

BARD WALL MOUNT™ Three Stage Air Conditioners 7.5 to 15 Ton Capacity W090 - W180 Unit Models 208V - 460V, Three Phase 60hz

MEGA-TEC Series WALL-MOUNT™

The Bard MEGA-TEC Series Wall-Mount Air Conditioner is an energy efficient self contained system that is designed to offer maximum indoor temperature control. Installed on an exterior wall surface, the MEGA-TEC series provides a large cooling and heating capacity without using valuable indoor floor space and minimizing wall surface use. This unit is the ideal product for versatile applications such as: modular buildings, light commercial, mobile buildings, mining, petro-chemical, telecom, industrial, energy storage, and data centers. Multiple options and accessories are available to meet specific job requirements for your unique application.

MEGA-TEC Series Features:

- 7.5 to 15 ton cooling capacity uses energy efficient components including 3 cooling stages for varying heat loads.
- Multi-speed Electronically commutated indoor motor (ECM) technology.
- Enclosed industrial outdoor fan motor with ball bearing construction.
- Dual refrigerant circuits with Copper/Aluminum finned coils includes filter driers, high/low pressure transducers, and advanced EEV technology. Evaporator coils include green fin coil protection.
- R-454B A2L Refrigerant that meets the global objectives outlined in the Montreal Protocol and the Kigali Amendment.
- Factory installed ventilation options including economizers.
- Multiple cabinet finishes including stainless steel.
- Coil coating options for additional corrosion protection.
- Optional factory installed electric heater options from 0kw up to 36kw.
- Optional Circuit breakers for 208/230V three phase units.
- Filter options up to MERV13. Side cabinet filter light indicates filter monitoring switch is active.
- Controls include a PLC control board and phase monitoring. Orphan mode operation is available when the unit is disconnected from the LC6000 controller.
- Optional electric reheat dehumidification is available for 18kw models.



MEGA-TEC Series Compliance:

- Complies with efficiency requirements of ANSI/ASHRAE/IES 90.1-2019.
- Certified to ANSI/AHRI Standard 390-2021 for SPVU (Single Package Vertical Units).
- Intertek ETL Listed to Standard for Safety of Household and Similar Electrical Appliances ANSI/UL STD 60335-1 & ANSI/UL STD 60335-2-40/CSA STD C22.2 No. 60335-1 & CSA STD C22.2 No. 60335-2-40 Fourth Edition.
- Commercial Product - Not intended for residential applications.
- Bard is an ISO 9001:2015 Certified Manufacturer.
- The AHRI Certified® mark indicates Bard Manufacturing Company participation in the AHRI Certification program. For verification of individual certified products, go to www.ahridirectory.org.



MODEL #	W	1 2 0	F	P	B	OZ	E	P	X	X	X	X
DIGIT #	1	2 3 4	5	6	7	8,9	10	11	12	13	14	15

1	1. Series - Single Stage Compressor			
W	Bard Exterior Wall-Mount			
2 3 4	2-3-4. Nominal Capacity			
090	7.5 Ton			
120	10 Ton			
150	12.5 Ton			
180	15 Ton			
5	5. Revision			
F	Revision (R-454B Refrigerant)			
6	6. Special Feature Placeholder			
P	Standard Unit - PLC			
E	Dehumidification - PLC			
7	7. Voltage			
B	208/230VAC	3	60	W090-W180
C	460VAC	3	60	W090-W180
Q	575VAC	3	60	W090-W180
8,9	8-9. Electric Heater Options			
00	0Kw with Lug Connections			
OZ	0Kw with Breaker or Disconnect			
09-36	9-36Kw Heat w/breaker or Disc.			
10	10. Ventilation Package Options			
B	Block Off Plate (No Vent)			
E	Full Flow Economizer			

11	11. Filter and IAQ Options	
P	2" MERV8 Disposable Filter.	
M	2" MERV11 Disposable Filter.	
N	2" MERV13 Disposable Filter.	
12	12. Cabinet Color and Finish	
X	Standard Beige Enamel Painted Steel.	
1	White Enamel Painted Steel.	
4	Buckeye Gray Enamel Painted Steel.	
S	316 Stainless Steel Exterior Finish.	
13	13. Cabinet Style	
X	Standard Cabinet	
14	14. Coil and Cabinet Coatings	
X	Standard Copper/Aluminum evap and cond coils.	
1	Coated indoor evap coil, std outdoor cond. coil.	
2	Coated outdoor cond coil, std indoor evap coil.	
3	Coated indoor evap and outdoor cond coil.	
4	Coated coils and unit cabinet condenser area.	
5	Coated coils and interior/exterior cabinet.	
15	15. Unit Mounted Controls Options. Standard: Hi/Lo Pressure and Ref. Leak (RDS) Sensor.	
X	Standard skid, Standard Packaging.	W090-W180
A	Steel skid, Standard Packaging.	W090-W150
B	Steel skid and Crate.	W090-W180

INTERACTIVE TABLE OF CONTENTS (SELECT  ICON WITH CURSOR TO GO TO LOCATION, PICK  TO RETURN)



Capacity and Efficiency Ratings

MODELS	W090	W120	W150	W180
3rd Stage Cooling Capacity in BTUH	96,000 BTUH	125,000 BTUH	147,000 BTUH	178,000 BTUH
3rd Stage Unit efficiency in EER	11.7 EER	10.0 EER	10.0 EER	10.0 EER
2nd Stage Cooling Capacity in BTUH	80,000 BTUH	114,000 BTUH	122,000 BTUH	150,000 BTUH
1st Stage Cooling Capacity in BTUH	30,000 BTUH	42,000 BTUH	44,000 BTUH	58,000 BTUH
IPLV (Integrated Part Load Value)	15.3	13.4	12.8	12.6

Note 1: Models are certified in accordance with ANSI/ARI Standard 390-2003 and meet or exceed 10 EER DOE requirements.

Note 2: EER = Energy Efficiency Ratio and is certified in accordance with ANSI/ARI Standard 390-2003. All ratings based on fresh air intake being 100% closed (no outside air introduction).

Note 3: IPLV = Integrated Part Load Value (IPLV) is a BTU/WATT efficiency measurement that combines staged cooling.

General Unit Specifications

MODEL	Number of Indoor Fans	Indoor CFM and Rated Static	Indoor Fan HP	Indoor Fan Type	Indoor - Outdoor Fan Communication	Basic Unit Weight	Economizer Option Weight	Standard Packaging Weight	Crate Packaging Weight	Total Unit Charge R454B
W090	1	3000 CFM @ .25 ESP	5.0	Backward Incline	Modbus	1190lbs. 539.77kg	100lbs. 45.36kg	100lbs. 45.36kg	300lbs. 136.08kg	14.500lbs. 6.577kg
W120	1	4000 CFM @ .30 ESP	5.0	Backward Incline	Modbus	1190lbs. 539.77kg	100lbs. 45.36kg	100lbs. 45.36kg	300lbs. 136.08kg	13.750lbs. 6.240kg
W150	1	4650 CFM @ .35 ESP	5.0	Backward Incline	Modbus	1220lbs. 553.38kg	100lbs. 45.36kg	100lbs. 45.36kg	300lbs. 136.08kg	17.500lbs. 7.824kg
W180	2	5400 CFM @ .35 ESP	6.0	Backward Incline	Modbus	1955lbs. 886.78kg	140lbs. 63.50kg	145lbs. 65.77kg	380lbs. 172.37kg	19.375lbs. 8.788kg

MODEL	Number of compressors and circuits	Compressor Type	Expansion Devices	Pressure Transducer Types	R454B Refrigerant Circuit A	R454B Refrigerant Circuit B	Number of Filters	Filter Size	Number of Outdoor Fans	Outdoor Fan HP	Outdoor Fan Type	Outdoor fan total CFM
W090	2	Scroll	EEV	10k J Curve	7.25lbs 3.28kg	7.25lbs 3.28kg	4	20" x 24" x 2" 51x61x5cm	1	4.0	Axial Fan, ECM	Variable
W120	2	Scroll	EEV	10k J Curve	6.88lbs 3.12kg	6.88lbs 3.12kg	4	20" x 24" x 2" 51x61x5cm	1	4.0	Axial Fan, ECM	Variable
W150	2	Scroll	EEV	10k J Curve	8.63lbs 3.91kg	8.63lbs 3.91kg	4	20" x 24" x 2" 51x61x5cm	1	4.0	Axial Fan, ECM	Variable
W180	2	Scroll	EEV	10k J Curve	9.68lbs 4.39kg	9.68lbs 4.39kg	6	16" x 25" x 2" 41x64x5cm	2	5.0	Axial Fan, ECM	Variable

MODEL	Nom.	Nominal Voltage	Hz	Operating Voltage Range	Short Circuit Current (SCCR)	Branch Circuit Selection Current (BSCS)	Compressor 1 Rated Load Amps (RLA)	Compressor 2 Rated Load Amps RLA	Compressor 1 Locked Rotor Amps (LRA)	Compressor 2 Locked Rotor Amps (LRA)	Indoor Fan Voltage	Indoor Fan Amps 1-2	Outdoor Fan Voltage	Outdoor Fan Amps 1-2
W090	B	230/208V	60	197-253V	5KA SYM.	24.7	11.1/12.2	13.9/15.3	112/112	120.4/120.4	230/208	2.0	230/208	7.0
	C	460V	60	414-506V	5KA SYM.	12.8	6.3	6.5	61.8	49.4	460	1.0	460	3.5
	Q	575V	60	520-630V	5KA SYM.	10.6	4.8	5.1	39	41	460	1.0	460	3.5
W120	B	230/208V	60	197-253V	5KA SYM.	38.5	21.0/23.1	19.1/21.0	162.3/162.3	156.5/156.5	230/208	3.2	230/208	6.6
	C	460V	60	414-506V	5KA SYM.	18.1	9.9	8.9	70.8	74.8	460	1.6	460	3.3
	Q	575V	60	520-630V	5KA SYM.	13.9	7.8	7.2	58.2	47.8	460	1.6	460	3.3
W150	B	230/208V	60	197-253V	5KA SYM.	45.6	26.5/29.2	27.6/30.4	142/142	166.2/166.2	230/208	3.4	230/208	7.2
	C	460V	60	414-506V	5KA SYM.	18.3	10.8	10.9	73.1	74.6	460	1.7	460	3.6
	Q	575V	60	520-630V	5KA SYM.	15	8.5	9.1	55	54	460	1.7	460	3.6
W180	B	230/208V	60	197-253V	5KA SYM.	54.0	33.2/35.4	34.3/36.5	178.5/178.5	178.5/178.5	230/208	2.8-2.6	230/208	8.4-8.2
	C	460V	60	414-506V	5KA SYM.	22.4	13.8	14.2	95.3	103	460	1.4-1.3	460	4.2-4.1
	Q	575V	60	520-630V	5KA SYM.	18.2	10.8	10.1	65	78	460	1.4-1.3	460	4.2-4.1



////// **Cooling Application Data at Rated Airflow - Full Load Stage 3 - Standard Mode**

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	Outdoor Temperature										
			75°F 23.9°C	80°F 26.6°C	85°F 29.4°C	90°F 32.2°C	95°F 35°C	100°F 37.7°C	105°F 40.5°C	110°F 43.3°C	115°F 46.1°C	120°F 48.8°C	125°F 51.6°C
W090 STANDARD FAN SPEED	75/62°F 23.8/16.6°C	Total	102700	97300	92300	87700	83600	80000	76700	73800	71200	68900	67100
		Sensible	81100	78100	75300	72800	70500	68500	66700	65000	63600	62400	61300
	80/67°F 26.6/19.4°C	Total	109700	106000	102500	99100	96000	93200	90500	88000	85700	83600	81800
		Sensible	78700	76600	74600	72800	71200	69700	68400	67200	66200	65300	64600
	85/72°F 29.4/22.2°C	Total	130600	123900	117700	111900	106600	101900	97600	93600	90000	86800	84100
		Sensible	80600	77700	74900	72300	69800	67400	65200	63000	61000	59000	57100
W120 STANDARD FAN SPEED	75/62°F 23.8/16.6°C	Total	143700	133000	123700	115700	108800	103200	98600	95000	92500	90900	90400
		Sensible	112000	105600	100000	95300	91200	87900	85300	83500	82300	81800	81900
	80/67°F 26.6/19.4°C	Total	153500	145000	137400	130800	125000	120300	116400	113400	111400	110300	110200
		Sensible	108700	103600	99100	95300	92100	89500	87600	86300	85700	85700	86300
	85/72°F 29.4/22.2°C	Total	182800	169500	157700	147600	138800	131500	125500	120600	117000	114600	113300
		Sensible	111300	105100	99500	94600	90300	86600	83500	80900	78900	77400	76300
W150 STANDARD FAN SPEED	75/62°F 23.8/16.6°C	Total	160800	151100	142500	134800	127900	122000	116900	112400	108900	105900	103600
		Sensible	124400	119000	114300	110100	106500	103400	100900	98900	97500	96500	96100
	80/67°F 26.6/19.4°C	Total	171700	164700	158300	152400	147000	142200	138000	134200	131100	128400	126300
		Sensible	120700	116700	113200	110100	107500	105300	103600	102300	101500	101100	101200
	85/72°F 29.4/22.2°C	Total	204500	192500	181700	172000	163200	155500	148700	142700	137700	133400	129800
		Sensible	123600	118400	113700	109300	105400	101800	98700	95900	93400	91300	89500
W180 STANDARD FAN SPEED	75/62°F 23.8/16.6°C	Total	188400	178800	170000	162100	154900	148600	143000	138000	133700	130100	127000
		Sensible	147100	141900	137300	133000	129200	126000	123100	120800	118700	117200	116000
	80/67°F 26.6/19.4°C	Total	201200	194900	188900	183300	178000	173200	168800	164700	161000	157800	154900
		Sensible	142700	139200	136000	133100	130500	128300	126400	124900	123600	122800	122200
	85/72°F 29.4/22.2°C	Total	239600	227800	216800	206900	197600	189400	181900	175100	169100	163900	159200
		Sensible	146100	141200	136600	132100	127900	124100	120400	117000	113800	110900	108000

- Notes:
- 1000 BTUH = .29307 kW
 - Outdoor air temperatures provided are an average of the condenser inlet air temperature.
 - Stage 1 Capacity approximately 35% of provided data.
 - Stage 2 Capacity approximately 80% of provided data.
 - Stage 3 Capacity is 100% of provided data.



////// **Cooling Application Data at Rated Airflow - Full Load Stage 3 - Hi Sensible Mode**

MODEL	RETURN AIR (DB/WB)	COOLING CAPACITY	Outdoor Temperature										
			75°F 23.9°C	80°F 26.6°C	85°F 29.4°C	90°F 32.2°C	95°F 35°C	100°F 37.7°C	105°F 40.5°C	110°F 43.3°C	115°F 46.1°C	120°F 48.8°C	125°F 51.6°C
W090 HI SENSIBLE FAN SPEED	75/62°F 23.8/16.6°C	Total	103000	98600	94300	90400	86700	83300	80200	77100	74300	71700	69400
		Sensible	84700	82500	80400	78400	76400	74500	72900	71300	69700	68400	66900
	80/67°F 26.6/19.4°C	Total	110000	107400	104800	102200	99600	97100	94600	92000	89500	87000	84600
		Sensible	82200	80900	79600	78400	77100	75900	74800	73700	72600	71600	70500
	85/72°F 29.4/22.2°C	Total	131000	125500	120300	115400	110600	106200	102000	97900	94000	90400	87000
		Sensible	84200	82100	79900	77900	75600	73400	71300	69100	66800	64700	62400
W120 HI SENSIBLE FAN SPEED	75/62°F 23.8/16.6°C	Total	138000	130700	124100	118200	112700	107900	103500	99700	96200	93300	90800
		Sensible	110500	106600	103000	99800	96900	94400	92200	90200	88700	87400	86500
	80/67°F 26.6/19.4°C	Total	147400	142500	137900	133600	129500	125800	122200	119000	115900	113200	110700
		Sensible	107200	104500	102000	99800	97800	96100	94600	93300	92300	91600	91100
	85/72°F 29.4/22.2°C	Total	175500	166600	158300	150800	143800	137600	131700	126600	121700	117600	113800
		Sensible	109700	106000	102400	99100	95900	92900	90100	87400	85000	82700	80600
W150 HI SENSIBLE FAN SPEED	75/62°F 23.8/16.6°C	Total	162400	153200	144800	137300	130500	124600	119200	114500	110400	106800	103800
		Sensible	135500	131100	127000	123100	119500	116300	113300	110500	108100	105800	103800
	80/67°F 26.6/19.4°C	Total	173400	167000	160900	155300	150000	145200	140700	136600	132900	129500	126600
		Sensible	131500	128600	125800	123200	120700	118400	116300	114300	112500	110800	109300
	85/72°F 29.4/22.2°C	Total	206500	195200	184700	175300	166600	158800	151600	145300	139600	134500	130200
		Sensible	134600	130500	126300	122300	118300	114500	110800	107100	103600	100000	96600
W180 HI SENSIBLE FAN SPEED	75/62°F 23.8/16.6°C	Total	193900	183600	174200	165900	158400	151800	145900	140900	136600	133000	130000
		Sensible	157400	152200	147500	143300	139500	136100	133200	130600	128400	126700	125200
	80/67°F 26.6/19.4°C	Total	207100	200100	193600	187600	182000	177000	172300	168200	164500	161300	158500
		Sensible	152700	149300	146200	143400	140900	138600	136700	135100	133700	132700	131900
	85/72°F 29.4/22.2°C	Total	246600	233900	222200	211700	202100	193500	185700	178900	172800	167500	162900
		Sensible	156300	151400	146800	142400	138100	134000	130200	126600	123100	119800	116600

- Notes:
- 1000 BTUH = .29307 kW
 - Outdoor air temperatures provided are an average of the condenser inlet air temperature.
 - Stage 1 Capacity approximately 35% of provided data.
 - Stage 2 Capacity approximately 80% of provided data.
 - Stage 3 Capacity is 100% of provided data.



///// **Electrical Specifications: W090, W120, W150, W180 Units Without Electric Reheat**

Unit Model	Heater Package	Unit Voltage @60Hz	Connection Point	Number of Power Circuits	Single Circuit		Dual or Triple Circuit					
					Min. Circuit Ampacity (MCA)	Max. Operating Circuit Protection (MOCP)	Min. Circuit Ampacity			Max. Operating Circuit		
							Ckt. A	Ckt. B	Ckt. C	Ckt. A	Ckt. B	Ckt. C
W090FPB	0Z	208/230V-3PH	C. Breaker	1	40	50						
	09	208/230V-3PH	C. Breaker	1	40	50						
	18	208/230V-3PH	C. Breaker	1	57	60						
W090FPC	0Z	460V-3PH	Disconnect	1	21	25						
	09	460V-3PH	Disconnect	1	21	25						
	18	460V-3PH	Disconnect	1	29	30						
W090FPQ	0Z	575V-3PH	Disconnect	1	17	20						
	09	575V-3PH	Disconnect	1	17	20						
	18	575V-3PH	Disconnect	1	24	25						
W120FPB	0Z	208/230V-3PH	C. Breaker	1 or 2	58	70	34	25		40	30	
	09	208/230V-3PH	C. Breaker	1 or 2	58	70	34	28		40	30	
	18	208/230V-3PH	C. Breaker	1 or 2	59	70	34	28		40	30	
W120FPC	0Z	460V-3PH	Disconnect	1	28	35						
	09	460V-3PH	Disconnect	1	28	35						
	18	460V-3PH	Disconnect	1	29	35						
W120FPQ	0Z	575V-3PH	Disconnect	1	22	25						
	09	575V-3PH	Disconnect	1	22	25						
	18	575V-3PH	Disconnect	1	25	30						
W150FPB	0Z	208/230V-3PH	C. Breaker	1 or 2	68	80	40	28		50	40	
	09	208/230V-3PH	C. Breaker	1 or 2	68	80	40	28		50	40	
	18	208/230V-3PH	C. Breaker	1 or 2	68	80	40	28		50	40	
W150FPC	0Z	460V-3PH	Disconnect	1	29	35						
	09	460V-3PH	Disconnect	1	29	35						
	18	460V-3PH	Disconnect	1	30	35						
W150FPQ	0Z	575V-3PH	Disconnect	1	24	30						
	09	575V-3PH	Disconnect	1	24	30						
	18	575V-3PH	Disconnect	1	25	30						
W180FPB	0Z	208/230V-3PH	C. Breaker	1 or 2	90	100	55	35		60	40	
	09	208/230V-3PH	C. Breaker	1 or 2	90	100	55	35		60	40	
	18	208/230V-3PH	C. Breaker	1 or 2	90	100	55	55		60	60	
	36	208/230V-3PH	C. Breaker	1 or 3	116	125	55	55	55	60	60	60
W180FPC	0Z	460V-3PH	Disconnect	1	40	45						
	09	460V-3PH	Disconnect	1	40	45						
	18	460V-3PH	Disconnect	1	40	45						
	36	460V-3PH	Disconnect	1	58	60						
W180FPQ	0Z	575V-3PH	Disconnect	1	32	40						
	09	575V-3PH	Disconnect	1	32	40						
	18	575V-3PH	Disconnect	1	32	40						
	36	575V-3PH	Disconnect	1	49	50						

- ① Maximum size of the time delay fuse or circuit breaker for protection of field wiring conductors.
- ② Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.
- ③ 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 current carrying conductors are in a raceway.

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.

Note: MOCP (Maximum Overcurrent Protection) value listed is the maximum value as per UL 60335 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 60335 allowable MOCP value, but still above the minimum calculated value or Minimum Circuit Ampacity (MCA) listed.



///// **Electrical Specifications: W090, W120, W150, W180 Units With Electric Reheat**

Unit Model	Heater Package	Unit Voltage @60Hz	Connection Point	Number of Power Circuits	Single Circuit		Dual Circuit			
					Min. Circuit Ampacity (MCA)	Max. Operating Circuit Protection (MOCP)	Min. Circuit Ampacity (MCA)		Max. Operating Circuit Protection (MOCP)	
							Ckt. A	Ckt. B	Ckt. A	Ckt. B
W090FEB	18	208/230V-3PH	C. Breaker	1 or 2	79	90	52	28	60	30
W090FEC	18	460V-3PH	Disconnect	1	40	45				
W090FEQ	18	575V-3PH	Disconnect	1	33	35				
W120FEB	18	208/230V-3PH	C. Breaker	1 or 2	89	100	52	37	60	50
W120FEC	18	460V-3PH	Disconnect	1	44	50				
W120FEQ	18	575V-3PH	Disconnect	1	35	40				
W150FEB	18	208/230V-3PH	C. Breaker	1 or 2	94	100	57	39	60	60
W150FEC	18	460V-3PH	Disconnect	1	45	50				
W150FEQ	18	575V-3PH	Disconnect	1	37	40				
W180FEB	18	208/230V-3PH	C. Breaker	1 or 2	101	110	55	55	60	60
W180FEC	18	460V-3PH	Disconnect	1	48	50				
W180FEQ	18	575V-3PH	Disconnect	1	40	45				

- ① Maximum size of the time delay fuse or circuit breaker for protection of field wiring conductors.
- ② Based on 75°C copper wire. All wiring must conform to the National Electrical Code and all local codes.
- ③ 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 current carrying conductors are in a raceway.

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.

Note: MOCP (Maximum Overcurrent Protection) value listed is the maximum value as per UL 60335 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 60335 allowable MOCP value, but still above the minimum calculated value or Minimum Circuit Ampacity (MCA) listed.

///// **Electric Heat Table - Refer to Electrical Specifications for Availability by Unit Model**

Nominal Heater Kw Listed Per Unit Model	Actual Unit Voltage											
	AT 230V-3ph-60hz.			AT 208V-3ph-60hz.			AT 460V-3ph-60hz.			AT 575V-3ph-60hz.		
	KW	AMPS	BTUH	KW	AMPS	BTUH	KW	AMPS	BTUH	KW	AMPS	BTUH
9.00	8.3	20.8	28,300	6.8	18.7	23,000	8.3	10.4	28,300	9.0	9.0	30,700
18.00	16.6	41.6	56,500	13.5	37.5	46,100	16.6	20.8	56,500	18.0	18.1	61,400
36.00	33.1	83.1	113,000	27.0	74.9	92,200	33.1	41.6	113,000	36.0	36.1	122,900

///// **Indoor and Outdoor Sound Data**

Unit Models	Indoor @ 5ft.		Indoor @ 10ft.		Outdoor @ 10ft. Cooling Stage 3
	Cooling, Stages 2 and 3	Cooling, Stage 1	Cooling, Stages 2 and 3	Cooling, Stage 1	
W090, W120, W150	64.4 dB	62.7 dB	63.1 dB	58.2 dB	75.0 dB
W180	62.2 dB	61.0 dB	59.5 dB	58.3 dB	78.9 dB



MEGA-TEC Ventilation Option Selection Chart

Vent Code	Vent Type	Description
B	No Ventilation	Unit does not include intake or exhaust openings for ventilation.
E	Economizer	Free flow economizer. Enthalpy, Dew Point, or Dry Bulb economizing settings. A field installed 7" hood is required on each side of the unit. The economizer is not a field installed option.

* Note: Ventilation options are not field installable.

"B" Vent Code Option – No Vent

This unit is constructed without the economizer vent option and the air intake and exhaust openings are removed. The no vent option may be utilized when outside air intake is not desired or required by local codes.

"E" Vent Code Option – Free Cooling Economizer

The free cooling economizer uses multiple 2-10V High torque actuators to independently control each intake and exhaust damper. Outdoor intake air enters the left and right sides of the unit through intake hoods. Intake air is pre-filtered before entering the unit. Room air is exhausted using one or more separate dampers into the condenser section partition of the unit. A large exhaust air path is provided to reduce room pressure to slight positive pressurization during economizer operation. All dampers include rubber seals for positive shutoff when the economizer is not being operated.

All operation is controlled by the unit logic board. Magnetic proximity sensors attached to each economizer blade indicate a damper failure. A dust sensor is provided to monitor particulates in the outdoor air being brought into the structure, and disable economizer use when the particulate level is too high. Outdoor temperature/humidity conditions are monitored through a sensor located on the side of the unit.

Unit Software Economizer Features:

- Standard dry bulb outdoor temperature control of economizer operation.
- Optional wet bulb outdoor enthalpy control of economizer operation. Enthalpy measured in either %RH or Dew point.
- Passive Dehum: Economizer operation can be disabled if humidity levels measured by the LC6000 reach the indoor maximum humidity set point. The default passive indoor humidity set point is 70%RH*.
- Emergency Vent: When NO/NC* contacts are energized in the LC6000, the economizer blades are fully opened and the evaporator Fan is activated.
- Emergency Off: When NO/NC* contacts are energized in the LC6000, the economizer blades are closed, and unit operation is disabled.
- Emergency Cool: When high temp alarm 2 is active in the LC6000 due to a High temperature event in a zone, the economizer blades are fully opened and the Evaporator Fan is activated.

*Default setting.

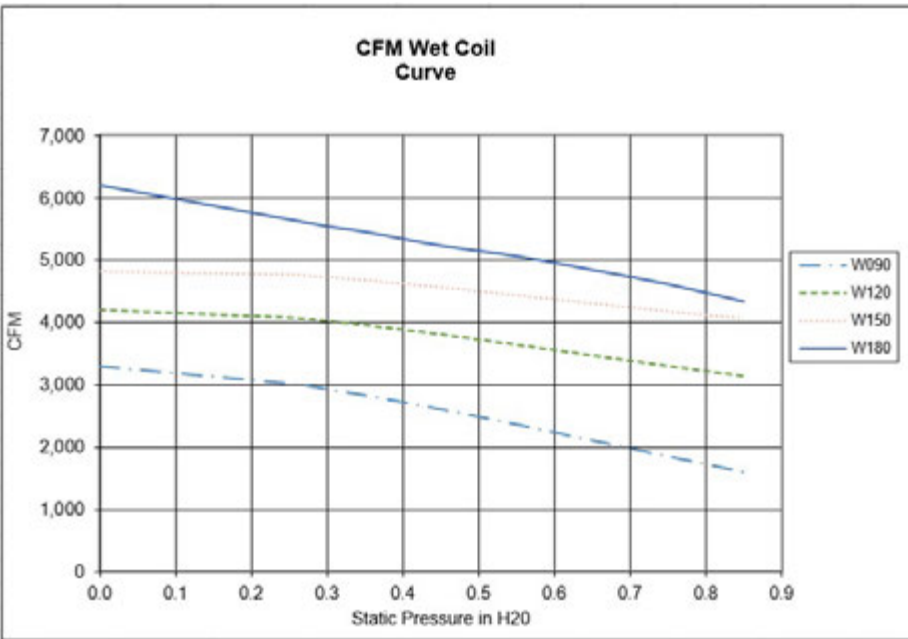
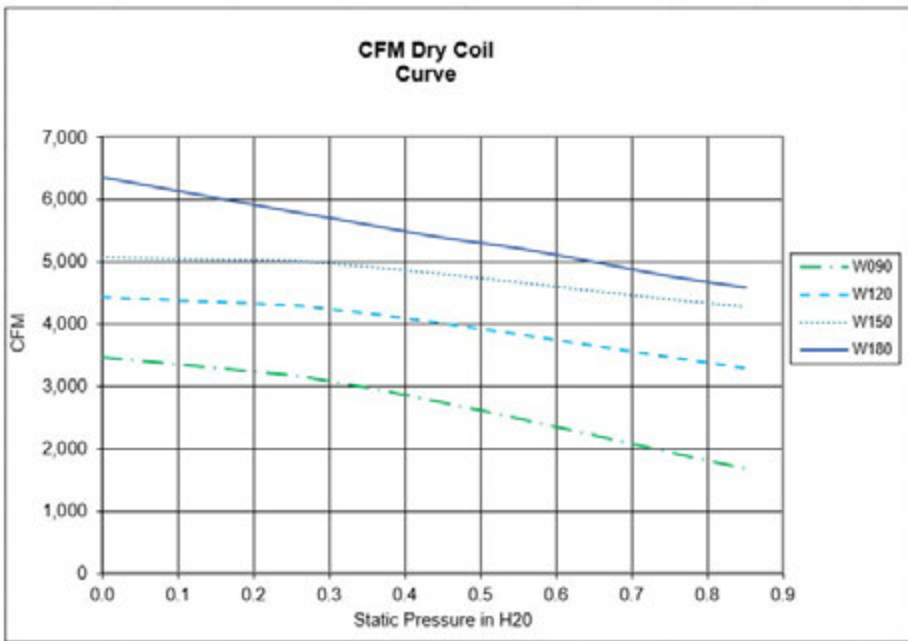
Note: Fire suppression systems that use gases to flood an area may require economizer shutdown within 30 seconds of a smoke/fire event. A signal from the LC6000 controller to close all dampers and disable unit operation can take over a minute (time will vary based on daisy chain connections). A relay must be installed to break the 24VAC power supply output from the low voltage transformer in each unit in order to shorten the blade closure time and disable unit operation.

MEGA-TEC Filter Option Selection Chart

Filter Code	Filter Type	Dust Spot Efficiency	Arrestance	Particle Size Filtration	Description
P	MERV 8	30-35%	>90%	3 to 10 microns	2" pleated standard filtration.
M	MERV 11	60-65%	>95%	1 to 3 microns	2" pleated high filtration.
N	MERV 13	89-90%	>98%	.3 to 1 microns	2" pleated maximum filtration.



///// Indoor Standard Airflow @ Full Load Cooling Static Performance Curves



Total External Static Pressure Calculation:

$$\text{Supply Duct Static} + \text{Return Duct Static} + \text{Filter Static} + \text{Additional External Static} = \text{Total External Static Pressure (ESP)}$$

Total External Static Adjustment:

Evaporator airflow data shown in the performance charts represent the unit with a dry coil and running in nominal (standard operation) Stage 3 full load cooling with a wet evaporator coil. A dry evaporator coil will provide less static.

Evaporator airflow data shown in the performance charts represent the unit with a 2" disposable MERV8 filter. For other filter options, external static pressure needs to be adjusted. See adjustment factor in below table.

FILTER CODE	FILTER MERV RATING	ADJUST STATIC
M	MERV 11	+.05" WC
N	MERV 13	+.08" WC

MERV Filter Ratings:

Higher MERV rated filter provide additional filtration during each air exchange through the unit. However, the frequency of filter changes will be higher as the MERV rating increases due to the additional dirt, dust, and debris being trapped in the filter media. Always provide a good maintenance plan that includes filter changes based on the environment and air quality of the area being conditioned by the unit.



///// Indoor Airflow During Different Modes of Operation @ Rated Static with Wet Evaporator Coil

Fan Only Operation

Fan only airflow occurs when continuous fan is energized. Cooling and heating operation is not energized. Minimum damper position may be used during continuous evaporator fan to bring in a slight amount of outdoor air with the fan energized.

Economizer Free Cooling

Economizer free cooling airflow occurs when the economizer damper is open to provide cooling for the indoor space using outdoor air.

Stage 1, 2, and 3 Balanced Climate Cooling

Balanced Climate airflow occurs when the Balanced Climate Feature is enabled in the Blower Configuration menu (Off by default) and a call for cooling is present. When enabled, Balanced Climate fan speed will be used based on the humidity set points adjusted in the LC6000 controller.

Stage 1, 2, and 3 Standard Nominal Cooling

Standard nominal cooling airflow occurs when Balanced Climate or High Sensible cooling are not used, and the unit has a call for cooling.

Stage 1, 2, and 3 High Sensible Cooling

High Sensible airflow occurs when the High Sensible Feature is enabled in the Blower Configuration menu (On by default) and a call for cooling is present. When enabled, High Sensible fan speed will be used based on the humidity set points adjusted in the LC6000 controller.

1st and 2nd Stage Electric Heat

Optional electric heat airflow is used when a heating call is present based on the heating set point. Electric heat must be ordered with the unit for electric heat operation.

Electric Reheat Dehumidification

Optional electric reheat dehumidification airflow occurs when the MEGA-TEC unit is purchased with this feature and a call for active dehumidification is present. Electric Reheat fan speed will be used based on the humidity set points adjusted in the LC6000 controller.

Emergency Ventilation

Emergency ventilation airflow occurs when an emergency ventilation signal is received from the LC6000 controller. By default, this fan speed is set at the maximum airflow available for the MEGA-TEC unit.

Evaporator Fan Airflow Adjustment

See Service Instructions 2100-671 for airflow adjustment regarding W090, W120, and W150 MEGA-TEC unit models. See Service Instructions 2100-749 for airflow adjustment regarding W180 MEGA-TEC unit models.

Unit Operation	W090 Airflow CFM @.25 ESP	W120 Airflow CFM @.30 ESP	W150 Airflow CFM @.35 ESP	W180 Airflow CFM @.35 ESP
Fan Only	2500	2400	2300	3400
Economizer Free Cooling	3000	4000	4650	5400
Stage 1 Balanced Climate Cooling	1470	2000	2200	1750
Stage 2 and 3 Balanced Climate Cooling	2100	2800	3200	3360
Stage 1 Standard Nominal Cooling	2100	2800	3200	3400
Stage 2 and 3 Standard Nominal Cooling	3000	4000	4650	5400
Stage 1 High Sensible Cooling	2500	3300	3900	4380
Stage 2 and 3 High Sensible Cooling	3600	4400	5700	6100
Heating 1st Stage	4000	4000	4000	5400
Heating 2nd Stage	4000	4000	4000	5400
Electric Reheat Dehumidification	3000	2800	3200	3360
Emergency Ventilation	3000	4000	4650	5400



/////// Cabinet Options

Cabinet Finish Options

Unit models are available in Beige, White, Buckeye Gray, and Stainless Steel (W090, W120, W150 only). Painted cabinet construction is comprised of 16 gauge Zinc coated steel. Parts are cleaned, rinsed, sealed, and dried before a polyurethane primer is applied. The cabinet coating is completed with a baked on textured enamel. The resulting finish is designed to withstand 1000 hours of salt spray tests per ASTM B117-03.

Stainless steel external cabinet construction is comprised of 316 grade materials. Stainless steel screws and fasteners are used in all externally exposed areas. A enhanced corrosion resistant coated condenser fan assembly is provided with the stainless steel option.



/////// Evaporator and Condenser Coil Coating Options

Green Fin Hydrophilic Evaporator Coils Standard On All Units

Bard WALL MOUNT products include a green protective coating applied to the aluminum fin stock used for the evaporator coil. The evaporator coil coating is hydrophilic (attracts water) and allows for proper condensate drainage along with mild corrosion protection. Resistance to corrosive agents include ammonia, sodium hydroxide, sodium chloride, acidic solutions and solvents.



Hydrophilic Green Coil
(standard)

Evaporator (1) Condenser (2) or both Evaporator and Condenser (3) Coil Technicoat Coating Options

Bard now offers TECHNICOAT AA, a robust dipped coating option for the evaporator and condenser coil. TECHNICOAT AA has passed all HVAC accelerated tests like salt spray, flexibility and SWAAT 3,000+ hours. It has been tested in the field in the most severe industrial exposure conditions, such as a coastal refinery in Saudi Arabia, mining facilities in central Africa, and various Pacific islands. TECHNICOAT AA did not show any deterioration after multiple years of function with coils directly exposed to such harsh environmental conditions. The TECHNICOAT AA coating system is based on modified acrylic waterborne binders with high elongation properties. Aluminum pigmentation has been added to establish exceptional heat transfer, chemical resistance, and UV blocking properties. Corrosion resistance reaches >10,000+ hours in ASTM B-117 and >3,120 hours in SWAAT testing. Coating is gray in color.



TechniCoat
(optional)

/////// Packaging Options Including Wood Skids, Metal Skids and Platforms, and Crates.

The MEGA-TEC® unit can be shipped using a standard wood skid, or can be ordered with a metal platform under the unit. The metal platform supports the unit resting on the ground after wall attachment. Optional crates are available to help protect your valuable MEGA-TEC® investment during shipping. Constructed from OSB sheathing with steel corner posts, and sized for standard truck transportation. Treated for pests in accordance with the International Plant Protection Convention, Publication 15, Annex 1. Packaging is acceptable for international shipments.

Unit Model	"X" Standard Packaging (Standard Skid with Packaging)	"A" Optional Packaging (Metal Skid with Standard Packaging)	"B" Optional Packaging (Metal Skid with Wood Crate)
W090	Wood Skid with Standard Packaging. Unit ships on standard wood skid with stretch wrap, cardboard corners and top cap. The wood skid is 5" in height.	Metal Skid with Standard Packaging. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. The metal skid is 4.50" in height.	Metal Skid with Wood Crate. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. A wood crate is installed over the standard packaging to protect the sides and top of the unit. The platform is 4.50" in height.
W120	Wood Skid with Standard Packaging. Unit ships on standard wood skid with stretch wrap, cardboard corners and top cap. The wood skid is 5" in height.	Metal Skid with Standard Packaging. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. The metal skid is 4.50" in height.	Metal Skid with Wood Crate. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. A wood crate is installed over the standard packaging to protect the sides and top of the unit. The platform is 4.50" in height.
W150	Wood Skid with Standard Packaging. Unit ships on standard wood skid with stretch wrap, cardboard corners and top cap. The wood skid is 5" in height.	Metal Skid with Standard Packaging. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. The metal skid is 4.50" in height.	Metal Skid with Wood Crate. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. A wood crate is installed over the standard packaging to protect the sides and top of the unit. The platform is 4.50" in height.
W180	Metal Skid with Standard Packaging. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. The metal skid is 4.50" in height.	Option Not Used.	Metal Skid with Wood Crate. Unit ships on 16 Ga. Galvanized metal skid/platform with stretch wrap, cardboard corners and top cap. A wood crate is installed over the standard packaging to protect the sides and top of the unit. The platform is 4.50" in height.



Condenser Section Easy Access

Access to compressors, filter-driers, the economizer exhaust damper motor/linkage, and evaporator drain hoses are behind the condenser fan. Access to the interior condenser section is also recommended for condenser coil cleaning. The condenser fan is on a sliding carriage for easy access to the interior of the condenser section. A safety switch is also installed in the condenser section. Follow all safety instructions provided in the unit installation and service manual provided with the MEGA-TEC®.



Slide out Condenser Fan

Condenser Fan Specifications

The EC outdoor industrial fan assembly maintains its high efficiency across a wide operating range. Modbus allows accurate fan control by the unit logic board. The result is a significant reduction in energy use when the motor is ran at reduced speeds. The motor contains reverse polarity and locked motor protection. Aluminum blade sprayed with PP plastic. Steel grille coated with PP plastic. Fan has a black gloss paint finish.



Condenser Fan

SPECIFICATION	DESCRIPTION
DEGREE OF PROTECTION	IP55
MOISTURE/ENV. CLASS	F4-1
INSULATION CLASS	F
PROTECTION CLASS	1
EMC IMMUNITY	EN61000-6-2
WEIGHT	89lbs (40.2kg)

Evaporator Fan Specifications

The EC indoor industrial fan assembly maintains its high efficiency across a wide operating range. Modbus allows accurate fan control by the unit logic board. The result is a significant reduction in energy use when the motor is operating at reduced speeds. The motor uses ball bearing construction, temperature protection, soft start, and an integrated PID controller. Aluminum impeller with steel frame construction for strength.

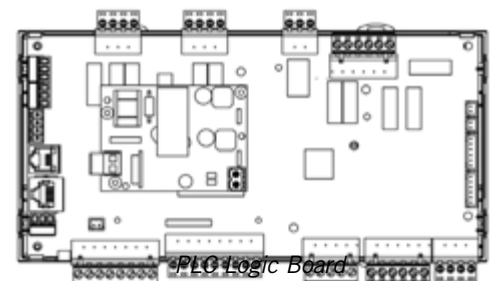


Evaporator Fan

SPECIFICATION	DESCRIPTION
DEGREE OF PROTECTION	IP55
MOISTURE/ENV. CLASS	F4-1
INSULATION CLASS	F
PROTECTION CLASS	1
EMC IMMUNITY	EN61000-6-2
WEIGHT	66lbs. (30kg)

Logic Board Specifications

Each unit uses a programmable logic board located in the unit control panel to communicate with the LC controller. By using a 2-wire connection, alarm functionality and unit operational commands are communicated. If communication is lost, the unit is able to run by using the logic in the unit controller in orphan mode.

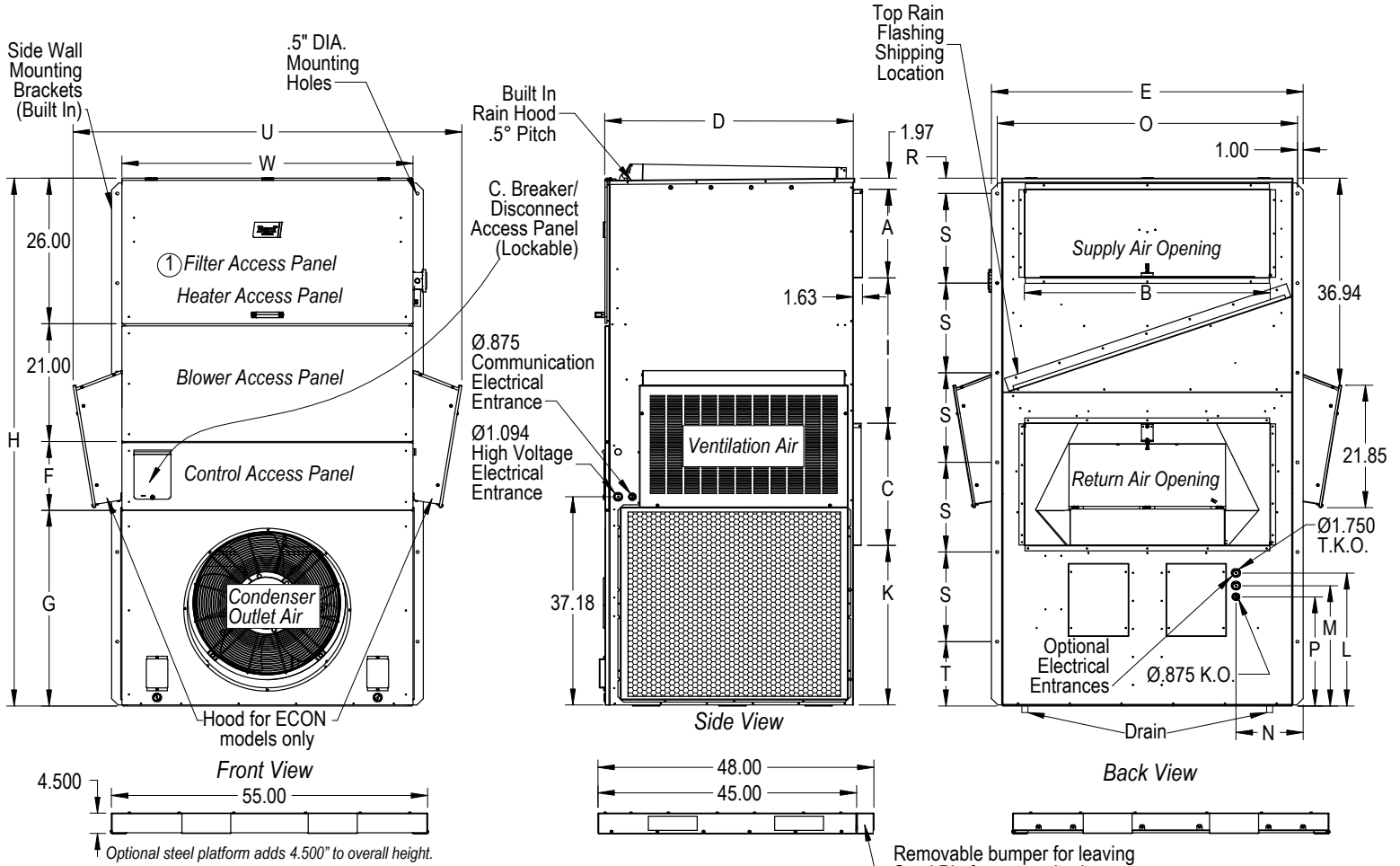


SPECIFICATION	DESCRIPTION
POWER SUPPLY SPECS.	24Vac/Vdc +10%/-15% 50/60 Hz
MAX. POWER INPUT	28 VA
BATTERY TYPE	Lithium Battery, BR2032, 3VDC
BATTERY LIFE, USE	Minimum 8 years, Used for Date/Time Storage
TEC-EYE CONNECTION	RJ11 Telephone Connector
ETHERNET CONNECTION	CAT5 Connector, 325ft. (100m) Max. Wire Length
STORAGE CONDITIONS	-40°F to 158°F (-40°C to 70°C) 90%RH non-condensing
OPERATING CONDITIONS	-40°F to 140°F (-40°C to 60°C) 90%RH non-condensing

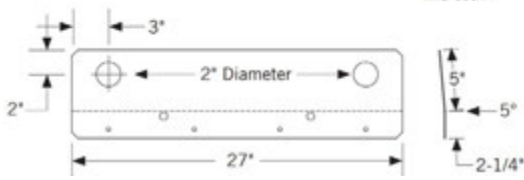
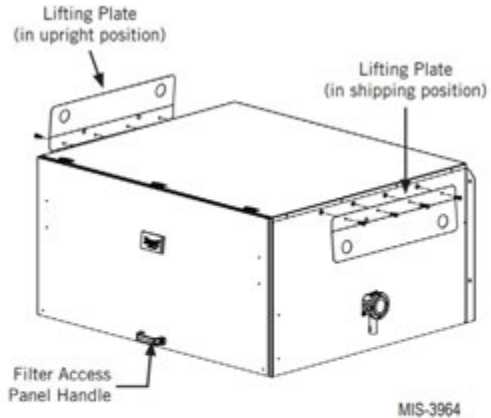
/////// Cabinet Dimensions - W090, W120, W150 Series Units

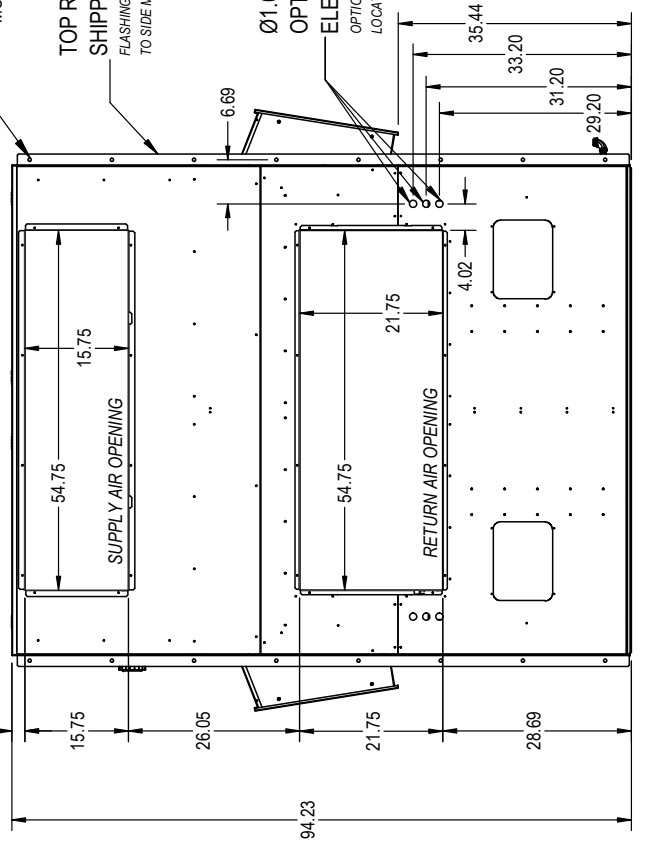
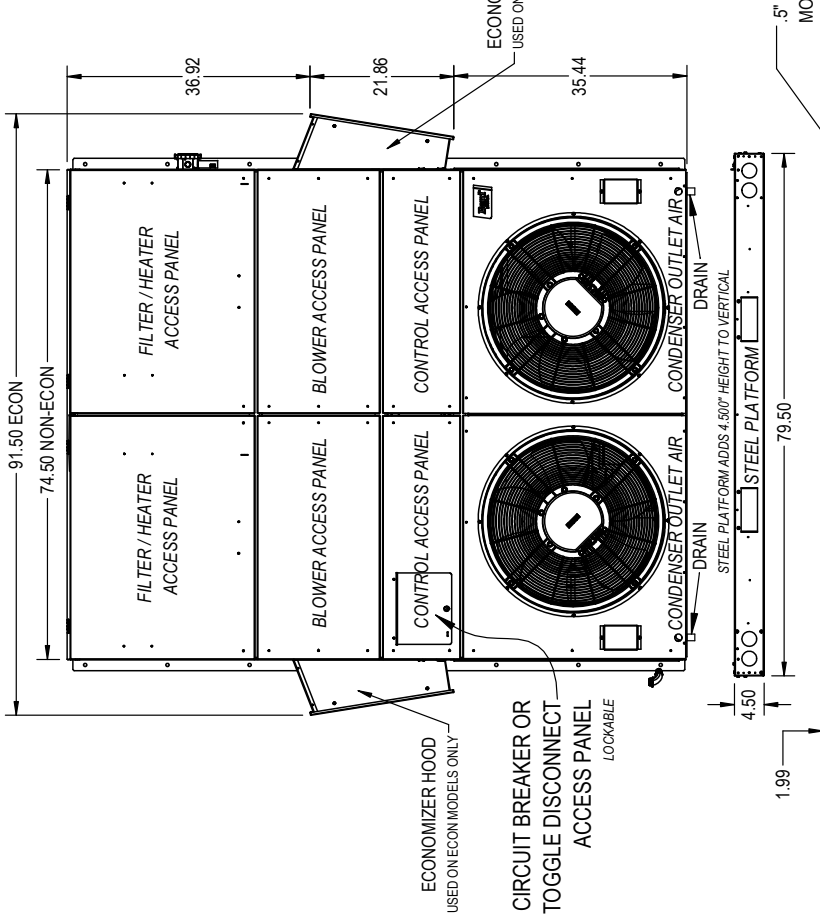
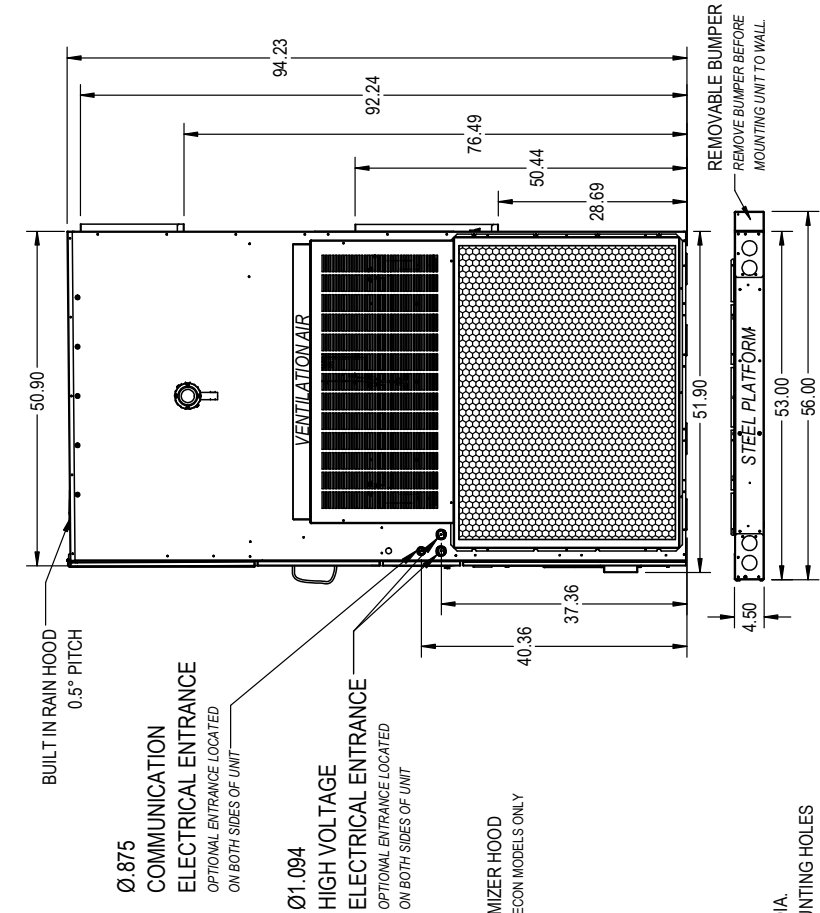
	Cabinet Width (W)	Cabinet Depth (D)	Cabinet Height (H)	Supply Height (A)	Supply Width (B)	Return Height (C)	Return Width (B)	E	F	G	I	K	L	M	N	O	P	R	S	T	U
Inch	50.64	43.19	94.22	15.81	42.74	21.82	42.74	54.24	12.27	34.95	25.98	28.65	23.73	21.48	11.68	52.24	19.48	2.73	16.00	11.49	67.65
cm	128.63	109.70	239.32	40.16	108.56	55.42	108.56	137.77	31.17	88.77	65.99	72.77	60.27	54.56	29.67	132.69	49.48	6.93	40.64	29.18	171.83

Notes: Electrical entrances are located on both sides of unit.
 Side wall mounting brackets use Ø.500 wall mounting holes.
 Top rain flashing ships attached to unit back, be sure to remove flashing before installing unit.
 Top lifting plates ship with unit. See below for lift plate details. Follow all guidelines in installation instructions.



Removable bumper for leaving Steel Platform on unit when mounting unit to the wall. MIS-3945 E

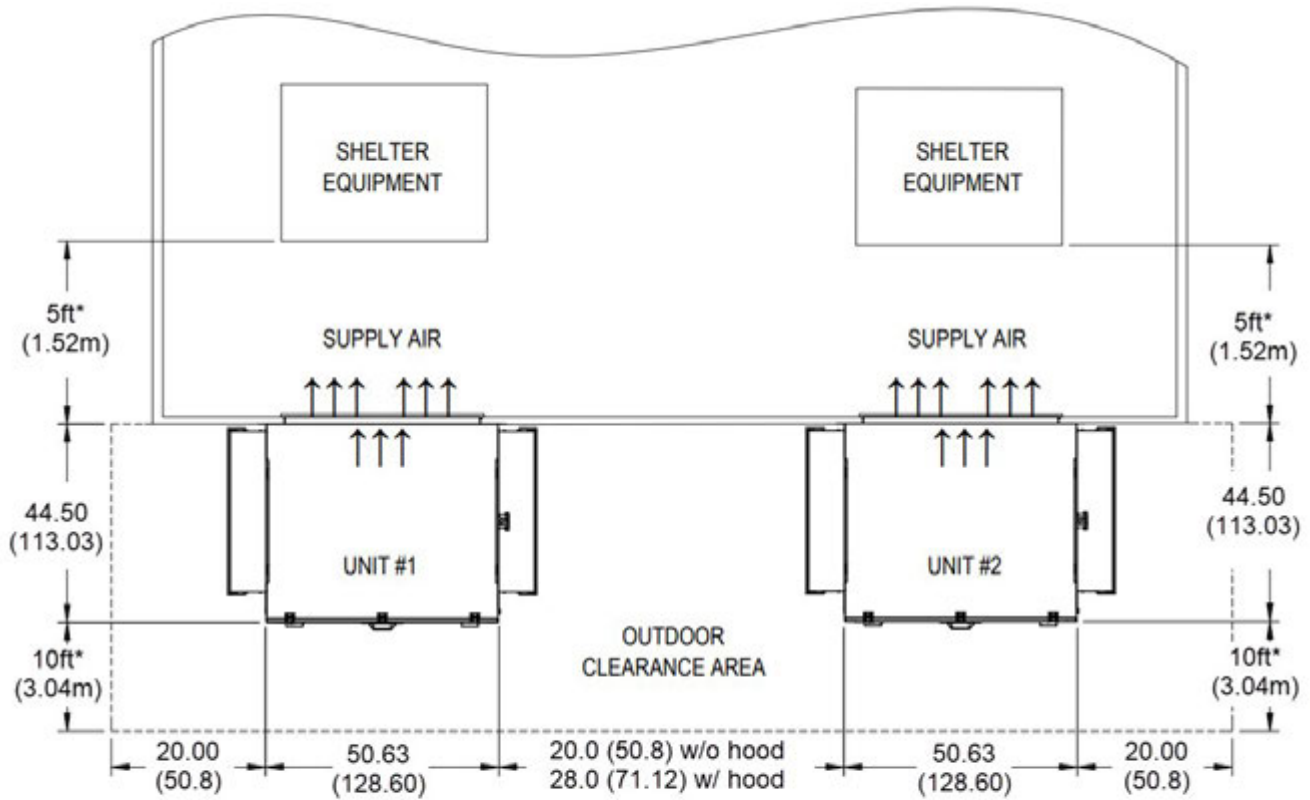




MIS-4123 D



Clearance Dimensions for W090, W120, W150 Units

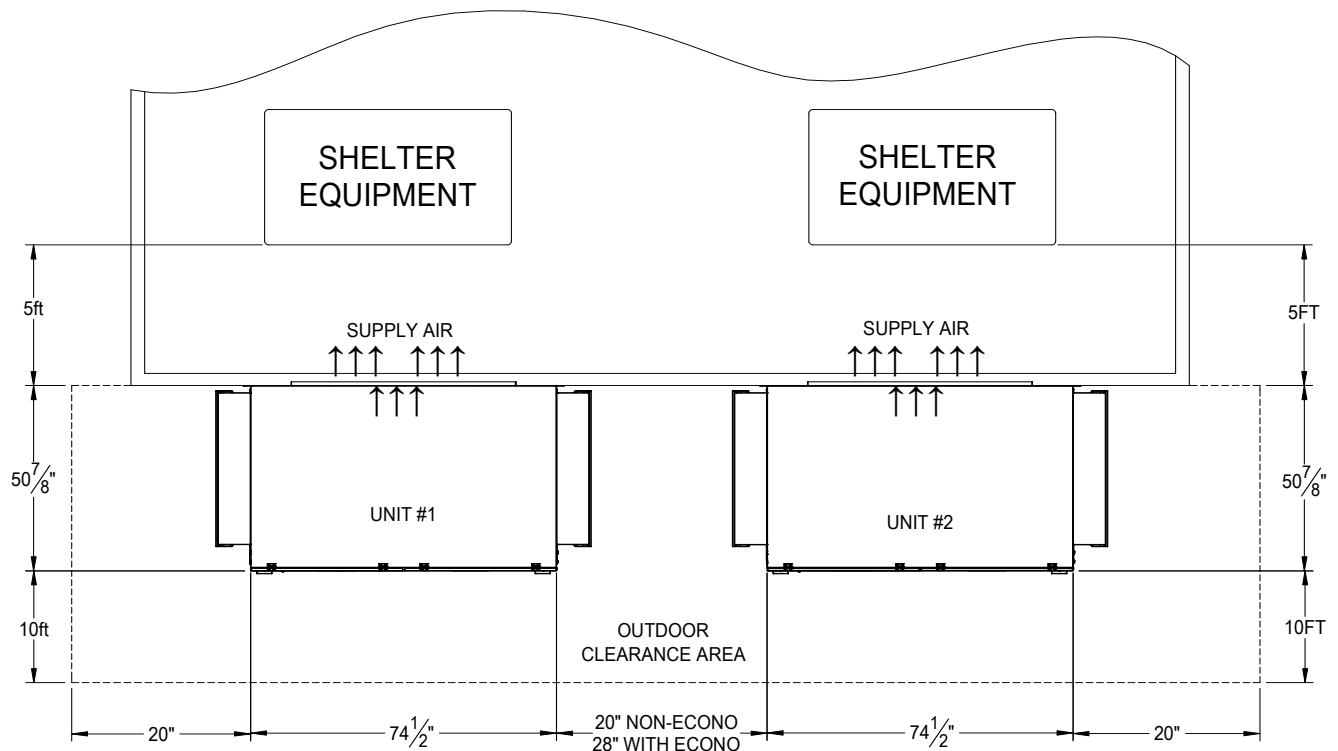


* Recommended distance between return air opening and equipment in room. Supply airstream must be able to provide adequate air circulation throughout the room.

MIS-3962

All national, state and local codes must be observed and followed during installation.

Clearance Dimensions for W180 Units



MIS-4255



////// Factory Supplied Unit Components List

Refrigerant Components	Function	Description
Compressor Refrigeration Left Circuit A	2 Stage compressor	Scroll compressor used for left refrigeration circuit capable of running at 66% or 100% of compressor capacity.
Compressor Refrigeration Right Circuit B	1 Stage compressor	Scroll compressor used for right refrigeration circuit capable of running at 100% of compressor capacity.
Crankcase Heater (CCH)	Compressor heating device	The heater is a belly band that is installed around the base of the compressor that applies heat when the refrigeration system is not operational. This heat is meant to prevent refrigerant oil migration when the unit is not running.
Electronic Expansion Valve (EEV)	Electronic Expansion Valve refrigerant metering device	The EEV precisely controls the flow of refrigerant by using programmed logic inside the PLC board. The PLC board monitors low side system pressure and temperature (superheat) to adjust the EEV to best position using over 480 control steps. Electronic Expansion Valves typically outperform standard expansion devices due to the programmable logic used to control refrigerant flow and maintain the designed superheat performance. The top electrical coil is removable and can be replaced without refrigerant removal. During refrigerant system maintenance, the EEV metering device can be opened or closed through the unit software or with an optional manual adjustment tool.
Liquid Pressure Transducer (LPT)	Measure liquid line (high side) pressure	High side pressure is measured in the liquid line between the condenser and the evaporator coil. High side pressure is used by the PLC to monitor and control unit functionality including subcooling and condenser fan speed during elevated outdoor temperatures. By modulating the condenser fan speed based on high side system pressure, outdoor sound levels are reduced. High side system pressure and subcooling can be viewed through the unit or LC6000 software.
Suction Pressure Transducer (SPT)	Measure suction line (low side) pressure	Low side pressure is measured in the suction line between the evaporator coil and compressor. Low side pressure is used by the PLC to monitor and control unit functionality including superheat and condenser fan speed during low outdoor temperatures. By modulating the condenser fan speed based on low side system pressure, compressor cooling can occur during low outdoor temperatures. Low side system pressure and superheat can be viewed through the unit or LC6000 software.
High Pressure Control Switch (HPC)	Refrigerant pressure safety device	The high pressure control provides a means of protecting each individual refrigeration circuit when extremely high system pressures occur. It is a auto-reset device that is connected to the Compressor Control Module.
Temperature Sensors	Function	Description
Supply Air Temperature Sensor (SAT)	Measure air temperature leaving unit	The supply air sensor provides a temperature reading of the supply air leaving the unit. The sensor is a 10K OHM @ 77°F measuring device. It is installed in the return airstream after the evaporator coils.
Return Air Temperature Sensor (RAT)	Measuring air temperature entering unit	The return air sensor provides a temperature reading of the room air entering the unit. The sensor is a 10K OHM @ 77°F measuring device. It is installed in the return airstream behind the return grille.
Mixed Air Temperature Sensor (MAT)	Measure air temperature entering evaporator area	The mixed air sensor provides a temperature reading of the room air entering the unit after it is mixed with outdoor air entering the economizer. The sensor is a 10K OHM @ 77°F measuring device. It is installed in the Evaporator Fan area.
Outdoor Air Temp/Humidity Sensor (OAT) (OAH)	Measure outdoor temperature and humidity	The outdoor sensor measures outdoor temperature and humidity. This information is used for economizer and unit operation. It is located on the upper right side of the unit.
Air Pressure Sensors	Function	Description
Airflow Switch (AFS)	Verify indoor fan operation	The airflow switch measures the pressure differential between the Evaporator Fan inlet and outlet. A signal is sent to the PLC to indicate if the Evaporator Fan is not functioning.
Dirty Filter Switch (DFS)	Indicate indoor filter replacement needed	The switch is adjustable and measures pressure drop across the unit filter surface. When pressure drop is Higher than the switch setting a signal is sent to the PLC to indicate a filter change is necessary. A light is located on the exterior of the unit to indicate filters need to be replaced.



////// **Factory Supplied Unit Components List**

Electrical Components	Function	Description
Programmable Logic Controller (PLC)	Control unit operation and communicate with main controlling device.	Each unit uses a programmable logic board located in the unit control panel to communicate with the LC6000 or other controlling device. By using a 2-wire connection, alarm functionality and unit operational commands are communicated. If communication is lost, the unit is able to provide cooling and heating by using the logic in the unit controller in orphan mode.
Compressor Control Module (CCM)	High system pressure and voltage brownout compressor protection	Each refrigerant circuit uses an individual compressor control module. The compressor control module locks out compressor operation to protect the refrigeration system based on signals from the High pressure switch. It provides diagnostics to indicate when a refrigerant pressure event occurs, and also sends a signal to the PLC. Low incoming voltage protection suspends compressor operation when incoming voltage is too low. Suspending compressor operation avoids reverse scroll operation. The voltage protection feature includes adjustable timing. An adjustable delay on break timer is provided. Delay on make is 2 mins. plus 10% of delay on break setting.
Phase Monitor (PM)	3 phase compressor phasing protection	Compressor protection device for 3 phase units. It monitors incoming power on a call for cooling and will not allow compressor operation if phasing is reversed, lost, or unbalanced. LED indicates phase monitor is on or registers fault code during a call for cooling from the unit PLC.
Compressor Contactor (CC)	Supplies power to compressor during a call for cooling.	The compressor contactor is energized during a call for cooling. When energized, it supplies power to components during the cooling cycle including the compressor. The compressor contactor is designed to carry the Amp load required for compressor operation. It is also rated for the many cycles needed to provide cooling to the conditioned area.
Circuit Breaker (CB)	Provides a means of disconnecting unit power and circuit protection for 200V to 240V units.	Circuit Breakers are provided for all units within a 200V to 240V incoming power range. Circuit Breakers are sized to meet the electrical requirements of the product including electric heater options, and provide a means to disconnect power at the unit. See Electrical Specifications Charts for electrical information. It is important to review and follow all electrical codes that apply to the application, and the electrical information provided in the specifications and installation instructions.
Toggle Disconnect (TD)	Provides a means of disconnecting unit power for 380V to 575V units.	Toggle disconnects are provided for all units within a 380V to 575V incoming power range. The toggle disconnect provides a means to disconnect power at the unit. See Electrical Specifications Charts for electrical information. It is important to review and follow all electrical codes that apply to the application, and the electrical information provided in the specifications and installation instructions.
Indoor and Outdoor Fans	Function	Description
Indoor Fan Motor (IFM)	Provides indoor evaporator airflow	A backwards inclined industrial grade fan assembly is used to supply indoor airflow to the conditioned space. The fan is powered by a direct drive ECM fan motor that communicates with the PLC using Modbus.
Outdoor Fan Motor (OFM)	Provides outdoor condenser airflow	An axial industrial grade fan assembly is used to supply outdoor airflow to the condenser coils. The fan is powered by a direct drive ECM fan motor that communicates with the PLC using Modbus.
Electric Heat Components	Function	Description
Heat Strip (HS)	Provides heat to area being conditioned	A rust resistant wire heating element that provides the listed BTUH amount in the Electric Heat Table. Electric heating elements are shipped with properly sized limit controls and breakers or disconnects. See Electrical Specifications Charts for electrical information.
Heat Contactor (HC)	Supplies power to heat strips during a call for heating.	The heat contactor is energized during a call for heating. When energized, it supplies power to components during the heating cycle including the heat strips. The heat contactor is designed to carry the Amp load required for heating operation. It is also rated for the many cycles needed to provide heating to the conditioned area.



Non-Ducted Supply and Return Grilles

Supply and return louver grilles are of a brushed aluminum or white finish. 2" flange versions are recommended for standard installations to allow grille attachment when large wall openings are present. Grilles are not supplied with the unit, and are ordered separately.

GRILLE NO.	UNITS USING GRILLE	DESCRIPTION OF LOUVER GRILLE	WEIGHT
SG-10W	W090A, W120A, W150A	16" x 43" with 2" Flange 4 way deflection supply grille. Use for standard installations. Brushed Aluminum finish.	6LBS (2.72KG)
RG-10W	W090A, W120A, W150A	22" x 43" with 2" Flange return grille with open egg-crate design. Use for standard installations. Brushed Aluminum finish.	12LBS (5.44KG)
SG-10W-W	W090A, W120A, W150A	16" x 43" with 2" Flange 4 way deflection supply grille. Use for standard installations. White finish.	6LBS (2.72KG)
RG-10W-W	W090A, W120A, W150A	22" x 43" with 2" Flange return grille with open egg-crate design. Use for standard installations. White finish.	12LBS (5.44KG)
SG-15W	W180B	16" x 55" with 2" Flange 4 way deflection supply grille. Use for standard installations. Brushed Aluminum finish.	9LBS (4.08KG)
RG-15W	W180B	22" x 55" with 2" Flange return with open egg-crate design. Use for standard installations. Brushed Aluminum finish.	18LBS (8.16KG)

Non-Ducted Supply Grille Throw Characteristics

SUPPLY GRILLE	AIRFLOW CFM	DEFLECTION	AK FACTOR	TOTAL PRESSURE	MAX. THROW
SG-10W	2682 CFM	0°	3.49	.044" WC	85 ft. (25.9m)
		22.5°	3.35	.049" WC	68 ft. (20.7m)
		45°	3.04	.074" WC	43 ft. (13.1m)
	3129 CFM	0°	3.49	.060" WC	91 ft. (27.7m)
		22.5°	3.35	.067" WC	73 ft. (22.3m)
		45°	3.04	.101" WC	46 ft. (14.0m)
	3576 CFM	0°	3.49	.078" WC	98 ft. (29.9m)
		22.5°	3.35	.087" WC	78 ft. (23.8m)
		45°	3.04	.132" WC	45 ft. (13.7m)
	4470 CFM	0°	3.49	.122" WC	109 ft. (33.2m)
		22.5°	3.35	.136" WC	87 ft. (26.5m)
		45°	3.04	.207" WC	55 ft. (16.76m)
5364 CFM	0°	3.49	.175" WC	120 ft. (36.6m)	
	22.5°	3.35	.196" WC	96 ft. (29.3m)	
	45°	3.04	.298" WC	60 ft. (18.3m)	

SUPPLY GRILLE	AIRFLOW CFM	DEFLECTION	AK FACTOR	TOTAL PRESSURE	MAX. THROW
SG-15W	5,740 CFM	0°	4.48	.122" WC	124 ft. (37.7m)
		22.5°	4.31	.136" WC	99 ft. (30.1m)
		45°	3.9	.207" WC	62 ft. (18.8m)
	6,888 CFM	0°	4.48	.175" WC	137 ft. (41.7m)
		22.5°	4.31	.196" WC	110 ft. (33.5m)
		45°	3.9	.298" WC	69 ft. (21.0m)
	8,036 CFM	0°	4.48	.238" WC	148 ft. (45.1m)
		22.5°	4.31	.267" WC	118 ft. (35.9m)
		45°	3.9	.406" WC	74 ft. (22.5m)
	9,184 CFM	0°	4.48	.288" WC	153 ft. (46.6m)
		22.5°	4.31	.337" WC	123 ft. (37.4m)
		45°	3.9	.474" WC	80 ft. (24.3m)
10,332 CFM	0°	4.48	.366" WC	158 ft. (48.1m)	
	22.5°	4.31	.454" WC	128 ft. (39.0m)	
	45°	3.9	.542" WC	86 ft. (26.2m)	



Controller Overview

The MEGA-TEC® unit has many controls options to choose from. Selection of the right controls option will depend on how many units are being controlled, if remote communication via modbus or webpages is required, and how many alarms are needed to indicate building conditions or unit characteristics.

Here are a few typical MEGA-TEC controller setups:

- The **LC6000** is used to control 1 to 14 units in a building with 1 to 3 different climate zones. Both temperature and humidity are monitored. Each zone can monitor a temperature average using a wall or ceiling mounted sensors and unit return sensors. Multiple dry contact alarms are available from the LC6000 controller. Modbus and webpage remote access is available. Review wiring requirements in LC6000 specification sheet.

- The **PGDx** is used to control 1 unit in a building with 1 climate zone. Both temperature and humidity are monitored with sensors built into the PGDx. A single dry contact alarm is available from the MEGA-TEC to indicate a unit failure. Modbus and webpage remote access are not available. 18ga. to 22ga. connection wire is field supplied.

- The **PGD** is used to control 1 unit in a building with 1 climate zone. Temperature is monitored by the return air sensor in the unit (8620-306), or can use a remote temperature sensor (8620-307). A single dry contact alarm is available from the MEGA-TEC to indicate a unit failure. Modbus and webpage remote access are not available. An RJ11 cable is provided to connect the PGD to the MEGA-TEC and the PGD must be within 20ft. of the unit location.

CONTROLLER	FEATURES									
	# OF UNITS	# OF ZONES	ZONE MONITORING	HI SENSIBLE	BALANCED CLIMATE	ELECTRIC REHEAT	MODBUS	WEBPAGES	LOCAL ALARMS	WIRED ALARMS
LC6000	1 TO 14	1 TO 3	Temperature and Humidity	YES	YES	YES	YES	YES	YES	YES
PGDx	1	1	Temperature and Humidity	YES	YES	YES	NO	NO	YES	NO
PGD	1	1	Temperature Only	NO	NO	NO	NO	NO	YES	NO



LC6000 Multi-Unit Multi-Zone Temperature and Humidity Controller

The LC6000 controller allows for control of up to 14 units with 3 zones of operation. Special features including emergency vent, continuous ventilation, generator monitoring, and emergency off are standard features. Alarming, remote monitoring, and Modbus control give the technician piece of mind that units are operating efficiently and the air is conditioned inside the building.

Features of the LC6000:

- Temperature and humidity control of 1 to 3 zones.
- Controls 1 to 14 units.
- Webpages for remote system monitoring.
- Modbus remote alarming, monitoring, and control functionality.
- Wired alarming to a NOC or remote monitoring system.
- Comfort mode allows for temporary temperature settings while technicians are in the building.
- Emergency ventilation, emergency cooling, and emergency off features.

PART NUMBER	PART NAME	DESCRIPTION
LC6000	Multi-unit Controller	The LC6000 controller includes (2) EMI filters part #8301-055, (1) remote temperature and humidity sensor part #8403-079 with 35' of 18ga. 5-wire shielded cable with drain, and (1) TEC-EYE™ service tool with 5ft communication cable part #8301-059. Multiple zone operation will require purchase of a remote sensor for each zone that will be connected to the LC6000.



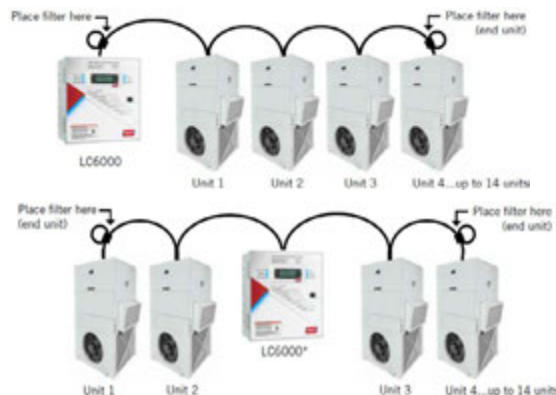
LC6000 Controller Optional Accessories

PART NUMBER	PART NAME	DESCRIPTION
8403-079	Zone Temperature/Humidity Sensor	A temperature/humidity sensor is required for each zone of operation. (1) temperature/humidity sensor is included with the LC6000. The remote temperature/humidity sensor requires 18ga. 5-wire shielded cable with drain.
8301-058	Zone Temperature Sensor	An additional temperature sensor is optional for zone 1 temperature monitoring. Remote temperature sensors may be used in zones 2 and 3 instead of remote temperature/humidity sensors if humidity monitoring is not required in the zone. The remote temperature sensor is sold separately and requires 18ga. 2-wire shielded cable with drain.
8301-059	TEC-EYE™ Service Tool	The TEC-EYE™ service tool with 5 ft. communication cable is used to access software functions in the unit PLC board. The TEC-EYE™ is required for unit setup. (1) TEC-EYE™ service tool with 5 ft. communication cable is included with the LC6000 controller.
8301-053	Large Backlit Service Tool	The large backlit service tool is used to access software functions in the unit PLC board. Operation of the service tool is identical to the TEC-EYE™, but provides a large display area (2.8"x1.4") and mechanical entry keys. The large backlit service tool is sold separately.
8301-055	EMI Ferrite Filter	(1) EMI Ferrite filter is required on each end of the daisy chain connection between the units and the LC6000 controller. (2) EMI Ferrite filters are included with the LC6000 controller.
2151-021	EEV manual adjustment tool	The EEV manual adjustment tool allows for adjustment of the EEV (Electronic Expansion Valve) without the use of the unit logic board. The service technician can use this tool by removing the electronic head of the valve and attaching the adjustment tool. The tool houses magnets that interact with the valve to open or close the EEV for charging or evacuating the system without system power. The EEV manual adjustment tool is sold separately.

LC6000 Daisy Chain Connection to Units

The MEGA-TEC® uses Modbus control to communicate between the logic board in the units and the logic board in the LC6000. Units and controller are connected using a shielded 2-wire daisy chain connection with a drain. Wires are polarity sensitive. The drain is connected to the LC6000 terminal block.

The LC6000 can be connected anywhere in the daisy chain. EMI line filters are used on the ends of the daisy chain. Only (2) EMI filters are required for the daisy chain, and are supplied with the LC6000 controller.



LC6000 Wired Inputs for Site Equipment

FEATURE	DESCRIPTION
Emergency Off Input	Wired NO/NC* contact inputs are provided for connection to field supplied equipment. During an emergency off input event, a Modbus command to shut off unit operation is sent to units connected and communicating through the daisy chain. A emergency off event can be monitored remotely through a wired output and Ethernet connection. It is important to follow all guidelines, codes, and requirements of smoke/fire suppression systems including the need to break power to the unit and close economizer dampers within a certain time period. Additional relays, wiring, or field supplied accessories may need to be added to the units and equipment to achieve all requirements for the use of a smoke/fire suppression system.
Emergency Vent Input	Wired NO/NC* contact inputs are provided for connection to field supplied equipment. During an emergency vent input event, a Modbus command to open all unit economizer dampers is sent to units connected and communicating through the daisy chain. A emergency vent event can be monitored remotely through a wired output and Ethernet connection. It is important to follow all guidelines, codes, and requirements of hydrogen monitoring systems including the use of a separate ventilation fan system when necessary.
Generator Run Input	Wired NO/NC* contact inputs are provided for connection to a field supplied generator. During an generator input event, a Modbus command to limit the number of units that can be operated is sent to units connected and communicating through the daisy chain. A generator event can be monitored remotely through a wired output and Ethernet connection. It is important to set the limitation of how many units can run during a generator event when using the generator run input (defaults to 0 units). Individual unit operation is selectable for a generator event.

//////// LC6000 Wired Alarm Outputs

FEATURE	DESCRIPTION
Emergency Off Alarm	Wired NO*/NC contact outputs are provided. During an emergency off input event, an alarm is sent to the contact output.
Emergency Vent Alarm	Wired NO*/NC contact outputs are provided. During an emergency vent input event, an alarm is sent to the contact output.
Generator Run Alarm	Wired NO*/NC contact outputs are provided. During a generator run input event, an alarm is sent to the contact output.
Bard Guard Alarm	Not Used with the MEGA-TEC products.
Indoor Humidity Alarm	Wired NO*/NC contact outputs are provided. During a high humidity event where humidity levels have exceeded the maximum humidity alarm setting in any zone of operation, an alarm is sent to the contact output. The default low humidity alarm setting is 20%. The default High humidity alarm setting is 85%.
High Indoor Temperature Alarm	Wired NO*/NC contact outputs are provided. During a high temperature event where indoor temperature has exceeded the High temperature alarm setting in any zone of operation, an alarm is sent to the contact output. The high temperature 2 alarm is set to 90°F by default.
Low Indoor Temperature Alarm	Wired NO*/NC contact outputs are provided. During a low temperature event where indoor temperature is below the low temperature alarm setting in any zone of operation, an alarm is sent to the contact output. The low temperature alarm is set to 45°F by default.
Zone 1 Unit Alarm	Wired NO*/NC contact outputs are provided. This feature allows the user to configure what unit alarm conditions are going to be sent to the alarm contacts for Zone 1. A zone unit alarm can contain any of the following unit alarms: Blower Failure, Dirty Condenser Coil, Economizer Dust Alarm, Economizer Fail, EEV Failure, Dirty Filter Alarm, Freezestat Active, High Refrigerant Pressure, Low Refrigerant Pressure, Return Air High/Low Alarm, Sensor Fail Alarm, Supply Air High/Low Alarm, and Unit Power Loss Alarm. The default configuration is to alarm on a unit high or low pressure event.
Zone 2 Unit Alarm	Wired NO*/NC contact outputs are provided. This feature allows the user to configure what unit alarm conditions are going to be sent to the alarm contacts for Zone 2. A zone unit alarm can contain any of the following unit alarms: Blower Failure, Dirty Condenser Coil, Economizer Dust Alarm, Economizer Fail, EEV Failure, Dirty Filter Alarm, Freezestat Active, High Refrigerant Pressure, Low Refrigerant Pressure, Return Air High/Low Alarm, Sensor Fail Alarm, Supply Air High/Low Alarm, and Unit Power Loss Alarm. The default configuration is to alarm on a unit high or low pressure event.
Zone 3 Unit Alarm	Wired NO*/NC contact outputs are provided. This feature allows the user to configure what unit alarm conditions are going to be sent to the alarm contacts for Zone 3. A zone unit alarm can contain any of the following unit alarms: Blower Failure, Dirty Condenser Coil, Economizer Dust Alarm, Economizer Fail, EEV Failure, Dirty Filter Alarm, Freezestat Active, High Refrigerant Pressure, Low Refrigerant Pressure, Return Air High/Low Alarm, Sensor Fail Alarm, Supply Air High/Low Alarm, and Unit Power Loss Alarm. The default configuration is to alarm on a unit high or low pressure event.

//////// LC6000 Remote Connectivity Options

FEATURE	DESCRIPTION
Ethernet Connection	Ethernet access to all connected equipment is available through the LC6000 controller. A integrated Ethernet port is located on the programmable logic board located inside the LC6000. When connected to a network, the connection allows for remote monitoring using software from a remote location. The Ethernet connection uses Internet Protocol Version 4 (IPV4). When using the Ethernet connection, it is important for the user to provide appropriate Ethernet network security measures.
Modbus Remote Access	By using the ethernet connection, the controller will respond to Modbus commands allowing access to set points, alarms, temperature measurements and humidity measurements for each zone. The measurement units (English/Metric) retrieved during communication are determined by the controller unit of measure setting. This is configured on-site and cannot be changed remotely. For more information about setting measurement units, please refer to the latest version of the 2100-669 LC6000 Service Instructions manual. Modbus addressing instructions and register points are available in the latest version of the Modbus Supplemental Manual 7960-791.
Webpage Remote Access	Webpages allow controller access with a computer using a standard web browser. The web browser graphical interface provides a visual look at unit operation, viewing and adjustment of zone indoor conditions, alarm events, data trending, and a virtual interface of the display/buttons used on the LC6000 controller. By using the Ethernet connection, the controller can be accessed through webpages.
Optional BACnet and SNMP Gateway Kit Bard part #8620-350	The Optional BACnet/SNMP gateway kit contains the DIN rail mounted gateway with both RS485 connections and an ethernet port along with a wire harness to connect power from the LC6000 to the gateway. Once installed, the gateway is inside the LC6000 enclosure. See installation instructions 7960-791 for features and installation procedures.



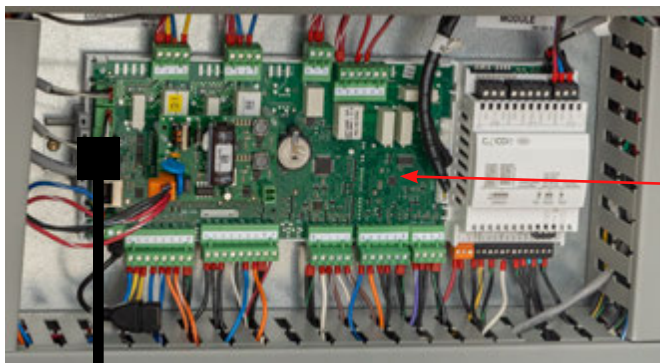
MEGA-TEC Unit with TEC-EYE Interface

Main TEC-EYE Interface and Display When Connected to Unit

The TEC-EYE service tool is used to interface with the unit PLC board. When connected, it provides unit information along with a way to set the unit up for operation with the LC6000, PGDx, or PGD unit controller.

One TEC-EYE tool is supplied with both the LC6000 and the PGDx controller. The PGD controller displays the same information as the TEC-EYE and uses the RJ11 connection. The optional large display service tool Bard part #8301-059 provides a larger display and larger non-membrane keypad buttons for easier data entry and is recommended for setting up larger quantities of units.

Unit Control Panel



MEGA-TEC Unit PLC Board

The unit PLC board is located inside the unit control panel area.

Connection Cable

Cable with RJ11 connectors on each end that plugs into the port located on the PLC board and into the back of the TEC-EYE tool.

TEC-EYE Service and Setup Tool



Alarms Key

Push button to view any alarms currently stored in the unit software.

Configuration Menu Key

Push button to enter configuration and setup menus.

Back/Escape Key

Push button to backup in menu or escape to main display screen.

Up Key

Push button to move up in the menu structure.

Enter Key

Push button to select or confirm choices in the menu structure.

Down Key

Push button to move down in the menu structure.

Date and Time

Displays the date and time that is set up by the user in the settings configuration menu or provided by the LC6000.

Return Air Temperature

Displays the temperature of the return airstream entering the unit.

Unit Status

Displays the unit mode of operation occurring currently.

Unit Address

Shows the unit address of the unit. With multiple units, each one is given a number (address) that will be referenced by the LC6000 lead/lag controller.

Outdoor Temperature

Displays the unit outdoor temperature sensor reading.

Main Screen Display Options

Used to review unit operation and stand alone temperature settings.

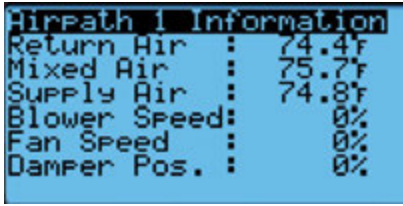
TEC-EYE Main Display Screen





TEC-EYE Main Screen Informational Menu

The information screen provides various information regarding unit operation for the unit. To access the information screen, the technician will press the up/down arrows on the main screen, then Enter at the "i" displayed in the lower right corner.



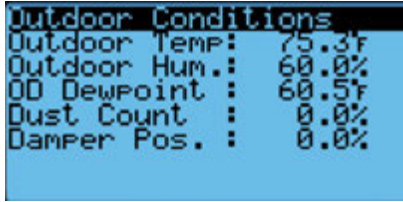
Airpath 1

This screen provides data on the left side unit airpath including air temperatures, indoor fan speed, outdoor fan speed and economizer damper position.



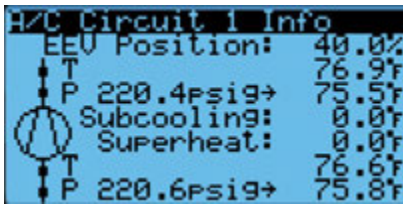
Airpath 2

This screen provides data on the right side unit airpath including air temperatures, indoor fan speed, outdoor fan speed and economizer damper position.



Outdoor Conditions

This screen provides information on outdoor conditions based on readings from the outdoor sensor mounter to the right side of the unit.



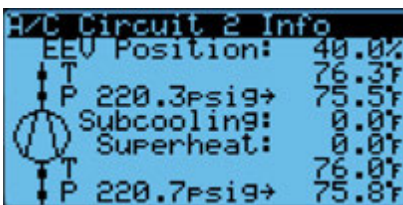
A/C Circuit 1 Info

This screen provides information on the left side unit refrigeration system including superheat, subcooling, and system pressures.



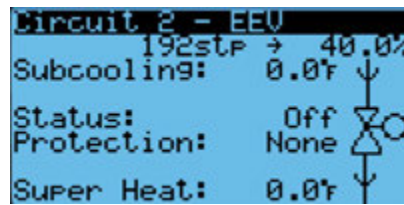
Circuit 1 EEV

This screen provides information on the left side EEV including step position.



A/C Circuit 2 Info

This screen provides information on the right side unit refrigeration system including superheat, subcooling, and system pressures.



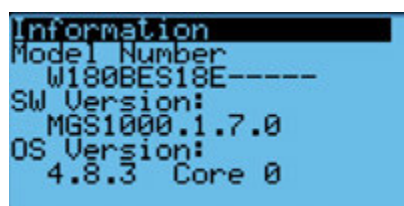
Circuit 2 EEV

This screen provides information on the right side EEV including step position.



Last 24 Hour Tracking

This screen provides unit run information for the past 24 hours. Information includes runtime for heating and cooling stages along with economizer free cooling.



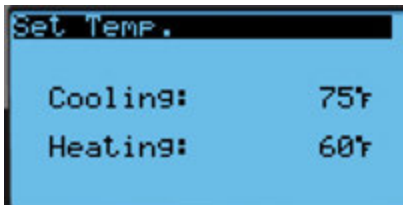
Information

This screen reflects the unit model number, software version, and operating system version being used.



TEC-EYE Main Setpoint Menu

The setpoint screen allows for a temperature setpoint to be adjusted and used without using the LC6000 or PGDx controller. When the MEGA-TEC unit is connected to the LC6000 or PGDx, the temperature setpoints in the controller will override the setpoints in the unit setpoint menu. If the PGD is used, these will be the setpoints for unit operation.



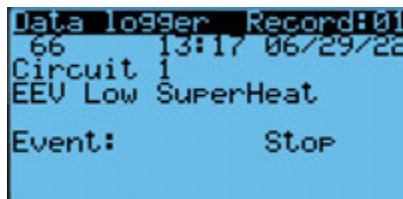
Set Temp.

A cooling and heating setpoint can be entered in this menu. Once entered, the unit will operate using the setpoints based on the return air temperature sensor. When a LC6000 or PGDx is connected to the MEGA-TEC unit, these settings will no longer apply. If the MEGA-TEC loses communication with the LC6000 or PGDx, the last setpoints recieved from the controller will be used when running in orphan mode until communication with the controller is restored.



Data Log Menu

The data event log screen records and displays any active or recorded alarms or events that have occurred since the alarms were cleared.

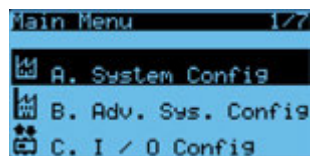


Data Logger

Data logger events are displayed including a date and time stamp. A brief description describes the event. Start indicates when the event started, and an indicator also will show when the event stopped. To clear events, go into the alarm log screen by pressing the triangle with exclamation mark symbol in the upper left corner of the TEC-EYE and follow the directions provided on the screen.



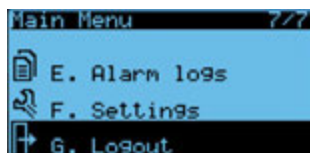
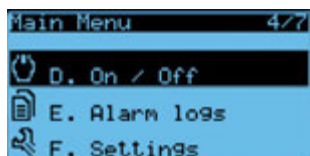
TEC-EYE Configuration Menu Features



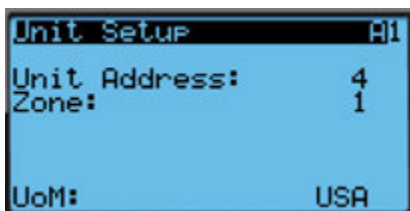
TEC-EYE Configuration Menu

The configuration menu is where certain functions and features of the MEGA-TEC can be accessed and set up for use. Accessing these features requires a password, and the menu structure consists of the following:

- *System Configuration:* This menu provides the standard setup features of the unit, and must be reviewed during unit installation. See below for full list of options.
- *Advanced System Configuration:* This menu provides advanced settings that are not normally required for standard unit operation. See below for full list of options.
- *I/O Configuration:* I/O configuration is not normally required for standard unit setup.
- *ON/OFF:* Allows the unit operation to be disabled using the TEC-EYE.
- *Alarm Logs:* Shows a full list of alarms logged. Clearing the alarm logs will remove the alarms that are not currently active.
- *Settings:* Date/Time, Passwords, and initialization (factory reset) are all commands available from the settings menu. Daylight savings time zone configuration, passwords for USER, SERVICE, and MANUFACTURER can all be setup from the settings menu.
- *Log Out:* Logs out the current user and requires password for entry into the configuration menu.



System Configuration Menu



Unit Setup

Each unit when used with the LC6000 is assigned a different address (1-14) and a zone (1-3). Units of measure can be selected (USA, SI, Lon, CAN, UK).



Economizer Setup

Allows setup of economizer features (none, temp/hum, enthalpy, dry bulb) and setpoints. **Economizer settings in the LC6000 will override these settings when connected.**



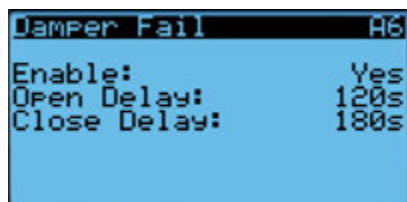
Dust Configuration

Used to enable/disable dust alarm, adjust when the alarm will disable the economizer and for how long it will be disabled.



Return Air Alarm

This feature will allow the software to send an alarm when the return air temperature is outside the upper and lower limit.



Damper Fail

This feature will allow the software to send an alarm when one of the economizer damper switches indicates the dampers have failed to closed.



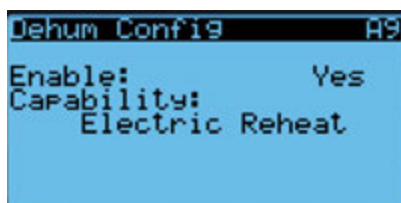
Freeze Alarm

This feature will allow the software to send an alarm when the supply air temperature is below the lower limit.



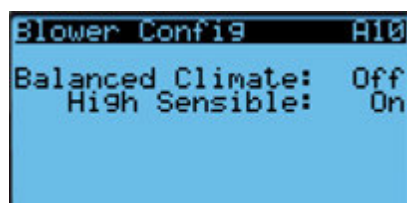
Mixed Air Alarm

This feature will allow the software to send an alarm when the return air temperature is outside the upper and lower differential when using the economizer.



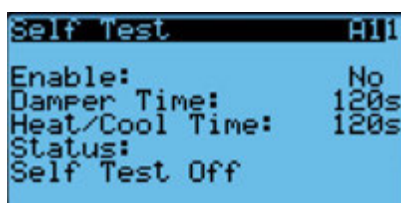
Dehum Config

This feature will allow the user to enable or disable electric reheat if the unit is equipped (capability) with the optional feature.



Blower Config

This menu allows the user to enable Balanced Climate mode (enhanced moisture removal) and High Sensible (increased sensible cooling capacity). **Balanced Climate is off by default.**

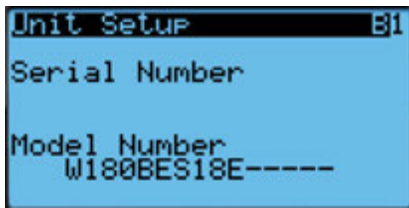


Self Test

This feature will allow the user to verify indoor/outdoor fan, compressor, ventilation, and electric heat operation.



Advanced System Configuration Menu



Unit Setup
Provides the model and serial number of the unit. This will be pre-set from the factory to match the unit.



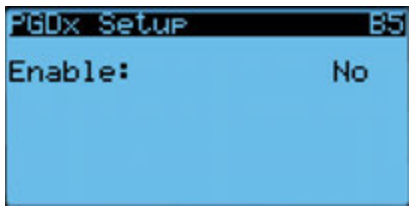
Compressor Safety Settings
Adjusts minimum run time and off time between cooling cycles. This command is used to avoid compressor short cycling, and for standard operation no adjustment is required.



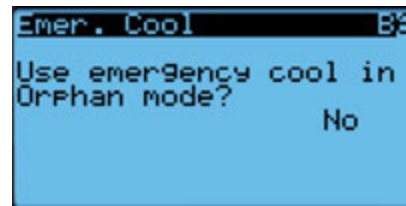
Cooling Staging
Adjusts cooling staging temperature differentials for single unit operation. If unit is connected to the LC6000, these settings will not be used.



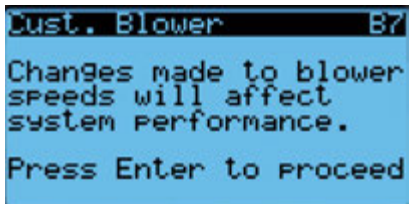
Heating Staging
Adjusts heating staging temperature differentials for single unit operation. If unit is connected to the LC6000, these settings will not be used.



PGDx Setup
This command must be enabled if the PGDx single unit controller is used.



Emergency Cool
Allows emergency cooling (open ventilation to 100%) to operate if a return air alarm is active and the unit is disconnected from the LC6000.

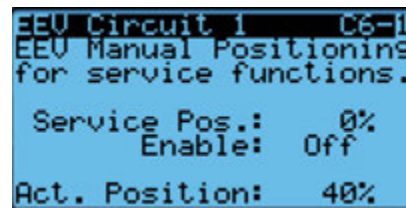


Custom Blower Speeds
This feature will allow manual adjustment of the unit indoor airflow for cooling and economizer operation. See unit manual for additional details.

I/O Configuration Menu



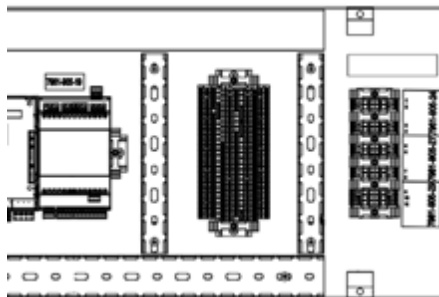
Digital Inputs
Unit disable can be enabled through the I/O input menu and contacts can be either normally open (NO) or normally closed (NC).



Manual EEV Adjustment
Both Electronic Expansion Valves can be opened manually in case service work on the refrigeration circuit is necessary.

Unit Field Communication Connections in MEGA-TEC Control Panel

The MEGA-TEC unit control panel provides field connections for communication between units and the LC6000 controller using Modbus. There are also Connections for auxiliary options including the PGDx and unit fail alarm contacts for wired alarming in case of a refrigeration event disabling unit operation.



Terminal	Description
1	+ Connection for Unit Daisy Chain Modbus
2	- Connection for Unit Daisy Chain Modbus
3	Auxiliary R+/T+ Communication Wire
4	Auxiliary R-/T- Communication Wire
5	Unit Disable Dry Contacts (enabled in I/O Config)
6	Unit Disable Dry Contacts (enabled in I/O Config)
7	Unit Fail Alarm Contacts, Normally Closed (NC)
8	Unit Fail Alarm Contacts, Common (COM)
9	Unit Fail Alarm Contacts, Normally Open (NO)
10	Auxiliary Unit Display Power +24VAC (HOT)
11	Auxiliary Unit Display Power -24VAC (COM)



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Due to our continuous product improvement policy, all specifications subject to change without notice.

