

# 37MARA Outdoor Unit Single Zone Ductless System Sizes 9 to 36



## Product Data



**Fig. 1 – Typical Unit**

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

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## INDUSTRY LEADING FEATURES / BENEFITS

### A PERFECT BALANCE BETWEEN BUDGET LIMITS, ENERGY SAVINGS AND COMFORT

The 37MARA series ductless system is 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 for design problems such as:

- Add-ons to current space (an office or family room addition)
- Special space requirements
- 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.

Advanced system components incorporate innovative technology to provide reliable cooling and heating performance at low sound levels.

### Inverter Technology

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

**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 control.

### 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. When sound ordinances and proximity to neighbors demand quiet operation, the 37MARA unit is the right choice. With the inverter technology, these units run at lower speeds most of the time resulting in reduced sound levels.

### Inverter Technology – Enhanced Economical Operation

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.

### Easy-To-Use Controls

The systems have microprocessor-based controls which 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 37MARA can be installed close to an outside wall, 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 37MARA 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 components 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 readily accessible filters. Also, error codes are displayed to alert the user to certain system malfunctions

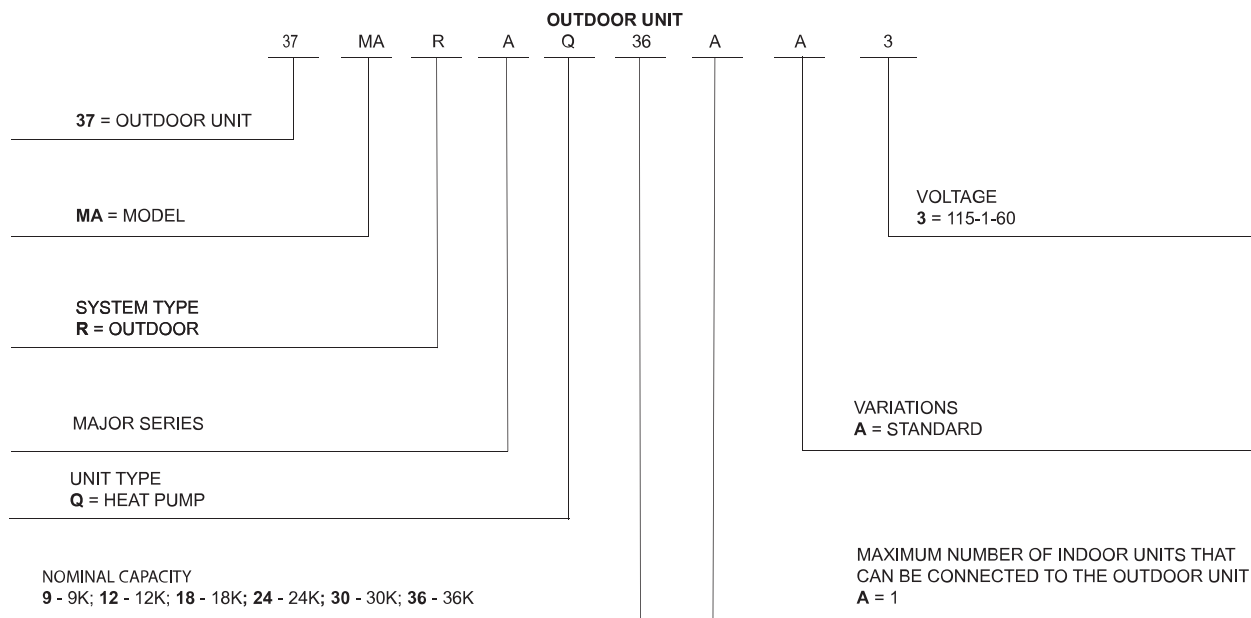
### Built-in Reliability

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 CSA certified per UL1995 standard.

# MODEL NUMBER NOMENCLATURE



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org).



## STANDARD FEATURES AND ACCESSORIES

Table 1 – Features

<b>Ease Of Installation</b>	
Low Voltage Controls	S
<b>Comfort Features</b>	
Microprocessor Control	S
Auto Restart Function	S
Auto Changeover	S
<b>Energy Saving Features</b>	
Inverter Driven Compressor	S
46° F Heating Mode (Heating Setback)	S
<b>Safety And Reliability</b>	
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 Temperature Protection in Cooling Mode	S
Aluminum Hydrophilic pre-coated fins	S
<b>Ease Of Service And Maintenance</b>	
Diagnostics	S
Liquid Line Pressure Taps	S
<b>Application Flexibility</b>	
Crankcase Heater	S
Base pan Heater	S

**LEGEND**  
S - Standard  
A - Accessory

## ACCESSORIES

Table 2 – Accessories

Outdoor Unit Model Number	Base Pan Base Rubber Plugs RCD Part No.	Qty per Unit
37MARAQ12AA1 37MARAQ09AA3 37MARAQ12AA3	12600801A00077	13
37MARAQ18AA3	12600801A00077	25
37MARAQ24AA3 37MARAQ30AA3 37MARAQ36AA3	12600801A00117	5

**NOTE:** The base pan is built in with multiple holes for proper draining during the defrost process. For applications where it is required to seal these 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.

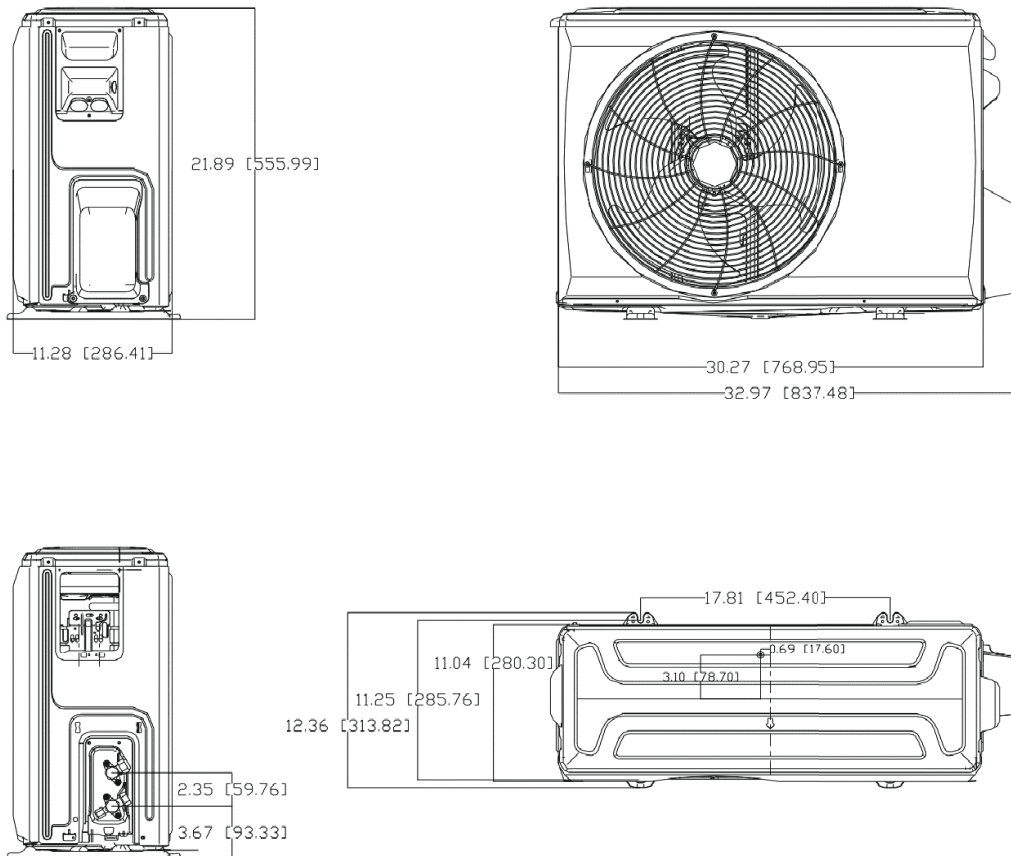
#### Long Line Piping Length

Piping flexibility up to a total piping length of 213ft. (65m).

# DIMENSIONS

**Table 3 – Dimensions and Weights**

System Size		12K	9K	12K	18K	24K	30K	36K
		(115 V)	(208/230 V)	(208/230 V)	(208/230 V)	(208/230 V)	(208/230 V)	(208/230 V)
Height (H)	inch	21.85	21.85	21.85	26.5	31.89	31.89	31.89
	mm	555	555	555	673	810	810	810
Width (W)	inch	30.12	30.12	30.12	35.04	37.24	37.24	37.24
	mm	765	765	765	890	946	946	946
Depth (D)	inch	11.93	11.93	11.93	13.46	16.14	16.14	16.14
	mm	303	303	303	342	410	410	410
Weight -Net	lbs.	64.6	62.17	62.17	92.59	122.14	142.86	150.36
	kg	29.3	28.2	28.2	42	55.4	64.8	68.2
<b>Packaging</b>								
Height	inch	24.02	24.02	24.02	29.13	34.84	34.84	34.84
	mm	610	610	610	740	885	885	885
Width	inch	34.92	34.92	34.92	39.17	42.91	42.91	42.91
	mm	887	887	887	995	1090	1090	1090
Depth	inch	13.27	13.27	13.27	15.67	19.68	19.68	19.68
	mm	337	337	337	398	500	500	500
Weight-Gross	lbs.	70.11	67.68	67.68	100.31	132.28	154.54	160.28
	kg	31.8	30.7	30.7	45.5	60	70.1	72.7



**Fig. 2 – Size 6K / 9K / 12K**

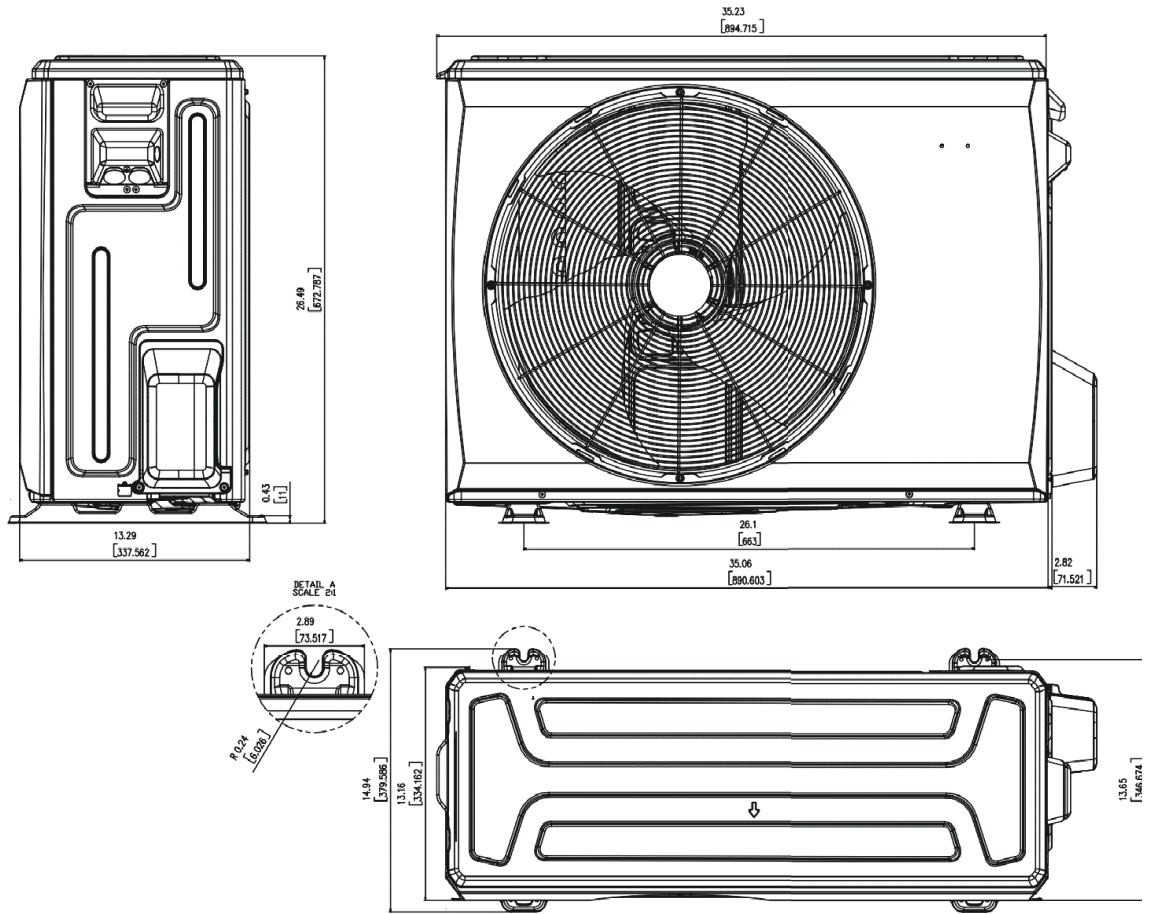


Fig. 3 – Size 18K

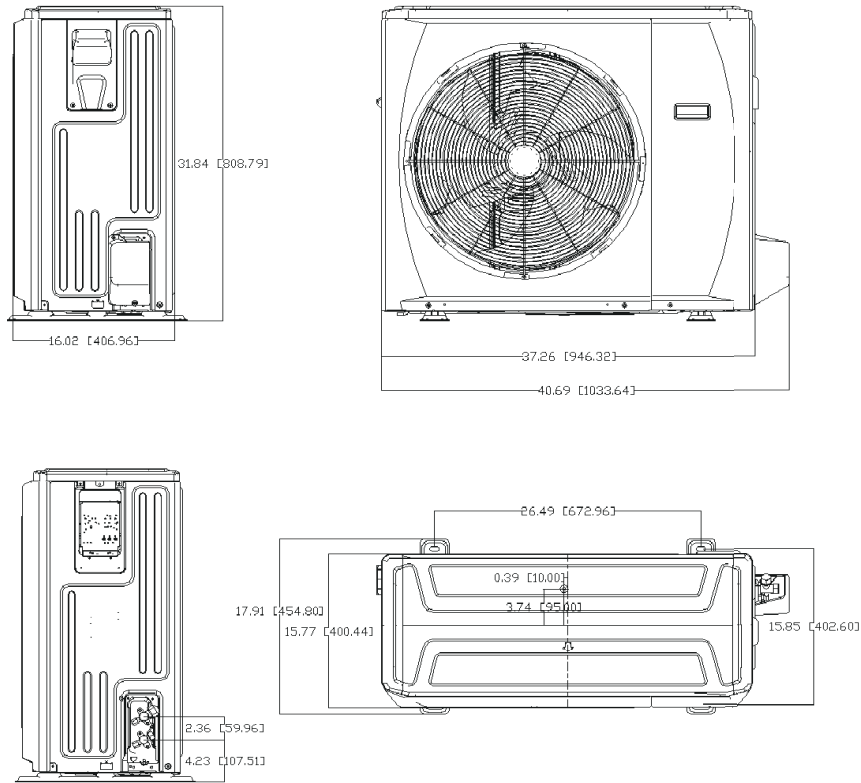


Fig. 4 – Sizes 24K / 30K / 36K

**CLEARANCES**

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

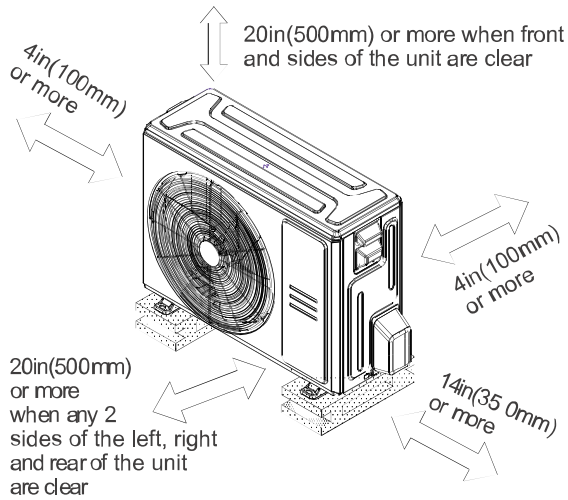


Fig. 5 – Clearances

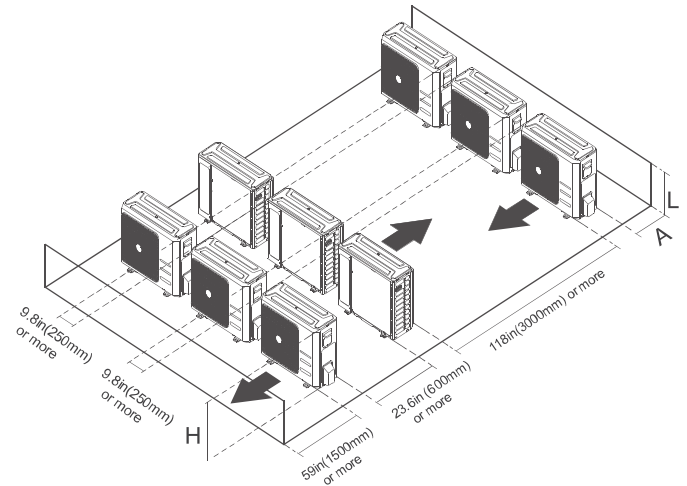


Fig. 6 – Clearances for multiple units

Table 4 – Rows of Series Installation

	L	A
L ≤ H	L ≤ ½H	9.8 in (25 cm) or more
	½H < L ≤ H	11.8 in (30 cm) or more
L > H	Can not be installed	

**Legend:**

- H = Unit Height
- L = Height of the wall behind the unit
- A = Distance between the unit and wall

# SPECIFICATIONS

Table 5 – Comprehensive Specifications

Outdoor model		37MARAQ12AA1	37MARAQ09AA3	37MARAQ12AA3	37MARAQ18AA3	37MARAQ24AA3	37MARAQ30AA3	37MARAQ36AA3	
Power supply – V;Ph;Hz		115V;1Ph;60HZ			208/230V;1Ph;60HZ				
COMPRESSOR SPECIFICATIONS	Model	KSK103D33UEZ3	KSK103D33UEZ3	KSK103D33UEZ3	KSN140D58UFZ	KTM240D46UKT2	KTF250D22UMT	KTF250D22UMT	
	Type	ROTARY							
	Brand	GMCC							
	Capacity	W	2035/3255	2035/3255	2035/3255	4315	4780/7600	8095	8095
		Btu/h	6943/11106	6943/11106	6943/11106	14723	16309/25931	27620	27620
	Input	W	325/826	325/826	325/826	1090	805/2045	2200	2200
	RLA	A	2.40/5.65	2.40/5.65	2.40/5.65	7.2	4.15/9.30	10	10
	Refrigerant Oil	ESTER OIL							
	Oil Type		VG74	VG74	VG74	VG74	VG74	VG74	VG74
	Oil Charge	fl. Oz	10.48	10.48	10.48	14.88	20.97	22.66	22.66
OUTDOOR FAN SPECIFICATIONS	Material	Acrylonitrile Styrene +20%GF							
	Type	-	ZL-421*133*8-3KN	ZL-421*133*8-3KN	ZL-421*133*8-3KN	ZL-535*133*12-3KFN	ZL-560*139*12-3KN	ZL-560*139*12-3KN	ZL-560*139*12-3KN
	Diameter	inch	16.6	16.6	16.6	21.1	22.0	22.0	22.0
		mm	421	421	421	535	560	560	560
	Height	inch	5.2	5.2	5.2	5.2	5.5	5.5	5.5
	mm	133	133	133	133	139	139	139	
OUTDOOR MOTOR SPECIFICATIONS	Model	-	ZKFN-34-10-1-9	ZKFN-34-10-1L	ZKFN-34-10-1L	ZKFN-80-10-1L	ZKFN-120-10-1L	ZKFN-120-8-2	ZKFN-120-8-2
	Type	-	DC	DC	DC	DC	DC	DC	DC
	Input	W	35.0	35.0	35.0	94.7	81.8	107	107
	Max. input	W	81	81	81	239	181	176	176
	Output	W	26	26	26	71	61	80	80
	FLA	A	0.6	0.6	0.6	0.9	1.0	1.3	1.3
	Rated HP	HP	0.03	0.03	0.03	0.10	0.08	0.11	0.11
	Range of current	Amps	0.572~0.846	0.572~0.846	0.572~0.846	0.386~1.851	0.835~1.69	0.79~1.67	0.79~1.67
	RLA	Amps	0.62	0.62	0.62	0.82	1.05	1.21	1.21
	Speed	rev/min	850/700/600	800/700/600	800/700/600	780/700/550	810/700/450	900/700/500	880/700/500
	Rated RPM	rev/min	850	800	800	780	810	900	880
	Insulation class	-	E	E	E	B	B	E	E
	Safe class	-	IP24	IP24	IP24	IP24	IP44	IPX4	IPX4

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

**Table 5 – Comprehensive Specifications (Continued)**

<b>OUTDOOR REFRIGERANT COIL SPECIFICATIONS</b>	Number of rows	Rows	2	2	2	2	2.6	3	3
	Tube outside dia.	inch	0.276	0.276	0.276	0.276	0.276	0.276	0.276
		mm	Φ7	Φ7	Φ7	Φ7	Φ7	Φ7	Φ7
	Nominal Tube Wall	mm	0.00945 (0.24)	0.00945 (0.24)	0.00945 (0.24)	0.00945 (0.24)	0.00945 (0.24)	0.00945 (0.24)	0.00945 (0.24)
	Tube Enhancement	(Yes/No)	Yes	Yes	Yes	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	0.83× 0.87	0.83× 0.53	0.83× 0.53	0.83× 0.53
		mm	21x22	21x22	21x22	21x22	21x13.37	21x13.37	21x13.37
	Fin Spacing	FPI	20	20	20	20	20	19	19
		mm	1.3	1.3	1.3	1.3	1.3	1.4	1.4
	Fin type		Plain fin	Plain fin	Plain fin	Plain fin	Plain fin	Louvered	Louvered
	Fin Material		Gold hydrophilic aluminum						
	Coil length x height x width	inch	29.33x19.84x0.87+2 7.95x19.84x0.87	29.33x19.84x0.87+2 7.95x19.84x0.87	29.33x19.84x0.87+2 7.95x19.84x0.87	35.43x23.98x0.87+3 4.06x23.98x0.87	39.57x29.76x1.05+2 3.54x29.76x0.53	39.37x29.76x0.53+3 8.58x29.76x0.53+37. 99x29.76x0.53	39.37x29.76x0.53+3 8.58x29.76x0.53+37. 99x29.76x0.53
		mm	745*504*22+710*504 *22	745*504*22+710*504 *22	745*504*22+710*504 *22	900*609*22+865*609 *22	1005x756x26.74+59 8x756x13.37	1000x756x13.37+98 0x756x13.37+965x7 56x13.37	1000x756x13.37+98 0x756x13.37+965x7 56x13.37
Face area	ft2	4.04	4.04	4.04	5.90	8.18	8.14	8.14	
Number of circuits	#	4	4	4	6	6	6	6	
High Burst Pressure	Psi (MPa)	550(3.79)	550(3.79)	550(3.79)	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)	340(2.34)	340(2.34)	340(2.34)	
<b>Piping and Refrigerant Information</b>	Refrigerant Type	Type	R454B	R454B	R454B	R454B	R454B	R454B	R454B
	Charge Amount	lb. (kg)	2.09(0.95)	2.03(0.92)	2.03(0.92)	3(1.36)	4.41(2.0)	5.29(2.4)	7.05(3.2)
	Additional refrigerant charge	Oz/ft (g/m)	0.16(15)	0.16(15)	0.16(15)	0.16(15)	0.32(30)	0.32(30)	0.32(30)
	Liquid Pipe (size - connection type)	In (mm)	1/4in (6.35mm)	1/4in (6.35mm)	1/4in (6.35mm)	1/4in (6.35mm)	3/8in (9.52mm)	3/8in (9.52mm)	3/8in (9.52mm)
	Suction Pipe (size - connection type)	In (mm)	3/8in (9.52mm)	3/8in (9.52mm)	3/8in (9.52mm)	1/2in (12.7mm)	5/8in (15.9mm)	5/8in (15.9mm)	5/8in (15.9mm)
	Min. Piping Length	ft. (m)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)
	Standard Piping Length	ft. (m)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	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)	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)	98.42(30)	164.04(50)	164.04(50)	213.25(65)
	Max. outdoor-indoor height difference (OU higher than IU)	ft. (m)	49.21(15)	49.21(15)	49.21(15)	65.62(20)	82.02(25)	82.02(25)	98.43(30)
	Max. outdoor-indoor height difference (IU higher than OU)	ft. (m)	49.21(15)	49.21(15)	49.21(15)	65.62(20)	82.02(25)	82.02(25)	98.43(30)
<b>AIRFLOW SPECIFICATIONS</b>	Outdoor (CFM)	CFM	1236.7	1236.7	1236.7	1766.8	2237.9	2237.9	2237.9
<b>SOUND DATA</b>	Outdoor Sound Pressure Level	dB(A)	52.5	52.5	56	58	58	61	63

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

**Table 5 – Comprehensive Specifications (Continued)**

<b>ENVIRONMENTAL SPECIFICATIONS</b>	Cooling Operating Range	Indoor Min - Max DB	°F	60~90	60~90	60~90	60~90	60~90	60~90	60~90	
			(°C)	(16?32)	(16?32)	(16?32)	(16?32)	(16?32)	(16?32)	(16?32)	
		Indoor Min - Max WB	°F	59-84	59-84	59-84	59-84	59-84	59-84	59-84	59-84
			(°C)	(15-29)	(15-29)	(15-29)	(15-29)	(15-29)	(15-29)	(15-29)	(15-29)
		Outdoor Min - Max DB	°F	-13~122	-13~122	-13~122	-13~122	-13~122	-13~122	-13~122	-13~122
			(°C)	(-25~50)	(-25~50)	(-25~50)	(-25~50)	(-25~50)	(-25~50)	(-25~50)	(-25~50)
	Heating Operating Range	Indoor Min - Max DB	°F	32~86	32~86	32~86	32~86	32~86	32~86	32~86	32~86
			(°C)	(0~30)	(0~30)	(0~30)	(0~30)	(0~30)	(0~30)	(0~30)	(0~30)
		Outdoor Min - Max DB	°F	-13~75	-13~75	-13~75	-13~75	-13~75	-13~75	-13~75	-13~75
			(°C)	(-25~24)	(-25~24)	(-25~24)	(-25~24)	(-25~24)	(-25~24)	(-25~24)	(-25~24)
Non-operating environment Storage	Temperature range (DB)	°F	-49-140	-49-140	-49-140	-49-140	-49-140	-49-140	-49-140	-49-140	
		(°C)	(-45-60)	(-45-60)	(-45-60)	(-45-60)	(-45-60)	(-45-60)	(-45-60)	(-45-60)	
Operation Humidity		%	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	
Ambient Humidity		%	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	0-80 %	

**PERFORMANCE**

**Table 6 – 45MAHA – High Wall Indoor Unit Performance**

Indoor model		45MAHAQ12XA1	45MAHAQ09XA3	45MAHAQ12XA3	45MAHAQ18XA3	45MAHAQ24XA3	45MAHAQ30XA3	45MAHAQ36XA3	
Outdoor model		37MARAQ12AA1	37MARAQ09AA3	37MARAQ12AA3	37MARAQ18AA3	37MARAQ24AA3	37MARAQ30AA3	37MARAQ36AA3	
Power supply – V;Ph;Hz		115V;1Ph;60HZ			208/230V;1Ph;60HZ				
Performance Data	Cooling Rated Cap(DOE A2 - 95°F)	Btu/h	12000	9000	12000	18000	24000	30000	36000
	Cooling Capacity Range	Btu/h	2600~13000	2200~13000	2900~14500	3500~18900	5500~29500	6500~32800	6600~36800
	SEER	Btu/h.W	23.5	26	25.5	23.5	23.1	20.5	19
	EER (DOE A2 - 95°F)	Btu/h.W	13	14.9	13.1	12.8	14	12	8.7
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	12000	10000	12000	18000	25000	30000	36000
	Heating Capacity Range	Btu/h	4600~13600	4100~13800	4500~15400	7700~21000	9900~30800	12600~31400	9600~38000
	COP (DOE H12 - 47°F)	W/W	3.7	3.9	3.9	3.5	3.96	3.08	2.85
	HSPF IV	Btu/h.W	9.5	12.5	10.7	10.8	11.7	9.5	8.5
	HSPF V	Btu/h.W	7	9.2	8	8	8.7	7.2	6.6
	Cooling Rated Cap(DOE B2 - 82°F)	Btu/h	13500	9500	13400	19900	25600	32600	37600
	EER (DOE B2 - 82°F)	Btu/h.W	16.5	19.2	17.3	16.3	18.2	14.9	10.7
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	8700	8100	9300	13600	18800	20400	24200
	COP (DOE H32 - 17°F)	W/W	2.68	2.82	2.84	2.73	2.65	2.52	2.28
	Heating Maximum Capacity (17°F)	Btu/h	8700	9400	9600	14900	19300	21500	24200
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	7700	8000	8400	12800	19600	20000	22000
	COP (DOE H42 - 5°F)	W/W	2.33	2.36	2.3	2.1	2.54	2.03	1.9
	Heating Maximum Capacity (5°F)	Btu/h	7700	8000	8400	12800	19600	20000	22000

Table 7 – 45MCCA – One-Way Cassette Indoor Unit Performance

Outdoor Model		45MCCAQ12XA3	45MCCAQ12XA3	45MCCAQ18XA3	
Indoor Model		37MARAQ09AA3	37MARAQ12AA3	37MARAQ18AA3	
Power supply – V;Ph;Hz		208/230V;1Ph;60HZ			
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	9000	12000	18000
	Cooling Capacity Range	Btu/h	3700~11400	3900~13800	4000~18800
	SEER	Btu/h.W	22.2	22.2	22.3
	EER (DOE A2 - 95°F)	Btu/h.W	14.4	12.3	12.5
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	11000	12000	18000
	Heating Capacity Range	Btu/h	4100~14300	4700~15300	7600~22800
	COP (DOE H12 - 47°F)	W/W	3.2	3.4	3.3
	HSPF IV	Btu/h.W	11.8	10.1	12.2
	HSPF V	Btu/h.W	9	7.8	8.6
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	9800	12900	18900
	EER (DOE B2 - 82°F)	Btu/h.W	19.3	15.6	15.4
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	7900	8600	14000
	COP (DOE H32 - 17°F)	W/W	2.7	2.77	2.78
	Heating Maximum Capacity (17°F)	Btu/h	9900	10000	15200
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	8000	8600	13100
	COP (DOE H42 - 5°F)	W/W	2.18	2.48	2.24
Heating Maximum Capacity (5°F)	Btu/h	8000	8600	13100	

Table 8 – 45MBCA – 4-Way Cassette Indoor Unit Performance

Outdoor Model		45MBCAQ12XA3	45MBCAQ12XA3	45MBCAQ18XA3	
Indoor Model		37MARAQ09AA3	37MARAQ12AA3	37MARAQ18AA3	
Power supply – V;Ph;Hz		208/230V;1Ph;60HZ			
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	9000	12000	16800
	Cooling Capacity Range	Btu/h	3700~12000	3700~14000	5300~17800
	SEER	Btu/h.W	21.7	21.2	20.8
	EER (DOE A2 - 95°F)	Btu/h.W	14.3	12.5	12.5
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	10000	12000	18000
	Heating Capacity Range	Btu/h	4700~13700	4700~15000	7100~21500
	COP (DOE H12 - 47°F)	W/W	4	3.55	3.36
	HSPF IV	Btu/h.W	11.3	10.4	11.4
	HSPF V	Btu/h.W	8.8	7.9	8.5
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	9800	13000	17900
	EER (DOE B2 - 82°F)	Btu/h.W	18.8	15.7	15.1
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	8500	8500	13900
	COP (DOE H32 - 17°F)	W/W	2.79	2.79	2.67
	Heating Maximum Capacity (17°F)	Btu/h	9300	9300	14800
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	8300	8400	12800
	COP (DOE H42 - 5°F)	W/W	2.17	2.4	2.2
Heating Maximum Capacity (5°F)	Btu/h	8300	8400	12800	

Table 9 – 45MBFA – Floor Console Indoor Unit Performance

Outdoor Model		45MBFAQ09XA3	45MBFAQ12XA3	45MBFAQ16XA3	
Indoor Model		37MARAQ09AA3	37MARAQ12AA3	37MARAQ18AA3	
Power supply – V;Ph;Hz		208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	9000	12000	16000
	Cooling Capacity Range	Btu/h	4000~12900	4000~13100	4700~18000
	SEER	Btu/h.W	26	24.7	23.9
	EER (DOE A2 - 95°F)	Btu/h.W	16.3	12.7	12.5
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	9000	12000	17000
	Heating Capacity Range	Btu/h	5100~12700	5100~12900	7300~22900
	COP (DOE H12 - 47°F)	W/W	4.35	3.9	3.37
	HSPF IV	Btu/h.W	13.9	11	13.5
	HSPF V	Btu/h.W	10.1	8.2	9.4
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	9800	12500	17000
	EER (DOE B2 - 82°F)	Btu/h.W	21.4	15.2	15.8
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	9000	9000	14100
	COP (DOE H32 - 17°F)	W/W	2.91	2.88	2.75
	Heating Maximum Capacity (17°F)	Btu/h	9600	9600	14600
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	8600	8900	13100
	COP (DOE H42 - 5°F)	W/W	2.27	2.5	2.16
Heating Maximum Capacity (5°F)	Btu/h	8600	8900	13100	

Table 10 – 45MCEA – Ceiling and Floor Indoor Unit Performance

Outdoor Model		45MCFAQ18XA3	45MCFAQ24XA3	
Indoor Model		37MARAQ18AA3	37MARAQ24AA3	
Power supply – V;Ph;Hz		208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	18000	24000
	Cooling Capacity Range	Btu/h	7000~19300	11100~29000
	SEER	Btu/h.W	22.4	21.2
	EER (DOE A2 - 95°F)	Btu/h.W	12.5	12.2
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	18000	24400
	Heating Capacity Range	Btu/h	7200~22200	11800~32600
	COP (DOE H12 - 47°F)	W/W	3.3	2.99
	HSPF IV	Btu/h.W	10.4	11.1
	HSPF V	Btu/h.W	8	8.4
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	19700	24600
	EER (DOE B2 - 82°F)	Btu/h.W	15.9	14.7
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	13700	20000
	COP (DOE H32 - 17°F)	W/W	2.51	2.56
	Heating Maximum Capacity (17°F)	Btu/h	15100	20000
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	12800	18600
	COP (DOE H42 - 5°F)	W/W	2.05	2.27
Heating Maximum Capacity (5°F)	Btu/h	12800	18600	

Table 11 – 45MBDA – Low Static Slim Duct Indoor Unit Performance

Outdoor Model		45MBDAQ12XA3	45MBDAQ12XA3	45MBDAQ18XA3	
Indoor Model		37MARAQ09AA3	37MARAQ12AA3	37MARAQ18AA3	
Power supply – V;Ph;Hz		208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	9000	11500	17000
	Cooling Capacity Range	Btu/h	3100~11900	3100~13000	7000~19000
	SEER	Btu/h.W	19.6	19	20
	EER (DOE A2 - 95°F)	Btu/h.W	12.8	11.7	12.5
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	10000	12000	20000
	Heating Capacity Range	Btu/h	3600~14000	3700~15600	5500~22000
	COP (DOE H12 - 47°F)	W/W	3.66	3.42	3.47
	HSPF IV	Btu/h.W	11	10.3	10.6
	HSPF V	Btu/h.W	8.8	8	8.2
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	9200	12300	18500
	EER (DOE B2 - 82°F)	Btu/h.W	15.5	14.3	15
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	8900	9500	14000
	COP (DOE H32 - 17°F)	W/W	2.62	2.57	2.6
	Heating Maximum Capacity (17°F)	Btu/h	9600	10300	14100
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	8600	8800	14000
	COP (DOE H42 - 5°F)	W/W	2.25	2.25	2.2
Heating Maximum Capacity (5°F)	Btu/h	8600	8800	14000	

Table 12 – 45MBDA – High Static Slim Duct Indoor Unit Performance

Outdoor Model		45MBDAQ12XH3	45MBDAQ12XH3	45MBDAQ18XH3	45MBDAQ24XH3	
Indoor Model		37MARAQ09AA3	37MARAQ12AA3	37MARAQ18AA3	37MARAQ24AA3	
Power supply – V;Ph;Hz		208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	9000	12000	17500	24000
	Cooling Capacity Range	Btu/h	2000~11200	2200~12900	4500~20200	8500~28300
	SEER	Btu/h.W	19.8	19.5	20	19
	EER (DOE A2 - 95°F)	Btu/h.W	13	12	13.3	12.5
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	10000	12000	20000	25000
	Heating Capacity Range	Btu/h	3600~14500	3700~15700	5200~23000	11800~35100
	COP (DOE H12 - 47°F)	W/W	4.0	3.78	3.9	3.64
	HSPF IV	Btu/h.W	11.5	10.5	11.4	11
	HSPF V	Btu/h.W	9	8	8.8	8.5
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	10100	13200	18300	25600
	EER (DOE B2 - 82°F)	Btu/h.W	17.8	14.6	16.2	16
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	9300	9100	14900	21200
	COP (DOE H32 - 17°F)	W/W	2.9	2.79	2.9	2.6
	Heating Maximum Capacity (17°F)	Btu/h	9500	9800	15900	21600
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	8300	8900	14200	19000
	COP (DOE H42 - 5°F)	W/W	2.31	2.44	2.4	2.3
Heating Maximum Capacity (5°F)	Btu/h	8300	8900	14200	19000	

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

Table 13 – 45MBAA – Indoor Unit Performance

Outdoor Model			45MBAAQ18XB3	45MBAAQ24XB3	45MBAAQ30XB3	45MBAAQ36XB3
Indoor Model			37MARAQ18AA3	37MARAQ24AA3	37MARAQ30AA3	37MARAQ36AA3
Power supply		V;Ph;Hz	208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	208/230V;1Ph;60HZ	208/230V;1Ph;60HZ
Performance Data	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	18000	24000	30000	36000
	Cooling Capacity Range	Btu/h	5600~20400	6700~29600	9200~34000	10600~37700
	SEER	Btu/h.W	18.5	19.8	17	16
	EER (DOE A2 - 95°F)	Btu/h.W	12.2	11.7	11	8.6
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	18000	25000	30000	37000
	Heating Capacity Range	Btu/h	5500~21800	5800~33800	8500~33000	5000~38800
	COP (DOE H12 - 47°F)	W/W	3.6	3.53	3.6	3.2
	HSPF IV	Btu/h.W	9.8	9	8.8	7.7
	HSPF V	Btu/h.W	7.7	7.3	7	6
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	19600	26800	32600	40000
	EER (DOE B2 - 82°F)	Btu/h.W	15	14.8	13.3	10.9
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	13200	17600	19400	17900
	COP (DOE H32 - 17°F)	W/W	2.6	2.4	2.4	2.03
	Heating Maximum Capacity (17°F)	Btu/h	14800	22000	22000	23500
	Heating Rated Capacity (ODE H42 - 5°F)	Btu/h	13000	18000	20400	23000
	COP (DOE H42 - 5°F)	W/W	2.3	2.2	2.1	2
	Heating Maximum Capacity (5°F)	Btu/h	13000	18000	20400	23000

## COOLING PERFORMANCE

For the following tables:

TC = Total Cooling Capacity (BTU/hr)

S/T = Sensible Cooling Capacity Ratio

PI = Power Input (kW)

Extrapolated Data

The highlighted data is tested; other data is simulated and for reference.

Table 14 – 12K Cooling — 37MARA – 115V High Wall

Airflow CFM	Out-door DB	ID WB ID DB	60.8°F (16.0°C)					64.4°F (16.0°C)					67.0°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
			235	-13°F 25°C	TC	5313	5320	5326	5326	5333	5633	5639	5645	5646	5653	5969	5977	5984	5985	5992	6329	6336
		S/T	0.28	0.32	0.37	0.37	0.42	0.29	0.34	0.39	0.39	0.44	0.31	0.36	0.41	0.41	0.47	0.33	0.39	0.44	0.44	0.50
		PI	0.37	0.37	0.37	0.37	0.37	0.39	0.39	0.39	0.39	0.39	0.42	0.42	0.42	0.42	0.42	0.44	0.44	0.44	0.44	0.44
	-4°F 20°C	TC	5721	5729	5735	5735	5743	6066	6073	6079	6080	6088	6429	6437	6444	6445	6452	6816	6823	6831	6832	6840
		S/T	0.28	0.33	0.37	0.37	0.42	0.29	0.34	0.39	0.39	0.45	0.31	0.37	0.42	0.42	0.47	0.33	0.39	0.44	0.44	0.50
		PI	0.40	0.40	0.40	0.40	0.40	0.42	0.42	0.42	0.42	0.42	0.45	0.45	0.45	0.45	0.45	0.48	0.48	0.48	0.48	0.48
	0°F 17.8°C	TC	5903	5911	5917	5917	5925	6259	6266	6272	6274	6281	6633	6641	6649	6650	6657	7032	7040	7048	7049	7057
		S/T	0.28	0.33	0.37	0.37	0.42	0.29	0.35	0.39	0.39	0.45	0.31	0.37	0.42	0.42	0.47	0.33	0.39	0.44	0.44	0.50
		PI	0.41	0.41	0.41	0.41	0.41	0.44	0.44	0.44	0.44	0.44	0.46	0.46	0.46	0.46	0.46	0.49	0.49	0.49	0.49	0.49
	5°F 15°C	TC	6130	6138	6145	6145	6153	6499	6507	6514	6515	6523	6888	6897	6904	6906	6913	7303	7311	7319	7320	7329
		S/T	0.28	0.33	0.37	0.37	0.42	0.30	0.35	0.40	0.40	0.45	0.31	0.37	0.42	0.42	0.48	0.33	0.39	0.44	0.44	0.51
		PI	0.43	0.43	0.43	0.43	0.43	0.45	0.45	0.45	0.45	0.45	0.48	0.48	0.48	0.48	0.48	0.51	0.51	0.51	0.51	0.51
	14°F 10°C	TC	6254	6263	6269	6270	6278	6631	6639	6645	6647	6655	7027	7036	7044	7045	7053	7451	7459	7467	7468	7477
		S/T	0.28	0.33	0.37	0.37	0.43	0.30	0.35	0.40	0.40	0.45	0.31	0.37	0.42	0.42	0.48	0.33	0.39	0.44	0.44	0.51
		PI	0.41	0.41	0.41	0.41	0.41	0.44	0.44	0.44	0.44	0.44	0.46	0.46	0.46	0.46	0.46	0.49	0.49	0.49	0.49	0.49
	17°F 10°C	TC	6296	6304	6311	6311	6320	6675	6683	6689	6691	6699	7074	7083	7091	7092	7100	7500	7508	7516	7517	7527
		S/T	0.28	0.33	0.37	0.37	0.43	0.30	0.35	0.40	0.40	0.45	0.32	0.37	0.42	0.42	0.48	0.33	0.39	0.45	0.45	0.51
		PI	0.41	0.41	0.41	0.41	0.41	0.43	0.43	0.43	0.43	0.43	0.46	0.46	0.46	0.46	0.46	0.48	0.48	0.49	0.49	0.49
	23°F 5°C	TC	6290	6298	6305	6305	6314	6669	6677	6683	6685	6693	7067	7076	7084	7086	7093	7493	7501	7509	7510	7520
		S/T	0.28	0.33	0.38	0.38	0.43	0.30	0.35	0.40	0.40	0.45	0.32	0.37	0.42	0.42	0.48	0.34	0.39	0.45	0.45	0.51
		PI	0.38	0.38	0.38	0.38	0.38	0.40	0.40	0.40	0.40	0.41	0.43	0.43	0.43	0.43	0.43	0.45	0.45	0.45	0.45	0.46
	35°F 1.7°C	TC	6278	6287	6293	6294	6302	6656	6664	6671	6672	6680	7054	7063	7071	7072	7080	7479	7487	7495	7497	7506
		S/T	0.28	0.33	0.38	0.38	0.43	0.30	0.35	0.40	0.40	0.46	0.32	0.37	0.43	0.43	0.48	0.34	0.40	0.45	0.45	0.51
		PI	0.33	0.33	0.33	0.33	0.33	0.35	0.35	0.35	0.35	0.35	0.37	0.37	0.37	0.37	0.37	0.39	0.39	0.39	0.39	0.39
	41°F 5°C	TC	6103	6111	6118	6118	6126	6471	6478	6485	6486	6494	6857	6866	6874	6875	6883	7270	7278	7286	7287	7297
		S/T	0.28	0.33	0.38	0.38	0.43	0.30	0.35	0.40	0.40	0.46	0.32	0.37	0.43	0.43	0.49	0.34	0.40	0.45	0.45	0.51
		PI	0.30	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.34	0.34	0.34	0.34	0.34	0.36	0.36	0.36	0.36	0.36
	47°F 8.3°C	TC	5928	5936	5942	5942	5950	6285	6292	6299	6300	6307	6661	6669	6677	6678	6685	7062	7069	7077	7078	7087
		S/T	0.29	0.33	0.38	0.38	0.43	0.30	0.35	0.40	0.40	0.46	0.32	0.38	0.43	0.43	0.49	0.34	0.40	0.45	0.45	0.52
		PI	0.28	0.28	0.28	0.28	0.28	0.30	0.30	0.30	0.30	0.30	0.32	0.32	0.32	0.32	0.32	0.33	0.33	0.33	0.33	0.34
	50°F 10°C	TC	6048	6056	6063	6063	6071	6413	6420	6427	6428	6436	6796	6805	6812	6814	6821	7205	7213	7221	7222	7231
		S/T	0.29	0.34	0.38	0.38	0.44	0.30	0.36	0.41	0.41	0.46	0.32	0.38	0.43	0.43	0.49	0.34	0.40	0.46	0.46	0.52
		PI	0.28	0.28	0.28	0.28	0.28	0.30	0.30	0.30	0.30	0.30	0.32	0.32	0.32	0.32	0.32	0.34	0.34	0.34	0.34	0.34
	59°F 15°C	TC	6410	6418	6425	6426	6434	6796	6804	6811	6812	6820	7202	7212	7220	7221	7229	7636	7644	7653	7654	7663
		S/T	0.29	0.34	0.38	0.38	0.44	0.31	0.36	0.41	0.41	0.46	0.32	0.38	0.43	0.43	0.49	0.34	0.40	0.46	0.46	0.52
		PI	0.29	0.29	0.29	0.29	0.29	0.31	0.31	0.31	0.31	0.31	0.33	0.33	0.33	0.33	0.33	0.35	0.35	0.35	0.35	0.35
	68°F 20°C	TC	6771	6781	6788	6788	6797	7179	7188	7195	7197	7205	7608	7618	7627	7628	7637	8067	8076	8084	8086	8096
		S/T	0.30	0.35	0.39	0.39	0.45	0.31	0.37	0.42	0.42	0.48	0.33	0.39	0.44	0.44	0.51	0.35	0.41	0.47	0.47	0.54
		PI	0.30	0.30	0.30	0.30	0.30	0.32	0.32	0.32	0.32	0.32	0.33	0.34	0.34	0.34	0.34	0.35	0.36	0.36	0.36	0.36
	77°F 25°C	TC	7133	7143	7150	7151	7160	7563	7572	7579	7581	7590	8015	8025	8034	8036	8044	8498	8507	8516	8517	8528
		S/T	0.30	0.35	0.40	0.40	0.46	0.32	0.37	0.42	0.42	0.48	0.34	0.39	0.45	0.45	0.51	0.36	0.42	0.48	0.48	0.54
		PI	0.31	0.31	0.31	0.31	0.31	0.32	0.32	0.32	0.32	0.33	0.34	0.34	0.34	0.34	0.34	0.36	0.36	0.36	0.36	0.37
	82°F 27.8°C	TC	7154	7163	7171	7171	7181	7585	7594	7601	7603	7612	8038	8049	8058	8059	8068	8522	8532	8541	8542	8553
		S/T	0.30	0.36	0.40	0.40	0.46	0.32	0.38	0.43	0.43	0.49	0.34	0.40	0.45	0.45	0.52	0.36	0.42	0.48	0.48	0.55
		PI	0.34	0.34	0.34	0.34	0.34	0.36	0.36	0.36	0.36	0.36	0.38	0.38	0.38	0.38	0.38	0.40	0.41	0.41	0.41	0.41
	86°F 30°C	TC	6943	6953	6960	6961	6970	7362	7371	7378	7379	7388	7802	7812	7820	7822	7831	8272	8281	8290	8291	8301
		S/T	0.31	0.36	0.41	0.41	0.47	0.33	0.38	0.43	0.43	0.50	0.35	0.41	0.46	0.46	0.52	0.37	0.43	0.49	0.49	0.56
		PI	0.41	0.41	0.41	0.41	0.41	0.43	0.43	0.43	0.43	0.43	0.46	0.46	0.46	0.46	0.46	0.48	0.48	0.48	0.48	0.48
	95°F 35°C	TC	6470	6479	6486	6486	6495	6860	6868	6875	6876	6884	7270	7279	7287	7288	7297	7708	7716	7724	7726	7735
		S/T	0.31	0.36	0.41	0.41	0.47	0.33	0.38	0.43	0.43	0.50	0.35	0.41	0.46	0.46	0.52	0.37	0.43	0.49	0.49	0.56
		PI	0.55	0.55	0.55	0.55	0.55	0.59	0.59	0.59	0.59	0.59	0.62	0.62	0.62	0.62	0.62	0.66	0.66	0.66	0.66	0.66
	104°F 40°C	TC	6011	6019	6026	6026	6034	6373	6381	6387	6389	6396	6754	6763	6771							





Table 14 – 12K Cooling — 37MARA – 115V High Wall (Continued)

Airflow CFM	Outdoor DB	ID WB ID DB	60.8°F (16.0°C)					64.4°F (16.0°C)					67.0°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																					
			TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI																				
-13°F 25°C	TC S/T PI	TC S/T PI	-4°F 20°C	TC S/T PI	TC S/T PI	0°F 17.8°C	TC S/T PI	5°F 15°C	TC S/T PI	14°F 10°C	TC S/T PI	17°F 10°C	TC S/T PI	23°F 5°C	TC S/T PI	35°F 1.7°C	TC S/T PI	41°F 5°C	TC S/T PI	47°F 8.3°C	TC S/T PI	50°F 10°C	TC S/T PI	59°F 15°C	TC S/T PI	68°F 20°C	TC S/T PI	77°F 25°C	TC S/T PI	82°F 27.8°C	TC S/T PI	86°F 30°C	TC S/T PI	95°F 35°C	TC S/T PI	104°F 40°C	TC S/T PI	110°F 43°C	TC S/T PI	115°F 46°C	TC S/T PI	122°F 50°C	TC S/T PI











































Table 20 – 36K Cooling — 37MARA – High Wall (Continued)

Airflow CFM	Outdoor DB	ID WB ID DB	60.8°F (16.0°C)					64.4°F (16.0°C)					67.0°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																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
			TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
506	-13°F 25°C	TC	14858	14878	14894	14895	14915	15754	15772	15788	15791	15810	16695	16717	16735	16738	16757	17701	17720	17739	17742	17764	TC	16509	16531	16549	16550	16572	17504	17525	17542	17546	17566	18550	18574	18595	18598	18619	19668	19689	19710	19713	19738	TC	17144	17167	17186	17186	17210	18177	18199	18217	18220	18242	19263	19288	19310	19313	19335	20424	20446	20468	20472	20497	TC	17651	17674	17693	17694	17718	18714	18737	18755	18759	18781	19832	19858	19880	19884	19906	21027	21050	21073	21076	21103	TC	17819	17843	17863	17863	17888	18893	18916	18934	18938	18961	20022	20048	20071	20074	20097	21229	21252	21275	21278	21305	TC	17838	17862	17881	17882	17906	18913	18936	18954	18958	18981	20043	20069	20092	20095	20118	21251	21274	21297	21300	21327	TC	17876	17900	17919	17920	17944	18953	18975	18994	18998	19020	20085	20111	20134	20138	20160	21296	21319	21342	21345	21372	TC	18859	18884	18905	18905	18931	19995	20019	20039	20043	20067	21190	21218	21241	21245	21269	22467	22491	22516	22519	22547	TC	19842	19869	19890	19891	19918	21038	21063	21084	21088	21113	22295	22324	22349	22353	22378	23638	23664	23690	23693	23723	TC	19867	19894	19915	19916	19943	21064	21089	21110	21114	21139	22323	22352	22376	22381	22406	23668	23693	23719	23723	23752	TC	19941	19968	19989	19990	20017	21143	21168	21189	21193	21218	22406	22435	22460	22464	22489	23756	23782	23808	23811	23841	TC	20015	20042	20064	20065	20092	21221	21247	21268	21272	21297	22489	22518	22544	22548	22573	23844	23870	23896	23900	23930	TC	20089	20116	20138	20139	20166	21300	21325	21346	21351	21376	22573	22602	22627	22631	22657	23933	23959	23985	23988	24018	TC	19831	19858	19880	19880	19907	21027	21052	21072	21076	21101	22283	22312	22337	22341	22366	23625	23651	23677	23681	23710	TC	19248	19274	19294	19295	19321	20408	20432	20452	20456	20480	21627	21655	21679	21683	21707	22930	22955	22980	22984	23012	TC	17934	17959	17978	17979	18003	19015	19038	19057	19060	19083	20151	20178	20200	20204	20226	21365	21389	21412	21415	21442	TC	14964	14984	15000	15001	15021	15866	15884	15900	15903	15922	16814	16835	16854	16857	16876	17827	17846	17865	17868	17890	TC	13182	13199	13213	13214	13232	13976	13992	14006	14009	14026	14811	14830	14847	14849	14866	15703	15720	15737	15740	15760	TC	10229	10243	10254	10254	10268	10845	10858	10869	10871	10884	11493	11508	11521	11523	11536	12186	12199	12212	12214	12229	TC	6292	6300	6307	6307	6316	6671	6679	6685	6687	6695	7069	7079	7086	7088	7096	7495	7504	7512	7513	7522	TC	0.32	0.37	0.42	0.42	0.48	0.33	0.39	0.45	0.45	0.51	0.35	0.42	0.47	0.47	0.54	0.38	0.44	0.50	0.50	0.57	TC	1.25	1.25	1.25	1.25	1.25	1.32	1.32	1.32	1.32	1.33	1.40	1.40	1.40	1.40	1.41	1.48	1.49	1.49	1.49	1.49	TC	0.71	0.71	0.71	0.71	0.71	0.75	0.75	0.75	0.75	0.75	0.79	0.79	0.80	0.80	0.80	0.84	0.84	0.84	0.84	0.84









Table 21 - 9K Cooling - 37MARA - One-Way Cassette (Continued)

Table with 22 columns: Airflow CFM, Outdoor DB, ID WB, ID DB, and five columns for each of four indoor temperature ranges (60.8°F, 64.4°F, 67.0°F, 71.6°F) at three load levels (TC, S/T, PI).

































Table 25 – 12K Cooling — 37MARA – 4-Way Cassette (Continued)

Table with columns for Airflow CFM, Outdoor DB, ID WB, and five temperature ranges (60.8°F, 64.4°F, 67.0°F, 71.6°F) with sub-columns for TC, S/T, PI, and five specific temperatures.



Table 26 – 18K Cooling — 37MARA – 4-Way Cassette (Continued)

Airflow CFM	Outdoor DB	ID WB	60.8°F (16.0°C)					64.4°F (16.0°C)					67.0°F (19.4°C)					71.6°F (22.0°C)				
			ID DB					ID DB					ID DB					ID DB				
			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
318	-22°F 30°C	TC	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
		S/T	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
		PI	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
		TC	10774	10788	10800	10815	11423	11436	11448	11450	11464	12105	12121	12135	12137	12150	12835	12849	12863	12865	12881	
		S/T	0.38	0.45	0.51	0.58	0.41	0.48	0.54	0.54	0.62	0.43	0.51	0.57	0.57	0.65	0.46	0.54	0.61	0.61	0.69	
		PI	0.44	0.44	0.44	0.44	0.47	0.47	0.47	0.47	0.47	0.49	0.49	0.49	0.49	0.50	0.52	0.52	0.52	0.52	0.53	
		TC	11602	11618	11630	11631	11647	12302	12316	12328	12331	12345	13037	13053	13068	13070	13085	13822	13837	13852	13854	13872
		S/T	0.39	0.45	0.51	0.51	0.59	0.41	0.48	0.55	0.55	0.62	0.43	0.51	0.58	0.58	0.66	0.46	0.54	0.61	0.61	0.70
		PI	0.47	0.47	0.47	0.47	0.47	0.50	0.50	0.50	0.50	0.50	0.53	0.53	0.53	0.53	0.53	0.56	0.56	0.56	0.56	0.57

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



































Table 30 – 18K Cooling — 37MARA – AE Console (Continued)

Table with columns: Airflow CFM, Outdoor DB, ID WB, ID DB, and four temperature ranges (60.8°F, 64.4°F, 67.0°F, 71.6°F). Each temperature range has sub-columns for three sensor types (TC, S/T, PI) and five specific temperature points.











































Table 36 – 9K Cooling — 37MARA – High Static Slim Duct (Continued)

Table with columns for Airflow CFM, Outdoor DB, ID WB, ID DB, and four temperature zones (60.8°F, 64.4°F, 67.0°F, 71.6°F) each with TC, S/T, and PI metrics.









































Table 41 – 30K Cooling — 37MARA – AHU2 (Continued)

Airflow CFM	Outdoor DB	ID WB	60.8°F (16.0°C)					64.4°F (16.0°C)					67.0°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)		84.2°F (29.0°C)		73.4°F (23.0°C)		77.0°F (25.0°C)		80.0°F (26.7°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)		84.2°F (29.0°C)	
			TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI	TC	S/T	PI
894	-22°F 30°C		/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/		
	-13°F 25°C		22844	22875	22900	22932	24221	24250	24274	24278	24307	25668	25701	25730	25735	25764	27215	27244	27274	27278	27312					
	-4°F 20°C		24602	24635	24661	24662	24695	26084	26115	26141	26146	26177	27642	27678	27709	27714	27745	29308	29340	29372	29376	29413				
	0°F 17.8°C		25383	25417	25444	25445	25479	26912	26944	26971	26976	27008	28520	28557	28589	28594	28626	30238	30271	30304	30309	30347				
	5°F 15°C		26359	26394	26423	26424	26459	27947	27980	28008	28014	28047	29617	29655	29688	29694	29727	31401	31436	31470	31475	31514				
	14°F 10°C		25734	25769	25797	25798	25832	27285	27317	27344	27350	27382	28915	28953	28985	28990	29023	30657	30691	30724	30729	30767				
	17°F 10°C		25526	25560	25588	25589	25623	27064	27096	27123	27128	27161	28681	28718	28750	28756	28788	30409	30442	30476	30480	30518				
	23°F 5°C		25363	25397	25425	25426	25460	26892	26924	26950	26955	26987	28498	28535	28567	28572	28604	30215	30248	30281	30286	30324				
	35°F 1.7°C		25038	25071	25098	25099	25133	26546	26578	26604	26609	26641	28132	28169	28200	28206	28237	29827	29860	29892	29897	29934				
	41°F 5°C		24306	24339	24365	24366	24399	25771	25802	25827	25832	25863	27311	27346	27377	27382	27413	28956	28988	29019	29024	29060				
	47°F 8.3°C		23575	23607	23632	23633	23665	24996	25026	25050	25055	25085	26489	26524	26553	26558	26588	28085	28116	28147	28151	28186				
	50°F 10°C		23865	23897	23923	23924	23956	25303	25333	25358	25363	25394	26815	26850	26880	26885	26915	28431	28462	28493	28497	28533				
	59°F 15°C		24735	24768	24795	24796	24830	26226	26257	26283	26288	26319	27793	27829	27860	27865	27896	29467	29499	29531	29536	29573				
	68°F 20°C		25605	25640	25667	25668	25703	27148	27180	27207	27213	27245	28770	28808	28840	28845	28877	30504	30537	30570	30575	30613				
	77°F 25°C		26475	26511	26539	26540	26576	28071	28104	28132	28137	28171	29748	29786	29820	29825	29858	31540	31574	31609	31614	31653				
	82°F 27.8°C		26991	27027	27056	27057	27094	28617	28651	28679	28685	28719	30327	30366	30400	30406	30440	32154	32189	32224	32229	32269				
	86°F 30°C		27443	27480	27510	27511	27548	29097	29132	29166	29201	30835	30876	30910	30916	30950	32693	32729	32765	32770	32810					
	95°F 35°C		28462	28500	28531	28532	28571	30177	30213	30243	30249	30285	31980	32022	32057	32063	32099	33907	33944	33981	33986	34028				
	104°F 40°C		24859	24892	24919	24920	24954	26357	26388	26414	26420	26451	27932	27968	27999	28004	28036	29615	29647	29679	29684	29721				
	110°F 43°C		22697	22728	22752	22753	22784	24065	24094	24117	24122	24151	25503	25536	25564	25569	25598	27039	27069	27098	27103	27136				
	115°F 46°C		16330	16352	16369	16370	16392	17314	17334	17351	17355	17375	18348	18372	18393	18396	18416	19454	19475	19496	19499	19523				
	122°F 50°C		7840	7850	7859	7859	7870	8312	8322	8330	8332	8342	8809	8820	8830	8832	8841	9339	9350	9360	9361	9373				

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







Table 42 – 36K Cooling – 37MARA – AHU2 (Continued)

Table with columns: Airflow CFM, Outdoor DB, ID WB, ID DB, and four temperature zones: 60.8°F (16.0°C), 64.4°F (16.0°C), 67.0°F (19.4°C), and 71.6°F (22.0°C). Rows include temperatures from -22°F to 122°F and values for TC, S/T, and PI.

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

Table 42 – 36K Cooling — 37MARA – AHU2 (Continued)

Airflow CFM	Outdoor DB	ID WB	60.8°F (16.0°C)					64.4°F (16.0°C)					67.0°F (19.4°C)					71.6°F (22.0°C)										
			73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F						
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C						
1190	-22°F 30°C	TC	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
		S/T	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
		PI	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
	-13°F 25°C	TC	27562	27599	27628	27630	27667	29223	29257	29286	29292	29327	30968	31009	31043	31049	31084	32834	32870	32906	32911	32952						
		S/T	0.48	0.56	0.64	0.64	0.73	0.51	0.60	0.68	0.68	0.77	0.54	0.63	0.72	0.72	0.82	0.57	0.67	0.76	0.76	0.87						
		PI	1.36	1.36	1.36	1.36	1.36	1.44	1.44	1.44	1.44	1.45	1.53	1.53	1.53	1.53	1.53	1.62	1.62	1.62	1.62	1.62						
	-4°F 20°C	TC	29682	29722	29754	29755	29795	31471	31508	31539	31545	31583	33351	33394	33431	33437	33475	35360	35399	35437	35443	35487						
		S/T	0.48	0.57	0.64	0.64	0.73	0.51	0.60	0.68	0.68	0.78	0.54	0.64	0.72	0.72	0.82	0.57	0.67	0.77	0.77	0.87						
		PI	1.46	1.47	1.47	1.47	1.47	1.55	1.55	1.55	1.56	1.56	1.64	1.65	1.65	1.65	1.65	1.74	1.75	1.75	1.75	1.75						
	0°F 17.8°C	TC	30624	30665	30698	30700	30741	32470	32508	32540	32547	32585	34409	34454	34493	34499	34537	36483	36522	36562	36568	36613						
		S/T	0.48	0.57	0.64	0.64	0.73	0.51	0.60	0.68	0.68	0.78	0.54	0.64	0.72	0.72	0.83	0.58	0.68	0.77	0.77	0.88						
		PI	1.51	1.51	1.51	1.51	1.52	1.60	1.60	1.60	1.60	1.61	1.70	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.80	1.80						
	5°F 15°C	TC	31802	31845	31879	31880	31923	33718	33758	33792	33798	33838	35733	35779	35819	35826	35866	37886	37927	37968	37974	38022						
		S/T	0.49	0.57	0.65	0.65	0.74	0.51	0.60	0.69	0.69	0.78	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88						
		PI	1.57	1.57	1.57	1.57	1.57	1.66	1.66	1.67	1.67	1.67	1.76	1.76	1.77	1.77	1.77	1.87	1.87	1.87	1.87	1.87						
	14°F 10°C	TC	32050	32093	32127	32129	32172	33981	34021	34055	34062	34102	36011	36058	36098	36105	36145	38181	38222	38264	38270	38318						
		S/T	0.49	0.57	0.65	0.65	0.74	0.52	0.61	0.69	0.69	0.78	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88						
		PI	1.54	1.54	1.54	1.54	1.55	1.63	1.64	1.64	1.64	1.64	1.73	1.73	1.74	1.74	1.74	1.84	1.84	1.84	1.84	1.84						
	17°F 10°C	TC	32132	32175	32210	32211	32255	34068	34109	34143	34149	34190	36104	36151	36191	36198	36238	38279	38321	38363	38369	38416						
		S/T	0.49	0.57	0.65	0.65	0.74	0.52	0.61	0.69	0.69	0.79	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.78	0.78	0.88						
		PI	1.53	1.53	1.54	1.54	1.54	1.62	1.63	1.63	1.63	1.63	1.72	1.72	1.73	1.73	1.73	1.82	1.83	1.83	1.83	1.83						
	23°F 5°C	TC	32056	32099	32134	32135	32179	33988	34028	34062	34069	34109	36019	36066	36106	36112	36153	38189	38231	38272	38278	38326						
		S/T	0.49	0.58	0.65	0.65	0.75	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.58	0.69	0.78	0.78	0.89						
		PI	1.55	1.55	1.55	1.55	1.55	1.64	1.64	1.64	1.65	1.65	1.74	1.74	1.74	1.74	1.75	1.84	1.85	1.85	1.85	1.85						
	35°F 1.7°C	TC	31905	31948	31982	31984	32027	33828	33868	33901	33908	33948	35849	35895	35935	35942	35982	38009	38050	38091	38097	38145						
		S/T	0.49	0.58	0.66	0.66	0.75	0.52	0.61	0.70	0.70	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89						
		PI	1.58	1.58	1.59	1.59	1.59	1.68	1.68	1.68	1.68	1.68	1.78	1.78	1.78	1.78	1.78	1.88	1.89	1.89	1.89	1.89						
41°F 5°C	TC	31773	31816	31850	31852	31894	33688	33728	33761	33768	33808	35701	35747	35787	35793	35833	37852	37893	37934	37940	37987							
	S/T	0.49	0.58	0.66	0.66	0.75	0.52	0.61	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89							
	PI	1.60	1.61	1.61	1.61	1.61	1.70	1.70	1.70	1.70	1.71	1.80	1.80	1.81	1.81	1.81	1.91	1.91	1.91	1.91	1.92							
47°F 8.3°C	TC	31641	31684	31718	31719	31762	33548	33588	33621	33628	33668	35552	35599	35638	35645	35685	37695	37736	37777	37783	37830							
	S/T	0.50	0.58	0.66	0.66	0.75	0.53	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.85	0.59	0.69	0.79	0.79	0.90							
	PI	1.63	1.63	1.63	1.63	1.63	1.72	1.73	1.73	1.73	1.73	1.83	1.83	1.83	1.83	1.83	1.94	1.94	1.94	1.94	1.94							
50°F 10°C	TC	32098	32141	32176	32177	32221	34033	34073	34107	34113	34154	36066	36113	36153	36160	36200	38239	38280	38322	38328	38376							
	S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90							
	PI	1.71	1.71	1.72	1.72	1.72	1.81	1.82	1.82	1.82	1.82	1.92	1.93	1.93	1.93	1.93	2.04	2.04	2.04	2.04	2.05							
59°F 15°C	TC	33469	33514	33550	33551	33597	35486	35528	35563	35570	35612	37606	37655	37697	37704	37746	39872	39915	39958	39965	40014							
	S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91							
	PI	1.97	1.97	1.97	1.97	1.97	2.08	2.09	2.09	2.09	2.09	2.21	2.21	2.21	2.21	2.22	2.34	2.34	2.35	2.35	2.35							
68°F 20°C	TC	34839	34886	34924	34925	34973	36939	36983	37019	37027	37071	39146	39197	39240	39248	39292	41505	41550	41595	41601	41653							
	S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93							
	PI	2.22	2.22	2.23	2.23	2.23	2.35	2.36	2.36	2.36	2.36	2.49	2.50	2.50	2.50	2.50	2.64	2.65	2.65	2.65	2.65							
77°F 25°C	TC	36210	36259	36298	36299	36348	38392	38438	38476	38483	38529	40686	40739	40784	40792	40837	43137	43184	43231	43238	43292							
	S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94							
	PI	2.47	2.48	2.48	2.48	2.48	2.62	2.63	2.63	2.63	2.63	2.78	2.78	2.79	2.79	2.79	2.95	2.95	2.95	2.95	2.96							
82°F 27.8°C	TC	36258	36306	36345	36347	36396	38443	38488	38526	38534	38579	40739	40792	40838	40845	40891	43194	43241	43288	43295	43349							
	S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95							
	PI	2.76	2.76	2.77	2.77	2.77	2.93	2.93	2.93	2.93	2.94	3.10	3.11	3.11	3.11	3.11	3.29	3.29	3.30	3.30	3.30							
86°F 30°C	TC	35395	35442	35480	35482	35530	37528	37572	37609	37617	37661	39770	39821	39866	39873	39918	42166	42212	42258	42264	42317							
	S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97							
	PI	3.18	3.18	3.18	3.18	3.19	3.37	3.37	3.37	3.37	3.38	3.57	3.57	3.58	3.58	3.58	3.78	3.79	3.79	3.79	3.80							
95°F 35°C	TC	33453	33498	33534	33535	33581	35469	35511	35546	35553	35595	37588	37637	37679	37686	37728												

**HEATING PERFORMANCE**

Extrapolated Data

The highlighted data is tested; other data is simulated and for reference.

**Table 43 – 12K Heating — 37MARA – 115V High Wall**

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
<b>235</b>	-13°F (-25.0°C)	2233	2188	2177	2535	2512	0.73	0.74	0.74	0.74	0.74
	-4°F (-20.0°C)	2581	2529	2517	2930	2904	0.80	0.80	0.80	0.81	0.81
	0°F (-17.8°C)	3423	3355	3338	3886	3851	0.82	0.83	0.83	0.83	0.83
	5°F (-15.0°C)	4475	4386	4364	5081	5035	0.85	0.85	0.86	0.86	0.86
	14°F (-10.0°C)	4909	4811	4787	5573	5523	0.96	0.97	0.97	0.98	0.98
	17°F (-8.3°C)	5053	4952	4927	5737	5685	1.00	1.01	1.01	1.02	1.02
	22°F (-5.6°C)	5431	5323	5296	6166	6111	1.02	1.02	1.03	1.03	1.03
	27°F (-2.8°C)	5809	5693	5665	6595	6536	1.03	1.04	1.04	1.04	1.04
	32°F (0.0°C)	6187	6064	6033	7025	6961	1.04	1.05	1.05	1.05	1.06
	35°F (1.7°C)	6414	6286	6255	7282	7217	1.05	1.06	1.06	1.06	1.06
	37°F (2.8°C)	6697	6563	6530	7603	7535	1.05	1.06	1.06	1.06	1.06
	42°F (5.6°C)	7404	7256	7220	8406	8331	1.05	1.05	1.06	1.06	1.06
	44.6°F (7.0°C)	7687	7533	7496	8727	8649	1.05	1.05	1.06	1.06	1.06
	47°F (8.3°C)	8111	7949	7909	9209	9126	1.04	1.05	1.05	1.06	1.06
	52°F (11.1°C)	8149	7986	7946	9251	9168	0.97	0.98	0.98	0.99	0.99
	57°F (13.9°C)	8186	8022	7982	9294	9210	0.90	0.91	0.91	0.91	0.92
	59°F (15.0°C)	8201	8037	7997	9311	9227	0.87	0.88	0.88	0.89	0.89
	62°F (16.7°C)	8223	8059	8019	9336	9252	0.83	0.84	0.84	0.84	0.85
64.4°F (18.0°C)	8238	8073	8033	9353	9269	0.80	0.81	0.81	0.81	0.82	
<b>282</b>	-13°F (-25.0°C)	2684	2631	2618	2819	2793	0.74	0.75	0.75	0.75	0.75
	-4°F (-20.0°C)	3103	3041	3026	3259	3229	0.80	0.81	0.81	0.81	0.82
	0°F (-17.8°C)	4116	4033	4013	4322	4283	0.83	0.83	0.84	0.84	0.84
	5°F (-15.0°C)	5381	5273	5247	5650	5599	0.86	0.86	0.86	0.87	0.87
	14°F (-10.0°C)	5902	5784	5755	6197	6142	0.97	0.98	0.98	0.99	0.99
	17°F (-8.3°C)	6076	5954	5924	6380	6322	1.01	1.02	1.02	1.03	1.03
	22°F (-5.6°C)	6530	6400	6368	6857	6795	1.03	1.03	1.04	1.04	1.04
	27°F (-2.8°C)	6985	6845	6811	7334	7268	1.04	1.05	1.05	1.05	1.06
	32°F (0.0°C)	7439	7290	7254	7812	7741	1.05	1.06	1.06	1.06	1.07
	35°F (1.7°C)	7712	7558	7520	8098	8025	1.06	1.07	1.07	1.07	1.08
	37°F (2.8°C)	8052	7891	7852	8455	8379	1.06	1.07	1.07	1.07	1.08
	42°F (5.6°C)	8902	8724	8681	9348	9264	1.06	1.06	1.07	1.07	1.07
	44.6°F (7.0°C)	9242	9058	9012	9705	9618	1.06	1.06	1.07	1.07	1.07
	47°F (8.3°C)	9753	9557	9510	10241	10149	1.05	1.06	1.07	1.07	1.07
	52°F (11.1°C)	9797	9601	9553	10288	10195	0.98	0.99	0.99	1.00	1.00
	57°F (13.9°C)	9842	9645	9597	10335	10242	0.91	0.92	0.92	0.92	0.93
	59°F (15.0°C)	9860	9663	9615	10354	10261	0.88	0.89	0.89	0.89	0.90
	62°F (16.7°C)	9887	9689	9641	10382	10289	0.84	0.85	0.85	0.85	0.85
64.4°F (18.0°C)	9905	9707	9658	10401	10307	0.81	0.82	0.82	0.82	0.83	

Table 43 – 12K Heating — 37MARA – 115V High Wall (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
323	-13°F (-25.0°C)	3228	3163	3147	3135	3106	0.75	0.75	0.75	0.76	0.76
	-4°F (-20.0°C)	3731	3656	3638	3624	3591	0.81	0.82	0.82	0.82	0.82
	0°F (-17.8°C)	4948	4849	4825	4806	4762	0.84	0.84	0.84	0.85	0.85
	5°F (-15.0°C)	6470	6340	6309	6283	6227	0.86	0.87	0.87	0.87	0.88
	14°F (-10.0°C)	7096	6954	6919	6892	6830	0.98	0.99	0.99	1.00	1.00
	17°F (-8.3°C)	7305	7159	7123	7095	7031	1.02	1.03	1.03	1.04	1.04
	22°F (-5.6°C)	7851	7694	7656	7625	7557	1.04	1.04	1.05	1.05	1.05
	27°F (-2.8°C)	8398	8230	8189	8156	8083	1.05	1.06	1.06	1.06	1.07
	32°F (0.0°C)	8944	8765	8722	8687	8609	1.06	1.07	1.07	1.07	1.08
	35°F (1.7°C)	9272	9087	9041	9005	8924	1.07	1.08	1.08	1.08	1.09
	37°F (2.8°C)	9681	9488	9440	9402	9318	1.07	1.08	1.08	1.08	1.09
	42°F (5.6°C)	10703	10489	10437	10395	10302	1.07	1.08	1.08	1.08	1.08
	44.6°F (7.0°C)	11112	10890	10836	10792	10695	1.07	1.07	1.08	1.08	1.08
	47°F (8.3°C)	11726	11491	11434	11388	11285	1.07	1.07	1.08	1.08	1.08
	52°F (11.1°C)	11780	11544	11486	11440	11337	0.99	1.00	1.00	1.01	1.01
	57°F (13.9°C)	11834	11597	11539	11493	11389	0.92	0.93	0.93	0.93	0.94
	59°F (15.0°C)	11855	11618	11560	11514	11410	0.89	0.90	0.90	0.90	0.91
	62°F (16.7°C)	11887	11650	11591	11545	11441	0.85	0.86	0.86	0.86	0.86
64.4°F (18.0°C)	11909	11671	11612	11566	11462	0.82	0.83	0.83	0.83	0.83	
400	-13°F (-25.0°C)	3881	3803	3784	3769	3735	0.75	0.76	0.76	0.76	0.77
	-4°F (-20.0°C)	4486	4396	4374	4357	4317	0.82	0.83	0.83	0.83	0.83
	0°F (-17.8°C)	5949	5830	5801	5778	5726	0.84	0.85	0.85	0.85	0.86
	5°F (-15.0°C)	7779	7623	7585	7555	7487	0.87	0.88	0.88	0.88	0.89
	14°F (-10.0°C)	8532	8361	8319	8286	8211	0.99	1.00	1.00	1.01	1.01
	17°F (-8.3°C)	8783	8607	8564	8530	8453	1.03	1.04	1.04	1.05	1.05
	22°F (-5.6°C)	9440	9251	9205	9168	9085	1.05	1.05	1.06	1.06	1.06
	27°F (-2.8°C)	10097	9895	9846	9806	9718	1.06	1.07	1.07	1.07	1.08
	32°F (0.0°C)	10754	10539	10486	10444	10350	1.07	1.08	1.08	1.09	1.09
	35°F (1.7°C)	11148	10925	10871	10827	10730	1.08	1.09	1.09	1.09	1.10
	37°F (2.8°C)	11640	11407	11350	11305	11203	1.08	1.09	1.09	1.09	1.10
	42°F (5.6°C)	12869	12612	12548	12498	12386	1.08	1.09	1.09	1.09	1.10
	44.6°F (7.0°C)	13361	13093	13028	12976	12859	1.08	1.09	1.09	1.09	1.09
	47°F (8.3°C)	14098	13816	13747	13692	13569	1.08	1.08	1.09	1.09	1.09
	52°F (11.1°C)	14163	13880	13810	13755	13631	1.00	1.01	1.01	1.02	1.02
	57°F (13.9°C)	14228	13943	13873	13818	13694	0.93	0.94	0.94	0.94	0.95
	59°F (15.0°C)	14254	13969	13899	13843	13718	0.90	0.91	0.91	0.91	0.92
	62°F (16.7°C)	14292	14007	13937	13881	13756	0.86	0.86	0.87	0.87	0.87
64.4°F (18.0°C)	14318	14032	13962	13906	13781	0.83	0.84	0.84	0.84	0.84	

Table 44 – 9K Heating — 37MARA – High Wall

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
176	-13°F (-25.0°C)	2563	2512	2500	2328	2307	0.96	0.97	0.97	0.97	0.97
	-4°F (-20.0°C)	3349	3282	3266	3041	3014	1.06	1.07	1.07	1.07	1.07
	0°F (-17.8°C)	3404	3336	3319	3091	3063	1.02	1.03	1.03	1.03	1.04
	5°F (-15.0°C)	3473	3403	3386	3153	3125	0.97	0.98	0.98	0.98	0.99
	14°F (-10.0°C)	3967	3888	3868	3602	3570	1.07	1.08	1.08	1.09	1.09
	17°F (-8.3°C)	4132	4049	4029	3752	3718	1.11	1.11	1.12	1.12	1.12
	22°F (-5.6°C)	4218	4133	4113	3830	3795	1.11	1.12	1.12	1.12	1.13
	27°F (-2.8°C)	4303	4217	4196	3908	3873	1.12	1.12	1.13	1.13	1.13
	32°F (0.0°C)	4389	4301	4280	3986	3950	1.12	1.13	1.13	1.13	1.14
	35°F (1.7°C)	4441	4352	4330	4032	3996	1.12	1.13	1.13	1.14	1.14
	37°F (2.8°C)	4714	4620	4597	4281	4242	1.12	1.13	1.13	1.13	1.14
	42°F (5.6°C)	5398	5290	5263	4901	4857	1.10	1.11	1.11	1.12	1.12
	44.6°F (7.0°C)	5671	5558	5530	5150	5103	1.10	1.11	1.11	1.11	1.11
	47°F (8.3°C)	6081	5960	5930	5522	5473	1.09	1.10	1.10	1.10	1.11
	52°F (11.1°C)	6013	5893	5863	5460	5411	0.99	1.00	1.00	1.00	1.01
	57°F (13.9°C)	5945	5826	5797	5398	5350	0.89	0.90	0.90	0.90	0.91
	59°F (15.0°C)	5917	5799	5770	5373	5325	0.86	0.86	0.86	0.87	0.87
62°F (16.7°C)	5877	5759	5730	5336	5288	0.80	0.80	0.80	0.81	0.81	
64.4°F (18.0°C)	5849	5732	5704	5311	5264	0.76	0.76	0.77	0.77	0.77	
229	-13°F (-25.0°C)	3394	3326	3309	3187	3158	0.97	0.98	0.98	0.98	0.98
	-4°F (-20.0°C)	4434	4345	4323	4164	4126	1.07	1.08	1.08	1.08	1.09
	0°F (-17.8°C)	4507	4417	4394	4232	4194	1.03	1.04	1.04	1.04	1.05
	5°F (-15.0°C)	4598	4506	4483	4318	4279	0.98	0.99	0.99	0.99	1.00
	14°F (-10.0°C)	5252	5147	5121	4932	4888	1.08	1.09	1.09	1.10	1.10
	17°F (-8.3°C)	5470	5361	5334	5137	5091	1.12	1.13	1.13	1.13	1.13
	22°F (-5.6°C)	5584	5472	5445	5244	5196	1.12	1.13	1.13	1.14	1.14
	27°F (-2.8°C)	5697	5583	5556	5350	5302	1.13	1.14	1.14	1.14	1.14
	32°F (0.0°C)	5811	5695	5666	5457	5408	1.13	1.14	1.14	1.15	1.15
	35°F (1.7°C)	5879	5762	5733	5521	5471	1.13	1.14	1.15	1.15	1.15
	37°F (2.8°C)	6241	6116	6086	5861	5808	1.13	1.14	1.14	1.14	1.15
	42°F (5.6°C)	7146	7003	6968	6711	6651	1.11	1.12	1.13	1.13	1.13
	44.6°F (7.0°C)	7508	7358	7321	7051	6988	1.11	1.12	1.12	1.12	1.13
	47°F (8.3°C)	8051	7890	7851	7561	7493	1.10	1.11	1.11	1.11	1.12
	52°F (11.1°C)	7961	7802	7763	7476	7409	1.00	1.01	1.01	1.01	1.02
	57°F (13.9°C)	7870	7713	7674	7391	7325	0.90	0.91	0.91	0.91	0.92
	59°F (15.0°C)	7834	7678	7639	7357	7291	0.86	0.87	0.87	0.87	0.88
62°F (16.7°C)	7780	7624	7586	7306	7240	0.80	0.81	0.81	0.81	0.82	
64.4°F (18.0°C)	7744	7589	7551	7272	7207	0.77	0.77	0.77	0.77	0.78	

Table 44 – 9K Heating — 37MARA – High Wall (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
324	-13°F (-25.0°C)	4493	4403	4381	4364	4324	0.98	0.99	0.99	0.99	0.99
	-4°F (-20.0°C)	5870	5753	5724	5701	5650	1.08	1.09	1.09	1.09	1.10
	0°F (-17.8°C)	5966	5847	5818	5795	5742	1.04	1.05	1.05	1.05	1.06
	5°F (-15.0°C)	6087	5965	5935	5912	5858	0.99	1.00	1.00	1.00	1.01
	14°F (-10.0°C)	6953	6814	6780	6753	6692	1.09	1.10	1.11	1.11	1.11
	17°F (-8.3°C)	7242	7097	7062	7033	6970	1.13	1.14	1.14	1.14	1.15
	22°F (-5.6°C)	7392	7245	7208	7179	7115	1.13	1.14	1.14	1.15	1.15
	27°F (-2.8°C)	7543	7392	7355	7326	7260	1.14	1.15	1.15	1.15	1.16
	32°F (0.0°C)	7693	7539	7502	7472	7405	1.14	1.15	1.15	1.16	1.16
	35°F (1.7°C)	7784	7628	7590	7559	7491	1.15	1.15	1.16	1.16	1.16
	37°F (2.8°C)	8263	8098	8057	8025	7953	1.14	1.15	1.15	1.15	1.16
	42°F (5.6°C)	9461	9272	9226	9189	9106	1.13	1.13	1.14	1.14	1.14
	44.6°F (7.0°C)	9940	9742	9693	9654	9567	1.12	1.13	1.13	1.13	1.14
	47°F (8.3°C)	10659	10446	10394	10352	10259	1.11	1.12	1.12	1.12	1.13
	52°F (11.1°C)	10540	10329	10277	10236	10144	1.01	1.02	1.02	1.02	1.03
	57°F (13.9°C)	10420	10211	10160	10120	10029	0.91	0.92	0.92	0.92	0.93
	59°F (15.0°C)	10372	10165	10114	10073	9983	0.87	0.88	0.88	0.88	0.89
	62°F (16.7°C)	10300	10094	10044	10003	9913	0.81	0.82	0.82	0.82	0.83
64.4°F (18.0°C)	10252	10047	9997	9957	9867	0.77	0.78	0.78	0.78	0.79	
441	-13°F (-25.0°C)	5949	5830	5800	5777	5725	0.99	1.00	1.00	1.00	1.00
	-4°F (-20.0°C)	7772	7616	7578	7548	7480	1.09	1.10	1.10	1.10	1.11
	0°F (-17.8°C)	7899	7741	7702	7672	7603	1.05	1.06	1.06	1.06	1.07
	5°F (-15.0°C)	8058	7897	7858	7826	7756	1.00	1.01	1.01	1.01	1.02
	14°F (-10.0°C)	9205	9021	8976	8940	8860	1.11	1.11	1.12	1.12	1.12
	17°F (-8.3°C)	9588	9396	9349	9311	9228	1.14	1.15	1.15	1.15	1.16
	22°F (-5.6°C)	9787	9591	9543	9505	9419	1.14	1.15	1.16	1.16	1.16
	27°F (-2.8°C)	9986	9786	9737	9699	9611	1.15	1.16	1.16	1.16	1.17
	32°F (0.0°C)	10185	9982	9932	9892	9803	1.15	1.16	1.17	1.17	1.17
	35°F (1.7°C)	10305	10099	10048	10008	9918	1.16	1.17	1.17	1.17	1.18
	37°F (2.8°C)	10939	10721	10667	10624	10529	1.15	1.16	1.16	1.17	1.17
	42°F (5.6°C)	12526	12275	12214	12165	12055	1.14	1.15	1.15	1.15	1.15
	44.6°F (7.0°C)	13160	12897	12833	12781	12666	1.13	1.14	1.14	1.14	1.15
	47°F (8.3°C)	14112	13830	13761	13706	13582	1.12	1.13	1.13	1.14	1.14
	52°F (11.1°C)	13953	13674	13606	13552	13430	1.02	1.03	1.03	1.03	1.04
	57°F (13.9°C)	13795	13519	13452	13398	13277	0.92	0.93	0.93	0.93	0.94
	59°F (15.0°C)	13732	13457	13390	13336	13216	0.88	0.89	0.89	0.89	0.90
	62°F (16.7°C)	13637	13364	13297	13244	13125	0.82	0.83	0.83	0.83	0.83
64.4°F (18.0°C)	13573	13302	13235	13182	13064	0.78	0.79	0.79	0.79	0.79	

Table 45 – 12K Heating — 37MARA – High Wall

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
300	-13°F (-25.0°C)	2576	2524	2511	2339	2318	0.94	0.95	0.95	0.95	0.96
	-4°F (-20.0°C)	3171	3108	3092	2880	2854	1.01	1.02	1.02	1.02	1.03
	0°F (-17.8°C)	3462	3393	3376	3144	3116	1.05	1.06	1.06	1.06	1.07
	5°F (-15.0°C)	3826	3750	3731	3474	3443	1.09	1.10	1.11	1.11	1.11
	14°F (-10.0°C)	4280	4194	4173	3886	3851	1.15	1.16	1.16	1.16	1.17
	17°F (-8.3°C)	4431	4342	4321	4024	3987	1.17	1.18	1.18	1.18	1.19
	22°F (-5.6°C)	4766	4671	4647	4328	4289	1.23	1.24	1.24	1.24	1.25
	27°F (-2.8°C)	5101	4999	4974	4632	4590	1.28	1.30	1.30	1.30	1.31
	32°F (0.0°C)	5436	5327	5301	4936	4892	1.34	1.35	1.36	1.36	1.37
	35°F (1.7°C)	5637	5524	5497	5119	5073	1.38	1.39	1.39	1.40	1.40
	37°F (2.8°C)	5829	5713	5684	5293	5246	1.36	1.37	1.37	1.37	1.38
	42°F (5.6°C)	6310	6184	6153	5730	5678	1.29	1.31	1.31	1.31	1.32
	44.6°F (7.0°C)	6502	6372	6340	5904	5851	1.27	1.28	1.28	1.29	1.29
	47°F (8.3°C)	6790	6654	6621	6166	6110	1.23	1.24	1.25	1.25	1.25
	52°F (11.1°C)	6758	6622	6589	6136	6081	1.14	1.15	1.15	1.15	1.16
	57°F (13.9°C)	6725	6590	6557	6107	6052	1.04	1.05	1.05	1.06	1.06
	59°F (15.0°C)	6712	6578	6545	6095	6040	1.01	1.01	1.02	1.02	1.02
62°F (16.7°C)	6692	6558	6526	6077	6022	0.95	0.96	0.96	0.96	0.96	
64.4°F (18.0°C)	6679	6546	6513	6065	6010	0.91	0.92	0.92	0.92	0.93	
390	-13°F (-25.0°C)	3410	3342	3325	3202	3173	0.95	0.96	0.96	0.96	0.97
	-4°F (-20.0°C)	4198	4114	4094	3943	3907	1.02	1.03	1.03	1.04	1.04
	0°F (-17.8°C)	4584	4492	4470	4304	4266	1.06	1.07	1.07	1.07	1.08
	5°F (-15.0°C)	5065	4964	4939	4757	4714	1.11	1.11	1.12	1.12	1.12
	14°F (-10.0°C)	5666	5553	5525	5321	5273	1.16	1.17	1.17	1.17	1.18
	17°F (-8.3°C)	5866	5749	5720	5509	5459	1.18	1.19	1.19	1.19	1.20
	22°F (-5.6°C)	6310	6184	6153	5926	5872	1.24	1.25	1.25	1.25	1.26
	27°F (-2.8°C)	6753	6618	6585	6342	6285	1.30	1.31	1.31	1.31	1.32
	32°F (0.0°C)	7197	7053	7018	6759	6698	1.36	1.37	1.37	1.37	1.38
	35°F (1.7°C)	7463	7314	7277	7008	6945	1.39	1.40	1.41	1.41	1.42
	37°F (2.8°C)	7717	7563	7525	7247	7182	1.37	1.38	1.38	1.39	1.39
	42°F (5.6°C)	8354	8187	8146	7845	7774	1.31	1.32	1.32	1.32	1.33
	44.6°F (7.0°C)	8608	8436	8394	8084	8011	1.28	1.29	1.30	1.30	1.30
	47°F (8.3°C)	8990	8810	8766	8442	8366	1.25	1.26	1.26	1.26	1.27
	52°F (11.1°C)	8947	8768	8724	8402	8326	1.15	1.16	1.16	1.16	1.17
	57°F (13.9°C)	8903	8725	8682	8361	8286	1.05	1.06	1.06	1.07	1.07
	59°F (15.0°C)	8886	8708	8665	8345	8270	1.02	1.02	1.03	1.03	1.03
62°F (16.7°C)	8860	8683	8639	8320	8245	0.96	0.97	0.97	0.97	0.97	
64.4°F (18.0°C)	8843	8666	8622	8304	8229	0.92	0.93	0.93	0.93	0.93	

Table 45 – 12K Heating — 37MARA – High Wall (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
550	-13°F (-25.0°C)	4514	4424	4402	4384	4345	0.96	0.97	0.97	0.97	0.98
	-4°F (-20.0°C)	5558	5447	5420	5398	5350	1.03	1.04	1.04	1.05	1.05
	0°F (-17.8°C)	6068	5947	5917	5894	5841	1.07	1.08	1.08	1.08	1.09
	5°F (-15.0°C)	6706	6572	6539	6513	6454	1.12	1.13	1.13	1.13	1.13
	14°F (-10.0°C)	7501	7351	7315	7285	7220	1.17	1.18	1.18	1.19	1.19
	17°F (-8.3°C)	7767	7611	7573	7543	7475	1.19	1.20	1.20	1.20	1.21
	22°F (-5.6°C)	8354	8187	8146	8113	8040	1.25	1.26	1.26	1.27	1.27
	27°F (-2.8°C)	8941	8762	8718	8683	8605	1.31	1.32	1.32	1.33	1.33
	32°F (0.0°C)	9528	9338	9291	9254	9170	1.37	1.38	1.38	1.39	1.39
	35°F (1.7°C)	9880	9683	9634	9596	9510	1.41	1.42	1.42	1.42	1.43
	37°F (2.8°C)	10217	10013	9963	9923	9834	1.38	1.39	1.40	1.40	1.40
	42°F (5.6°C)	11060	10838	10784	10741	10644	1.32	1.33	1.33	1.34	1.34
	44.6°F (7.0°C)	11396	11169	11113	11068	10969	1.30	1.31	1.31	1.31	1.32
	47°F (8.3°C)	11902	11664	11605	11559	11455	1.26	1.27	1.27	1.27	1.28
	52°F (11.1°C)	11844	11608	11550	11503	11400	1.16	1.17	1.17	1.18	1.18
	57°F (13.9°C)	11787	11551	11494	11448	11345	1.06	1.07	1.08	1.08	1.08
	59°F (15.0°C)	11764	11529	11471	11425	11323	1.03	1.03	1.04	1.04	1.04
	62°F (16.7°C)	11730	11495	11438	11392	11290	0.97	0.98	0.98	0.98	0.98
64.4°F (18.0°C)	11707	11473	11415	11370	11267	0.93	0.94	0.94	0.94	0.94	
750	-13°F (-25.0°C)	5977	5857	5828	5804	5752	0.97	0.98	0.98	0.98	0.99
	-4°F (-20.0°C)	7359	7211	7175	7147	7082	1.04	1.05	1.05	1.06	1.06
	0°F (-17.8°C)	8034	7873	7834	7803	7732	1.08	1.09	1.09	1.09	1.10
	5°F (-15.0°C)	8878	8701	8657	8623	8545	1.13	1.14	1.14	1.14	1.15
	14°F (-10.0°C)	9931	9733	9684	9645	9558	1.18	1.19	1.20	1.20	1.20
	17°F (-8.3°C)	10282	10077	10026	9986	9896	1.20	1.21	1.21	1.22	1.22
	22°F (-5.6°C)	11060	10838	10784	10741	10644	1.26	1.27	1.28	1.28	1.28
	27°F (-2.8°C)	11837	11600	11542	11496	11393	1.32	1.33	1.34	1.34	1.35
	32°F (0.0°C)	12614	12362	12300	12251	12141	1.38	1.40	1.40	1.40	1.41
	35°F (1.7°C)	13081	12819	12755	12704	12590	1.42	1.43	1.44	1.44	1.44
	37°F (2.8°C)	13527	13256	13190	13137	13019	1.40	1.41	1.41	1.41	1.42
	42°F (5.6°C)	14642	14349	14277	14220	14092	1.33	1.35	1.35	1.35	1.36
	44.6°F (7.0°C)	15088	14786	14712	14653	14522	1.31	1.32	1.32	1.33	1.33
	47°F (8.3°C)	15757	15442	15365	15303	15165	1.27	1.28	1.28	1.29	1.29
	52°F (11.1°C)	15681	15367	15291	15229	15092	1.17	1.18	1.19	1.19	1.19
	57°F (13.9°C)	15605	15293	15217	15156	15019	1.08	1.08	1.09	1.09	1.09
	59°F (15.0°C)	15575	15263	15187	15126	14990	1.04	1.04	1.05	1.05	1.05
	62°F (16.7°C)	15529	15219	15143	15082	14946	0.98	0.99	0.99	0.99	0.99
64.4°F (18.0°C)	15499	15189	15113	15053	14917	0.94	0.95	0.95	0.95	0.95	

Table 46 – 18K Heating — 37MARA – High Wall

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
500	-13°F (-25.0°C)	4912	4814	4789	3966	3931	1.44	1.46	1.46	1.46	1.47
	-4°F (-20.0°C)	5969	5849	5820	4820	4776	1.50	1.51	1.51	1.51	1.52
	0°F (-17.8°C)	6568	6437	6405	5304	5256	1.52	1.53	1.54	1.54	1.55
	5°F (-15.0°C)	7318	7172	7136	5909	5856	1.55	1.57	1.57	1.57	1.58
	14°F (-10.0°C)	7947	7788	7749	6417	6359	1.69	1.70	1.71	1.71	1.72
	17°F (-8.3°C)	8156	7993	7953	6586	6527	1.74	1.75	1.75	1.76	1.76
	22°F (-5.6°C)	8591	8419	8377	6937	6875	1.81	1.83	1.83	1.84	1.84
	27°F (-2.8°C)	9026	8845	8801	7288	7223	1.89	1.91	1.91	1.91	1.92
	32°F (0.0°C)	9460	9271	9225	7639	7570	1.97	1.98	1.99	1.99	2.00
	35°F (1.7°C)	9721	9527	9479	7850	7779	2.01	2.03	2.03	2.04	2.05
	37°F (2.8°C)	10011	9810	9761	8083	8011	1.98	2.00	2.00	2.01	2.02
	42°F (5.6°C)	10734	10519	10467	8668	8590	1.91	1.92	1.93	1.93	1.94
	44.6°F (7.0°C)	11024	10803	10749	8901	8821	1.88	1.89	1.90	1.90	1.91
	47°F (8.3°C)	11458	11229	11172	9252	9169	1.83	1.85	1.85	1.85	1.86
	52°F (11.1°C)	11153	10930	10875	9006	8925	1.62	1.63	1.64	1.64	1.65
	57°F (13.9°C)	10848	10631	10578	8760	8681	1.41	1.42	1.42	1.43	1.43
	59°F (15.0°C)	10726	10512	10459	8661	8583	1.32	1.33	1.34	1.34	1.35
	62°F (16.7°C)	10543	10332	10281	8514	8437	1.20	1.21	1.21	1.21	1.22
64.4°F (18.0°C)	10421	10213	10162	8415	8339	1.11	1.12	1.12	1.13	1.13	
610	-13°F (-25.0°C)	6059	5938	5908	5366	5317	1.46	1.47	1.47	1.48	1.48
	-4°F (-20.0°C)	7363	7216	7180	6520	6462	1.51	1.52	1.53	1.53	1.54
	0°F (-17.8°C)	8103	7941	7901	7176	7111	1.54	1.55	1.55	1.56	1.56
	5°F (-15.0°C)	9028	8847	8803	7995	7923	1.57	1.58	1.59	1.59	1.60
	14°F (-10.0°C)	9803	9607	9559	8681	8603	1.71	1.72	1.72	1.73	1.73
	17°F (-8.3°C)	10062	9860	9811	8910	8830	1.75	1.77	1.77	1.77	1.78
	22°F (-5.6°C)	10598	10386	10334	9385	9301	1.83	1.85	1.85	1.85	1.86
	27°F (-2.8°C)	11134	10911	10857	9860	9771	1.91	1.93	1.93	1.93	1.94
	32°F (0.0°C)	11670	11437	11379	10335	10242	1.99	2.00	2.01	2.01	2.02
	35°F (1.7°C)	11992	11752	11693	10620	10524	2.03	2.05	2.06	2.06	2.07
	37°F (2.8°C)	12349	12102	12041	10936	10837	2.00	2.02	2.02	2.03	2.04
	42°F (5.6°C)	13241	12977	12912	11726	11621	1.93	1.94	1.95	1.95	1.96
	44.6°F (7.0°C)	13598	13327	13260	12042	11934	1.90	1.91	1.92	1.92	1.93
	47°F (8.3°C)	14134	13851	13782	12517	12404	1.85	1.87	1.87	1.87	1.88
	52°F (11.1°C)	13758	13483	13415	12184	12074	1.64	1.65	1.65	1.66	1.66
	57°F (13.9°C)	13382	13114	13049	11851	11744	1.42	1.43	1.44	1.44	1.45
	59°F (15.0°C)	13232	12967	12902	11718	11612	1.34	1.35	1.35	1.35	1.36
	62°F (16.7°C)	13006	12746	12682	11518	11414	1.21	1.22	1.22	1.22	1.23
64.4°F (18.0°C)	12856	12599	12536	11385	11282	1.12	1.13	1.13	1.14	1.14	

Table 46 – 18K Heating — 37MARA – High Wall (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
850	-13°F (-25.0°C)	7474	7325	7288	7259	7194	1.47	1.49	1.49	1.49	1.50
	-4°F (-20.0°C)	9083	8901	8857	8821	8742	1.53	1.54	1.54	1.54	1.55
	0°F (-17.8°C)	9995	9796	9747	9708	9620	1.55	1.56	1.57	1.57	1.58
	5°F (-15.0°C)	11136	10914	10859	10816	10718	1.59	1.60	1.60	1.60	1.61
	14°F (-10.0°C)	12093	11851	11792	11745	11639	1.72	1.74	1.74	1.75	1.75
	17°F (-8.3°C)	12412	12164	12103	12054	11946	1.77	1.79	1.79	1.79	1.80
	22°F (-5.6°C)	13073	12812	12748	12697	12582	1.85	1.86	1.87	1.87	1.88
	27°F (-2.8°C)	13735	13460	13393	13339	13219	1.93	1.94	1.95	1.95	1.96
	32°F (0.0°C)	14396	14108	14038	13981	13856	2.01	2.02	2.03	2.03	2.04
	35°F (1.7°C)	14793	14497	14424	14367	14237	2.06	2.07	2.08	2.08	2.09
	37°F (2.8°C)	15233	14929	14854	14795	14661	2.02	2.04	2.04	2.05	2.06
	42°F (5.6°C)	16334	16008	15928	15864	15721	1.95	1.96	1.97	1.97	1.98
	44.6°F (7.0°C)	16775	16439	16357	16292	16145	1.92	1.93	1.94	1.94	1.95
	47°F (8.3°C)	17436	17087	17001	16933	16781	1.87	1.88	1.89	1.89	1.90
	52°F (11.1°C)	16972	16632	16549	16483	16335	1.65	1.67	1.67	1.67	1.68
	57°F (13.9°C)	16508	16178	16097	16032	15888	1.44	1.45	1.45	1.45	1.46
	59°F (15.0°C)	16322	15996	15916	15852	15710	1.35	1.36	1.36	1.37	1.37
	62°F (16.7°C)	16044	15723	15645	15582	15442	1.22	1.23	1.23	1.24	1.24
64.4°F (18.0°C)	15858	15541	15464	15402	15263	1.13	1.14	1.15	1.15	1.15	
1080	-13°F (-25.0°C)	9220	9036	8991	8955	8874	1.49	1.50	1.50	1.51	1.51
	-4°F (-20.0°C)	11204	10980	10925	10882	10784	1.54	1.55	1.56	1.56	1.57
	0°F (-17.8°C)	12330	12084	12023	11975	11867	1.57	1.58	1.58	1.59	1.59
	5°F (-15.0°C)	13738	13463	13396	13342	13222	1.60	1.61	1.62	1.62	1.63
	14°F (-10.0°C)	14918	14619	14546	14488	14358	1.74	1.76	1.76	1.76	1.77
	17°F (-8.3°C)	15311	15005	14930	14870	14736	1.79	1.80	1.81	1.81	1.82
	22°F (-5.6°C)	16127	15804	15725	15662	15521	1.87	1.88	1.89	1.89	1.90
	27°F (-2.8°C)	16943	16604	16521	16455	16307	1.95	1.96	1.97	1.97	1.98
	32°F (0.0°C)	17759	17403	17316	17247	17092	2.03	2.04	2.05	2.05	2.06
	35°F (1.7°C)	18248	17883	17794	17723	17563	2.08	2.09	2.10	2.10	2.11
	37°F (2.8°C)	18791	18416	18324	18250	18086	2.04	2.06	2.07	2.07	2.08
	42°F (5.6°C)	20150	19747	19648	19569	19393	1.97	1.98	1.99	1.99	2.00
	44.6°F (7.0°C)	20693	20279	20178	20097	19916	1.94	1.95	1.95	1.96	1.97
	47°F (8.3°C)	21508	21078	20973	20889	20701	1.89	1.90	1.91	1.91	1.92
	52°F (11.1°C)	20936	20517	20415	20333	20150	1.67	1.68	1.69	1.69	1.70
	57°F (13.9°C)	20364	19956	19857	19777	19599	1.45	1.46	1.47	1.47	1.48
	59°F (15.0°C)	20135	19732	19634	19555	19379	1.36	1.38	1.38	1.38	1.39
	62°F (16.7°C)	19792	19396	19299	19222	19049	1.23	1.24	1.25	1.25	1.25
64.4°F (18.0°C)	19563	19171	19076	18999	18828	1.15	1.16	1.16	1.16	1.16	

Table 47 – 24K Heating — 37MARA – High Wall

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
318	-13°F (-25.0°C)	5608	5496	5469	4182	4144	2.02	2.04	2.04	2.05	2.05
	-4°F (-20.0°C)	6826	6690	6656	5090	5044	2.15	2.16	2.17	2.17	2.18
	0°F (-17.8°C)	7562	7411	7373	5638	5587	2.20	2.22	2.22	2.23	2.24
	5°F (-15.0°C)	8481	8312	8270	6324	6267	2.27	2.29	2.29	2.30	2.31
	14°F (-10.0°C)	9708	9513	9466	7238	7173	2.39	2.41	2.42	2.42	2.43
	17°F (-8.3°C)	10116	9914	9865	7543	7475	2.43	2.45	2.46	2.46	2.47
	22°F (-5.6°C)	10683	10469	10417	7965	7893	2.50	2.52	2.53	2.53	2.54
	27°F (-2.8°C)	11249	11024	10969	8387	8312	2.57	2.59	2.60	2.60	2.61
	32°F (0.0°C)	11815	11579	11521	8810	8730	2.64	2.66	2.67	2.68	2.69
	35°F (1.7°C)	12155	11912	11853	9063	8981	2.69	2.71	2.71	2.72	2.73
	37°F (2.8°C)	12665	12411	12349	9443	9358	2.74	2.76	2.77	2.78	2.79
	42°F (5.6°C)	13938	13660	13591	10392	10299	2.88	2.91	2.91	2.92	2.93
	44.6°F (7.0°C)	14448	14159	14088	10772	10675	2.94	2.96	2.97	2.98	2.99
	47°F (8.3°C)	15212	14908	14833	11342	11240	3.02	3.05	3.06	3.06	3.07
	52°F (11.1°C)	15178	14875	14800	11317	11215	2.82	2.85	2.85	2.86	2.87
	57°F (13.9°C)	15145	14842	14768	11292	11190	2.62	2.64	2.65	2.65	2.67
	59°F (15.0°C)	15131	14829	14755	11282	11180	2.54	2.56	2.57	2.57	2.58
	62°F (16.7°C)	15111	14809	14735	11267	11166	2.42	2.44	2.45	2.45	2.46
64.4°F (18.0°C)	15098	14796	14722	11257	11156	2.34	2.36	2.37	2.37	2.38	
412	-13°F (-25.0°C)	7156	7013	6978	6090	6035	2.04	2.06	2.06	2.07	2.07
	-4°F (-20.0°C)	8710	8536	8493	7412	7345	2.17	2.19	2.19	2.19	2.20
	0°F (-17.8°C)	9649	9456	9409	8211	8137	2.22	2.24	2.25	2.25	2.26
	5°F (-15.0°C)	10822	10606	10553	9209	9126	2.29	2.31	2.32	2.32	2.33
	14°F (-10.0°C)	12387	12139	12079	10541	10446	2.42	2.43	2.44	2.44	2.45
	17°F (-8.3°C)	12909	12650	12587	10985	10886	2.46	2.48	2.48	2.49	2.50
	22°F (-5.6°C)	13631	13359	13292	11600	11495	2.53	2.55	2.55	2.56	2.57
	27°F (-2.8°C)	14354	14067	13996	12215	12105	2.60	2.62	2.62	2.63	2.64
	32°F (0.0°C)	15076	14775	14701	12829	12714	2.67	2.69	2.70	2.70	2.71
	35°F (1.7°C)	15510	15200	15124	13198	13080	2.71	2.73	2.74	2.75	2.76
	37°F (2.8°C)	16160	15837	15758	13752	13628	2.77	2.79	2.80	2.80	2.81
	42°F (5.6°C)	17785	17430	17342	15135	14998	2.91	2.94	2.94	2.95	2.96
	44.6°F (7.0°C)	18435	18067	17976	15688	15547	2.97	2.99	3.00	3.01	3.02
	47°F (8.3°C)	19410	19022	18927	16517	16369	3.06	3.08	3.09	3.09	3.10
	52°F (11.1°C)	19368	18980	18885	16481	16333	2.85	2.88	2.88	2.89	2.90
	57°F (13.9°C)	19325	18938	18844	16445	16297	2.65	2.67	2.68	2.68	2.69
	59°F (15.0°C)	19308	18922	18827	16430	16282	2.57	2.59	2.59	2.60	2.61
	62°F (16.7°C)	19282	18897	18802	16408	16261	2.45	2.47	2.47	2.48	2.49
64.4°F (18.0°C)	19265	18880	18785	16394	16246	2.37	2.38	2.39	2.39	2.40	

Table 47 – 24K Heating — 37MARA – High Wall (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
618	-13°F (-25.0°C)	9132	8949	8904	8869	8789	2.06	2.08	2.08	2.09	2.10
	-4°F (-20.0°C)	11114	10892	10838	10794	10697	2.19	2.21	2.21	2.22	2.22
	0°F (-17.8°C)	12312	12066	12005	11957	11850	2.25	2.26	2.27	2.27	2.28
	5°F (-15.0°C)	13809	13533	13465	13411	13291	2.32	2.33	2.34	2.34	2.35
	14°F (-10.0°C)	15806	15490	15412	15351	15213	2.44	2.46	2.46	2.47	2.48
	17°F (-8.3°C)	16471	16142	16061	15997	15853	2.48	2.50	2.51	2.51	2.52
	22°F (-5.6°C)	17394	17046	16960	16893	16741	2.55	2.57	2.58	2.58	2.59
	27°F (-2.8°C)	18316	17949	17860	17788	17628	2.62	2.65	2.65	2.66	2.67
	32°F (0.0°C)	19238	18853	18759	18684	18515	2.70	2.72	2.72	2.73	2.74
	35°F (1.7°C)	19791	19395	19298	19221	19048	2.74	2.76	2.77	2.77	2.78
	37°F (2.8°C)	20620	20208	20107	20027	19846	2.80	2.82	2.83	2.83	2.84
	42°F (5.6°C)	22694	22240	22129	22041	21842	2.94	2.97	2.97	2.98	2.99
	44.6°F (7.0°C)	23524	23053	22938	22846	22641	3.00	3.02	3.03	3.04	3.05
	47°F (8.3°C)	24768	24273	24151	24055	23838	3.09	3.11	3.12	3.12	3.14
	52°F (11.1°C)	24713	24219	24098	24002	23786	2.88	2.90	2.91	2.92	2.93
	57°F (13.9°C)	24659	24166	24045	23949	23733	2.68	2.70	2.70	2.71	2.72
	59°F (15.0°C)	24637	24144	24023	23927	23712	2.59	2.62	2.62	2.63	2.64
	62°F (16.7°C)	24604	24112	23992	23896	23681	2.47	2.49	2.50	2.50	2.51
64.4°F (18.0°C)	24582	24091	23970	23874	23660	2.39	2.41	2.41	2.42	2.43	
812	-13°F (-25.0°C)	11652	11419	11362	11317	11215	2.08	2.10	2.10	2.11	2.12
	-4°F (-20.0°C)	14182	13898	13829	13774	13650	2.21	2.23	2.23	2.24	2.25
	0°F (-17.8°C)	15710	15396	15319	15258	15120	2.27	2.29	2.29	2.30	2.30
	5°F (-15.0°C)	17620	17268	17182	17113	16959	2.34	2.36	2.36	2.37	2.38
	14°F (-10.0°C)	20168	19765	19666	19588	19411	2.46	2.48	2.49	2.49	2.50
	17°F (-8.3°C)	21018	20597	20494	20412	20229	2.51	2.53	2.53	2.54	2.55
	22°F (-5.6°C)	22194	21750	21642	21555	21361	2.58	2.60	2.60	2.61	2.62
	27°F (-2.8°C)	23371	22903	22789	22698	22493	2.65	2.67	2.68	2.68	2.69
	32°F (0.0°C)	24547	24056	23936	23840	23626	2.72	2.75	2.75	2.76	2.77
	35°F (1.7°C)	25253	24748	24625	24526	24305	2.77	2.79	2.80	2.80	2.81
	37°F (2.8°C)	26312	25786	25657	25554	25324	2.83	2.85	2.85	2.86	2.87
	42°F (5.6°C)	28958	28379	28237	28124	27871	2.97	3.00	3.00	3.01	3.02
	44.6°F (7.0°C)	30016	29416	29269	29152	28889	3.03	3.05	3.06	3.07	3.08
	47°F (8.3°C)	31604	30972	30817	30694	30418	3.12	3.14	3.15	3.16	3.17
	52°F (11.1°C)	31534	30904	30749	30626	30351	2.91	2.93	2.94	2.95	2.96
	57°F (13.9°C)	31465	30835	30681	30559	30283	2.70	2.73	2.73	2.74	2.75
	59°F (15.0°C)	31437	30808	30654	30531	30257	2.62	2.64	2.65	2.65	2.66
	62°F (16.7°C)	31395	30767	30613	30491	30216	2.50	2.52	2.52	2.53	2.54
64.4°F (18.0°C)	31367	30740	30586	30464	30190	2.41	2.43	2.44	2.44	2.45	

Table 48 – 30K Heating — 37MARA – High Wall

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
382	-13°F (-25.0°C)	6267	6141	6111	7444	7377	2.77	2.79	2.80	2.80	2.82
	-4°F (-20.0°C)	8991	8811	8767	10680	10584	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	8744	8569	8526	10387	10294	1.26	1.27	1.27	1.28	1.28
	5°F (-15.0°C)	8435	8267	8225	10021	9931	2.83	2.86	2.86	2.87	2.88
	14°F (-10.0°C)	7880	7723	7684	9361	9277	2.84	2.86	2.87	2.88	2.89
	17°F (-8.3°C)	7695	7541	7504	9141	9059	2.84	2.87	2.87	2.88	2.89
	22°F (-5.6°C)	8076	7914	7875	9593	9507	2.87	2.89	2.90	2.91	2.92
	27°F (-2.8°C)	8456	8287	8246	10045	9955	2.90	2.92	2.93	2.93	2.95
	32°F (0.0°C)	8837	8660	8617	10498	10403	2.93	2.95	2.96	2.96	2.98
	35°F (1.7°C)	9065	8884	8839	10769	10672	2.94	2.97	2.97	2.98	2.99
	37°F (2.8°C)	9743	9548	9500	11574	11470	2.93	2.96	2.96	2.97	2.98
	42°F (5.6°C)	11437	11208	11152	13586	13464	2.90	2.92	2.93	2.94	2.95
	44.6°F (7.0°C)	12115	11872	11813	14391	14262	2.89	2.91	2.92	2.92	2.94
	47°F (8.3°C)	13131	12869	12804	15599	15459	2.87	2.89	2.90	2.90	2.92
	52°F (11.1°C)	12672	12419	12357	15054	14919	2.55	2.57	2.57	2.58	2.59
	57°F (13.9°C)	12214	11969	11909	14509	14378	2.23	2.25	2.25	2.25	2.26
	59°F (15.0°C)	12030	11790	11731	14291	14162	2.10	2.12	2.12	2.12	2.13
62°F (16.7°C)	11755	11520	11462	13964	13838	1.91	1.92	1.93	1.93	1.94	
64.4°F (18.0°C)	11571	11340	11283	13746	13622	1.78	1.79	1.80	1.80	1.81	
506	-13°F (-25.0°C)	8450	8281	8240	9076	8995	2.80	2.82	2.83	2.83	2.84
	-4°F (-20.0°C)	12123	11881	11821	13022	12905	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	11791	11555	11497	12664	12550	1.27	1.28	1.29	1.29	1.29
	5°F (-15.0°C)	11375	11147	11091	12218	12108	2.86	2.89	2.89	2.90	2.91
	14°F (-10.0°C)	10626	10413	10361	11414	11311	2.87	2.89	2.90	2.90	2.92
	17°F (-8.3°C)	10376	10169	10118	11146	11045	2.87	2.89	2.90	2.91	2.92
	22°F (-5.6°C)	10890	10672	10618	11697	11591	2.90	2.92	2.93	2.94	2.95
	27°F (-2.8°C)	11403	11175	11119	12248	12138	2.93	2.95	2.96	2.96	2.98
	32°F (0.0°C)	11916	11678	11619	12799	12684	2.96	2.98	2.99	2.99	3.01
	35°F (1.7°C)	12224	11979	11919	13130	13011	2.97	3.00	3.00	3.01	3.02
	37°F (2.8°C)	13138	12875	12810	14111	13984	2.96	2.99	2.99	3.00	3.01
	42°F (5.6°C)	15422	15114	15038	16565	16416	2.93	2.95	2.96	2.97	2.98
	44.6°F (7.0°C)	16336	16009	15929	17547	17389	2.92	2.94	2.95	2.95	2.96
	47°F (8.3°C)	17707	17352	17266	19019	18848	2.90	2.92	2.93	2.93	2.95
	52°F (11.1°C)	17088	16746	16662	18354	18189	2.57	2.60	2.60	2.61	2.62
	57°F (13.9°C)	16469	16140	16059	17690	17531	2.25	2.27	2.27	2.28	2.29
	59°F (15.0°C)	16222	15897	15818	17424	17267	2.12	2.14	2.14	2.15	2.15
62°F (16.7°C)	15851	15534	15456	17025	16872	1.93	1.94	1.95	1.95	1.96	
64.4°F (18.0°C)	15603	15291	15215	16760	16609	1.80	1.81	1.81	1.82	1.83	

Table 48 – 30K Heating — 37MARA – High Wall (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
635	-13°F (-25.0°C)	11394	11167	11111	11066	10967	2.83	2.85	2.86	2.86	2.87
	-4°F (-20.0°C)	16347	16021	15940	15877	15734	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	15899	15581	15503	15441	15302	1.29	1.30	1.30	1.30	1.31
	5°F (-15.0°C)	15338	15031	14956	14896	14762	2.89	2.92	2.92	2.93	2.94
	14°F (-10.0°C)	14328	14042	13972	13916	13791	2.90	2.92	2.93	2.93	2.95
	17°F (-8.3°C)	13992	13712	13644	13589	13467	2.90	2.92	2.93	2.94	2.95
	22°F (-5.6°C)	14684	14390	14318	14261	14133	2.93	2.95	2.96	2.96	2.98
	27°F (-2.8°C)	15376	15068	14993	14933	14799	2.96	2.98	2.99	2.99	3.01
	32°F (0.0°C)	16068	15746	15668	15605	15465	2.99	3.01	3.02	3.02	3.04
	35°F (1.7°C)	16483	16153	16072	16008	15864	3.00	3.03	3.03	3.04	3.05
	37°F (2.8°C)	17715	17361	17274	17205	17050	2.99	3.02	3.02	3.03	3.04
	42°F (5.6°C)	20796	20380	20278	20197	20015	2.96	2.98	2.99	3.00	3.01
	44.6°F (7.0°C)	22028	21587	21479	21393	21201	2.95	2.97	2.98	2.98	2.99
	47°F (8.3°C)	23876	23399	23282	23189	22980	2.93	2.95	2.96	2.96	2.98
	52°F (11.1°C)	23042	22581	22468	22378	22177	2.60	2.62	2.63	2.63	2.64
	57°F (13.9°C)	22208	21764	21655	21568	21374	2.27	2.29	2.30	2.30	2.31
	59°F (15.0°C)	21874	21437	21329	21244	21053	2.14	2.16	2.16	2.17	2.18
62°F (16.7°C)	21374	20946	20841	20758	20571	1.95	1.96	1.96	1.97	1.98	
64.4°F (18.0°C)	21040	20619	20516	20434	20250	1.81	1.83	1.83	1.84	1.84	
882	-13°F (-25.0°C)	15365	15057	14982	14922	14788	2.86	2.88	2.88	2.89	2.90
	-4°F (-20.0°C)	22044	21603	21495	21409	21216	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	21439	21010	20905	20821	20634	1.30	1.31	1.31	1.31	1.32
	5°F (-15.0°C)	20682	20269	20167	20087	19906	2.92	2.95	2.95	2.96	2.97
	14°F (-10.0°C)	19321	18935	18840	18765	18596	2.93	2.95	2.96	2.96	2.98
	17°F (-8.3°C)	18867	18490	18398	18324	18159	2.93	2.95	2.96	2.97	2.98
	22°F (-5.6°C)	19800	19404	19307	19230	19057	2.96	2.98	2.99	2.99	3.01
	27°F (-2.8°C)	20733	20319	20217	20136	19955	2.99	3.01	3.02	3.02	3.04
	32°F (0.0°C)	21666	21233	21127	21042	20853	3.02	3.04	3.05	3.05	3.07
	35°F (1.7°C)	22226	21782	21673	21586	21392	3.03	3.06	3.07	3.07	3.08
	37°F (2.8°C)	23888	23410	23293	23200	22991	3.02	3.05	3.05	3.06	3.07
	42°F (5.6°C)	28042	27481	27343	27234	26989	2.99	3.01	3.02	3.03	3.04
	44.6°F (7.0°C)	29703	29109	28964	28848	28588	2.98	3.00	3.01	3.01	3.03
	47°F (8.3°C)	32195	31552	31394	31268	30987	2.96	2.98	2.99	2.99	3.01
	52°F (11.1°C)	31071	30449	30297	30176	29904	2.63	2.65	2.65	2.66	2.67
	57°F (13.9°C)	29946	29347	29200	29083	28822	2.30	2.31	2.32	2.32	2.33
	59°F (15.0°C)	29496	28906	28761	28646	28388	2.16	2.18	2.19	2.19	2.20
62°F (16.7°C)	28821	28244	28103	27991	27739	1.96	1.98	1.98	1.99	2.00	
64.4°F (18.0°C)	28371	27804	27664	27554	27306	1.83	1.85	1.85	1.85	1.86	

Table 49 – 36K Heating — 37MARA – High Wall

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
382	-13°F (-25.0°C)	9707	9513	9465	11532	11428	0.00	0.00	0.00	0.00	0.00
	-4°F (-20.0°C)	9604	9412	9365	11409	11306	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	9558	9367	9320	11354	11252	1.41	1.42	1.43	1.43	1.44
	5°F (-15.0°C)	9501	9311	9264	11286	11184	3.18	3.21	3.21	3.22	3.23
	14°F (-10.0°C)	9397	9209	9163	11163	11063	3.20	3.23	3.23	3.24	3.25
	17°F (-8.3°C)	9363	9175	9130	11122	11022	3.21	3.23	3.24	3.24	3.26
	22°F (-5.6°C)	9461	9272	9225	11239	11138	3.27	3.30	3.30	3.31	3.32
	27°F (-2.8°C)	9559	9368	9321	11356	11254	3.34	3.36	3.37	3.38	3.39
	32°F (0.0°C)	9658	9465	9417	11473	11370	3.40	3.43	3.44	3.44	3.46
	35°F (1.7°C)	9717	9522	9475	11543	11439	3.44	3.47	3.48	3.48	3.50
	37°F (2.8°C)	10508	10297	10246	12482	12370	2.87	2.89	2.90	2.90	2.92
	42°F (5.6°C)	12485	12235	12174	14831	14698	1.43	1.45	1.45	1.45	1.46
	44.6°F (7.0°C)	13276	13010	12945	15771	15629	0.86	0.87	0.87	0.87	0.87
	47°F (8.3°C)	14462	14173	14102	17180	17026	0.00	0.00	0.00	0.00	0.00
	52°F (11.1°C)	14107	13825	13756	16758	16607	0.54	0.55	0.55	0.55	0.55
	57°F (13.9°C)	13752	13477	13409	16336	16189	1.08	1.09	1.10	1.10	1.10
	59°F (15.0°C)	13610	13337	13271	16167	16022	1.30	1.31	1.31	1.32	1.32
62°F (16.7°C)	13396	13128	13063	15914	15771	1.63	1.64	1.64	1.65	1.65	
64.4°F (18.0°C)	13254	12989	12924	15745	15604	1.84	1.86	1.86	1.87	1.87	
506	-13°F (-25.0°C)	13090	12828	12764	14060	13933	0.00	0.00	0.00	0.00	0.00
	-4°F (-20.0°C)	12950	12691	12628	13910	13785	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	12888	12630	12567	13843	13719	1.43	1.44	1.44	1.45	1.45
	5°F (-15.0°C)	12811	12555	12492	13760	13636	3.21	3.24	3.25	3.25	3.26
	14°F (-10.0°C)	12672	12418	12356	13611	13488	3.23	3.26	3.26	3.27	3.28
	17°F (-8.3°C)	12625	12373	12311	13561	13439	3.24	3.26	3.27	3.28	3.29
	22°F (-5.6°C)	12758	12502	12440	13703	13580	3.30	3.33	3.34	3.34	3.36
	27°F (-2.8°C)	12890	12632	12569	13846	13721	3.37	3.40	3.41	3.41	3.43
	32°F (0.0°C)	13023	12762	12699	13988	13862	3.44	3.47	3.47	3.48	3.49
	35°F (1.7°C)	13102	12840	12776	14073	13947	3.48	3.51	3.51	3.52	3.53
	37°F (2.8°C)	14169	13885	13816	15219	15082	2.90	2.92	2.93	2.93	2.94
	42°F (5.6°C)	16835	16498	16416	18083	17920	1.45	1.46	1.46	1.47	1.47
	44.6°F (7.0°C)	17902	17544	17456	19228	19055	0.87	0.88	0.88	0.88	0.88
	47°F (8.3°C)	19501	19111	19016	20947	20758	0.00	0.00	0.00	0.00	0.00
	52°F (11.1°C)	19022	18642	18549	20432	20248	0.55	0.55	0.55	0.55	0.56
	57°F (13.9°C)	18543	18172	18082	19918	19738	1.10	1.10	1.11	1.11	1.11
	59°F (15.0°C)	18352	17985	17895	19712	19534	1.31	1.33	1.33	1.33	1.34
62°F (16.7°C)	18064	17703	17614	19403	19228	1.64	1.66	1.66	1.66	1.67	
64.4°F (18.0°C)	17873	17515	17428	19197	19024	1.86	1.88	1.88	1.88	1.89	

Table 49 – 36K Heating — 37MARA – High Wall (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
635	-13°F (-25.0°C)	17650	17297	17211	17142	16988	0.00	0.00	0.00	0.00	0.00
	-4°F (-20.0°C)	17462	17113	17028	16960	16807	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	17379	17031	16946	16878	16727	1.44	1.45	1.46	1.46	1.47
	5°F (-15.0°C)	17275	16929	16844	16777	16626	3.25	3.27	3.28	3.28	3.30
	14°F (-10.0°C)	17087	16745	16661	16595	16445	3.26	3.29	3.30	3.30	3.32
	17°F (-8.3°C)	17024	16684	16600	16534	16385	3.27	3.30	3.30	3.31	3.32
	22°F (-5.6°C)	17203	16859	16775	16707	16557	3.34	3.37	3.37	3.38	3.39
	27°F (-2.8°C)	17382	17034	16949	16881	16729	3.41	3.43	3.44	3.45	3.46
	32°F (0.0°C)	17560	17209	17123	17055	16901	3.47	3.50	3.51	3.51	3.53
	35°F (1.7°C)	17668	17314	17228	17159	17004	3.51	3.54	3.55	3.56	3.57
	37°F (2.8°C)	19106	18724	18630	18556	18389	2.93	2.95	2.96	2.96	2.97
	42°F (5.6°C)	22701	22247	22136	22047	21849	1.46	1.48	1.48	1.48	1.49
	44.6°F (7.0°C)	24139	23656	23538	23444	23233	0.88	0.89	0.89	0.89	0.89
	47°F (8.3°C)	26296	25770	25642	25539	25309	0.00	0.00	0.00	0.00	0.00
	52°F (11.1°C)	25650	25137	25012	24912	24687	0.55	0.56	0.56	0.56	0.56
	57°F (13.9°C)	25004	24504	24382	24284	24066	1.11	1.12	1.12	1.12	1.12
	59°F (15.0°C)	24746	24251	24130	24033	23817	1.33	1.34	1.34	1.34	1.35
	62°F (16.7°C)	24358	23871	23752	23657	23444	1.66	1.67	1.68	1.68	1.69
64.4°F (18.0°C)	24100	23618	23500	23406	23195	1.88	1.90	1.90	1.90	1.91	
882	-13°F (-25.0°C)	23800	23324	23208	23115	22907	0.00	0.00	0.00	0.00	0.00
	-4°F (-20.0°C)	23547	23076	22961	22869	22663	0.00	0.00	0.00	0.00	0.00
	0°F (-17.8°C)	23434	22966	22851	22760	22555	1.46	1.47	1.47	1.47	1.48
	5°F (-15.0°C)	23294	22828	22714	22623	22419	3.28	3.30	3.31	3.32	3.33
	14°F (-10.0°C)	23040	22580	22467	22377	22175	3.30	3.32	3.33	3.34	3.35
	17°F (-8.3°C)	22956	22497	22384	22295	22094	3.30	3.33	3.34	3.34	3.36
	22°F (-5.6°C)	23197	22733	22619	22529	22326	3.37	3.40	3.41	3.41	3.43
	27°F (-2.8°C)	23438	22969	22854	22763	22558	3.44	3.47	3.47	3.48	3.50
	32°F (0.0°C)	23679	23206	23090	22997	22790	3.51	3.54	3.54	3.55	3.56
	35°F (1.7°C)	23824	23347	23231	23138	22929	3.55	3.58	3.58	3.59	3.61
	37°F (2.8°C)	25763	25248	25121	25021	24796	2.96	2.98	2.99	2.99	3.00
	42°F (5.6°C)	30611	29999	29849	29729	29462	1.48	1.49	1.49	1.50	1.50
	44.6°F (7.0°C)	32550	31899	31740	31613	31328	0.89	0.89	0.90	0.90	0.90
	47°F (8.3°C)	35459	34750	34576	34438	34128	0.00	0.00	0.00	0.00	0.00
	52°F (11.1°C)	34588	33896	33727	33592	33289	0.56	0.56	0.56	0.57	0.57
	57°F (13.9°C)	33717	33042	32877	32746	32451	1.12	1.13	1.13	1.13	1.14
	59°F (15.0°C)	33368	32701	32538	32407	32116	1.34	1.35	1.35	1.36	1.36
	62°F (16.7°C)	32846	32189	32028	31900	31613	1.68	1.69	1.69	1.70	1.70
64.4°F (18.0°C)	32497	31847	31688	31561	31277	1.90	1.92	1.92	1.92	1.93	

Table 50 – 9K Heating — 37MARA – One-Way Cassette

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
235	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3590	3518	3500	3633	3600	0.89	0.90	0.90	0.90	0.91
	-4°F (-20.0°C)	4379	4292	4270	4432	4392	0.93	0.94	0.94	0.94	0.95
	0°F (-17.8°C)	4986	4886	4862	5046	5000	0.98	0.99	0.99	0.99	0.99
	5°F (-15.0°C)	5744	5629	5601	5813	5760	1.03	1.04	1.04	1.05	1.05
	14°F (-10.0°C)	6767	6631	6598	6848	6786	1.07	1.08	1.08	1.08	1.09
	17°F (-8.3°C)	7108	6965	6931	7193	7128	1.08	1.09	1.09	1.09	1.10
	22°F (-5.6°C)	7215	7070	7035	7302	7236	1.09	1.10	1.10	1.11	1.11
	27°F (-2.8°C)	7322	7175	7140	7410	7343	1.10	1.11	1.11	1.12	1.12
	32°F (0.0°C)	7429	7280	7244	7518	7451	1.11	1.12	1.13	1.13	1.13
	35°F (1.7°C)	7493	7344	7307	7583	7515	1.12	1.13	1.13	1.14	1.14
	37°F (2.8°C)	7956	7796	7757	8051	7979	1.14	1.15	1.16	1.16	1.16
	42°F (5.6°C)	9111	8929	8884	9221	9138	1.20	1.21	1.21	1.22	1.22
	44.6°F (7.0°C)	9573	9382	9335	9688	9601	1.22	1.23	1.24	1.24	1.24
	47°F (8.3°C)	10267	10061	10011	10390	10296	1.26	1.27	1.27	1.27	1.28
	52°F (11.1°C)	10155	9951	9902	10277	10184	1.11	1.12	1.12	1.13	1.13
	57°F (13.9°C)	10042	9842	9792	10163	10072	0.97	0.98	0.98	0.98	0.98
	59°F (15.0°C)	9998	9798	9749	10118	10027	0.91	0.92	0.92	0.92	0.92
62°F (16.7°C)	9930	9732	9683	10050	9959	0.82	0.83	0.83	0.83	0.84	
64.4°F (18.0°C)	9886	9688	9639	10004	9914	0.76	0.77	0.77	0.77	0.78	
259	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4043	3962	3942	4008	3972	0.90	0.91	0.91	0.91	0.91
	-4°F (-20.0°C)	4932	4834	4809	4890	4846	0.94	0.95	0.95	0.95	0.96
	0°F (-17.8°C)	5615	5503	5475	5567	5517	0.99	1.00	1.00	1.00	1.00
	5°F (-15.0°C)	6468	6339	6307	6413	6355	1.04	1.05	1.05	1.06	1.06
	14°F (-10.0°C)	7621	7468	7431	7555	7487	1.08	1.09	1.09	1.09	1.10
	17°F (-8.3°C)	8005	7845	7805	7936	7864	1.09	1.10	1.10	1.10	1.11
	22°F (-5.6°C)	8125	7963	7923	8055	7983	1.10	1.11	1.11	1.12	1.12
	27°F (-2.8°C)	8246	8081	8041	8175	8102	1.11	1.12	1.13	1.13	1.13
	32°F (0.0°C)	8367	8199	8158	8295	8220	1.13	1.14	1.14	1.14	1.14
	35°F (1.7°C)	8439	8270	8229	8367	8291	1.13	1.14	1.14	1.15	1.15
	37°F (2.8°C)	8960	8780	8737	8883	8803	1.16	1.17	1.17	1.17	1.17
	42°F (5.6°C)	10261	10056	10005	10173	10081	1.21	1.22	1.23	1.23	1.23
	44.6°F (7.0°C)	10782	10566	10513	10689	10593	1.24	1.25	1.25	1.25	1.26
	47°F (8.3°C)	11562	11331	11274	11463	11360	1.27	1.28	1.28	1.29	1.29
	52°F (11.1°C)	11436	11207	11151	11338	11236	1.12	1.13	1.14	1.14	1.14
	57°F (13.9°C)	11310	11084	11028	11213	11112	0.98	0.99	0.99	0.99	0.99
	59°F (15.0°C)	11259	11034	10979	11163	11062	0.92	0.93	0.93	0.93	0.93
62°F (16.7°C)	11184	10960	10905	11088	10988	0.83	0.84	0.84	0.84	0.84	
64.4°F (18.0°C)	11133	10911	10856	11038	10938	0.77	0.78	0.78	0.78	0.78	

Table 50 – 9K Heating — 37MARA – One-Way Cassette (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
294	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4553	4462	4440	4422	4382	0.91	0.92	0.92	0.92	0.92
	-4°F (-20.0°C)	5555	5444	5416	5395	5346	0.95	0.96	0.96	0.96	0.97
	0°F (-17.8°C)	6324	6197	6166	6142	6086	1.00	1.01	1.01	1.01	1.01
	5°F (-15.0°C)	7285	7139	7103	7075	7011	1.05	1.06	1.06	1.07	1.07
	14°F (-10.0°C)	8582	8411	8369	8335	8260	1.09	1.10	1.10	1.10	1.11
	17°F (-8.3°C)	9015	8835	8791	8755	8677	1.10	1.11	1.11	1.12	1.12
	22°F (-5.6°C)	9151	8968	8923	8887	8807	1.11	1.12	1.13	1.13	1.13
	27°F (-2.8°C)	9287	9101	9056	9019	8938	1.13	1.13	1.14	1.14	1.14
	32°F (0.0°C)	9423	9234	9188	9151	9069	1.14	1.15	1.15	1.15	1.16
	35°F (1.7°C)	9504	9314	9268	9231	9147	1.14	1.15	1.16	1.16	1.16
	37°F (2.8°C)	10090	9889	9839	9800	9712	1.17	1.18	1.18	1.18	1.19
	42°F (5.6°C)	11556	11325	11268	11223	11122	1.23	1.24	1.24	1.24	1.25
	44.6°F (7.0°C)	12142	11899	11840	11793	11686	1.25	1.26	1.26	1.26	1.27
	47°F (8.3°C)	13022	12761	12697	12647	12533	1.28	1.29	1.30	1.30	1.30
	52°F (11.1°C)	12880	12622	12559	12509	12396	1.14	1.14	1.15	1.15	1.15
	57°F (13.9°C)	12737	12483	12420	12371	12259	0.99	1.00	1.00	1.00	1.00
	59°F (15.0°C)	12681	12427	12365	12315	12205	0.93	0.94	0.94	0.94	0.94
	62°F (16.7°C)	12595	12343	12282	12233	12122	0.84	0.85	0.85	0.85	0.85
64.4°F (18.0°C)	12538	12288	12226	12177	12068	0.78	0.79	0.79	0.79	0.79	
341	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5128	5025	5000	4980	4935	0.92	0.93	0.93	0.93	0.93
	-4°F (-20.0°C)	6256	6131	6100	6076	6021	0.96	0.97	0.97	0.97	0.98
	0°F (-17.8°C)	7122	6979	6944	6917	6854	1.01	1.02	1.02	1.02	1.02
	5°F (-15.0°C)	8204	8040	8000	7968	7896	1.06	1.07	1.08	1.08	1.08
	14°F (-10.0°C)	9666	9472	9425	9387	9303	1.10	1.11	1.11	1.11	1.12
	17°F (-8.3°C)	10153	9950	9900	9860	9772	1.11	1.12	1.12	1.13	1.13
	22°F (-5.6°C)	10306	10100	10049	10009	9919	1.13	1.13	1.14	1.14	1.14
	27°F (-2.8°C)	10459	10250	10199	10158	10066	1.14	1.15	1.15	1.15	1.16
	32°F (0.0°C)	10612	10400	10348	10306	10214	1.15	1.16	1.16	1.16	1.17
	35°F (1.7°C)	10704	10490	10437	10396	10302	1.16	1.17	1.17	1.17	1.17
	37°F (2.8°C)	11364	11137	11081	11037	10937	1.18	1.19	1.19	1.19	1.20
	42°F (5.6°C)	13015	12754	12691	12640	12526	1.24	1.25	1.25	1.25	1.26
	44.6°F (7.0°C)	13675	13401	13334	13281	13161	1.26	1.27	1.27	1.28	1.28
	47°F (8.3°C)	14665	14372	14300	14243	14115	1.30	1.31	1.31	1.31	1.32
	52°F (11.1°C)	14505	14215	14144	14087	13961	1.15	1.16	1.16	1.16	1.17
	57°F (13.9°C)	14345	14058	13988	13932	13807	1.00	1.01	1.01	1.01	1.01
	59°F (15.0°C)	14281	13995	13925	13870	13745	0.94	0.95	0.95	0.95	0.95
	62°F (16.7°C)	14185	13901	13832	13776	13652	0.85	0.85	0.86	0.86	0.86
64.4°F (18.0°C)	14121	13839	13769	13714	13591	0.79	0.79	0.80	0.80	0.80	

Table 51 – 12K Heating — 37MARA – One-Way Cassette

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
235	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3862	3785	3766	3943	3907	0.86	0.87	0.87	0.87	0.87
	-4°F (-20.0°C)	5252	5147	5121	5362	5314	0.92	0.93	0.93	0.94	0.94
	0°F (-17.8°C)	5870	5753	5724	5993	5939	0.95	0.96	0.96	0.96	0.96
	5°F (-15.0°C)	6643	6510	6477	6781	6720	0.98	0.98	0.99	0.99	0.99
	14°F (-10.0°C)	7454	7304	7268	7609	7541	1.06	1.07	1.07	1.07	1.08
	17°F (-8.3°C)	7724	7569	7532	7885	7814	1.09	1.10	1.10	1.10	1.10
	22°F (-5.6°C)	7813	7657	7619	7977	7905	1.08	1.09	1.09	1.09	1.10
	27°F (-2.8°C)	7903	7745	7706	8068	7995	1.08	1.08	1.09	1.09	1.09
	32°F (0.0°C)	7992	7832	7793	8159	8086	1.07	1.08	1.08	1.08	1.09
	35°F (1.7°C)	8046	7885	7845	8214	8140	1.07	1.08	1.08	1.08	1.08
	37°F (2.8°C)	8687	8513	8471	8869	8789	1.10	1.11	1.11	1.11	1.12
	42°F (5.6°C)	10291	10085	10035	10506	10412	1.18	1.19	1.19	1.19	1.20
	44.6°F (7.0°C)	10933	10714	10660	11161	11061	1.21	1.22	1.22	1.23	1.23
	47°F (8.3°C)	11895	11657	11599	12144	12034	1.26	1.27	1.27	1.27	1.28
	52°F (11.1°C)	11525	11294	11238	11766	11660	1.14	1.15	1.15	1.16	1.16
	57°F (13.9°C)	11155	10931	10877	11388	11285	1.03	1.03	1.04	1.04	1.04
	59°F (15.0°C)	11007	10786	10732	11237	11136	0.98	0.99	0.99	0.99	1.00
62°F (16.7°C)	10784	10569	10516	11010	10911	0.91	0.92	0.92	0.92	0.92	
64.4°F (18.0°C)	10636	10424	10372	10859	10761	0.86	0.87	0.87	0.87	0.88	
259	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4245	4160	4139	4227	4189	0.87	0.87	0.88	0.88	0.88
	-4°F (-20.0°C)	5773	5657	5629	5748	5696	0.93	0.94	0.94	0.95	0.95
	0°F (-17.8°C)	6452	6323	6291	6424	6367	0.96	0.97	0.97	0.97	0.97
	5°F (-15.0°C)	7301	7155	7119	7270	7204	0.99	0.99	1.00	1.00	1.00
	14°F (-10.0°C)	8192	8028	7988	8157	8084	1.07	1.08	1.08	1.08	1.09
	17°F (-8.3°C)	8489	8320	8278	8453	8377	1.10	1.11	1.11	1.11	1.12
	22°F (-5.6°C)	8588	8416	8374	8551	8474	1.09	1.10	1.10	1.11	1.11
	27°F (-2.8°C)	8686	8512	8470	8649	8571	1.09	1.10	1.10	1.10	1.10
	32°F (0.0°C)	8784	8608	8565	8747	8668	1.08	1.09	1.09	1.09	1.10
	35°F (1.7°C)	8843	8666	8623	8805	8726	1.08	1.09	1.09	1.09	1.09
	37°F (2.8°C)	9548	9357	9310	9508	9422	1.11	1.12	1.12	1.12	1.13
	42°F (5.6°C)	11311	11085	11029	11263	11161	1.19	1.20	1.20	1.20	1.21
	44.6°F (7.0°C)	12016	11776	11717	11965	11857	1.22	1.23	1.23	1.24	1.24
	47°F (8.3°C)	13074	12812	12748	13018	12901	1.27	1.28	1.28	1.29	1.29
	52°F (11.1°C)	12667	12413	12351	12613	12499	1.15	1.16	1.17	1.17	1.17
	57°F (13.9°C)	12260	12015	11955	12208	12098	1.04	1.04	1.05	1.05	1.05
	59°F (15.0°C)	12097	11855	11796	12046	11937	0.99	1.00	1.00	1.00	1.01
62°F (16.7°C)	11853	11616	11558	11803	11697	0.92	0.93	0.93	0.93	0.93	
64.4°F (18.0°C)	11691	11457	11399	11641	11536	0.87	0.88	0.88	0.88	0.89	

Table 51 – 12K Heating — 37MARA – One-Way Cassette (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
294	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4665	4572	4549	4531	4490	0.88	0.88	0.88	0.89	0.89
	-4°F (-20.0°C)	6345	6218	6187	6162	6107	0.94	0.95	0.95	0.96	0.96
	0°F (-17.8°C)	7091	6949	6915	6887	6825	0.97	0.97	0.98	0.98	0.98
	5°F (-15.0°C)	8024	7864	7825	7793	7723	1.00	1.00	1.01	1.01	1.01
	14°F (-10.0°C)	9004	8824	8780	8745	8666	1.08	1.09	1.09	1.09	1.10
	17°F (-8.3°C)	9331	9144	9098	9062	8980	1.11	1.12	1.12	1.12	1.13
	22°F (-5.6°C)	9439	9250	9204	9167	9084	1.10	1.11	1.11	1.12	1.12
	27°F (-2.8°C)	9547	9356	9309	9272	9188	1.10	1.11	1.11	1.11	1.12
	32°F (0.0°C)	9655	9462	9414	9377	9292	1.09	1.10	1.10	1.10	1.11
	35°F (1.7°C)	9719	9525	9477	9439	9355	1.09	1.10	1.10	1.10	1.11
	37°F (2.8°C)	10494	10284	10233	10192	10100	1.12	1.13	1.13	1.13	1.14
	42°F (5.6°C)	12432	12183	12122	12074	11965	1.20	1.21	1.21	1.22	1.22
	44.6°F (7.0°C)	13207	12943	12878	12826	12711	1.23	1.24	1.25	1.25	1.25
	47°F (8.3°C)	14369	14082	14011	13955	13830	1.28	1.29	1.30	1.30	1.30
	52°F (11.1°C)	13922	13644	13575	13521	13399	1.17	1.17	1.18	1.18	1.18
	57°F (13.9°C)	13475	13206	13140	13087	12969	1.05	1.06	1.06	1.06	1.06
	59°F (15.0°C)	13296	13030	12965	12913	12797	1.00	1.01	1.01	1.01	1.02
62°F (16.7°C)	13028	12767	12704	12653	12539	0.93	0.94	0.94	0.94	0.94	
64.4°F (18.0°C)	12849	12592	12529	12479	12367	0.88	0.89	0.89	0.89	0.90	
341	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5128	5025	5000	4980	4935	0.88	0.89	0.89	0.90	0.90
	-4°F (-20.0°C)	6974	6834	6800	6773	6712	0.95	0.96	0.96	0.96	0.97
	0°F (-17.8°C)	7794	7638	7600	7570	7501	0.98	0.98	0.99	0.99	0.99
	5°F (-15.0°C)	8820	8643	8600	8566	8489	1.01	1.01	1.02	1.02	1.02
	14°F (-10.0°C)	9896	9698	9650	9611	9525	1.09	1.10	1.10	1.10	1.11
	17°F (-8.3°C)	10255	10050	10000	9960	9870	1.12	1.13	1.13	1.13	1.14
	22°F (-5.6°C)	10374	10167	10116	10075	9985	1.11	1.12	1.13	1.13	1.13
	27°F (-2.8°C)	10493	10283	10231	10191	10099	1.11	1.12	1.12	1.12	1.13
	32°F (0.0°C)	10611	10399	10347	10306	10213	1.10	1.11	1.11	1.12	1.12
	35°F (1.7°C)	10683	10469	10417	10375	10282	1.10	1.11	1.11	1.11	1.12
	37°F (2.8°C)	11534	11304	11247	11202	11101	1.13	1.14	1.14	1.15	1.15
	42°F (5.6°C)	13664	13391	13324	13270	13151	1.21	1.22	1.23	1.23	1.23
	44.6°F (7.0°C)	14516	14225	14154	14098	13971	1.25	1.26	1.26	1.26	1.27
	47°F (8.3°C)	15793	15477	15400	15338	15200	1.30	1.31	1.31	1.31	1.32
	52°F (11.1°C)	15302	14996	14921	14861	14727	1.18	1.19	1.19	1.19	1.20
	57°F (13.9°C)	14810	14514	14442	14384	14254	1.06	1.07	1.07	1.07	1.07
	59°F (15.0°C)	14614	14322	14250	14193	14065	1.01	1.02	1.02	1.02	1.03
62°F (16.7°C)	14319	14033	13962	13907	13781	0.94	0.95	0.95	0.95	0.95	
64.4°F (18.0°C)	14122	13840	13771	13716	13592	0.89	0.90	0.90	0.90	0.90	

Table 52 – 9K Heating — 37MARA – 4-Way Cassette

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
182	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3785	3709	3690	3396	3365	0.90	0.91	0.91	0.91	0.92
	-4°F (-20.0°C)	4712	4617	4594	4228	4190	0.95	0.96	0.96	0.97	0.97
	0°F (-17.8°C)	5467	5357	5331	4905	4861	1.01	1.02	1.02	1.02	1.02
	5°F (-15.0°C)	6411	6283	6251	5752	5701	1.08	1.09	1.09	1.09	1.09
	14°F (-10.0°C)	6990	6850	6816	6272	6216	1.04	1.05	1.05	1.05	1.06
	17°F (-8.3°C)	7183	7040	7004	6445	6387	1.03	1.04	1.04	1.04	1.05
	22°F (-5.6°C)	7604	7452	7414	6823	6761	1.06	1.06	1.07	1.07	1.07
	27°F (-2.8°C)	8024	7864	7824	7200	7135	1.08	1.09	1.09	1.09	1.10
	32°F (0.0°C)	8445	8276	8234	7577	7509	1.11	1.11	1.12	1.12	1.12
	35°F (1.7°C)	8697	8523	8480	7804	7733	1.12	1.13	1.13	1.13	1.14
	37°F (2.8°C)	9011	8831	8787	8085	8013	1.11	1.12	1.12	1.12	1.13
	42°F (5.6°C)	9796	9600	9552	8790	8711	1.09	1.10	1.10	1.10	1.11
	44.6°F (7.0°C)	10111	9908	9859	9072	8990	1.08	1.09	1.09	1.09	1.10
	47°F (8.3°C)	10582	10370	10318	9495	9409	1.07	1.07	1.08	1.08	1.08
	52°F (11.1°C)	10473	10263	10212	9397	9312	0.98	0.99	0.99	0.99	0.99
	57°F (13.9°C)	10364	10156	10106	9299	9216	0.89	0.90	0.90	0.90	0.90
	59°F (15.0°C)	10320	10114	10063	9260	9177	0.85	0.86	0.86	0.86	0.87
62°F (16.7°C)	10255	10050	9999	9201	9119	0.80	0.81	0.81	0.81	0.81	
64.4°F (18.0°C)	10211	10007	9957	9162	9080	0.76	0.77	0.77	0.77	0.78	
265	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4160	4077	4056	3883	3848	0.91	0.92	0.92	0.92	0.93
	-4°F (-20.0°C)	5179	5075	5050	4834	4791	0.96	0.97	0.97	0.98	0.98
	0°F (-17.8°C)	6009	5888	5859	5609	5559	1.02	1.03	1.03	1.03	1.04
	5°F (-15.0°C)	7046	6905	6871	6578	6518	1.09	1.10	1.10	1.10	1.11
	14°F (-10.0°C)	7683	7529	7492	7172	7108	1.05	1.06	1.06	1.07	1.07
	17°F (-8.3°C)	7895	7737	7699	7370	7304	1.04	1.05	1.05	1.05	1.06
	22°F (-5.6°C)	8357	8190	8149	7802	7731	1.07	1.07	1.08	1.08	1.08
	27°F (-2.8°C)	8819	8643	8600	8233	8159	1.09	1.10	1.10	1.10	1.11
	32°F (0.0°C)	9281	9096	9050	8664	8586	1.12	1.13	1.13	1.13	1.13
	35°F (1.7°C)	9559	9367	9321	8923	8843	1.13	1.14	1.14	1.15	1.15
	37°F (2.8°C)	9904	9706	9657	9245	9162	1.12	1.13	1.13	1.14	1.14
	42°F (5.6°C)	10767	10552	10499	10051	9961	1.10	1.11	1.11	1.11	1.12
	44.6°F (7.0°C)	11112	10890	10836	10374	10280	1.09	1.10	1.10	1.10	1.11
	47°F (8.3°C)	11630	11398	11341	10857	10759	1.08	1.09	1.09	1.09	1.09
	52°F (11.1°C)	11511	11280	11224	10745	10649	0.99	1.00	1.00	1.00	1.00
	57°F (13.9°C)	11391	11163	11107	10633	10538	0.90	0.91	0.91	0.91	0.91
	59°F (15.0°C)	11343	11116	11060	10589	10493	0.86	0.87	0.87	0.87	0.88
62°F (16.7°C)	11271	11045	10990	10521	10427	0.81	0.81	0.82	0.82	0.82	
64.4°F (18.0°C)	11223	10998	10943	10477	10382	0.77	0.78	0.78	0.78	0.78	

Table 52 – 9K Heating — 37MARA – 4-Way Cassette (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
312	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4572	4481	4458	4440	4400	0.92	0.93	0.93	0.93	0.93
	-4°F (-20.0°C)	5692	5578	5550	5528	5478	0.97	0.98	0.98	0.99	0.99
	0°F (-17.8°C)	6604	6472	6440	6414	6356	1.03	1.04	1.04	1.04	1.05
	5°F (-15.0°C)	7744	7590	7552	7521	7454	1.10	1.11	1.11	1.11	1.12
	14°F (-10.0°C)	8444	8275	8234	8201	8127	1.06	1.07	1.07	1.08	1.08
	17°F (-8.3°C)	8678	8504	8461	8428	8352	1.05	1.06	1.06	1.06	1.07
	22°F (-5.6°C)	9185	9002	8957	8921	8841	1.08	1.09	1.09	1.09	1.09
	27°F (-2.8°C)	9693	9499	9452	9414	9329	1.10	1.11	1.11	1.12	1.12
	32°F (0.0°C)	10201	9997	9947	9907	9818	1.13	1.14	1.14	1.14	1.15
	35°F (1.7°C)	10506	10296	10244	10203	10112	1.14	1.15	1.15	1.16	1.16
	37°F (2.8°C)	10885	10668	10614	10572	10477	1.13	1.14	1.15	1.15	1.15
	42°F (5.6°C)	11834	11598	11540	11493	11390	1.11	1.12	1.12	1.12	1.13
	44.6°F (7.0°C)	12214	11969	11910	11862	11755	1.10	1.11	1.11	1.12	1.12
	47°F (8.3°C)	12783	12527	12465	12415	12303	1.09	1.10	1.10	1.10	1.11
	52°F (11.1°C)	12651	12398	12336	12287	12176	1.00	1.01	1.01	1.01	1.01
	57°F (13.9°C)	12520	12269	12208	12159	12050	0.91	0.91	0.92	0.92	0.92
	59°F (15.0°C)	12467	12218	12156	12108	11999	0.87	0.88	0.88	0.88	0.88
62°F (16.7°C)	12388	12140	12079	12031	11923	0.82	0.82	0.82	0.83	0.83	
64.4°F (18.0°C)	12335	12088	12028	11980	11872	0.78	0.79	0.79	0.79	0.79	
353	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5025	4925	4900	4880	4836	0.93	0.94	0.94	0.94	0.94
	-4°F (-20.0°C)	6256	6131	6100	6076	6021	0.98	0.99	0.99	1.00	1.00
	0°F (-17.8°C)	7259	7113	7078	7049	6986	1.04	1.05	1.05	1.05	1.06
	5°F (-15.0°C)	8512	8342	8300	8267	8192	1.11	1.12	1.12	1.12	1.13
	14°F (-10.0°C)	9281	9095	9050	9014	8933	1.07	1.08	1.09	1.09	1.09
	17°F (-8.3°C)	9537	9347	9300	9263	9179	1.06	1.07	1.07	1.08	1.08
	22°F (-5.6°C)	10096	9894	9844	9805	9717	1.09	1.10	1.10	1.10	1.11
	27°F (-2.8°C)	10654	10441	10389	10347	10254	1.11	1.12	1.12	1.13	1.13
	32°F (0.0°C)	11212	10988	10933	10889	10791	1.14	1.15	1.15	1.15	1.16
	35°F (1.7°C)	11547	11316	11260	11215	11114	1.15	1.16	1.17	1.17	1.17
	37°F (2.8°C)	11964	11725	11666	11620	11515	1.15	1.15	1.16	1.16	1.16
	42°F (5.6°C)	13007	12747	12683	12632	12519	1.12	1.13	1.13	1.14	1.14
	44.6°F (7.0°C)	13424	13156	13090	13038	12920	1.11	1.12	1.12	1.13	1.13
	47°F (8.3°C)	14050	13769	13700	13645	13522	1.10	1.11	1.11	1.11	1.12
	52°F (11.1°C)	13905	13627	13559	13505	13383	1.01	1.02	1.02	1.02	1.02
	57°F (13.9°C)	13760	13485	13418	13364	13244	0.92	0.92	0.93	0.93	0.93
	59°F (15.0°C)	13702	13428	13361	13308	13188	0.88	0.89	0.89	0.89	0.89
62°F (16.7°C)	13615	13343	13276	13223	13104	0.82	0.83	0.83	0.83	0.84	
64.4°F (18.0°C)	13558	13286	13220	13167	13049	0.79	0.79	0.80	0.80	0.80	

Table 53 – 12K Heating — 37MARA – 4-Way Cassette

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
194	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3955	3876	3856	3543	3511	0.89	0.90	0.90	0.90	0.91
	-4°F (-20.0°C)	5000	4900	4875	4479	4439	0.95	0.96	0.96	0.96	0.97
	0°F (-17.8°C)	5563	5452	5425	4984	4939	0.97	0.98	0.98	0.98	0.98
	5°F (-15.0°C)	6268	6143	6112	5616	5565	0.99	0.99	1.00	1.00	1.00
	14°F (-10.0°C)	6772	6636	6603	6067	6012	1.02	1.03	1.03	1.03	1.04
	17°F (-8.3°C)	6940	6801	6767	6217	6161	1.03	1.04	1.04	1.04	1.05
	22°F (-5.6°C)	7243	7098	7062	6489	6430	1.03	1.04	1.05	1.05	1.05
	27°F (-2.8°C)	7545	7395	7358	6760	6699	1.04	1.05	1.05	1.05	1.06
	32°F (0.0°C)	7848	7691	7653	7031	6968	1.04	1.05	1.05	1.06	1.06
	35°F (1.7°C)	8030	7869	7830	7194	7129	1.04	1.05	1.06	1.06	1.06
	37°F (2.8°C)	8557	8386	8344	7667	7598	1.06	1.07	1.07	1.08	1.08
	42°F (5.6°C)	9875	9678	9629	8847	8768	1.11	1.12	1.12	1.12	1.13
	44.6°F (7.0°C)	10402	10194	10143	9320	9236	1.13	1.13	1.14	1.14	1.14
	47°F (8.3°C)	11193	10969	10914	10028	9938	1.15	1.16	1.16	1.17	1.17
	52°F (11.1°C)	10833	10616	10563	9705	9618	1.07	1.08	1.08	1.08	1.08
	57°F (13.9°C)	10472	10263	10212	9382	9298	0.98	0.99	0.99	0.99	1.00
	59°F (15.0°C)	10328	10122	10071	9253	9170	0.95	0.96	0.96	0.96	0.96
62°F (16.7°C)	10112	9910	9860	9059	8978	0.90	0.90	0.91	0.91	0.91	
64.4°F (18.0°C)	9968	9768	9719	8930	8850	0.86	0.87	0.87	0.87	0.88	
306	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4397	4309	4288	4102	4065	0.90	0.91	0.91	0.91	0.92
	-4°F (-20.0°C)	5559	5447	5420	5185	5138	0.96	0.97	0.97	0.97	0.98
	0°F (-17.8°C)	6185	6062	6031	5770	5718	0.98	0.98	0.99	0.99	0.99
	5°F (-15.0°C)	6969	6830	6795	6501	6442	1.00	1.00	1.01	1.01	1.01
	14°F (-10.0°C)	7529	7378	7342	7023	6960	1.03	1.04	1.04	1.04	1.05
	17°F (-8.3°C)	7716	7561	7524	7197	7132	1.04	1.05	1.05	1.05	1.06
	22°F (-5.6°C)	8052	7891	7852	7511	7444	1.05	1.05	1.06	1.06	1.06
	27°F (-2.8°C)	8389	8221	8180	7825	7755	1.05	1.06	1.06	1.06	1.07
	32°F (0.0°C)	8726	8551	8509	8139	8066	1.05	1.06	1.06	1.07	1.07
	35°F (1.7°C)	8928	8749	8706	8328	8253	1.06	1.06	1.07	1.07	1.07
	37°F (2.8°C)	9514	9324	9277	8875	8795	1.07	1.08	1.08	1.09	1.09
	42°F (5.6°C)	10979	10760	10706	10241	10149	1.12	1.13	1.13	1.13	1.14
	44.6°F (7.0°C)	11565	11334	11277	10788	10691	1.14	1.15	1.15	1.15	1.16
	47°F (8.3°C)	12445	12196	12135	11608	11504	1.16	1.17	1.18	1.18	1.18
	52°F (11.1°C)	12044	11803	11744	11235	11133	1.08	1.09	1.09	1.09	1.10
	57°F (13.9°C)	11643	11410	11353	10861	10763	0.99	1.00	1.00	1.00	1.01
	59°F (15.0°C)	11483	11253	11197	10711	10615	0.96	0.97	0.97	0.97	0.97
62°F (16.7°C)	11242	11018	10963	10487	10393	0.91	0.91	0.92	0.92	0.92	
64.4°F (18.0°C)	11082	10861	10806	10337	10244	0.87	0.88	0.88	0.88	0.89	

Table 53 – 12K Heating — 37MARA – 4-Way Cassette (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
365	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4889	4791	4767	4748	4705	0.91	0.92	0.92	0.92	0.93
	-4°F (-20.0°C)	6180	6057	6026	6002	5948	0.97	0.98	0.98	0.98	0.99
	0°F (-17.8°C)	6877	6739	6706	6679	6619	0.99	0.99	1.00	1.00	1.00
	5°F (-15.0°C)	7748	7593	7555	7525	7457	1.01	1.01	1.02	1.02	1.02
	14°F (-10.0°C)	8371	8203	8162	8130	8057	1.04	1.05	1.05	1.05	1.06
	17°F (-8.3°C)	8578	8407	8365	8331	8256	1.05	1.06	1.06	1.06	1.07
	22°F (-5.6°C)	8953	8774	8730	8695	8617	1.06	1.06	1.07	1.07	1.07
	27°F (-2.8°C)	9327	9141	9095	9058	8977	1.06	1.07	1.07	1.07	1.08
	32°F (0.0°C)	9701	9507	9460	9422	9337	1.06	1.07	1.07	1.08	1.08
	35°F (1.7°C)	9926	9728	9679	9640	9553	1.07	1.07	1.08	1.08	1.08
	37°F (2.8°C)	10578	10366	10314	10273	10181	1.08	1.09	1.10	1.10	1.10
	42°F (5.6°C)	12207	11963	11903	11855	11749	1.13	1.14	1.14	1.14	1.15
	44.6°F (7.0°C)	12859	12601	12538	12488	12376	1.15	1.16	1.16	1.16	1.17
	47°F (8.3°C)	13836	13559	13492	13438	13317	1.18	1.19	1.19	1.19	1.20
	52°F (11.1°C)	13391	13123	13057	13005	12888	1.09	1.10	1.10	1.10	1.11
	57°F (13.9°C)	12945	12686	12623	12572	12459	1.00	1.01	1.01	1.01	1.02
	59°F (15.0°C)	12767	12511	12449	12399	12287	0.97	0.98	0.98	0.98	0.98
62°F (16.7°C)	12499	12249	12188	12139	12030	0.92	0.92	0.93	0.93	0.93	
64.4°F (18.0°C)	12321	12075	12014	11966	11859	0.88	0.89	0.89	0.89	0.90	
418	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5435	5327	5300	5279	5231	0.92	0.93	0.93	0.93	0.94
	-4°F (-20.0°C)	6871	6734	6700	6673	6613	0.98	0.99	0.99	0.99	1.00
	0°F (-17.8°C)	7646	7493	7456	7426	7359	1.00	1.00	1.01	1.01	1.01
	5°F (-15.0°C)	8615	8442	8400	8366	8291	1.02	1.02	1.03	1.03	1.03
	14°F (-10.0°C)	9307	9121	9075	9039	8957	1.05	1.06	1.06	1.06	1.07
	17°F (-8.3°C)	9537	9347	9300	9263	9179	1.06	1.07	1.07	1.08	1.08
	22°F (-5.6°C)	9954	9755	9706	9667	9580	1.07	1.07	1.08	1.08	1.08
	27°F (-2.8°C)	10370	10163	10112	10071	9981	1.07	1.08	1.08	1.08	1.09
	32°F (0.0°C)	10786	10570	10518	10475	10381	1.07	1.08	1.09	1.09	1.09
	35°F (1.7°C)	11036	10815	10761	10718	10622	1.08	1.09	1.09	1.09	1.09
	37°F (2.8°C)	11760	11525	11468	11422	11319	1.10	1.10	1.11	1.11	1.11
	42°F (5.6°C)	13572	13300	13234	13181	13062	1.14	1.15	1.15	1.16	1.16
	44.6°F (7.0°C)	14296	14010	13940	13884	13760	1.16	1.17	1.17	1.17	1.18
	47°F (8.3°C)	15383	15075	15000	14940	14806	1.19	1.20	1.20	1.20	1.21
	52°F (11.1°C)	14888	14590	14517	14459	14329	1.10	1.11	1.11	1.11	1.12
	57°F (13.9°C)	14392	14104	14034	13978	13852	1.01	1.02	1.02	1.02	1.03
	59°F (15.0°C)	14194	13910	13841	13785	13661	0.98	0.99	0.99	0.99	0.99
62°F (16.7°C)	13897	13619	13551	13497	13375	0.93	0.93	0.93	0.94	0.94	
64.4°F (18.0°C)	13699	13425	13358	13304	13185	0.89	0.90	0.90	0.90	0.90	

Table 54 – 18K Heating — 37MARA – 4-Way Cassette

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
176	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	6092	5970	5940	5251	5204	1.42	1.44	1.44	1.44	1.45
	-4°F (-20.0°C)	7780	7624	7586	6707	6646	1.51	1.52	1.52	1.53	1.53
	0°F (-17.8°C)	8497	8327	8286	7325	7259	1.57	1.58	1.58	1.58	1.59
	5°F (-15.0°C)	9394	9206	9160	8099	8026	1.64	1.65	1.65	1.66	1.66
	14°F (-10.0°C)	10495	10285	10234	9048	8966	1.73	1.75	1.75	1.75	1.76
	17°F (-8.3°C)	10862	10645	10592	9364	9280	1.77	1.78	1.78	1.79	1.79
	22°F (-5.6°C)	11484	11255	11198	9900	9811	1.79	1.81	1.81	1.81	1.82
	27°F (-2.8°C)	12106	11864	11805	10437	10343	1.82	1.83	1.84	1.84	1.85
	32°F (0.0°C)	12728	12474	12412	10973	10874	1.85	1.86	1.86	1.87	1.88
	35°F (1.7°C)	13102	12840	12775	11295	11193	1.86	1.88	1.88	1.88	1.89
	37°F (2.8°C)	13560	13289	13223	11690	11585	1.86	1.88	1.88	1.88	1.89
	42°F (5.6°C)	14707	14412	14340	12678	12564	1.86	1.87	1.88	1.88	1.89
	44.6°F (7.0°C)	15165	14862	14787	13073	12956	1.86	1.87	1.87	1.88	1.89
	47°F (8.3°C)	15853	15536	15458	13666	13543	1.85	1.87	1.87	1.88	1.88
	52°F (11.1°C)	15037	14736	14663	12963	12846	1.51	1.53	1.53	1.53	1.54
	57°F (13.9°C)	14221	13937	13867	12260	12150	1.17	1.18	1.18	1.19	1.19
59°F (15.0°C)	13895	13617	13549	11979	11871	1.04	1.04	1.05	1.05	1.05	
62°F (16.7°C)	13406	13137	13072	11557	11453	0.83	0.84	0.84	0.84	0.85	
64.4°F (18.0°C)	13079	12818	12754	11275	11174	0.70	0.70	0.70	0.70	0.71	
318	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	6810	6674	6641	6231	6175	1.44	1.45	1.45	1.46	1.46
	-4°F (-20.0°C)	8697	8523	8481	7958	7887	1.52	1.53	1.54	1.54	1.55
	0°F (-17.8°C)	9500	9310	9263	8692	8614	1.58	1.59	1.60	1.60	1.61
	5°F (-15.0°C)	10503	10293	10241	9610	9524	1.65	1.67	1.67	1.67	1.68
	14°F (-10.0°C)	11733	11499	11441	10736	10640	1.75	1.77	1.77	1.77	1.78
	17°F (-8.3°C)	12144	11901	11841	11112	11012	1.78	1.80	1.80	1.81	1.81
	22°F (-5.6°C)	12839	12582	12519	11748	11642	1.81	1.82	1.83	1.83	1.84
	27°F (-2.8°C)	13535	13264	13198	12384	12273	1.84	1.85	1.86	1.86	1.87
	32°F (0.0°C)	14230	13945	13876	13021	12904	1.86	1.88	1.88	1.89	1.89
	35°F (1.7°C)	14647	14354	14283	13403	13282	1.88	1.90	1.90	1.90	1.91
	37°F (2.8°C)	15160	14857	14783	13872	13747	1.88	1.89	1.90	1.90	1.91
	42°F (5.6°C)	16442	16113	16032	15044	14909	1.88	1.89	1.89	1.90	1.91
	44.6°F (7.0°C)	16954	16615	16532	15513	15374	1.87	1.89	1.89	1.90	1.90
	47°F (8.3°C)	17723	17369	17282	16217	16071	1.87	1.89	1.89	1.90	1.90
	52°F (11.1°C)	16811	16475	16392	15382	15244	1.53	1.54	1.54	1.55	1.55
	57°F (13.9°C)	15899	15581	15503	14548	14417	1.18	1.19	1.20	1.20	1.20
59°F (15.0°C)	15534	15224	15147	14214	14086	1.05	1.06	1.06	1.06	1.06	
62°F (16.7°C)	14987	14687	14614	13713	13590	0.84	0.85	0.85	0.85	0.85	
64.4°F (18.0°C)	14622	14330	14258	13380	13259	0.70	0.71	0.71	0.71	0.71	

Table 54 – 18K Heating — 37MARA – 4-Way Cassette (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
388	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	7614	7461	7424	7394	7328	1.45	1.47	1.47	1.47	1.48
	-4°F (-20.0°C)	9724	9529	9481	9443	9359	1.54	1.55	1.55	1.56	1.56
	0°F (-17.8°C)	10620	10408	10356	10315	10222	1.60	1.61	1.61	1.62	1.62
	5°F (-15.0°C)	11742	11507	11449	11403	11301	1.67	1.68	1.69	1.69	1.70
	14°F (-10.0°C)	13118	12855	12791	12740	12625	1.77	1.78	1.79	1.79	1.80
	17°F (-8.3°C)	13576	13305	13238	13185	13067	1.80	1.82	1.82	1.82	1.83
	22°F (-5.6°C)	14354	14067	13996	13940	13815	1.83	1.84	1.85	1.85	1.86
	27°F (-2.8°C)	15131	14829	14755	14696	14563	1.86	1.87	1.87	1.88	1.89
	32°F (0.0°C)	15909	15591	15513	15451	15312	1.88	1.90	1.90	1.91	1.91
	35°F (1.7°C)	16375	16048	15968	15904	15761	1.90	1.91	1.92	1.92	1.93
	37°F (2.8°C)	16949	16610	16527	16460	16312	1.90	1.91	1.92	1.92	1.93
	42°F (5.6°C)	18381	18014	17924	17852	17691	1.89	1.91	1.91	1.92	1.93
	44.6°F (7.0°C)	18954	18575	18482	18408	18243	1.89	1.91	1.91	1.92	1.92
	47°F (8.3°C)	19814	19418	19321	19243	19070	1.89	1.91	1.91	1.91	1.92
	52°F (11.1°C)	18794	18419	18326	18253	18089	1.54	1.56	1.56	1.56	1.57
	57°F (13.9°C)	17775	17419	17332	17263	17108	1.20	1.21	1.21	1.21	1.22
	59°F (15.0°C)	17367	17020	16935	16867	16715	1.06	1.07	1.07	1.07	1.07
62°F (16.7°C)	16755	16420	16338	16273	16126	0.85	0.86	0.86	0.86	0.86	
64.4°F (18.0°C)	16347	16020	15940	15877	15734	0.71	0.72	0.72	0.72	0.72	
447	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8512	8342	8300	8267	8192	1.47	1.48	1.48	1.49	1.49
	-4°F (-20.0°C)	10871	10653	10600	10558	10463	1.55	1.57	1.57	1.57	1.58
	0°F (-17.8°C)	11873	11636	11578	11531	11428	1.61	1.63	1.63	1.63	1.64
	5°F (-15.0°C)	13127	12864	12800	12749	12634	1.69	1.70	1.71	1.71	1.72
	14°F (-10.0°C)	14665	14372	14300	14243	14115	1.79	1.80	1.80	1.81	1.82
	17°F (-8.3°C)	15178	14874	14800	14741	14608	1.82	1.83	1.84	1.84	1.85
	22°F (-5.6°C)	16047	15726	15648	15585	15445	1.85	1.86	1.87	1.87	1.88
	27°F (-2.8°C)	16916	16578	16495	16429	16281	1.87	1.89	1.89	1.90	1.90
	32°F (0.0°C)	17786	17430	17343	17274	17118	1.90	1.92	1.92	1.92	1.93
	35°F (1.7°C)	18307	17941	17851	17780	17620	1.92	1.93	1.94	1.94	1.95
	37°F (2.8°C)	18948	18569	18476	18402	18237	1.92	1.93	1.94	1.94	1.95
	42°F (5.6°C)	20550	20139	20038	19958	19778	1.91	1.93	1.93	1.94	1.94
	44.6°F (7.0°C)	21191	20767	20663	20580	20395	1.91	1.93	1.93	1.94	1.94
	47°F (8.3°C)	22152	21709	21600	21514	21320	1.91	1.93	1.93	1.93	1.94
	52°F (11.1°C)	21012	20591	20488	20407	20223	1.56	1.57	1.58	1.58	1.58
	57°F (13.9°C)	19872	19474	19377	19299	19126	1.21	1.22	1.22	1.22	1.23
	59°F (15.0°C)	19416	19028	18932	18857	18687	1.07	1.08	1.08	1.08	1.09
62°F (16.7°C)	18732	18357	18265	18192	18029	0.86	0.86	0.87	0.87	0.87	
64.4°F (18.0°C)	18276	17910	17821	17750	17590	0.72	0.72	0.72	0.73	0.73	

Table 55 – 24K Heating — 37MARA – 4-Way Cassette

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
547	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9167	8983	8938	8463	8387	1.82	1.83	1.84	1.84	1.85
	-4°F (-20.0°C)	11282	11056	11001	10416	10322	1.93	1.94	1.95	1.95	1.96
	0°F (-17.8°C)	13515	13245	13178	12478	12365	2.08	2.09	2.10	2.10	2.11
	5°F (-15.0°C)	16306	15980	15900	15054	14919	2.26	2.28	2.29	2.29	2.30
	14°F (-10.0°C)	17628	17276	17189	16275	16129	2.26	2.28	2.29	2.29	2.30
	17°F (-8.3°C)	18069	17707	17619	16682	16532	2.26	2.28	2.29	2.29	2.30
	22°F (-5.6°C)	17941	17582	17494	16564	16415	2.24	2.26	2.27	2.27	2.28
	27°F (-2.8°C)	17813	17457	17369	16446	16298	2.22	2.24	2.24	2.25	2.26
	32°F (0.0°C)	17685	17331	17245	16328	16181	2.20	2.22	2.22	2.23	2.24
	35°F (1.7°C)	17608	17256	17170	16257	16110	2.19	2.21	2.21	2.21	2.22
	37°F (2.8°C)	19551	19160	19064	18050	17888	2.28	2.30	2.30	2.30	2.31
	42°F (5.6°C)	24407	23918	23799	22533	22331	2.50	2.52	2.52	2.53	2.54
	44.6°F (7.0°C)	26349	25822	25693	24327	24108	2.59	2.61	2.61	2.62	2.63
	47°F (8.3°C)	29263	28677	28534	27017	26774	2.72	2.74	2.75	2.75	2.76
	52°F (11.1°C)	28846	28269	28128	26632	26392	2.52	2.54	2.55	2.55	2.56
	57°F (13.9°C)	28429	27860	27721	26247	26011	2.33	2.35	2.35	2.36	2.36
	59°F (15.0°C)	28262	27697	27558	26093	25858	2.25	2.27	2.27	2.28	2.28
62°F (16.7°C)	28012	27452	27314	25862	25629	2.13	2.15	2.15	2.16	2.17	
64.4°F (18.0°C)	27845	27288	27152	25708	25477	2.05	2.07	2.07	2.08	2.09	
635	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9641	9448	9401	9130	9047	1.84	1.85	1.86	1.86	1.87
	-4°F (-20.0°C)	11866	11629	11571	11236	11135	1.95	1.96	1.97	1.97	1.98
	0°F (-17.8°C)	14215	13930	13861	13460	13339	2.10	2.11	2.12	2.12	2.13
	5°F (-15.0°C)	17150	16807	16723	16240	16094	2.29	2.31	2.31	2.32	2.32
	14°F (-10.0°C)	18541	18170	18079	17557	17399	2.29	2.30	2.31	2.31	2.32
	17°F (-8.3°C)	19004	18624	18531	17996	17834	2.29	2.30	2.31	2.31	2.32
	22°F (-5.6°C)	18870	18492	18400	17868	17707	2.27	2.28	2.29	2.29	2.30
	27°F (-2.8°C)	18735	18361	18269	17741	17581	2.24	2.26	2.27	2.27	2.28
	32°F (0.0°C)	18601	18229	18137	17613	17455	2.22	2.24	2.25	2.25	2.26
	35°F (1.7°C)	18520	18149	18059	17537	17379	2.21	2.23	2.23	2.24	2.25
	37°F (2.8°C)	20563	20152	20051	19471	19296	2.30	2.32	2.32	2.33	2.34
	42°F (5.6°C)	25670	25157	25031	24308	24089	2.52	2.54	2.55	2.55	2.56
	44.6°F (7.0°C)	27713	27159	27023	26242	26006	2.61	2.63	2.64	2.64	2.65
	47°F (8.3°C)	30778	30162	30012	29144	28882	2.75	2.77	2.77	2.78	2.79
	52°F (11.1°C)	30339	29733	29584	28729	28470	2.55	2.57	2.57	2.58	2.59
	57°F (13.9°C)	29901	29303	29156	28314	28059	2.35	2.37	2.37	2.38	2.39
	59°F (15.0°C)	29725	29131	28985	28148	27894	2.27	2.29	2.29	2.30	2.31
62°F (16.7°C)	29462	28873	28729	27898	27647	2.15	2.17	2.17	2.18	2.19	
64.4°F (18.0°C)	29287	28701	28558	27732	27483	2.07	2.09	2.09	2.10	2.11	

Table 55 – 24K Heating — 37MARA – 4-Way Cassette (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
706	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	10140	9938	9888	9848	9760	1.86	1.87	1.87	1.88	1.89
	-4°F (-20.0°C)	12481	12231	12170	12121	12012	1.97	1.98	1.99	1.99	2.00
	0°F (-17.8°C)	14951	14652	14578	14520	14389	2.12	2.14	2.14	2.14	2.15
	5°F (-15.0°C)	18038	17678	17589	17519	17361	2.31	2.33	2.33	2.34	2.35
	14°F (-10.0°C)	19501	19111	19015	18939	18769	2.31	2.33	2.33	2.34	2.35
	17°F (-8.3°C)	19988	19589	19491	19413	19238	2.31	2.33	2.33	2.34	2.35
	22°F (-5.6°C)	19847	19450	19353	19275	19102	2.29	2.31	2.31	2.32	2.33
	27°F (-2.8°C)	19705	19311	19215	19138	18966	2.27	2.29	2.29	2.29	2.30
	32°F (0.0°C)	19564	19172	19077	19000	18829	2.25	2.26	2.27	2.27	2.28
	35°F (1.7°C)	19479	19089	18994	18918	18748	2.23	2.25	2.26	2.26	2.27
	37°F (2.8°C)	21628	21195	21089	21005	20816	2.32	2.34	2.35	2.35	2.36
	42°F (5.6°C)	27000	26460	26327	26222	25986	2.55	2.57	2.57	2.58	2.59
	44.6°F (7.0°C)	29148	28565	28423	28309	28054	2.64	2.66	2.67	2.67	2.68
	47°F (8.3°C)	32372	31724	31566	31439	31156	2.77	2.80	2.80	2.81	2.82
	52°F (11.1°C)	31910	31272	31116	30991	30712	2.57	2.59	2.60	2.61	2.62
	57°F (13.9°C)	31449	30820	30666	30543	30269	2.37	2.39	2.40	2.40	2.41
	59°F (15.0°C)	31265	30639	30486	30364	30091	2.29	2.31	2.32	2.32	2.33
	62°F (16.7°C)	30988	30368	30216	30095	29825	2.17	2.19	2.20	2.20	2.21
64.4°F (18.0°C)	30803	30187	30036	29916	29647	2.09	2.11	2.12	2.12	2.13	
765	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	10666	10452	10400	10358	10265	1.87	1.89	1.89	1.90	1.90
	-4°F (-20.0°C)	13127	12864	12800	12749	12634	1.99	2.00	2.01	2.01	2.02
	0°F (-17.8°C)	15725	15410	15333	15272	15135	2.14	2.16	2.16	2.17	2.18
	5°F (-15.0°C)	18972	18593	18500	18426	18260	2.33	2.35	2.36	2.36	2.37
	14°F (-10.0°C)	20511	20101	20000	19920	19741	2.33	2.35	2.36	2.36	2.37
	17°F (-8.3°C)	21023	20603	20500	20418	20234	2.33	2.35	2.36	2.36	2.37
	22°F (-5.6°C)	20875	20457	20355	20273	20091	2.31	2.33	2.33	2.34	2.35
	27°F (-2.8°C)	20726	20311	20210	20129	19948	2.29	2.31	2.31	2.32	2.33
	32°F (0.0°C)	20577	20165	20064	19984	19804	2.27	2.29	2.29	2.30	2.31
	35°F (1.7°C)	20487	20078	19977	19897	19718	2.26	2.27	2.28	2.28	2.29
	37°F (2.8°C)	22747	22293	22181	22092	21893	2.35	2.37	2.37	2.37	2.38
	42°F (5.6°C)	28398	27830	27691	27580	27332	2.57	2.59	2.60	2.61	2.62
	44.6°F (7.0°C)	30658	30045	29894	29775	29507	2.67	2.69	2.69	2.70	2.71
	47°F (8.3°C)	34048	33367	33200	33067	32770	2.80	2.82	2.83	2.84	2.85
	52°F (11.1°C)	33563	32891	32727	32596	32303	2.60	2.62	2.63	2.63	2.64
	57°F (13.9°C)	33078	32416	32254	32125	31836	2.40	2.42	2.42	2.43	2.44
	59°F (15.0°C)	32884	32226	32065	31936	31649	2.32	2.34	2.34	2.35	2.35
	62°F (16.7°C)	32592	31941	31781	31654	31369	2.20	2.21	2.22	2.22	2.23
64.4°F (18.0°C)	32398	31750	31592	31465	31182	2.12	2.13	2.14	2.14	2.15	

Table 56 – 9K Heating — 37MARA – AE Console

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
188	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3203	3139	3123	3155	3127	0.91	0.92	0.92	0.92	0.93
	-4°F (-20.0°C)	4387	4299	4278	4321	4282	0.97	0.98	0.98	0.98	0.98
	0°F (-17.8°C)	5099	4997	4972	5022	4977	1.01	1.02	1.02	1.02	1.03
	5°F (-15.0°C)	5988	5869	5839	5899	5846	1.07	1.08	1.08	1.08	1.08
	14°F (-10.0°C)	6511	6381	6349	6413	6355	1.08	1.09	1.09	1.09	1.09
	17°F (-8.3°C)	6685	6551	6518	6585	6525	1.08	1.09	1.09	1.09	1.10
	22°F (-5.6°C)	7038	6897	6863	6933	6870	1.09	1.10	1.10	1.11	1.11
	27°F (-2.8°C)	7392	7244	7207	7281	7215	1.10	1.11	1.11	1.12	1.12
	32°F (0.0°C)	7745	7590	7552	7629	7560	1.11	1.12	1.13	1.13	1.13
	35°F (1.7°C)	7957	7798	7759	7838	7767	1.12	1.13	1.13	1.13	1.14
	37°F (2.8°C)	8105	7943	7903	7983	7911	1.11	1.12	1.12	1.12	1.13
	42°F (5.6°C)	8474	8305	8263	8347	8272	1.08	1.09	1.09	1.10	1.10
	44.6°F (7.0°C)	8622	8449	8407	8492	8416	1.07	1.08	1.08	1.09	1.09
	47°F (8.3°C)	8843	8667	8623	8711	8632	1.06	1.07	1.07	1.07	1.07
	52°F (11.1°C)	8747	8572	8529	8616	8538	0.97	0.98	0.98	0.98	0.99
	57°F (13.9°C)	8651	8478	8435	8521	8444	0.88	0.89	0.89	0.90	0.90
	59°F (15.0°C)	8612	8440	8398	8483	8407	0.85	0.86	0.86	0.86	0.86
62°F (16.7°C)	8555	8383	8342	8426	8350	0.80	0.81	0.81	0.81	0.81	
64.4°F (18.0°C)	8516	8346	8304	8388	8313	0.76	0.77	0.77	0.77	0.78	
324	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3644	3571	3554	3564	3532	0.92	0.93	0.93	0.93	0.94
	-4°F (-20.0°C)	4991	4891	4867	4882	4838	0.98	0.99	0.99	0.99	0.99
	0°F (-17.8°C)	5801	5685	5657	5674	5623	1.02	1.03	1.03	1.04	1.04
	5°F (-15.0°C)	6813	6677	6644	6664	6604	1.08	1.09	1.09	1.09	1.09
	14°F (-10.0°C)	7408	7259	7223	7245	7180	1.09	1.10	1.10	1.10	1.11
	17°F (-8.3°C)	7606	7453	7416	7439	7372	1.09	1.10	1.10	1.11	1.11
	22°F (-5.6°C)	8008	7847	7808	7832	7762	1.10	1.11	1.11	1.12	1.12
	27°F (-2.8°C)	8410	8241	8200	8225	8151	1.11	1.12	1.13	1.13	1.13
	32°F (0.0°C)	8812	8635	8592	8618	8541	1.13	1.13	1.14	1.14	1.14
	35°F (1.7°C)	9053	8872	8827	8854	8775	1.13	1.14	1.14	1.15	1.15
	37°F (2.8°C)	9221	9037	8991	9019	8938	1.12	1.13	1.13	1.14	1.14
	42°F (5.6°C)	9641	9448	9401	9430	9345	1.09	1.10	1.11	1.11	1.11
	44.6°F (7.0°C)	9809	9613	9565	9594	9508	1.08	1.09	1.09	1.10	1.10
	47°F (8.3°C)	10062	9860	9811	9841	9752	1.07	1.08	1.08	1.08	1.08
	52°F (11.1°C)	9952	9753	9704	9734	9646	0.98	0.99	0.99	0.99	1.00
	57°F (13.9°C)	9842	9646	9597	9627	9540	0.89	0.90	0.90	0.90	0.91
	59°F (15.0°C)	9799	9603	9555	9584	9498	0.86	0.87	0.87	0.87	0.87
62°F (16.7°C)	9733	9538	9491	9519	9434	0.81	0.81	0.82	0.82	0.82	
64.4°F (18.0°C)	9689	9495	9448	9477	9391	0.77	0.78	0.78	0.78	0.78	

Table 56 – 9K Heating — 37MARA – AE Console (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
376	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4146	4063	4043	4027	3991	0.93	0.94	0.94	0.94	0.95
	-4°F (-20.0°C)	5679	5565	5537	5515	5465	0.99	1.00	1.00	1.00	1.00
	0°F (-17.8°C)	6600	6468	6436	6410	6352	1.03	1.04	1.04	1.05	1.05
	5°F (-15.0°C)	7752	7597	7559	7529	7461	1.09	1.10	1.10	1.10	1.11
	14°F (-10.0°C)	8428	8259	8218	8185	8111	1.10	1.11	1.11	1.11	1.12
	17°F (-8.3°C)	8653	8480	8438	8404	8328	1.10	1.11	1.11	1.12	1.12
	22°F (-5.6°C)	9111	8928	8884	8848	8769	1.11	1.12	1.13	1.13	1.13
	27°F (-2.8°C)	9568	9377	9330	9292	9209	1.13	1.13	1.14	1.14	1.14
	32°F (0.0°C)	10025	9825	9776	9737	9649	1.14	1.15	1.15	1.15	1.16
	35°F (1.7°C)	10300	10094	10043	10003	9913	1.14	1.15	1.16	1.16	1.16
	37°F (2.8°C)	10491	10281	10230	10189	10097	1.13	1.14	1.14	1.15	1.15
	42°F (5.6°C)	10969	10750	10696	10653	10558	1.11	1.11	1.12	1.12	1.12
	44.6°F (7.0°C)	11161	10937	10883	10839	10742	1.09	1.10	1.11	1.11	1.11
	47°F (8.3°C)	11447	11219	11162	11118	11018	1.08	1.09	1.09	1.09	1.10
	52°F (11.1°C)	11323	11096	11041	10997	10898	0.99	1.00	1.00	1.00	1.01
	57°F (13.9°C)	11198	10974	10919	10876	10778	0.90	0.91	0.91	0.91	0.92
	59°F (15.0°C)	11148	10925	10871	10827	10730	0.87	0.87	0.88	0.88	0.88
	62°F (16.7°C)	11074	10852	10798	10755	10658	0.82	0.82	0.82	0.83	0.83
64.4°F (18.0°C)	11024	10803	10749	10706	10610	0.78	0.79	0.79	0.79	0.79	
441	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4717	4623	4600	4582	4540	0.94	0.95	0.95	0.95	0.96
	-4°F (-20.0°C)	6461	6332	6300	6275	6218	1.00	1.01	1.01	1.01	1.02
	0°F (-17.8°C)	7509	7359	7322	7293	7227	1.04	1.05	1.05	1.06	1.06
	5°F (-15.0°C)	8820	8643	8600	8566	8489	1.10	1.11	1.11	1.11	1.12
	14°F (-10.0°C)	9589	9397	9350	9313	9229	1.11	1.12	1.12	1.12	1.13
	17°F (-8.3°C)	9845	9648	9600	9562	9476	1.11	1.12	1.13	1.13	1.13
	22°F (-5.6°C)	10366	10158	10107	10067	9976	1.13	1.13	1.14	1.14	1.14
	27°F (-2.8°C)	10886	10668	10615	10572	10477	1.14	1.15	1.15	1.15	1.16
	32°F (0.0°C)	11406	11178	11122	11078	10978	1.15	1.16	1.16	1.16	1.17
	35°F (1.7°C)	11719	11484	11427	11381	11279	1.16	1.16	1.17	1.17	1.17
	37°F (2.8°C)	11936	11697	11639	11592	11488	1.14	1.15	1.16	1.16	1.16
	42°F (5.6°C)	12480	12231	12169	12121	12012	1.12	1.13	1.13	1.13	1.13
	44.6°F (7.0°C)	12698	12444	12382	12332	12221	1.11	1.11	1.12	1.12	1.12
	47°F (8.3°C)	13024	12764	12700	12649	12535	1.09	1.10	1.10	1.10	1.11
	52°F (11.1°C)	12882	12625	12562	12511	12399	1.00	1.01	1.01	1.01	1.02
	57°F (13.9°C)	12741	12486	12423	12374	12262	0.91	0.92	0.92	0.92	0.93
	59°F (15.0°C)	12684	12430	12368	12319	12208	0.88	0.88	0.89	0.89	0.89
	62°F (16.7°C)	12599	12347	12285	12236	12126	0.82	0.83	0.83	0.83	0.84
64.4°F (18.0°C)	12542	12291	12230	12181	12071	0.79	0.79	0.80	0.80	0.80	

Table 57 – 12K Heating — 37MARA – AE Console

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
188	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3203	3139	3123	3155	3127	0.91	0.92	0.92	0.92	0.93
	-4°F (-20.0°C)	4387	4299	4278	4321	4282	0.97	0.98	0.98	0.98	0.98
	0°F (-17.8°C)	5192	5088	5062	5114	5068	0.98	0.99	0.99	1.00	1.00
	5°F (-15.0°C)	6197	6073	6043	6104	6049	1.00	1.01	1.01	1.01	1.02
	14°F (-10.0°C)	6563	6432	6400	6465	6406	1.06	1.07	1.07	1.07	1.08
	17°F (-8.3°C)	6685	6551	6518	6585	6525	1.08	1.09	1.09	1.09	1.10
	22°F (-5.6°C)	6759	6624	6591	6658	6598	1.03	1.04	1.04	1.04	1.05
	27°F (-2.8°C)	6834	6697	6664	6731	6671	0.98	0.99	0.99	0.99	1.00
	32°F (0.0°C)	6908	6770	6736	6805	6744	0.93	0.94	0.94	0.94	0.95
	35°F (1.7°C)	6953	6814	6780	6849	6787	0.90	0.91	0.91	0.91	0.92
	37°F (2.8°C)	7291	7146	7110	7182	7117	0.94	0.95	0.95	0.95	0.96
	42°F (5.6°C)	8137	7974	7934	8015	7943	1.05	1.06	1.06	1.06	1.06
	44.6°F (7.0°C)	8475	8306	8264	8348	8273	1.09	1.10	1.10	1.10	1.11
	47°F (8.3°C)	8983	8803	8759	8848	8768	1.15	1.16	1.16	1.17	1.17
	52°F (11.1°C)	8625	8453	8410	8496	8419	1.07	1.08	1.08	1.08	1.08
	57°F (13.9°C)	8268	8102	8062	8144	8070	0.98	0.99	0.99	0.99	1.00
	59°F (15.0°C)	8125	7962	7922	8003	7931	0.95	0.96	0.96	0.96	0.96
62°F (16.7°C)	7910	7752	7713	7792	7721	0.90	0.90	0.91	0.91	0.91	
64.4°F (18.0°C)	7767	7612	7574	7651	7582	0.86	0.87	0.87	0.87	0.88	
324	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3644	3571	3554	3564	3532	0.92	0.93	0.93	0.93	0.94
	-4°F (-20.0°C)	4991	4891	4867	4882	4838	0.98	0.99	0.99	0.99	0.99
	0°F (-17.8°C)	5907	5789	5760	5777	5725	0.99	1.00	1.00	1.01	1.01
	5°F (-15.0°C)	7051	6910	6875	6896	6834	1.01	1.02	1.02	1.02	1.03
	14°F (-10.0°C)	7467	7318	7281	7303	7238	1.07	1.08	1.08	1.09	1.09
	17°F (-8.3°C)	7606	7453	7416	7439	7372	1.09	1.10	1.10	1.11	1.11
	22°F (-5.6°C)	7690	7537	7499	7522	7454	1.04	1.05	1.05	1.05	1.06
	27°F (-2.8°C)	7775	7620	7582	7605	7536	0.99	1.00	1.00	1.00	1.01
	32°F (0.0°C)	7860	7703	7664	7688	7619	0.94	0.95	0.95	0.95	0.96
	35°F (1.7°C)	7911	7753	7714	7737	7668	0.91	0.92	0.92	0.92	0.92
	37°F (2.8°C)	8296	8130	8089	8114	8041	0.95	0.96	0.96	0.96	0.97
	42°F (5.6°C)	9258	9073	9027	9055	8973	1.06	1.07	1.07	1.07	1.08
	44.6°F (7.0°C)	9643	9450	9403	9431	9346	1.10	1.11	1.11	1.11	1.12
	47°F (8.3°C)	10220	10016	9966	9996	9906	1.16	1.17	1.18	1.18	1.18
	52°F (11.1°C)	9813	9617	9569	9598	9512	1.08	1.09	1.09	1.09	1.10
	57°F (13.9°C)	9407	9218	9172	9200	9117	0.99	1.00	1.00	1.00	1.01
	59°F (15.0°C)	9244	9059	9014	9041	8960	0.96	0.97	0.97	0.97	0.97
62°F (16.7°C)	9000	8820	8776	8802	8723	0.91	0.91	0.92	0.92	0.92	
64.4°F (18.0°C)	8837	8660	8617	8643	8566	0.87	0.88	0.88	0.88	0.89	

Table 57 – 12K Heating — 37MARA – AE Console (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
376	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4146	4063	4043	4027	3991	0.93	0.94	0.94	0.94	0.95
	-4°F (-20.0°C)	5679	5565	5537	5515	5465	0.99	1.00	1.00	1.00	1.00
	0°F (-17.8°C)	6720	6586	6553	6527	6468	1.00	1.01	1.01	1.02	1.02
	5°F (-15.0°C)	8022	7862	7823	7791	7721	1.02	1.03	1.03	1.04	1.04
	14°F (-10.0°C)	8495	8326	8284	8251	8177	1.08	1.09	1.09	1.10	1.10
	17°F (-8.3°C)	8653	8480	8438	8404	8328	1.10	1.11	1.11	1.12	1.12
	22°F (-5.6°C)	8750	8575	8532	8498	8421	1.05	1.06	1.06	1.06	1.07
	27°F (-2.8°C)	8846	8669	8626	8591	8514	1.00	1.01	1.01	1.01	1.02
	32°F (0.0°C)	8943	8764	8720	8685	8607	0.95	0.96	0.96	0.96	0.97
	35°F (1.7°C)	9001	8821	8776	8741	8663	0.92	0.93	0.93	0.93	0.93
	37°F (2.8°C)	9438	9250	9203	9167	9084	0.96	0.97	0.97	0.97	0.98
	42°F (5.6°C)	10533	10322	10271	10230	10138	1.07	1.08	1.08	1.08	1.09
	44.6°F (7.0°C)	10971	10752	10698	10655	10559	1.11	1.12	1.12	1.13	1.13
	47°F (8.3°C)	11628	11395	11338	11293	11191	1.18	1.19	1.19	1.19	1.20
	52°F (11.1°C)	11165	10942	10887	10843	10746	1.09	1.10	1.10	1.10	1.11
	57°F (13.9°C)	10702	10488	10436	10394	10300	1.00	1.01	1.01	1.01	1.02
	59°F (15.0°C)	10517	10307	10255	10214	10122	0.97	0.98	0.98	0.98	0.98
	62°F (16.7°C)	10239	10035	9984	9945	9855	0.92	0.92	0.93	0.93	0.93
64.4°F (18.0°C)	10054	9853	9804	9765	9677	0.88	0.89	0.89	0.89	0.90	
441	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4717	4623	4600	4582	4540	0.94	0.95	0.95	0.95	0.96
	-4°F (-20.0°C)	6461	6332	6300	6275	6218	1.00	1.01	1.01	1.01	1.02
	0°F (-17.8°C)	7646	7493	7456	7426	7359	1.01	1.02	1.02	1.03	1.03
	5°F (-15.0°C)	9127	8945	8900	8864	8785	1.03	1.04	1.04	1.05	1.05
	14°F (-10.0°C)	9666	9472	9425	9387	9303	1.09	1.10	1.10	1.11	1.11
	17°F (-8.3°C)	9845	9648	9600	9562	9476	1.11	1.12	1.13	1.13	1.13
	22°F (-5.6°C)	9955	9756	9707	9668	9581	1.06	1.07	1.07	1.08	1.08
	27°F (-2.8°C)	10065	9863	9814	9775	9687	1.01	1.02	1.02	1.02	1.03
	32°F (0.0°C)	10174	9971	9921	9881	9793	0.96	0.97	0.97	0.97	0.98
	35°F (1.7°C)	10240	10036	9985	9945	9856	0.93	0.94	0.94	0.94	0.94
	37°F (2.8°C)	10739	10524	10471	10429	10335	0.97	0.98	0.98	0.98	0.99
	42°F (5.6°C)	11984	11744	11686	11639	11534	1.08	1.09	1.09	1.09	1.10
	44.6°F (7.0°C)	12482	12233	12171	12123	12014	1.12	1.13	1.13	1.14	1.14
	47°F (8.3°C)	13229	12965	12900	12848	12733	1.19	1.20	1.20	1.20	1.21
	52°F (11.1°C)	12703	12449	12387	12337	12226	1.10	1.11	1.11	1.11	1.12
	57°F (13.9°C)	12176	11933	11873	11826	11719	1.01	1.02	1.02	1.02	1.03
	59°F (15.0°C)	11966	11726	11668	11621	11517	0.98	0.99	0.99	0.99	0.99
	62°F (16.7°C)	11650	11417	11360	11314	11212	0.93	0.93	0.93	0.94	0.94
64.4°F (18.0°C)	11439	11210	11154	11110	11010	0.89	0.90	0.90	0.90	0.90	

Table 58 – 18K Heating — 37MARA – AE Console

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
324	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	6159	6035	6005	5770	5718	1.44	1.46	1.46	1.46	1.47
	-4°F (-20.0°C)	7775	7620	7582	7285	7220	1.53	1.54	1.54	1.55	1.55
	0°F (-17.8°C)	8802	8626	8582	8247	8173	1.61	1.62	1.62	1.63	1.63
	5°F (-15.0°C)	10085	9883	9834	9449	9364	1.71	1.72	1.72	1.73	1.74
	14°F (-10.0°C)	10951	10732	10678	10261	10168	1.62	1.63	1.64	1.64	1.65
	17°F (-8.3°C)	11239	11015	10960	10531	10436	1.59	1.61	1.61	1.61	1.62
	22°F (-5.6°C)	11985	11745	11686	11229	11128	1.67	1.69	1.69	1.69	1.70
	27°F (-2.8°C)	12730	12475	12413	11928	11820	1.75	1.77	1.77	1.77	1.78
	32°F (0.0°C)	13475	13206	13140	12626	12512	1.83	1.85	1.85	1.85	1.86
	35°F (1.7°C)	13922	13644	13576	13045	12927	1.88	1.89	1.90	1.90	1.91
	37°F (2.8°C)	14553	14262	14190	13636	13513	1.86	1.87	1.88	1.88	1.89
	42°F (5.6°C)	16129	15807	15728	15113	14977	1.81	1.82	1.83	1.83	1.84
	44.6°F (7.0°C)	16760	16425	16343	15704	15562	1.79	1.80	1.81	1.81	1.82
	47°F (8.3°C)	17706	17352	17265	16590	16441	1.76	1.77	1.78	1.78	1.79
	52°F (11.1°C)	16876	16539	16456	15813	15670	1.56	1.57	1.57	1.58	1.58
	57°F (13.9°C)	16047	15726	15647	15035	14900	1.36	1.37	1.37	1.37	1.38
	59°F (15.0°C)	15715	15400	15323	14724	14592	1.28	1.29	1.29	1.29	1.30
62°F (16.7°C)	15217	14913	14838	14258	14130	1.16	1.17	1.17	1.17	1.18	
64.4°F (18.0°C)	14885	14587	14514	13947	13821	1.08	1.09	1.09	1.09	1.10	
382	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	6776	6641	6608	6464	6406	1.46	1.47	1.47	1.48	1.48
	-4°F (-20.0°C)	8555	8384	8342	8161	8088	1.54	1.56	1.56	1.56	1.57
	0°F (-17.8°C)	9685	9491	9443	9238	9155	1.62	1.64	1.64	1.64	1.65
	5°F (-15.0°C)	11096	10874	10820	10585	10490	1.72	1.74	1.74	1.75	1.75
	14°F (-10.0°C)	12049	11808	11749	11494	11391	1.64	1.65	1.65	1.66	1.66
	17°F (-8.3°C)	12367	12120	12059	11797	11691	1.61	1.62	1.63	1.63	1.64
	22°F (-5.6°C)	13187	12923	12859	12579	12466	1.69	1.70	1.71	1.71	1.72
	27°F (-2.8°C)	14007	13727	13658	13362	13241	1.77	1.78	1.79	1.79	1.80
	32°F (0.0°C)	14827	14530	14458	14144	14017	1.85	1.86	1.87	1.87	1.88
	35°F (1.7°C)	15319	15013	14937	14613	14482	1.90	1.91	1.92	1.92	1.93
	37°F (2.8°C)	16013	15693	15614	15275	15138	1.88	1.89	1.90	1.90	1.91
	42°F (5.6°C)	17747	17393	17306	16930	16778	1.83	1.84	1.84	1.85	1.86
	44.6°F (7.0°C)	18441	18073	17982	17592	17434	1.81	1.82	1.82	1.83	1.84
	47°F (8.3°C)	19482	19093	18997	18585	18417	1.78	1.79	1.79	1.80	1.80
	52°F (11.1°C)	18569	18198	18107	17714	17554	1.57	1.59	1.59	1.59	1.60
	57°F (13.9°C)	17656	17303	17217	16843	16691	1.37	1.38	1.39	1.39	1.39
	59°F (15.0°C)	17291	16945	16861	16495	16346	1.29	1.30	1.30	1.31	1.31
62°F (16.7°C)	16744	16409	16327	15972	15829	1.17	1.18	1.18	1.18	1.19	
64.4°F (18.0°C)	16378	16051	15971	15624	15483	1.09	1.10	1.10	1.10	1.11	

Table 58 – 18K Heating — 37MARA – AE Console (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
441	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	7456	7307	7271	7242	7176	1.47	1.48	1.49	1.49	1.50
	-4°F (-20.0°C)	9414	9225	9179	9142	9060	1.56	1.57	1.58	1.58	1.59
	0°F (-17.8°C)	10656	10443	10391	10349	10256	1.64	1.65	1.66	1.66	1.67
	5°F (-15.0°C)	12210	11965	11906	11858	11751	1.74	1.76	1.76	1.76	1.77
	14°F (-10.0°C)	13258	12993	12928	12876	12760	1.65	1.67	1.67	1.67	1.68
	17°F (-8.3°C)	13608	13336	13269	13216	13097	1.63	1.64	1.64	1.65	1.65
	22°F (-5.6°C)	14510	14220	14149	14092	13965	1.71	1.72	1.72	1.73	1.73
	27°F (-2.8°C)	15412	15104	15028	14968	14834	1.79	1.80	1.81	1.81	1.82
	32°F (0.0°C)	16314	15988	15908	15845	15702	1.87	1.88	1.89	1.89	1.90
	35°F (1.7°C)	16856	16519	16436	16370	16223	1.92	1.93	1.94	1.94	1.95
	37°F (2.8°C)	17619	17267	17181	17112	16958	1.90	1.91	1.92	1.92	1.93
	42°F (5.6°C)	19528	19137	19042	18966	18795	1.84	1.86	1.86	1.87	1.87
	44.6°F (7.0°C)	20291	19886	19786	19707	19530	1.82	1.84	1.84	1.85	1.85
	47°F (8.3°C)	21437	21008	20903	20819	20632	1.79	1.81	1.81	1.82	1.82
	52°F (11.1°C)	20432	20024	19923	19844	19665	1.59	1.60	1.61	1.61	1.62
	57°F (13.9°C)	19428	19039	18944	18868	18698	1.39	1.40	1.40	1.40	1.41
	59°F (15.0°C)	19026	18646	18552	18478	18312	1.30	1.31	1.32	1.32	1.32
	62°F (16.7°C)	18423	18055	17965	17893	17732	1.18	1.19	1.19	1.20	1.20
64.4°F (18.0°C)	18022	17661	17573	17503	17345	1.10	1.11	1.11	1.11	1.12	
500	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8204	8040	8000	7968	7896	1.49	1.50	1.50	1.51	1.51
	-4°F (-20.0°C)	10358	10151	10100	10060	9969	1.58	1.59	1.59	1.59	1.60
	0°F (-17.8°C)	11725	11491	11433	11388	11285	1.66	1.67	1.67	1.68	1.68
	5°F (-15.0°C)	13435	13166	13100	13048	12930	1.76	1.77	1.78	1.78	1.79
	14°F (-10.0°C)	14588	14296	14225	14168	14041	1.67	1.68	1.69	1.69	1.70
	17°F (-8.3°C)	14973	14673	14600	14542	14411	1.64	1.66	1.66	1.66	1.67
	22°F (-5.6°C)	15966	15646	15568	15506	15366	1.72	1.74	1.74	1.74	1.75
	27°F (-2.8°C)	16958	16619	16536	16470	16322	1.81	1.82	1.82	1.83	1.83
	32°F (0.0°C)	17951	17592	17504	17434	17277	1.89	1.90	1.91	1.91	1.92
	35°F (1.7°C)	18547	18176	18085	18013	17851	1.94	1.95	1.96	1.96	1.97
	37°F (2.8°C)	19387	18999	18904	18829	18659	1.92	1.93	1.93	1.94	1.95
	42°F (5.6°C)	21487	21057	20952	20868	20680	1.86	1.88	1.88	1.89	1.89
	44.6°F (7.0°C)	22327	21881	21771	21684	21489	1.84	1.86	1.86	1.87	1.87
	47°F (8.3°C)	23587	23116	23000	22908	22702	1.81	1.83	1.83	1.83	1.84
	52°F (11.1°C)	22482	22032	21922	21835	21638	1.61	1.62	1.62	1.63	1.63
	57°F (13.9°C)	21377	20949	20845	20761	20574	1.40	1.41	1.41	1.42	1.42
	59°F (15.0°C)	20935	20516	20414	20332	20149	1.32	1.33	1.33	1.33	1.34
	62°F (16.7°C)	20272	19866	19767	19688	19511	1.19	1.20	1.21	1.21	1.21
64.4°F (18.0°C)	19830	19433	19336	19258	19085	1.11	1.12	1.12	1.12	1.13	

Table 59 – 18K Heating — 37MARA – Ceiling and Floor Console

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
421	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8045	7884	7844	6827	6766	1.40	1.41	1.41	1.42	1.42
	-4°F (-20.0°C)	10056	9855	9806	8534	8457	1.50	1.51	1.52	1.52	1.52
	0°F (-17.8°C)	11035	10814	10760	9365	9281	1.61	1.63	1.63	1.63	1.64
	5°F (-15.0°C)	12259	12013	11953	10404	10310	1.76	1.77	1.78	1.78	1.79
	14°F (-10.0°C)	13911	13632	13564	11806	11699	1.78	1.79	1.80	1.80	1.81
	17°F (-8.3°C)	14461	14172	14101	12273	12162	1.79	1.80	1.80	1.81	1.82
	22°F (-5.6°C)	15196	14892	14818	12897	12780	1.82	1.83	1.84	1.84	1.85
	27°F (-2.8°C)	15931	15612	15534	13520	13398	1.85	1.87	1.87	1.87	1.88
	32°F (0.0°C)	16666	16333	16251	14144	14016	1.89	1.90	1.90	1.91	1.92
	35°F (1.7°C)	17107	16765	16681	14518	14387	1.90	1.92	1.92	1.93	1.94
	37°F (2.8°C)	17799	17443	17356	15106	14970	1.91	1.92	1.93	1.93	1.94
	42°F (5.6°C)	19530	19140	19044	16575	16425	1.91	1.92	1.93	1.93	1.94
	44.6°F (7.0°C)	20223	19818	19719	17162	17008	1.91	1.93	1.93	1.93	1.94
	47°F (8.3°C)	21261	20836	20732	18044	17881	1.91	1.93	1.93	1.93	1.94
	52°F (11.1°C)	20454	20045	19945	17359	17203	1.69	1.70	1.70	1.71	1.71
	57°F (13.9°C)	19648	19255	19158	16674	16524	1.46	1.47	1.47	1.48	1.48
	59°F (15.0°C)	19325	18938	18844	16400	16253	1.37	1.38	1.38	1.39	1.39
62°F (16.7°C)	18841	18464	18372	15990	15846	1.23	1.24	1.25	1.25	1.25	
64.4°F (18.0°C)	18518	18148	18057	15716	15574	1.14	1.15	1.15	1.16	1.16	
485	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8230	8066	8025	7472	7405	1.41	1.42	1.43	1.43	1.44
	-4°F (-20.0°C)	10288	10082	10032	9340	9256	1.52	1.53	1.53	1.53	1.54
	0°F (-17.8°C)	11290	11064	11008	10249	10157	1.63	1.64	1.65	1.65	1.66
	5°F (-15.0°C)	12541	12291	12229	11386	11284	1.78	1.79	1.79	1.80	1.80
	14°F (-10.0°C)	14232	13947	13877	12920	12804	1.80	1.81	1.82	1.82	1.83
	17°F (-8.3°C)	14795	14499	14427	13432	13311	1.80	1.82	1.82	1.83	1.83
	22°F (-5.6°C)	15547	15236	15160	14114	13987	1.84	1.85	1.86	1.86	1.87
	27°F (-2.8°C)	16299	15973	15893	14797	14664	1.87	1.89	1.89	1.89	1.90
	32°F (0.0°C)	17050	16709	16626	15479	15340	1.90	1.92	1.92	1.93	1.93
	35°F (1.7°C)	17501	17151	17066	15889	15746	1.92	1.94	1.94	1.95	1.96
	37°F (2.8°C)	18210	17846	17756	16532	16383	1.93	1.94	1.94	1.95	1.96
	42°F (5.6°C)	19981	19581	19483	18140	17977	1.93	1.94	1.95	1.95	1.96
	44.6°F (7.0°C)	20689	20275	20174	18783	18614	1.93	1.94	1.95	1.95	1.96
	47°F (8.3°C)	21752	21317	21210	19748	19570	1.93	1.95	1.95	1.95	1.96
	52°F (11.1°C)	20926	20508	20405	18998	18827	1.70	1.72	1.72	1.72	1.73
	57°F (13.9°C)	20101	19699	19600	18249	18085	1.47	1.49	1.49	1.49	1.50
	59°F (15.0°C)	19771	19375	19278	17949	17788	1.38	1.39	1.40	1.40	1.40
62°F (16.7°C)	19275	18890	18795	17500	17342	1.25	1.26	1.26	1.26	1.27	
64.4°F (18.0°C)	18945	18566	18474	17200	17045	1.15	1.16	1.17	1.17	1.17	

Table 59 – 18K Heating — 37MARA – Ceiling and Floor Console (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
547	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8420	8252	8211	8178	8104	1.43	1.44	1.44	1.45	1.45
	-4°F (-20.0°C)	10525	10315	10263	10222	10130	1.53	1.54	1.55	1.55	1.56
	0°F (-17.8°C)	11550	11319	11262	11217	11116	1.65	1.66	1.66	1.67	1.67
	5°F (-15.0°C)	12831	12574	12511	12461	12349	1.79	1.81	1.81	1.82	1.82
	14°F (-10.0°C)	14560	14269	14197	14141	14013	1.82	1.83	1.83	1.84	1.84
	17°F (-8.3°C)	15136	14834	14759	14700	14568	1.82	1.84	1.84	1.84	1.85
	22°F (-5.6°C)	15905	15587	15509	15447	15308	1.86	1.87	1.87	1.88	1.89
	27°F (-2.8°C)	16675	16341	16259	16194	16049	1.89	1.90	1.91	1.91	1.92
	32°F (0.0°C)	17444	17095	17009	16941	16789	1.92	1.94	1.94	1.95	1.95
	35°F (1.7°C)	17905	17547	17459	17390	17233	1.94	1.96	1.96	1.97	1.97
	37°F (2.8°C)	18630	18257	18166	18093	17931	1.94	1.96	1.96	1.97	1.98
	42°F (5.6°C)	20442	20033	19933	19853	19674	1.95	1.96	1.97	1.97	1.98
	44.6°F (7.0°C)	21166	20743	20639	20557	20372	1.95	1.96	1.97	1.97	1.98
	47°F (8.3°C)	22253	21808	21699	21613	21418	1.95	1.97	1.97	1.97	1.98
	52°F (11.1°C)	21409	20981	20876	20792	20605	1.72	1.73	1.74	1.74	1.75
	57°F (13.9°C)	20565	20153	20053	19972	19793	1.49	1.50	1.50	1.51	1.51
	59°F (15.0°C)	20227	19822	19723	19644	19467	1.40	1.41	1.41	1.41	1.42
	62°F (16.7°C)	19720	19326	19229	19152	18980	1.26	1.27	1.27	1.27	1.28
64.4°F (18.0°C)	19382	18995	18900	18824	18655	1.17	1.18	1.18	1.18	1.18	
576	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8615	8442	8400	8366	8291	1.44	1.45	1.46	1.46	1.47
	-4°F (-20.0°C)	10768	10553	10500	10458	10364	1.55	1.56	1.56	1.57	1.57
	0°F (-17.8°C)	11816	11580	11522	11476	11373	1.66	1.68	1.68	1.68	1.69
	5°F (-15.0°C)	13127	12864	12800	12749	12634	1.81	1.83	1.83	1.83	1.84
	14°F (-10.0°C)	14896	14598	14525	14467	14337	1.83	1.85	1.85	1.86	1.86
	17°F (-8.3°C)	15486	15176	15100	15040	14904	1.84	1.86	1.86	1.86	1.87
	22°F (-5.6°C)	16272	15947	15867	15804	15662	1.87	1.89	1.89	1.90	1.91
	27°F (-2.8°C)	17059	16718	16635	16568	16419	1.91	1.92	1.93	1.93	1.94
	32°F (0.0°C)	17846	17489	17402	17332	17176	1.94	1.96	1.96	1.97	1.97
	35°F (1.7°C)	18318	17952	17862	17791	17631	1.96	1.98	1.98	1.99	1.99
	37°F (2.8°C)	19060	18679	18585	18511	18344	1.96	1.98	1.98	1.99	2.00
	42°F (5.6°C)	20913	20495	20393	20311	20128	1.97	1.98	1.99	1.99	2.00
	44.6°F (7.0°C)	21655	21222	21116	21031	20842	1.97	1.98	1.99	1.99	2.00
	47°F (8.3°C)	22767	22312	22200	22111	21912	1.97	1.99	1.99	1.99	2.00
	52°F (11.1°C)	21903	21465	21358	21272	21081	1.74	1.75	1.75	1.76	1.77
	57°F (13.9°C)	21039	20618	20515	20433	20249	1.50	1.52	1.52	1.52	1.53
	59°F (15.0°C)	20693	20280	20178	20098	19917	1.41	1.42	1.42	1.43	1.43
	62°F (16.7°C)	20175	19772	19673	19594	19418	1.27	1.28	1.28	1.29	1.29
64.4°F (18.0°C)	19830	19433	19336	19258	19085	1.18	1.19	1.19	1.19	1.20	

Table 60 – 24K Heating — 37MARA – Ceiling and Floor Console

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
453	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9716	9522	9474	7544	7476	1.82	1.83	1.83	1.84	1.84
	-4°F (-20.0°C)	11898	11660	11601	9237	9154	1.91	1.92	1.93	1.93	1.94
	0°F (-17.8°C)	14806	14510	14437	11495	11392	2.09	2.10	2.11	2.11	2.12
	5°F (-15.0°C)	18441	18072	17982	14317	14189	2.31	2.33	2.33	2.33	2.34
	14°F (-10.0°C)	19482	19093	18997	15126	14990	2.40	2.42	2.43	2.43	2.44
	17°F (-8.3°C)	19829	19433	19335	15395	15257	2.44	2.46	2.46	2.47	2.48
	22°F (-5.6°C)	20014	19613	19515	15538	15399	2.40	2.42	2.42	2.43	2.44
	27°F (-2.8°C)	20198	19794	19695	15682	15541	2.36	2.38	2.39	2.39	2.40
	32°F (0.0°C)	20383	19975	19875	15825	15682	2.32	2.34	2.35	2.35	2.36
	35°F (1.7°C)	20493	20084	19983	15911	15768	2.30	2.32	2.32	2.33	2.34
	37°F (2.8°C)	22465	22016	21905	17441	17284	2.40	2.41	2.42	2.42	2.43
	42°F (5.6°C)	27393	26845	26711	21268	21076	2.63	2.66	2.66	2.67	2.68
	44.6°F (7.0°C)	29365	28777	28633	22798	22593	2.73	2.75	2.76	2.76	2.77
	47°F (8.3°C)	32322	31675	31517	25094	24868	2.87	2.90	2.90	2.91	2.92
	52°F (11.1°C)	32063	31422	31265	24894	24670	2.63	2.65	2.66	2.66	2.67
	57°F (13.9°C)	31805	31169	31013	24693	24471	2.39	2.41	2.41	2.42	2.43
	59°F (15.0°C)	31702	31068	30913	24613	24391	2.29	2.31	2.32	2.32	2.33
62°F (16.7°C)	31547	30916	30762	24493	24272	2.15	2.17	2.17	2.18	2.18	
64.4°F (18.0°C)	31444	30815	30661	24413	24193	2.05	2.07	2.07	2.08	2.09	
606	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9826	9630	9582	8533	8456	1.83	1.85	1.85	1.86	1.86
	-4°F (-20.0°C)	12032	11792	11733	10448	10354	1.93	1.94	1.95	1.95	1.96
	0°F (-17.8°C)	14974	14674	14601	13002	12885	2.11	2.12	2.13	2.13	2.14
	5°F (-15.0°C)	18650	18277	18186	16195	16049	2.33	2.35	2.35	2.36	2.37
	14°F (-10.0°C)	19703	19309	19212	17109	16955	2.43	2.45	2.45	2.46	2.47
	17°F (-8.3°C)	20054	19653	19555	17414	17257	2.46	2.48	2.49	2.49	2.50
	22°F (-5.6°C)	20240	19836	19736	17576	17418	2.42	2.44	2.45	2.45	2.46
	27°F (-2.8°C)	20427	20018	19918	17738	17578	2.39	2.40	2.41	2.41	2.42
	32°F (0.0°C)	20614	20201	20100	17900	17739	2.35	2.37	2.37	2.37	2.38
	35°F (1.7°C)	20726	20311	20209	17997	17835	2.32	2.34	2.35	2.35	2.36
	37°F (2.8°C)	22719	22265	22154	19728	19551	2.42	2.44	2.44	2.45	2.46
	42°F (5.6°C)	27704	27149	27014	24056	23840	2.66	2.68	2.69	2.69	2.70
	44.6°F (7.0°C)	29697	29103	28958	25787	25555	2.76	2.78	2.78	2.79	2.80
	47°F (8.3°C)	32688	32034	31874	28384	28129	2.90	2.92	2.93	2.94	2.95
	52°F (11.1°C)	32427	31778	31619	28158	27904	2.66	2.68	2.68	2.69	2.70
	57°F (13.9°C)	32166	31522	31365	27931	27679	2.41	2.43	2.44	2.44	2.45
	59°F (15.0°C)	32061	31420	31263	27840	27590	2.32	2.34	2.34	2.35	2.35
62°F (16.7°C)	31904	31266	31110	27704	27455	2.17	2.19	2.19	2.20	2.21	
64.4°F (18.0°C)	31800	31164	31008	27613	27365	2.07	2.09	2.09	2.10	2.11	

Table 60 – 24K Heating — 37MARA – Ceiling and Floor Console (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
706	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9938	9739	9690	9651	9565	1.85	1.87	1.87	1.87	1.88
	-4°F (-20.0°C)	12169	11925	11866	11818	11712	1.95	1.96	1.97	1.97	1.98
	0°F (-17.8°C)	15143	14840	14766	14707	14575	2.13	2.15	2.15	2.15	2.16
	5°F (-15.0°C)	18861	18484	18392	18318	18153	2.35	2.37	2.38	2.38	2.39
	14°F (-10.0°C)	19926	19528	19430	19352	19178	2.45	2.47	2.48	2.48	2.49
	17°F (-8.3°C)	20281	19875	19776	19697	19520	2.49	2.51	2.51	2.52	2.53
	22°F (-5.6°C)	20470	20060	19960	19880	19701	2.45	2.47	2.47	2.48	2.49
	27°F (-2.8°C)	20658	20245	20144	20063	19883	2.41	2.43	2.43	2.44	2.45
	32°F (0.0°C)	20847	20430	20328	20247	20064	2.37	2.39	2.39	2.40	2.41
	35°F (1.7°C)	20960	20541	20438	20357	20173	2.35	2.37	2.37	2.38	2.38
	37°F (2.8°C)	22977	22517	22404	22315	22114	2.44	2.46	2.47	2.47	2.48
	42°F (5.6°C)	28017	27457	27320	27210	26966	2.69	2.71	2.71	2.72	2.73
	44.6°F (7.0°C)	30034	29433	29286	29169	28906	2.78	2.81	2.81	2.82	2.83
	47°F (8.3°C)	33058	32397	32235	32106	31817	2.93	2.95	2.96	2.97	2.98
	52°F (11.1°C)	32794	32138	31977	31849	31563	2.68	2.71	2.71	2.72	2.73
	57°F (13.9°C)	32530	31879	31720	31593	31309	2.44	2.46	2.46	2.47	2.48
	59°F (15.0°C)	32424	31776	31617	31490	31207	2.34	2.36	2.36	2.37	2.38
	62°F (16.7°C)	32266	31620	31462	31336	31054	2.19	2.21	2.21	2.22	2.23
64.4°F (18.0°C)	32160	31517	31359	31234	30953	2.09	2.11	2.12	2.12	2.13	
735	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	10050	9849	9800	9761	9673	1.87	1.89	1.89	1.89	1.90
	-4°F (-20.0°C)	12306	12060	12000	11952	11844	1.97	1.98	1.99	1.99	2.00
	0°F (-17.8°C)	15315	15008	14933	14874	14740	2.15	2.17	2.17	2.18	2.18
	5°F (-15.0°C)	19075	18693	18600	18526	18359	2.38	2.40	2.40	2.41	2.42
	14°F (-10.0°C)	20152	19749	19650	19571	19395	2.48	2.50	2.50	2.51	2.52
	17°F (-8.3°C)	20511	20101	20000	19920	19741	2.51	2.53	2.54	2.54	2.55
	22°F (-5.6°C)	20702	20288	20186	20105	19924	2.47	2.49	2.50	2.50	2.51
	27°F (-2.8°C)	20892	20475	20372	20291	20108	2.43	2.45	2.46	2.46	2.47
	32°F (0.0°C)	21083	20662	20558	20476	20292	2.39	2.41	2.42	2.42	2.43
	35°F (1.7°C)	21198	20774	20670	20587	20402	2.37	2.39	2.39	2.40	2.41
	37°F (2.8°C)	23237	22772	22658	22568	22365	2.47	2.49	2.49	2.50	2.51
	42°F (5.6°C)	28335	27768	27629	27519	27271	2.71	2.74	2.74	2.75	2.76
	44.6°F (7.0°C)	30374	29766	29617	29499	29234	2.81	2.84	2.84	2.85	2.86
	47°F (8.3°C)	33432	32764	32600	32470	32177	2.96	2.98	2.99	3.00	3.01
	52°F (11.1°C)	33165	32502	32340	32210	31920	2.71	2.73	2.74	2.74	2.76
	57°F (13.9°C)	32898	32240	32079	31951	31663	2.46	2.48	2.49	2.49	2.50
	59°F (15.0°C)	32791	32136	31975	31847	31560	2.36	2.38	2.39	2.39	2.40
	62°F (16.7°C)	32631	31979	31819	31691	31406	2.21	2.23	2.24	2.24	2.25
64.4°F (18.0°C)	32524	31874	31715	31588	31303	2.12	2.13	2.14	2.14	2.15	

Table 61 – 9K Heating — 37MARA – Low Static Slim Duct

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
147	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3506	3436	3419	3076	3048	0.92	0.93	0.93	0.93	0.93
	-4°F (-20.0°C)	4230	4146	4125	3711	3678	1.00	1.00	1.01	1.01	1.01
	0°F (-17.8°C)	4694	4600	4577	4118	4081	1.03	1.04	1.04	1.04	1.05
	5°F (-15.0°C)	5274	5169	5143	4627	4585	1.08	1.08	1.09	1.09	1.09
	14°F (-10.0°C)	5800	5684	5655	5088	5042	1.09	1.10	1.11	1.11	1.11
	17°F (-8.3°C)	5975	5855	5826	5242	5195	1.10	1.11	1.11	1.11	1.12
	22°F (-5.6°C)	6172	6048	6018	5415	5366	1.11	1.12	1.12	1.12	1.12
	27°F (-2.8°C)	6369	6242	6210	5587	5537	1.11	1.12	1.12	1.13	1.13
	32°F (0.0°C)	6566	6435	6402	5760	5708	1.12	1.13	1.13	1.13	1.14
	35°F (1.7°C)	6684	6550	6518	5864	5811	1.12	1.13	1.13	1.14	1.14
	37°F (2.8°C)	7003	6863	6828	6144	6088	1.13	1.14	1.14	1.14	1.14
	42°F (5.6°C)	7800	7644	7605	6843	6781	1.14	1.15	1.15	1.15	1.15
	44.6°F (7.0°C)	8118	7956	7916	7122	7058	1.14	1.15	1.15	1.15	1.16
	47°F (8.3°C)	8596	8424	8382	7542	7474	1.15	1.16	1.16	1.16	1.17
	52°F (11.1°C)	8478	8309	8267	7438	7371	1.04	1.05	1.05	1.06	1.06
	57°F (13.9°C)	8360	8193	8152	7334	7268	0.94	0.95	0.95	0.95	0.96
59°F (15.0°C)	8313	8146	8106	7293	7227	0.90	0.91	0.91	0.91	0.92	
62°F (16.7°C)	8242	8077	8037	7231	7166	0.84	0.85	0.85	0.85	0.85	
64.4°F (18.0°C)	8195	8031	7991	7189	7124	0.80	0.80	0.81	0.81	0.81	
206	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4162	4079	4058	3842	3807	0.93	0.94	0.94	0.94	0.94
	-4°F (-20.0°C)	5021	4921	4896	4635	4593	1.01	1.01	1.02	1.02	1.02
	0°F (-17.8°C)	5572	5461	5433	5143	5097	1.04	1.05	1.05	1.05	1.06
	5°F (-15.0°C)	6260	6135	6105	5779	5727	1.09	1.10	1.10	1.10	1.10
	14°F (-10.0°C)	6884	6747	6713	6355	6298	1.11	1.11	1.12	1.12	1.12
	17°F (-8.3°C)	7092	6951	6916	6547	6488	1.11	1.12	1.12	1.13	1.13
	22°F (-5.6°C)	7326	7180	7144	6763	6702	1.12	1.13	1.13	1.13	1.14
	27°F (-2.8°C)	7560	7409	7372	6978	6916	1.12	1.13	1.14	1.14	1.14
	32°F (0.0°C)	7794	7638	7600	7194	7130	1.13	1.14	1.14	1.14	1.15
	35°F (1.7°C)	7934	7776	7737	7324	7258	1.13	1.14	1.14	1.15	1.15
	37°F (2.8°C)	8313	8146	8106	7673	7604	1.14	1.15	1.15	1.15	1.16
	42°F (5.6°C)	9258	9073	9028	8546	8469	1.15	1.16	1.16	1.16	1.17
	44.6°F (7.0°C)	9637	9444	9397	8895	8815	1.15	1.16	1.16	1.17	1.17
	47°F (8.3°C)	10204	10000	9950	9419	9334	1.16	1.17	1.17	1.17	1.18
	52°F (11.1°C)	10064	9863	9813	9289	9206	1.05	1.06	1.07	1.07	1.07
	57°F (13.9°C)	9924	9725	9676	9160	9078	0.95	0.96	0.96	0.96	0.97
59°F (15.0°C)	9867	9670	9622	9108	9026	0.91	0.92	0.92	0.92	0.92	
62°F (16.7°C)	9783	9588	9540	9031	8949	0.85	0.85	0.86	0.86	0.86	
64.4°F (18.0°C)	9727	9533	9485	8979	8898	0.81	0.81	0.81	0.82	0.82	

Table 61 – 9K Heating — 37MARA – Low Static Slim Duct (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
265	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4941	4842	4817	4798	4755	0.94	0.95	0.95	0.95	0.95
	-4°F (-20.0°C)	5960	5841	5812	5789	5737	1.02	1.02	1.03	1.03	1.03
	0°F (-17.8°C)	6614	6482	6450	6424	6366	1.05	1.06	1.06	1.06	1.07
	5°F (-15.0°C)	7431	7283	7246	7217	7152	1.10	1.11	1.11	1.11	1.12
	14°F (-10.0°C)	8172	8009	7969	7937	7865	1.12	1.13	1.13	1.13	1.13
	17°F (-8.3°C)	8419	8251	8209	8176	8103	1.12	1.13	1.13	1.14	1.14
	22°F (-5.6°C)	8697	8523	8480	8446	8370	1.13	1.14	1.14	1.14	1.15
	27°F (-2.8°C)	8974	8795	8751	8716	8637	1.14	1.14	1.15	1.15	1.15
	32°F (0.0°C)	9252	9067	9021	8985	8904	1.14	1.15	1.15	1.16	1.16
	35°F (1.7°C)	9418	9230	9184	9147	9065	1.14	1.15	1.16	1.16	1.16
	37°F (2.8°C)	9867	9670	9622	9583	9497	1.15	1.16	1.16	1.16	1.17
	42°F (5.6°C)	10990	10770	10716	10673	10577	1.16	1.17	1.17	1.17	1.18
	44.6°F (7.0°C)	11439	11210	11154	11109	11010	1.16	1.17	1.18	1.18	1.18
	47°F (8.3°C)	12113	11870	11811	11764	11658	1.17	1.18	1.18	1.18	1.19
	52°F (11.1°C)	11946	11707	11649	11602	11498	1.07	1.07	1.08	1.08	1.08
	57°F (13.9°C)	11780	11544	11486	11440	11337	0.96	0.97	0.97	0.97	0.98
	59°F (15.0°C)	11713	11479	11421	11376	11273	0.92	0.93	0.93	0.93	0.93
	62°F (16.7°C)	11613	11381	11324	11279	11177	0.86	0.86	0.86	0.87	0.87
64.4°F (18.0°C)	11547	11316	11259	11214	11113	0.81	0.82	0.82	0.82	0.83	
324	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5865	5747	5719	5696	5644	0.95	0.96	0.96	0.96	0.96
	-4°F (-20.0°C)	7075	6934	6899	6871	6810	1.03	1.03	1.04	1.04	1.04
	0°F (-17.8°C)	7851	7694	7656	7625	7557	1.06	1.07	1.07	1.08	1.08
	5°F (-15.0°C)	8821	8645	8602	8567	8490	1.11	1.12	1.12	1.12	1.13
	14°F (-10.0°C)	9700	9506	9459	9421	9336	1.13	1.14	1.14	1.14	1.15
	17°F (-8.3°C)	9994	9794	9745	9706	9618	1.13	1.14	1.15	1.15	1.15
	22°F (-5.6°C)	10323	10117	10066	10026	9935	1.14	1.15	1.15	1.15	1.16
	27°F (-2.8°C)	10653	10439	10387	10346	10253	1.15	1.16	1.16	1.16	1.17
	32°F (0.0°C)	10982	10762	10709	10666	10570	1.15	1.16	1.16	1.17	1.17
	35°F (1.7°C)	11180	10956	10901	10858	10760	1.16	1.17	1.17	1.17	1.18
	37°F (2.8°C)	11713	11478	11421	11375	11273	1.16	1.17	1.17	1.17	1.18
	42°F (5.6°C)	13045	12784	12721	12670	12556	1.17	1.18	1.18	1.19	1.19
	44.6°F (7.0°C)	13578	13307	13240	13187	13069	1.18	1.19	1.19	1.19	1.19
	47°F (8.3°C)	14378	14090	14020	13964	13838	1.18	1.19	1.19	1.20	1.20
	52°F (11.1°C)	14180	13897	13827	13772	13648	1.08	1.09	1.09	1.09	1.09
	57°F (13.9°C)	13983	13703	13635	13580	13458	0.97	0.98	0.98	0.98	0.99
	59°F (15.0°C)	13904	13626	13557	13503	13382	0.93	0.94	0.94	0.94	0.94
	62°F (16.7°C)	13785	13509	13442	13388	13268	0.86	0.87	0.87	0.88	0.88
64.4°F (18.0°C)	13706	13432	13365	13311	13192	0.82	0.83	0.83	0.83	0.84	

Table 62 – 12K Heating — 37MARA – Low Static Slim Duct

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
176	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3406	3338	3321	3372	3342	0.92	0.93	0.93	0.93	0.93
	-4°F (-20.0°C)	4109	4027	4006	4069	4032	1.00	1.00	1.01	1.01	1.01
	0°F (-17.8°C)	4612	4520	4497	4567	4526	1.04	1.05	1.05	1.05	1.06
	5°F (-15.0°C)	5241	5136	5110	5189	5143	1.10	1.11	1.11	1.11	1.12
	14°F (-10.0°C)	5925	5806	5777	5867	5814	1.12	1.13	1.13	1.13	1.14
	17°F (-8.3°C)	6153	6030	6000	6093	6038	1.12	1.13	1.13	1.14	1.14
	22°F (-5.6°C)	6293	6167	6136	6231	6175	1.12	1.13	1.13	1.14	1.14
	27°F (-2.8°C)	6433	6304	6273	6370	6313	1.12	1.13	1.13	1.13	1.14
	32°F (0.0°C)	6573	6441	6409	6509	6450	1.12	1.13	1.13	1.13	1.14
	35°F (1.7°C)	6657	6524	6491	6592	6533	1.12	1.13	1.13	1.13	1.14
	37°F (2.8°C)	7099	6957	6922	7030	6967	1.14	1.15	1.15	1.16	1.16
	42°F (5.6°C)	8205	8041	8001	8125	8052	1.20	1.21	1.21	1.21	1.22
	44.6°F (7.0°C)	8647	8474	8432	8563	8486	1.22	1.23	1.23	1.24	1.24
	47°F (8.3°C)	9311	9124	9079	9220	9137	1.26	1.27	1.27	1.27	1.28
	52°F (11.1°C)	8959	8779	8736	8871	8791	1.12	1.13	1.13	1.13	1.13
	57°F (13.9°C)	8607	8435	8392	8523	8446	0.98	0.99	0.99	0.99	0.99
59°F (15.0°C)	8466	8297	8255	8383	8308	0.92	0.93	0.93	0.93	0.94	
62°F (16.7°C)	8255	8090	8049	8174	8100	0.84	0.84	0.85	0.85	0.85	
64.4°F (18.0°C)	8114	7952	7912	8035	7962	0.78	0.79	0.79	0.79	0.79	
265	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4082	4000	3980	4003	3967	0.93	0.94	0.94	0.94	0.94
	-4°F (-20.0°C)	4925	4826	4802	4830	4786	1.01	1.01	1.02	1.02	1.02
	0°F (-17.8°C)	5528	5417	5390	5421	5372	1.05	1.06	1.06	1.07	1.07
	5°F (-15.0°C)	6281	6156	6125	6160	6105	1.11	1.12	1.12	1.13	1.13
	14°F (-10.0°C)	7102	6960	6925	6964	6902	1.13	1.14	1.14	1.14	1.15
	17°F (-8.3°C)	7375	7227	7191	7232	7167	1.13	1.14	1.15	1.15	1.15
	22°F (-5.6°C)	7543	7392	7355	7397	7330	1.13	1.14	1.14	1.15	1.15
	27°F (-2.8°C)	7711	7556	7519	7562	7493	1.13	1.14	1.14	1.15	1.15
	32°F (0.0°C)	7878	7721	7682	7726	7657	1.13	1.14	1.14	1.14	1.15
	35°F (1.7°C)	7979	7819	7780	7825	7754	1.13	1.14	1.14	1.14	1.15
	37°F (2.8°C)	8509	8339	8297	8345	8270	1.15	1.16	1.17	1.17	1.17
	42°F (5.6°C)	9835	9638	9590	9644	9558	1.21	1.22	1.22	1.23	1.23
	44.6°F (7.0°C)	10365	10157	10107	10164	10073	1.23	1.24	1.25	1.25	1.25
	47°F (8.3°C)	11160	10937	10882	10944	10846	1.27	1.28	1.28	1.28	1.29
	52°F (11.1°C)	10738	10523	10471	10530	10436	1.13	1.14	1.14	1.14	1.15
	57°F (13.9°C)	10316	10110	10059	10117	10026	0.99	1.00	1.00	1.00	1.00
59°F (15.0°C)	10147	9944	9895	9951	9862	0.93	0.94	0.94	0.94	0.95	
62°F (16.7°C)	9894	9696	9648	9703	9616	0.85	0.85	0.85	0.86	0.86	
64.4°F (18.0°C)	9725	9531	9483	9537	9452	0.79	0.80	0.80	0.80	0.80	

Table 62 – 12K Heating — 37MARA – Low Static Slim Duct (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
324	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4893	4795	4771	4752	4709	0.94	0.95	0.95	0.95	0.95
	-4°F (-20.0°C)	5903	5785	5756	5733	5681	1.02	1.02	1.03	1.03	1.03
	0°F (-17.8°C)	6626	6493	6461	6435	6377	1.06	1.07	1.07	1.08	1.08
	5°F (-15.0°C)	7529	7378	7341	7312	7246	1.12	1.13	1.13	1.14	1.14
	14°F (-10.0°C)	8512	8342	8300	8267	8192	1.14	1.15	1.15	1.15	1.16
	17°F (-8.3°C)	8840	8663	8620	8585	8508	1.15	1.15	1.16	1.16	1.16
	22°F (-5.6°C)	9041	8860	8816	8780	8701	1.14	1.15	1.16	1.16	1.16
	27°F (-2.8°C)	9242	9057	9012	8976	8895	1.14	1.15	1.16	1.16	1.16
	32°F (0.0°C)	9443	9254	9208	9171	9089	1.14	1.15	1.15	1.16	1.16
	35°F (1.7°C)	9564	9372	9326	9288	9205	1.14	1.15	1.15	1.16	1.16
	37°F (2.8°C)	10199	9995	9945	9905	9816	1.17	1.17	1.18	1.18	1.18
	42°F (5.6°C)	11788	11552	11494	11448	11345	1.22	1.23	1.24	1.24	1.24
	44.6°F (7.0°C)	12423	12175	12114	12065	11957	1.25	1.26	1.26	1.26	1.27
	47°F (8.3°C)	13376	13109	13043	12991	12874	1.28	1.29	1.29	1.30	1.30
	52°F (11.1°C)	12871	12613	12550	12500	12387	1.14	1.15	1.15	1.15	1.16
	57°F (13.9°C)	12365	12118	12057	12009	11901	1.00	1.01	1.01	1.01	1.01
	59°F (15.0°C)	12163	11919	11860	11812	11706	0.94	0.95	0.95	0.95	0.96
62°F (16.7°C)	11859	11622	11564	11518	11414	0.85	0.86	0.86	0.87	0.87	
64.4°F (18.0°C)	11657	11424	11367	11321	11219	0.80	0.80	0.81	0.81	0.81	
400	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5865	5747	5719	5696	5644	0.95	0.96	0.96	0.96	0.96
	-4°F (-20.0°C)	7075	6934	6899	6871	6810	1.03	1.03	1.04	1.04	1.04
	0°F (-17.8°C)	7941	7783	7744	7713	7643	1.07	1.08	1.08	1.09	1.09
	5°F (-15.0°C)	9024	8844	8800	8764	8685	1.13	1.14	1.15	1.15	1.15
	14°F (-10.0°C)	10203	9999	9949	9909	9820	1.15	1.16	1.16	1.17	1.17
	17°F (-8.3°C)	10595	10383	10332	10290	10198	1.16	1.17	1.17	1.17	1.18
	22°F (-5.6°C)	10836	10620	10567	10524	10430	1.16	1.17	1.17	1.17	1.17
	27°F (-2.8°C)	11077	10856	10802	10758	10662	1.16	1.16	1.17	1.17	1.17
	32°F (0.0°C)	11319	11092	11037	10993	10894	1.15	1.16	1.17	1.17	1.17
	35°F (1.7°C)	11463	11234	11178	11133	11033	1.15	1.16	1.17	1.17	1.17
	37°F (2.8°C)	12225	11980	11920	11873	11766	1.18	1.19	1.19	1.19	1.20
	42°F (5.6°C)	14129	13846	13777	13722	13598	1.24	1.25	1.25	1.25	1.26
	44.6°F (7.0°C)	14891	14593	14520	14462	14332	1.26	1.27	1.27	1.27	1.28
	47°F (8.3°C)	16033	15712	15634	15571	15431	1.29	1.31	1.31	1.31	1.32
	52°F (11.1°C)	15427	15118	15043	14983	14848	1.15	1.16	1.16	1.17	1.17
	57°F (13.9°C)	14821	14524	14452	14394	14264	1.01	1.02	1.02	1.02	1.02
	59°F (15.0°C)	14578	14287	14215	14158	14031	0.95	0.96	0.96	0.96	0.97
62°F (16.7°C)	14214	13930	13861	13805	13681	0.86	0.87	0.87	0.87	0.88	
64.4°F (18.0°C)	13972	13693	13624	13570	13447	0.81	0.81	0.81	0.82	0.82	

Table 63 – 18K Heating — 37MARA – Low Static Slim Duct

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
441	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8392	8224	8183	7512	7445	1.41	1.42	1.43	1.43	1.43
	-4°F (-20.0°C)	9332	9145	9100	8354	8278	1.42	1.43	1.44	1.44	1.44
	0°F (-17.8°C)	10827	10611	10558	9692	9605	1.51	1.52	1.52	1.53	1.53
	5°F (-15.0°C)	12696	12442	12380	11365	11263	1.62	1.63	1.63	1.64	1.64
	14°F (-10.0°C)	13016	12756	12692	11652	11547	1.62	1.63	1.64	1.64	1.65
	17°F (-8.3°C)	13123	12860	12796	11747	11641	1.62	1.64	1.64	1.64	1.65
	22°F (-5.6°C)	13943	13664	13596	12481	12369	1.64	1.66	1.66	1.66	1.67
	27°F (-2.8°C)	14763	14468	14396	13216	13097	1.66	1.68	1.68	1.68	1.69
	32°F (0.0°C)	15584	15272	15196	13950	13824	1.69	1.70	1.70	1.71	1.71
	35°F (1.7°C)	16076	15754	15676	14391	14261	1.70	1.71	1.72	1.72	1.73
	37°F (2.8°C)	16797	16461	16379	15036	14901	1.70	1.72	1.72	1.73	1.73
	42°F (5.6°C)	18599	18227	18136	16649	16500	1.72	1.74	1.74	1.74	1.75
	44.6°F (7.0°C)	19320	18934	18839	17295	17139	1.73	1.74	1.75	1.75	1.76
	47°F (8.3°C)	20402	19994	19894	18263	18099	1.74	1.75	1.76	1.76	1.77
	52°F (11.1°C)	19733	19339	19242	17665	17506	1.56	1.58	1.58	1.58	1.59
	57°F (13.9°C)	19065	18683	18590	17066	16913	1.39	1.40	1.40	1.41	1.41
	59°F (15.0°C)	18797	18421	18329	16827	16675	1.32	1.33	1.33	1.33	1.34
62°F (16.7°C)	18396	18028	17938	16468	16320	1.21	1.22	1.23	1.23	1.23	
64.4°F (18.0°C)	18129	17766	17678	16228	16082	1.14	1.15	1.16	1.16	1.16	
500	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8745	8570	8527	8154	8081	1.43	1.44	1.44	1.44	1.45
	-4°F (-20.0°C)	9725	9530	9483	9067	8986	1.44	1.45	1.45	1.45	1.46
	0°F (-17.8°C)	11283	11057	11002	10520	10425	1.52	1.54	1.54	1.54	1.55
	5°F (-15.0°C)	13230	12966	12901	12336	12225	1.63	1.65	1.65	1.65	1.66
	14°F (-10.0°C)	13564	13293	13226	12647	12533	1.64	1.65	1.65	1.66	1.66
	17°F (-8.3°C)	13675	13402	13335	12751	12636	1.64	1.65	1.66	1.66	1.67
	22°F (-5.6°C)	14530	14239	14168	13548	13426	1.66	1.67	1.68	1.68	1.69
	27°F (-2.8°C)	15385	15077	15002	14345	14216	1.68	1.70	1.70	1.70	1.71
	32°F (0.0°C)	16239	15915	15835	15142	15006	1.70	1.72	1.72	1.72	1.73
	35°F (1.7°C)	16752	16417	16335	15620	15479	1.72	1.73	1.73	1.74	1.74
	37°F (2.8°C)	17504	17154	17068	16321	16174	1.72	1.74	1.74	1.74	1.75
	42°F (5.6°C)	19382	18994	18899	18072	17909	1.74	1.75	1.76	1.76	1.77
	44.6°F (7.0°C)	20133	19731	19632	18772	18603	1.75	1.76	1.76	1.77	1.77
	47°F (8.3°C)	21260	20835	20731	19823	19645	1.76	1.77	1.77	1.78	1.78
	52°F (11.1°C)	20564	20152	20052	19174	19001	1.58	1.59	1.59	1.60	1.60
	57°F (13.9°C)	19867	19470	19372	18524	18358	1.40	1.41	1.42	1.42	1.43
	59°F (15.0°C)	19588	19197	19101	18264	18100	1.33	1.34	1.35	1.35	1.35
62°F (16.7°C)	19171	18787	18693	17875	17714	1.23	1.24	1.24	1.24	1.25	
64.4°F (18.0°C)	18892	18514	18421	17615	17456	1.16	1.16	1.17	1.17	1.17	

Table 63 – 18K Heating — 37MARA – Low Static Slim Duct (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
559	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9113	8931	8886	8851	8771	1.44	1.45	1.46	1.46	1.46
	-4°F (-20.0°C)	10134	9931	9882	9842	9753	1.45	1.46	1.47	1.47	1.47
	0°F (-17.8°C)	11758	11522	11465	11419	11316	1.54	1.55	1.56	1.56	1.56
	5°F (-15.0°C)	13787	13511	13444	13390	13270	1.65	1.66	1.67	1.67	1.68
	14°F (-10.0°C)	14135	13852	13783	13728	13604	1.65	1.67	1.67	1.67	1.68
	17°F (-8.3°C)	14251	13966	13896	13840	13716	1.66	1.67	1.67	1.68	1.68
	22°F (-5.6°C)	15141	14839	14764	14705	14573	1.68	1.69	1.69	1.70	1.70
	27°F (-2.8°C)	16032	15711	15633	15570	15430	1.70	1.71	1.72	1.72	1.73
	32°F (0.0°C)	16923	16584	16501	16435	16288	1.72	1.73	1.74	1.74	1.75
	35°F (1.7°C)	17457	17108	17023	16955	16802	1.73	1.75	1.75	1.75	1.76
	37°F (2.8°C)	18240	17875	17786	17715	17555	1.74	1.75	1.76	1.76	1.77
	42°F (5.6°C)	20198	19794	19695	19616	19439	1.76	1.77	1.77	1.78	1.78
	44.6°F (7.0°C)	20981	20561	20458	20376	20193	1.76	1.78	1.78	1.78	1.79
	47°F (8.3°C)	22155	21712	21603	21517	21323	1.77	1.79	1.79	1.79	1.80
	52°F (11.1°C)	21429	21000	20895	20812	20625	1.59	1.61	1.61	1.61	1.62
	57°F (13.9°C)	20703	20289	20188	20107	19926	1.42	1.43	1.43	1.43	1.44
	59°F (15.0°C)	20413	20005	19905	19825	19646	1.35	1.36	1.36	1.36	1.37
	62°F (16.7°C)	19977	19578	19480	19402	19227	1.24	1.25	1.25	1.25	1.26
64.4°F (18.0°C)	19687	19293	19197	19120	18948	1.17	1.18	1.18	1.18	1.19	
600	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9497	9307	9260	9223	9140	1.46	1.47	1.47	1.47	1.48
	-4°F (-20.0°C)	10560	10349	10297	10256	10164	1.47	1.48	1.48	1.48	1.49
	0°F (-17.8°C)	12252	12007	11947	11900	11792	1.56	1.57	1.57	1.57	1.58
	5°F (-15.0°C)	14367	14080	14010	13954	13828	1.67	1.68	1.69	1.69	1.70
	14°F (-10.0°C)	14730	14435	14363	14305	14177	1.67	1.68	1.69	1.69	1.70
	17°F (-8.3°C)	14850	14553	14481	14423	14293	1.67	1.69	1.69	1.69	1.70
	22°F (-5.6°C)	15779	15463	15386	15324	15186	1.69	1.71	1.71	1.71	1.72
	27°F (-2.8°C)	16707	16373	16291	16226	16080	1.72	1.73	1.73	1.74	1.74
	32°F (0.0°C)	17635	17282	17196	17127	16973	1.74	1.75	1.75	1.76	1.77
	35°F (1.7°C)	18192	17828	17739	17668	17509	1.75	1.76	1.77	1.77	1.78
	37°F (2.8°C)	19008	18628	18535	18460	18294	1.76	1.77	1.77	1.78	1.79
	42°F (5.6°C)	21048	20627	20523	20441	20257	1.77	1.79	1.79	1.80	1.80
	44.6°F (7.0°C)	21863	21426	21319	21234	21043	1.78	1.80	1.80	1.80	1.81
	47°F (8.3°C)	23087	22626	22512	22422	22221	1.79	1.81	1.81	1.81	1.82
	52°F (11.1°C)	22331	21884	21775	21688	21492	1.61	1.62	1.63	1.63	1.64
	57°F (13.9°C)	21574	21143	21037	20953	20764	1.43	1.44	1.45	1.45	1.45
	59°F (15.0°C)	21272	20846	20742	20659	20473	1.36	1.37	1.37	1.38	1.38
	62°F (16.7°C)	20818	20402	20300	20218	20036	1.25	1.26	1.26	1.27	1.27
64.4°F (18.0°C)	20515	20105	20005	19925	19745	1.18	1.19	1.19	1.19	1.20	

Table 64 – 9K Heating — 37MARA – High Static Slim Duct

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
206	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3978	3898	3879	3181	3152	0.92	0.93	0.93	0.93	0.94
	-4°F (-20.0°C)	4625	4533	4510	3699	3666	0.95	0.96	0.96	0.96	0.97
	0°F (-17.8°C)	5173	5070	5045	4137	4100	0.98	0.99	0.99	0.99	0.99
	5°F (-15.0°C)	5858	5741	5712	4685	4643	1.01	1.02	1.02	1.02	1.03
	14°F (-10.0°C)	6611	6479	6447	5287	5239	1.08	1.09	1.09	1.09	1.09
	17°F (-8.3°C)	6862	6725	6692	5488	5438	1.10	1.11	1.11	1.11	1.12
	22°F (-5.6°C)	7041	6900	6866	5630	5580	1.13	1.14	1.14	1.15	1.15
	27°F (-2.8°C)	7220	7075	7040	5773	5721	1.17	1.18	1.18	1.18	1.19
	32°F (0.0°C)	7398	7250	7214	5916	5863	1.20	1.21	1.22	1.22	1.22
	35°F (1.7°C)	7505	7355	7318	6002	5948	1.23	1.24	1.24	1.24	1.25
	37°F (2.8°C)	7966	7806	7767	6370	6313	1.20	1.21	1.22	1.22	1.22
	42°F (5.6°C)	9116	8934	8889	7290	7225	1.15	1.16	1.16	1.16	1.16
	44.6°F (7.0°C)	9577	9385	9338	7658	7589	1.12	1.13	1.13	1.14	1.14
	47°F (8.3°C)	10267	10062	10011	8210	8136	1.09	1.10	1.10	1.10	1.11
	52°F (11.1°C)	10011	9811	9761	8005	7933	1.01	1.02	1.02	1.03	1.03
	57°F (13.9°C)	9754	9559	9511	7800	7730	0.94	0.95	0.95	0.95	0.96
	59°F (15.0°C)	9652	9459	9412	7718	7649	0.91	0.92	0.92	0.92	0.93
62°F (16.7°C)	9498	9308	9262	7595	7527	0.87	0.87	0.87	0.88	0.88	
64.4°F (18.0°C)	9395	9208	9162	7513	7446	0.84	0.84	0.84	0.85	0.85	
247	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4506	4415	4393	3971	3935	0.93	0.94	0.94	0.94	0.95
	-4°F (-20.0°C)	5239	5134	5109	4617	4576	0.96	0.97	0.97	0.97	0.98
	0°F (-17.8°C)	5860	5743	5714	5164	5118	0.99	1.00	1.00	1.00	1.00
	5°F (-15.0°C)	6636	6503	6470	5848	5795	1.02	1.03	1.03	1.03	1.04
	14°F (-10.0°C)	7489	7339	7302	6600	6540	1.09	1.10	1.10	1.10	1.10
	17°F (-8.3°C)	7773	7617	7579	6850	6788	1.11	1.12	1.12	1.12	1.13
	22°F (-5.6°C)	7975	7816	7777	7028	6965	1.14	1.15	1.16	1.16	1.16
	27°F (-2.8°C)	8178	8014	7974	7207	7142	1.18	1.19	1.19	1.20	1.20
	32°F (0.0°C)	8380	8212	8171	7385	7318	1.22	1.23	1.23	1.23	1.24
	35°F (1.7°C)	8501	8331	8289	7492	7424	1.24	1.25	1.25	1.25	1.26
	37°F (2.8°C)	9023	8842	8798	7951	7880	1.22	1.22	1.23	1.23	1.23
	42°F (5.6°C)	10326	10119	10069	9100	9018	1.16	1.17	1.17	1.17	1.18
	44.6°F (7.0°C)	10847	10630	10577	9559	9473	1.13	1.14	1.15	1.15	1.15
	47°F (8.3°C)	11629	11397	11340	10249	10156	1.10	1.11	1.11	1.11	1.12
	52°F (11.1°C)	11339	11112	11057	9993	9903	1.02	1.03	1.04	1.04	1.04
	57°F (13.9°C)	11049	10828	10774	9737	9649	0.95	0.96	0.96	0.96	0.97
	59°F (15.0°C)	10932	10714	10660	9635	9548	0.92	0.93	0.93	0.93	0.93
62°F (16.7°C)	10758	10543	10490	9481	9396	0.87	0.88	0.88	0.88	0.89	
64.4°F (18.0°C)	10642	10429	10377	9379	9294	0.84	0.85	0.85	0.85	0.86	

Table 64 – 9K Heating — 37MARA – High Static Slim Duct (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
318	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5103	5001	4976	4956	4912	0.94	0.95	0.95	0.95	0.96
	-4°F (-20.0°C)	5934	5816	5787	5763	5712	0.97	0.98	0.98	0.98	0.99
	0°F (-17.8°C)	6637	6505	6472	6446	6388	1.00	1.01	1.01	1.01	1.01
	5°F (-15.0°C)	7516	7366	7329	7300	7234	1.03	1.04	1.04	1.04	1.05
	14°F (-10.0°C)	8482	8313	8271	8238	8164	1.10	1.11	1.11	1.11	1.12
	17°F (-8.3°C)	8804	8628	8585	8551	8474	1.12	1.13	1.13	1.13	1.14
	22°F (-5.6°C)	9033	8853	8808	8773	8694	1.16	1.17	1.17	1.17	1.18
	27°F (-2.8°C)	9263	9077	9032	8996	8915	1.19	1.20	1.20	1.21	1.21
	32°F (0.0°C)	9492	9302	9255	9218	9135	1.23	1.24	1.24	1.24	1.25
	35°F (1.7°C)	9629	9437	9389	9352	9268	1.25	1.26	1.26	1.27	1.27
	37°F (2.8°C)	10220	10015	9965	9925	9836	1.23	1.24	1.24	1.24	1.25
	42°F (5.6°C)	11696	11462	11405	11359	11257	1.17	1.18	1.18	1.18	1.19
	44.6°F (7.0°C)	12287	12041	11981	11933	11825	1.15	1.16	1.16	1.16	1.16
	47°F (8.3°C)	13172	12909	12844	12793	12678	1.11	1.12	1.12	1.12	1.13
	52°F (11.1°C)	12844	12587	12524	12474	12361	1.04	1.04	1.05	1.05	1.05
	57°F (13.9°C)	12515	12264	12203	12154	12045	0.96	0.97	0.97	0.97	0.97
	59°F (15.0°C)	12383	12135	12075	12026	11918	0.93	0.94	0.94	0.94	0.94
62°F (16.7°C)	12186	11942	11882	11835	11728	0.88	0.89	0.89	0.89	0.90	
64.4°F (18.0°C)	12054	11813	11754	11707	11602	0.85	0.86	0.86	0.86	0.87	
371	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5781	5665	5637	5614	5564	0.95	0.96	0.96	0.96	0.97
	-4°F (-20.0°C)	6722	6587	6554	6528	6469	0.98	0.99	0.99	0.99	1.00
	0°F (-17.8°C)	7518	7368	7331	7302	7236	1.01	1.02	1.02	1.02	1.02
	5°F (-15.0°C)	8513	8343	8301	8268	8194	1.04	1.05	1.05	1.06	1.06
	14°F (-10.0°C)	9608	9416	9368	9331	9247	1.11	1.12	1.12	1.12	1.13
	17°F (-8.3°C)	9973	9773	9724	9685	9598	1.13	1.14	1.14	1.15	1.15
	22°F (-5.6°C)	10232	10027	9977	9937	9848	1.17	1.18	1.18	1.18	1.19
	27°F (-2.8°C)	10492	10282	10230	10189	10098	1.20	1.21	1.22	1.22	1.22
	32°F (0.0°C)	10751	10536	10483	10441	10347	1.24	1.25	1.25	1.26	1.26
	35°F (1.7°C)	10907	10689	10635	10593	10497	1.26	1.27	1.28	1.28	1.28
	37°F (2.8°C)	11576	11344	11287	11242	11141	1.24	1.25	1.25	1.25	1.26
	42°F (5.6°C)	13248	12983	12918	12866	12751	1.18	1.19	1.19	1.20	1.20
	44.6°F (7.0°C)	13917	13639	13570	13516	13394	1.16	1.17	1.17	1.17	1.18
	47°F (8.3°C)	14920	14622	14549	14491	14360	1.12	1.13	1.13	1.14	1.14
	52°F (11.1°C)	14548	14257	14185	14129	14002	1.05	1.05	1.06	1.06	1.06
	57°F (13.9°C)	14175	13892	13822	13767	13643	0.97	0.98	0.98	0.98	0.98
	59°F (15.0°C)	14026	13746	13677	13622	13500	0.94	0.95	0.95	0.95	0.95
62°F (16.7°C)	13803	13527	13459	13405	13284	0.89	0.90	0.90	0.90	0.91	
64.4°F (18.0°C)	13654	13381	13314	13260	13141	0.86	0.87	0.87	0.87	0.88	

Table 65 – 12K Heating — 37MARA – High Static Slim Duct

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
224	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	3712	3638	3620	2904	2878	0.93	0.94	0.94	0.94	0.94
	-4°F (-20.0°C)	4524	4434	4412	3539	3507	0.99	1.00	1.00	1.00	1.01
	0°F (-17.8°C)	5057	4955	4931	3955	3920	1.01	1.02	1.03	1.03	1.03
	5°F (-15.0°C)	5722	5608	5580	4476	4436	1.04	1.05	1.05	1.06	1.06
	14°F (-10.0°C)	6148	6025	5995	4809	4766	1.08	1.09	1.09	1.09	1.10
	17°F (-8.3°C)	6290	6165	6134	4920	4876	1.09	1.10	1.10	1.11	1.11
	22°F (-5.6°C)	6531	6400	6368	5108	5062	1.11	1.12	1.13	1.13	1.13
	27°F (-2.8°C)	6771	6635	6602	5296	5248	1.14	1.15	1.15	1.15	1.15
	32°F (0.0°C)	7011	6871	6836	5484	5435	1.16	1.17	1.17	1.17	1.18
	35°F (1.7°C)	7155	7012	6977	5597	5546	1.17	1.18	1.18	1.19	1.19
	37°F (2.8°C)	7643	7490	7453	5978	5925	1.20	1.21	1.21	1.21	1.22
	42°F (5.6°C)	8864	8686	8643	6933	6871	1.26	1.27	1.27	1.28	1.28
	44.6°F (7.0°C)	9352	9165	9119	7315	7249	1.29	1.30	1.30	1.30	1.31
	47°F (8.3°C)	10084	9882	9833	7888	7817	1.32	1.34	1.34	1.34	1.35
	52°F (11.1°C)	9810	9614	9566	7674	7605	1.15	1.16	1.16	1.17	1.17
	57°F (13.9°C)	9537	9346	9299	7460	7393	0.98	0.99	0.99	0.99	0.99
	59°F (15.0°C)	9427	9239	9193	7374	7308	0.91	0.92	0.92	0.92	0.92
62°F (16.7°C)	9263	9078	9032	7246	7181	0.80	0.81	0.81	0.81	0.82	
64.4°F (18.0°C)	9154	8971	8926	7160	7096	0.73	0.74	0.74	0.74	0.75	
259	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	4337	4251	4229	3780	3746	0.94	0.94	0.95	0.95	0.95
	-4°F (-20.0°C)	5286	5180	5154	4607	4566	1.00	1.01	1.01	1.01	1.02
	0°F (-17.8°C)	5908	5790	5761	5149	5103	1.03	1.03	1.04	1.04	1.04
	5°F (-15.0°C)	6685	6552	6519	5827	5775	1.05	1.06	1.07	1.07	1.07
	14°F (-10.0°C)	7183	7040	7005	6261	6205	1.09	1.10	1.10	1.11	1.11
	17°F (-8.3°C)	7349	7202	7166	6406	6348	1.10	1.11	1.12	1.12	1.12
	22°F (-5.6°C)	7630	7477	7440	6650	6590	1.13	1.14	1.14	1.14	1.14
	27°F (-2.8°C)	7910	7752	7713	6895	6833	1.15	1.16	1.16	1.16	1.17
	32°F (0.0°C)	8191	8027	7987	7139	7075	1.17	1.18	1.18	1.18	1.19
	35°F (1.7°C)	8359	8192	8151	7286	7220	1.18	1.19	1.19	1.20	1.20
	37°F (2.8°C)	8930	8751	8707	7783	7713	1.21	1.22	1.22	1.22	1.23
	42°F (5.6°C)	10356	10149	10098	9026	8945	1.27	1.28	1.29	1.29	1.29
	44.6°F (7.0°C)	10926	10707	10654	9523	9437	1.30	1.31	1.31	1.31	1.32
	47°F (8.3°C)	11782	11546	11488	10269	10176	1.34	1.35	1.35	1.35	1.36
	52°F (11.1°C)	11462	11233	11176	9990	9900	1.16	1.17	1.17	1.18	1.18
	57°F (13.9°C)	11142	10919	10865	9711	9624	0.99	1.00	1.00	1.00	1.00
	59°F (15.0°C)	11014	10794	10740	9600	9514	0.92	0.92	0.93	0.93	0.93
62°F (16.7°C)	10823	10606	10553	9433	9348	0.81	0.82	0.82	0.82	0.83	
64.4°F (18.0°C)	10695	10481	10428	9321	9238	0.74	0.75	0.75	0.75	0.75	

Table 65 – 12K Heating — 37MARA – High Static Slim Duct (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
347	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5067	4966	4941	4922	4877	0.95	0.95	0.96	0.96	0.96
	-4°F (-20.0°C)	6176	6052	6022	5998	5944	1.01	1.02	1.02	1.02	1.03
	0°F (-17.8°C)	6902	6764	6731	6704	6643	1.04	1.04	1.05	1.05	1.05
	5°F (-15.0°C)	7811	7655	7616	7586	7518	1.07	1.07	1.08	1.08	1.08
	14°F (-10.0°C)	8393	8225	8184	8151	8078	1.10	1.11	1.11	1.12	1.12
	17°F (-8.3°C)	8587	8415	8373	8339	8264	1.12	1.12	1.13	1.13	1.13
	22°F (-5.6°C)	8914	8736	8692	8658	8580	1.14	1.15	1.15	1.15	1.16
	27°F (-2.8°C)	9242	9057	9012	8976	8895	1.16	1.17	1.17	1.17	1.18
	32°F (0.0°C)	9570	9378	9332	9294	9211	1.18	1.19	1.19	1.20	1.20
	35°F (1.7°C)	9767	9571	9523	9485	9400	1.19	1.20	1.21	1.21	1.21
	37°F (2.8°C)	10433	10224	10173	10132	10041	1.22	1.23	1.23	1.24	1.24
	42°F (5.6°C)	12099	11857	11798	11750	11645	1.29	1.30	1.30	1.30	1.31
	44.6°F (7.0°C)	12765	12510	12447	12398	12286	1.31	1.32	1.33	1.33	1.33
	47°F (8.3°C)	13765	13490	13422	13368	13248	1.35	1.36	1.37	1.37	1.37
	52°F (11.1°C)	13391	13124	13058	13006	12889	1.17	1.18	1.19	1.19	1.19
	57°F (13.9°C)	13018	12757	12694	12643	12529	1.00	1.01	1.01	1.01	1.01
	59°F (15.0°C)	12868	12611	12548	12498	12385	0.93	0.93	0.94	0.94	0.94
62°F (16.7°C)	12644	12391	12330	12280	12170	0.82	0.83	0.83	0.83	0.83	
64.4°F (18.0°C)	12495	12245	12184	12135	12026	0.75	0.76	0.76	0.76	0.76	
418	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	5921	5802	5773	5750	5698	0.96	0.96	0.97	0.97	0.97
	-4°F (-20.0°C)	7215	7071	7036	7007	6944	1.02	1.03	1.03	1.03	1.04
	0°F (-17.8°C)	8064	7903	7864	7832	7762	1.05	1.05	1.06	1.06	1.06
	5°F (-15.0°C)	9126	8943	8898	8863	8783	1.08	1.08	1.09	1.09	1.09
	14°F (-10.0°C)	9805	9609	9561	9523	9437	1.11	1.12	1.13	1.13	1.13
	17°F (-8.3°C)	10032	9831	9782	9743	9655	1.13	1.14	1.14	1.14	1.14
	22°F (-5.6°C)	10415	10207	10156	10115	10024	1.15	1.16	1.16	1.16	1.17
	27°F (-2.8°C)	10798	10582	10529	10487	10393	1.17	1.18	1.18	1.19	1.19
	32°F (0.0°C)	11181	10957	10902	10859	10761	1.19	1.20	1.21	1.21	1.21
	35°F (1.7°C)	11411	11182	11127	11082	10982	1.21	1.22	1.22	1.22	1.23
	37°F (2.8°C)	12189	11945	11886	11838	11732	1.23	1.24	1.25	1.25	1.25
	42°F (5.6°C)	14136	13853	13784	13728	13605	1.30	1.31	1.31	1.31	1.32
	44.6°F (7.0°C)	14914	14616	14543	14485	14354	1.33	1.34	1.34	1.34	1.35
	47°F (8.3°C)	16082	15760	15682	15619	15478	1.37	1.38	1.38	1.38	1.39
	52°F (11.1°C)	15646	15333	15256	15195	15058	1.19	1.20	1.20	1.20	1.21
	57°F (13.9°C)	15209	14905	14831	14771	14638	1.01	1.02	1.02	1.02	1.02
	59°F (15.0°C)	15035	14734	14660	14602	14470	0.94	0.94	0.95	0.95	0.95
62°F (16.7°C)	14773	14477	14405	14347	14218	0.83	0.84	0.84	0.84	0.84	
64.4°F (18.0°C)	14598	14306	14235	14178	14050	0.76	0.76	0.77	0.77	0.77	

Table 66 – 18K Heating — 37MARA – High Static Slim Duct

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
412	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	6360	6233	6202	5907	5854	1.41	1.42	1.43	1.43	1.43
	-4°F (-20.0°C)	8014	7854	7815	7443	7376	1.49	1.51	1.51	1.51	1.52
	0°F (-17.8°C)	9201	9017	8972	8545	8468	1.54	1.55	1.56	1.56	1.57
	5°F (-15.0°C)	10685	10471	10419	9923	9834	1.60	1.61	1.62	1.62	1.63
	14°F (-10.0°C)	11625	11392	11335	10796	10699	1.63	1.64	1.64	1.64	1.65
	17°F (-8.3°C)	11938	11700	11641	11087	10987	1.63	1.65	1.65	1.65	1.66
	22°F (-5.6°C)	12961	12702	12639	12037	11929	1.67	1.68	1.69	1.69	1.70
	27°F (-2.8°C)	13984	13705	13636	12987	12870	1.70	1.72	1.72	1.72	1.73
	32°F (0.0°C)	15007	14707	14634	13937	13812	1.74	1.75	1.76	1.76	1.77
	35°F (1.7°C)	15621	15309	15232	14507	14377	1.76	1.77	1.78	1.78	1.79
	37°F (2.8°C)	15904	15586	15508	14770	14638	1.74	1.76	1.76	1.76	1.77
	42°F (5.6°C)	16613	16281	16199	15428	15290	1.70	1.71	1.72	1.72	1.73
	44.6°F (7.0°C)	16896	16558	16476	15692	15550	1.68	1.69	1.70	1.70	1.71
	47°F (8.3°C)	17321	16975	16890	16086	15942	1.65	1.67	1.67	1.67	1.68
	52°F (11.1°C)	17048	16707	16624	15833	15690	1.48	1.49	1.50	1.50	1.51
	57°F (13.9°C)	16775	16440	16358	15579	15439	1.31	1.32	1.32	1.32	1.33
	59°F (15.0°C)	16666	16333	16251	15478	15339	1.24	1.25	1.25	1.25	1.26
62°F (16.7°C)	16502	16172	16091	15326	15188	1.14	1.15	1.15	1.15	1.15	
64.4°F (18.0°C)	16393	16065	15985	15224	15087	1.07	1.08	1.08	1.08	1.08	
529	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	7054	6913	6879	6700	6639	1.43	1.44	1.44	1.44	1.45
	-4°F (-20.0°C)	8889	8711	8668	8442	8366	1.51	1.52	1.52	1.53	1.53
	0°F (-17.8°C)	10205	10001	9951	9692	9605	1.56	1.57	1.57	1.58	1.58
	5°F (-15.0°C)	11851	11614	11556	11255	11153	1.62	1.63	1.63	1.64	1.64
	14°F (-10.0°C)	12893	12636	12572	12245	12135	1.64	1.65	1.66	1.66	1.67
	17°F (-8.3°C)	13241	12976	12911	12575	12462	1.65	1.66	1.67	1.67	1.68
	22°F (-5.6°C)	14376	14088	14018	13653	13530	1.69	1.70	1.70	1.71	1.71
	27°F (-2.8°C)	15510	15200	15124	14730	14598	1.72	1.73	1.74	1.74	1.75
	32°F (0.0°C)	16645	16312	16230	15808	15666	1.76	1.77	1.77	1.78	1.78
	35°F (1.7°C)	17326	16979	16894	16454	16306	1.78	1.79	1.80	1.80	1.81
	37°F (2.8°C)	17640	17287	17201	16753	16602	1.76	1.77	1.78	1.78	1.79
	42°F (5.6°C)	18426	18057	17967	17499	17342	1.72	1.73	1.73	1.74	1.74
	44.6°F (7.0°C)	18740	18365	18273	17798	17638	1.70	1.71	1.71	1.72	1.73
	47°F (8.3°C)	19212	18827	18733	18245	18081	1.67	1.68	1.69	1.69	1.70
	52°F (11.1°C)	18909	18531	18438	17958	17796	1.50	1.51	1.51	1.51	1.52
	57°F (13.9°C)	18606	18234	18143	17670	17511	1.32	1.33	1.34	1.34	1.34
	59°F (15.0°C)	18485	18115	18024	17555	17397	1.25	1.26	1.27	1.27	1.27
62°F (16.7°C)	18303	17937	17847	17383	17226	1.15	1.16	1.16	1.16	1.17	
64.4°F (18.0°C)	18182	17818	17729	17268	17112	1.08	1.09	1.09	1.09	1.10	

Table 66 – 18K Heating — 37MARA – High Static Slim Duct (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
618	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	7824	7668	7629	7599	7530	1.44	1.45	1.45	1.46	1.46
	-4°F (-20.0°C)	9859	9662	9613	9575	9489	1.52	1.54	1.54	1.54	1.55
	0°F (-17.8°C)	11319	11093	11037	10993	10894	1.57	1.59	1.59	1.59	1.60
	5°F (-15.0°C)	13144	12881	12817	12765	12650	1.63	1.65	1.65	1.65	1.66
	14°F (-10.0°C)	14300	14014	13944	13889	13764	1.66	1.67	1.67	1.68	1.68
	17°F (-8.3°C)	14686	14392	14320	14263	14135	1.67	1.68	1.68	1.69	1.69
	22°F (-5.6°C)	15944	15625	15547	15485	15346	1.70	1.72	1.72	1.72	1.73
	27°F (-2.8°C)	17203	16859	16774	16707	16557	1.74	1.75	1.76	1.76	1.77
	32°F (0.0°C)	18461	18092	18002	17930	17768	1.77	1.79	1.79	1.80	1.80
	35°F (1.7°C)	19216	18832	18738	18663	18495	1.80	1.81	1.81	1.82	1.82
	37°F (2.8°C)	19565	19174	19078	19001	18830	1.78	1.79	1.80	1.80	1.81
	42°F (5.6°C)	20436	20028	19928	19848	19669	1.73	1.75	1.75	1.75	1.76
	44.6°F (7.0°C)	20785	20369	20267	20186	20005	1.71	1.73	1.73	1.74	1.74
	47°F (8.3°C)	21308	20882	20777	20694	20508	1.69	1.70	1.70	1.71	1.72
	52°F (11.1°C)	20972	20553	20450	20368	20185	1.51	1.52	1.53	1.53	1.54
	57°F (13.9°C)	20636	20223	20122	20042	19861	1.34	1.35	1.35	1.35	1.36
	59°F (15.0°C)	20502	20092	19991	19911	19732	1.27	1.28	1.28	1.28	1.29
62°F (16.7°C)	20300	19894	19795	19716	19538	1.16	1.17	1.17	1.17	1.18	
64.4°F (18.0°C)	20166	19763	19664	19585	19409	1.09	1.10	1.10	1.10	1.11	
706	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8678	8504	8462	8428	8352	1.45	1.47	1.47	1.47	1.48
	-4°F (-20.0°C)	10935	10716	10663	10620	10524	1.54	1.55	1.56	1.56	1.56
	0°F (-17.8°C)	12554	12303	12241	12192	12083	1.59	1.60	1.60	1.61	1.61
	5°F (-15.0°C)	14578	14287	14215	14158	14031	1.65	1.66	1.67	1.67	1.68
	14°F (-10.0°C)	15861	15544	15466	15404	15265	1.67	1.69	1.69	1.70	1.70
	17°F (-8.3°C)	16288	15963	15883	15819	15677	1.68	1.70	1.70	1.70	1.71
	22°F (-5.6°C)	17684	17331	17244	17175	17020	1.72	1.73	1.74	1.74	1.75
	27°F (-2.8°C)	19080	18698	18605	18530	18364	1.76	1.77	1.77	1.78	1.78
	32°F (0.0°C)	20476	20066	19966	19886	19707	1.79	1.81	1.81	1.81	1.82
	35°F (1.7°C)	21313	20887	20782	20699	20513	1.81	1.83	1.83	1.84	1.84
	37°F (2.8°C)	21700	21266	21160	21075	20885	1.80	1.81	1.81	1.82	1.82
	42°F (5.6°C)	22666	22213	22102	22014	21816	1.75	1.76	1.77	1.77	1.78
	44.6°F (7.0°C)	23053	22592	22479	22389	22188	1.73	1.75	1.75	1.75	1.76
	47°F (8.3°C)	23633	23160	23045	22952	22746	1.70	1.72	1.72	1.73	1.73
	52°F (11.1°C)	23261	22795	22681	22591	22387	1.53	1.54	1.54	1.55	1.55
	57°F (13.9°C)	22888	22430	22318	22229	22029	1.35	1.36	1.36	1.37	1.37
	59°F (15.0°C)	22739	22284	22173	22084	21885	1.28	1.29	1.29	1.29	1.30
62°F (16.7°C)	22515	22065	21955	21867	21670	1.17	1.18	1.18	1.19	1.19	
64.4°F (18.0°C)	22366	21919	21810	21722	21527	1.10	1.11	1.11	1.11	1.12	

Table 67 – 24K Heating — 37MARA – High Static Slim Duct

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
500	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8867	8690	8647	8200	8126	2.03	2.05	2.06	2.06	2.07
	-4°F (-20.0°C)	10824	10608	10555	10010	9920	2.16	2.17	2.18	2.18	2.19
	0°F (-17.8°C)	12072	11831	11772	11164	11064	2.20	2.22	2.23	2.23	2.24
	5°F (-15.0°C)	13632	13360	13293	12607	12493	2.26	2.28	2.29	2.29	2.30
	14°F (-10.0°C)	14992	14692	14619	13864	13739	2.34	2.36	2.37	2.37	2.38
	17°F (-8.3°C)	15445	15136	15061	14283	14155	2.37	2.39	2.39	2.40	2.41
	22°F (-5.6°C)	16423	16094	16014	15187	15051	2.48	2.50	2.50	2.51	2.52
	27°F (-2.8°C)	17401	17053	16967	16092	15947	2.58	2.61	2.61	2.62	2.63
	32°F (0.0°C)	18378	18011	17921	16996	16843	2.69	2.71	2.72	2.72	2.74
	35°F (1.7°C)	18965	18586	18493	17538	17381	2.76	2.78	2.78	2.79	2.80
	37°F (2.8°C)	19993	19593	19495	18489	18322	2.78	2.80	2.81	2.81	2.82
	42°F (5.6°C)	22561	22110	21999	20864	20676	2.83	2.85	2.86	2.87	2.88
	44.6°F (7.0°C)	23588	23117	23001	21814	21618	2.85	2.88	2.88	2.89	2.90
	47°F (8.3°C)	25129	24627	24504	23239	23030	2.89	2.91	2.91	2.92	2.93
	52°F (11.1°C)	25545	25034	24909	23623	23410	2.71	2.73	2.74	2.74	2.75
	57°F (13.9°C)	25960	25441	25313	24007	23791	2.53	2.55	2.56	2.56	2.57
	59°F (15.0°C)	26126	25603	25475	24160	23943	2.46	2.48	2.49	2.49	2.50
	62°F (16.7°C)	26375	25847	25718	24391	24171	2.36	2.37	2.38	2.38	2.39
64.4°F (18.0°C)	26541	26010	25880	24544	24323	2.28	2.30	2.31	2.31	2.32	
618	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9991	9791	9742	9469	9383	2.06	2.07	2.08	2.08	2.09
	-4°F (-20.0°C)	12196	11952	11893	11558	11454	2.18	2.20	2.20	2.21	2.21
	0°F (-17.8°C)	13602	13330	13264	12891	12775	2.23	2.24	2.25	2.25	2.26
	5°F (-15.0°C)	15360	15053	14978	14557	14426	2.29	2.30	2.31	2.31	2.32
	14°F (-10.0°C)	16892	16554	16471	16009	15864	2.37	2.39	2.39	2.40	2.41
	17°F (-8.3°C)	17403	17055	16969	16493	16344	2.39	2.41	2.42	2.42	2.43
	22°F (-5.6°C)	18504	18134	18044	17537	17379	2.50	2.52	2.53	2.53	2.54
	27°F (-2.8°C)	19606	19214	19118	18581	18413	2.61	2.63	2.64	2.64	2.65
	32°F (0.0°C)	20708	20294	20192	19625	19448	2.72	2.74	2.75	2.75	2.76
	35°F (1.7°C)	21369	20941	20837	20251	20069	2.78	2.81	2.81	2.82	2.83
	37°F (2.8°C)	22526	22076	21966	21348	21156	2.81	2.83	2.83	2.84	2.85
	42°F (5.6°C)	25420	24912	24787	24091	23874	2.86	2.88	2.89	2.89	2.91
	44.6°F (7.0°C)	26578	26046	25916	25188	24961	2.88	2.91	2.91	2.92	2.93
	47°F (8.3°C)	28314	27748	27609	26834	26592	2.91	2.94	2.94	2.95	2.96
	52°F (11.1°C)	28782	28207	28066	27277	27031	2.74	2.76	2.76	2.77	2.78
	57°F (13.9°C)	29250	28665	28522	27720	27471	2.56	2.58	2.58	2.59	2.60
	59°F (15.0°C)	29437	28848	28704	27898	27646	2.49	2.51	2.51	2.52	2.53
	62°F (16.7°C)	29718	29123	28978	28163	27910	2.38	2.40	2.40	2.41	2.42
64.4°F (18.0°C)	29905	29307	29160	28341	28086	2.31	2.33	2.33	2.34	2.34	

**Table 67 – 24K Heating — 37MARA – High Static Slim Duct (Continued)**

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
735	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	11258	11032	10977	10933	10835	2.08	2.09	2.10	2.10	2.11
	-4°F (-20.0°C)	13742	13467	13400	13346	13226	2.20	2.22	2.22	2.23	2.24
	0°F (-17.8°C)	15326	15020	14945	14885	14751	2.25	2.27	2.27	2.28	2.29
	5°F (-15.0°C)	17307	16961	16876	16808	16657	2.31	2.33	2.33	2.34	2.35
	14°F (-10.0°C)	19033	18652	18559	18485	18318	2.39	2.41	2.42	2.42	2.43
	17°F (-8.3°C)	19608	19216	19120	19044	18872	2.42	2.44	2.44	2.45	2.46
	22°F (-5.6°C)	20850	20433	20330	20249	20067	2.53	2.55	2.55	2.56	2.57
	27°F (-2.8°C)	22091	21649	21541	21455	21262	2.64	2.66	2.66	2.67	2.68
	32°F (0.0°C)	23332	22866	22751	22660	22456	2.75	2.77	2.77	2.78	2.79
	35°F (1.7°C)	24077	23596	23478	23384	23173	2.81	2.83	2.84	2.85	2.86
	37°F (2.8°C)	25381	24874	24749	24650	24429	2.83	2.86	2.86	2.87	2.88
	42°F (5.6°C)	28642	28069	27929	27817	27567	2.89	2.91	2.92	2.92	2.94
	44.6°F (7.0°C)	29947	29348	29201	29084	28822	2.91	2.93	2.94	2.95	2.96
	47°F (8.3°C)	31903	31265	31109	30984	30705	2.94	2.97	2.97	2.98	2.99
	52°F (11.1°C)	32430	31782	31623	31496	31213	2.76	2.79	2.79	2.80	2.81
	57°F (13.9°C)	32957	32298	32137	32008	31720	2.58	2.60	2.61	2.61	2.63
	59°F (15.0°C)	33168	32505	32342	32213	31923	2.51	2.53	2.54	2.54	2.55
62°F (16.7°C)	33484	32814	32650	32520	32227	2.40	2.42	2.43	2.43	2.44	
64.4°F (18.0°C)	33695	33021	32856	32725	32430	2.33	2.35	2.35	2.36	2.37	
853	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	12684	12431	12369	12319	12208	2.10	2.11	2.12	2.12	2.13
	-4°F (-20.0°C)	15484	15174	15098	15038	14902	2.22	2.24	2.25	2.25	2.26
	0°F (-17.8°C)	17269	16923	16839	16771	16621	2.27	2.29	2.29	2.30	2.31
	5°F (-15.0°C)	19500	19110	19015	18939	18768	2.33	2.35	2.36	2.36	2.37
	14°F (-10.0°C)	21445	21016	20911	20828	20640	2.42	2.43	2.44	2.44	2.45
	17°F (-8.3°C)	22093	21652	21543	21457	21264	2.44	2.46	2.47	2.47	2.48
	22°F (-5.6°C)	23492	23022	22907	22816	22610	2.55	2.57	2.58	2.58	2.59
	27°F (-2.8°C)	24891	24393	24271	24174	23956	2.66	2.69	2.69	2.70	2.71
	32°F (0.0°C)	26290	25764	25635	25532	25303	2.77	2.80	2.80	2.81	2.82
	35°F (1.7°C)	27129	26586	26453	26347	26110	2.84	2.86	2.87	2.87	2.89
	37°F (2.8°C)	28598	28026	27886	27775	27525	2.86	2.89	2.89	2.90	2.91
	42°F (5.6°C)	32272	31627	31469	31343	31061	2.92	2.94	2.95	2.95	2.97
	44.6°F (7.0°C)	33742	33067	32902	32770	32475	2.94	2.96	2.97	2.98	2.99
	47°F (8.3°C)	35947	35228	35051	34911	34597	2.97	3.00	3.00	3.01	3.02
	52°F (11.1°C)	36540	35810	35631	35488	35169	2.79	2.81	2.82	2.83	2.84
	57°F (13.9°C)	37134	36392	36210	36065	35740	2.61	2.63	2.64	2.64	2.65
	59°F (15.0°C)	37372	36624	36441	36295	35969	2.54	2.56	2.56	2.57	2.58
62°F (16.7°C)	37728	36973	36789	36641	36312	2.43	2.45	2.45	2.46	2.47	
64.4°F (18.0°C)	37966	37206	37020	36872	36540	2.35	2.37	2.38	2.38	2.39	

Table 68 – 18K Heating — 37MARA – 45MBAA

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
490	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8480	8310	8269	7858	7787	1.43	1.44	1.45	1.45	1.46
	-4°F (-20.0°C)	10026	9826	9777	9291	9208	1.49	1.50	1.51	1.51	1.51
	0°F (-17.8°C)	11152	10929	10874	10334	10241	1.55	1.56	1.56	1.57	1.57
	5°F (-15.0°C)	12559	12307	12246	11638	11533	1.62	1.63	1.63	1.64	1.64
	14°F (-10.0°C)	13519	13248	13182	12528	12415	1.66	1.68	1.68	1.68	1.69
	17°F (-8.3°C)	13839	13562	13494	12824	12709	1.68	1.69	1.70	1.70	1.71
	22°F (-5.6°C)	13707	13433	13365	12702	12587	1.67	1.68	1.68	1.69	1.69
	27°F (-2.8°C)	13575	13303	13237	12579	12466	1.65	1.67	1.67	1.67	1.68
	32°F (0.0°C)	13442	13174	13108	12457	12345	1.64	1.65	1.66	1.66	1.67
	35°F (1.7°C)	13363	13096	13030	12383	12272	1.63	1.65	1.65	1.65	1.66
	37°F (2.8°C)	14472	14183	14112	13411	13290	1.64	1.65	1.66	1.66	1.67
	42°F (5.6°C)	17245	16900	16816	15981	15837	1.66	1.67	1.68	1.68	1.69
	44.6°F (7.0°C)	18354	17987	17897	17009	16856	1.67	1.68	1.69	1.69	1.70
	47°F (8.3°C)	20018	19618	19520	18550	18383	1.68	1.70	1.70	1.70	1.71
	52°F (11.1°C)	19187	18803	18709	17780	17620	1.62	1.63	1.63	1.64	1.64
	57°F (13.9°C)	18355	17988	17898	17010	16856	1.55	1.57	1.57	1.57	1.58
	59°F (15.0°C)	18023	17662	17574	16701	16551	1.53	1.54	1.54	1.55	1.55
	62°F (16.7°C)	17524	17173	17088	16239	16093	1.49	1.50	1.51	1.51	1.51
64.4°F (18.0°C)	17191	16848	16763	15931	15788	1.46	1.48	1.48	1.48	1.49	
530	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8801	8625	8582	8349	8274	1.45	1.46	1.46	1.46	1.47
	-4°F (-20.0°C)	10406	10197	10146	9872	9783	1.51	1.52	1.52	1.52	1.53
	0°F (-17.8°C)	11574	11342	11285	10980	10881	1.56	1.58	1.58	1.58	1.59
	5°F (-15.0°C)	13034	12773	12709	12365	12254	1.63	1.65	1.65	1.65	1.66
	14°F (-10.0°C)	14030	13750	13681	13310	13190	1.68	1.69	1.70	1.70	1.71
	17°F (-8.3°C)	14362	14075	14005	13625	13503	1.70	1.71	1.71	1.72	1.72
	22°F (-5.6°C)	14225	13941	13871	13495	13374	1.68	1.70	1.70	1.70	1.71
	27°F (-2.8°C)	14088	13806	13737	13365	13245	1.67	1.68	1.69	1.69	1.70
	32°F (0.0°C)	13951	13672	13604	13235	13116	1.66	1.67	1.67	1.68	1.68
	35°F (1.7°C)	13869	13591	13523	13157	13038	1.65	1.66	1.67	1.67	1.68
	37°F (2.8°C)	15020	14719	14646	14249	14121	1.66	1.67	1.67	1.68	1.68
	42°F (5.6°C)	17898	17540	17452	16979	16826	1.68	1.69	1.69	1.70	1.71
	44.6°F (7.0°C)	19049	18668	18574	18071	17908	1.69	1.70	1.70	1.71	1.71
	47°F (8.3°C)	20775	20360	20258	19709	19532	1.70	1.71	1.72	1.72	1.73
	52°F (11.1°C)	19912	19514	19417	18891	18721	1.63	1.65	1.65	1.65	1.66
	57°F (13.9°C)	19050	18669	18575	18072	17909	1.57	1.58	1.59	1.59	1.60
	59°F (15.0°C)	18705	18330	18239	17745	17585	1.54	1.56	1.56	1.56	1.57
	62°F (16.7°C)	18187	17823	17734	17254	17098	1.51	1.52	1.52	1.52	1.53
64.4°F (18.0°C)	17842	17485	17397	16926	16774	1.48	1.49	1.49	1.50	1.50	

Table 68 – 18K Heating — 37MARA – 45MBAA (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
580	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9134	8951	8906	8871	8791	1.46	1.47	1.48	1.48	1.48
	-4°F (-20.0°C)	10799	10583	10530	10488	10394	1.52	1.53	1.54	1.54	1.55
	0°F (-17.8°C)	12011	11771	11712	11666	11561	1.58	1.59	1.59	1.60	1.60
	5°F (-15.0°C)	13527	13256	13190	13137	13019	1.65	1.66	1.67	1.67	1.68
	14°F (-10.0°C)	14561	14270	14198	14142	14014	1.70	1.71	1.72	1.72	1.73
	17°F (-8.3°C)	14906	14608	14535	14476	14346	1.71	1.73	1.73	1.73	1.74
	22°F (-5.6°C)	14763	14468	14396	14338	14209	1.70	1.71	1.72	1.72	1.73
	27°F (-2.8°C)	14621	14329	14257	14200	14072	1.69	1.70	1.70	1.71	1.71
	32°F (0.0°C)	14479	14189	14118	14062	13935	1.67	1.69	1.69	1.69	1.70
	35°F (1.7°C)	14393	14105	14035	13979	13853	1.67	1.68	1.68	1.69	1.69
	37°F (2.8°C)	15588	15276	15200	15139	15003	1.67	1.69	1.69	1.69	1.70
	42°F (5.6°C)	18575	18203	18112	18040	17877	1.69	1.71	1.71	1.72	1.72
	44.6°F (7.0°C)	19769	19374	19277	19200	19027	1.70	1.72	1.72	1.72	1.73
	47°F (8.3°C)	21561	21130	21024	20940	20752	1.72	1.73	1.73	1.74	1.74
	52°F (11.1°C)	20666	20252	20151	20071	19890	1.65	1.66	1.67	1.67	1.68
	57°F (13.9°C)	19770	19375	19278	19201	19028	1.59	1.60	1.60	1.61	1.61
	59°F (15.0°C)	19412	19024	18929	18853	18683	1.56	1.57	1.58	1.58	1.59
	62°F (16.7°C)	18875	18497	18405	18331	18166	1.52	1.53	1.54	1.54	1.55
64.4°F (18.0°C)	18517	18146	18056	17983	17822	1.49	1.51	1.51	1.51	1.52	
620	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9479	9290	9243	9206	9123	1.48	1.49	1.49	1.49	1.50
	-4°F (-20.0°C)	11208	10984	10929	10885	10787	1.54	1.55	1.55	1.56	1.56
	0°F (-17.8°C)	12466	12217	12155	12107	11998	1.59	1.61	1.61	1.61	1.62
	5°F (-15.0°C)	14039	13758	13689	13634	13511	1.67	1.68	1.68	1.69	1.69
	14°F (-10.0°C)	15112	14810	14736	14677	14545	1.72	1.73	1.73	1.74	1.74
	17°F (-8.3°C)	15470	15160	15084	15024	14889	1.73	1.75	1.75	1.75	1.76
	22°F (-5.6°C)	15322	15015	14940	14881	14747	1.72	1.73	1.74	1.74	1.75
	27°F (-2.8°C)	15174	14871	14796	14737	14605	1.70	1.72	1.72	1.72	1.73
	32°F (0.0°C)	15026	14726	14652	14594	14462	1.69	1.70	1.71	1.71	1.72
	35°F (1.7°C)	14938	14639	14566	14508	14377	1.68	1.70	1.70	1.70	1.71
	37°F (2.8°C)	16178	15854	15775	15712	15570	1.69	1.70	1.71	1.71	1.72
	42°F (5.6°C)	19277	18892	18797	18722	18554	1.71	1.73	1.73	1.73	1.74
	44.6°F (7.0°C)	20517	20107	20006	19926	19747	1.72	1.73	1.74	1.74	1.75
	47°F (8.3°C)	22377	21929	21820	21732	21537	1.73	1.75	1.75	1.75	1.76
	52°F (11.1°C)	21448	21019	20914	20830	20642	1.67	1.68	1.68	1.69	1.69
	57°F (13.9°C)	20518	20108	20007	19927	19748	1.60	1.61	1.62	1.62	1.63
	59°F (15.0°C)	20147	19744	19645	19566	19390	1.58	1.59	1.59	1.59	1.60
	62°F (16.7°C)	19589	19197	19101	19025	18854	1.54	1.55	1.55	1.55	1.56
64.4°F (18.0°C)	19217	18833	18739	18664	18496	1.51	1.52	1.53	1.53	1.53	

Table 69 – 24K Heating — 37MARA – 45MBAA

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
629	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	11053	10832	10778	10579	10484	2.08	2.10	2.11	2.11	2.12
	-4°F (-20.0°C)	13470	13200	13134	12892	12776	2.19	2.21	2.21	2.22	2.23
	0°F (-17.8°C)	14855	14558	14485	14218	14090	2.28	2.30	2.31	2.31	2.32
	5°F (-15.0°C)	16587	16255	16174	15876	15733	2.40	2.42	2.42	2.43	2.44
	14°F (-10.0°C)	19478	19089	18993	18643	18476	3.25	3.27	3.28	3.29	3.30
	17°F (-8.3°C)	20442	20034	19933	19566	19390	3.53	3.56	3.57	3.57	3.59
	22°F (-5.6°C)	20137	19735	19636	19274	19101	3.23	3.25	3.26	3.27	3.28
	27°F (-2.8°C)	19832	19436	19339	18982	18811	2.92	2.95	2.95	2.96	2.97
	32°F (0.0°C)	19528	19137	19041	18690	18522	2.62	2.64	2.65	2.65	2.66
	35°F (1.7°C)	19345	18958	18863	18515	18349	2.44	2.46	2.46	2.47	2.48
	37°F (2.8°C)	21054	20633	20530	20151	19970	2.50	2.52	2.53	2.53	2.54
	42°F (5.6°C)	25328	24821	24697	24242	24024	2.67	2.69	2.69	2.70	2.71
	44.6°F (7.0°C)	27037	26497	26364	25878	25645	2.73	2.75	2.76	2.76	2.78
	47°F (8.3°C)	29602	29010	28865	28333	28078	2.83	2.85	2.86	2.86	2.87
	52°F (11.1°C)	28118	27556	27418	26913	26671	2.66	2.68	2.68	2.69	2.70
	57°F (13.9°C)	26635	26102	25972	25493	25264	2.48	2.50	2.51	2.51	2.52
	59°F (15.0°C)	26042	25521	25393	24925	24701	2.42	2.43	2.44	2.44	2.45
62°F (16.7°C)	25152	24649	24525	24073	23857	2.31	2.33	2.34	2.34	2.35	
64.4°F (18.0°C)	24558	24067	23947	23505	23294	2.24	2.26	2.27	2.27	2.28	
694	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	11646	11413	11356	11228	11127	2.11	2.12	2.13	2.13	2.14
	-4°F (-20.0°C)	14193	13909	13839	13684	13560	2.21	2.23	2.24	2.24	2.25
	0°F (-17.8°C)	15652	15339	15262	15091	14955	2.31	2.33	2.33	2.34	2.34
	5°F (-15.0°C)	17477	17127	17042	16850	16698	2.42	2.44	2.45	2.45	2.46
	14°F (-10.0°C)	20524	20113	20013	19788	19610	3.28	3.31	3.31	3.32	3.33
	17°F (-8.3°C)	21539	21109	21003	20767	20580	3.57	3.59	3.60	3.61	3.62
	22°F (-5.6°C)	21218	20794	20690	20457	20273	3.26	3.29	3.29	3.30	3.31
	27°F (-2.8°C)	20897	20479	20376	20147	19966	2.95	2.98	2.98	2.99	3.00
	32°F (0.0°C)	20575	20164	20063	19838	19659	2.65	2.67	2.67	2.68	2.69
	35°F (1.7°C)	20383	19975	19875	19652	19475	2.46	2.48	2.49	2.49	2.50
	37°F (2.8°C)	22184	21740	21632	21388	21196	2.53	2.55	2.55	2.56	2.57
	42°F (5.6°C)	26687	26153	26023	25730	25498	2.69	2.71	2.72	2.73	2.74
	44.6°F (7.0°C)	28488	27919	27779	27467	27219	2.76	2.78	2.79	2.79	2.80
	47°F (8.3°C)	31190	30566	30414	30072	29801	2.86	2.88	2.89	2.89	2.90
	52°F (11.1°C)	29627	29035	28890	28565	28308	2.68	2.71	2.71	2.72	2.73
	57°F (13.9°C)	28064	27503	27366	27058	26814	2.51	2.53	2.53	2.54	2.55
	59°F (15.0°C)	27439	26890	26756	26455	26217	2.44	2.46	2.46	2.47	2.48
62°F (16.7°C)	26501	25971	25842	25551	25321	2.34	2.35	2.36	2.36	2.37	
64.4°F (18.0°C)	25876	25359	25232	24948	24724	2.27	2.28	2.29	2.29	2.30	

Table 69 – 24K Heating — 37MARA – 45MBAA (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
759	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	12271	12025	11965	11917	11810	2.13	2.14	2.15	2.15	2.16
	-4°F (-20.0°C)	14954	14655	14582	14523	14393	2.24	2.25	2.26	2.26	2.27
	0°F (-17.8°C)	16492	16162	16081	16017	15873	2.33	2.35	2.35	2.36	2.37
	5°F (-15.0°C)	18415	18046	17956	17884	17723	2.45	2.47	2.47	2.48	2.49
	14°F (-10.0°C)	21625	21193	21087	21002	20813	3.31	3.34	3.35	3.35	3.37
	17°F (-8.3°C)	22695	22241	22130	22042	21843	3.60	3.63	3.64	3.65	3.66
	22°F (-5.6°C)	22357	21910	21800	21713	21517	3.29	3.32	3.33	3.33	3.35
	27°F (-2.8°C)	22018	21578	21470	21384	21192	2.98	3.01	3.01	3.02	3.03
	32°F (0.0°C)	21680	21246	21140	21055	20866	2.67	2.69	2.70	2.71	2.72
	35°F (1.7°C)	21476	21047	20942	20858	20670	2.49	2.51	2.51	2.52	2.53
	37°F (2.8°C)	23374	22907	22792	22701	22497	2.55	2.57	2.58	2.58	2.60
	42°F (5.6°C)	28119	27557	27419	27309	27063	2.72	2.74	2.75	2.75	2.76
	44.6°F (7.0°C)	30017	29417	29270	29152	28890	2.79	2.81	2.81	2.82	2.83
	47°F (8.3°C)	32864	32207	32046	31917	31630	2.89	2.91	2.92	2.92	2.93
	52°F (11.1°C)	31217	30593	30440	30318	30045	2.71	2.73	2.74	2.74	2.75
	57°F (13.9°C)	29570	28979	28834	28719	28460	2.53	2.56	2.56	2.57	2.58
	59°F (15.0°C)	28912	28333	28192	28079	27826	2.46	2.48	2.49	2.49	2.50
	62°F (16.7°C)	27923	27365	27228	27119	26875	2.36	2.38	2.38	2.39	2.40
64.4°F (18.0°C)	27265	26719	26586	26480	26241	2.29	2.31	2.31	2.32	2.33	
824	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	12929	12671	12607	12557	12444	2.15	2.17	2.17	2.17	2.18
	-4°F (-20.0°C)	15757	15441	15364	15303	15165	2.26	2.28	2.28	2.29	2.30
	0°F (-17.8°C)	17377	17030	16944	16877	16725	2.35	2.37	2.38	2.38	2.39
	5°F (-15.0°C)	19403	19015	18920	18844	18674	2.47	2.49	2.50	2.50	2.51
	14°F (-10.0°C)	22785	22330	22218	22129	21930	3.35	3.37	3.38	3.39	3.40
	17°F (-8.3°C)	23913	23435	23318	23224	23015	3.64	3.67	3.68	3.68	3.70
	22°F (-5.6°C)	23556	23085	22970	22878	22672	3.33	3.35	3.36	3.37	3.38
	27°F (-2.8°C)	23200	22736	22622	22531	22329	3.01	3.04	3.04	3.05	3.06
	32°F (0.0°C)	22843	22386	22274	22185	21985	2.70	2.72	2.73	2.73	2.74
	35°F (1.7°C)	22629	22176	22065	21977	21779	2.51	2.53	2.54	2.54	2.55
	37°F (2.8°C)	24629	24136	24015	23919	23704	2.58	2.60	2.61	2.61	2.62
	42°F (5.6°C)	29628	29035	28890	28775	28516	2.75	2.77	2.78	2.78	2.79
	44.6°F (7.0°C)	31628	30995	30840	30717	30440	2.81	2.84	2.84	2.85	2.86
	47°F (8.3°C)	34627	33935	33765	33630	33327	2.92	2.94	2.95	2.95	2.96
	52°F (11.1°C)	32892	32234	32073	31945	31657	2.74	2.76	2.77	2.77	2.78
	57°F (13.9°C)	31157	30534	30381	30260	29987	2.56	2.58	2.59	2.59	2.60
	59°F (15.0°C)	30463	29854	29704	29586	29319	2.49	2.51	2.51	2.52	2.53
	62°F (16.7°C)	29422	28833	28689	28575	28317	2.38	2.40	2.41	2.41	2.42
64.4°F (18.0°C)	28728	28153	28013	27900	27649	2.31	2.33	2.34	2.34	2.35	

Table 70 – 30K Heating — 37MARA – 45MBAA

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
712	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	8912	8734	8690	8589	8512	2.72	2.74	2.74	2.75	2.76
	-4°F (-20.0°C)	10761	10546	10493	10372	10278	2.86	2.88	2.89	2.89	2.91
	0°F (-17.8°C)	13658	13385	13318	13164	13046	2.83	2.85	2.86	2.86	2.88
	5°F (-15.0°C)	17280	16935	16850	16655	16505	2.79	2.82	2.82	2.83	2.84
	14°F (-10.0°C)	18954	18575	18482	18268	18104	2.93	2.95	2.96	2.96	2.98
	17°F (-8.3°C)	19512	19121	19026	18806	18636	2.97	3.00	3.01	3.01	3.02
	22°F (-5.6°C)	20055	19654	19556	19330	19156	2.93	2.95	2.96	2.96	2.97
	27°F (-2.8°C)	20599	20187	20086	19853	19675	2.88	2.90	2.91	2.91	2.92
	32°F (0.0°C)	21142	20719	20616	20377	20194	2.83	2.85	2.86	2.86	2.87
	35°F (1.7°C)	21468	21039	20934	20692	20505	2.80	2.82	2.83	2.83	2.84
	37°F (2.8°C)	22452	22003	21893	21640	21445	2.76	2.78	2.79	2.79	2.81
	42°F (5.6°C)	24911	24413	24291	24010	23794	2.67	2.69	2.70	2.70	2.71
	44.6°F (7.0°C)	25895	25377	25250	24958	24733	2.63	2.65	2.66	2.66	2.67
	47°F (8.3°C)	27370	26823	26689	26380	26142	2.58	2.60	2.60	2.61	2.62
	52°F (11.1°C)	25760	25245	25119	24828	24605	2.34	2.36	2.37	2.37	2.38
	57°F (13.9°C)	24150	23667	23549	23276	23067	2.11	2.13	2.13	2.14	2.15
	59°F (15.0°C)	23506	23036	22921	22656	22452	2.02	2.03	2.04	2.04	2.05
	62°F (16.7°C)	22540	22089	21979	21724	21529	1.88	1.89	1.90	1.90	1.91
64.4°F (18.0°C)	21896	21458	21351	21104	20914	1.79	1.80	1.80	1.81	1.82	
806	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	9563	9372	9325	9252	9169	2.74	2.77	2.77	2.78	2.79
	-4°F (-20.0°C)	11547	11317	11260	11172	11072	2.89	2.91	2.92	2.92	2.94
	0°F (-17.8°C)	14656	14363	14292	14180	14053	2.86	2.88	2.89	2.89	2.90
	5°F (-15.0°C)	18543	18172	18081	17940	17779	2.82	2.84	2.85	2.85	2.87
	14°F (-10.0°C)	20339	19932	19832	19678	19501	2.96	2.98	2.99	2.99	3.01
	17°F (-8.3°C)	20937	20519	20416	20257	20075	3.01	3.03	3.04	3.04	3.05
	22°F (-5.6°C)	21521	21090	20985	20821	20634	2.96	2.98	2.99	2.99	3.00
	27°F (-2.8°C)	22104	21662	21554	21386	21193	2.91	2.93	2.94	2.94	2.95
	32°F (0.0°C)	22687	22233	22122	21950	21752	2.86	2.88	2.89	2.89	2.90
	35°F (1.7°C)	23037	22576	22464	22288	22088	2.83	2.85	2.86	2.86	2.87
	37°F (2.8°C)	24093	23611	23493	23310	23100	2.79	2.81	2.82	2.82	2.83
	42°F (5.6°C)	26731	26197	26066	25863	25630	2.70	2.72	2.72	2.73	2.74
	44.6°F (7.0°C)	27787	27231	27095	26884	26642	2.66	2.68	2.69	2.69	2.70
	47°F (8.3°C)	29370	28783	28639	28416	28160	2.60	2.62	2.63	2.63	2.64
	52°F (11.1°C)	27642	27090	26954	26744	26503	2.37	2.39	2.39	2.40	2.41
	57°F (13.9°C)	25915	25396	25269	25073	24847	2.13	2.15	2.15	2.16	2.17
	59°F (15.0°C)	25224	24719	24596	24404	24184	2.04	2.06	2.06	2.06	2.07
	62°F (16.7°C)	24187	23703	23585	23401	23190	1.90	1.91	1.92	1.92	1.93
64.4°F (18.0°C)	23496	23026	22911	22732	22528	1.80	1.82	1.82	1.83	1.83	

Table 70 – 30K Heating — 37MARA – 45MBAA (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
894	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	10262	10057	10006	9966	9877	2.77	2.79	2.80	2.81	2.82
	-4°F (-20.0°C)	12391	12143	12083	12034	11926	2.92	2.94	2.95	2.95	2.96
	0°F (-17.8°C)	15727	15413	15336	15275	15137	2.89	2.91	2.92	2.92	2.93
	5°F (-15.0°C)	19898	19500	19402	19325	19151	2.85	2.87	2.88	2.88	2.90
	14°F (-10.0°C)	21825	21388	21281	21196	21006	2.99	3.01	3.02	3.03	3.04
	17°F (-8.3°C)	22467	22018	21908	21820	21624	3.04	3.06	3.07	3.07	3.08
	22°F (-5.6°C)	23093	22631	22518	22428	22226	2.99	3.01	3.02	3.02	3.03
	27°F (-2.8°C)	23719	23245	23128	23036	22829	2.94	2.96	2.96	2.97	2.98
	32°F (0.0°C)	24345	23858	23739	23644	23431	2.89	2.91	2.91	2.92	2.93
	35°F (1.7°C)	24721	24226	24105	24009	23792	2.86	2.88	2.88	2.89	2.90
	37°F (2.8°C)	25853	25336	25209	25109	24883	2.82	2.84	2.85	2.85	2.86
	42°F (5.6°C)	28685	28111	27970	27859	27608	2.72	2.74	2.75	2.76	2.77
	44.6°F (7.0°C)	29817	29221	29075	28959	28698	2.69	2.71	2.71	2.72	2.73
	47°F (8.3°C)	31516	30886	30731	30608	30333	2.63	2.65	2.66	2.66	2.67
	52°F (11.1°C)	29662	29069	28924	28808	28549	2.39	2.41	2.42	2.42	2.43
	57°F (13.9°C)	27808	27252	27116	27007	26764	2.15	2.17	2.18	2.18	2.19
	59°F (15.0°C)	27067	26525	26393	26287	26051	2.06	2.08	2.08	2.08	2.09
	62°F (16.7°C)	25954	25435	25308	25207	24980	1.92	1.93	1.94	1.94	1.95
64.4°F (18.0°C)	25213	24709	24585	24487	24266	1.82	1.84	1.84	1.84	1.85	
988	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	11012	10792	10738	10695	10598	2.80	2.82	2.83	2.83	2.85
	-4°F (-20.0°C)	13297	13031	12966	12914	12798	2.95	2.97	2.98	2.98	2.99
	0°F (-17.8°C)	16877	16539	16456	16391	16243	2.92	2.94	2.95	2.95	2.96
	5°F (-15.0°C)	21352	20925	20820	20737	20550	2.88	2.90	2.91	2.91	2.92
	14°F (-10.0°C)	23420	22951	22837	22745	22540	3.02	3.04	3.05	3.06	3.07
	17°F (-8.3°C)	24109	23627	23509	23415	23204	3.07	3.09	3.10	3.10	3.12
	22°F (-5.6°C)	24781	24285	24164	24067	23850	3.02	3.04	3.05	3.05	3.06
	27°F (-2.8°C)	25452	24943	24819	24719	24497	2.96	2.99	2.99	3.00	3.01
	32°F (0.0°C)	26124	25601	25473	25372	25143	2.91	2.94	2.94	2.95	2.96
	35°F (1.7°C)	26527	25996	25866	25763	25531	2.88	2.91	2.91	2.92	2.93
	37°F (2.8°C)	27742	27187	27051	26943	26701	2.85	2.87	2.87	2.88	2.89
	42°F (5.6°C)	30781	30165	30014	29894	29625	2.75	2.77	2.78	2.78	2.79
	44.6°F (7.0°C)	31996	31356	31199	31075	30795	2.71	2.73	2.74	2.75	2.76
	47°F (8.3°C)	33819	33143	32977	32845	32549	2.66	2.68	2.68	2.69	2.70
	52°F (11.1°C)	31830	31193	31037	30913	30635	2.42	2.44	2.44	2.44	2.45
	57°F (13.9°C)	29840	29244	29097	28981	28720	2.18	2.19	2.20	2.20	2.21
	59°F (15.0°C)	29045	28464	28321	28208	27954	2.08	2.10	2.10	2.11	2.11
	62°F (16.7°C)	27851	27294	27158	27049	26805	1.94	1.95	1.96	1.96	1.97
64.4°F (18.0°C)	27055	26514	26382	26276	26040	1.84	1.86	1.86	1.86	1.87	

Table 71 – 36K Heating — 37MARA – 45MBAA

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
866	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	12903	12645	12582	12145	12036	2.97	3.00	3.00	3.01	3.02
	-4°F (-20.0°C)	16004	15684	15605	15064	14928	3.11	3.13	3.14	3.15	3.16
	0°F (-17.8°C)	17751	17396	17309	16708	16557	3.17	3.20	3.20	3.21	3.22
	5°F (-15.0°C)	19934	19535	19438	18763	18594	3.25	3.28	3.28	3.29	3.30
	14°F (-10.0°C)	19912	19514	19416	18743	18574	3.17	3.19	3.20	3.20	3.22
	17°F (-8.3°C)	19905	19507	19409	18736	18567	3.14	3.16	3.17	3.18	3.19
	22°F (-5.6°C)	20379	19971	19871	19182	19009	3.08	3.10	3.11	3.12	3.13
	27°F (-2.8°C)	20852	20435	20333	19627	19451	3.02	3.04	3.05	3.05	3.07
	32°F (0.0°C)	21326	20899	20795	20073	19892	2.96	2.98	2.99	2.99	3.01
	35°F (1.7°C)	21610	21178	21072	20341	20158	2.92	2.95	2.95	2.96	2.97
	37°F (2.8°C)	23487	23018	22903	22108	21909	3.00	3.02	3.03	3.04	3.05
	42°F (5.6°C)	28181	27617	27479	26526	26287	3.19	3.22	3.23	3.23	3.25
	44.6°F (7.0°C)	30058	29457	29310	28293	28038	3.27	3.30	3.31	3.31	3.33
	47°F (8.3°C)	32875	32217	32056	30943	30665	3.39	3.42	3.42	3.43	3.44
	52°F (11.1°C)	28612	28040	27899	26931	26689	2.95	2.97	2.98	2.99	3.00
	57°F (13.9°C)	24349	23862	23743	22919	22713	2.51	2.53	2.54	2.54	2.55
	59°F (15.0°C)	22644	22191	22080	21314	21122	2.33	2.35	2.36	2.36	2.37
62°F (16.7°C)	20087	19685	19586	18907	18736	2.07	2.09	2.09	2.10	2.10	
64.4°F (18.0°C)	18381	18014	17924	17302	17146	1.89	1.91	1.91	1.92	1.93	
972	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	13753	13478	13410	13149	13031	3.00	3.03	3.03	3.04	3.05
	-4°F (-20.0°C)	17058	16717	16633	16309	16162	3.14	3.17	3.17	3.18	3.19
	0°F (-17.8°C)	18919	18541	18448	18089	17926	3.20	3.23	3.24	3.24	3.26
	5°F (-15.0°C)	21247	20822	20718	20314	20131	3.28	3.31	3.32	3.32	3.34
	14°F (-10.0°C)	21224	20799	20695	20292	20109	3.20	3.22	3.23	3.24	3.25
	17°F (-8.3°C)	21216	20792	20688	20285	20102	3.17	3.19	3.20	3.21	3.22
	22°F (-5.6°C)	21721	21286	21180	20767	20580	3.11	3.13	3.14	3.15	3.16
	27°F (-2.8°C)	22225	21781	21672	21250	21059	3.05	3.07	3.08	3.09	3.10
	32°F (0.0°C)	22730	22276	22164	21733	21537	2.99	3.01	3.02	3.02	3.04
	35°F (1.7°C)	23033	22572	22460	22022	21824	2.95	2.98	2.98	2.99	3.00
	37°F (2.8°C)	25034	24533	24411	23935	23720	3.03	3.06	3.06	3.07	3.08
	42°F (5.6°C)	30037	29436	29289	28718	28460	3.23	3.25	3.26	3.27	3.28
	44.6°F (7.0°C)	32038	31397	31240	30632	30356	3.31	3.33	3.34	3.35	3.36
	47°F (8.3°C)	35039	34339	34167	33502	33200	3.42	3.45	3.46	3.46	3.48
	52°F (11.1°C)	30496	29886	29737	29158	28895	2.98	3.00	3.01	3.02	3.03
	57°F (13.9°C)	25953	25434	25306	24814	24590	2.54	2.56	2.56	2.57	2.58
	59°F (15.0°C)	24135	23653	23534	23076	22868	2.36	2.38	2.38	2.39	2.40
62°F (16.7°C)	21409	20981	20876	20470	20285	2.09	2.11	2.11	2.12	2.13	
64.4°F (18.0°C)	19592	19200	19104	18732	18563	1.91	1.93	1.93	1.94	1.95	

Table 71 – 36K Heating — 37MARA – 45MBAA (Continued)

AIRFLOW (CFM)	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OUTDOOR DB	TC: Total Heating Capacity (BTU/hr)					PI: Power Input (kW)				
		Indoor Conditions (DB)					Indoor Conditions (DB)				
		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)
1084	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	14658	14365	14293	14236	14108	3.03	3.06	3.07	3.07	3.08
	-4°F (-20.0°C)	18181	17817	17728	17657	17498	3.17	3.20	3.20	3.21	3.22
	0°F (-17.8°C)	20165	19762	19663	19585	19408	3.24	3.26	3.27	3.28	3.29
	5°F (-15.0°C)	22646	22193	22082	21994	21796	3.32	3.34	3.35	3.36	3.37
	14°F (-10.0°C)	22621	22169	22058	21970	21772	3.23	3.26	3.26	3.27	3.28
	17°F (-8.3°C)	22613	22161	22050	21962	21764	3.20	3.23	3.23	3.24	3.25
	22°F (-5.6°C)	23151	22688	22575	22484	22282	3.14	3.17	3.17	3.18	3.19
	27°F (-2.8°C)	23689	23215	23099	23007	22800	3.08	3.10	3.11	3.12	3.13
	32°F (0.0°C)	24227	23742	23624	23529	23318	3.02	3.04	3.05	3.06	3.07
	35°F (1.7°C)	24550	24059	23939	23843	23628	2.98	3.01	3.01	3.02	3.03
	37°F (2.8°C)	26683	26149	26018	25914	25681	3.06	3.09	3.09	3.10	3.11
	42°F (5.6°C)	32015	31374	31218	31093	30813	3.26	3.29	3.29	3.30	3.31
	44.6°F (7.0°C)	34148	33465	33297	33164	32866	3.34	3.37	3.37	3.38	3.39
	47°F (8.3°C)	37347	36600	36417	36271	35945	3.46	3.49	3.49	3.50	3.51
	52°F (11.1°C)	32504	31854	31695	31568	31284	3.01	3.03	3.04	3.05	3.06
	57°F (13.9°C)	27662	27108	26973	26865	26623	2.56	2.58	2.59	2.59	2.60
	59°F (15.0°C)	25725	25210	25084	24984	24759	2.38	2.40	2.41	2.41	2.42
62°F (16.7°C)	22819	22363	22251	22162	21962	2.11	2.13	2.13	2.14	2.15	
64.4°F (18.0°C)	20882	20464	20362	20281	20098	1.93	1.95	1.95	1.96	1.96	
1190	-22°F (-30.0°C)	/	/	/	/	/	/	/	/	/	/
	-13°F (-25.0°C)	15624	15311	15235	15174	15037	3.07	3.09	3.10	3.10	3.11
	-4°F (-20.0°C)	19378	18991	18896	18820	18651	3.20	3.23	3.24	3.24	3.26
	0°F (-17.8°C)	21493	21063	20958	20874	20686	3.27	3.30	3.30	3.31	3.32
	5°F (-15.0°C)	24137	23654	23536	23442	23231	3.35	3.38	3.39	3.39	3.41
	14°F (-10.0°C)	24111	23629	23510	23416	23206	3.26	3.29	3.30	3.30	3.32
	17°F (-8.3°C)	24102	23620	23502	23408	23197	3.23	3.26	3.27	3.27	3.29
	22°F (-5.6°C)	24675	24182	24061	23965	23749	3.17	3.20	3.20	3.21	3.22
	27°F (-2.8°C)	25249	24744	24620	24522	24301	3.11	3.14	3.14	3.15	3.16
	32°F (0.0°C)	25822	25306	25179	25079	24853	3.05	3.07	3.08	3.09	3.10
	35°F (1.7°C)	26166	25643	25515	25413	25184	3.01	3.04	3.04	3.05	3.06
	37°F (2.8°C)	28440	27871	27732	27621	27372	3.09	3.12	3.12	3.13	3.14
	42°F (5.6°C)	34123	33440	33273	33140	32842	3.29	3.32	3.33	3.33	3.35
	44.6°F (7.0°C)	36396	35668	35490	35348	35030	3.37	3.40	3.41	3.41	3.43
	47°F (8.3°C)	39806	39010	38815	38660	38312	3.49	3.52	3.53	3.54	3.55
	52°F (11.1°C)	34645	33952	33782	33647	33344	3.04	3.06	3.07	3.08	3.09
	57°F (13.9°C)	29483	28894	28749	28634	28376	2.59	2.61	2.61	2.62	2.63
	59°F (15.0°C)	27419	26870	26736	26629	26389	2.41	2.43	2.43	2.43	2.44
62°F (16.7°C)	24322	23835	23716	23621	23409	2.13	2.15	2.16	2.16	2.17	
64.4°F (18.0°C)	22257	21812	21703	21616	21422	1.95	1.97	1.97	1.98	1.98	

## 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, the units should be level in all planes.

**Clearance** – Minimum clearance (Fig. 5) 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.

### OPERATING RANGE MIN/MAX °F / °C

#### All High Heat Units:

- **Cooling:** -13/122 (-25/50)
- **Heating:** -13/75 (-25/24)

**NOTE:** Without intervention, the unit may continue to run at temperatures outside of the specified operating temperatures. However, operation outside of the specified temperature range may result in decreased performance and may cause damage to the unit.

### METERING DEVICES

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

### DRAIN CONNECTIONS

Install the drains in accordance with 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 Table 72 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 the lines more than 36-in (914 mm). 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 Table 72.

Table 72 – Additional Charge for Long Line Applications

Unit Size	Total Line Length ft (m)		Additional Charge, oz/ft. (m)				
	Min	Max	10-25 (3-8)	25-82 (8-25)	82-98 (25-30)	98-164 (30-50)	164-213 (50-65)
9	10 (3)	82 (25)	None	0.16			
12		98 (30)			0.16		
18		164 (50)		0.32			
24		213 (65)		0.32			
30				0.32			
36				0.32			

## ! CAUTION

When the outdoor unit is matched with a Multi-Family or Residential Fan Coil and due the need to braze the piping on the fan coil side it is REQUIRED to flow Nitrogen in the system while brazing the line set since a filter drier is not recommended to be used with these condensing units.

### 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 power/communication wiring, from the outdoor unit to the indoor unit, consists of four (4) wires and provides the power for the indoor unit. Two wires are high voltage AC power, one is communication wiring 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.

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.

# FAN AND MOTOR AND ELECTRICAL SPECIFICATIONS

Refer to Table 5 for complete specifications.

Table 73 – Electrical Data

Outdoor Unit		12K	09K	12K	18K	24K	30K	36K
		115V	208/230V					
Minimum Circuit Ampacity (MCA)	A	18	12	12	18	24	28	33
MOP	A	20	15	15	20	25	30	35
Voltage - Phase - Frequency		115 - 1 - 60		208/230 - 1 - 60				
Max-Min Voltage Range*		127-104		253-187				
<b>COOLING</b>								
Running Current	(A)	10.3	4.7	4.1	6.3	7.4	11.2	18
Power Consumption	(W)	923	604	916	1406	1714	2500	4138
<b>HEATING</b>								
Running Current Range	(A)	10.5	3.3	4	6.7	8.3	13.1	16.2
Power Consumption	(W)	950	750	902	1507	1852	2857	3700

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

**LEGEND:**

- FLA = Full Load Amps
- MCA = Minimum Current Amps
- MOP = Maximum Overcurrent Protection

## CONNECTION DIAGRAMS

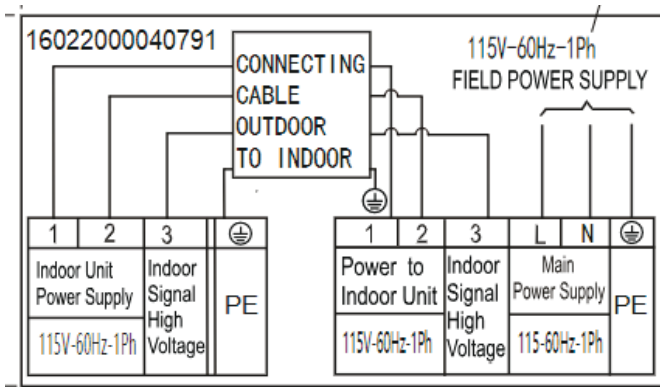


Fig. 7 – 12K – 115V Connection Diagram

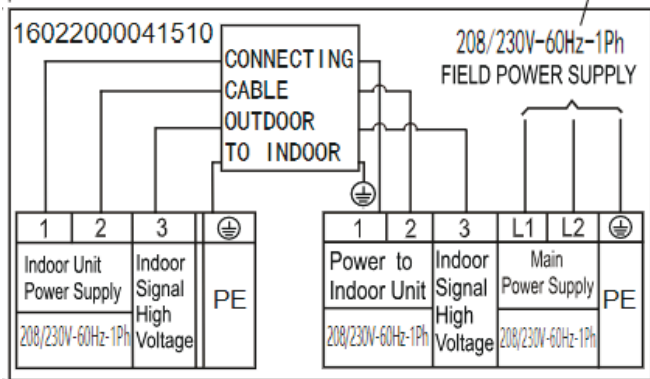


Fig. 8 – 9K/12K/18K/24K/30K/36K – 208/230V Connection Diagram

## WIRING DIAGRAMS

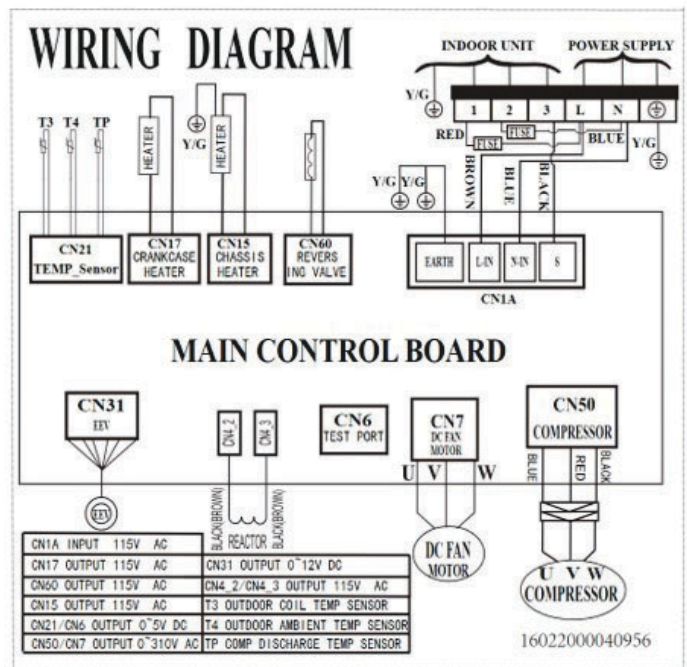


Fig. 9 – 12K – 115V Wiring Diagram

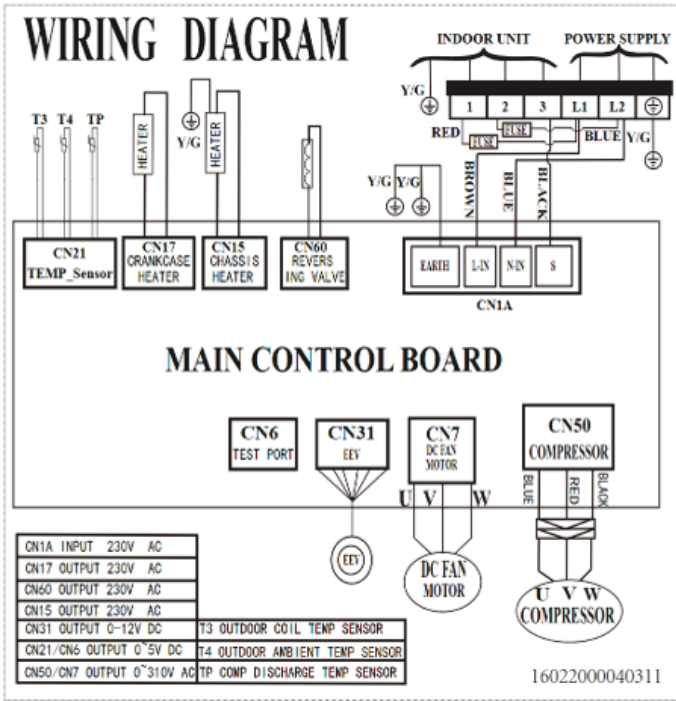


Fig. 10 – 9K/12K – 208/230V Wiring Diagram

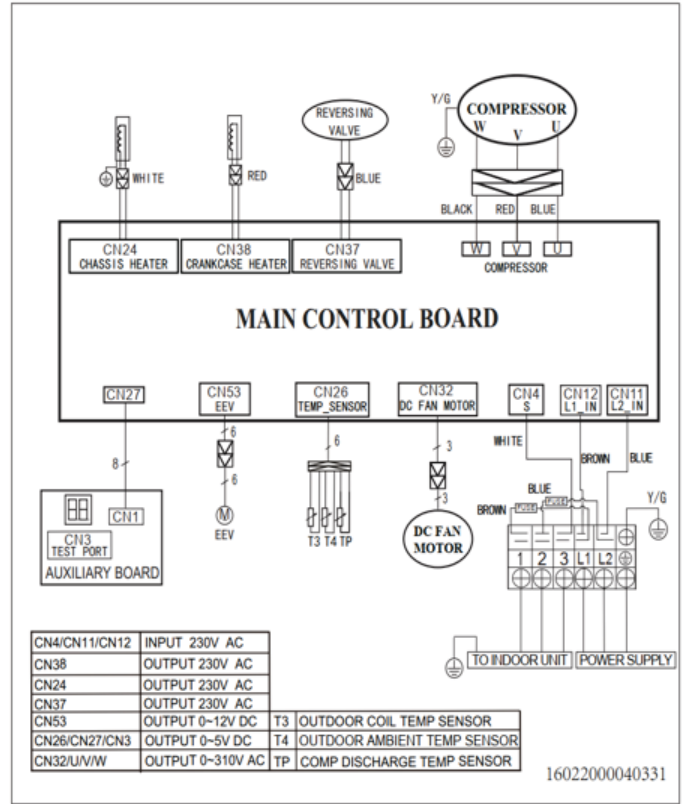


Fig. 12 – 30K – 208/230V Wiring Diagram

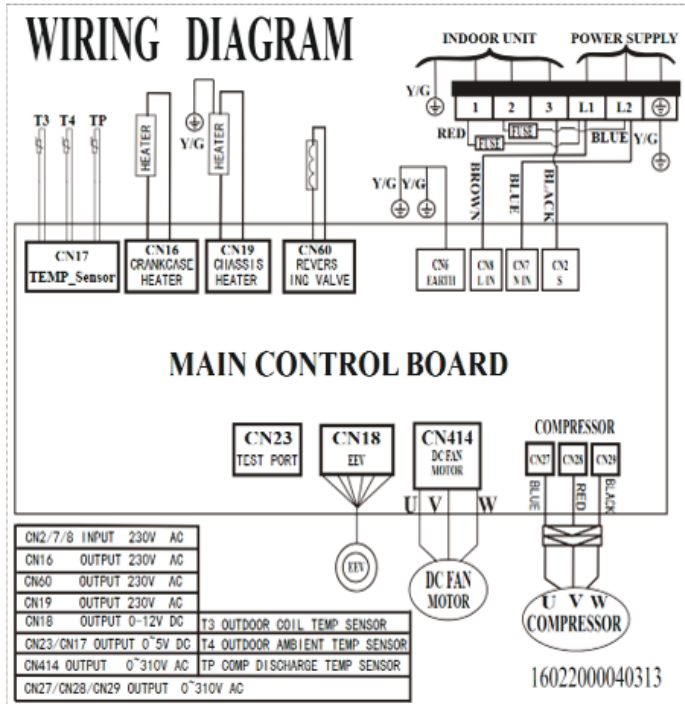


Fig. 11 – 18K/24K – 208/230V Wiring Diagram

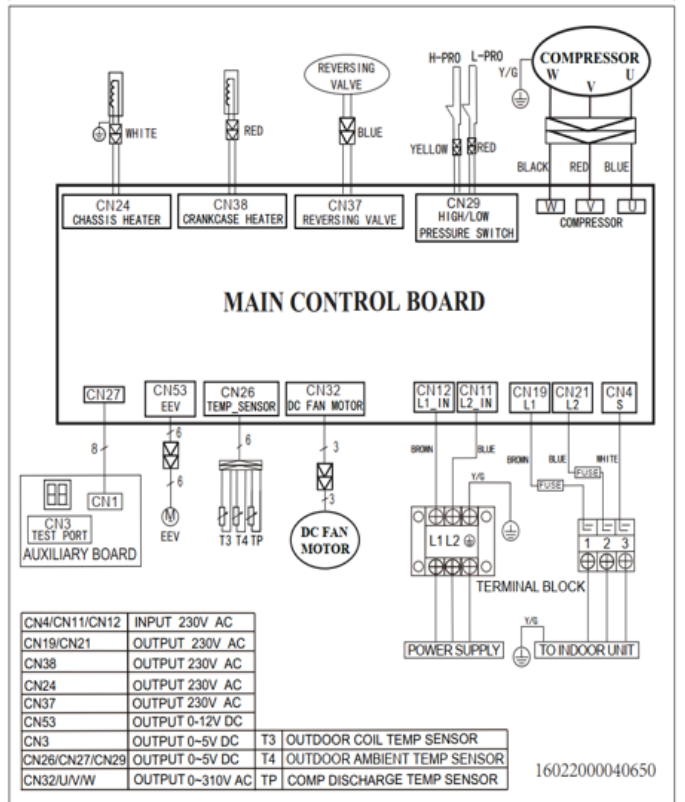


Fig. 13 – 36K – 208/230V Wiring Diagram

## OUTDOOR UNIT SINGLE ZONE DUCTLESS SYSTEM

Size Range: 1½ to 3 Ton Nominal Cooling and Heating Capacity

Model Number: 37MARA

### Part 1 - General

#### 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.

#### Agency Listings

- a. Unit construction complies with ANSI/ASHRAE 15, latest revision, and with the NEC.
- b. Units are evaluated in accordance with the UL standard 60335-2-40/ CSA C22.2 No. 60335-2-40.
- c. Units are listed in CEC directory.
- d. Unit cabinet is capable of withstanding the 500-hour salt spray test per Federal Test Standard no. 141 (method 6061).
- e. Air-cooled condenser coils are leak tested at 550 psig.

#### Delivery, Storage, And Handling

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

#### Warranty (For Inclusion By Specifying Engineer)

#### Products

#### Equipment

##### 1. General:

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

##### 2. Unit Cabinet:

- a. The unit cabinet is constructed of galvanized steel, bonderized and coated with baked-enamel finish on the inside and outside.
- b. The unit access panels are removable and provide full access to the compressor, fan, and the control components.
- c. The outdoor compartment is isolated and has an acoustic lining to assure a quiet operation.

##### 3. Fans:

- a. The outdoor fans are direct-drive propeller type, and discharge air horizontally. The fan draws air through the outdoor coil.
- b. Outdoor fan motors are totally-enclosed, single phase motors with class E insulation and permanently lubricated ball

bearings. The motor is protected by internal thermal overload protection.

- c. The shaft has an inherent corrosion resistance.
- d. Fan blades are non-metallic and statically and dynamically balanced.
- e. Outdoor fan openings are equipped with a PVC metal/mesh coated protection grille over the fan.

##### 4. Compressor:

- a. The compressor is the fully hermetic variable speed rotary type.
- b. The compressor is equipped with an oil system, operating oil charge, and motor.
- c. The motor is NEMA rated class E, suitable for operation in a refrigerant atmosphere.
- d. The compressor assembly is installed on rubber vibration isolators.

##### 5. Outdoor Coil:

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

##### 6. Refrigerant Components:

Refrigerant circuit components include brass external liquid line service valve with a service gauge connection port, suction line service valve with a service gauge connection port, accumulator, reversing valve, and electronic expansion valve.

##### 7. Safety:

Operating safety features are factory selected, assembled, and tested. The minimum functions include the following:

- a. Standard time delay control sequence through the fan control board.
- a. Compressor discharge over temperature protection.
- b. System low voltage protection.
- c. Compressor overload protection.
- d. Compressor over current protection.
- e. Outdoor fan failure protection.
- f. System diagnostics.

##### 8. Electrical Requirements:

- a. Units operate on single-phase, 60 Hz power at 115V for size 12, and 208/230V for unit sizes 09, 12, 18, 24, 30 and 36 as specified.
- b. The unit electrical power is a single point connection.
- c. Unit control voltage to the indoor fan coil is 0-15VDC.
- d. All power and control wiring must be installed per NEC and all local electrical codes.