall hung or balcony mounting. Units consist of a rotary compressor, an air-cooled coil, propeller-type draw-through outdoor fan, reversing valve (HP), accumulator (HP units), metering device(s), and a control box. Units discharge air horizontally as shown on the contract drawings. Units function as the outdoor component of an air-to-air heat pump system.
- b. Units are to be used in a refrigeration circuit matched to ductless heat pump fan coil units.

1.02 Agency Listings

- a. Unit construction complies with ANSI/ASHRAE 15, latest revision, and with the NEC.
- b. Units are evaluated in accordance with UL standard 1995.
- c. Units are listed in the CEC directory.
- d. Unit cabinet is capable of withstanding 500-hour salt spray test per Federal Test Standard No. 141 (method 6061).
- e. Air-cooled condenser coils are leak tested at 550 psig.

1.03 Delivery, Storage, And Handling

Units are shipped in one piece and are stored and handled per unit manufacturer's recommendations.

1.04 Warranty (For Inclusion By Specifying Engineer)

Part 2 - PRODUCTS

2.01 Equipment

A. General:

Factory assembled, single piece, air-cooled outdoor unit. Contained within the unit enclosure is all the factory wiring, piping, controls, and the compressor.

B. Unit Cabinet:

1. Unit cabinet is constructed of galvanized steel, bonderized and coated with a baked-enamel finish on the inside and outside.
2. Unit access panels is removable with minimal screws and provides full access to the compressor, fan, and control components.
3. The outdoor compartment is isolated and has an acoustic lining to assure quiet operation.

C. Fans:

1. Outdoor fans are the direct drive propeller type, and discharges air horizontally. Fans draw air through the outdoor coil.
2. Outdoor fan motors are totally enclosed, single phase motors with class E insulation and permanently lubricated ball bearings. Motor shall be protected by internal thermal overload protection.
3. The shaft has inherent corrosion resistance.
4. Fan blades are non-metallic and statically and dynamically balanced.
5. Outdoor fan openings are equipped with a PVC metal/mesh coated protection grille over the fan.

D. Compressor:

1. Compressor is the fully hermetic rotary type.
2. Compressor is equipped with an oil system, operating oil charge, and a motor.
3. Motor is NEMA rated class E, suitable for operation in a refrigerant atmosphere.
4. Compressor assembly is installed on rubber vibration isolators.

E. Outdoor Coil:

The coil is constructed of aluminum golden hydrophilic pre-coated fins mechanically bonded to seamless copper tubes, which are cleaned, dehydrated, and sealed.

F. Refrigeration Components:

Refrigerant circuit components include a brass external liquid line service valve with service gage port connections, a suction line service valve with a service gage connection port, service gage port connections on compressor suction and discharge lines with Schrader type fittings with brass caps, accumulator, reversing valve.

G. Controls and Safeties:

Operating controls and safeties are factory selected, assembled, and tested. The minimum control functions include the following:

1. Controls:

- a. A time delay control sequence is provided standard through the fan coil board.
- b. Automatic outdoor fan motor protection.

2. Safeties:

- a. System Diagnostics
- b. Compressor motor current and temperature overload protection
- c. Outdoor fan failure protection

H. Electrical Requirements:

- a. Unit operates on single-phase, 60 Hz power at 208/230V as specified.
- b. Unit electrical power has a single point connection.
- c. Unit Control voltage to the indoor fan coil is 0-15V DC.
- d. All power and control wiring must be installed per NEC and all local electrical codes.
- e. The unit has high and low voltage terminal block connections.

NOTES: