

SUBMITTAL DATA SHEET

Coolerado M50 Air Conditioner



JOB NAME:			LOCATION:	
PURCHASER:			ORDER NO:	
ENGINEER:				
SUBMITTED TO:	FOR:	REF:	APPROVAL:	CONSTRUCTION:
SUBMITTED BY:			DATE:	
UNIT DESIGNATION:		SCHEDULE NO:	MODEL NO:	

Cooling Performance

Outdoor Design Temperature . . . _____ °F DB/WB
Elevation Above Sea Level _____ FT
Intake Air External Static Pressure _____ IWG
Intake Air Flow _____ CFM
Conditioned Air Ext. Static Pressure . . . _____ IWG
Total Conditioned Air @ Full Speed . . . _____ CFM
Conditioned Air Temperature (+/- 2) . . . _____ °F DB
Conditioned Air Added Humidity NONE °F DP
Working Air External Static Pressure . . _____ IWG
Working Air Flow _____ CFM

Electrical Data

Power Input Requirement _____ W
Power Supply . . _____ HZ _____ Phase _____ V
Total Unit Ampacity _____ AMPS
Max. Overcurrent Device . Fuse Breaker _____ AMPS

Total Unit Weight

Dry (shipping) Weight 290 LBS
Operating Weight 340 LBS

Water

Source Municipal Well _____ Other
Water Quality _____ Total Alkalinity
Drain. . Sanitary Storm Landscape _____ Other
Wtr Cntrl Assmby Location . Mech Rm _____ Other

Configuration

_____ Indoor _____ Outdoor
Working Air Connections . . . L Side R Side Top
Conditioned Air Connection (end only) . _____ Size
Multiple Units . . _____ Quantity _____ Configuration

Factory Options

- 200-280V, 50-60Hz, 750W max., 3.8Amp, EC Motor
- Variable Speed Thermostat (low voltage, 4 conductors)
- 120V Motor, 60Hz, 1,250W, 10.5Amp, Single Speed
- Insulated Product Air Plenum
- Working Air Louver(s) - Cut Into Side Panel(s) 1 . . 2
- Outdoor Air Intake Rain Hood

Other Options (contact distributor)

- Single Speed Thermostat
- Working Air Balancing Damper
- Pressure Relief Damper (flat to 45°) (fully open at 0.2 IWG)
- Barometric Damper (45° to vertical) (fully open at 0.2 IWG)
- Intake Air Roof Ventilator Hood (24" diameter)
- Working Air Roof Ventilator Hood (18" diameter)
- Roof Hood Extension Kit
- Flat Roof Curb
- Spare Air Filters
- Freeze Sensor and Automatic Drain Kit
- Water Overflow Catch Pan
- Un-dissolved Solids Filtration (5 micron, 9" cartridge filter)

Standard Features

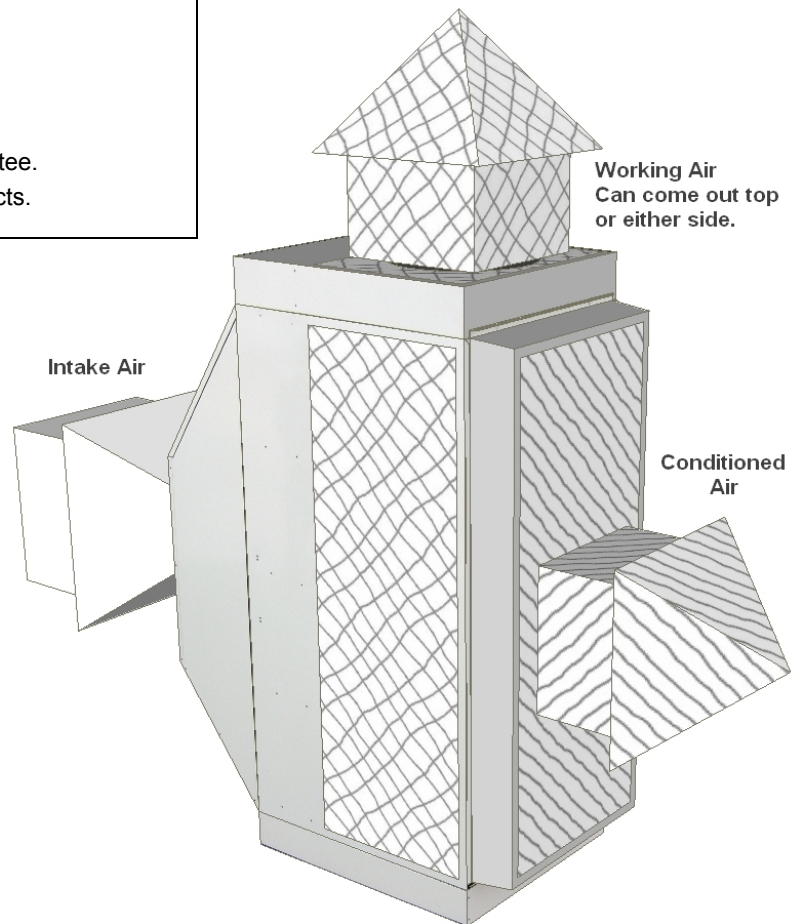
- 5 year limited warranty.
- EER 40+ (Energy Efficiency Ratio)
- Cooling capacity increases as ambient temperature increases.
- Easy maintenance, simple winterization.
- Low water use – water control assembly with pressure gauge included.
- New, patented thermodynamic cycle.
- 304 stainless steel frame, with an ABS plastic drain pan.
- Electro-galvanized and powder coated steel housing.
- All electrical and water connections on front, fan side.
- Zero side clearance – modular, multiple unit configurations.
- Easy to connect power/control wiring.
- Integrated control module for reliable, economical operation.
- Patented, high technology, polypropylene heat and mass exchanger.
- Biocide integrated into poly mass exchange fibers.
- Removable panels - greater durability, ease of access.
- No chemical refrigerants or ozone depleting chemicals.
- No humidity added or removed.
- Fresh, outside air for better indoor air quality (IAQ).
- Filtered air with reduced dust, pollens and allergens.
- Uses standard size 1" or 2" thick air filters.
- Tapered intake air plenum for fan efficiency and even air distribution.
- Starting collar molded into fan intake venturi for easy duct connection.
- Product air plenum provided – accommodates most any size, shape, duct.
- Pre-cut 18 inch diameter top side working air hole for quick installation.
- Compact, easy to install, small footprint cabinet.
- Unit breaks down into 3 sections.
- High efficient, electronically commutated motor (ECM).
- Optional auto-variable speed thermostat available.
- Top 100 products of 2004 as selected by R&D 100 committee.
- GreenSpec® Listed as 2006 Top 10 Green Building Products.

External Static Pressure (Inches H2O)	Full Speed Product Air Flow (CFM)	Product Air Wet Bulb Approach	Product Approx. Wet Bulb Plus T	Working Air Flow (CFM)
0.0	1,450	94%	2	1,180
0.1	1,380	95%	2	1,130
0.2	1,310	96%	1	1,070
0.3	1,240	98%	1	1,020
0.4	1,160	100%	0	970
0.5	1,090	103%	-1	910
0.6	1,020	107%	-2	860
0.7	950	110%	-3	800
0.8	880	113%	-4	750
0.9	810	117%	-5	700
1.0	740	120%	-6	640

Example: Design 98 DB / 62 WB, 0.1" ext. static, 98 - 62 = 36, 36 * 0.95 = 34.2, 98 - 34.2 = 63.8 °F
Product Air Temperature ≈ Design WB + 2 = 64 °F

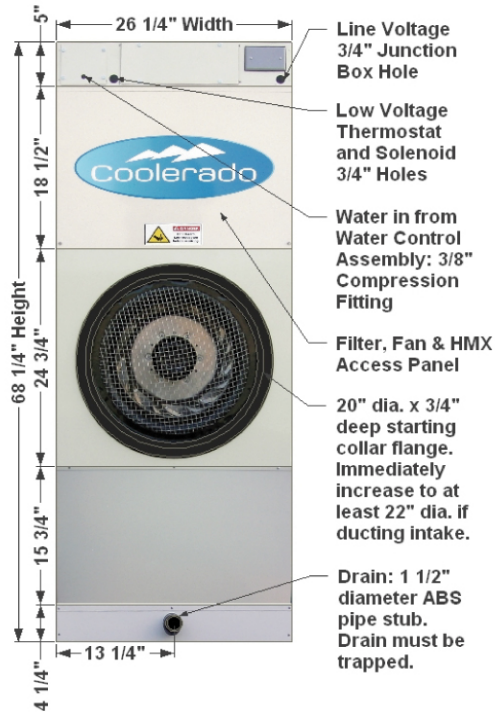


Auto-Variable Speed Thermostat
Surface Mounted – 3.5" W x 5" H x 1 1/4" D
Requires 4 Low Voltage Conductors

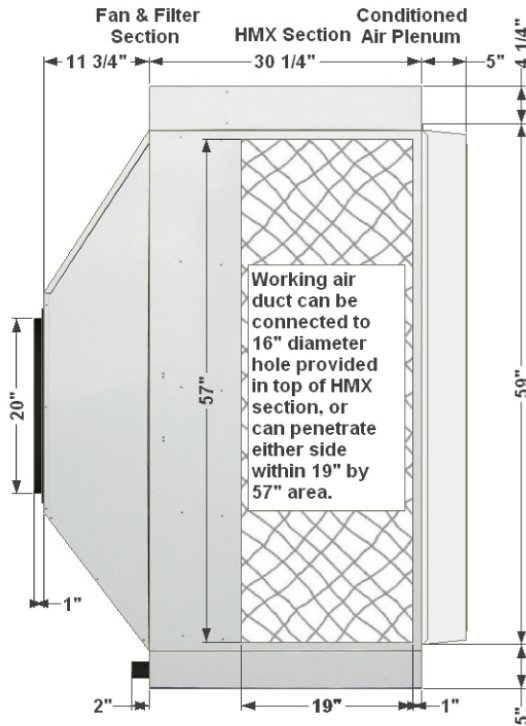


Minimum Clearances: Sides: 0" Air Intake (fan) Side: 24"
Conditioned Air Plenum Side: 12" Top: 0"

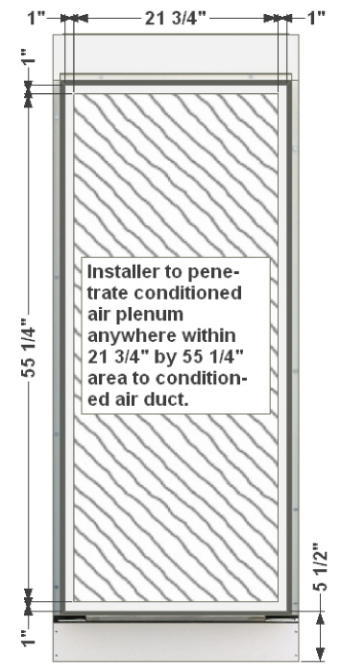
Coolerado M50



Fan Side View



Right Side View

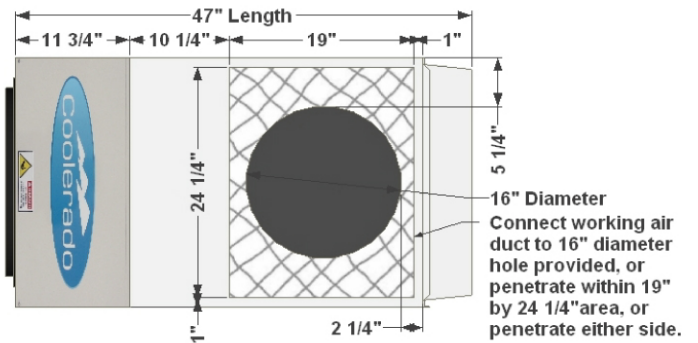


Conditioned Air Plenum

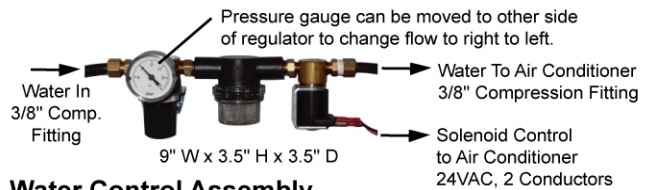


Left Side View

Note: Working air is saturated and water will collect in duct connected to working air section. Slope duct to drain back into air conditioner, or to appropriate outside location. Avoid low spots in working air ducts.



Top View



Water Control Assembly

Mount in mechanical room to prevent freeze damage.



2 M50s



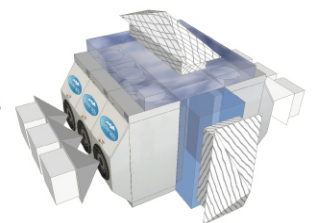
Multiple M50s



M50 Mirrored Array



Duct Possibility



Flow Possibility