

COMMERCIAL SPLIT HEAT PUMP FEATURES

REFRIGERATION CIRCUIT

- High efficiency scroll compressors on all models
- Suction line accumulator on all models
- Integrated solid state time / temperature defrost and Compressor anticycle timer
- Soft defrost change over
- High and Low pressure switches
- Large biflow filter driers

BUILT TO LAST

- G-90 Galvanized steel cabinet with integral base rails
- Triple step painting process
- Copper tube / aluminum fin coil
- Precoated condenser fins
- Coated inlet and discharge grilles ruggedly built for enhanced coil protection
- Top discharge design for quieter operation
- Coil Guard
- 1 Year parts, 5 year compressor limited warranties

EASY TO INSTALL AND SERVICE

- Numerous service friendly features
- Service valves on all models with 3-1/2" stubs
- Fan motor in-line disconnect plug
- External high and low refrigerant service ports



10 - 11 SEER

Three Phase



Rated in accordance
with ARI Standard 210.



UNIT SPECIFICATIONS

MODELS - HCC

Cooling	036HA	036LA	036SA	042HA	042LA	042SA	048HA	048LA	048SA	060HA	060LA	060SA
Capacity BTUH Range	33,400 to 35,600			40,000 to 41,500			45,500 to 48,500			53,500 to 59,500		
S.E.E.R. RANGE	10-12			10-12			10.3-12			10-11		
Electrical												
Volts / Phase / Hertz	230/3/60	460/3/60	575/3/60	230/3/60	460/3/60	575/3/60	230/3/60	460/3/60	575/3/60	230/3/60	460/3/60	575/3/60
Voltage Min - Max	197-253	414-506	517-633	197-253	414-506	517-633	197-253	414-506	517-633	197-253	414-506	517-633
Total Unit Amps	12.2	5.9	4.8	14.34	7.2	5.4	14.2	7.3	5.8	20.0	8.8	7.3
Min. Circuit Amp.	14.7	7.2	5.9	17.5	8.8	6.6	17.4	8.9	7.1	24.6	10.8	9.0
Minimum Fuse Size	20	15	15	25	15	15	25	15	15	30	15	15
Max. Fuse	20	15	15	25	15	15	30	15	15	40	15	15
Compressor												
RLA	10.26	5.13	4.23	12.44	6.41	4.81	12.8	6.41	5.13	18.6	7.95	6.6
LRA	77.0	39.0	31.0	88.0	44.0	34.0	91.0	46.0	37.0	128.0	62.0	49.0
Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Condenser Fan Data												
Quantity	1	1	1	1	1	1	1	1	1	1	1	1
Volts/Phase/Hertz	230/1/60	460/1/60	575/1/60	230/1/60	460/1/60	575/1/60	230/1/60	460/1/60	575/1/60	230/1/60	460/1/60	575/1/60
FLA	1.9	0.74	0.57	1.9	0.74	0.57	1.4	0.87	0.7	1.4	0.87	0.7
LRA	3.7	2.15	1.88	3.7	2.15	1.88	3.24	1.8	1.65	3.24	1.8	1.65
Blades/Diameter/Pitch	3/20/24	3/20/24	3/20/24	3/20/28	3/20/28	3/20/28	3/26/28	3/26/28	3/26/28	2/26/28	2/26/28	2/26/28
Hp - Rpm - Speeds	1/3-1075-1	1/3-1100-1	1/3-1100-1	1/3-1075-1	1/3-1100-1	1/3-1100-1	1/4-840-1	1/4-840-1	1/4-840-1	1/4-840-1	1/4-840-1	1/4-840-1
Bearing Type	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve	Sleeve
Rotation (Shaft End)	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW	CW
Max. CFM	3200	3200	3200	3200	3200	3200	3900	3900	3900	3900	3900	3900
Condenser Coil												
Rows / Fins per Inch	1 / 18	1 / 18	1 / 18	1 / 22	1 / 22	1 / 22	1 / 18	1 / 18	1 / 18	2 / 18	2 / 18	2 / 18
Total Face Area-Sq. ft.	17.8	17.8	17.8	20.1	20.1	20.1	25.3	25.3	25.3	20.1	20.1	20.1
Tube Diameter	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Refrigerant												
Type	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22	R-22
Ounces *	128			166			181			210		
Supplied Optional Orifice Size	.070	.070	.070	.073	.073	.073	.082	.082	.082	.093	.093	.093
Line Size Suction I.D. (in.)	3/4	3/4	3/4	3/4	3/4	3/4	7/8	7/8	7/8	7/8	7/8	7/8
Line Size Liquid I.D. (in.)	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Controls												
Compressor IPR Valve (psi) Average	500	500	500	500	500	500	500	500	500	500	500	500
High Press. Switch Auto Reset - Open / Close psi	420-300	420-300	420-300	420-300	420-300	420-300	420-300	420-300	420-300	420-300	420-300	420-300
Low Press. Switch Auto Reset - Open- Close psi	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20	5 - 20
Misc.												
Shipping Weight	201	201	201	216	216	216	242	242	242	280	280	280

* Units shipped with holding charge.

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	H	C	C	036	H	A	SALES CODE			
PRODUCT FAMILY	H = Heat Pump						ELECTRICAL			
PRODUCT TYPE	C = Condenser						CODE	VOLTS	PHASE	CYCLE
SERIES	C = 10-11 SEER Series						H	208/230	3	60
							L	460	3	60
							S	575	3	60
							CAPACITY MBTUH			
							036 = 36,000, 042 = 42,000, 048 = 48,000, 060 = 60,000			

EXTENDED REFRIGERANT LINE CORRECTION FACTORS

Varying Line Length in Feet (m) vs. Total Capacity Multiplier					
25 (8)	50 (15)	75 (23)	100 (30)	125 (38)	150 (46)
1.00	.99	.98	.96	.94	.92

REFRIGERANT CHARGE DATA

Refrigerant charge correction per foot (305mm) of line:
 1/4" O.D. = .25 oz.; 5/16" O.D. = .45 oz.; 3/8" O.D. = .60 oz.;
 1/2" O.D. = 1.2 oz.

VOLTAGE CORRECTION FACTORS

Volts	Capacity	Watts
208	.98	.99

INDOOR AIRFLOW CORRECTION TABLE

% Rated Air	90	95	100	105	110
Total Cap. Mult.	.98	.99	1.00	1.01	1.03
Sens Cap. Mult.	.95	.98	1.00	1.03	1.05

INDOOR TEMPERATURE CORRECTION TABLE

(Based on 95°F Ambient)

Indoor D.B. °F (°C).	Correction Factor	Entering Indoor Wet Bulb °F (°C).						
		59 (15)	61 (16)	63 (17)	65 (18)	67 (19)	69 (20)	71 (21)
70 (21)	Total Cap. Mult.	.90	.93	.96	.99	1.02	-	-
	Sens Cap. Mult.	.86	.85	.82	.77	.70	-	-
75 (24)	Total Cap. Mult.	.89	.92	.95	.98	1.01	1.04	-
	Sens Cap. Mult.	1.04	1.03	1.00	.95	.88	.78	-
80 (26)	Total Cap. Mult.	.88	.91	.94	.97	1.00	1.03	1.06
	Sens Cap. Mult.	1.18	1.17	1.14	1.08	1.00	.89	.73
85 (29)	Total Cap. Mult.	-	.90	.93	.96	.99	1.02	1.05
	Sens Cap. Mult.	-	1.29	1.26	1.20	1.11	.98	.81

Bold Type = approximately 50% Relative Humidity

HEAT PUMP SPLIT SYSTEM 10 - 11 SEER

Outdoor Model	Indoor Model	Cooling 95 F					Heating 47 F			Heating 17 F		CFM	Pin/TXV
		Btuh	SEER	S/T	EER	WATTS	Btuh	COP	HSPF	Btuh	COP		
HCC036	EAH5536**+HTXV3	35,600	11.05	.75	9.60	3708	35,600	3.34	7.40	21,600	2.24	1200	TXV
	EAH5536**+TD1	35,600	10.50	.75	9.60	3708	35,600	3.34	7.40	21,600	2.24	1200	.071
	EAH5536**	35,600	10.30	.75	9.60	3708	35,600	3.34	7.40	21,600	2.24	1200	.071
	EX*36F****+EV(MV)12F19****	35,400	12.05	.72	10.40	3404	35,600	3.44	8.20	21,600	2.32	1200	TXV
	EX*36J****+EV(MV)16F22****	35,400	12.05	.72	10.40	3404	35,600	3.44	8.20	21,600	2.32	1200	TXV
	FCX36****	35,400	11.05	.75	9.40	3766	35,800	3.34	7.40	21,800	2.22	1200	TXV
	EX*36F****	35,200	11.05	.72	9.40	3745	35,800	3.34	7.40	21,800	2.22	1200	TXV
	EX*36J****	35,200	11.05	.72	9.40	3745	35,800	3.34	7.40	21,800	2.22	1200	TXV
	EP*42F****+TXV153+EV(MV)12F19****	35,000	12.05	.72	10.30	3398	35,600	3.44	8.20	21,600	2.32	1200	TXV
	EP*42J****+TXV153+EV(MV)16J22****	35,000	12.05	.72	10.30	3398	35,600	3.44	8.20	21,600	2.32	1200	TXV
	EP*42J****+TXV153+EV(MV)16J22****	35,000	12.05	.72	10.30	3398	35,600	3.44	8.20	21,600	2.32	1200	TXV
	EP*42F****+HTXV3+TD1	34,800	11.05	.72	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	TXV
	EP*42J****+HTXV3+TD1	34,800	11.05	.72	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	TXV
	FCP42****+HTXV3	34,800	10.60	.72	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	TXV
	EP*42F****+TD1	34,800	10.50	.72	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	.070
	EP*42J****+TD1	34,800	10.50	.72	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	.070
	EMH42F****	34,800	10.35	.71	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	.070
	EP*42F****	34,800	10.35	.72	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	.070
	EP*42J****	34,800	10.35	.72	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	.070
	FCP42****	34,800	10.20	.71	9.30	3742	35,800	3.34	7.40	21,800	2.22	1200	.070
	EP*36B****+HTXV	33,400	10.35	.73	9.10	3670	35,800	3.34	7.40	21,800	2.22	1200	TXV
	EP*36F****+HTXV	33,400	10.35	.73	9.10	3670	35,800	3.34	7.40	21,800	2.22	1200	TXV
	EP*36J****+HTXV	33,400	10.35	.73	9.10	3670	35,800	3.34	7.40	21,800	2.22	1200	TXV
FCP36****+HTXV	33,400	10.35	.73	9.10	3670	35,800	3.34	7.40	21,800	2.22	1200	TXV	
EP*36B****	33,400	10.05	.73	9.10	3670	35,800	3.34	7.40	21,800	2.22	1200	.070	
EP*36F****	33,400	10.05	.73	9.10	3670	35,800	3.34	7.40	21,800	2.22	1200	.070	
EP*36J****	33,400	10.05	.73	9.10	3670	35,800	3.34	7.40	21,800	2.22	1200	.070	
HCC042	EX*42J****+EV(MV)16J22****	41,500	12.05	.73	10.60	3915	39,500	3.36	8.00	23,400	2.22	1400	TXV
	EAH5548**+HTXV4	41,500	11.05	.75	9.80	4235	37,200	3.14	7.00	22,600	2.00	1400	TXV
	EAH5548**+TD1	41,500	10.50	.71	9.60	4323	37,200	3.14	7.00	22,600	2.00	1400	.730
	EAH5548**	41,500	10.20	.71	9.60	4323	37,200	3.14	7.00	22,600	2.00	1400	.730
	EX*42J****	41,000	11.05	.73	9.60	4271	40,000	3.26	7.20	23,600	2.12	1300	TXV
	FCP48****+HTXV4	41,000	10.50	.73	9.20	4457	40,000	3.08	7.20	23,600	2.06	1400	TXV
	FCP48****	41,000	10.05	.73	9.20	4457	40,000	3.08	7.20	23,600	2.06	1400	.730
	EP*48F****+TXV355+EV(MV)12F19****	40,500	12.05	.72	10.40	3894	39,500	3.32	8.00	23,400	2.16	1400	TXV
	EP*48J****+TXV355+EV(MV)16J22****	40,500	12.05	.72	10.40	3894	39,500	3.32	8.00	23,400	2.16	1400	TXV
	EP*48N****+TXV355+EV(MV)20N26****	40,500	12.05	.73	10.40	3894	39,500	3.32	8.00	23,400	2.16	1400	TXV
	FCX48****	40,500	11.05	.73	9.40	4309	40,000	3.22	7.05	23,600	2.06	1300	TXV
	EMH48F****+HTXV4+TD1	40,000	11.05	.73	9.40	4255	40,000	3.22	7.20	23,600	2.06	1400	TXV
	EP*48F****+HTXV4+TD1	40,000	11.05	.73	9.40	4255	40,000	3.22	7.20	23,600	2.06	1400	TXV
	EP*48J****+HTXV4+TD1	40,000	11.05	.73	9.40	4255	40,000	3.22	7.20	23,600	2.06	1400	TXV
	EP*48N****+HTXV4+TD1	40,000	11.05	.72	9.40	4255	40,000	3.22	7.20	23,600	2.06	1400	TXV
	EP*42F****+HTXV4	40,000	10.50	.72	9.10	4396	40,000	3.12	7.05	23,600	2.06	1300	TXV
	EP*42J****+HTXV	40,000	10.50	.72	9.10	4396	40,000	3.12	7.05	23,600	2.06	1300	TXV
	FCP42****+HTXV	40,000	10.50	.73	9.10	4396	40,000	3.12	7.05	23,600	2.06	1300	TXV
	EMH42F****	40,000	10.00	.73	9.10	4396	40,000	3.12	7.05	23,600	2.06	1300	.730
	EP*42F****	40,000	10.00	.73	9.10	4396	40,000	3.12	7.05	23,600	2.06	1300	.730
	EP*42J****	40,000	10.00	.73	9.10	4396	40,000	3.12	7.05	23,600	2.06	1300	.730
	FCP42****	40,000	10.00	.72	9.10	4396	40,000	3.12	7.05	23,600	2.06	1300	.730

Many matches require a pin change. Always check pin size to insure maximum performance. PIN=Refrigerant orifice PIN size. TD1=AMA001TDA Indoor Blower Time Delay Kit, required to make SEER indicated. All products using an electronic fan control satisfy TD1 requirements. TXV=Thermostatic Expansion Valve, TXV153 (AMF153) replaces HTXV1, 2 or 3 where listed in ratings, TXV335 (AMF335) Replaces HTXV4 or 5 where listed in ratings. EP* = EPA, EPD, EPM series of coils. EX* = EXA, EXD, EXM series of coils. EE* = EEA OR EED series of coils.

HEAT PUMP SPLIT SYSTEM 10 - 11 SEER

Outdoor Model	Indoor Model	Cooling 95 F					Heating 47 F			Heating 17 F		CFM	Pin/TXV
		Btuh	SEER	S/T	EER	WATTS	Btuh	COP	HSPF	Btuh	COP		
HCC048	EX*48N****+EV(MV)20N26****	48,500	12.10	.77	11.00	4409	47,500	3.50	8.30	29,200	2.42	1600	TXV
	EX*48N****	48,000	11.10	.77	10.00	4800	48,000	3.40	7.50	29,400	2.32	1600	TXV
	EAH5548**+HTXV4	48,000	11.10	.72	10.20	4706	47,000	3.38	7.50	29,000	2.30	1600	TXV
	FCX48****	47,000	11.05	.77	9.70	4845	48,000	3.40	7.50	30,000	2.32	1600	TXV
	EAH5548**+TD1	47,000	10.50	.72	9.90	4747	47,000	3.38	7.50	29,000	2.30	1600	.840
	EAH5548**	47,000	10.30	.72	9.90	4747	47,000	3.38	7.50	29,000	2.30	1600	.840
	EP*48J****+HTXV4	46,000	10.90	.76	9.70	4742	47,500	3.40	7.40	29,600	2.32	1600	TXV
	EP*48J****+TD1	46,000	10.50	.76	9.70	4742	47,500	3.40	7.40	29,600	2.32	1600	.820
	EP*48J****	46,000	10.20	.76	9.70	4742	47,500	3.40	7.40	29,600	2.32	1600	.820
	EP*60N****+HTXV4	45,500	11.05	.77	9.90	4596	48,000	3.40	7.50	29,200	2.32	1600	TXV
	EP*60J****+HTXV4	45,500	11.05	.77	9.90	4596	48,000	3.40	7.50	29,200	2.32	1600	TXV
	FCP48****+HTXV4	45,500	10.50	.76	9.50	4789	48,000	3.38	7.50	29,200	2.30	1600	TXV
	EP*60N****	45,500	10.50	.77	9.80	4643	48,000	3.40	7.50	29,200	2.32	1600	.820
	EP*60J****	45,500	10.50	.77	9.80	4643	48,000	3.40	7.50	29,200	2.32	1600	.820
	FCP48****	45,500	10.10	.76	9.50	4789	48,000	3.38	7.50	29,200	2.30	1600	.820
	EMH48F****	46,000	10.20	.76	9.70	4742	47,500	3.40	7.40	29,600	2.32	1600	.820
HCC060	EX*60N****+EV(MV)20N26****	59,500	11.20	.70	10.50	5667	59,500	3.50	8.30	37,000	2.46	1800	TXV
	EX*60N****	59,000	11.40	.71	10.00	5900	60,000	3.42	7.60	37,200	2.36	1800	TXV
	EAH5560**	58,000	10.10	.73	9.60	6042	58,500	3.42	7.50	33,600	2.32	1800	.930
	FCX60****	57,500	10.50	.71	9.40	6117	60,000	3.14	7.40	37,400	2.28	1800	TXV
	FCP60****+HTXV5	55,000	10.40	.72	9.00	6111	60,000	3.30	7.40	37,400	2.28	1800	TXV
	EP*60N****+TXV+TD1	55,000	10.40	.71	9.30	5914	60,000	3.40	7.40	37,000	2.30	1800	TXV
	EP*60N****+TXV	55,000	10.30	.71	9.30	5914	60,000	3.40	7.40	37,000	2.30	1800	TXV
	EP*60N****+TD1	55,000	10.20	.71	9.30	5914	60,000	3.40	7.40	37,000	2.30	1800	.930
	EP*60N****	55,000	10.05	.71	9.30	5914	60,000	3.40	7.40	37,000	2.30	1800	.930
	FCP60****	55,000	10.00	.72	9.00	6111	60,000	3.30	7.40	37,400	2.28	1800	.930
	EP*60J****+TXV+TD1	53,500	10.05	.73	9.30	5753	60,000	3.40	7.40	36,600	2.30	1600	TXV
	EP*60J****+TD1	53,500	10.05	.73	9.30	5753	60,000	3.40	7.40	36,600	2.30	1600	.930
	EP*60J****	53,500	10.05	.73	9.30	5753	60,000	3.40	7.40	36,600	2.30	1600	.930
	EAH5560**+TD1	58,000	10.10	.71	9.60	6042	58,500	3.42	7.50	34,600	2.32	1800	.930
	EAH5560**+HTXV5	59,000	11.10	.71	9.80	6020	58,500	3.42	7.50	34,600	2.32	1800	TXV

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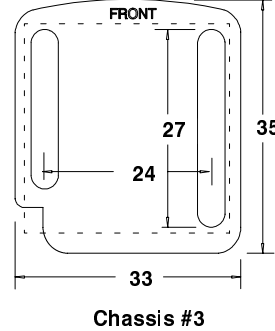
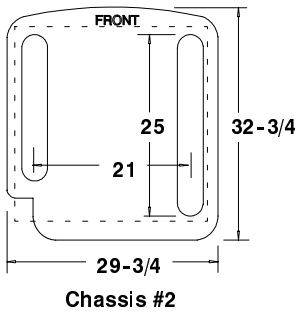
DIMENSIONS AND ACCESSORIES

Model	Dimensions		OPTIONAL*
	Chassis	Height (H)	Enhanced Coil Guard
036	2	32-5/8	AMB232CGA
042	2	36-5/8	AMB236CGA
048	3	40-5/8	----
060	3	32-5/8	----

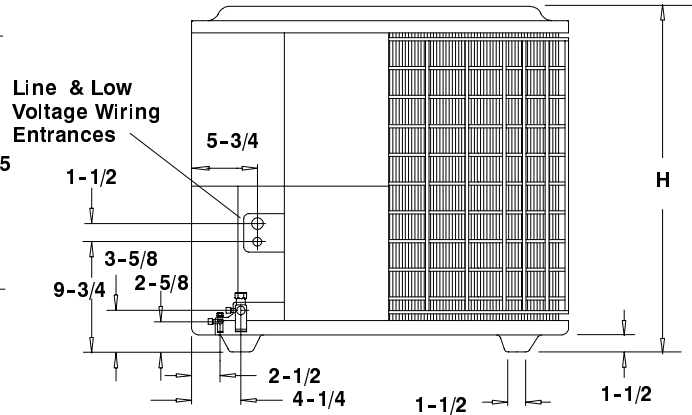
* Packages of 6 Only

Minimum Mounting Pad Sizes with pad starting at 9" from structure for minimum clearance of 6".

Chassis #2 24" W X 26" D
Chassis #3 27" W X 28" D



ALL DIMENSIONS IN INCHES



Accessory	Description	Used On
AMF153TKB	Expansion Valve Kit	3 Ton
AMF355TKB	Expansion Valve Kit	3 1/2 - 5 Ton
AXWR01DFA	Fossil Fuel Kit	All Models
AMA001TDA	Indoor Blower Time Delay	All Models
1053477 *	Compressor Crankcase Heater Solid State "Stick On" Type	All Models
1148113 *	Compressor Crankcase Heater "Wrap-around" Type	All Models
1060833*	Compressor Sound Jacket (Small Scroll)	3 Ton
1060834 *	Compressor Sound Jacket (Large Scroll)	3 1/2 - 5 Ton

* Order from Service Parts