COOLERADO SUBMITTAL: 1B

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 . . . _____ºF 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) . . . _____ ºF DB

Conditioned Air Added Humidity . . . . . __NONE__ ºF 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 Assmbly 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 45º) (fully open at 0.2 IWG) . . . . . □

Barometric Damper (45º 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 . . . . . □

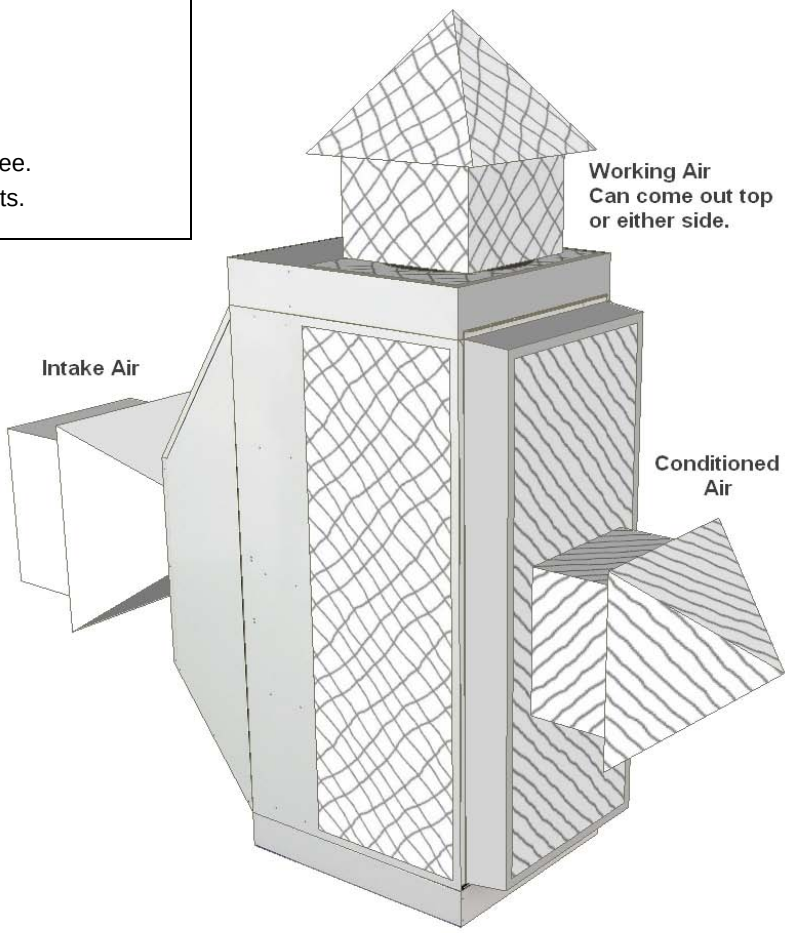
Un-dissolved Solids Filtration (5 micron, 9” cartridge filter) . . . . . □

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.

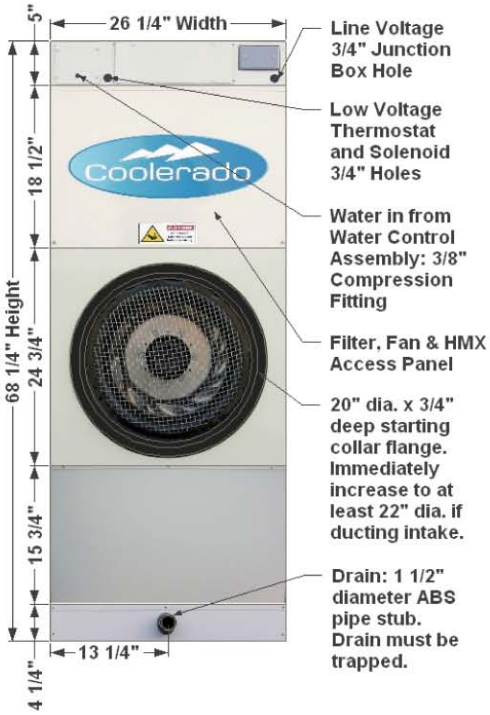
Coolerado M50 Fan and Performance Table				
External Static Pressure (Inches H2O)	Full Speed Product Air Flow (CFM)	Product Air Wet Bulb Approach	Product Approx. Wet Bulb Plus T	Working Air Flow (CFM)
0.0	1,450	94%	2	1,180
0.1	1,380	95%	2	1,130
0.2	1,310	96%	1	1,070
0.3	1,240	98%	1	1,020
0.4	1,160	100%	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 ºF Product Air Temperature ≈ Design WB + 2 = 64 ºF				

Auto-Variable Speed Thermostat
Surface Mounted – 3.5" W x 5" H x 1¼" D
Requires 4 Low Voltage Conductors

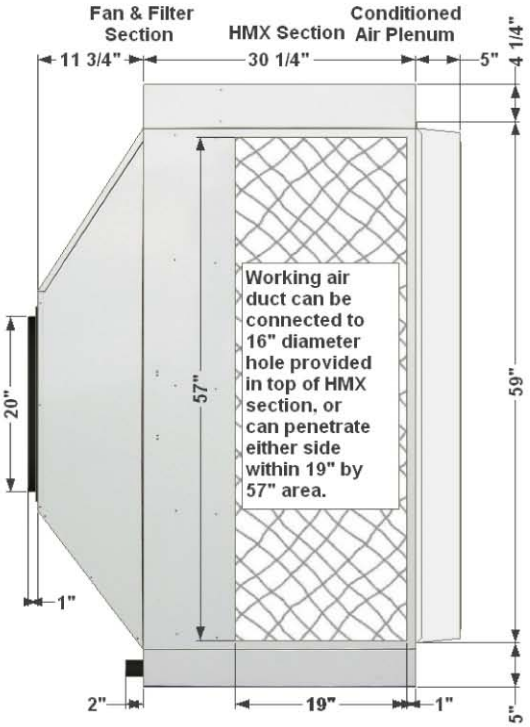


Minimum Clearances: Sides: 0" Air Intake (fan) Side: 24"
Conditioned Air Plenum Side: 12" Top: 0"

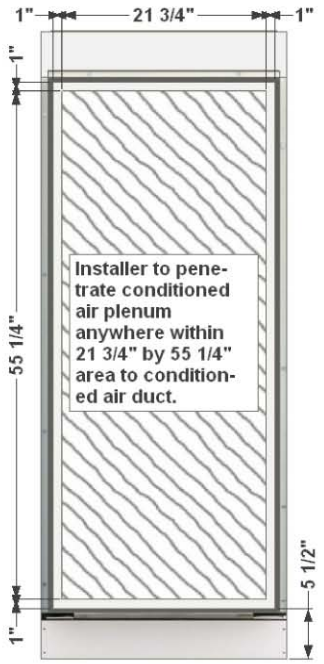
Coolerado M50



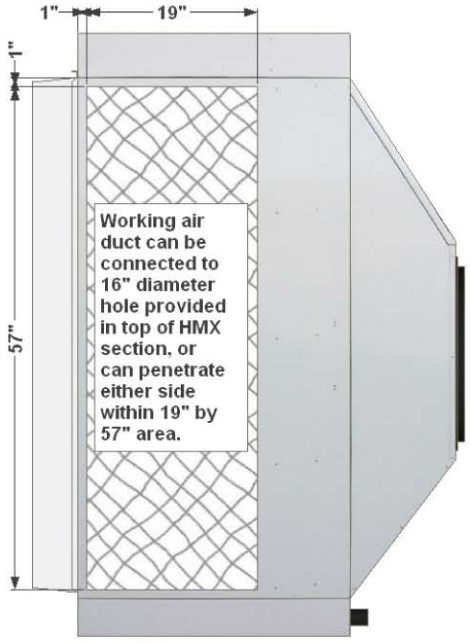
Fan Side View



Right Side View

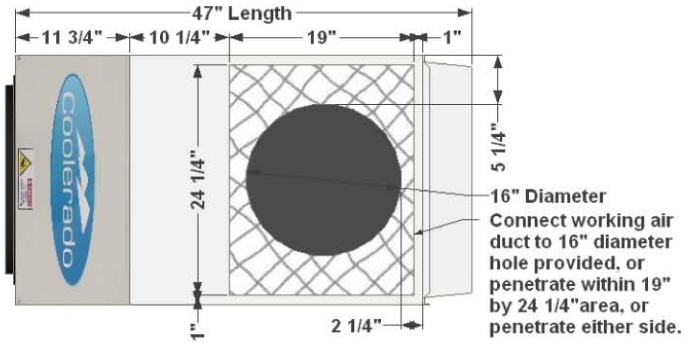


Conditioned Air Plenum

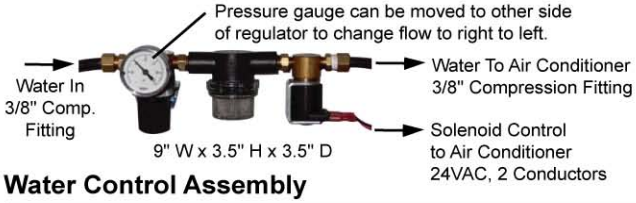


Left Side View

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