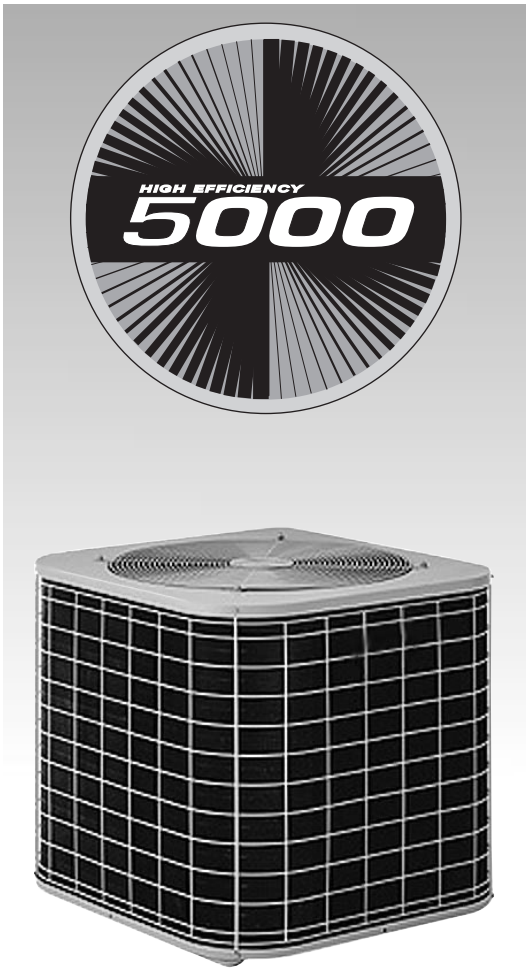
HEAT PUMP

HEATING & COOLING PRODUCTS



Representative photo only, some models may vary in appearance.

1 1/2 THRU 5 TONS SPLIT SYSTEM

REFRIGERATION CIRCUIT FEATURES

- Scroll compressor on all models
- Suction line accumulator on all models
- Integrated solid state time / temperature defrost and compressor anticycle timer
- Soft defrost change over
- Low pressure cut out switch
- Large biflow filter driers

BUILT TO LAST

- Galvanized steel cabinet with integral base rails
- Triple step painting process
- Copper tube / aluminum fin coil
- Precoated condenser fins
- Coated inlet grilles

EASY TO INSTALL AND SERVICE

- External sweat / valve refrigerant connections
- Fan motor in–line disconnect plug
- Factory charged with R–22
- Low voltage junction box
- External high and low refrigerant service ports
- Top discharge design for quieter operation

MANUFACTURER CERTIFIED TO ARI AS COMPLYING WITH UNITARY HEAT PUMP EQUIPMENT CERTIFICATION SECTIONS OF ARI STANDARD 240

LIMITED PARTS 5 YEAR WARRANTY

c UL us LISTED

Rated in accordance with ARI Standard 240. Certification applies only when used with proper components as listed with ARI.

UNIT SPECIFICATIONS

Model Number		CH5518VKD	CH5524VKD	CH5530VKD	CH5536VKD	CH5542VKD	CH5548VKD	CH5560VKD
Electrical Data	Voltage-Phase-Hz	208 / 230-1-60						
	Voltage Range (Min-Max)	197-253						
	Minimum Circuit Ampacity	12.7	16.3	18.9	21.3	24.5	28.6	35.2
	Wire SizeMax. Length (AWG Cu) (Ft.) USA Only	#14/50	#14/36	#14/27'	#12/32'	#12 / 26'	#10 / 40'	#8 / 49'
	Time Delay Fuse (Amps)	15	20	25	30	30	35	45
	Max. Fuse or HACR Type Breaker Size (Amps)	20	25	30	35	40	50	60
Compressor Data	Voltage-Phase-Hz	208 / 230-1-60						
	Full Running / Lock Rotor Amps	9 / 42	11.9 / 59	14.1 / 73	16.0 / 100	18.6 / 127	21.8 / 131	27.1 / 172
	Crankcase Heater (Type)	NONE						
	Start Device	NONE						
	Compressor Type	SCROLL						
Fan Data	Voltage-Phase-Hz	208 / 230-1-60						
	Horsepower / Type	1/8 PSC	1/8 PSC	1/3 / PSC	1/3 / PSC	1/3 / PSC	1/4 / PSC	1/4 / PSC
	Full Load ILock Rotor Amps.	.6 / 1.5	.6 /1.5	1.3 / 3.56	1.3 / 3.56	1.3 / 3.56	1.4 / 3.24	1.4 / 3.24
	Speeds / CFM (Max)	1 / 2200	1 / 2200	1 / 3200	1 / 3200	1 / 3200	1 / 3900	1 / 3900
Outdoor Coil Data	Total Face Area Sq. Ft. (m^2)	10.7	12.5	14.2	17.8	20.8	25.3	20.1
	Fins Per Inch / Rows	18 / 1	18 / 1	18 / 1	18 / 1	22 / 1	18 / 1	18 / 2
	Tube Diameter (OD) (In.)	3/8						
	Control Device	ORIFICE						
	Accumulator	YES						
Refrigerant Connection Charge	Suction Size (OD) (In.)	3/4				7/8		
	Liquid Size (OD) (In.)	5/16				3/8		
	Factory Charge R-22 (Oz)	85	104	132	124	166	181	210
Weights	Shipping Lbs. / (kg)	123/271	133/293	176/388	191/421	204/450	234/515	272/600

MODEL NUMBER IDENTIFICATION GUIDE

MODEL NUMBER	C	H	55	24	V	K	D
PRODUCT FAMILY C = Condenser B = Blower							SALES CODE
PRODUCT TYPE A = Air Conditioning H = Heat Pump C = Cabinet						ELECTRICAL K = 208/230-1-60	
SERIES 55 = 5500 Series					CONNECTIONS V = Sweat/Valve		
				CAPACITY MBTUH 24 = 24,000			

PERFORMANCE DATA COOLING

Outdoor Model	Indoor Model	COOLING 95° F					47° F			17° F				
		MBh	SEER	S/T	EER	WATTS	MBh	COP	HSPF	MBh	COP	CFM	Pin	dBels
CH5518VKD	EP*18B15A	16.5	10.05	.77	9.4	1755	17.2	3.08	7.10	9.7	1.92	650	.048#	72
	EP*24B15A	17.0	10.20	.77	9.5	1789	17.2	3.32	7.20	9.7	1.98	650	.048#	
	EP*24B15A + TD1	17.0	10.50	.77	9.5	1789	17.2	3.32	7.20	9.7	1.98	650	.048#	
	EP*24B15A + TXV	17.0	11.05	.77	9.5	1789	17.2	3.32	7.20	9.7	1.98	650	TXV	
	EAH5524SA	17.9	10.30	.77	9.9	1808	16.2	3.12	7.20	9.7	2.08	600	.048#	
	EAH5524SA + TD1	17.9	10.50	.77	9.9	1808	16.2	3.12	7.20	9.7	2.08	600	.048#	
	EAH5524SA + TXV	18.0	11.00	.77	10.0	1800	16.2	3.12	7.20	9.7	2.08	600	TXV	
	EX*24(B15,F19)A	18.0	11.20	.74	9.7	1855	17.2	3.20	7.20	9.7	2.02	600	TXV	
	EXD/M24F19A + EV12F19	18.2	12.20	.74	10.7	1701	17.0	3.30	8.00	9.6	2.12	600	TXV	
	FCP2400A	17.0	10.05	.77	9.4	1808	17.2	3.16	7.00	9.6	1.98	600	.048#	
	FCP2400A + TXV	17.0	10.10	.77	9.4	1808	17.2	3.16	7.00	9.6	1.98	600	TXV	
	FCX2400A	17.2	11.20	.74	9.8	1755	17.0	3.16	7.20	9.7	2.02	600	TXV	
CH5524VKD	EX*24(B15,F19)A	24.0	11.05	.76	9.6	2500	24.8	3.40	7.40	14.5	2.22	800	TXV	74
	EXD/M24F19A + EV12F19	24.2	12.05	.76	10.6	2500	24.8	3.40	7.40	14.5	2.22	800	TXV	
	EP*30(B15,F19)A	23.6	10.10	.72	9.4	2510	24.8	3.28	7.40	14.7	2.16	800	.056#	
	EP*30(B15,F19)A + TD1	23.6	10.40	.72	9.4	2510	24.8	3.28	7.40	14.7	2.16	800	.056#	
	EP*30(B15,F19)A + TXV	23.2	10.80	.72	9.4	2468	24.8	3.28	7.40	14.7	2.16	800	TXV	
	EPD/M30F19A + EV12F19 + TXV	23.4	11.80	.72	10.4	2250	24.6	3.38	8.20	14.6	2.26	800	TXV	
	EAH5524SA	23.8	10.05	.76	9.9	2559	24.0	3.46	7.25	14.5	2.24	800	.056	
	EAH5524SA + TD1	23.8	10.35	.76	9.9	2559	24.0	3.46	7.25	14.5	2.24	800	.056	
	EAH5524SA + TXV	24.0	11.05	.76	10.0	2500	24.0	3.46	7.25	14.5	2.24	800	TXV	
	FCP2400A	22.6	10.10	.76	9.1	2483	24.0	3.34	7.40	14.7	2.20	800	.056#	
	FCP2400A + TXV	22.6	10.50	.76	9.1	2483	24.0	3.34	7.40	14.7	2.20	800	TXV	
	FCP3000A	23.2	10.10	.72	9.2	2522	24.8	3.28	7.40	14.6	2.16	800	.056#	
	FCP3000A + TXV	23.2	10.10	.72	9.2	2522	24.8	3.28	7.40	14.6	2.16	800	TXV	
	FCX2400A	23.8	11.05	.74	9.5	2505	24.8	3.42	7.40	14.7	2.22	800	TXV	
CH5530VKD	EP*36(B15,F19,J22)A	28.6	10.50	.76	9.6	2979	30.0	3.28	7.00	17.1	2.16	1000	.063	76
	EP*36(B15,F19,J22)A + TXV + TD1	27.4	11.00	.76	9.6	2979	30.0	3.28	7.00	17.1	2.16	1000	TXV	
	EPD/M36F19A + EV12F19 + TXV	27.6	12.00	.76	10.6	2604	29.8	3.38	8.00	17.0	2.26	1000	TXV	
	EPD/M36J22A + EV16J22 + TXV	27.6	12.00	.76	10.6	2604	29.8	3.38	8.00	17.0	2.26	1000	TXV	
	EX*36(F19,J22)A	28.8	11.05	.76	9.9	2909	27.6	3.24	7.25	17.5	2.26	1000	TXV	
	EXD/M36F19A + EV12F19	29.0	12.05	.76	10.9	2661	27.4	3.34	8.05	17.4	2.36	1000	TXV	
	EXD/M36J22A + EV16J22	29.0	12.05	.76	10.9	2661	27.4	3.34	8.05	17.4	2.36	1000	TXV	
	EAH5536SA	28.4	10.05	.76	9.7	2927	27.2	3.26	7.20	17.2	2.24	1000	.063#	
	EAH5536SA + TD1	28.4	10.35	.76	9.7	2927	27.2	3.26	7.20	17.2	2.24	1000	.063#	
	EAH5536SA + TXV	28.8	11.05	.76	9.7	2909	27.2	3.26	7.20	17.2	2.24	1000	TXV	
	FCP3000A	26.0	10.10	.76	9.1	2857	27.6	3.22	7.20	17.5	2.22	1000	.063#	
	FCP3000A + TXV	26.0	10.40	.76	9.1	2857	27.6	3.22	7.20	17.5	2.22	1000	TXV	
	FCP3600A	27.2	10.80	.76	9.5	2863	29.2	3.28	7.00	17.1	2.16	1000	.063#	
	FCP3600A + TXV	27.2	10.50	.76	9.5	2863	29.2	3.28	7.00	17.1	2.16	1000	TXV	
	FCX3600A	28.8	11.05	.76	9.8	2938	27.6	3.22	7.20	17.5	2.22	1000	TXV	
CH5536VKD	EP*42(F19,J22)A	34.8	10.35	.71	9.3	3741	35.8	3.34	7.40	21.8	2.22	1200	.070#	76
	EP*42(F19,J22)A + TD1	34.8	10.50	.71	9.3	3741	35.8	3.34	7.40	21.8	2.22	1200	.070#	
	EP*42(F19,J22)A + TD1 + TXV	34.8	11.05	.71	9.3	3741	35.8	3.34	7.40	21.8	2.22	1200	TXV	
	EPD/M42F19A + EV12F19 + TXV	35.0	12.05	.71	10.3	3398	35.6	3.44	8.20	21.6	2.32	1200	TXV	
	EPD/M42J22A + EV16J22 + TXV	35.0	12.05	.71	10.3	3398	35.6	3.44	8.20	21.6	2.32	1200	TXV	
	EX*36(F19,J22)A	35.2	11.05	.72	9.4	3744	35.8	3.34	7.40	21.8	2.22	1200	TXV	
	EXD/M36F19A + EV12F19	35.4	12.05	.72	10.4	3404	35.6	3.44	8.20	21.6	2.32	1200	TXV	
	EXD/M36J22A + EV16J22	35.4	12.05	.72	10.4	3404	35.6	3.44	8.20	21.6	2.32	1200	TXV	
	EAH5536SA	35.6	10.30	.75	9.6	3708	35.6	3.34	7.40	21.6	2.24	1200	.070#	
	EAH5536SA + TD1	35.6	10.50	.75	9.6	3708	35.6	3.34	7.40	21.6	2.24	1200	.070#	
	EAH5536SA + TXV	35.6	11.05	.75	9.6	3708	35.6	3.34	7.40	21.6	2.24	1200	TXV	
	FCP3600A	33.4	10.05	.72	9.1	3670	35.8	3.34	7.40	21.8	2.22	1200	.070#	
	FCP3600A + TXV	33.4	10.35	.72	9.1	3670	35.8	3.34	7.40	21.8	2.22	1200	TXV	
	FCP4200A	34.8	10.20	.71	9.3	3742	35.8	3.34	7.40	21.8	2.22	1200	.070#	
	FCP4200A + TXV	34.8	10.60	.71	9.3	3742	35.8	3.34	7.40	21.8	2.22	1200	TXV	
	FCX3600A	35.4	11.05	.75	9.4	3766	35.8	3.34	7.40	21.8	2.22	1200	TXV	

PERFORMANCE DATA COOLING

Outdoor Model	Indoor Model	COOLING 95° F					47° F			17° F		CFM	Pin	dBels
		MBh	SEER	S/T	EER	WATTS	MBh	COP	HSPF	MBh	COP			
CH5542VKD	EP*42(F19,J22)A	40.0	10.00	.73	9.3	4301	40.0	3.22	7.05	23.6	2.06	1400	.073#	76
	EP*42(F19,J22)A + TXV	40.0	10.50	.73	9.3	4301	40.0	3.22	7.05	23.6	2.06	1400	TXV	
	EP*48(F19,J22,N26)A + TD1 + TXV	40.0	11.05	.73	9.4	4308	40.0	3.22	7.20	23.6	2.06	1400	TXV	
	EPD/M48F19A + EV12F19 + TXV	40.5	12.05	.73	10.4	3894	39.5	3.32	8.00	23.4	2.16	1400	TXV	
	EPD/M48J22A + EV16J22 + TXV	40.5	12.05	.73	10.4	3894	39.5	3.32	8.00	23.4	2.16	1400	TXV	
	EPD/M48N26A + EV20N26 + TXV	40.5	12.05	.73	10.4	3894	39.5	3.32	8.00	23.4	2.16	1400	TXV	
	EX*42J22A	41.0	11.05	.73	9.6	4322	40.0	3.26	7.20	23.6	2.12	1300	TXV	
	EXD/M42J22A + EV16J22	41.5	12.05	.73	10.6	3915	39.5	3.36	8.00	23.4	2.22	1300	TXV	
	EAH5548SA	41.5	10.20	.71	9.6	4322	37.2	3.14	7.00	22.6	2.00	1400	.073#	
	EAH5548SA + TD1	41.5	10.50	.71	9.6	4322	37.2	3.14	7.00	22.6	2.00	1400	.073#	
	EAH5548SA + TXV	41.5	11.05	.75	9.6	4234	37.2	3.14	7.00	22.6	2.00	1400	TXV	
	FCP4200A	40.0	10.00	.73	9.1	4395	40.0	3.12	7.05	23.6	2.06	1400	.073#	
	FCP4200A + TXV	40.0	10.50	.73	9.1	4395	40.0	3.12	7.05	23.6	2.06	1400	TXV	
	FCP4800A	41.0	10.05	.73	9.2	4456	40.0	3.08	7.20	23.6	2.06	1400	.073#	
	FCP4800A + TXV	41.0	10.50	.73	9.2	4456	40.0	3.08	7.20	23.6	2.06	1400	TXV	
	FCX4800A	40.5	11.05	.75	9.4	4308	40.0	3.22	7.05	23.6	2.06	1400	TXV	
CH5548VKD	EP*48(J22,N26)A	46.0	10.20	.76	9.7	4742	47.5	3.40	7.40	29.6	2.32	1600	.082#	78
	EP*48(J22,N26)A + TD1	46.0	10.50	.76	9.7	4742	47.5	3.40	7.40	29.6	2.32	1600	.082#	
	EP*48(J22,N26)A + TXV	46.0	10.90	.76	9.7	4742	47.5	3.40	7.40	29.6	2.32	1600	TXV	
	EP*60(J22)A	45.5	10.50	.77	9.8	4642	48.0	3.40	7.50	29.2	2.32	1600	.082#	
	EP*60(J22)A + TXV	45.5	11.05	.77	9.8	4642	48.0	3.40	7.50	29.2	2.32	1600	TXV	
	EX*48N26A	48.0	11.10	.77	10.0	4800	48.0	3.40	7.50	29.4	2.32	1600	TXV	
	EXD/M48N26A + EV20N26	48.5	12.10	.77	11.0	4409	47.5	3.50	8.30	29.2	2.42	1600	TXV	
	EAH5548SA	47.0	10.30	.72	9.9	4747	47.0	3.38	7.50	29.0	2.30	1600	.082#	
	EAH5548SA + TD1	47.0	10.50	.72	9.9	4747	47.0	3.38	7.50	29.0	2.30	1600	.082#	
	EAH5548SA + TXV	48.0	11.10	.72	10.2	4705	47.0	3.38	7.50	29.0	2.30	1600	TXV	
	FCP4800A	45.5	10.10	.76	9.5	4789	48.0	3.38	7.50	29.2	2.30	1600	.082#	
	FCP4800A + TXV	45.5	10.50	.76	9.5	4789	48.0	3.38	7.50	29.2	2.30	1600	TXV	
	FCX4800A	47.0	11.05	.77	9.7	4845	48.0	3.40	7.50	30.0	2.32	1600	TXV	
CH5560VKD	EP*60J22A	53.5	10.05	.70	9.3	5752	60.0	3.40	7.40	36.6	2.30	1600	.093#	78
	EP*60J22A + TXV	53.5	10.30	.70	9.3	5752	60.0	3.40	7.40	36.6	2.30	1600	TXV	
	EP*60J22A + TD1	53.5	10.20	.70	9.3	5752	60.0	3.40	7.40	36.6	2.30	1600	.093#	
	EP*60J22A + TXV + TD1	53.5	10.40	.70	9.3	5752	60.0	3.40	7.40	36.6	2.30	1600	TXV	
	EP*60N26A	55.0	10.05	.70	9.3	5913	60.0	3.30	7.40	37.0	2.30	1800	.093#	
	EP*60N26A + TXV	55.0	10.30	.70	9.3	5913	60.0	3.30	7.40	37.0	2.30	1800	TXV	
	EP*60N26A + TD1	55.0	10.20	.70	9.3	5913	60.0	3.30	7.40	37.0	2.30	1800	.093	
	EP*60N26 + TXV + TD1	55.0	10.40	.70	9.3	5913	60.0	3.30	7.40	37.0	2.30	1800	TXV	
	EAH5560SA	58.0	10.10	.70	9.6	6041	58.5	3.42	7.50	34.6	2.32	1800	.093#	
	EAH5560SA + TD1	58.0	10.10	.70	9.6	6041	58.5	3.42	7.50	34.6	2.32	1800	.093#	
	EAH5560SA + TXV	58.0	11.10	.70	9.8	5918	58.5	3.42	7.50	34.6	2.32	1800	TXV	
	FCP6000A	55.0	10.00	.70	9.0	6111	60.0	3.30	7.40	37.4	2.28	1800	.093#	
	FCP6000A + TXV	55.0	10.40	.70	9.0	6111	60.0	3.30	7.40	37.4	2.28	1800	TXV	
	FCX6000A	57.5	10.50	.70	9.4	6117	60.0	3.14	7.40	37.4	2.28	1800	TXV	
Requires 1-1/8 suction line set	EX*60N26A	59.0	11.40	.70	10.0	5900	60.0	3.42	7.60	37.2	2.36	1800	TXV	
	EXD/M60N26A + EV20N26	59.5	11.20	.70	10.5	5667	59.5	3.50	8.30	37.0	2.46	1800	TXV	

= Installer Must Change Pin To Size Indicated. **PIN** = Refrigerant Orifice PIN size. **TD1** = AMA001TDA Indoor Blower Time Delay Kit, required to make seer indicated. ST9120, FCP, FCX, and EF fan controls also satisfy TD1 requirements. **TXV** = Thermostatic Expansion Valve, use TXV153 (AMF153TKA) on 1-1/2 to 3 Tons, use TXV355 (AMF355TKA) on 3-1/2 to 5 Tons. For Electric Furnace (EF Series) ratings: EF08B1500A = EPA24B15A + TD1, EF12F1900A = EPA36F19A + TD1, EF16J2200A = EPA48J22A + TD1, EF20N2600A = EPA60N26 + TD1.

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

All models are factory charged with R–22 for outdoor unit, 25' (8m) of referigerant line and matching indoor section.

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**

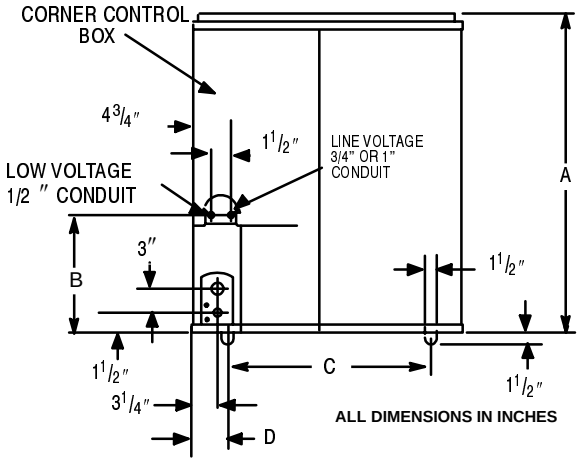
Bold Type = approximately 50% Relative Humidity

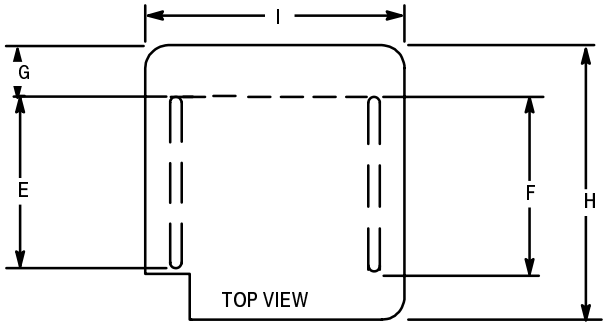
ACCESSORIES

Part Number	Description	Use With
AMA001TDA	Indoor Blower Time Delay	All Models
708849	Compressor Crankcase Heater Solid State "Stick On"	All Models
708938	Compressor Start Device Solid State PTCR Type	All 1 Phase Models
AXWR01DFA	Fossil Fuel Kit	All Models
AXB002TKA *	TXV2	$1^1/_2$ & 2 TON A/C & H/P Evaporator Applications
AXB003TKA *	TXV3	$2^1/_2$ & 3 TON A/C & H/P Evaporator Applications
AXB004TKA *	TXV4	$3^1/_2$ & 4 TON A/C & H/P Evaporator Applications
AXB005TKA *	TXV5	5 TON A/C & H/P Evaporator Applications
AMF153TKA	TXV153	$1^1/_2$ – 3 TON A/C & H/P Evaporator Applications (RH Thread for new coils)
AMF355TKA	TXV355	$3^1/_2$ – 5 TON A/C & H/P Evaporator Applications (RH Thread for new coils)

* Use until inventory depleted.

UNIT DIMENSIONS





Model No.	A	B	C	D	E	F	G	H	I
CH5518VKD	24	9-3/4	21-3/4	4	17-5/8	18-3/4	5-1/2	23-1/2	23-1/2
CH5524VKD	28	9-3/4	21-3/4	4	17-5/8	18-3/4	5-1/2	23-1/2	23-1/2
CH5530VKD	24	14-3/4	21-3/4	4	17-5/8	18-3/4	5-1/2	30	30
CH5536VKD	30	14-3/4							
CH5542VKD	34	14-3/4							
CH5548VKD	38	24-3/4	25-1/2	4-1/4	23-1/2	24-1/2	5-1/2	36	34
CH5560VKD	30	14-3/4							

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