N SERIES

Air Cooled Water Chillers - Technical Catalog

CENTURY
REFRIGERATION
DIVISION RAE CORPORATION

4492 Hunt St - Pryor, OK 74361 - 918.825.7222 - Fax 800.264.5329 - www.century-refrigeration.com

Standard Features

- Direct drive condenser fans
- Fan motor contactors
- Poly-coated fan guard
- Liquid receiver with relief valve
- Receiver inlet and outlet ball valves
- Refrigerant charging Schrader port
- Compressor contactors
- Compressor overload protection
- Crankcase heater
- Compressor service valves
- Vibration isolation under compressor
- Discharge vibrasorber
- Separate sub-cooling circuit
- Fan motor overload protection
- Oversized, NEMA 3R control panel (to facilitate field-added electronic system controls) with hinged door
- Pre-wired electrical controls
- High pressure safety
- Low pressure operating control
- Rigging holes
- Oil failure control
- Run/Pumpdown switch
- 12 FPI max condensing surface
- Oversized high-efficiency condensers
- Condenser coil cleanout access
- Wiring raceway
- Electronic oil control

Applications

All refrigerant containing vessels are constructed in accordance with ANSI B9.1. Electrical components are UL approved and applied in accordance with their approved usage. Wiring and electrical construction is in accordance with the National Electric Code. Units are ETL certified and labeled. The control panels meet UL 508 standards and are so labeled.

Century chillers make it possible to design a system with smaller tonnage requirements knowing that a chiller with such features as semi-hermetic compressors, single circuit simplicity, and base rail configuration is available with a full complement of accessories ranging from gauge panels to service indication lights; phase failure monitors to unit disconnects; and copper fin condenser coils to special surface coatings.

“NDB” packaged chillers offer one of the finest mid-range dual circuit air-cooled packaged chillers available. Independent circuits offer redundancy in operation and allow for a more dependable chiller. Each circuit is protected by an independent set of safeties which assures proper circuit protection. Each compressor is protected by an inherent thermistor embedded in each of the three windings providing proper thermal protection.

Available Options

- + 20°F fan cycle with digital control (ambient temperatures at or above +20°F)
- 0°F fan cycle with digital control (ambient temperatures at or above 0°F)
- A20 flood control with receivers (ambient temperatures at or above +20°F)
- B20 flood control with receivers (ambient temperatures below +20°F, positive start feature)
- VFD compatible condenser fan motors with controller mounted
- Title 24 packages
- 850 RPM fan motors and optional low sound blades
- Special high air fan blades for high altitude locations
- Liquid line solenoid, mounted, with or without manual lift stem
- Liquid line drier (with or without replaceable core) & sight glass
- 3 valve bypass (liquid drier)
- Full port charging valve
- Hot gas discharge muffler
- Suction accumulator with or without heat exchanger
- Suction filter with or without replaceable core
- Suction vibrasorber, mounted
- Oil separator
- Oil stabilized gauges with manual shut off valves
- Control circuit transformer
- Convenience outlet (115v/15amp/with transformer)
- Unit circuit breaker with through-the-door operator
- Unit fused disconnect
- Painted cabinet
- Unit phase failure monitor
- Hot gas bypass
- Receiver insulation
- Compressor head cooling fan
- Cylinder unloading on most compressors
- Alarm circuit with dry contacts
- Adjustable guarantee off timer (GOT)
- Off/Pumpdown/Run switch
- Electrical door interlock
- Indicator lights
- Elapsed time meter
- Acrylic coated fin coil
- Contact your local Century Representative for other requested special options

Nomenclature

CR WC A C 12 N D B 80 H 7

- **CR WC** — **Series Code for Packaged Water Chiller**
- **A** — **Air Cooled**
- **C** — **Number of Fans**
- **12** — **Series Name**
- **N** — **Nominal Horsepower**
- **D** — **Compressor Type**
  - **C - Copeland Discus**
  - **B - Bitzer**
- **B** — **Number of Compressors**
  - **S - Single**
  - **D - Dual**
  - **M - Multiple**
- **80** — **Refrigerant Type**
  - **4 - R404a 7F - R407f**
  - **7c - R407c 8a - R448a**
  - **7a - R407a 9a - R449a**
  - **7 - R507**
- **H** — **H - High Temp**
- **7**

WHEN ORDERING PLEASE SPECIFY:

- Complete Model Number
- Refrigerant
- Room Temperature
- Saturated Suction Temperature
- Electrical Characteristic
  - Unit (Voltage/Phase)
  - Control Voltage
- Accessories

Note: Dual units are standard with dual electrical and refrigerant circuiting. Multiple units are standard with single electrical and refrigerant circuiting.

Construction

Cabinet
The rugged, industrial grade cabinet is constructed of heavy gauge, mill galvanized steel. Rigging holes are provided in the formed, full-perimeter channel base. Compressors are mounted low in the cabinet for ease of service.

Condensers
Coils are seamless copper tube with die stamped aluminum plate fins, galvanized steel frames and tube sheets. Coils are computer selected for refrigeration applications to provide optimum heat transfer at a minimum T.D. Each unit is provided with a separate, sub-cooling circuit to maximize unit performance.

Condenser fan motors are industrial duty 1140 RPM, ball bearing, weather resistant, three phase with inherent electrical protection. Condenser fan blades are of finished aluminum with a corrosion-resistant coated hub.

Coils are mounted horizontally with fans arranged for draw through, vertical discharge air flow. Each fan assembly is equipped with a sturdy poly-coated steel fan guard.

Liquid Receiver
Receivers are selected to provide pumpdown capacity. equivalent line length and a matching evaporator. Receivers smaller than 6 inches are U.L. listed. All larger receivers are ASME stamped. Each receiver is equipped with inlet and outlet ball valves, gauge port, and pressure relief device. Oversize receivers are available with or without, optional low ambient condenser flooding valves.

Compressors
U.L. listed, semi-hermetic, energy efficient, Bitzer™ compressors are applied throughout the line. Each compressor is equipped with suction and discharge service valves with gauge ports, inherent three phase overload protection, oil level sight glass, crankcase heater, spring isolator mounting, inline discharge vibrasorber and an auxiliary head cooling fan and/or oil cooler (where required.)

Bitzer™ compressors are famous for their low sound levels. Bitzer™ changes capacities within a frame size by changing their bore diameters rather than the length of the piston strokes. This gives Bitzer™ compressors an unsurpassed balance and precision that translates to low decibels. In addition, Bitzer™ compressors have a muffler built into each head that eliminates pulsations and reduces the sound levels even further.

Bitzer's™ centrifugal lubrication design employs a solid metal disc mounted to the crankshaft that distributes oil into a reservoir at the end of the shaft. The oil then flows through the shaft to the bearing surfaces.

Controls
All condensing units are wired to operate on a standard pumpdown cycle. Run/pumpdown switch is provided as standard.

All electrical control components are enclosed within a heavy-gauge weatherproof, hinged panel to provide maximum weather protection and enhance service analysis.

All units have individually numbered control conductors. Also standard are adjustable, refrigeration grade, separate high and low pressure switches (high-manual reset); oil pressure failure switch (manual reset) where applicable; and an individually numbered terminal strip for field connections. Conductors and fusing are selected per N.E.C. standards. A generously-sized enclosure is provided with adequate space to accommodate a complete defrost control system, either factory mounted and wired or field provided. Notably all Century control components are selected to be readily available through refrigeration wholesalers throughout the country. O.E.M. type controls are judicially avoided.

R-507a - High Temp		Model Numbers			
		ACNSB05H7	ACNSB06H7	ACNSB08H7	ACNSB09H7
Compressor Model Number		4FES-5	4EES-6	4DES-7	4CES-9
Quantity of Compressors		1	1	1	1
MCA[1] per unit	208 V	41.8	42.6	52.5	62.7
	230 V	38.4	39.1	48.5	57.7
	460 V	19.2	19.5	24.2	28.8
	575 V	15.1	15.4	18.9	22.6
Compressor RLA (each)	208 V	29.0	29.6	33.8	42.0
	230 V	26.2	26.8	30.6	38.0
	460 V	13.1	13.4	15.3	19.0
	575 V	10.5	10.7	12.2	15.2
Total Number of Condenser Fan Motors		1	1	2	2
Size of Motor (HP)		1	1	1	1
Diameter of Blade (in.)		28	28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6	4.6
	230 V	4.6	4.6	4.6	4.6
	460 V	2.3	2.3	2.3	2.3
	575 V	1.6	1.6	1.6	1.6
Receiver Size per circuit (in.)		8x42	8x42	8x42	8x42
Receiver Capacity 80% Full per circuit (lbs.)[2]		65	65	65	65
Unit Shipping Weight - Approximate (lbs.)		1,445	1,676	1,782	1,934
Unit Operating Weight - Approximate (lbs.)[4]		1,400	1,631	1,738	1,889

Capacity Ratings									
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	43,289	5.47	53,943	6.62	65,450	8.75	78,132	10.27
	30°F	53,348	5.85	66,506	7.15	80,569	9.36	96,023	11.11
	35°F	58,924	6.03	73,396	7.41	88,967	9.64	105,952	11.52
	40°F	64,850	6.20	80,819	7.65	97,909	9.92	116,519	11.92
	55°F	84,537	6.67	104,761	8.33	127,813	10.67	150,082	13.05
95° F	20°F	39,155	5.72	48,728	6.92	59,361	9.13	70,712	10.70
	30°F	48,160	6.15	59,980	7.52	73,061	9.81	86,974	11.65
	35°F	53,152	6.35	66,216	7.80	80,617	10.14	96,010	12.11
	40°F	58,453	6.55	72,835	8.08	88,721	10.46	105,629	12.57
	55°F	76,456	7.08	94,884	8.86	116,305	11.33	136,746	13.88
105° F	20°F	34,911	5.92	43,432	7.17	53,139	9.46	63,274	11.08
	30°F	42,863	6.40	53,420	7.83	65,406	10.22	77,835	12.14
	35°F	47,274	6.63	58,901	8.15	72,172	10.59	85,972	12.65
	40°F	51,955	6.85	64,772	8.47	79,441	10.95	94,639	13.16
	55°F	67,809	7.45	84,754	9.34	104,141	11.95	123,337	14.64
115° F	20°F	30,565	6.09	38,014	7.37	46,865	9.73	55,741	11.42
	30°F	37,422	6.61	46,676	8.10	57,587	10.58	68,654	12.57
	35°F	41,250	6.86	51,512	8.45	63,559	10.98	-	-
	40°F	45,311	7.10	56,643	8.80	69,990	11.38	-	-
	55°F	-	-	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

R-507a - High Temp		Model Numbers			
		ACNSB10H7	ACNSB12H7	ACNSB15H7	ACNSB20H7
Compressor Model Number		4VE(S)-10	4TE(S)-12	4PE(S)-15	4NE(S)-20
Quantity of Compressors		1	1	1	1
MCA[1] per unit	208 V	63.3	75.4	89.7	113.4
	230 V	58.2	69.2	82.6	104.4
	460 V	29.1	34.6	41.3	52.2
	575 V	22.8	27.2	32.3	40.8
Compressor RLA (each)	208 V	42.5	52.2	59.9	75.2
	230 V	38.4	47.2	54.2	68.0
	460 V	19.2	23.6	27.1	34.0
	575 V	15.4	18.9	21.7	27.2
Total Number of Condenser Fan Motors		2	2	3	4
Size of Motor (HP)		1	1	1	1
Diameter of Blade (in.)		28	28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6	4.6
	230 V	4.6	4.6	4.6	4.6
	460 V	2.3	2.3	2.3	2.3
	575 V	1.6	1.6	1.6	1.6
Receiver Size per circuit (in.)		8x42	8x60	8x60	10x60
Receiver Capacity 80% Full per circuit (lbs.)[2]		65	94	94	144
Unit Shipping Weight - Approximate (lbs.)		2,145	2,315	2,442	2,786
Unit Operating Weight - Approximate (lbs.)[4]		2,100	2,304	2,430	2,832

Capacity Ratings									
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	82,814	10.02	99,702	11.83	113,476	14.23	136,994	17.34
	30°F	102,890	10.87	123,373	12.89	141,090	15.49	169,723	18.73
	35°F	113,996	11.29	136,541	13.41	156,359	16.11	187,965	19.39
	40°F	125,921	11.69	150,573	13.92	172,751	16.71	207,572	20.03
	55°F	166,101	12.82	196,931	15.35	226,376	18.43	273,932	21.84
95° F	20°F	74,490	10.39	89,862	12.31	101,824	14.71	123,567	18.01
	30°F	92,678	11.36	111,353	13.52	126,798	16.14	153,327	19.58
	35°F	102,779	11.83	123,228	14.11	140,663	16.84	169,943	20.35
	40°F	113,640	12.30	135,982	14.69	155,572	17.52	187,686	21.10
	55°F	150,681	13.62	179,020	16.35	205,426	19.52	248,248	23.24
105° F	20°F	66,209	10.72	80,045	12.76	90,248	15.13	110,262	18.62
	30°F	82,575	11.79	99,349	14.09	112,568	16.72	136,941	20.38
	35°F	91,679	12.33	110,024	14.75	125,029	17.50	151,929	21.24
	40°F	101,393	12.85	121,512	15.40	138,457	18.27	167,795	22.10
	55°F	134,778	14.37	160,691	17.30	183,985	20.53	222,571	24.56
115° F	20°F	57,939	11.01	70,285	13.16	78,714	15.49	96,928	19.18
	30°F	72,482	12.19	87,321	14.62	98,482	17.22	120,639	21.11
	35°F	80,499	12.78	96,797	15.35	109,553	18.08	133,867	22.07
	40°F	89,251	13.36	107,022	16.07	121,374	18.94	148,005	23.02
	55°F	-	-	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

R-507a - High Temp		Model Numbers			
		ACNSB22H7	ACNSB25H7	ACNSB30H7	ACNSB33H7
Compressor Model Number		4JE-22	4HE-25	4GE-30	6JE-33
Quantity of Compressors		1	1	1	1
MCA[1] per unit	208 V	114.2	135.8	162.2	182.6
	230 V	105.1	124.6	149.0	167.9
	460 V	52.6	62.3	74.5	83.9
	575 V	41.1	48.9	58.4	65.7
Compressor RLA (each)	208 V	75.9	93.1	110.6	123.2
	230 V	68.6	84.2	100.0	111.4
	460 V	34.3	42.1	50.0	55.7
	575 V	27.4	33.7	40.0	44.6
Total Number of Condenser Fan Motors		4	4	5	6
Size of Motor (HP)		1	1	1	1
Diameter of Blade (in.)		28	28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6	4.6
	230 V	4.6	4.6	4.6	4.6
	460 V	2.3	2.3	2.3	2.3
	575 V	1.6	1.6	1.6	1.6
Receiver Size per circuit (in.)		10x60	12x60	12x60	12x60
Receiver Capacity 80% Full per circuit (lbs.)[2]		144	202	202	202
Unit Shipping Weight - Approximate (lbs.)		2,921	3,377	3,538	3,903
Unit Operating Weight - Approximate (lbs.)[4]		2,967	3,489	3,651	4,015

Capacity Ratings									
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	152,754	19.01	180,270	21.78	205,902	25.73	226,024	28.16
	30°F	188,092	20.54	221,329	23.56	252,095	27.87	278,565	30.31
	35°F	207,583	21.29	243,888	24.44	277,588	28.92	307,603	31.34
	40°F	228,283	22.05	267,999	25.30	304,614	29.97	338,706	32.33
	55°F	296,369	24.24	347,211	27.83	390,700	33.05	441,160	35.09
95° F	20°F	137,966	19.73	163,274	22.65	186,406	26.70	204,373	29.21
	30°F	170,031	21.47	200,458	24.66	228,027	29.07	252,228	31.65
	35°F	187,779	22.34	220,943	25.65	251,083	30.24	278,777	32.82
	40°F	206,626	23.20	242,862	26.63	275,517	31.41	307,251	33.95
	55°F	269,952	25.72	315,999	29.53	354,662	34.87	402,970	37.15
105° F	20°F	123,127	20.35	146,120	23.40	166,524	27.54	182,479	30.10
	30°F	151,897	22.29	179,399	25.62	203,686	30.13	225,782	32.81
	35°F	167,907	23.25	197,814	26.73	224,097	31.42	249,847	34.12
	40°F	184,911	24.22	217,349	27.83	245,926	32.70	275,457	35.41
	55°F	242,644	27.09	283,784	31.07	318,619	36.50	362,755	39.06
115° F	20°F	108,106	20.85	128,528	24.03	146,405	28.24	160,461	30.82
	30°F	133,690	22.99	157,985	26.46	178,898	31.04	198,996	33.81
	35°F	147,805	24.06	174,318	27.67	196,846	32.44	220,565	35.26
	40°F	162,961	25.13	191,648	28.89	-	-	243,537	36.68
	55°F	-	-	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

R-507a - High Temp		Model Numbers		
		ACNSB35H7	ACNSB40H7	ACNSB50H7
Compressor Model Number		6HE-35	6GE-40	6FE-50
Quantity of Compressors		1	1	1
MCA[1] per unit	208 V	194.7	223.5	272.1
	230 V	178.8	204.8	248.8
	460 V	89.4	102.4	124.4
	575 V	70.1	80.5	98.1
Compressor RLA (each)	208 V	132.9	155.9	194.8
	230 V	120.2	141.0	176.2
	460 V	60.1	70.5	88.1
	575 V	48.1	56.4	70.5
Total Number of Condenser Fan Motors		6	6	6
Size of Motor (HP)		1	1	1
Diameter of Blade (in.)		28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6
	230 V	4.6	4.6	4.6
	460 V	2.3	2.3	2.3
	575 V	1.6	1.6	1.6
Receiver Size per circuit (in.)		12x60	12x60	12x60
Receiver Capacity 80% Full per circuit (lbs.)[2]		202	202	202
Unit Shipping Weight - Approximate (lbs.)		3,941	4,060	4,106
Unit Operating Weight - Approximate (lbs.)[4]		4,053	4,173	4,219

Capacity Ratings							
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	261,528	32.75	294,772	37.31	352,187	45.32
	30°F	320,301	35.42	359,062	40.53	421,561	49.65
	35°F	352,385	36.75	392,789	42.14	458,251	51.82
	40°F	386,864	38.02	427,423	43.73	496,677	53.96
	55°F	493,952	41.73	540,052	48.41	618,837	60.37
95° F	20°F	236,619	34.08	266,259	38.76	317,516	46.87
	30°F	289,720	37.06	324,024	42.29	380,867	51.56
	35°F	319,013	38.52	355,375	44.06	414,154	53.89
	40°F	350,039	39.97	387,061	45.80	448,512	56.23
	55°F	449,308	44.13	489,492	50.93	558,888	63.13
105° F	20°F	211,384	35.25	237,357	40.06	282,212	48.17
	30°F	258,980	38.53	288,569	43.89	339,630	53.21
	35°F	285,260	40.14	316,625	45.79	368,993	55.73
	40°F	313,088	41.73	346,147	47.69	399,229	58.25
	55°F	404,358	46.34	438,022	53.29	-	-
115° F	20°F	185,913	36.24	208,100	41.16	-	-
	30°F	227,762	39.81	-	-	-	-
	35°F	-	-	-	-	-	-
	40°F	-	-	-	-	-	-
	55°F	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

R-507a - High Temp		Model Numbers			
		ACNDB10H7	ACNDB12H7	ACNDB16H7	ACNDB18H7
Compressor Model Number		4FES-5	4EES-6	4DES-7	4CES-9
Quantity of Compressors		2	2	2	2
MCA[1] per unit	208 V	75.5	76.8	95.5	113.9
	230 V	69.2	70.5	88.3	104.9
	460 V	34.6	35.3	44.1	52.5
	575 V	27.2	27.7	34.3	41.0
Compressor RLA (each)	208 V	29.0	29.6	33.8	42.0
	230 V	26.2	26.8	30.6	38.0
	460 V	13.1	13.4	15.3	19.0
	575 V	10.5	10.7	12.2	15.2
Total Number of Condenser Fan Motors		2	2	4	4
Size of Motor (HP)		1	1	1	1
Diameter of Blade (in.)		28	28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6	4.6
	230 V	4.6	4.6	4.6	4.6
	460 V	2.3	2.3	2.3	2.3
	575 V	1.6	1.6	1.6	1.6
Receiver Size per circuit (in.)		8x42	8x42	8x42	8x42
Receiver Capacity 80% Full per circuit (lbs.)[2]		65	65	65	65
Unit Shipping Weight - Approximate (lbs.)		3,089	3,396	3,646	3,948
Unit Operating Weight - Approximate (lbs.)[4]		2,937	3,244	3,494	3,797

Capacity Ratings									
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	86,579	10.94	107,885	13.23	130,900	17.51	156,264	20.55
	30°F	106,695	11.70	133,011	14.29	161,138	18.72	192,046	22.23
	35°F	117,849	12.06	146,792	14.81	177,933	19.29	211,904	23.04
	40°F	129,701	12.41	161,639	15.30	195,818	19.84	233,039	23.84
	55°F	169,074	13.33	209,522	16.65	255,626	21.33	300,163	26.10
95° F	20°F	78,311	11.43	97,457	13.83	118,721	18.26	141,424	21.41
	30°F	96,320	12.30	119,961	15.03	146,122	19.62	173,949	23.30
	35°F	106,305	12.70	132,431	15.61	161,234	20.29	192,020	24.22
	40°F	116,907	13.10	145,670	16.17	177,441	20.92	211,258	25.13
	55°F	152,911	14.15	189,767	17.72	232,609	22.67	273,492	27.75
105° F	20°F	69,822	11.85	86,863	14.33	106,277	18.91	126,547	22.17
	30°F	85,726	12.80	106,840	15.66	130,813	20.44	155,669	24.27
	35°F	94,548	13.25	117,801	16.31	144,344	21.18	171,944	25.30
	40°F	103,910	13.69	129,544	16.94	158,881	21.89	189,278	26.32
	55°F	135,618	14.89	169,508	18.69	208,283	23.90	246,674	29.27
115° F	20°F	61,129	12.18	76,029	14.74	93,731	19.47	111,483	22.83
	30°F	74,843	13.22	93,352	16.19	115,174	21.15	137,309	25.13
	35°F	82,500	13.72	103,024	16.90	127,117	21.97	-	-
	40°F	90,622	14.20	113,286	17.59	139,980	22.76	-	-
	55°F	-	-	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

R-507a - High Temp		Model Numbers			
		ACNDB20H7	ACNDB24H7	ACNDB30H7	ACNDB40H7
Compressor Model Number		4VE(S)-10	4TE(S)-12	4PE(S)-15	4NE(S)-20
Quantity of Compressors		2	2	2	2
MCA[1] per unit	208 V	115.0	136.9	163.4	207.0
	230 V	105.8	125.6	150.6	190.8
	460 V	52.9	62.8	75.3	95.4
	575 V	41.5	49.3	58.8	74.4
Compressor RLA (each)	208 V	42.5	52.2	59.9	75.2
	230 V	38.4	47.2	54.2	68.0
	460 V	19.2	23.6	27.1	34.0
	575 V	15.4	18.9	21.7	27.2
Total Number of Condenser Fan Motors		4	4	6	8
Size of Motor (HP)		1	1	1	1
Diameter of Blade (in.)		28	28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6	4.6
	230 V	4.6	4.6	4.6	4.6
	460 V	2.3	2.3	2.3	2.3
	575 V	1.6	1.6	1.6	1.6
Receiver Size per circuit (in.)		8x42	8x60	8x60	10x60
Receiver Capacity 80% Full per circuit (lbs.)[2]		65	94	94	144
Unit Shipping Weight - Approximate (lbs.)		4,462	4,804	5,138	5,900
Unit Operating Weight - Approximate (lbs.)[4]		4,311	4,719	5,053	5,930

Capacity Ratings									
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	165,628	20.05	199,403	23.66	226,953	28.46	273,988	34.68
	30°F	205,780	21.75	246,745	25.79	282,180	30.98	339,447	37.45
	35°F	227,993	22.58	273,081	26.82	312,718	32.22	375,931	38.79
	40°F	251,841	23.38	301,147	27.84	345,502	33.42	415,145	40.07
	55°F	332,203	25.65	393,862	30.70	452,753	36.86	547,864	43.67
95° F	20°F	148,981	20.78	179,724	24.63	203,648	29.42	247,134	36.02
	30°F	185,355	22.72	222,706	27.03	253,596	32.27	306,655	39.17
	35°F	205,557	23.67	246,456	28.22	281,326	33.68	339,886	40.70
	40°F	227,280	24.59	271,964	29.38	311,144	35.05	375,373	42.20
	55°F	301,361	27.24	358,040	32.70	410,852	39.03	496,497	46.49
105° F	20°F	132,418	21.44	160,089	25.52	180,497	30.26	220,524	37.24
	30°F	165,150	23.59	198,698	28.18	225,136	33.43	273,883	40.76
	35°F	183,357	24.65	220,048	29.51	250,058	35.00	303,858	42.48
	40°F	202,785	25.71	243,024	30.81	276,914	36.54	335,591	44.20
	55°F	269,555	28.74	321,381	34.60	367,971	41.07	445,142	49.11
115° F	20°F	115,877	22.01	140,570	26.32	157,429	30.98	193,856	38.36
	30°F	144,963	24.37	174,641	29.24	196,965	34.44	241,277	42.22
	35°F	160,998	25.56	193,593	30.70	219,107	36.16	267,734	44.14
	40°F	178,502	26.71	214,045	32.14	242,749	37.88	296,009	46.05
	55°F	-	-	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

R-507a - High Temp		Model Numbers			
		ACNDB44H7	ACNDB50H7	ACNDB60H7	ACNDB66H7
Compressor Model Number		4JE-22	4HE-25	4GE-30	6JE-33
Quantity of Compressors		2	2	2	2
MCA[1] per unit	208 V	208.6	247.3	295.9	333.4
	230 V	192.2	227.3	272.0	306.9
	460 V	96.1	113.6	136.0	153.4
	575 V	74.9	89.0	106.4	120.0
Compressor RLA (each)	208 V	75.9	93.1	110.6	123.2
	230 V	68.6	84.2	100.0	111.4
	460 V	34.3	42.1	50.0	55.7
	575 V	27.4	33.7	40.0	44.6
Total Number of Condenser Fan Motors		8	8	10	12
Size of Motor (HP)		1	1	1	1
Diameter of Blade (in.)		28	28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6	4.6
	230 V	4.6	4.6	4.6	4.6
	460 V	2.3	2.3	2.3	2.3
	575 V	1.6	1.6	1.6	1.6
Receiver Size per circuit (in.)		10x60	12x60	12x60	12x60
Receiver Capacity 80% Full per circuit (lbs.)[2]		144	202	202	202
Unit Shipping Weight - Approximate (lbs.)		5,872	6,688	7,132	7,922
Unit Operating Weight - Approximate (lbs.)[4]		5,902	6,851	7,295	8,085

Capacity Ratings									
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	305,508	38.02	360,541	43.56	411,803	51.46	452,048	56.32
	30°F	376,184	41.08	442,658	47.11	504,191	55.73	557,130	60.61
	35°F	415,166	42.59	487,776	48.88	555,176	57.84	615,207	62.68
	40°F	456,566	44.10	535,998	50.61	609,228	59.93	677,412	64.65
	55°F	592,737	48.49	694,421	55.66	781,400	66.11	882,320	70.17
95° F	20°F	275,932	39.47	326,547	45.30	372,812	53.40	408,745	58.42
	30°F	340,061	42.95	400,915	49.31	456,053	58.15	504,455	63.30
	35°F	375,559	44.67	441,887	51.30	502,167	60.48	557,554	65.65
	40°F	413,253	46.39	485,724	53.26	551,034	62.81	614,502	67.91
	55°F	539,905	51.44	631,999	59.05	709,324	69.75	805,940	74.29
105° F	20°F	246,253	40.69	292,241	46.79	333,048	55.08	364,958	60.20
	30°F	303,794	44.58	358,797	51.24	407,373	60.25	451,564	65.62
	35°F	335,815	46.51	395,628	53.45	448,193	62.84	499,693	68.25
	40°F	369,822	48.44	434,697	55.66	491,851	65.40	550,914	70.83
	55°F	485,289	54.17	567,568	62.14	637,238	72.99	725,510	78.11
115° F	20°F	216,211	41.70	257,055	48.07	292,809	56.47	320,923	61.64
	30°F	267,381	45.98	315,969	52.93	357,796	62.08	397,991	67.61
	35°F	295,610	48.12	348,635	55.35	393,692	64.88	441,131	70.51
	40°F	325,922	50.26	383,296	57.77	-	-	487,074	73.37
	55°F	-	-	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

R-507a - High Temp		Model Numbers		
		ACNDB70H7	ACNDB80H7	ACNDB100H7
Compressor Model Number		6HE-35	6GE-40	6FE-50
Quantity of Compressors		2	2	2
MCA[1] per unit	208 V	355.2	407.0	494.5
	230 V	326.7	373.5	452.7
	460 V	163.3	186.7	226.3
	575 V	127.8	146.5	178.2
Compressor RLA (each)	208 V	132.9	155.9	194.8
	230 V	120.2	141.0	176.2
	460 V	60.1	70.5	88.1
	575 V	48.1	56.4	70.5
Total Number of Condenser Fan Motors		12	12	12
Size of Motor (HP)		1	1	1
Diameter of Blade (in.)		28	28	28
Condenser Fan Motor Amps (each)	208 V	4.6	4.6	4.6
	230 V	4.6	4.6	4.6
	460 V	2.3	2.3	2.3
	575 V	1.6	1.6	1.6
Receiver Size per circuit (in.)		12x60	12x60	12x60
Receiver Capacity 80% Full per circuit (lbs.)[2]		202	202	202
Unit Shipping Weight - Approximate (lbs.)		8,653	8,706	8,970
Unit Operating Weight - Approximate (lbs.)[4]		8,816	8,869	9,134

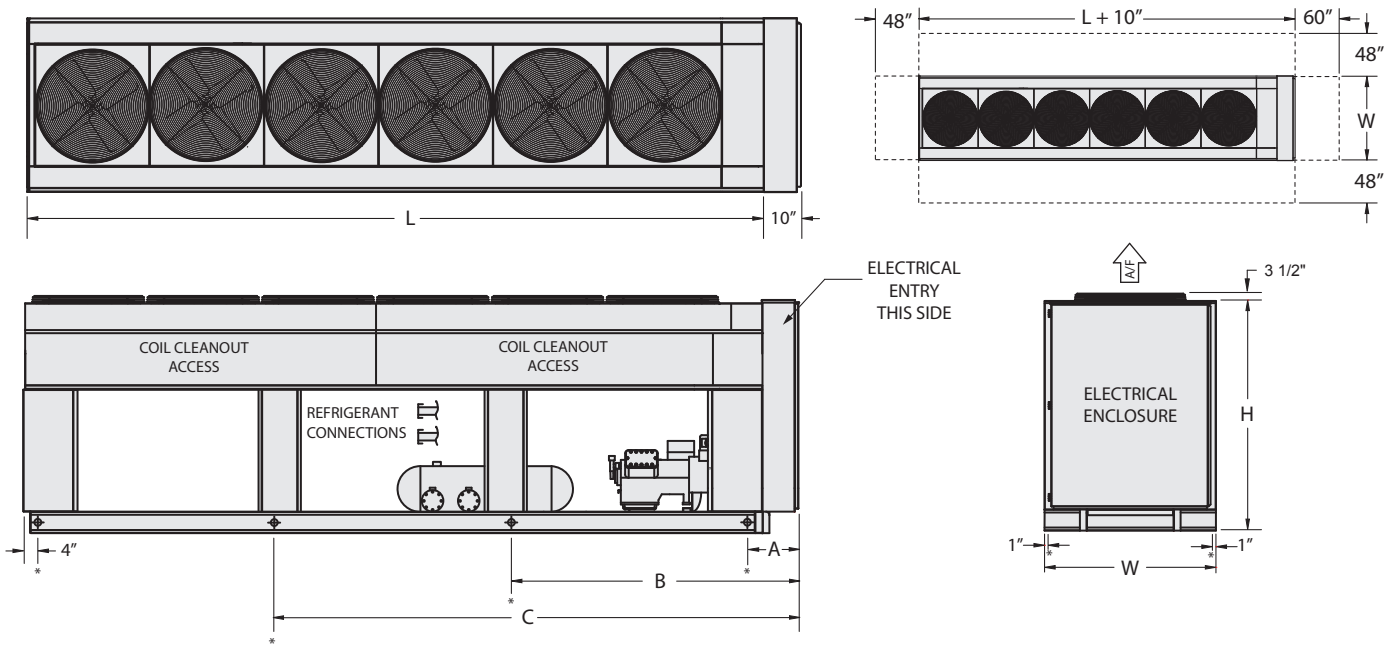
Capacity Ratings							
Ambient Temp.	LFT	Capacity	KW[4]	Capacity	KW[4]	Capacity	KW[4]
85° F	20°F	523,055	65.50	589,545	74.61	704,374	90.64
	30°F	640,602	70.84	718,124	81.06	843,122	99.30
	35°F	704,771	73.50	785,577	84.28	916,502	103.63
	40°F	773,728	76.05	854,847	87.46	993,353	107.92
	55°F	987,903	83.46	1,080,103	96.83	1,237,675	120.74
95° F	20°F	473,238	68.16	532,517	77.53	635,031	93.73
	30°F	579,440	74.13	648,048	84.58	761,733	103.13
	35°F	638,026	77.05	710,750	88.11	828,307	107.79
	40°F	700,078	79.94	774,123	91.60	897,024	112.45
	55°F	898,617	88.26	978,983	101.86	1,117,776	126.25
105° F	20°F	422,768	70.51	474,714	80.12	564,424	96.33
	30°F	517,960	77.06	577,138	87.79	679,260	106.43
	35°F	570,520	80.27	633,249	91.59	737,987	111.46
	40°F	626,177	83.46	692,293	95.39	798,458	116.50
	55°F	808,717	92.69	876,045	106.58	-	-
115° F	20°F	371,825	72.49	416,200	82.32	-	-
	30°F	455,524	79.63	-	-	-	-
	35°F	-	-	-	-	-	-
	40°F	-	-	-	-	-	-
	55°F	-	-	-	-	-	-

*Based on a 10° TD

1 - MCA (Minimum Circuit Ampacity) is calculated based on all concurrent loads applied to the circuit. (Largest load x 1.25 + 100% of all other loads including the control circuit.) Unit cooler amperages not included.
2 - Based on 80% full at 90°F ambient.
3 - KW is for the unit.
4- Operating weight reflects flooded refrigerant charge.

NOTE: Compressor amps are based on the maximum cataloged suction temperature for the condensing unit. Limiting the operation to this envelope is required via a MOP expansion valve or other means.

ACNSB Dimensions

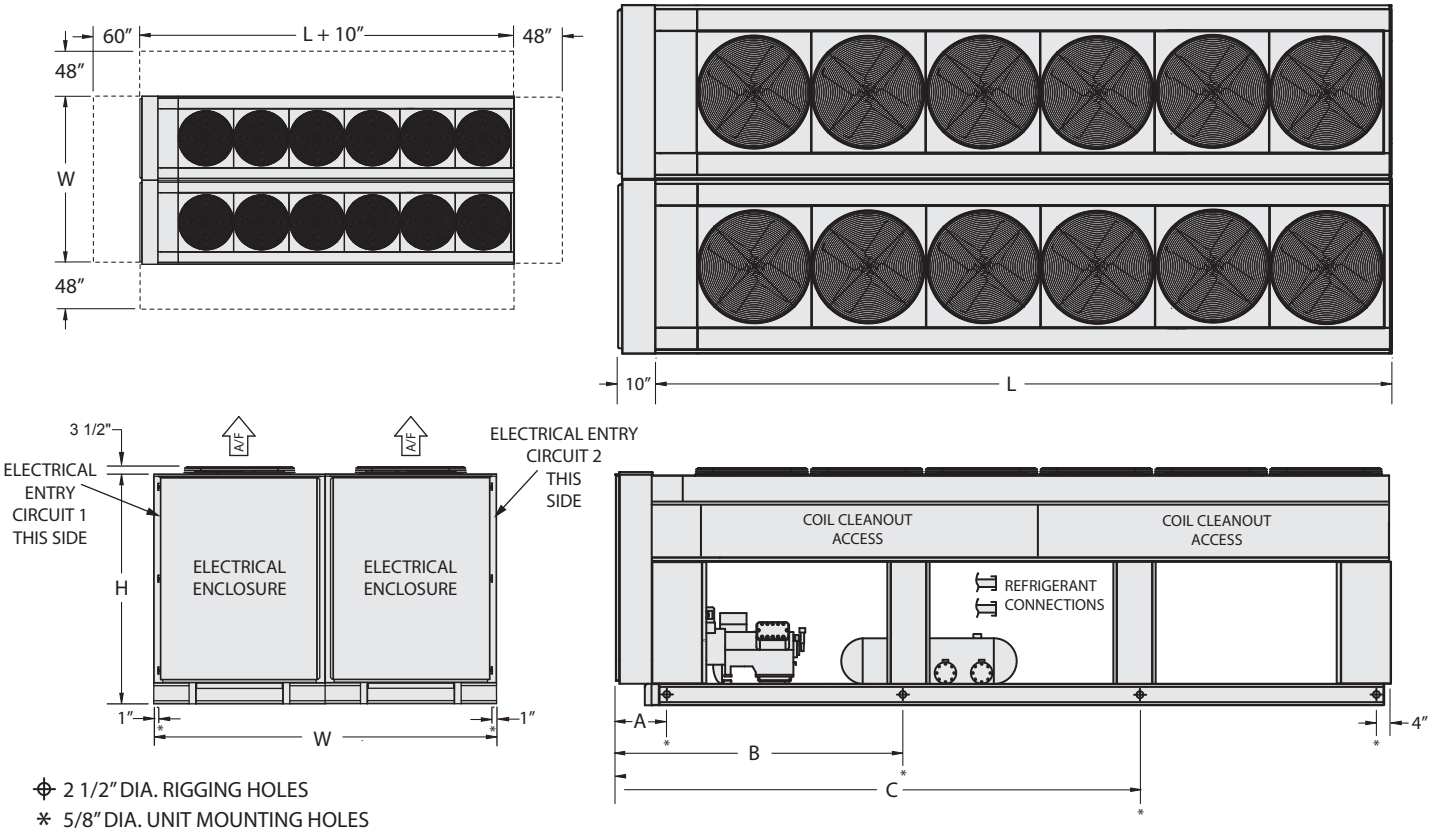


⊕ 2 1/2″ DIA. RIGGING HOLES
* 5/8″ DIA. UNIT MOUNTING HOLES
ALL DIMENSIONS +/- 1/2″

High Temp Models

Unit Model	L	W	H	A	B	C
ACNDB10H	78	97	65	4	-	-
ACNDB12H	78	97	65	4	-	-
ACNDB16H	78	97	65	4	-	-
ACNDB18H	110	97	65	4	55	-
ACNDB20H	110	97	65	4	55	-
ACNDB24H	110	97	65	4	55	-
ACNDB30H	110	97	65	4	55	-
ACNDB40H	142	97	65	4	71	-
ACNDB44H	142	97	65	4	71	-
ACNDB50H	174	97	65	4	61	113
ACNDB60H	174	97	65	4	61	113
ACNDB66H	206	97	65	4	71.5	134.5
ACNDB70H	206	97	65	4	71.5	135
ACNDB80H	206	97	65	4	71.5	134.5
ACNDB100H	206	97	65	4	71.5	135

ACNDB Dimensions



⊕ 2 1/2″ DIA. RIGGING HOLES
⁎ 5/8″ DIA. UNIT MOUNTING HOLES
ALL DIMENSIONS +/- 1/2″

High Temp Models

Unit Model	L	W	H	A	B	C
ACNDB10H	78	97	65	4	-	-
ACNDB12H	78	97	65	4	-	-
ACNDB16H	78	97	65	4	-	-
ACNDB18H	110	97	65	4	55	-
ACNDB20H	110	97	65	4	55	-
ACNDB24H	110	97	65	4	55	-
ACNDB30H	110	97	65	4	55	-
ACNDB40H	142	97	65	4	71	-
ACNDB44H	142	97	65	4	71	-
ACNDB50H	174	97	65	4	61	113
ACNDB60H	174	97	65	4	61	113
ACNDB66H	206	97	65	4	71.5	134.5
ACNDB70H	206	97	65	4	71.5	135
ACNDB80H	206	97	65	4	71.5	134.5
ACNDB100H	206	97	65	4	71.5	135

[1] All dimensions in inches

Product Benefits:

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Century systems go where others can't. Your Century system is engineered to meet your specific project application and job requirements in-house with no need for modification in the field. With Century's extensive inventory of components, your order can be shipped when you need it.

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Your Century system will be built with heavy gauge construction and the highest quality components to optimize efficiency for the life expectancy of your system. Century systems are engineered for ***Time Tested Toughness.***

Serviceability-

Your Century system will have easily accessible components and appropriate fin spacing to allow for easy maintenance. Century systems are engineered to be serviceable with a minimal amount of OEM components. A large inventory of replacement parts ensures professional, reliable service throughout the lifetime of your Century system.

Reduced Total Cost of Ownership-

The adaptability, durability, and serviceability of your Century system results in reduced installation costs, maintenance costs, and utility costs throughout the lifetime of your system. Century systems are designed for customers requiring long-term, dependable systems.

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