SUBMITTAL DATA SHEET

Energy Recovery Ventilation

Model Number: XEC-170AD-BU

Location: _____
Engineer: _____
Submitted to: _____
Submitted by: _____
Reference: _____

Approval: _____
Date: _____
Construction: _____
Unit #: _____
Drawing #: _____

C US

2100 HVI CERTIFIED

Product Details		
Power Supply	V/Ph/Hz	120/1/60
Connection Duct Diameter	in	6
Max. Circuit Amps(MCA)	A	1.6
Max.Overcurrent Protection(MOP)	A	15
Max input power	W	180
Dimensions(HxWxD)	in	9-11/16 × 26 × 21-9/16
	mm	591 x 405 x 425
Net weight	Lbs	43
	kg	20.87
Ext Static Pressure(HH/H/L)	in W.G	0.4/0.2/0.1
Default Airflow Rate (HH/H/L)	CFM	130/90/42
Max. Airflow Rate (HH/H/L)	CFM	170/100/45
Sound Pressure(HH/H/L)	dBA	36 /33 /24
Power Supply Connections		L, N, Ground
Condensate Pipe Connection		NA
Operating range outdoor temperature(℉ DB)		-18℉ ~ 109℉
Filter level /type / Qty		Merv 8 / Washable / 2
ERV Core / type		Cross Flow / Non washable
Motor/Drive		ECM Motor Brushless Digitally controller/Direct
Number of speeds available with Basic Control		3
Defrost Type		Recirculation defrost

Fan Efficacy

External Static Pressure		Net Supply Airflow		Gross Supply Airflow		Gross Exhaust Airflow		Power
Pa	in.w.g.	Standard L/s	CFM	Standard L/s	CFM	Standard L/s	CFM	Watts
25	0.1	88	186	90	191	80	170	145.1
50	0.2	85	180	87	184	77	163	144.1
75	0.3	83	176	84	178	74	157	143.3
100	0.4	80	170	81	172	71	150	142.8
125	0.5	77	163	78	165	68	144	142.2
150	0.6	74	157	75	159	65	138	141.9
175	0.7	71	150	72	153	62	131	141.4
200	0.8	68	144	69	146	59	125	141
225	0.9	66	140	67	142	56	119	140.4
250	1	63	133	64	136	53	112	139.8

Fan Cures

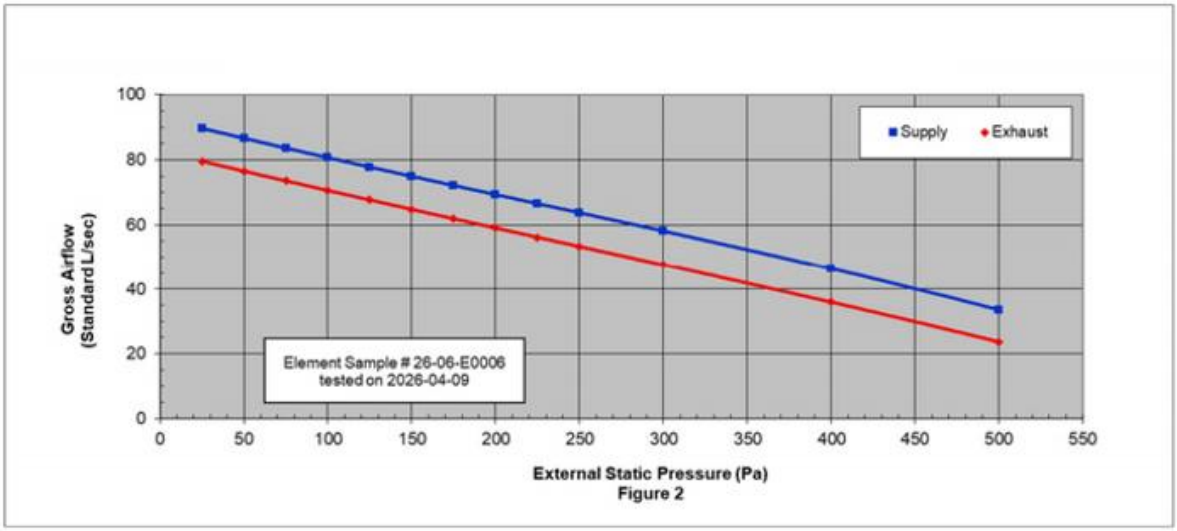


Figure 2

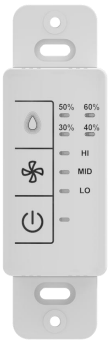
Energy Performance

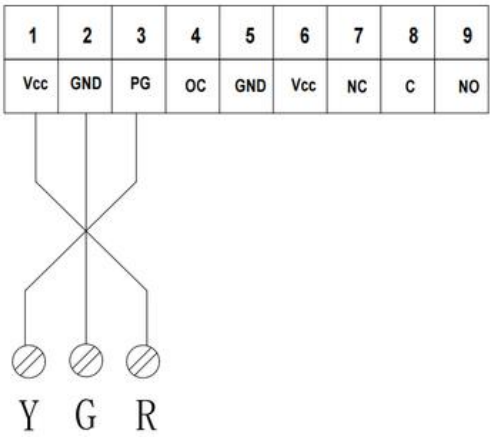
Heating	Inlet Supply Temperature		Net Outdoor Airflow		Average Power (watts))	Sensible Recovery Efficiency **SRE**	Adjursted Sensible Recovery Effciency **ASRE**	Fan Efficacy	
	℃	℉	L/s	scfm				L/s/W	cfm/W
1	0	32	20	42	27	86.00%	90%	0.74	1.5
2	0	32	43	91	82	73.00%	80%	0.52	1.1
3	0	32	64	135	145	65.00%	72%	0.44	0.9
4	-25	-13	19	40	41	67.00%	70%	-	-

Cooling	Inlet Supply Temperature		Net Outdoor Airflow		Average power (watts)	Sensible Total Efficiency	Adjursted Total Recovery Effciency	Fan efficacy	
	℃	℉	L/s	scfm				L/s/W	cfm/W
1	35	95	20	42	26	67%	69%	84%	63.00%

CONTROLLER

Controller Installation - Basic controller

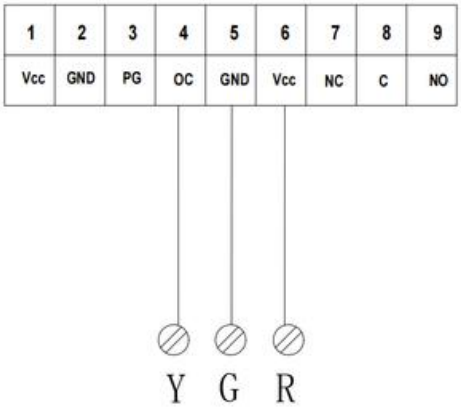




Setting basic controller

- Fan Settings:Low/Mid/High
- Standby Setting：Fan ON/ Off
- Electronic Dehumidistat
- Compatibility with Wire Timers
- Connection to 3-wire 20 Gauge (Minimum) Low Voltage Wire.

Controller Installation -Timer (Timer is optional accessories)

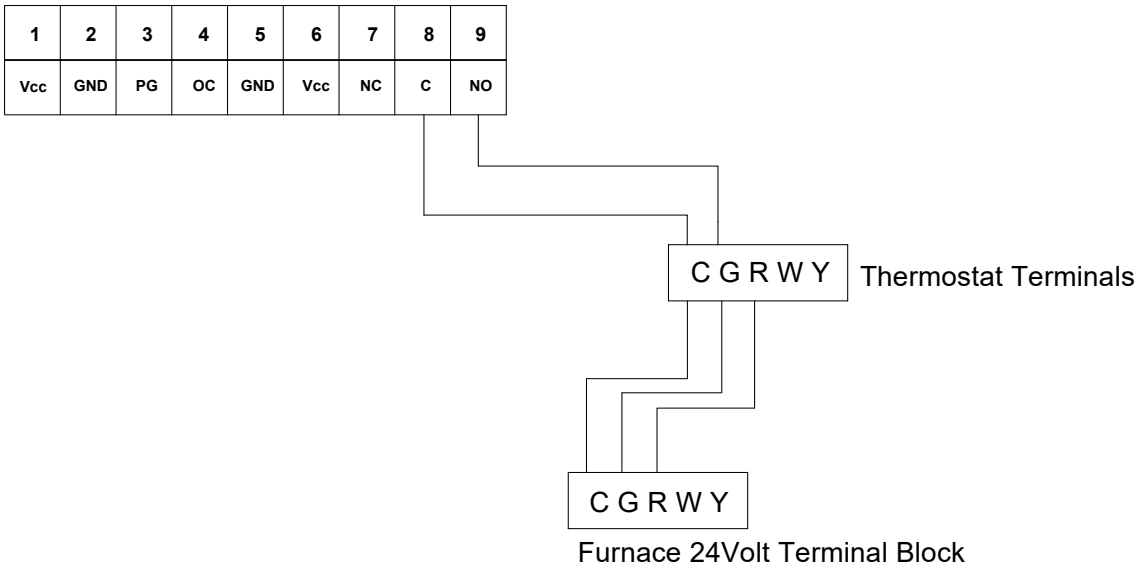


Setting Timer

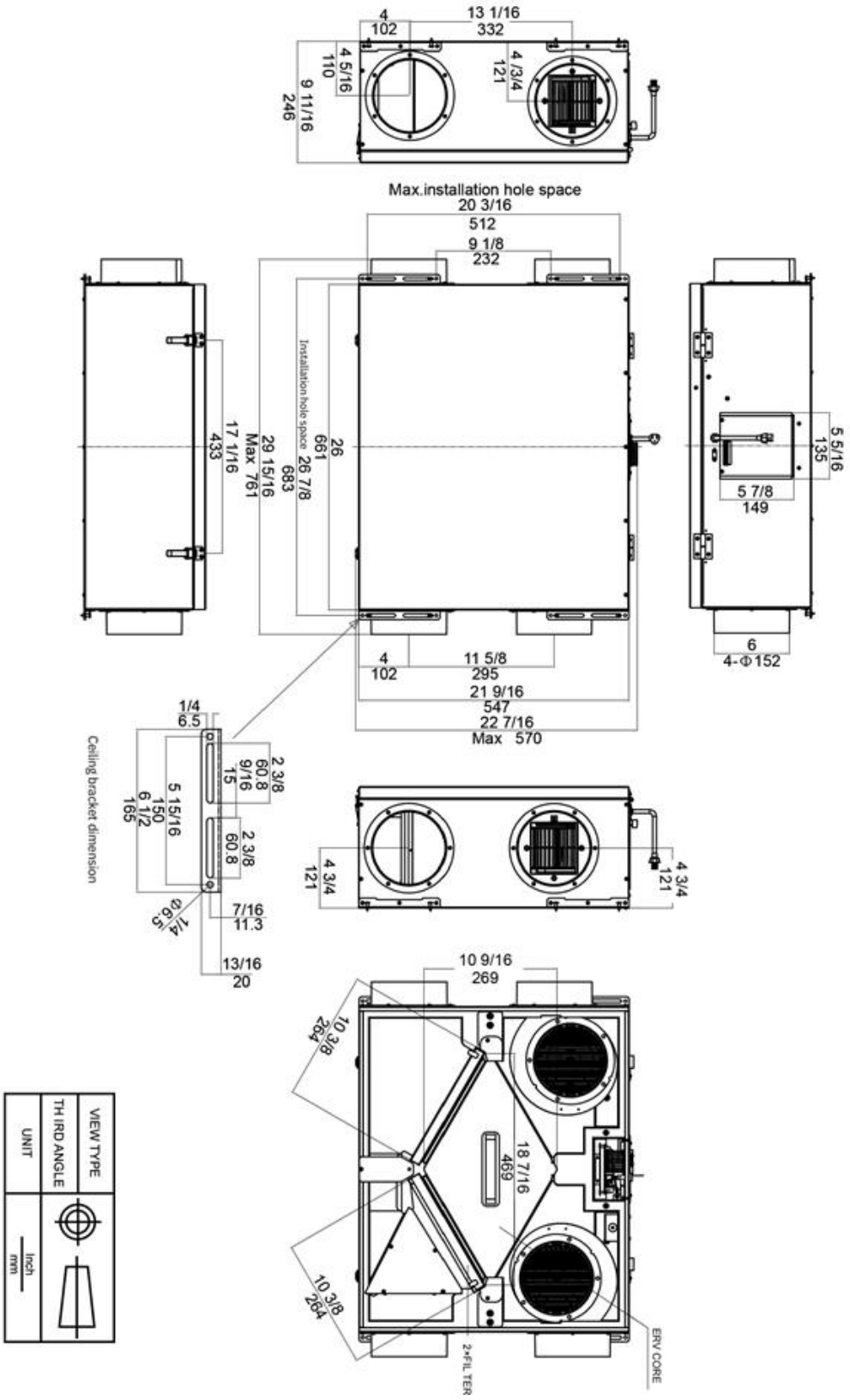
- Bathroom timer controller
- Connection to 3-wire 20 Gauge (Minimum) Low Voltage Wire.
- Press the 20min button to start a 20-minute high-speed cycle, following main controller settings. Cancel by pressing again, turning off the indicator.
- Switch to 40min or 60min by pressing the respective buttons, similar to the 20min button operation.

Controller Installation -24V thermostat

Connect the three-core signal wire to ports 8/9 as shown in the diagram, then secure the wire with a cable clamp.



Dimension Drawing



Feature

- **Field Adjustable Airflow with Balancing Ports** -The unit is equipped with airflow balancing ports / pressure taps for field airflow measurement and commissioning.
  - Rated airflow: 130 CFM @ 0.4 in. w.g. ESP
  - Maximum adjustable airflow: 170 CFM
  - Field airflow measurement: Pressure taps / airflow balancing ports
  - Balancing method: Differential pressure measurement with a manometer or Magnehelic gauge
  - Airflow adjustment: Integrated balancing dampers, adjusted according to the airflow conversion chart
- **Flexible mounting option**- Designed for horizontal and wall-mounted installation, allowing seamless integration into a wide range of residential and light commercial applications.
- **ECM motors** - High-performance ECM motors provide reliable, energy-efficient operation with stable airflow performance.
- **Three-speed airflow** - The unit provides selectable three-speed airflow settings from 42 to 130CFM for normal operation. Field airflow adjustment and balancing can be performed during commissioning, with maximum adjustable airflow not exceeding 170 CFM.
- Unit UL1812(safety), CSA439 (performance) approved.