



JOB NAME:	LOCATION:	
CONTRACTOR:	PROJECT MANAGER:	
SUPERINTENDENT:	SUBCONTRACTOR:	
PURCHASER:	ORDER NO:	
ENGINEER:	PROJECT MANAGER:	
SUBMITTED TO:	APPROVAL:	CONSTRUCTION:
SUBMITTED BY:	DATE:	
UNIT DESIGNATION:	SCHEDULE NO:	MODEL NO:

PRECOOLING / COOLING PERFORMANCE

Outdoor Air (OA) Inlet Conditions:

OA Design Temperature °F °C DB, °F °C WB
Elevation Above Sea Level..... FT, M

Supply Air (SA) Conditions:

SA Ext. Static Pressure IWG, Pa
SA Flow..... CFM, LPS
SA Temperature (+/- 2 F)..... °F °C DB, °F °C WB

Return Air (RA) Conditions:

RA Ext. Static Pressure IWG, Pa
RA Flow CFM, LPS
RA Temperature °F °C DB, °F °C WB

Exhaust Air (EA) Conditions:

EA Temperature °F °C DB, °F °C WB

PREHEATING PERFORMANCE

Outdoor Air (OA) Inlet Conditions:

OA Design Temperature °F °C DB, °F °C WB

Supply Air (SA) Conditions:

SA Ext. Static Pressure IWG, Pa
SA Flow..... CFM, LPS
SA Temperature (+/- 2 F)..... °F °C DB, °F °C WB

Return Air (RA) Conditions:

RA Ext. Static Pressure IWG, Pa
RA Flow CFM, LPS
RA Temperature °F °C DB, °F °C WB

Exhaust Air (EA) Conditions:

EA Temperature °F °C DB, °F °C WB

STANDARD FEATURES

- Year-round operation for energy recovery through enhanced summer precooling, cooling and preheating
- Variable and independent air flow for outdoor and return air (300 to 1,000 cfm / 143 to 472 lps each air stream)
- Up to 1" wc (249 Pa) external static pressure (ESP)
- Enhanced summer effectiveness over 130% due to M-Cycle technology
- 3-year limited warranty on HMX; 1 year on all other components
- Patented, high technology, poly heat and mass exchanger (HMX)
- Made in the USA!
- Multiple ERVs can be easily configured for higher air flows
- Curb mounted downflow unit.
- EER 50+ (Energy Efficiency Ratio) at AHRI conditions
- Can be used for pressurizing buildings efficiently in the cooling season.
- Cooling capacity increases as ambient temperature increases
- Low maintenance, automatic winterization
- Low water use
- ABS drain pan
- Powder coated, electro-galvanized steel housing

ELECTRICAL DATA

200-277V, 50-60Hz, 2.7 kW max., 4.8 – 6.7 Amp, EC Motor

Max Continuous BHP 3.6
Full Load Amps (FLA)..... 4.8 – 6.7
Power Supply (max. over current protection)..... 15 Amps
Min. unit disconnect FLA..... 10
Ampacity 20
Min. wire size 14 AWG w/ ground
External Fusing 10 - 20 amp
Phase 1
HZ (require to spec) 50/60
Power input requirement (watts) 2,700
Two EC, backward curved impellers, 3D, 360 mm diameter

TOTAL UNIT WEIGHT/SHIPPING DIMENSIONS

Dry Install Weight..... 800 LBS / 363 kg
Operating Weight (wet)..... 850 LBS, 386 kg
Shipping Dimensions..... 31" W x 69" L x 77" H
..... 787 mm W x 1,753 mm L x 1,956 mm H
..... 830 LBS / 377 kg

WATER

*Minimum Flow with 1/2" / 12.7 mm NPT Connection 1.4 GPM / 5.3 lpm
Supply Line Dynamic Pressure at Unit 40 - 80 PSI / 225 - 500 kPa

*The water flow rate listed is the instantaneous peak rate when the solenoid valve inside the unit is on and 0 gpm (lps) when the valve is off. The solenoid valve cycles on once every two minutes for varying lengths of time (10 to 40 second on time).

FACTORY OPTIONS

Thermostat with auto-variable motor speed control

- Easy to access electrical and water connections.
- Easy to connect power and control wiring
- Integrated control module for reliable, economical automatic operation
- Self adjusting air flow rates to adjust for static pressure and CO2 levels.
- Biocide integrated into HMX fibers
- Removable panels - greater durability, ease of access
- Summer dehumidification of outdoor air.
- Fresh, outside air for better indoor air quality (IAQ)
- Filtered air with reduced dust, pollens and allergens
- Air filters - Three pleated MERV 8 filters, size 20" x 25" x 2" 500 mm x 635 x 50 mm
- Compact, easy to install, ideal height 77" / 1,956 mm cabinet
- High efficiency electronically commutated motor (ECM)
- Optional temperature and CO2 sensor available.
- Supplied with water filter (30 nominal micron, 9.875" ca)
- Can be controlled by a variety of input sensors (CO2, cool call input, 2 to 10 vdc input etc.)
- BACnet compatible
- Air filter differential pressure sensor.

ERV PERFORMANCE TABLES

Coolerado ERV Summer Performance*								
Return Air Flow (ft ³ /min)	Pressure Drop (inches water)		Summer Effectiveness (Water On)					
			Airflow					
	Outdoor Air**	Exhaust Air	Outdoor Air = Exhaust Air			30% Excess Outdoor Air		
			Sensible	Latent	Enthalpy	Sensible	Latent	Enthalpy
330	0.13	0.12						
500	0.30	0.24	133%	43%	79%	160%	64%	82%
660	0.52	0.39	131%	40%	77%	157%	60%	79%
750	0.67	0.49	129%	38%	75%	155%	57%	76%
1000	1.18	0.81	128%	36%	73%	154%	55%	74%
			126%	32%	70%	147%	57%	68%
*Summer AHRI Conditions: Outdoor 95°F Dry Bulb / 78°F Wet Bulb, Return Air 75°F DB, 63°F WB at Sea Level								
**Summer AHRI Conditions may cause condensing in the outdoor air channels and a higher pressure drop.								

Coolerado ERV Winter Performance			
Return/Outdoor Air Flow (ft ³ /min)	Pressure Drop (in-wg)		Winter Sensible Effectiveness
	Outdoor Air**	Exhaust Air	
330	0.17	0.1	78%
500	0.29	0.1	73%
660	0.41	0.2	69%
750	0.55	0.3	67%
1000	0.72	0.6	64%
Winter AHRI Conditions: Outdoor 35°F Dry Bulb / 33°F Wet Bulb, Return Air 70°F DB, 58°F WB at Sea Level			

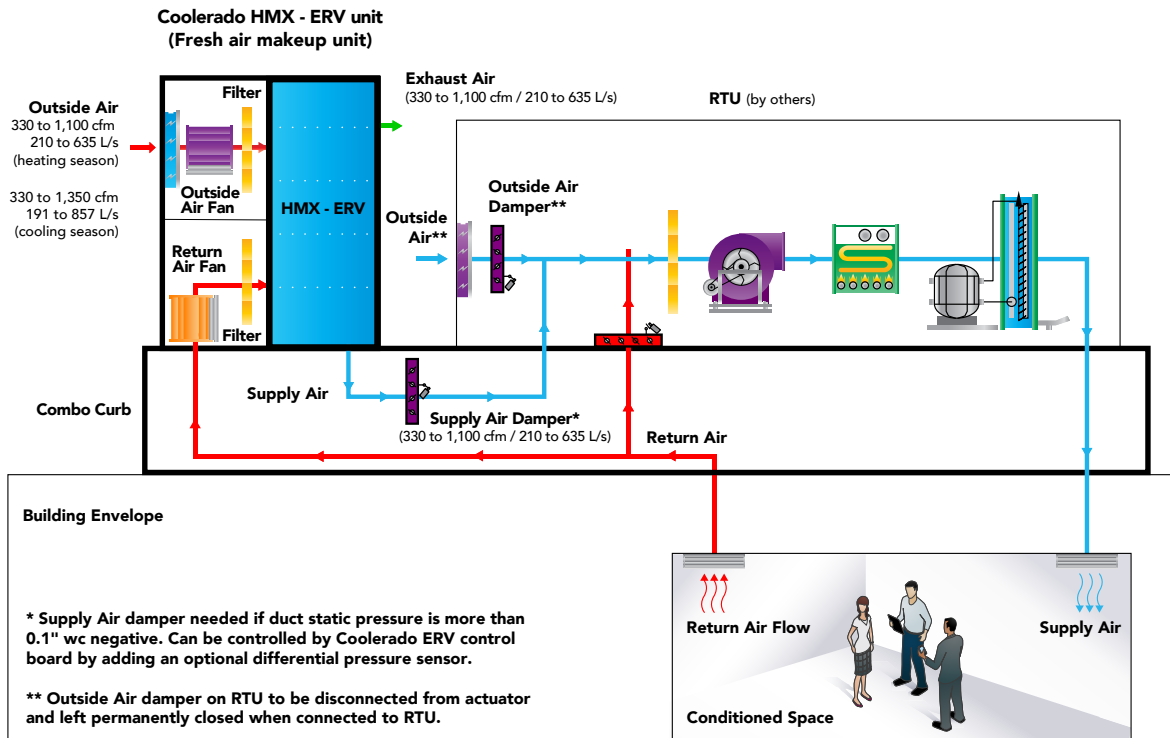
Coolerado ERV Summer Performance*								
Return Air Flow (m ³ /hr)	Pressure Drop (Pascal)		Summer Effectiveness (Water On)					
			Airflow					
	Outdoor Air**	Exhaust Air	Outdoor Air = Exhaust Air			30% Excess Outdoor Air		
			Sensible	Latent	Enthalpy	Sensible	Latent	Enthalpy***
561	32	30						
850	74	60	133%	43%	79%	160%	64%	82%
1121	129	97	131%	40%	77%	157%	60%	79%
1274	166	121	129%	38%	75%	155%	57%	76%
1699	293	202	128%	36%	73%	154%	55%	74%
			126%	32%	70%	147%	57%	68%
*Summer AHRI Conditions: Outdoor 35°C Dry Bulb / 25.5°C Wet Bulb, Return Air 23.9°C DB, 17.2°C WB at Sea Level.								
**Summer AHRI Conditions may cause condensing in the outdoor air channels and a higher pressure drop.								
***True effectiveness not the addition of sensible and latent effectiveness.								

Coolerado ERV Winter Performance			
Return/Outdoor Air Flow (m ³ /hr)	Pressure Drop (Pascal)		Winter Sensible Effectiveness
	Outdoor Air**	Exhaust Air	
561	42	25	78%
850	72	25	73%
1121	102	50	69%
1274	137	75	67%
1699	179	149	64%
Summer AHRI Conditions: Outdoor 1.7°C Dry Bulb / 0.6°C Wet Bulb, Return Air 21.1°C DB, 14.4°C WB at Sea Level			

HOW IT WORKS

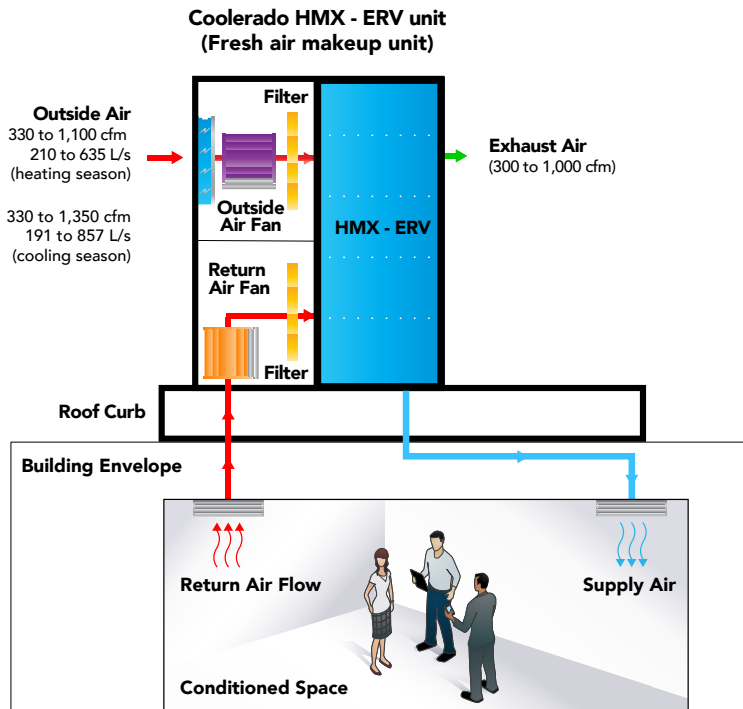
Coolerado ERV Hybrid Configuration (Connection to RTU)

(Water on during the cooling season and off during the heating season)



Coolerado ERV Stand Alone Configuration (Dry Climate)

(Water on during the cooling season and off during the heating season)



CLEARANCE TOLERANCES

1. Inspect clearances and position unit for installation – see unit dimensions and clearance requirements. **See Figure 1.**
2. Familiarize yourself with the unit's connection and service points. **See Figure 2.**
3. Mount the unit on a rooftop curb with a solid and level foundation with proper sub-base and drainage to ensure the unit will not shift during its lifetime.
4. Take the proper precautions when mounting the unit to reduce noise and vibration.
5. If installed in any place where structural support may be an issue, consult with a structural engineer and comply with local code requirements.

The ERV comes with lifting lugs at bottom four (4) corners with ¼" (6.35 mm) x 20 mounting bolts that can also be used for installation attachment to a frame.

Figure 1

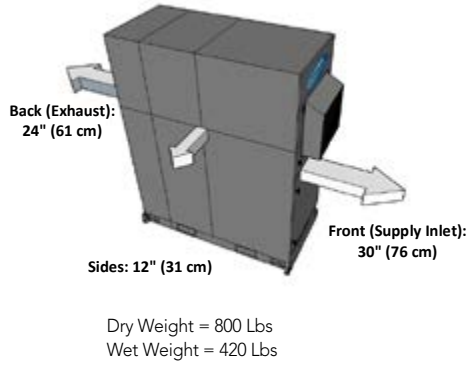
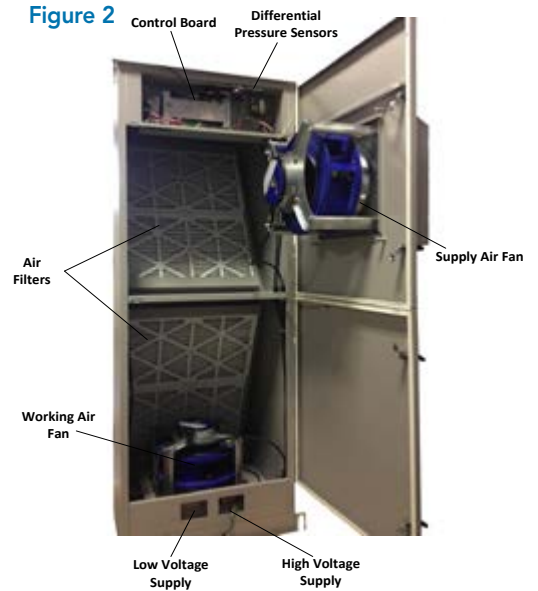
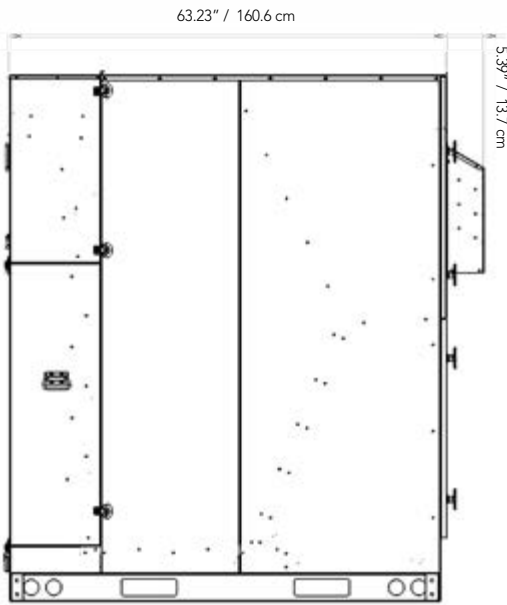


Figure 2

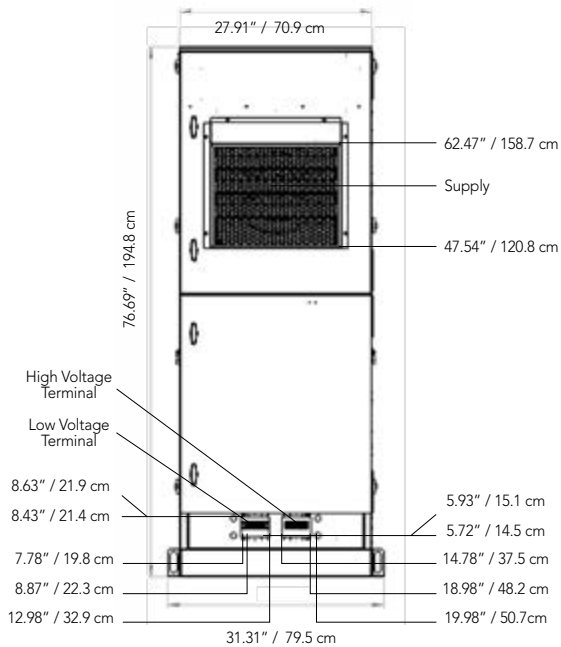


NOTE: Take precautions to not block service areas of unit and that ductwork connections have enough flexibility for leveling or seasonal re-leveling purposes.

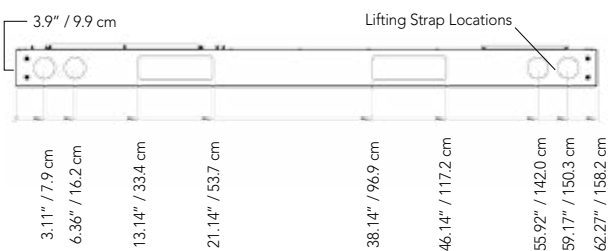
SIDE VIEW



FRONT VIEW



SKIRT SIDE VIEW



SKIRT TOP VIEW

