Making your home Green & Smart

Handbook

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Performance Data with AHRI Number

Ecoer AHRI Performance Data Air Handler

AHRI	Energy Star	Outdoor Unit	Air Handler	Cooling			Heating			CFM
				Total	SEER	EER	High	HSPF	Low	
202337969	Yes	EODA18H-2436	EAHATN-24	23400	20.00	13.00	24000	10.00	15200	800
202110525	No	EODA18H-2436	EAHATN-36	34200	18.00	11.20	36000	10.00	24000	1130
202110529	Yes	EODA18H-4860	EAHATN-36	36000	20.00	13.00	36000	10.00	24000	1130
202337970	No	EODA18H-4860	EAHATN-48	45000	17.00	12.00	47000	9.50	32000	1500
202110527	No	EODA18H-4860	EAHATN-60	54000	17.00	10.00	54000	9.50	35600	1590

Ecoer AHRI Performance Data Cased Coil (Only)

AHRI	Energy Star	Outdoor Unit	Cased Coil	Cooling			Heating			CFM
				Total	SEER	EER	High	HSPF	Low	
203376741	No	EODA18H-2436	GNC2430APT	22800	16.00	11.00	22800	9.50	15000	750
206395296	No	EODA18H-2436	GNC2430BPT	22800	16.00	11.00	22800	9.50	15000	780
203376742	No	EODA18H-2436	GNC3036BPT	31000	16.00	10.00	33000	9.50	21000	1000
203376743	No	EODA18H-4860	GNC4248CPT	41000	16.00	10.50	43000	9.50	30000	1280
203376744	No	EODA18H-4860	GNC4860CPT	51000	16.00	10.00	51000	9.50	30600	1280
203376745	No	EODA18H-4860	GNC4860DPT	51000	16.00	10.00	51000	9.50	30600	1500

Ecoer AHRI Performance Data Furnace and Cased Coil

AHRI	Energy Star	Outdoor Unit	Cased Coil	Furnace	Cooling			Heating			CFM
					Total	SEER	EER	High	HSPF	Low	
207252615	Yes	EODA18H-2436	GNC2430BPT	MGH96M060B3A	23200	17.00	12.50	23200	9.50	15600	800
207252616	No	EODA18H-2436	GNC3036BPT	MGH96M060B3A	31000	16.50	10.50	33000	9.50	22000	1100
206340204	Yes	EODA18H-4860	GNC3036BPT	MGH96M060B3A	33200	18.00	12.50	34000	9.50	23000	1100
207252608	Yes	EODA18H-2436	GNC2430APT	MGH96M080B3A	23200	17.00	12.50	23200	9.50	15600	800
207252614	Yes	EODA18H-2436	GNC2430BPT	MGH96M080B3A	23200	17.00	12.50	23200	9.50	15600	840
207252609	No	EODA18H-2436	GNC3036BPT	MGH96M080B3A	31000	16.50	10.50	33000	9.50	22000	1070
207252610	Yes	EODA18H-4860	GNC3036BPT	MGH96M080B3A	33200	18.00	12.50	34000	9.50	23000	1070
207252611	No	EODA18H-4860	GNC4248CPT	MGH96M100C5A	44000	17.00	11.00	45000	9.50	30000	1450
207252612	No	EODA18H-4860	GNC4860CPT	MGH96M100C5A	51000	16.50	10.00	52000	9.50	35000	1450
207252613	No	EODA18H-4860	GNC4860DPT	MGH96M120D5A	51000	16.50	10.00	52000	9.50	35000	1500

Physical Data

Heat Pump Unit		
Outdoor Model Number	EODA18H-2436	EODA18H-4860
Cooling operation range	40~122°F	40~122°F
Heating operation range	-22~86°F	-22~86°F
Voltage-Phase-Hz	208/230-1-60	208/230-1-60
Volts Range	187~253	187~253
Outdoor Unit RLA	17.5	24.0
Outdoor Unit LRA	45	58.1
Outdoor MCA	24.4	32.5
Outdoor MOP	40.0	50.0
Condenser Fan (HP)	1/3	1/3
Condenser Fan (FLA)	2.5	2.5
Liquid Line Size("O.D.)	3/8"	3/8"
Suction Line Size("O.D.)	3/4"	7/8"
Cooling Metering Device (Indoor Side)	TXV	TXV
Heating Metering Device	EEV	EEV
Maximum Line Length	100FT	100FT
Maximum Elevation Difference	50FT	50FT
Refrigerant Charge (R410a) (oz)	113	165
Pre-charge (Feet)	25	25
Superheat at Service Valve	8°F(±2°F)	8°F(±2°F)
Sub-cooling at Service Valve	10°F(±2°F)	8°F(±2°F)
Decibels (dB)	61	63
Net Weight (lbs)	157	192
Shipping Weight (lbs)	187	225
Coil	Copper Coil Aluminum Fin with anti-corrosion coating	
Chassis	Galvanized sheet metal powder coat with 500-hour salt spray protection	

Ecoer Cased Coil Multi Position						
Indoor Model Number	**GNC2430APT**	**GNC2430BPT**	**GNC3036BPT**	**GNC4248CPT**	**GNC4860CPT**	**GNC4860DPT**
Nominal Cooling (BTU/H)	23400.00	23400	34200	45000	54000	54000
Nominal Heating (BTU/H)	24000.00	24000	36000	47000	54000	54000
Liquid Line Size (O.D.)	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction Line Size (O.D.)	3/4"	3/4"	3/4"	7/8"	7/8"	7/8"
Coil Drain Connection (FPT)	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Metering Device (Installed)	TXV	TXV	TXV	TXV	TXV	TXV
Rows	4.00	4.00	4.00	3.00	4.00	4.00
Fins Per Inch	17.00	17.00	17.00	14.00	14.00	14.00
Dimension (OD Length)	21.00	21.00	21.00	21.00	21.00	21.00
Dimension (OD Width)	14.50	17.50	17.50	21.00	21.00	24.50
Dimension (OD Height)	20.00	20.00	20.00	30.00	30.00	30.00
Dimension (Supply Length)	19.00	19.00	19.00	19.00	19.00	19.00
Dimension (Supply Width)	13.00	16.00	16.00	19.50	19.50	23.00
Net Weight (lbs)	44.10	119.00	46.70	71.40	82.20	86.40
Shipping Weight(lbs)	51.40	150.00	54.50	81.60	91.30	95.20

Physical Data

Ecoer Gas Furnace

Model			MGH96M060B3A	MGH96M080B3A	MGH96M080C4A	MGH96M100C5A	MGH96M100D5A	MGH96M120D5A
Power supply		V-Ph-Hz	115V/60HZ/1PH	115V/60HZ/1PH	115V/60HZ/1PH	115V/60HZ/1PH	115V/60HZ/1PH	115V/60HZ/1PH
MOP		A	15	15		20		20
Gas Type			Natural Gas/Propane Gas					
AFUE		%	96	96	96	96	96	96
Input	Nature Gas(HIGH)	Btu/h	60000	80000	80000	10000	10000	120000
	Nature Gas(LOW)	Btu/h	39000	52000	52000	6500	6500	78000
Output	Nature Gas(HIGH)	Btu/h	57000	76000	76000	95000	95000	106500
	Nature Gas(LOW)	Btu/h	37000	49000	49000	62000	62000	75000
Air Temperature Rise		°F	30-60	35-65	35-65	35-65	35-65	40-70
Design Max.Outlet Air Temperature		°F	160	165	165	165	165	170
Blower	Type		ECM fan	ECM fan	ECM fan	ECM fan	ECM fan	ECM fan
	Diameter	mm	314	314	325	325	325	325
	Height	mm	203	203	285	285	285	285
Exhauster Power Input	Model		FASCO 70626553	FASCO 70626553	FASCO 70626552	FASCO 70626552	FASCO 70626552	FASCO 70626552
	(High)	W	63±10%	63±10%	63±10%	63±10%	63±10%	63±10%
	(Low)	W	39±10%	39±10%	44±10%	44±10%	44±10%	44±10%
Tons AC		Tons	1.5/2/2.5/3	1.5/2/2.5/3	3.5/4/4.5/5	3.5/4/4.5/5	3.5/4/4.5/5	3.5/4/4.5/5
Motor	Model		ZWK702D006007			ZWK702E006005		
	Horsepower	HP	3/4			1		
Maximum Inlet Gas Pressure	Nature Gas	IN W.C.	11	10.5	10.5	10.5	10.5	10.5
	Propane Gas	IN W.C.	13	13	13	13	13	13
Minimum Inlet Gas Pressure	Nature Gas	IN W.C.	5	4.5	4.5	4.5	4.5	4.5
	Propane Gas	IN W.C.	10	10	10	10	10	10
Heat Exchanger Diameter（Primary）		mm	45	45	45	45	45	45
Heat Exchanger Diameter（Secondary）		mm	10	9.52	9.52	9.52	9.52	9.52
Heat Exchangers（Primary）		pcs	3	4	5	5	6	6
Heat Exchangers（Secondary）		pcs	33	33	39	39	48	48
Vent Diameter x Length		Inch	2"x 60ft / 3"x 90ft		2"x 30ft / 3"x 90ft	2"x 30ft / 3"x 90ft	3"x 90ft	3"x 90ft
Pressure Switch	(HIGH)	IN W.C.	1	1	1	1	1	1
	(LOW)	IN W.C.	1	1	1	1	1	1
Flame Rollout Temperature Limit	Off/On	°F	300 (manual reset)					
Inlet High Temperature Limit Switch	Off/On	°F	130/100	130/100	130/100	130/100	130/100	150/120
Burners		pcs	3	4	4	5	4	6
Natural Gas Factory Orifice		#	45	45	45	45	45	45
Propane Gas Factory Orifice		#	55	55	55	55	55	55
Gas Connection Size		NPT	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Ignition Type			Hot surface	Hot surface	Hot surface	Hot surface	Hot surface	Hot surface
Cabinet Size (W x D x H)		Inch	17.5" x 28.5" x 33.75"	17.5" x 28.5" x 33.75"	21" x 28.5" x 33.75"	21" x 28.5" x 33.75"	24.5" x 28.5" x 33.75"	24.5" x 28.5" x 33.75"
Packing Dimension		Inch	20"*31"*35.5"	20"*31"*35.5"	23.5"*31"*35.5"	23.5"*31"*35.5"	27"*31"*35.5"	27"*31"*35.5"
Weight		lbs	163	168.5	184.6	194.6	205.1	209.5

Ecoer Electric Heat

Kit Model	Air Handler	Electric Heat (kW)	MIN. Circuit Ampacity		MAX. Fuse or Breaker Ampacity		Fan Speed				
			240	208	240	208	1	2	3	4	5
E-EHK05	EAHTN-24	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	×	●	●	●
E-EHK05	EAHTN-36	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	×	●	●	●
E-EHK15		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
E-EHK05	EAHTN-48	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	●	●	●	●
E-EHK15		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
E-EHK20		10+10	49+49	43+43	60+60	50+50	×	×	×	●	●
E-EHK05	EAHTN-60	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	●	●	●	●
E-EHK15		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
E-EHK20		10+10	49+49	43+43	60+60	50+50	×	×	×	●	●

● = Acceptable ×= Unacceptable

Electric heat kits are suitable for use with all EAHTN air handler

Physical Data

Ecoer Gas Furnace

Model			MGH96M060B3A	MGH96M080B3A	MGH96M100C5A	MGH96M120D5A
Power supply		V-Ph-Hz	115V/60HZ/1PH	115V/60HZ/1PH	115V/60HZ/1PH	115V/60HZ/1PH
MOP		A	15	15	20	20
Gas Type			Natural Gas/Propane Gas			
AFUE		%	96	96	96	96
Input	Nature Gas(HIGH)	Btu/h	60000	80000	10000	120000
	Nature Gas(LOW)	Btu/h	39000	52000	6500	78000
Output	Nature Gas(HIGH)	Btu/h	57000	76000	95000	106500
	Nature Gas(LOW)	Btu/h	37000	49000	62000	75000
Air Temperature Rise		°F	30-60	35-65	35-65	40-70
Design Max.Outlet Air Temperature		°F	160	165	165	170
Blower	Type		ECM fan	ECM fan	ECM fan	ECM fan
	Diameter	mm	314	314	325	325
	Height	mm	203	203	285	285
Exhauster Power Input	Model		FASCO 70626553	FASCO 70626553	FASCO 70626552	FASCO 70626552
	(High)	W	63±10%	63±10%	63±10%	63±10%
	(Low)	W	39±10%	39±10%	44±10%	44±10%
Tons AC		Tons	1.5/2/2.5/3	1.5/2/2.5/3	3.5/4/4.5/5	3.5/4/4.5/5
Motor	Model		ZWK702D006007		ZWK702E006005	
	Horsepower	HP	3/4		1	
Maximum Inlet Gas Pressure	Nature Gas	IN W.C.	11	10.5	10.5	10.5
	Propane Gas	IN W.C.	13	13	13	13
Minimum Inlet Gas Pressure	Nature Gas	IN W.C.	5	4.5	4.5	4.5
	Propane Gas	IN W.C.	10	10	10	10
Heat Exchanger Diameter （Primary）		mm	45	45	45	45
Heat Exchanger Diameter （Secondary）		mm	10	9.52	9.52	9.52
Heat Exchangers （Primary）		pcs	3	4	5	6
Heat Exchangers （Secondary）		pcs	33	33	39	48
Vent Diameter x Length		Inch	2"x 60ft / 3"x 90ft		2"x 30ft / 3"x 90ft	3"x 90ft
Pressure Switch	(HIGH)	IN W.C.	1	1	1	1
	(LOW)	IN W.C.	1	1	1	1
Flame Rollout Temperature Limit	Off/On	°F	300 (manual reset)			
Inlet High Temperature Limit Switch	Off/On	°F	130/100	130/100	130/100	150/120
Burners		pcs	3	4	5	6
Natural Gas Factory Orifice		#	45	45	45	45
Propane Gas Factory Orifice		#	55	55	55	55
Gas Connection Size		NPT	1/2"	1/2"	1/2"	1/2"
Ignition Type			Hot surface	Hot surface	Hot surface	Hot surface
Cabinet Size (W x D x H)		Inch	17.5" x 28.5" x 33.75"	17.5" x 28.5" x 33.75"	21" x 28.5" x 33.75"	24.5" x 28.5" x 33.75"
Packing Dimension		Inch	20"*31"*35.5"	20"*31"*35.5"	23.5"*31"*35.5"	27"*31"*35.5"
Weight		lbs	163	168.5	194.6	209.5

Bindus Hot Water Coil

						140F entering Water			180F entering Water		
HHU	Dimensions (in) (L x W x H)	Air Flow	Static	Water	Pump	Leaving	Leaving	Heat	Leaving	Leaving	Heat
MODEL		(scfm)	[APD]	(gpm)	[WPD] (ft)	[LWT] (°F)	[LAT] (DB)	(BTUH)	[LWT] (°F)	[LAT]	(BTUH)
HHU-YE-2	21" x 21 1/2" x 7	1000	0.14	6	6.2	126	107	42,000	157	129	66,000
		1400	0.24	6	6.2	123	101	49,250	153	119	77,500
		1600	0.3	6	6.2	122	98	52,000	152	115	82,000
HHU-YE-3	24 1/2" x 21 1/2" x 7	1200	0.14	9	5.1	128	108	51,750	161	131	81,250
		1600	0.22	9	5.1	126	102	59,500	159	122	93,750
		1800	0.26	9	5.1	126	100	62,750	157	119	99,000
		2000	0.31	9	5.1	125	98	65,750	156	116	103,500

Installation Notes

Heating Performance

3 TON SYSTEM EODA18H-36+EAHATN-36													
INDOOR AIR		OUTDOOR AMBIENT TEMPERATURE(°F)											
		-3			7			17			27		
IDB(°F)	CFM	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP
65	1040	22.4	4.45	1.47	26.4	4.34	1.78	30.4	4.20	2.12	34.4	4.03	2.50
	1130	22.9	4.58	1.47	27.0	4.47	1.77	31.2	4.33	2.11	35.3	4.16	2.49
	1240	23.6	4.74	1.46	27.8	4.63	1.76	32.0	4.48	2.09	36.3	4.30	2.47
70	1040	20.0	3.89	1.51	23.6	3.80	1.82	27.2	3.68	2.17	30.8	3.53	2.56
	1130	20.5	4.01	1.50	24.2	3.92	1.81	27.9	3.79	2.16	31.6	3.64	2.54
	1240	21.1	4.15	1.49	24.9	4.05	1.80	28.7	3.92	2.15	32.5	3.76	2.53
75	1040	17.7	3.37	1.54	20.9	3.29	1.86	24.1	3.19	2.21	27.2	3.06	2.60
	1130	18.1	3.47	1.53	21.4	3.39	1.85	24.7	3.28	2.21	27.9	3.15	2.60
	1240	18.7	3.58	1.53	22.0	3.50	1.84	25.4	3.39	2.20	28.7	3.25	2.59

INDOOR AIR		OUTDOOR AMBIENT TEMPERATURE											
		37			47			57			67		
IDB(°F)	CFM	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP
65	1040	38.4	3.82	2.95	39.2	3.57	3.22	39.2	3.26	3.52	39.2	2.88	3.99
	1130	39.4	3.94	2.93	40.2	3.68	3.20	40.2	3.36	3.51	40.2	2.97	3.97
	1240	40.5	4.08	2.91	41.3	3.81	3.18	41.3	3.48	3.48	41.3	3.07	3.94
70	1040	34.4	3.35	3.01	35.1	3.13	3.29	35.1	2.85	3.61	35.1	2.52	4.08
	1130	35.3	3.45	3.00	**36.0**	**3.22**	**3.28**	36.0	2.94	3.59	36.0	2.60	4.06
	1240	36.3	3.57	2.98	37.0	3.33	3.26	37.0	3.04	3.57	37.0	2.68	4.05
75	1040	30.4	2.90	3.07	31.0	2.71	3.35	31.0	2.47	3.68	31.0	2.18	4.17
	1130	31.2	2.98	3.07	31.8	2.78	3.35	31.8	2.54	3.67	31.8	2.24	4.16
	1240	32.1	3.08	3.05	32.7	2.88	3.33	32.7	2.63	3.64	32.7	2.32	4.13

Cooling Performance

3 TON SYSTEM EODA18H-2436+EAHATN-36																	
Indoor	Outdoor	IWB(°F)	59				63				67				71		
Airflow	DB(°F)	IDB(°F)	70	75	80	85	70	75	80	85	70	75	80	85	75	80	85
1040	65	TC	26.1	26.2	26.4	26.5	30.9	31.1	31.3	31.4	35.7	35.9	36.1	36.3	40.8	41.0	41.3
		S/T	0.68	0.84	0.93	0.98	0.55	0.69	0.81	0.91	0.43	0.57	0.69	0.80	0.45	0.58	0.69
		kW	1.40	1.41	1.42	1.43	1.73	1.74	1.76	1.77	2.09	2.10	2.12	2.14	2.49	2.51	2.53
	75	TC	25.4	25.6	25.7	25.8	30.1	30.3	30.5	30.6	34.8	35.0	35.2	35.4	39.7	40.0	40.2
		S/T	0.70	0.86	0.95	0.98	0.57	0.71	0.83	0.93	0.44	0.58	0.71	0.82	0.46	0.59	0.71
		kW	1.57	1.58	1.59	1.60	1.94	1.95	1.97	1.98	2.34	2.35	2.37	2.39	2.78	2.80	2.83
	85	TC	24.7	24.9	25.0	25.2	29.3	29.5	29.7	29.8	33.9	34.1	34.3	34.5	38.7	38.9	39.1
		S/T	0.72	0.89	0.98	0.98	0.58	0.73	0.85	0.96	0.45	0.60	0.73	0.84	0.47	0.61	0.73
		kW	1.76	1.78	1.79	1.80	2.18	2.19	2.21	2.22	2.62	2.64	2.66	2.68	3.12	3.14	3.16
	95	TC	24.1	24.2	24.3	24.5	28.5	28.7	28.9	29.0	33.0	33.2	**33.4**	33.5	37.7	37.9	38.1
		S/T	0.74	0.91	0.98	0.98	0.60	0.75	0.88	0.98	0.46	0.61	**0.75**	0.87	0.49	0.63	0.75
		kW	1.98	1.99	2.01	2.02	2.44	2.46	2.47	2.49	2.93	2.96	**2.98**	3.00	3.49	3.51	3.54
	105	TC	23.4	23.5	23.7	23.8	27.7	27.9	28.0	28.2	32.1	32.3	32.4	32.6	36.6	36.8	37.0
		S/T	0.76	0.94	0.98	0.98	0.61	0.77	0.90	0.98	0.48	0.63	0.77	0.89	0.50	0.64	0.77
		kW	2.21	2.23	2.24	2.26	2.72	2.74	2.76	2.78	3.27	3.30	3.29	3.34	3.89	3.92	3.94
	115	TC	22.7	22.9	23.0	23.1	26.9	27.1	27.2	27.4	31.2	31.3	31.5	31.7	35.6	35.8	36.0
		S/T	0.78	0.96	0.98	0.98	0.63	0.79	0.93	0.98	0.49	0.65	0.80	0.92	0.52	0.66	0.79
		kW	2.46	2.48	2.49	2.51	3.03	3.05	3.07	3.09	3.63	3.66	3.65	3.71	4.31	4.34	4.37
1130	65	TC	26.7	26.9	27.0	27.2	31.7	31.9	32.0	32.2	36.6	36.8	37.1	37.3	41.8	42.1	42.3
		S/T	0.70	0.86	0.95	1.00	0.56	0.71	0.83	0.93	0.44	0.58	0.71	0.82	0.46	0.59	0.71
		kW	1.43	1.44	1.45	1.46	1.77	1.79	1.80	1.81	2.14	2.16	2.17	2.19	2.55	2.57	2.59
	75	TC	26.1	26.2	26.3	26.5	30.9	31.0	31.2	31.4	35.7	35.9	36.1	36.3	40.8	41.0	41.2
		S/T	0.72	0.88	0.97	1.00	0.58	0.73	0.85	0.96	0.45	0.60	0.73	0.84	0.47	0.61	0.73
		kW	1.61	1.62	1.63	1.64	1.99	2.00	2.01	2.03	2.39	2.41	2.43	2.45	2.85	2.88	2.90
	85	TC	25.4	25.5	25.7	25.8	30.1	30.2	30.4	30.6	34.8	35.0	35.2	35.3	39.7	39.9	40.1
		S/T	0.74	0.91	1.00	1.00	0.60	0.74	0.88	0.98	0.46	0.61	0.75	0.87	0.49	0.63	0.75
		kW	1.80	1.82	1.83	1.84	2.23	2.24	2.26	2.28	2.68	2.70	2.72	2.74	3.20	3.22	3.24
	95	TC	24.7	24.8	25.0	25.1	29.2	29.4	29.6	29.7	33.8	34.0	**34.2**	34.4	38.6	38.8	39.0
		S/T	0.76	0.93	1.00	1.00	0.61	0.77	0.90	1.00	0.47	0.63	**0.77**	0.89	0.50	0.64	0.77
		kW	2.02	2.04	2.05	2.07	2.50	2.51	2.53	2.55	3.01	3.03	**3.05**	3.07	3.58	3.60	3.63
	105	TC	24.0	24.1	24.3	24.4	28.4	28.6	28.8	28.9	32.9	33.1	33.3	33.4	37.5	37.7	38.0
		S/T	0.78	0.96	1.00	1.00	0.63	0.79	0.93	1.00	0.49	0.65	0.79	0.92	0.51	0.66	0.79
		kW	2.26	2.28	2.29	2.31	2.79	2.81	2.83	2.85	3.35	3.38	3.40	3.42	3.98	4.01	4.04
	115	TC	23.3	23.4	23.6	23.7	27.6	27.8	27.9	28.1	31.9	32.1	32.3	32.5	36.5	36.7	36.9
		S/T	0.80	0.99	1.00	1.00	0.65	0.81	0.95	1.00	0.50	0.67	0.82	0.94	0.53	0.68	0.81
		kW	2.51	2.53	2.55	2.57	3.10	3.12	3.14	3.16	3.72	3.74	3.77	3.80	4.41	4.45	4.48
1240	65	TC	27.5	27.6	27.8	28.0	32.6	32.8	32.9	33.1	37.7	37.9	38.1	38.3	43.0	43.2	43.5
		S/T	0.72	0.89	0.98	1.03	0.58	0.73	0.85	0.96	0.45	0.60	0.73	0.84	0.47	0.61	0.73
		kW	1.47	1.48	1.49	1.50	1.82	1.83	1.85	1.86	2.20	2.22	2.23	2.25	2.63	2.65	2.67
	75	TC	26.8	26.9	27.1	27.2	31.7	31.9	32.1	32.3	36.7	36.9	37.1	37.3	41.9	42.1	42.4
		S/T	0.74	0.91	1.00	1.03	0.60	0.75	0.88	0.98	0.46	0.61	0.75	0.87	0.49	0.63	0.75
		kW	1.65	1.66	1.67	1.68	2.04	2.05	2.07	2.08	2.46	2.48	2.50	2.52	2.94	2.96	2.98
	85	TC	26.1	26.2	26.4	26.5	30.9	31.1	31.3	31.4	35.7	35.9	36.1	36.3	40.8	41.0	41.3
		S/T	0.76	0.93	1.03	1.03	0.61	0.77	0.90	1.01	0.48	0.63	0.77	0.89	0.50	0.64	0.77
		kW	1.85	1.86	1.87	1.89	2.29	2.30	2.32	2.34	2.76	2.78	2.80	2.82	3.29	3.31	3.34
	95	TC	25.4	25.5	25.7	25.8	30.1	30.2	30.4	30.6	34.8	35.0	**35.2**	35.4	39.7	39.9	40.1
		S/T	0.78	0.96	1.03	1.03	0.63	0.79	0.93	1.03	0.49	0.65	**0.79**	0.92	0.51	0.66	0.79
		kW	2.07	2.09	2.10	2.12	2.56	2.58	2.60	2.62	3.09	3.11	**3.13**	3.16	3.68	3.70	3.73
	105	TC	24.7	24.8	24.9	25.1	29.2	29.4	29.6	29.7	33.8	34.0	34.2	34.4	38.6	38.8	39.0
		S/T	0.80	0.99	1.03	1.03	0.65	0.81	0.95	1.03	0.50	0.67	0.81	0.94	0.53	0.68	0.81
		kW	2.32	2.33	2.35	2.37	2.86	2.88	2.90	2.92	3.44	3.47	3.49	3.52	4.10	4.13	4.16
	115	TC	24.0	24.1	24.2	24.4	28.4	28.6	28.7	28.9	32.8	33.0	33.2	33.4	37.5	37.7	37.9
		S/T	0.83	1.02	1.03	1.03	0.67	0.83	0.98	1.03	0.52	0.69	0.84	0.97	0.54	0.70	0.84
		kW	2.58	2.59	2.61	2.63	3.17	3.20	3.22	3.24	3.82	3.84	3.87	3.90	4.54	4.57	4.60

Heating Performance

5 TON SYSTEM EODA18H-60+EAHATN-60													
INDOOR AIR		OUTDOOR AMBIENT TEMPERATURE											
		-3			7			17			27		
IDB(°F)	CFM	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP
65	1040	42.1	7.26	1.70	49.0	7.08	2.03	56.0	6.86	2.39	62.1	6.58	2.77
	1130	41.6	7.16	1.70	48.5	6.99	2.03	55.4	6.77	2.40	61.4	6.49	2.77
	1240	40.4	6.90	1.72	47.1	6.74	2.05	53.8	6.53	2.41	59.6	6.26	2.79
70	1040	37.7	6.35	1.74	43.9	6.20	2.07	50.2	6.00	2.45	55.6	5.76	2.83
	1130	37.3	6.27	1.74	43.5	6.12	2.08	49.6	5.92	2.45	55.0	5.68	2.84
	1240	36.2	6.05	1.75	42.2	5.90	2.10	48.2	5.72	2.47	53.4	5.48	2.86
75	1040	33.3	5.49	1.78	38.8	5.36	2.12	44.3	5.19	2.50	49.1	4.98	2.89
	1130	33.0	5.42	1.78	38.4	5.29	2.13	43.8	5.12	2.51	48.6	4.91	2.90
	1240	32.0	5.23	1.79	37.3	5.11	2.14	42.6	4.95	2.52	47.2	4.75	2.91

5 TON SYSTEM EODA18H-60+EAHATN-60													
INDOOR AIR		OUTDOOR AMBIENT TEMPERATURE											
		37			47			57			67		
IDB(°F)	CFM	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP
65	1040	62.1	6.24	2.92	62.1	5.83	3.12	62.1	5.32	3.42	62.1	4.70	3.87
	1130	61.4	6.16	2.92	61.4	5.75	3.13	61.4	5.25	3.43	61.4	4.63	3.89
	1240	59.6	5.94	2.94	59.6	5.54	3.15	59.6	5.06	3.45	59.6	4.47	3.91
70	1040	55.6	5.46	2.98	55.6	5.10	3.19	55.6	4.66	3.50	55.6	4.11	3.96
	1130	55.0	5.39	2.99	**55.0**	**5.03**	**3.20**	55.0	4.59	3.51	55.0	4.05	3.98
	1240	53.4	5.20	3.01	53.4	4.85	3.23	53.4	4.43	3.53	53.4	3.91	4.00
75	1040	49.1	4.72	3.05	49.1	4.41	3.26	49.1	4.02	3.58	49.1	3.55	4.05
	1130	48.6	4.66	3.06	48.6	4.35	3.27	48.6	3.97	3.59	48.6	3.51	4.06
	1240	47.2	4.50	3.07	47.2	4.20	3.29	47.2	3.84	3.60	47.2	3.39	4.08

Cooling Performance

5 TON SYSTEM EODA18H-4860+EAHATN-60

Indoor	Outdoor	IWB(°F)	59				63				67				71		
(CFM)	DB(°F)	IDB(°F)	70	75	80	85	70	75	80	85	70	75	80	85	75	80	85
1440	65	TC	43.3	43.5	43.7	44.0	51.3	51.6	51.8	52.1	59.3	59.6	59.9	60.3	67.7	68.0	68.4
		S/T	0.64	0.79	0.87	0.96	0.52	0.65	0.76	0.86	0.40	0.53	0.65	0.76	0.42	0.55	0.65
		kW	2.37	2.38	2.40	2.42	2.93	2.95	2.97	2.99	3.53	3.56	3.58	3.61	4.21	4.24	4.27
	75	TC	42.1	42.4	42.6	42.9	50.0	50.2	50.5	50.8	57.8	58.1	58.4	58.7	65.9	66.3	66.7
		S/T	0.66	0.81	0.90	0.97	0.53	0.67	0.78	0.88	0.41	0.55	0.67	0.78	0.43	0.56	0.67
		kW	2.66	2.67	2.69	2.71	3.28	3.30	3.33	3.35	3.95	3.98	4.01	4.04	4.70	4.74	4.78
	85	TC	41.0	41.3	41.5	41.7	48.6	48.9	49.2	49.5	56.2	56.6	56.9	57.2	64.2	64.6	64.9
		S/T	0.68	0.84	0.92	0.97	0.55	0.69	0.81	0.90	0.43	0.56	0.69	0.80	0.45	0.58	0.69
		kW	2.98	3.00	3.02	3.04	3.68	3.71	3.73	3.76	4.43	4.46	4.49	4.53	5.27	5.31	5.35
	95	TC	39.9	40.2	40.4	40.6	47.3	47.6	47.9	48.1	54.7	55.0	**55.3**	55.6	62.5	62.8	63.2
		S/T	0.70	0.86	0.95	0.97	0.56	0.70	0.83	0.93	0.44	0.58	**0.71**	0.82	0.46	0.59	0.71
		kW	3.35	3.37	3.39	3.42	4.13	4.15	4.18	4.21	4.96	5.00	**5.03**	5.07	5.90	5.94	5.98
	105	TC	38.8	39.0	39.3	39.5	46.0	46.3	46.5	46.8	53.2	53.5	53.8	54.1	60.7	61.1	61.4
		S/T	0.72	0.88	0.97	0.97	0.58	0.72	0.85	0.95	0.45	0.60	0.73	0.84	0.47	0.61	0.73
		kW	3.74	3.77	3.79	3.82	4.61	4.64	4.67	4.70	5.53	5.57	5.56	5.65	6.57	6.62	6.67
	115	TC	37.7	37.9	38.1	38.3	44.7	44.9	45.2	45.4	50.2	50.5	50.8	51.0	51.4	51.7	51.9
		S/T	0.74	0.91	0.97	0.97	0.60	0.75	0.88	0.97	0.46	0.61	0.75	0.87	0.49	0.63	0.75
		kW	4.16	4.19	4.22	4.25	5.12	5.15	5.19	5.22	5.92	5.96	5.94	6.04	6.09	6.14	6.18
1590	65	TC	44.6	44.8	45.1	45.3	52.8	53.1	53.4	53.7	61.1	61.4	61.8	62.1	69.7	70.1	70.5
		S/T	0.66	0.82	0.90	0.99	0.54	0.67	0.79	0.88	0.42	0.55	0.67	0.78	0.44	0.56	0.67
		kW	2.43	2.45	2.47	2.48	3.01	3.03	3.05	3.08	3.64	3.66	3.69	3.72	4.34	4.37	4.40
	75	TC	43.4	43.7	43.9	44.1	51.5	51.7	52.0	52.3	59.5	59.8	60.2	60.5	67.9	68.3	68.7
		S/T	0.68	0.84	0.92	1.00	0.55	0.69	0.81	0.91	0.43	0.57	0.69	0.80	0.45	0.58	0.69
		kW	2.73	2.75	2.76	2.78	3.37	3.40	3.42	3.44	4.07	4.10	4.13	4.16	4.85	4.88	4.92
	85	TC	42.3	42.5	42.8	43.0	50.1	50.4	50.7	50.9	57.9	58.3	58.6	58.9	66.1	66.5	66.9
		S/T	0.70	0.86	0.95	1.00	0.56	0.71	0.83	0.93	0.44	0.58	0.71	0.82	0.46	0.59	0.71
		kW	3.06	3.08	3.11	3.13	3.78	3.81	3.84	3.86	4.56	4.59	4.63	4.66	5.43	5.47	5.51
	95	TC	41.1	41.4	41.6	41.8	48.7	49.0	49.3	49.6	56.4	56.7	**57.0**	57.3	64.3	64.7	65.1
		S/T	0.72	0.89	0.97	1.00	0.58	0.73	0.85	0.96	0.45	0.60	**0.73**	0.84	0.47	0.61	0.73
		kW	3.44	3.46	3.48	3.51	4.24	4.27	4.30	4.33	5.10	5.14	**5.18**	5.22	6.07	6.12	6.16
	105	TC	40.0	40.2	40.4	40.7	47.4	47.7	47.9	48.2	54.8	55.1	55.4	55.7	62.6	62.9	63.3
		S/T	0.74	0.91	1.00	1.00	0.60	0.75	0.88	0.98	0.46	0.61	0.75	0.87	0.49	0.63	0.75
		kW	3.84	3.87	3.89	3.92	4.73	4.77	4.80	4.83	5.69	5.73	5.77	5.82	6.77	6.82	6.87
	115	TC	38.8	39.1	39.3	39.5	46.0	46.3	46.6	46.8	51.7	52.0	52.3	52.6	52.9	53.2	53.5
		S/T	0.76	0.94	1.00	1.00	0.61	0.77	0.90	1.00	0.48	0.63	0.77	0.89	0.50	0.65	0.77
		kW	4.27	4.30	4.33	4.36	5.26	5.29	5.33	5.37	6.08	6.13	6.17	6.22	6.27	6.31	6.36
1650	65	TC	45.1	45.3	45.6	45.8	53.4	53.7	54.0	54.3	61.7	62.1	62.4	62.8	70.5	70.9	71.3
		S/T	0.67	0.83	0.91	1.00	0.54	0.68	0.80	0.89	0.42	0.56	0.68	0.79	0.44	0.57	0.68
		kW	2.46	2.47	2.49	2.51	3.04	3.07	3.09	3.11	3.68	3.70	3.73	3.76	4.39	4.42	4.45
	75	TC	43.9	44.1	44.4	44.6	52.0	52.3	52.6	52.9	60.2	60.5	60.8	61.2	68.7	69.1	69.4
		S/T	0.69	0.85	0.93	1.01	0.56	0.70	0.82	0.92	0.43	0.57	0.70	0.81	0.45	0.58	0.70
		kW	2.75	2.77	2.79	2.81	3.41	3.43	3.46	3.48	4.11	4.14	4.17	4.20	4.90	4.94	4.98
	85	TC	42.7	43.0	43.2	43.5	50.7	50.9	51.2	51.5	58.6	58.9	59.2	59.6	66.9	67.2	67.6
		S/T	0.71	0.87	0.96	1.01	0.57	0.71	0.84	0.94	0.44	0.59	0.72	0.83	0.47	0.60	0.72
		kW	3.09	3.11	3.14	3.16	3.82	3.85	3.88	3.91	4.61	4.64	4.68	4.71	5.49	5.53	5.57
	95	TC	41.6	41.8	42.1	42.3	49.3	49.6	49.8	50.1	57.0	57.3	**57.6**	58.0	65.1	65.4	65.8
		S/T	0.73	0.90	0.99	1.01	0.59	0.73	0.86	0.97	0.46	0.60	**0.74**	0.85	0.48	0.62	0.74
		kW	3.47	3.49	3.52	3.54	4.28	4.31	4.35	4.38	5.16	5.20	**5.23**	5.27	6.14	6.19	6.23
	105	TC	40.4	40.7	40.9	41.1	47.9	48.2	48.5	48.7	55.4	55.7	56.0	56.3	63.3	63.6	64.0
		S/T	0.75	0.92	1.01	1.01	0.60	0.75	0.89	0.99	0.47	0.62	0.76	0.88	0.49	0.63	0.76
		kW	3.88	3.91	3.93	3.96	4.78	4.82	4.85	4.88	5.75	5.79	5.84	5.88	6.84	6.89	6.94
	115	TC	39.3	39.5	39.7	39.9	46.6	46.8	47.1	47.3	52.3	52.6	52.9	53.2	53.5	53.8	54.1
		S/T	0.77	0.95	1.01	1.01	0.62	0.78	0.91	1.01	0.48	0.64	0.78	0.90	0.51	0.65	0.78
		kW	4.31	4.34	4.37	4.40	5.31	5.35	5.38	5.42	6.15	6.19	6.24	6.28	6.33	6.38	6.42

Heating Performance

Ultra Series 3 TON SYSTEM EODA18H-4860+EAHATN-36													
INDOOR AIR		OUTDOOR AMBIENT TEMPERATURE											
		37			47			57			67		
IDB(°F)	CFM	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP
65	1040	39.2	3.31	3.47	39.2	3.09	3.72	39.2	2.82	4.07	39.2	2.49	4.61
	1130	40.2	3.41	3.45	40.2	3.19	3.69	40.2	2.91	4.05	40.2	2.57	4.58
	1240	41.3	3.53	3.43	41.3	3.30	3.67	41.3	3.01	4.02	41.3	2.66	4.55
70	1040	35.1	2.90	3.55	35.1	2.71	3.79	35.1	2.47	4.16	35.1	2.18	4.72
	1130	36.0	2.99	3.53	**36.0**	**2.79**	**3.78**	36.0	2.55	4.14	36.0	2.25	4.69
	1240	37.0	3.09	3.51	37.0	2.88	3.76	37.0	2.63	4.12	37.0	2.33	4.65
75	1040	31.0	2.51	3.62	31.0	2.34	3.88	31.0	2.14	4.24	31.0	1.89	4.81
	1130	31.8	2.58	3.61	31.8	2.41	3.87	31.8	2.20	4.24	31.8	1.94	4.80
	1240	32.7	2.67	3.59	32.7	2.49	3.85	32.7	2.28	4.20	32.7	2.01	4.77

Ultra Series 3 TON SYSTEM EODA18H-4860+EAHATN-36													
INDOOR AIR		OUTDOOR AMBIENT TEMPERATURE											
		-3			7			17			27		
IDB(°F)	CFM	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP	MBH	KW	COP
65	1040	34.8	3.85	2.65	39.2	3.76	3.05	39.2	3.64	3.16	39.2	3.49	3.29
	1130	35.6	3.97	2.63	40.2	3.88	3.04	40.2	3.75	3.14	40.2	3.60	3.27
	1240	36.6	4.11	2.61	41.3	4.01	3.02	41.3	3.88	3.12	41.3	3.73	3.24
70	1040	31.1	3.37	2.70	35.1	3.29	3.13	35.1	3.19	3.22	35.1	3.06	3.36
	1130	31.9	3.48	2.69	36.0	3.39	3.11	36.0	3.29	3.21	36.0	3.15	3.35
	1240	32.8	3.59	2.68	37.0	3.51	3.09	37.0	3.40	3.19	37.0	3.26	3.33
75	1040	27.5	2.92	2.76	31.0	2.85	3.19	31.0	2.76	3.29	31.0	2.65	3.43
	1130	28.2	3.00	2.75	31.8	2.93	3.18	31.8	2.84	3.28	31.8	2.73	3.41
	1240	29.0	3.10	2.74	32.7	3.03	3.16	32.7	2.93	3.27	32.7	2.81	3.41

Cooling Performance

Ultra Series 3 TON SYSTEM EODA18H-4860+EAHATN-36																	
Indoor	Outdoor	IWB(°F)	59				63				67				71		
Airflow	DB(°F)	IDB(°F)	70	75	80	85	70	75	80	85	70	75	80	85	75	80	85
1040	65	TC	27.5	27.6	27.8	27.9	32.5	32.7	32.9	33.1	37.6	37.8	38.0	38.3	42.9	43.2	43.4
		S/T	0.65	0.80	0.88	0.96	0.52	0.65	0.77	0.86	0.41	0.54	0.66	0.76	0.43	0.55	0.66
		kW	1.37	1.38	1.39	1.40	1.69	1.70	1.72	1.73	2.04	2.06	2.07	2.09	2.43	2.45	2.47
	75	TC	26.7	26.9	27.0	27.2	31.7	31.9	32.1	32.2	36.7	36.9	37.1	37.3	41.8	42.1	42.3
		S/T	0.66	0.82	0.90	0.98	0.54	0.67	0.79	0.88	0.42	0.55	0.67	0.78	0.44	0.56	0.67
		kW	1.53	1.54	1.56	1.57	1.90	1.91	1.92	1.94	2.28	2.30	2.32	2.33	2.72	2.74	2.76
	85	TC	26.0	26.2	26.3	26.5	30.9	31.0	31.2	31.4	35.7	35.9	36.1	36.3	40.7	41.0	41.2
		S/T	0.68	0.84	0.93	0.98	0.55	0.69	0.81	0.91	0.43	0.57	0.69	0.80	0.45	0.58	0.69
		kW	1.72	1.74	1.75	1.76	2.13	2.14	2.16	2.17	2.56	2.58	2.60	2.62	3.05	3.07	3.09
	95	TC	25.3	25.5	25.6	25.8	30.0	30.2	30.4	30.5	34.7	34.9	**35.1**	35.3	39.6	39.9	40.1
		S/T	0.70	0.86	0.95	0.98	0.57	0.71	0.83	0.93	0.44	0.58	**0.71**	0.82	0.46	0.59	0.71
		kW	1.93	1.95	1.96	1.97	2.38	2.40	2.42	2.43	2.87	2.89	**2.91**	2.93	3.41	3.43	3.46
	105	TC	24.6	24.8	24.9	25.1	29.2	29.4	29.5	29.7	33.8	33.9	34.1	34.3	38.5	38.8	39.0
		S/T	0.72	0.89	0.98	0.98	0.58	0.73	0.86	0.96	0.45	0.60	0.73	0.85	0.47	0.61	0.73
		kW	2.16	2.18	2.19	2.21	2.66	2.68	2.70	2.72	3.20	3.22	3.22	3.27	3.80	3.83	3.85
	115	TC	23.9	24.1	24.2	24.3	28.4	28.5	28.7	28.8	32.8	33.0	33.2	33.3	37.4	37.6	37.9
		S/T	0.74	0.91	0.98	0.98	0.60	0.75	0.88	0.98	0.47	0.62	0.75	0.87	0.49	0.63	0.75
		kW	2.40	2.42	2.44	2.45	2.96	2.98	3.00	3.02	3.55	3.57	3.57	3.62	4.21	4.24	4.27
1130	65	TC	28.1	28.3	28.5	28.6	33.4	33.5	33.7	33.9	38.6	38.8	39.0	39.2	44.0	44.3	44.5
		S/T	0.66	0.82	0.90	0.99	0.54	0.67	0.79	0.88	0.42	0.55	0.67	0.78	0.44	0.56	0.67
		kW	1.40	1.41	1.42	1.43	1.73	1.74	1.76	1.77	2.09	2.11	2.12	2.14	2.50	2.51	2.53
	75	TC	27.4	27.6	27.7	27.9	32.5	32.7	32.9	33.0	37.6	37.8	38.0	38.2	42.9	43.1	43.4
		S/T	0.68	0.84	0.92	1.00	0.55	0.69	0.81	0.91	0.43	0.57	0.69	0.80	0.45	0.58	0.69
		kW	1.57	1.58	1.59	1.60	1.94	1.95	1.97	1.98	2.34	2.36	2.37	2.39	2.79	2.81	2.83
	85	TC	26.7	26.9	27.0	27.2	31.6	31.8	32.0	32.2	36.6	36.8	37.0	37.2	41.8	42.0	42.2
		S/T	0.70	0.86	0.95	1.00	0.56	0.71	0.83	0.93	0.44	0.58	0.71	0.82	0.46	0.59	0.71
		kW	1.76	1.77	1.79	1.80	2.18	2.19	2.21	2.22	2.62	2.64	2.66	2.68	3.12	3.15	3.17
	95	TC	26.0	26.1	26.3	26.4	30.8	31.0	31.1	31.3	35.6	35.8	**36.0**	36.2	40.6	40.9	41.1
		S/T	0.72	0.89	0.97	1.00	0.58	0.73	0.85	0.96	0.45	0.60	**0.73**	0.84	0.47	0.61	0.73
		kW	1.98	1.99	2.00	2.02	2.44	2.46	2.47	2.49	2.94	2.96	**2.98**	3.00	3.49	3.52	3.55
	105	TC	25.3	25.4	25.5	25.7	29.9	30.1	30.3	30.4	34.6	34.8	35.0	35.2	39.5	39.7	40.0
		S/T	0.74	0.91	1.00	1.00	0.60	0.75	0.88	0.98	0.46	0.61	0.75	0.87	0.49	0.63	0.75
		kW	2.21	2.22	2.24	2.25	2.72	2.74	2.76	2.78	3.27	3.30	3.32	3.35	3.89	3.92	3.95
	115	TC	24.5	24.7	24.8	24.9	29.1	29.2	29.4	29.6	33.6	33.8	34.0	34.2	38.4	38.6	38.8
		S/T	0.76	0.94	1.00	1.00	0.61	0.77	0.90	1.00	0.48	0.63	0.77	0.89	0.50	0.65	0.77
		kW	2.46	2.47	2.49	2.51	3.02	3.05	3.07	3.09	3.63	3.66	3.68	3.71	4.31	4.34	4.38
1240	65	TC	28.9	29.1	29.3	29.4	34.3	34.5	34.7	34.9	39.7	39.9	40.1	40.3	45.3	45.5	45.8
		S/T	0.68	0.84	0.93	1.01	0.55	0.69	0.81	0.91	0.43	0.57	0.69	0.80	0.45	0.58	0.69
		kW	1.44	1.45	1.46	1.47	1.78	1.79	1.80	1.82	2.15	2.17	2.18	2.20	2.57	2.59	2.61
	75	TC	28.2	28.4	28.5	28.7	33.4	33.6	33.8	34.0	38.6	38.9	39.1	39.3	44.1	44.4	44.6
		S/T	0.70	0.86	0.95	1.03	0.57	0.71	0.83	0.93	0.44	0.58	0.71	0.82	0.46	0.59	0.71
		kW	1.61	1.62	1.63	1.64	1.99	2.01	2.02	2.03	2.40	2.42	2.44	2.46	2.87	2.89	2.91
	85	TC	27.5	27.6	27.8	27.9	32.5	32.7	32.9	33.1	37.6	37.8	38.0	38.3	42.9	43.2	43.4
		S/T	0.72	0.89	0.98	1.03	0.58	0.73	0.85	0.96	0.45	0.60	0.73	0.84	0.47	0.61	0.73
		kW	1.81	1.82	1.83	1.84	2.23	2.25	2.27	2.28	2.69	2.71	2.73	2.75	3.21	3.24	3.26
	95	TC	26.7	26.9	27.0	27.2	31.7	31.8	32.0	32.2	36.6	36.8	**37.0**	37.2	41.8	42.0	42.3
		S/T	0.74	0.91	1.00	1.03	0.60	0.75	0.88	0.98	0.46	0.61	**0.75**	0.87	0.49	0.63	0.75
		kW	2.03	2.04	2.05	2.07	2.50	2.52	2.54	2.56	3.02	3.04	**3.06**	3.08	3.59	3.62	3.65
	105	TC	26.0	26.1	26.3	26.4	30.8	31.0	31.1	31.3	35.6	35.8	36.0	36.2	40.6	40.9	41.1
		S/T	0.76	0.94	1.03	1.03	0.61	0.77	0.90	1.01	0.48	0.63	0.77	0.89	0.50	0.64	0.77
		kW	2.26	2.28	2.30	2.31	2.79	2.81	2.83	2.85	3.36	3.39	3.41	3.44	4.00	4.03	4.06
	115	TC	25.2	25.4	25.5	25.7	29.9	30.1	30.2	30.4	34.6	34.8	35.0	35.2	39.5	39.7	39.9
		S/T	0.78	0.96	1.03	1.03	0.63	0.79	0.93	1.03	0.49	0.65	0.80	0.92	0.51	0.66	0.79
		kW	2.52	2.53	2.55	2.57	3.10	3.12	3.15	3.17	3.73	3.76	3.78	3.81	4.43	4.47	4.50

Installation Notes

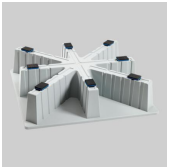
1. **Ecoer utilizes an inverter driven compressor and condenser fan motor. Speed ranges from 20hz up to 90hz. Cooling capacity will remain constant in ambient temperature up to 115F. Minimum Cooling Ambient is 20F. Heating capacity will depreciate 23% at 17F and 30% at +5F for standard units. Ultra-configurations, (See above) heating output will remain 100% at +5F.**

2. **Ecoer recommends a backup heat source such as electric resistance or fossil fuel. Hydro coils are acceptable (see below)**

3. **Ecoer heat pump may be used with virtually any R410a fin tube air handler or A coil. Micro Channel coils are not acceptable. the indoor coil must be equipped with a heat pump TXV (adjustable preferred). Suitable valves include Parker HCAE 3Z, HCAE 5Z, Sporlan ERZE-2-GA, ERZE-2-GA, ERZE-3-GA, ERZE-4-GA, ERZE-5-GA.**

4. **Ecoer Heat pump will require a bidirectional drier. Suitable driers are available from Parker or Sporlan model numbers include HPC-103s, HPC-163S, BF-083S, BF163S. Driers should be places near the air handler before the expansion valve. A moisture indicator may also be installed at this location.**

5. **Ecoer Heat Pump should be placed at least 6” above the ground on a level, equipment pad. Heat pump risers are required such as Diversitech HPR-6 however masonry block is also acceptable.**



6. **Heat Pump placement is critical. Allow 20” clearance on the three adjacent and opposite sides to the access panel and 24” on the access panel. There should be 60” of clearance above the top of the heat pump. Further avoid placement where ice and snow may fall off of a roof or overhang and land on the top of the heat pump.**

7. **The low voltage connections are terminated on the outdoor circuit board at CN5. A pig tail is shipped with the unit and is located in the Installation bag.**

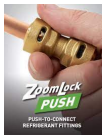
Installation

1. **The gateway will require a cell signal to communicate with the Ecoer monitoring service. Keep this in mind when placing the unit.**

2. **Ecoer requires the installation of a surge protector connected directly to the disconnect. Recommended surge protectors include Square D (SDSA1175, available through Ecoer), Mars 83905, ICM ICM517.**

3. **Ecoer requires the suction line only insulated with "Armaflex" style insulation. I minimum of 1/2" wall is recommended.**

4. **Refrigerant lines should be brazed with a silver baring braze rod such as Lucas Milhaupt Silfos 5 or Silfos 15. Alternate joining systems such as ZoomLock and Zoomlock Push are acceptable. Nitrogen purge is required during all brazing operations. Wrap all adjoining components with a heat block or wet rag during brazing operation.**



5. **Following installation, and prior to opening the base valves on the heat pump, a minimum of 350 micron vacuum should be "pulled" on the system.**

6. **Ecoer Heat Pump energizes the reversing valve on a call for cooling. Therefore, thermostats should be programed or wired using the "0" terminal.**

7. **Ecoer outdoor board contains all the electrical connections for proper operation. The DIP switches do not need to be adjusted in most cases. You may adjust DIP switch SWI-2 for capacity selection and DIP switch SWI-3 for heat pump or cooling only selection. SWI-1 is reserved for future use and SWI-4 will disable the IoT which is not recommended.**

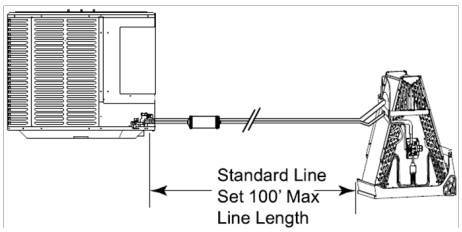
8. **Ecoer heat pumps, air handlers, and furnaces will work with nearly any thermostat or modern zoning system. However the nest "E" series shown here causes erratic behavior and is not recommended. Please note Nest generation 3 Nest will work as long as a common is run to the thermostat from the transformer.**

Installation Notes

Refrigerant Lines

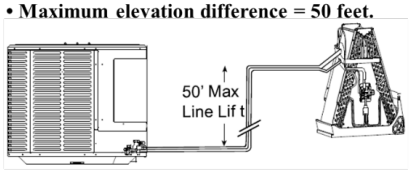
The refrigerant line sizes are shown in the physical data section. When applying the Ultra series, use the line size of the Air Handler. Below are a series of diagrams indicating line lengths and elevations

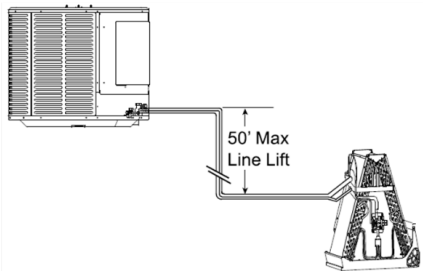
• **Maximum line length = 100 feet.**



If you exceed these lengths and elevation changes, the system performance will decrease.

• **Maximum elevation difference = 50 feet.**





Capacity Model	Liquid Line	Suction Line	Total Equivalent Length (FT)			
			25	50	75	100
	Dimensions in inches		Maximum Elevation Difference (FT)			
2Ton	3/8 Std.	3/4 Std.	25	50	45	40
	1/4 Opt.	5/8 Opt.	25	50	40	30
3Ton	3/8 Std.	3/4 Std.	25	50	50	50
	1/4 Opt.	5/8 Opt.	25	50	45	40
4Ton	3/8	7/8 Std.	25	50	50	40
		3/4 Opt.	25	50	50	40
5Ton	3/8	7/8 Std.	25	50	50	40
		3/4 Opt.	25	50	50	40
		1-1/8 Opt.	25	40	N/A	N/A

Std.: Standard line size; **Opt.**: Optional line size; **N/A**: Application not recommended;

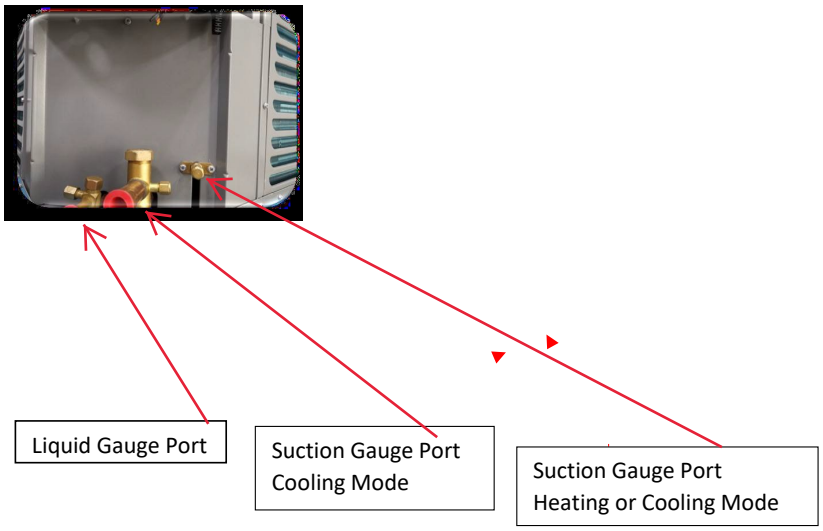
11. Ecoer heat pumps are pre-charged for 25 feet of refrigerant line. Additional refrigerant will be necessary for greater distances. If charging in the cooling mode, the auto charge feature may be used.(auto charge is covered under contractor-initiated modes). For charging in heating mode or when conditions are not favorable in the cooling mode, follow the following directions:

A. Measure the distance between the indoor and outdoor unit

B. Subtract 25 feet from the total distance.

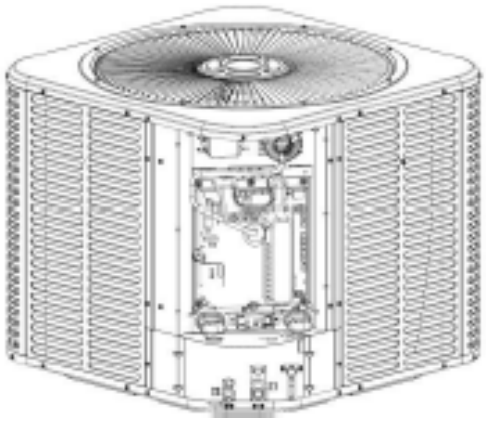
C. Multiply the number by 0.6 oz. . This valvue will be the amount of additional refrigerant required.

(If the difference is 0 or a negative number then no additional refrigerant is required.)

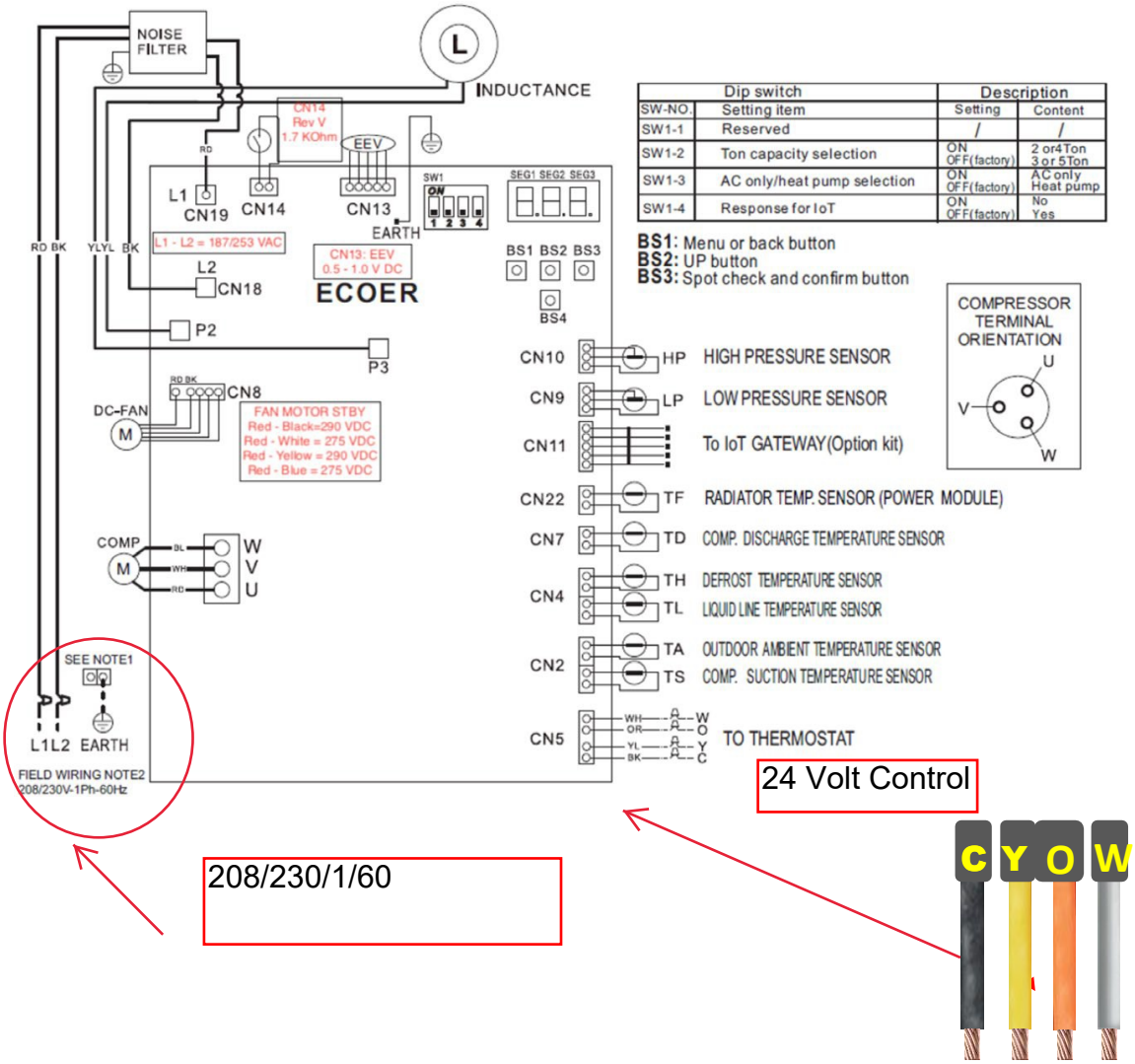


When using weigh-in method in heating mode, make sure the compressor discharge superheat does falls within 25F to 50F . Discharge superheat may be accessed by querying BS3 on the outdoor control board or through the Smart Service app.

Wiring



Outdoor Board Wiring Diagram



Dip switch		Description	
SW-NO.	Setting item	Setting	Content
SW1-1	Reserved	/	/
SW1-2	Ton capacity selection	ON OFF(factory)	2 or4Ton 3 or 5Ton
SW1-3	AC only/heat pump selection	ON OFF(factory)	AC only Heat pump
SW1-4	Response for IoT	ON OFF(factory)	No Yes

1. **The Ecoer heat pump can be monitored and programmed from both the circuit board in the heat pump as well as the Ecoer Smart Service App. From the board, selections are viewed through the series of four (4) push button switches located on the upper right-hand side of the board. Labeled BS1, BS2, BS3, and BS4. BS3 is used to scroll through the operating outputs during normal system operation. When the system is energized, SEG 3 will illuminate one of the following modes 0,1,2,3,4,5,6,7,8. Modes 6,7,8, are manually initiated through the board and will only display when initiated through programming. (See below for description and initiating sequence.**

Operating Modes

0	Stop/Standby without running signal (Y signal=OFF)
1	Ready to start-up after receiving running signal (Y signal=ON)
2	Cooling mode
3	Heating mode
4	Oil return
5	Defrost
6	Manually defrost
7	AUTO charge mode in cooling
8	Pump down

Contractor initiated modes

Mode 6: Manual Defrost. **This is useful when the outdoor coil is unusually frosted or testing the secondary heat function. To initiate this mode, follow this sequence of programming**

Start the system in heating mode. To confirm heating mode the default display will be 3 on SEG3. Allow the system to run for five (5) minutes.

1. **Press and hold BS1 for 10 seconds or until n00 is displayed**
2. **Press BS2 until Symbol n08 is displayed**
3. **Press BS3 to enter sub-menu – 0 will be displayed**
4. **Press BS2 to change sub-menu item to – 1**
5. **Press BS3 2 times to save setting. At this point the unit will be in forced defrost and will energize the secondary call for heat which is energized by W1 on the outdoor board.**
6. **Press BS1 to return to normal operation**

Mode 7: Auto charge (test) mode. **Use this mode to charge the system when the outdoor ambient temperature is 50F or more and the unit is in cooling. To initiate this mode, follow this sequence of programming**

Start the system in cooling mode. To confirm cooling mode the default display will be 2 on SEG3. Allow the system to run for five (5) minutes.

1. **Press and hold BS4 until 007 is displayed (flashing)**
2. **Wait until an alternate number is flashing following the 7. If - - is displayed the unit is calculating the subcooling value and will soon display the alternate number. The alternate number will be a value between .1 and .9 A value between .4 through .6 represents the correct refrigerant charge. Any value below .4 is under charged and any value above .6 is over charged.**

3. **Press BS4 once to return to normal operation**

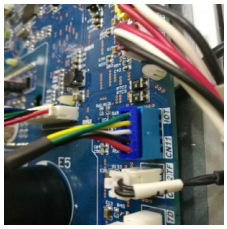
Mode 8: Pump down mode. **Pump down may be initiated from either cooling or heating mode. Use this mode to isolate refrigerant charge to either the condenser (when in cooling mode) or the evaporator (when in heating mode). To initiate this mode, follow this sequence of programming**

Start the system in cooling (2) or heating (3) mode depending on where you would like to isolate the refrigerant. Allow the system to run for five (5) minutes.

1. **Press and hold BS4 until 0 7 is displayed (flashing)**
2. **Press BS2 until 008 is displayed.**
3. **Close off the liquid valve on the heat pump. The system will run until the low pressure drops below 24.5 PSIG after which the system will shut down. The low-pressure value will be displayed on SEG1,2,3.**
4. **Close the suction service valve and recover any remaining refrigerant through the heat pump access valves.**
5. **Press BS4 once to return to normal operation**

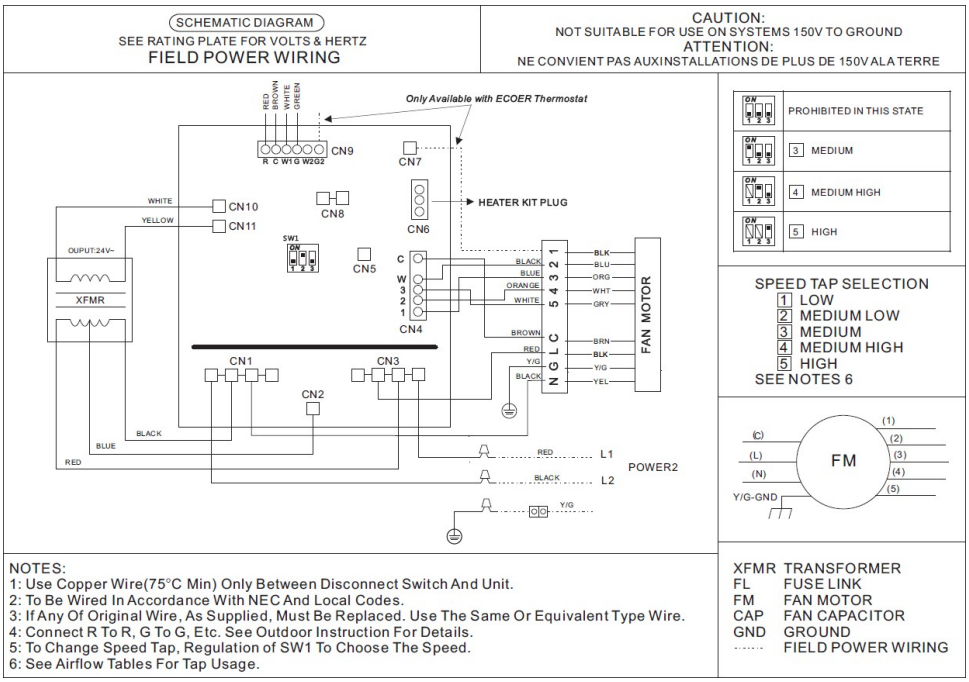
Ecoer Gateway

The Ecoer Gateway is shipped loose and typically installed on the condensing unit. The wire with a molex connector is run into the electrical compartment of the heat pump and plugged into the CN5 on the board. When the system is energized the board will search for a cellular signal. A single flashing blue light indicates a connection to the Ecoer computer in Virginia.



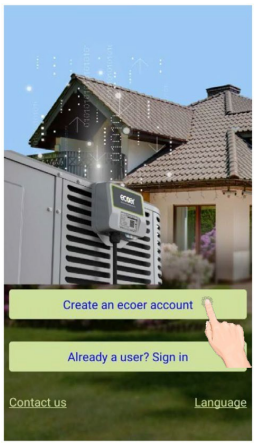
With the purchase of a system and the gateway, the customer receives in addition to the 10 years parts warranty, 3 years of monitoring and if the unit is installed by a certified dealer, they will receive 3 years of labor warranty. For details on how to become a certified dealer, see the text following this section. An additional 7 year monitoring, and 7 year labor warranty is available. The contractor purchases this directly from Ecoer for $599.00. The dealer is free to mark this up to the homeowner. From the gateway the contractor can access live operating data through the Ecoer Smart Service Pro app.

Ecoer air handler may be used in up flow, down flow, horizontal left or horizontal right configurations. The electrically commutated (EC) motor has five speed taps of which three may be utilized by enabling various dip switch combinations as shown below.



1. **The air handler is shipped without an air filter. Please install a filter prior to operating the system. Air handler filter sizes may be found in the beginning of this manual under air handler specifications.**

Ecoer Smart Service App



1. **The Ecoer Smart Service Pro application program may be accessed through the Android or Apple store. Contractors should download and create an account prior to installing their first system.**
2. **Registering a unit should be done at the time of commissioning.**
3. **During registration, the contractor will be asked to scan the following**
    a. **Gateway QR Code**
    b. **Heat pump Bar Code**
    c. **Air handler or cased coil Bar Code. (If using a third-party air handler or coil this step is unnecessary)**
    d. **An image of the installation. This step is not necessary**

Fault Codes

If a fault occurs, the outdoor unit will display a code. The system will operate with up to 2 failed sensors

Code	Description	Legend
F1	Ambient temperature(TA) sensor fault	Backup running*2
F2	Compressor suction temperature(TS) sensor fault	Backup running*2
F3	Liquid line temperature(TL) sensor fault	Backup running*2
F4	Defrost temperature(TH) sensor fault	Backup running*2
F5	Compressor discharge temperature(TD) sensor fault	Backup running*2
F6	Inverter module temperature(TF) sensor fault	Backup running*2
F7	High pressure(HP) sensor fault	Backup running*2
F8	Low pressure(LP) sensor fault	Backup running*2
E4	Communication fault between main chip and INV drive chip	Cannot restart *1
H1	Ambient temperature limit operation in cooling mode	
H2	Ambient temperature limit operation in heating mode	
H3	Abnormal switch alarm for 4-way valve	Just show alarm
H4	Defrost temperature(TH) sensor is disconnected or damaged	
H5	EEPROM fault	
H6	Low voltage alarm	
HF	Abnormal function control	
C0-CC	Compressor INV module protection	
E0	System locks up when C0~CA has occurred three times within 60 minutes.	Cannot restart *1

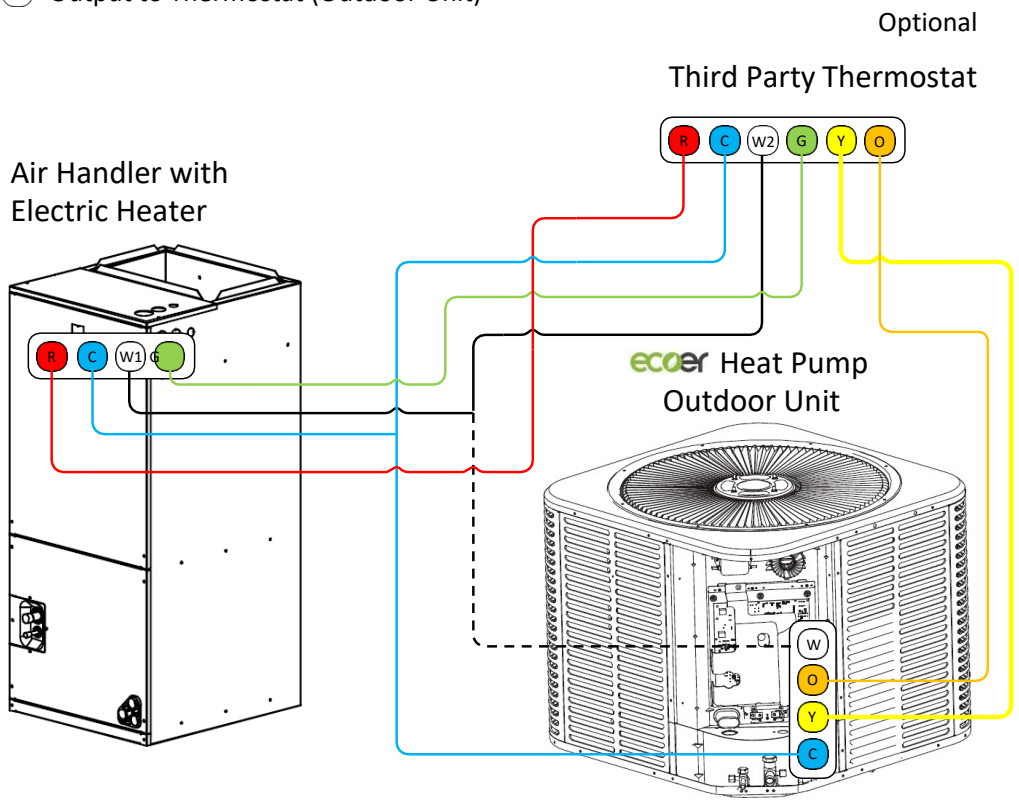
Code	Description	Legend
P1	High pressure protection	
E1	System locks up when P1 has occurred six times in 3 hours.	Cannot restart *1
P2	Low pressure protection in cooling mode	
E2	System locks up when P2 has occurred six times within 3 hours.	Cannot restart *1
P3	Compressor discharge temperature (TD) protection	
E3	System locks up when P3 has occurred six times within 3 hours.	Cannot restart *1
P4	Compressor discharge temperature (TD) sensor is disconnected or damaged	
P5	Inverter module temperature (TF) protection	
E5	System locks up when P5 has occurred six times within 3 hours.	Cannot restart *1
P6	Compressor over-current protection	
E6	System locks up when P6 has occurred six times within 3 hours.	Cannot restart *1
P7	Liquid slugging protection	
E7	System locks up when P7 has occurred three times within 5 hours.	Cannot restart *1
P8	Low compressor voltage protection	Cannot restart *1
E8	System locks up when P8 has occurred three times within 60 minutes.	Cannot restart *1
P9	Incorrect compressor line sequence	Cannot restart *1
PA	DC fan motor over-load protection	

1. **When an “E” code is displayed, turning off the power supply for 5 minutes and back on again may reset the system.**

Ecoer Variable Speed Heat Pump Matched with Air Handler and Electric Heater

- R 24 Volt +
- C Common
- G Fan Operation
- Y Air Conditioning (Heating or Cooling)
- O Mode Switch (Energize in Cooling)

- W2 Aux / Emergency Heat (Thermostat)
- W1 Heat with Fan Linkage (Air Handler)
- W Output to Thermostat (Outdoor Unit)



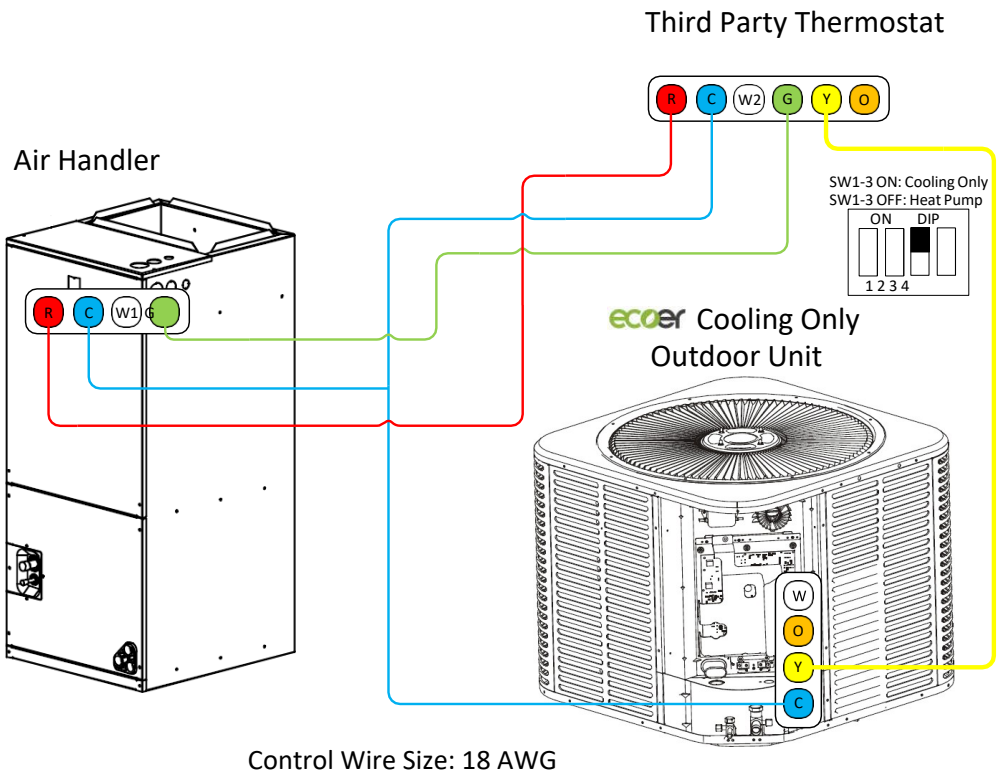
Control Wire Size: 18 AWG

Refer to installation guides of actual thermostat or equipment to verify the control wiring.

Matched with Air Handler

- R 24 Volt +
- C Common
- G Fan Operation
- Y Air Conditioning (Heating or Cooling)
- O Mode Switch (Energize in Cooling)

- W2 Aux / Emergency Heat (Thermostat)
- W1 Heat with Fan Linkage (Air Handler)
- W Output to Thermostat (Outdoor Unit)



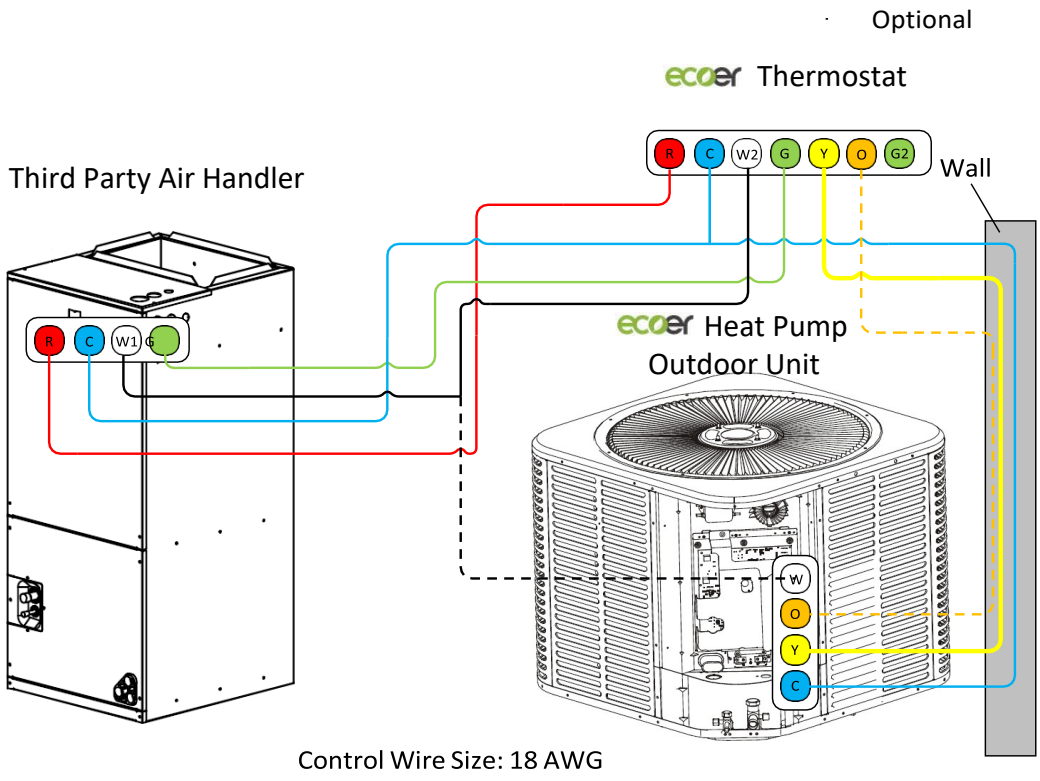
Control Wire Size: 18 AWG

Refer to installation guides of actual thermostat or equipment to verify the control wiring.

Handler (Ecoer Thermostat)

- R 24 Volt +
- C Common
- G Fan Operation
- G2 Fan Operation (Dehumidification Mode)
- Y Air Conditioning (Heating or Cooling)
- O Mode Switch (Energize in Cooling)

- W2 Aux / Emergency Heat (Thermostat)
- W1 Heat with Fan Linkage (Air Handler)
- W Output to Thermostat (Outdoor Unit)



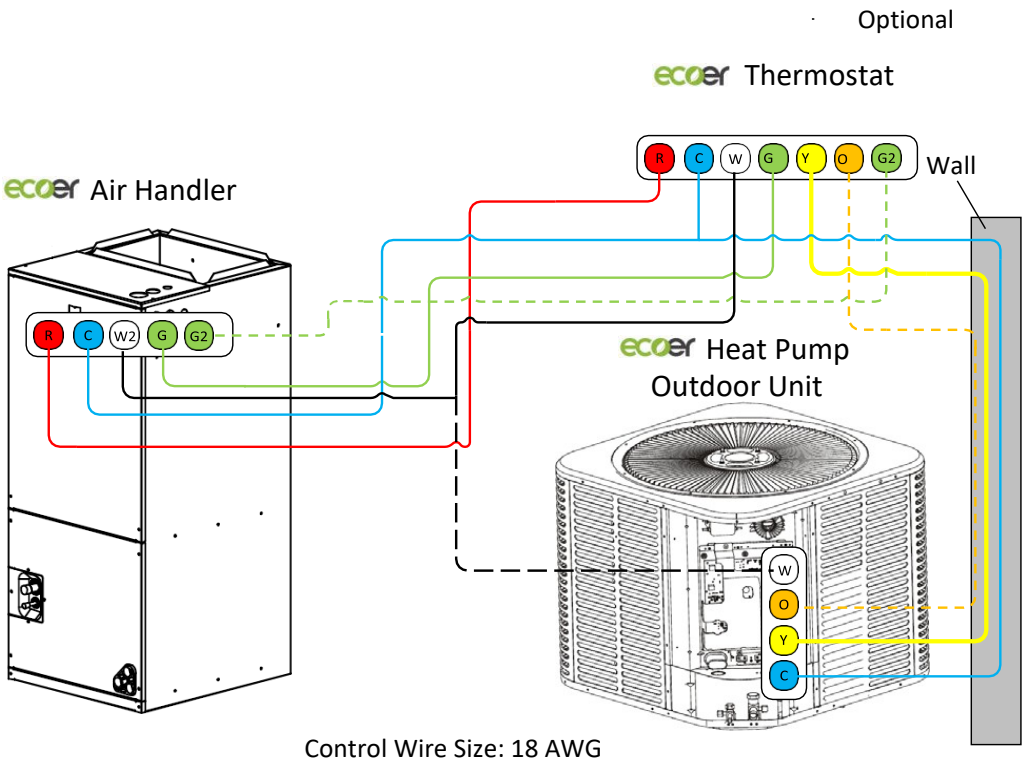
Control Wire Size: 18 AWG

Refer to installation guides of actual thermostat or equipment to verify the control wiring.

Ecoer Variable Speed Heat Pump Matched with Ecoer Air Handler and Electric Heater (Ecoer Thermostat)

- R 24 Volt +
- C Common
- G Fan Operation
- G2 Fan Operation (Dehumidification Mode)
- Y Air Conditioning (Heating or Cooling)
- O Mode Switch (Energize in Cooling)

- W2 Aux / Emergency Heat (Thermostat)
- W1 Heat with Fan Linkage (Air Handler)
- W Output to Thermostat (Outdoor Unit)



Control Wire Size: 18 AWG

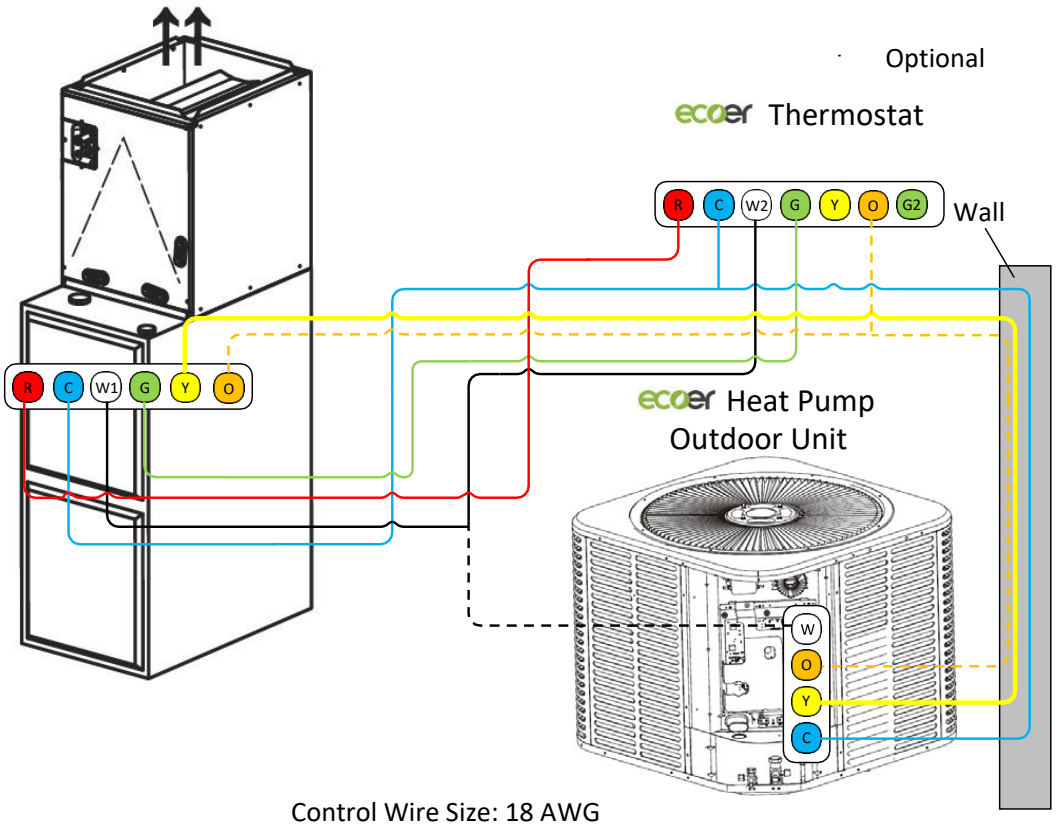
Refer to installation guides of actual thermostat or equipment to verify the control wiring.

Ecoer Variable Speed Heat Pump Matches with Cased Coil and Furnace (Ecoer Thermostat)

- R 24 Volt +
- C Common
- G Fan Operation
- G2 Fan Operation (Dehumidification Mode)
- Y Air Conditioning (Heating or Cooling)
- O Mode Switch (Energize in Cooling)

- W2 Aux / Emergency Heat (Thermostat)
- W1 Heat with Fan Linkage (Air Handler)
- W Output to Thermostat (Outdoor Unit)

Cased Coil with Furnace



Control Wire Size: 18 AWG

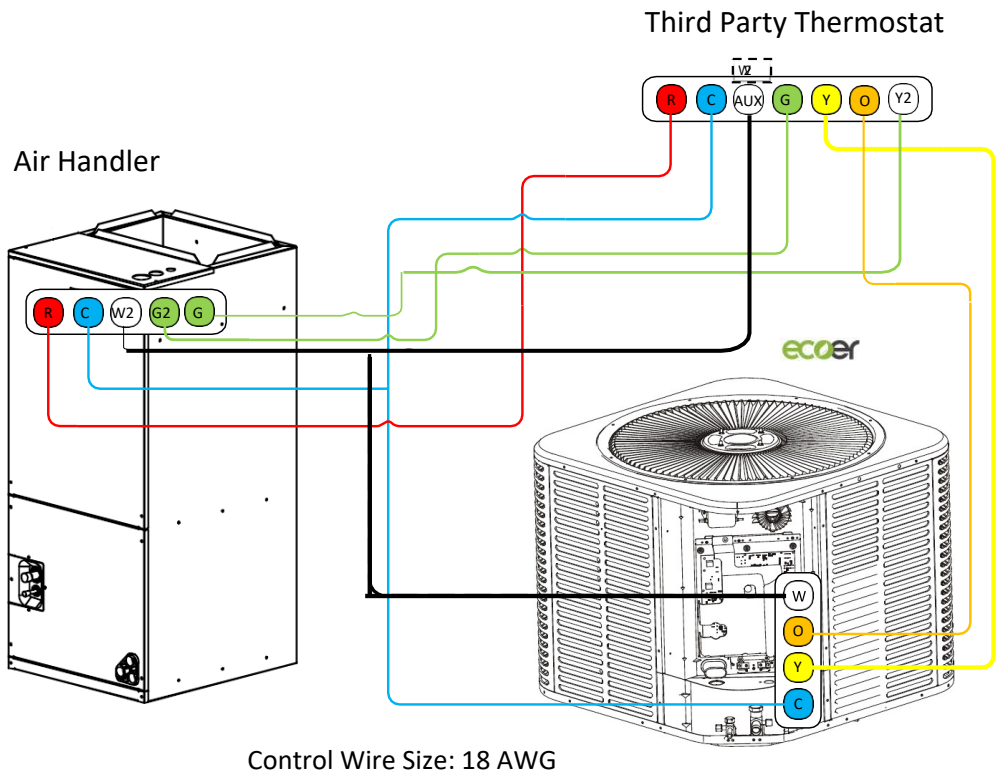
Ecoer provides an unique solution to achieve heat pump function without O signal.

Refer to installation guides of actual thermostat or equipment to verify the control wiring.

Ecoer Variable Speed Heat Pump Matched with Multi - Speed Air Handler or Furnace

- R 24 Volt +
- C Common
- G Fan Operation
- Y Air Conditioning (Heating or Cooling)
- O Mode Switch (Energize in Cooling)

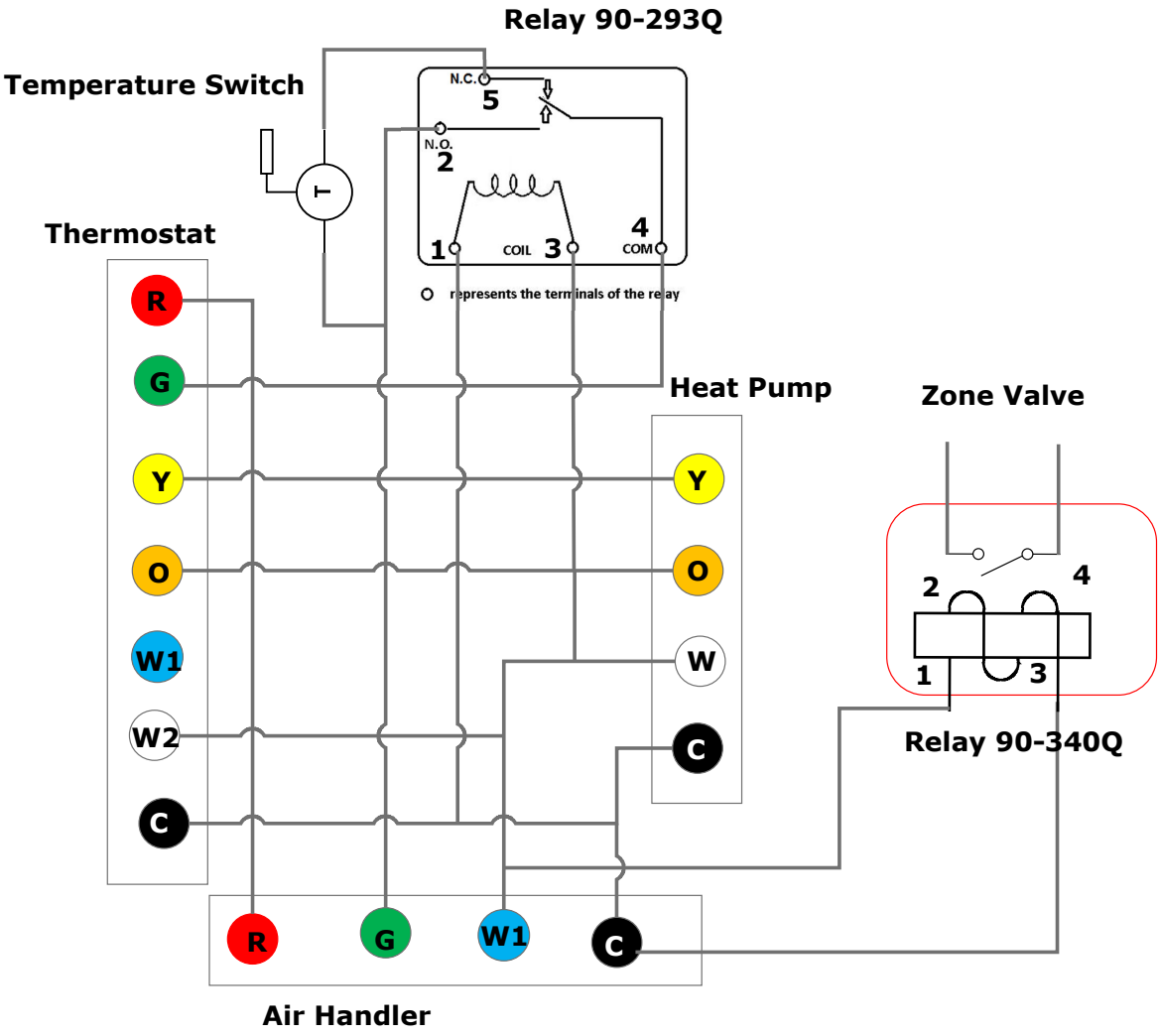
- W2 Aux / Emergency Heat (Thermostat)
- W1 Heat with Fan Linkage (Air Handler)
- W Output to Thermostat (Outdoor Unit)



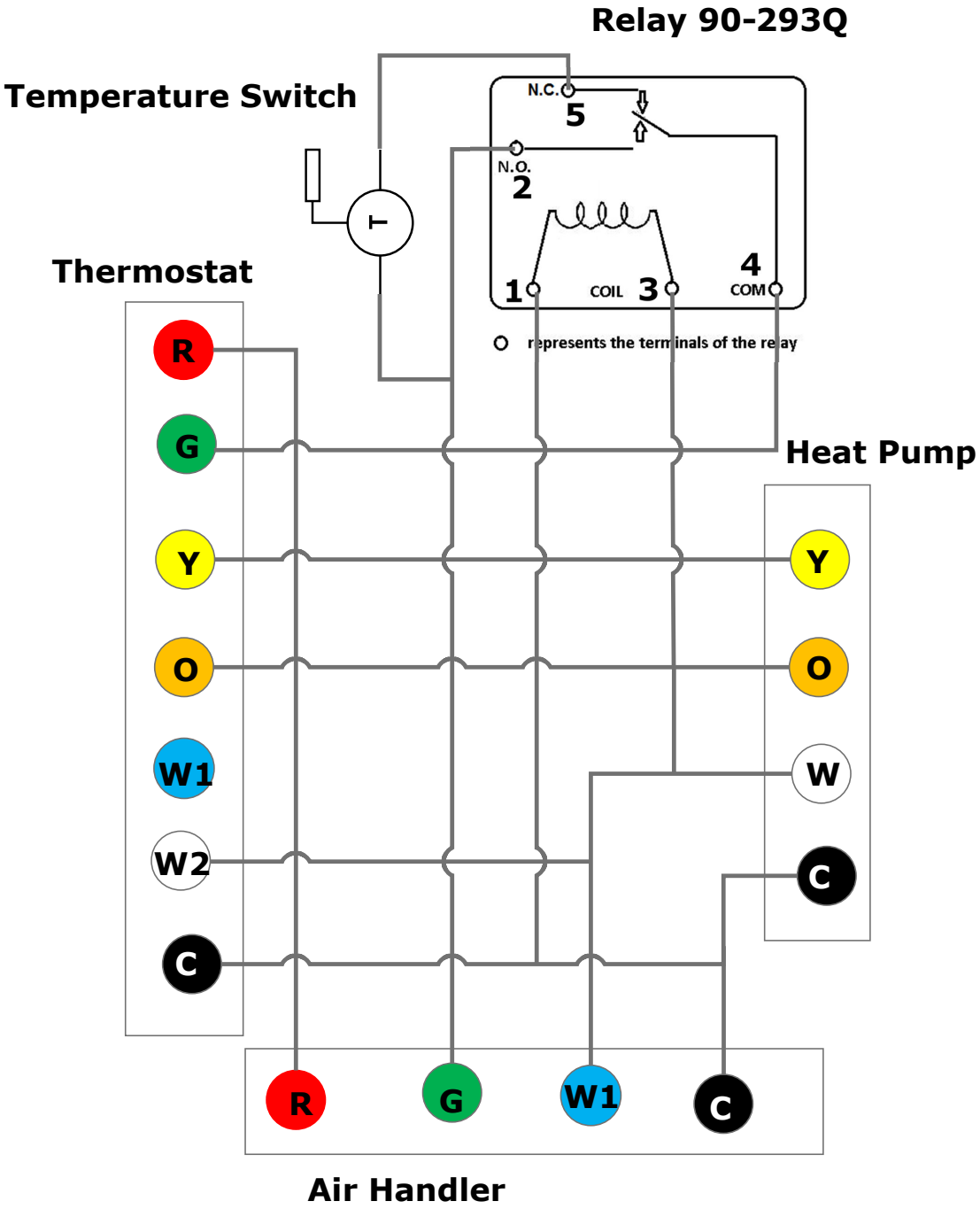
Control Wire Size: 18 AWG

Refer to installation guides of actual thermostat or equipment to verify the control wiring.

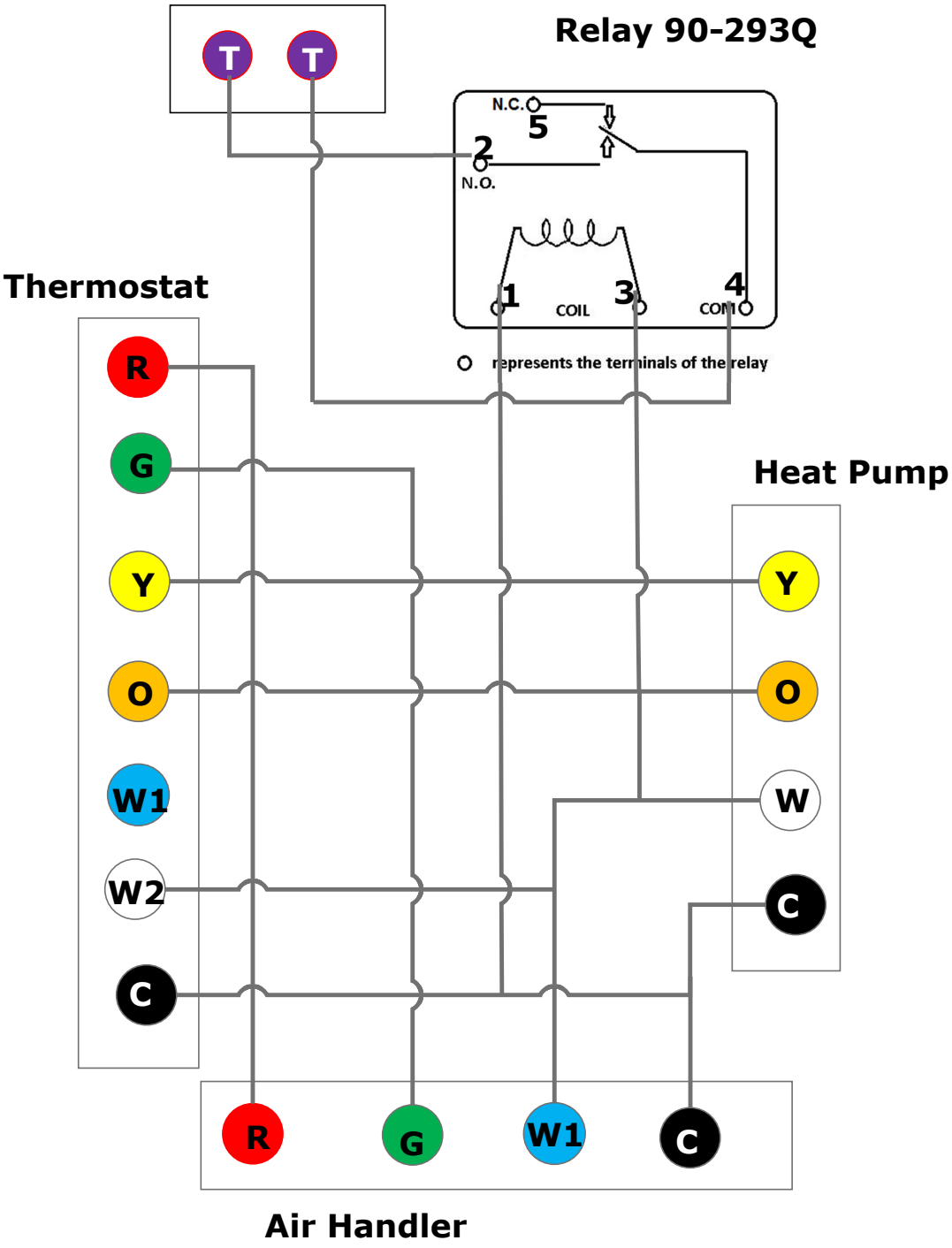
Ecoer Anti Cold Wiring Diagram 1



Ecoer Anti Cold Wiring Diagram 2

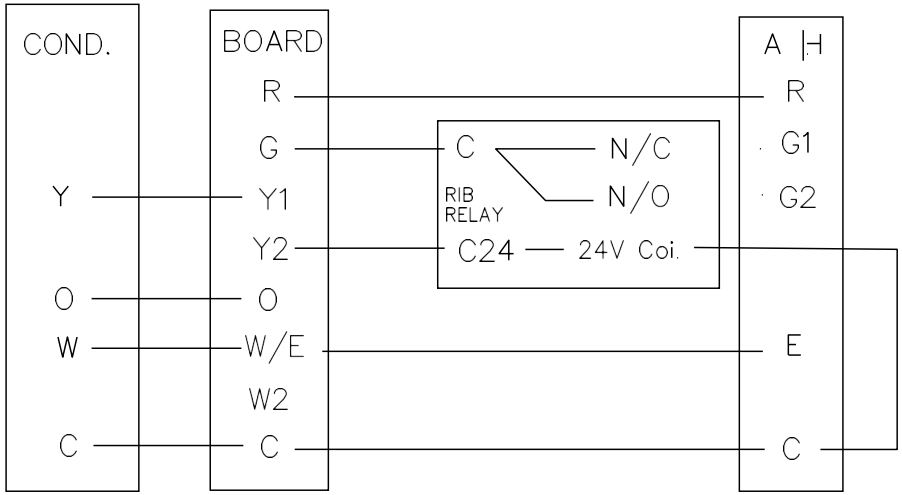


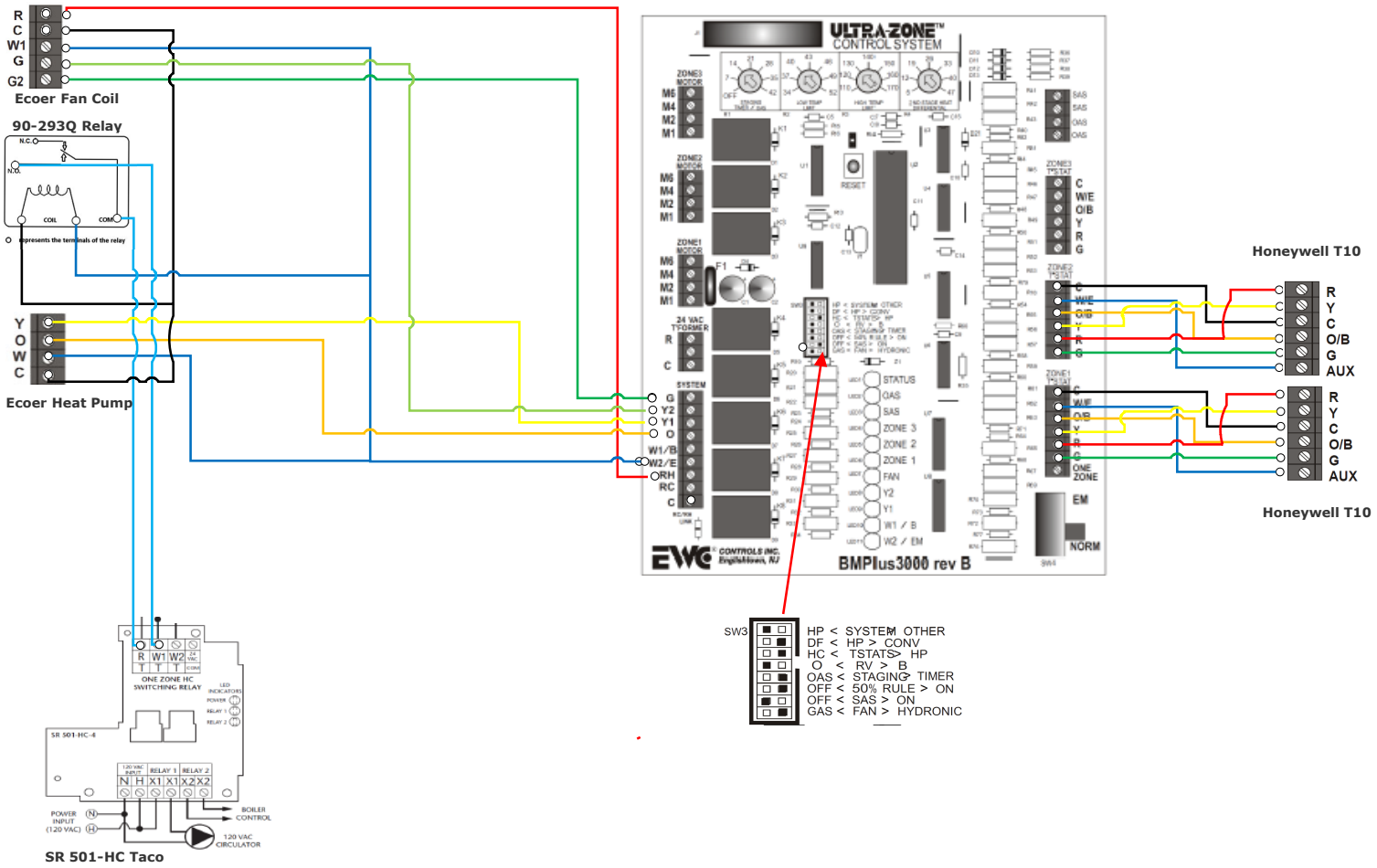
Wiring Diagram Hydronic Coil

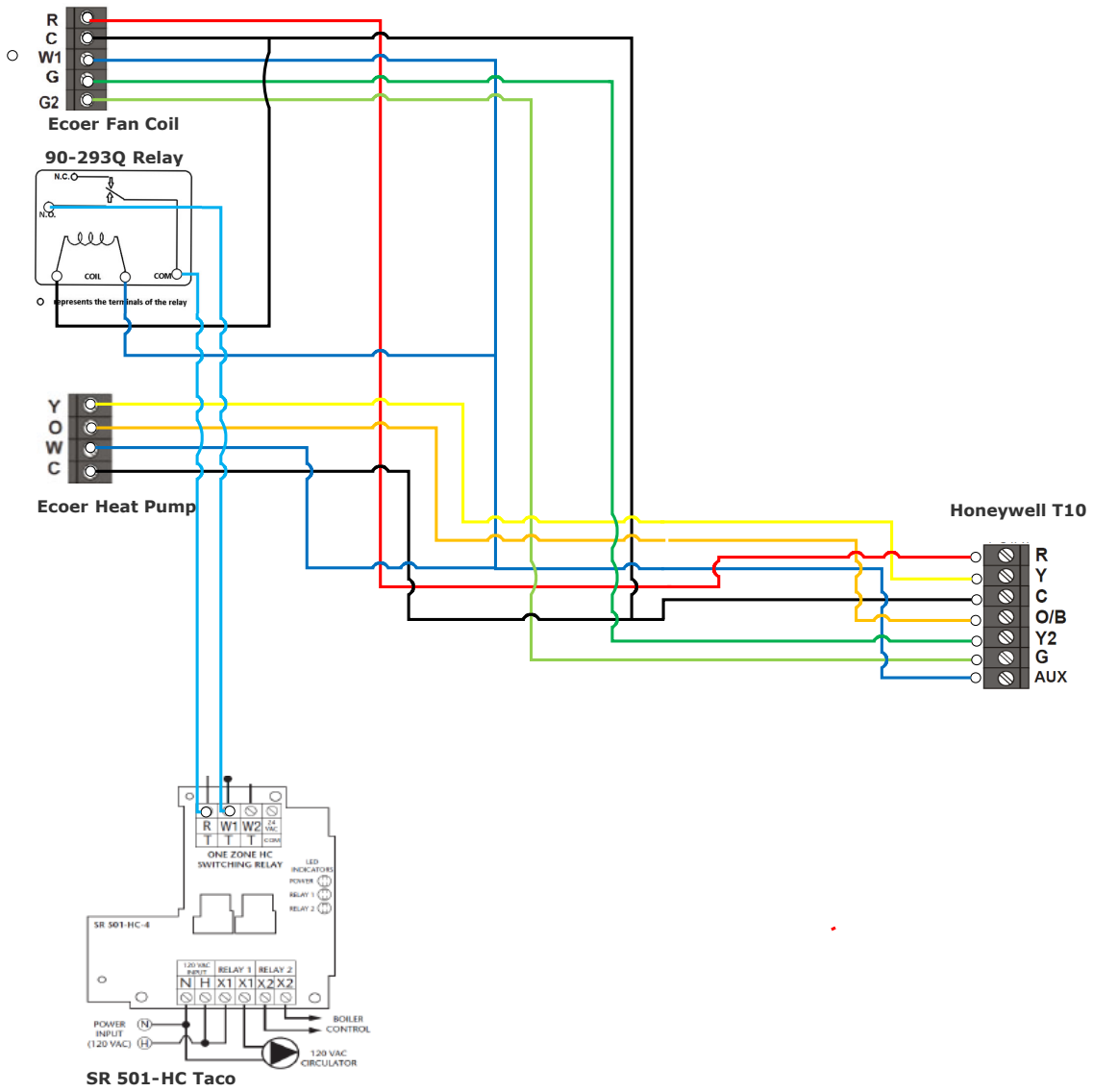


DUAL SPEED FOR ZONED SYSTEM - ECOER

-Use speed 2 for normaly closed
-Use speed 3 for noramly open
-Use E on board but leave it disabled in settings
-Setup board for Heat-pump O
-Y2 will turn on coil for RIB, and it board must be setup for 2 stage cooling
-All thermostats to be setup as single stage




R
C
W1
G
G2
Ecoer Fan Coil
90-293Q Relay
N.C.
N.O.
COIL
COM
represents the terminals of the relay
Y
O
W
C
Ecoer Heat Pump
ULTRA-ZONE™
CONTROL SYSTEM
BMPlus3000 rev B
STATUS
OAS
SAS
ZONE 3
ZONE 2
ZONE 1
FAN
Y2
Y1
W1 / B
W2 / EM
G
Y2
Y1
O
W1/B
W2/E
RH
RC
C
SW3
HP < SYSTEM > OTHER
DF < HP > CONV
HC < TSTATS > HP
O < RV > B
OAS < STAGING > TIMER
OFF < 50% RULE > ON
OFF < SAS > ON
GAS < FAN > HYDRONIC
Honeywell T10
R
Y
C
O/B
G
AUX
Honeywell T10
R
Y
C
O/B
G
AUX
ONE ZONE HC
SWITCHING RELAY
SR 501-HC-4
POWER INPUT (120 VAC)
BOILER CONTROL
120 VAC CIRCULATOR
SR 501-HC Taco


R
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R W1 W2 24 VAC
T T T COM
ONE ZONE HC
SWITCHING RELAY
LED INDICATORS
POWER
RELAY 1
RELAY 2
SR 501-HC-4
120 VAC INPUT
RELAY 1
RELAY 2
N H X1 X1 X2 X2
POWER INPUT (120 VAC)
BOILER CONTROL
120 VAC CIRCULATOR
SR 501-HC Taco

Making your home Green & Smart

LIMITED PARTS WARRANTY
Ecoer Inverter Ducted Split System Heat Pump with R-410A Refrigerant

MODELS COVERED

This limited warranty is provided by Ecoer Inc. and covers Ecoer Inverter Ducted Split System Condenser **EODA** Series, Air Handler Unit **GN18** and **EAHA** Series, and Cased Coils **GNC** Series (hereinafter referred to as "Product"), Ecoer Smart IoT Gateway **EG910L** and thermostat **EST01**. The warranty is provided for the Product, IoT Gateway and thermostat as long as it remains at the original installation location.

PRODUCT REGISTRATION

The installer can easily help homeowner to register Product through Ecoer Smart Service Pro App. Alternatively, register online at **www.ecoer.com**, type in the necessary information to submit.

IoT Gateway Serial Number (SN), Condenser Unit SN, Indoor Unit SN
Date of Installation _____ Installed by _____
Name of Owner _____ Unit Location _____

WARRANTY CLAIM

I. Dealer must call Technical Support Number **(855) 598-4093** or email support@ecoer.com while at the jobsite to determine issue. They will be able to help determine issue from by using the IoT Gateway data. If deemed a warranty claim, you will receive an RMA to give to your distributor.
II. Distributor should log onto Ecoer's website **www.ecoer.com** and select **File Claim** in the Distributor Portal. Fill out Dealer and Homeowner information and follow the prompts to submit. Please provide the RMA that the dealer received from Technical Support to process the claim.
III. For most warranty claims involving specified parts (i.e. PC Board, Motors, Compressor, Coils, TXV), the part must be brought back to the distributor you purchased the Ecoer unit from. Distributors must send part back to Ecoer Inc. for testing and full credit.

WARRANTY COVERAGE

Ecoer Inc. (hereinafter "Company") warrants this Product against failure due to defect in materials or workmanship under normal use and maintenance. All warranty periods begin on the date of original installation and commissioning. In the case that the certificate of proof of installation or startup date is not available, the commencement date shall be 90 days after the factory manufacture date verified by the Product serial number. If a part fails due to defect during the applicable warranty period, Company will provide a new or re-manufactured part, at Company's option, to replace the failed defective part at no charge. If a Product part is not available, Company will, at its option, provide a free suitable substitute part or provide a credit in the amount of the then factory selling price for a new suitable substitute part to be used by the purchaser towards the retail purchase a new Company Product. The owner of the Product must pay shipping and handling charges and other costs of warranty service for the replacement part. Except as otherwise stated herein, those are Company's exclusive obligations under this warranty for a Product failure. This limited warranty is subject to all provisions, conditions, limitations and exclusions listed of this document.

Limited Warranty - Residential

For **EODA heat pumps**, installed in a one or two family residential dwelling, Company warrants that all compressors and internal components in an Ecoer EODA heat pump system covered for **Ten*[ab] (10*[ab])** . Parts with failure due to seacoast corrosion**[*c]**, will be warranted for a period of **five (5*[c])** years.

a) Of an approved Ecoer matched system (AHRI published) that is properly registered within 90 days of original installation and commissioning, otherwise **five (5) years** will be given (except in California and Quebec and other jurisdictions that prohibit warranty benefits conditioned on registration).
b) EODA heat pump must be matched to an appropriate R-410a rated indoor coil. System must installed according to Ecoer's installation manual and properly maintained by a qualified and trained HVAC contractor.
c) Seacoast and Environmental Corrosion is defined as corrosion on an outdoor unit that affects unit performance and is caused by repeated exposure*[NOTE] to sodium chloride, sodium hydroxide, sodium sulfate, and other compounds commonly found in ocean water.

Limited Warranty - Commercial

For Products installed in a commercial building, and not a one or two family residential dwelling, Company warrants that all compressors and internal components incorporated into the Heat Pump for **three (3) years**. The commercial warranty replaces all other stated or implied warranty statements.

Limited Warranty for IoT Gateway and Thermostat

EG910L: **Ten (10) years**
EST01: **Three (3) years**

WARRANTY CONDITIONS

a) To obtain the longer warranty periods as illustrated above, the Product must be properly registered by Ecoer Smart Service Pro App or at www.ecoer.com within ninety (90) days of original installation or startup date. In jurisdictions where warranty benefits conditioned on registration are prohibited by law, registration is not required, and the longer warranty period will apply.
b) Where a Product is installed in a newly constructed home, the date of installation is the one the homeowner purchased the home from the builder.
c) Product must be installed properly and by a licensed HVAC technician.
d) Installation, use, care, and maintenance must be normal and in accordance with instructions contained in the installation guides and service manuals.
e) Defective parts must be returned to the distributor through a registered servicing dealer.

LIMITATIONS OF WARRANTIES

All implied warranties and/or conditions (including implied warranties or conditions of merchantability and fitness for a particular use or purpose) are limited to the duration of this limited warranty. Some states or provinces do not allow limitations on how long an implied warranty or condition lasts, so the above may not apply to you. The express warranties made in this warranty are exclusive and may not be altered, enlarged, or changed by any distributor, dealer, or other person, whatsoever.

ITEMS NOT COVERED

1. Products installed outside the United States or its territories and Canada.
2. Any labor, shipping, handling or material costs for removal, re-installation, repair and replacement of the defective component or part, or new units.
3. Any Product not installed pursuant to applicable regional efficiency standards issued by the Department of Energy.
4. The workmanship of any installer. Ecoer Inc. disclaims and does not assume any liability of any nature of unsatisfactory performance caused by improper installation, repair or maintenance.
5. Normal maintenance as outlined in the installation and servicing instructions, including filter cleaning and/or replacement and lubrication.
6. Scratches in or discoloration of finishes.
7. Failure, damage or repairs due to faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
8. Failure to start or damages due to voltage conditions, blown fuses, open circuit breakers, or the inadequacy, unavailability, or interruption of electrical provider.
9. Failure or damage due to floods, winds, fires, lightning, accidents, corrosive environments (salt spray, rust, etc) or other conditions beyond the control of Company.
10. Parts not supplied or designated by Company, or damages resulting from their use.
11. Electricity or fuel costs, or increases in electricity or fuel costs from any reason whatsoever, including additional or unusual use of supplemental electric heater.
12. Refrigerant, including any other cost to replace, refill or dispose it.
13. Any IoT Gateway problems because of local Carrier.
14. Any special, indirect or consequential property or commercial damage of any nature whatsoever. Some states or provinces do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state or province to province.

Complete System.

- Outdoor Condensing Unit
- Gateway
- Ecoer coil, air handler or *new 3rd party coil or air handler

Standard monitoring and warranty:

- 3 years of monitoring
- 10 years parts
- 3 years labor (day 31 through end of month 36)

Optional monitoring and warranty: $599.00.

- Additional 7 years of monitoring
- 10 years parts
- Additional 7 years labor

Partial System.

- Outdoor Condensing Unit
- Gateway
- Existing air handler or coil

Standard monitoring and warranty:

- 3 years of monitoring
- 5 years parts
- Optional 3-year labor warranty
- Covers day 31 through month 36
- Cost to dealer is $99.

Optional monitoring and warranty: $599.00.

- Additional 7 years of monitoring
- 5 years parts

***Ecoer Premier Comfort Dealers receive a 10-year parts warranty on an Ecoer condensing unit coupled with a new 3rd party air handler or coil,as long as it meets Ecoer's material and construction requirements. (Ecoer ESI condenser/IoT gateway/new evaporator coil). Further, they are eligible for an additional 7 years labor with the purchase of an extension of the monitoring service of $599.00.**

Making your home Green & Smart

Premier comfort

EXTENDED SERVICE AGREEMENTS (ESAS)

FOR LABOR COVERAGE

Administered by Trinity Warranty Solutions

TRINITY

Ecoer Inc Extended Service Agreement (ESA) Program

Ecoer Inc is pleased to offer complimentary 3-year labor coverage in addition to 10-year parts coverage on our ESI Condensing Units/IoT gateway/AHU Systems. A matchup of an Ecoer ESI condenser with IoT gateway and a 3rd party indoor unit can also have this first 3 years of labor coverage added to the included IoT monitoring for a fee.

This means when you perform repairs to this equipment, you will be reimbursed for the cost of labor under the terms and conditions of the Extended Service Agreement (ESA). We are partnering with Trinity Warranty to administer this labor coverage.

When you place an order for equipment, it will automatically include labor coverage for up to 3 years after the date of installation (Starting day 31). You may also purchase an additional 7 years of IoT monitoring that includes 7 years of labor coverage for a fee.

After you place your order with Ecoer, you will receive a Declarations Page and Terms & Conditions for the labor coverage from Trinity Warranty (see the end of this program guide for an example).

See Premier Comfort guidelines for complete eligibility requirements and pricing.

Dealer Enrollment Process

Now that you have labor coverage on Ecoer equipment you sell to your homeowners, you will need to enroll with Trinity Warranty, so you will be the "servicer of record" on the DEC page and be reimbursed for labor on repairs you perform on the equipment.

To enroll in the program, complete the Dealer Sign-Up Form provided in this program guide. You will also need to include the following documents:

- W-9 (please use a form that is 2017 or newer)
- Certificate of insurance (COI) and Workers' Compensation
- COI must list Trinity Warranty as the certificate holder:

  Trinity Warranty
  PO Box 5640
  Villa Park, IL 60181

Please email these documents to enroll@trinitywarranty.com. Upon receipt of your completed enrollment application and the required documents, we will email you a welcome letter with your customer number and program information.

Orders

Place your order as you normally would from Ecoer Inc. Once the order is processed, an ESA will be generated and sent to you listing you as the servicer of record. It will outline the equipment coverage and the start and end dates. You will be able to forward it to the equipment owner. Terms and Conditions may have slight variations by state.

A "Contractual Liability Policy" from a major A-Rated insurance company backs the ESA to ensure that the equipment owner will be covered throughout the terms of the agreement.

Covered/Not Covered

Our coverage is inclusive of the manufacturer's warranty. All exclusions in the manufacturer's warranty apply to the extended warranty. Coverage is limited to the equipment itself (no ductwork, field piping, etc.) and does not include nuisance calls or normal maintenance. The ESA does not provide coverage for maintenance items, wear and tear, adjustments/resets, etc. See the specifics concerning exclusions listed in the terms and conditions. Residential equipment is defined as single-family dwellings / condominiums / apartments, and equipment less than or equal to 5 tons.

1. Covered Repairs Include...
    - Mechanical failures of covered equipment. We pay for service performed during normal business hours. We do not pay for overtime or holiday time.
    - The dealer must guarantee labor for ninety (90) days on all repairs performed within the terms of the ESA.
    - Parts are inclusive of the OEM Warranty. The parts process allowance is $35.00 per part replaced for residential. A parts allowance is included on parts both in and out of OEM Warranty.
    - With companion repairs, the parts process allowance only applies to the primary part.
    - The refrigerant reimbursement is up to $8.00 per pound for R-410A. Proof of costs may be required.

2. Exclusions include…
    - Repairs resulting from installation error.
    - Repairs resulting from a lack of proper maintenance.
    - Predictive failures.
    - Adjustments and resets to the equipment
    - Acts of God (Earthquake, flood, lightning, hurricane, etc.), war and terrorism.

Making your home Green & Smart

DEALER SIGN-UP FORM

PLEASE PRINT OR TYPE

Business Name:		Date:
Address:		
City:	State:	Zip:
Primary Contact:		Phone Number:
Fax Number:	Cell Number:	
Email Address:	Website:	

The parties agree that upon execution of the Dealer Sign-Up Form ("Dealer Agreement") by Trinity Warranty ("Trinity"), Dealer shall be authorized to offer the Trinity Extended Service Agreement ("ESA") for sale to its customers subject to the following conditions:

1. When the ESA has been processed and is sent to the Dealer, it is the responsibility of the Dealer to verify the accuracy of the information on the ESA. If there is a discrepancy, the Dealer is to notify Trinity immediately. Failure to notify Trinity may negate coverage in the future.
2. Dealer agrees to verify coverage (including but not limited to coverage dates and covered equipment) on the ESA prior to initiating any repairs.
3. Claims submitted to Trinity by the Dealer shall represent services actually performed by the Dealer on the equipment listed on the Trinity ESA.
4. Dealer shall have the right to refuse any service calls.
5. There is no overtime or holiday rate. There is only one (1) person per job allowed.
6. Dealer shall guarantee labor for 90 days on all repairs performed within the terms of the ESA.
7. Any ESA in which you are listed as Servicer of Record remains your customer to service as long as the Dealer remains in business or in the event that Trinity discovers fraud or misrepresentation on the part of the Dealer.
8. In the event that Trinity discovers fraud or misrepresentation on the part of the Dealer, Trinity shall promptly notify the Dealer of its evidence and findings. Upon notice, Trinity may take such actions as reasonable and necessary including, but not limited to, requiring the dealer to immediately terminate offering the Trinity Warranty, conduct an accounting review of the Dealer's records, or terminate this Dealer Agreement.

Any written modification to the information listed above shall not be effective or accepted without prior written consent of Trinity Warranty.

To complete your enrollment, please include the following with your completed information:

☐ W-9 Form

☐ Certificate of Insurance showing General Liability (state minimum is required) and Workers' Compensation

☐ Trinity Warranty must be listed as a certificate holder.

Your completed form may be submitted via email to enroll@trinitywarranty.com or fax to 312-445-8726.

I have read the above conditions that apply to this form.

WARECODLEF0420

Signature	Date
Printed Name	Title

TRINITY

TRINITY WARRANTY • PO Box 5640, Villa Park, IL 60181

[T] 877-302-5072 • [F] 312-445-8726 [E] enroll@trinitywarranty.com