

SmartComfort 2400



14+ SEER - AIR CONDITIONER



Representative photo only, some models may vary in appearance.



Rated in accordance with ARI Standard 210. Certification applies only when used with proper components as listed with ARI.



2 THRU 5 TONS SPLIT SYSTEM FEATURES

- “Durawhisper”™ Top design for quiet operation
- Rugged and coated inlet and discharge grilles for superior coil protection
- Filled with Service Friendly features
- High efficiency scroll compressors on all models
- Service valves on all models with 3-1/2“ stubs
- External refrigerant connections
- Copper tube / aluminum fin coil
- Prepainted condenser fins
- 2 Speed Fan motor
- Fan motor in-line disconnect plug
- Factory charged with R-22, condenser plus 25 Ft. lines
- G-90 Galvanized steel cabinet with integral base rails
- Triple step paint process
- Easy side access sloped control panel
- Can be installed as close as 6” from home
- 10 Year parts, 10 year compressor limited warranties

International Comfort Products Corporation (LCC)
651 Heil-Quaker Ave.
Lewisburg, Tennessee 37091

RESIDENTIAL AND COMMERCIAL SYSTEMS • SPLIT SYSTEMS • PACKAGED AIR CONDITIONERS •
COMBINATION GAS / ELECTRIC UNITS • HEAT PUMPS • AIR HANDLERS • MANUFACTURED HOME AIR
CONDITIONERS • GAS, OIL AND ELECTRIC FURNACES

Base Specifications

Model Number	TCA424AKC	TCA430AKC	TCA436AKC	TCA442AKC	TCA448AKC	TCA460AKC
Rated Cooling Capacity (Btuh)	23,600	29,400	35,200	41,500	47,500	58,000
SEER Label	14	14	14	14	14	14
Sound Rating Decibels	70 / 68	72 / 70	74 / 72	74 / 72	74 / 72	76 / 74
Fan HP / Type / Speeds	1/8-PSC-2	1/8-PSC-2	1/4-PSC-2	1/4-PSC-2	1/4-PSC-2	1/4-PSC-2
Fan RPM (Lo - Hi)	700 - 840	700 - 840	700 - 840	700 - 840	700 - 840	700 - 840
Fan Max. CFM	2950	2950	4480	4480	4480	4480
Coil Face Area (Sq Ft)	20.0	24.1	24.1	26.7	26.7	26.7
Coil Rows / Fins Per Inch	2 / 22	2 / 22	2 / 22	2 / 22	2 / 22	2 / 22
Line Connection Suction I.D. Size (In.)	3/4	3/4	3/4	7/8	7/8	1-1/8
Line Connection Liquid I.D. Size (In.)	3/8	3/8	3/8	3/8	3/8	3/8
Supplied Optional Evaporator Orifice Size	-	-	-	-	-	-
Compressor Type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Factory Charge - R22 (lbs)	11.675	15.93	17.375	18.625	17.625	17.125
Weight Lbs. (Ship)	229	233	236	262	282	292

Electrical Specifications - 208 - 230 / 1 / 60, Voltage Range 197V - 253V

Minimum Circuit Ampacity	14.4	16.0	18.3	22.2	24.4	32.8
Wire Size/Max. Length (AWG Cu) Ft.	14 / 45	14 / 35	14 / 29	12 / 38	12 / 31	8 / 51
Minimum Fuse (Amps)	20	25	30	35	35	50
Max. Fuse or HACR Breaker Size (Amps)	20	25	30	35	35	50
Compressor Full Run / Lock Rotor Amps	10.9 / 54	12.2 / 63.0	13.5 / 73.0	16.5 / 95	18.3 / 109	25.0 / 148
Fan Full Load / Lock Rotor Amps.	0.8 / 1.5	0.8 / 1.5	1.5 / 2.9	1.5 / 2.9	1.5 / 2.9	1.5 / 2.9

Dimensions

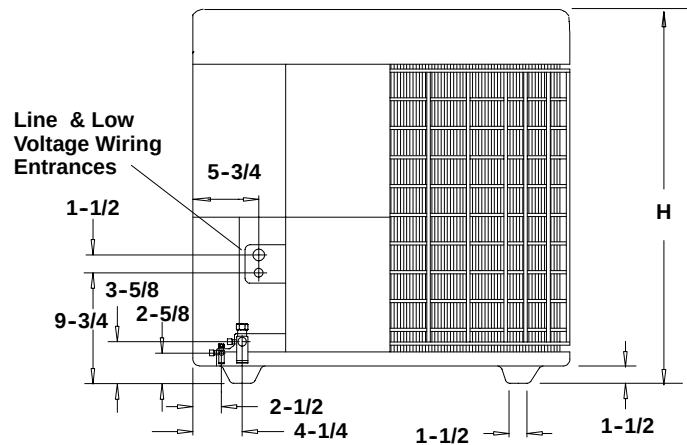
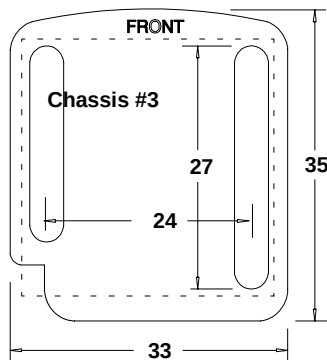
Model	Chassis	Height (H)
424	3	36
430	3	42
436	3	42
442	3	46
448	3	46
460	3	46

Minimum Mounting Pad Sizes with pad starting at 9" from structure for minimum clearances

Chassis #3

27" W X 28" D

ALL DIMENSIONS IN INCHES



Accessory	Description	Used On
AMF153TKB	Expansion Valve Kit	2 - 3 Ton
AMF355TKB	Expansion Valve Kit	3 1/2 - 5 Ton
AMA001TDA	Indoor Blower Time Delay	All Models
24370800 *	Compressor Anti-short cycle 24 Volt 3 Min. Time Delay	All Models
1070822*	Compressor Anti-short cycle 24 Volt 5 Min. Time Delay	All Models
1148671 *	Low Ambient Kit (Fan Cycling Switch)	All Models
1053477 *	Compressor Crankcase Heater Solid State "Stick On" Type	All Models
1148113 *	Compressor Crankcase Heater "Wrap-around" Type (6.5 to 8.5 inch Dia Compressors)**	**All Models
1061482 *	Compressor Crankcase Heater "Wrap-around" Type (4.2 to 6.7 inch Dia Compressors)**	**All Models
1060833*	Compressor Sound Jacket (Small Scroll)	1 1/2 - 3 Ton
1060834 *	Compressor Sound Jacket (Large Scroll)	3 1/2 - 5 Ton

* Order from Service Parts

PERFORMANCE DATA COOLING

Outdoor Model	Indoor Model	Cooling Capacity(MBtuh)	Rating A EER Rating (Btuh/watt)	SEER	Outdoor Coil Air Quantity (SCFM)	Indoor Coil Air Quantity (SCFM)
TCA424AKC*	EX*24B****+TD1	23600	12.3	14	2900	700
TCA424AKC*	EP*24B****+TD1+TXV	22400	11.45	13	2900	700
TCA424AKC*	EP*30B****+TD1+TXV	22800	11.7	13	2900	700
TCA424AKC*	EP*30F****+TD1+TXV	22800	11.7	13	2900	700
TCA424AKC*	EP*30F****+MV12F19****+TXV	23600	13.25	14.5	2900	790
TCA424AKC*	EX*24F****+TD1	23600	12.3	14	2900	700
TCA424AKC*	EX*24F****+NTV6050	24000	13.4	15	2900	745
TCA424AKC*	EX*24F****+NTV6075	24000	13.45	15	2900	655
TCA424AKC*	EX*24F****+9MPV050	24000	13.05	15	2900	725
TCA424AKC*	EX*24F****+9MPV075	24000	13.25	15	2900	695
TCA424AKC*	EBP24****+TXV	23600	12.3	14	2900	700
TCA424AKC*	EBP30****+TXV	24000	12.55	14	2900	700
TCA424AKC*	EBV24****	24000	13.65	15	2900	700
TCA424AKC*	EBV36****	24000	13.3	15	2900	700
TCA424AKC*	EBX24****	24000	12.55	14	2900	700
TCA424AKC*	EP*36B****+TD1+TXV	23600	12.15	13.5	2900	700
TCA424AKC*	EP*36F****+TD1+TXV	23600	12.15	13.5	2900	700
TCA424AKC*	EP*36J****+TD1+TXV	23600	12.15	13.5	2900	700
TCA424AKC*	EX*36B****+TD1	24000	12.6	14	2900	700
TCA424AKC*	EX*36F****+TD1	24000	12.6	14	2900	700
TCA424AKC*	EX*36F****+MV12F19****	24000	14.2	15	2900	705
TCA424AKC*	EX*42F****+TD1	24000	12.8	14	2900	700
TCA424AKC*	EX*42J****+TD1	24000	12.8	14	2900	700
TCA430AKC*	EX*36F****+TD1	28600	12.6	14	2900	1070
TCA430AKC*	EP*36B****+TD1+TXV	27000	12.05	13	2900	1000
TCA430AKC*	EX*36F****+9MPV075	28400	13.15	14.5	2900	1040
TCA430AKC*	EX*36F****+9MPV100	28600	13.6	15	2900	1055
TCA430AKC*	EX*42J****+9MPV100	29200	13.9	15	2900	1075
TCA430AKC*	EBV36****	28600	13.9	15	2900	1070
TCA430AKC*	EP*30B****+TD1+TXV	26000	11.55	12.5	2900	950
TCA430AKC*	EP*30F****+TD1+TXV	26000	11.55	12.5	2900	950
TCA430AKC*	EP*30F****+9MPV075+TXV	26200	12.2	13.5	2900	980
TCA430AKC*	EP*36F****+TD1+TXV	27200	12.05	13	2900	1000
TCA430AKC*	EP*36F****+9MPV050+TXV	27000	12.3	13.5	2900	955
TCA430AKC*	EP*36F****+9MPV075+TXV	27400	12.8	14	2900	995
TCA430AKC*	EP*36F****+MV12F19****+TXV	27400	13.5	15	2900	915
TCA430AKC*	EP*36J****+TD1+TXV	27200	12.05	13	2900	1000
TCA430AKC*	EX*36F****+MV12F19****	28800	14	15.5	2900	1015
TCA430AKC*	EX*36J****+TD1	28200	12.65	14	2900	1000
TCA430AKC*	EBP30****+TXV	27600	12.45	13.5	2900	1000
TCA430AKC*	EBX36****	28200	12.5	13.5	2900	1000
TCA436AKC*	EX*36J****+TD1	35000	12.15	14	2900	1200
TCA436AKC*	EP*36B****+TD1+TXV	33400	11.55	13	2900	1200
TCA436AKC*	EP*36F****+TD1+TXV	33400	11.55	13	2900	1200
TCA436AKC*	EP*36J****+TD1+TXV	33400	11.55	13	2900	1200
TCA436AKC*	EP*42F****+TD1+TXV	34400	11.9	13.5	2900	1200
TCA436AKC*	EP*42F****+MV12F19****+TXV	35000	12.75	14	2900	1205
TCA436AKC*	EP*42J****+TD1+TXV	34600	11.95	13.5	2900	1200
TCA436AKC*	EX*36B****+TD1	35000	12.15	14	2900	1200
TCA436AKC*	EX*36F****+TD1	35000	12.15	14	2900	1200
TCA436AKC*	EX*36F****+NTV6125	35400	13.25	15	2900	1115
TCA436AKC*	EX*36F****+9MPV100	35400	12.7	14.5	2900	1195
TCA436AKC*	EX*36J****+NTV6100	35600	13.3	15	2900	1225
TCA436AKC*	EX*36J****+NTV6125	35600	13.35	15	2900	1165
TCA436AKC*	EX*36J****+9MPV100	35600	12.8	15	2900	1240
TCA436AKC*	EX*36J****+9MPV125	35600	12.7	14.5	2900	1240
TCA436AKC*	EX*36J****+MV16J22****	36000	13.5	15	2900	1225
TCA436AKC*	EX*42F****+TD1	35400	12.35	14	2900	1200
TCA436AKC*	EX*42J****+TD1	35400	12.35	14	2900	1200
TCA436AKC*	EX*42J****+NTV6100	36000	13.45	15	2900	1195
TCA436AKC*	EX*42J****+NTV6125	36000	13.5	15	2900	1140
TCA436AKC*	EX*42J****+9MPV100	36000	13	15	2900	1215
TCA436AKC*	EX*42J****+9MPV125	36000	12.9	15	2900	1215
TCA436AKC*	EX*42J****+MV16J22****	36000	13.65	15	2900	1200
TCA436AKC*	EBP36****+TXV	34600	11.7	13.5	2900	1200
TCA436AKC*	EBP42****+TXV	35000	12	13.5	2900	1200
TCA436AKC*	EBV36****	35600	12.95	15	2900	1200
TCA436AKC*	EBX36****	35000	12	14	2900	1200
TCA442AKC*	EX*42J****+TD1	41000	12.15	14	4000	1400

Many matches require a pin change. Always check pin size to insure maximum performance. 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.

PERFORMANCE DATA COOLING

Outdoor Model	Indoor Model	Cooling Capacity(MBtuh)	Rating A EER Rating (Btuh/watt)	SEER	Outdoor Coil Air Quantity (SCFM)	Indoor Coil Air Quantity (SCFM)
TCA442AKC*	EP*42F****+TD1+TXV	38000	11.7	13	4000	1100
TCA442AKC*	EBP48****+TXV	41000	11.95	13.5	4000	1400
TCA442AKC*	EBX48****	41500	12.25	13.5	4000	1400
TCA442AKC*	EBX60****	42000	12.25	13.5	4000	1400
TCA442AKC*	EBV48****	42000	13.35	15	4000	1400
TCA442AKC*	EP*42J****+TD1+TXV	38500	11.7	13	4000	1200
TCA442AKC*	EP*48F****+TD1+TXV	39500	11.85	13	4000	1300
TCA442AKC*	EP*48J****+TD1+TXV	40000	11.9	13.5	4000	1400
TCA442AKC*	EP*48J****+MV16J22****+TXV	40500	12.85	14.5	4000	1415
TCA442AKC*	EP*48L****+TD1+TXV	40000	11.9	13.5	4000	1400
TCA442AKC*	EP*48N****+TD1+TXV	40000	11.9	13.5	4000	1400
TCA442AKC*	EX*42F****+TD1	40000	12.15	13.5	4000	1200
TCA442AKC*	EX*42J****+TD1	40000	12.15	13.5	4000	1200
TCA442AKC*	EX*42J****+*9MPV100	41000	12.3	13.5	4000	1390
TCA442AKC*	EX*42J****+*9MPV125	41000	12.15	13.5	4000	1385
TCA442AKC*	EX*42J****+MV16J22****	41500	13	14.5	4000	1385
TCA442AKC*	EX*48J****+TD1	41000	12.1	13.5	4000	1400
TCA442AKC*	EX*48J****+NTV6100	41500	13	14.5	4000	1430
TCA442AKC*	EX*48L****+TD1	41000	12.1	13.5	4000	1400
TCA442AKC*	EX*48L****+*9MPV100	41000	12.35	14	4000	1435
TCA442AKC*	EX*48N****+TD1	41000	12.1	13.5	4000	1400
TCA442AKC*	EX*48N****+MV16J22****	41500	13.1	14.5	4000	1440
TCA442AKC*	EX*60N****+TD1	42000	12.5	14	4000	1400
TCA442AKC*	EBP42****+TXV	40000	11.7	13	4000	1400
TCA442AKC*	EBP48****+TXV	41000	11.95	13.5	4000	1400
TCA442AKC*	EBP60****+TXV	41500	11.9	13	4000	1400
TCA442AKC*	EBV48****	42000	13.35	15	4000	1400
TCA442AKC*	EBV60****	42000	13.8	15	4000	1400
TCA442AKC*	EBX48****	41500	12.25	13.5	4000	1400
TCA442AKC*	EBX60****	42000	12.25	13.5	4000	1400
TCA448AKC*	EX*48N****+TD1	47000	12.2	14	4000	1500
TCA448AKC*	EP*48F****+TD1+TXV	44500	11.95	13.2	4000	1300
TCA448AKC*	EP*48J****+TD1+TXV	45500	12.05	13.5	4000	1400
TCA448AKC*	EP*48L****+TD1+TXV	45500	12.05	13.5	4000	1400
TCA448AKC*	EP*48N****+TD1+TXV	45500	12.05	13.5	4000	1400
TCA448AKC*	EP*60J****+TD1+TXV	46500	12.15	13.8	4000	1600
TCA448AKC*	EP*60L****+TD1+TXV	47000	12.15	14	4000	1600
TCA448AKC*	EP*60N****+TD1+TXV	47000	12.15	14	4000	1600
TCA448AKC*	EX*48J****+TD1	46500	12.2	13.8	4000	1500
TCA448AKC*	EX*48J****+NTV6100	47000	12.8	14.2	4000	1570
TCA448AKC*	EX*48J****+NTV6125	47000	12.85	14.2	4000	1535
TCA448AKC*	EX*48J****+MV16J22****	47000	12.9	14.5	4000	1625
TCA448AKC*	EX*48L****+TD1	47000	12.2	14	4000	1500
TCA448AKC*	EX*48N****+NTV6100	47000	12.8	14.2	4000	1575
TCA448AKC*	EX*48N****+NTV6125	47000	12.85	14.5	4000	1540
TCA448AKC*	EX*48N****+MV16J22****	47000	12.9	14.5	4000	1630
TCA448AKC*	EX*60J****+TD1	48000	12.7	14.2	4000	1600
TCA448AKC*	EX*60L****+TD1	48000	12.7	14.2	4000	1600
TCA448AKC*	EX*60N****+TD1	48000	12.7	14.2	4000	1600
TCA448AKC*	EBP48****+TXV	47000	11.95	13	4000	1600
TCA448AKC*	EBP60****+TXV	47500	12.05	13.5	4000	1600
TCA448AKC*	EBV48****	48000	13	14.5	4000	1600
TCA448AKC*	EBV60****	48000	13.45	15	4000	1600
TCA448AKC*	EBX48****	48000	12.35	13.5	4000	1600
TCA448AKC*	EBX60****	48000	12.5	14	4000	1600
TCA460AKC*	EBV60****	58000	9.8	13.5	4000	1800
TCA460AKC*	EP*60J****+TD1+TXV	53500	8.95	12	4000	1700
TCA460AKC*	EP*60L****+TD1+TXV	53500	8.95	12	4000	1700
TCA460AKC*	EP*60N****+TD1+TXV	53500	8.95	12	4000	1700
TCA460AKC*	EP*60N****+MV20N26****+TXV	54000	9.25	12.5	4000	1840
TCA460AKC*	EX*60L****+TD1	56500	9.4	12.5	4000	1700
TCA460AKC*	EX*60N****+NTV6100	57500	9.45	12.5	4000	1900
TCA460AKC*	EX*60N****+NTV6125	57500	9.55	13	4000	1840
TCA460AKC*	EX*60N****+MV20N26****	57500	9.65	13	4000	1830
TCA460AKC*	EBP60****+TXV	55000	8.95	12	4000	1800
TCA460AKC*	EBX60****	57000	9.25	12.5	4000	1800

Many matches require a pin change. Always check pin size to insure maximum performance. 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.

Many matches require a pin change. Always check pin size to insure maximum performance. 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.

MODEL NUMBER IDENTIFICAION GUIDE						
MODEL NUMBER PRODUCT FAMILY * = Brand	AC	4	24	A	K	A
						SALES CODE
						ELECTRICAL
						K = 208/230-1-60 H = 208/230-3-60
PRODUCT TYPE AC = Air Conditioning CA = Condenser A/C HP = Heat Pump CH = Condenser H/P						CONNECTIONS
						A = Sweat / Valve
NOMINAL SEER RATING 0 = 10 2 = 12 4 = 14						NOMINAL CAPACITY MBTUH
						18 = 18,000 24 = 24,000 30 = 30,000 36 = 36,000 42 = 42,000 48 = 48,000 60 = 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
All models are factory charged with R-22 for outdoor unit, 25' (8m) of refrigerant 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