Large Air-Cooled Condensing Units

Technical Bulletin: LACC_013_090523

Products that provide lasting solutions.

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.
SEE KRACK.COM FOR DETAILS.

Large Air-Cooled Condensing Units

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Model Introduction

Control Panel Nomenclature

Character Position:	1,2	3	4	5,6,7,8	9	10	11	12
	CS	B	-	0300	-	L	Q	M

CONDENSING UNIT FAMILY:
- CS - Single Compressor
- CP - Parallel Compressor
- CD - Dual Compressor

COMPRESSOR MANUFACTURER:
- D - Copeland Discus
- B - Bitzer Ecoline, Motor 2*
- E - Bitzer Ecoline, Motor 1**

TOTAL HP AND CONDENSER:

xxxy
- xxx - Total Horsepower
- y - 0 for Standard Condenser
  1 for Oversized Condenser
  2 for Title 24 Condenser

APPLICATION TEMPERATURE:
- M - Medium
- L - Low

VOLTAGE:
- K - 208-230/3/60
- M - 460/3/60
- P - 575/3/60
- U - 380/3/50
  (use 460/3 for electrical info)

REFRIGERANT:
- S - R-404A
- P - R-507A
- Q - R-407A
- F - R-407F
- T - R-448A
- R - R-449A

* Low and medium temperatures
** Medium and high temperatures

Standard Features for All Models

Large Air-Cooled Condensing Units Available in Standard, Oversize, and Title 24 Model Configurations

- Medium Temperature R-404A, R-407A, and R-448A
- Low Temperature R-404A, R-407A, and R-448A

Models

- CS Series Units are new, more efficiently sized units that have a reduced footprint, more standard features and provide increased options for sizing large jobs.
- CP Series Parallel Units are two compressors piped together to provide one refrigeration circuit.
- CD Series Dual Units are two compressors piped independently for a separate circuit operation.

Model Introduction

Features for All Models

Compressor

- Bitzer Ecoline Compressors or Copeland Discus Compressors (CS, CP and CD models).
- Factory balanced and rigid mounted to reduce risk of line fatigue failure and vibration eliminator leaks.
- Internal motor overheat protection.
- Crankcase heater is de-energized during compressor operation for energy savings.
- Oil level sight glass.
- CS, CP and CD models use an internal driven shaft oil pump with manual reset oil safety control.
- Back-seating suction and discharge valves.
- Safety controls are factory installed using armored capillary tubes to prevent leaks with automatic reset low pressure and manual reset high pressure controls standard.

Receiver

- Amply sized receivers are sized to hold condenser flooding charge, evaporator charge and 100' of liquid line.
- Pressure relief valve and charging valve are standard.

Condenser

- Constructed with 3/8" grooved tubing for maximum efficiency.
- Sub-cooling circuit cools liquid leaving the receiver to ensure a solid column of liquid at the expansion valve.
- Adjustable head pressure system (flooding) for low ambient operation.
- Mechanically bonded, die formed, aluminum fin stock with full self-spacing collars.
- Maximum 10 FPI for efficiency and ease of maintenance.
- Generous sizing allows low head pressure operation.
- Oversized condenser provides an option for lower temperature difference for high ambient applications.
- Suspended coil design eliminates tube sheet leaks.
- Title 24 condenser option exceeds minimum efficiency required for California and requires the addition of a Variable Speed fans (K motors) or ship loose VFD with 3 phase motors, and controller capable of floating head pressure.

Condenser Fans

- 30" statically and dynamically balanced direct drive fans with a separate motor for each fan.
- Fan sections are divided by full width baffles to prevent air by-pass.
- Three phase 1.5 HP motors operate fans at 1140 RPM.
- Each fan is protected by a heavy gauge, corrosion resistant fan guard.
- Inverter Duty Suitable motor (230/3 and 460/3 only).
- The “swept-wing” blade design for lower noise levels.

Control Panel

- Fully enclosed and weather proofed.
- Single point connections provide reliable distribution to panel components.
- Dual compartments, separate line voltage and controls for safety during service.
- Lockable with field supplied padlock.
- Manual pump down switch for ease of service.
- 230 V; single phase control voltage is standard.
  - A transformer is included where necessary.
- Power and control circuit terminal strip.

Refrigerant Circuit

- Replaceable core liquid line filter drier.
- Sight glass at receiver outlet for charging.
- Suction accumulator is included on low temperature units.

Construction Features

- Galvanized cabinet.

Optional Features

- 115 control voltage with transformer.
- Oil separator system to activate flow of oil. (Recommended for room temperatures of -10° F and below.)
- Suction accumulator on medium temperature.
- Sealed or replaceable core suction filter.
- Heated and insulated receiver.
- Electrical control panel with all necessary controls to run electric defrost evaporators (includes timer, contactors).
- Air defrost timer.
- Fused disconnect shipped loose.
- Mounted non-fused disconnect with interlock.
- Cylinder unloaders for compressors.
- Alternate fin materials, such as vinyl and copper, can be specified for adverse environmental conditions.
- Condenser access/clean out doors.
- Electrofin condenser coating.
- Hurricane-rated kits available.

Note

- Additional information will be given per model on their respective pages.

CS Single Systems

CSD Medium Temp R-404A

CSD Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CSD-0100-M	3DB3R12ME	11310	61.7	68.6	75.9	83.7	91.9	100.6	109.7	119.4	129.5	140.1
CSD-0101-M	3DB3R12ME	12210	63.7	71.1	79.0	87.5	96.5	106.1	116.3	127.2	138.7	150.9
CSD-0102-M	3DB3R12ME	11410	62.7	69.9	77.5	85.6	94.2	103.4	113.1	123.3	134.1	145.5
CSD-0150-M	3DS3R17ME	12210	84.9	94.3	104.5	115.3	126.7	138.8	151.6	165.1	179.1	193.8
CSD-0151-M	3DS3R17ME	12310	87.4	97.5	108.3	119.9	132.4	145.7	159.9	174.9	190.8	207.5
CSD-0152-M	3DS3R17ME	12410	88.4	98.7	109.9	121.9	134.7	148.6	163.3	179.0	195.7	213.3
CSD-0200-M	4DBNR20ME	12210	101.9	113.3	125.7	139.0	152.8	167.0	181.5	196.0	210.4	224.6
CSD-0201-M	4DBNR20ME	12310	106.1	118.5	132.1	146.6	161.9	177.7	194.0	210.5	227.1	243.7
CSD-0202-M	4DBNR20ME	12410	107.9	120.7	134.7	149.8	165.7	182.3	199.4	216.8	234.3	251.9
CSD-0250-M	4DHNR22ME	12310	113.3	126.4	140.7	156.1	172.2	188.9	206.0	223.4	240.7	258.0
CSD-0251-M	4DHNR22ME	13310	117.6	131.8	147.3	164.0	181.8	200.3	219.4	239.0	258.8	278.7
CSD-0252-M	4DHNR22ME	12410	115.3	128.8	143.7	159.7	176.5	194.0	212.1	230.4	248.9	267.3
CSD-0300-M	4DJNR28ME	12312	134.4	150.2	167.0	184.9	203.7	223.4	244.0	265.4	287.6	310.6
CSD-0301-M	4DJNR28ME	13310	138.7	155.6	173.6	192.9	213.4	235.0	257.8	281.6	306.5	332.4
CSD-0302-M	4DJNR28ME	12410	135.4	151.5	168.6	186.8	206.0	226.2	247.3	269.3	292.2	315.8
CSD-0350-M	6DHNR35ME	13310	172.6	192.3	213.5	236.1	260.2	285.8	312.9	341.5	371.6	403.1
CSD-0351-M	6DHNR35ME	22310	177.5	198.2	220.6	244.7	270.6	298.3	327.8	359.3	392.5	427.7
CSD-0352-M	6DHNR35ME	13410	175.6	195.9	217.9	241.4	266.6	293.5	322.1	352.4	384.4	418.1
CSD-0400-M	6DJNR40ME	13310	200.6	222.7	246.2	271.1	297.2	324.5	352.9	382.3	412.4	443.3
CSD-0401-M	6DJNR40ME	22410	210.4	234.5	260.4	288.1	317.6	348.7	381.4	415.6	451.3	488.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CSD-0100-M	3DB3R12ME	11310	56.2	62.5	69.1	76.1	83.5	91.2	99.3	107.9	116.9	126.3
CSD-0101-M	3DB3R12ME	12210	58.2	64.9	72.1	79.7	87.8	96.4	105.6	115.3	125.6	136.5
CSD-0102-M	3DB3R12ME	11410	57.2	63.7	70.6	77.9	85.6	93.8	102.5	111.6	121.3	131.4
CSD-0150-M	3DS3R17ME	12210	77.4	85.9	95.0	104.7	114.9	125.7	137.1	149.0	161.5	174.5
CSD-0151-M	3DS3R17ME	12310	79.8	88.9	98.6	109.1	120.2	132.1	144.8	158.2	172.3	187.3
CSD-0152-M	3DS3R17ME	12410	80.8	90.1	100.1	110.9	122.4	134.8	148.0	162.0	176.9	192.6
CSD-0200-M	4DBNR20ME	12210	91.8	102.0	113.3	125.2	137.8	150.7	163.8	176.9	189.9	202.6
CSD-0201-M	4DBNR20ME	12310	95.7	106.9	119.1	132.2	146.1	160.5	175.2	190.2	205.2	220.0
CSD-0202-M	4DBNR20ME	12410	97.4	108.9	121.5	135.1	149.6	164.6	180.1	195.9	211.7	227.5
CSD-0250-M	4DHNR22ME	12310	102.2	113.9	126.9	140.8	155.4	170.6	186.1	201.8	217.5	233.0
CSD-0251-M	4DHNR22ME	13310	106.2	118.9	132.9	148.0	164.1	180.9	198.2	215.9	233.8	251.7
CSD-0252-M	4DHNR22ME	12410	104.0	116.2	129.6	144.1	159.4	175.2	191.6	208.2	224.8	241.4
CSD-0300-M	4DJNR28ME	12312	121.3	135.4	150.4	166.4	183.2	200.9	219.3	238.5	258.4	279.0
CSD-0301-M	4DJNR28ME	13310	125.3	140.4	156.6	173.9	192.3	211.7	232.2	253.6	276.1	299.5
CSD-0302-M	4DJNR28ME	12410	122.3	136.6	151.9	168.2	185.4	203.5	222.4	242.2	262.7	283.9
CSD-0350-M	6DHNR35ME	13310	155.7	173.7	192.8	213.2	234.9	257.8	282.0	307.5	334.3	362.4
CSD-0351-M	6DHNR35ME	22310	160.3	179.3	199.7	221.5	244.8	269.8	296.3	324.5	354.3	385.9
CSD-0352-M	6DHNR35ME	13410	158.5	177.1	197.0	218.3	241.0	265.1	290.7	317.9	346.6	376.7
CSD-0400-M	6DJNR40ME	13310	181.8	201.7	222.9	245.3	268.8	293.2	318.6	344.8	371.8	399.3
CSD-0401-M	6DJNR40ME	22410	190.9	212.9	236.5	261.6	288.3	316.5	346.1	377.1	409.4	442.9

NOTE: All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSD-0100-MS	3DB3R12ME	S	43.6	5.4	62.9	100	20	2.5	29.0	45	16.5	2.5	24.3	40	11310
CSD-0101-MS		O		10.8	68.3	110		5.0	31.5	50		5.0	26.8	40	12210
CSD-0102-MS		T		5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11410
CSD-0150-MS	3DS3R17ME	S	59.6	10.8	88.4	150	29.0	5.0	42.8	70	23.6	5.0	35.7	60	12210
CSD-0151-MS		O		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12310
CSD-0152-MS		T		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12410
CSD-0200-MS	4DBNR20ME	S	72.1	10.8	104.0	175	36.1	5.0	51.6	80	31.4	5.0	45.5	70	12210
CSD-0201-MS		O		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12310
CSD-0202-MS		T		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12410
CSD-0250-MS	4DHNR22ME	S	74.4	10.8	106.8	175	37.2	5.0	53.0	90	33.3	5.0	47.8	80	12310
CSD-0251-MS		O		16.2	112.2	175		7.5	55.5	90		7.5	50.3	80	13310
CSD-0252-MS		T		10.8	106.8	175		5.0	53.0	90		5.0	47.8	80	12410
CSD-0300-MS	4DJNR28ME	S	105.4	10.8	145.6	250	52.7	5.0	72.4	125	44.1	5.0	61.4	100	12312
CSD-0301-MS		O		16.2	151.0	250		7.5	74.9	125		7.5	63.9	100	13310
CSD-0302-MS		T		10.8	145.6	250		5.0	72.4	125		5.0	61.4	100	12410
CSD-0350-MS	6DHNR35ME	S	125.1	16.2	175.6	300	62.6	7.5	87.2	150	40.7	7.5	59.6	100	13310
CSD-0351-MS		O		21.6	181.0	300		10.0	89.7	150		10.0	62.1	100	22310
CSD-0352-MS		T		16.2	175.6	300		7.5	87.2	150		7.5	59.6	100	13410
CSD-0400-MS	6DJNR40ME	S	142.9	16.2	197.8	300	71.4	7.5	98.3	150	51.4	7.5	73.0	100	13310
CSD-0401-MS*		O		21.6	203.2	300		10.0	100.8	150		10.0	75.5	125	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

CSD Medium Temp R-407A

CSD Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CSD-0100-M	3DB3R12ME	11310	57.9	65.5	74.0	83.1	92.9	103.3	114.1	125.2	136.6	148.2
CSD-0101-M	3DB3R12ME	12210	59.7	67.7	76.7	86.4	97.0	108.2	120.0	132.3	145.1	158.2
CSD-0102-M	3DB3R12ME	11410	59.0	66.8	75.5	85.1	95.3	106.1	117.5	129.3	141.5	154.0
CSD-0150-M	3DS3R17ME	12210	79.3	89.9	101.4	113.7	126.8	140.6	155.0	170.0	185.5	201.3
CSD-0151-M	3DS3R17ME	12310	81.5	92.6	104.7	117.8	131.9	146.8	162.6	179.2	196.5	214.4
CSD-0152-M	3DS3R17ME	12410	82.5	93.7	106.1	119.6	134.1	149.5	165.9	183.2	201.3	220.2
CSD-0200-M	4DBNR20ME	12210	99.6	111.8	125.0	139.0	154.1	170.3	187.6	206.1	225.7	246.6
CSD-0201-M	4DBNR20ME	12310	103.2	116.2	130.3	145.6	162.0	179.9	199.0	219.7	241.8	265.5
CSD-0202-M	4DBNR20ME	12410	104.7	118.1	132.6	148.4	165.5	184.0	204.0	225.7	248.9	273.9
CSD-0250-M	4DHNR22ME	12310	112.5	126.6	141.8	158.2	176.0	195.1	215.7	237.8	261.4	286.7
CSD-0251-M	4DHNR22ME	13310	116.0	131.0	147.2	164.9	184.0	204.9	227.4	251.8	278.1	306.3
CSD-0252-M	4DHNR22ME	12410	114.3	128.8	144.6	161.6	180.1	200.1	221.7	244.9	269.9	296.6
CSD-0300-M	4DJNR28ME	12312	131.7	149.2	167.7	187.3	207.9	229.6	252.5	276.4	301.4	327.6
CSD-0301-M	4DJNR28ME	13310	135.1	153.4	173.0	193.8	215.8	239.1	263.8	289.7	317.1	345.8
CSD-0302-M	4DJNR28ME	12410	132.7	150.4	169.3	189.2	210.2	232.4	255.8	280.3	306.0	332.9
CSD-0350-M	6DHNR35ME	13310	164.7	186.0	209.1	233.7	259.8	287.2	315.5	344.8	374.7	405.2
CSD-0351-M	6DHNR35ME	22310	167.9	190.0	214.0	239.9	267.4	296.4	326.7	358.3	390.9	424.3
CSD-0352-M	6DHNR35ME	13410	166.9	188.7	212.5	237.9	265.0	293.5	323.2	354.0	385.7	418.3
CSD-0400-M	6DJNR40ME	13310	198.6	225.2	251.5	277.9	305.2	334.0	364.9	398.3	434.5	474.0
CSD-0401-M	6DJNR40ME	22410	207.9	235.7	263.5	292.1	322.4	355.1	391.0	430.7	474.8	523.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CSD-0100-M	3DB3R12ME	11310	52.6	59.7	67.5	76.0	85.1	94.6	104.5	114.7	125.1	135.6
CSD-0101-M	3DB3R12ME	12210	54.3	61.8	70.2	79.2	89.0	99.3	110.2	121.5	133.1	145.1
CSD-0102-M	3DB3R12ME	11410	53.6	60.9	69.1	77.9	87.4	97.3	107.8	118.6	129.7	141.1
CSD-0150-M	3DS3R17ME	12210	72.5	82.5	93.2	104.7	116.8	129.4	142.6	156.2	170.1	184.4
CSD-0151-M	3DS3R17ME	12310	74.6	85.1	96.4	108.6	121.5	135.2	149.6	164.7	180.3	196.5
CSD-0152-M	3DS3R17ME	12410	75.6	86.2	97.8	110.2	123.6	137.8	152.7	168.5	184.9	201.9
CSD-0200-M	4DBNR20ME	12210	91.1	102.4	114.4	127.4	141.3	156.2	172.2	189.2	N/A	N/A
CSD-0201-M	4DBNR20ME	12310	94.6	106.6	119.6	133.7	148.9	165.3	183.1	202.2	222.7	244.7
CSD-0202-M	4DBNR20ME	12410	96.0	108.4	121.8	136.4	152.2	169.3	187.8	207.9	229.5	252.7
CSD-0250-M	4DHNR22ME	12310	103.0	116.1	130.1	145.3	161.6	179.3	198.3	218.7	240.6	264.1
CSD-0251-M	4DHNR22ME	13310	106.5	120.3	135.3	151.6	169.3	188.6	209.5	232.1	256.5	282.8
CSD-0252-M	4DHNR22ME	12410	104.8	118.2	132.8	148.5	165.6	184.0	204.0	225.5	248.7	273.6
CSD-0300-M	4DJNR28ME	12312	120.8	136.6	153.5	171.3	190.1	210.0	230.9	252.9	275.9	300.0
CSD-0301-M	4DJNR28ME	13310	123.9	140.7	158.6	177.7	197.9	219.4	242.2	266.2	291.5	318.2
CSD-0302-M	4DJNR28ME	12410	121.7	137.8	155.0	173.2	192.4	212.8	234.2	256.8	280.5	305.3
CSD-0350-M	6DHNR35ME	13310	152.5	172.7	194.3	217.4	241.6	266.8	292.9	319.6	346.9	374.6
CSD-0351-M	6DHNR35ME	22310	155.7	176.6	199.1	223.3	248.8	275.6	303.5	332.4	362.1	392.6
CSD-0352-M	6DHNR35ME	13410	154.7	175.4	197.6	221.4	246.5	272.8	300.2	328.4	357.3	386.9
CSD-0400-M	6DJNR40ME	13310	179.7	206.3	231.7	256.6	281.6	307.5	334.9	364.2	395.9	N/A
CSD-0401-M	6DJNR40ME	22410	189.1	216.9	243.9	270.9	298.8	328.5	360.6	395.8	434.8	478.0

NOTE: All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSD-0100-MQ	3DB3R12ME	S	43.6	5.4	62.9	100	20	2.5	29.0	45	16.5	2.5	24.3	40	11310
CSD-0101-MQ		O		10.8	68.3	110		5.0	31.5	50		5.0	26.8	40	12210
CSD-0102-MQ		T		5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11410
CSD-0150-MQ	3DS3R17ME	S	59.6	10.8	88.4	150	29.0	5.0	42.8	70	23.6	5.0	35.7	60	12210
CSD-0151-MQ		O		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12310
CSD-0152-MQ		T		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12410
CSD-0200-MQ	4DBNR20ME	S	72.1	10.8	104.0	175	36.1	5.0	51.6	80	31.4	5.0	45.5	70	12210
CSD-0201-MQ		O		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12310
CSD-0202-MQ		T		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12410
CSD-0250-MQ	4DHNR22ME	S	74.4	10.8	106.8	175	37.2	5.0	53.0	90	33.3	5.0	47.8	80	12310
CSD-0251-MQ		O		16.2	112.2	175		7.5	55.5	90		7.5	50.3	80	13310
CSD-0252-MQ		T		10.8	106.8	175		5.0	53.0	90		5.0	47.8	80	12410
CSD-0300-MQ	4DJNR28ME	S	105.4	10.8	145.6	250	52.7	5.0	72.4	125	44.1	5.0	61.4	100	12312
CSD-0301-MQ		O		16.2	151.0	250		7.5	74.9	125		7.5	63.9	100	13310
CSD-0302-MQ		T		10.8	145.6	250		5.0	72.4	125		5.0	61.4	100	12410
CSD-0350-MQ	6DHNR35ME	S	125.1	16.2	175.6	300	62.6	7.5	87.2	150	40.7	7.5	59.6	100	13310
CSD-0351-MQ		O		21.6	181.0	300		10.0	89.7	150		10.0	62.1	100	22310
CSD-0352-MQ		T		16.2	175.6	300		7.5	87.2	150		7.5	59.6	100	13410
CSD-0400-MQ	6DJNR40ME	S	142.9	16.2	197.8	300	71.4	7.5	98.3	150	51.4	7.5	73.0	100	13310
CSD-0401-MQ*		O		21.6	203.2	300		10.0	100.8	150		10.0	75.5	125	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".

CS Single Systems

CSD Medium Temp R-448A

CSD Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CSD-0100-M	3DB3R12ME	11310	62.2	70.1	78.6	87.6	97.0	106.9	117.1	127.7	138.7	149.9
CSD-0101-M	3DB3R12ME	12210	64.3	72.6	81.5	91.1	101.2	111.9	123.1	134.9	147.1	159.8
CSD-0102-M	3DB3R12ME	11410	63.4	71.6	80.3	89.6	99.4	109.8	120.6	131.9	143.6	155.6
CSD-0150-M	3DS3R17ME	12210	84.5	95.3	106.9	119.1	131.9	145.3	159.3	173.7	188.5	203.8
CSD-0151-M	3DS3R17ME	12310	86.9	98.2	110.4	123.4	137.2	151.7	167.0	183.0	199.7	217.0
CSD-0152-M	3DS3R17ME	12410	87.9	99.5	111.9	125.2	139.4	154.5	170.4	187.1	204.6	222.8
CSD-0200-M	4DBNR20ME	12210	104.5	117.1	130.5	144.7	159.9	176.0	193.1	211.2	230.2	250.3
CSD-0201-M	4DBNR20ME	12310	108.3	121.7	136.1	151.6	168.2	186.0	205.0	225.3	246.9	269.8
CSD-0202-M	4DBNR20ME	12410	109.9	123.7	138.6	154.6	171.8	190.3	210.2	231.5	254.2	278.4
CSD-0250-M	4DHNR22ME	12310	118.1	132.6	148.1	164.8	182.7	201.8	222.1	243.8	266.8	291.2
CSD-0251-M	4DHNR22ME	13310	121.8	137.2	153.8	171.8	191.1	211.9	234.3	258.3	283.9	311.4
CSD-0252-M	4DHNR22ME	12410	120.0	135.0	151.1	168.4	187.0	207.0	228.3	251.2	275.6	301.5
CSD-0300-M	4DJNR28ME	12312	138.3	156.5	175.5	195.3	216.0	237.5	259.8	283.0	307.0	331.9
CSD-0301-M	4DJNR28ME	13310	142.1	161.2	181.2	202.2	224.3	247.3	271.5	296.7	323.1	350.5
CSD-0302-M	4DJNR28ME	12410	139.5	157.9	177.2	197.4	218.4	240.4	263.2	287.0	311.7	337.4
CSD-0350-M	6DHNR35ME	13310	173.3	195.3	218.9	243.9	270.0	297.0	324.8	353.1	381.7	410.5
CSD-0351-M	6DHNR35ME	22310	176.8	199.5	224.1	250.3	277.8	306.6	336.4	367.0	398.2	430.0
CSD-0352-M	6DHNR35ME	13410	175.7	198.2	222.5	248.3	275.4	303.6	332.7	362.6	393.0	423.8
CSD-0400-M	6DJNR40ME	13310	202.6	228.1	255.4	284.1	314.0	344.7	376.1	407.8	439.6	471.2
CSD-0401-M	6DJNR40ME	22410	210.1	237.2	266.5	297.8	330.8	365.2	400.8	437.4	474.8	512.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CSD-0100-M	3DB3R12ME	11310	56.1	63.7	71.8	80.2	89.0	98.1	107.6	117.3	127.2	137.3
CSD-0101-M	3DB3R12ME	12210	58.3	66.3	74.7	83.7	93.2	103.1	113.4	124.2	135.3	146.9
CSD-0102-M	3DB3R12ME	11410	57.4	65.2	73.5	82.3	91.4	101.0	111.0	121.3	131.9	142.8
CSD-0150-M	3DS3R17ME	12210	77.4	87.7	98.6	109.9	121.8	134.0	146.7	159.7	173.1	186.7
CSD-0151-M	3DS3R17ME	12310	79.8	90.6	102.0	114.1	126.8	140.1	154.0	168.5	183.5	199.1
CSD-0152-M	3DS3R17ME	12410	80.8	91.8	103.5	115.9	129.0	142.7	157.2	172.3	188.1	204.6
CSD-0200-M	4DBNR20ME	12210	95.7	107.3	119.6	132.7	146.7	161.5	177.2	193.8	N/A	N/A
CSD-0201-M	4DBNR20ME	12310	99.4	111.9	125.2	139.5	154.8	171.2	188.7	207.5	227.4	248.6
CSD-0202-M	4DBNR20ME	12410	101.0	113.8	127.6	142.4	158.3	175.4	193.8	213.4	234.5	256.9
CSD-0250-M	4DHNR22ME	12310	108.3	121.8	136.1	151.5	168.0	185.6	204.3	224.3	245.6	268.2
CSD-0251-M	4DHNR22ME	13310	112.1	126.3	141.7	158.3	176.2	195.4	216.1	238.3	262.1	287.6
CSD-0252-M	4DHNR22ME	12410	110.2	124.1	139.0	155.0	172.2	190.6	210.4	231.5	254.0	278.0
CSD-0300-M	4DJNR28ME	12312	126.1	142.9	160.4	178.6	197.5	217.3	237.7	259.0	281.0	303.8
CSD-0301-M	4DJNR28ME	13310	129.9	147.6	166.1	185.6	206.0	227.3	249.6	272.9	297.2	322.6
CSD-0302-M	4DJNR28ME	12410	127.2	144.3	162.1	180.6	200.0	220.2	241.2	263.1	285.8	309.3
CSD-0350-M	6DHNR35ME	13310	160.8	181.7	203.9	227.2	251.4	276.3	301.7	327.4	353.3	379.2
CSD-0351-M	6DHNR35ME	22310	164.3	185.9	209.0	233.5	259.0	285.6	312.9	340.8	369.2	397.8
CSD-0352-M	6DHNR35ME	13410	163.2	184.6	207.4	231.5	256.6	282.6	309.4	336.6	364.2	391.9
CSD-0400-M	6DJNR40ME	13310	188.0	212.1	237.6	264.3	291.9	320.2	348.8	377.6	406.2	N/A
CSD-0401-M	6DJNR40ME	22410	195.4	221.1	248.6	277.8	308.3	340.1	372.7	406.1	440.0	474.2

NOTE: All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSD-0100-MT	3DB3R12ME	S	43.6	5.4	62.9	100	20	2.5	29.0	45	16.5	2.5	24.3	40	11310
CSD-0101-MT		O		10.8	68.3	110		5.0	31.5	50		5.0	26.8	40	12210
CSD-0102-MT		T		5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11410
CSD-0150-MT	3DS3R17ME	S	59.6	10.8	88.4	150	29.0	5.0	42.8	70	23.6	5.0	35.7	60	12210
CSD-0151-MT		O		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12310
CSD-0152-MT		T		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12410
CSD-0200-MT	4DBNR20ME	S	72.1	10.8	104.0	175	36.1	5.0	51.6	80	31.4	5.0	45.5	70	12210
CSD-0201-MT		O		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12310
CSD-0202-MT		T		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12410
CSD-0250-MT	4DHNR22ME	S	74.4	10.8	106.8	175	37.2	5.0	53.0	90	33.3	5.0	47.8	80	12310
CSD-0251-MT		O		16.2	112.2	175		7.5	55.5	90		7.5	50.3	80	13310
CSD-0252-MT		T		10.8	106.8	175		5.0	53.0	90		5.0	47.8	80	12410
CSD-0300-MT	4DJNR28ME	S	105.4	10.8	145.6	250	52.7	5.0	72.4	125	44.1	5.0	61.4	100	12312
CSD-0301-MT		O		16.2	151.0	250		7.5	74.9	125		7.5	63.9	100	13310
CSD-0302-MT		T		10.8	145.6	250		5.0	72.4	125		5.0	61.4	100	12410
CSD-0350-MT	6DHNR35ME	S	125.1	16.2	175.6	300	62.6	7.5	87.2	150	40.7	7.5	59.6	100	13310
CSD-0351-MT		O		21.6	181.0	300		10.0	89.7	150		10.0	62.1	100	22310
CSD-0352-MT		T		16.2	175.6	300		7.5	87.2	150		7.5	59.6	100	13410
CSD-0400-MT	6DJNR40ME	S	142.9	16.2	197.8	300	71.4	7.5	98.3	150	51.4	7.5	73.0	100	13310
CSD-0401-MT*		O		21.6	203.2	300		10.0	100.8	150		10.0	75.5	125	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".

CSE Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CSE-0100-M	4TES-12	11310	64.2	71.8	80.0	88.6	97.8	107.6	117.8	128.6	139.9	151.7	164.0
CSE-0101-M	4TES-12	12210	67.0	75.2	84.1	93.7	103.9	114.7	126.3	138.5	151.5	165.1	179.4
CSE-0102-M	4TES-12	11410	65.6	73.5	82.0	91.2	100.9	111.1	122.0	133.6	145.7	158.4	171.7
CSE-0150-M	4NES-20	12210	88.3	98.8	110.1	122.1	134.9	148.4	162.7	177.8	193.6	210.1	227.3
CSE-0151-M	4NES-20	12310	91.6	102.9	115.1	128.1	142.1	157.0	172.9	189.7	207.4	226.2	245.9
CSE-0152-M	4NES-20	12410	92.9	104.6	117.1	130.6	145.1	160.6	177.1	194.6	213.3	233.0	253.8
CSE-0200-M	4JE-22	12210	98.3	109.7	121.8	134.6	148.1	162.3	177.2	192.8	209.1	226.1	243.6
CSE-0201-M	4JE-22	12310	102.4	114.8	127.9	141.9	156.8	172.7	189.4	207.0	225.6	245.0	265.4
CSE-0202-M	4JE-22	12410	104.1	116.8	130.4	145.0	160.5	177.0	194.4	213.0	232.5	253.0	274.6
CSE-0250-M	4HE-25	12310	119.6	133.4	148.0	163.6	180.1	197.5	215.8	235.0	255.2	276.3	298.2
CSE-0251-M	4HE-25	13310	124.6	139.5	155.4	172.4	190.6	210.0	230.6	252.4	275.4	299.6	325.1
CSE-0252-M	4HE-25	12410	121.9	136.2	151.4	167.6	184.9	203.2	222.5	242.9	264.3	286.8	310.4
CSE-0300-M	4GE-30	12312	137.3	152.8	169.3	186.8	205.3	224.8	245.4	266.9	289.4	312.9	337.3
CSE-0301-M	4GE-30	13310	141.9	158.4	176.2	195.1	215.2	236.5	259.2	283.0	308.2	334.6	362.3
CSE-0302-M	4GE-30	12410	138.4	154.2	171.0	188.8	207.7	227.7	248.7	270.8	293.9	318.1	343.3
CSE-0350-M	6HE-35	13310	176.1	196.4	218.0	241.0	265.3	291.1	318.2	346.7	376.7	408.0	440.7
CSE-0351-M	6HE-35	22310	181.5	202.9	225.9	250.4	276.6	304.4	333.9	365.1	398.0	432.7	469.1
CSE-0352-M	6HE-35	13410	179.4	200.4	222.8	246.8	272.2	299.2	327.8	358.0	389.7	423.1	458.0
CSE-0400-M	6GE-40	13310	198.3	220.3	243.7	268.4	294.4	321.8	350.5	380.5	411.8	444.3	478.1
CSE-0401-M	6GE-40	22410	208.4	232.7	258.7	286.4	315.9	347.3	380.5	415.5	452.5	491.4	532.1

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	**0**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**
CSE-0100-M	4TES-12	11310	57.3	64.1	71.5	79.3	87.6	96.4	105.7	115.4	125.7	136.4	147.7
CSE-0101-M	4TES-12	12210	59.9	67.3	75.4	84.0	93.2	103.1	113.6	124.7	136.6	149.0	162.2
CSE-0102-M	4TES-12	11410	58.6	65.7	73.4	81.6	90.4	99.7	109.6	120.1	131.1	142.7	154.8
CSE-0150-M	4NES-20	12210	78.8	88.3	98.5	109.3	120.8	133.1	146.0	159.7	174.0	189.1	204.9
CSE-0151-M	4NES-20	12310	81.9	92.1	103.1	114.9	127.6	141.1	155.6	170.9	187.1	204.3	222.3
CSE-0152-M	4NES-20	12410	83.2	93.7	105.0	117.3	130.4	144.5	159.5	175.6	192.6	210.6	229.7
CSE-0200-M	4JE-22	12210	87.7	98.0	108.9	120.4	132.7	145.5	159.0	173.2	188.0	203.4	219.4
CSE-0201-M	4JE-22	12310	91.6	102.7	114.7	127.4	140.9	155.3	170.5	186.6	203.5	221.3	240.0
CSE-0202-M	4JE-22	12410	93.2	104.7	117.0	130.2	144.3	159.4	175.3	192.2	210.1	228.9	248.7
CSE-0250-M	4HE-25	12310	107.3	119.7	132.9	146.9	161.8	177.5	194.1	211.5	229.8	249.0	269.0
CSE-0251-M	4HE-25	13310	112.0	125.4	139.9	155.3	171.8	189.4	208.2	228.0	249.0	271.2	294.5
CSE-0252-M	4HE-25	12410	109.4	122.3	136.1	150.8	166.4	182.9	200.5	219.0	238.5	259.0	280.5
CSE-0300-M	4GE-30	12312	123.1	137.0	151.9	167.6	184.2	201.8	220.3	239.7	260.1	281.4	303.6
CSE-0301-M	4GE-30	13310	127.5	142.4	158.4	175.5	193.6	213.0	233.4	255.1	277.9	302.0	327.2
CSE-0302-M	4GE-30	12410	124.2	138.4	153.4	169.5	186.5	204.5	223.5	243.4	264.4	286.3	309.2
CSE-0350-M	6HE-35	13310	158.0	176.3	195.9	216.6	238.6	261.9	286.5	312.5	339.7	368.2	398.1
CSE-0351-M	6HE-35	22310	163.1	182.5	203.4	225.6	249.4	274.7	301.5	329.9	360.0	391.7	425.0
CSE-0352-M	6HE-35	13410	161.2	180.2	200.5	222.1	245.2	269.7	295.7	323.2	352.1	382.5	414.5
CSE-0400-M	6GE-40	13310	177.9	197.7	218.6	240.8	264.1	288.7	314.4	341.4	369.6	399.0	429.5
CSE-0401-M	6GE-40	22410	187.6	209.5	232.9	257.9	284.6	312.9	342.9	374.7	408.2	443.5	480.6

NOTE: All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSE-0100-MS	4TES-12	S	47.1	5.4	67.3	110	23.6	2.5	33.5	50	18.9	2.5	27.3	45	11310
CSE-0101-MS		O		10.8	72.7	110		5.0	36.0	60		5.0	29.8	45	12210
CSE-0102-MS		T		5.4	67.3	110		2.5	33.5	50		2.5	27.3	45	11410
CSE-0150-MS	4NES-20	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	26.3	5.0	39.1	60	12210
CSE-0151-MS		O		10.8	94.2	150		5.0	46.6	80		5.0	39.1	60	12310
CSE-0152-MS		T		10.8	94.2	150		5.0	46.6	80		5.0	39.1	60	12410
CSE-0200-MS	4JE-22	S	68.6	10.8	99.6	150	34.3	5.0	49.4	80	27.1	5.0	40.1	60	12210
CSE-0201-MS		O		10.8	99.6	150		5.0	49.4	80		5.0	40.1	60	12310
CSE-0202-MS		T		10.8	99.6	150		5.0	49.4	80		5.0	40.1	60	12410
CSE-0250-MS	4HE-25	S	84.3	10.8	119.2	200	42.1	5.0	59.1	100	33.6	5.0	48.2	80	12310
CSE-0251-MS		O		16.2	124.6	200		7.5	61.6	100		7.5	50.7	80	13310
CSE-0252-MS		T		10.8	119.2	200		5.0	59.1	100		5.0	48.2	80	12410
CSE-0300-MS	4GE-30	S	100 .0	10.8	138.8	225	50.0	5.0	69.0	110	40.0	5.0	56.2	90	12312
CSE-0301-MS		O		16.2	144.2	225		7.5	71.5	110		7.5	58.7	100	13310
CSE-0302-MS		T		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90	12410
CSE-0350-MS	6HE-35	S	117 .1	16.2	165.6	250	58.6	7.5	82.3	125	46.4	7.5	66.7	110	13310
CSE-0351-MS		O		21.6	170.5	250		10.0	84.8	125		10.0	69.2	110	22310
CSE-0352-MS		T		16.2	165.6	250		7.5	82.3	125		7.5	66.7	110	13410
CSE-0400-MS	6GE-40	S	157.1	16.2	215.6	350	78.6	7.5	107.3	175	62.9	7.5	87.3	150	13310
CSE-0401-MS*		O		21.6	221.0	350		10.0	109.8	175		10.0	89.8	150	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

CSE Medium Temp R-407A

CSE Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CSE-0100-M	4TES-12	11310	61.0	69.0	77.6	86.8	96.7	107.2	118.5	130.4	143.1	156.5	170.6
CSE-0101-M	4TES-12	12210	63.2	71.6	80.8	90.7	101.4	113.0	125.3	138.5	152.6	167.6	183.5
CSE-0102-M	4TES-12	11410	62.3	70.5	79.4	89.1	99.4	110.5	122.4	135.1	148.6	162.9	178.0
CSE-0150-M	4NES-20	12210	82.3	93.2	105.0	117.7	131.3	145.8	161.4	177.9	195.4	213.9	233.5
CSE-0151-M	4NES-20	12310	85.1	96.7	109.3	122.9	137.5	153.3	170.3	188.4	207.8	228.4	250.3
CSE-0152-M	4NES-20	12410	86.4	98.2	111.1	125.1	140.2	156.6	174.2	193.1	213.3	234.9	257.8
CSE-0200-M	4JE-22	12210	89.3	101.3	114.1	127.8	142.5	158.1	174.7	192.3	210.9	230.5	251.2
CSE-0201-M	4JE-22	12310	92.8	105.6	119.4	134.2	150.1	167.2	185.5	205.0	225.8	247.8	271.2
CSE-0202-M	4JE-22	12410	94.3	107.5	121.6	137.0	153.5	171.2	190.3	210.7	232.4	255.6	280.1
CSE-0250-M	4HE-25	12310	105.7	120.1	135.5	152.2	170.1	189.2	209.6	231.3	254.3	278.7	304.5
CSE-0251-M	4HE-25	13310	109.6	124.9	141.4	159.4	178.7	199.5	221.8	245.7	271.3	298.5	327.4
CSE-0252-M	4HE-25	12410	107.7	122.5	138.6	155.9	174.5	194.4	215.8	238.6	262.9	288.7	316.1
CSE-0300-M	4GE-30	12312	125.8	142.3	160.0	179.1	199.5	221.3	244.5	269.3	295.5	323.3	352.7
CSE-0301-M	4GE-30	13310	129.3	146.6	165.3	185.5	207.2	230.5	255.5	282.2	310.6	340.9	373.0
CSE-0302-M	4GE-30	12410	126.9	143.6	161.6	180.9	201.7	224.0	247.7	273.0	299.9	328.4	358.5
CSE-0350-M	6HE-35	13310	163.7	185.4	208.7	233.7	260.6	289.3	319.9	352.5	387.1	423.7	462.4
CSE-0351-M	6HE-35	22310	168.1	190.8	215.3	241.8	270.3	300.9	333.7	368.8	406.1	445.9	488.1
CSE-0352-M	6HE-35	13410	166.7	189.1	213.2	239.3	267.2	297.2	329.3	363.6	400.1	438.9	479.9
CSE-0400-M	6GE-40	13310	186.3	210.4	236.4	264.2	293.9	325.6	359.4	395.2	433.2	473.2	515.4
CSE-0401-M	6GE-40	22410	195.0	221.2	249.5	280.1	313.1	348.5	386.5	427.1	470.5	516.7	565.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CSE-0100-M	4TES-12	11310	55.1	62.4	70.3	78.8	87.9	97.7	108.1	119.2	131.0	143.5	N/A
CSE-0101-M	4TES-12	12210	57.1	64.9	73.4	82.6	92.5	103.1	114.6	126.9	140.0	154.0	168.9
CSE-0102-M	4TES-12	11410	56.3	63.9	72.1	81.0	90.6	100.9	111.9	123.7	136.2	149.5	163.7
CSE-0150-M	4NES-20	12210	74.2	84.2	95.1	106.8	119.3	132.8	147.2	162.5	178.8	196.1	N/A
CSE-0151-M	4NES-20	12310	76.8	87.5	99.1	111.6	125.2	139.9	155.6	172.5	190.6	209.8	230.3
CSE-0152-M	4NES-20	12410	78.0	88.9	100.8	113.7	127.8	142.9	159.3	176.9	195.8	215.9	237.4
CSE-0200-M	4JE-22	12210	80.1	91.1	102.9	115.6	129.2	143.7	159.1	175.5	192.9	N/A	N/A
CSE-0201-M	4JE-22	12310	83.4	95.1	107.9	121.6	136.4	152.2	169.3	187.5	206.9	227.5	249.4
CSE-0202-M	4JE-22	12410	84.8	96.9	110.0	124.2	139.5	156.0	173.8	192.8	213.1	234.8	257.9
CSE-0250-M	4HE-25	12310	94.8	108.1	122.4	137.8	154.3	172.1	191.0	211.3	232.8	255.7	279.9
CSE-0251-M	4HE-25	13310	98.5	112.6	127.9	144.5	162.4	181.8	202.6	224.9	248.8	274.3	301.5
CSE-0252-M	4HE-25	12410	96.7	110.4	125.2	141.2	158.5	177.0	196.9	218.2	240.9	265.1	290.8
CSE-0300-M	4GE-30	12312	113.7	128.9	145.3	162.9	181.8	202.1	223.7	246.8	271.3	297.3	324.8
CSE-0301-M	4GE-30	13310	117.0	133.0	150.3	169.0	189.1	210.8	234.0	258.9	285.6	313.9	344.1
CSE-0302-M	4GE-30	12410	114.7	130.1	146.8	164.7	183.9	204.6	226.7	250.3	275.4	302.1	330.4
CSE-0350-M	6HE-35	13310	147.8	167.8	189.3	212.4	237.3	264.0	292.5	322.8	355.1	389.4	425.7
CSE-0351-M	6HE-35	22310	151.9	172.8	195.5	220.0	246.4	274.9	305.4	338.1	373.1	410.4	450.0
CSE-0352-M	6HE-35	13410	150.6	171.2	193.5	217.6	243.6	271.4	301.3	333.3	367.4	403.7	442.2
CSE-0400-M	6GE-40	13310	168.3	190.6	214.5	240.2	267.8	297.2	328.6	361.9	397.4	434.8	N/A
CSE-0401-M	6GE-40	22410	176.5	200.7	226.9	255.2	285.8	318.7	354.1	392.0	432.6	475.9	522.0

NOTE: All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSE-0100-MQ	4TES-12	S	47.1	5.4	67.3	110	23.6	2.5	33.5	50	18.9	2.5	27.3	45	11310
CSE-0101-MQ		O		10.8	72.7	110		5.0	36.0	60		5.0	29.8	45	12210
CSE-0102-MQ		T		5.4	67.3	110		2.5	33.5	50		2.5	27.3	45	11410
CSE-0150-MQ	4NES-20	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	26.3	5.0	39.1	60	12210
CSE-0151-MQ		O		10.8	94.2	150		5.0	46.6	80		5.0	39.1	60	12310
CSE-0152-MQ		T		10.8	94.2	150		5.0	46.6	80		5.0	39.1	60	12410
CSE-0200-MQ	4JE-22	S	68.6	10.8	99.6	150	34.3	5.0	49.4	80	27.1	5.0	40.1	60	12210
CSE-0201-MQ		O		10.8	99.6	150		5.0	49.4	80		5.0	40.1	60	12310
CSE-0202-MQ		T		10.8	99.6	150		5.0	49.4	80		5.0	40.1	60	12410
CSE-0250-MQ	4HE-25	S	84.3	10.8	119.2	200	42.1	5.0	59.1	100	33.6	5.0	48.2	80	12310
CSE-0251-MQ		O		16.2	124.6	200		7.5	61.6	100		7.5	50.7	80	13310
CSE-0252-MQ		T		10.8	119.2	200		5.0	59.1	100		5.0	48.2	80	12410
CSE-0300-MQ	4GE-30	S	1000	10.8	138.8	225	50.0	5.0	69.0	110	40.0	5.0	56.2	90	12312
CSE-0301-MQ		O		16.2	144.2	225		7.5	71.5	110		7.5	58.7	100	13310
CSE-0302-MQ		T		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90	12410
CSE-0350-MQ	6HE-35	S	117.1	16.2	165.6	250	58.6	7.5	82.3	125	46.4	7.5	66.7	110	13310
CSE-0351-MQ		O		21.6	170.5	250		10.0	84.8	125		10.0	69.2	110	22310
CSE-0352-MQ		T		16.2	165.6	250		7.5	82.3	125		7.5	66.7	110	13410
CSE-0400-MQ	6GE-40	S	157.1	16.2	215.6	350	78.6	7.5	107.3	175	62.9	7.5	87.3	150	13310
CSE-0401-MQ*		O		21.6	221.0	350		10.0	109.8	175		10.0	89.8	150	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".

CSE Medium Temp R-448A

CSE Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CSE-0100-M	4TES-12	11310	63.6	71.7	80.5	90.0	100.2	111.1	122.7	135.1	148.2	162.0	176.6
CSE-0101-M	4TES-12	12210	66.0	74.7	84.1	94.4	105.5	117.4	130.2	143.9	158.5	174.0	190.5
CSE-0102-M	4TES-12	11410	65.0	73.4	82.6	92.5	103.2	114.7	127.0	140.2	154.1	168.9	184.6
CSE-0150-M	4NES-20	12210	87.3	98.5	110.6	123.7	137.7	152.8	168.8	185.9	204.1	223.3	243.5
CSE-0151-M	4NES-20	12310	90.4	102.3	115.3	129.3	144.6	161.0	178.6	197.4	217.6	239.0	261.8
CSE-0152-M	4NES-20	12410	91.7	103.9	117.3	131.8	147.5	164.5	182.8	202.5	223.6	246.1	270.0
CSE-0200-M	4JE-22	12210	97.2	109.4	122.5	136.5	151.4	167.3	184.2	202.0	220.8	240.6	261.3
CSE-0201-M	4JE-22	12310	101.2	114.2	128.3	143.5	159.8	177.3	195.9	215.8	236.9	259.3	282.9
CSE-0202-M	4JE-22	12410	102.8	116.3	130.8	146.6	163.5	181.6	201.1	221.9	244.1	267.6	292.6
CSE-0250-M	4HE-25	12310	118.7	133.4	149.2	166.1	184.2	203.6	224.1	246.0	269.1	293.5	319.2
CSE-0251-M	4HE-25	13310	123.1	138.7	155.7	174.0	193.7	214.9	237.7	261.9	287.8	315.3	344.5
CSE-0252-M	4HE-25	12410	120.9	136.1	152.5	170.1	189.1	209.4	231.0	254.1	278.6	304.6	332.0
CSE-0300-M	4GE-30	12312	136.5	153.1	171.0	190.1	210.5	232.3	255.4	280.0	305.9	333.3	362.0
CSE-0301-M	4GE-30	13310	140.5	158.0	176.9	197.2	219.1	242.6	267.6	294.4	322.8	352.9	384.7
CSE-0302-M	4GE-30	12410	137.7	154.6	172.7	192.2	213.0	235.3	259.0	284.2	310.8	338.9	368.6
CSE-0350-M	6HE-35	13310	174.8	196.5	219.7	244.7	271.5	300.0	330.4	362.7	396.8	432.9	470.9
CSE-0351-M	6HE-35	22310	179.6	202.2	226.8	253.2	281.6	312.1	344.8	379.6	416.7	456.1	497.8
CSE-0352-M	6HE-35	13410	178.1	200.4	224.6	250.5	278.4	308.3	340.2	374.3	410.4	448.7	489.2
CSE-0400-M	6GE-40	13310	197.8	221.5	246.7	273.7	302.4	333.0	365.3	399.4	435.3	473.1	512.7
CSE-0401-M	6GE-40	22410	207.1	232.8	260.5	290.4	322.6	357.0	393.8	433.0	474.7	519.0	565.8

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CSE-0100-M	4TES-12	11310	57.4	64.9	73.0	81.7	91.1	101.1	111.9	123.3	135.5	N/A	N/A
CSE-0101-M	4TES-12	12210	59.6	67.6	76.3	85.8	96.0	107.0	118.9	131.6	145.2	159.7	175.1
CSE-0102-M	4TES-12	11410	58.7	66.5	74.9	84.1	93.9	104.5	115.9	128.1	141.1	154.9	169.5
CSE-0150-M	4NES-20	12210	78.9	89.2	100.3	112.3	125.2	139.1	154.0	169.8	186.7	N/A	N/A
CSE-0151-M	4NES-20	12310	81.8	92.7	104.7	117.6	131.7	146.8	163.2	180.7	199.5	219.5	240.8
CSE-0152-M	4NES-20	12410	83.0	94.3	106.6	119.9	134.5	150.2	167.2	185.5	205.1	226.1	248.5
CSE-0200-M	4JE-22	12210	87.6	98.9	110.9	123.8	137.6	152.3	167.9	184.5	N/A	N/A	N/A
CSE-0201-M	4JE-22	12310	91.4	103.4	116.5	130.5	145.6	161.8	179.1	197.6	217.3	238.2	260.3
CSE-0202-M	4JE-22	12410	93.0	105.4	118.9	133.4	149.1	166.0	184.1	203.4	224.1	246.1	269.5
CSE-0250-M	4HE-25	12310	107.6	121.1	135.6	151.2	167.9	185.8	204.8	225.0	246.4	269.1	N/A
CSE-0251-M	4HE-25	13310	111.8	126.3	141.9	158.8	177.1	196.7	217.7	240.3	264.3	289.9	317.2
CSE-0252-M	4HE-25	12410	109.8	123.8	138.9	155.1	172.6	191.3	211.4	232.8	255.5	279.7	305.2
CSE-0300-M	4GE-30	12312	123.9	139.1	155.4	172.9	191.6	211.6	232.9	255.5	279.5	304.8	N/A
CSE-0301-M	4GE-30	13310	127.7	143.7	161.1	179.8	199.9	221.5	244.6	269.3	295.6	323.5	353.1
CSE-0302-M	4GE-30	12410	125.0	140.4	157.1	174.9	194.1	214.5	236.3	259.5	284.1	310.2	337.7
CSE-0350-M	6HE-35	13310	158.7	178.6	200.1	223.1	247.8	274.2	302.3	332.2	363.9	397.5	N/A
CSE-0351-M	6HE-35	22310	163.2	184.2	206.8	231.2	257.5	285.8	316.1	348.5	383.0	419.7	458.6
CSE-0352-M	6HE-35	13410	161.8	182.4	204.7	228.7	254.5	282.1	311.7	343.3	376.9	412.6	450.4
CSE-0400-M	6GE-40	13310	179.6	201.3	224.4	249.1	275.4	303.4	333.0	364.4	397.5	N/A	N/A
CSE-0401-M	6GE-40	22410	188.6	212.2	237.7	265.2	294.8	326.4	360.4	396.6	435.1	476.1	519.5

NOTE: All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSE-0100-MT	4TES-12	S	47.1	5.4	67.3	110	23.6	2.5	33.5	50	18.9	2.5	27.3	45	11310
CSE-0101-MT		O		10.8	72.7	110		5.0	36.0	60		5.0	29.8	45	12210
CSE-0102-MT		T		5.4	67.3	110		2.5	33.5	50		2.5	27.3	45	11410
CSE-0150-MT	4NES-20	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	26.3	5.0	39.1	60	12210
CSE-0151-MT		O		10.8	94.2	150		5.0	46.6	80		5.0	39.1	60	12310
CSE-0152-MT		T		10.8	94.2	150		5.0	46.6	80		5.0	39.1	60	12410
CSE-0200-MT	4JE-22	S	68.6	10.8	99.6	150	34.3	5.0	49.4	80	27.1	5.0	40.1	60	12210
CSE-0201-MT		O		10.8	99.6	150		5.0	49.4	80		5.0	40.1	60	12310
CSE-0202-MT		T		10.8	99.6	150		5.0	49.4	80		5.0	40.1	60	12410
CSE-0250-MT	4HE-25	S	84.3	10.8	119.2	200	42.1	5.0	59.1	100	33.6	5.0	48.2	80	12310
CSE-0251-MT		O		16.2	124.6	200		7.5	61.6	100		7.5	50.7	80	13310
CSE-0252-MT		T		10.8	119.2	200		5.0	59.1	100		5.0	48.2	80	12410
CSE-0300-MT	4GE-30	S	100.0	10.8	138.8	225	50.0	5.0	69.0	110	40.0	5.0	56.2	90	12312
CSE-0301-MT		O		16.2	144.2	225		7.5	71.5	110		7.5	58.7	100	13310
CSE-0302-MT		T		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90	12410
CSE-0350-MT	6HE-35	S	117.1	16.2	165.6	250	58.6	7.5	82.3	125	46.4	7.5	66.7	110	13310
CSE-0351-MT		O		21.6	170.5	250		10.0	84.8	125		10.0	69.2	110	22310
CSE-0352-MT		T		16.2	165.6	250		7.5	82.3	125		7.5	66.7	110	13410
CSE-0400-MT	6GE-40	S	157.1	16.2	215.6	350	78.6	7.5	107.3	175	62.9	7.5	87.3	150	13310
CSE-0401-MT*		O		21.6	221.0	350		10.0	109.8	175		10.0	89.8	150	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".

CS Single Systems

CSB Medium Temp R-404A

CSB Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CSB-0100-M	4TES-9	11310	64.1	71.8	79.9	88.6	97.8	107.5	117.8
CSB-0101-M	4TES-9	12210	67.0	75.2	84.1	93.6	103.8	114.6	126.2
CSB-0102-M	4TES-9	11410	65.6	73.5	82.0	91.1	100.8	111.1	122.0
CSB-0150-M	4NES-14	12210	88.0	98.5	109.8	121.9	134.7	148.3	162.7
CSB-0151-M	4NES-14	12310	91.3	102.7	114.8	127.9	141.9	156.8	172.7
CSB-0152-M	4NES-14	12410	92.7	104.3	116.9	130.4	144.8	160.3	176.9
CSB-0200-M	4JE-15	12210	101.1	112.6	124.7	137.6	151.2	165.6	180.7
CSB-0201-M	4JE-15	12310	105.4	117.7	130.9	145.0	160.0	175.9	192.7
CSB-0202-M	4JE-15	12410	107.1	119.9	133.5	148.1	163.6	180.2	197.8
CSB-0250-M	4HE-18	12310	121.7	135.5	150.2	165.8	182.3	199.8	218.3
CSB-0251-M	4HE-18	13310	126.8	141.7	157.6	174.7	193.0	212.4	233.0
CSB-0252-M	4HE-18	12410	124.1	138.3	153.6	169.9	187.2	205.5	225.0
CSB-0300-M	4GE-23	12312	140.9	156.4	172.9	190.5	209.0	228.6	249.2
CSB-0301-M	4GE-23	13310	145.7	162.3	180.0	198.9	219.1	240.5	263.1
CSB-0302-M	4GE-23	12410	142.1	157.8	174.7	192.5	211.5	231.5	252.6
CSB-0350-M	6HE-28	13310	179.4	199.7	221.4	244.4	268.9	294.8	322.1
CSB-0351-M	6HE-28	22310	184.9	206.3	229.3	254.0	280.2	308.1	337.7
CSB-0352-M	6HE-28	13410	182.8	203.8	226.3	250.3	275.8	302.9	331.7
CSB-0400-M	6GE-34	13310	207.2	229.3	252.7	277.4	303.5	331.0	359.8
CSB-0401-M	6GE-34	22410	217.8	242.1	268.2	296.0	325.6	357.0	390.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CSB-0100-M	4TES-9	11310	57.2	64.1	71.5	79.3	87.7	96.6	105.9
CSB-0101-M	4TES-9	12210	59.8	67.3	75.4	84.0	93.3	103.2	113.8
CSB-0102-M	4TES-9	11410	58.5	65.7	73.4	81.7	90.5	99.9	109.9
CSB-0150-M	4NES-14	12210	78.3	87.8	98.1	109.0	120.6	133.0	146.1
CSB-0151-M	4NES-14	12310	81.5	91.8	102.8	114.7	127.5	141.1	155.6
CSB-0152-M	4NES-14	12410	82.8	93.4	104.8	117.1	130.3	144.4	159.6
CSB-0200-M	4JE-15	12210	90.5	100.9	112.0	123.7	136.1	149.2	163.0
CSB-0201-M	4JE-15	12310	94.6	105.8	117.9	130.7	144.4	159.0	174.4
CSB-0202-M	4JE-15	12410	96.2	107.8	120.3	133.6	147.9	163.1	179.2
CSB-0250-M	4HE-18	12310	109.3	121.8	135.1	149.3	164.4	180.3	197.2
CSB-0251-M	4HE-18	13310	114.2	127.7	142.3	157.8	174.5	192.3	211.2
CSB-0252-M	4HE-18	12410	111.6	124.5	138.4	153.2	169.0	185.8	203.5
CSB-0300-M	4GE-23	12312	126.7	140.8	155.7	171.5	188.3	206.1	224.8
CSB-0301-M	4GE-23	13310	131.4	146.4	162.4	179.6	197.9	217.4	238.1
CSB-0302-M	4GE-23	12410	127.9	142.1	157.3	173.5	190.6	208.8	228.0
CSB-0350-M	6HE-28	13310	161.3	179.7	199.4	220.4	242.7	266.3	291.3
CSB-0351-M	6HE-28	22310	166.5	186.0	207.0	229.5	253.5	279.0	306.2
CSB-0352-M	6HE-28	13410	164.5	183.6	204.1	226.0	249.3	274.1	300.4
CSB-0400-M	6GE-34	13310	186.9	206.8	227.9	250.2	273.7	298.5	324.5
CSB-0401-M	6GE-34	22410	197.2	219.2	242.8	268.0	294.9	323.4	353.7

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSB-0100-MS	4TES-9	S	31.4	5.4	47.7	70	15.7	2.5	23.6	40	13.6	2.5	20.7	30	11310
CSB-0101-MS		O		10.8	53.1	80		5.0	26.1	40		5.0	23.2	30	12210
CSB-0102-MS		T		5.4	47.7	70		2.5	23.6	40		2.5	20.7	30	11410
CSB-0150-MS	4NES-14	S	44.3	10.8	69.2	110	22.1	5.0	34.1	50	17.7	5.0	28.3	45	12210
CSB-0151-MS		O		10.8	69.2	110		5.0	34.1	50		5.0	28.3	45	12310
CSB-0152-MS		T		10.8	69.2	110		5.0	34.1	50		5.0	28.3	45	12410
CSB-0200-MS	4JE-15	S	55.7	10.8	83.4	125	27.9	5.0	41.4	70	22.3	5.0	34.1	50	12210
CSB-0201-MS		O		10.8	83.4	125		5.0	41.4	70		5.0	34.1	50	12310
CSB-0202-MS		T		10.8	83.4	125		5.0	41.4	70		5.0	34.1	50	12410
CSB-0250-MS	4HE-18	S	60.3	10.8	89.2	125	30.1	5.0	44.1	70	24.1	5.0	36.3	60	12310
CSB-0251-MS		O		16.2	94.6	150		7.5	46.6	70		7.5	38.8	60	13310
CSB-0252-MS		T		10.8	89.2	125		5.0	44.1	70		5.0	36.3	60	12410
CSB-0300-MS	4GE-23	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	25.7	5.0	38.3	60	12312
CSB-0301-MS		O		16.2	99.6	150		7.5	49.1	80		7.5	40.8	60	13310
CSB-0302-MS		T		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60	12410
CSB-0350-MS	6HE-28	S	86.4	16.2	127.2	200	43.2	7.5	63.0	100	34.6	7.5	52.0	80	13310
CSB-0351-MS		O		21.6	132.6	200		10.0	65.5	110		10.0	54.5	90	22310
CSB-0352-MS		T		16.2	127.2	200		7.5	63.0	100		7.5	52.0	80	13410
CSB-0400-MS	6GE-34	S	94.3	10.8	137.1	225	47.1	7.5	67.9	110	37.1	7.5	55.1	90	13310
CSB-0401-MS*		O		21.6	142.5	225		10.0	70.4	110		10.0	57.6	90	22410

CSB Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.

2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.

4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CSB-0100-M	4TES-9	11310	60.8	68.8	77.5	86.8	96.8	107.4	118.8
CSB-0101-M	4TES-9	12210	63.0	71.5	80.8	90.7	101.5	113.1	125.5
CSB-0102-M	4TES-9	11410	62.1	70.4	79.4	89.1	99.5	110.7	122.6
CSB-0150-M	4NES-14	12210	82.3	93.3	105.2	118.0	131.7	146.3	161.9
CSB-0151-M	4NES-14	12310	85.2	96.8	109.5	123.1	137.9	153.7	170.7
CSB-0152-M	4NES-14	12410	86.4	98.3	111.3	125.4	140.6	157.0	174.6
CSB-0200-M	4JE-15	12210	91.4	103.5	116.5	130.4	145.3	161.2	178.1
CSB-0201-M	4JE-15	12310	94.9	107.8	121.8	136.8	152.9	170.2	188.7
CSB-0202-M	4JE-15	12410	96.5	109.7	124.1	139.6	156.2	174.2	193.4
CSB-0250-M	4HE-18	12310	111.2	125.8	141.5	158.4	176.5	195.9	216.7
CSB-0251-M	4HE-18	13310	115.2	130.7	147.5	165.6	185.2	206.2	228.7
CSB-0252-M	4HE-18	12410	113.2	128.3	144.5	162.1	180.9	201.2	222.8
CSB-0300-M	4GE-23	12312	130.9	147.6	165.5	184.7	205.3	227.4	250.9
CSB-0301-M	4GE-23	13310	134.5	152.0	170.8	191.2	213.0	236.5	261.7
CSB-0302-M	4GE-23	12410	132.0	148.9	167.0	186.6	207.6	230.0	254.0
CSB-0350-M	6HE-28	13310	166.7	188.6	212.2	237.6	264.8	293.9	325.0
CSB-0351-M	6HE-28	22310	171.2	194.1	218.9	245.6	274.4	305.3	338.4
CSB-0352-M	6HE-28	13410	169.8	192.4	216.8	243.1	271.4	301.7	334.2
CSB-0400-M	6GE-34	13310	188.9	213.3	239.6	267.7	297.8	330.0	364.2
CSB-0401-M	6GE-34	22410	197.8	224.2	252.8	283.7	316.9	352.6	390.9

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CSB-0100-M	4TES-9	11310	54.9	62.3	70.3	78.9	88.2	98.1	108.7
CSB-0101-M	4TES-9	12210	56.9	64.8	73.4	82.7	92.7	103.5	115.1
CSB-0102-M	4TES-9	11410	56.1	63.7	72.1	81.1	90.8	101.2	112.4
CSB-0150-M	4NES-14	12210	74.2	84.3	95.3	107.2	119.9	133.6	148.2
CSB-0151-M	4NES-14	12310	76.8	87.6	99.3	112.0	125.8	140.6	156.5
CSB-0152-M	4NES-14	12410	78.0	89.0	101.1	114.1	128.3	143.6	160.1
CSB-0200-M	4JE-15	12210	82.3	93.5	105.6	118.6	132.5	147.4	163.3
CSB-0201-M	4JE-15	12310	85.6	97.6	110.5	124.5	139.6	155.8	173.2
CSB-0202-M	4JE-15	12410	87.0	99.3	112.7	127.1	142.7	159.5	177.6
CSB-0250-M	4HE-18	12310	100.6	114.2	128.8	144.6	161.6	179.7	199.2
CSB-0251-M	4HE-18	13310	104.4	118.8	134.4	151.3	169.6	189.3	210.5
CSB-0252-M	4HE-18	12410	102.5	116.5	131.7	148.0	165.7	184.6	204.9
CSB-0300-M	4GE-23	12312	119.2	134.7	151.3	169.3	188.5	209.2	231.3
CSB-0301-M	4GE-23	13310	122.6	138.8	156.4	175.3	195.8	217.8	241.5
CSB-0302-M	4GE-23	12410	120.2	135.9	152.8	171.0	190.7	211.7	234.3
CSB-0350-M	6HE-28	13310	151.0	171.3	193.2	216.9	242.3	269.6	298.8
CSB-0351-M	6HE-28	22310	155.1	176.4	199.5	224.4	251.3	280.3	311.4
CSB-0352-M	6HE-28	13410	153.8	174.8	197.5	222.0	248.5	276.9	307.4
CSB-0400-M	6GE-34	13310	171.2	193.8	218.2	244.4	272.5	302.6	334.7
CSB-0401-M	6GE-34	22410	179.4	203.9	230.5	259.3	290.4	323.9	359.8

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSB-0100-MQ	4TES-9	S	31.4	5.4	47.7	70	15.7	2.5	23.6	40	13.6	2.5	20.7	30	11310
CSB-0101-MQ		O		10.8	53.1	80		5.0	26.1	40		5.0	23.2	30	12210
CSB-0102-MQ		T		5.4	47.7	70		2.5	23.6	40		2.5	20.7	30	11410
CSB-0150-MQ	4NES-14	S	44.3	10.8	69.2	110	22.1	5.0	34.1	50	17.7	5.0	28.3	45	12210
CSB-0151-MQ		O		10.8	69.2	110		5.0	34.1	50		5.0	28.3	45	12310
CSB-0152-MQ		T		10.8	69.2	110		5.0	34.1	50		5.0	28.3	45	12410
CSB-0200-MQ	4JE-15	S	55.7	10.8	83.4	125	27.9	5.0	41.4	70	22.3	5.0	34.1	50	12210
CSB-0201-MQ		O		10.8	83.4	125		5.0	41.4	70		5.0	34.1	50	12310
CSB-0202-MQ		T		10.8	83.4	125		5.0	41.4	70		5.0	34.1	50	12410
CSB-0250-MQ	4HE-18	S	60.3	10.8	89.2	125	30.1	5.0	44.1	70	24.1	5.0	36.3	60	12310
CSB-0251-MQ		O		16.2	94.6	150		7.5	46.6	70		7.5	38.8	60	13310
CSB-0252-MQ		T		10.8	89.2	125		5.0	44.1	70		5.0	36.3	60	12410
CSB-0300-MQ	4GE-23	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	25.7	5.0	38.3	60	12312
CSB-0301-MQ		O		16.2	99.6	150		7.5	49.1	80		7.5	40.8	60	13310
CSB-0302-MQ		T		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60	12410
CSB-0350-MQ	6HE-28	S	86.4	16.2	127.2	200	43.2	7.5	63.0	100	4.6	7.5	52.0	80	13310
CSB-0351-MQ		O		21.6	132.6	200		7.5	63.0	100		10.0	54.5	90	22310
CSB-0352-MQ		T		16.2	127.2	200		7.5	63.0	100		7.5	52.0	80	13410
CSB-0400-MQ	6GE-34	S	94.3	16.2	137.1	225	47.1	7.5	67.9	110	37.1	7.5	55.1	90	13310
CSB-0401-MQ*		O		21.6	142.5	225		10.0	70.4	110		10.0	57.6	90	22410

CSB Medium Temp R-448A

CSB Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CSB-0100-M	4TES-9	11310	63.6	71.8	80.7	90.2	100.5	111.4	123.1
CSB-0101-M	4TES-9	12210	66.0	74.8	84.3	94.6	105.7	117.6	130.4
CSB-0102-M	4TES-9	11410	65.0	73.5	82.8	92.8	103.5	115.0	127.3
CSB-0150-M	4NES-14	12210	86.9	98.2	110.4	123.6	137.6	152.7	168.8
CSB-0151-M	4NES-14	12310	90.1	102.1	115.2	129.3	144.6	161.0	178.6
CSB-0152-M	4NES-14	12410	91.5	103.8	117.2	131.8	147.6	164.6	182.8
CSB-0200-M	4JE-15	12210	100.5	112.9	126.2	140.4	155.6	171.7	188.8
CSB-0201-M	4JE-15	12310	104.5	117.7	132.0	147.4	163.8	181.5	200.3
CSB-0202-M	4JE-15	12410	106.2	119.8	134.5	150.4	167.4	185.7	205.3
CSB-0250-M	4HE-18	12310	121.1	136.0	151.9	169.1	187.4	206.9	227.7
CSB-0251-M	4HE-18	13310	125.5	141.4	158.5	176.9	196.8	218.1	240.9
CSB-0252-M	4HE-18	12410	123.4	138.7	155.3	173.1	192.2	212.6	234.4
CSB-0300-M	4GE-23	12312	140.7	157.5	175.5	194.8	215.5	237.4	260.8
CSB-0301-M	4GE-23	13310	144.7	162.4	181.5	202.0	224.1	247.7	272.9
CSB-0302-M	4GE-23	12410	141.8	158.9	177.3	196.9	218.0	240.4	264.3
CSB-0350-M	6HE-28	13310	178.5	200.3	223.9	249.1	276.2	305.0	335.6
CSB-0351-M	6HE-28	22310	183.2	206.2	230.9	257.6	286.2	316.9	349.8
CSB-0352-M	6HE-28	13410	181.7	204.3	228.7	254.9	283.1	313.2	345.3
CSB-0400-M	6GE-34	13310	208.0	232.0	257.6	284.9	314.0	344.9	377.5
CSB-0401-M	6GE-34	22410	217.4	243.4	271.5	301.7	334.1	368.8	405.8

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CSB-0100-M	4TES-9	11310	57.4	65.0	73.2	82.0	91.5	101.7	112.5
CSB-0101-M	4TES-9	12210	59.6	67.7	76.5	86.1	96.4	107.5	119.4
CSB-0102-M	4TES-9	11410	58.7	66.6	75.1	84.4	94.3	105.0	116.5
CSB-0150-M	4NES-14	12210	78.2	88.6	99.8	111.9	125.0	138.9	153.8
CSB-0151-M	4NES-14	12310	81.2	92.3	104.4	117.5	131.6	146.8	163.2
CSB-0152-M	4NES-14	12410	82.5	93.9	106.3	119.8	134.5	150.3	167.3
CSB-0200-M	4JE-15	12210	91.2	102.6	115.0	128.2	142.3	157.3	173.3
CSB-0201-M	4JE-15	12310	94.9	107.2	120.5	134.8	150.2	166.6	184.2
CSB-0202-M	4JE-15	12410	96.5	109.2	122.9	137.7	153.6	170.7	189.0
CSB-0250-M	4HE-18	12310	110.2	123.9	138.7	154.6	171.6	189.8	209.1
CSB-0251-M	4HE-18	13310	114.4	129.1	145.0	162.2	180.6	200.5	221.8
CSB-0252-M	4HE-18	12410	112.4	126.6	141.9	158.5	176.2	195.2	215.6
CSB-0300-M	4GE-23	12312	128.3	143.7	160.3	178.2	197.2	217.6	239.2
CSB-0301-M	4GE-23	13310	132.1	148.5	166.1	185.1	205.6	227.5	250.9
CSB-0302-M	4GE-23	12410	129.4	145.1	162.0	180.2	199.7	220.5	242.6
CSB-0350-M	6HE-28	13310	162.5	182.8	204.6	228.1	253.2	280.1	308.7
CSB-0351-M	6HE-28	22310	167.1	188.3	211.4	236.2	262.9	291.6	322.2
CSB-0352-M	6HE-28	13410	165.6	186.6	209.2	233.6	259.8	287.9	318.0
CSB-0400-M	6GE-34	13310	190.4	212.4	236.0	261.2	288.0	316.5	346.7
CSB-0401-M	6GE-34	22410	199.5	223.6	249.5	277.5	307.5	339.7	374.0

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSB-0100-MT	4TES-9	S	31.4	5.4	47.7	70	15.7	2.5	23.6	40	13.6	2.5	20.7	30	11310
CSB-0101-MT		O		10.8	53.1	80		5.0	26.1	40		5.0	23.2	30	12210
CSB-0102-MT		T		5.4	47.7	70		2.5	23.6	40		2.5	20.7	30	11410
CSB-0150-MT	4NES-14	S	44.3	10.8	69.2	110	22.1	5.0	34.1	50	17.7	5.0	28.3	45	12210
CSB-0151-MT		O		10.8	69.2	110		5.0	34.1	50		5.0	28.3	45	12310
CSB-0152-MT		T		10.8	69.2	110		5.0	34.1	50		5.0	28.3	45	12410
CSB-0200-MT	4JE-15	S	55.7	10.8	83.4	125	27.9	5.0	41.4	70	22.3	5.0	34.1	50	12210
CSB-0201-MT		O		10.8	83.4	125		5.0	41.4	70		5.0	34.1	50	12310
CSB-0202-MT		T		10.8	83.4	125		5.0	41.4	70		5.0	34.1	50	12410
CSB-0250-MT	4HE-18	S	60.3	10.8	89.2	125	30.1	5.0	44.1	70	24.1	5.0	36.3	60	12310
CSB-0251-MT		O		16.2	94.6	150		7.5	46.6	70		7.5	38.8	60	13310
CSB-0252-MT		T		10.8	89.2	125		5.0	44.1	70		5.0	36.3	60	12410
CSB-0300-MT	4GE-23	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	25.7	5.0	38.3	60	12312
CSB-0301-MT		O		16.2	99.6	150		7.5	49.1	80		7.5	40.8	60	13310
CSB-0302-MT		T		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60	12410
CSB-0350-MT	6HE-28	S	86.4	16.2	127.2	200	43.2	7.5	63.0	100	34.6	7.5	52.0	80	13310
CSB-0351-MT		O		21.6	132.6	200		10.0	65.5	110		10.0	54.5	90	22310
CSB-0352-MT		T		16.2	127.2	200		7.5	63.0	100		7.5	52.0	80	13410
CSB-0400-MT	6GE-34	S	94.3	16.2	137.1	225	47.1	7.5	67.9	110	37.1	7.5	55.1	90	13310
CSB-0401-MT*		O		21.6	142.5	225		10.0	70.4	110		10.0	57.6	90	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".

CSD Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSD-0150-L	4DKNF63KE	11410	39.1	46.3	53.6	61.2	69.1	77.4	86.3	95.8	106.0
CSD-0151-L	4DKNF63KE	12210	39.9	47.3	54.8	62.6	70.8	79.4	88.7	98.6	109.4
CSD-0220-L	4DJNF76KE	12210	47.7	56.4	65.2	74.4	83.9	93.8	104.2	115.1	126.6
CSD-0221-L	4DJNF76KE	12310	49.1	58.0	67.3	76.9	87.0	97.6	108.8	120.6	133.1
CSD-0222-L	4DJNF76KE	12410	49.6	58.7	68.1	78.0	88.3	99.1	110.7	122.9	135.9
CSD-0270-L	6DHNF93KE	12310	58.7	68.9	80.2	92.4	105.6	119.5	134.0	149.2	164.7
CSD-0271-L	6DHNF93KE	13210	59.1	69.4	80.8	93.2	106.5	120.6	135.3	150.7	166.6
CSD-0272-L	6DHNF93KE	12410	59.6	69.9	81.4	94.0	107.5	121.8	136.8	152.5	168.8
CSD-0300-L	6DJNF11ME	12310	66.5	77.7	89.8	102.7	116.4	131.0	146.5	162.8	179.9
CSD-0301-L	6DJNF11ME	13310	68.8	80.5	93.2	106.9	121.6	137.5	154.5	172.6	191.8
CSD-0302-L	6DJNF11ME	12410	67.6	79.0	91.3	104.6	118.8	134.0	150.1	167.2	185.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSD-0150-L	4DKNF63KE	11410	34.0	40.9	47.8	54.8	62.1	69.8	78.0	86.7	96.2
CSD-0151-L	4DKNF63KE	12210	34.7	41.7	48.8	56.0	63.6	71.6	80.1	89.3	99.2
CSD-0220-L	4DJNF76KE	12210	41.2	49.5	58.0	66.6	75.5	84.7	94.3	104.3	114.8
CSD-0221-L	4DJNF76KE	12310	42.6	51.2	60.0	69.0	78.4	88.1	98.4	109.2	120.6
CSD-0222-L	4DJNF76KE	12410	43.2	51.9	60.8	70.0	79.6	89.6	100.1	111.2	123.0
CSD-0270-L	6DHNF93KE	12310	51.0	60.7	71.4	82.9	95.2	108.1	121.5	135.3	149.5
CSD-0271-L	6DHNF93KE	13210	51.3	61.2	72.0	83.6	96.0	109.1	122.7	136.8	151.3
CSD-0272-L	6DHNF93KE	12410	51.8	61.7	72.6	84.4	97.0	110.2	124.1	138.5	153.3
CSD-0300-L	6DJNF11ME	12310	58.0	68.7	80.1	92.1	104.8	118.1	132.1	146.8	162.1
CSD-0301-L	6DJNF11ME	13310	60.2	71.4	83.4	96.1	109.7	124.2	139.6	155.9	173.2
CSD-0302-L	6DJNF11ME	12410	59.0	69.9	81.6	93.9	107.0	120.9	135.5	150.9	167.1

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSD-0150-LS*	4DKNF63KE	S	52.6	5.4	74.1	125	26.3	2.5	36.9	60	20.9	2.5	29.9	50	11410
CSD-0151-LS		O		10.8	79.5	125		5.0	39.4	60		5.0	32.4	50	12210
CSD-0220-LS	4DJNF76KE	S	64.3	10.8	94.2	150	32.1	5.0	46.7	80	29.1	5.0	42.5	70	12210
CSD-0221-LS		O		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70	12310
CSD-0222-LS		T		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70	12410
CSD-0270-LS	6DHNF93KE	S	80.7	10.8	114.7	175	40.4	5.0	56.9	90	32.5	5.0	46.8	70	12310
CSD-0271-LS		O		16.2	120.1	200		7.5	59.4	100		7.5	49.3	80	13210
CSD-0272-LS		T		10.8	114.7	175		5.0	56.9	90		5.0	46.8	70	12410
CSD-0300-LS	6DJNF11ME	S	95.6	10.8	133.3	225	47.8	5.0	66.3	110	39.6	5.0	55.7	90	12310
CSD-0301-LS		O		16.2	138.7	225		7.5	68.8	110		7.5	58.2	90	13310
CSD-0302-LS		T		10.8	133.3	225		5.0	66.3	110		5.0	55.7	90	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P."
5. Compressor head cooling fan is included for all low temperature applications.

CS Single Systems

CSD Low Temp R-407A

CSD Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSD-0150-L	4DKNF63KE	11410	33.0	39.6	46.8	54.6	62.9	71.8	81.1	91.0	101.3
CSD-0151-L	4DKNF63KE	12210	33.4	40.2	47.5	55.5	64.0	73.1	82.7	92.9	103.7
CSD-0220-L	4DJNF76KE	12210	43.1	49.5	57.4	66.6	77.1	88.7	101.5	115.3	130.1
CSD-0221-L	4DJNF76KE	12310	44.0	50.8	59.1	68.9	80.0	92.3	105.9	120.6	136.5
CSD-0222-L	4DJNF76KE	12410	44.4	51.4	59.9	69.8	81.2	93.9	107.8	122.9	139.2
CSD-0270-L	6DHNF93KE	12310	45.9	57.6	69.5	81.8	94.9	109.0	124.2	140.9	159.1
CSD-0271-L	6DHNF93KE	13210	46.2	57.9	69.9	82.3	95.5	109.7	125.1	141.9	160.4
CSD-0272-L	6DHNF93KE	12410	46.7	58.5	70.6	83.2	96.6	111.1	126.8	144.0	162.9
CSD-0300-L	6DJNF11ME	12310	54.4	68.2	82.3	96.9	112.2	128.7	146.4	165.7	186.8
CSD-0301-L	6DJNF11ME	13310	56.5	70.8	85.5	100.7	117.0	134.5	153.5	174.4	197.3
CSD-0302-L	6DJNF11ME	12410	55.5	69.6	83.9	98.9	114.7	131.7	150.1	170.2	192.2

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSD-0150-L	4DKNF63KE	11410	28.6	34.9	41.6	48.9	56.6	64.8	73.5	82.5	92.0
CSD-0151-L	4DKNF63KE	12210	29.0	35.4	42.3	49.7	57.7	66.1	75.0	84.4	94.3
CSD-0220-L	4DJNF76KE	12210	38.7	44.1	51.0	59.3	68.8	79.6	91.6	104.6	118.7
CSD-0221-L	4DJNF76KE	12310	39.6	45.4	52.7	61.5	71.7	83.2	95.9	109.9	125.0
CSD-0222-L	4DJNF76KE	12410	40.0	46.0	53.5	62.5	72.9	84.7	97.8	112.1	127.6
CSD-0270-L	6DHNF93KE	12310	37.9	49.3	60.8	72.7	85.1	98.4	112.7	128.4	145.5
CSD-0271-L	6DHNF93KE	13210	38.2	49.7	61.2	73.2	85.7	99.1	113.6	129.4	146.7
CSD-0272-L	6DHNF93KE	12410	38.8	50.3	62.0	74.1	86.9	100.5	115.3	131.5	149.3
CSD-0300-L	6DJNF11ME	12310	44.7	58.2	71.7	85.7	100.3	115.8	132.4	150.5	170.3
CSD-0301-L	6DJNF11ME	13310	47.0	61.0	75.1	89.8	105.2	121.8	139.7	159.4	180.9
CSD-0302-L	6DJNF11ME	12410	45.8	59.6	73.5	87.8	102.8	118.9	136.2	155.1	175.8

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSD-0150-LQ*	4DKNF63KE	S	52.6	5.4	74.1	125	26.3	2.5	36.9	60	20.9	2.5	29.9	50
CSD-0151-LQ		O		10.8	79.5	125		5.0	39.4	60		5.0	32.4	50
CSD-0220-LQ	4DJNF76KE	S	64.3	10.8	94.2	150	32.1	5.0	46.7	80	29.1	5.0	42.5	70
CSD-0221-LQ		O		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70
CSD-0222-LQ		T		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70
CSD-0270-LQ	6DHNF93KE	S	80.7	10.8	114.7	175	40.4	5.0	56.9	90	32.5	5.0	46.8	70
CSD-0271-LQ		O		16.2	120.1	200		7.5	59.4	100		7.5	49.3	80
CSD-0272-LQ		T		10.8	114.7	175		5.0	56.9	90		5.0	46.8	70
CSD-0300-LQ	6DJNF11ME	S	95.6	10.8	133.3	225	47.8	5.0	66.3	110	39.6	5.0	55.7	90
CSD-0301-LQ		O		16.2	138.7	225		7.5	68.8	110		7.5	58.2	90
CSD-0302-LQ		T		10.8	133.3	225		5.0	66.3	110		5.0	55.7	90

Unit	Condenser LAVF
CSD-0150-LQ*	11410
CSD-0151-LQ	12210
CSD-0220-LQ	12210
CSD-0221-LQ	12310
CSD-0222-LQ	12410
CSD-0270-LQ	12310
CSD-0271-LQ	13210
CSD-0272-LQ	12410
CSD-0300-LQ	12310
CSD-0301-LQ	13310
CSD-0302-LQ	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CSD Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSD-0150-L	4DKNF63KE	11410	34.5	42.0	49.7	57.8	66.3	75.3	84.8	94.9	105.6
CSD-0151-L	4DKNF63KE	12210	35.1	42.7	50.6	58.8	67.5	76.7	86.5	97.0	108.1
CSD-0220-L	4DJNF76KE	12210	42.0	51.2	60.7	70.7	81.4	93.0	105.8	120.0	135.7
CSD-0221-L	4DJNF76KE	12310	43.5	53.1	63.0	73.4	84.6	96.9	110.5	125.6	142.4
CSD-0222-L	4DJNF76KE	12410	44.2	53.9	63.9	74.6	86.0	98.6	112.5	128.0	145.3
CSD-0270-L	6DHNF93KE	12310	50.9	62.1	73.9	86.5	100.1	114.8	130.8	148.2	167.2
CSD-0271-L	6DHNF93KE	13210	51.2	62.5	74.4	87.1	100.7	115.6	131.7	149.3	168.5
CSD-0272-L	6DHNF93KE	12410	51.8	63.2	75.2	88.1	102.0	117.1	133.6	151.5	171.2
CSD-0300-L	6DJNF11ME	12310	59.8	73.3	87.4	102.3	118.2	135.4	153.9	174.1	196.0
CSD-0301-L	6DJNF11ME	13310	62.3	76.4	91.1	106.7	123.5	141.8	161.7	183.5	207.4
CSD-0302-L	6DJNF11ME	12410	61.1	74.9	89.3	104.6	121.0	138.7	157.9	178.9	201.9

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSD-0150-L	4DKNF63KE	11410	29.0	36.4	43.9	51.6	59.7	68.1	76.9	86.2	96.1
CSD-0151-L	4DKNF63KE	12210	29.6	37.0	44.7	52.6	60.8	69.5	78.6	88.3	98.5
CSD-0220-L	4DJNF76KE	12210	34.9	43.9	53.0	62.5	72.6	83.7	95.9	109.3	124.3
CSD-0221-L	4DJNF76KE	12310	36.4	45.7	55.2	65.1	75.8	87.5	100.4	114.8	130.8
CSD-0222-L	4DJNF76KE	12410	37.0	46.4	56.1	66.3	77.2	89.2	102.4	117.1	133.6
CSD-0270-L	6DHNF93KE	12310	42.3	53.2	64.7	76.7	89.7	103.6	118.6	135.0	152.9
CSD-0271-L	6DHNF93KE	13210	42.6	53.6	65.1	77.3	90.3	104.4	119.6	136.2	154.3
CSD-0272-L	6DHNF93KE	12410	43.3	54.4	66.1	78.4	91.7	106.0	121.5	138.5	157.1
CSD-0300-L	6DJNF11ME	12310	49.2	62.4	76.1	90.3	105.5	121.7	139.1	158.1	178.6
CSD-0301-L	6DJNF11ME	13310	51.9	65.7	80.0	95.0	111.1	128.4	147.2	167.8	190.4
CSD-0302-L	6DJNF11ME	12410	50.6	64.1	78.1	92.7	108.4	125.1	143.3	163.1	184.7

NOTE:

Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply. All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSD-0150-LT*	4DKNF63KE	S	52.6	5.4	74.1	125	26.3	2.5	36.9	60	20.9	2.5	29.9	50
CSD-0151-LT		O		10.8	79.5	125		5.0	39.4	60		5.0	32.4	50
CSD-0220-LT	4DJNF76KE	S	64.3	10.8	94.2	150	32.1	5.0	46.7	80	29.1	5.0	42.5	70
CSD-0221-LT		O		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70
CSD-0222-LT		T		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70
CSD-0270-LT	6DHNF93KE	S	80.7	10.8	114.7	175	40.4	5.0	56.9	90	32.5	5.0	46.8	70
CSD-0271-LT		O		16.2	120.1	200		7.5	59.4	100		7.5	49.3	80
CSD-0272-LT		T		10.8	114.7	175		5.0	56.9	90		5.0	46.8	70
CSD-0300-LT	6DJNF11ME	S	95.6	10.8	133.3	225	47.8	5.0	66.3	110	39.6	5.0	55.7	90
CSD-0301-LT		O		16.2	138.7	225		7.5	68.8	110		7.5	58.2	90
CSD-0302-LT		T		10.8	133.3	225		5.0	66.3	110		5.0	55.7	90

Unit	Condenser LAVF
CSD-0150-LT*	11410
CSD-0151-LT	12210
CSD-0220-LT	12210
CSD-0221-LT	12310
CSD-0222-LT	12410
CSD-0270-LT	12310
CSD-0271-LT	13210
CSD-0272-LT	12410
CSD-0300-LT	12310
CSD-0301-LT	13310
CSD-0302-LT	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CS Single Systems

CSE Low Temp R-404A

CSE Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSE-0150-L	4HE-25	11410	36.9	44.2	51.9	60.2	69.0	78.4	88.4	98.9	110.0
CSE-0151-L	4HE-25	12210	37.6	45.0	53.0	61.6	70.8	80.6	91.1	102.2	114.1
CSE-0220-L	4GE-30	12210	43.7	52.1	61.1	70.6	80.8	91.6	103.1	115.3	128.2
CSE-0221-L	4GE-30	12310	44.9	53.6	62.9	73.0	83.8	95.4	107.9	121.2	135.4
CSE-0222-L	4GE-30	12410	45.4	54.2	63.7	74.0	85.0	97.0	109.8	123.6	138.4
CSE-0270-L	6HE-35	12310	55.2	66.0	77.6	90.0	103.3	117.5	132.7	148.8	165.9
CSE-0271-L	6HE-35	13210	55.6	66.5	78.2	90.8	104.3	118.7	134.1	150.6	168.1
CSE-0272-L	6HE-35	12410	56.0	67.0	78.9	91.6	105.3	120.0	135.8	152.6	170.6
CSE-0300-L	6GE-40	12310	64.2	76.3	89.1	102.9	117.5	133.1	149.5	166.9	185.2
CSE-0301-L	6GE-40	13310	66.4	79.0	92.6	107.3	123.1	140.0	158.2	177.6	198.3
CSE-0302-L	6GE-40	12410	65.2	77.5	90.8	104.9	120.1	136.2	153.5	171.8	191.2

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSE-0150-L	4HE-25	11410	32.0	38.7	45.9	53.4	61.4	69.8	78.8	88.2	98.1
CSE-0151-L	4HE-25	12210	32.6	39.5	46.9	54.7	63.0	71.9	81.3	91.4	102.0
CSE-0220-L	4GE-30	12210	38.3	46.0	54.2	62.9	72.1	81.8	92.1	103.0	114.5
CSE-0221-L	4GE-30	12310	39.3	47.4	56.0	65.1	74.9	85.4	96.6	108.6	121.4
CSE-0222-L	4GE-30	12410	39.7	47.9	56.7	66.1	76.1	86.9	98.5	110.9	124.2
CSE-0270-L	6HE-35	12310	47.8	57.8	68.5	79.9	91.9	104.8	118.5	133.0	148.3
CSE-0271-L	6HE-35	13210	48.1	58.3	69.1	80.6	92.8	105.9	119.8	134.6	150.4
CSE-0272-L	6HE-35	12410	48.5	58.8	69.7	81.4	93.8	107.2	121.4	136.6	152.7
CSE-0300-L	6GE-40	12310	55.9	67.2	79.1	91.6	104.9	118.8	133.6	149.1	165.5
CSE-0301-L	6GE-40	13310	58.0	69.8	82.4	95.8	110.2	125.5	141.9	159.4	177.9
CSE-0302-L	6GE-40	12410	56.9	68.4	80.6	93.5	107.3	121.9	137.4	153.8	171.1

NOTE:
Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSE-0150-LS*	4HE-25	S	84.3	5.4	113.8	175	42.1	2.5	56.6	100	33.6	2.5	45.7	80
CSE-0151-LS		O		10.8	119.2	200		5.0	59.1	100		5.0	48.2	80
CSE-0220-LS	4GE-30	S	100.0	10.8	138.8	225	50.0	5.0	69.0	110	40.0	5.0	56.2	90
CSE-0221-LS		O		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90
CSE-0222-LS		T		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90
CSE-0270-LS	6HE-35	S	117.1	10.8	160.2	250	58.6	5.0	79.8	125	46.4	5.0	64.2	110
CSE-0271-LS		O		16.2	165.6	250		7.5	82.3	125		7.5	66.7	110
CSE-0272-LS		T		10.8	160.2	250		5.0	79.8	125		5.0	64.2	110
CSE-0300-LS	6GE-40	S	157.1	10.8	210.2	350	78.6	5.0	104.8	175	62.9	5.0	84.8	125
CSE-0301-LS		O		16.2	215.6	350		7.5	107.3	175		7.5	87.3	150
CSE-0302-LS		T		10.8	210.2	350		5.0	104.8	175		5.0	84.8	125

Unit	Condenser LAVF
CSE-0150-LS*	11410
CSE-0151-LS	12210
CSE-0220-LS	12210
CSE-0221-LS	12310
CSE-0222-LS	12410
CSE-0270-LS	12310
CSE-0271-LS	13210
CSE-0272-LS	12410
CSE-0300-LS	12310
CSE-0301-LS	13310
CSE-0302-LS	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the ¨S¨ at the end of the model nomenclature with a ¨P¨.
5. Compressor head cooling fan is included for all low temperature applications.

CSE Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSE-0150-L	4HE-25	11410	21.5	29.2	37.3	45.9	55.1	64.9	75.4	86.5	98.5
CSE-0151-L	4HE-25	12210	21.8	29.6	37.9	46.7	56.1	66.2	77.0	88.6	101.1
CSE-0220-L	4GE-30	12210	28.9	37.9	47.3	57.3	68.0	79.3	91.5	104.4	118.3
CSE-0221-L	4GE-30	12310	29.6	38.9	48.7	59.2	70.4	82.4	95.3	109.3	124.3
CSE-0222-L	4GE-30	12410	29.9	39.3	49.3	60.0	71.4	83.7	97.0	111.4	126.9
CSE-0270-L	6HE-35	12310	36.8	48.6	61.1	74.3	88.4	103.5	119.6	136.9	155.3
CSE-0271-L	6HE-35	13210	37.0	48.9	61.4	74.8	89.0	104.2	120.5	138.0	156.8
CSE-0272-L	6HE-35	12410	37.3	49.4	62.1	75.6	90.1	105.7	122.4	140.3	159.6
CSE-0300-L	6GE-40	12310	43.0	56.4	70.5	85.4	101.2	118.0	135.9	155.1	175.5
CSE-0301-L	6GE-40	13310	44.4	58.3	73.0	88.7	105.5	123.5	142.9	163.8	186.3
CSE-0302-L	6GE-40	12410	43.7	57.4	71.8	87.1	103.4	120.8	139.5	159.5	180.9

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSE-0150-L	4HE-25	11410	17.1	24.3	31.9	39.9	48.3	57.3	66.9	77.2	88.2
CSE-0151-L	4HE-25	12210	17.4	24.7	32.4	40.6	49.2	58.5	68.5	79.1	90.6
CSE-0220-L	4GE-30	12210	24.0	32.5	41.3	50.6	60.5	70.9	82.1	94.0	106.7
CSE-0221-L	4GE-30	12310	24.7	33.4	42.6	52.3	62.7	73.7	85.7	98.5	112.3
CSE-0222-L	4GE-30	12410	25.0	33.8	43.1	53.0	63.6	75.0	87.2	100.4	114.7
CSE-0270-L	6HE-35	12310	30.4	41.5	53.1	65.4	78.4	92.3	107.1	123.0	140.0
CSE-0271-L	6HE-35	13210	30.5	41.7	53.4	65.8	78.9	93.0	108.0	124.0	141.3
CSE-0272-L	6HE-35	12410	30.9	42.2	54.0	66.6	80.0	94.3	109.7	126.2	143.9
CSE-0300-L	6GE-40	12310	35.8	48.4	61.5	75.3	89.9	105.4	121.9	139.5	158.2
CSE-0301-L	6GE-40	13310	37.0	50.1	63.8	78.4	93.9	110.5	128.4	147.6	168.3
CSE-0302-L	6GE-40	12410	36.4	49.3	62.7	76.9	91.9	108.0	125.2	143.6	163.3

NOTE:
Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSE-0150-LQ*	4HE-25	S	84.3	5.4	113.8	175	42.1	2.5	56.6	100	33.6	2.5	45.7	80
CSE-0151-LQ		O		10.8	119.2	200		5.0	59.1	100		5.0	48.2	80
CSE-0220-LQ	4GE-30	S	100.0	10.8	138.8	225	50.0	5.0	69.0	110	40.0	5.0	56.2	90
CSE-0221-LQ		O		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90
CSE-0222-LQ		T		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90
CSE-0270-LQ	6HE-35	S	117.1	10.8	160.2	250	58.6	5.0	79.8	125	46.4	5.0	64.2	110
CSE-0271-LQ		O		16.2	165.6	250		7.5	82.3	125		7.5	66.7	110
CSE-0272-LQ		T		10.8	160.2	250		5.0	79.8	125		5.0	64.2	110
CSE-0300-LQ	6GE-40	S	157.1	10.8	210.2	350	78.6	5.0	104.8	175	62.9	5.0	84.8	125
CSE-0301-LQ		O		16.2	215.6	350		7.5	107.3	175		7.5	87.3	150
CSE-0302-LQ		T		10.8	210.2	350		5.0	104.8	175		5.0	84.8	125

Unit	Condenser LAVF
CSE-0150-LQ*	11410
CSE-0151-LQ	12210
CSE-0220-LQ	12210
CSE-0221-LQ	12310
CSE-0222-LQ	12410
CSE-0270-LQ	12310
CSE-0271-LQ	13210
CSE-0272-LQ	12410
CSE-0300-LQ	12310
CSE-0301-LQ	13310
CSE-0302-LQ	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CS Single Systems

CSE Low Temp R-448A

CSE Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSE-0150-L	4HE-25	11410	32.7	40.4	48.6	57.3	66.5	76.5	87.1	98.4	110.5
CSE-0151-L	4HE-25	12210	33.2	41.0	49.3	58.2	67.8	78.0	89.0	100.8	113.5
CSE-0220-L	4GE-30	12210	38.9	47.7	57.1	67.1	77.7	89.1	101.2	114.2	128.0
CSE-0221-L	4GE-30	12310	39.9	49.1	58.8	69.3	80.5	92.6	105.6	119.7	134.8
CSE-0222-L	4GE-30	12410	40.4	49.7	59.6	70.2	81.7	94.1	107.5	122.0	137.7
CSE-0270-L	6HE-35	12310	48.8	60.3	72.4	85.4	99.3	114.2	130.2	147.4	165.8
CSE-0271-L	6HE-35	13210	49.1	60.6	72.8	85.9	100.0	115.1	131.3	148.7	167.3
CSE-0272-L	6HE-35	12410	49.6	61.2	73.7	87.0	101.3	116.7	133.3	151.2	170.4
CSE-0300-L	6GE-40	12310	57.2	70.1	83.7	98.2	113.7	130.1	147.7	166.4	186.2
CSE-0301-L	6GE-40	13310	59.1	72.5	86.8	102.1	118.6	136.3	155.3	175.8	197.8
CSE-0302-L	6GE-40	12410	58.2	71.3	85.3	100.2	116.2	133.3	151.6	171.2	192.2

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSE-0150-L	4HE-25	11410	27.9	35.2	42.8	50.9	59.5	68.6	78.3	88.7	99.8
CSE-0151-L	4HE-25	12210	28.3	35.7	43.6	51.8	60.7	70.1	80.2	91.0	102.6
CSE-0220-L	4GE-30	12210	33.6	42.0	50.8	60.0	69.8	80.2	91.3	103.1	115.7
CSE-0221-L	4GE-30	12310	34.6	43.3	52.4	62.1	72.5	83.6	95.6	108.4	122.2
CSE-0222-L	4GE-30	12410	35.0	43.8	53.1	63.0	73.6	85.1	97.4	110.7	125.0
CSE-0270-L	6HE-35	12310	41.4	52.3	63.7	75.8	88.8	102.6	117.3	133.1	150.0
CSE-0271-L	6HE-35	13210	41.6	52.6	64.1	76.3	89.4	103.3	118.3	134.3	151.4
CSE-0272-L	6HE-35	12410	42.1	53.2	64.9	77.3	90.6	104.9	120.2	136.7	154.4
CSE-0300-L	6GE-40	12310	48.7	61.0	73.9	87.5	101.8	117.0	133.1	150.2	168.3
CSE-0301-L	6GE-40	13310	50.6	63.4	77.0	91.4	106.7	123.1	140.6	159.4	179.6
CSE-0302-L	6GE-40	12410	49.7	62.3	75.5	89.5	104.3	120.1	137.0	154.9	174.1

NOTE:
Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSE-0150-LT*	4HE-25	S	84.3	5.4	113.8	175	42.1	2.5	56.6	100	33.6	2.5	45.7	80
CSE-0151-LT		O		10.8	119.2	200		5.0	59.1	100		5.0	48.2	80
CSE-0220-LT	4GE-30	S	100.0	10.8	138.8	225	50.0	5.0	69.0	110	40.0	5.0	56.2	90
CSE-0221-LT		O		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90
CSE-0222-LT		T		10.8	138.8	225		5.0	69.0	110		5.0	56.2	90
CSE-0270-LT	6HE-35	S	117.1	10.8	160.2	250	58.6	5.0	79.8	125	46.4	5.0	64.2	110
CSE-0271-LT		O		16.2	165.6	250		7.5	82.3	125		7.5	66.7	110
CSE-0272-LT		T		10.8	160.2	250		5.0	79.8	125		5.0	64.2	110
CSE-0300-LT	6GE-40	S	157.1	10.8	210.2	350	78.6	5.0	104.8	175	62.9	5.0	84.8	125
CSE-0301-LT		O		16.2	215.6	350		7.5	107.3	175		7.5	87.3	150
CSE-0302-LT		T		10.8	210.2	350		5.0	104.8	175		5.0	84.8	125

Unit	Condenser LAVF
CSE-0150-LT*	11410
CSE-0151-LT	12210
CSE-0220-LT	12210
CSE-0221-LT	12310
CSE-0222-LT	12410
CSE-0270-LT	12310
CSE-0271-LT	13210
CSE-0272-LT	12410
CSE-0300-LT	12310
CSE-0301-LT	13310
CSE-0302-LT	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CSB Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSB-0150-L	4HE-18	11410	39.1	46.3	54.0	62.2	70.9	80.3	90.2	100.7	111.8
CSB-0151-L	4HE-18	12210	39.8	47.2	55.1	63.6	72.8	82.5	93.0	104.1	116.0
CSB-0220-L	4GE-23	12210	47.5	55.8	64.7	74.1	84.3	95.0	106.5	118.6	131.5
CSB-0221-L	4GE-23	12310	48.7	57.4	66.7	76.7	87.5	99.1	111.5	124.8	139.0
CSB-0222-L	4GE-23	12410	49.2	58.0	67.5	77.7	88.8	100.7	113.5	127.3	142.1
CSB-0270-L	6HE-28	12310	58.7	69.4	80.9	93.2	106.4	120.6	135.7	151.8	169.0
CSB-0271-L	6HE-28	13210	59.0	69.8	81.5	94.0	107.4	121.8	137.2	153.7	171.2
CSB-0272-L	6HE-28	12410	59.5	70.4	82.2	94.8	108.5	123.2	138.9	155.7	173.7
CSB-0300-L	6GE-34	12310	72.8	84.8	97.7	111.4	126.0	141.4	157.9	175.2	193.5
CSB-0301-L	6GE-34	13310	75.1	87.8	101.4	116.1	131.9	148.9	167.1	186.5	207.2
CSB-0302-L	6GE-34	12410	73.9	86.2	99.4	113.5	128.7	144.8	162.1	180.4	199.8

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSB-0150-L	4HE-18	11410	34.3	40.9	47.9	55.3	63.2	71.6	80.5	90.0	100.0
CSB-0151-L	4HE-18	12210	34.9	41.7	48.9	56.6	64.9	73.7	83.2	93.2	103.9
CSB-0220-L	4GE-23	12210	42.2	49.8	57.8	66.4	75.5	85.1	95.4	106.3	117.8
CSB-0221-L	4GE-23	12310	43.3	51.2	59.7	68.8	78.5	89.0	100.2	112.1	124.9
CSB-0222-L	4GE-23	12410	43.8	51.8	60.5	69.8	79.8	90.5	102.1	114.5	127.9
CSB-0270-L	6HE-28	12310	51.4	61.2	71.7	82.9	94.9	107.7	121.4	135.9	151.4
CSB-0271-L	6HE-28	13210	51.7	61.6	72.3	83.6	95.8	108.8	122.8	137.6	153.5
CSB-0272-L	6HE-28	12410	52.1	62.1	72.9	84.5	96.9	110.1	124.4	139.6	155.9
CSB-0300-L	6GE-34	12310	64.9	75.9	87.7	100.1	113.2	127.2	141.9	157.4	173.7
CSB-0301-L	6GE-34	13310	67.1	78.8	91.3	104.7	119.0	134.3	150.8	168.3	186.9
CSB-0302-L	6GE-34	12410	65.9	77.2	89.3	102.2	115.9	130.5	145.9	162.4	179.7

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSB-0150-LS*	4HE-18	S	60.3	5.4	83.8	125	30.1	2.5	41.6	70	24.1	2.5	33.8	50
CSB-0151-LS		O		10.8	89.2	125		5.0	44.1	70		5.0	36.3	60
CSB-0220-LS	4GE-23	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	25.7	5.0	38.3	60
CSB-0221-LS		O		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60
CSB-0222-LS		T		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60
CSB-0270-LS	6HE-28	S	86.4	10.8	121.8	200	43.2	5.0	60.5	100	34.6	5.0	49.5	80
CSB-0271-LS		O		16.2	127.2	200		7.5	63.0	100		7.5	52.0	80
CSB-0272-LS		T		10.8	121.8	200		5.0	60.5	100		5.0	49.5	80
CSB-0300-LS	6GE-34	S	94.3	10.8	131.7	225	47.1	5.0	65.4	110	37.1	5.0	52.6	90
CSB-0301-LS		O		16.2	137.1	225		7.5	67.9	110		7.5	55.1	90
CSB-0302-LS		T		10.8	131.7	225		5.0	65.4	110		5.0	52.6	90

Unit	Condenser LAVF
CSB-0150-LS*	11410
CSB-0151-LS	12210
CSB-0220-LS	12210
CSB-0221-LS	12310
CSB-0222-LS	12410
CSB-0270-LS	12310
CSB-0271-LS	13210
CSB-0272-LS	12410
CSB-0300-LS	12310
CSB-0301-LS	13310
CSB-0302-LS	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
5. Compressor head cooling fan is included for all low temperature applications.

CS Single Systems

CSB Low Temp R-407A

CSB Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSB-0150-L	4HE-18	11410	26.8	34.3	42.3	50.8	60.0	69.8	80.3	91.7	103.8
CSB-0151-L	4HE-18	12210	27.2	34.8	42.9	51.6	61.0	71.2	82.1	93.8	106.4
CSB-0220-L	4GE-23	12210	34.5	43.2	52.4	62.2	72.7	84.1	96.2	109.2	123.2
CSB-0221-L	4GE-23	12310	35.3	44.3	53.8	64.1	75.2	87.2	100.2	114.2	129.3
CSB-0222-L	4GE-23	12410	35.6	44.7	54.4	64.9	76.3	88.6	101.9	116.4	132.0
CSB-0270-L	6HE-28	12310	40.7	52.0	64.1	77.1	91.0	106.0	122.2	139.6	158.2
CSB-0271-L	6HE-28	13210	40.8	52.2	64.4	77.5	91.6	106.8	123.1	140.7	159.7
CSB-0272-L	6HE-28	12410	41.2	52.7	65.1	78.4	92.8	108.3	125.0	143.1	162.6
CSB-0300-L	6GE-34	12310	46.9	59.7	73.3	87.9	103.5	120.2	138.2	157.4	178.0
CSB-0301-L	6GE-34	13310	48.3	61.6	75.9	91.3	107.9	125.9	145.3	166.3	188.9
CSB-0302-L	6GE-34	12410	47.6	60.7	74.6	89.6	105.7	123.1	141.8	161.9	183.5

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSB-0150-L	4HE-18	11410	23.0	29.9	37.2	45.0	53.4	62.5	72.2	82.6	93.8
CSB-0151-L	4HE-18	12210	23.3	30.3	37.8	45.8	54.4	63.7	73.8	84.6	96.3
CSB-0220-L	4GE-23	12210	30.4	38.3	46.8	55.8	65.5	75.9	87.1	99.1	112.0
CSB-0221-L	4GE-23	12310	31.1	39.3	48.1	57.6	67.8	78.9	90.8	103.7	117.7
CSB-0222-L	4GE-23	12410	31.4	39.7	48.7	58.4	68.8	80.1	92.4	105.8	120.2
CSB-0270-L	6HE-28	12310	34.9	45.3	56.4	68.3	81.1	94.9	109.8	125.9	143.1
CSB-0271-L	6HE-28	13210	35.0	45.5	56.7	68.7	81.7	95.6	110.7	126.9	144.4
CSB-0272-L	6HE-28	12410	35.3	45.9	57.3	69.5	82.7	97.0	112.4	129.1	147.1
CSB-0300-L	6GE-34	12310	40.4	52.2	64.7	78.0	92.4	107.7	124.3	142.0	161.0
CSB-0301-L	6GE-34	13310	41.6	53.8	67.0	81.1	96.4	112.9	130.8	150.2	171.2
CSB-0302-L	6GE-34	12410	41.0	53.0	65.8	79.6	94.4	110.4	127.6	146.2	166.2

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSB-0150-LQ*	4HE-18	S	60.3	5.4	83.8	125	30.1	2.5	41.6	70	24.1	2.5	33.8	50
CSB-0151-LQ		O		10.8	89.2	125		5.0	44.1	70		5.0	36.3	60
CSB-0220-LQ	4GE-23	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	25.7	5.0	38.3	60
CSB-0221-LQ		O		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60
CSB-0222-LQ		T		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60
CSB-0270-LQ	6HE-28	S	86.4	10.8	121.8	200	43.2	5.0	60.5	100	34.6	5.0	49.5	80
CSB-0271-LQ		O		16.2	127.2	200		7.5	63.0	100		7.5	52.0	80
CSB-0272-LQ		T		10.8	121.8	200		5.0	60.5	100		5.0	49.5	80
CSB-0300-LQ	6GE-34	S	94.3	10.8	131.7	225	47.1	5.0	65.4	110	37.1	5.0	52.6	90
CSB-0301-LQ		O		16.2	137.1	225		7.5	67.9	110		7.5	55.1	90
CSB-0302-LQ		T		10.8	131.7	225		5.0	65.4	110		5.0	52.6	90

Unit	Condenser LAVF
CSB-0150-LQ*	11410
CSB-0151-LQ	12210
CSB-0220-LQ	12210
CSB-0221-LQ	12310
CSB-0222-LQ	12410
CSB-0270-LQ	12310
CSB-0271-LQ	13210
CSB-0272-LQ	12410
CSB-0300-LQ	12310
CSB-0301-LQ	13310
CSB-0302-LQ	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CSB Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSB-0150-L	4HE-18	11410	35.4	42.8	50.7	59.3	68.5	78.4	89.1	100.6	112.8
CSB-0151-L	4HE-18	12210	35.8	43.4	51.5	60.3	69.8	80.0	91.1	103.0	115.8
CSB-0220-L	4GE-23	12210	43.3	51.8	60.9	70.7	81.3	92.7	104.9	118.0	131.9
CSB-0221-L	4GE-23	12310	44.3	53.1	62.7	73.0	84.2	96.3	109.4	123.6	138.9
CSB-0222-L	4GE-23	12410	44.8	53.7	63.4	73.9	85.4	97.9	111.4	126.0	141.8
CSB-0270-L	6HE-28	12310	52.8	63.8	75.6	88.5	102.3	117.2	133.4	150.7	169.3
CSB-0271-L	6HE-28	13210	53.1	64.1	76.1	89.0	103.0	118.1	134.4	152.0	170.9
CSB-0272-L	6HE-28	12410	53.6	64.8	76.9	90.0	104.3	119.7	136.5	154.5	174.0
CSB-0300-L	6GE-34	12310	67.0	79.5	93.0	107.4	122.9	139.5	157.2	176.1	196.2
CSB-0301-L	6GE-34	13310	68.9	82.0	96.1	111.3	127.8	145.7	164.9	185.7	208.0
CSB-0302-L	6GE-34	12410	68.0	80.8	94.6	109.4	125.4	142.6	161.2	181.0	202.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CSB-0150-L	4HE-18	11410	30.9	37.8	45.2	53.1	61.6	70.7	80.5	91.0	102.3
CSB-0151-L	4HE-18	12210	31.3	38.4	45.9	54.0	62.8	72.2	82.4	93.4	105.2
CSB-0220-L	4GE-23	12210	38.6	46.5	54.9	63.9	73.6	84.0	95.2	107.1	119.9
CSB-0221-L	4GE-23	12310	39.5	47.7	56.5	66.1	76.3	87.5	99.5	112.5	126.5
CSB-0222-L	4GE-23	12410	40.0	48.3	57.2	67.0	77.5	89.0	101.4	114.8	129.4
CSB-0270-L	6HE-28	12310	45.9	56.2	67.2	79.1	91.9	105.7	120.6	136.6	153.7
CSB-0271-L	6HE-28	13210	46.1	56.5	67.6	79.6	92.5	106.5	121.6	137.8	155.2
CSB-0272-L	6HE-28	12410	46.6	57.1	68.4	80.6	93.8	108.1	123.5	140.2	158.2
CSB-0300-L	6GE-34	12310	59.6	71.4	83.9	97.3	111.6	126.9	143.1	160.5	178.9
CSB-0301-L	6GE-34	13310	61.4	73.8	87.0	101.2	116.5	133.0	150.7	169.8	190.4
CSB-0302-L	6GE-34	12410	60.5	72.6	85.5	99.3	114.1	130.0	147.0	165.3	184.8

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSB-0150-LT*	4HE-18	S	60.3	5.4	83.8	125	30.1	2.5	41.6	70	24.1	2.5	33.8	50
CSB-0151-LT		O		10.8	89.2	125		5.0	44.1	70		5.0	36.3	60
CSB-0220-LT	4GE-23	S	64.3	10.8	94.2	150	32.1	5.0	46.6	80	25.7	5.0	38.3	60
CSB-0221-LT		O		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60
CSB-0222-LT		T		10.8	94.2	150		5.0	46.6	80		5.0	38.3	60
CSB-0270-LT	6HE-28	S	86.4	10.8	121.8	200	43.2	5.0	60.5	100	34.6	5.0	49.5	80
CSB-0271-LT		O		16.2	127.2	200		7.5	63.0	100		7.5	52.0	80
CSB-0272-LT		T		10.8	121.8	200		5.0	60.5	100		5.0	49.5	80
CSB-0300-LT	6GE-34	S	94.3	10.8	131.7	225	47.1	5.0	65.4	110	37.1	5.0	52.6	90
CSB-0301-LT		O		16.2	137.1	225		7.5	67.9	110		7.5	55.1	90
CSB-0302-LT		T		10.8	131.7	225		5.0	65.4	110		5.0	52.6	90

Unit	Condenser LAVF
CSB-0150-LT*	11410
CSB-0151-LT	12210
CSB-0220-LT	12210
CSB-0221-LT	12310
CSB-0222-LT	12410
CSB-0270-LT	12310
CSB-0271-LT	13210
CSB-0272-LT	12410
CSB-0300-LT	12310
CSB-0301-LT	13310
CSB-0302-LT	12410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CSD MCA / MOPD Calculation

Model CSD-0300LxM		
Compressor RLA		43.6
Condenser Fans	+	5.4
Control*	+	3.0
25% Compressor RLA	+	10.9
MCA		62.9
Evaporator Fan RLA	+	12.0
Calculated MCA		74.9
Compressor RLA	+	43.6
Calculaed MOP		118.5
MOPD**		110

Example calculation has details for the calculation of the MCA shown in the electrical table above. The Calculated MCA includes the addition of 12.0 amps to power evaporator fans to show how to recalculate values for MCA and MOPD for the addition of electrical loads that would be in operation at the same time as the compressor and condenser.

*Control circuit amps are: 208-230/3/60 3.0A, 460/3/60 1.5A, 575/3/60 1.2A

**Round MOP down to next Standard MOPD Size shown below. The MOPD must be larger than the calculated MCA.

Standard MOPD Sizes : 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500

Alternate Calculation for Electric Defrost: If 1.25 X defrost amps plus Control Transformer exceeds calculated MCA use this value and round up to next standard breaker size for MOPD. Use the MOPD calculated for defrost if it exceeds what is calculated using the compressor information.

Sound Data for C-Series

Sound from condensing units is primarily from the condenser fans. C-Series units use Levitor II LAVF condensers with 1140 rpm fans. For sound calculations, the published sound data in the Levitor Technical bulletin should be used with 1 db added to account for the compressor.

Example: *CSD-0202-MT condenser is LAVF-12410 which has published sound of 75 dbA at 10'. For this unit, add 1 dbA to this value for 76 dbA at 10' for sound evaluations.*

CS Single Series Model Specifications

Unit		Connections (in)		Receiver	Receiver Capacity***			Est. Ship Weight	Dimensional Drawings	Piping Schematic
					R-404A	R-407A	R-448A			
		Liq. OD	Suct. OD	Dia. x Length	(lb)	(lb)	(lb)	(lb)	See pgs. 72 - 73	See pg. 80
10 hp	CS*-0100-M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1564	CS-11	CS PIPE 1W
	CS*-0101-M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1845	CS-12	CS PIPE 1W
	CS*-0102-M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1594	CS-11	CS PIPE 1W
15 hp	CS*0150M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	1834	CS-12	CS PIPE 1W
	CS*0151M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	1930	CS-12	CS PIPE 1W
	CS*0152M**	1 1/8	2 1/8	8 5/8 x 60	114	125	121	1989	CS-12	CS PIPE 1W
20 hp	CS*0200M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	1882	CS-12	CS PIPE 1W
	CS*0201M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	1979	CS-12	CS PIPE 1W
	CS*0202M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2038	CS-12	CS PIPE 1W
25 hp	CS*0250M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	2002	CS-12	CS PIPE 1W
	CS*0251M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2511	CS-13	CS PIPE 1W
	CS*0252M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2061	CS-12	CS PIPE 1W
30 hp	CS*0300M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2106	CS-12	CS PIPE 1W
	CS*0301M**	1 1/8	2 1/8	10 3/4 x 72	174	191	184	2584	CS-13	CS PIPE 1W
	CS*0302M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2152	CS-12	CS PIPE 1W
35 hp	CS*0350M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	2605	CS-13	CS PIPE 1W
	CS*0351M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	3099	CS-22	CS PIPE 2W
	CS*0352M**	1 3/8	2 1/8	10 3/4 X 72	174	191	184	2885	CS-13	CS PIPE 1W
40 hp	CS*0400M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	2820	CS-13	CS PIPE 1W
	CS*0401M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	3380	CS-22	CS PIPE 2W
15 hp	CS*0150L**	7/8	2 1/8	8 5/8 x 48	75	83	80	1639	CS-11	CS PIPE 1W
	CS*0151L**	7/8	2 1/8	8 5/8 x 48	75	83	80	1934	CS-12	CS PIPE 1W
22 hp	CS*0220L**	7/8	2 1/8	8 5/8 x 48	75	83	80	1890	CS-12	CS PIPE 1W
	CS*0221L**	7/8	2 1/8	8 5/8 x 60	94	103	100	1987	CS-12	CS PIPE 1W
	CS*0222L**	7/8	2 1/8	8 5/8 x 60	94	103	100	2046	CS-12	CS PIPE 1W
27 hp	CS*0270L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	2056	CS-12	CS PIPE 1W
	CS*0271L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	2439	CS-13	CS PIPE 1W
	CS*0272L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	2115	CS-12	CS PIPE 1W
30 hp	CS*0300L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	2170	CS-12	CS PIPE 1W
	CS*0301L**	1 1/8	2 5/8	10 3/4 x 48	114	125	121	2617	CS-13	CS PIPE 1W
	CS*0302L**	1 1/8	2 5/8	10 3/4 x 48	114	125	121	2229	CS-12	CS PIPE 1W

*-D,E,B
** S(R-404A), Q(R-407A), T(R-448A)
*** Receiver capacity based on 80% full.

Annual Walk-In Energy Factor (AWEF)

See the Annual Walk-In Energy Factor (AWEF) tables on the following pages and apply the below example to find the AWEF for specific model and refrigerant.

AWEF EXAMPLE:

Insert refrigerant letter in ( ) to produce model number.
Example: CSD-0100-M( ) for R404A will be CSD-0100MS with AWEF of 7.6.

CS Single Systems

Annual Walk-In Energy Factor (AWEF)

CSD Single Series Units - Medium Temperature

Copeland Discus Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CSD-0100-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0101-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0102-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0150-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0151-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0152-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0200-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0201-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0202-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0250-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0251-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0252-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0300-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0301-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0302-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0350-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0351-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0352-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0400-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSD-0401-M( )	7.6	7.6	7.6	7.6	7.6	7.6

NOTE:
See Tables on pages 4 - 6 for more data.

"( )" = See AWEF Example on page 23.

CSD Single Series Units - Low Temperature

Copeland Discus Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CSD-0150-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0151-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0220-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0221-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0222-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0270-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0271-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0272-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0300-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0301-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSD-0302-L( )	3.15	3.15	3.15	3.15	3.15	3.15

NOTE:
See Tables on pages 13 - 15 for more data.

"( )" = See AWEF Example on page 23.

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

AWEF EXAMPLE:
Insert refrigerant letter in ( ) to produce model number.
Example: CSD-0100-M( ) for R404A will be CSD-0100MS with AWEF of 7.6.

Annual Walk-In Energy Factor (AWEF)

CSE Single Series Units - Medium Temperature

NOTE:
See Tables on pages 7 - 9 for more data.

"( )" = See AWEF Example on page 23.

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CSE-0100-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0101-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0102-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0150-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0151-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0152-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0200-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0201-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0202-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0250-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0251-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0252-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0300-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0301-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0302-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0350-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0351-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0352-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0400-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSE-0401-M( )	7.6	7.6	7.6	7.6	7.6	7.6

CSE Single Series Units - Low Temperature

NOTE:
See Tables on pages 16 - 18 for more data.

"( )" = See AWEF Example on page 23.

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CSE-0150-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0151-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0220-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0221-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0222-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0270-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0271-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0272-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0300-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0301-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSE-0302-L( )	3.15	3.15	3.15	3.15	3.15	3.15

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

AWEF EXAMPLE:

Insert refrigerant letter in ( ) to produce model number.
Example: CSE-0100-M( ) for R404A will be CSE-0100MS with AWEF of 7.6.

CS Single Systems

Annual Walk-In Energy Factor (AWEF)

CSB Single Series Units - Medium Temperature

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CSB-0100-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0101-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0102-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0150-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0151-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0152-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0200-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0201-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0202-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0250-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0251-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0252-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0300-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0301-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0302-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0350-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0351-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0352-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0400-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CSB-0401-M( )	7.6	7.6	7.6	7.6	7.6	7.6

NOTE:
See Tables on pages 10 - 12 for more data.

"( )" = See AWEF Example on page 23.

CSB Single Series Units - Low Temperature

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CSB-0150-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0151-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0220-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0221-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0222-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0270-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0271-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0272-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0300-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0301-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CSB-0302-L( )	3.15	3.15	3.15	3.15	3.15	3.15

NOTE:
See Tables on pages 19 - 21 for more data.

"( )" = See AWEF Example on page 23.

AWEF EXAMPLE:

Insert refrigerant letter in ( ) to produce model number.
Example: CSB-0100-M( ) for R404A will be CSB-0100MS with AWEF of 7.6.

Notes

CP Parallel Systems

CPD Medium Temp R-404A

CPD Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CPD-0100-M	2DC3R53KE	11210	47.7	53.6	60.0	66.9	74.1	81.6	89.5	97.7	106.2	114.9
CPD-0101-M	2DC3R53KE	11410	50.5	57.1	64.3	72.1	80.5	89.4	98.8	108.7	119.1	129.9
CPD-0150-M	2DL3R78KE	11410	73.5	82.3	91.7	101.8	112.5	123.7	135.6	147.9	160.8	174.0
CPD-0151-M	2DL3R78KE	12210	75.1	84.2	94.1	104.7	116.0	128.0	140.7	154.0	167.9	182.4
CPD-0160-M	2DA3R89KE	12210	87.8	97.7	108.3	119.6	131.5	144.3	157.7	171.8	186.6	202.1
CPD-0161-M	2DA3R89KE	12310	90.7	101.2	112.5	124.7	137.8	151.8	166.7	182.5	199.3	216.9
CPD-0162-M	2DA3R89KE	12410	91.8	102.6	114.3	126.9	140.4	154.9	170.4	187.0	204.6	223.2
CPD-0180-M	3DA3R10ME	12210	100.6	111.9	124.0	136.7	150.2	164.3	179.1	194.4	210.2	226.6
CPD-0181-M	3DA3R10ME	12410	105.3	117.8	131.3	145.9	161.4	177.9	195.4	213.9	233.3	253.7
CPD-0200-M	3DB3R12ME	12310	123.4	137.2	151.8	167.4	183.8	201.2	219.5	238.7	259.0	280.1
CPD-0201-M	3DB3R12ME	13310	127.9	142.7	158.6	175.6	193.8	213.3	234.0	256.0	279.4	304.1
CPD-0202-M	3DB3R12ME	12410	125.4	139.7	154.9	171.2	188.4	206.7	226.1	246.6	268.2	290.9
CPD-0240-M	3DF3R15ME	12410	151.7	168.5	186.3	205.3	225.4	246.6	268.9	292.3	316.6	342.0
CPD-0241-M	3DF3R15ME	13310	155.4	173.1	191.9	212.2	233.7	256.6	280.9	306.5	333.4	361.6
CPD-0300-M	3DS3R17ME	13310	170.5	189.6	210.1	231.9	255.1	279.7	305.6	333.0	361.6	391.6
CPD-0301-M	3DS3R17ME	13410	173.1	192.9	214.1	236.8	261.1	286.9	314.3	343.3	373.8	405.9
CPD-0400-M	4DBNR20ME	13310	205.0	228.1	253.3	280.1	308.2	337.1	366.5	396.1	425.6	454.6
CPD-0401-M	4DBNR20ME	22310	212.3	237.1	264.1	293.2	323.7	355.5	388.1	421.1	454.3	487.3
CPD-0402-M	4DBNR20ME	13410	209.5	233.6	259.9	288.1	317.7	348.3	379.6	411.3	443.0	474.4
CPD-0500-M	4DHNR22ME	13410	223.3	248.8	276.7	306.3	337.5	369.7	402.6	435.7	468.8	501.5
CPD-0501-M	4DHNR22ME	23310	235.3	263.6	294.6	328.1	363.5	400.5	438.8	477.9	517.5	557.3
CPD-0600-M	4DJNR28ME	22410	270.9	303.0	337.3	373.7	412.1	452.5	494.7	538.7	584.4	631.7
CPD-0601-M	4DJNR28ME	23310	277.4	311.1	347.3	385.9	426.8	470.0	515.5	563.1	612.9	664.7
CPD-0700-M	6DHNR35ME	23310	345.1	384.6	426.9	472.1	520.4	571.6	625.8	682.9	743.1	806.1
CPD-0701-M	6DHNR35ME	24310	355.0	396.5	441.2	489.5	541.2	596.6	655.7	718.5	785.1	855.4
CPD-0702-M	6DHNR35ME	23410	351.2	391.9	435.7	482.8	533.2	586.9	644.1	704.7	768.8	836.2
CPD-0800-M	6DJNR40ME	23410	409.3	455.2	504.2	556.3	611.3	669.0	729.3	792.0	856.8	923.7
CPD-0801-M	6DJNR40ME	24410	420.7	469.0	520.8	576.3	635.1	697.3	762.7	831.1	902.5	976.6

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CPD-0100-M	2DC3R53KE	11210	42.7	48.0	53.7	59.8	66.3	73.0	80.1	87.4	95.0	102.7
CPD-0101-M	2DC3R53KE	11410	45.2	51.2	57.7	64.6	72.1	80.1	88.5	97.4	106.8	116.5
CPD-0150-M	2DL3R78KE	11410	66.5	74.4	82.8	91.9	101.5	111.5	122.1	133.1	144.6	156.4
CPD-0151-M	2DL3R78KE	12210	68.0	76.2	85.1	94.6	104.8	115.5	126.9	138.8	151.2	164.2
CPD-0160-M	2DA3R89KE	12210	79.2	88.3	97.9	108.0	118.8	130.2	142.2	154.7	168.0	181.8
CPD-0161-M	2DA3R89KE	12310	82.0	91.7	101.9	113.0	124.7	137.3	150.6	164.8	179.8	195.6
CPD-0162-M	2DA3R89KE	12410	83.2	93.0	103.6	115.0	127.1	140.2	154.1	168.9	184.7	201.4
CPD-0180-M	3DA3R10ME	12210	92.3	102.6	113.4	124.8	136.8	149.3	162.4	175.9	190.0	204.4
CPD-0181-M	3DA3R10ME	12410	96.8	108.1	120.2	133.2	147.1	161.8	177.3	193.7	211.0	229.1
CPD-0200-M	3DB3R12ME	12310	112.5	125.0	138.3	152.2	166.9	182.4	198.7	215.8	233.8	252.6
CPD-0201-M	3DB3R12ME	13310	116.8	130.4	144.8	160.1	176.4	193.8	212.4	232.1	253.0	275.1
CPD-0202-M	3DB3R12ME	12410	114.5	127.5	141.2	155.8	171.3	187.6	204.9	223.2	242.5	262.8
CPD-0240-M	3DF3R15ME	12410	138.3	153.4	169.5	186.4	204.3	223.2	242.9	263.6	285.2	307.7
CPD-0241-M	3DF3R15ME	13310	141.8	157.7	174.7	192.8	212.1	232.5	254.1	276.9	300.8	326.0
CPD-0300-M	3DS3R17ME	13310	155.5	172.8	191.1	210.7	231.4	253.3	276.4	300.6	326.1	352.7
CPD-0301-M	3DS3R17ME	13410	158.0	175.8	194.9	215.3	237.0	260.0	284.4	310.2	337.4	366.0
CPD-0400-M	4DBNR20ME	13310	184.7	205.5	228.2	252.5	277.9	304.2	330.8	357.6	384.2	410.2
CPD-0401-M	4DBNR20ME	22310	191.5	213.7	238.2	264.5	292.2	321.0	350.5	380.4	410.4	440.1
CPD-0402-M	4DBNR20ME	13410	188.9	210.6	234.3	259.8	286.6	314.4	342.8	371.5	400.1	428.3
CPD-0500-M	4DHNR22ME	13410	201.3	224.3	249.4	276.3	304.5	333.7	363.5	393.5	423.3	452.7
CPD-0501-M	4DHNR22ME	23310	212.4	237.8	265.8	296.1	328.2	361.8	396.5	431.9	467.6	503.5
CPD-0600-M	4DJNR28ME	22410	244.6	273.2	303.9	336.4	370.8	407.0	444.8	484.3	525.4	567.9
CPD-0601-M	4DJNR28ME	23310	250.6	280.8	313.2	347.8	384.5	423.4	464.3	507.3	552.2	599.0
CPD-0700-M	6DHNR35ME	23310	311.3	347.3	385.6	426.4	469.7	515.5	563.9	614.9	668.5	724.7
CPD-0701-M	6DHNR35ME	24310	320.6	358.6	399.3	443.0	489.7	539.5	592.6	649.0	708.7	771.8
CPD-0702-M	6DHNR35ME	23410	317.0	354.2	394.1	436.6	482.0	530.2	581.5	635.8	693.1	753.5
CPD-0800-M	6DJNR40ME	23410	371.2	412.7	457.1	504.2	553.8	605.8	660.1	716.4	774.6	834.6
CPD-0801-M	6DJNR40ME	24410	381.8	425.7	472.9	523.2	576.6	633.0	692.3	754.2	818.8	885.8

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CPD-0100-MS	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CPD-0101-MS*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CPD-0150-MS*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CPD-0151-MS		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CPD-0160-MS	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CPD-0161-MS		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CPD-0162-MS		T		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12410
CPD-0180-MS	2 - 3DA3R10ME	S	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12210
CPD-0181-MS*		O		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12410
CPD-0200-MS	2 - 3DB3R12ME	S	43.6	10.8	111.9	150	20.0	5.0	51.5	70	16.5	5.0	43.3	60	12310
CPD-0201-MS		O		16.2	117.3	150		7.5	54.0	70		7.5	45.8	60	13310
CPD-0202-MS		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CPD-0240-MS*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CPD-0241-MS		O		16.2	127.4	175		7.5	62.1	80		7.5	-	-	13310
CPD-0300-MS	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CPD-0301-MS*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CPD-0400-MS	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CPD-0401-MS		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CPD-0402-MS		T		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13410
CPD-0500-MS*	2 - 4DHNR22ME	S	74.4	16.2	186.6	250	37.2	7.5	92.7	125	33.3	7.5	83.7	110	13410
CPD-0501-MS		O		32.4	202.8	250		15.0	100.2	125		15.0	91.2	110	23310
CPD-0600-MS*	2 - 4DJNR28ME	S	105.4	21.6	261.8	350	52.7	10.0	130.1	175	44.1	10.0	110.5	150	22410
CPD-0601-MS		O		32.4	272.6	350		15.0	135.1	175		15.0	115.5	150	23310
CPD-0700-MS	2 - 6DHNR35ME	S	125.1	32.4	317.0	400	62.6	15.0	157.3	200	40.7	15.0	107.8	125	23310
CPD-0701-MS		O		43.2	327.8	450		20.0	162.3	225		20.0	112.8	150	24310
CPD-0702-MS		T		32.4	317.0	400		15.0	157.3	200		15.0	107.8	125	23410
CPD-0800-MS*	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	51.4	15.0	131.9	175	23410
CPD-0801-MS*		O		43.2	367.6	500		20.0	182.2	250		20.0	136.9	175	24410

CP Parallel Systems

CPD Medium Temp R-407A

CPD Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.

2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.

4. Use R-407A capacity and electrical data for R-407F while replacing the ¨Q¨ at the end of the model nomenclature with an ¨F¨.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CPD-0100-M	2DC3R53KE	11210	46.4	52.4	59.0	66.3	74.2	82.8	91.9	101.6	111.9	122.7
CPD-0101-M	2DC3R53KE	11410	48.9	55.6	63.0	71.3	80.3	90.1	100.7	112.1	124.3	137.3
CPD-0150-M	2DL3R78KE	11410	73.8	82.8	92.3	102.6	113.8	125.8	138.8	152.9	168.1	184.4
CPD-0151-M	2DL3R78KE	12210	74.9	84.1	94.0	104.7	116.2	128.8	142.4	157.1	173.1	190.3
CPD-0160-M	2DA3R89KE	12210	81.1	91.6	103.1	115.4	128.8	143.1	158.3	174.4	191.5	209.5
CPD-0161-M	2DA3R89KE	12310	83.5	94.6	106.7	119.9	134.3	149.8	166.4	184.2	203.1	223.3
CPD-0162-M	2DA3R89KE	12410	84.5	95.8	108.3	121.9	136.7	152.7	169.9	188.4	208.2	229.3
CPD-0180-M	3DA3R10ME	12210	93.5	106.2	120.2	135.3	151.4	168.3	185.7	203.7	221.9	240.2
CPD-0181-M	3DA3R10ME	12410	98.6	112.4	127.8	144.7	162.9	182.3	202.7	224.0	246.0	268.6
CPD-0200-M	3DB3R12ME	12310	115.8	131.1	147.9	166.3	185.9	206.6	228.1	250.4	273.2	296.4
CPD-0201-M	3DB3R12ME	13310	119.9	136.1	154.1	173.8	195.1	217.7	241.6	266.6	292.5	319.2
CPD-0202-M	3DB3R12ME	12410	117.9	133.6	151.1	170.1	190.6	212.3	235.0	258.7	283.0	308.0
CPD-0240-M	3DF3R15ME	12410	134.5	152.5	172.5	194.4	217.8	242.4	268.0	294.3	321.1	348.2
CPD-0241-M	3DF3R15ME	13310	137.1	155.7	176.6	199.4	224.0	250.0	277.2	305.4	334.3	363.7
CPD-0300-M	3DS3R17ME	13310	159.4	180.8	204.0	228.9	255.5	283.6	312.9	343.5	375.0	407.5
CPD-0301-M	3DS3R17ME	13410	161.9	183.8	207.7	233.5	261.2	290.5	321.4	353.6	387.2	422.0
CPD-0400-M	4DBNR20ME	13310	200.6	225.4	251.9	280.5	311.2	344.2	379.5	417.3	457.5	500.2
CPD-0401-M	4DBNR20ME	22310	206.3	232.4	260.6	291.1	324.1	359.7	398.1	439.4	483.6	531.0
CPD-0402-M	4DBNR20ME	13410	204.6	230.2	257.9	287.8	320.0	354.8	392.2	432.3	475.3	521.2
CPD-0500-M	4DHNR22ME	13410	222.8	250.5	280.3	312.5	347.1	384.4	424.4	467.2	513.0	561.7
CPD-0501-M	4DHNR22ME	23310	232.0	261.9	294.4	329.7	368.1	409.7	454.9	503.6	556.2	612.7
CPD-0600-M	4DJNR28ME	22410	265.4	300.9	338.5	378.4	420.5	464.8	511.5	560.6	612.0	665.8
CPD-0601-M	4DJNR28ME	23310	270.1	306.9	346.0	387.5	431.6	478.2	527.5	579.5	634.2	691.6
CPD-0700-M	6DHNR35ME	23310	329.3	372.0	418.1	467.5	519.7	574.3	631.1	689.6	749.5	810.4
CPD-0701-M	6DHNR35ME	24310	335.9	380.0	428.1	479.7	534.7	592.7	653.5	716.6	781.7	848.7
CPD-0702-M	6DHNR35ME	23410	333.8	377.5	425.0	475.9	530.0	586.9	646.4	708.0	771.5	836.5
CPD-0800-M	6DJNR40ME	23410	405.6	460.0	513.8	568.7	626.0	687.1	753.2	825.6	904.9	991.9
CPD-0801-M	6DJNR40ME	24410	415.9	471.4	527.0	584.2	644.8	710.3	782.1	861.5	949.6	1047.0

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CPD-0100-M	2DC3R53KE	11210	42.2	47.6	53.5	60.1	67.4	75.2	83.6	92.6	102.1	N/A
CPD-0101-M	2DC3R53KE	11410	44.4	50.4	57.1	64.6	72.9	82.0	91.8	102.4	113.7	125.8
CPD-0150-M	2DL3R78KE	11410	67.7	75.9	84.6	94.1	104.3	115.3	127.3	140.3	154.4	169.6
CPD-0151-M	2DL3R78KE	12210	68.8	77.2	86.2	96.0	106.6	118.2	130.7	144.4	159.2	175.2
CPD-0160-M	2DA3R89KE	12210	74.1	83.8	94.3	105.6	117.9	131.0	145.0	159.8	175.5	192.0
CPD-0161-M	2DA3R89KE	12310	76.4	86.6	97.8	109.9	123.1	137.4	152.7	169.1	186.6	205.1
CPD-0162-M	2DA3R89KE	12410	77.3	87.8	99.3	111.8	125.4	140.2	156.1	173.1	191.4	210.9
CPD-0180-M	3DA3R10ME	12210	84.6	96.5	109.5	123.5	138.4	153.9	170.0	186.4	203.0	N/A
CPD-0181-M	3DA3R10ME	12410	89.4	102.3	116.7	132.3	149.2	167.0	185.8	205.3	225.3	245.9
CPD-0200-M	3DB3R12ME	12310	105.1	119.4	135.1	152.1	170.2	189.2	209.0	229.3	250.1	271.2
CPD-0201-M	3DB3R12ME	13310	109.2	124.3	141.1	159.4	179.1	200.0	222.0	244.9	268.6	292.9
CPD-0202-M	3DB3R12ME	12410	107.2	121.9	138.1	155.8	174.7	194.7	215.6	237.2	259.5	282.2
CPD-0240-M	3DF3R15ME	12410	122.1	138.8	157.3	177.5	199.0	221.6	245.0	269.0	293.3	317.8
CPD-0241-M	3DF3R15ME	13310	124.7	142.0	161.3	182.3	204.9	228.8	253.7	279.4	305.7	332.4
CPD-0300-M	3DS3R17ME	13310	145.8	166.0	187.7	210.8	235.3	261.0	287.8	315.5	344.0	373.3
CPD-0301-M	3DS3R17ME	13410	148.2	168.8	191.2	215.2	240.6	267.5	295.6	325.0	355.4	386.7
CPD-0400-M	4DBNR20ME	13310	183.6	206.4	230.8	257.2	285.5	315.8	348.4	383.3	420.6	N/A
CPD-0401-M	4DBNR20ME	22310	189.1	213.2	239.2	267.4	297.8	330.7	366.2	404.4	445.4	489.5
CPD-0402-M	4DBNR20ME	13410	187.4	211.1	236.6	264.1	293.9	326.0	360.5	397.7	437.5	480.1
CPD-0500-M	4DHNR22ME	13410	204.0	229.5	257.0	286.7	318.6	352.9	389.9	429.5	471.8	517.1
CPD-0501-M	4DHNR22ME	23310	213.0	240.6	270.6	303.2	338.7	377.2	419.0	464.2	513.0	565.6
CPD-0600-M	4DJNR28ME	22410	243.4	275.6	309.9	346.3	384.8	425.5	468.4	513.6	561.0	610.7
CPD-0601-M	4DJNR28ME	23310	247.9	281.4	317.2	355.3	395.8	438.8	484.3	532.4	583.1	636.4
CPD-0700-M	6DHNR35ME	23310	305.0	345.3	388.7	434.7	483.1	533.6	585.8	639.3	693.8	749.1
CPD-0701-M	6DHNR35ME	24310	311.5	353.2	398.3	446.5	497.6	551.2	607.0	664.8	724.3	785.2
CPD-0702-M	6DHNR35ME	23410	309.5	350.7	395.3	442.8	493.0	545.6	600.3	656.8	714.7	773.8
CPD-0800-M	6DJNR40ME	23410	367.9	422.1	474.3	526.0	578.7	633.9	692.7	756.5	826.2	902.7
CPD-0801-M	6DJNR40ME	24410	378.2	433.7	487.7	541.8	597.7	657.0	721.2	791.6	869.6	956.0

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CPD-0100-MQ	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CPD-0101-MQ*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CPD-0150-MQ*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CPD-0151-MQ		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CPD-0160-MQ	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CPD-0161-MQ		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CPD-0162-MQ		T		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12410
CPD-0180-MQ	2 - 3DA3R10ME	S	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12210
CPD-0181-MQ*		O		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12410
CPD-0200-MQ	2 - 3DB3R12ME	S	43.6	10.8	111.9	150	20.0	5.0	51.5	70	16.5	5.0	43.3	60	12310
CPD-0201-MQ		O		16.2	117.3	150		7.5	54.0	70		7.5	45.8	60	13310
CPD-0202-MQ		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CPD-0240-MQ*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CPD-0241-MQ		O		16.2	127.4	175		7.5	62.1	80		7.5	-	-	13310
CPD-0300-MQ	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CPD-0301-MQ*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CPD-0400-MQ	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CPD-0401-MQ		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CPD-0402-MQ		T		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13410
CPD-0500-MQ*	2 - 4DHNR22ME	S	74.4	16.2	186.6	250	37.2	7.5	92.7	125	33.3	7.5	83.7	110	13410
CPD-0501-MQ		O		32.4	202.8	250		15.0	100.2	125		15.0	91.2	110	23310
CPD-0600-MQ*	2 - 4DJNR28ME	S	105.4	21.6	261.8	350	52.7	10.0	130.1	175	44.1	10.0	110.5	150	22410
CPD-0601-MQ		O		32.4	272.6	350		15.0	135.1	175		15.0	115.5	150	23310
CPD-0700-MQ	2 - 6DHNR35ME	S	125.1	32.4	317.0	400	62.6	15.0	157.3	200	40.7	15.0	107.8	125	23310
CPD-0701-MQ		O		43.2	327.8	450		20.0	162.3	225		20.0	112.8	150	24310
CPD-0702-MQ		T		32.4	317.0	400		15.0	157.3	200		15.0	107.8	125	23410
CPD-0800-MQ*	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	51.4	15.0	131.9	175	23410
CPD-0801-MQ*		O		43.2	367.6	500		20.0	182.2	250		20.0	136.9	175	24410

CP Parallel Systems

CPD Medium Temp R-448A

CPD Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CPD-0100-M	2DC3R53KE	11210	48.7	54.8	61.6	69.1	77.0	85.5	94.6	104.1	114.1	124.5
CPD-0101-M	2DC3R53KE	11410	51.4	58.2	65.9	74.3	83.4	93.2	103.8	115.0	126.9	139.5
CPD-0150-M	2DL3R78KE	11410	76.4	85.8	95.7	106.3	117.7	129.9	142.9	156.8	171.6	187.3
CPD-0151-M	2DL3R78KE	12210	77.6	87.2	97.4	108.4	120.3	132.9	146.6	161.2	176.8	193.5
CPD-0160-M	2DA3R89KE	12210	85.2	96.0	107.7	120.3	133.7	147.9	162.9	178.8	195.3	212.6
CPD-0161-M	2DA3R89KE	12310	87.7	99.1	111.6	125.0	139.5	154.9	171.4	188.8	207.3	226.7
CPD-0162-M	2DA3R89KE	12410	88.8	100.5	113.2	127.0	141.9	157.9	175.0	193.2	212.5	232.9
CPD-0180-M	3DA3R10ME	12210	100.4	113.7	127.8	142.6	158.1	174.3	190.9	207.9	225.4	243.0
CPD-0181-M	3DA3R10ME	12410	106.5	120.7	136.1	152.6	170.1	188.6	208.0	228.2	249.3	271.2
CPD-0200-M	3DB3R12ME	12310	124.4	140.2	157.2	175.1	194.0	213.8	234.3	255.5	277.3	299.7
CPD-0201-M	3DB3R12ME	13310	129.2	145.9	163.8	183.1	203.5	225.1	247.9	271.7	296.6	322.4
CPD-0202-M	3DB3R12ME	12410	126.8	143.1	160.6	179.2	198.9	219.6	241.2	263.8	287.1	311.2
CPD-0240-M	3DF3R15ME	12410	144.1	162.8	182.9	204.4	227.1	250.7	275.2	300.3	326.0	352.0
CPD-0241-M	3DF3R15ME	13310	147.2	166.4	187.3	209.7	233.5	258.5	284.5	311.5	339.2	367.5
CPD-0300-M	3DS3R17ME	13310	169.9	191.8	215.1	239.8	265.9	293.1	321.5	350.9	381.2	412.4
CPD-0301-M	3DS3R17ME	13410	172.6	195.0	219.0	244.6	271.7	300.2	330.0	361.2	393.6	427.1
CPD-0400-M	4DBNR20ME	13310	210.5	235.9	263.1	292.1	322.9	355.8	390.7	427.6	466.7	507.9
CPD-0401-M	4DBNR20ME	22310	216.6	243.5	272.3	303.2	336.4	372.0	410.0	450.6	493.7	539.6
CPD-0402-M	4DBNR20ME	13410	214.7	241.1	269.4	299.7	332.2	366.9	403.9	443.3	485.2	529.5
CPD-0500-M	4DHNR22ME	13410	233.8	262.3	292.8	325.4	360.3	397.4	437.0	479.0	523.5	570.5
CPD-0501-M	4DHNR22ME	23310	243.7	274.4	307.7	343.5	382.2	423.8	468.6	516.6	567.9	622.7
CPD-0600-M	4DJNR28ME	22410	278.9	315.8	354.4	394.7	436.8	480.8	526.5	574.1	623.5	674.7
CPD-0601-M	4DJNR28ME	23310	284.3	322.4	362.4	404.5	448.5	494.7	543.0	593.4	646.1	701.0
CPD-0700-M	6DHNR35ME	23310	346.5	390.6	437.8	487.7	540.0	594.1	649.6	706.2	763.4	820.9
CPD-0701-M	6DHNR35ME	24310	353.5	399.1	448.2	500.5	555.6	613.2	672.7	733.9	796.5	860.0
CPD-0702-M	6DHNR35ME	23410	351.3	396.4	445.0	496.5	550.7	607.2	665.4	725.2	786.0	847.6
CPD-0800-M	6DJNR40ME	23410	412.0	464.4	520.8	580.5	643.0	707.8	774.3	842.0	910.4	979.1
CPD-0801-M	6DJNR40ME	24410	420.1	474.4	533.1	595.6	661.6	730.4	801.7	874.9	949.6	1025.0

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CPD-0100-M	2DC3R53KE	11210	44.3	49.9	56.0	62.7	70.0	77.8	86.1	94.9	N/A	N/A
CPD-0101-M	2DC3R53KE	11410	46.7	52.9	59.9	67.5	75.9	84.9	94.7	105.1	116.2	127.9
CPD-0150-M	2DL3R78KE	11410	70.2	78.8	88.0	97.7	108.1	119.3	131.2	143.9	157.5	172.0
CPD-0151-M	2DL3R78KE	12210	71.3	80.2	89.6	99.8	110.6	122.2	134.7	148.2	162.5	177.9
CPD-0160-M	2DA3R89KE	12210	77.9	87.9	98.7	110.2	122.5	135.5	149.3	163.8	178.9	194.8
CPD-0161-M	2DA3R89KE	12310	80.4	91.0	102.4	114.8	128.1	142.3	157.5	173.5	190.5	208.3
CPD-0162-M	2DA3R89KE	12410	81.4	92.3	104.0	116.8	130.5	145.3	161.0	177.8	195.5	214.3
CPD-0180-M	3DA3R10ME	12210	90.1	102.9	116.3	130.3	144.8	159.8	175.1	190.7	N/A	N/A
CPD-0181-M	3DA3R10ME	12410	96.1	109.9	124.5	140.0	156.3	173.4	191.3	209.9	229.1	248.9
CPD-0200-M	3DB3R12ME	12310	112.1	127.4	143.5	160.4	178.0	196.3	215.1	234.5	254.4	274.6
CPD-0201-M	3DB3R12ME	13310	117.1	133.2	150.3	168.4	187.5	207.6	228.5	250.3	273.0	296.4
CPD-0202-M	3DB3R12ME	12410	114.7	130.4	147.0	164.5	182.9	202.1	222.0	242.6	263.8	285.7
CPD-0240-M	3DF3R15ME	12410	130.4	148.0	167.0	187.0	208.0	229.7	252.1	275.0	298.2	321.7
CPD-0241-M	3DF3R15ME	13310	133.5	151.8	171.4	192.3	214.3	237.3	261.1	285.7	310.8	336.4
CPD-0300-M	3DS3R17ME	13310	155.7	176.5	198.5	221.4	245.4	270.4	296.1	322.7	350.0	378.0
CPD-0301-M	3DS3R17ME	13410	158.4	179.7	202.3	226.1	251.0	277.1	304.3	332.5	361.6	391.7
CPD-0400-M	4DBNR20ME	13310	192.8	216.3	241.3	268.0	296.4	326.6	358.7	392.8	N/A	N/A
CPD-0401-M	4DBNR20ME	22310	198.9	223.7	250.4	279.0	309.6	342.4	377.5	415.0	454.9	497.3
CPD-0402-M	4DBNR20ME	13410	197.0	221.4	247.5	275.5	305.4	337.4	371.6	407.9	446.6	487.6
CPD-0500-M	4DHNR22ME	13410	214.3	240.7	268.8	298.9	331.0	365.2	401.6	440.3	481.4	N/A
CPD-0501-M	4DHNR22ME	23310	224.1	252.7	283.5	316.6	352.4	390.9	432.3	476.7	524.3	575.1
CPD-0600-M	4DJNR28ME	22410	254.4	288.5	324.1	361.3	400.1	440.4	482.5	526.1	571.5	618.6
CPD-0601-M	4DJNR28ME	23310	259.7	295.1	332.3	371.2	411.9	454.6	499.2	545.8	594.5	645.2
CPD-0700-M	6DHNR35ME	23310	321.6	363.3	407.7	454.3	502.7	552.5	603.4	654.9	706.6	758.3
CPD-0701-M	6DHNR35ME	24310	328.6	371.8	418.1	466.9	518.0	571.1	625.7	681.6	738.3	795.6
CPD-0702-M	6DHNR35ME	23410	326.4	369.2	414.8	463.0	513.3	565.3	618.7	673.2	728.3	783.9
CPD-0800-M	6DJNR40ME	23410	382.8	432.3	485.1	540.7	598.6	658.2	719.0	780.6	842.5	904.2
CPD-0801-M	6DJNR40ME	24410	390.9	442.2	497.2	555.5	616.7	680.1	745.5	812.3	880.0	948.4

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CPD-0100-MT	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CPD-0101-MT*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CPD-0150-MT*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CPD-0151-MT		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CPD-0160-MT	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CPD-0161-MT		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CPD-0162-MT		T		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12410
CPD-0180-MT	2 - 3DA3R10ME	S	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12210
CPD-0181-MT*		O		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12410
CPD-0200-MT	2 - 3DB3R12ME	S	43.6	10.8	111.9	150	20.0	5.0	51.5	70	16.5	5.0	43.3	60	12310
CPD-0201-MT		O		16.2	117.3	150		7.5	54.0	70		7.5	45.8	60	13310
CPD-0202-MT		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CPD-0240-MT*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CPD-0241-MT		O		16.2	127.4	175		7.5	62.1	80		7.5	-	-	13310
CPD-0300-MT	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CPD-0301-MT*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CPD-0400-MT	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CPD-0401-MT		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CPD-0402-MT		T		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13410
CPD-0500-MT*	2 - 4DHNR22ME	S	74.4	16.2	186.6	250	37.2	7.5	92.7	125	33.3	7.5	83.7	110	13410
CPD-0501-MT		O		32.4	202.8	250		15.0	100.2	125		15.0	91.2	110	23310
CPD-0600-MT*	2 - 4DJNR28ME	S	105.4	21.6	261.8	350	52.7	10.0	130.1	175	44.1	10.0	110.5	150	22410
CPD-0601-MT		O		32.4	272.6	350		15.0	135.1	175		15.0	115.5	150	23310
CPD-0700-MT	2 - 6DHNR35ME	S	125.1	32.4	317.0	400	62.6	15.0	157.3	200	40.7	15.0	107.8	125	23310
CPD-0701-MT		O		43.2	327.8	450		20.0	162.3	225		20.0	112.8	150	24310
CPD-0702-MT		T		32.4	317.0	400		15.0	157.3	200		15.0	107.8	125	23410
CPD-0800-MT*	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	51.4	15.0	131.9	175	23410
CPD-0801-MT*		O		43.2	367.6	500		20.0	182.2	250		20.0	136.9	175	24410

CP Parallel Systems

CPE Medium Temp R-404A

CPE Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.

2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.

4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CPE-0100-M	4FES-5	11210	54.8	60.8	67.1	73.8	80.9	88.2	95.9	104.0	112.3	120.9	129.8
CPE-0101-M	4FES-5	11410	58.5	65.3	72.7	80.5	88.9	97.8	107.3	117.2	127.7	138.7	150.2
CPE-0150-M	4EES-6	11410	71.1	79.4	88.2	97.6	107.5	118.0	129.1	140.8	152.9	165.7	179.0
CPE-0151-M	4EES-6	12210	72.8	81.4	90.6	100.5	111.1	122.3	134.1	146.6	159.8	173.6	188.1
CPE-0160-M	4DES-7	12210	86.5	96.4	107.0	118.3	130.3	143.0	156.4	170.5	185.4	200.9	217.1
CPE-0161-M	4DES-7	12310	89.5	100.1	111.5	123.8	136.8	150.8	165.6	181.3	197.9	215.5	233.9
CPE-0162-M	4DES-7	12410	90.7	101.6	113.3	126.0	139.5	154.0	169.4	185.8	203.2	221.6	240.9
CPE-0180-M	4CES-9	12210	101.5	113.0	125.3	138.4	152.2	166.7	182.1	198.2	215.0	232.6	250.8
CPE-0181-M	4CES-9	12410	107.6	120.5	134.4	149.2	165.1	182.1	200.2	219.3	239.6	260.9	283.4
CPE-0200-M	4TES-12	12310	128.4	143.6	159.9	177.3	195.7	215.1	235.7	257.2	279.8	303.4	328.0
CPE-0201-M	4TES-12	13310	134.5	151.1	169.1	188.3	208.9	230.9	254.3	279.0	305.3	332.9	362.0
CPE-0202-M	4TES-12	12410	131.1	147.0	164.1	182.3	201.7	222.3	244.1	267.1	291.3	316.7	343.3
CPE-0240-M	4PES-15	12410	145.1	163.0	182.1	202.5	224.2	247.2	271.4	296.9	323.6	351.6	380.8
CPE-0241-M	4PES-15	13310	149.4	168.3	188.6	210.4	233.7	258.4	284.7	312.5	341.8	372.6	405.0
CPE-0300-M	4NES-20	13310	177.5	198.8	221.6	246.0	271.9	299.3	328.4	358.9	391.1	424.8	460.0
CPE-0301-M	4NES-20	13410	181.0	203.1	226.8	252.3	279.4	308.3	339.0	371.4	405.6	441.6	479.4
CPE-0400-M	4JE-22	13310	197.8	220.9	245.4	271.3	298.8	327.6	358.0	389.8	423.0	457.5	493.5
CPE-0401-M	4JE-22	22310	204.9	229.5	255.8	283.9	313.7	345.3	378.8	414.1	451.2	490.1	530.8
CPE-0402-M	4JE-22	13410	202.2	226.2	251.8	279.0	307.9	338.5	370.7	404.6	440.2	477.4	516.2
CPE-0500-M	4HE-25	13410	235.6	262.3	290.7	320.7	352.4	385.8	420.9	457.6	495.9	535.9	577.3
CPE-0501-M	4HE-25	23310	249.2	278.9	310.8	344.9	381.3	420.0	461.1	504.7	550.7	599.2	650.2
CPE-0600-M	4GE-30	22410	276.8	308.3	341.9	377.6	415.4	455.4	497.4	541.6	587.9	636.3	686.7
CPE-0601-M	4GE-30	23310	283.8	316.9	352.3	390.1	430.3	473.1	518.3	566.0	616.3	669.2	724.6
CPE-0700-M	6HE-35	23310	352.3	392.8	436.0	481.9	530.6	582.1	636.4	693.4	753.3	815.9	881.3
CPE-0701-M	6HE-35	24310	362.9	405.8	451.8	500.9	553.2	608.9	667.9	730.3	796.1	865.4	938.1
CPE-0702-M	6HE-35	23410	358.8	400.8	445.7	493.6	544.5	598.5	655.6	716.0	779.5	846.1	916.0
CPE-0800-M	6GE-40	23410	405.1	450.9	499.8	551.7	606.6	664.6	725.7	789.8	856.9	927.1	1000.0
CPE-0801-M	6GE-40	24410	416.9	465.4	517.3	572.8	631.8	694.5	760.9	831.1	905.0	982.7	1064.0

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CPE-0100-M	4FES-5	11210	48.9	54.2	59.8	65.7	71.9	78.4	85.2	92.3	99.7	107.3	N/A
CPE-0101-M	4FES-5	11410	52.5	58.6	65.1	72.1	79.6	87.5	95.9	104.8	114.2	124.1	134.5
CPE-0150-M	4EES-6	11410	63.7	71.0	78.9	87.2	96.1	105.5	115.4	125.8	136.8	148.3	160.2
CPE-0151-M	4EES-6	12210	65.2	72.9	81.2	90.0	99.5	109.5	120.1	131.4	143.3	155.7	168.8
CPE-0160-M	4DES-7	12210	77.7	86.6	96.1	106.2	117.0	128.5	140.6	153.3	166.7	180.8	195.5
CPE-0161-M	4DES-7	12310	80.6	90.1	100.4	111.5	123.3	135.9	149.3	163.6	178.7	194.7	211.5
CPE-0162-M	4DES-7	12410	81.8	91.6	102.2	113.6	125.8	139.0	153.0	167.9	183.7	200.5	218.2
CPE-0180-M	4CES-9	12210	91.0	101.4	112.5	124.2	136.7	149.9	163.8	178.4	193.7	209.7	226.3
CPE-0181-M	4CES-9	12410	96.8	108.5	121.1	134.6	149.0	164.5	181.0	198.5	217.0	236.6	257.3
CPE-0200-M	4TES-12	12310	114.5	128.3	142.9	158.6	175.2	192.7	211.3	230.8	251.4	272.9	295.3
CPE-0201-M	4TES-12	13310	120.2	135.3	151.5	168.9	187.6	207.5	228.8	251.4	275.3	300.6	327.3
CPE-0202-M	4TES-12	12410	117.1	131.5	146.8	163.3	180.8	199.4	219.2	240.1	262.2	285.3	309.6
CPE-0240-M	4PES-15	12410	128.6	144.7	162.0	180.4	200.0	220.7	242.7	265.8	290.2	315.7	342.3
CPE-0241-M	4PES-15	13310	132.6	149.7	168.0	187.7	208.8	231.2	255.1	280.4	307.1	335.3	365.0
CPE-0300-M	4NES-20	13310	158.6	177.8	198.3	220.3	243.6	268.5	294.8	322.6	351.8	382.5	414.7
CPE-0301-M	4NES-20	13410	161.8	181.8	203.2	226.2	250.7	276.9	304.8	334.3	365.5	398.4	433.0
CPE-0400-M	4JE-22	13310	176.5	197.3	219.4	242.9	267.7	293.9	321.4	350.2	380.4	411.9	444.6
CPE-0401-M	4JE-22	22310	183.2	205.5	229.3	254.8	281.9	310.6	341.0	373.2	407.0	442.6	479.9
CPE-0402-M	4JE-22	13410	180.6	202.3	225.5	250.2	276.4	304.1	333.4	364.2	396.6	430.6	466.1
CPE-0500-M	4HE-25	13410	211.1	235.1	260.6	287.7	316.2	346.4	378.0	411.2	446.0	482.2	519.9
CPE-0501-M	4HE-25	23310	224.0	250.9	279.8	310.7	343.7	378.9	416.3	456.0	498.0	542.3	589.0
CPE-0600-M	4GE-30	22410	248.4	276.7	306.9	339.0	373.0	409.0	447.0	486.9	528.8	572.7	618.5
CPE-0601-M	4GE-30	23310	255.0	284.9	316.8	350.9	387.3	425.9	466.8	510.1	555.8	603.9	654.4
CPE-0700-M	6HE-35	23310	316.1	352.7	391.7	433.2	477.2	523.9	573.1	624.9	679.3	736.4	796.1
CPE-0701-M	6HE-35	24310	326.2	365.1	406.7	451.2	498.8	549.3	603.0	659.9	720.0	783.4	850.0
CPE-0702-M	6HE-35	23410	322.3	360.3	400.9	444.3	490.4	539.5	591.4	646.3	704.2	765.1	829.0
CPE-0800-M	6GE-40	23410	363.9	405.2	449.1	495.7	545.1	597.3	652.3	710.1	770.8	834.3	900.6
CPE-0801-M	6GE-40	24410	375.2	419.0	465.8	515.8	569.1	625.7	685.8	749.3	816.4	887.0	961.2

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CPE-0100-MS	2 - 4FES-5	S	27.0	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CPE-0101-MS*		O		5.4	69.2	90		2.5	36.9	50		2.5	25.5	35	11410
CPE-0150-MS*	2 - 4EES-6	S	31.3	5.4	78.8	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CPE-0151-MS		O		10.8	84.2	110		5.0	40.0	50		5.0	29.8	40	12210
CPE-0160-MS	2 - 4DES-7	S	34.5	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CPE-0161-MS		O		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12310
CPE-0162-MS		T		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12410
CPE-0180-MS	2 - 4CES-9	S	38.1	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12210
CPE-0181-MS*		O		10.8	99.5	125		5.0	49.3	60		5.0	40.4	50	12410
CPE-0200-MS	2 - 4TES-12	S	47.1	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60	12310
CPE-0201-MS		O		6.2	125.2	150		7.5	62.1	80		7.5	51.2	70	13310
CPE-0202-MS		T		10.8	119.8	150		5.0	59.6	80		5.0	48.7	60	12410
CPE-0240-MS*	2 - 4PES-15	S	54.3	0.8	136.0	175	27.1	5.0	67.5	90	21.8	5.0	55.3	70	12410
CPE-0241-MS		O		16.2	141.4	175		7.5	70.0	90		7.5	57.8	80	13310
CPE-0300-MS	2 - 4NES-20	S	64.3	6.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13310
CPE-0301-MS*		O		16.2	163.9	225		7.5	81.2	110		7.5	67.9	90	13410
CPE-0400-MS	2 - 4JE-22	S	68.6	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13310
CPE-0401-MS		O		21.6	179.0	225		10.0	88.7	125		10.0	72.2	100	22310
CPE-0402-MS		T		16.2	173.6	225		7.5	86.2	110		7.5	69.7	90	13410
CPE-0500-MS*	2 - 4HE-25	S	84.3	16.2	208.9	250	42.1	7.5	103.7	125	33.6	7.5	84.3	110	13410
CPE-0501-MS		O		32.4	225.1	300		15.0	111.2	150		15.0	91.8	125	23310
CPE-0600-MS*	2 - 4GE-30	S	100.0	21.6	249.6	300	50.0	10.0	124.0	175	40.0	10.0	101.2	125	22410
CPE-0601-MS		O		32.4	260.4	350		15.0	129.0	175		15.0	106.2	125	23310
CPE-0700-MS	2 - 6HE-35	S	117.1	32.4	298.9	400	58.6	15.0	148.4	200	46.4	15.0	120.6	150	23310
CPE-0701-MS		O		43.2	309.7	400		20.0	153.4	200		20.0	125.6	150	24310
CPE-0702-MS		T		32.4	298.9	400		15.0	148.4	200		15.0	120.6	150	23410
CPE-0800-MS*	2 - 6GE-40	S	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CPE-0801-MS*		O		43.2	399.7	500		20.0	198.4	250		20.0	162.7	225	24410

CP Parallel Systems

CPE Medium Temp R-407A

CPE Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CPE-0100-M	4FES-5	11210	51.6	58.1	65.2	72.8	80.8	89.4	98.6	108.3	118.5	129.3	140.6
CPE-0101-M	4FES-5	11410	54.8	62.1	70.1	78.6	87.9	97.9	108.6	120.1	132.3	145.3	159.1
CPE-0150-M	4EES-6	11410	67.1	75.9	85.5	95.8	106.9	118.7	131.5	145.0	159.4	174.7	190.8
CPE-0151-M	4EES-6	12210	68.2	77.2	87.1	97.7	109.2	121.6	134.9	149.0	164.1	180.2	197.1
CPE-0160-M	4DES-7	12210	78.7	89.1	100.4	112.5	125.6	139.7	154.7	170.7	187.7	205.7	224.7
CPE-0161-M	4DES-7	12310	81.2	92.3	104.2	117.3	131.3	146.5	162.8	180.3	199.0	218.9	240.1
CPE-0162-M	4DES-7	12410	82.3	93.6	105.9	119.3	133.8	149.5	166.3	184.5	203.9	224.7	246.8
CPE-0180-M	4CES-9	12210	95.7	107.8	120.9	134.9	149.9	166.0	183.1	201.3	220.4	240.7	261.9
CPE-0181-M	4CES-9	12410	101.0	114.3	128.9	144.6	161.7	180.1	199.8	221.0	243.6	267.7	293.3
CPE-0200-M	4TES-12	12310	122.0	138.0	155.1	173.5	193.3	214.4	237.0	260.9	286.2	313.0	341.2
CPE-0201-M	4TES-12	13310	126.9	144.0	162.5	182.6	204.2	227.5	252.6	279.3	307.9	338.4	370.6
CPE-0202-M	4TES-12	12410	124.6	141.0	158.9	178.2	198.9	221.1	244.9	270.2	297.2	325.8	356.1
CPE-0240-M	4PES-15	12410	137.9	156.6	176.8	198.5	221.8	246.8	273.4	301.7	331.7	363.5	397.0
CPE-0241-M	4PES-15	13310	141.1	160.5	181.6	204.4	228.9	255.3	283.5	313.7	345.8	379.9	416.1
CPE-0300-M	4NES-20	13310	165.8	187.8	211.6	237.3	264.9	294.5	326.1	359.7	395.4	433.3	473.2
CPE-0301-M	4NES-20	13410	168.9	191.7	216.4	243.1	271.9	302.8	336.0	371.4	409.2	449.4	491.9
CPE-0400-M	4JE-22	13310	180.0	204.2	230.1	258.0	287.8	319.6	353.4	389.3	427.3	467.5	509.8
CPE-0401-M	4JE-22	22310	185.6	211.2	238.7	268.4	300.3	334.5	371.0	410.0	451.6	495.7	542.3
CPE-0402-M	4JE-22	13410	183.9	209.0	236.0	265.1	296.3	329.7	365.4	403.5	443.9	486.7	531.9
CPE-0500-M	4HE-25	13410	209.0	237.2	267.6	300.1	335.0	372.2	411.9	454.0	498.6	545.8	595.6
CPE-0501-M	4HE-25	23310	219.1	249.7	282.9	318.7	357.4	399.0	443.6	491.5	542.5	597.0	654.8
CPE-0600-M	4GE-30	22410	253.7	287.1	323.2	361.9	403.5	447.9	495.5	546.1	599.8	656.8	717.1
CPE-0601-M	4GE-30	23310	258.7	293.3	330.7	371.0	414.4	461.0	511.0	564.4	621.3	681.8	746.1
CPE-0700-M	6HE-35	23310	327.4	370.8	417.4	467.5	521.2	578.6	639.9	705.1	774.2	847.5	924.8
CPE-0701-M	6HE-35	24310	336.2	381.6	430.7	483.6	540.6	601.8	667.4	737.5	812.3	891.8	976.2
CPE-0702-M	6HE-35	23410	333.5	378.2	426.5	478.5	534.5	594.5	658.7	727.2	800.2	877.7	959.9
CPE-0800-M	6GE-40	23410	380.3	430.5	484.5	542.6	604.9	671.6	742.8	818.7	899.3	984.7	1075.0
CPE-0801-M	6GE-40	24410	390.0	442.4	499.0	560.2	626.1	697.0	773.0	854.3	941.0	1033.0	1131.0

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CPE-0100-M	4FES-5	11210	46.6	52.6	59.1	66.1	73.5	81.5	90.0	N/A	N/A	N/A	N/A
CPE-0101-M	4FES-5	11410	49.6	56.3	63.7	71.6	80.2	89.5	99.4	110.1	121.5	133.7	146.7
CPE-0150-M	4EES-6	11410	60.6	68.7	77.5	87.1	97.3	108.3	120.2	132.8	146.2	160.5	175.6
CPE-0151-M	4EES-6	12210	61.6	70.0	79.1	88.9	99.6	111.0	123.4	136.6	150.7	165.7	181.6
CPE-0160-M	4DES-7	12210	71.0	80.6	91.0	102.2	114.4	127.4	141.3	156.2	172.1	189.0	206.8
CPE-0161-M	4DES-7	12310	73.4	83.6	94.6	106.7	119.7	133.8	149.0	165.3	182.8	201.5	221.3
CPE-0162-M	4DES-7	12410	74.5	84.9	96.2	108.6	122.1	136.6	152.4	169.3	187.5	207.0	227.8
CPE-0180-M	4CES-9	12210	86.7	97.9	109.9	122.8	136.7	151.6	167.4	184.3	N/A	N/A	N/A
CPE-0181-M	4CES-9	12410	91.7	104.0	117.4	132.0	147.8	164.9	183.3	203.0	224.1	246.7	270.7
CPE-0200-M	4TES-12	12310	110.2	124.9	140.6	157.6	175.9	195.4	216.3	238.5	262.0	287.0	N/A
CPE-0201-M	4TES-12	13310	114.9	130.6	147.7	166.2	186.2	207.8	231.1	256.0	282.6	311.0	341.2
CPE-0202-M	4TES-12	12410	112.6	127.8	144.2	162.0	181.1	201.7	223.8	247.3	272.5	299.1	327.4
CPE-0240-M	4PES-15	12410	123.7	140.9	159.4	179.5	201.0	224.1	248.7	275.0	303.0	332.6	N/A
CPE-0241-M	4PES-15	13310	126.6	144.5	164.0	185.0	207.7	232.1	258.3	286.4	316.3	348.1	381.9
CPE-0300-M	4NES-20	13310	149.4	169.7	191.7	215.3	240.8	268.2	297.5	328.8	362.0	397.3	434.6
CPE-0301-M	4NES-20	13410	152.4	173.3	196.1	220.8	247.4	276.1	306.9	339.8	375.1	412.5	452.3
CPE-0400-M	4JE-22	13310	161.5	183.7	207.7	233.5	261.1	290.6	322.0	355.5	391.0	428.5	N/A
CPE-0401-M	4JE-22	22310	166.7	190.3	215.7	243.2	272.7	304.5	338.5	374.9	413.8	455.0	498.9
CPE-0402-M	4JE-22	13410	165.1	188.2	213.2	240.1	269.0	300.1	333.3	368.7	406.5	446.6	489.0
CPE-0500-M	4HE-25	13410	187.5	213.5	241.5	271.6	303.9	338.4	375.3	414.6	456.3	500.4	N/A
CPE-0501-M	4HE-25	23310	196.9	225.2	255.8	289.0	324.8	363.5	405.1	449.8	497.6	548.6	603.0
CPE-0600-M	4GE-30	22410	229.4	260.3	293.5	329.4	367.9	409.2	453.4	500.6	550.9	604.2	660.8
CPE-0601-M	4GE-30	23310	234.1	266.0	300.6	337.9	378.2	421.5	468.1	517.9	571.1	627.9	688.2
CPE-0700-M	6HE-35	23310	295.6	335.5	378.6	424.9	474.6	527.9	584.9	645.7	710.3	778.8	851.4
CPE-0701-M	6HE-35	24310	303.8	345.7	391.0	440.0	492.9	549.8	610.9	676.3	746.2	820.7	899.9
CPE-0702-M	6HE-35	23410	301.2	342.5	387.1	435.3	487.1	542.9	602.7	666.6	734.8	807.4	884.5
CPE-0800-M	6GE-40	23410	343.9	390.2	440.1	493.8	551.5	613.5	679.8	750.5	825.8	905.8	990.6
CPE-0801-M	6GE-40	24410	353.0	401.3	453.7	510.4	571.5	637.4	708.2	784.1	865.2	951.8	1044.0

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the ¨0¨ at the end of the model nomenclature with an ¨F¨.

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CPE-0100-MQ	2 - 4FES-5	S	27.0	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CPE-0101-MQ*		O		5.4	69.2	90		2.5	37.5	50		2.5	25.5	35	11410
CPE-0150-MQ*	2 - 4EES-6	S	31.3	5.4	78.8	110	14.9	2.5	40.0	50	10.5	2.5	27.3	35	11410
CPE-0151-MQ		O		10.8	84.2	110		5.0	40.0	50		5.0	29.8	40	12210
CPE-0160-MQ	2 - 4DES-7	S	34.5	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CPE-0161-MQ		O		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12310
CPE-0162-MQ		T		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12410
CPE-0180-MQ	2 - 4CES-9	S	38.1	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12210
CPE-0181-MQ*		O		10.8	99.5	125		5.0	49.3	60		5.0	40.4	50	12410
CPE-0200-MQ	2 - 4TES-12	S	47.1	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60	12310
CPE-0201-MQ		O		16.2	125.2	150		7.5	62.1	80		7.5	51.2	70	13310
CPE-0202-MQ		T		10.8	119.8	150		5.0	59.6	80		5.0	48.7	60	12410
CPE-0240-MQ*	2 - 4PES-15	S	54.3	10.8	136.0	175	27.1	5.0	67.5	90	21.8	5.0	55.3	70	12410
CPE-0241-MQ		O		16.2	141.4	175		7.5	70.0	90		7.5	57.8	80	13310
CPE-0300-MQ	2 - 4NES-20	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13310
CPE-0301-MQ*		O		16.2	163.9	225		7.5	81.2	110		7.5	67.9	90	13410
CPE-0400-MQ	2 - 4JE-22	S	68.6	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13310
CPE-0401-MQ		O		21.6	179.0	225		10.0	88.7	125		10.0	72.2	100	22310
CPE-0402-MQ		T		16.2	173.6	225		7.5	86.2	110		7.5	69.7	90	13410
CPE-0500-MQ*	2 - 4HE-25	S	84.3	16.2	208.9	250	42.1	7.5	103.7	125	33.6	7.5	84.3	110	13410
CPE-0501-MQ		O		32.4	225.1	300		15.0	111.2	150		15.0	91.8	125	23310
CPE-0600-MQ*	2 - 4GE-30	S	100.0	21.6	249.6	300	50.0	10.0	124.0	175	40.0	10.0	101.2	125	22410
CPE-0601-MQ		O		32.4	260.4	350		15.0	129.0	175		15.0	106.2	125	23310
CPE-0700-MQ	2 - 6HE-35	S	117.1	32.4	298.9	400	58.6	15.0	148.4	200	46.4	15.0	120.6	150	23310
CPE-0701-MQ		O		43.2	309.7	400		20.0	153.4	200		20.0	125.6	150	24310
CPE-0702-MQ		T		32.4	298.9	400		15.0	148.4	200		15.0	120.6	150	23410
CPE-0800-MQ*	2 - 6GE-40	S	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CPE-0801-MQ*		O		43.2	399.7	500		20.0	198.4	250		20.0	162.7	225	24410

CPE Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.

2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.

4. Use R-404A capacity and e lectrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CPE-0100-M	4FES-5	11210	54.4	61.1	68.3	75.9	84.1	92.9	102.1	111.9	122.2	133.1	N/A
CPE-0101-M	4FES-5	11410	58.0	65.5	73.6	82.3	91.8	101.9	112.8	124.5	136.9	150.1	164.1
CPE-0150-M	4EES-6	11410	70.9	79.9	89.7	100.2	111.5	123.5	136.4	150.2	164.8	180.2	196.5
CPE-0151-M	4EES-6	12210	72.1	81.4	91.5	102.3	114.0	126.6	140.1	154.5	169.8	186.0	203.2
CPE-0160-M	4DES-7	12210	83.2	93.9	105.4	117.8	131.1	145.3	160.6	176.8	194.1	212.3	231.6
CPE-0161-M	4DES-7	12310	86.1	97.3	109.6	122.9	137.2	152.7	169.3	187.1	206.0	226.3	247.7
CPE-0162-M	4DES-7	12410	87.3	98.8	111.4	125.1	139.9	155.9	173.1	191.5	211.3	232.4	254.9
CPE-0180-M	4CES-9	12210	100.9	113.2	126.5	140.8	156.1	172.3	189.6	208.0	227.4	247.8	269.3
CPE-0181-M	4CES-9	12410	106.7	120.4	135.3	151.4	168.8	187.5	207.6	229.1	252.0	276.5	302.4
CPE-0200-M	4TES-12	12310	127.2	143.5	161.1	180.1	200.4	222.2	245.5	270.2	296.4	324.0	353.2
CPE-0201-M	4TES-12	13310	132.6	150.1	169.2	190.0	212.4	236.5	262.5	290.3	319.9	351.5	385.1
CPE-0202-M	4TES-12	12410	129.9	146.9	165.3	185.1	206.5	229.5	254.1	280.3	308.3	337.9	369.2
CPE-0240-M	4PES-15	12410	143.4	162.5	183.3	205.6	229.7	255.5	283.0	312.3	343.5	376.4	411.1
CPE-0241-M	4PES-15	13310	146.9	166.8	188.6	212.1	237.5	264.8	294.1	325.4	358.8	394.3	431.8
CPE-0300-M	4NES-20	13310	175.8	198.4	223.0	249.5	278.0	308.6	341.3	376.2	413.2	452.4	493.8
CPE-0301-M	4NES-20	13410	179.2	202.7	228.2	255.8	285.6	317.7	352.1	388.9	428.2	469.9	514.1
CPE-0400-M	4JE-22	13310	196.0	220.7	247.2	275.7	306.1	338.4	372.8	409.2	447.6	488.2	530.7
CPE-0401-M	4JE-22	22310	202.3	228.5	256.7	287.0	319.6	354.6	391.9	431.6	473.9	518.6	565.9
CPE-0402-M	4JE-22	13410	200.3	226.0	253.7	283.5	315.4	349.5	385.8	424.5	465.5	508.9	554.7
CPE-0500-M	4HE-25	13410	234.7	263.5	294.3	327.4	362.7	400.3	440.2	482.5	527.2	574.3	623.7
CPE-0501-M	4HE-25	23310	246.1	277.5	311.4	348.0	387.5	429.9	475.3	523.8	575.6	630.6	688.9
CPE-0600-M	4GE-30	22410	275.4	309.1	345.4	384.4	426.1	470.6	518.0	568.3	621.6	677.9	737.2
CPE-0601-M	4GE-30	23310	280.9	315.9	353.8	394.5	438.2	485.1	535.3	588.7	645.5	705.8	769.5
CPE-0700-M	6HE-35	23310	349.7	392.9	439.5	489.4	542.9	600.0	660.8	725.3	793.7	865.8	941.8
CPE-0701-M	6HE-35	24310	359.1	404.5	453.5	506.4	563.3	624.3	689.6	759.3	833.4	912.1	995.5
CPE-0702-M	6HE-35	23410	356.2	400.9	449.1	501.1	556.9	616.6	680.5	748.5	820.8	897.5	978.5
CPE-0800-M	6GE-40	23410	404.0	453.1	505.8	562.4	622.9	687.3	755.9	828.6	905.5	986.7	1072.0
CPE-0801-M	6GE-40	24410	414.1	465.6	521.1	580.9	645.1	714.0	787.6	866.0	949.4	1038.0	1132.0

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CPE-0100-M	4FES-5	11210	49.2	55.3	61.9	69.0	76.6	84.6	93.2	N/A	N/A	N/A	N/A
CPE-0101-M	4FES-5	11410	52.6	59.4	66.9	75.0	83.8	93.2	103.4	114.2	125.8	138.2	151.3
CPE-0150-M	4EES-6	11410	64.2	72.5	81.4	91.1	101.6	112.8	124.8	137.5	151.2	165.6	N/A
CPE-0151-M	4EES-6	12210	65.3	73.8	83.1	93.2	104.0	115.7	128.2	141.6	155.9	171.1	187.3
CPE-0160-M	4DES-7	12210	75.3	85.0	95.6	107.1	119.4	132.6	146.8	161.9	178.0	195.1	N/A
CPE-0161-M	4DES-7	12310	77.9	88.3	99.6	111.9	125.2	139.6	155.1	171.6	189.4	208.3	228.5
CPE-0162-M	4DES-7	12410	79.1	89.7	101.4	114.0	127.8	142.6	158.7	175.9	194.4	214.2	235.3
CPE-0180-M	4CES-9	12210	91.5	102.9	115.1	128.2	142.3	157.4	173.4	N/A	N/A	N/A	N/A
CPE-0181-M	4CES-9	12410	97.0	109.7	123.4	138.3	154.4	171.8	190.5	210.5	232.0	254.9	279.2
CPE-0200-M	4TES-12	12310	114.8	129.8	145.9	163.4	182.1	202.2	223.7	246.6	271.0	N/A	N/A
CPE-0201-M	4TES-12	13310	119.9	136.0	153.6	172.7	193.4	215.7	239.8	265.6	293.2	322.7	354.0
CPE-0202-M	4TES-12	12410	117.4	132.9	149.8	168.1	187.8	209.1	231.9	256.2	282.2	309.8	339.1
CPE-0240-M	4PES-15	12410	128.4	146.0	165.0	185.6	207.8	231.6	257.0	284.2	313.2	343.9	N/A
CPE-0241-M	4PES-15	13310	131.7	150.0	170.0	191.6	215.0	240.3	267.4	296.5	327.6	360.6	395.8
CPE-0300-M	4NES-20	13310	158.9	179.7	202.2	226.6	252.9	281.2	311.4	343.8	378.2	414.7	N/A
CPE-0301-M	4NES-20	13410	162.1	183.6	207.1	232.5	260.0	289.7	321.6	355.8	392.3	431.2	472.5
CPE-0400-M	4JE-22	13310	176.7	199.5	224.0	250.2	278.2	308.2	340.0	373.8	409.6	N/A	N/A
CPE-0401-M	4JE-22	22310	182.7	206.9	232.9	261.0	291.2	323.6	358.3	395.2	434.6	476.3	520.6
CPE-0402-M	4JE-22	13410	180.8	204.5	230.1	257.6	287.1	318.7	352.5	388.4	426.6	467.1	509.9
CPE-0500-M	4HE-25	13410	212.7	239.1	267.4	297.8	330.3	365.0	401.8	440.9	482.3	N/A	N/A
CPE-0501-M	4HE-25	23310	223.7	252.6	283.9	317.7	354.1	393.4	435.5	480.5	528.6	579.9	634.3
CPE-0600-M	4GE-30	22410	250.0	280.9	314.1	349.8	388.1	429.0	472.7	519.1	568.3	620.4	675.4
CPE-0601-M	4GE-30	23310	255.4	287.5	322.2	359.6	399.8	443.0	489.3	538.6	591.2	647.1	706.3
CPE-0700-M	6HE-35	23310	317.4	357.2	400.1	446.2	495.5	548.3	604.6	664.4	727.9	795.0	N/A
CPE-0701-M	6HE-35	24310	326.4	368.3	413.6	462.5	515.1	571.6	632.2	696.9	765.9	839.3	917.1
CPE-0702-M	6HE-35	23410	323.6	364.8	409.4	457.3	508.9	564.3	623.5	686.6	753.9	825.3	900.9
CPE-0800-M	6GE-40	23410	367.3	412.4	460.7	512.6	568.1	627.3	690.3	757.3	828.3	903.3	982.3
CPE-0801-M	6GE-40	24410	377.2	424.5	475.5	530.4	589.5	652.9	720.7	793.1	870.3	952.2	1039.0

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CPE-0100-MT	2 - 4FES-5	S	27.0	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CPE-0101-MT*		O		5.4	69.2	90		2.5	36.9	50		2.5	25.5	35	11410
CPE-0150-MT*	2 - 4EES-6	S	31.3	5.4	78.8	110	14.9	5.0	37.5	50	10.5	2.5	27.3	35	11410
CPE-0151-MT		O		10.8	84.2	110		5.0	40.0	50		5.0	29.8	40	12210
CPE-0160-MT	2 - 4DES-7	S	34.5	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CPE-0161-MT		O		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12310
CPE-0162-MT		T		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12410
CPE-0180-MT	2 - 4CES-9	S	38.1	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12210
CPE-0181-MT*		O		10.8	99.5	125		5.0	49.3	60		5.0	40.4	50	12410
CPE-0200-MT	2 - 4TES-12	S	47.1	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60	12310
CPE-0201-MT		O		16.2	125.2	150		7.5	62.1	80		7.5	51.2	70	13310
CPE-0202-MT		T		10.8	119.8	150		5.0	59.6	80		5.0	48.7	60	12410
CPE-0240-MT*	2 - 4PES-15	S	54.3	10.8	136.0	175	27.1	5.0	67.5	90	21.8	5.0	55.3	70	12410
CPE-0241-MT		O		16.2	141.4	175		7.5	70.0	90		7.5	57.8	80	13310
CPE-0300-MT	2 - 4NES-20	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13310
CPE-0301-MT*		O		16.2	163.9	225		7.5	81.2	110		7.5	67.9	90	13410
CPE-0400-MT	2 - 4JE-22	S	68.6	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13310
CPE-0401-MT		O		21.6	179.0	225		10.0	88.7	125		10.0	72.2	100	22310
CPE-0402-MT		T		16.2	173.6	225		7.5	86.2	110		7.5	69.7	90	13410
CPE-0500-MT*	2 - 4HE-25	S	84.3	16.2	208.9	250	42.1	7.5	103.7	125	33.6	7.5	84.3	110	13410
CPE-0501-MT		O		32.4	225.1	300		15.0	111.2	150		15.0	91.8	125	23310
CPE-0600-MT*	2 - 4GE-30	S	100.0	21.6	249.6	300	50.0	10.0	124.0	175	40.0	10.0	101.2	125	22410
CPE-0601-MT		O		32.4	260.4	350		15.0	129.0	175		15.0	106.2	125	23310
CPE-0700-MT	2 - 6HE-35	S	117.1	32.4	298.9	400	58.6	15.0	148.4	200	46.4	15.0	120.6	150	23310
CPE-0701-MT		O		43.2	309.7	400		20.0	153.4	200		20.0	125.6	150	24310
CPE-0702-MT		T		32.4	298.9	400		15.0	148.4	200		15.0	120.6	150	23410
CPE-0800-MT*	2 - 6GE-40	S	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CPE-0801-MT*		O		43.2	399.7	500		20.0	198.4	250		20.0	162.7	225	24410

CP Parallel Systems

CPB Medium Temp R-404A

CPB Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CPB-0100-M	4FES-3	11210	54.6	60.6	67.0	73.8	80.9	88.4	96.3
CPB-0101-M	4FES-3	11410	58.3	65.2	72.6	80.5	88.9	97.9	107.4
CPB-0150-M	4EES-4	11410	72.1	80.3	89.2	98.6	108.6	119.2	130.4
CPB-0151-M	4EES-4	12210	73.7	82.4	91.6	101.6	112.2	123.4	135.3
CPB-0160-M	4DES-5	12210	86.2	96.1	106.8	118.1	130.2	143.0	156.5
CPB-0161-M	4DES-5	12310	89.3	99.9	111.3	123.6	136.7	150.7	165.5
CPB-0162-M	4DES-5	12410	90.5	101.4	113.2	125.8	139.3	153.8	169.3
CPB-0180-M	4CES-6	12210	101.2	112.8	125.2	138.3	152.2	167.0	182.5
CPB-0181-M	4CES-6	12410	107.4	120.3	134.2	149.1	165.0	182.1	200.2
CPB-0200-M	4TES-9	12310	128.3	143.5	159.8	177.2	195.6	215.1	235.6
CPB-0201-M	4TES-9	13310	134.5	151.1	169.0	188.2	208.8	230.7	254.0
CPB-0202-M	4TES-9	12410	131.1	147.0	164.0	182.2	201.6	222.2	244.0
CPB-0240-M	4PES-12	12410	145.6	163.6	182.8	203.3	225.1	248.2	272.6
CPB-0241-M	4PES-12	13310	150.0	169.0	189.4	211.2	234.5	259.4	285.8
CPB-0300-M	4NES-14	13310	176.9	198.3	221.1	245.5	271.5	299.1	328.2
CPB-0301-M	4NES-14	13410	180.5	202.6	226.4	251.8	279.0	308.0	338.7
CPB-0400-M	4JE-15	13310	203.5	226.6	251.2	277.4	305.0	334.2	364.8
CPB-0401-M	4JE-15	22310	210.8	235.5	261.9	290.1	320.0	351.8	385.5
CPB-0402-M	4JE-15	13410	208.0	232.0	257.8	285.1	314.2	345.0	377.5
CPB-0500-M	4HE-18	13410	239.7	266.4	294.9	325.0	356.9	390.5	425.9
CPB-0501-M	4HE-18	23310	253.6	283.4	315.3	349.4	385.9	424.7	465.9
CPB-0600-M	4GE-23	22410	284.2	315.7	349.3	385.1	422.9	463.0	505.2
CPB-0601-M	4GE-23	23310	291.4	324.5	360.0	397.8	438.1	480.9	526.2
CPB-0700-M	6HE-28	23310	358.8	399.4	442.7	488.8	537.8	589.5	644.2
CPB-0701-M	6HE-28	24310	369.7	412.7	458.7	507.9	560.4	616.2	675.4
CPB-0702-M	6HE-28	23410	365.5	407.6	452.5	500.5	551.6	605.9	663.3
CPB-0800-M	6GE-34	23410	423.3	469.3	518.3	570.3	625.3	683.5	744.8
CPB-0801-M	6GE-34	24410	435.6	484.3	536.4	592.0	651.1	714.0	780.6

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CPB-0100-M	4FES-3	11210	48.7	54.0	59.7	65.7	72.1	78.8	85.8
CPB-0101-M	4FES-3	11410	52.3	58.4	65.0	72.1	79.7	87.8	96.4
CPB-0150-M	4EES-4	11410	64.5	72.0	79.9	88.4	97.4	106.9	117.0
CPB-0151-M	4EES-4	12210	66.1	73.9	82.3	91.2	100.8	110.9	121.8
CPB-0160-M	4DES-5	12210	77.3	86.3	95.9	106.2	117.1	128.7	141.0
CPB-0161-M	4DES-5	12310	80.3	89.9	100.3	111.4	123.3	136.1	149.7
CPB-0162-M	4DES-5	12410	81.5	91.4	102.0	113.5	125.9	139.1	153.2
CPB-0180-M	4CES-6	12210	90.6	101.1	112.4	124.3	137.1	150.5	164.8
CPB-0181-M	4CES-6	12410	96.5	108.2	120.9	134.5	149.1	164.8	181.5
CPB-0200-M	4TES-9	12310	114.3	128.1	142.9	158.6	175.4	193.1	211.9
CPB-0201-M	4TES-9	13310	120.1	135.2	151.5	169.0	187.7	207.8	229.1
CPB-0202-M	4TES-9	12410	117.0	131.4	146.8	163.3	181.0	199.8	219.7
CPB-0240-M	4PES-12	12410	129.0	145.2	162.6	181.3	201.1	222.2	244.4
CPB-0241-M	4PES-12	13310	133.1	150.2	168.7	188.6	209.9	232.6	256.7
CPB-0300-M	4NES-14	13310	157.6	176.8	197.5	219.7	243.3	268.4	295.0
CPB-0301-M	4NES-14	13410	160.9	180.9	202.5	225.6	250.4	276.8	304.9
CPB-0400-M	4JE-15	13310	182.2	203.3	225.7	249.5	274.7	301.3	329.3
CPB-0401-M	4JE-15	22310	189.1	211.6	235.7	261.5	288.9	318.0	348.9
CPB-0402-M	4JE-15	13410	186.5	208.4	231.8	256.8	283.4	311.5	341.3
CPB-0500-M	4HE-18	13410	215.1	239.3	265.1	292.4	321.4	352.0	384.2
CPB-0501-M	4HE-18	23310	228.4	255.4	284.5	315.7	349.0	384.5	422.3
CPB-0600-M	4GE-23	22410	255.8	284.3	314.6	347.0	381.3	417.6	456.0
CPB-0601-M	4GE-23	23310	262.7	292.7	324.9	359.2	395.8	434.8	476.1
CPB-0700-M	6HE-28	23310	322.6	359.5	398.8	440.8	485.4	532.7	582.6
CPB-0701-M	6HE-28	24310	333.0	372.1	414.0	458.9	506.9	558.0	612.4
CPB-0702-M	6HE-28	23410	329.0	367.2	408.2	451.9	498.6	548.2	600.8
CPB-0800-M	6GE-34	23410	382.4	423.9	468.1	515.1	564.9	617.6	673.2
CPB-0801-M	6GE-34	24410	394.3	438.4	485.6	536.0	589.7	646.8	707.5

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPB-0100-MS	2 - 4FES-3	S	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25
CPB-0101-MS*		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25
CPB-0150-MS*	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30
CPB-0151-MS		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30
CPB-0160-MS	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35
CPB-0161-MS		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35
CPB-0162-MS		T		10.8	71.0	90		5.0	33.5	45		5.0	28.7	35
CPB-0180-MS	2 - 4CES-6	S	30.8	10.8	83.1	110	15.8	5.0	42.1	50	12.5	5.0	34.3	45
CPB-0181-MS*		O		10.8	83.1	125		5.0	42.1	50		5.0	34.3	45
CPB-0200-MS	2 - 4TES-9	S	34.8	10.8	92.1	125	15.7	5.0	41.8	50	13.6	5.0	36.8	50
CPB-0201-MS		O		16.2	97.5	125		7.5	44.3	60		7.5	39.3	50
CPB-0202-MS		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50
CPB-0240-MS*	2 - 4PES-12	S	42.7	10.8	109.9	150	19.3	5.0	49.9	60	16.0	5.0	42.2	50
CPB-0241-MS		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60
CPB-0300-MS	2 - 4NES-14	S	49.0	16.2	129.5	175	22.1	7.5	58.7	80	17.7	7.5	48.5	60
CPB-0301-MS*		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60
CPB-0400-MS	2 - 4JE-15	S	61.6	16.2	157.8	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80
CPB-0401-MS		O		21.6	163.2	225		10.0	74.3	100		10.0	61.4	80
CPB-0402-MS		T		16.2	157.8	200		7.5	71.8	100		7.5	58.9	80
CPB-0500-MS*	2 - 4HE-18	S	66.7	16.2	169.3	225	30.1	7.5	76.7	100	24.1	7.5	62.9	80
CPB-0501-MS		O		32.4	185.5	250		15.0	84.2	110		15.0	70.4	90
CPB-0600-MS*	2 - 4GE-23	S	71.1	21.6	184.6	250	32.1	10.0	83.7	110	25.7	10.0	69.0	90
CPB-0601-MS		O		32.4	195.4	250		15.0	88.7	110		15.0	74.0	100
CPB-0700-MS	2 - 6HE-28	S	95.6	32.4	250.5	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125
CPB-0701-MS		O		43.2	261.3	350		20.0	118.7	150		20.0	99.1	125
CPB-0702-MS		T		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125
CPB-0800-MS*	2 - 6GE-34	S	104.3	32.4	270.1	350	47.1	15.0	122.5	150	37.1	15.0	99.7	125
CPB-0801-MS*		O		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125

CPB Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.

2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.

4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CPB-0100-M	4FES-3	11210	52.5	59.1	66.2	73.8	82.0	90.6	99.8
CPB-0101-M	4FES-3	11410	55.7	63.1	71.1	79.7	89.0	99.0	109.7
CPB-0150-M	4EES-4	11410	67.0	75.9	85.5	95.8	106.9	118.9	131.6
CPB-0151-M	4EES-4	12210	68.1	77.2	87.1	97.8	109.3	121.7	134.9
CPB-0160-M	4DES-5	12210	78.6	89.0	100.4	112.6	125.7	139.8	154.8
CPB-0161-M	4DES-5	12310	81.1	92.2	104.2	117.3	131.4	146.5	162.8
CPB-0162-M	4DES-5	12410	82.2	93.6	105.9	119.3	133.8	149.4	166.3
CPB-0180-M	4CES-6	12210	95.5	107.8	121.0	135.1	150.3	166.5	183.8
CPB-0181-M	4CES-6	12410	100.9	114.3	128.9	144.7	161.8	180.2	200.0
CPB-0200-M	4TES-9	12310	121.6	137.7	155.0	173.6	193.5	214.8	237.5
CPB-0201-M	4TES-9	13310	126.6	143.8	162.4	182.6	204.3	227.7	252.8
CPB-0202-M	4TES-9	12410	124.2	140.8	158.8	178.2	199.0	221.4	245.3
CPB-0240-M	4PES-12	12410	137.5	156.4	176.7	198.7	222.2	247.4	274.2
CPB-0241-M	4PES-12	13310	140.7	160.3	181.6	204.5	229.2	255.7	284.1
CPB-0300-M	4NES-14	13310	165.7	188.0	212.0	237.9	265.7	295.4	327.2
CPB-0301-M	4NES-14	13410	168.9	191.9	216.7	243.6	272.6	303.7	336.9
CPB-0400-M	4JE-15	13310	184.1	208.6	235.0	263.2	293.5	325.8	360.2
CPB-0401-M	4JE-15	22310	189.9	215.7	243.5	273.6	305.8	340.4	377.4
CPB-0402-M	4JE-15	13410	188.1	213.5	240.8	270.3	301.9	335.8	372.0
CPB-0500-M	4HE-18	13410	219.9	248.6	279.4	312.5	347.9	385.8	426.1
CPB-0501-M	4HE-18	23310	230.3	261.3	294.9	331.2	370.3	412.3	457.4
CPB-0600-M	4GE-23	22410	264.0	297.7	334.1	373.2	415.2	460.1	508.1
CPB-0601-M	4GE-23	23310	269.1	304.0	341.7	382.3	426.1	473.1	523.4
CPB-0700-M	6HE-28	23310	333.5	377.3	424.5	475.2	529.6	587.8	649.9
CPB-0701-M	6HE-28	24310	342.4	388.3	437.8	491.3	548.8	610.7	676.8
CPB-0702-M	6HE-28	23410	339.6	384.8	433.6	486.2	542.8	603.4	668.3
CPB-0800-M	6GE-34	23410	385.8	436.4	491.0	549.7	612.6	680.0	752.0
CPB-0801-M	6GE-34	24410	395.7	448.5	505.7	567.4	633.8	705.2	781.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CPB-0100-M	4FES-3	11210	47.5	53.6	60.2	67.3	74.9	83.0	91.6
CPB-0101-M	4FES-3	11410	50.6	57.4	64.8	72.8	81.5	90.8	100.9
CPB-0150-M	4EES-4	11410	60.5	68.7	77.6	87.2	97.6	108.7	120.6
CPB-0151-M	4EES-4	12210	61.5	70.0	79.1	89.1	99.8	111.4	123.8
CPB-0160-M	4DES-5	12210	70.9	80.6	91.1	102.5	114.7	127.8	141.9
CPB-0161-M	4DES-5	12310	73.3	83.5	94.7	106.8	120.0	134.2	149.4
CPB-0162-M	4DES-5	12410	74.3	84.8	96.3	108.8	122.3	136.9	152.7
CPB-0180-M	4CES-6	12210	86.6	97.9	110.1	123.3	137.4	152.6	168.7
CPB-0181-M	4CES-6	12410	91.5	104.0	117.6	132.3	148.3	165.5	184.0
CPB-0200-M	4TES-9	12310	109.8	124.6	140.6	157.9	176.4	196.3	217.4
CPB-0201-M	4TES-9	13310	114.4	130.3	147.6	166.4	186.6	208.5	231.9
CPB-0202-M	4TES-9	12410	112.1	127.5	144.2	162.2	181.6	202.5	224.8
CPB-0240-M	4PES-12	12410	123.2	140.6	159.5	179.9	201.7	225.2	250.3
CPB-0241-M	4PES-12	13310	126.2	144.3	164.0	185.3	208.3	233.1	259.6
CPB-0300-M	4NES-14	13310	149.4	169.9	192.2	216.2	242.1	269.8	299.5
CPB-0301-M	4NES-14	13410	152.3	173.6	196.6	221.6	248.6	277.6	308.7
CPB-0400-M	4JE-15	13310	165.9	188.6	213.1	239.4	267.7	298.0	330.3
CPB-0401-M	4JE-15	22310	171.2	195.1	221.0	249.0	279.2	311.6	346.4
CPB-0402-M	4JE-15	13410	169.5	193.1	218.5	246.0	275.6	307.3	341.3
CPB-0500-M	4HE-18	13410	199.1	225.6	254.3	285.2	318.3	353.8	391.6
CPB-0501-M	4HE-18	23310	208.7	237.5	268.8	302.7	339.2	378.7	421.0
CPB-0600-M	4GE-23	22410	240.4	271.8	305.6	342.1	381.3	423.4	468.5
CPB-0601-M	4GE-23	23310	245.2	277.6	312.7	350.7	391.6	435.7	482.9
CPB-0700-M	6HE-28	23310	302.0	342.6	386.5	433.8	484.7	539.2	597.5
CPB-0701-M	6HE-28	24310	310.3	352.8	398.9	448.8	502.7	560.6	622.8
CPB-0702-M	6HE-28	23410	307.7	349.6	395.0	444.1	497.0	553.8	614.8
CPB-0800-M	6GE-34	23410	349.7	396.6	447.4	502.1	560.9	624.1	691.6
CPB-0801-M	6GE-34	24410	358.8	407.9	461.1	518.6	580.8	647.7	719.6

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPB-0100-MQ	2 - 4FES-3	S	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25
CPB-0101-MQ*		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25
CPB-0150-MQ*	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30
CPB-0151-MQ		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30
CPB-0160-MQ	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35
CPB-0161-MQ		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35
CPB-0162-MQ		T		10.8	71.0	90		5.0	33.5	45		5.0	28.7	35
CPB-0180-MQ	2 - 4CES-6	S	30.8	10.8	83.1	110	15.8	5.0	42.1	50	12.5	5.0	34.3	45
CPB-0181-MQ*		O		10.8	83.1	125		5.0	42.1	50		5.0	34.3	45
CPB-0200-MQ	2 - 4TES-9	S	34.8	10.8	92.1	125	15.7	5.0	41.8	50	13.6	5.0	36.8	50
CPB-0201-MQ		O		16.2	97.5	125		7.5	44.3	60		7.5	39.3	50
CPB-0202-MQ		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50
CPB-0240-MQ*	2 - 4PES-12	S	42.7	10.8	109.9	150	19.3	5.0	49.9	60	16.0	5.0	42.2	50
CPB-0241-MQ		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60
CPB-0300-MQ	2 - 4NES-14	S	49.0	16.2	129.5	175	22.1	7.5	58.7	80	17.7	7.5	48.5	60
CPB-0301-MQ*		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60
CPB-0400-MT	2 - 4JE-15	S	61.6	16.2	157.8	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80
CPB-0401-MT		O		21.6	163.2	225		10.0	74.3	100		10.0	61.4	80
CPB-0402-MQ		T		16.2	157.8	200		7.5	71.8	100		7.5	58.9	80
CPB-0500-MQ*	2 - 4HE-18	S	66.7	16.2	169.3	225	30.1	7.5	76.7	100	24.1	7.5	62.9	80
CPB-0501-MQ		O		32.4	185.5	250		15.0	84.2	110		15.0	70.4	90
CPB-0600-MQ*	2 - 4GE-23	S	71.1	21.6	184.6	250	32.1	10.0	83.7	110	25.7	10.0	69.0	90
CPB-0601-MQ		O		32.4	195.4	250		15.0	88.7	110		15.0	74.0	100
CPB-0700-MQ	2 - 6HE-28	S	95.6	32.4	250.5	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125
CPB-0701-MQ		O		43.2	261.3	350		20.0	118.7	150		20.0	99.1	125
CPB-0702-MQ		T		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125
CPB-0800-MQ*	2 - 6GE-34	S	104.3	32.4	270.1	350	47.1	15.0	122.5	150	37.1	15.0	99.7	125
CPB-0801-MQ*		O		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125

CPB Medium Temp R-448A

CPB Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CPB-0100-M	4FES-3	11210	54.3	61.1	68.3	76.0	84.3	93.1	102.5
CPB-0101-M	4FES-3	11410	57.9	65.4	73.6	82.4	91.8	102.0	112.9
CPB-0150-M	4EES-4	11410	70.8	79.9	89.7	100.2	111.6	123.7	136.7
CPB-0151-M	4EES-4	12210	72.0	81.3	91.5	102.4	114.1	126.7	140.2
CPB-0160-M	4DES-5	12210	83.1	93.8	105.4	117.9	131.2	145.6	160.9
CPB-0161-M	4DES-5	12310	85.9	97.3	109.6	122.9	137.3	152.8	169.4
CPB-0162-M	4DES-5	12410	87.2	98.8	111.4	125.1	139.9	155.9	173.1
CPB-0180-M	4CES-6	12210	100.7	113.2	126.7	141.1	156.6	173.1	190.6
CPB-0181-M	4CES-6	12410	106.6	120.4	135.3	151.5	169.0	187.8	207.9
CPB-0200-M	4TES-9	12310	127.2	143.7	161.4	180.5	201.0	222.8	246.1
CPB-0201-M	4TES-9	13310	132.7	150.4	169.6	190.4	212.8	236.9	262.8
CPB-0202-M	4TES-9	12410	130.0	147.1	165.6	185.5	207.0	230.0	254.6
CPB-0240-M	4PES-12	12410	144.0	163.4	184.3	206.9	231.1	257.1	284.7
CPB-0241-M	4PES-12	13310	147.6	167.8	189.7	213.4	238.9	266.3	295.7
CPB-0300-M	4NES-14	13310	175.1	197.9	222.7	249.3	277.9	308.5	341.2
CPB-0301-M	4NES-14	13410	178.6	202.3	227.9	255.7	285.6	317.7	352.1
CPB-0400-M	4JE-15	13310	202.6	227.7	254.6	283.5	314.3	347.1	381.9
CPB-0401-M	4JE-15	22310	209.0	235.4	264.0	294.7	327.7	362.9	400.5
CPB-0402-M	4JE-15	13410	206.9	233.0	261.0	291.2	323.4	357.9	394.6
CPB-0500-M	4HE-18	13410	239.5	268.6	299.9	333.3	369.1	407.1	447.4
CPB-0501-M	4HE-18	23310	251.1	282.7	317.0	353.9	393.6	436.2	481.8
CPB-0600-M	4GE-23	22410	283.7	317.8	354.5	393.9	436.0	480.9	528.6
CPB-0601-M	4GE-23	23310	289.3	324.8	362.9	404.1	448.2	495.4	545.7
CPB-0700-M	6HE-28	23310	356.9	400.7	447.8	498.3	552.3	610.0	671.3
CPB-0701-M	6HE-28	24310	366.5	412.3	461.8	515.2	572.5	633.9	699.5
CPB-0702-M	6HE-28	23410	363.5	408.7	457.4	509.9	566.1	626.4	690.6
CPB-0800-M	6GE-34	23410	424.5	474.2	527.7	584.9	646.0	711.1	780.3
CPB-0801-M	6GE-34	24410	434.7	486.8	543.0	603.4	668.3	737.6	811.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CPB-0100-M	4FES-3	11210	49.1	55.4	62.1	69.3	77.0	85.2	N/A
CPB-0101-M	4FES-3	11410	52.5	59.4	67.0	75.2	84.1	93.6	103.8
CPB-0150-M	4EES-4	11410	64.1	72.5	81.6	91.4	102.0	113.3	125.4
CPB-0151-M	4EES-4	12210	65.2	73.8	83.2	93.4	104.4	116.2	128.8
CPB-0160-M	4DES-5	12210	75.1	85.0	95.8	107.4	119.9	133.3	147.6
CPB-0161-M	4DES-5	12310	77.8	88.3	99.8	112.2	125.6	140.1	155.6
CPB-0162-M	4DES-5	12410	78.9	89.7	101.5	114.2	128.1	143.0	159.1
CPB-0180-M	4CES-6	12210	91.4	103.0	115.5	128.9	143.3	158.7	175.1
CPB-0181-M	4CES-6	12410	96.9	109.7	123.6	138.7	155.0	172.6	191.4
CPB-0200-M	4TES-9	12310	114.8	130.0	146.4	164.0	183.0	203.3	225.0
CPB-0201-M	4TES-9	13310	119.9	136.2	154.0	173.3	194.2	216.6	240.8
CPB-0202-M	4TES-9	12410	117.4	133.2	150.3	168.8	188.7	210.1	233.0
CPB-0240-M	4PES-12	12410	128.9	146.7	166.0	186.9	209.3	233.4	259.1
CPB-0241-M	4PES-12	13310	132.2	150.8	171.0	193.0	216.6	242.1	269.5
CPB-0300-M	4NES-14	13310	157.5	178.6	201.4	226.0	252.4	280.8	311.2
CPB-0301-M	4NES-14	13410	160.9	182.7	206.4	232.1	259.8	289.6	321.6
CPB-0400-M	4JE-15	13310	183.7	207.0	232.0	258.9	287.6	318.2	350.7
CPB-0401-M	4JE-15	22310	189.8	214.4	241.0	269.6	300.3	333.3	368.5
CPB-0402-M	4JE-15	13410	187.9	212.1	238.2	266.2	296.3	328.5	362.9
CPB-0500-M	4HE-18	13410	217.8	244.7	273.6	304.6	337.8	373.1	410.7
CPB-0501-M	4HE-18	23310	228.8	258.2	290.0	324.3	361.3	401.0	443.6
CPB-0600-M	4GE-23	22410	258.8	290.2	324.1	360.4	399.4	440.9	485.3
CPB-0601-M	4GE-23	23310	264.2	296.9	332.2	370.2	411.1	454.9	501.8
CPB-0700-M	6HE-28	23310	325.0	365.6	409.2	456.2	506.4	560.2	617.4
CPB-0701-M	6HE-28	24310	334.1	376.7	422.7	472.4	525.8	583.1	644.5
CPB-0702-M	6HE-28	23410	331.3	373.2	418.5	467.3	519.7	575.9	635.9
CPB-0800-M	6GE-34	23410	389.0	434.8	484.1	537.0	593.5	653.7	717.8
CPB-0801-M	6GE-34	24410	399.0	447.1	499.0	554.9	615.0	679.3	748.1

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPB-0100-MT	2 - 4FES-3	S	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25
CPB-0101-MT		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25
CPB-0150-MT	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30
CPB-0151-MT		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30
CPB-0160-MT	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35
CPB-0161-MT		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35
CPB-0162-MT		T		10.8	71.0	90		5.0	33.5	45		5.0	28.7	35
CPB-0180-MT	2 - 4CES-6	S	30.8	10.8	83.1	110	15.8	5.0	42.1	50	12.5	5.0	34.3	45
CPB-0181-MT		O		10.8	83.1	125		5.0	42.1	50		5.0	34.3	45
CPB-0200-MT	2 - 4TES-9	S	34.8	10.8	92.1	125	15.7	5.0	41.8	50	13.6	5.0	36.8	50
CPB-0201-MT		O		16.2	97.5	125		7.5	44.3	60		7.5	39.3	50
CPB-0202-MT		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50
CPB-0240-MT	2 - 4PES-12	S	42.7	10.8	109.9	150	19.3	5.0	49.9	60	16.0	5.0	42.2	50
CPB-0241-MT		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60
CPB-0300-MT	2 - 4NES-14	S	49.0	16.2	129.5	175	22.1	7.5	58.7	80	17.7	7.5	48.5	60
CPB-0301-MT		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60
CPB-0400-MT	2 - 4JE-15	S	61.6	16.2	157.8	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80
CPB-0401-MT		O		21.6	163.2	225		10.0	74.3	100		10.0	61.4	80
CPB-0402-MT		T		16.2	157.8	200		7.5	71.8	100		7.5	58.9	80
CPB-0500-MT	2 - 4HE-18	S	66.7	16.2	169.3	225	30.1	7.5	76.7	100	24.1	7.5	62.9	80
CPB-0501-MT		O		32.4	185.5	250		15.0	84.2	110		15.0	70.4	90
CPB-0600-MT	2 - 4GE-23	S	71.1	21.6	184.6	250	32.1	10.0	83.7	110	25.7	10.0	69.0	90
CPB-0601-MT		O		32.4	195.4	250		15.0	88.7	110		15.0	74.0	100
CPB-0700-MT	2 - 6HE-28	S	95.6	32.4	250.5	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125
CPB-0701-MT		O		43.2	261.3	350		20.0	118.7	150		20.0	99.1	125
CPB-0702-MT		T		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125
CPB-0800-MT	2 - 6GE-34	S	104.3	32.4	270.1	350	47.1	15.0	122.5	150	37.1	15.0	99.7	125
CPB-0801-MT		O		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125

CPD Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPD-0300-L	4DKNF63KE	12410	78.2	92.6	107.3	122.4	138.2	154.8	172.5	191.5	211.9
CPD-0301-L	4DKNF63KE	13310	80.0	94.9	110.1	125.8	142.2	159.7	178.3	198.4	220.1
CPD-0440-L	4DJNF76KE	13310	95.8	113.2	131.1	149.5	168.7	188.7	209.7	231.8	255.1
CPD-0441-L	4DJNF76KE	13410	97.3	115.0	133.2	152.2	171.9	192.7	214.5	237.5	261.9
CPD-0540-L	6DHNF93KE	13410	116.1	136.2	158.4	182.4	208.1	235.3	263.6	292.9	322.9
CPD-0541-L	6DHNF93KE	22410	119.2	139.9	162.9	188.0	214.9	243.6	273.7	305.1	337.5
CPD-0600-L	6DJNF11ME	22310	133.1	155.5	179.6	205.3	232.8	262.1	293.0	325.6	359.7
CPD-0601-L	6DJNF11ME	23310	137.7	161.0	186.4	213.7	243.3	275.0	308.9	345.1	383.6
CPD-0602-L	6DJNF11ME	22410	135.2	158.0	182.7	209.2	237.6	268.0	300.3	334.5	370.6

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPD-0300-L	4DKNF63KE	12410	68.1	81.8	95.5	109.6	124.2	139.6	155.9	173.5	192.3
CPD-0301-L	4DKNF63KE	13310	69.6	83.7	97.9	112.5	127.8	143.9	161.1	179.6	199.6
CPD-0440-L	4DJNF76KE	13310	82.8	99.6	116.6	133.9	151.9	170.4	189.8	210.1	231.3
CPD-0441-L	4DJNF76KE	13410	84.3	101.3	118.7	136.5	154.9	174.0	194.1	215.1	237.3
CPD-0540-L	6DHNF93KE	13410	100.6	119.9	140.9	163.5	187.5	212.7	238.8	265.6	293.0
CPD-0541-L	6DHNF93KE	22410	103.5	123.4	145.2	168.8	193.9	220.5	248.3	277.0	306.6
CPD-0600-L	6DJNF11ME	22310	115.9	137.4	160.2	184.2	209.5	236.2	264.2	293.5	324.1
CPD-0601-L	6DJNF11ME	23310	120.4	142.8	166.7	192.2	219.4	248.4	279.1	311.8	346.3
CPD-0602-L	6DJNF11ME	22410	118.0	139.9	163.2	187.9	214.1	241.8	271.0	301.8	334.2

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPD-0300-LS*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5.0	65.6	90	20.9	5.0	53.3	70
CPD-0301-LS		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CPD-0440-LS	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CPD-0441-LS*		O		16.2	169.2	225		7.5	83.8	110		7.5	76.6	100
CPD-0540-LS*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110
CPD-0541-LS*		O		21.6	206.2	250		10.0	102.3	125		10.0	84.3	110
CPD-0600-LS	2 - 6DJNF11ME	S	95.6	21.6	239.7	300	47.8	10.0	119.2	150	39.6	10.0	100.3	125
CPD-0601-LS		O		32.4	250.5	300		15.0	124.2	150		15.0	105.3	125
CPD-0602-LS		T		21.6	239.7	300		10.0	119.2	150		10.0	100.3	125

Unit	Condenser LAVF
CPD-0300-LS*	12410
CPD-0301-LS	13310
CPD-0440-LS	13310
CPD-0441-LS*	13410
CPD-0540-LS*	13410
CPD-0541-LS*	22410
CPD-0600-LS	22310
CPD-0601-LS	23310
CPD-0602-LS	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
5. Compressor head cooling fan is included for all low temperature applications.

CP Parallel Systems

CPD Low Temp R-407A

CPD Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPD-0300-L	4DKNF63KE	12410	66.0	79.3	93.7	109.2	125.8	143.5	162.2	181.9	202.6
CPD-0301-L	4DKNF63KE	13310	67.2	80.7	95.5	111.5	128.7	147.1	166.6	187.2	209.0
CPD-0440-L	4DJNF76KE	13310	86.5	99.6	115.5	134.1	155.2	178.8	204.6	232.6	262.7
CPD-0441-L	4DJNF76KE	13410	87.5	101.0	117.4	136.6	158.4	182.8	209.5	238.5	269.7
CPD-0540-L	6DHNF93KE	13410	90.9	114.0	137.6	162.0	187.8	215.5	245.4	278.1	313.7
CPD-0541-L	6DHNF93KE	22410	93.4	117.0	141.2	166.4	193.2	222.1	253.5	287.9	325.7
CPD-0600-L	6DJNF11ME	22310	108.8	136.4	164.6	193.7	224.5	257.4	292.9	331.5	373.7
CPD-0601-L	6DJNF11ME	23310	113.0	141.6	170.9	201.5	233.9	268.9	307.0	348.7	394.7
CPD-0602-L	6DJNF11ME	22410	111.0	139.1	167.8	197.7	229.4	263.3	300.2	340.4	384.5

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPD-0300-L	4DKNF63KE	12410	57.1	69.7	83.3	97.8	113.3	129.7	146.9	165.1	184.0
CPD-0301-L	4DKNF63KE	13310	58.3	71.2	85.1	100.0	116.0	133.1	151.1	170.1	190.1
CPD-0440-L	4DJNF76KE	13310	77.7	88.7	102.6	119.4	138.7	160.6	184.8	211.2	239.8
CPD-0441-L	4DJNF76KE	13410	78.8	90.2	104.6	121.9	141.9	164.5	189.6	217.1	246.8
CPD-0540-L	6DHNF93KE	13410	74.9	97.5	120.2	143.6	168.1	194.2	222.3	252.9	286.4
CPD-0541-L	6DHNF93KE	22410	77.5	100.7	124.1	148.3	173.8	201.1	230.7	263.0	298.5
CPD-0600-L	6DJNF11ME	22310	89.3	116.3	143.4	171.3	200.5	231.5	264.9	301.1	340.5
CPD-0601-L	6DJNF11ME	23310	93.9	121.9	150.2	179.5	210.5	243.6	279.5	318.7	361.9
CPD-0602-L	6DJNF11ME	22410	91.7	119.2	147.0	175.6	205.6	237.7	272.4	310.2	351.5

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPD-0300-LQ*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5.0	65.6	90	20.9	5.0	53.3	70
CPD-0301-LQ		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CPD-0440-LQ	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CPD-0441-LQ*		O		16.2	169.2	225		7.5	83.8	110		7.5	76.6	100
CPD-0540-LQ*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110
CPD-0541-LQ*		O		21.6	206.2	250		10.0	102.3	125		10.0	84.3	110
CPD-0600-LQ	2 - 6DJNF11ME	S	95.6	21.6	239.7	300	47.8	10.0	119.1	150	39.6	10.0	100.3	125
CPD-0601-LQ		O		32.4	250.5	300		15.0	124.2	150		15.0	105.3	125
CPD-0602-LQ		T		21.6	239.7	300		10.0	119.1	150		10.0	100.3	125

Unit	Condenser LAVF
CPD-0300-LQ*	12410
CPD-0301-LQ	13310
CPD-0440-LQ	13310
CPD-0441-LQ*	13410
CPD-0540-LQ*	13410
CPD-0541-LQ*	22410
CPD-0600-LQ	22310
CPD-0601-LQ	23310
CPD-0602-LQ	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CPD Low Temp R-448A

CPD Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPD-0300-L	4DKNF63KE	12410	69.1	84.0	99.5	115.6	132.6	150.6	169.6	189.7	211.2
CPD-0301-L	4DKNF63KE	13310	70.5	85.8	101.7	118.3	135.8	154.4	174.2	195.4	218.0
CPD-0440-L	4DJNF76KE	13310	84.6	103.2	122.3	142.4	164.0	187.5	213.4	242.1	274.0
CPD-0441-L	4DJNF76KE	13410	86.3	105.3	124.8	145.4	167.6	191.9	218.6	248.4	281.5
CPD-0540-L	6DHNF93KE	13410	100.6	122.9	146.3	171.2	198.0	226.9	258.2	292.3	329.4
CPD-0541-L	6DHNF93KE	22410	103.6	126.3	150.4	176.2	204.0	234.2	267.1	303.1	342.5
CPD-0600-L	6DJNF11ME	22310	119.6	146.7	174.9	204.7	236.5	270.7	307.8	348.1	392.0
CPD-0601-L	6DJNF11ME	23310	124.7	152.8	182.2	213.4	247.0	283.5	323.3	366.9	414.8
CPD-0602-L	6DJNF11ME	22410	122.2	149.8	178.7	209.2	241.9	277.3	315.8	357.9	403.8

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPD-0300-L	4DKNF63KE	12410	58.0	72.8	87.8	103.3	119.3	136.2	153.8	172.5	192.2
CPD-0301-L	4DKNF63KE	13310	59.5	74.5	89.9	105.8	122.4	139.9	158.3	177.9	198.7
CPD-0440-L	4DJNF76KE	13310	70.4	88.4	106.8	126.0	146.5	168.9	193.4	220.7	251.0
CPD-0441-L	4DJNF76KE	13410	72.0	90.4	109.2	128.9	150.1	173.1	198.5	226.8	258.3
CPD-0540-L	6DHNF93KE	13410	83.4	105.1	127.7	151.5	176.9	204.3	233.8	265.9	300.7
CPD-0541-L	6DHNF93KE	22410	86.6	108.8	132.1	156.8	183.3	212.0	243.1	277.1	314.2
CPD-0600-L	6DJNF11ME	22310	98.3	124.8	152.1	180.7	210.9	243.3	278.3	316.1	357.2
CPD-0601-L	6DJNF11ME	23310	103.8	131.4	159.9	190.0	222.1	256.8	294.5	335.6	380.7
CPD-0602-L	6DJNF11ME	22410	101.1	128.2	156.2	185.5	216.7	250.3	286.6	326.2	369.3

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPD-0300-LT*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5.0	65.6	90	20.9	5.0	53.3	70
CPD-0301-LT		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CPD-0440-LT	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CPD-0441-LT*		O		16.2	169.2	225		7.5	83.8	110		7.5	76.6	100
CPD-0540-LT*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110
CPD-0541-LT*		O		21.6	206.2	250		10.0	102.3	125		10.0	84.3	110
CPD-0600-LT	2 - 6DJNF11ME	S	95.6	21.6	239.7	300	47.8	10.0	119.1	150	39.6	10.0	100.3	125
CPD-0601-LT		O		32.4	250.5	300		15.0	124.2	150		15.0	105.3	125
CPD-0602-LT		T		21.6	239.7	300		10.0	119.1	150		10.0	100.3	125

Unit	Condenser LAVF
CPD-0300-LT*	12410
CPD-0301-LT	13310
CPD-0440-LT	13310
CPD-0441-LT*	13410
CPD-0540-LT*	13410
CPD-0541-LT*	22410
CPD-0600-LT	22310
CPD-0601-LT	23310
CPD-0602-LT	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CP Parallel Systems

CPE Low Temp R-404A

CPE Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPE-0300-L	4HE-25	12410	73.8	88.3	103.8	120.4	138.0	156.8	176.7	197.8	220.0
CPE-0301-L	4HE-25	13310	75.4	90.4	106.5	123.7	142.2	162.0	183.2	205.8	229.8
CPE-0440-L	4GE-30	13310	87.8	104.7	122.7	141.9	162.5	184.4	207.7	232.4	258.6
CPE-0441-L	4GE-30	13410	89.0	106.2	124.6	144.4	165.6	188.4	212.7	238.6	266.1
CPE-0540-L	6HE-35	13410	109.2	130.5	153.2	177.5	203.4	231.1	260.4	291.5	324.4
CPE-0541-L	6HE-35	22410	112.0	134.1	157.8	183.3	210.7	240.1	271.6	305.3	341.2
CPE-0600-L	6GE-40	22310	128.4	152.5	178.3	205.8	235.0	266.1	299.1	333.9	370.5
CPE-0601-L	6GE-40	23310	132.8	158.1	185.3	214.6	246.2	280.0	316.4	355.2	396.6
CPE-0602-L	6GE-40	22410	130.4	155.1	181.5	209.8	240.1	272.5	307.0	343.6	382.4

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPE-0300-L	4HE-25	12410	64.0	77.5	91.7	106.8	122.8	139.7	157.5	176.4	196.3
CPE-0301-L	4HE-25	13310	65.5	79.4	94.1	109.9	126.7	144.6	163.7	184.0	205.5
CPE-0440-L	4GE-30	13310	76.9	92.4	108.9	126.4	145.0	164.7	185.6	207.7	231.0
CPE-0441-L	4GE-30	13410	77.9	93.9	110.8	128.8	148.0	168.5	190.3	213.5	238.2
CPE-0540-L	6HE-35	13410	94.5	114.2	135.1	157.3	180.9	205.8	232.2	260.1	289.5
CPE-0541-L	6HE-35	22410	97.0	117.5	139.4	162.7	187.7	214.3	242.8	273.2	305.5
CPE-0600-L	6GE-40	22310	111.9	134.4	158.1	183.2	209.7	237.7	267.2	298.3	330.9
CPE-0601-L	6GE-40	23310	116.0	139.6	164.8	191.6	220.3	251.0	283.8	318.7	355.9
CPE-0602-L	6GE-40	22410	113.7	136.8	161.2	187.1	214.6	243.8	274.8	307.6	342.3

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPE-0300-LS*	2 - 4HE-25	S	84.3	10.8	203.5	250	42.1	5.0	101.2	125	33.6	5.0	81.8	110
CPE-0301-LS		O		16.2	208.9	250		7.5	103.7	125		7.5	84.3	110
CPE-0440-LS	2 - 4GE-30	S	100.0	16.2	244.2	300	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CPE-0441-LS*		O		16.2	244.2	300		7.5	124.0	175		7.5	101.2	125
CPE-0540-LS*	2 - 6HE-35	S	117.1	16.2	282.7	350	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CPE-0541-LS*		O		21.6	288.1	400		10.0	143.4	200		10.0	115.6	150
CPE-0600-LS	2 - 6GE-40	S	157.1	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CPE-0601-LS		O		32.4	388.9	500		15.0	193.4	250		15.0	157.7	200
CPE-0602-LS		T		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200

Unit	Condenser LAVF
CPE-0300-LS*	12410
CPE-0301-LS	13310
CPE-0440-LS	13310
CPE-0441-LS*	13410
CPE-0540-LS*	13410
CPE-0541-LS*	22410
CPE-0600-LS	22310
CPE-0601-LS	23310
CPE-0602-LS	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the ¨S¨ at the end of the model nomenclature with a ¨P¨.
5. Compressor head cooling fan is included for all low temperature applications.

CPE Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPE-0300-L	4HE-25	12410	43.0	58.4	74.7	91.9	110.2	129.8	150.7	173.1	197.0
CPE-0301-L	4HE-25	13310	43.8	59.6	76.3	94.0	113.0	133.3	155.2	178.7	203.9
CPE-0440-L	4GE-30	13310	58.0	76.1	95.2	115.4	136.9	159.9	184.4	210.7	238.8
CPE-0441-L	4GE-30	13410	58.9	77.3	96.7	117.4	139.5	163.2	188.7	216.1	245.4
CPE-0540-L	6HE-35	13410	73.0	96.4	121.0	147.1	174.9	204.4	236.0	269.7	305.7
CPE-0541-L	6HE-35	22410	74.7	98.8	124.2	151.3	180.3	211.3	244.7	280.6	319.2
CPE-0600-L	6GE-40	22310	86.0	112.8	140.9	170.7	202.3	236.0	271.8	310.1	350.9
CPE-0601-L	6GE-40	23310	88.8	116.6	146.0	177.4	211.0	247.0	285.8	327.6	372.5
CPE-0602-L	6GE-40	22410	87.4	114.7	143.6	174.1	206.7	241.6	279.0	319.0	361.9

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPE-0300-L	4HE-25	12410	34.2	48.6	63.8	79.7	96.6	114.6	133.9	154.4	176.4
CPE-0301-L	4HE-25	13310	34.9	49.7	65.2	81.6	99.1	117.9	137.9	159.5	182.7
CPE-0440-L	4GE-30	13310	48.3	65.3	83.1	101.9	121.7	142.9	165.5	189.7	215.5
CPE-0441-L	4GE-30	13410	49.1	66.4	84.5	103.7	124.2	146.0	169.5	194.6	221.7
CPE-0540-L	6HE-35	13410	60.2	82.2	105.2	129.4	155.0	182.2	211.2	242.2	275.3
CPE-0541-L	6HE-35	22410	61.7	84.3	108.1	133.2	160.0	188.6	219.3	252.4	287.9
CPE-0600-L	6GE-40	22310	71.6	96.8	123.0	150.6	179.8	210.8	243.8	278.9	316.4
CPE-0601-L	6GE-40	23310	74.1	100.2	127.7	156.8	187.8	221.1	256.8	295.2	336.6
CPE-0602-L	6GE-40	22410	72.9	98.5	125.4	153.8	183.9	216.0	250.4	287.2	326.7

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPE-0300-LQ*	2 - 4HE-25	S	84.3	10.8	203.5	250	42.1	5.0	101.2	125	33.6	5.0	81.8	110
CPE-0301-LQ		O		16.2	208.9	250		7.5	103.7	125		7.5	84.3	110
CPE-0440-LQ	2 - 4GE-30	S	100.0	16.2	244.2	300	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CPE-0441-LQ*		O		16.2	244.2	300		7.5	124.0	175		7.5	101.2	125
CPE-0540-LQ*	2 - 6HE-35	S	117.1	16.2	282.7	350	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CPE-0541-LQ*		O		21.6	288.1	400		10.0	143.4	200		10.0	115.6	150
CPE-0600-LQ	2 - 6GE-40	S	157.1	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CPE-0601-LQ		O		32.4	388.9	500		15.0	193.4	250		15.0	157.7	200
CPE-0602-LQ		T		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200

Unit	Condenser LAVF
CPE-0300-LQ*	12410
CPE-0301-LQ	13310
CPE-0440-LQ	13310
CPE-0441-LQ*	13410
CPE-0540-LQ*	13410
CPE-0541-LQ*	22410
CPE-0600-LQ	22310
CPE-0601-LQ	23310
CPE-0602-LQ	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CP Parallel Systems

CPE Low Temp R-448A

CPE Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPE-0300-L	4HE-25	12410	65.4	80.8	97.1	114.5	133.1	152.9	174.2	196.8	221.0
CPE-0301-L	4HE-25	13310	66.7	82.4	99.2	117.2	136.4	157.1	179.4	203.3	228.9
CPE-0440-L	4GE-30	13310	78.2	96.0	114.9	135.0	156.5	179.5	204.1	230.4	258.6
CPE-0441-L	4GE-30	13410	79.3	97.5	116.8	137.5	159.6	183.4	209.0	236.5	266.1
CPE-0540-L	6HE-35	13410	96.8	119.4	143.4	168.9	196.3	225.6	256.9	290.4	326.1
CPE-0541-L	6HE-35	22410	99.2	122.5	147.3	173.9	202.6	233.4	266.6	302.4	340.8
CPE-0600-L	6GE-40	22310	114.3	140.1	167.4	196.4	227.3	260.3	295.4	332.7	372.5
CPE-0601-L	6GE-40	23310	118.3	145.1	173.7	204.3	237.2	272.6	310.7	351.7	395.7
CPE-0602-L	6GE-40	22410	116.3	142.7	170.6	200.5	232.4	266.6	303.2	342.4	384.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPE-0300-L	4HE-25	12410	55.7	70.3	85.6	101.8	119.0	137.2	156.7	177.4	199.6
CPE-0301-L	4HE-25	13310	56.9	71.8	87.6	104.3	122.2	141.2	161.7	183.6	207.1
CPE-0440-L	4GE-30	13310	67.6	84.5	102.1	120.8	140.6	161.7	184.2	208.2	233.8
CPE-0441-L	4GE-30	13410	68.7	85.9	104.0	123.2	143.6	165.5	188.9	214.1	241.0
CPE-0540-L	6HE-35	13410	81.9	103.4	126.0	149.9	175.3	202.3	231.1	261.9	294.7
CPE-0541-L	6HE-35	22410	84.2	106.4	129.8	154.7	181.3	209.8	240.5	273.4	308.8
CPE-0600-L	6GE-40	22310	97.3	122.0	147.8	175.0	203.7	234.1	266.3	300.5	336.7
CPE-0601-L	6GE-40	23310	101.2	126.9	154.0	182.7	213.4	246.1	281.2	318.9	359.3
CPE-0602-L	6GE-40	22410	99.3	124.5	151.0	179.0	208.7	240.3	273.9	309.9	348.2

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPE-0300-LT*	2 - 4HE-25	S	84.3	10.8	203.5	250	42.1	5.0	101.2	125	33.6	5.0	81.8	110
CPE-0301-LT		O		16.2	208.9	250		7.5	103.7	125		7.5	84.3	110
CPE-0440-LT	2 - 4GE-30	S	100.0	16.2	244.2	300	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CPE-0441-LT*		O		16.2	244.2	300		7.5	124.0	175		7.5	101.2	125
CPE-0540-LT*	2 - 6HE-35	S	117.1	16.2	282.7	350	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CPE-0541-LT*		O		21.6	288.1	400		10.0	143.4	200		10.0	115.6	150
CPE-0600-LT	2 - 6GE-40	S	157.1	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CPE-0601-LT		O		32.4	388.9	500		15.0	193.4	250		15.0	157.7	200
CPE-0602-LT		T		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200

Unit	Condenser LAVF
CPE-0300-LT*	12410
CPE-0301-LT	13310
CPE-0440-LT	13310
CPE-0441-LT*	13410
CPE-0540-LT*	13410
CPE-0541-LT*	22410
CPE-0600-LT	22310
CPE-0601-LT	23310
CPE-0602-LT	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CPB Low Temp R-404A

CPB Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPB-0300-L	4HE-18	12410	78.3	92.6	107.9	124.4	141.9	160.5	180.4	201.4	223.6
CPB-0301-L	4HE-18	13310	79.9	94.7	110.7	127.8	146.2	166.0	187.1	209.7	233.7
CPB-0440-L	4GE-23	13310	95.4	112.1	129.9	149.0	169.4	191.2	214.4	239.1	265.2
CPB-0441-L	4GE-23	13410	96.7	113.7	132.0	151.7	172.8	195.5	219.7	245.5	273.0
CPB-0540-L	6HE-28	13410	116.1	137.1	159.6	183.7	209.5	237.0	266.3	297.4	330.3
CPB-0541-L	6HE-28	22410	118.9	140.8	164.3	189.7	217.0	246.4	277.8	311.5	347.4
CPB-0600-L	6GE-34	22310	145.6	169.7	195.4	222.8	251.9	282.9	315.7	350.4	387.0
CPB-0601-L	6GE-34	23310	150.2	175.5	202.8	232.2	263.8	297.7	334.1	373.0	414.5
CPB-0602-L	6GE-34	22410	147.7	172.4	198.8	227.1	257.4	289.7	324.2	360.8	399.6

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPB-0300-L	4HE-18	12410	68.6	81.8	95.7	110.6	126.4	143.2	161.0	179.9	199.9
CPB-0301-L	4HE-18	13310	70.1	83.7	98.2	113.8	130.5	148.3	167.4	187.7	209.4
CPB-0440-L	4GE-23	13310	84.8	100.0	116.2	133.5	151.8	171.4	192.2	214.3	237.7
CPB-0441-L	4GE-23	13410	86.0	101.5	118.2	136.0	155.0	175.4	197.2	220.4	245.1
CPB-0540-L	6HE-28	13410	101.6	120.9	141.4	163.3	186.6	211.5	237.9	265.9	295.6
CPB-0541-L	6HE-28	22410	104.2	124.3	145.8	168.9	193.7	220.3	248.8	279.3	311.8
CPB-0600-L	6GE-34	22310	129.7	151.9	175.3	200.2	226.5	254.3	283.8	314.8	347.4
CPB-0601-L	6GE-34	23310	134.2	157.6	182.6	209.3	238.0	268.7	301.5	336.5	373.9
CPB-0602-L	6GE-34	22410	131.8	154.5	178.7	204.4	231.8	260.9	291.9	324.7	359.5

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPB-0300-LS	2 - 4HE-18	S	60.3	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80
CPB-0301-LS		O		16.2	154.9	200		7.5	76.7	100		7.5	62.9	80
CPB-0440-LS	2 - 4GE-23	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CPB-0441-LS		O		16.2	163.9	225		7.5	83.7	110		7.5	69.0	90
CPB-0540-LS	2 - 6HE-28	S	86.4	16.2	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CPB-0541-LS		O		21.6	219.0	300		10.0	108.7	150		10.0	89.1	125
CPB-0600-LS	2 - 6GE-34	S	94.3	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CPB-0601-LS		O		32.4	247.6	300		15.0	122.5	150		15.0	99.7	125
CPB-0602-LS		T		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125

Unit	Condenser LAVF
CPB-0300-LS	12410
CPB-0301-LS	13310
CPB-0440-LS	13310
CPB-0441-LS	13410
CPB-0540-LS	13410
CPB-0541-LS	22410
CPB-0600-LS	22310
CPB-0601-LS	23310
CPB-0602-LS	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
5. Compressor head cooling fan is included for all low temperature applications.

CP Parallel Systems

CPB Low Temp R-407A

CPB Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPB-0300-L	4HE-18	12410	53.7	68.6	84.6	101.6	119.9	139.6	160.7	183.3	207.6
CPB-0301-L	4HE-18	13310	54.6	69.9	86.2	103.8	122.8	143.2	165.3	189.1	214.7
CPB-0440-L	4GE-23	13310	69.4	86.8	105.3	125.1	146.4	169.3	193.9	220.3	248.7
CPB-0441-L	4GE-23	13410	70.2	88.0	106.9	127.3	149.2	172.9	198.4	225.9	255.5
CPB-0540-L	6HE-28	13410	80.7	103.1	127.0	152.5	180.0	209.4	241.1	275.0	311.4
CPB-0541-L	6HE-28	22410	82.4	105.4	130.2	156.8	185.5	216.5	250.0	286.2	325.1
CPB-0600-L	6GE-34	22310	93.8	119.4	146.6	175.8	207.0	240.4	276.3	314.8	356.0
CPB-0601-L	6GE-34	23310	96.5	123.2	151.7	182.5	215.8	251.7	290.6	332.6	377.9
CPB-0602-L	6GE-34	22410	95.2	121.3	149.2	179.2	211.4	246.2	283.6	323.8	367.1

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPB-0300-L	4HE-18	12410	46.0	59.8	74.4	90.1	106.9	124.9	144.4	165.3	187.7
CPB-0301-L	4HE-18	13310	46.8	60.8	75.9	92.0	109.5	128.3	148.6	170.5	194.2
CPB-0440-L	4GE-23	13310	61.0	77.1	94.1	112.3	131.9	153.0	175.6	200.0	226.2
CPB-0441-L	4GE-23	13410	61.8	78.1	95.6	114.3	134.5	156.2	179.7	205.1	232.5
CPB-0540-L	6HE-28	13410	69.2	89.8	111.7	135.2	160.4	187.5	216.6	247.9	281.6
CPB-0541-L	6HE-28	22410	70.6	91.9	114.6	139.0	165.4	193.9	224.8	258.2	294.2
CPB-0600-L	6GE-34	22310	80.8	104.3	129.4	156.1	184.7	215.5	248.5	284.0	322.0
CPB-0601-L	6GE-34	23310	83.1	107.7	133.9	162.2	192.8	225.8	261.6	300.4	342.3
CPB-0602-L	6GE-34	22410	82.0	106.0	131.7	159.2	188.8	220.7	255.2	292.3	332.3

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPB-0300-LQ*	2 - 4HE-18	S	60.3	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80
CPB-0301-LQ		O		16.2	154.9	200		7.5	76.7	100		7.5	62.9	80
CPB-0440-LQ	2 - 4GE-23	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CPB-0441-LQ*		O		16.2	163.9	225		7.5	83.7	110		7.5	69.0	90
CPB-0540-LQ*	2 - 6HE-28	S	86.4	16.2	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CPB-0541-LQ*		O		21.6	219.0	300		10.0	108.7	150		10.0	89.1	125
CPB-0600-LQ	2 - 6GE-34	S	94.3	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CPB-0601-LQ		O		32.4	247.6	300		15.0	122.5	150		15.0	99.7	125
CPB-0602-LQ		T		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125

Unit	Condenser LAVF
CPB-0300-LQ*	12410
CPB-0301-LQ	13310
CPB-0440-LQ	13310
CPB-0441-LQ*	13410
CPB-0540-LQ*	13410
CPB-0541-LQ*	22410
CPB-0600-LQ	22310
CPB-0601-LQ	23310
CPB-0602-LQ	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the ¨Q¨ at the end of the model nomenclature with an ¨F¨.
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CPB Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

NOTE:
Refrigeration systems identified with black shading are not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPB-0300-L	4HE-18	12410	70.7	85.5	101.4	118.6	137.0	156.9	178.3	201.2	225.7
CPB-0301-L	4HE-18	13310	72.0	87.1	103.5	121.2	140.4	161.1	183.5	207.7	233.7
CPB-0440-L	4GE-23	13310	87.0	104.1	122.5	142.3	163.7	186.7	211.5	238.1	266.5
CPB-0441-L	4GE-23	13410	88.1	105.6	124.4	144.8	166.9	190.8	216.5	244.3	274.2
CPB-0540-L	6HE-28	13410	104.7	126.4	149.8	175.0	202.2	231.5	263.0	296.9	333.1
CPB-0541-L	6HE-28	22410	107.1	129.5	153.8	180.1	208.6	239.5	272.9	309.0	348.0
CPB-0600-L	6GE-34	22310	134.0	159.1	186.0	214.8	245.8	278.9	314.3	352.2	392.4
CPB-0601-L	6GE-34	23310	137.8	164.0	192.2	222.7	255.7	291.4	329.9	371.4	416.0
CPB-0602-L	6GE-34	22410	135.9	161.6	189.2	218.9	250.9	285.3	322.3	362.0	404.5

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CPB-0300-L	4HE-18	12410	61.8	75.6	90.3	106.1	123.1	141.4	161.1	182.1	204.7
CPB-0301-L	4HE-18	13310	63.0	77.1	92.3	108.6	126.3	145.4	166.1	188.3	212.2
CPB-0440-L	4GE-23	13310	77.6	93.4	110.4	128.7	148.3	169.3	192.0	216.3	242.3
CPB-0441-L	4GE-23	13410	78.6	94.8	112.2	131.0	151.3	173.2	196.8	222.3	249.7
CPB-0540-L	6HE-28	13410	91.0	111.3	133.0	156.4	181.5	208.6	237.6	268.8	302.2
CPB-0541-L	6HE-28	22410	93.2	114.2	136.8	161.2	187.6	216.2	247.1	280.5	316.4
CPB-0600-L	6GE-34	22310	119.1	142.8	167.9	194.7	223.2	253.7	286.3	320.9	357.8
CPB-0601-L	6GE-34	23310	122.9	147.5	174.0	202.4	233.0	265.9	301.4	339.7	380.8
CPB-0602-L	6GE-34	22410	121.0	145.2	171.0	198.6	228.2	260.0	294.0	330.5	369.5

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPB-0300-LT*	2 - 4HE-18	S	60.3	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80
CPB-0301-LT		O		16.2	154.9	200		7.5	76.7	100		7.5	62.9	80
CPB-0440-LT	2 - 4GE-23	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CPB-0441-LT*		O		16.2	163.9	225		7.5	83.7	110		7.5	69.0	90
CPB-0540-LT*	2 - 6HE-28	S	86.4	16.2	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CPB-0541-LT*		O		21.6	219.0	300		10.0	108.7	150		10.0	89.1	125
CPB-0600-LT	2 - 6GE-34	S	94.3	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CPB-0601-LT		O		32.4	247.6	300		15.0	122.5	150		15.0	99.7	125
CPB-0602-LT		T		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125

Unit	Condenser LAVF
CPB-0300-LT*	12410
CPB-0301-LT	13310
CPB-0440-LT	13310
CPB-0441-LT*	13410
CPB-0540-LT*	13410
CPB-0541-LT*	22410
CPB-0600-LT	22310
CPB-0601-LT	23310
CPB-0602-LT	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CPD MCA / MOPD Calculation

Model CPD-0440LxM		
Compressor 1 RLA		22.3
Compressor 2 RLA	+	22.3
Condenser Fans	+	5.4
Control*	+	3.0
25% Compressor RLA	+	5.6
MCA		58.6
Evaporator Fan RLA	+	12.0
Calculated MCA		70.6
Compressor RLA 1	+	22.3
Calculaed MOP		92.9
MOPD**		90

Example calculation has details for the calculation of the MCA shown in the electrical table above. The Calculated MCA includes the addition of 12.0 amps to power evaporator fans to show how to recalculate values for MCA and MOPD for the addition of electrical loads that would be in operation at the same time as the compressor and condenser.

*Control circuit amps are: 208-230/3/60 3.0A, 460/3/60 1.5A, 575/3/60 1.2A

**Round MOP down to next Standard MOPD Size shown below. The MOPD must be larger than the calculated MCA.

Standard MOPD Sizes : 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500

Alternate Calculation for Electric Defrost: If 1.25 X defrost amps plus Control Transformer exceeds calculated MCA use this value and round up to next standard breaker size for MOPD. Use the MOPD calculated for defrost if it exceeds what is calculated using the compressor information.

Sound Data for C-Series

Sound from condensing units is primarily from the condenser fans. C-Series units use Levitor II LAVF condensers with 1140 rpm fans. For sound calculations, the published sound data in the Levitor Technical bulletin should be used with 1 db added to account for the compressor.

Example: *CSD-0202-MT condenser is LAVF-12410 which has published sound of 75 dbA at 10'. For this unit, add 1 dbA to this value for 76 dbA at 10' for sound evaluations.*

CP Parallel Series Model Specifications

Unit		Connections (in)		Receiver	Receiver Capacity***			Est. Ship Weight	Dimensional Drawings	Piping Schematic
					R-404A	R-407A	R-448A			
		Liq. OD	Suct. OD	Dia. x Length	(lb)	(lb)	(lb)	(lb)	See pgs. 74 - 76	See pg. 81
10 hp	CP*0100M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1793	CP-11	CP PIPE 1W
	CP*0101M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1857	CP-11	CP PIPE 1W
15 hp	CP*0150M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1884	CP-11	CP PIPE 1W
	CP*0151M**	7/8	1 5/8	8 5/8 x 60	94	103	100	2416	CP-12	CP PIPE 1W
16 hp	CP*0160M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	2423	CP-12	CP PIPE 1W
	CP*0161M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	2485	CP-12	CP PIPE 1W
	CP*0162M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2544	CP-12	CP PIPE 1W
18 hp	CP*0180M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	2578	CP-12	CP PIPE 1W
	CP*0181M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2774	CP-12	CP PIPE 1W
20 hp	CP*0200M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	2705	CP-12	CP PIPE 1W
	CP*0201M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	3122	CP-13	CP PIPE 1W
	CP*0202M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	2764	CP-12	CP PIPE 1W
24 hp	CP*0240M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	2770	CP-12	CP PIPE 1W
	CP*0241M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	3124	CP-13	CP PIPE 1W
30 hp	CP*0300M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3160	CP-13	CP PIPE 1W
	CP*0301M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3322	CP-13	CP PIPE 1W
40 hp	CP*0400M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3213	CP-13	CP PIPE 1W
	CP*0401M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	3560	CP-22	CP PIPE 2W
	CP*0402M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3301	CP-13	CP PIPE 1W
50 hp	CP*0500M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3410	CP-13	CP PIPE 1W
	CP*0501M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	4389	CP-23	CP PIPE 2W
60 hp	CP*0600M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	3833	CP-22	CP PIPE 2W
	CP*0601M**	1 3/8	2 5/8	10 3/4 x 108	263	289	279	4448	CP-23	CP PIPE 2W
70 hp	CP*0700M**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	4397	CP-23	CP PIPE 2W
	CP*0701M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	5412	CP-24	CP PIPE 2W
	CP*0702M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	4999	CP-23	CP PIPE 2W
80 hp	CP*0800M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	5058	CP-23	CP PIPE 2W
	CP*0801M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	5816	CP-24	CP PIPE 2W
30 hp	CP*0300L**	1 1/8	2 5/8	10 3/4 x 48	114	125	121	2737	CP-12	CP PIPE 1W
	CP*0301L**	1 1/8	2 5/8	10 3/4 x 48	114	125	121	3230	CP-13	CP PIPE 1W
44 hp	CP*0440L**	1 1/8	3 1/8	10 3/4 x 48	114	125	121	3167	CP-13	CP PIPE 1W
	CP*0441L**	1 1/8	3 1/8	10 3/4 x 72	174	191	184	3509	CP-13	CP PIPE 1W
54 hp	CP*0540L**	1 3/8	3 1/8	10 3/4 x 72	174	191	184	3463	CP-13	CP PIPE 1W
	CP*0541L**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	3872	CP-22	CP PIPE 2W
60 hp	CP*0600L**	1 3/8	3 1/8	10 3/4 x 72	174	191	184	3772	CP-22	CP PIPE 2W
	CP*0601L**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	4566	CP-23	CP PIPE 2W
	CP*0602L**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	3890	CP-22	CP PIPE 2W

*-D,E,B
** S(R-404A), Q(R-407A), T(R-448A)
*** Receiver capacity based on 80% full.

Annual Walk-In Energy Factor (AWEF)

See the Annual Walk-In Energy Factor (AWEF) tables on the following pages and apply the below example to find the AWEF for specific model and refrigerant.

AWEF EXAMPLE:

Insert refrigerant letter in ( ) to produce model number.
Example: CPD-0100-M( ) for R404A will be CPD-0100MS with AWEF of 7.6.

CP Parallel Systems

Annual Walk-In Energy Factor (AWEF)

CPD Parallel Series Units - Medium Temperature

Copeland Discus Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CPD-0100-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0101-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0150-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0151-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0160-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0161-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0162-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0180-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0181-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0200-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0201-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0202-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0240-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0241-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0300-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0301-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0400-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0401-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0402-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0500-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0501-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0600-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0601-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0700-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0701-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0702-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0800-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPD-0801-M( )	7.6	7.6	7.6	7.6	7.6	7.6

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

See Tables on pages 28 - 30 for more data.

"( )" = See AWEF Example on page 47.

CPD Parallel Series Units - Low Temperature

Copeland Discus Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CPD-0300-L( )	NA	3.15	NA	3.15	3.15	3.15
CPD-0301-L( )	3.15	3.15	NA	3.15	NA	NA
CPD-0440-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPD-0441-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPD-0540-L( )	3.15	3.15	NA	NA	NA	NA
CPD-0541-L( )	3.15	3.15	NA	NA	NA	NA
CPD-0600-L( )	NA	NA	NA	NA	NA	NA
CPD-0601-L( )	NA	NA	NA	NA	NA	NA
CPD-0602-L( )	NA	NA	NA	NA	NA	NA

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

See Tables on pages 37 - 39 for more data.

"( )" = See AWEF Example on page 47.

AWEF EXAMPLE:

Insert refrigerant letter in ( ) to produce model number.
Example: CPD-0100-M( ) for R404A will be CPD-0100MS with AWEF of 7.6.

Annual Walk-In Energy Factor (AWEF)

CPE Parallel Series Units - Medium Temperature

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

See Tables on pages 31 - 33 for more data.

"( )" = See AWEF Example on page 47.

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CPE-0100-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0101-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0150-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0151-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0160-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0161-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0162-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0180-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0181-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0200-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0201-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0202-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0240-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0241-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0300-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0301-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0400-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0401-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0402-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0500-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0501-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0600-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0601-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0700-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0701-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0702-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0800-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPE-0801-M( )	7.6	7.6	7.6	7.6	7.6	7.6

CPE Parallel Series Units - Low Temperature

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

See Tables on pages 40 - 42 for more data.

"( )" = See AWEF Example on page 47.

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CPE-0300-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPE-0301-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPE-0440-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPE-0441-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPE-0540-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPE-0541-L( )	3.15	NA	3.15	3.15	3.15	3.15
CPE-0600-L( )	NA	NA	NA	NA	NA	NA
CPE-0601-L( )	NA	3.15	NA	NA	NA	NA
CPE-0602-L( )	NA	3.15	3.15	3.15	NA	3.15

AWEF EXAMPLE:
Insert refrigerant letter in ( ) to produce model number.
Example: CPE-0100-M( ) for R404A will be CPE-0100MS with AWEF of 7.6.

CP Parallel Systems

Annual Walk-In Energy Factor (AWEF)

CPB Parallel Series Units - Medium Temperature

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CPB-0100-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0101-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0150-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0151-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0160-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0161-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0162-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0180-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0181-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0200-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0201-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0202-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0240-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0241-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0300-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0301-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0400-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0401-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0402-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0500-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0501-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0600-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0601-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0700-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0701-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0702-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0800-M( )	7.6	7.6	7.6	7.6	7.6	7.6
CPB-0801-M( )	7.6	7.6	7.6	7.6	7.6	7.6

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

See Tables on pages 34 - 36 for more data.

"( )" = See AWEF Example on page 47.

CPB Parallel Series Units - Low Temperature

Bitzer Ecoline Models	R-404A S	R-507A P	R-407A Q	R-407F F	R-448A T	R-449A R
CPB-0300-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPB-0301-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPB-0440-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPB-0441-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPB-0540-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPB-0541-L( )	3.15	3.15	3.15	3.15	3.15	3.15
CPB-0600-L( )	NA	NA	3.15	3.15	3.15	3.15
CPB-0601-L( )	NA	3.15	NA	3.15	3.15	3.15
CPB-0602-L( )	NA	3.15	3.15	3.15	3.15	3.15

NOTE:
NA: This refrigeration system is not intended for use in Walk-In Coolers or Freezers where US Department of Energy (DOE) or Natural Resources Canada (NRCan) efficiency requirements apply.

See Tables on pages 43 - 45 for more data.

"( )" = See AWEF Example on page 47.

AWEF EXAMPLE:

Insert refrigerant letter in ( ) to produce model number.
Example: CPB-0100-M( ) for R404A will be CPB-0100MS with AWEF of 7.6.

Notes

CD Dual Systems

CDD Medium Temp R-404A

CDD Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CDD-0100-M	2DC3R53KE	11210	23.9	26.8	30.0	33.4	37.0	40.8	44.8	48.9	53.1	57.5
CDD-0101-M	2DC3R53KE	11410	25.2	28.6	32.2	36.1	40.2	44.7	49.4	54.4	59.5	65.0
CDD-0150-M	2DL3R78KE	11410	36.8	41.1	45.8	50.9	56.2	61.9	67.8	74.0	80.4	87.0
CDD-0151-M	2DL3R78KE	12210	37.6	42.1	47.0	52.3	58.0	64.0	70.3	77.0	84.0	91.2
CDD-0160-M	2DA3R89KE	12210	43.9	48.8	54.1	59.8	65.8	72.1	78.8	85.9	93.3	101.1
CDD-0161-M	2DA3R89KE	12310	45.3	50.6	56.3	62.4	68.9	75.9	83.3	91.3	99.6	108.5
CDD-0162-M	2DA3R89KE	12410	45.9	51.3	57.1	63.4	70.2	77.4	85.2	93.5	102.3	111.6
CDD-0180-M	3DA3R10ME	12210	50.3	56.0	62.0	68.4	75.1	82.2	89.5	97.2	105.1	113.3
CDD-0181-M	3DA3R10ME	12410	52.7	58.9	65.7	72.9	80.7	89.0	97.7	106.9	116.7	126.8
CDD-0200-M	3DB3R12ME	12310	61.7	68.6	75.9	83.7	91.9	100.6	109.7	119.4	129.5	140.1
CDD-0201-M	3DB3R12ME	13310	63.9	71.4	79.3	87.8	96.9	106.6	117.0	128.0	139.7	152.0
CDD-0202-M	3DB3R12ME	12410	62.7	69.9	77.5	85.6	94.2	103.3	113.0	123.3	134.1	145.5
CDD-0240-M	3DF3R15ME	12410	75.9	84.2	93.2	102.7	112.7	123.3	134.5	146.1	158.3	171.0
CDD-0241-M	3DF3R15ME	13310	77.7	86.5	96.0	106.1	116.9	128.3	140.4	153.2	166.7	180.8
CDD-0300-M	3DS3R17ME	13310	85.2	94.8	105.0	115.9	127.5	139.8	152.8	166.5	180.8	195.8
CDD-0301-M	3DS3R17ME	13410	86.6	96.4	107.0	118.4	130.5	143.4	157.1	171.6	186.9	202.9
CDD-0400-M	4DBNR20ME	13310	102.5	114.1	126.6	140.1	154.1	168.5	183.3	198.1	212.8	227.3
CDD-0401-M	4DBNR20ME	22310	106.1	118.5	132.1	146.6	161.9	177.7	194.0	210.6	227.2	243.7
CDD-0402-M	4DBNR20ME	13410	104.7	116.8	130.0	144.0	158.8	174.1	189.8	205.7	221.5	237.2
CDD-0500-M	4DHNR22ME	13410	111.7	124.4	138.3	153.2	168.7	184.8	201.3	217.9	234.4	250.8
CDD-0501-M	4DHNR22ME	23310	117.6	131.8	147.3	164.0	181.8	200.3	219.4	239.0	258.8	278.7
CDD-0600-M	4DJNR28ME	22410	135.4	151.5	168.6	186.8	206.1	226.2	247.3	269.3	292.2	315.8
CDD-0601-M	4DJNR28ME	23310	138.7	155.6	173.6	192.9	213.4	235.0	257.7	281.6	306.5	332.4
CDD-0700-M	6DHNR35ME	23310	172.6	192.3	213.4	236.1	260.2	285.8	312.9	341.5	371.5	403.0
CDD-0701-M	6DHNR35ME	24310	177.5	198.2	220.6	244.7	270.6	298.3	327.8	359.3	392.5	427.7
CDD-0702-M	6DHNR35ME	23410	175.6	195.9	217.9	241.4	266.6	293.5	322.1	352.4	384.4	418.1
CDD-0800-M	6DJNR40ME	23410	204.7	227.6	252.1	278.2	305.6	334.5	364.7	396.0	428.4	461.8
CDD-0801-M	6DJNR40ME	24410	210.4	234.5	260.4	288.1	317.6	348.7	381.3	415.6	451.2	488.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CDD-0100-M	2DC3R53KE	11210	21.3	24.0	26.9	29.9	33.1	36.5	40.0	43.7	47.5	51.4
CDD-0101-M	2DC3R53KE	11410	22.6	25.6	28.8	32.3	36.1	40.1	44.3	48.7	53.4	58.3
CDD-0150-M	2DL3R78KE	11410	33.2	37.2	41.4	45.9	50.7	55.8	61.1	66.6	72.3	78.2
CDD-0151-M	2DL3R78KE	12210	34.0	38.1	42.5	47.3	52.4	57.8	63.4	69.4	75.6	82.1
CDD-0160-M	2DA3R89KE	12210	39.6	44.1	48.9	54.0	59.4	65.1	71.1	77.4	84.0	90.9
CDD-0161-M	2DA3R89KE	12310	41.0	45.8	51.0	56.5	62.4	68.6	75.3	82.4	89.9	97.8
CDD-0162-M	2DA3R89KE	12410	41.6	46.5	51.8	57.5	63.6	70.1	77.1	84.5	92.4	100.7
CDD-0180-M	3DA3R10ME	12210	46.2	51.3	56.7	62.4	68.4	74.7	81.2	88.0	95.0	102.2
CDD-0181-M	3DA3R10ME	12410	48.4	54.1	60.1	66.6	73.5	80.9	88.7	96.9	105.5	114.6
CDD-0200-M	3DB3R12ME	12310	56.2	62.5	69.1	76.1	83.5	91.2	99.3	107.9	116.9	126.3
CDD-0201-M	3DB3R12ME	13310	58.4	65.2	72.4	80.0	88.2	96.9	106.2	116.0	126.5	137.5
CDD-0202-M	3DB3R12ME	12410	57.2	63.7	70.6	77.9	85.6	93.8	102.5	111.6	121.2	131.4
CDD-0240-M	3DF3R15ME	12410	69.1	76.7	84.7	93.2	102.2	111.6	121.5	131.8	142.6	153.9
CDD-0241-M	3DF3R15ME	13310	70.9	78.9	87.4	96.4	106.0	116.2	127.0	138.4	150.4	163.0
CDD-0300-M	3DS3R17ME	13310	77.7	86.4	95.6	105.3	115.7	126.6	138.2	150.3	163.1	176.4
CDD-0301-M	3DS3R17ME	13410	79.0	87.9	97.5	107.6	118.5	130.0	142.2	155.1	168.7	183.0
CDD-0400-M	4DBNR20ME	13310	92.4	102.8	114.1	126.2	139.0	152.1	165.4	178.8	192.1	205.1
CDD-0401-M	4DBNR20ME	22310	95.7	106.9	119.1	132.2	146.1	160.5	175.3	190.2	205.2	220.0
CDD-0402-M	4DBNR20ME	13410	94.4	105.3	117.2	129.9	143.3	157.2	171.4	185.7	200.0	214.2
CDD-0500-M	4DHNR22ME	13410	100.7	112.1	124.7	138.1	152.3	166.8	181.7	196.7	211.7	226.4
CDD-0501-M	4DHNR22ME	23310	106.2	118.9	132.9	148.0	164.1	180.9	198.2	215.9	233.8	251.7
CDD-0600-M	4DJNR28ME	22410	122.3	136.6	151.9	168.2	185.4	203.5	222.4	242.2	262.7	284.0
CDD-0601-M	4DJNR28ME	23310	125.3	140.4	156.6	173.9	192.3	211.7	232.2	253.6	276.1	299.5
CDD-0700-M	6DHNR35ME	23310	155.7	173.7	192.8	213.2	234.8	257.8	282.0	307.5	334.3	362.4
CDD-0701-M	6DHNR35ME	24310	160.3	179.3	199.7	221.5	244.8	269.8	296.3	324.5	354.3	385.9
CDD-0702-M	6DHNR35ME	23410	158.5	177.1	197.0	218.3	241.0	265.1	290.7	317.9	346.6	376.7
CDD-0800-M	6DJNR40ME	23410	185.6	206.4	228.6	252.1	276.9	302.9	330.0	358.2	387.3	417.3
CDD-0801-M	6DJNR40ME	24410	190.9	212.9	236.5	261.6	288.3	316.5	346.1	377.1	409.4	442.9

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDD-0100-MS	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CDD-0101-MS*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CDD-0150-MS*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CDD-0151-MS		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CDD-0160-MS	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CDD-0161-MS		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CDD-0162-MS		T		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12410
CDD-0180-MS	2 - 3DA3R10ME	S	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12210
CDD-0181-MS*		O		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12410
CDD-0200-MS	2 - 3DB3R12ME	S	43.6	10.8	111.9	150	20.0	5.0	51.5	70	16.5	5.0	43.3	60	12310
CDD-0201-MS		O		16.2	117.3	150		7.5	54.0	70		7.5	45.8	60	13310
CDD-0202-MS		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CDD-0240-MS*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CDD-0241-MS		O		16.2	127.4	175		7.5	62.1	80	-	7.5	-	-	13310
CDD-0300-MS	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CDD-0301-MS*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CDD-0400-MS	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CDD-0401-MS		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CDD-0402-MS		T		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13410
CDD-0500-MS*	2 - 4DHNR22ME	S	74.4	16.2	186.6	250	37.2	7.5	92.7	125	33.3	7.5	83.7	110	13410
CDD-0501-MS		O		32.4	202.8	250		15.0	100.2	125		15.0	91.2	110	23310
CDD-0600-MS*	2 - 4DJNR28ME	S	105.4	21.6	261.8	350	52.7	10.0	130.1	175	44.1	10.0	110.5	150	22410
CDD-0601-MS		O		32.4	272.6	350		15.0	135.1	175		15.0	115.5	150	23310
CDD-0700-MS	2 - 6DHNR35ME	S	125.1	32.4	317.0	400	62.6	15.0	157.4	200	40.7	15.0	107.8	125	23310
CDD-0701-MS		O		43.2	327.8	450		20.0	162.4	225		20.0	112.8	150	24310
CDD-0702-MS		T		32.4	317.0	400		15.0	157.4	200		15.0	107.8	125	23410
CDD-0800-MS*	2 - 6DJNR40ME	S	142.9	32.4	356.8	450	71.4	15.0	177.2	250	51.4	15.0	131.9	175	23410
CDD-0801-MS*		O		43.2	367.6	500		20.0	182.2	250		20.0	136.9	175	24410

CDD Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "0" at the end of the model nomenclature with an "F".

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CDD-0100-M	2DC3R53KE	11210	23.2	26.2	29.5	33.2	37.1	41.4	45.9	50.8	55.9	61.3
CDD-0101-M	2DC3R53KE	11410	24.5	27.8	31.5	35.6	40.1	45.1	50.4	56.1	62.2	68.6
CDD-0150-M	2DL3R78KE	11410	36.9	41.4	46.2	51.3	56.9	62.9	69.4	76.4	84.0	92.2
CDD-0151-M	2DL3R78KE	12210	37.5	42.1	47.0	52.3	58.1	64.4	71.2	78.6	86.6	95.2
CDD-0160-M	2DA3R89KE	12210	40.6	45.8	51.5	57.7	64.4	71.5	79.1	87.2	95.8	104.7
CDD-0161-M	2DA3R89KE	12310	41.8	47.3	53.4	60.0	67.1	74.9	83.2	92.1	101.6	111.6
CDD-0162-M	2DA3R89KE	12410	42.3	47.9	54.1	60.9	68.3	76.3	85.0	94.2	104.1	114.7
CDD-0180-M	3DA3R10ME	12210	46.8	53.1	60.1	67.7	75.7	84.1	92.9	101.8	110.9	120.1
CDD-0181-M	3DA3R10ME	12410	49.3	56.2	63.9	72.4	81.5	91.2	101.4	112.0	123.0	134.3
CDD-0200-M	3DB3R12ME	12310	57.9	65.5	74.0	83.1	92.9	103.3	114.1	125.2	136.6	148.2
CDD-0201-M	3DB3R12ME	13310	60.0	68.0	77.0	86.9	97.5	108.9	120.8	133.3	146.3	159.6
CDD-0202-M	3DB3R12ME	12410	59.0	66.8	75.5	85.1	95.3	106.1	117.5	129.3	141.5	154.0
CDD-0240-M	3DF3R15ME	12410	67.2	76.2	86.3	97.2	108.9	121.2	134.0	147.2	160.6	174.1
CDD-0241-M	3DF3R15ME	13310	68.6	77.9	88.3	99.7	112.0	125.0	138.6	152.7	167.1	181.8
CDD-0300-M	3DS3R17ME	13310	79.7	90.4	102.0	114.5	127.8	141.8	156.5	171.7	187.5	203.8
CDD-0301-M	3DS3R17ME	13410	80.9	91.9	103.9	116.8	130.6	145.2	160.7	176.8	193.6	211.0
CDD-0400-M	4DBNR20ME	13310	100.3	112.7	126.0	140.3	155.6	172.1	189.8	208.6	228.7	250.1
CDD-0401-M	4DBNR20ME	22310	103.2	116.2	130.3	145.6	162.0	179.9	199.0	219.7	241.8	265.5
CDD-0402-M	4DBNR20ME	13410	102.3	115.1	128.9	143.9	160.0	177.4	196.1	216.2	237.7	260.6
CDD-0500-M	4DHNR22ME	13410	111.4	125.3	140.2	156.3	173.6	192.2	212.2	233.6	256.5	280.8
CDD-0501-M	4DHNR22ME	23310	116.0	131.0	147.2	164.9	184.0	204.9	227.4	251.8	278.1	306.3
CDD-0600-M	4DJNR28ME	22410	132.7	150.4	169.3	189.2	210.2	232.4	255.8	280.3	306.0	332.9
CDD-0601-M	4DJNR28ME	23310	135.1	153.4	173.0	193.8	215.8	239.1	263.8	289.7	317.1	345.8
CDD-0700-M	6DHNR35ME	23310	164.7	186.0	209.1	233.7	259.8	287.2	315.5	344.8	374.7	405.2
CDD-0701-M	6DHNR35ME	24310	167.9	190.0	214.0	239.9	267.4	296.4	326.7	358.3	390.9	424.3
CDD-0702-M	6DHNR35ME	23410	166.9	188.7	212.5	237.9	265.0	293.5	323.2	354.0	385.8	418.3
CDD-0800-M	6DJNR40ME	23410	202.8	230.0	256.9	284.3	313.0	343.5	376.6	412.8	452.4	496.0
CDD-0801-M	6DJNR40ME	24410	207.9	235.7	263.5	292.1	322.4	355.1	391.0	430.7	474.8	523.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CDD-0100-M	2DC3R53KE	11210	21.1	23.8	26.8	30.1	33.7	37.6	41.8	46.3	51.0	N/A
CDD-0101-M	2DC3R53KE	11410	22.2	25.2	28.6	32.3	36.5	41.0	45.9	51.2	56.8	62.9
CDD-0150-M	2DL3R78KE	11410	33.9	37.9	42.3	47.0	52.1	57.7	63.7	70.2	77.2	84.8
CDD-0151-M	2DL3R78KE	12210	34.4	38.6	43.1	48.0	53.3	59.1	65.4	72.2	79.6	87.6
CDD-0160-M	2DA3R89KE	12210	37.0	41.9	47.1	52.8	58.9	65.5	72.5	79.9	87.8	96.0
CDD-0161-M	2DA3R89KE	12310	38.2	43.3	48.9	55.0	61.6	68.7	76.4	84.5	93.3	102.6
CDD-0162-M	2DA3R89KE	12410	38.7	43.9	49.6	55.9	62.7	70.1	78.0	86.6	95.7	105.4
CDD-0180-M	3DA3R10ME	12210	42.3	48.2	54.7	61.8	69.2	77.0	85.0	93.2	101.5	N/A
CDD-0181-M	3DA3R10ME	12410	44.7	51.2	58.3	66.2	74.6	83.5	92.9	102.6	112.7	123.0
CDD-0200-M	3DB3R12ME	12310	52.6	59.7	67.5	76.0	85.1	94.6	104.5	114.7	125.1	135.6
CDD-0201-M	3DB3R12ME	13310	54.6	62.1	70.5	79.7	89.5	100.0	111.0	122.4	134.3	146.4
CDD-0202-M	3DB3R12ME	12410	53.6	60.9	69.1	77.9	87.4	97.4	107.8	118.6	129.7	141.1
CDD-0240-M	3DF3R15ME	12410	61.1	69.4	78.7	88.7	99.5	110.8	122.5	134.5	146.7	158.9
CDD-0241-M	3DF3R15ME	13310	62.4	71.0	80.6	91.2	102.5	114.4	126.9	139.7	152.9	166.2
CDD-0300-M	3DS3R17ME	13310	72.9	83.0	93.8	105.4	117.7	130.5	143.9	157.8	172.0	186.6
CDD-0301-M	3DS3R17ME	13410	74.1	84.4	95.6	107.6	120.3	133.7	147.8	162.5	177.7	193.4
CDD-0400-M	4DBNR20ME	13310	91.8	103.2	115.4	128.6	142.7	157.9	174.2	191.7	210.3	N/A
CDD-0401-M	4DBNR20ME	22310	94.6	106.6	119.6	133.7	148.9	165.3	183.1	202.2	222.7	244.7
CDD-0402-M	4DBNR20ME	13410	93.7	105.5	118.3	132.1	146.9	163.0	180.3	198.8	218.8	240.1
CDD-0500-M	4DHNR22ME	13410	102.0	114.8	128.5	143.3	159.3	176.5	194.9	214.7	235.9	258.5
CDD-0501-M	4DHNR22ME	23310	106.5	120.3	135.3	151.6	169.3	188.6	209.5	232.1	256.5	282.8
CDD-0600-M	4DJNR28ME	22410	121.7	137.8	155.0	173.2	192.4	212.8	234.2	256.8	280.5	305.3
CDD-0601-M	4DJNR28ME	23310	123.9	140.7	158.6	177.7	197.9	219.4	242.2	266.2	291.5	318.2
CDD-0700-M	6DHNR35ME	23310	152.5	172.7	194.3	217.4	241.6	266.8	292.9	319.6	346.9	374.6
CDD-0701-M	6DHNR35ME	24310	155.7	176.6	199.1	223.3	248.8	275.6	303.5	332.4	362.1	392.6
CDD-0702-M	6DHNR35ME	23410	154.7	175.4	197.6	221.4	246.5	272.8	300.2	328.4	357.3	386.9
CDD-0800-M	6DJNR40ME	23410	183.9	211.1	237.2	263.0	289.4	316.9	346.4	378.3	413.1	451.3
CDD-0801-M	6DJNR40ME	24410	189.1	216.9	243.9	270.9	298.8	328.5	360.6	395.8	434.8	478.0

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDD-0100-MQ	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CDD-0101-MQ*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CDD-0150-MQ*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CDD-0151-MQ		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CDD-0160-MQ	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CDD-0161-MQ		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CDD-0162-MQ		T		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12410
CDD-0180-MQ	2 - 3DA3R10ME	S	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12210
CDD-0181-MQ*		O		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12410
CDD-0200-MQ	2 - 3DB3R12ME	S	43.6	10.8	111.9	150	20.0	5.0	51.5	70	16.5	5.0	43.3	60	12310
CDD-0201-MQ		O		16.2	117.3	150		7.5	54.0	70		7.5	45.8	60	13310
CDD-0202-MQ		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CDD-0240-MQ*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CDD-0241-MQ		O		16.2	127.4	175		7.5	62.1	80	-	7.5	-	-	13310
CDD-0300-MQ	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CDD-0301-MQ*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CDD-0400-MQ	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CDD-0401-MQ		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CDD-0402-MQ		T		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13410
CDD-0500-MQ*	2 - 4DHNR22ME	S	74.4	16.2	186.6	250	37.2	7.5	92.7	125	33.3	7.5	83.7	110	13410
CDD-0501-MQ		O		32.4	202.8	250		15.0	100.2	125		15.0	91.2	110	23310
CDD-0600-MQ*	2 - 4DJNR28ME	S	105.4	21.6	261.8	350	52.7	10.0	130.1	175	44.1	10.0	110.5	150	22410
CDD-0601-MQ		O		32.4	272.6	350		15.0	135.1	175		15.0	115.5	150	23310
CDD-0700-MQ	2 - 6DHNR35ME	S	125.1	32.4	317.0	400	62.6	15.0	157.4	200	40.7	15.0	107.8	125	23310
CDD-0701-MQ		O		43.2	327.8	450		20.0	162.4	225		20.0	112.8	150	24310
CDD-0702-MQ		T		32.4	317.0	400		15.0	157.4	200		15.0	107.8	125	23410
CDD-0800-MQ*	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	51.4	15.0	131.9	175	23410
CDD-0801-MQ*		O		43.2	367.6	500		20.0	182.2	250		20.0	136.9	175	24410

CD Dual Systems

CDD Medium Temp R-448A

CDD Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CDD-0100-M	2DC3R53KE	11210	24.3	27.4	30.8	34.5	38.5	42.8	47.3	52.1	57.1	62.3
CDD-0101-M	2DC3R53KE	11410	25.7	29.1	32.9	37.1	41.7	46.6	51.9	57.5	63.5	69.8
CDD-0150-M	2DL3R78KE	11410	38.2	42.9	47.9	53.2	58.9	64.9	71.4	78.4	85.8	93.7
CDD-0151-M	2DL3R78KE	12210	38.8	43.6	48.7	54.2	60.1	66.5	73.3	80.6	88.4	96.7
CDD-0160-M	2DA3R89KE	12210	42.6	48.0	53.9	60.1	66.8	74.0	81.5	89.4	97.7	106.3
CDD-0161-M	2DA3R89KE	12310	43.9	49.6	55.8	62.5	69.7	77.5	85.7	94.4	103.6	113.4
CDD-0162-M	2DA3R89KE	12410	44.4	50.2	56.6	63.5	71.0	79.0	87.5	96.6	106.2	116.4
CDD-0180-M	3DA3R10ME	12210	50.2	56.8	63.9	71.3	79.1	87.1	95.4	104.0	112.7	121.5
CDD-0181-M	3DA3R10ME	12410	53.2	60.4	68.1	76.3	85.0	94.3	104.0	114.1	124.7	135.6
CDD-0200-M	3DB3R12ME	12310	62.2	70.1	78.6	87.6	97.0	106.9	117.1	127.7	138.7	149.9
CDD-0201-M	3DB3R12ME	13310	64.6	72.9	81.9	91.5	101.8	112.6	123.9	135.9	148.3	161.2
CDD-0202-M	3DB3R12ME	12410	63.4	71.6	80.3	89.6	99.5	109.8	120.6	131.9	143.6	155.6
CDD-0240-M	3DF3R15ME	12410	72.1	81.4	91.5	102.2	113.5	125.4	137.6	150.2	163.0	176.0
CDD-0241-M	3DF3R15ME	13310	73.6	83.2	93.7	104.9	116.8	129.2	142.3	155.7	169.6	183.8
CDD-0300-M	3DS3R17ME	13310	84.9	95.9	107.6	119.9	132.9	146.5	160.7	175.4	190.6	206.2
CDD-0301-M	3DS3R17ME	13410	86.3	97.5	109.5	122.3	135.8	150.1	165.0	180.6	196.8	213.6
CDD-0400-M	4DBNR20ME	13310	105.3	118.0	131.5	146.0	161.5	177.9	195.3	213.8	233.4	254.0
CDD-0401-M	4DBNR20ME	22310	108.3	121.7	136.1	151.6	168.2	186.0	205.0	225.3	246.9	269.8
CDD-0402-M	4DBNR20ME	13410	107.4	120.5	134.7	149.9	166.1	183.4	202.0	221.7	242.6	264.8
CDD-0500-M	4DHNR22ME	13410	116.9	131.2	146.4	162.7	180.1	198.7	218.5	239.5	261.7	285.3
CDD-0501-M	4DHNR22ME	23310	121.8	137.2	153.8	171.8	191.1	211.9	234.3	258.3	283.9	311.4
CDD-0600-M	4DJNR28ME	22410	139.5	157.9	177.2	197.4	218.4	240.4	263.2	287.0	311.7	337.4
CDD-0601-M	4DJNR28ME	23310	142.1	161.2	181.2	202.2	224.3	247.3	271.5	296.7	323.1	350.5
CDD-0700-M	6DHNR35ME	23310	173.3	195.3	218.9	243.9	270.0	297.0	324.8	353.1	381.7	410.5
CDD-0701-M	6DHNR35ME	24310	176.8	199.5	224.1	250.3	277.8	306.6	336.4	367.0	398.2	430.0
CDD-0702-M	6DHNR35ME	23410	175.7	198.2	222.5	248.3	275.4	303.6	332.7	362.6	393.0	423.8
CDD-0800-M	6DJNR40ME	23410	206.0	232.2	260.4	290.3	321.5	353.9	387.1	421.0	455.2	489.6
CDD-0801-M	6DJNR40ME	24410	210.1	237.2	266.5	297.8	330.8	365.2	400.8	437.4	474.8	512.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45
CDD-0100-M	2DC3R53KE	11210	22.2	24.9	28.0	31.4	35.0	38.9	43.0	47.4	N/A	N/A
CDD-0101-M	2DC3R53KE	11410	23.4	26.5	29.9	33.8	37.9	42.5	47.3	52.6	58.1	64.0
CDD-0150-M	2DL3R78KE	11410	35.1	39.4	44.0	48.9	54.1	59.6	65.6	72.0	78.8	86.0
CDD-0151-M	2DL3R78KE	12210	35.7	40.1	44.8	49.9	55.3	61.1	67.4	74.1	81.3	89.0
CDD-0160-M	2DA3R89KE	12210	39.0	44.0	49.3	55.1	61.2	67.8	74.7	81.9	89.5	97.4
CDD-0161-M	2DA3R89KE	12310	40.2	45.5	51.2	57.4	64.1	71.2	78.7	86.8	95.2	104.2
CDD-0162-M	2DA3R89KE	12410	40.7	46.1	52.0	58.4	65.3	72.6	80.5	88.9	97.8	107.1
CDD-0180-M	3DA3R10ME	12210	45.0	51.4	58.1	65.2	72.4	79.9	87.5	95.4	N/A	N/A
CDD-0181-M	3DA3R10ME	12410	48.1	54.9	62.3	70.0	78.2	86.7	95.7	104.9	114.5	124.5
CDD-0200-M	3DB3R12ME	12310	56.1	63.7	71.8	80.2	89.0	98.1	107.6	117.3	127.2	137.3
CDD-0201-M	3DB3R12ME	13310	58.6	66.6	75.2	84.2	93.8	103.8	114.3	125.2	136.5	148.2
CDD-0202-M	3DB3R12ME	12410	57.4	65.2	73.5	82.3	91.4	101.0	111.0	121.3	131.9	142.8
CDD-0240-M	3DF3R15ME	12410	65.2	74.0	83.5	93.5	104.0	114.9	126.1	137.5	149.1	160.8
CDD-0241-M	3DF3R15ME	13310	66.8	75.9	85.7	96.1	107.1	118.6	130.6	142.8	155.4	168.2
CDD-0300-M	3DS3R17ME	13310	77.8	88.3	99.2	110.7	122.7	135.2	148.1	161.4	175.0	189.0
CDD-0301-M	3DS3R17ME	13410	79.2	89.8	101.1	113.0	125.5	138.6	152.1	166.2	180.8	195.9
CDD-0400-M	4DBNR20ME	13310	96.4	108.1	120.7	134.0	148.2	163.3	179.4	196.4	N/A	N/A
CDD-0401-M	4DBNR20ME	22310	99.4	111.9	125.2	139.5	154.8	171.2	188.7	207.5	227.4	248.6
CDD-0402-M	4DBNR20ME	13410	98.5	110.7	123.8	137.8	152.7	168.7	185.8	204.0	223.3	243.8
CDD-0500-M	4DHNR22ME	13410	107.2	120.3	134.4	149.4	165.5	182.6	200.8	220.2	240.7	N/A
CDD-0501-M	4DHNR22ME	23310	112.1	126.3	141.7	158.3	176.2	195.4	216.1	238.3	262.1	287.6
CDD-0600-M	4DJNR28ME	22410	127.2	144.3	162.1	180.6	200.0	220.2	241.2	263.1	285.8	309.3
CDD-0601-M	4DJNR28ME	23310	129.9	147.6	166.1	185.6	206.0	227.3	249.6	272.9	297.2	322.6
CDD-0700-M	6DHNR35ME	23310	160.8	181.7	203.9	227.2	251.4	276.3	301.7	327.4	353.3	379.2
CDD-0701-M	6DHNR35ME	24310	164.3	185.9	209.0	233.5	259.0	285.6	312.9	340.8	369.2	397.8
CDD-0702-M	6DHNR35ME	23410	163.2	184.6	207.4	231.5	256.6	282.6	309.4	336.6	364.2	391.9
CDD-0800-M	6DJNR40ME	23410	191.4	216.1	242.6	270.4	299.3	329.1	359.5	390.3	421.2	452.1
CDD-0801-M	6DJNR40ME	24410	195.4	221.1	248.6	277.8	308.3	340.1	372.7	406.1	440.0	474.2

NOTE:
All evaporator temps are MIDPOINT.
Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDD-0100-MT	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CDD-0101-MT*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CDD-0150-MT*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CDD-0151-MT		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CDD-0160-MT	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CDD-0161-MT		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CDD-0162-MT		T		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12410
CDD-0180-MT	2 - 3DA3R10ME	S	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12210
CDD-0181-MT*		O		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12410
CDD-0200-MT	2 - 3DB3R12ME	S	43.6	10.8	111.9	150	20.0	5.0	51.5	70	16.5	5.0	43.3	60	12310
CDD-0201-MT		O		16.2	117.3	150		7.5	54.0	70		7.5	45.8	60	13310
CDD-0202-MT		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CDD-0240-MT*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CDD-0241-MT		O		16.2	127.4	175		7.5	62.1	80	-	7.5	-	-	13310
CDD-0300-MT	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CDD-0301-MT*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CDD-0400-MT	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CDD-0401-MT		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CDD-0402-MT		T		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13410
CDD-0500-MT*	2 - 4DHNR22ME	S	74.4	16.2	186.6	250	37.2	7.5	92.7	125	33.3	7.5	83.7	110	13410
CDD-0501-MT		O		32.4	202.8	250		15.0	100.2	125		15.0	91.2	110	23310
CDD-0600-MT*	2 - 4DJNR28ME	S	105.4	21.6	261.8	350	52.7	10.0	130.1	175	44.1	10.0	110.5	150	22410
CDD-0601-MT		O		32.4	272.6	350		15.0	135.1	175		15.0	115.5	150	23310
CDD-0700-MT	2 - 6DHNR35ME	S	125.1	32.4	317.0	400	62.6	15.0	157.4	200	40.7	15.0	107.8	125	23310
CDD-0701-MT		O		43.2	327.8	450		20.0	162.4	225		20.0	112.8	150	24310
CDD-0702-MT		T		32.4	317.0	400		15.0	157.4	200		15.0	107.8	125	23410
CDD-0800-MT*	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	51.4	15.0	131.9	175	23410
CDD-0801-MT*		O		43.2	367.6	500		20.0	182.2	250		20.0	136.9	175	24410

CDE Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P"

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CDE-0100-M	4FES-5	11210	27.4	30.4	33.6	36.9	40.4	44.1	48.0	52.0	56.1	60.4	64.9
CDE-0101-M	4FES-5	11410	29.2	32.7	36.3	40.3	44.5	48.9	53.6	58.6	63.8	69.4	75.1
CDE-0150-M	4EES-6	11410	35.6	39.7	44.1	48.8	53.8	59.0	64.6	70.4	76.5	82.8	89.5
CDE-0151-M	4EES-6	12210	36.4	40.7	45.3	50.3	55.5	61.1	67.0	73.3	79.9	86.8	94.0
CDE-0160-M	4DES-7	12210	43.2	48.2	53.5	59.1	65.1	71.5	78.2	85.3	92.7	100.4	108.5
CDE-0161-M	4DES-7	12310	44.7	50.0	55.8	61.9	68.4	75.4	82.8	90.7	99.0	107.7	116.9
CDE-0162-M	4DES-7	12410	45.4	50.8	56.7	63.0	69.8	77.0	84.7	92.9	101.6	110.8	120.5
CDE-0180-M	4CES-9	12210	50.7	56.5	62.7	69.2	76.1	83.4	91.0	99.1	107.5	116.3	125.4
CDE-0181-M	4CES-9	12410	53.8	60.2	67.2	74.6	82.6	91.1	100.1	109.7	119.8	130.5	141.7
CDE-0200-M	4TES-12	12310	64.2	71.8	80.0	88.6	97.8	107.6	117.8	128.6	139.9	151.7	164.0
CDE-0201-M	4TES-12	13310	67.2	75.6	84.5	94.2	104.5	115.4	127.1	139.5	152.6	166.4	181.0
CDE-0202-M	4TES-12	12410	65.6	73.5	82.0	91.1	100.8	111.1	122.0	133.5	145.6	158.3	171.6
CDE-0240-M	4PES-15	12410	72.5	81.5	91.1	101.3	112.1	123.6	135.7	148.4	161.8	175.8	190.4
CDE-0241-M	4PES-15	13310	74.7	84.2	94.3	105.2	116.8	129.2	142.3	156.2	170.9	186.3	202.5
CDE-0300-M	4NES-20	13310	88.8	99.4	110.8	123.0	135.9	149.7	164.2	179.5	195.5	212.4	230.0
CDE-0301-M	4NES-20	13410	90.5	101.5	113.4	126.1	139.7	154.2	169.5	185.7	202.8	220.8	239.7
CDE-0400-M	4JE-22	13310	98.9	110.4	122.7	135.7	149.4	163.8	179.0	194.9	211.5	228.8	246.7
CDE-0401-M	4JE-22	22310	102.4	114.8	127.9	141.9	156.9	172.7	189.4	207.0	225.6	245.0	265.4
CDE-0402-M	4JE-22	13410	101.1	113.1	125.9	139.5	154.0	169.2	185.3	202.3	220.1	238.7	258.1
CDE-0500-M	4HE-25	13410	117.8	131.2	145.3	160.4	176.2	192.9	210.4	228.8	248.0	267.9	288.7
CDE-0501-M	4HE-25	23310	124.6	139.5	155.4	172.4	190.6	210.0	230.6	252.3	275.3	299.6	325.1
CDE-0600-M	4GE-30	22410	138.4	154.2	171.0	188.8	207.7	227.7	248.7	270.8	293.9	318.1	343.4
CDE-0601-M	4GE-30	23310	141.9	158.4	176.1	195.1	215.2	236.5	259.1	283.0	308.2	334.6	362.3
CDE-0700-M	6HE-35	23310	176.1	196.4	218.0	241.0	265.3	291.0	318.2	346.7	376.6	407.9	440.6
CDE-0701-M	6HE-35	24310	181.5	202.9	225.9	250.4	276.6	304.4	333.9	365.1	398.0	432.7	469.1
CDE-0702-M	6HE-35	23410	179.4	200.4	222.8	246.8	272.2	299.2	327.8	358.0	389.7	423.1	458.0
CDE-0800-M	6GE-40	23410	202.5	225.5	249.9	275.8	303.3	332.3	362.8	394.9	428.5	463.5	500.1
CDE-0801-M	6GE-40	24410	208.4	232.7	258.7	286.4	315.9	347.3	380.5	415.5	452.5	491.4	532.1

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CDE-0100-M	4FES-5	11210	24.5	27.1	29.9	32.8	35.9	39.2	42.6	46.1	49.8	53.7	N/A
CDE-0101-M	4FES-5	11410	26.2	29.3	32.6	36.1	39.8	43.8	48.0	52.4	57.1	62.0	67.2
CDE-0150-M	4EES-6	11410	31.8	35.5	39.4	43.6	48.0	52.7	57.7	62.9	68.4	74.1	80.1
CDE-0151-M	4EES-6	12210	32.6	36.5	40.6	45.0	49.7	54.7	60.1	65.7	71.6	77.9	84.4
CDE-0160-M	4DES-7	12210	38.8	43.3	48.0	53.1	58.5	64.2	70.3	76.7	83.4	90.4	97.8
CDE-0161-M	4DES-7	12310	40.3	45.1	50.2	55.7	61.6	67.9	74.7	81.8	89.4	97.3	105.7
CDE-0162-M	4DES-7	12410	40.9	45.8	51.1	56.8	62.9	69.5	76.5	83.9	91.8	100.2	109.1
CDE-0180-M	4CES-9	12210	45.5	50.7	56.2	62.1	68.3	74.9	81.9	89.2	96.8	104.8	113.2
CDE-0181-M	4CES-9	12410	48.4	54.2	60.5	67.3	74.5	82.2	90.5	99.2	108.5	118.3	128.7
CDE-0200-M	4TES-12	12310	57.3	64.1	71.5	79.3	87.6	96.4	105.7	115.4	125.7	136.4	147.7
CDE-0201-M	4TES-12	13310	60.1	67.6	75.7	84.4	93.8	103.8	114.4	125.7	137.6	150.3	163.6
CDE-0202-M	4TES-12	12410	58.6	65.7	73.4	81.6	90.4	99.7	109.6	120.1	131.1	142.7	154.8
CDE-0240-M	4PES-15	12410	64.3	72.4	81.0	90.2	100.0	110.4	121.3	132.9	145.1	157.8	171.2
CDE-0241-M	4PES-15	13310	66.3	74.8	84.0	93.9	104.4	115.6	127.5	140.2	153.6	167.7	182.5
CDE-0300-M	4NES-20	13310	79.3	88.9	99.1	110.1	121.8	134.2	147.4	161.3	175.9	191.3	207.4
CDE-0301-M	4NES-20	13410	80.9	90.9	101.6	113.1	125.4	138.5	152.4	167.1	182.7	199.2	216.5
CDE-0400-M	4JE-22	13310	88.2	98.7	109.7	121.5	133.9	146.9	160.7	175.1	190.2	205.9	222.3
CDE-0401-M	4JE-22	22310	91.6	102.7	114.7	127.4	140.9	155.3	170.5	186.6	203.5	221.3	240.0
CDE-0402-M	4JE-22	13410	90.3	101.2	112.8	125.1	138.2	152.0	166.7	182.1	198.3	215.3	233.0
CDE-0500-M	4HE-25	13410	105.5	117.5	130.3	143.8	158.1	173.2	189.0	205.6	223.0	241.1	260.0
CDE-0501-M	4HE-25	23310	112.0	125.4	139.9	155.3	171.8	189.4	208.2	228.0	249.0	271.1	294.5
CDE-0600-M	4GE-30	22410	124.2	138.4	153.5	169.5	186.5	204.5	223.5	243.5	264.4	286.3	309.3
CDE-0601-M	4GE-30	23310	127.5	142.4	158.4	175.5	193.6	212.9	233.4	255.1	277.9	302.0	327.2
CDE-0700-M	6HE-35	23310	158.0	176.3	195.8	216.6	238.6	261.9	286.5	312.4	339.7	368.2	398.0
CDE-0701-M	6HE-35	24310	163.1	182.5	203.4	225.6	249.4	274.7	301.5	329.9	360.0	391.7	425.0
CDE-0702-M	6HE-35	23410	161.2	180.2	200.5	222.1	245.2	269.7	295.7	323.2	352.1	382.5	414.5
CDE-0800-M	6GE-40	23410	182.0	202.6	224.5	247.9	272.5	298.6	326.1	355.1	385.4	417.2	450.3
CDE-0801-M	6GE-40	24410	187.6	209.5	232.9	257.9	284.5	312.9	342.9	374.7	408.2	443.5	480.6

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDE-0100-MS	2 - 4FES-5	S	27.0	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CDE-0101-MS*		O		5.4	69.2	90		2.5	36.9	50		2.5	25.5	35	11410
CDE-0150-MS*	2 - 4EES-6	S	31.3	5.4	78.8	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CDE-0151-MS		O		10.8	84.2	110		5.0	40.0	50		5.0	29.8	40	12210
CDE-0160-MS	2 - 4DES-7	S	34.5	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CDE-0161-MS		O		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12310
CDE-0162-MS		T		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12410
CDE-0180-MS	2 - 4CES-9	S	38.1	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12210
CDE-0181-MS*		O		10.8	99.5	125		5.0	49.3	60		5.0	40.4	50	12410
CDE-0200-MS	2 - 4TES-12	S	47.1	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60	12310
CDE-0201-MS		O		16.2	125.2	150		7.5	62.1	80		7.5	51.2	70	13310
CDE-0202-MS		T		10.8	119.8	150		5.0	59.6	80		5.0	48.7	60	12410
CDE-0240-MS*	2 - 4PES-15	S	54.3	10.8	136.0	175	27.1	5.0	67.5	90	21.8	5.0	55.3	70	12410
CDE-0241-MS		O		16.2	141.4	175		7.5	70.0	90		7.5	57.8	80	13310
CDE-0300-MS	2 - 4NES-20	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13310
CDE-0301-MS*		O		16.2	163.9	225		7.5	81.2	110		7.5	67.9	90	13410
CDE-0400-MS	2 - 4JE-22	S	68.6	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13310
CDE-0401-MS		O		21.6	179.0	225		10.0	88.7	125		10.0	72.2	100	22310
CDE-0402-MS		T		16.2	173.6	225		7.5	86.2	110		7.5	69.7	90	13410
CDE-0500-MS*	2 - 4HE-25	S	84.3	16.2	208.9	250	42.1	7.5	103.7	125	33.6	7.5	84.3	110	13410
CDE-0501-MS		O		32.4	225.1	300		15.0	111.2	150		15.0	91.8	125	23310
CDE-0600-MS*	2 - 4GE-30	S	100.0	21.6	249.6	300	50.0	10.0	124.0	175	40.0	10.0	101.2	125	22410
CDE-0601-MS		O		32.4	260.4	350		15.0	129.0	175		15.0	106.2	125	23310
CDE-0700-MS	2 - 6HE-35	S	117.1	32.4	298.9	400	58.6	15.0	148.4	200	46.4	15.0	120.6	150	23310
CDE-0701-MS		O		43.2	309.7	400		20.0	153.4	200		20.0	125.6	150	24310
CDE-0702-MS		T		32.4	298.9	400		15.0	148.4	200		15.0	120.6	150	23410
CDE-0800-MS*	2 - 6GE-40	S	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CDE-0801-MS*		O		43.2	399.7	500		20.0	198.4	250		20.0	162.7	225	24410

CD Dual Systems

CDE Medium Temp R-407A

CDE Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CDE-0100-M	4FES-5	11210	25.8	29.1	32.6	36.4	40.4	44.7	49.3	54.1	59.3	64.6	70.3
CDE-0101-M	4FES-5	11410	27.4	31.1	35.0	39.3	44.0	48.9	54.3	60.0	66.1	72.6	79.5
CDE-0150-M	4EES-6	11410	33.5	38.0	42.7	47.9	53.4	59.4	65.7	72.5	79.7	87.3	95.4
CDE-0151-M	4EES-6	12210	34.1	38.6	43.5	48.9	54.6	60.8	67.4	74.5	82.1	90.1	98.6
CDE-0160-M	4DES-7	12210	39.3	44.5	50.2	56.3	62.8	69.8	77.3	85.3	93.8	102.9	112.4
CDE-0161-M	4DES-7	12310	40.6	46.1	52.1	58.6	65.7	73.2	81.4	90.1	99.5	109.5	120.0
CDE-0162-M	4DES-7	12410	41.2	46.8	53.0	59.6	66.9	74.7	83.2	92.2	102.0	112.4	123.4
CDE-0180-M	4CES-9	12210	47.8	53.9	60.4	67.5	75.0	83.0	91.6	100.6	110.2	120.3	131.0
CDE-0181-M	4CES-9	12410	50.5	57.2	64.4	72.3	80.8	90.0	99.9	110.5	121.8	133.8	146.6
CDE-0200-M	4TES-12	12310	61.0	69.0	77.6	86.8	96.7	107.2	118.5	130.4	143.1	156.5	170.6
CDE-0201-M	4TES-12	13310	63.5	72.0	81.3	91.3	102.1	113.8	126.3	139.7	154.0	169.2	185.3
CDE-0202-M	4TES-12	12410	62.3	70.5	79.4	89.1	99.4	110.6	122.4	135.1	148.6	162.9	178.0
CDE-0240-M	4PES-15	12410	68.9	78.3	88.4	99.2	110.9	123.4	136.7	150.9	165.9	181.7	198.5
CDE-0241-M	4PES-15	13310	70.5	80.3	90.8	102.2	114.5	127.6	141.8	156.9	172.9	190.0	208.0
CDE-0300-M	4NES-20	13310	82.9	93.9	105.8	118.7	132.5	147.2	163.0	179.9	197.7	216.6	236.6
CDE-0301-M	4NES-20	13410	84.4	95.8	108.2	121.5	135.9	151.4	168.0	185.7	204.6	224.7	246.0
CDE-0400-M	4JE-22	13310	90.0	102.1	115.1	129.0	143.9	159.8	176.7	194.7	213.7	233.7	254.9
CDE-0401-M	4JE-22	22310	92.8	105.6	119.4	134.2	150.1	167.2	185.5	205.0	225.8	247.8	271.2
CDE-0402-M	4JE-22	13410	91.9	104.5	118.0	132.5	148.2	164.9	182.7	201.7	221.9	243.3	266.0
CDE-0500-M	4HE-25	13410	104.5	118.6	133.8	150.1	167.5	186.1	205.9	227.0	249.3	272.9	297.8
CDE-0501-M	4HE-25	23310	109.6	124.9	141.4	159.4	178.7	199.5	221.8	245.7	271.3	298.5	327.4
CDE-0600-M	4GE-30	22410	126.9	143.6	161.6	180.9	201.7	224.0	247.7	273.0	299.9	328.4	358.5
CDE-0601-M	4GE-30	23310	129.3	146.6	165.3	185.5	207.2	230.5	255.5	282.2	310.6	340.9	373.0
CDE-0700-M	6HE-35	23310	163.7	185.4	208.7	233.7	260.6	289.3	319.9	352.5	387.1	423.7	462.4
CDE-0701-M	6HE-35	24310	168.1	190.8	215.3	241.8	270.3	300.9	333.7	368.8	406.1	445.9	488.1
CDE-0702-M	6HE-35	23410	166.7	189.1	213.2	239.3	267.2	297.2	329.3	363.6	400.1	438.9	479.9
CDE-0800-M	6GE-40	23410	190.2	215.2	242.2	271.3	302.4	335.8	371.4	409.3	449.6	492.4	537.5
CDE-0801-M	6GE-40	24410	195.0	221.2	249.5	280.1	313.1	348.5	386.5	427.1	470.5	516.7	565.7

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CDE-0100-M	4FES-5	11210	23.3	26.3	29.6	33.0	36.8	40.8	45.0	N/A	N/A	N/A	N/A
CDE-0101-M	4FES-5	11410	24.8	28.2	31.8	35.8	40.1	44.7	49.7	55.1	60.8	66.9	73.3
CDE-0150-M	4EES-6	11410	30.3	34.4	38.8	43.5	48.7	54.2	60.1	66.4	73.1	80.2	87.8
CDE-0151-M	4EES-6	12210	30.8	35.0	39.5	44.5	49.8	55.5	61.7	68.3	75.3	82.8	90.8
CDE-0160-M	4DES-7	12210	35.5	40.3	45.5	51.1	57.2	63.7	70.7	78.1	86.1	94.5	103.4
CDE-0161-M	4DES-7	12310	36.7	41.8	47.3	53.3	59.9	66.9	74.5	82.7	91.4	100.7	110.7
CDE-0162-M	4DES-7	12410	37.2	42.4	48.1	54.3	61.0	68.3	76.2	84.7	93.7	103.5	113.9
CDE-0180-M	4CES-9	12210	43.4	48.9	54.9	61.4	68.4	75.8	83.7	92.1	N/A	N/A	N/A
CDE-0181-M	4CES-9	12410	45.8	52.0	58.7	66.0	73.9	82.4	91.6	101.5	112.1	123.3	135.3
CDE-0200-M	4TES-12	12310	55.1	62.4	70.3	78.8	87.9	97.7	108.1	119.2	131.0	143.5	N/A
CDE-0201-M	4TES-12	13310	57.4	65.3	73.8	83.1	93.1	103.9	115.5	128.0	141.3	155.5	170.6
CDE-0202-M	4TES-12	12410	56.3	63.9	72.1	81.0	90.6	100.9	111.9	123.7	136.2	149.6	163.7
CDE-0240-M	4PES-15	12410	61.8	70.4	79.7	89.7	100.5	112.0	124.4	137.5	151.5	166.3	N/A
CDE-0241-M	4PES-15	13310	63.3	72.3	82.0	92.5	103.8	116.0	129.2	143.2	158.1	174.1	190.9
CDE-0300-M	4NES-20	13310	74.7	84.9	95.8	107.7	120.4	134.1	148.7	164.4	181.0	198.6	217.3
CDE-0301-M	4NES-20	13410	76.2	86.7	98.1	110.4	123.7	138.0	153.4	169.9	187.5	206.3	226.2
CDE-0400-M	4JE-22	13310	80.7	91.9	103.9	116.7	130.5	145.3	161.0	177.7	195.5	214.3	N/A
CDE-0401-M	4JE-22	22310	83.4	95.1	107.9	121.6	136.4	152.2	169.3	187.5	206.9	227.5	249.4
CDE-0402-M	4JE-22	13410	82.5	94.1	106.6	120.0	134.5	150.0	166.6	184.4	203.2	223.3	244.5
CDE-0500-M	4HE-25	13410	93.7	106.7	120.7	135.8	151.9	169.2	187.6	207.3	228.1	250.2	N/A
CDE-0501-M	4HE-25	23310	98.5	112.6	127.9	144.5	162.4	181.8	202.6	224.9	248.8	274.3	301.5
CDE-0600-M	4GE-30	22410	114.7	130.1	146.8	164.7	183.9	204.6	226.7	250.3	275.4	302.1	330.4
CDE-0601-M	4GE-30	23310	117.0	133.0	150.3	169.0	189.1	210.8	234.0	258.9	285.6	313.9	344.1
CDE-0700-M	6HE-35	23310	147.8	167.8	189.3	212.4	237.3	264.0	292.5	322.8	355.1	389.4	425.7
CDE-0701-M	6HE-35	24310	151.9	172.8	195.5	220.0	246.4	274.9	305.4	338.1	373.1	410.4	450.0
CDE-0702-M	6HE-35	23410	150.6	171.2	193.6	217.6	243.6	271.4	301.3	333.3	367.4	403.7	442.2
CDE-0800-M	6GE-40	23410	172.0	195.1	220.0	246.9	275.8	306.7	339.9	375.2	412.9	452.9	495.3
CDE-0801-M	6GE-40	24410	176.5	200.7	226.9	255.2	285.8	318.7	354.1	392.0	432.6	475.9	522.0

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "0" at the end of the model nomenclature with an "F".

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDE-0100-MQ	2 - 4FES-5	S	27.0	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CDE-0101-MQ*		O		5.4	69.2	90		2.5	36.9	50		2.5	25.5	35	11410
CDE-0150-MQ*	2 - 4EES-6	S	31.3	5.4	78.8	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CDE-0151-MQ		O		10.8	84.2	110		5.0	40.0	50		5.0	29.8	40	12210
CDE-0160-MQ	2 - 4DES-7	S	34.5	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CDE-0161-MQ		O		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12310
CDE-0162-MQ		T		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12410
CDE-0180-MQ	2 - 4CES-9	S	38.1	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12210
CDE-0181-MQ*		O		10.8	99.5	125		5.0	49.3	60		5.0	40.4	50	12410
CDE-0200-MQ	2 - 4TES-12	S	47.1	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60	12310
CDE-0201-MQ		O		16.2	125.2	150		7.5	62.1	80		7.5	51.2	70	13310
CDE-0202-MQ		T		10.8	119.8	150		5.0	59.6	80		5.0	48.7	60	12410
CDE-0240-MQ*	2 - 4PES-15	S	54.3	10.8	136.0	175	27.1	5.0	67.5	90	21.8	5.0	55.3	70	12410
CDE-0241-MQ		O		16.2	141.4	175		7.5	70.0	90		7.5	57.8	80	13310
CDE-0300-MQ	2 - 4NES-20	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13310
CDE-0301-MQ*		O		16.2	163.9	225		7.5	81.2	110		7.5	67.9	90	13410
CDE-0400-MQ	2 - 4JE-22	S	68.6	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13310
CDE-0401-MQ		O		21.6	179.0	225		10.0	88.7	125		10.0	72.2	100	22310
CDE-0402-MQ		T		16.2	173.6	225		7.5	86.2	110		7.5	69.7	90	13410
CDE-0500-MQ*	2 - 4HE-25	S	84.3	16.2	208.9	250	42.1	7.5	103.7	125	33.6	7.5	84.3	110	13410
CDE-0501-MQ		O		32.4	225.1	300		15.0	111.2	150		15.0	91.8	125	23310
CDE-0600-MQ*	2 - 4GE-30	S	100.0	21.6	249.6	300	50.0	10.0	124.0	175	40.0	10.0	101.2	125	22410
CDE-0601-MQ		O		32.4	260.4	350		15.0	129.0	175		15.0	106.2	125	23310
CDE-0700-MQ	2 - 6HE-35	S	117.1	32.4	298.9	400	58.6	15.0	148.4	200	46.4	15.0	120.6	150	23310
CDE-0701-MQ		O		43.2	309.7	400		20.0	153.4	200		20.0	125.6	150	24310
CDE-0702-MQ		T		32.4	298.9	400		15.0	148.4	200		15.0	120.6	150	23410
CDE-0800-MQ*	2 - 6GE-40	S	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CDE-0801-MQ*		O		43.2	399.7	500		20.0	198.4	250		20.0	162.7	225	24410

CDE Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the ¨T¨ at the end of the model nomenclature with a ¨R¨.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CDE-0100-M	4FES-5	11210	27.2	30.5	34.1	38.0	42.1	46.4	51.1	56.0	61.1	66.6	N/A
CDE-0101-M	4FES-5	11410	29.0	32.7	36.8	41.2	45.9	51.0	56.4	62.2	68.4	75.0	82.0
CDE-0150-M	4EES-6	11410	35.5	40.0	44.8	50.1	55.7	61.8	68.2	75.1	82.4	90.1	98.3
CDE-0151-M	4EES-6	12210	36.1	40.7	45.7	51.2	57.0	63.3	70.0	77.2	84.9	93.0	101.6
CDE-0160-M	4DES-7	12210	41.6	46.9	52.7	58.9	65.5	72.7	80.3	88.4	97.0	106.2	115.8
CDE-0161-M	4DES-7	12310	43.0	48.7	54.8	61.4	68.6	76.3	84.6	93.5	103.0	113.1	123.9
CDE-0162-M	4DES-7	12410	43.6	49.4	55.7	62.5	69.9	77.9	86.5	95.8	105.7	116.2	127.4
CDE-0180-M	4CES-9	12210	50.4	56.6	63.3	70.4	78.0	86.2	94.8	104.0	113.7	123.9	134.6
CDE-0181-M	4CES-9	12410	53.4	60.2	67.6	75.7	84.4	93.7	103.8	114.5	126.0	138.2	151.2
CDE-0200-M	4TES-12	12310	63.6	71.7	80.5	90.0	100.2	111.1	122.7	135.1	148.2	162.0	176.6
CDE-0201-M	4TES-12	13310	66.3	75.1	84.6	95.0	106.2	118.3	131.2	145.1	160.0	175.8	192.5
CDE-0202-M	4TES-12	12410	65.0	73.4	82.6	92.6	103.3	114.7	127.0	140.2	154.1	168.9	184.6
CDE-0240-M	4PES-15	12410	71.7	81.3	91.6	102.8	114.8	127.7	141.5	156.2	171.7	188.2	205.6
CDE-0241-M	4PES-15	13310	73.4	83.4	94.3	106.0	118.7	132.4	147.0	162.7	179.4	197.1	215.9
CDE-0300-M	4NES-20	13310	87.9	99.2	111.5	124.7	139.0	154.3	170.7	188.1	206.6	226.2	246.9
CDE-0301-M	4NES-20	13410	89.6	101.3	114.1	127.9	142.8	158.8	176.1	194.5	214.1	234.9	257.0
CDE-0400-M	4JE-22	13310	98.0	110.4	123.6	137.8	153.0	169.2	186.4	204.6	223.8	244.1	265.4
CDE-0401-M	4JE-22	22310	101.2	114.2	128.3	143.5	159.8	177.3	195.9	215.8	236.9	259.3	282.9
CDE-0402-M	4JE-22	13410	100.2	113.0	126.8	141.7	157.7	174.7	192.9	212.3	232.8	254.5	277.3
CDE-0500-M	4HE-25	13410	117.4	131.7	147.2	163.7	181.4	200.2	220.1	241.3	263.6	287.1	311.8
CDE-0501-M	4HE-25	23310	123.1	138.7	155.7	174.0	193.7	214.9	237.7	261.9	287.8	315.3	344.5
CDE-0600-M	4GE-30	22410	137.7	154.6	172.7	192.2	213.0	235.3	259.0	284.2	310.8	338.9	368.6
CDE-0601-M	4GE-30	23310	140.5	158.0	176.9	197.2	219.1	242.6	267.6	294.4	322.8	352.9	384.7
CDE-0700-M	6HE-35	23310	174.8	196.5	219.7	244.7	271.5	300.0	330.4	362.7	396.8	432.9	470.9
CDE-0701-M	6HE-35	24310	179.6	202.2	226.8	253.2	281.6	312.1	344.8	379.6	416.7	456.1	497.8
CDE-0702-M	6HE-35	23410	178.1	200.4	224.6	250.5	278.4	308.3	340.3	374.3	410.4	448.7	489.2
CDE-0800-M	6GE-40	23410	202.0	226.5	252.9	281.2	311.4	343.7	377.9	414.3	452.8	493.3	536.0
CDE-0801-M	6GE-40	24410	207.1	232.8	260.5	290.4	322.6	357.0	393.8	433.0	474.7	519.0	565.8

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30	35	40	45	50
CDE-0100-M	4FES-5	11210	24.6	27.7	31.0	34.5	38.3	42.3	46.6	N/A	N/A	N/A	N/A
CDE-0101-M	4FES-5	11410	26.3	29.7	33.5	37.5	41.9	46.6	51.7	57.1	62.9	69.1	75.7
CDE-0150-M	4EES-6	11410	32.1	36.2	40.7	45.6	50.8	56.4	62.4	68.8	75.6	82.8	N/A
CDE-0151-M	4EES-6	12210	32.6	36.9	41.6	46.6	52.0	57.8	64.1	70.8	78.0	85.6	93.6
CDE-0160-M	4DES-7	12210	37.6	42.5	47.8	53.5	59.7	66.3	73.4	81.0	89.0	97.5	N/A
CDE-0161-M	4DES-7	12310	39.0	44.2	49.8	56.0	62.6	69.8	77.5	85.8	94.7	104.2	114.3
CDE-0162-M	4DES-7	12410	39.5	44.9	50.7	57.0	63.9	71.3	79.3	88.0	97.2	107.1	117.7
CDE-0180-M	4CES-9	12210	45.8	51.4	57.5	64.1	71.2	78.7	86.7	N/A	N/A	N/A	N/A
CDE-0181-M	4CES-9	12410	48.5	54.8	61.7	69.1	77.2	85.9	95.2	105.3	116.0	127.4	139.6
CDE-0200-M	4TES-12	12310	57.4	64.9	73.0	81.7	91.1	101.1	111.9	123.3	135.5	N/A	N/A
CDE-0201-M	4TES-12	13310	59.9	68.0	76.8	86.3	96.7	107.9	119.9	132.8	146.6	161.3	177.0
CDE-0202-M	4TES-12	12410	58.7	66.5	74.9	84.1	93.9	104.5	115.9	128.1	141.1	154.9	169.5
CDE-0240-M	4PES-15	12410	64.2	73.0	82.5	92.8	103.9	115.8	128.5	142.1	156.6	171.9	N/A
CDE-0241-M	4PES-15	13310	65.8	75.0	85.0	95.8	107.5	120.1	133.7	148.3	163.8	180.3	197.9
CDE-0300-M	4NES-20	13310	79.4	89.8	101.1	113.3	126.4	140.6	155.7	171.9	189.1	207.4	N/A
CDE-0301-M	4NES-20	13410	81.0	91.8	103.5	116.3	130.0	144.9	160.8	177.9	196.2	215.6	236.3
CDE-0400-M	4JE-22	13310	88.4	99.7	112.0	125.1	139.1	154.1	170.0	186.9	204.8	N/A	N/A
CDE-0401-M	4JE-22	22310	91.4	103.4	116.5	130.5	145.6	161.8	179.1	197.6	217.3	238.2	260.3
CDE-0402-M	4JE-22	13410	90.4	102.3	115.0	128.8	143.6	159.4	176.2	194.2	213.3	233.5	254.9
CDE-0500-M	4HE-25	13410	106.3	119.5	133.7	148.9	165.2	182.5	200.9	220.5	241.2	N/A	N/A
CDE-0501-M	4HE-25	23310	111.8	126.3	141.9	158.8	177.1	196.7	217.7	240.3	264.3	289.9	317.2
CDE-0600-M	4GE-30	22410	125.0	140.4	157.1	174.9	194.1	214.5	236.3	259.5	284.1	310.2	337.7
CDE-0601-M	4GE-30	23310	127.7	143.7	161.1	179.8	199.9	221.5	244.6	269.3	295.6	323.5	353.1
CDE-0700-M	6HE-35	23310	158.7	178.6	200.1	223.1	247.8	274.2	302.3	332.2	363.9	397.5	N/A
CDE-0701-M	6HE-35	24310	163.2	184.2	206.8	231.2	257.5	285.8	316.1	348.5	383.0	419.7	458.6
CDE-0702-M	6HE-35	23410	161.8	182.4	204.7	228.7	254.5	282.1	311.7	343.3	376.9	412.6	450.4
CDE-0800-M	6GE-40	23410	183.7	206.2	230.4	256.3	284.0	313.6	345.2	378.7	414.1	451.6	491.2
CDE-0801-M	6GE-40	24410	188.6	212.2	237.7	265.2	294.8	326.4	360.4	396.6	435.1	476.1	519.5

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDE-0100-MT	2 - 4FES-5	S	27.0	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CDE-0101-MT*		O		5.4	69.2	90		2.5	36.9	50		2.5	25.5	35	11410
CDE-0150-MT*	2 - 4EES-6	S	31.3	5.4	78.8	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CDE-0151-MT		O		10.8	84.2	110		5.0	40.0	50		5.0	29.8	40	12210
CDE-0160-MT	2 - 4DES-7	S	34.5	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CDE-0161-MT		O		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12310
CDE-0162-MT		T		10.8	91.4	125		5.0	44.8	60		5.0	33.9	45	12410
CDE-0180-MT	2 - 4CES-9	S	38.1	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12210
CDE-0181-MT*		O		10.8	99.5	125		5.0	49.3	60		5.0	40.4	50	12410
CDE-0200-MT	2 - 4TES-12	S	47.1	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60	12310
CDE-0201-MT		O		16.2	125.2	150		7.5	62.1	80		7.5	51.2	70	13310
CDE-0202-MT		T		10.8	119.8	150		5.0	59.6	80		5.0	48.7	60	12410
CDE-0240-MT*	2 - 4PES-15	S	54.3	10.8	136.0	175	27.1	5.0	67.5	90	21.8	5.0	55.3	70	12410
CDE-0241-MT		O		16.2	141.4	175		7.5	70.0	90		7.5	57.8	80	13310
CDE-0300-MT	2 - 4NES-20	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13310
CDE-0301-MT*		O		16.2	163.9	225		7.5	81.2	110		7.5	67.9	90	13410
CDE-0400-MT	2 - 4JE-22	S	68.6	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13310
CDE-0401-MT		O		21.6	179.0	225		10.0	88.7	125		10.0	72.2	100	22310
CDE-0402-MT		T		16.2	173.6	225		7.5	86.2	110		7.5	69.7	90	13410
CDE-0500-MT*	2 - 4HE-25	S	84.3	16.2	208.9	250	42.1	7.5	103.7	125	33.6	7.5	84.3	110	13410
CDE-0501-MT		O		32.4	225.1	300		15.0	111.2	150		15.0	91.8	125	23310
CDE-0600-MT*	2 - 4GE-30	S	100.0	21.6	249.6	300	50.0	10.0	124.0	175	40.0	10.0	101.2	125	22410
CDE-0601-MT		O		32.4	260.4	350		15.0	129.0	175		15.0	106.2	125	23310
CDE-0700-MT	2 - 6HE-35	S	117.1	32.4	298.9	400	58.6	15.0	148.4	200	46.4	15.0	120.6	150	23310
CDE-0701-MT		O		43.2	309.7	400		20.0	153.4	200		20.0	125.6	150	24310
CDE-0702-MT		T		32.4	298.9	400		15.0	148.4	200		15.0	120.6	150	23410
CDE-0800-MT*	2 - 6GE-40	S	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CDE-0801-MT*		O		43.2	399.7	500		20.0	198.4	250		20.0	162.7	225	24410

CD Dual Systems

CDB Medium Temp R-404A

CDB Performance Data - Medium Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CDB-0100-M	4FES-3	11210	27.3	30.3	33.5	36.9	40.5	44.2	48.1
CDB-0101-M	4FES-3	11410	29.2	32.6	36.3	40.2	44.5	49.0	53.7
CDB-0150-M	4EES-4	11410	36.0	40.2	44.6	49.3	54.3	59.6	65.2
CDB-0151-M	4EES-4	12210	36.9	41.2	45.8	50.8	56.1	61.7	67.7
CDB-0160-M	4DES-5	12210	43.1	48.1	53.4	59.1	65.1	71.5	78.2
CDB-0161-M	4DES-5	12310	44.6	50.0	55.7	61.8	68.3	75.3	82.8
CDB-0162-M	4DES-5	12410	45.3	50.7	56.6	62.9	69.7	76.9	84.6
CDB-0180-M	4CES-6	12210	50.6	56.4	62.6	69.1	76.1	83.5	91.3
CDB-0181-M	4CES-6	12410	53.7	60.2	67.1	74.5	82.5	91.0	100.1
CDB-0200-M	4TES-9	12310	64.1	71.8	79.9	88.6	97.8	107.5	117.8
CDB-0201-M	4TES-9	13310	67.2	75.6	84.5	94.1	104.4	115.3	127.0
CDB-0202-M	4TES-9	12410	65.6	73.5	82.0	91.1	100.8	111.1	122.0
CDB-0240-M	4PES-12	12410	72.8	81.8	91.4	101.7	112.6	124.1	136.3
CDB-0241-M	4PES-12	13310	75.0	84.5	94.7	105.6	117.3	129.7	142.9
CDB-0300-M	4NES-14	13310	88.5	99.1	110.6	122.8	135.7	149.5	164.1
CDB-0301-M	4NES-14	13410	90.2	101.3	113.2	125.9	139.5	154.0	169.4
CDB-0400-M	4JE-15	13310	101.7	113.3	125.6	138.7	152.5	167.1	182.4
CDB-0401-M	4JE-15	22310	105.4	117.7	130.9	145.0	160.0	175.9	192.7
CDB-0402-M	4JE-15	13410	104.0	116.0	128.9	142.6	157.1	172.5	188.7
CDB-0500-M	4HE-18	13410	119.8	133.2	147.4	162.5	178.5	195.3	212.9
CDB-0501-M	4HE-18	23310	126.8	141.7	157.6	174.7	192.9	212.4	233.0
CDB-0600-M	4GE-23	22410	142.1	157.9	174.7	192.5	211.5	231.5	252.6
CDB-0601-M	4GE-23	23310	145.7	162.3	180.0	198.9	219.1	240.5	263.1
CDB-0700-M	6HE-28	23310	179.4	199.7	221.4	244.4	268.9	294.8	322.1
CDB-0701-M	6HE-28	24310	184.9	206.3	229.3	254.0	280.2	308.1	337.7
CDB-0702-M	6HE-28	23410	182.8	203.8	226.3	250.3	275.8	302.9	331.7
CDB-0800-M	6GE-34	23410	211.6	234.6	259.1	285.1	312.7	341.7	372.4
CDB-0801-M	6GE-34	24410	217.8	242.1	268.2	296.0	325.6	357.0	390.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CDB-0100-M	4FES-3	11210	24.3	27.0	29.8	32.9	36.0	39.4	42.9
CDB-0101-M	4FES-3	11410	26.1	29.2	32.5	36.1	39.9	43.9	48.2
CDB-0150-M	4EES-4	11410	32.3	36.0	40.0	44.2	48.7	53.5	58.5
CDB-0151-M	4EES-4	12210	33.1	37.0	41.1	45.6	50.4	55.5	60.9
CDB-0160-M	4DES-5	12210	38.7	43.2	48.0	53.1	58.6	64.4	70.5
CDB-0161-M	4DES-5	12310	40.1	44.9	50.1	55.7	61.7	68.0	74.8
CDB-0162-M	4DES-5	12410	40.7	45.7	51.0	56.8	62.9	69.5	76.6
CDB-0180-M	4CES-6	12210	45.3	50.6	56.2	62.2	68.5	75.3	82.4
CDB-0181-M	4CES-6	12410	48.2	54.1	60.4	67.3	74.6	82.4	90.7
CDB-0200-M	4TES-9	12310	57.2	64.1	71.5	79.3	87.7	96.6	105.9
CDB-0201-M	4TES-9	13310	60.1	67.6	75.7	84.5	93.9	103.9	114.6
CDB-0202-M	4TES-9	12410	58.5	65.7	73.4	81.7	90.5	99.9	109.8
CDB-0240-M	4PES-12	12410	64.5	72.6	81.3	90.6	100.5	111.1	122.2
CDB-0241-M	4PES-12	13310	66.5	75.1	84.4	94.3	104.9	116.3	128.4
CDB-0300-M	4NES-14	13310	78.8	88.4	98.8	109.8	121.6	134.2	147.5
CDB-0301-M	4NES-14	13410	80.5	90.5	101.3	112.8	125.2	138.4	152.5
CDB-0400-M	4JE-15	13310	91.1	101.6	112.8	124.7	137.3	150.6	164.7
CDB-0401-M	4JE-15	22310	94.6	105.8	117.9	130.7	144.4	159.0	174.5
CDB-0402-M	4JE-15	13410	93.2	104.2	115.9	128.4	141.7	155.8	170.6
CDB-0500-M	4HE-18	13410	107.6	119.7	132.5	146.2	160.7	176.0	192.1
CDB-0501-M	4HE-18	23310	114.2	127.7	142.3	157.8	174.5	192.3	211.2
CDB-0600-M	4GE-23	22410	127.9	142.1	157.3	173.5	190.7	208.8	228.0
CDB-0601-M	4GE-23	23310	131.4	146.4	162.4	179.6	197.9	217.4	238.1
CDB-0700-M	6HE-28	23310	161.3	179.7	199.4	220.4	242.7	266.3	291.3
CDB-0701-M	6HE-28	24310	166.5	186.0	207.0	229.5	253.5	279.0	306.2
CDB-0702-M	6HE-28	23410	164.5	183.6	204.1	226.0	249.3	274.1	300.4
CDB-0800-M	6GE-34	23410	191.2	212.0	234.1	257.6	282.5	308.8	336.6
CDB-0801-M	6GE-34	24410	197.2	219.2	242.8	268.0	294.9	323.4	353.7

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the ¨S¨ at the end of the model nomenclature with a ¨P¨.

Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDB-0100-MS	2 - 4FES-3	S	20.1	5.4	53.6	70	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CDB-0101-MS*		O		5.4	53.6	70		2.5	24.3	30		2.5	19.2	25	11410
CDB-0150-MS*	2 - 4EES-4	S	22.4	5.4	58.8	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CDB-0151-MS		O		10.8	64.2	80		5.0	29.7	40		5.0	24.9	30	12210
CDB-0160-MS	2 - 4DES-5	S	23.0	10.8	65.6	80	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CDB-0161-MS		O		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35	12310
CDB-0162-MS		T		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35	12410
CDB-0180-MS	2 - 4CES-6	S	27.9	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12210
CDB-0181-MS*		O		10.8	76.6	100		5.0	42.1	50		5.0	34.3	45	12410
CDB-0200-MS	2 - 4TES-9	S	31.4	10.8	84.5	110	15.7	5.0	41.8	50	13.6	5.0	36.8	50	12310
CDB-0201-MS		O		16.2	89.9	110		7.5	44.3	60		7.5	39.3	50	13310
CDB-0202-MS		T		10.8	84.5	110		5.0	41.8	50		5.0	36.8	50	12410
CDB-0240-MS*	2 - 4PES-12	S	38.6	10.8	100.7	125	19.3	5.0	49.9	60	16.0	5.0	42.2	50	12410
CDB-0241-MS		O		16.2	106.1	125		7.5	52.4	70		7.5	44.7	60	13310
CDB-0300-MS	2 - 4NES-14	S	44.3	16.2	118.9	150	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13310
CDB-0301-MS*		O		16.2	118.9	150		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MS	2 - 4JE-15	S	55.7	16.2	144.5	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80	13310
CDB-0401-MS		O		21.6	149.9	200		10.0	74.3	100		10.0	61.4	80	22310
CDB-0402-MS		T		16.2	144.5	200		7.5	71.8	100		7.5	58.9	80	13410
CDB-0500-MS*	2 - 4HE-18	S	60.3	16.2	154.9	200	30.1	7.5	76.7	100	24.1	7.5	62.9	80	13410
CDB-0501-MS		O		32.4	171.1	225		15.0	84.2	110		15.0	70.4	90	23310
CDB-0600-MS*	2 - 4GE-23	S	64.3	21.6	169.3	225	32.1	10.0	83.7	110	25.7	10.0	69.0	90	22410
CDB-0601-MS		O		32.4	180.1	225		15.0	88.7	110		15.0	74.0	100	23310
CDB-0700-MS	2 - 6HE-28	S	86.4	32.4	229.8	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125	23310
CDB-0701-MS		O		43.2	240.6	300		20.0	118.7	150		20.0	99.1	125	24310
CDB-0702-MS		T		32.4	229.8	300		15.0	113.7	150		15.0	94.1	125	23410
CDB-0800-MS*	2 - 6GE-34	S	94.3	32.4	247.6	300	47.1	15.0	122.5	150	37.1	15.0	99.7	125	23410
CDB-0801-MS*		O		43.2	258.4	350		20.0	127.5	175		20.0	104.7	125	24410

CDB Performance Data - Medium Temperature R-407A - Cooling Capacity (MBH)

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.

2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.

4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CDB-0100-M	4FES-3	11210	26.2	29.5	33.1	36.9	41.0	45.3	49.9
CDB-0101-M	4FES-3	11410	27.9	31.5	35.5	39.8	44.5	49.5	54.9
CDB-0150-M	4EES-4	11410	33.5	37.9	42.7	47.9	53.5	59.4	65.8
CDB-0151-M	4EES-4	12210	34.0	38.6	43.5	48.9	54.7	60.8	67.5
CDB-0160-M	4DES-5	12210	39.3	44.5	50.2	56.3	62.9	69.9	77.4
CDB-0161-M	4DES-5	12310	40.6	46.1	52.1	58.6	65.7	73.3	81.4
CDB-0162-M	4DES-5	12410	41.1	46.8	53.0	59.7	66.9	74.7	83.1
CDB-0180-M	4CES-6	12210	47.8	53.9	60.5	67.6	75.2	83.3	91.9
CDB-0181-M	4CES-6	12410	50.4	57.1	64.5	72.4	80.9	90.1	100.0
CDB-0200-M	4TES-9	12310	60.8	68.8	77.5	86.8	96.8	107.4	118.8
CDB-0201-M	4TES-9	13310	63.3	71.9	81.2	91.3	102.2	113.9	126.4
CDB-0202-M	4TES-9	12410	62.1	70.4	79.4	89.1	99.5	110.7	122.6
CDB-0240-M	4PES-12	12410	68.8	78.2	88.4	99.3	111.1	123.7	137.1
CDB-0241-M	4PES-12	13310	70.4	80.2	90.8	102.3	114.6	127.9	142.1
CDB-0300-M	4NES-14	13310	82.9	94.0	106.0	118.9	132.8	147.7	163.6
CDB-0301-M	4NES-14	13410	84.4	95.9	108.4	121.8	136.3	151.8	168.5
CDB-0400-M	4JE-15	13310	92.1	104.3	117.5	131.6	146.8	162.9	180.1
CDB-0401-M	4JE-15	22310	94.9	107.8	121.8	136.8	152.9	170.2	188.7
CDB-0402-M	4JE-15	13410	94.0	106.7	120.4	135.1	151.0	167.9	186.0
CDB-0500-M	4HE-18	13410	109.9	124.3	139.7	156.3	174.0	192.9	213.1
CDB-0501-M	4HE-18	23310	115.2	130.7	147.5	165.6	185.2	206.2	228.7
CDB-0600-M	4GE-23	22410	132.0	148.9	167.0	186.6	207.6	230.0	254.0
CDB-0601-M	4GE-23	23310	134.5	152.0	170.8	191.2	213.0	236.5	261.7
CDB-0700-M	6HE-28	23310	166.7	188.6	212.2	237.6	264.8	293.9	325.0
CDB-0701-M	6HE-28	24310	171.2	194.1	218.9	245.6	274.4	305.3	338.4
CDB-0702-M	6HE-28	23410	169.8	192.4	216.8	243.1	271.4	301.7	334.2
CDB-0800-M	6GE-34	23410	192.9	218.2	245.5	274.8	306.3	340.0	376.0
CDB-0801-M	6GE-34	24410	197.8	224.2	252.8	283.7	316.9	352.6	390.9

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CDB-0100-M	4FES-3	11210	23.8	26.8	30.1	33.7	37.4	41.5	45.8
CDB-0101-M	4FES-3	11410	25.3	28.7	32.4	36.4	40.8	45.4	50.4
CDB-0150-M	4EES-4	11410	30.2	34.4	38.8	43.6	48.8	54.4	60.3
CDB-0151-M	4EES-4	12210	30.8	35.0	39.6	44.5	49.9	55.7	61.9
CDB-0160-M	4DES-5	12210	35.4	40.3	45.5	51.2	57.4	63.9	71.0
CDB-0161-M	4DES-5	12310	36.6	41.8	47.4	53.4	60.0	67.1	74.7
CDB-0162-M	4DES-5	12410	37.2	42.4	48.1	54.4	61.1	68.5	76.3
CDB-0180-M	4CES-6	12210	43.3	48.9	55.1	61.6	68.7	76.3	84.3
CDB-0181-M	4CES-6	12410	45.8	52.0	58.8	66.2	74.1	82.7	92.0
CDB-0200-M	4TES-9	12310	54.9	62.3	70.3	78.9	88.2	98.1	108.7
CDB-0201-M	4TES-9	13310	57.2	65.2	73.8	83.2	93.3	104.2	116.0
CDB-0202-M	4TES-9	12410	56.1	63.8	72.1	81.1	90.8	101.2	112.4
CDB-0240-M	4PES-12	12410	61.6	70.3	79.8	89.9	100.9	112.6	125.1
CDB-0241-M	4PES-12	13310	63.1	72.2	82.0	92.7	104.2	116.5	129.8
CDB-0300-M	4NES-14	13310	74.7	85.0	96.1	108.1	121.0	134.9	149.7
CDB-0301-M	4NES-14	13410	76.2	86.8	98.3	110.8	124.3	138.8	154.3
CDB-0400-M	4JE-15	13310	82.9	94.3	106.5	119.7	133.9	149.0	165.1
CDB-0401-M	4JE-15	22310	85.6	97.6	110.5	124.5	139.6	155.8	173.2
CDB-0402-M	4JE-15	13410	84.7	96.5	109.3	123.0	137.8	153.6	170.6
CDB-0500-M	4HE-18	13410	99.5	112.8	127.2	142.6	159.2	176.9	195.8
CDB-0501-M	4HE-18	23310	104.4	118.8	134.4	151.3	169.6	189.3	210.5
CDB-0600-M	4GE-23	22410	120.2	135.9	152.8	171.0	190.7	211.7	234.3
CDB-0601-M	4GE-23	23310	122.6	138.8	156.4	175.3	195.8	217.8	241.5
CDB-0700-M	6HE-28	23310	151.0	171.3	193.2	216.9	242.3	269.6	298.8
CDB-0701-M	6HE-28	24310	155.1	176.4	199.5	224.4	251.3	280.3	311.4
CDB-0702-M	6HE-28	23410	153.8	174.8	197.5	222.0	248.5	276.9	307.4
CDB-0800-M	6GE-34	23410	174.8	198.3	223.7	251.0	280.5	312.0	345.8
CDB-0801-M	6GE-34	24410	179.4	203.9	230.5	259.3	290.4	323.9	359.8

Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDB-0100-MQ	2 - 4FES-3	S	20.1	5.4	53.6	70	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CDB-0101-MQ*		O		5.4	53.6	70		2.5	24.3	30		2.5	19.2	25	11410
CDB-0150-MQ*	2 - 4EES-4	S	22.4	5.4	58.8	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CDB-0151-MQ		O		10.8	64.2	80		5.0	29.7	40		5.0	24.9	30	12210
CDB-0160-MQ	2 - 4DES-5	S	23.0	10.8	65.6	80	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CDB-0161-MQ		O		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35	12310
CDB-0162-MQ		T		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35	12410
CDB-0180-MQ	2 - 4CES-6	S	27.9	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12210
CDB-0181-MQ*		O		10.8	76.6	100		5.0	42.1	50		5.0	34.3	45	12410
CDB-0200-MQ	2 - 4TES-9	S	31.4	10.8	84.5	110	15.7	5.0	41.8	50	13.6	5.0	36.8	50	12310
CDB-0201-MQ		O		16.2	89.9	110		7.5	44.3	60		7.5	39.3	50	13310
CDB-0202-MQ		T		10.8	84.5	110		5.0	41.8	50		5.0	36.8	50	12410
CDB-0240-MQ*	2 - 4PES-12	S	38.6	10.8	100.7	125	19.3	5.0	49.9	60	16.0	5.0	42.2	50	12410
CDB-0241-MQ		O		16.2	106.1	125		7.5	52.4	70		7.5	44.7	60	13310
CDB-0300-MQ	2 - 4NES-14	S	44.3	16.2	118.9	150	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13310
CDB-0301-MQ*		O		16.2	118.9	150		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MQ	2 - 4JE-15	S	55.7	16.2	144.5	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80	13310
CDB-0401-MQ		O		21.6	149.9	200		10.0	74.3	100		10.0	61.4	80	22310
CDB-0402-MQ		T		16.2	144.5	200		7.5	71.8	100		7.5	58.9	80	13410
CDB-0500-MQ*	2 - 4HE-18	S	60.3	16.2	154.9	200	30.1	7.5	76.7	100	24.1	7.5	62.9	80	13410
CDB-0501-MQ		O		32.4	171.1	225		15.0	84.2	110		15.0	70.4	90	23310
CDB-0600-MQ*	2 - 4GE-23	S	64.3	21.6	169.3	225	32.1	10.0	83.7	110	25.7	10.0	69.0	90	22410
CDB-0601-MQ		O		32.4	180.1	225		15.0	88.7	110		15.0	74.0	100	23310
CDB-0700-MQ	2 - 6HE-28	S	86.4	32.4	229.8	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125	23310
CDB-0701-MQ		O		43.2	240.6	300		20.0	118.7	150		20.0	99.1	125	24310
CDB-0702-MQ		T		32.4	229.8	300		15.0	113.7	150		15.0	94.1	125	23410
CDB-0800-MQ*	2 - 6GE-34	S	94.3	32.4	247.6	300	47.1	15.0	122.5	150	37.1	15.0	99.7	125	23410
CDB-0801-MQ*		O		43.2	258.4	350		20.0	127.5	175		20.0	104.7	125	24410

CD Dual Systems

CDB Medium Temp R-448A

CDB Performance Data - Medium Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CDB-0100-M	4FES-3	11210	27.2	30.5	34.1	38.0	42.2	46.6	51.2
CDB-0101-M	4FES-3	11410	28.9	32.7	36.8	41.2	45.9	51.0	56.5
CDB-0150-M	4EES-4	11410	35.4	39.9	44.8	50.1	55.8	61.9	68.3
CDB-0151-M	4EES-4	12210	36.0	40.7	45.7	51.2	57.1	63.4	70.1
CDB-0160-M	4DES-5	12210	41.5	46.9	52.7	58.9	65.6	72.8	80.4
CDB-0161-M	4DES-5	12310	43.0	48.6	54.8	61.5	68.7	76.4	84.7
CDB-0162-M	4DES-5	12410	43.6	49.4	55.7	62.6	70.0	78.0	86.5
CDB-0180-M	4CES-6	12210	50.4	56.6	63.3	70.6	78.3	86.5	95.3
CDB-0181-M	4CES-6	12410	53.3	60.2	67.7	75.8	84.5	93.9	103.9
CDB-0200-M	4TES-9	12310	63.6	71.8	80.7	90.2	100.5	111.4	123.1
CDB-0201-M	4TES-9	13310	66.3	75.2	84.8	95.2	106.4	118.5	131.4
CDB-0202-M	4TES-9	12410	65.0	73.5	82.8	92.8	103.5	115.0	127.3
CDB-0240-M	4PES-12	12410	72.0	81.7	92.2	103.5	115.6	128.5	142.4
CDB-0241-M	4PES-12	13310	73.8	83.9	94.8	106.7	119.5	133.2	147.8
CDB-0300-M	4NES-14	13310	87.5	99.0	111.3	124.6	139.0	154.3	170.6
CDB-0301-M	4NES-14	13410	89.3	101.1	114.0	127.8	142.8	158.9	176.0
CDB-0400-M	4JE-15	13310	101.3	113.8	127.3	141.7	157.1	173.5	190.9
CDB-0401-M	4JE-15	22310	104.5	117.7	132.0	147.4	163.8	181.5	200.3
CDB-0402-M	4JE-15	13410	103.5	116.5	130.5	145.6	161.7	179.0	197.3
CDB-0500-M	4HE-18	13410	119.8	134.3	149.9	166.7	184.5	203.5	223.7
CDB-0501-M	4HE-18	23310	125.5	141.4	158.5	176.9	196.8	218.1	240.9
CDB-0600-M	4GE-23	22410	141.8	158.9	177.3	196.9	218.0	240.4	264.3
CDB-0601-M	4GE-23	23310	144.7	162.4	181.5	202.0	224.1	247.7	272.9
CDB-0700-M	6HE-28	23310	178.5	200.3	223.9	249.1	276.2	305.0	335.6
CDB-0701-M	6HE-28	24310	183.2	206.2	230.9	257.6	286.2	316.9	349.8
CDB-0702-M	6HE-28	23410	181.7	204.3	228.7	254.9	283.1	313.2	345.3
CDB-0800-M	6GE-34	23410	212.2	237.1	263.8	292.5	323.0	355.6	390.1
CDB-0801-M	6GE-34	24410	217.4	243.4	271.5	301.7	334.1	368.8	405.8

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	0	5	10	15	20	25	30
CDB-0100-M	4FES-3	11210	24.6	27.7	31.0	34.6	38.5	42.6	N/A
CDB-0101-M	4FES-3	11410	26.2	29.7	33.5	37.6	42.0	46.8	51.9
CDB-0150-M	4EES-4	11410	32.0	36.2	40.8	45.7	51.0	56.7	62.7
CDB-0151-M	4EES-4	12210	32.6	36.9	41.6	46.7	52.2	58.1	64.4
CDB-0160-M	4DES-5	12210	37.6	42.5	47.9	53.7	59.9	66.6	73.8
CDB-0161-M	4DES-5	12310	38.9	44.2	49.9	56.1	62.8	70.0	77.8
CDB-0162-M	4DES-5	12410	39.5	44.9	50.7	57.1	64.0	71.5	79.6
CDB-0180-M	4CES-6	12210	45.7	51.5	57.7	64.4	71.6	79.3	87.5
CDB-0181-M	4CES-6	12410	48.5	54.8	61.8	69.3	77.5	86.3	95.7
CDB-0200-M	4TES-9	12310	57.4	65.0	73.2	82.0	91.5	101.7	112.5
CDB-0201-M	4TES-9	13310	59.9	68.1	77.0	86.7	97.1	108.3	120.4
CDB-0202-M	4TES-9	12410	58.7	66.6	75.1	84.4	94.3	105.0	116.5
CDB-0240-M	4PES-12	12410	64.4	73.4	83.0	93.4	104.7	116.7	129.6
CDB-0241-M	4PES-12	13310	66.1	75.4	85.5	96.5	108.3	121.1	134.7
CDB-0300-M	4NES-14	13310	78.8	89.3	100.7	113.0	126.2	140.4	155.6
CDB-0301-M	4NES-14	13410	80.4	91.4	103.2	116.0	129.9	144.8	160.8
CDB-0400-M	4JE-15	13310	91.9	103.5	116.0	129.4	143.8	159.1	175.4
CDB-0401-M	4JE-15	22310	94.9	107.2	120.5	134.8	150.2	166.6	184.2
CDB-0402-M	4JE-15	13410	93.9	106.0	119.1	133.1	148.2	164.3	181.4
CDB-0500-M	4HE-18	13410	108.9	122.4	136.8	152.3	168.9	186.6	205.3
CDB-0501-M	4HE-18	23310	114.4	129.1	145.0	162.2	180.6	200.5	221.8
CDB-0600-M	4GE-23	22410	129.4	145.1	162.0	180.2	199.7	220.5	242.6
CDB-0601-M	4GE-23	23310	132.1	148.5	166.1	185.1	205.6	227.5	250.9
CDB-0700-M	6HE-28	23310	162.5	182.8	204.6	228.1	253.2	280.1	308.7
CDB-0701-M	6HE-28	24310	167.1	188.3	211.4	236.2	262.9	291.6	322.2
CDB-0702-M	6HE-28	23410	165.6	186.6	209.2	233.6	259.9	287.9	318.0
CDB-0800-M	6GE-34	23410	194.5	217.4	242.1	268.5	296.7	326.9	358.9
CDB-0801-M	6GE-34	24410	199.5	223.6	249.5	277.5	307.5	339.7	374.0

NOTE:
Selection of a CSE model is recommended for applications above +20°F suction temperature for better efficiency and to avoid operating above the +32°F maximum suction temperature for CSB models.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".

Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CDB-0100-MT	2 - 4FES-3	S	20.1	5.4	53.6	70	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CDB-0101-MT		O		5.4	53.6	70		2.5	24.3	30		2.5	19.2	25	11410
CDB-0150-MT	2 - 4EES-4	S	22.4	5.4	58.8	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CDB-0151-MT		O		10.8	64.2	80		5.0	29.7	40		5.0	24.9	30	12210
CDB-0160-MT	2 - 4DES-5	S	23.0	10.8	65.6	80	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CDB-0161-MT		O		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35	12310
CDB-0162-MT		T		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35	12410
CDB-0180-MT	2 - 4CES-6	S	27.9	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12210
CDB-0181-MT		O		10.8	76.6	100		5.0	42.1	50		5.0	34.3	45	12410
CDB-0200-MT	2 - 4TES-9	S	31.4	10.8	84.5	110	15.7	5.0	41.8	50	13.6	5.0	36.8	50	12310
CDB-0201-MT		O		16.2	89.9	110		7.5	44.3	60		7.5	39.3	50	13310
CDB-0202-MT		T		10.8	84.5	110		5.0	41.8	50		5.0	36.8	50	12410
CDB-0240-MT	2 - 4PES-12	S	38.6	10.8	100.7	125	19.3	5.0	49.9	60	16.0	5.0	42.2	50	12410
CDB-0241-MT		O		16.2	106.1	125		7.5	52.4	70		7.5	44.7	60	13310
CDB-0300-MT	2 - 4NES-14	S	44.3	16.2	118.9	150	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13310
CDB-0301-MT		O		16.2	118.9	150		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MT	2 - 4JE-15	S	55.7	16.2	144.5	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80	13310
CDB-0401-MT		O		21.6	149.9	200		10.0	74.3	100		10.0	61.4	80	22310
CDB-0402-MT		T		16.2	144.5	200		7.5	71.8	100		7.5	58.9	80	13410
CDB-0500-MT	2 - 4HE-18	S	60.3	16.2	154.9	200	30.1	7.5	76.7	100	24.1	7.5	62.9	80	13410
CDB-0501-MT		O		32.4	171.1	225		15.0	84.2	110		15.0	70.4	90	23310
CDB-0600-MT	2 - 4GE-23	S	64.3	21.6	169.3	225	32.1	10.0	83.7	110	25.7	10.0	69.0	90	22410
CDB-0601-MT		O		32.4	180.1	225		15.0	88.7	110		15.0	74.0	100	23310
CDB-0700-MT	2 - 6HE-28	S	86.4	32.4	229.8	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125	23310
CDB-0701-MT		O		43.2	240.6	300		20.0	118.7	150		20.0	99.1	125	24310
CDB-0702-MT		T		32.4	229.8	300		15.0	113.7	150		15.0	94.1	125	23410
CDB-0800-MT	2 - 6GE-34	S	94.3	32.4	247.6	300	47.1	15.0	122.5	150	37.1	15.0	99.7	125	23410
CDB-0801-MT		O		43.2	258.4	350		20.0	127.5	175		20.0	104.7	125	24410

CDD Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDD-0300-L	4DKNF63KE	12410	39.1	46.3	53.6	61.2	69.1	77.4	86.3	95.7	105.9
CDD-0301-L	4DKNF63KE	13310	40.0	47.5	55.0	62.9	71.1	79.8	89.2	99.2	110.0
CDD-0440-L	4DJNF76KE	13310	47.9	56.6	65.5	74.8	84.3	94.4	104.9	115.9	127.5
CDD-0441-L	4DJNF76KE	13410	48.6	57.5	66.6	76.1	86.0	96.3	107.3	118.8	130.9
CDD-0540-L	6DHNF93KE	13410	58.1	68.1	79.2	91.2	104.1	117.6	131.8	146.5	161.5
CDD-0541-L	6DHNF93KE	22410	59.6	69.9	81.4	94.0	107.5	121.8	136.8	152.5	168.8
CDD-0600-L	6DJNF11ME	22310	66.5	77.7	89.8	102.7	116.4	131.0	146.5	162.8	179.9
CDD-0601-L	6DJNF11ME	23310	68.8	80.5	93.2	106.9	121.6	137.5	154.4	172.6	191.8
CDD-0602-L	6DJNF11ME	22410	67.6	79.0	91.3	104.6	118.8	134.0	150.1	167.2	185.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDD-0300-L	4DKNF63KE	12410	34.0	40.9	47.8	54.8	62.1	69.8	78.0	86.7	96.1
CDD-0301-L	4DKNF63KE	13310	34.8	41.8	49.0	56.3	63.9	71.9	80.5	89.8	99.8
CDD-0440-L	4DJNF76KE	13310	41.4	49.8	58.3	67.0	75.9	85.2	94.9	105.0	115.7
CDD-0441-L	4DJNF76KE	13410	42.2	50.7	59.3	68.2	77.4	87.0	97.0	107.6	118.7
CDD-0540-L	6DHNF93KE	13410	50.3	59.9	70.4	81.8	93.8	106.4	119.4	132.8	146.5
CDD-0541-L	6DHNF93KE	22410	51.8	61.7	72.6	84.4	97.0	110.2	124.1	138.5	153.3
CDD-0600-L	6DJNF11ME	22310	58.0	68.7	80.1	92.1	104.8	118.1	132.1	146.8	162.1
CDD-0601-L	6DJNF11ME	23310	60.2	71.4	83.4	96.1	109.7	124.2	139.6	155.9	173.2
CDD-0602-L	6DJNF11ME	22410	59.0	69.9	81.6	93.9	107.0	120.9	135.5	150.9	167.1

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDD-0300-LS*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5.0	65.6	90	20.9	5.0	53.3	70
CDD-0301-LS		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CDD-0440-LS	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CDD-0441-LS*		O		16.2	169.2	225		7.5	83.8	110		7.5	76.6	100
CDD-0540-LS*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110
CDD-0541-LS*		O		21.6	206.2	250		10.0	102.3	125		10.0	84.3	110
CDD-0600-LS	2 - 6DJNF11ME	S	95.6	21.6	239.7	300	47.8	10.0	119.1	150	39.6	10.0	100.3	125
CDD-0601-LS		O		32.4	250.5	300		15.0	124.1	150		15.0	105.3	125
CDD-0602-LS		T		21.6	239.7	300		10.0	119.1	150		10.0	100.3	125

Unit	Condenser LAVF
CDD-0300-LS*	12410
CDD-0301-LS	13310
CDD-0440-LS	13310
CDD-0441-LS*	13410
CDD-0540-LS*	13410
CDD-0541-LS*	22410
CDD-0600-LS	22310
CDD-0601-LS	23310
CDD-0602-LS	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
5. Compressor head cooling fan is included for all low temperature applications.

CD Dual Systems

CDD Low Temp R-407A

CDD Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDD-0300-L	4DKNF63KE	12410	33.0	39.6	46.8	54.6	62.9	71.8	81.1	91.0	101.3
CDD-0301-L	4DKNF63KE	13310	33.6	40.4	47.8	55.8	64.3	73.5	83.3	93.6	104.5
CDD-0440-L	4DJNF76KE	13310	43.3	49.8	57.7	67.0	77.6	89.4	102.3	116.3	131.3
CDD-0441-L	4DJNF76KE	13410	43.8	50.5	58.7	68.3	79.2	91.4	104.8	119.3	134.9
CDD-0540-L	6DHNF93KE	13410	45.5	57.0	68.8	81.0	93.9	107.8	122.7	139.0	156.9
CDD-0541-L	6DHNF93KE	22410	46.7	58.5	70.6	83.2	96.6	111.1	126.8	144.0	162.9
CDD-0600-L	6DJNF11ME	22310	54.4	68.2	82.3	96.9	112.2	128.7	146.4	165.7	186.8
CDD-0601-L	6DJNF11ME	23310	56.5	70.8	85.5	100.7	117.0	134.5	153.5	174.4	197.3
CDD-0602-L	6DJNF11ME	22410	55.5	69.6	83.9	98.9	114.7	131.7	150.1	170.2	192.2

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDD-0300-L	4DKNF63KE	12410	28.6	34.9	41.6	48.9	56.6	64.8	73.5	82.5	92.0
CDD-0301-L	4DKNF63KE	13310	29.1	35.6	42.5	50.0	58.0	66.5	75.6	85.1	95.1
CDD-0440-L	4DJNF76KE	13310	38.9	44.4	51.3	59.7	69.4	80.3	92.4	105.6	119.9
CDD-0441-L	4DJNF76KE	13410	39.4	45.1	52.3	60.9	71.0	82.3	94.8	108.5	123.4
CDD-0540-L	6DHNF93KE	13410	37.4	48.7	60.1	71.8	84.0	97.1	111.2	126.5	143.2
CDD-0541-L	6DHNF93KE	22410	38.8	50.3	62.0	74.1	86.9	100.5	115.3	131.5	149.3
CDD-0600-L	6DJNF11ME	22310	44.7	58.2	71.7	85.7	100.3	115.8	132.4	150.5	170.3
CDD-0601-L	6DJNF11ME	23310	47.0	61.0	75.1	89.8	105.2	121.8	139.7	159.4	180.9
CDD-0602-L	6DJNF11ME	22410	45.8	59.6	73.5	87.8	102.8	118.9	136.2	155.1	175.8

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDD-0300-LQ*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5.0	65.6	90	20.9	5.0	53.3	70
CDD-0301-LQ		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CDD-0440-LQ	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CDD-0441-LQ*		O		16.2	169.2	225		7.5	83.8	110		7.5	76.6	100
CDD-0540-LQ*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110
CDD-0541-LQ*		O		21.6	206.2	250		10.0	102.3	125		10.0	84.3	110
CDD-0600-LQ	2 - 6DJNF11ME	S	95.6	21.6	239.7	300	47.8	10.0	119.1	150	39.6	10.0	100.3	125
CDD-0601-LQ		O		32.4	250.5	300		15.0	124.1	150		15.0	105.3	125
CDD-0602-LQ		T		21.6	239.7	300		10.0	119.1	150		10.0	100.3	125

Unit	Condenser LAVF
CDD-0300-LQ*	12410
CDD-0301-LQ	13310
CDD-0440-LQ	13310
CDD-0441-LQ*	13410
CDD-0540-LQ*	13410
CDD-0541-LQ*	22410
CDD-0600-LQ	22310
CDD-0601-LQ	23310
CDD-0602-LQ	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the ¨Q¨ at the end of the model nomenclature with an ¨F¨.
5. Compressor head cooling fan and liquid injection are included on all low temperature units..

CDD Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDD-0300-L	4DKNF63KE	12410	34.5	42.0	49.7	57.8	66.3	75.3	84.8	94.9	105.6
CDD-0301-L	4DKNF63KE	13310	35.3	42.9	50.8	59.1	67.9	77.2	87.1	97.7	109.0
CDD-0440-L	4DJNF76KE	13310	42.3	51.6	61.2	71.2	82.0	93.8	106.7	121.1	137.0
CDD-0441-L	4DJNF76KE	13410	43.1	52.6	62.4	72.7	83.8	95.9	109.3	124.2	140.7
CDD-0540-L	6DHNF93KE	13410	50.3	61.4	73.2	85.6	99.0	113.4	129.1	146.2	164.7
CDD-0541-L	6DHNF93KE	22410	51.8	63.2	75.2	88.1	102.0	117.1	133.6	151.5	171.2
CDD-0600-L	6DJNF11ME	22310	59.8	73.3	87.4	102.3	118.2	135.4	153.9	174.1	196.0
CDD-0601-L	6DJNF11ME	23310	62.3	76.4	91.1	106.7	123.5	141.8	161.7	183.5	207.4
CDD-0602-L	6DJNF11ME	22410	61.1	74.9	89.3	104.6	121.0	138.7	157.9	178.9	201.9

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDD-0300-L	4DKNF63KE	12410	29.0	36.4	43.9	51.6	59.7	68.1	76.9	86.2	96.1
CDD-0301-L	4DKNF63KE	13310	29.7	37.3	45.0	52.9	61.2	69.9	79.2	88.9	99.4
CDD-0440-L	4DJNF76KE	13310	35.2	44.2	53.4	63.0	73.3	84.4	96.7	110.4	125.5
CDD-0441-L	4DJNF76KE	13410	36.0	45.2	54.6	64.5	75.0	86.5	99.3	113.4	129.1
CDD-0540-L	6DHNF93KE	13410	41.7	52.5	63.8	75.8	88.5	102.1	116.9	132.9	150.3
CDD-0541-L	6DHNF93KE	22410	43.3	54.4	66.1	78.4	91.7	106.0	121.5	138.5	157.1
CDD-0600-L	6DJNF11ME	22310	49.2	62.4	76.1	90.3	105.5	121.7	139.1	158.1	178.6
CDD-0601-L	6DJNF11ME	23310	51.9	65.7	80.0	95.0	111.1	128.4	147.2	167.8	190.4
CDD-0602-L	6DJNF11ME	22410	50.6	64.1	78.1	92.7	108.4	125.1	143.3	163.1	184.7

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDD-0300-LT*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5.0	65.6	90	20.9	5.0	53.3	70
CDD-0301-LT		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CDD-0440-LT	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CDD-0441-LT*		O		16.2	169.2	225		7.5	83.8	110		7.5	76.6	100
CDD-0540-LT*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110
CDD-0541-LT*		O		21.6	206.2	250		10.0	102.3	125		10.0	84.3	110
CDD-0600-LT	2 - 6DJNF11ME	S	95.6	21.6	239.7	300	47.8	10.0	119.1	150	39.6	10.0	100.3	125
CDD-0601-LT		O		32.4	250.5	300		15.0	124.1	150		15.0	105.3	125
CDD-0602-LT		T		21.6	239.7	300		10.0	119.1	150		10.0	100.3	125

Unit	Condenser LAVF
CDD-0300-LT*	12410
CDD-0301-LT	13310
CDD-0440-LT	13310
CDD-0441-LT*	13410
CDD-0540-LT*	13410
CDD-0541-LT*	22410
CDD-0600-LT	22310
CDD-0601-LT	23310
CDD-0602-LT	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CD Dual Systems

CDE Low Temp R-404A

CDE Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDE-0300-L	4HE-25	12410	36.9	44.2	51.9	60.2	69.0	78.4	88.4	98.9	110.0
CDE-0301-L	4HE-25	13310	37.7	45.2	53.2	61.9	71.1	81.0	91.6	102.9	114.9
CDE-0440-L	4GE-30	13310	43.9	52.3	61.3	70.9	81.2	92.2	103.8	116.2	129.3
CDE-0441-L	4GE-30	13410	44.5	53.1	62.3	72.2	82.8	94.2	106.3	119.3	133.1
CDE-0540-L	6HE-35	13410	54.6	65.2	76.6	88.8	101.7	115.5	130.2	145.8	162.2
CDE-0541-L	6HE-35	22410	56.0	67.0	78.9	91.6	105.3	120.0	135.8	152.6	170.6
CDE-0600-L	6GE-40	22310	64.2	76.3	89.1	102.9	117.5	133.1	149.5	166.9	185.3
CDE-0601-L	6GE-40	23310	66.4	79.0	92.6	107.3	123.1	140.0	158.2	177.6	198.3
CDE-0602-L	6GE-40	22410	65.2	77.5	90.8	104.9	120.1	136.3	153.5	171.8	191.2

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDE-0300-L	4HE-25	12410	32.0	38.7	45.9	53.4	61.4	69.8	78.8	88.2	98.1
CDE-0301-L	4HE-25	13310	32.7	39.7	47.1	54.9	63.3	72.3	81.8	92.0	102.8
CDE-0440-L	4GE-30	13310	38.4	46.2	54.5	63.2	72.5	82.4	92.8	103.8	115.5
CDE-0441-L	4GE-30	13410	39.0	46.9	55.4	64.4	74.0	84.2	95.2	106.8	119.1
CDE-0540-L	6HE-35	13410	47.2	57.1	67.6	78.7	90.4	102.9	116.1	130.1	144.8
CDE-0541-L	6HE-35	22410	48.5	58.8	69.7	81.4	93.8	107.2	121.4	136.6	152.8
CDE-0600-L	6GE-40	22310	55.9	67.2	79.1	91.6	104.9	118.9	133.6	149.1	165.5
CDE-0601-L	6GE-40	23310	58.0	69.8	82.4	95.8	110.2	125.5	141.9	159.4	177.9
CDE-0602-L	6GE-40	22410	56.9	68.4	80.6	93.5	107.3	121.9	137.4	153.8	171.2

NOTE:
Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDE-0300-LS*	2 - 4HE-25	S	84.3	10.8	203.5	250	42.1	5.0	101.2	125	33.6	5.0	81.8	110
CDE-0301-LS		O		16.2	208.9	250		7.5	103.7	125		7.5	84.3	110
CDE-0440-LS	2 - 4GE-30	S	100.0	16.2	244.2	300	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CDE-0441-LS*		O		16.2	244.2	300		7.5	124.0	175		7.5	101.2	125
CDE-0540-LS*	2 - 6HE-35	S	117.1	16.2	282.7	350	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CDE-0541-LS*		O		21.6	288.1	400		10.0	143.4	200		10.0	115.6	150
CDE-0600-LS	2 - 6GE-40	S	157.1	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CDE-0601-LS		O		32.4	388.9	500		15.0	193.4	250		15.0	157.7	200
CDE-0602-LS		T		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200

Unit	Condenser LAVF
CDE-0300-LS*	12410
CDE-0301-LS	13310
CDE-0440-LS	13310
CDE-0441-LS*	13410
CDE-0540-LS*	13410
CDE-0541-LS*	22410
CDE-0600-LS	22310
CDE-0601-LS	23310
CDE-0602-LS	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the ¨S¨ at the end of the model nomenclature with a ¨P¨.
5. Compressor head cooling fan is included for all low temperature applications.

CDE Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

NOTE:
Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDE-0300-L	4HE-25	12410	21.5	29.2	37.3	46.0	55.1	64.9	75.4	86.5	98.5
CDE-0301-L	4HE-25	13310	21.9	29.8	38.1	47.0	56.5	66.7	77.6	89.3	101.9
CDE-0440-L	4GE-30	13310	29.0	38.1	47.6	57.7	68.4	79.9	92.2	105.4	119.4
CDE-0441-L	4GE-30	13410	29.4	38.6	48.4	58.7	69.8	81.6	94.3	108.0	122.7
CDE-0540-L	6HE-35	13410	36.5	48.2	60.5	73.6	87.4	102.2	118.0	134.8	152.8
CDE-0541-L	6HE-35	22410	37.3	49.4	62.1	75.6	90.1	105.7	122.4	140.3	159.6
CDE-0600-L	6GE-40	22310	43.0	56.4	70.5	85.4	101.2	118.0	135.9	155.1	175.5
CDE-0601-L	6GE-40	23310	44.4	58.3	73.0	88.7	105.5	123.5	142.9	163.8	186.3
CDE-0602-L	6GE-40	22410	43.7	57.4	71.8	87.1	103.4	120.8	139.5	159.5	180.9

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDE-0300-L	4HE-25	12410	17.1	24.3	31.9	39.9	48.3	57.3	66.9	77.2	88.2
CDE-0301-L	4HE-25	13310	17.4	24.8	32.6	40.8	49.6	58.9	69.0	79.8	91.4
CDE-0440-L	4GE-30	13310	24.2	32.7	41.6	50.9	60.9	71.4	82.7	94.8	107.8
CDE-0441-L	4GE-30	13410	24.5	33.2	42.3	51.9	62.1	73.0	84.7	97.3	110.8
CDE-0540-L	6HE-35	13410	30.1	41.1	52.6	64.7	77.5	91.1	105.6	121.1	137.6
CDE-0541-L	6HE-35	22410	30.9	42.2	54.0	66.6	80.0	94.3	109.7	126.2	143.9
CDE-0600-L	6GE-40	22310	35.8	48.4	61.5	75.3	89.9	105.4	121.9	139.5	158.2
CDE-0601-L	6GE-40	23310	37.0	50.1	63.8	78.4	93.9	110.5	128.4	147.6	168.3
CDE-0602-L	6GE-40	22410	36.4	49.3	62.7	76.9	91.9	108.0	125.2	143.6	163.3

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDE-0300-LQ*	2 - 4HE-25	S	84.3	10.8	203.5	250	42.1	5.0	101.2	125	33.6	5.0	81.8	110
CDE-0301-LQ		O		16.2	208.9	250		7.5	103.7	125		7.5	84.3	110
CDE-0440-LQ	2 - 4GE-30	S	100.0	16.2	244.2	300	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CDE-0441-LQ*		O		21.6	249.6	300		10.0	124.0	175		10.0	101.2	125
CDE-0540-LQ*	2 - 6HE-35	S	117.1	16.2	282.7	350	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CDE-0541-LQ*		O		21.6	288.1	400		10.0	143.4	200		10.0	115.6	150
CDE-0600-LQ	2 - 6GE-40	S	157.1	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CDE-0601-LQ		O		32.4	388.9	500		15.0	193.4	250		15.0	157.7	200
CDE-0602-LQ		T		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200

Unit	Condenser LAVF
CDE-0300-LQ*	12410
CDE-0301-LQ	13310
CDE-0440-LQ	13310
CDE-0441-LQ*	13410
CDE-0540-LQ*	13410
CDE-0541-LQ*	22410
CDE-0600-LQ	22310
CDE-0601-LQ	23310
CDE-0602-LQ	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the "Q" at the end of the model nomenclature with an "F".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CD Dual Systems

CDE Low Temp R-448A

CDE Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDE-0300-L	4HE-25	12410	32.7	40.4	48.6	57.3	66.5	76.5	87.1	98.4	110.5
CDE-0301-L	4HE-25	13310	33.3	41.2	49.6	58.6	68.2	78.6	89.7	101.6	114.5
CDE-0440-L	4GE-30	13310	39.1	48.0	57.4	67.5	78.3	89.8	102.1	115.2	129.3
CDE-0441-L	4GE-30	13410	39.7	48.7	58.4	68.7	79.8	91.7	104.5	118.3	133.0
CDE-0540-L	6HE-35	13410	48.4	59.7	71.7	84.5	98.1	112.8	128.4	145.2	163.1
CDE-0541-L	6HE-35	22410	49.6	61.2	73.7	87.0	101.3	116.7	133.3	151.2	170.4
CDE-0600-L	6GE-40	22310	57.2	70.1	83.7	98.2	113.7	130.1	147.7	166.4	186.2
CDE-0601-L	6GE-40	23310	59.1	72.5	86.8	102.1	118.6	136.3	155.3	175.8	197.8
CDE-0602-L	6GE-40	22410	58.2	71.3	85.3	100.2	116.2	133.3	151.6	171.2	192.2

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDE-0300-L	4HE-25	12410	27.9	35.2	42.8	50.9	59.5	68.6	78.4	88.7	99.8
CDE-0301-L	4HE-25	13310	28.5	35.9	43.8	52.2	61.1	70.6	80.8	91.8	103.6
CDE-0440-L	4GE-30	13310	33.8	42.2	51.1	60.4	70.3	80.9	92.1	104.1	116.9
CDE-0441-L	4GE-30	13410	34.4	42.9	52.0	61.6	71.8	82.7	94.5	107.0	120.5
CDE-0540-L	6HE-35	13410	41.0	51.7	63.0	74.9	87.6	101.2	115.6	130.9	147.3
CDE-0541-L	6HE-35	22410	42.1	53.2	64.9	77.3	90.6	104.9	120.2	136.7	154.4
CDE-0600-L	6GE-40	22310	48.7	61.0	73.9	87.5	101.8	117.0	133.1	150.2	168.3
CDE-0601-L	6GE-40	23310	50.6	63.4	77.0	91.4	106.7	123.1	140.6	159.4	179.6
CDE-0602-L	6GE-40	22410	49.7	62.3	75.5	89.5	104.3	120.1	137.0	154.9	174.1

NOTE:
Selection of the CSB model is recommended for low temperature applications where the larger motor in the CSE model is not required.

All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDE-0300-LT*	2 - 4HE-25	S	84.3	10.8	203.5	250	42.1	5.0	101.2	125	33.6	5.0	81.8	110
CDE-0301-LT		O		16.2	208.9	250		7.5	103.7	125		7.5	84.3	110
CDE-0440-LT	2 - 4GE-30	S	100.0	16.2	244.2	300	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CDE-0441-LT*		O		21.6	249.6	300		10.0	124.0	175		10.0	101.2	125
CDE-0540-LT*	2 - 6HE-35	S	117.1	16.2	282.7	350	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CDE-0541-LT*		O		21.6	288.1	400		10.0	143.4	200		10.0	115.6	150
CDE-0600-LT	2 - 6GE-40	S	157.1	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CDE-0601-LT		O		32.4	388.9	500		15.0	193.4	250		15.0	157.7	200
CDE-0602-LT		T		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200

Unit	Condenser LAVF
CDE-0300-LT*	12410
CDE-0301-LT	13310
CDE-0440-LT	13310
CDE-0441-LT*	13410
CDE-0540-LT*	13410
CDE-0541-LT*	22410
CDE-0600-LT	22310
CDE-0601-LT	23310
CDE-0602-LT	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CDB Performance Data - Low Temperature R-404A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDB-0300-L	4HE-18	12410	39.1	46.3	54.0	62.2	70.9	80.3	90.2	100.7	111.8
CDB-0301-L	4HE-18	13310	40.0	47.4	55.3	63.9	73.1	83.0	93.6	104.8	116.8
CDB-0440-L	4GE-23	13310	47.7	56.0	65.0	74.5	84.7	95.6	107.2	119.5	132.6
CDB-0441-L	4GE-23	13410	48.3	56.8	66.0	75.8	86.4	97.7	109.8	122.8	136.5
CDB-0540-L	6HE-28	13410	58.0	68.6	79.8	91.9	104.8	118.5	133.2	148.7	165.2
CDB-0541-L	6HE-28	22410	59.5	70.4	82.2	94.8	108.5	123.2	138.9	155.8	173.7
CDB-0600-L	6GE-34	22310	72.8	84.8	97.7	111.4	126.0	141.5	157.9	175.2	193.5
CDB-0601-L	6GE-34	23310	75.1	87.8	101.4	116.1	131.9	148.9	167.1	186.5	207.2
CDB-0602-L	6GE-34	22410	73.9	86.2	99.4	113.5	128.7	144.9	162.1	180.4	199.8

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDB-0300-L	4HE-18	12410	34.3	40.9	47.9	55.3	63.2	71.6	80.5	90.0	100.0
CDB-0301-L	4HE-18	13310	35.1	41.9	49.1	56.9	65.2	74.2	83.7	93.9	104.7
CDB-0440-L	4GE-23	13310	42.4	50.0	58.1	66.7	75.9	85.7	96.1	107.1	118.8
CDB-0441-L	4GE-23	13410	43.0	50.8	59.1	68.0	77.5	87.7	98.6	110.2	122.6
CDB-0540-L	6HE-28	13410	50.8	60.4	70.7	81.7	93.3	105.7	118.9	133.0	147.8
CDB-0541-L	6HE-28	22410	52.1	62.1	72.9	84.5	96.9	110.2	124.4	139.6	155.9
CDB-0600-L	6GE-34	22310	64.9	75.9	87.7	100.1	113.2	127.2	141.9	157.4	173.7
CDB-0601-L	6GE-34	23310	67.1	78.8	91.3	104.7	119.0	134.3	150.8	168.3	186.9
CDB-0602-L	6GE-34	22410	65.9	77.3	89.3	102.2	115.9	130.5	145.9	162.4	179.8

Electrical Specifications - Low Temperature R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDB-0300-LS*	2 - 4HE-18	S	60.3	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80
CDB-0301-LS		O		16.2	154.9	200		7.5	76.7	100		7.5	62.9	80
CDB-0440-LS	2 - 4GE-23	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CDB-0441-LS*		O		16.2	163.9	225		7.5	83.7	110		7.5	69.0	90
CDB-0540-LS*	2 - 6HE-28	S	86.4	16.2	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CDB-0541-LS*		O		21.6	219.0	300		10.0	108.7	150		10.0	89.1	125
CDB-0600-LS	2 - 6GE-34	S	94.3	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CDB-0601-LS		O		32.4	247.6	300		15.0	122.5	150		15.0	99.7	125
CDB-0602-LS		T		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125

Unit	Condenser LAVF
CDB-0300-LS*	12410
CDB-0301-LS	13310
CDB-0440-LS	13310
CDB-0441-LS*	13410
CDB-0540-LS*	13410
CDB-0541-LS*	22410
CDB-0600-LS	22310
CDB-0601-LS	23310
CDB-0602-LS	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
5. Compressor head cooling fan is included for all low temperature applications.

CD Dual Systems

CDB Low Temp R-407A

CDB Performance Data - Low Temperature R-407A - Cooling Capacity (MBH)

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDB-0300-L	4HE-18	12410	26.9	34.3	42.3	50.8	60.0	69.8	80.3	91.7	103.8
CDB-0301-L	4HE-18	13310	27.3	34.9	43.1	51.9	61.4	71.6	82.6	94.5	107.3
CDB-0440-L	4GE-23	13310	34.7	43.4	52.7	62.6	73.2	84.7	97.0	110.2	124.3
CDB-0441-L	4GE-23	13410	35.1	44.0	53.5	63.6	74.6	86.4	99.2	112.9	127.7
CDB-0540-L	6HE-28	13410	40.3	51.5	63.5	76.3	90.0	104.7	120.5	137.5	155.7
CDB-0541-L	6HE-28	22410	41.2	52.7	65.1	78.4	92.8	108.3	125.0	143.1	162.6
CDB-0600-L	6GE-34	22310	46.9	59.7	73.3	87.9	103.5	120.2	138.2	157.4	178.0
CDB-0601-L	6GE-34	23310	48.3	61.6	75.9	91.3	107.9	125.9	145.3	166.3	188.9
CDB-0602-L	6GE-34	22410	47.6	60.7	74.6	89.6	105.7	123.1	141.8	161.9	183.5

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDB-0300-L	4HE-18	12410	23.0	29.9	37.2	45.0	53.4	62.5	72.2	82.6	93.8
CDB-0301-L	4HE-18	13310	23.4	30.4	37.9	46.0	54.7	64.1	74.3	85.3	97.1
CDB-0440-L	4GE-23	13310	30.5	38.5	47.1	56.2	66.0	76.5	87.8	100.0	113.1
CDB-0441-L	4GE-23	13410	30.9	39.1	47.8	57.1	67.2	78.1	89.9	102.6	116.3
CDB-0540-L	6HE-28	13410	34.6	44.9	55.9	67.6	80.2	93.7	108.3	124.0	140.8
CDB-0541-L	6HE-28	22410	35.3	45.9	57.3	69.5	82.7	97.0	112.4	129.1	147.1
CDB-0600-L	6GE-34	22310	40.4	52.2	64.7	78.0	92.4	107.7	124.3	142.0	161.0
CDB-0601-L	6GE-34	23310	41.6	53.8	67.0	81.1	96.4	112.9	130.8	150.2	171.2
CDB-0602-L	6GE-34	22410	41.0	53.0	65.8	79.6	94.4	110.4	127.6	146.2	166.2

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

Electrical Specifications - Low Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDB-0300-LQ	2 - 4HE-18	S	60.3	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80
CDB-0301-LQ		O		16.2	154.9	200		7.5	76.7	100		7.5	62.9	80
CDB-0440-LQ	2 - 4GE-23	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CDB-0441-LQ		O		16.2	163.9	225		7.5	83.7	110		7.5	69.0	90
CDB-0540-LQ	2 - 6HE-28	S	86.4	16.2	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CDB-0541-LQ		O		21.6	219.0	300		10.0	108.7	150		10.0	89.1	125
CDB-0600-LQ	2 - 6GE-34	S	94.3	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CDB-0601-LQ		O		32.4	247.6	300		15.0	122.5	150		15.0	99.7	125
CDB-0602-LQ		T		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125

Unit	Condenser LAVF
CDB-0300-LQ	12410
CDB-0301-LQ	13310
CDB-0440-LQ	13310
CDB-0441-LQ	13410
CDB-0540-LQ	13410
CDB-0541-LQ	22410
CDB-0600-LQ	22310
CDB-0601-LQ	23310
CDB-0602-LQ	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-407A capacity and electrical data for R-407F while replacing the ¨Q¨ at the end of the model nomenclature with an ¨F¨.
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CDB Performance Data - Low Temperature R-448A - Cooling Capacity (MBH)

NOTE:
All evaporator temps are MIDPOINT. Blacked out values indicate the condensing temp is above 135˚F and are not recommended.

95°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDB-0300-L	4HE-18	12410	35.4	42.8	50.7	59.3	68.5	78.5	89.1	100.6	112.9
CDB-0301-L	4HE-18	13310	36.0	43.6	51.7	60.6	70.2	80.6	91.8	103.8	116.8
CDB-0440-L	4GE-23	13310	43.5	52.0	61.2	71.2	81.9	93.4	105.8	119.0	133.3
CDB-0441-L	4GE-23	13410	44.1	52.8	62.2	72.4	83.5	95.4	108.3	122.2	137.1
CDB-0540-L	6HE-28	13410	52.4	63.2	74.9	87.5	101.1	115.8	131.5	148.4	166.5
CDB-0541-L	6HE-28	22410	53.6	64.8	76.9	90.0	104.3	119.7	136.5	154.5	174.0
CDB-0600-L	6GE-34	22310	67.0	79.5	93.0	107.4	122.9	139.5	157.2	176.1	196.2
CDB-0601-L	6GE-34	23310	68.9	82.0	96.1	111.3	127.8	145.7	164.9	185.7	208.0
CDB-0602-L	6GE-34	22410	68.0	80.8	94.6	109.4	125.4	142.6	161.2	181.0	202.3

105°F AMBIENT TEMPERATURE

CONDENSING UNIT MODEL	COMPRESSOR	CONDENSER	-40	-35	-30	-25	-20	-15	-10	-5	0
CDB-0300-L	4HE-18	12410	30.9	37.8	45.2	53.1	61.6	70.7	80.5	91.1	102.3
CDB-0301-L	4HE-18	13310	31.5	38.5	46.1	54.3	63.2	72.7	83.0	94.1	106.1
CDB-0440-L	4GE-23	13310	38.8	46.7	55.2	64.3	74.1	84.7	96.0	108.1	121.2
CDB-0441-L	4GE-23	13410	39.3	47.4	56.1	65.5	75.6	86.6	98.4	111.1	124.8
CDB-0540-L	6HE-28	13410	45.5	55.6	66.5	78.2	90.8	104.3	118.8	134.4	151.1
CDB-0541-L	6HE-28	22410	46.6	57.1	68.4	80.6	93.8	108.1	123.5	140.2	158.2
CDB-0600-L	6GE-34	22310	59.6	71.4	83.9	97.3	111.6	126.9	143.1	160.5	178.9
CDB-0601-L	6GE-34	23310	61.4	73.8	87.0	101.2	116.5	133.0	150.7	169.8	190.4
CDB-0602-L	6GE-34	22410	60.5	72.6	85.5	99.3	114.1	130.0	147.0	165.3	184.8

Electrical Specifications - Low Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDB-0300-LT*	2 - 4HE-18	S	60.3	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80
CDB-0301-LT		O		16.2	154.9	200		7.5	76.7	100		7.5	62.9	80
CDB-0440-LT	2 - 4GE-23	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CDB-0441-LT*		O		16.2	163.9	225		7.5	83.7	110		7.5	69.0	90
CDB-0540-LT*	2 - 6HE-28	S	86.4	16.2	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CDB-0541-LT*		O		21.6	219.0	300		10.0	108.7	150		10.0	89.1	125
CDB-0600-LT	2 - 6GE-34	S	94.3	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CDB-0601-LT		O		32.4	247.6	300		15.0	122.5	150		15.0	99.7	125
CDB-0602-LT		T		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125

Unit	Condenser LAVF
CDB-0300-LT*	12410
CDB-0301-LT	13310
CDB-0440-LT	13310
CDB-0441-LT*	13410
CDB-0540-LT*	13410
CDB-0541-LT*	22410
CDB-0600-LT	22310
CDB-0601-LT	23310
CDB-0602-LT	22410

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – Meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.
3. Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
4. Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
5. Compressor head cooling fan and liquid injection are included on all low temperature units.

CDD MCA / MOPD Calculation

Model CDD-0401MxK		
Compressor 1 RLA		22.3
Compressor 2 RLA	+	22.3
Condenser Fans	+	5.4
Control*	+	3.0
25% Compressor RLA	+	5.6
MCA		58.6
Evaporator Fan RLA	+	16.0
Calculated MCA		74.6
Compressor RLA 1	+	22.3
Calculaed MOP		96.9
MOPD**		90

Example calculation has details for the calculation of the MCA shown in the electrical table above. The Calculated MCA includes the addition of 16.0 amps to power evaporator fans to show how to recalculate values for MCA and MOPD for the addition of electrical loads that would be in operation at the same time as the compressor and condenser.

*Control circuit amps are: 208-230/3/60 3.0A, 460/3/60 1.5A, 575/3/60 1.2A

**Round MOP down to next Standard MOPD Size shown below. The MOPD must be larger than the calculated MCA.

Standard MOPD Sizes : 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500

Alternate Calculation for Electric Defrost: If 1.25 X defrost amps plus Control Transformer exceeds calculated MCA use this value and round up to next standard breaker size for MOPD. Use the MOPD calculated for defrost if it exceeds what is calculated using the compressor information.

Sound Data for C-Series

Sound from condensing units is primarily from the condenser fans. C-Series units use Levitor II LAVF condensers with 1140 rpm fans. For sound calculations, the published sound data in the Levitor Technical bulletin should be used with 1 db added to account for the compressor.

Example: *CSD-0202-MT condenser is LAVF-12410 which has published sound of 75 dbA at 10'. For this unit, add 1 dbA to this value for 76 dbA at 10' for sound evaluations.*

CD Dual Series Model Specifications

Unit		Connections (in)		Receiver	Receiver Capacity***			Est. Ship Weight	Dimensional Drawings	Piping Schematic
					R-404A	R-407A	R-448A			
		Liq. OD	Suct. OD	Dia. x Length	(lb)	(lb)	(lb)	(lb)	See pgs. 77 - 79	See pg. 82
10 hp	CD*0100M**	7/8	1 1/8	8 5/8 x 28	43	47	46	1748	CD-11	CD PIPE
	CD*0101M**	7/8	1 1/8	8 5/8 x 28	43	47	46	1812	CD-11	CD PIPE
15 hp	CD*0150M**	7/8	1 3/8	8 5/8 x 28	43	47	46	1839	CD-11	CD PIPE
	CD*0151M**	7/8	1 3/8	8 5/8 x 28	43	47	46	2371	CD-12	CD PIPE
16 hp	CD*0160M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2378	CD-12	CD PIPE
	CD*0161M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2440	CD-12	CD PIPE
	CD*0162M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2499	CD-12	CD PIPE
18 hp	CD*0180M**	1 1/8	1 5/8	8 5/8 x 28	43	47	46	2533	CD-12	CD PIPE
	CD*0181M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2729	CD-12	CD PIPE
20 hp	CD*0200M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2660	CD-12	CD PIPE
	CD*0201M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	3077	CD-13	CD PIPE
	CD*0202M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2719	CD-12	CD PIPE
24 hp	CD*0240M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2725	CD-12	CD PIPE
	CD*0241M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	3079	CD-13	CD PIPE
30 hp	CD*0300M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	3115	CD-13	CD PIPE
	CD*0301M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3277	CD-13	CD PIPE
40 hp	CD*0400M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	3168	CD-13	CD PIPE
	CD*0401M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3515	CD-22	CD PIPE
	CD*0402M**	1 1/8	2 1/8	8 5/8 X 60	94	103	100	3256	CD-13	CD PIPE
50 hp	CD*0500M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3381	CD-13	CD PIPE
	CD*0501M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	4329	CD-23	CD PIPE
60 hp	CD*0600M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	3776	CD-22	CD PIPE
	CD*0601M**	1 1/8	2 1/8	10 3/4 x 72	174	191	184	4474	CD-23	CD PIPE
70 hp	CD*0700M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	4319	CD-23	CD PIPE
	CD*0701M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	5329	CD-24	CD PIPE
	CD*0702M**	1 3/8	2 1/8	10 3/4 X 72	174	191	184	4916	CD-23	CD PIPE
80 hp	CD*0800M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	4942	CD-23	CD PIPE
	CD*0801M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	5895	CD-24	CD PIPE
30 hp	CD*0300L**	7/8	2 1/8	8 5/8 x 48	75	83	80	2719	CD-12	CD PIPE
	CD*0301L**	7/8	2 1/8	8 5/8 x 48	75	83	80	3212	CD-13	CD PIPE
44 hp	CD*0440L**	7/8	2 1/8	8 5/8 x 48	75	83	80	3179	CD-13	CD PIPE
	CD*0441L**	7/8	2 1/8	8 5/8 x 60	106	117	112	3526	CD-13	CD PIPE
54 hp	CD*0540L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	3477	CD-13	CD PIPE
	CD*0541L**	1 1/8	2 5/8	8 5/8 x 60	106	117	112	3788	CD-22	CD PIPE
60 hp	CD*0600L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	3765	CD-22	CD PIPE
	CD*0601L**	1 1/8	2 5/8	10 3/4 x 48	128	141	136	4527	CD-23	CD PIPE
	CD*0602L**	1 1/8	2 5/8	8 5/8 X 60	94	103	100	3883	CD-22	CD PIPE

*-D,E,B
** S(R-404A), Q(R-407A), T(R-448A)
*** Receiver capacity based on 80% full.

NOTE: 'CD' refrigeration systems are designed to serve more than one refrigerated load.

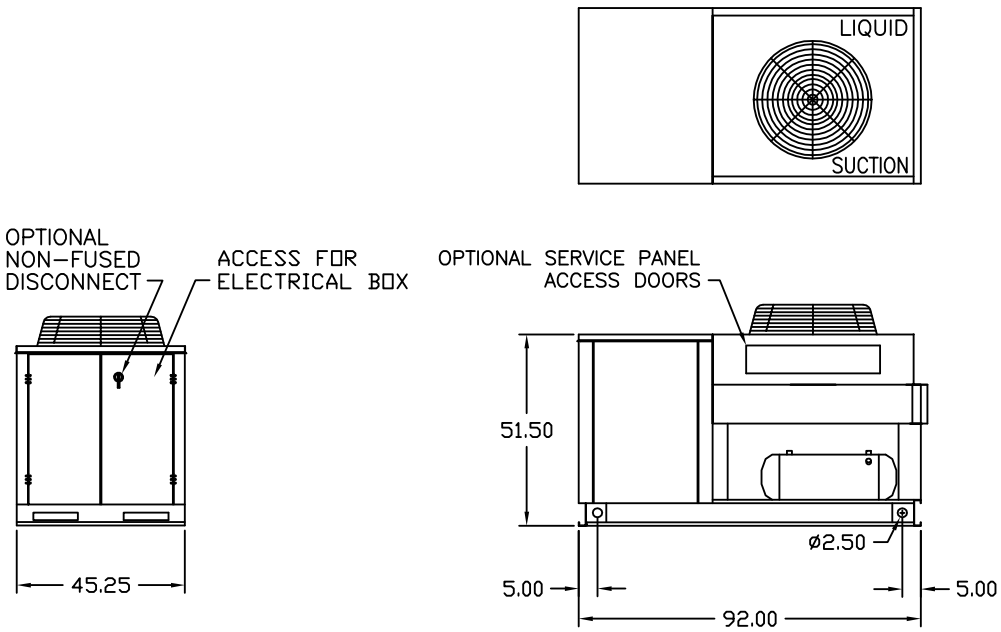
Annual Walk-In Energy Factor (AWEF)

CD units are designed to serve more than one refrigeration load and are exempt from the US Department of Energy (DOE) and Natural Resources Canada (NRCan) requirements so no AWEF values are provided.

Dimensional Drawings

CS Single Systems

CS-11



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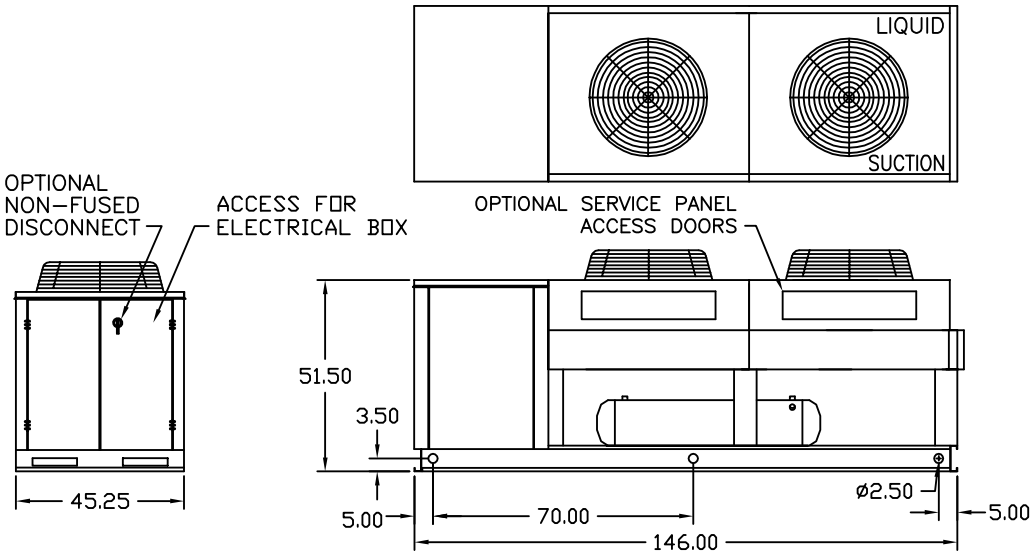

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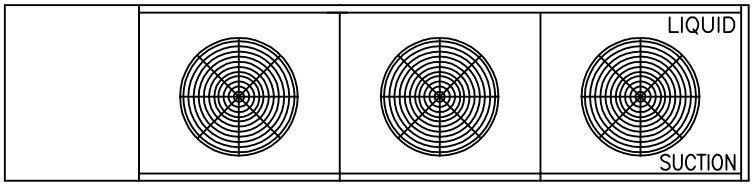
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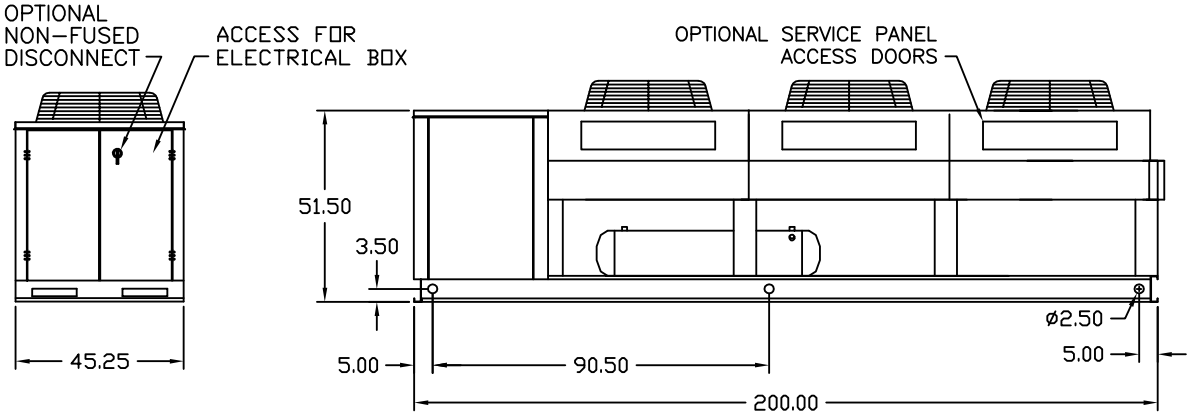
SUCTION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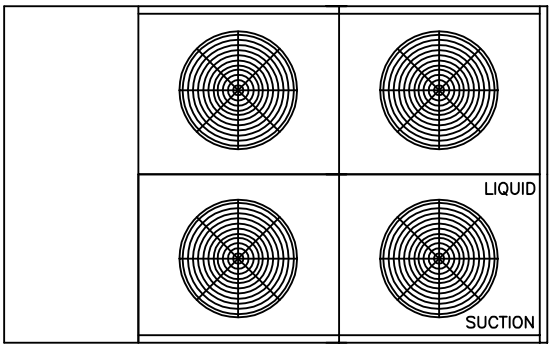
CS-22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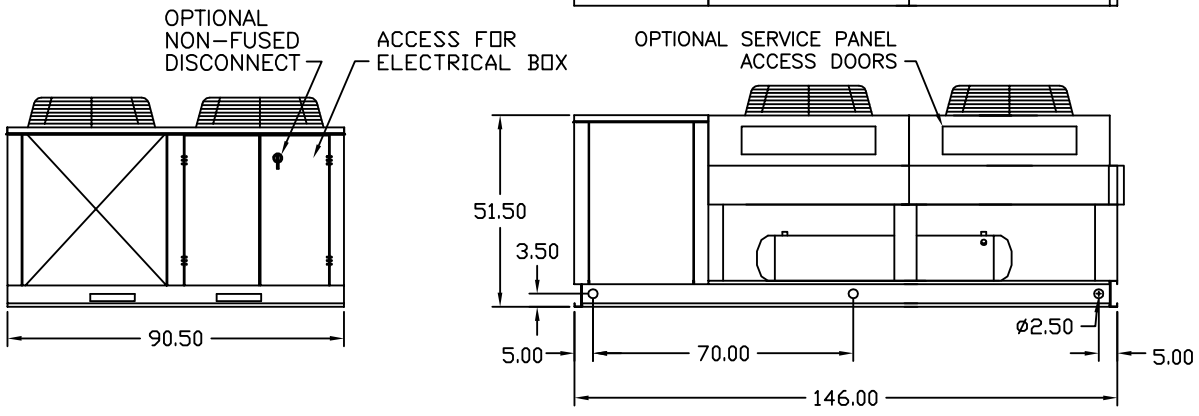
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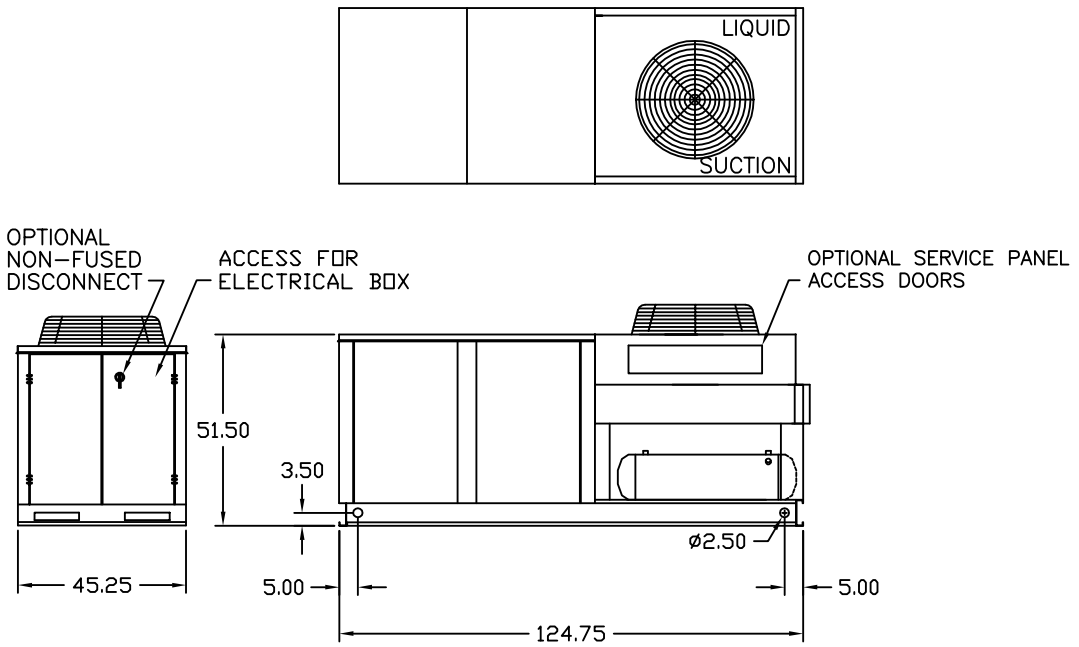
Dimensional Drawings

CP Parallel Systems

CP-11



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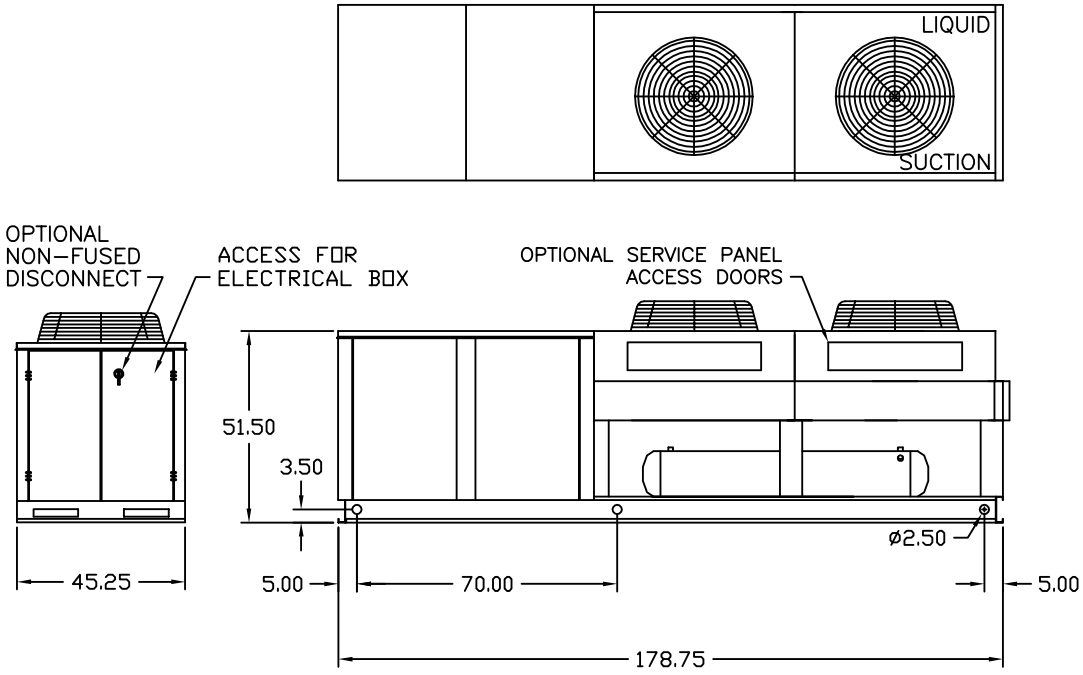

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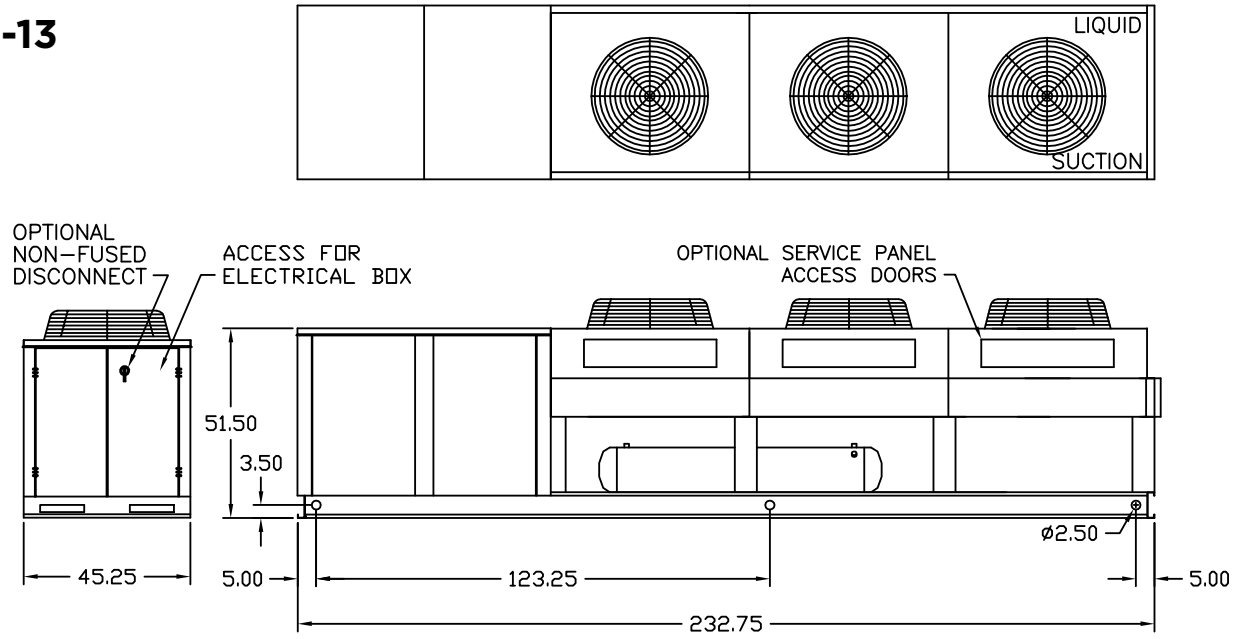
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ELECTRICAL BOX
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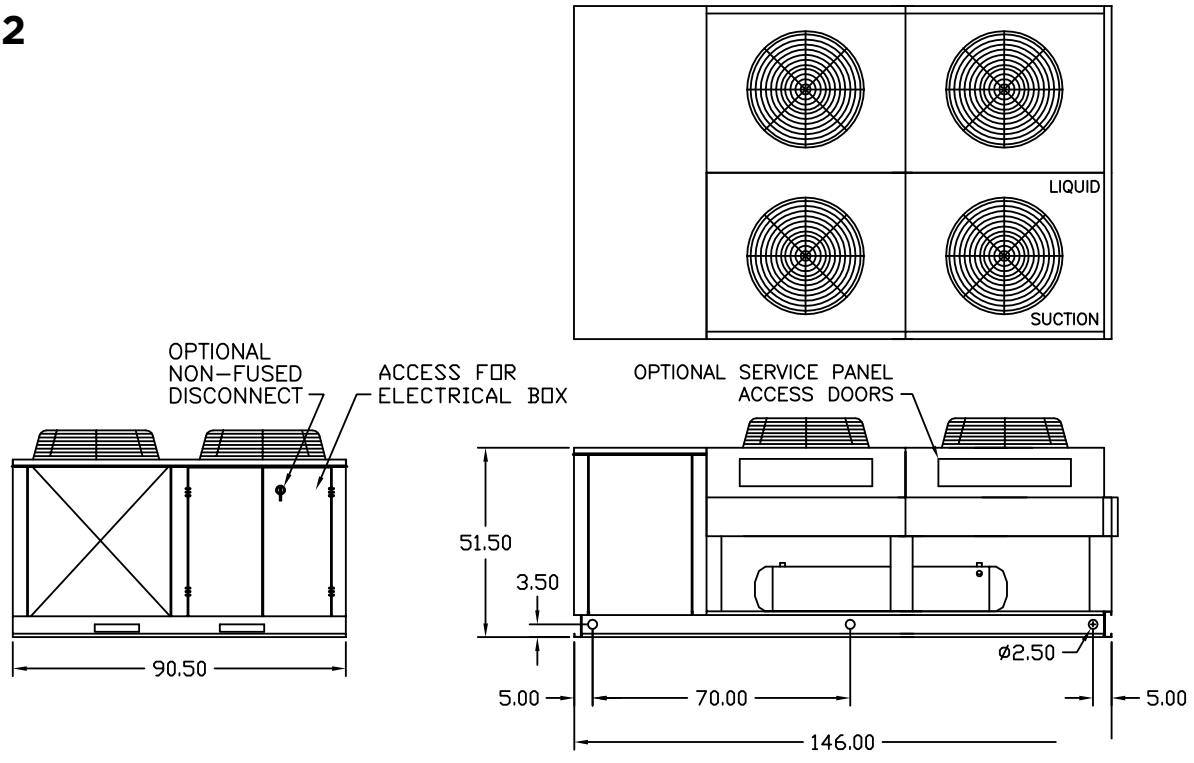
CP-22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ELECTRICAL BOX
OPTIONAL SERVICE PANEL
ACCESS DOORS
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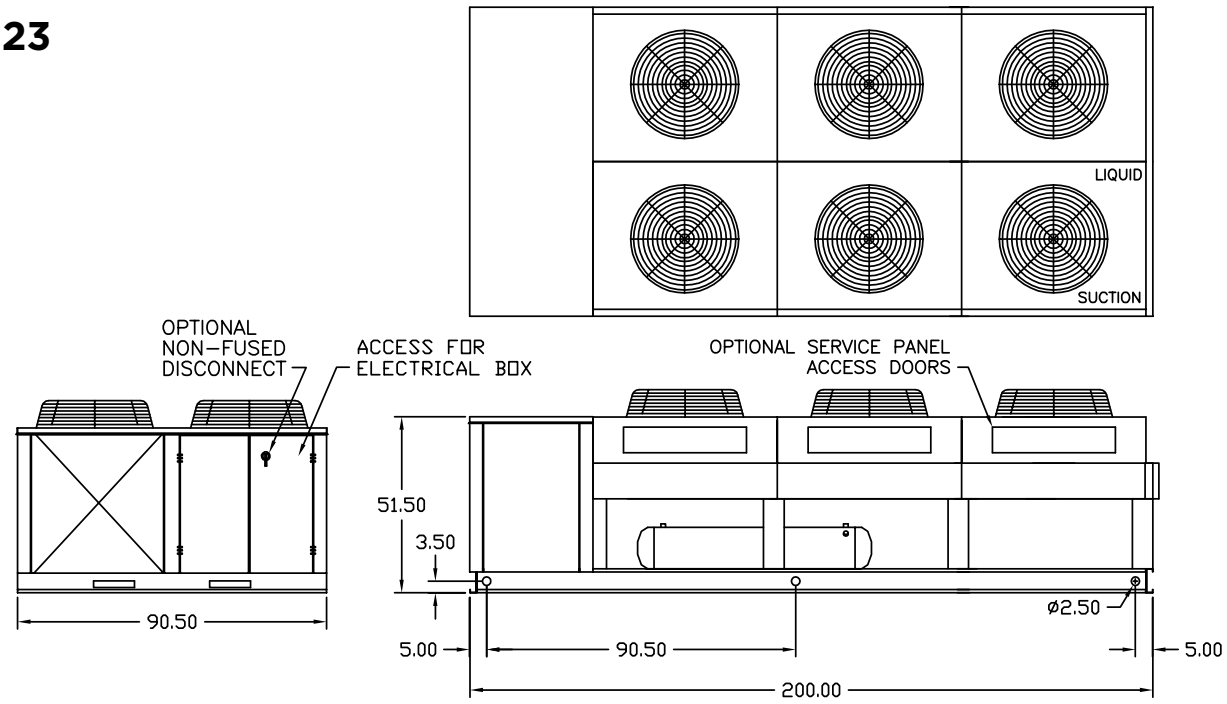
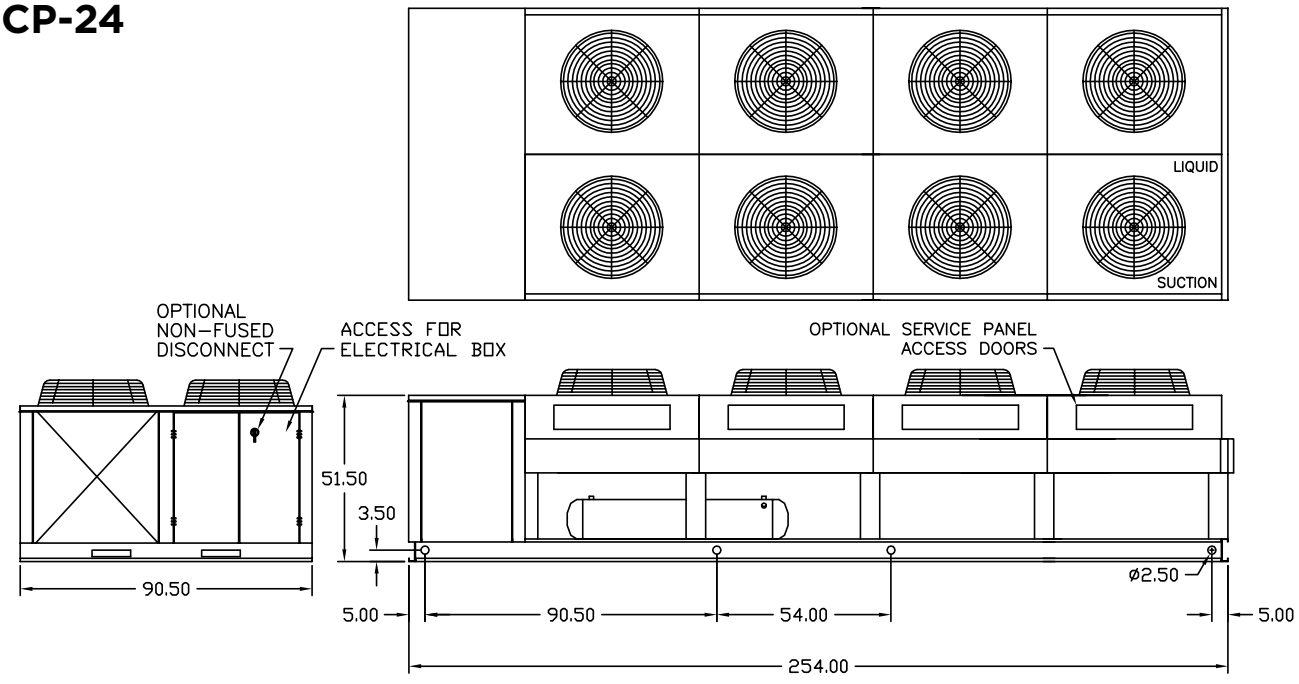
Dimensional Drawings

CP Parallel Systems

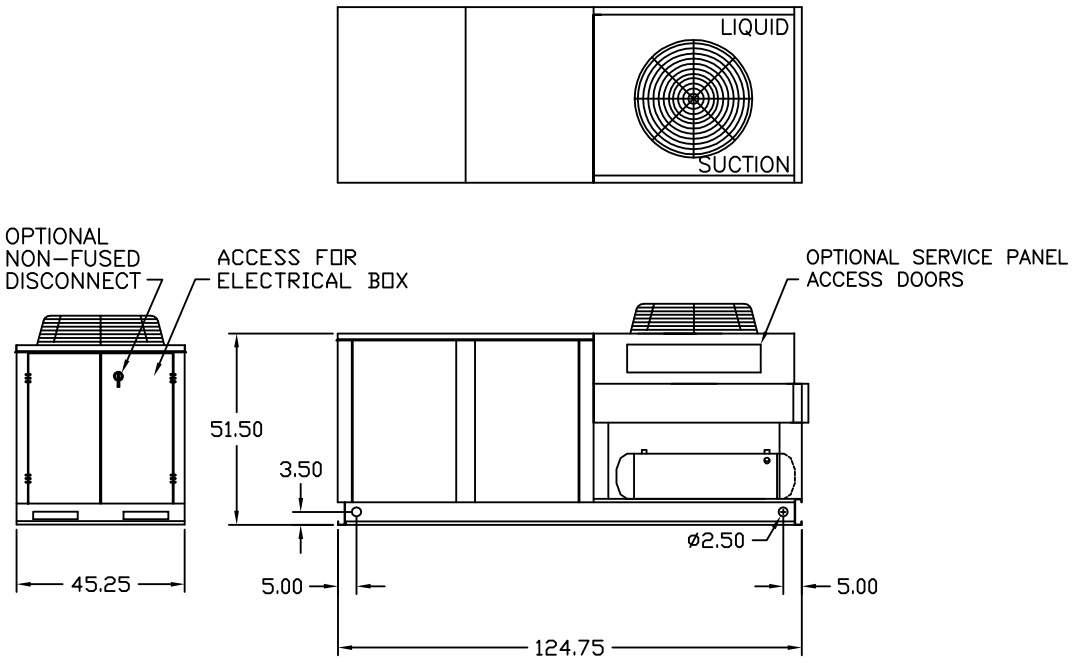
CP-23



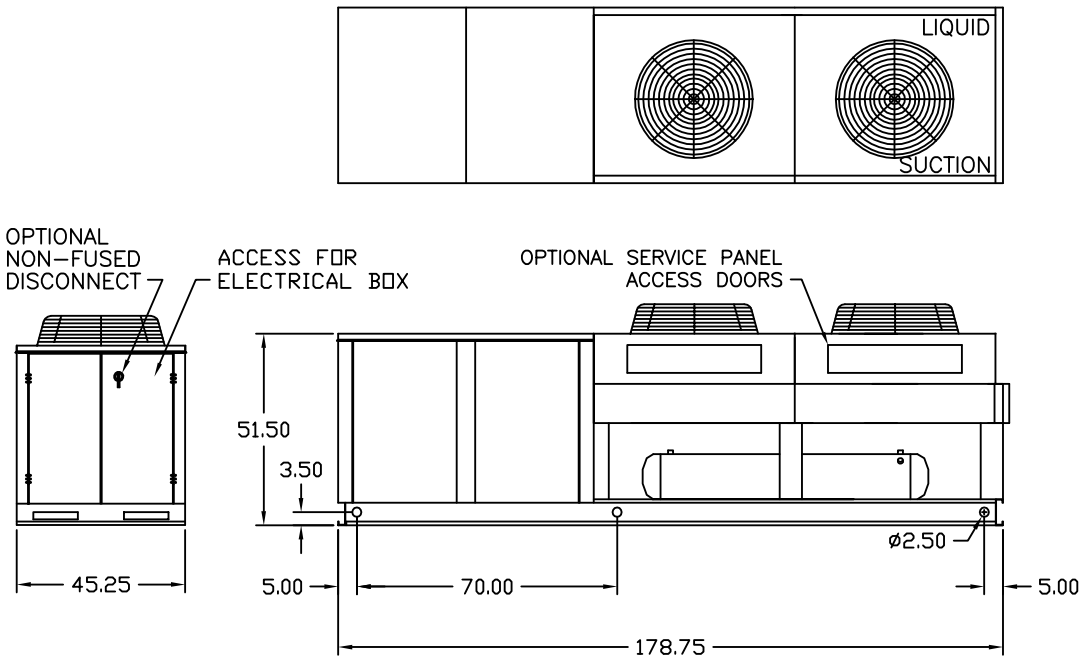
CP-24



CD-11


LIQUID
SUCTION
OPTIONAL
NON–FUSED
DISCONNECT
ACCESS FOR
ELECTRICAL BOX
OPTIONAL SERVICE PANEL
ACCESS DOORS
51.50
3.50
ø2.50
45.25
5.00
5.00
124.75

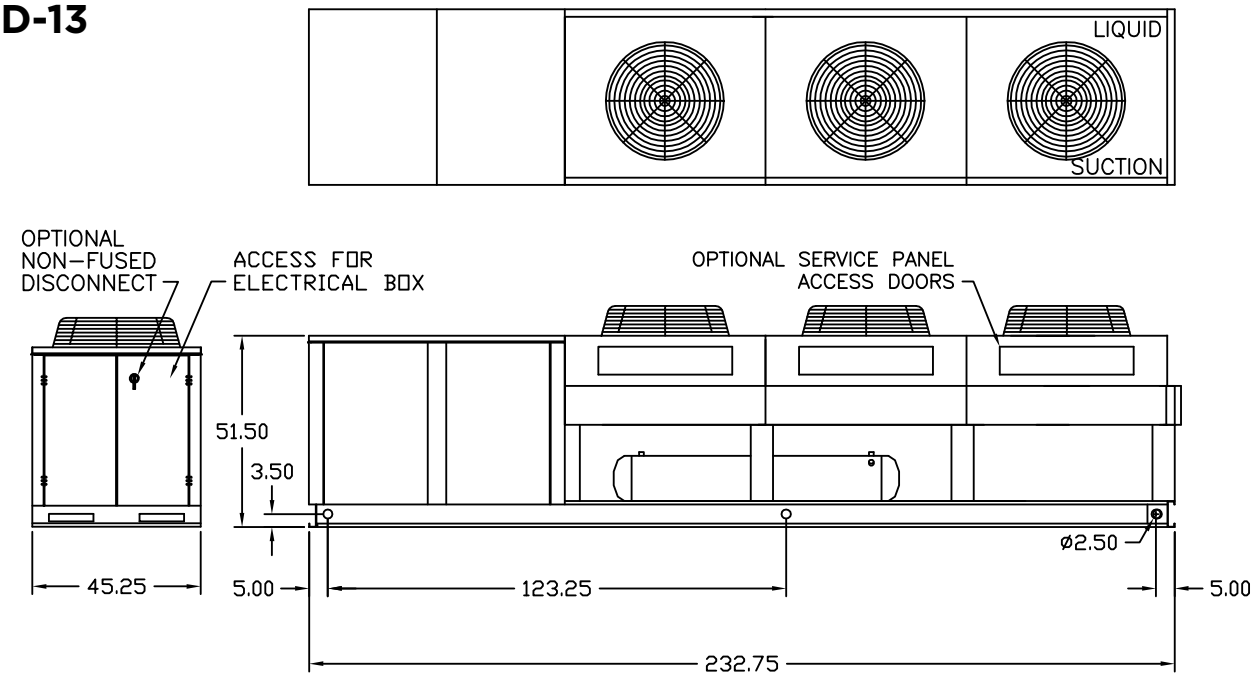
CD-12


LIQUID
SUCTION
OPTIONAL
NON–FUSED
DISCONNECT
ACCESS FOR
ELECTRICAL BOX
OPTIONAL SERVICE PANEL
ACCESS DOORS
51.50
3.50
ø2.50
45.25
5.00
70.00
5.00
178.75

Dimensional Drawings

CD Dual Systems

CD-13



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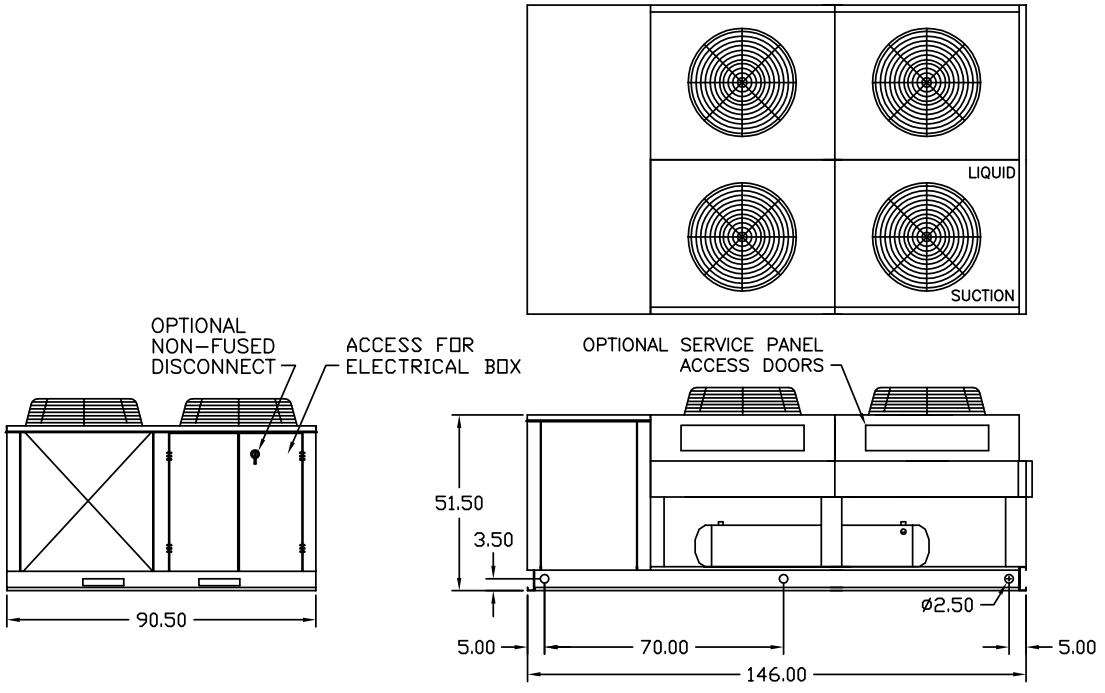
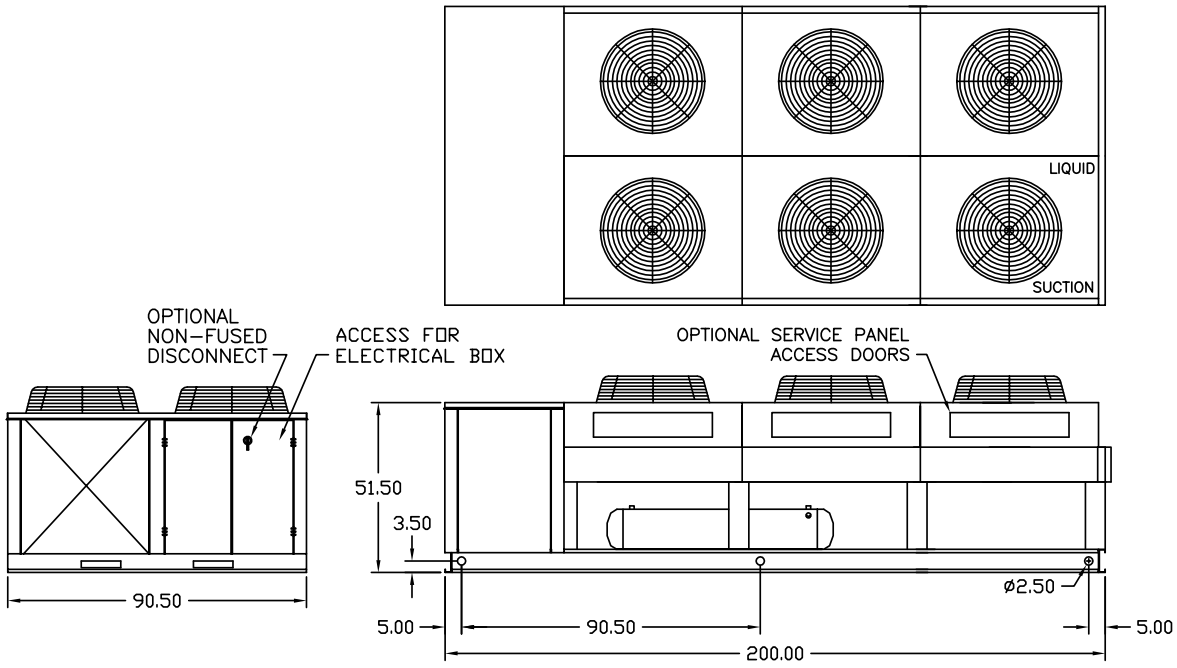


CD-23


LIQUID
SUCTION
OPTIONAL
NON–FUSED
DISCONNECT
ACCESS FOR
ELECTRICAL BOX
OPTIONAL SERVICE PANEL
ACCESS DOORS
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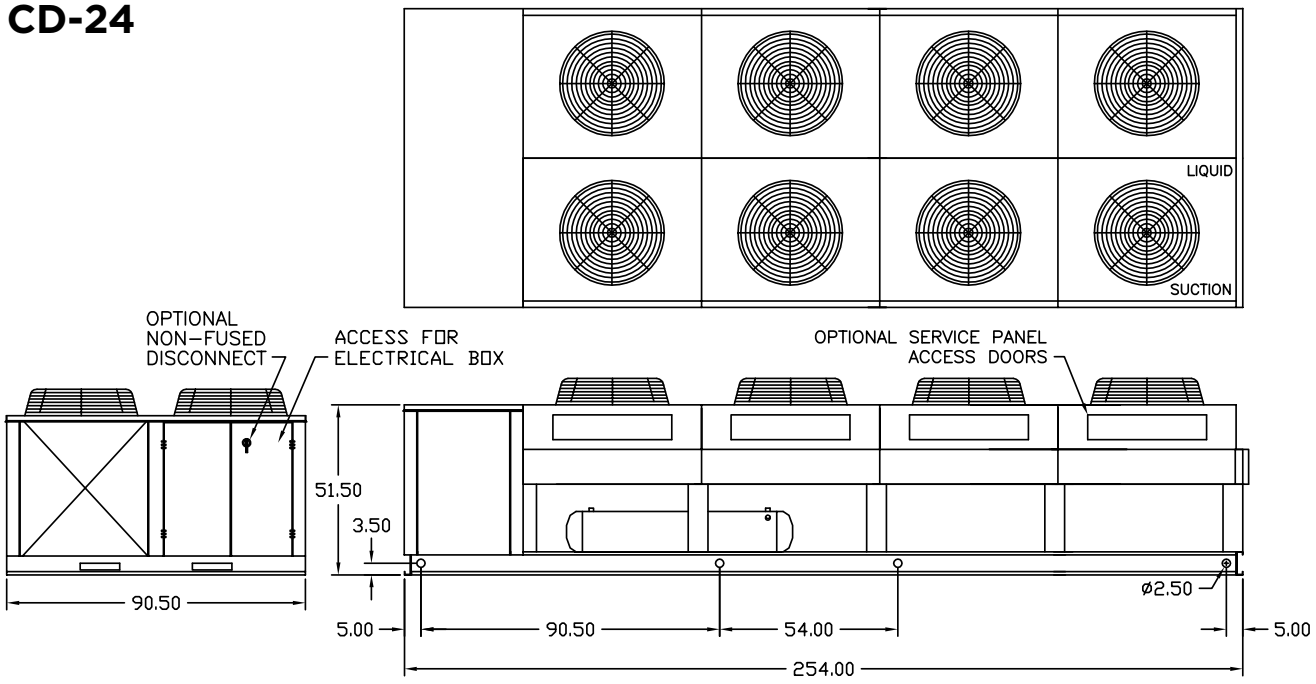
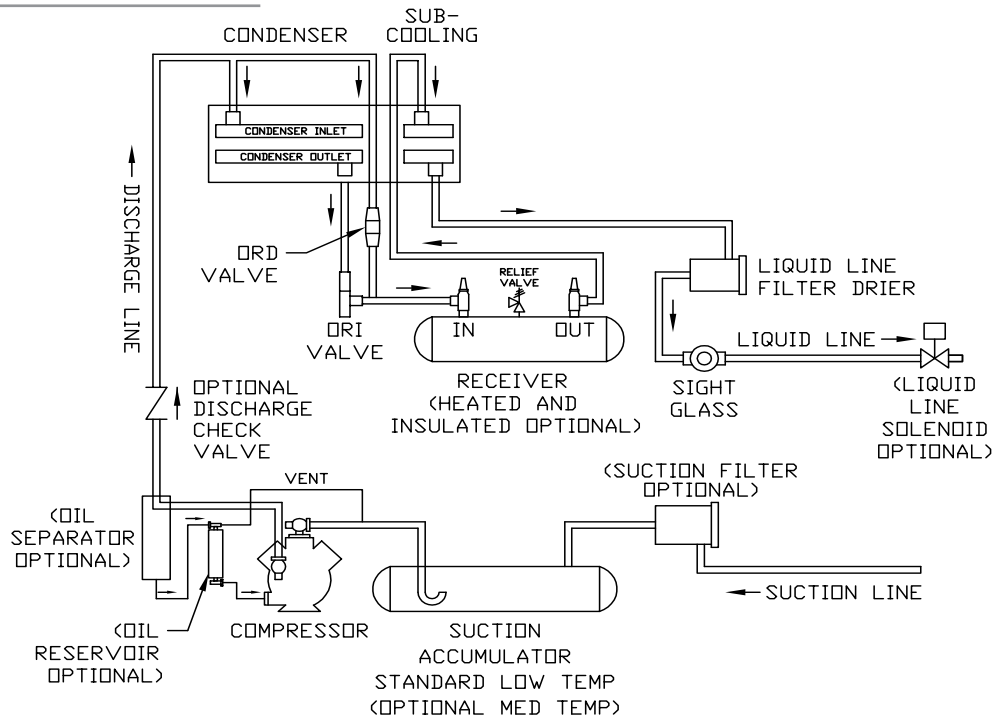
3.50
90.50
ø2.50
5.00
90.50
5.00
200.00

CD-24

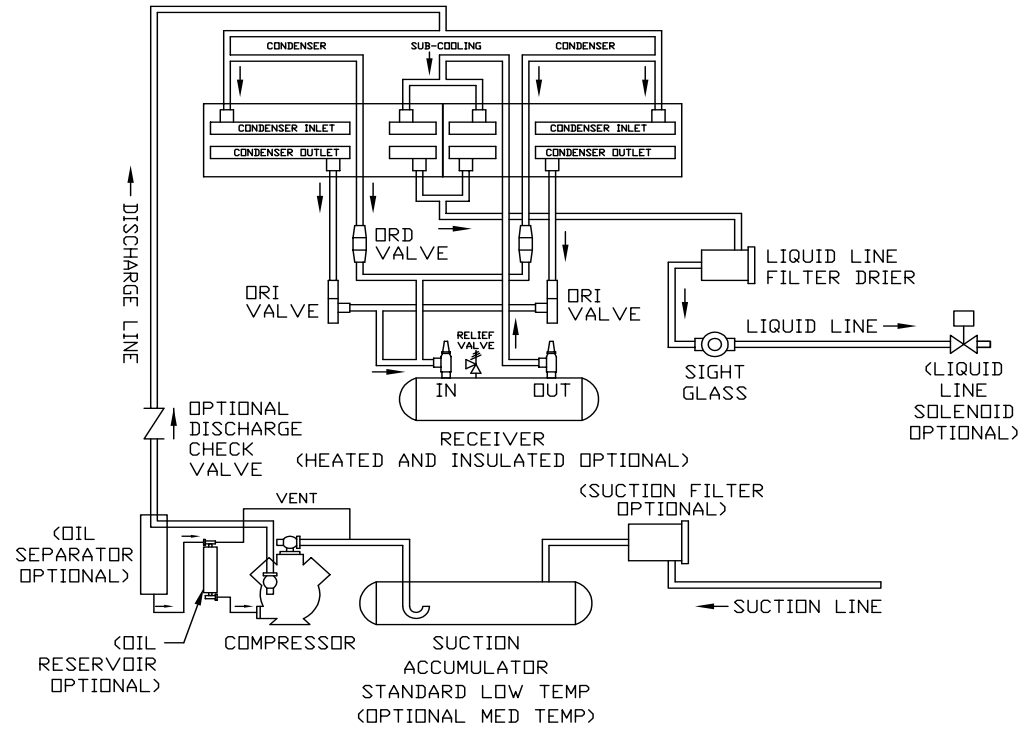

LIQUID
SUCTION
OPTIONAL
NON–FUSED
DISCONNECT
ACCESS FOR
ELECTRICAL BOX
OPTIONAL SERVICE PANEL
ACCESS DOORS
51.50
3.50
90.50
ø2.50
5.00
90.50
54.00
5.00
254.00

Piping Schematics

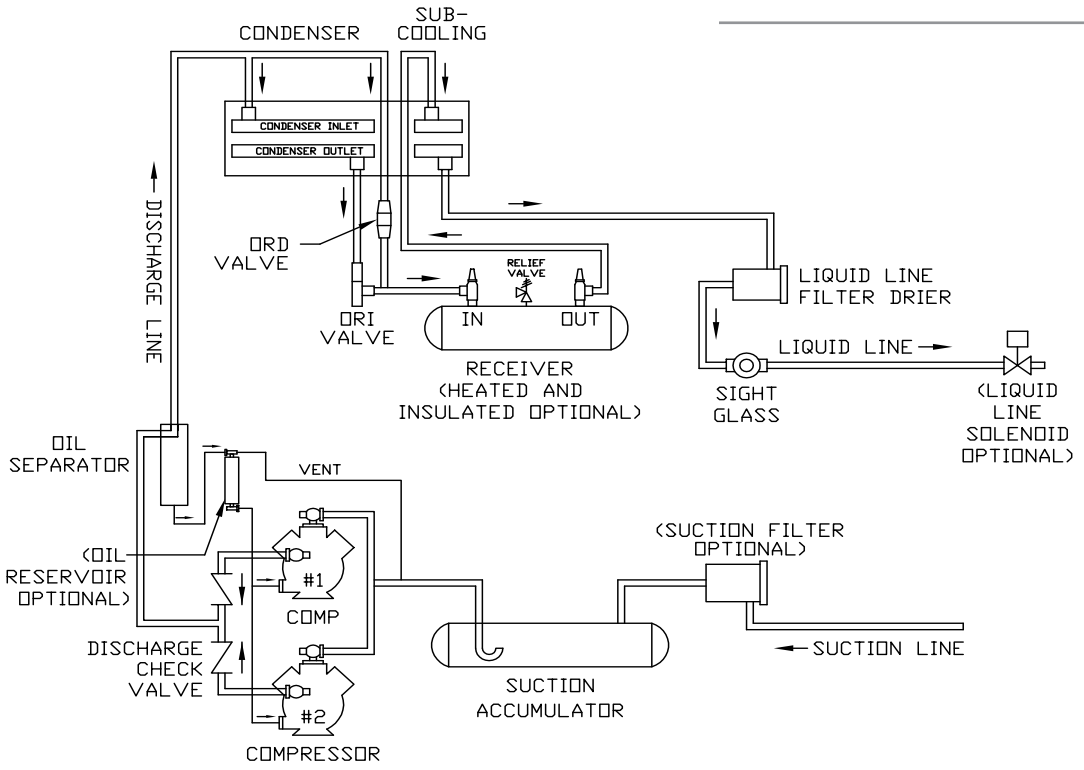
CS Single Piping - 1 Wide Coil



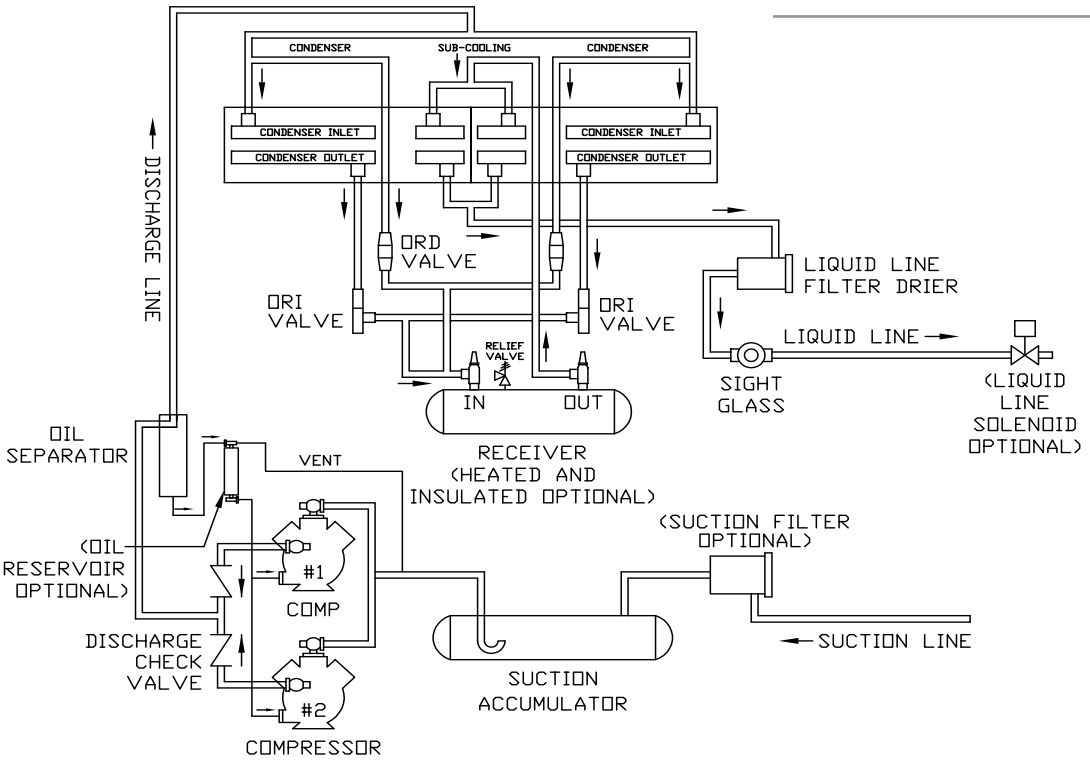
CS Single Piping - 2 Wide Coil



CP Parallel Piping - 1 Wide Coil

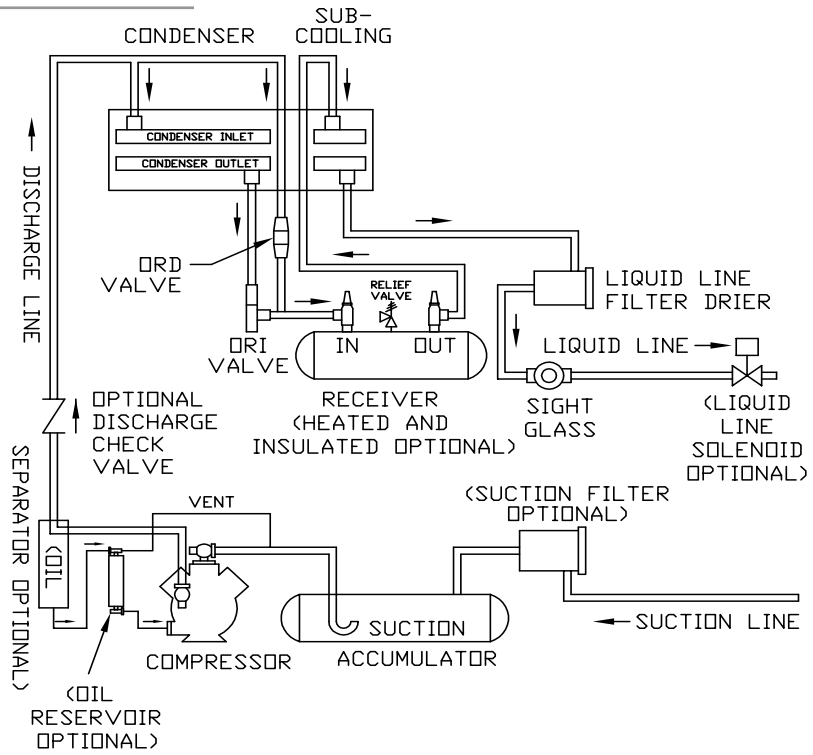


CP Parallel Piping - 2 Wide Coil

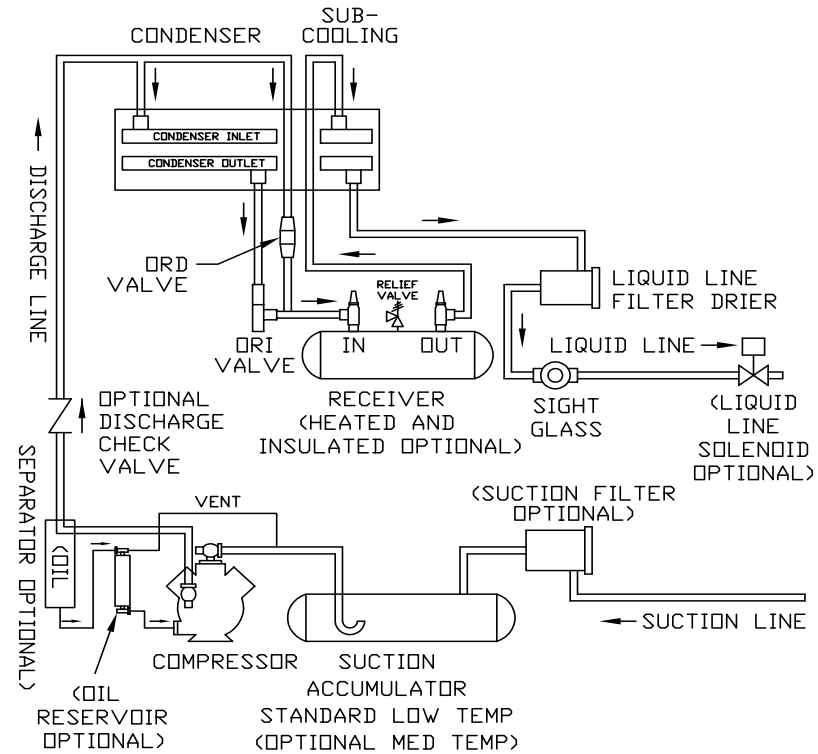


Piping Schematics

CD Dual Piping - Refrigerant Circuit 1



CD Dual Piping - Refrigerant Circuit 2



Notes

Notes

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