

Split System Enhanced Air Conditioner

16
seer

4AC16LT Features and Benefits

D4AC16LT-100 (09/2010)

COMPRESSOR

- High-efficiency 2 stage Copeland UltraTechTM scroll compressor
- R410a refrigerant
- Grommet-mounted compressor for quiet operation
- Internally protected against high temperature motor overload conditions
- Heavy-duty compressor sound blanket for quiet operation

CABINET

- Full metal louvered panels remove with just two screws per panel for easy coil cleaning and service
- Controls located in corner post for easy installation and service
- Rounded corners for safety and attractive, clean appearance
- Baked polyester paint finish over galvanized steel for maximum durability
- PVC-coated wire fan discharge grille
- External gauge ports for easy service

COILS

- Enhanced aluminum fins and copper tubing for higher efficiency and capacity
- Raised coil prevents debris from collecting in bottom of coil and causing loss of airflow

DESIGN

- Designed for ambients up to 125°F



COMPONENTS

- Service valves positioned for quick installation and easy service
- High and low pressure switches factory installed
- Comfort Alert 2TM diagnostics is factory installed
- Trade available components
- Factory installed crank case heater
- Charged for 15 ft. of line set

WARRANTY

- 10 year limited warranty on compressor, 10 year limited warranty on all parts, extended warranty available*

*Warranty provides for a total of 10 years of limited warranty coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty). Warranty must be registered online within 60 days of installation to qualify for 10-year coverage. Unregistered equipment defaults to 5-year coverage. Lifetime limited heat exchanger warranty applies to registered equipment only (Standard 20 years with no online registration). See full warranty at www.alliedair.com for terms, conditions and exclusions.

Model Number Guide

4	AC	16	LT	24	P	-	1	A
4 - R410	Split Condensing Unit	16 - 16 SEER Nominal	Louvered Two Stage	24 - 24,000 Btuh	P - 208-230v/60hz1Ph		1 - Major Revision Code	A - Minor Revision Code

Physical and Electrical

Model	Voltage/Hz/ Phase	Voltage Range	Min. Circuit Amp.	Max. Over current Device (amps)	Compressor		Fan Motor			Refrig. Charge (oz.)	Weight (lbs.)
					Rated Load (amps)	Locked Rotor (amps)	Rated Load (amps)	Rated HP	Nom. RPM		
4AC16LT24-1	230/60/1	197 - 253	13.9	20	11.4	52.0	1.1	1/5	1075	117	200
4AC16LT36-1	230/60/1	197 - 253	21.9	35	19.0	82.0	1.1	1/6	825	137	230
4AC16LT48-1	230/60/1	197 - 253	28.1	45	24.0	96.0	1.1	1/6	825	180	262
4AC16LT60-1	230/60/1	197 - 253	33.8	55	26.0	118.0	1.7	1/4	825	214	310

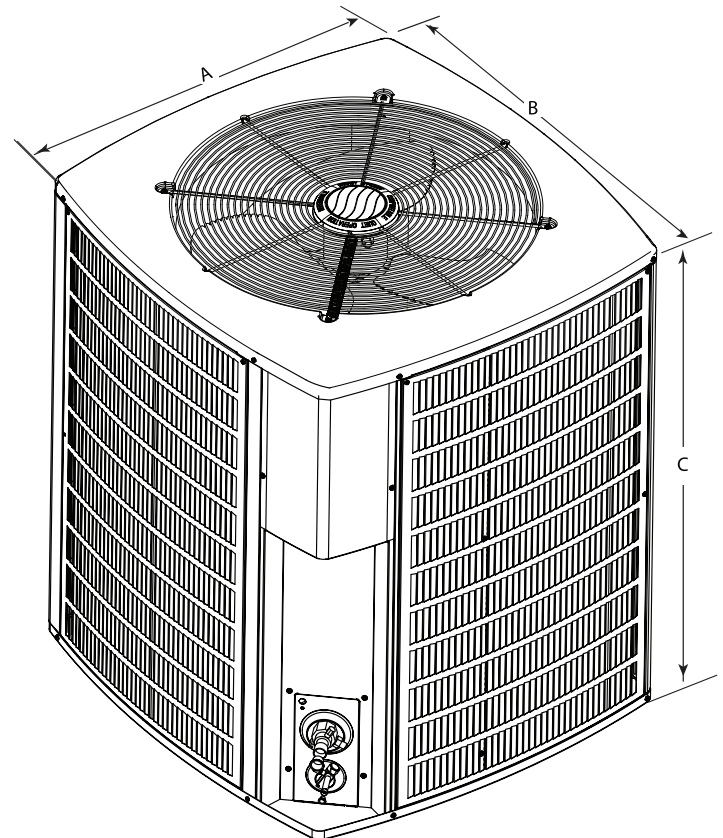
Note: For applications below 230V, use of a Hard Start Kit is recommended.

Sound Ratings

Model No.	Sound Rating dBA
4AC16LT24-1	74
4AC16LT36-1	74
4AC16LT48-1	76
4AC16LT60-1	76

Dimensions (in.)

Model No.	A	B	C
4AC16LT24-1	26-3/4	24-3/4	29-3/4
4AC16LT36-1	31-1/4	29-3/8	29-3/4
4AC16LT48-1	31-1/4	29-3/8	37-3/4
4AC16LT60-1	31-1/4	29-3/8	43-3/4



Cooling Performance with Blowers

Model Number	Indoor Model	SEER	EER	AHRI Capacity	Rated Sensible Capacity	CFM	Refrigeration Connections		Line Size		Required Indoor Metering
							Suction	Liquid	Suction	Liquid	
4AC16LT24-1	CG95C****V12B/EH1P29B	16.0	12.00	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	CG95C****V12B/E(U,C,M,H)1P36B	16.0	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	CG95C****V14B/EH1P29B	16.0	12.00	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	CG95C****V14B/E(U,C,M,H)1P36B	16.0	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	CG80C****V12B/EH1P29B	16.0	12.00	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	CG80C****V12 B/E(U,C,M,H)1P36B	16.0	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	CG80C****V14B/EH1P29B	16.0	12.00	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	CG80C****V14B/E(U,C,M,H)1P36B	16.0	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	EFV08BC/EH1P29B	16.0	12.00	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	EFV08BC/E(C,M,H)1P36B	16.0	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
	BCS2M24V00NA1P-1	16.0	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	A4TXV01
4AC16LT36-1	CG95C****V12B/E(U,C,M,H)1P36B	15.5	11.50	34,400	25,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG95C****V12B/E(U,C,M,H)1P43B	16.0	12.00	35,400	26,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG95C****V14B/E(U,C,M,H)1P36B	15.5	11.50	34,400	25,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG95C****V14B/E(U,C,M,H)1P43B	16.0	12.00	35,400	26,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG95C****V16C/E(U,C,M,H)1P36C	15.5	11.50	34,400	25,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG95C****V16C/E(U,C,M,H)1P43C	16.0	12.00	35,400	26,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG80C****V12B/E(U,C,M,H)1P36B	15.5	11.50	34,400	25,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG80C****V12B/E(U,C,M,H)1P43B	16.0	12.00	35,400	26,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG80C****V14B/E(U,C,M,H)1P36B	15.5	11.50	34,400	25,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	CG80C****V14B/E(U,C,M,H)1P43B	16.0	12.00	35,400	26,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	EFV12BC/E(C,M,H)1P36B	15.5	11.50	34,000	25,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	EFV12BC/E(C,M,H)1P43B	16.0	12.00	35,400	26,800	1200	7/8	3/8	7/8	3/8	A4TXV01
	BCS2M36V00NA1P-1	15.5	11.00	34,400	25,800	1200	7/8	3/8	7/8	3/8	A4TXV01
4AC16LT48-1	CG95C****V20C/E(U,C,H)1P62C	15.5	12.00	48,000	36,000	1600	7/8	3/8	7/8	3/8	A4TXV02
	CG95C****V20D/E(U,C,M)1P62D	15.5	12.00	47,500	35,500	1600	7/8	3/8	7/8	3/8	A4TXV02
	CG80C****V20C/E(U,C,H)1P62C	15.5	12.00	48,000	36,000	1600	7/8	3/8	7/8	3/8	A4TXV02
	CG80C****V20D/E(U,C,H)1P62D	15.5	12.00	47,500	35,500	1600	7/8	3/8	7/8	3/8	A4TXV02
	EFV16CC/E(C,H)1P62C	15.5	12.00	48,000	36,000	1600	7/8	3/8	7/8	3/8	A4TXV02
	EFV20DC/E(C,H)1P62D	15.7	12.00	47,500	35,500	1600	7/8	3/8	7/8	3/8	A4TXV02
	BCS2M48V00NA1P-1	15.5	12.00	47,000	35,100	1600	7/8	3/8	7/8	3/8	A4TXV02
4AC16LT60-1	CG95C****V20C/E(U,C,H)1P62C	14.0	11.00	57,000	43,000	1800	7/8	3/8	1-1/8	3/8	A4TXV02
	CG95C****V20D/E(U,C,H)1P62D	14.2	11.00	57,000	43,000	1800	7/8	3/8	1-1/8	3/8	A4TXV02
	CG80C****V20C/E(U,C,H)1P62C	14.5	11.00	57,000	43,000	1800	7/8	3/8	1-1/8	3/8	A4TXV02
	CG80C****V20D/E(U,C,H)1P62D	15.0	11.60	57,000	43,000	1800	7/8	3/8	1-1/8	3/8	A4TXV02
	EFV20CD/E(U,C,H)1P62D	15.0	11.60	57,000	43,000	1800	7/8	3/8	1-1/8	3/8	A4TXV02
	BCS2M60V00NA1P-1	15.0	11.00	57,000	43,000	1800	7/8	3/8	1-1/8	3/8	A4TXV02

¹ Certified in accordance with Unitary Air Conditioner Certification Program, which is based on AHRI Standard 210/240.

² Required to achieve AHRI rating.

Cooling Performance with Air Handlers and Furnaces

Outdoor Model	Indoor Model		SEER	EER	AHRI Rated Capacity ¹ BTUH	Sensible Rated Capacity	CFM	Refrigerant Connection				Refrigerant Line Size		Indoor Expansion Device	
	Evaporator Coil or Air Handler ³	Vairable Speed Furnace						Outdoor		Indoor		Suction	Liquid	Piston ²	TXV
								Suction	Liquid	Suction	Liquid				
4AC16LT124P	E(U,C,M,H)1P36A	80G2UH070AV12	15.00	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	3/4	3/8	NA	A4TXV01
	E(U,C,M,H)1P36B	80G2UH090BV16	15.00	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	3/4	3/8	NA	A4TXV01
	E(U,C,M,H)1P29A	80G2UH070AV12	16.00	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	3/4	3/8	NA	A4TXV01
	E(U,M,H)1P29B	80G2UH090BV16	16.00	12.50	24,000	18,000	800	3/4	3/8	3/4	3/8	3/4	3/8	NA	A4TXV01
4AC16LT136P	E(U,C,M,H)1P36A	80G2UH070AV12	15.50	11.50	34,400	25,800	1200	7/8	3/8	3/4	3/8	7/8	3/8	NA	A4TXV01
	E(U,C,M,H)1P36B	80G2UH090BV16	15.50	11.50	34,400	25,800	1200	7/8	3/8	3/4	3/8	7/8	3/8	NA	A4TXV01
	E(U,C,M,H)1P43B	80G2UH090BV16	16.00	11.50	34,400	25,800	1200	7/8	3/8	7/8	3/8	7/8	3/8	NA	A4TXV01
	E(U,C,M,H)1P43C	80G2UH110CV20	16.00	12.00	34,400	25,800	1200	7/8	3/8	7/8	3/8	7/8	3/8	NA	A4TXV01
4AC16LT148P	E(U,C,H)1P62C	80G2UH110CV20	15.00	11.50	46,500	34,900	1600	7/8	3/8	7/8	3/8	7/8	3/8	NA	A4TXV02
4AC16LT160P	E(U,C,H)1P62C	80G2UH110CV20	14.50	11.00	57,000	43,000	1800	7/8	3/8	7/8	3/8	1 1/8	3/8	NA	A4TXV02

Note:

- 1 Certified in accordance with Unitary Air Conditioner Certification Program, which is based on AHRI Standard 210/240.
- 2 Required to achieve AHRI rating. If NA (Not Applicable) is in the piston column, then TXV is required.
- 3 A blower time delay relay is standard on all Allied Air Enterprises furnaces and AH products.

Cooling Performance Extended Ratings

Outdoor Model	Indoor Model	Indoor Temp DB/WB °F	Outdoor Temp - DB°F														
			65			82			95			105			115		
			Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW	Btuh	S/T	kW
4AC16LT24-1	CG95C****V12B/EH1P29B	85/72	27,000	.67	1.43	26,500	.68	1.70	25,000	.72	1.93	23,600	.73	2.38	22,200	.76	2.59
	CG95C****V12B/E(U,C,M,H)1P36B																
	CG95C****V14B/EH1P29B																
	CG95C****V14B/E(U,C,M,H)1P36B	80/67	26,000	.70	1.40	25,500	.71	1.67	24,000	.75	1.90	22,600	.76	2.35	21,200	.79	2.56
	CG80C****V12B/EH1P29B																
	CG80C****V12B/E(U,C,M,H)1P36B																
	CG80C****V14B/EH1P29B	75/63	25,000	.73	1.37	24,500	.74	1.64	23,000	.78	1.87	21,600	.79	2.32	20,200	.82	2.53
	CG80C****V14B/E(U,C,M,H)1P36B																
	EFV12BC/EH1P29B																
4AC16LT36-1	EFV12BC/E(C,M,H)1P36B	85/72	40,200	.66	1.76	38,200	.68	2.31	36,400	.69	2.98	35,000	.71	3.28	33,000	.74	3.69
	CG95C****V12B/E(U,C,M,H)1P36B																
	CG95C****V12B/E(U,C,M,H)1P43B																
	CG95C****V14B/E(U,C,M,H)1P36B	80/67	39,200	.69	1.73	37,200	.71	2.28	35,400	.72	2.95	34,000	.74	3.25	32,000	.77	3.66
	CG95C****V14B/E(U,C,M,H)1P43B																
	CG95C****V16C/E(U,C,M,H)1P36C																
	CG95C****V16C/E(U,C,M,H)1P43C	75/63	38,200	.72	1.70	36,200	.74	2.25	34,400	.75	2.92	33,000	.77	3.22	31,000	.80	3.63
	CG80C****V12B/E(U,C,M,H)1P36B																
	CG80C****V12B/E(U,C,M,H)1P43B																
4AC16LT48-1	CG80C****V14B/E(U,C,M,H)1P36B	85/72	55,400	.68	2.93	52,000	.71	3.43	49,500	.72	3.89	48,000	.73	4.23	45,800	.75	5.53
	CG80C****V14B/E(U,C,M,H)1P43B																
	CG95C****V20C/E(U,C,H)1P62C																
	CG95C****V20D/E(U,C,H)1P62D	80/67	53,400	.71	2.90	50,000	.74	3.40	47,500	.75	3.86	46,000	.76	4.20	43,800	.78	5.50
	CG80C****V20C/E(U,C,H)1P62C																
	CG80C****V20D/E(U,C,H)1P62D																
4AC16LT60-1	EFV16CC/E(C,H)1P62C	85/72	61,000	.64	3.82	60,000	.65	4.49	59,000	.68	5.11	55,000	.69	5.66	52,000	.72	6.30
	EFV20DC/E(C,H)1P62D																
	CG95C****V20C/E(U,C,H)1P62C																
	CG95C****V20D/E(U,C,H)1P62D	80/67	59,000	.67	3.79	58,000	.68	4.46	57,000	.71	5.08	53,000	.72	5.63	50,000	.75	6.27
	CG80C****V20C/E(U,C,H)1P62C																
	CG80C****V20D/E(U,C,H)1P62D																
4AC16LT60-1	EFV20DC/E(C,H)1P62D	75/63	57,000	.70	3.76	56,000	.71	4.43	55,000	.74	5.05	51,000	.75	5.60	48,000	.78	6.24

* All ratings are with required indoor vAHRlable speed matches.
Extended data shown is actual for models listed and typical for all AHRI matches.

Accessories

Kit Number	Description	Used with
45F08	Compressor Low Ambient Cut-off	All 4AC16LT's
93G35	Freezestats (3/8")	All 4AC16LT's
39H29	Freezestats (1/2")	All 4AC16LT's
50A93	Freezestats (5/8")	All 4AC16LT's
47J27	Time Off Control	All 4AC16LT's
93M06	Crank Case Heater	All 4AC16LT's
63W22	Hard Start Kit 2 - 3 ton	4AC16LT24
63W23		4AC16LT36
10J42	Hard Start Kit 4 - 5 ton	4AC16LT48
63W24		4AC16LT60
34M72	Low Ambient	All 4AC16LT's

All specifications and illustrations
subject to change without notice
and without incurring obligations.

DucaneTM
**AIR CONDITIONING
AND HEATING**
www.ducanehvac.com
1-800-448-5872



Proper sizing and installation of
equipment is critical to achieve
optimal performance. Split system
air conditioners and heat pumps must
be matched with appropriate coil
components to meet ENERGY STAR
criteria. Ask your contractor for details
or visit www.energystar.gov