

CCA - Air Cooled Central Chillers



	CCA-30	CCA-40	CCA-50	CCA-60	CCA-70	CCA-90	CCA-110	CCA-140
Capacity @ 20°F LFT	144,800	187,200	254,200	320,400	361,200	478,800	614,400	787,200
Capacity @ 30°F LFT	185,800	231,600	313,200	396,000	446,400	591,600	759,600	951,600
Capacity @ 40°F LWT	235,000	290,400	387,600	492,000	554,400	734,400	942,000	1,180,800
Capacity @ 50°F LWT	292,000	354,000	478,800	607,200	684,000	906,000	1,162,800	1,456,800
Compressor	Reciprocating	Reciprocating	Screw	Screw	Screw	Screw	Screw	Screw
Compressor HP	30	40	50	60	70	90	110	140
Condenser	Remote Air Cooled	Remote Air Cooled	Remote Air Cooled	Remote Air Cooled	Remote Air Cooled	Remote Air Cooled	Remote Air Cooled	Remote Air Cooled
Fan Arrangement	1 x 2	1 x 3	2 x 2	2 x 2	2 x 3	2 x 3	2 x 4	2 x 5
Length	117"	117"	174"	174"	174"	174"	231"	288"
Width	48"	48"	93"	93"	93"	93"	93"	93"
Height	52"	47"	47"	47"	47"	47"	47"	47"
Connection Sizes Discharge / Liquid	1 5/8" / 1 5/8"	2 1/8" / 1 5/8"	(2) 1 5/8" / (2) 1 3/8"	(2) 1 5/8" / (2) 1 3/8"	2 1/8" / 2 1/8"	(2) 2 1/8" / (2) 1 5/8"	(2) 2 1/8" / (2) 1 5/8"	(2) 2 1/8" / (2) 2 1/8"
Shipping Weight (lbs.)	1,460	1,490	1,792	1,934	2,403	2,742	3,129	4,560
Evaporator	Shell & Tube	Shell & Tube	Shell & Tube	Shell & Tube	Shell & Tube	Shell & Tube	Shell & Tube	Shell & Tube
Receiver	standard	Standard	standard	standard	standard	standard	standard	standard
Chilled Water Flow Rate @ 50°F LWT (gpm @ psi)	58.3	70.8	95.7	121.4	136.8	181.2	232.5	291.3
Chiller Dimensions (in.)								
Length	60	60	60	60	126	106	155	141
Width	36	36	36	36	45	45	45	45
Height	70	70	70	70	70	70	70	70
Shipping Weight (lbs.)								
Electrical Rating								
FLA @ 230-3-60	112.0	169.8	175.8	265.6	292.6	379.6	494.6	621.6
FLA @ 460-3-60	56.0	84.9	84.8	126.8	139.6	182.8	237.8	297.8
Connection Sizes								
Chilled Water Conn. (in.)	1 1/2	2	2	2 1/2	2 1/2	3	4	4
Lifting Eyes		Standard	standard	standard	standard	standard	standard	standard

Options	
Tank	See "CWT" specification page
Pump	See "Pump" specification page
Auto. Water Make-Up Valve	optional
Low Water Level Alarm	optional
High Temperature Alarm	optional
Low Temperature Alarm	optional

1 ton = 12,000 btu/hr.
 Specifications based on 95°F ambient temp.

Note: Cooling Technology, Inc. reserves the right to change manufacturers of components as found necessary.

Basic Construction



CONSTRUCTION

Frame	Heavy gauge carbon steel base. Welded frame construction.
Finish	Primed & Painted with Acrylic Enamel
Lifting Eyes	Included for ease of lifting chiller to high elevations

COMPRESSOR

Compressor Type	Reciprocating - 30 & 40 ton units only Screw – 50 thru 140 ton units
Unloading	Reciprocating – Capacity control is achieved by cylinder unloading followed by hot gas bypass Screw - Infinite control to 25%
Features	Screw - Motor winding protection, pressure relief valve, crank case heater, double wall rotor housing, three-stage oil separator, automatic start unloading, phase sequence control, oil sight glass, pressure relief valve.

EVAPORATOR

Type	Shell & Tube design
Construction	Carbon steel shell with copper tubes
Insulation	Closed cell foam
Fluid Pressure Drop	<4 psig (typical)

CONDENSER

Type	Remote air-cooled – forced draft, vertical discharge
Construction	Seamless, heavy wall smooth tubes with 12 aluminum fins per inch
Design Air Temp	20°F to 95°F
Casing Material	Heavy-gauge G-90 galvanized steel, plated hardware
Fan Material	Aluminum fans riveted to steel hub
Pressure Control	Fan cycling with variable speed control on header end
Features	Side access panel for cleaning and inspection

ELECTRICAL CONTROLS

Rating	Nema 4 rated enclosure	
Controller	MCS Microprocessor Controller	
	Long-life LED indicators	
Protections	Freeze stat protection	Low-flow cutout
	Motor overload protection	Time delay low pressure cutout
	High pressure cutout	Motor starters
	Low oil pressure switch	

REFRIGERATION SPECIALTIES

Thermal expansion valve	Removable filter dryer
High pressure relief valve	Sight glass with moisture indicator
Liquid line solenoid valve	Discharge/suction line service valve

CCA TYPICAL PIPING LAYOUT

