
Supplemental Instructions

Models:

W42ACM W48ACM W60ACM W72ACM

This model provides a unique dehumidification circuit for periods of low outdoor ambient temperature and high indoor humidity conditions.

Refer to Specification Sheet S3596 for the standard features of the base units and this manual for electrical data.

Mechanical dehumidification is only available as a factory-installed option that must be ordered with the unit. It cannot be installed in the field on an existing unit.

Dehumidification Sequence of Operation

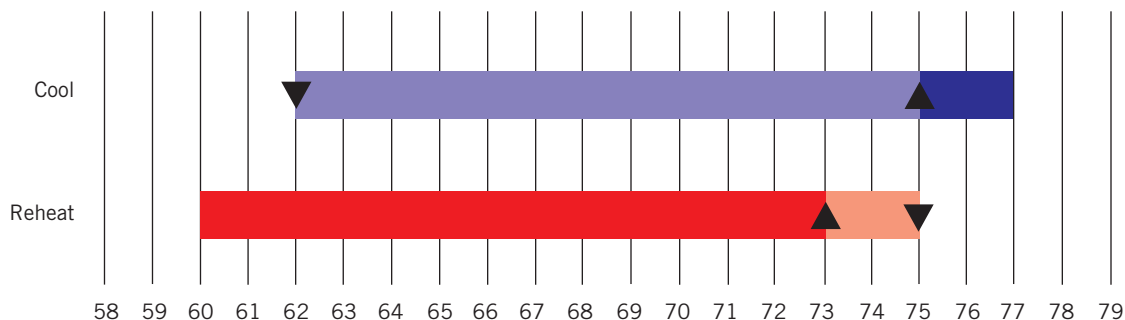
Dehumidification will only become active if the unit is connected to the LC6000 and the appropriate conditions are present.

When the wall-mount unit receives a dehumidification call from the LC6000, the wall-mount unit will disable the economizer to force the system to use air conditioning and prevent any additional humidity from being introduced from outdoor air. The wall-mount unit will then turn on the air conditioning system which will remove moisture and cool the space. At the same time, the 3-way dehumidification valve will be opened to extend the run time of the cooling cycle and prevent cool air from being introduced to the space. The dehumidification sequence will run until the space temperature reaches the heating setpoint or cooling setpoint or the humidity setpoint is reached.

When the dehumidification command is first received both cooling and reheat will be activated.

The cooling will shut off when the return air temperature is 62°F to prevent the unit from causing the system to go into heating mode (see Figure 1).

FIGURE 1
Dehumidification Control



Climate Control Solutions

Bard Manufacturing Company, Inc.
Bryan, Ohio 43506
www.bardhvac.com

Manual: 7960-864C
Supersedes: 7960-864B
Date: 2-3-21

The compressor will turn on again once the return temperature rises to 75°F.

The electric heat will operate to maximize cooling times which will in turn remove moisture from the space. The electric reheat will turn on when the temperature falls to 73°F and will turn back off at 75°F.

The system will continue to operate this way until the LC removes the call for active dehumidification.

The reheat coil is dependent on space load to warm the temperature back up once the compressor is disabled.

A heating or cooling call will disable the dehumidification call. Dehumidification can only take place when system is not actively heating or cooling.

For a more detailed operation description, see the latest version of LC6000 service instructions 2100-669.

Balanced Climate™ Mode

It is recommended that Balanced Climate mode be enabled to enhance dehumidification performance and comfort. Balanced Climate is deactivated by default. To activate Balanced Climate, see the latest version of MULTI-TEC service instructions 2100-725. The LC6000 will then operate the unit at the lower airflow (Balanced Climate mode) whenever the humidity is above the passive dehumidification setpoint. When the indoor humidity drops below the dehumidification off setpoint, the unit will return to nominal blower speeds.

See latest version of MULTI-TEC service instructions 2100-725 for further information regarding Balanced Climate operation. See latest version of LC6000 service instructions 2100-669 for further information regarding dehumidification configuration for the LC6000.


Electronic Expansion Valve (EEV)

Operation

This model employs an electronic expansion valve which meters the refrigerant to the evaporator. The EEV is made of a stepper motor that is controlled with a step output from the controller. The valve is capable of 480 steps which drives a needle valve that in turn regulates the flow of refrigerant. The EEV allows for tighter control and better capacity management in varying operating conditions than a standard TXV. The EEV system consists of the electronic valve, stator, suction temperature sensor and suction pressure transducer. The pressure transducer and temperature sensor monitor the suction line to provide real time data to the PLC so that a real time superheat can be calculated. This then determines the EEV position. The controller is set to maintain around 13° superheat.

! WARNING/AVERTISSEMENT

- Exposure to high pressure refrigerant hazard.
- This unit is equipped with an electronic expansion valve. In order to fully recover refrigerant or evacuate the system during repairs, be sure to use service tool 2151-021 to manually open the electronic expansion valve or be sure to recover and evacuate from all service ports: suction, liquid, and discharge.
- Failure to do so could result in eye injuries and/or refrigerant burns.
- Exposition à un risque de réfrigérant à haute pression.
- Cet appareil est équipé d'un détendeur électronique. Afin de récupérer complètement le réfrigérant ou d'évacuer le système pendant les réparations, assurez-vous d'utiliser l'outil de service 2151-021 pour ouvrir manuellement le détendeur électronique ou assurez-vous de récupérer et d'évacuer de tous les ports de service: aspiration, liquide et refoulement.
- Ne pas le faire pourrait entraîner des blessures aux yeux et / ou des brûlures de réfrigérant.

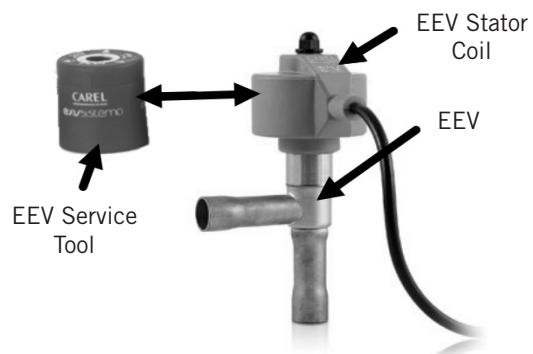

7961-953

EEV Instructions for Vacuuming, Reclaiming and Charging Unit

The electronic expansion valve moves to a closed position when there is no call to control. In order to pull a complete vacuum, fully reclaim the system or charge the unit, connections to both the suction and discharge service ports need to be utilized or the valve needs to be manually opened first. The valve can be opened manually using the magnetic EEV service tool (Bard Part # 2151-021) shown in Figure 2. To do this, remove the EEV stator coil (red color with retaining nut on top), slide the magnetic tool over the shaft where the stator was removed and turn in a clockwise direction to open the valve to the full open position (directional arrows are provided on the tool).

Reapply the EEV stator coil and retaining nut once complete. Upon powering the unit back up, the PLC will automatically drive the EEV back to the fully shut position. Once the compressor starts, the PLC will again modulate the EEV position to control the system superheat.

FIGURE 2
Electronic Expansion Valve (EEV) and Service Tool



Troubleshooting the Electronic Expansion Valve

Electronic Expansion Valve

Check to see if valve can be moved by manually moving the stepper motor using the EEV service tool shown in Figure 1 (Bard Part # 2151-021). If valve still does not control, check the transducer and thermistor sensors as described on page 4. If sensors are good, replace the valve.

Stator Coil

Disconnect the stator from the valve and the control and measure the resistance of the windings using an electrical tester. The resistance of both windings should be around 40 ohms +/- 10%. The four wire sets that will have resistance between them are: White and red, green and red, yellow and purple, blue and purple. If the resistance falls outside these values, replace the stator.

Transducer Sensor

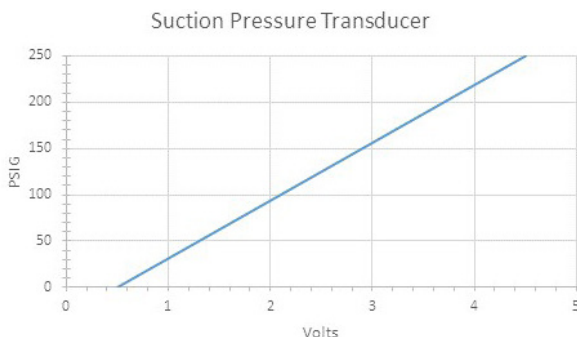
1. Check continuity of all three wires from transducer plug to the PLC. Replace wires if poor connection in any wire.
2. Check to ensure wires are correctly connected as follows:
Blue wire = B9 on PLC to pin C on transducer plug
Red wire = +5V on PLC to pin B on transducer plug
Black wire = terminal block 7 to pin A on transducer plug
3. Check that there is 5VDC Nominal between the red and black wires going to the transducer.
4. Check the signal voltage between the blue and black wires (0.5-4.5VDC Actual). The following formula and Figure 3 can be used to determine if the transducer's voltage to pressure ratio is within range. Replace transducer if out of range.

Formula for Tech:

$(\text{Measured Pressure} \times .016) + .5 =$
Expected Transducer Signal Voltage (see Figure 3).

FIGURE 3

Voltage to Pressure: Suction Pressure Transducer



Thermistor Sensor

1. Make a visual check for broken wire insulation, broken wires or cracked epoxy material.
2. Disconnect 10k ohm NTC thermistor from terminal B8 on the PLC and terminal block 6.
3. Use an ohmmeter to measure the resistance between the two connectors. Also use ohmmeter to check for short or open.
4. Compare the resistance reading to Table 1 on page 4. Use sensor ambient temperature. (Tolerance of part is $\pm 10\%$.)
5. If sensor is out of tolerance, shorted, open or reads very low ohms, it should be replaced.

TABLE 1
10K Ohm NTC Sensor: Temperature/Resistance

Temperature		Resistance	Temperature		Resistance	Temperature		Resistance	Temperature		Resistance
F	C	Ω	F	C	Ω	F	C	Ω	F	C	Ω
-40	-40	188,500	28.4	-2	29,730	96.8	36	6,700	165.2	74	1,980
-38.2	-39	178,500	30.2	-1	28,480	98.6	37	6,470	167	75	1,920
-36.4	-38	169,000	32	0	27,280	100.4	38	6,250	168.8	76	1,870
-34.6	-37	160,200	33.8	1	26,130	102.2	39	6,030	170.6	77	1,820
-32.8	-36	151,900	35.6	2	25,030	104	40	5,830	172.4	78	1,770
-31	-35	144,100	37.4	3	23,990	105.8	41	5,630	174.2	79	1,920
-29.2	-34	136,700	39.2	4	23,000	107.6	42	5,440	176	80	1,670
-27.4	-33	129,800	41	5	22,050	109.4	43	5,260	177.8	81	1,620
-25.6	-32	123,300	42.8	6	21,150	111.2	44	5,080	179.6	82	1,580
-23.8	-31	117,100	44.6	7	20,300	113	45	4,910	181.4	83	1,530
-22	-30	111,300	46.4	8	19,480	114.8	46	4,750	183.2	84	1,490
-20.2	-29	105,700	48.2	9	18,700	116.6	47	4,590	185	85	1,450
-18.4	-28	100,500	50	10	17,960	118.4	48	4,440	186.8	86	1,441
-16.6	-27	95,520	51.8	11	17,240	120.2	49	4,300	188.6	87	1,370
-14.8	-26	90,840	53.6	12	16,560	122	50	4,160	190.4	88	1,340
-13	-25	86,430	55.4	13	15,900	123.8	51	4,030	192.2	89	1,300
-11.2	-24	82,260	57.2	14	15,280	125.6	52	3,900	194	90	1,270
-9.4	-23	78,330	59	15	14,690	127.4	53	3,770	195.8	91	1,230
-7.6	-22	74,610	60.8	16	14,120	129.2	54	3,650	197.6	92	1,200
-5.8	-21	71,100	62.6	17	13,580	131	55	3,540	199.4	93	1,170
-4	-20	67,770	64.4	18	13,060	132.8	56	3,430	201.2	94	1,140
-2.2	-19	64,570	66.2	19	12,560	134.6	57	3,320	203	95	1,110
-0.4	-18	61,540	68	20	12,090	136.4	58	3,220	204.8	96	1,080
1.4	-17	58,680	69.8	21	11,630	138.2	59	3,120	206.6	97	1,050
3.2	-16	55,970	71.6	22	11,200	140	60	3,020	208.4	98	1,020
5	-15	53,410	73.4	23	10,780	141.8	61	2,930	210.2	99	1,000
6.8	-14	50,980	75.2	24	10,380	143.6	62	2,840	212	100	970
8.6	-13	48,680	77	25	10,000	145.4	63	2,750			
10.4	-12	46,500	78.8	26	9,630	147.2	64	2,670			
12.2	-11	44,430	80.6	27	9,280	149	65	2,590			
14	-10	42,470	82.4	28	8,940	150.8	66	2,510			
15.8	-9	40,570	84.2	29	8,620	152.6	67	2,440			
17.6	-8	38,770	86	30	8,310	154.4	68	2,360			
19.4	-7	37,060	87.8	31	8,010	156.2	69	2,300			
21.2	-6	35,440	89.6	32	7,730	158	70	2,230			
23	-5	33,900	91.4	33	7,450	159.8	71	2,160			
24.8	-4	32,440	93.2	34	7,190	161.6	72	2,100			
26.6	-3	31,050	95	35	6,940	163.4	73	2,040			

W42ACM Cooling and Dehumidification Application Data¹

DB/WB ²	70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F		
	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	
75/62.5 (50% RH)	Total Cooling Btuh	44,500	19,700	43,200	16,800	41,800	14,000	40,600	11,000	39,300	8,000	38,100	4,900	36,900	1,700	35,700	
	Sensible Btuh	33,300	9,200	32,100	4,900	31,500	2,500	30,900	300	30,300	(2,000)	29,800	(4,300)	29,300	(6,600)	28,800	
	Latent Btuh	12,600	13,300	11,900	11,100	10,300	11,500	9,700	10,700	9,000	10,000	8,300	9,200	7,600	8,300	6,900	
	Supply Air WB	52.6	66.1	53.0	70.4	53.8	72.6	54.2	74.8	54.5	76.9	54.9	79.1	55.3	81.4	55.6	
	Supply Air DB	50.8	51.2	50.9	51.6	51.9	58.0	52.3	59.0	52.6	60.1	52.9	61.1	53.3	62.1	53.6	
	Suction PSIG ⁴	119	108	120	109	121	112	123	114	125	116	126	118	127	121	129	124
	Discharge PSIG ⁴	274	243	295	260	315	273	322	307	384	322	407	335	431	348	455	360
	Total Cooling Btuh	47,200	24,000	45,800	21,200	44,500	18,300	43,200	15,400	40,600	9,400	39,400	6,300	38,200	3,200	37,000	
	Sensible Btuh	31,500	8,200	30,900	6,000	30,300	3,800	29,100	1,500	28,600	(3,000)	28,000	(5,300)	27,500	(7,600)	27,000	
	SF	0.667	0.34	0.675	0.28	0.681	0.21	0.688	0.10	0.695	0	0.704	0	0.711	0	0.720	0
75/64.1 (55% RH)	Total Cooling Btuh	15,700	14,900	14,200	14,500	13,900	12,800	12,600	12,400	12,000	11,600	11,400	11,000	10,800	10,000	10,000	
	Sensible Btuh	14.8	14.9	14.1	13.4	13.1	12.7	12.1	11.7	11.3	10.8	10.9	10.1	10.1	9.4	9.4	
	Supply Air WB	53.8	67.1	54.2	69.2	54.6	71.4	54.9	73.5	55.3	77.9	56.1	80.1	56.4	82.3	56.8	
	Supply Air DB	52.2	56.0	52.6	57.0	53.0	58.0	53.7	60.1	54.0	61.1	54.3	62.2	54.6	63.2	54.9	
	Suction PSIG ⁴	122	111	123	112	124	113	125	115	128	119	129	122	130	124	132	
	Discharge PSIG ⁴	275	246	297	263	319	280	341	295	363	310	386	325	409	338	456	
	Total Cooling Btuh	48,500	25,400	47,100	22,600	45,800	19,700	43,200	16,900	41,900	10,900	40,700	7,800	39,500	4,600	38,400	
	Sensible Btuh	0.612	0.283	0.618	0.221	0.622	0.147	0.627	0.030	0.634	0	0.640	0	0.646	0	0.656	
	SF	18,800	18,200	18,000	17,600	17,300	16,800	16,400	15,800	15,600	15,100	14,900	14,400	14,100	13,800	13,200	
	75/65.5 (60% RH)	Total Cooling Btuh	21,800	20,600	21,100	20,300	19,200	18,800	18,900	18,000	18,300	17,300	17,500	16,500	16,800	15,700	16,200
Sensible Btuh		20.6	19.4	19.9	18.9	18.1	18.5	17.7	17.8	17.0	16.3	16.5	15.6	15.8	14.8	15.3	
Supply Air WB		56.1	69.0	56.5	71.1	56.8	73.3	57.3	75.4	57.7	79.8	58.4	82.0	58.8	84.2	59.1	
Supply Air DB		55.0	58.1	55.3	59.1	55.7	60.0	56.1	61.2	56.4	62.2	56.8	63.2	57.1	64.3	57.7	
Suction PSIG ⁴		128	118	129	119	130	120	131	121	133	123	134	126	135	128	138	
Discharge PSIG ⁴		279	252	300	269	320	282	344	301	366	316	389	331	412	344	459	
Total Cooling Btuh		51,100	28,300	49,800	25,500	48,500	22,500	47,100	19,700	45,800	16,800	44,600	13,700	43,400	10,600	42,200	
Sensible Btuh		0.513	0.184	0.514	0.118	0.515	0.040	0.518	0	0.520	0	0.522	0	0.523	0	0.529	
SF		24,900	23,100	24,200	22,500	23,500	21,600	22,700	21,200	20,500	19,700	20,700	18,900	20,000	18,100	19,300	
75/68 (70% RH)		Total Cooling Btuh	23.5	21.8	22.8	21.2	22.2	20.4	21.4	20.8	19.3	20.1	18.6	19.5	17.8	18.9	17.1
	Sensible Btuh	57.3	69.9	57.7	72.1	58.0	74.2	58.5	76.4	58.8	78.6	59.2	80.8	59.6	83.0	59.9	
	Supply Air WB	56.4	59.2	56.7	60.2	57.1	61.1	57.5	62.2	57.8	63.3	58.1	64.3	58.5	65.4	58.8	
	Supply Air DB	55.0	58.1	55.3	59.1	55.7	60.0	56.1	61.2	56.4	62.2	56.8	63.2	57.1	64.3	57.7	
	Suction PSIG ⁴	131	121	132	122	133	123	134	125	136	127	139	138	140	134	141	
	Discharge PSIG ⁴	280	255	302	272	322	285	345	304	366	319	391	334	414	347	461	
	Total Cooling Btuh	51,700	29,200	50,300	26,400	49,000	23,400	47,600	20,600	46,400	17,700	45,100	14,600	43,900	11,500	42,700	
	Sensible Btuh	0.636	0.34	0.640	0.29	0.647	0.24	0.653	0.16	0.657	0.06	0.663	0	0.670	0	0.684	
	SF	18,800	19,300	18,100	18,700	17,300	17,800	16,500	17,400	15,900	15,200	15,900	14,500	15,100	13,800	14,300	
	80/68.3 (55% RH)	Total Cooling Btuh	17.7	18.2	17.1	17.6	16.3	16.8	16.4	15.0	15.8	14.3	13.7	14.2	13.0	13.5	12.4
Sensible Btuh		58.0	70.4	58.4	72.5	58.7	74.6	59.2	76.8	59.6	70.0	81.2	60.4	83.4	60.7	85.6	
Supply Air WB		56.3	59.2	56.7	60.2	57.0	61.2	57.4	62.3	57.7	63.3	58.1	64.4	58.4	65.4	58.7	
Supply Air DB		55.0	58.1	55.3	59.1	55.7	60.0	56.1	61.2	56.4	62.2	56.8	63.2	57.1	64.3	57.7	
Suction PSIG ⁴		131	121	132	122	133	123	134	125	136	127	139	138	140	134	141	
Discharge PSIG ⁴		280	255	302	272	322	285	345	304	366	319	391	334	414	347	461	
Total Cooling Btuh		32,900	9,900	32,200	7,700	31,700	5,600	31,100	3,200	30,500	1,000	29,900	(1,300)	29,400	(3,600)	28,800	
Sensible Btuh		0.636	0.34	0.640	0.29	0.647	0.24	0.653	0.16	0.657	0.06	0.663	0	0.670	0	0.684	
SF		18,800	19,300	18,100	18,700	17,300	17,800	16,500	17,400	15,900	15,200	15,900	14,500	15,100	13,800	14,300	
80/68.3 (55% RH)		Total Cooling Btuh	17.7	18.2	17.1	17.6	16.3	16.8	16.4	15.0	15.8	14.3	13.7	14.2	13.0	13.5	12.4
	Sensible Btuh	58.0	70.4	58.4	72.5	58.7	74.6	59.2	76.8	59.6	70.0	81.2	60.4	83.4	60.7	85.6	
	Supply Air WB	56.3	59.2	56.7	60.2	57.0	61.2	57.4	62.3	57.7	63.3	58.1	64.4	58.4	65.4	58.7	
	Supply Air DB	55.0	58.1	55.3	59.1	55.7	60.0	56.1	61.2	56.4	62.2	56.8	63.2	57.1	64.3	57.7	
	Suction PSIG ⁴	131	121	132	122	133	123	134	125	136	127	139	138	140	134	141	
	Discharge PSIG ⁴	280	255	302	272	322	285	345	304	366	319	391	334	414	347	461	
	Total Cooling Btuh	32,900	9,900	32,200	7,700	31,700	5,600	31,100	3,200	30,500	1,000	29,900	(1,300)	29,400	(3,600)	28,800	
	Sensible Btuh	0.636	0.34	0.640	0.29	0.647	0.24	0.653	0.16	0.657	0.06	0.663	0	0.670	0	0.684	
	SF	18,800	19,300	18,100	18,700	17,300	17,800	16,500	17,400	15,900	15,200	15,900	14,500	15,100	13,800	14,300	

¹ Values listed are with ventilation package disabled
² Return air temperature °F @ Default airflow (1350 CFM) for AC tests and Balanced Climate airflow (950 CFM) for dehumidification tests
³ Below 50°F, unit requires a factory or field installed low ambient control.
⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W48ACM Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode		65°F ³		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F			
	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum	AC	Dehum		
75/62.5 (50% RH)	Total Cooling Btuh	53,100	26,400	50,800	23,400	49,600	17,000	48,000	13,600	46,200	10,100	44,200	6,500	42,100	2,800	39,700						
	Sensible Btuh	39,800	11,100	39,200	8,700	38,200	3,900	37,500	1,400	36,700	(1,100)	35,900	(3,600)	35,000	(6,100)	34,000	(8,700)					
	SF	0.750	0.420	0.772	0.315	0.770	0.229	0.781	0.103	0.794	0	0.812	0	0.831	0	0.856	0					
	Latent Btuh	13,300	15,300	11,600	13,700	11,400	13,100	10,500	12,200	9,500	11,200	8,300	10,100	7,100	8,900	5,700	7,700					
	Lbs. H ₂ O/hr.	12.5	14.4	12.1	13.9	10.9	12.4	9.9	11.5	9.0	10.6	7.8	9.5	6.7	8.4	5.4	7.3					
	Supply Air DB	51.5	65.9	51.7	67.9	52.0	69.8	52.3	71.9	52.7	73.9	53.2	76.0	53.8	78.0	80.1	82.2					
	Supply Air WB	50.4	54.8	50.7	55.7	50.9	56.7	51.3	57.7	51.7	58.7	52.2	59.8	52.6	60.8	61.9	63.0					
	Suction PSIG ⁴	127	117	129	118	130	119	132	121	134	123	135	125	136	127	130	137	133				
	Discharge PSIG ⁴	287	237	307	254	328	269	349	288	373	304	397	320	424	336	451	351	480	366			
	Total Cooling Btuh	54,400	28,000	54,200	25,000	54,200	21,800	54,200	18,600	54,200	15,200	54,200	11,700	54,200	8,100	54,200	4,400	54,200	600			
Sensible Btuh	37,500	9,700	37,000	7,400	36,500	5,000	35,200	2,600	34,000	100	34,400	(2,400)	33,600	(4,900)	32,600	(7,400)	31,600	(10,000)				
SF	0.689	0.35	0.693	0.30	0.699	0.23	0.707	0.14	0.714	0.01	0.724	0	0.738	0	0.753	0	0.771	0				
Latent Btuh	16,900	18,300	16,700	17,600	16,800	16,800	14,100	15,100	15,100	13,100	14,100	11,900	13,000	13,000	10,700	11,800	9,400	10,600				
Lbs. H ₂ O/hr.	15.9	17.3	15.5	16.6	14.8	15.8	14.1	15.1	13.3	14.2	12.4	13.3	11.2	12.3	10.1	11.1	8.9	10.0				
Supply Air DB	52.9	67.0	53.1	68.9	53.4	70.9	53.7	73.0	54.2	75.0	54.6	77.0	55.2	79.1	81.2	83.3						
Supply Air WB	51.9	55.9	52.2	56.8	52.5	57.8	52.9	58.8	53.2	59.8	53.7	60.9	54.1	61.9	63.0	64.1						
Suction PSIG ⁴	130	120	132	121	134	122	135	124	137	126	138	129	139	130	133	140	136					
Discharge PSIG ⁴	289	239	308	257	329	274	351	291	374	307	399	323	425	338	452	354	481	368				
Total Cooling Btuh	55,600	29,600	54,700	26,500	53,300	23,200	52,100	20,100	50,500	16,800	48,800	13,300	46,800	9,700	44,600	6,000	42,300	2,200				
Sensible Btuh	35,200	8,400	34,700	6,100	34,500	3,700	33,600	1,300	32,900	(1,200)	32,100	(3,700)	31,200	(6,200)	30,300	(8,700)	29,300	(11,300)				
SF	0.633	0.284	0.634	0.230	0.647	0.159	0.645	0.065	0.651	0	0.658	0	0.667	0	0.679	0	0.693	0				
Latent Btuh	20,400	21,200	20,400	20,400	18,800	19,500	18,800	18,800	17,600	18,000	16,700	17,000	15,600	15,900	14,300	14,700	13,000	13,500				
Lbs. H ₂ O/hr.	19.2	20.0	18.9	19.2	17.7	18.4	17.5	17.7	16.6	17.0	15.8	16.0	14.7	15.0	13.5	13.9	12.3	12.7				
Supply Air DB	54.3	68.0	54.5	70.0	54.8	72.0	55.2	74.0	55.6	76.1	56.1	78.1	56.6	80.2	82.2	84.3						
Supply Air WB	53.4	57.0	53.7	57.9	53.9	58.9	54.4	59.9	54.8	60.9	55.2	62.0	55.7	63.0	64.1	65.2						
Suction PSIG ⁴	133	123	135	124	137	125	138	127	140	129	141	131	142	134	142	136	143	139				
Discharge PSIG ⁴	290	242	309	259	331	274	352	293	375	309	400	325	426	341	454	356	483	371				
Total Cooling Btuh	56,900	31,200	56,000	28,100	54,600	24,800	53,400	21,700	51,800	18,400	50,100	14,900	48,100	11,300	45,900	7,600	43,500	3,800				
Sensible Btuh	32,800	7,100	32,400	4,800	32,200	2,400	31,200	(100)	30,500	(2,500)	29,800	(5,000)	28,900	(7,500)	28,000	(10,000)	27,000	(12,600)				
SF	0.576	0.23	0.579	0.17	0.590	0.10	0.584	0	0.589	0	0.595	0	0.601	0	0.610	0	0.621	0				
Latent Btuh	24,100	24,100	23,600	23,300	22,400	22,400	22,200	21,800	20,900	20,900	20,300	19,900	19,200	18,800	17,900	17,600	16,500	16,400				
Lbs. H ₂ O/hr.	22.7	22.7	22.3	22.0	21.1	21.1	20.9	20.6	20.1	19.7	19.2	18.8	18.1	17.7	16.9	16.6	15.6	15.5				
Supply Air DB	55.8	69.1	56.0	71.1	56.2	73.0	56.6	75.1	57.0	77.1	57.5	79.2	58.0	81.2	83.3	85.4						
Supply Air WB	54.9	58.0	55.2	59.0	55.4	60.0	55.9	61.0	56.3	62.0	56.7	63.0	57.2	64.1	65.2	66.3						
Suction PSIG ⁴	136	126	138	127	140	129	141	130	143	132	144	134	145	137	145	139	146	142				
Discharge PSIG ⁴	291	244	311	262	332	276	353	296	377	312	402	328	428	343	455	359	484	373				
Total Cooling Btuh	58,200	32,800	57,200	29,700	55,900	26,400	54,700	23,300	53,100	20,000	51,300	16,500	49,400	12,900	47,200	9,200	44,800	5,500				
Sensible Btuh	30,500	5,800	30,100	3,400	29,900	1,100	28,900	(1,400)	28,200	(3,800)	27,400	(6,300)	26,600	(8,800)	25,700	(11,300)	24,700	(13,900)				
SF	0.524	0.177	0.526	0.114	0.535	0.042	0.528	0	0.531	0	0.534	0	0.538	0	0.544	0	0.551	0				
Latent Btuh	27,700	27,000	27,100	26,300	26,000	25,300	25,800	24,700	24,900	23,800	23,900	22,800	22,800	21,700	20,500	20,500	19,200	19,200				
Lbs. H ₂ O/hr.	26.1	25.5	25.6	24.8	24.5	23.9	24.3	23.3	22.5	22.5	22.5	21.5	20.5	20.5	20.3	19.3	19.0	18.1				
Supply Air DB	57.2	70.2	57.4	72.1	57.6	74.1	58.0	76.2	58.4	78.2	58.9	80.2	59.4	82.3	84.4	86.5						
Supply Air WB	56.5	59.1	56.7	60.1	57.0	61.1	57.4	62.1	57.8	63.1	58.2	64.1	58.7	65.2	66.3	67.4						
Suction PSIG ⁴	139	130	141	131	143	132	144	134	146	136	147	138	148	140	148	143	149	146				
Discharge PSIG ⁴	293	247	312	264	333	279	355	298	378	314	403	330	429	346	457	361	485	376				
Total Cooling Btuh	58,200	33,300	57,300	30,200	55,900	26,900	54,700	23,800	53,100	20,500	51,400	17,000	49,400	13,400	47,200	9,700	44,800	5,800				
Sensible Btuh	37,900	11,200	37,500	8,800	37,300	6,500	36,300	4,000	35,600	1,600	34,900	(900)	34,000	(3,400)	33,100	(5,900)	32,100	(8,500)				
SF	0.651	0.34	0.654	0.29	0.667	0.24	0.664	0.17	0.670	0.08	0.679	0	0.688	0	0.701	0	0.717	0				
Latent Btuh	20,300	22,100	19,800	21,400	18,600	20,400	18,400	19,800	17,500	18,900	16,500	17,900	15,400	16,800	14,100	15,600	12,700	14,300				
Lbs. H ₂ O/hr.	19.2	20.8	18.7	20.2	17.5	19.2	17.4	18.7	16.5	17.8	15.6	16.9	14.5	15.8	13.3	14.7	12.0	13.5				
Supply Air DB	57.5	70.5	57.7	72.5	58.0	74.4	58.3	76.5	58.8	78.5	59.2	80.6	59.8	82.7	84.7	86.8						
Supply Air WB	56.5	59.1	56.8	60.1	57.0	61.1	57.4	62.1	57.8	63.1	58.3	64.1	58.7	65.2	66.3	67.4						
Suction PSIG ⁴	139	130	142	131	143	133	145	134	146	136	147	138	148	141	149	143	149	146				
Discharge PSIG ⁴	288	241	307	258	329	272	350	292	373	308	398	324	424	340	452	355	481	370				

¹ Values listed are with ventilation package disabled
² Return air temperature °F @ Default airflow (1550 CFM) for AC tests and Balanced Climate airflow (1090 CFM) for dehumidification tests
³ Below 50°F, unit requires a factory or field installed low ambient control.
⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W60ACM Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode	65°F ³		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F		
		AC	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C
75/62.5 (50% RH)	Total Cooling Btuh	65,400	31,900	63,800	28,500	62,100	24,700	60,500	21,600	58,800	18,000	57,000	14,300	55,200	10,500	53,300	6,600	51,400	2,600	49,500
	Sensible Btuh	47,600	13,600	46,900	11,200	45,200	8,700	43,500	6,400	41,800	4,000	40,100	1,700	38,400	0	36,700	0	35,000	0	33,300
	S/F	0.728	0.426	0.735	0.393	0.744	0.352	0.750	0.296	0.756	0.211	0.760	0.146	0.764	0.081	0.768	0.026	0.772	0.000	0.776
	Latent Btuh	17,800	18,300	16,900	17,300	15,900	16,000	15,100	14,300	13,300	14,000	14,200	13,000	12,100	11,800	11,000	10,600	9,900	9,300	8,800
	Lbs. H2O/hr.	16.8	17.3	15.9	16.3	15.0	15.1	14.2	13.3	12.4	11.8	11.4	10.4	9.3	8.8	8.0	7.4	6.8	6.3	5.8
	Supply Air DB	50.3	65.2	50.7	66.9	51.0	68.7	51.4	70.4	51.8	72.3	52.2	74.1	52.6	76.1	53.0	78.0	53.4	80.0	55.4
	Supply Air WB	49.4	54.2	49.7	55.1	50.0	56.0	50.4	57.0	50.8	58.0	51.2	58.9	51.5	59.9	51.9	60.9	52.3	61.9	54.2
	Suction PSIG ⁴	126	118	127	119	127	120	128	122	130	123	130	124	132	125	133	127	135	128	132
	Discharge PSIG ⁴	296	278	316	291	339	305	359	318	382	333	405	348	430	364	455	381	481	398	500
	Total Cooling Btuh	66,800	33,600	65,200	30,300	63,600	26,800	61,900	23,300	60,200	19,700	58,400	16,000	56,600	12,200	54,700	8,300	52,800	4,400	50,900
Sensible Btuh	45,000	12,000	44,300	9,600	43,500	7,200	42,800	4,700	42,000	2,200	41,200	300	40,400	0	39,600	0	38,800	0	38,000	
S/F	0.674	0.36	0.679	0.32	0.684	0.27	0.691	0.20	0.698	0.11	0.705	0	0.714	0	0.724	0	0.735	0	0.746	
Latent Btuh	21,800	21,600	20,900	20,700	20,100	19,600	19,100	18,600	18,200	17,500	17,200	16,300	16,200	15,200	15,100	14,300	14,200	13,200	13,100	
Lbs. H2O/hr.	20.6	20.4	19.7	19.5	19.0	18.5	18.0	17.5	17.2	16.5	16.2	15.4	15.3	14.3	14.2	13.1	13.2	12.1	12.1	
Supply Air DB	51.7	66.3	52.0	68.1	52.4	69.8	52.8	71.6	53.1	73.4	53.5	75.3	53.9	77.2	54.3	79.2	54.7	81.2	81.2	
Supply Air WB	50.9	55.3	51.2	56.3	51.5	57.2	51.9	58.1	52.3	59.1	52.6	60.1	53.0	61.0	53.4	62.0	53.8	63.1	63.1	
Suction PSIG ⁴	129	121	130	122	131	124	132	125	133	126	134	127	135	129	137	130	138	132	132	
Discharge PSIG ⁴	298	282	318	295	340	308	362	322	384	337	408	352	482	368	458	385	484	402	502	
Total Cooling Btuh	68,200	35,300	66,600	32,000	65,000	28,100	63,300	25,000	61,600	21,400	59,800	17,700	58,000	13,900	56,100	10,100	54,200	6,100	52,300	
Sensible Btuh	42,300	10,300	41,600	8,000	40,900	5,400	40,100	3,100	39,400	600	38,600	2,000	37,800	0	37,000	0	36,200	0	35,400	
S/F	0.620	0.292	0.625	0.250	0.629	0.192	0.633	0.124	0.640	0.028	0.645	0	0.652	0	0.660	0	0.666	0	0.672	
Latent Btuh	25,900	25,000	25,000	24,000	24,100	22,700	23,200	21,900	22,200	20,800	21,200	19,700	20,200	18,500	19,100	17,400	18,100	16,100	16,100	
Lbs. H2O/hr.	24.4	23.6	23.6	22.6	22.7	21.4	21.9	20.7	20.9	19.6	19.6	18.6	18.6	17.5	18.0	16.4	17.1	15.2	15.2	
Supply Air DB	53.0	67.5	53.4	69.2	53.7	71.0	54.1	72.8	54.5	74.6	54.9	76.5	55.3	78.4	55.7	80.3	56.1	82.3	82.3	
Supply Air WB	52.3	56.5	52.7	57.4	52.9	58.3	53.4	59.3	53.7	60.2	54.1	61.2	54.5	62.2	54.9	63.2	55.3	64.2	64.2	
Suction PSIG ⁴	132	125	133	126	134	127	135	128	136	129	137	131	139	132	140	133	141	135	135	
Discharge PSIG ⁴	301	286	321	299	344	313	364	326	387	341	410	356	435	372	460	389	486	406	506	
Total Cooling Btuh	69,600	37,100	68,000	33,700	66,400	29,900	64,700	26,800	63,000	23,100	61,200	19,400	59,400	15,700	57,600	11,800	55,600	7,800	53,600	
Sensible Btuh	39,700	8,700	38,900	6,400	38,200	3,800	37,500	1,500	36,700	1,000	35,900	3,600	35,100	0	34,300	0	33,500	0	32,700	
S/F	0.570	0.23	0.572	0.19	0.575	0.13	0.580	0.06	0.583	0	0.587	0	0.591	0	0.595	0	0.603	0	0.603	
Latent Btuh	29,900	28,400	29,100	27,300	28,200	26,100	27,200	25,300	26,300	24,100	25,300	23,000	24,000	22,000	23,300	20,700	22,100	19,400	19,400	
Lbs. H2O/hr.	28.2	26.8	27.5	25.8	26.6	24.6	25.7	23.9	24.8	22.7	23.9	21.7	22.9	20.7	22.0	19.5	20.8	18.3	18.3	
Supply Air DB	54.4	68.7	54.7	70.4	55.1	72.2	55.5	73.9	55.9	75.7	56.2	77.6	56.6	79.5	57.1	81.5	57.5	83.5	83.5	
Supply Air WB	53.8	57.6	54.1	58.5	54.4	59.4	54.8	60.4	55.2	61.4	55.5	62.3	55.9	63.3	56.3	64.3	56.7	65.3	65.3	
Suction PSIG ⁴	136	128	137	129	138	130	139	131	140	133	141	134	142	135	143	137	145	138	138	
Discharge PSIG ⁴	303	290	324	303	347	317	367	330	389	345	413	360	437	376	463	393	489	410	510	
Total Cooling Btuh	71,000	38,800	69,400	35,500	67,800	31,600	66,100	28,500	64,400	24,900	62,700	21,200	60,800	17,400	59,000	13,500	57,100	9,600	55,200	
Sensible Btuh	37,000	7,100	36,300	4,700	35,600	2,200	34,800	1,000	34,000	2,600	33,300	5,200	32,500	7,800	31,600	10,500	30,800	13,200	28,900	
S/F	0.521	0.183	0.523	0.132	0.525	0.070	0.526	0	0.528	0	0.531	0	0.535	0	0.536	0	0.539	0	0.539	
Latent Btuh	34,000	31,700	33,100	30,800	32,200	29,400	31,300	28,600	30,400	27,500	29,400	26,400	28,300	25,200	27,400	24,000	26,300	22,800	22,800	
Lbs. H2O/hr.	32.1	29.9	31.2	29.1	30.4	27.7	29.5	27.0	28.7	25.9	27.7	24.9	26.7	23.8	25.8	22.6	24.8	21.5	21.5	
Supply Air DB	55.8	69.8	56.1	71.5	56.5	73.3	56.8	75.1	57.2	76.9	57.6	78.8	58.0	80.7	58.4	82.7	58.8	84.6	84.6	
Supply Air WB	55.2	58.7	55.6	59.6	55.8	60.6	56.3	61.5	56.6	62.5	57.0	63.5	57.4	64.4	57.8	65.4	58.2	66.5	66.5	
Suction PSIG ⁴	139	131	140	132	141	134	142	135	143	136	144	137	146	139	147	140	148	141	141	
Discharge PSIG ⁴	306	294	326	307	349	321	369	334	392	349	416	364	440	380	465	397	491	414	514	
Total Cooling Btuh	71,400	39,200	69,900	35,900	68,200	32,000	66,600	28,900	64,800	25,300	63,100	21,600	61,300	17,800	59,400	14,000	57,500	10,000	55,600	
Sensible Btuh	45,800	13,600	45,100	11,200	44,400	8,700	43,600	6,400	42,800	3,800	42,000	1,300	41,200	1,300	40,400	4,000	39,600	6,700	37,700	
S/F	0.641	0.35	0.645	0.31	0.651	0.27	0.655	0.22	0.660	0.15	0.666	0.06	0.672	0	0.680	0	0.689	0	0.689	
Latent Btuh	25,600	25,600	24,800	24,700	23,800	23,300	23,000	22,500	22,000	21,500	21,100	20,300	20,100	19,100	19,000	18,000	17,900	16,700	16,700	
Lbs. H2O/hr.	24.2	24.2	23.4	23.3	22.5	22.0	21.7	21.2	20.8	20.3	19.9	19.2	19.0	18.0	17.9	17.0	16.9	15.8	15.8	
Supply Air DB	56.1	70.2	56.5	71.9	56.8	73.7	57.2	75.5	57.6	77.3	58.0	79.2	58.4	81.1	58.8	83.1	59.2	85.1	85.1	
Supply Air WB	55.4	58.9	55.7	59.9	55.0	60.8	56.4	61.7	56.8	62.7	57.2	63.7	57.5	64.7	57.9	65.7	58.3	66.7	66.7	
Suction PSIG ⁴	140	132	141	133	142	134	143	136	144	137	145	138	146	139	148	141	149	142	142	
Discharge PSIG ⁴	305	295	325	308	348	322	368	336	391	350	415	366	439	381	464	398	490	415	515	

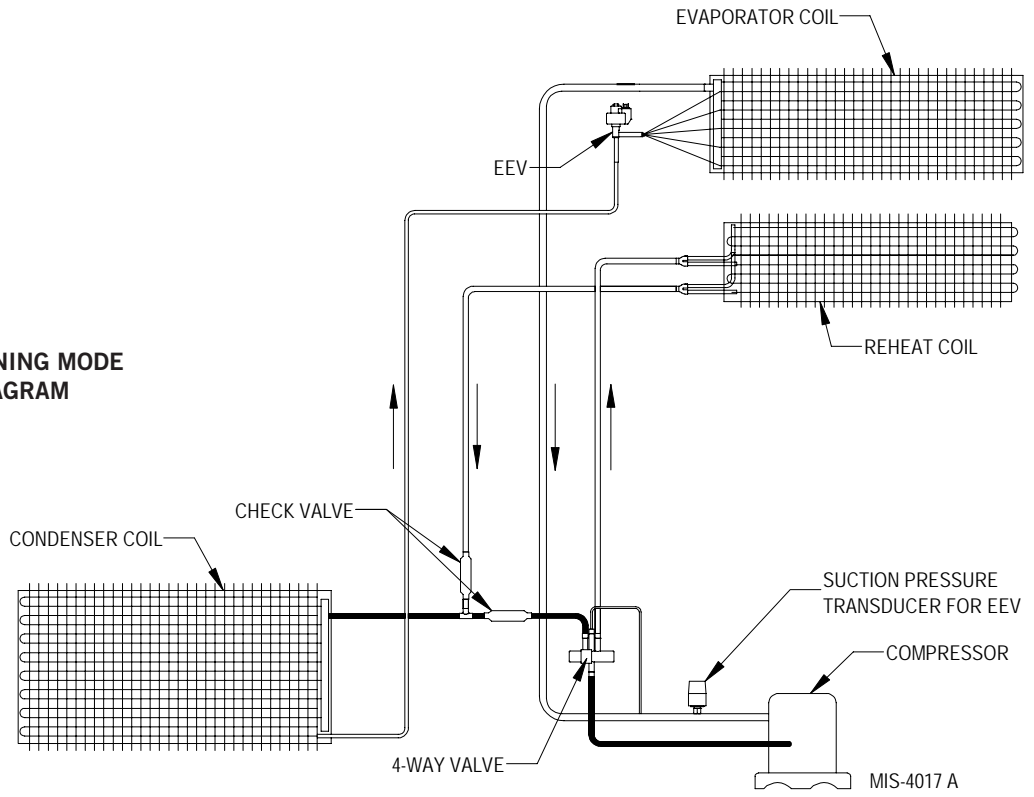
¹ Values listed are with ventilation package disabled
² Return air temperature °F @ Default airflow (1750 CFM) for AC tests and Balanced Climate airflow (1180 CFM) for dehumidification tests
³ Below 50°F, unit requires a factory or field installed low ambient control.
⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

W72ACM Cooling and Dehumidification Application Data¹

DB/WB ²	OD Temp. Mode	65°F ³		70°F		75°F		80°F		85°F		90°F		95°F		100°F		105°F		
		AC	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	A/C	Dehum	
75/62.5 (50% RH)	Total Cooling Btuh	79,000	38,500	77,000	35,000	75,200	31,700	73,100	27,700	71,000	23,800	69,000	65,000	61,000	57,000	53,000	49,000	45,000	41,000	
	Sensible Btuh	55,100	15,100	54,100	12,400	53,200	9,800	52,200	6,900	51,200	4,100	50,300	49,000	47,700	46,500	45,300	44,100	42,900	41,700	
	S/F	0.697	0.392	0.703	0.354	0.707	0.309	0.714	0.249	0.721	0.172	0.729	0.061	0.737	0	0.747	0	0.757	0	0.767
	Latent Btuh	23,900	23,400	22,900	22,600	22,000	21,900	20,900	20,800	19,800	19,700	18,700	18,600	17,600	17,400	16,400	16,100	15,100	14,600	14,000
	Lbs. H ₂ O/hr.	22.5	22.1	21.6	21.3	20.8	20.7	19.7	19.6	18.7	18.6	17.6	17.5	16.6	16.4	15.5	15.2	14.2	13.8	13.3
	Supply Air DB	48.5	64.9	48.9	66.7	49.4	68.3	49.8	70.3	50.3	72.2	50.7	74.2	51.1	76.1	51.6	78.1	52.0	80.2	81.4
	Supply Air WB	47.6	53.1	48.1	54.0	48.5	54.9	48.9	56.0	49.4	57.0	49.8	58.0	50.2	59.0	50.6	60.0	50.9	61.1	62.2
	Suction PSIG ⁴	117	109	119	111	120	112	121	113	122	114	121	114	124	116	125	117	126	119	127
	Discharge PSIG ⁴	301	300	321	313	342	326	365	341	389	356	413	372	439	389	466	406	494	425	446
	Total Cooling Btuh	80,800	40,600	78,900	37,200	76,900	33,600	74,900	29,800	72,900	26,000	70,900	66,900	62,900	58,900	54,900	50,900	46,900	42,900	38,900
Sensible Btuh	52,200	13,200	51,200	10,600	50,200	7,800	49,200	5,100	48,200	2,300	47,200	46,000	44,800	43,600	42,400	41,200	40,000	38,800	37,600	
S/F	0.646	0.33	0.649	0.28	0.653	0.23	0.657	0.17	0.663	0.09	0.669	0	0.676	0	0.684	0	0.692	0	0.700	
Latent Btuh	28,600	27,400	27,700	26,600	26,700	25,800	25,700	24,700	24,600	23,700	23,500	22,500	22,300	21,300	21,100	20,000	19,000	18,500	18,000	
Lbs. H ₂ O/hr.	27.0	25.8	26.1	25.1	25.2	24.3	24.2	23.3	23.2	22.4	22.2	21.2	21.1	20.1	19.9	18.9	18.8	17.5	17.5	
Supply Air DB	49.9	66.2	50.4	67.9	50.8	69.7	51.3	71.6	51.7	73.5	52.1	75.4	52.6	77.3	53.0	79.4	53.4	81.4	82.6	
Supply Air WB	49.1	54.2	49.6	55.1	50.0	56.1	50.4	57.0	50.9	58.0	51.3	59.0	51.7	60.1	52.1	61.1	52.4	62.2	63.3	
Suction PSIG ⁴	120	112	122	114	123	115	124	116	125	118	127	119	128	120	129	122	130	123	126	
Discharge PSIG ⁴	304	305	324	317	346	331	368	345	392	361	416	377	442	394	469	411	497	430	451	
Total Cooling Btuh	82,700	42,700	80,700	39,300	78,900	36,000	76,700	32,000	74,700	28,100	72,700	68,700	64,700	60,700	56,700	52,700	48,700	44,700	40,700	
Sensible Btuh	49,300	11,400	48,200	8,700	47,300	6,200	46,300	3,300	45,400	400	44,400	43,500	42,600	41,700	40,800	39,900	39,000	38,100	37,200	
S/F	0.596	0.267	0.597	0.221	0.599	0.172	0.604	0.103	0.608	0.014	0.611	0	0.616	0	0.622	0	0.629	0	0.636	
Latent Btuh	33,400	31,300	32,500	30,600	31,600	29,800	30,400	28,700	29,300	27,700	28,300	26,500	26,500	25,300	25,300	23,900	23,900	22,500	22,500	
Lbs. H ₂ O/hr.	31.5	29.5	30.7	28.9	29.8	28.1	28.7	27.1	27.6	26.1	26.7	25.0	25.0	23.9	24.4	22.5	22.5	21.2	21.2	
Supply Air DB	51.3	67.4	51.8	69.2	52.2	70.8	52.7	72.8	53.1	74.7	53.6	76.6	54.0	78.6	54.4	80.6	54.8	82.6	83.9	
Supply Air WB	50.6	55.2	51.1	56.2	51.5	57.1	51.9	58.1	52.3	59.1	52.8	60.1	53.2	61.2	53.5	62.2	55.9	63.3	64.6	
Suction PSIG ⁴	124	115	125	117	126	118	127	119	128	121	130	122	131	123	132	125	133	126	129	
Discharge PSIG ⁴	307	309	327	322	349	335	371	350	395	365	420	381	445	398	472	416	500	434	455	
Total Cooling Btuh	84,500	44,800	82,600	41,400	80,700	38,100	78,600	34,100	76,600	30,200	74,500	69,500	65,500	61,500	57,500	53,500	49,500	45,500	41,500	
Sensible Btuh	46,300	9,600	45,300	6,900	44,400	4,400	43,400	1,400	42,400	1,400	41,500	40,600	39,700	38,800	37,900	37,000	36,100	35,200	34,300	
S/F	0.548	0.21	0.548	0.17	0.550	0.12	0.552	0.04	0.554	0	0.557	0	0.560	0	0.564	0	0.570	0	0.576	
Latent Btuh	38,200	35,200	37,300	34,500	36,300	33,700	35,200	32,700	34,200	31,600	33,000	30,500	31,900	29,200	30,700	27,800	27,800	25,500	25,500	
Lbs. H ₂ O/hr.	36.0	33.2	35.2	32.5	34.2	31.8	33.2	30.8	32.3	29.8	31.1	28.8	30.1	27.5	29.0	26.2	27.7	25.0	25.0	
Supply Air DB	52.7	68.6	53.2	70.4	53.6	72.0	54.1	74.0	54.5	75.9	55.0	77.8	55.4	79.8	55.8	81.8	56.2	83.9	85.2	
Supply Air WB	52.1	56.3	52.5	57.3	53.0	58.2	53.4	59.2	53.8	60.2	54.2	61.2	54.6	62.2	55.0	63.3	55.4	64.3	65.6	
Suction PSIG ⁴	127	118	128	120	129	121	131	122	132	123	133	125	134	126	135	128	136	129	132	
Discharge PSIG ⁴	310	314	331	327	352	340	375	355	398	370	423	386	448	403	475	421	503	439	460	
Total Cooling Btuh	86,400	47,000	84,400	43,500	82,600	40,200	80,400	36,200	78,400	32,300	76,400	72,400	68,400	64,400	60,400	56,400	52,400	48,400	44,400	
Sensible Btuh	43,400	7,800	42,400	5,100	41,500	2,500	40,400	400	39,500	3,200	38,600	37,700	36,800	35,900	35,000	34,100	33,200	32,300	31,400	
S/F	0.502	0.166	0.502	0.117	0.502	0.062	0.502	0	0.504	0	0.505	0	0.507	0	0.510	0	0.514	0	0.518	
Latent Btuh	43,000	39,200	42,000	38,400	41,100	37,700	40,000	36,600	38,900	35,500	37,800	34,400	36,500	33,200	35,400	31,900	34,100	30,400	30,400	
Lbs. H ₂ O/hr.	40.6	37.0	39.6	36.2	38.8	35.6	37.7	34.5	36.7	33.5	35.7	32.5	34.5	31.3	33.4	30.1	32.2	28.7	28.7	
Supply Air DB	54.2	69.8	54.6	71.6	55.1	73.3	55.5	75.3	56.0	77.2	56.4	79.1	56.8	81.0	57.2	83.0	57.6	85.1	86.4	
Supply Air WB	53.6	57.4	54.0	58.4	54.5	59.2	54.9	60.3	55.3	61.3	55.7	62.3	56.1	63.3	56.5	64.4	56.9	65.4	66.7	
Suction PSIG ⁴	130	121	131	123	132	124	134	125	135	126	136	128	137	129	138	131	140	132	135	
Discharge PSIG ⁴	313	319	334	332	355	344	378	360	401	375	426	391	452	408	478	425	506	444	465	
Total Cooling Btuh	86,500	46,800	84,600	43,300	82,700	40,000	80,600	36,000	78,600	32,100	76,500	72,500	68,500	64,500	60,500	56,500	52,500	48,500	44,500	
Sensible Btuh	53,200	14,300	52,200	11,700	51,300	9,100	50,300	6,200	49,300	3,300	48,400	47,500	46,600	45,700	44,800	43,900	43,000	42,100	41,200	
S/F	0.615	0.31	0.617	0.27	0.620	0.23	0.624	0.17	0.627	0.10	0.633	0.02	0.638	0	0.645	0	0.651	0	0.657	
Latent Btuh	33,300	32,500	32,400	31,600	31,400	30,900	29,800	29,800	28,800	28,800	28,100	27,600	27,000	26,300	25,700	25,000	24,500	23,600	23,600	
Lbs. H ₂ O/hr.	31.4	30.7	30.6	29.8	29.6	29.2	28.6	28.1	27.6	27.2	26.5	26.0	25.5	24.8	24.2	23.6	23.1	22.3	22.3	
Supply Air DB	54.3	70.4	54.8	72.2	55.3	73.8	55.7	75.8	56.2	77.7	56.6	79.6	57.0	81.6	57.4	83.6	57.8	85.6	86.6	
Supply Air WB	53.5	57.6	54.0	58.6	54.4	59.5	54.8	60.5	55.3	61.5	55.7	62.5	56.1	63.6	56.5	64.6	56.8	65.6	66.6	
Suction PSIG ⁴	131	122	132	123	133	124	135	126	136	127	137	129	138	130	139	131	140	133	136	
Discharge PSIG ⁴	314	321	334	334	356	346	378	362	402	377	426	393	452	410	479	427	507	446	467	

¹ Values listed are with ventilation package disabled
² Return air temperature °F @ Default airflow (1900 CFM) for AC tests and Balanced Climate airflow (1330 CFM) for dehumidification tests
³ Below 50°F, unit requires a factory or field installed low ambient control.
⁴ Suction pressure +/- 4 psi, Discharge pressure +/- 10 psi

**AIR CONDITIONING MODE
CIRCUIT DIAGRAM**



**DEHUMIDIFICATION MODE
CIRCUIT DIAGRAM**

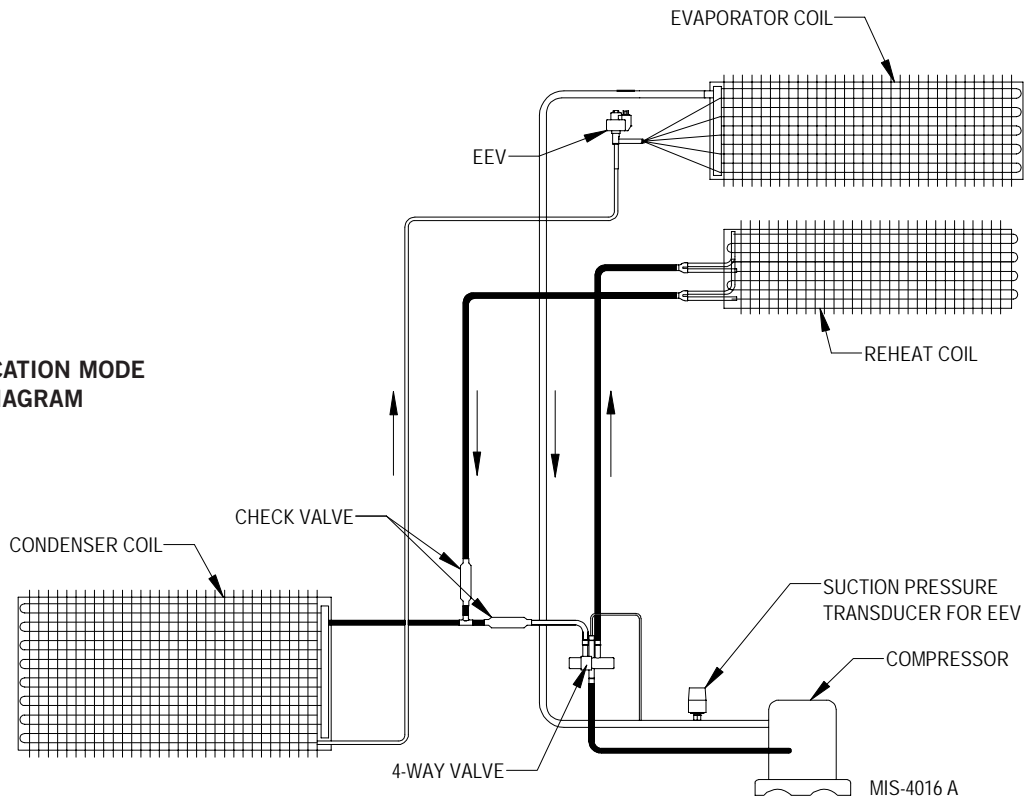


TABLE 2
Electrical Specifications

Model	Rated Volts & Phase	No. Field Power Circuits	Single Circuit				Dual Circuit							
			① Minimum Circuit Ampacity	② Maximum External Fuse or Ckt. Brkr.	③ Field Power Wire Size	③ Ground Wire	① Minimum Circuit Ampacity		② Maximum External Fuse or Ckt. Breaker		③ Field Power Wire Size		③ Ground Wire Size	
							Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B	Ckt. A	Ckt. B
W42ACMA00,A0Z A05 A10	230/208-1	1	31	40	8	10								
		1	31	40	8	10								
		1	57	60	6	10								
W42ACMB00,B0Z B09 B18	230/208-3	1	23	35	8	10								
		1	33	35	8	10								
		1	60	60	6	10								
W42ACMC00,C0Z C09	460-3	1	13	15	14	14								
		1	18	20	12	12								
W48ACMA00,A0Z A05 A10	230/208-1	1	34	50	8	10								
		1	34	50	8	10								
		1	59	60	6	10								
W48ACMB00,B0Z B09 B18	230/208-3	1	25	40	8	10								
		1	34	40	8	10								
		1	60	60	6	10								
W48ACMC00,C0Z C09	460-3	1	12	15	14	14								
		1	17	20	10	10								
W60ACMA00,A0Z A05 A10	230/208-1	1	41	50	8	10								
		1	41	50	8	10								
		1	59	60	6	10								
W60ACMB00,B0Z B09 B15	230/208-3	1	28	40	8	10								
		1	35	40	8	10								
		1	53	60	6	10								
W60ACMC00,C0Z C09	460-3	1	15	20	12	12								
		1	18	20	12	12								
W72ACMA00,A0Z A05 A10 A15	230/208-1	1	56	60	6	10								
		1	56	60	6	10								
		1	60	70	6	10								
		1 or 2	86	90	3	8	59	26	60	30	6	10	10	10
W72ACMB00,B0Z B06 B09 B15	230/208-3	1	38	50	8	10								
		1	38	50	8	10								
		1	38	50	8	10								
W72ACMC00,C0Z C09 C15	460-3	1	19	25	10	10								
		1	19	25	10	10								
		1	27	30	10	10								

① These "Minimum Circuit Ampacity" values are to be used for sizing the field power conductors. Refer to the National Electrical code (latest version), Article 310 for power conductor sizing. **CAUTION:** When more than one field power circuit is run through one conduit, the conductors must be derated. Pay special attention to note 8 of Table 310 regarding Ampacity Adjustment Factors when more than three (3) current carrying conductors are in a raceway.

② Maximum size of the time delay fuse or circuit breaker for protection of field wiring conductors.

③ Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.

NOTE: The Maximum Overcurrent Protection (MOCP) value listed is the maximum value as per UL 1995 calculations for MOCP (branch-circuit conductor sizes in this chart are based on this MOCP). The actual factory-installed overcurrent protective device (circuit breaker) in this model may be lower than the maximum UL 1995 allowable MOCP value, but still above the UL 1995 minimum calculated value or Minimum Circuit Ampacity (MCA) listed.

IMPORTANT: While this electrical data is presented as a guide, it is important to electrically connect properly sized fuses and conductor wires in accordance with the National Electrical Code and all local codes.