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# Large Air-Cooled Condensing Units

Technical Bulletin: LACC\_008\_060921



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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.  
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# Large Air-Cooled Condensing Units

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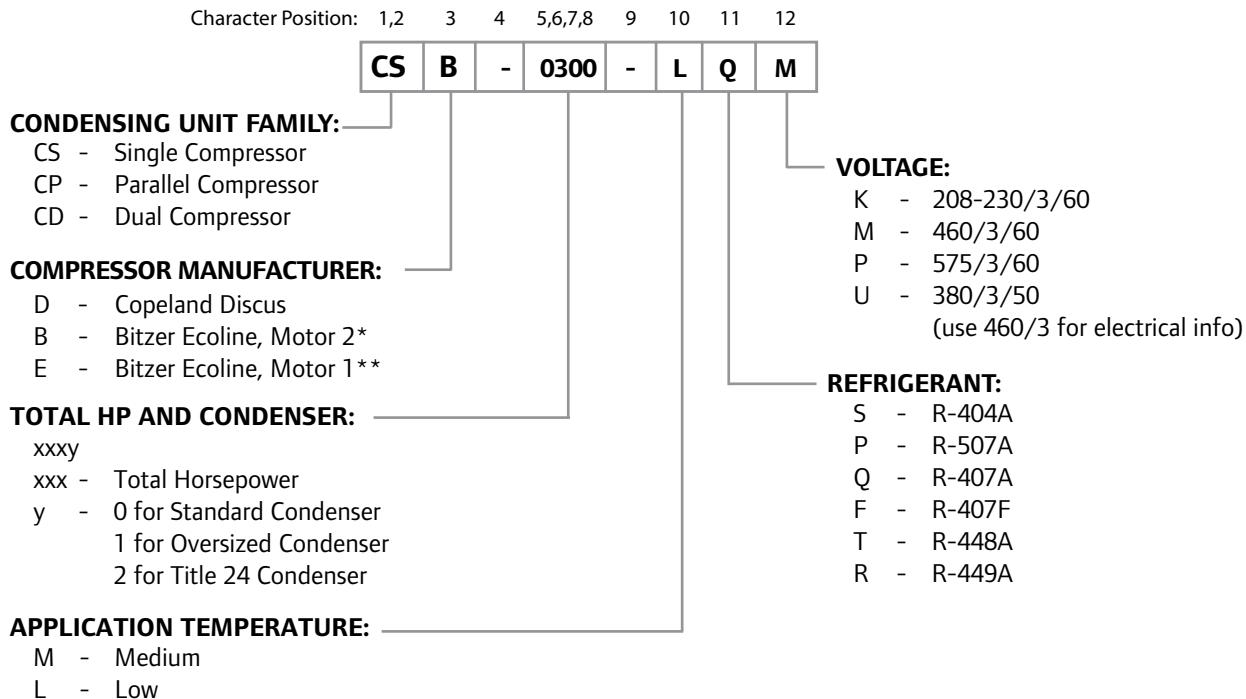
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### Warranty

Please refer to our website at [www.krack.com](http://www.krack.com)

# Model Introduction

## Control Panel Nomenclature



\* 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 - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F			
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Capacity (MBH)													
CSD-0100-MS	S	57.0	53.2	63.7	59.4	70.9	66.1	78.6	73.3	87.6	81.7	97.2	90.7			
CSD-0101-MS	3DB3R12ME	O	58.5	54.7	65.4	61.1	72.8	68.0	80.7	75.4	90.1	84.2	100.2	93.7		
CSD-0102-MS		T	58.2	54.3	65.0	60.6	72.3	67.5	80.2	74.8	89.4	83.3	99.2	92.5		
CSD-0150-MS		S	78.0	71.0	87.2	79.4	97.2	88.4	107.8	98.0	119.3	108.1	131.4	119.0		
CSD-0151-MS	3DS3R17ME	O	79.2	72.2	88.7	80.9	99.0	90.2	110.2	100.2	122.1	110.9	135.0	122.4		
CSD-0152-MS		T	80.8	73.6	90.5	82.5	101.0	92.0	112.4	102.2	124.5	113.1	137.7	124.8		
CSD-0200-MS		S	90.5	80.0	102.0	90.3	114.7	101.5	128.1	113.6	142.5	126.5	157.8	140.2		
CSD-0201-MS	4DBNR20ME	O	92.6	81.9	104.7	92.7	117.8	104.4	131.9	117.2	147.2	130.8	163.3	145.4		
CSD-0202-MS		T	94.4	83.5	106.7	94.5	120.1	106.5	134.5	119.5	150.1	133.4	166.6	148.3		
CSD-0250-MS		S	103.4	93.5	115.3	104.1	128.8	116.2	143.6	129.5	159.5	143.7	176.2	158.8		
CSD-0251-MS	4DHNR22ME	O	106.2	96.3	119.0	107.7	133.5	120.6	149.4	134.9	166.6	150.3	184.7	166.8		
CSD-0252-MS		T	105.5	95.4	117.6	106.2	131.4	118.5	146.5	132.1	162.7	146.6	179.7	162.0		
CSD-0300-MS		S	122.0	110.5	137.2	124.0	153.6	138.5	171.0	154.0	189.6	170.5	209.2	187.9		
CSD-0301-MS	4DJNR28ME	O	124.7	113.1	140.7	127.3	157.9	142.6	176.5	159.2	196.3	176.9	217.4	195.7		
CSD-0302-MS		T	123.2	111.6	138.6	125.2	155.1	139.9	172.7	155.5	191.5	172.2	211.3	189.8		
CSD-0350-MS		S	152.7	136.9	170.8	153.4	190.2	170.9	210.8	189.4	232.7	208.9	255.8	229.3		
CSD-0351-MS	6DHNR35ME	O	160.3	144.2	180.0	162.3	201.3	181.7	224.3	202.6	249.2	225.0	275.9	249.0		
CSD-0352-MS		T	155.8	139.6	174.2	156.5	194.0	174.3	215.0	193.2	237.4	213.1	260.9	233.9		
CSD-0400-MS		S	185.8	168.1	207.5	187.8	231.0	208.9	256.1	231.5	282.8	255.4	311.0	280.7		
CSD-0401-MS*		O	190.0	172.2	212.7	192.8	237.3	215.1	263.8	239.1	292.2	264.7	322.3	291.8		

Saturated Suction Temperature (SST)			25°F		30°F		35°F		40°F		45°F				
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH)												
CSD-0100-MS	S	107.5	100.4	118.5	110.7	130.2	121.6	142.7	133.2	N/A	N/A				
CSD-0101-MS	3DB3R12ME	O	111.0	103.9	122.7	115.0	135.2	126.7	148.6	139.3	N/A	N/A			
CSD-0102-MS		T	109.7	102.4	120.9	112.9	132.8	124.0	145.6	135.9	N/A	N/A			
CSD-0150-MS		S	144.4	130.4	158.0	142.2	172.5	155.3	179.0	161.0	N/A	N/A			
CSD-0151-MS	3DS3R17ME	O	148.7	134.6	163.3	147.6	178.9	161.3	191.0	172.0	N/A	N/A			
CSD-0152-MS		T	151.7	137.3	166.6	150.6	182.5	164.5	194.8	175.4	N/A	N/A			
CSD-0200-MS		S	173.7	154.4	190.2	171.2	207.3	186.6	218.3	197.1	N/A	N/A			
CSD-0201-MS	4DBNR20ME	O	180.3	160.5	198.0	176.5	216.5	193.2	227.0	205.0	N/A	N/A			
CSD-0202-MS		T	183.9	163.8	202.0	180.1	220.9	197.1	231.5	209.1	N/A	N/A			
CSD-0250-MS		S	193.5	174.5	211.3	190.2	229.3	206.4	240.0	217.0	N/A	N/A			
CSD-0251-MS	4DHNR22ME	O	203.8	184.0	223.4	201.7	243.5	219.9	258.0	233.0	N/A	N/A			
CSD-0252-MS		T	197.4	178.0	215.5	194.0	233.9	210.5	244.8	221.3	N/A	N/A			
CSD-0300-MS		S	229.8	206.2	251.4	226.3	273.8	246.4	287.0	258.0	N/A	N/A			
CSD-0301-MS	4DJNR28ME	O	239.7	215.7	263.3	236.7	288.0	258.9	306.0	277.0	N/A	N/A			
CSD-0302-MS		T	232.1	208.3	253.9	228.5	276.5	248.9	289.9	260.6	N/A	N/A			
CSD-0350-MS		S	280.1	250.8	305.6	275.0	332.3	299.1	371.0	334.0	N/A	N/A			
CSD-0351-MS	6DHNR35ME	O	304.5	274.6	335.0	301.9	367.6	330.9	392.0	353.0	N/A	N/A			
CSD-0352-MS		T	285.7	255.8	311.7	280.5	338.9	305.1	378.4	340.7	N/A	N/A			
CSD-0400-MS		S	340.6	307.1	371.5	334.4	403.6	363.2	414.4	373.0	N/A	N/A			
CSD-0401-MS*		O	354.2	320.6	387.7	350.7	422.8	382.3	452.0	408.0	N/A	N/A			

### Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				Condenser LAVF	
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	5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11310		
CSD-0101-MS		O	43.6	10.8	68.3	110	5.0	31.5	50		16.5	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		10.8	88.4	150	5.0	42.8	70			5.0	35.7	60	12210	
CSD-0151-MS		O	59.6	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		10.8	104.0	175	5.0	51.6	80			5.0	45.5	70	12210	
CSD-0201-MS		O	72.1	10.8	104.0	175	5.0	51.6	80			31.4	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		10.8	106.8	175	5.0	53.0	90			5.0	47.8	80	12310	
CSD-0251-MS		O	74.4	16.2	112.2	175	7.5	55.5	90			33.3	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		10.8	145.6	250	5.0	72.4	125			44.1	5.0	61.4	100	12312
CSD-0301-MS		O	105.4	16.2	151.0	250	7.5	74.9	125			44.1	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		16.2	175.6	300	7.5	87.2	150			7.5	59.6	100	13310	
CSD-0351-MS		O	125.1	21.6	181.0	300	10.0	89.7	150			40.7	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		16.2	197.8	300	7.5	98.3	150			51.4	7.5	73.0	100	13310
CSD-0401-MS*		O	142.9	21.6	203.2	300	10.0	100.8	150							

# CS Single Systems

## CSD Medium Temp R-407A

### CSD Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		
Ambient Temperature	95°F	105°F*	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH)												
CSD-0100-MQ			S	56.5	53.2	63.1	59.4	70.2	66.1	77.9	73.3	87.6	83.3	98.2	92.5
CSD-0101-MQ			O	57.9	54.7	64.7	61.1	72.0	68.0	79.9	75.4	90.1	85.8	101.2	95.6
CSD-0102-MQ			T	57.6	54.3	64.3	60.6	71.6	67.5	79.4	74.8	89.4	85.0	100.1	94.3
CSD-0150-MQ	3DS3R17ME	S	71.0	64.6	81.1	74.6	92.3	84.9	104.6	95.1	118.1	108.1	131.4	120.2	
CSD-0151-MQ		O	72.1	65.7	83.4	75.2	94.1	86.6	105.8	97.2	119.7	109.8	135.0	123.6	
CSD-0152-MQ		T	73.5	67.0	85.0	76.7	95.9	88.3	107.9	99.1	122.1	112.0	137.7	126.1	
CSD-0200-MQ	4DBNR20ME	S	86.9	77.6	100.0	89.4	112.4	101.5	126.8	114.8	142.5	127.8	159.4	143.0	
CSD-0201-MQ		O	88.9	79.4	102.6	91.8	115.4	104.4	129.3	117.2	145.7	132.1	163.3	148.3	
CSD-0202-MQ		T	90.6	81.0	104.6	93.6	117.7	106.5	131.9	119.5	148.6	134.7	166.6	151.2	
CSD-0250-MQ	4DHNR22ME	S	101.3	92.6	114.1	105.1	128.8	118.5	145.0	132.1	162.7	148.0	179.7	165.2	
CSD-0251-MQ		O	104.1	94.4	117.8	107.7	133.5	123.0	149.4	137.6	168.3	154.8	188.4	171.8	
CSD-0252-MQ		T	103.4	93.5	116.4	107.2	131.4	120.9	147.9	134.7	165.9	151.0	183.3	168.5	
CSD-0300-MQ	4DJNR28ME	S	117.1	108.3	134.5	124.0	152.1	139.9	172.7	157.1	191.5	175.6	213.4	193.5	
CSD-0301-MQ		O	119.7	108.6	136.5	126.0	156.3	144.0	174.7	160.8	198.3	180.4	221.7	199.6	
CSD-0302-MQ		T	118.3	108.4	135.8	125.2	153.6	141.3	174.4	158.7	193.4	177.4	215.5	195.5	
CSD-0350-MQ	6DHNR35ME	S	143.5	131.4	164.0	148.8	184.5	169.2	206.6	191.3	232.7	213.1	255.8	236.2	
CSD-0351-MQ		O	149.1	137.0	171.0	157.4	191.2	179.9	217.6	202.6	244.2	227.3	275.9	254.0	
CSD-0352-MQ		T	146.4	134.1	167.2	151.8	188.2	172.6	210.7	195.1	237.4	217.3	260.9	240.9	
CSD-0400-MQ	6DJNR40ME	S	174.7	161.4	199.2	184.0	224.1	208.9	256.1	233.8	285.6	263.1	317.2	294.7	
CSD-0401-MQ*		O	178.6	163.6	202.1	187.0	230.2	212.9	258.5	239.1	292.2	270.0	325.5	300.6	

Saturated Suction Temperature (SST)			25°F		30°F		35°F		40°F		45°F				
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH)												
CSD-0100-MQ			S	109.7	103.4	122.1	116.2	135.4	127.7	148.4	141.2	N/A	N/A		
CSD-0101-MQ			O	113.2	107.1	126.4	120.7	140.6	133.0	154.6	147.7	N/A	N/A		
CSD-0102-MQ			T	111.9	105.4	124.5	118.5	138.1	130.2	151.4	144.0	N/A	N/A		
CSD-0150-MQ	3DS3R17ME	S	145.8	134.3	161.2	145.0	177.7	159.9	185.0	170.0	N/A	N/A			
CSD-0151-MQ		O	150.2	137.3	166.6	153.5	184.3	167.8	197.0	180.0	N/A	N/A			
CSD-0152-MQ		T	153.2	140.0	169.9	156.6	188.0	171.1	200.9	183.6	N/A	N/A			
CSD-0200-MQ	4DBNR20ME	S	177.1	159.1	197.8	178.0	216.5	196.9	232.7	214.4	N/A	N/A			
CSD-0201-MQ		O	182.1	163.8	204.0	183.6	225.2	204.8	242.0	223.0	N/A	N/A			
CSD-0202-MQ		T	185.8	167.0	208.1	187.3	229.7	208.9	246.8	227.5	N/A	N/A			
CSD-0250-MQ	4DHNR22ME	S	199.3	183.2	221.9	199.7	245.4	220.8	261.0	240.0	N/A	N/A			
CSD-0251-MQ		O	209.9	191.4	232.3	213.8	258.1	235.3	279.0	257.0	N/A	N/A			
CSD-0252-MQ		T	203.3	186.9	226.3	203.7	250.3	225.2	266.2	244.8	N/A	N/A			
CSD-0300-MQ	4DJNR28ME	S	236.7	214.4	258.9	233.0	282.0	253.8	301.0	275.0	N/A	N/A			
CSD-0301-MQ		O	244.5	224.3	271.2	246.2	296.6	271.8	317.0	291.0	N/A	N/A			
CSD-0302-MQ		T	239.1	216.6	261.5	235.4	284.8	256.4	304.0	277.8	N/A	N/A			
CSD-0350-MQ	6DHNR35ME	S	282.9	260.8	308.7	277.8	335.6	302.1	376.0	347.0	N/A	N/A			
CSD-0351-MQ		O	304.5	280.1	335.0	307.9	367.6	337.5	392.0	361.0	N/A	N/A			
CSD-0352-MQ		T	288.6	266.0	314.8	283.3	342.3	308.1	383.5	353.9	N/A	N/A			
CSD-0400-MQ	6DJNR40ME	S	350.8	322.5	386.4	347.7	419.7	377.8	448.1	415.4	N/A	N/A			
CSD-0401-MQ*		O	361.3	333.4	395.5	364.7	435.5	401.4	466.0	432.0	N/A	N/A			

### Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				Condenser LAVF
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	5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11310	
		O	43.6	10.8	68.3	110	5.0	31.5	50	16.5	5.0	26.8	40	12210	
		T	5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11410	
CSD-0150-MQ	3DS3R17ME	S	10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12210	
		O	59.6	10.8	88.4	150	29.0	5.0	42.8	70	23.6	5.0	35.7	60	12310
		T	10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12410	
CSD-0200-MQ	4DBNR20ME	S	10.8	104.0	175		5.0	51.6	80	31.4	5.0	45.5	70	12210	
		O	72.1	10.8	104.0	175	36.1	5.0	51.6	80	31.4	5.0	45.5	70	12310
		T	10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12410	
CSD-0250-MQ	4DHNR22ME	S	10.8	106.8	175		5.0	53.0	90		33.3	5.0	47.8	80	12310
		O	74.4	16.2	112.2	175	37.2	7.5	55.5	90	33.3	7.5	50.3	80	13310
		T	10.8	106.8	175		5.0	53.0	90		5.0	47.8	80	12410	
CSD-0300-MQ	4DJNR28ME	S	10.8	145.6	250		5.0	72.4	125	44.1	5.0	61.4	100	12312	
		O	105.4	16.2	151.0	250	52.7	7.5	74.9	125	44.1	7.5	63.9	100	13310
		T	10.8	145.6	250		5.0	72.4	125		5.0	61.4	100	12410	
CSD-0350-MQ	6DHNR35ME	S	16.2	175.6	300		7.5	87.2	150		7.5	59.6	100	13310	
		O	125.1	21.6	181.0	300	62.6	10.0	89.7	150	40.7	10.0	62.1	100	22310
		T	16.2	175.6	300		7.5	87.2	150		7.5	59.6	100	13410	
CSD-0400-MQ	6DJNR40ME	S	16.2	197.8	300		7.5	98.3	150	51.4	7.5	73.0	100	13310	
		O	142.9	21.6</td											

# CS Single Systems

## CSD Medium Temp R-448A

### CSD Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F	
Ambient Temperature	95°F	105°F*	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)											
CSD-0100-MT	3DB3R12ME	S	58.2	55.3	65.0	61.8	72.3	68.8	80.2	76.3	90.2	85.8	101.1	95.2
CSD-0101-MT		O	59.7	56.9	66.7	63.5	74.2	70.7	82.3	78.4	92.8	88.4	104.2	98.4
CSD-0102-MT		T	59.3	56.4	66.3	63.0	73.8	70.2	81.8	77.8	92.1	87.5	103.1	97.1
CSD-0150-MT	3DS3R17ME	S	74.9	67.5	84.6	77.8	96.2	88.4	107.8	100.0	121.7	112.4	135.3	125.0
CSD-0151-MT		O	76.0	68.6	86.9	79.3	98.0	90.2	110.2	102.2	124.5	114.2	139.1	128.5
CSD-0152-MT		T	77.6	70.0	88.7	80.9	100.0	92.0	112.4	104.2	127.0	116.5	141.8	131.1
CSD-0200-MT	4DBNR20ME	S	89.6	80.0	103.0	92.1	115.8	104.6	130.7	118.2	146.8	132.8	162.5	147.2
CSD-0201-MT		O	91.6	81.9	104.7	94.5	118.9	107.6	133.2	120.7	150.1	136.0	168.2	151.2
CSD-0202-MT		T	93.5	83.5	106.7	96.4	121.3	109.7	135.9	123.1	153.1	138.7	171.6	154.2
CSD-0250-MT	4DHNR22ME	S	104.4	95.4	117.6	108.3	132.7	122.0	149.3	137.3	167.5	152.3	185.0	169.9
CSD-0251-MT		O	107.3	98.2	121.4	110.9	137.5	126.6	153.9	141.6	171.6	157.8	192.1	175.1
CSD-0252-MT		T	106.5	97.3	120.0	110.4	135.3	124.5	152.3	140.0	170.8	155.4	188.7	173.3
CSD-0300-MT	4DJNR28ME	S	120.8	110.5	138.6	126.5	156.7	144.0	177.8	161.7	199.1	180.7	219.7	199.2
CSD-0301-MT		O	122.2	112.0	142.1	129.8	161.1	148.3	181.8	165.6	204.2	185.7	226.1	207.4
CSD-0302-MT		T	122.0	111.6	140.0	127.7	158.2	145.5	179.6	163.3	201.1	182.5	221.9	201.2
CSD-0350-MT	6DHNR35ME	S	148.1	136.9	169.1	154.9	190.2	176.0	212.9	197.0	237.4	219.3	263.5	243.1
CSD-0351-MT		O	155.5	142.8	176.4	162.3	197.3	185.3	224.3	208.7	251.7	234.0	281.4	259.0
CSD-0352-MT		T	151.1	139.6	172.5	158.0	194.0	179.5	217.2	200.9	242.1	223.7	268.7	247.9
CSD-0400-MT	6DJNR40ME	S	180.2	166.4	205.4	189.7	231.0	215.2	261.2	243.1	294.1	270.7	323.4	300.3
CSD-0401-MT*		O	184.3	170.5	208.4	194.7	237.3	219.4	266.4	248.7	298.0	277.9	332.0	306.4

Saturated Suction Temperature (SST)			25°F		30°F		35°F		40°F		45°F		50°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)											
CSD-0100-MT	3DB3R12ME	S	111.8	105.4	124.5	118.4	136.7	130.1	149.8	142.5	N/A	N/A	N/A	N/A
CSD-0101-MT		O	115.4	109.1	128.8	123.0	141.9	135.6	156.0	149.1	N/A	N/A	N/A	N/A
CSD-0102-MT		T	114.0	107.5	126.9	120.8	139.4	132.7	152.8	145.4	N/A	N/A	N/A	N/A
CSD-0150-MT	3DS3R17ME	S	148.7	138.2	164.3	147.9	179.4	161.5	187.0	171.5	N/A	N/A	N/A	N/A
CSD-0151-MT		O	153.2	141.3	168.2	156.5	186.1	169.4	198.0	182.0	N/A	N/A	N/A	N/A
CSD-0152-MT		T	156.2	144.2	171.6	159.6	189.8	172.8	202.0	185.6	N/A	N/A	N/A	N/A
CSD-0200-MT	4DBNR20ME	S	180.6	162.2	201.6	181.5	220.7	200.6	235.6	216.3	N/A	N/A	N/A	N/A
CSD-0201-MT		O	185.7	168.6	207.9	187.1	229.5	208.7	245.0	225.0	N/A	N/A	N/A	N/A
CSD-0202-MT		T	189.4	171.9	212.1	190.9	234.1	212.8	249.9	229.5	N/A	N/A	N/A	N/A
CSD-0250-MT	4DHNR22ME	S	205.1	186.7	226.1	203.5	247.6	222.9	265.0	243.0	N/A	N/A	N/A	N/A
CSD-0251-MT		O	214.0	195.0	236.8	217.8	263.0	239.7	282.0	260.0	N/A	N/A	N/A	N/A
CSD-0252-MT		T	209.2	190.4	230.6	207.6	252.6	227.3	270.3	247.9	N/A	N/A	N/A	N/A
CSD-0300-MT	4DJNR28ME	S	241.3	218.6	264.0	237.6	290.2	261.2	305.0	278.0	N/A	N/A	N/A	N/A
CSD-0301-MT		O	249.3	230.8	276.5	250.9	302.4	274.4	321.0	295.0	N/A	N/A	N/A	N/A
CSD-0302-MT		T	243.7	220.8	266.6	239.9	293.1	263.8	308.1	280.8	N/A	N/A	N/A	N/A
CSD-0350-MT	6DHNR35ME	S	288.5	265.8	314.8	283.3	342.3	308.0	378.0	350.0	N/A	N/A	N/A	N/A
CSD-0351-MT		O	310.6	285.6	341.7	314.0	371.3	344.1	396.0	366.0	N/A	N/A	N/A	N/A
CSD-0352-MT		T	294.3	271.2	321.1	289.0	349.1	314.2	385.6	357.0	N/A	N/A	N/A	N/A
CSD-0400-MT	6DJNR40ME	S	357.6	331.7	393.8	354.4	427.8	385.0	452.9	420.2	N/A	N/A	N/A	N/A
CSD-0401-MT*		O	368.4	339.8	403.2	375.2	443.9	409.1	471.0	437.0	N/A	N/A	N/A	N/A

### Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFF)				Condenser LAVF
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	5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11310	
CSD-0101-MT		O	10.8	68.3	110		5.0	31.5	50		16.5	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	10.8	88.4	150		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		23.6	5.0	35.7	60	12310
CSD-0152-MT		T	10.8	88.4	150		5.0	42.8	70		23.6	5.0	35.7	60	12410
CSD-0200-MT	4DBNR20ME	S	10.8	104.0	175		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		31.4	5.0	45.5	70	12310
CSD-0202-MT		T	10.8	104.0	175		5.0	51.6	80		31.4	5.0	45.5	70	12410
CSD-0250-MT	4DHNR22ME	S	10.8	106.8	175		5.0	53.0	90		33.3	7.5	47.8	80	12312
CSD-0251-MT		O	16.2	112.2	175		7.5	55.9	90		33.3	7.5	50.3	80	13310
CSD-0252-MT		T	10.8	106.8	175		5.0	53.0	90		33.3	7.5	47.8	80	12410
CSD-0300-MT	4DJNR28ME	S	10.8	145.6	250		5.0	72.4	125		44.1	7.5	61.4	100	12312
CSD-0301-MT		O	16.2	151.0	250		5.0	72.4	125		44.1	7.5	63.9	100	13310
CSD-0302-MT		T	10.8	145.6	250		5.0	72.4	125		44.1	7.5	61.4	100	12410
CSD-0350-MT	6DHNR35ME	S	16.2	175.6	300		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		40.7	10.0	62.1	100	22310
CSD-0352-MT		T	16.2	175.6	300		7.5	87.2	150		40.7	7.5	59.6	100	13410
CSD-0400-MT	6DJNR40ME	S	16.2	197.8	300		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		51.4	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

# CS Single Systems

## CSE Medium Temp R-404A

### CSE Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		
Ambient Temperature	Unit	Compressor	Cond Capacity (MBH)	95°F	105°F										
CSE-0100-MS	4TES-12	S	55.1	50.8	62.1	57.3	69.8	64.4	78.1	72.0	87.0	80.5	96.7	89.6	
CSE-0101-MS			O	57.6	53.1	64.9	59.8	72.9	67.3	81.6	75.3	91.2	84.2	101.7	93.8
CSE-0102-MS			T	56.2	51.8	63.4	58.4	71.2	65.6	79.7	73.5	88.7	82.1	98.6	91.3
CSE-0150-MS	4NES-20	S	78.6	69.7	88.9	79.2	100.2	89.4	112.2	100.4	125.1	112.2	138.9	124.8	
CSE-0151-MS			O	80.7	71.7	91.6	81.7	104.2	92.4	115.9	103.6	129.6	116.4	144.2	129.6
CSE-0152-MS			T	82.3	73.1	93.4	83.3	106.3	94.2	118.2	105.7	132.2	118.7	147.1	132.2
CSE-0200-MS	4JE-22	S	89.0	80.6	100.1	90.7	112.3	101.6	125.6	113.7	139.7	126.9	154.6	140.5	
CSE-0201-MS			O	91.3	82.6	102.9	93.1	115.6	104.7	129.4	117.3	144.4	131.2	160.3	145.7
CSE-0202-MS			T	93.1	84.3	105.0	95.0	117.9	106.8	132.0	119.6	147.3	133.8	163.5	148.6
CSE-0250-MS	4HE-25	S	104.4	94.3	117.4	106.1	131.6	119.0	147.2	133.2	163.9	148.9	182.0	165.2	
CSE-0251-MS			O	107.6	97.2	121.2	109.7	136.0	123.4	152.4	138.4	170.6	154.9	189.8	172.4
CSE-0252-MS			T	106.5	96.2	119.7	108.2	134.2	121.4	150.1	135.9	167.2	151.9	185.6	168.5
CSE-0300-MS	4GE-30	S	121.5	109.6	136.7	123.3	153.1	138.2	170.8	154.5	189.8	172.0	210.2	190.4	
CSE-0301-MS			O	123.7	111.7	139.1	125.7	155.9	141.1	174.5	158.1	194.7	176.8	216.0	196.5
CSE-0302-MS			T	122.7	110.7	138.1	124.5	154.6	139.6	172.5	156.0	191.7	173.7	212.3	192.3
CSE-0350-MS	6HE-35	S	155.8	140.7	175.3	158.3	196.6	177.8	219.6	199.0	244.7	222.2	271.0	246.4	
CSE-0351-MS			O	160.3	144.8	180.5	163.3	202.7	183.7	227.1	206.1	253.9	230.5	282.2	256.6
CSE-0352-MS			T	158.9	143.5	178.8	161.5	200.5	181.4	224.0	203.0	249.6	226.6	276.4	251.3
CSE-0400-MS	6GE-40	S	181.6	164.3	204.2	184.7	228.6	206.8	255.1	231.0	283.4	257.3	313.2	284.3	
CSE-0401-MS*			O	186.6	168.9	209.6	190.1	235.0	213.4	263.0	239.0	293.7	266.9	326.1	296.4

Saturated Suction Temperature (SST)			25°F		30°F		35°F		40°F		45°F		50°F	
Ambient Temperature	Unit	Compressor	95°F	105°F	95°F	105°F								
CSE-0100-MS	4TES-12	S	106.9	99.1	117.8	109.3	129.2	120.3	141.5	131.7	154.4	143.8	N/A	N/A
CSE-0101-MS			112.8	104.4	125.0	115.7	137.4	127.3	150.8	139.8	165.1	153.5	N/A	N/A
CSE-0102-MS			109.0	101.1	120.2	111.5	131.8	122.7	144.3	134.3	157.5	146.7	N/A	N/A
CSE-0150-MS	4NES-20	S	153.7	138.1	169.3	152.4	185.4	166.9	206.1	185.5	228.0	205.2	N/A	N/A
CSE-0151-MS			159.8	143.9	176.4	159.0	193.8	174.9	218.0	196.2	237.1	213.4	N/A	N/A
CSE-0152-MS			163.0	146.8	179.9	162.2	197.7	178.4	222.3	200.1	241.8	217.7	N/A	N/A
CSE-0200-MS	4JE-22	S	170.4	154.6	187.0	168.3	204.2	183.8	226.7	204.0	250.8	227.8	N/A	N/A
CSE-0201-MS			177.2	161.0	194.9	177.1	213.3	194.0	239.8	217.7	260.8	236.9	N/A	N/A
CSE-0202-MS			180.7	164.2	198.8	180.6	217.6	197.9	244.6	222.1	266.0	241.6	N/A	N/A
CSE-0250-MS	4HE-25	S	200.8	182.1	220.2	198.2	240.4	216.4	261.4	235.3	299.1	272.2	N/A	N/A
CSE-0251-MS			210.1	190.7	231.4	210.1	253.4	230.6	285.2	259.8	311.1	283.0	N/A	N/A
CSE-0252-MS			204.8	185.7	224.6	202.1	245.2	220.7	266.6	240.0	305.1	277.6	N/A	N/A
CSE-0300-MS	4GE-30	S	231.9	210.0	254.3	228.9	277.3	249.6	301.6	271.4	327.7	297.8	N/A	N/A
CSE-0301-MS			238.4	216.8	262.1	238.3	287.1	261.1	313.3	284.9	340.8	309.7	N/A	N/A
CSE-0302-MS			234.2	212.1	256.8	231.2	280.1	252.1	304.6	274.2	331.0	300.8	N/A	N/A
CSE-0350-MS	6HE-35	S	298.7	271.3	327.7	294.9	358.8	322.9	390.7	351.6	430.2	391.2	N/A	N/A
CSE-0351-MS			312.0	284.0	343.4	312.5	376.2	342.1	410.8	373.6	447.4	406.8	N/A	N/A
CSE-0352-MS			304.7	276.7	334.3	300.8	366.0	329.4	398.5	358.6	438.8	399.0	N/A	N/A
CSE-0400-MS	6GE-40	S	344.7	312.9	378.3	340.5	412.9	371.6	449.0	404.1	493.8	448.2	N/A	N/A
CSE-0401-MS*			360.0	327.2	395.6	359.6	432.9	393.4	472.3	429.0	513.5	466.1	N/A	N/A

### 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	5.4	67.3	110		23.6	2.5	33.5	50	18.9	2.5	27.3	45	11310
CSE-0101-MS			10.8	72.7	110			5.0	36.0	60		5.0	29.8	45	12210
CSE-0102-MS			5.4	67.3	110			2.5	33.5	50		2.5	27.3	45	11410
CSE-0150-MS	4NES-20	S	10.8	94.2	150		32.1	5.0	46.6	80	26.3	5.0	39.1	60	12210
CSE-0151-MS			10.8	94.2	150			5.0	46.6	80		5.0	39.1	60	12310
CSE-0152-MS			10.8	94.2	150			5.0	46.6	80		5.0	39.1	60	12410
CSE-0200-MS	4JE-22	S	10.8	99.6	150		34.3	5.0	49.4	80	27.1	5.0	40.1	60	12310
CSE-0201-MS			10.8	99.6	150			5.0	49.4	80		5.0	40.1	60	12310
CSE-0202-MS			10.8	99.6	150			5.0	49.4	80		5.0	40.1	60	12410
CSE-0250-MS	4HE-25	S	10.8	119.2	200		42.1	5.0	59.1	100	33.6	5.0	48.2	80	12310
CSE-0251-MS			16.2	124.6	200			7.5	61.6	100		7.5	50.7	80	13310
CSE-0252-MS			10.8	119.2	200			5.0	59.1	100		5.0	48.2	80	12410
CSE-0300-MS	4GE-30	S	10.8	138.8	225		50.0	5.0	69.0	110	40.0	5.0	56.2	90	12312
CSE-0301-MS			16.2	144.2	225			7.5	71.5	110		7.5	58.7	100	13310
CSE-0302-MS			10.8	138.8	225			5.0	69.0	110		5.0	56.2	90	12410
CSE-0350-MS	6HE-35	S	16.2	165.6	250		58.6	7.5	82.3	125	46.4	7.5	66.7	110	13310
CSE															

# CS Single Systems

## CSE Medium Temp R-407A

### CSE Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)		-5°F		0°F		5°F		10°F		15°F		20°F		
Ambient Temperature		95°F	105°F*	95°F	105°F									
Unit	Compressor	Cond	Capacity (MBH)											
CSE-0100-MQ		S	48.3	47.3	57.3	55.5	67.1	63.7	77.4	72.0	87.0	82.1	97.7	91.3
CSE-0101-MQ		O	50.4	49.5	59.8	58.1	70.0	66.6	80.8	75.3	91.2	85.8	102.7	95.7
CSE-0102-MQ	4NES-20	T	49.2	48.3	58.4	56.7	68.4	65.0	78.9	73.5	88.7	83.7	99.6	93.2
CSE-0150-MQ		S	74.7	66.9	85.3	77.6	97.2	88.5	111.1	100.4	125.1	114.4	140.3	127.3
CSE-0151-MQ		O	76.7	68.8	87.9	80.1	101.1	91.5	114.7	103.6	129.6	118.7	145.6	132.2
CSE-0152-MQ	4JE-22	T	78.2	70.2	89.7	81.7	103.1	93.3	117.0	105.7	132.2	121.1	148.6	134.8
CSE-0200-MQ		S	84.6	77.4	96.1	88.9	108.9	100.6	124.3	113.7	139.7	129.4	156.1	143.3
CSE-0201-MQ		O	86.7	79.3	98.8	91.2	112.1	103.7	128.1	117.3	144.4	133.8	161.9	148.6
CSE-0202-MQ	4HE-25	T	88.5	80.9	100.8	93.1	114.4	105.7	130.7	119.6	147.3	136.5	165.1	151.6
CSE-0250-MQ		S	99.2	90.5	112.7	104.0	127.7	117.8	145.7	133.2	163.9	151.9	183.8	168.5
CSE-0251-MQ		O	102.2	93.3	116.4	107.5	131.9	122.2	150.9	138.4	170.6	158.0	191.7	175.8
CSE-0252-MQ	4GE-30	T	101.2	92.3	115.0	106.1	130.2	120.2	148.6	135.9	167.2	154.9	187.5	171.9
CSE-0300-MQ		S	115.4	105.2	131.2	120.8	148.5	136.8	169.1	154.5	189.8	175.4	212.3	194.2
CSE-0301-MQ		O	117.5	107.2	133.5	123.2	151.2	139.7	172.8	158.1	194.7	180.3	218.2	200.4
CSE-0302-MQ	6HE-35	T	116.6	106.3	132.5	122.0	150.0	138.2	170.8	156.0	191.7	177.2	214.4	196.2
CSE-0350-MQ		S	148.0	135.1	168.3	155.1	190.7	176.0	217.4	199.0	244.7	226.6	273.7	251.3
CSE-0351-MQ		O	152.3	139.0	173.3	160.0	196.6	181.9	224.8	206.1	253.9	235.1	285.0	261.7
CSE-0352-MQ	6GE-40	T	151.0	137.8	171.7	158.2	194.5	179.5	221.8	203.0	249.6	231.2	279.2	256.4
CSE-0400-MQ		S	172.5	157.7	196.0	181.0	221.7	204.7	252.5	231.0	283.4	262.4	316.3	290.0
CSE-0401-MQ*		O	177.3	162.1	201.2	186.3	228.0	211.3	260.4	239.0	293.7	272.2	329.4	302.3

Saturated Suction Temperature (SST)		25°F		30°F		35°F		40°F		45°F		50°F		
Ambient Temperature		95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH)											
CSE-0100-MQ		S	109.0	102.1	121.3	114.8	134.4	126.3	147.1	139.6	162.1	153.9	N/A	N/A
CSE-0101-MQ		O	115.1	107.6	128.7	121.5	142.9	133.7	156.8	148.2	173.4	164.3	185.5	177.4
CSE-0102-MQ	4NES-20	T	111.2	104.2	123.8	117.1	137.1	128.8	150.1	142.4	165.4	157.0	178.1	170.3
CSE-0150-MQ		S	156.8	142.2	174.4	156.9	192.8	173.5	222.9	200.6	246.6	230.6	N/A	N/A
CSE-0151-MQ		O	163.0	148.2	181.7	167.0	201.6	183.6	235.8	220.4	256.4	239.8	274.4	259.0
CSE-0152-MQ	4JE-22	T	166.3	151.2	185.3	170.3	205.6	187.3	240.5	224.8	261.6	244.6	279.9	264.2
CSE-0200-MQ		S	173.8	159.2	192.6	173.3	212.4	191.1	235.8	212.2	260.8	241.5	N/A	N/A
CSE-0201-MQ		O	180.7	165.8	200.7	186.0	221.8	203.7	249.4	230.8	271.2	251.1	299.3	283.4
CSE-0202-MQ	4HE-25	T	184.4	169.1	204.8	189.7	226.3	207.8	254.4	235.4	276.7	256.1	305.3	289.1
CSE-0250-MQ		S	204.8	187.6	226.8	204.1	250.0	225.0	271.9	244.7	311.1	288.5	N/A	N/A
CSE-0251-MQ		O	214.3	196.4	238.3	220.6	263.5	242.1	296.6	275.4	323.5	300.0	345.8	329.5
CSE-0252-MQ	4GE-30	T	208.9	191.3	231.3	208.2	255.0	229.5	277.3	249.6	317.3	294.3	338.9	322.9
CSE-0300-MQ		S	236.5	216.3	261.9	235.7	288.4	259.6	313.7	282.3	340.8	315.7	379.8	N/A
CSE-0301-MQ		O	243.2	223.3	270.0	250.2	298.6	274.2	325.8	302.0	354.4	328.3	389.8	371.5
CSE-0302-MQ	6HE-35	T	238.9	218.5	264.5	238.1	291.3	262.1	316.8	285.1	344.2	318.8	383.6	364.1
CSE-0350-MQ		S	304.7	279.4	337.5	303.8	373.2	335.8	406.3	365.6	447.4	414.6	495.8	N/A
CSE-0351-MQ		O	318.2	292.5	353.7	328.1	391.2	359.2	427.2	396.0	465.3	431.2	504.8	480.9
CSE-0352-MQ	6GE-40	T	310.8	285.0	344.3	309.9	380.6	342.6	414.4	373.0	456.3	422.9	499.7	471.3
CSE-0400-MQ		S	351.6	322.3	389.6	350.7	429.4	386.5	467.0	420.3	513.5	475.1	568.3	N/A
CSE-0401-MQ*		O	367.2	337.0	407.5	377.6	450.2	413.1	491.2	454.7	534.0	494.1	588.6	560.6

### Electrical Specifications - Medium Temperature R-407A

Voltage		208-230/3/60			460/3/60			575/3/60			Condenser LAVF				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CSE-0100-MQ	4TES-12	S	5.4	67.3	110		2.5	33.5	50		2.5	27.3	45	11310	
CSE-0101-MQ		O	47.1	10.8	72.7	110	23.6	5.0	36.0	60	18.9	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	10.8	94.2	150		5.0	46.6	80		5.0	39.1	60	12210	
CSE-0151-MQ		O	64.3	10.8	94.2	150	32.1	5.0	46.6	80	26.3	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	10.8	99.6	150		5.0	49.4	80		5.0	40.1	60	12210	
CSE-0201-MQ		O	68.6	10.8	99.6	150	34.3	5.0	49.4	80	27.1	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	10.8	119.2	200		5.0	59.1	100		5.0	48.2	80	12310	
CSE-0251-MQ		O	84.3	16.2	124.6	200	42.1	7.5	61.6	100	33.6	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	10.8	138.8	225		5.0	69.0	110		5.0	56.2	90	12312	
CSE-0301-MQ		O	1000	16.2	144.2	225	50.0	7.5	71.5	110	40.0	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	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 –

# CS Single Systems

## CSE Medium Temp R-448A

### CSE Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)		-5°F		0°F		5°F		10°F		15°F		20°F		
Ambient Temperature		95°F	105°F*	95°F	105°F									
CSE-0100-MT	4TES-12	S	55.6	54.4	64.0	61.9	71.9	68.9	79.7	74.9	89.6	84.5	100.6	94.0
CSE-0101-MT		O	58.1	56.9	66.8	64.8	75.1	72.1	83.2	78.3	93.9	88.4	105.8	98.5
CSE-0102-MT		T	56.8	55.5	65.3	63.2	73.4	70.3	81.3	76.4	91.4	86.2	102.6	95.9
CSE-0150-MT	4NES-20	S	77.0	69.0	88.9	80.0	101.2	92.1	114.4	104.4	128.9	117.8	144.5	131.0
CSE-0151-MT		O	79.1	71.0	91.6	82.5	105.2	95.2	118.2	107.7	133.5	122.2	150.0	136.1
CSE-0152-MT		T	80.7	72.4	93.4	84.2	107.3	97.1	120.6	109.9	136.2	124.7	153.0	138.8
CSE-0200-MT	4JE-22	S	87.3	79.8	100.1	91.6	113.4	104.6	128.1	118.2	143.9	133.2	160.8	147.5
CSE-0201-MT		O	89.5	81.8	102.9	94.0	116.8	107.8	132.0	122.0	148.7	137.8	166.7	153.0
CSE-0202-MT		T	91.3	83.4	105.0	95.9	119.1	110.0	134.6	124.4	151.7	140.5	170.0	156.0
CSE-0250-MT	4HE-25	S	102.3	93.4	117.4	107.2	132.9	122.6	150.1	138.5	168.8	156.3	189.3	173.5
CSE-0251-MT		O	105.4	96.2	121.2	110.8	137.4	127.1	155.4	143.9	175.7	162.6	197.4	181.0
CSE-0252-MT		T	104.4	95.2	119.7	109.3	135.6	125.0	153.1	141.3	172.2	159.5	193.1	176.9
CSE-0300-MT	4GE-30	S	119.1	108.5	136.7	124.5	154.6	142.3	174.2	160.7	195.5	180.6	218.6	199.9
CSE-0301-MT		O	121.2	110.6	139.1	127.0	157.5	145.3	178.0	164.4	200.5	185.6	224.6	206.3
CSE-0302-MT		T	120.3	109.6	138.1	125.8	156.2	143.8	176.0	162.3	197.4	182.4	220.8	201.9
CSE-0350-MT	6HE-35	S	152.7	139.3	175.3	159.9	198.6	183.1	224.0	207.0	252.0	233.3	281.8	258.7
CSE-0351-MT		O	157.1	143.4	180.5	164.9	204.7	189.2	231.6	214.3	261.5	242.0	293.5	269.4
CSE-0352-MT		T	155.7	142.1	178.8	163.1	202.5	186.8	228.5	211.1	257.1	238.0	287.5	263.9
CSE-0400-MT	6GE-40	S	178.0	162.7	204.2	186.5	230.9	213.0	260.2	240.2	291.9	270.2	325.7	298.5
CSE-0401-MT*		O	182.9	167.2	209.6	192.0	237.4	219.8	268.3	248.6	302.5	280.2	339.1	311.2

Saturated Suction Temperature (SST)		25°F		30°F		35°F		40°F		45°F		50°F		
Ambient Temperature		95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
CSE-0100-MT	4TES-12	S	111.2	104.1	123.7	117.0	135.7	128.7	148.5	140.9	163.7	155.3	N/A	N/A
CSE-0101-MT		O	117.3	109.7	131.2	123.8	144.3	136.2	158.3	149.6	175.0	165.8	187.3	179.1
CSE-0102-MT		T	113.4	106.2	126.2	119.3	138.4	131.2	151.5	143.7	167.0	158.4	179.8	171.9
CSE-0150-MT	4NES-20	S	159.8	145.0	177.8	160.0	194.7	175.2	227.2	204.5	251.3	235.0	N/A	N/A
CSE-0151-MT		O	166.2	151.1	185.2	170.1	203.5	187.1	240.3	224.6	261.4	244.3	279.7	263.9
CSE-0152-MT		T	169.5	154.1	188.9	173.5	207.6	190.9	245.1	229.1	266.6	249.2	285.3	269.2
CSE-0200-MT	4JE-22	S	177.2	162.3	196.4	176.7	214.4	193.0	238.0	214.2	263.3	243.7	N/A	N/A
CSE-0201-MT		O	184.3	169.1	204.6	189.5	224.0	207.6	251.8	233.0	273.8	253.5	296.4	283.4
CSE-0202-MT		T	188.0	172.4	208.7	193.3	228.4	211.7	256.8	237.6	279.3	258.6	302.4	289.1
CSE-0250-MT	4HE-25	S	208.8	191.2	231.2	208.1	252.4	227.2	274.5	247.0	314.1	291.2	N/A	N/A
CSE-0251-MT		O	218.5	200.2	243.0	224.8	266.1	246.7	299.5	277.9	326.6	302.9	342.5	329.5
CSE-0252-MT		T	213.0	195.0	235.8	212.3	257.5	231.7	280.0	252.0	320.3	297.0	335.7	322.9
CSE-0300-MT	4GE-30	S	241.2	220.5	267.0	240.3	291.2	262.0	316.7	285.0	344.1	318.6	376.2	N/A
CSE-0301-MT		O	247.9	227.6	275.2	255.0	301.5	279.4	329.0	304.8	357.8	331.4	386.1	371.5
CSE-0302-MT		T	243.6	222.7	269.7	242.7	294.1	264.7	319.8	287.9	347.5	321.8	379.9	364.1
CSE-0350-MT	6HE-35	S	310.6	284.9	344.1	309.7	376.7	339.1	410.2	369.2	451.7	418.5	491.0	N/A
CSE-0351-MT		O	324.5	298.2	360.6	334.4	395.0	366.0	431.3	399.8	469.8	435.3	500.0	480.9
CSE-0352-MT		T	316.9	290.6	351.0	315.9	384.3	345.8	418.4	376.5	460.7	426.9	495.0	471.3
CSE-0400-MT	6GE-40	S	358.5	328.5	397.2	357.5	433.5	390.2	471.5	424.3	518.4	479.5	562.9	N/A
CSE-0401-MT*		O	374.4	343.6	415.4	384.8	454.5	420.9	495.9	459.0	539.2	498.7	583.0	560.6

### 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	5.4	67.3	110		2.5	33.5	50		2.5	27.3	45		11310	
CSE-0101-MT		O	47.1	10.8	72.7	110	23.6	5.0	36.0	60	18.9	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	10.8	94.2	150		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		26.3	5.0	39.1	60		12310
CSE-0152-MT		T	10.8	94.2	150		5.0	46.6	80		26.3	5.0	39.1	60		12410
CSE-0200-MT	4JE-22	S	10.8	99.6	150		5.0	49.4	80		27.1	5.0	40.1	60		12210
CSE-0201-MT		O	68.6	10.8	99.6	150	34.3	5.0	49.4	80	27.1	5.0	40.1	60		12310
CSE-0202-MT		T	10.8	99.6	150		5.0	49.4	80		27.1	5.0	40.1	60		12410
CSE-0250-MT	4HE-25	S	10.8	119.2	200		5.0	59.1	100		33.6	7.5	50.7	80		13310
CSE-0251-MT		O	16.2	124.6	200		42.1	7.5	61.6	100	33.6	7.5	50.7	80		13310
CSE-0252-MT		T	10.8	119.2	200		5.0	59.1	100		33.6	7.5	50.7	80		12410
CSE-0300-MT	4GE-30	S	10.8	138.8	225		5.0	69.0	110		40.0	7.5	58.7	100		12312
CSE-0301-MT		O	16.2	144.2	225		50.0	7.5	71.5	110	40.0	7.5	58.7	100		13310
CSE-0302-MT		T	10.8	138.8	225		5.0	69.0	110		40.0	7.5	56.2	90		12410
CSE-0350-MT	6HE-35	S	16.2	165.6	250		58.6	7.5	82.3	125	46.4	10.0	69.2	110		13310
CSE-0351-MT		O	21.6	170.5	250		58.6	10.0	84.8	125	46.4	10.0	69.2	110		22310
CSE-0352-MT		T	16.2	165.6	250		7.5	82.3	125		46.4	7.5	66.7	110		13410
CSE-0400-MT	6GE-40	S	16.2	215.6	350		78.6	7.5	107.3	175	62.9	10.0	87.3	150		13310
CSE-0401-MT*		O	21.6	221.0	350		78.6	10.0	109.8	175	62.9	1				

# CS Single Systems

## CSB Medium Temp R-404A

### CSB Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)															
CSB-0100-MS	4TES-9	S	55.1	50.8	62.1	57.3	69.8	64.4	78.1	72.0	87.0	80.5	96.7	89.6	106.9	99.1	117.8	109.3
CSB-0101-MS		O	57.6	53.1	64.9	59.8	72.9	67.3	81.6	75.3	91.2	84.2	101.7	93.8	112.8	104.4	125.0	115.7
CSB-0102-MS		T	56.2	51.8	63.4	58.4	71.2	65.6	79.7	73.5	88.7	82.1	98.6	91.3	109.0	101.1	120.2	111.5
CSB-0150-MS	4NES-14	S	78.6	69.7	88.9	79.2	100.2	89.4	112.2	100.4	125.1	112.2	138.9	124.8	153.7	138.1	169.3	152.4
CSB-0151-MS		O	80.7	71.7	91.6	81.7	104.2	92.4	115.9	103.6	129.6	116.4	144.2	129.6	159.8	143.9	176.4	159.0
CSB-0152-MS		T	82.3	73.1	93.4	83.3	106.3	94.2	118.2	105.7	132.2	118.7	147.1	132.2	163.0	146.8	179.9	162.2
CSB-0200-MS	4JE-15	S	89.0	80.6	100.1	90.7	112.3	101.6	125.6	113.7	139.7	126.9	154.6	140.5	170.4	154.6	187.0	168.3
CSB-0201-MS		O	91.3	82.6	102.9	93.1	115.6	104.7	129.4	117.3	144.4	131.2	160.3	145.7	177.2	161.0	194.9	177.1
CSB-0202-MS		T	93.1	84.3	105.0	95.0	117.9	106.8	132.0	119.6	147.3	133.8	163.5	148.6	180.7	164.2	198.8	180.6
CSB-0250-MS	4HE-18	S	104.4	94.3	117.4	106.1	131.6	119.0	147.2	133.2	163.9	148.9	182.0	165.2	200.8	182.1	220.2	198.2
CSB-0251-MS		O	107.6	97.2	121.2	109.7	136.0	123.4	152.4	138.4	170.6	154.9	189.8	172.4	210.1	190.7	231.4	210.1
CSB-0252-MS		T	106.5	96.2	119.7	108.2	134.2	121.4	150.1	135.9	167.2	151.9	185.6	168.5	204.8	185.7	224.6	202.1
CSB-0300-MS	4GE-23	S	121.5	109.6	136.7	123.3	153.1	138.2	170.8	154.5	189.8	172.0	210.2	190.4	231.9	210.0	254.3	228.9
CSB-0301-MS		O	123.7	111.7	139.1	125.7	155.9	141.1	174.5	158.1	194.7	176.8	216.0	196.5	238.4	216.8	262.1	238.3
CSB-0302-MS		T	122.7	110.7	138.1	124.5	154.6	139.6	172.5	156.0	191.7	173.7	212.3	192.3	234.2	212.1	256.8	231.2
CSB-0350-MS	6HE-28	S	155.8	140.7	175.3	158.3	196.6	177.8	219.6	199.0	244.7	222.2	271.0	246.4	298.7	271.3	327.7	294.9
CSB-0351-MS		O	160.3	144.8	180.5	163.3	202.7	183.7	227.1	206.1	253.9	230.5	282.2	256.6	312.0	284.0	343.4	312.5
CSB-0352-MS		T	158.9	143.5	178.8	161.5	200.5	181.4	224.0	203.0	249.6	226.6	276.4	251.3	304.7	276.7	334.3	300.8
CSB-0400-MS	6GE-34	S	181.6	164.3	204.2	184.7	228.6	206.8	255.1	231.0	283.4	257.3	313.2	284.3	344.7	312.9	378.3	340.5
CSB-0401-MS*		O	186.6	168.9	209.6	190.1	235.0	213.4	263.0	239.0	293.7	266.9	326.1	296.4	360.0	327.2	395.6	359.6

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.

### Electrical Specifications - Medium Temperature R-404A

Voltage			208-230/3/60			460/3/60			575/3/60			Condenser LAVF				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD		
CSB-0100-MS	4TES-9	S	5.4	47.7	70		2.5	23.6	40		2.5	20.7	30	11310		
CSB-0101-MS		O	31.4	10.8	53.1	80	15.7	5.0	26.1	40	13.6	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	10.8	69.2	110		5.0	34.1	50		5.0	28.3	45	12210		
CSB-0151-MS		O	44.3	10.8	69.2	110	22.1	5.0	34.1	50	17.7	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	10.8	83.4	125		5.0	41.4	70		5.0	34.1	50	12210		
CSB-0201-MS		O	55.7	10.8	83.4	125	27.9	5.0	41.4	70	22.3	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	10.8	89.2	125		5.0	44.1	70		5.0	36.3	60	12310		
CSB-0251-MS		O	60.3	16.2	94.6	150	30.1	7.5	46.6	70	24.1	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	10.8	94.2	150		5.0	46.6	80		25.7	5.0	38.3	60	12312	
CSB-0301-MS		O	64.3	16.2	99.6	150	32.1	7.5	49.1	80		5.0	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	16.2	127.2	200		43.2	7.5	63.0	100		7.5	52.0	80	13310	
CSB-0351-MS		O	86.4	21.6	132.6	200		7.5	63.0	100		34.6	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	94.3	21.6	142.5	225		10.0	70.4	110			10.0	57.6	90	22410

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or \* at the end of the model) – meets T24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "T".

# CS Single Systems

## CSB Medium Temp R-407A

### CSB Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)				-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F	
Ambient Temperature																			
Unit	Compressor	Cond	Capacity (MBH)																
CSB-0100-MQ	4TES-9	S	48.3	47.3	57.3	55.5	67.1	63.7	77.4	72.0	87.0	82.1	97.7	91.3	109.0	102.1	121.3	114.8	
CSB-0101-MQ		O	50.4	49.5	59.8	58.1	70.0	66.6	80.8	75.3	91.2	85.8	102.7	95.7	115.1	107.6	128.7	121.5	
CSB-0102-MQ		T	49.2	48.3	58.4	56.7	68.4	65.0	78.9	73.5	88.7	83.7	99.6	93.2	111.2	104.2	123.8	117.1	
CSB-0150-MQ	4NES-14	S	74.7	66.9	85.3	77.6	97.2	88.5	111.1	100.4	125.1	114.4	140.3	127.3	156.8	142.2	174.4	156.9	
CSB-0151-MQ		O	76.7	68.8	87.9	80.1	101.1	91.5	114.7	103.6	129.6	118.7	145.6	132.2	163.0	148.2	181.7	167.0	
CSB-0152-MQ		T	78.2	70.2	89.7	81.7	103.1	93.3	117.0	105.7	132.2	121.1	148.6	134.8	166.3	151.2	185.3	170.3	
CSB-0200-MQ	4JE-15	S	84.6	77.4	96.1	88.9	108.9	100.6	124.3	113.7	139.7	129.4	156.1	143.3	173.8	159.2	192.6	173.3	
CSB-0201-MQ		O	86.7	79.3	98.8	91.2	112.1	103.7	128.1	117.3	144.4	133.8	161.9	148.6	180.7	165.8	200.7	186.0	
CSB-0202-MQ		T	88.5	80.9	100.8	93.1	114.4	105.7	130.7	119.6	147.3	136.5	165.1	151.6	184.4	169.1	204.8	189.7	
CSB-0250-MQ	4HE-18	S	99.2	90.5	112.7	104.0	127.7	117.8	145.7	133.2	163.9	151.9	183.8	168.5	204.8	187.6	226.8	204.1	
CSB-0251-MQ		O	102.2	93.3	116.4	107.5	131.9	122.2	150.9	138.4	170.6	158.0	191.7	175.8	214.3	196.4	238.3	220.6	
CSB-0252-MQ		T	101.2	92.3	115.0	106.1	130.2	120.2	148.6	135.9	167.2	154.9	187.5	171.9	208.9	191.3	231.3	208.2	
CSB-0300-MQ	4GE-23	S	115.4	105.2	131.2	120.8	148.5	136.8	169.1	154.5	189.8	175.4	212.3	194.2	236.5	216.3	261.9	235.7	
CSB-0301-MQ		O	117.5	107.2	133.5	123.2	151.2	139.7	172.8	158.1	194.7	180.3	218.2	200.4	243.2	223.3	270.0	250.2	
CSB-0302-MQ		T	116.6	106.3	132.5	122.0	150.0	138.2	170.8	156.0	191.7	177.2	214.4	196.2	238.9	218.5	264.5	238.1	
CSB-0350-MQ	6HE-28	S	148.0	135.1	168.3	155.1	190.7	176.0	217.4	199.0	244.7	226.6	273.7	251.3	304.7	279.4	337.5	303.8	
CSB-0351-MQ		O	152.3	139.0	173.3	160.0	196.6	181.9	224.8	206.1	253.9	235.1	285.0	261.7	318.2	292.5	353.7	328.1	
CSB-0352-MQ		T	151.0	137.8	171.7	158.2	194.5	179.5	221.8	203.0	249.6	231.2	279.2	256.4	310.8	285.0	344.3	309.9	
CSB-0400-MQ	6GE-34	S	172.5	157.7	196.0	181.0	221.7	204.7	252.5	231.0	283.4	262.4	316.3	290.0	351.6	322.3	389.6	350.7	
CSB-0401-MQ*		O	177.3	162.1	201.2	186.3	228.0	211.3	260.4	239.0	293.7	272.2	329.4	303.2	367.2	337.0	407.5	377.6	

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.

### Electrical Specifications - Medium Temperature R-407A

Voltage	208-230/3/60				460/3/60				575/3/60				Condenser LAVF			
	Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
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	12210
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		7.5	52.0	80	13410
CSB-0352-MQ		T		16.2	127.2	200			7.5	63.0	100		7.5	52.0	80	12230
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

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 "O" at the end of the model nomenclature with an "F".

# CS Single Systems

## CSB Medium Temp R-448A

### CSB Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)		-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F		
Ambient Temperature Unit	Compressor	Cond	Capacity (MBH)	95°F	105°F*	95°F	105°F											
CSB-0100-MT	4TES-9	S	55.6	54.4	64.0	61.9	71.9	68.9	79.7	74.9	89.6	84.5	100.6	94.0	111.2	104.1	123.7	117.0
CSB-0101-MT		O	58.1	56.9	66.8	64.8	75.1	72.1	83.2	78.3	93.9	88.4	105.8	98.5	117.3	109.7	131.2	123.8
CSB-0102-MT		T	56.8	55.5	65.3	63.2	73.4	70.3	81.3	76.4	91.4	86.2	102.6	95.9	113.4	106.2	126.2	119.3
CSB-0150-MT	4NES-14	S	77.0	69.0	88.9	80.0	101.2	92.1	114.4	104.4	128.9	117.8	144.5	131.0	159.8	145.0	177.8	160.0
CSB-0151-MT		O	79.1	71.0	91.6	82.5	105.2	95.2	118.2	107.7	133.5	122.2	150.0	136.1	166.2	151.1	185.2	170.1
CSB-0152-MT		T	80.7	72.4	93.4	84.2	107.3	97.1	120.6	109.9	136.2	124.7	153.0	138.8	169.5	154.1	188.9	173.5
CSB-0200-MT	4JE-15	S	87.3	79.8	100.1	91.6	113.4	104.6	128.1	118.2	143.9	133.2	160.8	147.5	177.2	162.3	196.4	176.7
CSB-0201-MT		O	89.5	81.8	102.9	94.0	116.8	107.8	132.0	122.0	148.7	137.8	166.7	153.0	184.3	169.1	204.6	189.5
CSB-0202-MT		T	91.3	83.4	105.0	95.9	119.1	110.0	134.6	124.4	151.7	140.5	170.0	156.0	188.0	172.4	208.7	193.3
CSB-0250-MT	4HE-18	S	102.3	93.4	117.4	107.2	132.9	122.6	150.1	138.5	168.8	156.3	189.3	173.5	208.8	191.2	231.2	208.1
CSB-0251-MT		O	105.4	96.2	121.2	110.8	137.4	127.1	155.4	143.9	175.7	162.6	197.4	181.0	218.5	200.2	243.0	224.8
CSB-0252-MT		T	104.4	95.2	119.7	109.3	135.6	125.0	153.1	141.3	172.2	159.5	193.1	176.9	213.0	195.0	235.8	212.3
CSB-0300-MT	4GE-23	S	119.1	108.5	136.7	124.5	154.6	142.3	174.2	160.7	195.5	180.6	218.6	199.9	241.2	220.5	267.0	240.3
CSB-0301-MT		O	121.2	110.6	139.1	127.0	157.5	145.3	178.0	164.4	200.5	185.6	224.6	206.3	247.9	227.6	275.2	255.0
CSB-0302-MT		T	120.3	109.6	138.1	125.8	156.2	143.8	176.0	162.3	197.4	182.4	220.8	201.9	243.6	222.7	269.7	242.7
CSB-0350-MT	6HE-28	S	152.7	139.3	175.3	159.9	198.6	183.1	224.0	207.0	252.0	233.3	281.8	258.7	310.6	284.9	344.1	309.7
CSB-0351-MT		O	157.1	143.4	180.5	164.9	204.7	189.2	231.6	214.3	261.5	242.0	293.5	269.4	324.5	298.2	360.6	334.4
CSB-0352-MT		T	155.7	142.1	178.8	163.1	202.5	186.8	228.5	211.1	257.1	238.0	287.5	263.9	316.9	290.6	351.0	315.9
CSB-0400-MT	6GE-34	S	178.0	162.7	204.2	186.5	230.9	213.0	260.2	240.2	291.9	270.2	325.7	298.5	358.5	328.5	397.2	357.5
CSB-0401-MT*		O	182.9	167.2	209.6	192.0	237.4	219.8	268.3	248.6	302.5	280.2	339.1	311.2	374.4	343.6	415.4	384.8

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.

### Electrical Specifications - Medium Temperature R-448A

Voltage			208-230/3/60				460/3/60				575/3/60				Condenser LAVF
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CSB-0100-MT	4TES-9	S	5.4	47.7	70		2.5	23.6	40		13.6	2.5	20.7	30	11310
CSB-0101-MT		O	31.4	10.8	53.1	80	15.7	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	10.8	69.2	110		5.0	34.1	50		17.7	5.0	28.3	45	12210
CSB-0151-MT		O	44.3	10.8	69.2	110	22.1	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	10.8	83.4	125		5.0	41.4	70		22.3	5.0	34.1	50	12210
CSB-0201-MT		O	55.7	10.8	83.4	125	27.9	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	10.8	89.2	125		5.0	44.1	70		24.1	5.0	36.3	60	12310
CSB-0251-MT		O	60.3	16.2	94.6	150	30.1	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	10.8	94.2	150		5.0	46.6	80		25.7	5.0	38.3	60	12312
CSB-0301-MT		O	64.3	16.2	99.6	150	32.1	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	16.2	127.2	200		7.5	63.0	100		34.6	7.5	52.0	80	13310
CSB-0351-MT		O	86.4	21.6	132.6	200	43.2	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	16.2	137.1	225		7.5	67.9	110		37.1	7.5	55.1	90	13310
CSB-0401-MT*		O	94.3	21.6	142.5	225	47.1	10.0	70.4	110		10.0	57.6	90	22410

- 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.
- 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.

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

## CSD Low Temp R-404A

### CSD Performance Data - Low Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH)								
CSD-0150-LS*	4DKNF63KE	S	40.9	36.6	48.3	43.5	55.6	50.3	63.2	57.3	
CSD-0151-LS		O	41.7	37.5	49.3	44.7	56.9	51.8	64.8	59.1	
CSD-0220-LS		S	48.9	41.9	57.5	50.5	66.8	59.3	76.4	68.3	
CSD-0221-LS		O	49.5	42.8	58.6	51.6	68.1	60.6	77.9	69.8	
CSD-0222-LS		T	50.5	43.7	59.8	52.6	69.5	61.8	79.5	71.2	
CSD-0270-LS		S	60.0	52.4	70.4	62.4	81.9	73.2	94.4	85.0	
CSD-0271-LS		O	60.7	53.2	71.2	63.2	82.9	74.3	95.6	86.3	
CSD-0272-LS		T	61.2	53.4	71.8	63.6	83.5	74.7	96.3	86.7	
CSD-0300-LS		S	68.0	59.1	79.6	70.3	92.2	82.2	105.8	94.8	
CSD-0301-LS		O	69.4	60.5	81.3	72.0	94.3	84.2	108.3	97.2	
CSD-0302-LS		T	69.0	60.3	81.2	71.7	94.0	83.8	107.9	96.7	

Saturated Suction Temperature (SST)			-20°F		-15°F		-10°F		-5°F		0°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)									
CSD-0150-LS*	4DKNF63KE	S	71.1	64.5	79.4	72.1	88.4	80.3	98.1	89.1	N/A	N/A
CSD-0151-LS		O	73.1	66.7	81.9	74.8	91.5	83.5	101.9	93.0	N/A	N/A
CSD-0220-LS		S	86.3	77.6	96.8	87.3	107.8	97.5	119.5	108.1	N/A	N/A
CSD-0221-LS		O	88.3	79.4	99.2	89.5	110.7	100.0	122.9	111.1	N/A	N/A
CSD-0222-LS		T	90.1	81.0	101.2	91.3	112.9	102.0	125.4	113.3	N/A	N/A
CSD-0270-LS		S	107.9	97.5	122.2	110.7	137.2	124.5	152.9	138.8	N/A	N/A
CSD-0271-LS		O	109.4	99.0	124.0	112.6	139.5	126.8	155.7	141.6	N/A	N/A
CSD-0272-LS		T	110.1	99.5	124.6	112.9	139.9	127.0	156.0	142.3	N/A	N/A
CSD-0300-LS		S	120.3	108.1	135.8	122.3	152.4	137.2	169.9	152.9	N/A	N/A
CSD-0301-LS		O	123.4	111.1	139.7	126.0	157.1	141.7	175.8	158.5	N/A	N/A
CSD-0302-LS		T	122.7	110.3	138.5	124.7	155.4	139.9	173.3	156.0	N/A	N/A

### 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		S		10.8	94.2	150		5.0	46.7	80		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		S		10.8	114.7	175		5.0	56.9	90		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		S		10.8	133.3	225		5.0	66.3	110		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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH)								
CSD-0150-LQ*	4DKNF63KE	S	33.9	30.0	40.6	36.5	47.8	43.3	56.2	50.4	
CSD-0151-LQ		O	34.6	30.8	41.4	37.1	49.5	44.5	57.0	52.6	
CSD-0220-LQ	4DJNF76KE	S	43.5	38.5	50.0	43.9	58.1	51.6	68.0	59.4	
CSD-0221-LQ		O	44.1	38.9	50.4	44.9	59.9	53.3	69.3	61.4	
CSD-0222-LQ		T	44.9	39.7	51.4	45.8	61.1	54.4	70.7	62.7	
CSD-0270-LQ	6DHNF93KE	S	46.2	38.3	58.4	49.3	70.4	61.5	83.1	73.1	
CSD-0271-LQ		O	46.7	38.8	59.1	50.6	71.3	62.4	84.1	74.2	
CSD-0272-LQ		T	47.1	39.0	59.6	50.8	71.8	62.7	84.7	74.6	
CSD-0300-LQ	6DJNF11ME	S	54.4	44.3	69.3	58.3	83.9	72.3	98.4	87.2	
CSD-0301-LQ		O	56.9	46.6	70.7	60.5	85.8	74.9	101.8	89.4	
CSD-0302-LQ		T	55.5	45.2	70.6	59.5	85.6	73.8	100.4	89.0	

**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.

Saturated Suction Temperature (SST)			-20°F		-15°F		-10°F		-5°F		0°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Capacity (MBH)										
CSD-0150-LQ*	4DKNF63KE	64.7	58.1	73.0	67.1	82.2	75.5	92.2	83.8	N/A	N/A	N/A
CSD-0151-LQ		65.8	60.0	74.5	68.8	85.1	77.7	95.8	87.4	N/A	N/A	N/A
CSD-0220-LQ	4DJNF76KE	78.5	70.6	91.0	81.2	104.6	93.6	119.5	108.1	N/A	N/A	N/A
CSD-0221-LQ		80.4	71.5	93.2	84.1	107.4	97.0	122.9	111.1	N/A	N/A	N/A
CSD-0222-LQ		82.0	72.9	95.1	85.8	109.5	98.9	125.4	113.3	N/A	N/A	N/A
CSD-0270-LQ	6DHNF93KE	96.0	85.8	111.2	100.7	127.6	115.8	145.3	130.5	N/A	N/A	N/A
CSD-0271-LQ		97.4	87.1	111.6	101.3	128.3	116.7	146.4	133.1	N/A	N/A	N/A
CSD-0272-LQ		98.0	87.5	113.4	102.8	130.1	118.1	148.2	134.4	N/A	N/A	N/A
CSD-0300-LQ	6DJNF11ME	115.5	102.7	133.1	118.6	150.9	137.2	171.6	156.0	N/A	N/A	N/A
CSD-0301-LQ		117.2	105.5	135.5	123.5	155.5	140.3	177.6	161.7	N/A	N/A	N/A
CSD-0302-LQ		116.6	104.7	134.4	121.0	153.9	139.9	175.0	159.1	N/A	N/A	N/A

### 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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-407A capacity and electrical data for R-407F while replacing the "0" at the end of the model nomenclature with an "F".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CS Single Systems

## CSD Low Temp R-448A

### CSD Performance Data - Low Temperature R-448A - Total Capacity

**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.**

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)							
CSD-0150-LT*	4DKNF63KE	S	34.8	29.6	42.5	37.0	50.0	44.8	58.1	52.1
CSD-0151-LT		O	35.4	30.4	42.9	38.0	51.2	45.6	59.0	53.8
CSD-0220-LT	4DJNF76KE	S	41.1	33.5	50.6	42.4	60.8	52.2	71.1	61.5
CSD-0221-LT		O	42.1	34.2	51.6	43.9	62.0	53.9	72.4	63.5
CSD-0222-LT		T	42.9	34.9	52.6	44.7	63.2	55.0	73.9	64.8
CSD-0270-LT	6DHNF93KE	S	49.8	41.4	61.2	51.8	72.9	63.7	85.9	75.7
CSD-0271-LT		O	50.4	42.0	61.9	52.5	73.8	64.6	87.0	76.8
CSD-0272-LT		T	50.8	42.2	62.5	52.8	74.3	65.0	87.6	77.2
CSD-0300-LT	6DJNF11ME	S	58.5	46.7	72.4	61.2	86.7	74.8	102.6	90.1
CSD-0301-LT		O	60.4	49.6	74.8	62.6	89.6	77.5	106.1	93.3
CSD-0302-LT		T	59.6	47.6	73.9	62.4	88.4	76.3	104.7	91.9

Saturated Suction Temperature (SST)			-20°F		-15°F		-10°F		-5°F		0°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)									
CSD-0150-LT*	4DKNF63KE	S	66.1	60.6	75.4	69.2	85.7	77.9	95.2	86.4	N/A	N/A
CSD-0151-LT		O	68.7	62.0	77.0	71.1	87.8	80.2	97.8	90.2	N/A	N/A
CSD-0220-LT	4DJNF76KE	S	82.0	72.9	93.9	83.8	106.7	96.5	121.9	111.3	N/A	N/A
CSD-0221-LT		O	83.9	73.8	96.2	86.8	110.7	100.0	125.4	114.4	N/A	N/A
CSD-0222-LT		T	85.6	75.3	98.1	88.6	112.9	102.0	127.9	116.7	N/A	N/A
CSD-0270-LT	6DHNF93KE	S	100.3	88.7	114.9	104.1	131.7	118.3	149.8	136.0	N/A	N/A
CSD-0271-LT		O	100.6	90.1	116.6	105.8	133.9	120.5	151.0	137.4	N/A	N/A
CSD-0272-LT		T	102.4	90.5	117.2	106.1	134.3	120.6	152.8	138.7	N/A	N/A
CSD-0300-LT	6DJNF11ME	S	119.1	105.9	137.2	122.3	157.0	141.3	178.4	160.5	N/A	N/A
CSD-0301-LT		O	122.2	110.0	141.1	127.3	161.8	146.0	182.8	166.4	N/A	N/A
CSD-0302-LT		T	121.5	108.1	139.9	124.7	160.1	144.1	182.0	163.8	N/A	N/A

### 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)									
CSE-0150-LS*			S	34.2	29.8	41.2	36.2	48.8	43.2	57.0	50.8	65.9
CSE-0151-LS	4HE-25	O	35.1	30.6	42.3	37.3	50.2	44.5	58.8	52.4	68.3	61.1
CSE-0220-LS		S	40.8	35.4	48.9	42.9	58.0	51.1	67.8	60.1	78.4	70.0
CSE-0221-LS	4GE-30	O	41.8	36.3	50.2	44.1	59.5	52.6	69.7	61.9	80.7	72.1
CSE-0222-LS		T	42.6	37.0	51.2	45.0	60.7	53.7	71.1	63.1	82.3	73.5
CSE-0270-LS	6HE-35	S	52.0	45.7	62.5	55.5	74.2	66.2	86.9	77.8	100.8	90.4
CSE-0271-LS		O	52.4	46.0	63.1	55.9	74.9	66.8	87.7	78.5	101.8	91.3
CSE-0272-LS	6GE-40	T	53.0	46.6	63.8	56.6	75.7	67.5	88.6	79.4	102.8	92.2
CSE-0300-LS		S	62.2	54.3	74.2	65.0	87.5	77.2	102.0	91.0	118.3	105.9
CSE-0301-LS	6GE-40	O	63.2	55.2	75.5	66.2	89.1	78.7	104.1	92.8	120.8	108.3
CSE-0302-LS		T	62.8	54.8	74.9	65.7	88.4	78.0	103.5	92.4	120.1	107.5

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)							
CSE-0150-LS*			S	75.7	67.9	86.0	77.5	97.2	87.7	109.1
CSE-0151-LS	4HE-25	O	78.6	70.5	89.6	80.6	101.4	91.6	114.2	103.2
CSE-0220-LS		S	90.1	80.6	102.4	92.0	115.7	104.1	129.8	117.2
CSE-0221-LS	4GE-30	O	92.8	83.2	105.6	95.1	119.5	107.9	134.6	121.7
CSE-0222-LS		T	94.7	84.9	107.7	97.0	121.9	110.1	137.3	124.1
CSE-0270-LS	6HE-35	S	116.1	104.2	132.3	119.0	149.5	134.8	167.9	151.9
CSE-0271-LS		O	117.3	105.3	133.9	120.4	151.5	136.6	170.3	154.0
CSE-0272-LS	6GE-40	T	118.4	106.3	134.9	121.4	152.5	137.5	171.3	154.9
CSE-0300-LS		S	135.9	121.9	154.7	139.1	174.4	157.4	195.3	176.5
CSE-0301-LS	6GE-40	O	138.9	125.0	158.6	142.9	179.3	162.0	201.1	182.0
CSE-0302-LS		T	137.9	124.3	157.8	141.9	177.9	160.5	199.2	180.0

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

### 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	6HE-35	T		10.8	138.8	225		5.0	69.0	110	46.4	5.0	64.2	110
CSE-0270-LS		S	117.1	10.8	160.2	250	58.6	5.0	79.8	125		7.5	66.7	110
CSE-0271-LS	6GE-40	O		16.2	165.6	250		7.5	82.3	125	62.9	5.0	64.2	110
CSE-0272-LS		T		10.8	160.2	250		5.0	79.8	125		5.0	84.8	125
CSE-0300-LS	6GE-40	S	157.1	10.8	210.2	350	78.6	5.0	104.8	175	62.9	7.5	87.3	150
CSE-0301-LS		O		16.2	215.6	350		7.5	107.3	175		5.0	84.8	125
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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
- Compressor head cooling fan is included for all low temperature applications.

# CS Single Systems

## CSE Low Temp R-407A

### CSE Performance Data - Low Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)									
CSE-0150-LQ*	4HE-25	S	N/A	N/A	35.0	N/A	42.9	37.2	51.3	45.2	60.6	53.7
CSE-0151-LQ		O	N/A	N/A	36.0	N/A	44.2	38.3	52.9	46.6	62.8	55.6
CSE-0220-LQ	4GE-30	S	N/A	N/A	41.6	N/A	51.0	43.9	61.0	53.5	72.1	63.7
CSE-0221-LQ		O	N/A	N/A	42.7	N/A	52.4	45.2	62.7	55.1	74.2	65.6
CSE-0222-LQ	6HE-35	T	N/A	N/A	43.5	N/A	53.4	46.1	64.0	56.2	75.7	66.9
CSE-0270-LQ		S	N/A	N/A	53.1	N/A	65.3	56.9	78.2	69.2	92.7	82.3
CSE-0271-LQ	6HE-35	O	N/A	N/A	53.6	N/A	65.9	57.4	78.9	69.9	93.7	83.1
CSE-0272-LQ		T	N/A	N/A	54.2	N/A	66.6	58.1	79.8	70.6	94.6	83.9
CSE-0300-LQ	6GE-40	S	N/A	N/A	63.1	N/A	77.0	66.4	91.8	81.0	108.8	96.4
CSE-0301-LQ		O	N/A	N/A	64.2	N/A	78.4	67.7	93.7	82.6	111.1	98.6
CSE-0302-LQ		T	N/A	N/A	63.7	N/A	77.8	67.1	93.2	82.2	110.5	97.8

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)							
CSE-0150-LQ*	4HE-25	S	71.2	63.1	81.7	73.6	94.3	85.9	106.9	96.7
CSE-0151-LQ		O	73.9	65.6	85.1	76.6	98.4	89.8	111.9	101.1
CSE-0220-LQ	4GE-30	S	84.7	75.0	97.3	87.4	112.2	102.0	127.2	114.9
CSE-0221-LQ		O	87.2	77.4	100.3	90.3	115.9	105.7	131.9	119.3
CSE-0222-LQ	6HE-35	T	89.0	78.9	102.3	92.2	118.2	107.9	134.5	121.7
CSE-0270-LQ		S	109.1	96.9	125.7	113.1	145.0	132.1	164.5	148.9
CSE-0271-LQ	6HE-35	O	110.3	97.9	127.2	114.4	147.0	133.9	166.9	150.9
CSE-0272-LQ		T	111.3	98.8	128.2	115.3	147.9	134.7	167.8	151.8
CSE-0300-LQ	6GE-40	S	127.7	113.4	147.0	132.1	169.2	154.3	191.4	173.0
CSE-0301-LQ		O	130.6	116.3	150.7	135.8	173.9	158.8	197.1	178.4
CSE-0302-LQ		T	129.7	115.6	149.9	134.8	172.6	157.3	195.2	176.4

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

### 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	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	6HE-35	T	117.1	10.8	138.8	225	58.6	5.0	69.0	110	46.4	5.0	64.2	110
CSE-0270-LQ		S		10.8	160.2	250		5.0	79.8	125		5.0	66.7	110
CSE-0271-LQ	6HE-35	O		16.2	165.6	250		7.5	82.3	125		5.0	64.2	110
CSE-0272-LQ		T		10.8	160.2	250		5.0	79.8	125		5.0	84.8	125
CSE-0300-LQ	6GE-40	S	157.1	10.8	210.2	350	78.6	5.0	104.8	175	62.9	5.0	87.3	150
CSE-0301-LQ		O		16.2	215.6	350		7.5	107.3	175		7.5	84.8	125
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 "0" 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature	Compressor	Cond.	95°F	105°F								
CSE-0150-LT*	4HE-25	S	29.1	N/A	36.3	30.8	44.4	38.4	53.0	46.7	62.6	55.5
CSE-0151-LT		O	29.8	N/A	37.2	31.7	45.7	39.6	54.7	48.2	64.9	57.4
CSE-0220-LT	4GE-30	S	34.7	N/A	43.0	36.5	52.8	45.5	63.1	55.3	74.5	65.8
CSE-0221-LT		O	35.5	N/A	44.2	37.5	54.1	46.8	64.8	56.9	76.7	67.8
CSE-0222-LT		T	36.2	N/A	45.1	38.2	55.2	47.8	66.1	58.1	78.2	69.1
CSE-0270-LT	6HE-35	S	44.2	N/A	55.0	47.2	67.5	58.9	80.8	71.6	95.8	85.0
CSE-0271-LT		O	44.5	N/A	55.5	47.5	68.2	59.5	81.6	72.2	96.7	85.8
CSE-0272-LT		T	45.1	N/A	56.1	48.1	68.9	60.1	82.4	73.0	97.7	86.7
CSE-0300-LT	6GE-40	S	52.9	N/A	65.3	55.3	79.6	68.7	94.9	83.7	112.4	99.5
CSE-0301-LT		O	53.7	N/A	66.4	56.3	81.1	70.0	96.8	85.4	114.8	101.8
CSE-0302-LT		T	53.4	N/A	65.9	55.8	80.4	69.4	96.3	85.0	114.1	101.0

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F	
Ambient Temperature	Compressor	Cond.	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CSE-0150-LT*	4HE-25	S	73.4	65.9	85.1	76.7	97.2	88.6	110.2	99.7
CSE-0151-LT		O	76.2	68.4	88.7	79.8	101.4	92.5	115.3	104.2
CSE-0220-LT	4GE-30	S	87.4	78.2	101.4	91.1	115.7	105.1	131.1	118.4
CSE-0221-LT		O	90.0	80.7	104.5	94.1	119.5	109.0	135.9	122.9
CSE-0222-LT		T	91.8	82.3	106.6	96.0	121.9	111.2	138.7	125.4
CSE-0270-LT	6HE-35	S	112.6	101.1	131.0	117.8	149.5	136.1	169.6	153.4
CSE-0271-LT		O	113.8	102.1	132.6	119.2	151.5	138.0	172.0	155.5
CSE-0272-LT		T	114.9	103.1	133.6	120.2	152.5	138.9	173.0	156.5
CSE-0300-LT	6GE-40	S	131.8	118.2	153.2	137.7	174.4	159.0	197.3	178.3
CSE-0301-LT		O	134.7	121.3	157.0	141.5	179.3	163.6	203.1	183.8
CSE-0302-LT		T	133.8	120.0	156.2	140.5	177.9	162.2	201.2	181.8

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

### 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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CS Single Systems

## CSB Low Temp R-404A

### CSB Performance Data - Low Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F			
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Capacity (MBH)											
CSB-0150-LS*	4HE-18	S	34.2	29.8	41.2	36.2	48.8	43.2	57.0	50.8	65.9	59.0		
CSB-0151-LS		O	35.1	30.6	42.3	37.3	50.2	44.5	58.8	52.4	68.3	61.1		
CSB-0220-LS	4GE-23	S	40.8	35.4	48.9	42.9	58.0	51.1	67.8	60.1	78.4	70.0		
CSB-0221-LS		O	41.8	36.3	50.2	44.1	59.5	52.6	69.7	61.9	80.7	72.1		
CSB-0222-LS	6HE-28	T	42.6	37.0	51.2	45.0	60.7	53.7	71.1	63.1	82.3	73.5		
CSB-0270-LS		S	52.0	45.7	62.5	55.5	74.2	66.2	86.9	77.8	100.8	90.4		
CSB-0271-LS	6HE-28	O	52.4	46.0	63.1	55.9	74.9	66.8	87.7	78.5	101.8	91.3		
CSB-0272-LS		T	53.0	46.6	63.8	56.6	75.7	67.5	88.6	79.4	102.8	92.2		
CSB-0300-LS	6GE-34	S	62.2	54.3	74.2	65.0	87.5	77.2	102.0	91.0	118.3	105.9		
CSB-0301-LS		O	63.2	55.2	75.5	66.2	89.1	78.7	104.1	92.8	120.8	108.3		
CSB-0302-LS		T	62.8	54.8	74.9	65.7	88.4	78.0	103.5	92.4	120.1	107.5		

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F			
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Capacity (MBH)									
CSB-0150-LS*	4HE-18	S	75.7	67.9	86.0	77.5	97.2	87.7	109.1	98.7		
CSB-0151-LS		O	78.6	70.5	89.6	80.6	101.4	91.6	114.2	103.2		
CSB-0220-LS	4GE-23	S	90.1	80.6	102.4	92.0	115.7	104.1	129.8	117.2		
CSB-0221-LS		O	92.8	83.2	105.6	95.1	119.5	107.9	134.6	121.7		
CSB-0222-LS	6HE-28	T	94.7	84.9	107.7	97.0	121.9	110.1	137.3	124.1		
CSB-0270-LS		S	116.1	104.2	132.3	119.0	149.5	134.8	167.9	151.9		
CSB-0271-LS	6HE-28	O	117.3	105.3	133.9	120.4	151.5	136.6	170.3	154.0		
CSB-0272-LS		T	118.4	106.3	134.9	121.4	152.5	137.5	171.3	154.9		
CSB-0300-LS	6GE-34	S	135.9	121.9	154.7	139.1	174.4	157.4	195.3	176.5		
CSB-0301-LS		O	138.9	125.0	158.6	142.9	179.3	162.0	201.1	182.0		
CSB-0302-LS		T	137.9	124.3	157.8	141.9	177.9	160.5	199.2	180.0		

### 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	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	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	6HE-28	T	10.8	94.2	150	43.2	5.0	46.6	80	34.6	5.0	38.3	60	
CSB-0270-LS		S	10.8	121.8	200		5.0	60.5	100		7.5	49.5	80	
CSB-0271-LS	6HE-28	O	16.2	127.2	200	47.1	7.5	63.0	100	37.1	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	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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F ( max. CST = 110°F)		-30°F		-25°F		-20°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH)	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CSB-0150-LQ*	4HE-18	S	N/A	35.0	N/A	42.9	37.2	51.3	45.2	60.6	53.7	
CSB-0151-LQ		O	N/A	36.0	N/A	44.2	38.3	52.9	46.6	62.8	55.6	
CSB-0220-LQ	4GE-23	S	N/A	41.6	N/A	51.0	43.9	61.0	53.5	72.1	63.7	
CSB-0221-LQ		O	N/A	42.7	N/A	52.4	45.2	62.7	55.1	74.2	65.6	
CSB-0222-LQ		T	N/A	43.5	N/A	53.4	46.1	64.0	56.2	75.7	66.9	
CSB-0270-LQ	6HE-28	S	N/A	53.1	N/A	65.3	56.9	78.2	69.2	92.7	82.3	
CSB-0271-LQ		O	N/A	53.6	N/A	65.9	57.4	78.9	69.9	93.7	83.1	
CSB-0272-LQ		T	N/A	54.2	N/A	66.6	58.1	79.8	70.6	94.6	83.9	
CSB-0300-LQ	6GE-34	S	N/A	63.1	N/A	77.0	66.4	91.8	81.0	108.8	96.4	
CSB-0301-LQ		O	N/A	64.2	N/A	78.4	67.7	93.7	82.6	111.1	98.6	
CSB-0302-LQ		T	N/A	63.7	N/A	77.8	67.1	93.2	82.2	110.5	97.8	

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F		
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH)	95°F	105°F	95°F	105°F	95°F	105°F	
CSB-0150-LQ*	4HE-18	S	71.2	63.1	81.7	73.6	94.3	85.9	106.9	96.7	
CSB-0151-LQ		O	73.9	65.6	85.1	76.6	98.4	89.8	111.9	101.1	
CSB-0220-LQ	4GE-23	S	84.7	75.0	97.3	87.4	112.2	102.0	127.2	114.9	
CSB-0221-LQ		O	87.2	77.4	100.3	90.3	115.9	105.7	131.9	119.3	
CSB-0222-LQ		T	89.0	78.9	102.3	92.2	118.2	107.9	134.5	121.7	
CSB-0270-LQ	6HE-28	S	109.1	96.9	125.7	113.1	145.0	132.1	164.5	148.9	
CSB-0271-LQ		O	110.3	97.9	127.2	114.4	147.0	133.9	166.9	150.9	
CSB-0272-LQ		T	111.3	98.8	128.2	115.3	147.9	134.7	167.8	151.8	
CSB-0300-LQ	6GE-34	S	127.7	113.4	147.0	132.1	169.2	154.3	191.4	173.0	
CSB-0301-LQ		O	130.6	116.3	150.7	135.8	173.9	158.8	197.1	178.4	
CSB-0302-LQ		T	129.7	115.6	149.9	134.8	172.6	157.3	195.2	176.4	

### 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	5.4	83.8	125		2.5	41.6	70		24.1	2.5	33.8	50
CSB-0151-LQ		O	60.3	10.8	89.2	125	5.0	44.1	70			5.0	36.3	60
CSB-0220-LQ	4GE-23	S	10.8	94.2	150		5.0	46.6	80		25.7	5.0	38.3	60
CSB-0221-LQ		O	64.3	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	10.8	121.8	200		5.0	60.5	100		34.6	5.0	49.5	80
CSB-0271-LQ		O	86.4	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	10.8	131.7	225		5.0	65.4	110		37.1	5.0	52.6	90
CSB-0301-LQ		O	94.3	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 "0" 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

## CSB Low Temp R-448A

### CSB Performance Data - Low Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-40°F(max CST=110°F)		-35°F (max CST=120°F)		-30°F		-25°F		-20°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)									
CSB-0150-LT*	4HE-18	S	29.1	N/A	36.3	30.8	44.4	38.4	53.0	46.7	62.6	55.5
CSB-0151-LT		O	29.8	N/A	37.2	31.7	45.7	39.6	54.7	48.2	64.9	57.4
CSB-0220-LT	4GE-23	S	34.7	N/A	43.0	36.5	52.8	45.5	63.1	55.3	74.5	65.8
CSB-0221-LT		O	35.5	N/A	44.2	37.5	54.1	46.8	64.8	56.9	76.7	67.8
CSB-0222-LT	6HE-28	T	36.2	N/A	45.1	38.2	55.2	47.8	66.1	58.1	78.2	69.1
CSB-0270-LT		S	44.2	N/A	55.0	47.2	67.5	58.9	80.8	71.6	95.8	85.0
CSB-0271-LT		O	44.5	N/A	55.5	47.5	68.2	59.5	81.6	72.2	96.7	85.8
CSB-0272-LT	6GE-34	T	45.1	N/A	56.1	48.1	68.9	60.1	82.4	73.0	97.7	86.7
CSB-0300-LT		S	52.9	N/A	65.3	55.3	79.6	68.7	94.9	83.7	112.4	99.5
CSB-0301-LT		O	53.7	N/A	66.4	56.3	81.1	70.0	96.8	85.4	114.8	101.8
CSB-0302-LT		T	53.4	N/A	65.9	55.8	80.4	69.4	96.3	85.0	114.1	101.0

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F		
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH)								
CSB-0150-LT*	4HE-18	S	73.4	65.9	85.1	76.7	97.2	88.6	110.2	99.7	
CSB-0151-LT		O	76.2	68.4	88.7	79.8	101.4	92.5	115.3	104.2	
CSB-0220-LT	4GE-23	S	87.4	78.2	101.4	91.1	115.7	105.1	131.1	118.4	
CSB-0221-LT		O	90.0	80.7	104.5	94.1	119.5	109.0	135.9	122.9	
CSB-0222-LT	6HE-28	T	91.8	82.3	106.6	96.0	121.9	111.2	138.7	125.4	
CSB-0270-LT		S	112.6	101.1	131.0	117.8	149.5	136.1	169.6	153.4	
CSB-0271-LT		O	113.8	102.1	132.6	119.2	151.5	138.0	172.0	155.5	
CSB-0272-LT	6GE-34	T	114.9	103.1	133.6	120.2	152.5	138.9	173.0	156.5	
CSB-0300-LT		S	131.8	118.2	153.2	137.7	174.4	159.0	197.3	178.3	
CSB-0301-LT		O	134.7	121.3	157.0	141.5	179.3	163.6	203.1	183.8	
CSB-0302-LT		T	133.8	120.6	156.2	140.5	177.9	162.2	201.2	181.8	

### 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
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-448A 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

## CSD MCA / MOPD Calculation

### Model CSD-0300LxM

Compressor RLA		43.6
Condenser Fans	+	5.4
Control*	+	3.0
25% Compressor RLA	+	10.9
<b>MCA</b>		<b>62.9</b>
Evaporator Fan RLA	+	12.0
<b>Calculated MCA</b>		<b>74.9</b>
Compressor RLA	+	43.6
<b>Calculated MOP</b>		<b>118.5</b>
<b>MOPD**</b>		<b>110</b>

*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 Systems

## CS Single Series Model Specifications

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

\*-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 <b>S</b>	R-507A <b>P</b>	R-407A <b>Q</b>	R-407F <b>F</b>	R-448A <b>T</b>	R-449A <b>R</b>
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 <b>S</b>	R-507A <b>P</b>	R-407A <b>Q</b>	R-407F <b>F</b>	R-448A <b>T</b>	R-449A <b>R</b>
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.

# CS Single Systems

## Annual Walk-In Energy Factor (AWEF)

### CSE Single Series Units - Medium Temperature

Bitzer Ecoline Models	R-404A	R-507A	R-407A	R-407F	R-448A	R-449A
	S	P	Q	F	T	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

Bitzer Ecoline Models	R-404A	R-507A	R-407A	R-407F	R-448A	R-449A
	S	P	Q	F	T	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:

See Tables on pages 16 - 18  
for more data.

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

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 <b>S</b>	R-507A <b>P</b>	R-407A <b>Q</b>	R-407F <b>F</b>	R-448A <b>T</b>	R-449A <b>R</b>
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 <b>S</b>	R-507A <b>P</b>	R-407A <b>Q</b>	R-407F <b>F</b>	R-448A <b>T</b>	R-449A <b>R</b>
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.

# CS Single Systems

Notes

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# CP Parallel Systems

## CPD Medium Temp R-404A

### CPD Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)													
CPD-0100-MS	2 - 2DC3R53KE	S	44.5	40.4	49.7	45.1	55.4	50.2	61.4	55.7	69.8	63.6	78.5	72.0	88.1	81.0	
CPD-0101-MS*		O	46.0	41.9	51.4	46.8	57.2	52.1	63.4	57.7	72.2	65.9	81.6	74.9	91.6	84.3	
CPD-0150-MS*	2 - 2DL3R78KE	S	67.0	61.8	74.9	69.1	83.3	76.9	92.4	85.3	104.2	96.3	116.7	107.9	129.9	120.4	
CPD-0151-MS		O	68.8	63.5	76.9	70.9	85.5	78.9	94.9	87.5	107.1	99.1	120.2	111.6	134.2	124.6	
CPD-0160-MS		S	77.2	70.7	86.3	79.0	96.0	87.9	106.5	97.5	120.4	111.0	135.0	125.1	150.6	139.7	
CPD-0161-MS	2 - 2DA3R89KE	O	78.4	72.1	87.6	80.5	97.5	89.6	108.1	99.3	122.4	113.2	137.5	127.5	153.4	142.6	
CPD-0162-MS		T	80.0	73.5	89.3	82.1	99.4	91.4	110.3	101.3	124.8	115.5	140.2	130.1	156.5	145.4	
CPD-0180-MS		S	94.4	87.6	105.4	97.8	117.4	108.9	130.2	120.8	145.2	135.3	161.8	150.8	179.1	167.1	
CPD-0181-MS*	2 - 3DA3R10ME	O	96.8	90.0	108.1	100.5	120.3	111.8	133.4	124.0	149.3	138.9	166.5	155.0	184.8	172.4	
CPD-0200-MS		S	114.2	106.4	127.6	118.8	142.0	132.3	157.5	146.7	175.2	163.4	194.4	181.6	215.0	200.7	
CPD-0201-MS	2 - 3DB3R12ME	O	116.9	109.0	130.6	121.8	145.3	135.6	161.2	150.3	179.7	168.1	199.9	186.9	221.5	207.3	
CPD-0202-MS		T	116.5	108.5	130.1	121.2	144.8	134.9	160.6	149.6	178.7	166.7	198.3	185.2	219.3	204.8	
CPD-0240-MS*	2 - 3DF3R15ME	S	131.7	122.5	147.1	136.8	163.7	152.3	181.6	168.9	202.6	188.7	225.4	209.9	249.7	228.7	
CPD-0241-MS		O	134.1	125.0	149.7	139.7	166.7	155.4	184.8	172.4	206.9	192.8	230.5	215.0	256.0	232.8	
CPD-0300-MS		S	152.3	143.2	170.1	160.0	189.3	178.1	209.9	197.5	234.2	220.1	260.1	244.2	287.6	269.9	
CPD-0301-MS*	2 - 3DS3R17ME	O	153.3	144.1	171.2	161.0	190.6	179.2	211.3	198.7	235.8	221.5	262.1	246.0	290.1	272.1	
CPD-0400-MS		S	180.1	159.2	203.1	179.6	227.9	201.7	254.6	225.6	282.9	251.2	313.0	278.1	344.3	306.1	
CPD-0401-MS	2 - 4DBNR20ME	O	185.4	164.0	209.3	185.4	235.5	208.8	264.0	234.4	294.4	261.7	326.6	290.7	360.6	321.3	
CPD-0402-MS		T	183.7	162.3	207.2	183.2	232.5	205.7	259.7	230.1	288.6	256.2	319.3	283.6	351.2	312.3	
CPD-0500-MS*	2 - 4DHNR22ME	S	203.6	184.0	226.7	204.4	252.7	227.6	281.1	253.1	311.5	280.4	343.3	309.2	376.3	339.0	
CPD-0501-MS		O	212.5	192.7	238.1	215.3	267.0	241.2	298.8	269.7	333.1	300.6	369.5	333.5	407.5	367.9	
CPD-0600-MS*		S	244.1	221.0	274.4	248.0	307.1	277.0	342.1	308.0	379.2	341.1	418.4	375.8	459.6	412.4	
CPD-0601-MS		O	249.4	226.1	281.3	254.5	315.8	285.3	352.9	318.4	392.6	353.8	434.8	391.5	479.4	431.4	
CPD-0700-MS		S	305.7	274.1	342.0	307.1	380.7	342.2	422.0	379.2	465.9	418.2	512.2	459.2	561.0	502.2	
CPD-0701-MS	2 - 6DHNR35ME	O	320.7	288.5	360.0	324.6	402.6	363.5	448.7	405.2	498.3	450.0	551.7	498.0	609.0	549.2	
CPD-0702-MS		T	311.8	279.6	348.8	313.2	388.3	349.0	430.4	386.8	475.2	426.6	522.4	468.4	572.2	512.2	
CPD-0800-MS*	2 - 6DJNR40ME	S	371.5	336.3	415.0	375.5	462.0	417.8	512.2	463.0	565.7	510.9	622.1	561.3	681.3	614.2	
CPD-0801-MS*		O	380.0	344.3	425.4	385.5	474.6	430.1	527.7	478.1	584.4	529.3	644.6	583.7	708.4	641.1	

Saturated Suction Temperature (SST)			30°F		35°F		40°F		45°F		
Ambient Temperature	Unit	Compressor	Cond	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPD-0100-MS	2 - 2DC3R53KE	S	98.1	90.4	108.7	100.4	120.2	111.0	N/A	N/A	
CPD-0101-MS*		O	102.2	94.2	113.6	105.1	125.9	116.7	N/A	N/A	
CPD-0150-MS*	2 - 2DL3R78KE	S	144.0	133.4	149.1	138.5	165.0	153.4	N/A	N/A	
CPD-0151-MS		O	149.1	136.9	158.9	147.3	174.6	162.2	N/A	N/A	
CPD-0160-MS		S	166.9	155.2	184.2	171.4	202.4	188.3	N/A	N/A	
CPD-0161-MS	2 - 2DA3R89KE	O	170.3	158.7	188.3	175.4	207.3	193.2	N/A	N/A	
CPD-0162-MS		T	173.7	161.9	192.1	178.9	211.4	197.1	N/A	N/A	
CPD-0180-MS	2 - 3DA3R10ME	S	197.9	184.6	217.7	203.4	238.7	223.0	N/A	N/A	
CPD-0181-MS*		O	204.4	190.9	225.6	210.7	248.1	231.9	N/A	N/A	
CPD-0200-MS		S	237.0	221.3	260.5	243.2	285.4	266.6	N/A	N/A	
CPD-0201-MS	2 - 3DB3R12ME	O	244.6	229.1	269.5	252.6	296.2	277.6	N/A	N/A	
CPD-0202-MS		S	241.8	225.8	265.7	248.0	291.1	272.0	N/A	N/A	
CPD-0240-MS*	2 - 3DF3R15ME	S	275.6	256.8	302.7	282.3	331.5	309.1	N/A	N/A	
CPD-0241-MS		O	282.9	264.2	311.7	291.1	342.1	319.5	N/A	N/A	
CPD-0300-MS	2 - 3DS3R17ME	S	317.2	297.2	348.6	326.4	382.1	357.6	N/A	N/A	
CPD-0400-MS		O	320.3	300.1	352.3	329.9	386.6	361.9	N/A	N/A	
CPD-0401-MS	2 - 4DBNR20ME	S	377.0	678.5	410.6	369.5	453.4	404.5	N/A	N/A	
CPD-0402-MS		O	396.3	353.3	433.1	386.4	471.5	420.7	N/A	N/A	
CPD-0500-MS*	2 - 4DHNR22ME	S	409.9	368.9	443.7	399.3	507.3	458.2	N/A	N/A	
CPD-0501-MS		O	446.8	403.5	487.0	439.8	527.6	476.5	N/A	N/A	
CPD-0600-MS*	2 - 4DJNR28ME	S	502.7	452.4	547.6	492.8	603.5	542.3	N/A	N/A	
CPD-0601-MS		O	526.5	473.5	575.9	517.7	627.6	564	N/A	N/A	
CPD-0700-MS		S	612.1	550.9	665.5	599.0	773.2	695.5	N/A	N/A	
CPD-0701-MS	2 - 6DHNR35ME	O	670.1	603.8	735.1	661.8	804.1	723.3	N/A	N/A	
CPD-0702-MS		T	624.3	561.9	678.8	610.9	788.6	709.4	N/A	N/A	
CPD-0800-MS*	2 - 6DJNR40ME	S	743.1	668.8	807.3	726.6	883.6	798.4	N/A	N/A	
CPD-0801-MS*		O	775.4	701.4	845.6	764.5	918.9	830.3	N/A	N/A	

### Electrical Specifications - Medium Temperature R-404A

Voltage	208-230/3/60 (TFC)			460/3/60 (TFD)			575/3/60 (TFE)			Condenser LAVF					
	Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD				
CPD-0100-MS	2 - 2DC3R53KE	S	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	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11410	
CPD-0150-MS*	2 - 2DL3R78KE	S	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		S	10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12210	
CPD-0161-MS	2 - 2DA3R89KE	O	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	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	111.9	150		5.0	51.5	70		5.0	43.3	60	12310	
CPD-0200-MS		S	10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12310	
CPD-0201-MS	2 - 3DB3R12ME	O	43.6	16.2	117.3	150	20.0	7.5	54.0	70	16.5	7.5	45.8	60	13310
CPD-0202-MS		T	10.8	111.9	150		5</td								

# CP Parallel Systems

## CPD Medium Temp R-407A

### CPD Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F	
Ambient Temperature	95°F	105°F*	95°F	105°F												
CPD-0100-MQ	S	44.1	40.4	49.2	45.1	54.8	50.2	60.8	55.7	69.8	64.9	79.3	73.5	89.9	83.4	
CPD-0101-MQ*	O	45.6	41.9	50.9	46.8	56.6	52.1	62.8	57.7	72.2	67.2	82.4	76.4	93.4	86.8	
CPD-0150-MQ*	S	66.4	61.8	74.1	69.1	82.5	76.9	91.5	85.3	104.2	98.2	117.9	110.1	132.5	124.0	
CPD-0151-MQ	O	68.1	63.5	76.1	70.9	84.7	78.9	93.9	87.5	107.1	101.1	121.4	113.8	136.8	128.4	
CPD-0160-MQ	S	76.5	70.7	85.4	79.0	95.1	87.9	105.4	97.5	120.4	113.2	136.4	127.6	153.6	143.9	
CPD-0161-MQ	O	77.6	72.1	86.7	80.5	96.5	89.6	107.0	99.3	122.4	115.5	138.9	130.1	156.5	146.9	
CPD-0162-MQ	T	79.2	73.5	88.5	82.1	98.4	91.4	109.2	101.3	124.8	117.8	141.6	132.7	159.6	149.8	
CPD-0180-MQ	S	93.5	87.6	104.4	97.8	116.2	108.9	128.9	120.8	145.2	138.0	163.4	153.8	182.7	172.1	
CPD-0181-MQ*	O	95.8	90.0	107.0	100.5	119.1	111.8	132.1	124.0	149.3	141.7	168.1	158.1	188.5	177.6	
CPD-0200-MQ	S	113.1	106.4	126.3	118.8	140.6	132.3	155.9	146.7	175.2	166.7	196.4	185.2	219.3	206.8	
CPD-0201-MQ	O	115.7	109.0	129.3	121.8	143.9	135.6	159.5	150.3	179.3	171.5	201.9	190.6	226.0	213.5	
CPD-0202-MQ	T	115.3	108.5	128.8	121.2	143.4	134.9	159.0	149.6	178.7	170.0	200.3	188.9	223.7	210.9	
CPD-0240-MQ*	S	130.4	122.5	145.6	136.8	162.1	152.3	179.7	168.9	202.6	192.5	227.7	214.1	254.7	235.5	
CPD-0241-MQ	O	132.7	125.0	148.2	139.7	165.0	155.4	183.0	172.4	206.9	196.6	232.8	219.3	261.1	239.7	
CPD-0300-MQ	S	150.7	143.2	168.4	160.0	187.4	178.1	207.8	197.5	234.2	224.5	262.7	249.1	293.4	278.0	
CPD-0301-MQ*	O	151.8	144.1	169.5	161.0	188.7	179.2	209.2	198.7	235.8	226.0	264.8	250.9	295.9	280.3	
CPD-0400-MQ	S	86.4	77.2	99.5	88.9	111.7	100.9	125.1	227.9	282.9	253.7	316.2	283.6	351.2	315.3	
CPD-0401-MQ	O	89.0	79.5	102.6	91.8	115.4	104.4	125.8	234.4	291.5	264.4	326.6	296.5	364.2	327.7	
CPD-0402-MQ	T	88.2	78.7	101.5	90.7	113.9	102.9	125.7	232.4	288.6	258.7	322.5	289.3	358.2	321.6	
CPD-0500-MQ*	S	199.5	182.2	224.4	206.4	252.7	232.2	283.9	258.2	317.7	288.8	350.2	321.6	387.6	356.0	
CPD-0501-MQ	O	208.3	188.8	235.7	215.3	267.0	246.0	298.8	275.1	336.4	309.6	376.9	343.5	419.7	382.6	
CPD-0600-MQ*	S	234.3	216.6	268.9	248.0	304.0	279.8	345.5	314.2	383.0	351.3	426.8	387.1	473.4	428.9	
CPD-0601-MQ	O	239.4	217.1	272.9	252.0	312.6	288.2	349.4	321.6	396.5	360.9	443.5	399.3	489.0	448.7	
CPD-0700-MQ	S	287.4	263.1	328.3	297.9	369.3	338.8	413.6	383.0	465.9	426.6	512.2	473.0	566.6	522.3	
CPD-0701-MQ	O	298.3	274.1	342.0	314.9	382.5	359.9	435.2	405.2	488.3	454.5	551.7	508.0	609.0	560.2	
CPD-0702-MQ	T	293.1	268.4	334.9	303.8	376.7	345.6	421.8	390.7	475.2	435.1	522.4	482.4	577.9	532.7	
CPD-0800-MQ*	S	349.2	322.8	398.4	368.0	448.1	417.8	512.2	467.6	571.4	526.2	634.5	589.4	701.7	644.9	
CPD-0801-MQ*	O	357.2	327.1	404.1	373.9	460.4	425.8	517.1	478.1	584.4	539.9	651.0	601.2	722.6	666.7	

Saturated Suction Temperature (SST)			30°F		35°F		40°F		45°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPD-0100-MQ	S	101.1	94.9	113.1	105.4	125.0	117.6	N/A	N/A	N/A
CPD-0101-MQ*	O	105.3	99.0	118.2	110.3	130.9	123.7	N/A	N/A	N/A
CPD-0150-MQ*	S	148.3	140.1	155.1	145.4	171.6	162.6	N/A	N/A	N/A
CPD-0151-MQ	O	153.6	143.7	165.3	154.7	181.6	171.9	N/A	N/A	N/A
CPD-0160-MQ	S	171.9	163.0	191.6	179.9	210.5	199.6	N/A	N/A	N/A
CPD-0161-MQ	O	175.5	166.6	195.8	184.2	215.6	204.8	N/A	N/A	N/A
CPD-0162-MQ	T	179.0	170.0	199.7	187.9	219.9	208.9	N/A	N/A	N/A
CPD-0180-MQ	S	203.8	193.9	226.4	213.6	248.2	236.4	N/A	N/A	N/A
CPD-0181-MQ*	O	210.5	200.5	234.6	221.3	258.0	245.9	N/A	N/A	N/A
CPD-0200-MQ	S	244.2	232.4	270.9	255.3	296.8	282.6	N/A	N/A	N/A
CPD-0201-MQ	O	251.9	240.5	280.3	265.2	308.1	294.3	N/A	N/A	N/A
CPD-0202-MQ	T	249.0	237.1	276.3	260.4	302.7	288.3	N/A	N/A	N/A
CPD-0240-MQ*	S	283.9	269.7	314.8	296.5	344.8	327.6	N/A	N/A	N/A
CPD-0241-MQ	O	291.4	277.4	324.2	305.7	355.8	338.6	N/A	N/A	N/A
CPD-0300-MQ	S	326.7	312.1	362.6	342.7	397.4	379.1	N/A	N/A	N/A
CPD-0301-MQ*	O	329.9	315.1	366.4	346.4	402.0	383.6	N/A	N/A	N/A
CPD-0400-MQ	S	392.0	352.8	433.1	393.8	485.1	440.9	N/A	N/A	N/A
CPD-0401-MQ	O	408.2	367.4	450.4	409.6	504.5	458.5	N/A	N/A	N/A
CPD-0402-MQ	T	399.9	359.9	441.8	401.7	494.8	449.7	N/A	N/A	N/A
CPD-0500-MQ*	S	430.4	387.4	474.8	427.3	547.9	504.0	N/A	N/A	N/A
CPD-0501-MQ	O	464.7	427.7	516.2	470.6	569.8	524.2	N/A	N/A	N/A
CPD-0600-MQ*	S	517.8	466.0	564.0	507.6	627.6	569.4	N/A	N/A	N/A
CPD-0601-MQ	O	542.3	492.4	593.2	543.6	652.7	592.2	N/A	N/A	N/A
CPD-0700-MQ	S	618.2	556.4	672.2	604.9	773.2	709.4	N/A	N/A	N/A
CPD-0701-MQ	O	670.1	615.9	735.1	675.0	804.1	737.8	N/A	N/A	N/A
CPD-0702-MQ	T	630.6	567.5	685.6	617.0	788.6	723.6	N/A	N/A	N/A
CPD-0800-MQ*	S	772.8	695.5	839.6	755.6	910.1	846.3	N/A	N/A	N/A
CPD-0801-MQ*	O	790.9	729.5	871.0	802.7	946.5	880.1	N/A	N/A	N/A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				Condenser LAVF
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CPD-0100-MQ	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	22.5	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11410	
CPD-0150-MQ*	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	5.0	35.9	45	12210	
CPD-0160-MQ	S	10.8	85.8	110	5.0	38.2	50	5.0	36.1	45	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	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	5.0	36.1	45	12410	
CPD-0180-MQ	S	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12410		
CPD-0181-MQ*	O	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12410		
CPD-0200-MQ	S	10.8	111.9	150	20.0	7.5	51.5	70	16.5	7.5	43.3	60	12310		
CPD-0201-MQ	O	16.2	117.3	150	20.0	7.5	54.0	70	16.5	7.5	45.8	60	13310		
CPD-0202-MQ	T	10.8	111.9	150	20.0	7.5	51.5	70	16.5	7.5	43.3	60	12410		
CPD-0240-MQ*	S	48.1	10.8	122.0	160	23.6	5.0	59.6	80	-	5.0	-	-	12410	
CPD-0241-M															

# CP Parallel Systems

## CPD Medium Temp R-448A

### CPD Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F	
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)	95°F	105°F*	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPD-0100-MT	2 - 2DC3R53KE	S	45.4	42.0	50.7	46.9	56.5	52.2	62.6	57.9	71.9	66.8	81.7	75.6
CPD-0101-MT*		O	46.9	43.5	52.4	48.6	58.4	54.1	64.7	60.0	74.4	69.2	84.9	78.6
CPD-0150-MT*		S	68.4	64.3	76.4	71.8	85.0	80.0	94.3	88.7	107.4	101.1	121.4	113.3
CPD-0151-MT	2 - 2DL3R78KE	O	70.2	66.0	78.4	73.7	87.2	82.1	96.8	91.0	110.3	104.1	125.0	117.2
CPD-0160-MT		S	78.8	73.6	88.0	82.2	97.9	91.4	108.6	101.4	124.0	116.5	140.4	131.3
CPD-0161-MT	2 - 2DA3R89KE	O	80.0	74.9	89.3	83.7	99.4	93.2	110.3	103.3	126.1	118.9	143.0	133.9
CPD-0162-MT		T	81.6	76.4	91.1	85.4	101.4	95.0	112.5	105.4	128.6	121.3	145.9	136.6
CPD-0180-MT	2 - 3DA3R10ME	S	96.3	91.1	107.6	101.8	119.7	113.3	132.8	125.6	149.6	142.0	168.2	158.3
CPD-0181-MT*		O	98.7	93.6	110.3	104.5	122.7	116.3	136.1	129.0	153.8	145.9	173.1	162.8
CPD-0200-MT		S	116.5	110.6	130.1	123.6	144.8	137.6	160.6	152.5	180.5	171.6	202.2	190.6
CPD-0201-MT	2 - 3DB3R12ME	O	119.2	113.4	133.2	126.7	148.2	141.0	164.4	156.4	185.1	176.5	207.9	196.2
CPD-0202-MT		T	118.8	112.9	132.7	126.1	147.7	140.3	163.9	155.6	184.1	175.0	206.2	194.5
CPD-0240-MT*	2 - 3DF3R15ME	S	134.3	127.4	150.0	142.3	167.0	158.4	185.2	175.7	208.6	198.1	234.4	220.4
CPD-0241-MT		O	136.7	130.0	152.7	145.2	170.0	161.7	188.5	179.3	213.1	202.4	239.7	225.8
CPD-0300-MT	2 - 3DS3R17ME	S	155.3	149.0	173.5	166.4	193.1	185.2	214.1	205.4	241.2	231.1	270.5	256.4
CPD-0301-MT*		O	156.4	149.9	174.6	167.4	194.4	186.3	215.6	206.6	242.9	232.6	272.6	258.3
CPD-0400-MT		S	178.3	159.2	205.1	183.2	230.2	207.8	259.7	234.7	291.4	263.7	322.4	292.0
CPD-0401-MT	2 - 4DBNR20ME	O	183.5	164.0	209.3	189.1	237.9	215.1	266.7	241.4	300.3	272.2	336.4	302.3
CPD-0402-MT		T	181.9	162.3	207.2	186.9	234.8	211.9	264.9	239.3	295.8	269.0	328.9	297.8
CPD-0500-MT*	2 - 4DHNR22ME	S	205.6	187.7	231.2	212.6	260.3	239.0	292.3	268.3	327.1	297.2	360.5	330.8
CPD-0501-MT		O	214.6	196.6	242.9	221.8	275.0	253.3	307.8	283.2	343.1	315.6	384.3	350.2
CPD-0600-MT*	2 - 4DJNR28ME	S	241.7	221.0	277.1	253.0	313.2	288.1	355.8	323.4	398.2	361.6	439.3	398.3
CPD-0601-MT		O	244.4	223.8	284.1	259.6	322.1	296.7	363.5	331.1	408.3	371.5	452.2	415.0
CPD-0700-MT		S	296.5	274.1	338.6	310.2	380.7	352.5	426.2	394.4	475.2	439.1	527.6	486.8
CPD-0701-MT	2 - 6DHNR35ME	O	311.1	285.6	352.8	324.6	394.5	370.8	448.7	417.4	503.3	468.0	562.7	517.9
CPD-0702-MT		T	302.5	279.6	345.4	316.4	388.3	359.5	434.7	402.3	484.7	447.9	538.1	496.5
CPD-0800-MT*	2 - 6DJNR40ME	S	360.4	332.9	410.9	379.3	462.0	430.3	522.4	486.2	588.3	541.6	647.0	600.6
CPD-0801-MT*		O	368.6	340.9	416.9	389.4	474.6	438.7	533.0	497.2	596.1	555.8	663.9	612.9

Saturated Suction Temperature (SST)			25°F		30°F		35°F		40°F		45°F	
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPD-0100-MT	2 - 2DC3R53KE	S	91.7	85.0	103.0	96.7	114.2	107.4	126.2	118.7	N/A	N/A
CPD-0101-MT*		O	95.3	88.5	107.3	100.8	119.3	112.4	132.2	124.9	N/A	N/A
CPD-0150-MT*		S	135.1	126.4	151.2	142.8	156.6	148.2	173.3	164.1	N/A	N/A
CPD-0151-MT	2 - 2DL3R78KE	O	139.6	130.9	156.6	146.5	166.9	157.6	183.4	173.5	N/A	N/A
CPD-0160-MT		S	156.6	146.7	175.2	166.1	193.4	183.4	212.5	201.5	N/A	N/A
CPD-0161-MT	2 - 2DA3R89KE	O	159.5	149.7	178.9	169.8	197.7	187.7	217.6	206.7	N/A	N/A
CPD-0162-MT		T	162.7	152.7	182.4	173.2	201.7	191.5	222.0	210.8	N/A	N/A
CPD-0180-MT	2 - 3DA3R10ME	S	186.3	175.4	207.8	197.5	228.6	217.6	250.6	238.6	N/A	N/A
CPD-0181-MT*		O	192.2	181.0	214.6	204.3	236.9	225.5	260.5	248.2	N/A	N/A
CPD-0200-MT		S	223.6	210.4	248.9	236.8	273.5	260.2	299.7	285.3	N/A	N/A
CPD-0201-MT	2 - 3DB3R12ME	O	230.4	217.6	256.8	245.1	283.0	270.2	311.0	297.1	N/A	N/A
CPD-0202-MT		T	228.1	215.0	253.9	241.6	279.0	265.4	305.7	291.0	N/A	N/A
CPD-0240-MT*	2 - 3DF3R15ME	S	259.7	240.1	289.4	274.8	317.9	302.1	348.1	330.7	N/A	N/A
CPD-0241-MT		O	266.3	244.4	297.1	282.7	327.3	311.5	359.2	341.8	N/A	N/A
CPD-0300-MT	2 - 3DS3R17ME	S	299.1	283.4	333.1	318.0	366.1	349.2	401.2	382.6	N/A	N/A
CPD-0301-MT*		O	301.7	285.7	336.3	321.1	369.9	353.0	405.9	387.2	N/A	N/A
CPD-0400-MT		S	358.1	321.4	399.6	359.6	441.4	401.3	489.6	444.9	N/A	N/A
CPD-0401-MT	2 - 4DBNR20ME	O	371.5	337.4	416.1	374.5	459.1	417.3	509.2	462.7	N/A	N/A
CPD-0402-MT		T	365.2	327.9	407.6	366.8	450.2	409.3	499.4	453.8	N/A	N/A
CPD-0500-MT*	2 - 4DHNR22ME	S	398.9	362.7	438.6	394.7	479.2	431.3	553.0	513.2	N/A	N/A
CPD-0501-MT		O	427.9	390.0	473.6	435.8	526.0	479.4	575.1	533.7	N/A	N/A
CPD-0600-MT*	2 - 4DJNR28ME	S	482.6	437.1	527.8	475.1	580.5	522.4	633.6	574.8	N/A	N/A
CPD-0601-MT		O	498.6	461.6	552.8	501.9	604.7	548.8	659.0	597.8	N/A	N/A
CPD-0700-MT		S	577.8	532.3	630.5	567.4	685.5	616.9	780.9	723.3	N/A	N/A
CPD-0701-MT	2 - 6DHNR35ME	O	621.2	571.2	683.5	628.0	742.5	688.3	812.1	752.2	N/A	N/A
CPD-0702-MT		T	589.4	543.0	643.1	578.8	699.2	629.3	796.5	737.8	N/A	N/A
CPD-0800-MT*	2 - 6DJNR40ME	S	715.4	663.3	787.7	708.9	855.7	770.2	918.9	854.3	N/A	N/A
CPD-0801-MT*		O	736.7	679.6	806.4	750.5	887.9	818.0	955.7	888.4	N/A	N/A

### 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		S	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210	
CPD-0101-MT*	2 - 2DC3R53KE	O	5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410	
CPD-0150-MT*		S	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410	
CPD-0151-MT	2 - 2DL3R78KE	O	10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210	
CPD-0160-MT		S	10.8	85.8	110	14.1	5.0	38.2	50		5.0	36.1	45	12210	
CPD-0161-MT	2 - 2DA3R89KE	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	14.1	5.0	38.2	50		5.0	36.1	45	12410	
CPD-0180-MT	2 - 3DA3R10ME	S	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	111.9	150		5.0	51.5	70		5.0	43.3	60	12310	
CPD-0200-MT		S	10.8	117.3	150	20.0	7.5	54.0	70		16.5	7.5	45.8	60	13310
CPD-0201-MT	2 - 3DB3R12ME	O	10.8	111.9	150										

# CP Parallel Systems

## CPE Medium Temp R-404A

### CPE Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Unit Capacity (MBH)														
CPE-0100-MS	S	44.2	40.2	49.8	45.3	56.0	50.9	62.6	56.9	70.8	64.7	79.2	72.6	87.7	80.6		
CPE-0101-MS*	O	46.6	43.3	52.6	48.8	59.1	54.9	66.1	61.4	74.7	69.2	83.6	77.3	93.0	85.9		
CPE-0150-MS*	S	66.9	61.0	75.4	68.8	84.8	77.3	94.9	86.5	106.5	97.5	118.9	109.3	132.0	121.6		
CPE-0151-MS	O	69.8	63.9	78.7	72.0	88.4	80.9	98.9	90.6	111.6	102.6	124.8	115.1	138.5	127.7		
CPE-0160-MS	S	69.8	63.9	78.7	72.0	88.4	80.9	98.9	90.6	111.6	102.6	124.8	115.1	138.5	127.7		
CPE-0161-MS	O	71.4	65.3	80.4	73.6	90.4	82.8	101.2	92.6	114.2	104.9	127.9	117.7	142.0	131.2		
CPE-0162-MS	T	72.8	66.6	82.1	75.1	92.2	84.4	103.2	94.5	116.5	107.0	130.5	120.1	144.8	133.8		
CPE-0180-MS	S	91.1	83.9	102.7	94.6	115.4	106.3	129.1	118.9	144.2	133.2	160.1	148.3	177.1	163.8		
CPE-0181-MS*	O	94.8	88.9	106.9	100.2	120.1	112.7	134.4	126.1	151.2	140.6	168.5	155.9	185.8	172.0		
CPE-0200-MS	S	110.2	101.6	124.2	114.5	139.6	128.7	156.3	144.0	174.6	161.0	193.8	179.1	213.8	198.3		
CPE-0201-MS	O	114.8	105.8	129.4	119.2	145.5	134.0	162.8	149.9	182.4	167.9	203.0	187.3	224.4	207.9		
CPE-0202-MS	T	112.4	103.6	126.7	116.8	142.4	131.3	159.4	146.9	178.1	164.2	197.7	182.7	218.1	202.3		
CPE-0240-MS*	S	131.5	121.6	148.2	137.1	166.6	154.0	186.5	172.4	209.1	193.8	232.6	215.8	256.2	238.1		
CPE-0241-MS	O	134.6	124.3	151.7	140.1	170.5	157.5	190.7	176.3	214.4	198.5	238.9	221.3	263.6	244.6		
CPE-0300-MS	S	153.4	141.9	172.9	159.9	194.3	179.8	217.5	201.1	244.2	226.0	271.9	251.9	300.1	278.7		
CPE-0301-MS*	O	155.7	144.1	175.5	162.4	197.3	182.5	220.7	204.2	248.1	229.5	276.4	256.0	305.4	283.4		
CPE-0400-MS	S	177.2	160.4	199.2	180.2	232.3	202.0	249.2	225.8	277.6	252.0	307.2	278.8	338.4	307.2		
CPE-0401-MS	O	182.6	165.2	205.8	186.2	231.2	209.4	258.8	234.6	288.8	262.4	320.6	291.4	354.4	322.0		
CPE-0402-MS	T	180.7	163.6	203.2	183.8	227.7	206.0	254.2	230.3	283.2	257.0	313.3	284.4	345.2	313.3		
CPE-0500-MS*	S	205.4	185.2	230.4	208.0	257.8	233.2	287.8	260.6	320.6	290.8	355.2	321.6	391.4	354.4		
CPE-0501-MS	O	215.2	194.3	242.4	219.4	272.0	246.8	304.8	276.8	341.2	309.9	379.6	344.8	420.2	381.4		
CPE-0600-MS*	S	242.9	219.2	273.4	246.6	306.2	276.4	341.6	309.0	379.6	344.0	420.4	380.8	463.8	420.0		
CPE-0601-MS	O	247.4	223.4	278.2	251.4	311.8	282.2	349.0	316.2	383.9	353.6	432.0	393.0	476.8	433.6		
CPE-0700-MS	S	311.6	281.5	350.6	316.6	393.2	355.6	439.2	398.0	489.4	444.3	542.0	492.8	597.4	542.7		
CPE-0701-MS	O	320.6	289.6	361.0	326.6	405.4	367.4	454.2	412.2	507.8	461.0	564.4	513.2	624.0	568.0		
CPE-0702-MS	T	317.8	287.1	357.6	322.9	401.1	362.7	448.0	406.0	499.2	453.2	552.8	502.7	609.3	555.6		
CPE-0800-MS*	S	363.2	328.5	408.4	369.4	457.2	413.6	510.2	462.0	566.9	514.6	626.4	568.5	689.4	625.9		
CPE-0801-MS*	O	373.2	337.7	419.2	380.2	470.0	426.8	526.0	478.0	587.3	533.7	652.2	592.8	720.0	654.4		

Saturated Suction Temperature (SST)			30°F		35°F		40°F		45°F		50°F			
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Unit Capacity (MBH)											
CPE-0100-MS	S	96.9	89.1	106.9	98.5	117.5	108.7	133.4	123.8	N/A	N/A	N/A		
CPE-0101-MS*	O	103.2	95.3	114.2	105.5	126.1	116.7	138.7	128.7	N/A	N/A	N/A		
CPE-0150-MS*	S	146.1	134.6	161.0	148.7	176.7	163.6	196.7	182.4	N/A	N/A	N/A		
CPE-0151-MS	O	153.2	141.4	169.1	156.3	186.3	172.4	204.6	189.7	N/A	N/A	N/A		
CPE-0160-MS	S	153.2	141.4	169.1	156.3	186.3	172.4	202.6	188.9	N/A	N/A	N/A		
CPE-0161-MS	O	157.3	145.7	173.8	161.4	191.6	178.3	210.7	196.5	N/A	N/A	N/A		
CPE-0162-MS	T	160.4	148.6	177.3	164.6	195.4	181.9	214.9	200.4	N/A	N/A	N/A		
CPE-0180-MS	S	195.0	180.5	214.2	198.5	234.6	217.7	260.3	241.7	N/A	N/A	N/A		
CPE-0181-MS*	O	204.6	189.5	225.0	208.5	247.0	229.1	270.7	251.3	N/A	N/A	N/A		
CPE-0200-MS	S	235.6	218.7	258.5	240.5	282.9	263.4	314.8	293.4	N/A	N/A	N/A		
CPE-0201-MS	O	247.2	229.9	271.9	253.6	298.7	278.7	327.4	305.2	N/A	N/A	N/A		
CPE-0202-MS	T	240.3	223.1	263.6	245.3	288.6	268.6	321.1	299.3	N/A	N/A	N/A		
CPE-0240-MS*	S	281.7	262.1	309.1	288.0	338.4	315.6	369.4	344.3	N/A	N/A	N/A		
CPE-0241-MS	O	290.3	269.9	319.3	297.2	350.5	326.6	384.1	358.0	N/A	N/A	N/A		
CPE-0300-MS	S	330.5	307.2	363.1	337.8	398.0	370.5	428.8	398.6	N/A	N/A	N/A		
CPE-0301-MS*	O	336.8	312.7	370.7	344.4	407.0	378.2	445.9	414.5	N/A	N/A	N/A		
CPE-0400-MS	S	371.0	333.9	404.8	364.3	440.2	396.2	486.9	442.3	N/A	N/A	N/A		
CPE-0401-MS	O	389.8	354.2	426.6	388.0	465.6	422.8	506.4	460.0	N/A	N/A	N/A		
CPE-0402-MS	T	378.4	340.6	412.9	371.6	449.0	404.1	496.7	451.2	N/A	N/A	N/A		
CPE-0500-MS*	S	428.6	385.7	467.0	420.3	507.6	456.8	580.8	528.5	N/A	N/A	N/A		
CPE-0501-MS	O	462.8	420.3	506.7	461.2	553.8	504.4	604.0	549.6	N/A	N/A	N/A		
CPE-0600-MS*	S	508.6	457.7	556.4	499.1	603.2	542.9	655.4	595.6	N/A	N/A	N/A		
CPE-0601-MS	O	524.2	476.7	574.1	522.2	626.6	569.8	681.6	619.4	N/A	N/A	N/A		
CPE-0700-MS	S	655.4	589.9	717.5	645.8	781.3	703.2	860.4	782.3	N/A	N/A	N/A		
CPE-0701-MS	O	666.8	625.0	752.4	684.2	812.6	747.2	894.8	813.6	N/A	N/A	N/A		
CPE-0702-MS	T	668.5	601.7	731.9	658.7	796.9	717.2	877.6	798.0	N/A	N/A	N/A		
CPE-0800-MS*	S	756.5	680.9	825.9	743.3	898.0	808.2	987.5	896.3	N/A	N/A	N/A		
CPE-0801-MS*	O	791.2	719.2	865.8	786.8	944.6	858.0	1027.0	932.2	N/A	N/A	N/A		

### Electrical Specifications - Medium Temperature R-404A

Voltage	208-230/3/60				460/3/60				575/3/60				Condenser LAVF	
	Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA
CPE-0100-MS	S	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	14.9	2.5	36.9	50	10.5	2.5	25.5	35	11410	
CPE-0150-MS*	S	5.4	78.8	110	17.0	5.0	40.0	60	12.3	5.0	27.3	35	11410	
CPE-0151-MS	O	10.8	84.2	110	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210	
CPE-0160-MS	S	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12310	
CPE-0161-MS	O	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12410</	

# CP Parallel Systems

## CPE Medium Temp R-407A

### CPE Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		
Ambient Temperature	Unit	Compressor	Cond	95°F	105°F*	95°F	105°F										
CPE-0100-MQ	2 - 4FES-5	S	43.7	40.2	49.3	45.3	55.4	50.9	62.0	56.9	70.8	66.0	79.9	74.1	89.5	83.0	
CPE-0101-MQ*		O	46.2	43.3	52.0	48.8	58.5	54.9	65.4	61.4	74.7	70.5	84.5	78.9	94.9	88.5	
CPE-0150-MQ*	2 - 4EES-6	S	66.3	61.0	74.7	68.8	83.9	77.3	93.9	86.5	106.5	99.5	120.1	111.5	134.6	125.2	
CPE-0151-MQ		O	69.1	63.9	77.9	72.0	87.5	80.9	98.0	90.6	111.6	104.7	126.1	117.4	141.3	131.5	
CPE-0160-MQ	2 - 4DES-7	S	69.1	63.9	77.9	72.0	87.5	80.9	98.0	90.6	111.6	104.7	126.1	117.4	141.3	131.5	
CPE-0161-MQ		O	70.7	65.3	79.6	73.6	89.5	82.8	100.2	92.6	114.2	107.0	129.2	120.1	144.8	135.1	
CPE-0162-MQ		T	72.1	66.6	81.2	75.1	91.3	84.4	102.2	94.5	116.5	109.1	131.8	122.5	147.7	137.8	
CPE-0180-MQ	2 - 4CES-9	S	90.2	83.9	101.6	94.6	114.2	106.3	127.8	118.9	144.2	135.9	161.7	151.3	180.6	168.7	
CPE-0181-MQ*		O	93.9	88.9	105.8	100.2	118.9	112.7	133.1	126.1	151.2	143.4	170.2	159.0	189.6	177.1	
CPE-0200-MQ	2 - 4TES-12	S	109.1	101.6	123.0	114.5	138.2	128.7	154.7	144.0	174.6	164.2	195.7	182.7	218.1	204.2	
CPE-0201-MQ		O	113.7	105.8	128.1	119.2	144.0	134.0	161.2	149.9	182.4	171.2	205.0	191.0	228.9	214.1	
CPE-0240-MQ*	2 - 4PES-15	S	130.2	121.6	146.8	137.1	165.0	154.0	184.6	172.4	209.1	197.7	234.9	220.1	261.3	245.2	
CPE-0241-MQ		O	133.2	124.3	150.1	140.1	168.8	157.5	188.8	176.3	214.4	202.5	241.3	225.8	268.8	251.9	
CPE-0300-MQ	2 - 4NES-20	S	151.9	141.9	171.2	159.9	192.4	179.8	215.3	201.1	244.2	230.6	274.7	257.0	306.1	287.0	
CPE-0301-MQ*		O	154.2	144.1	173.7	162.4	195.3	182.5	218.5	204.2	248.1	234.1	279.2	261.1	311.5	291.9	
CPE-0400-MQ	2 - 4JE-22	S	168.3	154.0	191.2	176.6	216.5	200.0	246.7	225.8	277.6	257.0	310.3	284.4	345.2	316.4	
CPE-0401-MQ		O	173.5	156.8	197.6	182.5	224.3	207.3	256.2	234.6	288.8	267.6	323.8	297.2	361.5	331.7	
CPE-0402-MQ		T	171.7	157.1	195.1	180.1	220.8	204.0	251.6	230.3	283.2	262.3	316.5	290.1	352.1	322.7	
CPE-0500-MQ*	2 - 4HE-25	S	195.1	177.8	221.2	203.8	250.1	230.9	284.9	260.6	320.6	296.6	358.8	328.0	399.2	365.0	
CPE-0501-MQ		O	204.4	186.5	232.7	215.0	263.8	244.3	301.8	276.8	342.1	316.1	383.4	351.7	428.6	392.8	
CPE-0600-MQ*	2 - 4GE-30	S	230.8	210.4	262.5	241.7	297.0	273.6	338.2	309.0	379.6	350.9	424.6	388.4	473.1	432.6	
CPE-0601-MQ		O	235.0	214.5	267.1	246.4	302.4	279.4	345.5	316.2	389.3	360.7	436.3	400.9	486.3	446.6	
CPE-0700-MQ	2 - 6HE-35	S	296.0	270.2	336.6	310.3	381.4	352.0	434.8	398.0	489.4	452.3	547.4	502.7	609.3	559.0	
CPE-0701-MQ		O	304.6	278.0	346.6	320.1	393.2	363.7	449.7	412.2	507.8	470.2	570.0	523.5	636.5	585.0	
CPE-0702-MQ		T	301.9	275.6	343.3	316.5	389.0	359.1	443.5	406.0	499.2	462.2	558.4	512.7	621.5	570.2	
CPE-0800-MQ*	2 - 6GE-40	S	345.0	315.4	392.1	362.0	443.5	409.5	505.1	462.0	566.9	524.9	632.7	579.9	703.2	644.7	
CPE-0801-MQ*		O	354.5	324.2	402.4	372.6	455.9	422.5	520.7	478.0	587.3	544.4	658.7	604.7	734.4	674.0	

Saturated Suction Temperature (SST)			30°F		35°F		40°F		45°F		50°F		
Ambient Temperature	Unit	Compressor	Cond	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPE-0100-MQ	2 - 4FES-5	S	99.8	93.6	111.2	103.5	122.2	115.3	138.7	131.2	N/A	N/A	N/A
CPE-0101-MQ*		O	106.3	100.0	118.8	110.7	131.1	123.7	144.3	136.4	159.6	150.1	N/A
CPE-0150-MQ*	2 - 4EES-6	S	150.4	141.4	167.4	156.2	183.7	173.4	204.6	193.4	N/A	N/A	N/A
CPE-0151-MQ		O	157.8	148.4	175.9	164.1	193.7	182.7	212.8	201.1	235.2	220.8	N/A
CPE-0160-MQ	2 - 4DES-7	S	157.8	148.4	175.9	164.1	193.7	182.7	210.7	200.2	N/A	N/A	N/A
CPE-0161-MQ		O	162.0	152.9	180.8	169.4	199.2	189.0	219.2	208.2	243.1	228.6	N/A
CPE-0162-MQ		T	165.2	156.0	184.4	172.8	203.2	192.8	223.5	212.4	248.0	233.1	N/A
CPE-0180-MQ	2 - 4CES-9	S	200.9	189.6	222.8	208.4	244.0	230.7	270.7	256.2	N/A	N/A	N/A
CPE-0181-MQ*		O	210.8	199.0	234.0	218.9	256.9	242.8	281.5	266.4	311.0	292.1	N/A
CPE-0200-MQ	2 - 4TES-12	S	242.7	229.6	268.8	252.5	294.3	279.2	327.4	311.1	N/A	N/A	N/A
CPE-0201-MQ		O	254.7	241.4	282.8	266.3	310.6	295.4	340.5	323.5	376.3	353.3	N/A
CPE-0202-MQ		T	247.5	234.2	274.2	257.6	300.2	284.7	334.0	317.3	368.8	346.3	N/A
CPE-0240-MQ*	2 - 4PES-15	S	290.2	275.2	321.4	302.5	352.0	334.5	384.1	364.9	N/A	N/A	N/A
CPE-0241-MQ		O	299.0	283.4	332.0	312.1	364.5	346.2	399.5	379.5	441.0	414.7	N/A
CPE-0300-MQ	2 - 4NES-20	S	340.4	322.6	377.6	354.7	413.9	392.7	445.9	422.5	N/A	N/A	N/A
CPE-0301-MQ*		O	346.9	328.4	385.5	361.6	423.3	400.9	463.8	439.4	511.5	480.3	N/A
CPE-0400-MQ	2 - 4JE-22	S	382.1	343.9	421.0	378.9	457.8	412.0	506.4	468.8	N/A	N/A	N/A
CPE-0401-MQ		O	401.5	371.9	443.7	407.4	484.2	448.2	526.7	487.6	581.1	550.3	N/A
CPE-0402-MQ		T	389.8	350.8	429.4	386.5	467.0	420.3	516.5	478.2	569.5	539.3	N/A
CPE-0500-MQ*	2 - 4HE-25	S	441.5	397.3	485.7	457.1	527.9	475.1	604.0	560.2	N/A	N/A	N/A
CPE-0501-MQ		O	476.7	414.3	527.0	484.3	576.0	534.7	628.2	582.6	671.5	639.9	N/A
CPE-0600-MQ*	2 - 4GE-30	S	523.9	471.5	576.8	519.1	627.3	564.6	681.6	631.3	749.7	N/A	N/A
CPE-0601-MQ		O	539.9	500.5	597.1	548.3	651.7	604.0	708.9	656.6	779.7	742.9	N/A
CPE-0700-MQ	2 - 6HE-35	S	675.1	607.6	746.2	671.6	812.6	731.3	894.8	829.2	970.6	N/A	N/A
CPE-0701-MQ		O	707.4	656.3	782.5	718.4	854.5	792.0	930.6	862.4	1009.4	961.9	N/A
CPE-0702-MQ		T	686.8	619.7	761.1	685.0	828.8	745.9	912.7	845.8	990.0	942.7	N/A
CPE-0800-MQ*	2 - 6GE-40	S	779.2	701.3	858.9	773.0	933.9	840.5	1027.0	950.1	1131.9	N/A	N/A
CPE-0801-MQ*		O	814.9	755.2	904.0	826.1	984.2	909.5	1068.1	988.1	1177.1	1121.2	N/A

Voltage			208-230/3/60				460/3/60				575/3/60				Condenser LAVF
Unit	Compressor	Cond	Comp RLA	Cond RLA	MCA	MOPD	Comp RLA	Cond RLA	MCA	MOPD	Comp RLA	Cond RLA	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	46.2	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	5.0	40.0	50	10.5	5.0	29.8	40	12210
CPE-0151-MQ		O	10.8	84.2	110			5.0	44.8	60		5.0	33.9	45	12310
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	12410
CPE-0161-MQ		O	10.8	91.4	125			5.0							

# CP Parallel Systems

## CPE Medium Temp R-448A

### CPE Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			CPE Performance Data - Medium Temperature R-448A - Total Capacity													
Ambient Temperature			-5°F		0°F		5°F		10°F		15°F		20°F		25°F	
Unit	Compressor	Cond	95°F	105°F*	95°F	105°F										
CPE-0100-MT	2 - 4FES-5	S	45.1	41.8	50.8	47.1	57.1	52.9	63.9	59.2	72.9	67.9	82.3	76.3	91.2	84.6
CPE-0101-MT*		O	47.6	45.1	53.6	50.8	60.2	57.1	67.4	63.9	76.9	72.6	87.0	81.2	96.7	90.2
CPE-0150-MT*	2 - 4EES-6	S	68.3	63.5	76.9	71.6	86.5	80.4	96.8	90.0	109.7	102.4	123.7	114.8	137.3	127.7
CPE-0151-MT		O	71.2	66.5	80.2	74.9	90.2	84.2	100.9	94.2	114.9	107.7	129.8	120.8	144.1	134.1
CPE-0160-MT		S	71.2	66.5	80.2	74.9	90.2	84.2	100.9	94.2	114.9	107.7	129.8	120.8	144.1	134.1
CPE-0161-MT	2 - 4DES-7	O	72.8	68.0	82.1	76.6	92.2	86.1	103.2	96.3	117.7	110.1	133.0	123.6	147.7	137.7
CPE-0162-MT		T	74.3	69.3	83.7	78.1	94.1	87.8	105.3	98.2	120.0	112.3	135.7	126.1	150.6	140.5
CPE-0180-MT		S	92.9	87.3	104.7	98.3	117.7	110.5	131.7	123.7	148.6	139.9	166.5	155.7	184.2	172.0
CPE-0181-MT*	2 - 4CES-9	O	96.7	92.5	109.0	104.2	122.5	117.2	137.1	131.1	155.7	147.6	175.2	163.6	193.3	180.6
CPE-0200-MT		S	112.4	105.7	126.7	119.1	142.4	133.9	159.4	149.8	179.9	169.0	201.6	188.1	222.3	208.2
CPE-0201-MT	2 - 4TES-12	O	117.1	110.0	132.0	124.0	148.4	139.4	166.0	155.9	187.8	176.3	211.1	196.6	233.4	218.3
CPE-0202-MT		T	114.7	107.8	129.3	121.5	145.3	136.5	162.6	152.8	183.5	172.4	205.6	191.8	226.8	212.4
CPE-0240-MT*	2 - 4PES-15	S	134.2	126.5	151.2	142.5	170.0	160.2	190.2	179.3	215.4	203.5	241.9	226.6	266.5	250.0
CPE-0241-MT		O	137.3	129.3	154.7	145.7	173.9	163.8	194.6	183.3	220.8	208.4	248.4	232.4	274.1	256.8
CPE-0300-MT	2 - 4NES-20	S	156.5	147.6	176.4	166.3	198.2	186.9	221.8	209.2	251.5	237.3	282.6	264.5	312.1	292.6
CPE-0301-MT*		O	158.8	149.8	179.0	168.9	201.2	189.8	225.1	212.4	255.5	241.0	287.5	268.8	317.6	297.5
CPE-0400-MT		S	173.7	158.8	199.2	182.0	225.4	208.1	254.2	234.8	285.9	264.6	319.5	292.7	351.9	322.6
CPE-0401-MT	2 - 4JE-22	O	178.9	163.5	205.8	188.1	233.5	215.7	264.0	244.0	297.5	275.5	333.4	306.1	368.6	338.1
CPE-0402-MT		T	177.1	162.0	203.2	185.6	229.9	212.2	259.3	239.5	291.6	269.9	325.9	298.6	359.0	329.0
CPE-0500-MT*	2 - 4HE-25	S	201.3	183.3	230.4	210.1	260.4	240.2	293.6	271.0	330.2	305.3	369.4	337.7	407.1	372.1
CPE-0501-MT		O	210.9	192.4	242.4	221.6	274.7	254.2	310.9	287.9	351.4	325.4	394.8	362.0	437.0	400.5
CPE-0600-MT*	2 - 4GE-30	S	238.0	217.0	273.4	249.1	309.3	284.7	348.4	321.4	391.0	361.2	437.2	399.8	482.4	441.0
CPE-0601-MT		O	242.5	221.2	278.2	253.9	314.9	290.7	356.0	328.8	401.0	371.3	449.3	412.7	495.9	455.3
CPE-0700-MT		S	305.4	278.7	350.6	319.8	397.1	366.3	448.0	413.9	504.1	466.5	563.7	517.4	621.3	569.8
CPE-0701-MT	2 - 6HE-35	O	314.2	286.7	361.0	329.9	409.5	378.4	463.3	428.7	523.0	484.1	587.0	538.9	649.0	596.4
CPE-0702-MT		T	311.5	284.3	357.6	326.2	405.1	373.6	456.9	422.2	514.2	475.8	575.0	527.8	633.7	581.2
CPE-0800-MT*	2 - 6GE-40	S	359.9	325.2	408.4	373.1	461.8	426.0	520.4	480.5	583.9	540.3	651.5	596.9	717.0	657.2
CPE-0801-MT*		O	365.7	334.3	419.2	384.0	474.7	439.6	536.5	497.1	604.9	560.4	678.3	622.4	748.8	687.1

Saturated Suction Temperature (SST)			CPE Performance Data - Medium Temperature R-448A - Total Capacity									
Ambient Temperature			30°F		35°F		40°F		45°F		50°F	
Unit	Compressor	Cond	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPE-0100-MT	2 - 4FES-5	S	101.7	95.4	112.2	105.4	123.4	116.3	140.1	132.4	N/A	N/A
CPE-0101-MT*		O	108.4	101.9	120.0	112.9	132.4	124.9	145.7	137.7	158.1	150.1
CPE-0150-MT*	2 - 4EES-6	S	153.4	144.1	169.0	159.1	185.5	175.1	206.6	195.2	N/A	N/A
CPE-0151-MT		O	160.9	151.3	177.6	167.2	195.6	184.4	214.8	203.0	233.0	220.8
CPE-0160-MT	2 - 4DES-7	S	160.9	151.3	177.6	167.2	195.6	184.4	212.8	202.1	N/A	N/A
CPE-0161-MT		O	165.1	155.9	182.5	172.7	201.1	190.8	221.3	210.2	240.8	228.6
CPE-0162-MT		T	168.5	159.0	186.1	176.1	205.2	194.6	225.7	214.4	245.6	233.1
CPE-0180-MT	2 - 4CES-9	S	204.8	193.2	224.9	212.4	246.3	232.9	273.3	258.6	N/A	N/A
CPE-0200-MT		O	214.8	202.8	236.3	223.1	259.4	245.1	284.2	268.9	308.1	292.1
CPE-0201-MT	2 - 4TES-12	S	247.4	234.0	271.4	257.4	297.1	281.8	330.6	314.0	N/A	N/A
CPE-0202-MT		O	259.6	246.0	285.5	271.3	313.6	298.2	343.8	326.5	372.8	353.3
CPE-0240-MT*	2 - 4PES-15	S	295.8	280.5	324.5	308.2	355.4	337.7	387.8	368.3	N/A	N/A
CPE-0241-MT		O	304.8	288.8	335.2	318.0	368.1	349.5	403.3	383.1	436.8	414.7
CPE-0300-MT	2 - 4NES-20	O	347.0	328.7	381.3	361.5	417.9	396.4	450.2	426.5	N/A	N/A
CPE-0301-MT*		S	353.6	334.6	389.2	368.5	427.3	404.7	468.2	443.5	506.6	480.3
CPE-0400-MT	2 - 4JE-22	S	386.9	350.6	425.0	382.5	462.2	416.0	511.3	473.3	N/A	N/A
CPE-0401-MT		O	409.3	379.0	447.9	415.2	488.9	452.4	531.7	492.2	575.6	550.3
CPE-0402-MT		T	397.3	357.6	433.5	390.2	471.5	424.3	521.5	482.7	564.1	539.3
CPE-0500-MT*	2 - 4HE-25	S	450.0	405.0	490.4	441.3	533.0	479.7	609.8	565.6	N/A	N/A
CPE-0501-MT		O	485.9	449.7	532.0	493.5	581.5	539.7	634.2	588.1	665.1	639.9
CPE-0600-MT*	2 - 4GE-30	S	534.0	480.6	582.3	524.1	633.4	570.0	688.2	637.3	742.56	N/A
CPE-0601-MT		O	550.4	510.1	602.8	558.8	657.9	609.7	715.7	662.8	772.3	742.9
CPE-0700-MT		S	688.2	619.4	753.4	678.0	820.4	738.3	903.4	837.1	961.4	N/A
CPE-0701-MT	2 - 6HE-35	O	721.1	668.8	790.0	732.1	862.7	799.5	939.5	870.6	999.8	961.9
CPE-0702-MT		T	701.9	631.7	768.4	691.6	836.8	753.1	921.5	853.8	980.6	942.7
CPE-0800-MT*	2 - 6GE-40	S	794.3	714.9	867.2	780.5	942.9	848.6	1036.9	959.1	1121.1	N/A
CPE-0801-MT*		O	830.8	769.5	909.1	841.9	991.8	918.1	1078.4	997.5	1165.9	1121.2

Voltage			208-230-3/60				460/3/60				575/3/60				Condenser LAVF		
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Cond FLA	MCA	MOPD
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																	

# CP Parallel Systems

## CPB Medium Temp R-404A

### CPB Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F			
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Unit Capacity (MBH)																	
CPB-0100-MS	2 - 4FES-3	S	44.2	40.2	49.8	45.3	56.0	50.9	62.6	56.9	70.8	64.7	79.2	72.6	87.7	80.6	96.9	89.1		
CPB-0101-MS*		O	46.6	43.3	52.6	48.8	59.1	54.9	66.1	61.4	74.7	69.2	83.6	77.3	93.0	85.9	103.2	95.3		
CPB-0150-MS*	2 - 4EES-4	S	66.9	61.0	75.4	68.8	84.8	77.3	94.9	86.5	106.5	97.5	118.9	109.3	132.0	121.6	146.1	134.6		
CPB-0151-MS		O	69.8	63.9	78.7	72.0	88.4	80.9	98.9	90.6	111.6	102.6	124.8	115.1	138.5	127.7	153.2	141.4		
CPB-0160-MS	2 - 4DES-5	S	69.8	63.9	78.7	72.0	88.4	80.9	98.9	90.6	111.6	102.6	124.8	115.1	138.5	127.7	153.2	141.4		
CPB-0161-MS		O	71.4	65.3	80.4	73.6	90.4	82.8	101.2	92.6	114.2	104.9	127.9	117.7	142.0	131.2	157.3	145.7		
CPB-0162-MS		T	72.8	66.6	82.1	75.1	92.2	84.4	103.2	94.5	116.5	107.0	130.5	120.1	144.8	133.8	160.4	148.6		
CPB-0180-MS	2 - 4CES-6	S	91.1	83.9	102.7	94.6	115.4	106.3	129.1	118.9	144.2	133.2	160.1	148.3	177.1	163.8	195.0	180.5		
CPB-0181-MS*		O	94.8	88.9	106.9	100.2	120.1	112.7	134.4	126.1	151.2	140.6	168.5	155.9	185.8	172.0	204.6	189.5		
CPB-0200-MS	2 - 4TES-9	S	110.2	101.6	124.2	114.5	139.6	128.7	156.3	144.0	174.6	161.0	193.8	179.1	213.8	198.3	235.6	218.7		
CPB-0201-MS		O	114.8	105.8	129.4	119.2	145.5	134.0	162.8	149.9	182.4	167.9	203.0	187.3	224.4	207.9	247.2	229.9		
CPB-0202-MS		T	112.4	103.6	126.7	116.8	142.4	131.3	159.4	146.9	178.1	164.2	197.7	182.7	218.1	202.3	240.3	223.1		
CPB-0240-MS*	2 - 4PES-12	S	131.5	121.6	148.2	137.1	166.6	154.0	186.5	172.4	209.1	193.8	232.6	215.8	256.2	238.1	281.7	262.1		
CPB-0241-MS		O	134.6	124.3	151.7	140.1	170.5	157.5	190.7	176.3	214.4	198.5	238.9	221.3	263.6	244.6	290.3	269.9		
CPB-0300-MS	2 - 4NES-14	S	153.4	141.9	172.9	159.9	194.3	179.8	217.5	201.1	244.2	226.0	271.9	251.9	300.1	278.7	330.5	307.2		
CPB-0301-MS*		O	155.7	144.1	175.5	162.4	197.3	182.5	220.7	204.2	248.1	229.5	276.4	256.0	305.4	283.4	336.8	312.7		
CPB-0400-MS	2 - 4JE-15	S	177.2	160.4	199.2	180.2	233.2	202.0	249.2	225.8	277.6	252.0	307.2	278.8	338.4	307.2	371.0	333.9		
CPB-0401-MS		O	182.6	165.2	205.8	186.2	231.2	209.4	258.8	234.6	288.8	262.4	320.6	291.4	354.4	322.0	389.8	354.2		
CPB-0402-MS		T	180.7	163.6	203.2	183.8	227.7	206.0	254.2	230.3	283.2	257.0	313.3	284.4	345.2	313.3	378.4	340.6		
CPB-0500-MS*	2 - 4HE-18	S	205.4	185.2	230.4	208.0	257.8	233.2	287.8	260.6	320.6	290.8	355.2	321.6	391.4	354.4	428.6	385.7		
CPB-0501-MS		O	215.2	194.3	242.4	219.4	272.0	246.8	304.8	276.8	341.2	309.9	379.6	344.8	420.2	381.4	462.8	420.3		
CPB-0600-MS*	2 - 4GE-23	S	242.9	219.2	273.4	246.6	306.2	276.4	341.6	309.0	379.6	344.0	420.4	380.8	463.8	420.0	508.6	457.7		
CPB-0601-MS		O	247.4	234.4	278.2	251.4	311.8	282.2	349.0	316.2	389.3	353.6	432.0	393.0	476.8	433.6	524.2	476.7		
CPB-0700-MS	2 - 6HE-28	S	311.6	281.5	350.6	316.6	393.2	355.6	439.2	398.0	489.4	443.3	542.0	492.8	597.4	542.7	655.4	589.9		
CPB-0701-MS		O	320.6	289.6	361.0	326.6	405.4	367.4	454.2	412.2	507.8	461.0	564.4	513.2	624.0	568.0	686.8	625.0		
CPB-0702-MS		T	317.8	287.1	357.6	322.9	401.1	362.7	448.0	406.0	499.2	453.2	552.8	502.7	609.3	553.6	668.5	601.7		
CPB-0800-MS*	2 - 6GE-34	S	363.2	328.5	408.4	369.4	457.2	413.6	510.2	462.0	566.9	514.6	626.4	568.5	689.4	625.9	756.5	680.9		
CPB-0801-MS*		O	373.2	337.7	419.2	380.2	470.0	426.8	526.0	478.0	587.3	533.7	652.2	592.8	720.0	654.4	791.2	719.2		

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.

### Electrical Specifications - Medium Temperature R-404A

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

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.

# CP Parallel Systems

## CPB Medium Temp R-407A

### CPB Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F			
Ambient Temperature			95°F	105°F*	95°F	105°F														
Unit	Compressor	Cond	Unit Capacity (MBH)																	
CPB-0100-MQ	2 - 4FES-3	S	43.7	40.2	49.3	45.3	55.4	50.9	62.0	56.9	70.8	66.0	79.9	74.1	89.5	83.0	99.8	93.6		
CPB-0101-MQ*		O	46.2	43.3	52.0	48.8	58.5	54.9	65.4	61.4	74.7	70.5	84.5	78.9	94.9	88.5	106.3	100.0		
CPB-0150-MQ*		S	66.3	61.0	74.7	68.8	83.9	77.3	93.9	86.5	99.5	120.1	111.5	134.6	125.2	150.4	141.4			
CPB-0151-MQ		O	69.1	63.9	77.9	72.0	87.5	80.9	98.0	90.6	111.6	104.7	126.1	117.4	141.3	131.5	157.8	148.4		
CPB-0160-MQ		S	69.1	63.9	77.9	72.0	87.5	80.9	98.0	90.6	111.6	104.7	126.1	117.4	141.3	131.5	157.8	148.4		
CPB-0161-MQ		O	70.7	65.3	79.6	73.6	89.5	82.8	100.2	92.6	114.2	107.0	129.2	120.1	144.8	135.1	162.0	152.9		
CPB-0162-MQ		T	72.1	66.6	81.2	75.1	91.3	84.4	102.2	94.5	116.5	109.1	131.8	122.5	147.7	137.8	165.2	156.0		
CPB-0180-MQ		S	90.2	83.9	101.6	94.6	114.2	106.3	127.8	118.9	144.2	135.9	161.7	151.3	180.6	168.7	200.9	189.6		
CPB-0181-MQ*		O	93.9	88.9	105.8	100.2	118.9	112.7	133.1	126.1	151.2	143.4	170.2	159.0	189.6	177.1	210.8	199.0		
CPB-0200-MQ		S	109.1	101.6	123.0	114.5	138.2	128.7	154.7	144.0	174.6	164.2	195.7	182.7	218.1	204.2	242.7	229.6		
CPB-0201-MQ		O	113.7	105.8	128.1	119.2	144.0	134.0	161.2	149.9	182.4	171.2	205.0	191.0	228.9	214.1	254.7	241.4		
CPB-0202-MQ		T	111.3	103.6	125.5	116.8	141.0	131.3	157.8	146.9	178.1	167.5	199.7	186.3	222.4	208.3	247.5	234.2		
CPB-0240-MQ*		S	130.2	121.6	146.8	137.1	165.0	154.0	184.6	172.4	209.1	197.7	234.9	220.1	261.3	245.2	290.2	275.2		
CPB-0241-MQ		O	133.2	124.3	150.1	140.1	168.8	157.5	188.8	176.3	214.4	202.5	241.3	225.8	268.8	251.9	299.0	283.4		
CPB-0300-MQ		S	151.9	141.9	171.2	159.9	192.4	179.8	215.3	201.1	244.2	230.6	274.7	257.0	306.1	287.0	340.4	322.6		
CPB-0301-MQ*		O	154.2	144.1	173.7	162.4	195.3	182.5	218.5	204.2	248.1	234.1	279.2	261.1	311.5	291.9	346.9	328.4		
CDB-0400-MT		S	168.3	154.0	191.2	176.6	216.5	200.0	246.7	225.8	277.6	257.0	310.3	284.4	345.2	316.4	382.1	343.9		
CDB-0401-MT		O	173.5	158.6	197.6	182.5	224.3	207.3	256.2	234.6	288.8	267.6	323.8	297.2	361.5	331.7	401.5	371.9		
CPB-0402-MQ		T	171.7	157.1	195.1	180.1	220.8	204.0	251.6	230.3	283.2	262.2	316.8	290.1	352.1	322.7	389.8	350.8		
CPB-0500-MQ*		S	195.1	177.8	221.2	203.8	250.1	230.9	284.9	260.6	320.6	296.6	358.8	328.0	399.2	365.0	441.5	397.3		
CPB-0501-MQ		O	204.4	186.5	232.7	215.0	263.8	244.3	301.8	276.8	341.2	316.1	383.4	351.7	428.6	392.8	476.7	441.3		
CPB-0600-MQ*		S	230.8	210.4	262.5	241.7	297.0	273.6	338.2	309.0	379.6	350.9	424.6	388.4	473.1	432.6	523.9	471.5		
CPB-0601-MQ		O	235.0	214.5	267.1	246.4	302.4	279.4	345.5	316.2	389.3	360.7	436.3	400.9	486.3	446.6	539.9	500.5		
CPB-0700-MQ		S	296.0	270.2	336.6	310.3	381.4	352.0	434.8	398.0	489.4	453.2	547.4	502.7	609.3	559.0	675.1	607.6		
CPB-0701-MQ		O	304.6	278.0	346.6	320.1	393.2	363.7	449.7	412.2	507.8	470.2	570.0	523.5	636.5	585.0	707.4	656.3		
CPB-0702-MQ		T	301.9	275.6	343.3	316.5	389.0	359.1	443.5	406.0	499.2	462.2	558.4	512.7	621.5	570.2	688.6	619.7		
CPB-0800-MQ*		S	345.0	315.4	392.1	362.0	443.5	409.5	505.1	462.0	566.9	524.9	632.7	579.9	703.2	644.7	779.2	701.3		
CPB-0801-MQ*		O	354.5	324.2	402.4	372.6	455.9	422.5	520.7	478.0	587.3	544.4	658.7	604.7	734.4	674.0	814.9	755.2		

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.

### Electrical Specifications - Medium Temperature R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				Condenser LAVF				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Cond RLA	Cond FLA	MCA	MOPD	
CPB-0100-MQ	2 - 4FES-3	S	5.4	53.6	70	9.0	2.5	24.3	30	6.9	2.5	19.2	25	12120					
CPB-0101-MQ*		O	5.4	53.6	70	10.3	2.5	24.3	30	8.3	2.5	19.2	25	11410					
CPB-0150-MQ*		S	5.4	58.8	80	12.0	5.0	29.7	40	10.0	5.0	24.9	30	11410					
CPB-0151-MQ		O	10.8	64.2	80	15.7	5.0	33.5	45	13.6	5.0	28.7	35	12210					
CPB-0160-MQ		S	10.8	65.6	80	19.3	5.0	33.5	45	16.0	5.0	28.7	35	12310					
CPB-0161-MQ		O	10.8	65.6	80	27.9	5.0	33.5	45	22.3	5.0	33.5	45	12410					
CPB-0162-MQ		T	10.8	65.6	80	27.9	5.0	33.5	45	22.3	5.0	33.5	45	12410					
CPB-0180-MQ		S	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12210					
CPB-0181-MQ*		O	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12410					
CPB-0200-MQ		S	10.8	84.5	110	15.7	7.5	44.3	60	13.6	7.5	39.3	50	13310					
CPB-0201-MQ		O	16.2	89.9	110	27.9	5.0	41.8	50	16.0	7.5	36.8	50	12410					
CPB-0202-MQ		T	10.8	84.5	110	27.9	5.0	41.8	50	16.0	7.5	42.2	50	12410					
CPB-0240-MQ*		S	10.8	100.7	125	19.3	7.5	52.4	70	16.0	7.5	44.7	60	13310					
CPB-0241-MQ		O	16.2	106.1	125	19.3	7.5	52.4	70	16.0	7.5	48.5	60	13310					
CPB-0300-MQ		S	16.2	118.9	150	22.1	7.5	58.7	80	17.7	7.5	58.9	80	13410					
CPB-0301-MQ*		O	16.2	118.9	150	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13410					
CDB-0400-MT		S	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	27.9	10.0	74.3	100	22.3	10.0	61.4	80	22310					
CPB-0402-MQ		T	16.2	144.5	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80	13410					
CPB-0500-MQ*		S	16.2	154.9	200	30.1	7.5	76.7	100	24.1	7.5	62.9	80	13410					
CPB-0501-MQ		O	32.4	171.1	225	30.1	15.0	84.2	110	24.1	15.0	70.4	90	23310					
CPB-0600-MQ*		S	21.6	169.3	225	32.1	10.0	83.7	110	25.7	10.0	69.0	90	22410					
CPB-0601-MQ		O	32.4	180.1	225	32.1	15.0	88.7	110	25.7	15.0	74.0	100	23310					
CPB-0700-MQ		S	32.4	229.8	300	43.2	10.0	113.7	150	34.6	10.0	94.1	125	23310					
CPB-0701-MQ		O	86.4	32.4	240.6	300	43.2	20.0	118.7	150	34.6	20.0	99.1	125	24310				
CPB-0702-MQ		T	32.4	229.8	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125	23410					
CPB-0800-MQ*		S	32.4	247.6	300	47.1	15.0	122.5	150	37.1	15.0	99.7	125	23410					
CPB-0801-MQ*		O	43.2	258.4	350	47.1	20.0	127.5											

# CP Parallel Systems

## CPB Medium Temp R-448A

### CPB Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F	
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)	95°F	105°F*	95°F	105°F										
CPB-0100-MT	2 - 4FES-3	S	45.1	41.8	50.8	47.1	57.1	52.9	63.9	59.2	72.9	67.9	82.3	76.3	91.2	84.6	101.7	95.4
CPB-0101-MT*	2 - 4FES-3	O	47.6	45.1	53.6	50.8	60.2	57.1	67.4	63.9	76.9	72.6	87.0	81.2	96.7	90.2	108.4	101.9
CPB-0150-MT*	2 - 4EES-4	S	68.3	63.5	76.9	71.5	86.5	80.4	96.8	90.0	109.7	102.4	123.7	114.8	137.3	127.7	153.4	144.1
CPB-0151-MT	2 - 4EES-4	O	71.2	66.5	80.2	74.9	90.2	84.2	100.9	94.2	114.9	107.7	129.8	120.8	144.1	134.1	160.9	151.3
CPB-0160-MT	2 - 4DES-5	S	71.2	66.5	80.2	74.9	90.2	84.2	100.9	94.2	114.9	107.7	129.8	120.8	144.1	134.1	160.9	151.3
CPB-0161-MT	2 - 4DES-5	O	72.8	68.0	82.1	76.6	92.2	86.1	103.2	96.3	117.7	110.1	133.0	123.6	147.7	137.7	165.1	155.9
CPB-0162-MT	2 - 4ACES-6	T	74.3	69.3	83.7	78.1	94.1	87.8	105.3	98.2	120.0	112.3	135.7	126.1	150.6	140.5	168.5	159.0
CPB-0180-MT	2 - 4ACES-6	S	92.9	87.3	104.7	98.3	117.7	110.5	131.7	123.7	148.6	139.9	166.5	155.7	184.2	172.0	204.8	193.2
CPB-0181-MT*	2 - 4ACES-6	O	96.7	92.5	109.0	104.2	122.5	117.2	137.1	131.1	155.7	147.6	175.2	163.6	193.3	180.6	214.8	202.8
CPB-0200-MT	2 - 4TES-9	S	112.4	105.7	126.7	119.1	142.4	133.9	159.4	149.8	179.9	169.0	201.6	188.1	222.3	208.2	247.4	234.0
CPB-0201-MT	2 - 4TES-9	O	117.1	110.0	132.0	124.0	148.4	139.4	166.0	155.9	187.8	176.3	211.1	196.6	233.4	218.3	259.6	246.0
CPB-0202-MT	2 - 4PES-12	T	114.7	107.8	129.3	121.5	145.3	136.5	162.6	152.8	183.5	172.4	205.6	191.8	226.8	212.4	252.3	238.7
CPB-0240-MT*	2 - 4PES-12	S	134.2	126.5	151.2	142.5	170.0	160.2	190.2	179.3	215.4	203.5	241.9	226.6	266.5	250.0	295.8	280.5
CPB-0241-MT	2 - 4NES-14	O	137.3	129.3	154.7	145.7	173.9	163.8	194.6	183.3	220.8	208.4	248.4	232.4	274.1	256.8	304.8	288.8
CPB-0300-MT	2 - 4NES-14	S	156.5	147.6	176.4	166.3	198.2	186.9	221.8	209.2	251.5	237.3	282.8	264.5	312.1	292.6	347.0	328.7
CPB-0301-MT*	2 - 4NES-14	O	158.8	149.8	179.0	168.9	201.2	189.8	225.1	212.4	255.5	241.0	287.5	268.8	317.6	297.5	353.6	334.6
CDB-0400-MT	2 - 4JE-15	S	173.7	158.8	199.2	182.0	225.4	208.1	254.2	234.8	285.9	264.6	319.5	292.7	351.9	322.6	389.6	350.6
CDB-0401-MT	2 - 4JE-15	O	178.9	163.5	205.8	188.1	233.5	215.7	264.0	244.0	297.5	275.5	333.4	306.0	368.6	338.1	409.3	379.0
CPB-0402-MT	2 - 4HE-18	T	177.1	162.0	203.2	185.6	229.9	212.2	259.3	239.5	291.6	269.9	325.9	298.6	359.0	329.0	397.3	357.6
CPB-0500-MT*	2 - 4HE-18	S	201.3	183.3	230.4	210.1	260.4	240.2	293.6	271.0	330.2	305.3	369.4	337.7	407.1	372.1	450.0	405.0
CPB-0501-MT	2 - 4GE-23	O	210.9	192.4	242.4	221.6	274.7	254.2	310.9	287.9	351.4	325.4	394.8	362.0	437.0	400.5	485.9	449.7
CPB-0600-MT*	2 - 4GE-23	S	238.0	217.0	273.4	249.1	309.3	284.7	348.4	321.4	391.0	361.2	437.2	399.8	482.4	441.0	534.0	480.6
CPB-0601-MT	2 - 6HE-28	O	242.5	221.2	278.2	253.9	314.9	290.7	356.0	328.8	401.0	371.3	449.3	412.7	495.9	455.3	550.4	510.1
CPB-0700-MT	2 - 6HE-28	S	305.4	278.7	350.6	319.8	397.1	366.3	448.0	413.9	504.1	466.5	563.7	517.4	621.3	569.8	688.2	619.4
CPB-0701-MT	2 - 6HE-28	O	314.2	286.7	361.0	329.9	409.5	378.4	463.3	428.7	523.0	484.1	587.0	538.9	649.0	596.4	721.1	668.8
CPB-0702-MT	2 - 6HE-28	T	311.5	284.3	357.6	326.2	405.1	373.6	456.9	422.2	514.2	475.8	575.0	527.8	633.7	581.2	701.9	631.7
CPB-0800-MT*	2 - 6GE-34	S	355.9	325.2	408.4	373.1	461.8	426.0	520.4	480.5	583.9	540.3	651.5	596.9	717.0	657.2	794.3	714.9
CPB-0801-MT*	2 - 6GE-34	O	365.7	334.3	419.2	384.0	474.7	439.6	536.5	497.1	604.9	560.4	678.3	622.4	748.8	687.1	830.8	769.5

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.

### 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		
CPB-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			
CPB-0101-MT*	2 - 4FES-3	O	20.1	5.4	53.6	70	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11410			
CPB-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			
CPB-0151-MT	2 - 4EES-4	O	10.8	64.2	80		5.0	29.7	40		5.0	24.9	30		12210			
CPB-0160-MT	2 - 4DES-5	S		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35		12210		
CPB-0161-MT	2 - 4DES-5	O	23.0	10.8	65.6	80	12.0	5.0	33.5	45	10.0	5.0	28.7	35		12310		
CPB-0162-MT	2 - 4ACES-6	T		10.8	65.6	80		5.0	33.5	45		5.0	28.7	35		12410		
CPB-0180-MT	2 - 4ACES-6	S	27.9	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45		12210		
CPB-0181-MT	2 - 4TES-9	O		10.8	76.6	100		5.0	42.1	50		5.0	34.3	45		12410		
CPB-0200-MT	2 - 4TES-9	S	31.4	10.8	84.5	110	15.7	7.5	44.3	60	13.6	7.5	39.3	50		13310		
CPB-0201-MT	2 - 4PES-12	O		16.2	89.9	110		7.5	44.3	60		7.5	36.8	50		12410		
CPB-0202-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		
CPB-0240-MT*	2 - 4PES-12	O		16.2	106.1	125		7.5	52.4	70		7.5	44.7	60		13310		
CPB-0241-MT	2 - 4PES-12	S	55.7	21.6	149.9	200	27.9	10.0	74.3	100	22.3	10.0	61.4	80		22310		
CPB-0402-MT	2 - 4NES-14	T		16.2	144.5	200		7.5	71.8	100		7.5	58.9	80		13410		
CPB-0400-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		
CPB-0401-MT	2 - 4JE-15	O		16.2	144.5	200		7.5	71.8	100		7.5	58.9	80		13310		
CPB-0402-MT	2 - 4JE-15	S	55.7	21.6	149.9	200	27.9	10.0	74.3	100	22.3	10.0	61.4	80		22310		
CPB-0404-MT	2 - 4HE-18	T		16.2	144.5	200		7.5	71.8	100		7.5	58.9	80		13410		
CPB-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		
CPB-0501-MT	2 - 4GE-23	O		32.4	171.1	225		15.0	84.2	110		15.0	70.4	90		23310		
CPB-0600-MT	2 - 4GE-23	S	64.3	32.4	180.1	225	32.1	15.0	88.7	110	25.7	15.0	74.0	100		23310		
CPB-0700-MT	2 - 6HE-28	S		32.4	229.8	300		15.0	113.7	150		15.0	94.1	125		23310		
CPB-0701-MT	2 - 6HE-28	O	86.4	43.2	240.6	300	43.2	20.0	118.7	150	34.6	20.0	99.1	125		24310		
CPB-0702-MT	2 - 6GE-34	T		32.4	229.8	300		15.0</td										

# CP Parallel Systems

## CPD Low Temp R-404A

### CPD Performance Data - Low Temperature R-404A - Total Capacity

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.	Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F		
	Ambient Temperature	Unit	Compressor	Cond	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPD-0300-LS*	2 - 4DKNF63KE	S	81.8	73.2	96.6	87.0	111.2	100.6	126.4	114.6	142.2	129.0		
CPD-0301-LS		O	85.9	77.3	101.6	92.1	117.2	106.7	133.5	121.7	150.6	137.4		
CPD-0440-LS		S	96.8	83.3	114.6	100.5	132.9	117.9	152.0	135.8	171.8	154.4		
CPD-0441-LS*		O	98.9	85.7	117.2	103.2	136.2	121.2	155.9	139.6	176.6	158.8		
CPD-0540-LS*	2 - 6DHNF93KE	S	118.3	103.1	138.8	122.6	161.3	143.9	185.8	166.8	212.1	191.2		
CPD-0541-LS*		O	121.0	106.0	141.9	126.0	165.2	148.0	190.6	171.8	217.9	197.3		
CPD-0600-LS		S	134.5	116.8	157.5	138.9	182.4	162.3	209.0	187.1	237.5	213.2		
CPD-0601-LS	2 - 6DJNF11ME	O	138.7	121.1	162.6	143.9	188.5	168.3	216.5	194.4	246.8	222.2		
CPD-0602-LS		T	137.2	119.1	160.7	141.7	186.0	165.5	213.2	190.8	242.3	217.5		

Saturated Suction Temperature (SST)	-15°F		-10°F		-5°F		0°F							
	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F						
CPD-0300-LS*	2 - 4DKNF63KE	S	158.8	144.2	176.8	160.6	196.2	178.2	N/A	N/A				
CPD-0301-LS		O	168.7	154.1	188.5	172.0	209.9	191.6	N/A	N/A				
CPD-0440-LS		S	192.6	173.6	214.4	193.7	237.4	214.8	N/A	N/A				
CPD-0441-LS*	2 - 6DHNF93KE	O	198.3	178.9	221.4	200.0	245.8	222.3	N/A	N/A				
CPD-0540-LS*		S	239.8	216.7	268.9	243.3	299.0	270.7	N/A	N/A				
CPD-0541-LS*		O	247.1	224.2	277.8	252.4	309.9	281.7	N/A	N/A				
CPD-0600-LS		S	267.8	240.8	299.9	269.8	333.8	300.2	N/A	N/A				
CPD-0601-LS	2 - 6DJNF11ME	O	279.3	251.9	314.3	283.5	351.6	317.0	N/A	N/A				
CPD-0602-LS		T	273.2	245.6	305.9	275.2	340.5	306.2	N/A	N/A				

### 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		S	64.3	16.2	163.8	225		7.5	81.3	110		7.5	74.1	100
CPD-0441-LS*	2 - 6DHNF93KE	O		16.2	169.2	225	32.1	7.5	83.8	110		7.5	76.6	100
CPD-0540-LS*		S	80.7	16.2	200.8	250		7.5	99.8	125		7.5	81.8	110
CPD-0541-LS*		O		21.6	206.2	250	40.4	10.0	102.3	125		10.0	84.3	110
CPD-0600-LS		S		21.6	239.7	300		10.0	119.2	150		10.0	100.3	125
CPD-0601-LS	2 - 6DJNF11ME	O	95.6	32.4	250.5	300	47.8	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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
- 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F			
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Unit Capacity (MBH)											
CPD-0300-LQ*	2 - 4DKNF63KE	S	67.9	60.0	81.1	73.1	95.6	86.5	112.5	100.8	129.4	116.1		
		O	71.3	63.3	85.3	76.4	102.0	91.8	117.5	108.4	135.5	123.7		
CPD-0440-LQ	2 - 4DJNF76KE	S	86.2	76.6	99.7	87.4	115.6	102.6	135.3	118.1	156.3	140.5		
CPD-0441-LQ*		O	88.0	78.0	100.8	89.8	119.9	106.7	138.8	122.8	160.7	142.9		
CPD-0540-LQ*	2 - 6DHN93KE	S	91.1	75.3	115.2	96.9	138.7	120.9	163.5	143.4	188.8	168.3		
		O	93.2	77.4	117.8	100.8	142.1	124.3	167.7	147.7	193.9	173.6		
CPD-0600-LQ	2 - 6DJNF11ME	S	107.6	87.6	137.0	115.3	166.0	142.8	194.4	172.1	228.0	202.5		
CPD-0601-LQ		O	113.7	93.2	141.5	120.9	171.5	149.8	203.5	178.8	234.5	211.1		
CPD-0602-LQ		T	109.8	89.4	139.8	117.6	169.3	145.7	198.3	175.6	232.6	206.6		

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Unit Capacity (MBH)							
CPD-0300-LQ*	2 - 4DKNF63KE	S	146.1	134.1	164.4	151.0	184.4	167.5	N/A	N/A
		O	153.5	141.8	175.3	160.0	197.3	180.1	N/A	N/A
CPD-0440-LQ	2 - 4DJNF76KE	S	181.0	161.4	208.0	186.0	237.4	214.8	N/A	N/A
		O	186.4	168.2	214.8	194.0	245.8	222.3	N/A	N/A
CPD-0540-LQ*	2 - 6DHN93KE	S	218.2	197.2	250.1	226.3	284.1	254.5	N/A	N/A
		O	222.4	201.8	255.6	232.2	291.3	264.8	N/A	N/A
CPD-0600-LQ	2 - 6DJNF11ME	S	262.4	233.6	296.9	269.8	337.1	306.2	N/A	N/A
		O	270.9	246.9	311.2	280.7	355.1	323.3	N/A	N/A
		T	267.7	238.2	302.8	275.2	343.9	312.3	N/A	N/A

#### 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.

### 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	10.8	132.1	175	26.3	5	65.6	90	20.9	5	53.3	70	
		O		16.2	137.5		7.5	68.1	90		7.5	55.8	70	
CPD-0440-LQ	2 - 4DJNF76KE	S	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100	
		O		16.2	169.2		7.5	83.8	110		7.5	76.6	100	
CPD-0540-LQ*	2 - 6DHN93KE	S	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110	
		O		21.6	206.2		10.0	102.3	125		10.0	84.3	110	
CPD-0600-LQ	2 - 6DJNF11ME	S	21.6	239.7	300	47.8	10.0	119.1	150	39.6	10.0	100.3	125	
		O		32.4	250.5		15.0	124.2	150		15.0	105.3	125	
		T		21.6	239.7		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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-407A capacity and electrical data for R-407F while replacing the "0" at the end of the model nomenclature with an "F".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CP Parallel Systems

## CPD Low Temp R-448A

### CPD Performance Data - Low Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)				-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature				95°F	105°F								
Unit	Compressor	Cond	Unit Capacity (MBH)										
CPD-0300-LT*	2 - 4DKNF63KE	S	69.5	59.3	85.0	74.0	100.1	89.5	116.3	104.3	132.2	121.3	
CPD-0301-LT	2 - 4DKNF63KE	O	73.0	62.6	88.4	78.3	105.5	93.9	121.5	110.8	141.6	127.8	
CPD-0440-LT	2 - 4DJNF76KE	S	81.3	66.6	100.8	84.4	120.9	103.8	141.4	122.2	163.2	145.1	
CPD-0441-LT*	2 - 4DJNF76KE	O	84.1	68.6	103.1	87.7	123.9	107.9	145.0	127.0	167.8	147.7	
CPD-0540-LT*	2 - 6DHNF93KE	S	98.2	81.4	120.8	101.8	143.6	125.2	169.1	148.5	197.3	174.0	
CPD-0541-LT*	2 - 6DHNF93KE	O	100.4	83.7	123.5	104.6	147.0	128.8	173.4	152.9	200.5	179.5	
CPD-0600-LT	2 - 6DJNF11ME	S	115.7	92.3	143.3	120.8	171.5	147.7	202.7	177.7	235.1	208.9	
CPD-0601-LT	2 - 6DJNF11ME	O	120.7	99.3	149.6	125.2	179.1	154.8	212.2	186.6	244.3	220.0	
CPD-0602-LT		T	118.0	94.1	146.2	123.3	174.9	150.6	206.8	181.3	239.8	213.1	

Saturated Suction Temperature (SST)				-15°F		-10°F		-5°F		0°F	
Ambient Temperature				95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Unit Capacity (MBH)								
CPD-0300-LT*	2 - 4DKNF63KE	S	150.9	138.4	171.5	155.8	190.3	172.9	N/A	N/A	
CPD-0301-LT	2 - 4DKNF63KE	O	158.6	146.4	181.0	165.1	201.5	185.8	N/A	N/A	
CPD-0440-LT	2 - 4DJNF76KE	S	186.8	166.7	212.3	191.8	242.1	221.2	N/A	N/A	
CPD-0441-LT*	2 - 4DJNF76KE	O	192.4	173.5	221.4	200.0	250.7	229.0	N/A	N/A	
CPD-0540-LT*	2 - 6DHNF93KE	S	225.4	203.7	258.1	231.1	293.0	265.3	N/A	N/A	
CPD-0541-LT*	2 - 6DHNF93KE	O	232.3	210.7	266.7	239.8	300.6	273.2	N/A	N/A	
CPD-0600-LT	2 - 6DJNF11ME	S	270.5	240.8	308.9	277.9	350.5	315.2	N/A	N/A	
CPD-0601-LT	2 - 6DJNF11ME	O	282.1	254.4	323.7	292.0	365.7	332.9	N/A	N/A	
CPD-0602-LT		T	275.9	245.6	315.1	283.5	357.5	321.5	N/A	N/A	

**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.

### 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	65.6	90	20.9	5	53.3	70
CPD-0301-LT	2 - 4DKNF63KE	O	52.6	16.2	137.5	175	26.3	7.5	68.1	90	20.9	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*	2 - 4DJNF76KE	O	64.3	16.2	169.2	225	32.1	7.5	83.8	110	29.1	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*	2 - 6DHNF93KE	O	80.7	21.6	206.2	250	40.4	10.0	102.3	125	32.5	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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-448A capacity and electrical data for R-449A while replacing the "I" at the end of the model nomenclature with a "R".
- 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F			
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Unit Capacity (MBH)											
CPE-0300-LS*	2 - 4HE-25	S	68.4	59.6	82.4	72.4	97.6	86.4	114.0	101.6	131.8	118.0		
CPE-0301-LS		O	72.3	63.0	87.1	76.8	103.4	91.7	121.1	107.9	140.7	125.9		
CPE-0440-LS	2 - 4GE-30	S	81.2	70.6	97.4	85.4	115.4	101.6	134.8	119.6	155.8	139.2		
CPE-0441-LS*		O	83.6	72.6	100.4	88.2	119.0	105.2	139.4	123.8	161.3	144.1		
CPE-0540-LS*	2 - 6HE-35	S	102.6	90.0	123.8	109.2	146.6	130.2	171.4	152.6	197.6	177.4		
CPE-0541-LS*		O	105.5	92.5	127.6	112.4	151.2	134.4	177.0	157.8	204.8	183.7		
CPE-0600-LS	2 - 6GE-40	S	122.6	107.1	145.6	128.0	171.6	151.8	200.6	178.6	232.5	208.2		
CPE-0601-LS		O	126.3	110.4	150.6	132.4	177.8	157.4	208.2	185.6	241.6	216.7		
CPE-0602-LS		T	125.1	109.2	148.5	130.6	175.0	154.8	204.6	182.2	237.2	212.4		

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F			
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Unit Capacity (MBH)									
CPE-0300-LS*	2 - 4HE-25	S	151.4	135.8	172.0	155.0	194.4	175.4	218.2	197.4		
CPE-0301-LS		O	161.9	145.2	184.6	166.0	208.9	188.7	235.3	212.6		
CPE-0440-LS	2 - 4GE-30	S	178.4	160.0	202.6	182.4	229.0	206.6	257.8	232.8		
CPE-0441-LS*		O	185.6	166.4	211.2	190.2	239.0	215.8	269.3	243.3		
CPE-0540-LS*	2 - 6HE-35	S	226.4	204.0	257.6	232.0	291.2	263.0	327.0	296.0		
CPE-0541-LS*		O	235.4	211.8	268.6	242.2	304.4	275.0	342.7	310.0		
CPE-0600-LS	2 - 6GE-40	S	266.4	240.0	302.8	273.6	341.2	308.6	381.6	344.5		
CPE-0601-LS		O	277.6	250.4	316.6	286.6	358.2	324.6	402.2	364.0		
CPE-0602-LS		T	271.7	244.8	308.9	279.1	348.0	314.8	389.2	351.4		

### 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.

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

### 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	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	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	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	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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
- Compressor head cooling fan is included for all low temperature applications.

# CP Parallel Systems

## CPE Low Temp R-407A

### CPE Performance Data - Low Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Unit Capacity (MBH)									
CPE-0300-LQ*	2 - 4HE-25	S	N/A	N/A	70.0	N/A	85.9	74.3	102.6	90.4	121.3	107.4
CPE-0301-LQ		O	N/A	N/A	74.1	N/A	91.0	78.8	109.0	96.1	129.4	114.5
CPE-0440-LQ		S	67.4	57.2	82.8	70.9	101.6	87.4	121.3	106.4	143.3	126.7
CPE-0441-LQ*		O	69.4	58.8	85.3	73.2	104.7	90.5	125.5	110.2	148.4	131.1
CPE-0540-LQ*		S	85.2	72.9	105.2	90.6	129.0	112.0	154.3	135.8	181.8	161.4
CPE-0541-LQ*		O	87.6	74.9	108.5	93.3	133.1	115.6	159.3	140.4	188.4	167.2
CPE-0600-LQ		S	101.8	86.8	123.8	106.2	151.0	130.5	180.5	159.0	213.9	189.5
CPE-0601-LQ	2 - 6GE-40	O	104.8	89.4	128.0	109.9	156.5	135.4	187.4	165.2	222.3	197.2
CPE-0602-LQ		T	103.8	88.5	126.2	108.4	154.0	133.2	184.2	162.1	218.2	193.3

**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.

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F			
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Unit Capacity (MBH)									
CPE-0300-LQ*	2 - 4HE-25	S	142.3	126.3	163.4	147.3	188.6	171.9	213.8	193.5		
CPE-0301-LQ		O	152.2	135.1	175.3	157.7	202.6	184.9	230.5	208.3		
CPE-0440-LQ		S	167.7	148.8	192.5	173.3	222.1	202.5	252.6	228.1		
CPE-0441-LQ*		O	174.5	154.8	200.6	180.7	231.8	211.5	263.9	238.4		
CPE-0540-LQ*		S	212.8	189.7	244.7	220.4	282.5	257.7	320.5	290.1		
CPE-0541-LQ*		O	221.3	197.0	255.2	230.1	295.3	269.5	335.8	303.8		
CPE-0600-LQ		S	250.4	223.2	287.7	259.9	331.0	302.4	374.0	337.6		
CPE-0601-LQ	2 - 6GE-40	O	260.9	232.9	300.8	272.3	347.5	318.1	394.2	356.7		
CPE-0602-LQ		T	255.4	227.7	293.4	265.1	337.6	308.5	381.4	344.4		

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

### 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		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*		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		S		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200
CPE-0601-LQ	2 - 6GE-40	O	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	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 "0" 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F		
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Unit Capacity (MBH)										
CPE-0300-LT*	2 - 4HE-25	S	58.1	N/A	72.5	61.5	88.8	76.9	106.0	93.5	125.2	110.9	
CPE-0301-LT		O	61.5	N/A	76.7	65.3	94.1	81.6	112.6	99.3	133.7	118.3	
CPE-0440-LT		S	69.0	N/A	85.7	72.6	105.0	90.4	125.4	110.0	148.0	130.8	
CPE-0441-LT*		O	71.1	N/A	88.4	75.0	108.3	93.6	129.6	113.9	153.2	135.5	
CPE-0540-LT*		S	87.2	N/A	108.9	92.8	133.4	115.9	159.4	140.4	187.7	166.8	
CPE-0541-LT*		O	89.7	N/A	112.3	95.5	137.6	119.6	164.6	145.2	194.6	172.7	
CPE-0600-LT		S	104.2	N/A	128.1	108.8	156.2	135.1	186.6	164.3	220.9	195.7	
CPE-0601-LT	2 - 6GE-40	O	107.4	N/A	132.5	112.5	161.8	140.1	193.6	170.8	229.5	203.7	
CPE-0602-LT		T	106.3	N/A	130.7	111.0	159.3	137.8	190.3	167.6	225.3	199.6	

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F		
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Unit Capacity (MBH)								
CPE-0300-LT*	2 - 4HE-25	S	146.9	131.7	170.3	153.5	194.4	177.2	220.4	199.4	
CPE-0301-LT		O	157.1	140.9	182.7	164.4	208.9	190.6	237.6	214.7	
CPE-0440-LT		S	173.0	155.2	200.6	180.6	229.0	208.7	260.4	235.1	
CPE-0441-LT*	2 - 4GE-30	O	180.0	161.4	209.1	188.3	239.0	218.0	272.0	245.7	
CPE-0540-LT*		S	219.6	197.9	255.0	229.7	291.2	265.6	330.3	299.0	
CPE-0541-LT*		O	228.3	205.4	265.9	239.8	304.4	277.8	346.1	313.1	
CPE-0600-LT		S	258.4	232.8	299.8	270.9	341.2	311.7	385.4	347.9	
CPE-0601-LT	2 - 6GE-40	O	269.3	242.9	313.4	283.7	358.2	327.8	406.2	367.6	
CPE-0602-LT		T	263.6	237.5	305.8	276.3	348.0	317.9	393.1	354.9	

#### 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.

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

### 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		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*	2 - 4GE-30	O		16.2	244.2	300		7.5	124.0	175		7.5	101.2	125
CPE-0540-LT*		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		S		21.6	378.1	500		10.0	188.4	250		10.0	152.7	200
CPE-0601-LT	2 - 6GE-40	O	157.1	32.4	388.9	500	78.6	15.0	193.4	250	62.9	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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CP Parallel Systems

## CPB Low Temp R-404A

### CPB Performance Data - Low Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)				-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature		Unit	Compressor	Cond	Unit Capacity (MBH)	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CPB-0300-LS*	2 - 4HE-18	S	68.4	59.6	82.4	72.4	97.6	86.4	114.0	101.6	131.8	118.0	
		O	72.3	63.0	87.1	76.8	103.4	91.7	121.1	107.9	140.7	125.9	
CPB-0301-LS	2 - 4GE-23	S	81.2	70.6	97.4	85.4	115.4	101.6	134.8	119.6	155.8	139.2	
		O	83.6	72.6	100.4	88.2	119.0	105.2	139.4	123.8	161.3	144.1	
CPB-0441-LS*	2 - 6HE-28	S	102.6	90.0	123.8	109.2	146.6	130.2	171.4	152.6	197.6	177.4	
		O	105.5	92.5	127.6	112.4	151.2	134.4	177.0	157.8	204.8	183.7	
CPB-0541-LS*	2 - 6GE-34	S	122.6	107.1	145.6	128.0	171.6	151.8	200.6	178.6	232.5	208.2	
		O	126.3	110.4	150.6	132.4	177.8	157.4	208.2	185.6	241.6	216.7	
CPB-0600-LS		T	125.1	109.2	148.5	130.6	175.0	154.8	204.6	182.2	237.2	212.4	

**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.

Saturated Suction Temperature (SST)				-15°F		-10°F		-5°F		0°F	
Ambient Temperature		Unit	Compressor	Cond	Unit Capacity (MBH)	95°F	105°F	95°F	105°F	95°F	105°F
CPB-0300-LS*	2 - 4HE-18	S	151.4	135.8	172.0	155.0	194.4	175.4	218.2	197.4	
		O	161.9	145.2	184.6	166.0	208.9	188.7	235.3	212.6	
CPB-0301-LS	2 - 4GE-23	S	178.4	160.0	202.6	182.4	229.0	206.6	257.8	232.8	
		O	185.6	166.4	211.2	190.2	239.0	215.8	269.3	243.3	
CPB-0441-LS*	2 - 6HE-28	S	226.4	204.0	257.6	232.0	291.2	263.0	327.0	296.0	
		O	235.4	211.8	268.6	242.2	304.4	275.0	342.7	310.0	
CPB-0541-LS*	2 - 6GE-34	S	266.4	240.0	302.8	273.6	341.2	308.6	381.6	344.5	
		O	277.6	250.4	316.6	286.6	358.2	324.6	402.2	364.0	
CPB-0602-LS		T	271.7	244.8	308.9	279.1	348.0	314.8	389.2	351.4	

### 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
		O		16.2	154.9	200		7.5	76.7	100		7.5	62.9	80
CPB-0301-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
		O		16.2	163.9	225		7.5	83.7	110		7.5	69.0	90
CPB-0440-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
		O		21.6	219.0	300		10.0	108.7	150		10.0	89.1	125
CPB-0441-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
		O		32.4	247.6	300		15.0	122.5	150		15.0	99.7	125
CPB-0600-LS		T		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125
CPB-0601-LS														
CPB-0602-LS														

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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
- 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F				
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)											
CPB-0300-LQ*	2 - 4HE-18	S	N/A	70.0	N/A	85.9	74.3	102.6	90.4	121.3	107.4				
CPB-0301-LQ		O	N/A	74.1	N/A	91.0	78.8	109.0	96.1	129.4	114.5				
CPB-0440-LQ	2 - 4GE-23	S	67.4	57.2	82.8	70.9	101.6	87.4	121.3	106.4	143.3	126.7			
CPB-0441-LQ*		O	69.4	58.8	85.3	73.2	104.7	90.5	125.5	110.2	148.4	131.1			
CPB-0540-LQ*	2 - 6HE-28	S	85.2	72.9	105.2	90.6	129.0	112.0	154.3	135.8	181.8	161.4			
CPB-0541-LQ*		O	87.6	74.9	108.5	93.3	133.1	115.6	159.3	140.4	188.4	167.2			
CPB-0600-LQ	2 - 6GE-34	S	101.8	86.8	123.8	106.2	151.0	130.5	180.5	159.0	213.9	189.5			
CPB-0601-LQ		O	104.8	89.4	128.0	109.9	156.5	135.4	187.4	165.2	222.3	197.2			
CPB-0602-LQ		T	103.8	88.5	126.2	108.4	154.0	133.2	184.2	162.1	218.2	193.3			

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F		95°F		105°F		
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)											
CPB-0300-LQ*	2 - 4HE-18	S	142.3	126.3	163.4	147.3	188.6	171.9	213.8	193.5					
CPB-0301-LQ		O	152.2	135.1	175.3	157.7	202.6	184.9	230.5	208.3					
CPB-0440-LQ	2 - 4GE-23	S	167.7	148.8	192.5	173.3	222.1	202.5	252.6	228.1					
CPB-0441-LQ*		O	174.5	154.8	200.6	180.7	231.8	211.5	263.9	238.4					
CPB-0540-LQ*	2 - 6HE-28	S	212.8	189.7	244.7	220.4	282.5	257.7	320.5	290.1					
CPB-0541-LQ*		O	221.3	197.0	255.2	230.1	295.3	269.5	335.8	303.8					
CPB-0600-LQ	2 - 6GE-34	S	250.4	223.2	287.7	259.9	331.0	302.4	374.0	337.6					
CPB-0601-LQ		O	260.9	232.9	300.8	272.3	347.5	318.1	394.2	356.7					
CPB-0602-LQ		T	255.4	227.7	293.4	265.1	337.6	308.5	381.4	344.4					

### 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.

### 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		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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-407A capacity and electrical data for R-407F while replacing the "0" at the end of the model nomenclature with an "F".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CP Parallel Systems

## CPB Low Temp R-448A

### CPB Performance Data - Low Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F				
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)											
CPB-0300-LT*	2 - 4HE-18	S	58.1	N/A	72.5	61.5	88.8	76.9	106.0	93.5	125.2	110.9			
CPB-0301-LT		O	61.5	N/A	76.7	65.3	94.1	81.6	112.6	99.3	133.7	118.3			
CPB-0440-LT	2 - 4GE-23	S	69.0	N/A	85.7	72.6	105.0	90.4	125.4	110.0	148.0	130.8			
CPB-0441-LT*		O	71.1	N/A	88.4	75.0	108.3	93.6	129.6	113.9	153.2	135.5			
CPB-0540-LT*	2 - 6HE-28	S	87.2	N/A	108.9	92.8	133.4	115.9	159.4	140.4	187.7	166.8			
CPB-0541-LT*		O	89.7	N/A	112.3	95.5	137.6	119.6	164.6	145.2	194.6	172.7			
CPB-0600-LT	2 - 6GE-34	S	104.2	N/A	128.1	108.8	156.2	135.1	186.6	164.3	220.9	195.7			
CPB-0601-LT		O	107.4	N/A	132.5	112.5	161.8	140.1	193.6	170.8	229.5	203.7			
CPB-0602-LT	T	106.3	N/A	130.7	111.0	159.3	137.8	190.3	167.6	225.3	199.6				

**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.

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F						
Ambient Temperature	Unit	Compressor	Cond	Unit Capacity (MBH)											
CPB-0300-LT*	2 - 4HE-18	S	146.9	131.7	170.3	153.5	194.4	177.2	220.4	199.4					
CPB-0301-LT		O	157.1	140.9	182.7	164.4	208.9	190.6	237.6	214.7					
CPB-0440-LT	2 - 4GE-23	S	173.0	155.2	200.6	180.6	229.0	208.7	260.4	235.1					
CPB-0441-LT*		O	180.0	161.4	209.1	188.3	239.0	218.0	272.0	245.7					
CPB-0540-LT*	2 - 6HE-28	S	219.6	197.9	255.0	229.7	291.2	265.6	330.3	299.0					
CPB-0541-LT*		O	228.3	205.4	265.9	239.8	304.4	277.8	346.1	313.1					
CPB-0600-LT	2 - 6GE-34	S	258.4	232.8	299.8	270.9	341.2	311.7	385.4	347.9					
CPB-0601-LT		O	269.3	242.9	313.4	283.7	358.2	327.8	406.2	367.6					
CPB-0602-LT	T	263.6	237.5	305.8	276.3	348.0	317.9	393.1	354.9						

### 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	10.0	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		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

- 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.
- 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.

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

- Use R-448A capacity and electrical data for R-449A while replacing the "I" at the end of the model nomenclature with a "R".

- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CP Parallel Systems

## 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
<b>MCA</b>		<b>58.6</b>
Evaporator Fan RLA	+	12.0
<b>Calculated MCA</b>		<b>70.6</b>
Compressor RLA 1	+	22.3
Calculated 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 Systems

## CP Parallel Series Model Specifications

Unit		Connections (in)		Receiver	Receiver Capacity***			Est. Ship Weight	Dimensional Drawings	Piping Schematic
					R-404A	R-407A	R-448A			
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 <b>S</b>	R-507A <b>P</b>	R-407A <b>Q</b>	R-407F <b>F</b>	R-448A <b>T</b>	R-449A <b>R</b>
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 <b>S</b>	R-507A <b>P</b>	R-407A <b>Q</b>	R-407F <b>F</b>	R-448A <b>T</b>	R-449A <b>R</b>
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.

# CP Parallel Systems

## Annual Walk-In Energy Factor (AWEF)

### CPE Parallel Series Units - Medium Temperature

Bitzer Ecoline Models	R-404A	R-507A	R-407A	R-407F	R-448A	R-449A
	S	P	Q	F	T	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

Bitzer Ecoline Models	R-404A	R-507A	R-407A	R-407F	R-448A	R-449A
	S	P	Q	F	T	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.

**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.

See Tables on pages 40 - 42 for more data.  
"( )" = See AWEF Example on page 47.

# 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.

# CP Parallel Systems

## Notes

# CD Dual Systems

## CDD Medium Temp R-404A

### CDD Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)		-5°F		0°F		5°F		10°F		15°F		20°F		25°F		
Ambient Temperature		95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH) Per Circuit													
CDD-0100-MS	2 - 2DC3R53KE	S	22.3	20.2	24.9	22.6	27.7	25.1	30.7	27.8	34.9	31.8	39.3	36.0	44.1	40.5
CDD-0101-MS*		O	23.0	20.9	25.7	23.4	28.6	26.0	31.7	28.9	36.1	32.9	40.8	37.4	45.8	42.1
CDD-0150-MS*		S	33.5	30.9	37.4	34.5	41.7	38.4	46.2	42.6	52.1	48.1	58.3	54.0	65.0	60.2
CDD-0151-MS	2 - 2DL3R78KE	O	34.4	31.7	38.4	35.5	42.8	39.5	47.4	43.8	53.6	49.6	60.1	55.8	67.1	62.3
CDD-0160-MS		S	38.6	35.4	43.1	39.5	48.0	44.0	53.2	48.8	60.2	55.5	67.5	62.5	75.3	69.9
CDD-0161-MS	2 - 2DA3R89KE	O	39.2	36.0	43.8	40.2	48.7	44.8	54.1	49.7	61.2	56.6	68.7	63.8	76.7	71.3
CDD-0162-MS		T	40.0	36.7	44.7	41.0	49.7	45.7	55.1	50.7	62.4	57.7	70.1	65.0	78.2	72.7
CDD-0180-MS	2 - 3DA3R10ME	S	47.2	43.8	52.7	48.9	58.7	54.4	65.1	60.4	72.6	67.6	80.9	75.4	89.6	83.5
CDD-0181-MS*		O	48.4	45.0	54.0	50.2	60.2	55.9	66.7	62.0	74.7	69.5	83.2	77.5	92.4	86.2
CDD-0200-MS		S	57.1	53.2	63.8	59.4	71.0	66.1	78.7	73.3	87.6	81.7	97.2	90.8	107.5	100.4
CDD-0201-MS	2 - 3DB3R12ME	O	58.4	54.5	65.3	60.9	72.7	67.8	80.6	75.2	89.9	84.0	100.0	93.4	110.8	103.6
CDD-0202-MS		T	58.3	54.3	65.1	60.6	72.4	67.5	80.3	74.8	89.4	83.3	99.2	92.6	109.7	102.4
CDD-0240-MS*	2 - 3DF3R15ME	S	65.8	61.3	73.5	68.4	81.9	76.2	90.8	84.5	101.3	94.4	112.7	105.0	124.8	114.3
CDD-0241-MS		O	67.0	62.5	74.9	69.8	83.3	77.7	92.4	86.2	103.4	96.4	115.3	107.5	128.0	116.4
CDD-0300-MS	2 - 3DS3R17ME	S	76.1	71.6	85.0	80.0	94.6	89.0	105.0	98.7	117.1	110.1	130.1	122.1	143.8	134.9
CDD-0301-MS*		O	76.6	72.1	85.6	80.5	95.3	89.6	105.7	99.3	117.9	110.8	131.1	123.0	145.0	136.1
CDD-0400-MS		S	90.0	79.6	101.5	89.8	114.0	100.9	127.3	112.8	141.5	125.6	156.5	139.0	172.2	153.1
CDD-0401-MS	2 - 4DBNR20ME	O	92.7	82.0	104.7	92.7	117.8	104.4	132.0	117.2	147.2	130.9	163.3	145.4	180.3	160.7
CDD-0402-MS		T	91.8	81.2	103.6	91.6	116.2	102.9	129.9	115.1	144.3	128.1	159.6	141.8	175.6	156.1
CDD-0500-MS*	2 - 4DHNR22ME	S	101.8	92.0	113.4	102.2	126.4	113.8	140.6	126.6	155.8	140.2	171.7	154.6	188.2	169.5
CDD-0501-MS		O	106.3	96.4	119.1	107.7	133.5	120.6	149.4	134.9	166.1	150.3	184.8	166.8	203.8	184.0
CDD-0600-MS*	2 - 4DJNR28ME	S	122.1	110.5	137.2	124.0	153.6	138.5	171.1	154.0	189.6	170.5	209.2	187.9	229.8	206.2
CDD-0601-MS		O	124.7	113.1	140.7	127.3	157.9	142.7	176.5	159.2	196.3	176.9	217.4	195.8	239.7	215.7
CDD-0700-MS		S	152.9	137.1	171.0	153.6	190.4	171.1	211.0	189.6	233.0	209.1	256.1	229.6	280.5	251.1
CDD-0701-MS	2 - 6DHNR35ME	O	160.4	144.3	180.0	162.3	201.3	181.8	224.4	202.6	249.2	225.0	275.9	249.0	304.5	274.6
CDD-0702-MS		T	156.0	139.8	174.4	156.7	194.2	174.5	215.2	193.4	237.7	213.3	261.2	234.2	286.1	256.1
CDD-0800-MS*	2 - 6DJNR40ME	S	185.8	168.2	207.5	187.8	231.0	208.9	256.1	231.5	282.9	255.5	311.1	280.7	340.7	307.1
CDD-0801-MS*		O	190.0	172.2	212.7	192.8	237.3	215.1	263.9	239.1	292.2	264.7	322.3	291.9	354.2	320.6

Saturated Suction Temperature (SST)		30°F		35°F		40°F		45°F		
Ambient Temperature		95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH) Per Circuit							
CDD-0100-MS	2 - 2DC3R53KE	S	49.1	45.2	54.4	50.2	60.1	55.5	N/A	N/A
CDD-0101-MS*		O	51.1	47.1	56.8	52.5	62.9	58.3	N/A	N/A
CDD-0150-MS*		S	72.0	66.7	74.6	69.3	82.5	76.7	N/A	N/A
CDD-0151-MS	2 - 2DL3R78KE	O	74.6	68.4	79.5	73.6	87.3	81.1	N/A	N/A
CDD-0160-MS		S	83.4	77.6	92.1	85.7	101.2	94.1	N/A	N/A
CDD-0161-MS	2 - 2DA3R89KE	O	85.2	79.4	94.1	87.7	103.6	96.6	N/A	N/A
CDD-0162-MS		T	86.9	80.9	96.0	89.5	105.7	98.5	N/A	N/A
CDD-0180-MS	2 - 3DA3R10ME	S	98.9	92.3	108.8	101.7	119.3	111.5	N/A	N/A
CDD-0181-MS*		O	102.2	95.5	112.8	105.4	124.0	116.0	N/A	N/A
CDD-0200-MS		S	118.5	110.7	130.3	121.6	142.7	133.3	N/A	N/A
CDD-0201-MS	2 - 3DB3R12ME	O	122.3	114.5	134.7	126.3	148.1	138.8	N/A	N/A
CDD-0202-MS		T	120.9	112.9	132.9	124.0	145.6	136.0	N/A	N/A
CDD-0240-MS*	2 - 3DF3R15ME	S	137.8	128.4	151.4	141.2	165.8	154.5	N/A	N/A
CDD-0241-MS		O	141.5	132.1	155.9	145.6	171.1	159.7	N/A	N/A
CDD-0300-MS	2 - 3DS3R17ME	S	158.6	148.6	174.3	163.2	191.0	178.8	N/A	N/A
CDD-0301-MS*		O	160.1	150.0	176.2	164.9	193.3	180.9	N/A	N/A
CDD-0400-MS		S	188.5	169.6	205.3	184.7	226.7	202.2	N/A	N/A
CDD-0401-MS	2 - 4DBNR20ME	O	198.1	176.6	216.5	193.2	235.8	210.3	N/A	N/A
CDD-0402-MS		T	192.3	173.0	209.4	188.4	231.2	206.3	N/A	N/A
CDD-0500-MS*	2 - 4DHNR22ME	S	205.0	184.5	221.9	199.7	238.7	214.8	N/A	N/A
CDD-0501-MS		O	223.4	201.8	243.5	219.9	263.8	238.3	N/A	N/A
CDD-0600-MS*	2 - 4DJNR28ME	S	251.4	226.3	273.8	246.4	297.1	267.4	N/A	N/A
CDD-0601-MS*		O	263.3	236.8	288.0	258.9	313.8	282.0	N/A	N/A
CDD-0700-MS		S	306.1	275.5	328.2	299.5	360.6	324.5	N/A	N/A
CDD-0701-MS	2 - 6DHNR35ME	O	335.1	301.9	367.6	330.9	402.1	361.7	N/A	N/A
CDD-0702-MS		T	312.2	281.0	339.5	305.5	367.8	331.0	N/A	N/A
CDD-0800-MS*	2 - 6DJNR40ME	S	371.6	334.4	403.7	363.3	441.8	399.2	N/A	N/A
CDD-0801-MS*		O	387.7	350.7	422.8	382.3	459.5	415.2	N/A	N/A

### Electrical Specifications - Medium Temperature R-404A

Voltage		208-230/3/60 (TFC)				460/3/60 (TDF)				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	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*		S	5.4	79.5	110		2.5	35.3	45	13.2	2.5	33.4	45	11410	
CDD-0151-MS	2 - 2DL3R78KE	O	10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210	
CDD-0160-MS		S	10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12210	
CDD-0161-MS	2 - 2DA3R89KE	O	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	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	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		20.0	5.0	51.5	70	16.4	5.0	43.1	60	12410
CDD-0200-MS		S	10.8	111.9	150			5.0	51.5	70		5.0	43.3	60	12310
CDD-0201-MS	2 - 3DB3R12ME	O	16.2	117.3	150		20.0	7.5	54.0	70	16.5	7.5	45.8	60	13310
CDD-0202-MS		T	10.8												

## CDD Medium Temp R-407A

### CDD Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			CDD Performance Data - Medium Temperature R-407A - Total Capacity													
Ambient Temperature			-5°F		0°F		5°F		10°F		15°F		20°F		25°F	
Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F*	95°F	105°F									
CDD-0100-MQ	2 - 2DC3R53KE	S	22.0	20.2	24.6	22.6	27.4	25.1	30.4	27.8	34.9	32.5	39.7	36.7	44.9	41.7
CDD-0101-MQ*		O	22.8	20.9	25.4	23.4	28.3	26.0	31.4	28.9	36.1	33.6	41.2	38.2	46.7	43.4
CDD-0150-MQ*	2 - 2DL3R78KE	S	33.2	30.9	37.1	34.5	41.2	38.4	45.7	42.6	52.1	49.1	58.9	55.0	66.3	62.0
CDD-0151-MQ		O	34.1	31.7	38.0	35.5	42.3	39.5	47.0	43.8	53.6	50.6	60.7	56.9	68.5	64.2
CDD-0160-MQ		S	38.2	35.4	42.7	39.5	47.5	44.0	52.7	48.8	60.2	56.6	68.2	63.8	76.8	72.0
CDD-0161-MQ	2 - 2DA3R89KE	O	38.8	36.0	43.4	40.2	48.3	44.8	53.5	49.7	61.2	57.7	69.4	65.0	78.2	73.4
CDD-0162-MQ		T	39.6	36.7	44.2	41.0	49.2	45.7	54.6	50.7	62.4	58.9	70.8	66.3	79.8	74.9
CDD-0180-MQ	2 - 3DA3R10ME	S	46.7	43.8	52.2	48.9	58.1	54.4	64.4	60.4	72.6	69.0	81.7	76.9	91.3	86.0
CDD-0181-MQ*		O	47.9	45.0	53.5	50.2	59.5	55.9	66.0	62.0	74.7	70.9	84.1	79.1	94.3	88.8
CDD-0200-MQ		S	56.5	53.2	63.2	59.4	70.3	66.1	78.0	73.3	87.6	83.3	98.2	92.6	109.7	103.4
CDD-0201-MQ	2 - 3DB3R12ME	O	57.9	54.5	64.6	60.9	71.9	67.8	79.8	75.2	89.9	85.7	101.0	95.3	113.0	106.7
CDD-0202-MQ		T	57.7	54.3	64.4	60.6	71.7	67.5	79.5	74.8	89.4	85.0	100.1	94.4	111.9	105.4
CDD-0240-MQ*	2 - 3DF3R15ME	S	65.2	61.3	72.8	68.4	81.0	76.2	89.9	84.5	101.3	96.2	113.8	107.1	127.3	117.8
CDD-0241-MQ		O	66.4	62.5	74.1	69.8	82.5	77.7	91.5	86.2	103.4	98.3	116.4	109.7	130.6	119.9
CDD-0300-MQ	2 - 3DS3R17ME	S	75.4	71.6	84.2	80.0	93.7	89.0	103.9	98.7	117.1	112.3	131.4	124.5	146.7	139.0
CDD-0301-MQ*		O	75.9	72.1	84.8	80.5	94.3	89.6	104.6	99.3	117.9	113.0	132.4	125.5	147.9	140.2
CDD-0400-MQ		S	86.4	77.2	99.5	88.9	111.7	100.9	126.0	113.9	141.5	126.8	158.1	141.8	175.6	157.7
CDD-0401-MQ	2 - 4DBNR20ME	O	89.0	79.5	102.6	91.8	115.4	104.4	129.4	117.2	145.7	132.2	163.3	148.3	182.1	163.9
CDD-0402-MQ		T	88.2	78.1	101.5	90.7	113.9	102.9	128.6	116.2	144.3	129.4	161.2	144.7	179.1	160.8
CDD-0500-MQ*	2 - 4DHNR22ME	S	99.8	91.1	112.3	103.2	126.4	116.1	142.0	129.1	158.9	144.4	175.1	160.8	193.8	178.0
CDD-0501-MQ		O	104.2	94.5	117.9	107.7	133.5	123.0	149.4	137.6	168.3	154.8	188.5	171.8	209.9	191.4
CDD-0600-MQ*	2 - 4DJNR28ME	S	117.2	108.3	134.5	124.0	152.1	139.9	172.8	157.1	191.5	175.6	213.4	193.5	236.7	214.4
CDD-0601-MQ		O	119.7	108.6	136.5	126.0	156.3	144.1	174.7	160.8	198.3	180.4	221.7	199.7	244.5	224.3
CDD-0700-MQ		S	143.7	131.6	164.2	149.0	184.7	169.4	206.8	191.5	233.0	213.3	256.1	236.5	283.3	261.1
CDD-0701-MQ	2 - 6DHNR35ME	O	149.2	137.1	171.0	157.4	191.2	180.4	217.7	202.6	244.2	227.3	275.9	254.0	304.5	280.1
CDD-0702-MQ		T	146.6	134.2	167.4	152.0	188.4	172.8	210.9	195.3	237.7	217.5	261.2	241.2	289.0	266.4
CDD-0800-MQ*	2 - 6DJNR40ME	S	174.7	161.5	199.2	184.0	224.1	208.9	256.1	233.8	285.7	263.2	317.3	294.7	350.9	322.5
CDD-0801-MQ*		O	178.6	163.6	202.1	187.0	230.2	212.9	258.6	239.1	292.2	270.0	325.5	300.7	361.3	333.4

Saturated Suction Temperature (SST)			CDD Performance Data - Medium Temperature R-407A - Total Capacity												
Ambient Temperature			30°F		35°F		40°F		45°F		50°F		55°F		
Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F*	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	N/A	N/A
CDD-0100-MQ	2 - 2DC3R53KE	S	50.5	47.4	56.5	52.7	62.5	58.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0101-MQ*		O	52.6	49.5	59.1	55.2	65.5	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0150-MQ*	2 - 2DL3R78KE	S	74.2	70.0	77.5	72.7	85.8	81.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0151-MQ		O	76.8	71.9	82.6	77.3	90.8	86.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0160-MQ		S	85.9	81.5	95.8	90.0	105.2	99.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0161-MQ	2 - 2DA3R89KE	O	87.7	83.3	97.9	92.1	107.8	102.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0162-MQ		T	89.5	85.0	99.9	93.9	109.9	104.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0180-MQ	2 - 3DA3R10ME	S	101.9	96.8	113.2	106.8	124.1	118.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0181-MQ*		O	105.3	100.2	117.3	110.6	129.0	122.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0200-MQ	2 - 3DB3R12ME	S	122.1	116.2	135.5	127.7	148.4	141.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0201-MQ		O	126.0	120.3	140.1	132.6	154.0	147.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0202-MQ		T	124.5	118.5	138.2	130.2	151.4	144.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0240-MQ*	2 - 3DF3R15ME	S	141.9	134.8	157.4	148.2	172.4	163.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0241-MQ		O	145.7	138.7	162.1	152.8	177.9	169.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0300-MQ	2 - 3DS3R17ME	S	163.4	156.0	181.3	171.4	198.7	189.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0301-MQ*		O	164.9	157.5	183.2	173.2	201.0	191.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0400-MQ	2 - 4DBNR20ME	O	204.1	183.7	225.2	204.8	252.3	229.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0402-MQ		T	199.9	180.0	220.9	200.9	247.4	224.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0500-MQ*	2 - 4DHNR22ME	S	215.3	193.7	237.4	213.7	260.2	234.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0501-MQ		O	232.3	213.9	258.1	235.3	284.9	262.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0600-MQ*	2 - 4DJNR28ME	S	258.9	233.0	282.0	253.8	312.0	280.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0700-MQ		O	271.2	246.3	296.7	271.8	326.4	296.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0701-MQ	2 - 6DHNR35ME	S	309.2	278.2	336.1	302.6	364.2	327.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0702-MQ		O	335.1	307.9	367.6	337.5	402.1	368.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0800-MQ*	2 - 6DJNR40ME	S	386.5	347.8	419.8	377.9	455.1	423.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CDD-0801-MQ*		O	395.5	364.7	435.5	401.4	473.3	440.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				Condenser LAVF	
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	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	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11410		
CDD-0150-MQ*	2 - 2DL3R78KE	S	10.8	84.9	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410		
CDD-0151-MQ		O	10.8	85.6	110</											

# CD Dual Systems

## CDD Medium Temp R-448A

### CDD Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F										
CDD-0100-MT*	2 - 2DC3R53KE	S	22.7	21.0	25.4	23.5	28.2	26.1	31.3	29.0	35.9	33.4	40.8	37.8	45.8	42.5
CDD-0101-MT*	O	23.5	21.8	26.2	24.3	29.2	27.1	32.4	30.0	37.2	34.6	42.4	39.3	47.6	44.2	
CDD-0150-MT*	2 - 2DL3R78KE	S	34.2	32.2	38.2	35.9	42.5	40.0	47.1	44.3	53.7	50.6	60.7	56.7	67.6	63.2
CDD-0151-MT*	O	35.1	33.0	39.2	36.9	43.6	41.0	48.4	45.5	55.2	52.1	62.5	58.6	69.8	65.4	
CDD-0160-MT	S	39.4	36.8	44.0	41.1	49.0	45.7	54.3	50.7	62.0	58.3	70.2	65.7	78.3	73.4	
CDD-0161-MT	O	40.0	37.5	44.7	41.9	49.7	46.6	55.1	51.7	63.0	59.4	71.5	66.9	79.8	74.9	
CDD-0162-MT	T	40.8	38.2	45.6	42.7	50.7	47.5	56.2	52.7	64.3	60.6	72.9	68.3	81.4	76.4	
CDD-0180-MT*	S	48.1	45.5	53.8	50.9	59.9	56.6	64.4	62.8	74.8	71.0	84.1	79.1	93.1	87.7	
CDD-0181-MT*	O	49.4	46.8	55.1	52.3	61.4	58.2	68.0	64.5	76.9	72.9	86.6	81.4	96.1	90.5	
CDD-0200-MT	S	58.3	55.3	65.1	61.8	72.4	68.8	80.3	76.3	90.2	85.8	101.1	95.3	111.8	105.4	
CDD-0201-MT	O	59.6	56.7	66.6	63.3	74.1	70.5	82.2	78.2	92.6	88.3	104.0	98.1	115.2	108.8	
CDD-0202-MT	T	59.4	56.4	66.4	63.0	73.9	70.2	81.9	77.8	92.1	87.5	103.1	97.2	114.0	107.5	
CDD-0240-MT*	S	67.2	63.7	75.0	71.2	83.5	79.2	92.6	87.8	104.3	99.1	117.2	110.2	129.8	120.1	
CDD-0241-MT*	O	68.4	65.0	76.4	72.6	85.0	80.8	93.3	89.6	106.5	101.2	119.9	112.9	133.1	122.2	
CDD-0300-MT	S	77.6	74.5	86.7	83.2	96.5	92.6	107.1	102.7	120.6	115.6	135.3	128.2	149.6	141.7	
CDD-0301-MT*	O	78.2	74.9	87.3	83.7	97.2	93.2	107.8	103.3	121.4	116.3	136.3	129.2	150.8	142.9	
CDD-0400-MT	S	89.1	79.6	102.6	91.6	115.1	103.9	129.9	117.3	145.7	131.9	161.2	146.0	179.0	160.7	
CDD-0401-MT	O	91.8	82.0	104.7	94.5	118.9	107.6	133.3	120.7	150.1	136.1	168.2	151.2	185.7	168.7	
CDD-0402-MT	T	90.9	81.2	104.6	93.4	117.4	106.0	132.4	119.7	148.6	134.5	164.4	148.9	182.6	163.9	
CDD-0500-MT*	S	102.8	93.8	115.7	106.3	130.2	119.5	146.2	134.2	163.6	148.6	180.3	165.4	199.5	181.4	
CDD-0501-MT*	O	107.4	98.3	121.5	110.9	137.5	126.6	153.9	141.6	171.6	157.8	192.2	175.1	214.0	195.0	
CDD-0600-MT*	S	120.9	110.5	138.6	126.5	156.7	144.0	177.9	161.7	199.1	180.7	219.7	199.2	241.3	218.6	
CDD-0601-MT*	O	122.2	112.0	142.4	129.8	161.1	148.4	181.8	165.6	204.2	185.7	226.1	207.5	249.3	230.8	
CDD-0700-MT	S	148.3	137.1	169.3	155.1	190.4	176.2	213.1	197.2	237.7	219.6	263.8	243.4	288.9	266.2	
CDD-0701-MT	O	155.6	142.9	176.4	162.3	197.3	185.4	224.4	208.7	251.7	234.0	281.4	259.0	310.6	285.6	
CDD-0702-MT	T	151.3	139.8	172.7	158.2	194.2	179.8	217.4	201.1	242.4	223.9	269.1	248.2	294.7	271.5	
CDD-0800-MT*	S	180.2	166.5	205.4	189.7	231.0	215.2	261.2	243.1	294.2	270.8	323.5	300.3	357.7	331.7	
CDD-0801-MT*	O	184.3	170.5	208.4	194.7	237.3	219.4	266.5	247.8	298.0	277.9	332.0	306.5	368.4	339.8	

Saturated Suction Temperature (SST)			30°F		35°F		40°F		45°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F	95°F	105°F	95°F	105°F
CDD-0100-MT	2 - 2DC3R53KE	S	51.5	48.3	57.1	53.7	63.1	59.4	N/A	N/A
CDD-0101-MT*	O	53.7	50.4	59.7	56.2	66.1	62.4	N/A	N/A	N/A
CDD-0150-MT*	2 - 2DL3R78KE	S	75.6	71.4	78.3	74.1	86.6	82.1	N/A	N/A
CDD-0151-MT*	O	78.3	73.2	83.4	78.8	91.7	86.8	N/A	N/A	N/A
CDD-0160-MT	S	87.6	83.1	96.7	91.7	106.2	100.7	N/A	N/A	N/A
CDD-0161-MT	O	89.4	84.9	98.9	93.9	108.8	103.4	N/A	N/A	N/A
CDD-0162-MT	T	91.2	86.6	100.8	95.7	111.0	105.4	N/A	N/A	N/A
CDD-0180-MT*	S	103.9	98.8	114.3	108.8	125.3	119.3	N/A	N/A	N/A
CDD-0181-MT*	O	124.5	118.4	136.8	130.1	149.8	142.6	N/A	N/A	N/A
CDD-0200-MT	2 - 3DB3R12ME	S	128.4	122.6	141.5	135.1	155.5	148.5	N/A	N/A
CDD-0202-MT	T	126.9	120.8	139.5	132.7	152.8	145.5	N/A	N/A	N/A
CDD-0240-MT*	2 - 3DF3R15ME	S	144.7	137.4	158.9	151.0	174.0	165.3	N/A	N/A
CDD-0241-MT*	O	148.5	141.3	163.6	155.7	179.6	170.9	N/A	N/A	N/A
CDD-0300-MT	2 - 3DS3R17ME	S	166.5	159.0	183.0	174.6	206.0	191.3	N/A	N/A
CDD-0301-MT*	O	168.1	160.5	185.0	176.5	203.0	193.6	N/A	N/A	N/A
CDD-0400-MT	2 - 4DBNR20ME	S	199.8	179.8	220.7	206.6	244.8	222.5	N/A	N/A
CDD-0401-MT	O	208.1	187.2	229.5	208.7	254.6	231.4	N/A	N/A	N/A
CDD-0402-MT	T	203.8	183.4	225.1	204.6	249.7	226.9	N/A	N/A	N/A
CDD-0500-MT*	2 - 4DHNR22ME	S	219.4	197.4	239.7	217.5	262.6	236.3	N/A	N/A
CDD-0501-MT*	O	236.8	217.9	263.0	239.7	287.5	266.9	N/A	N/A	N/A
CDD-0600-MT*	2 - 4DJNR28ME	S	264.0	237.6	290.2	261.2	314.9	283.4	N/A	N/A
CDD-0601-MT*	O	276.5	251.0	302.4	274.4	329.5	298.9	N/A	N/A	N/A
CDD-0700-MT	S	315.3	283.8	342.8	308.5	367.8	331.0	N/A	N/A	N/A
CDD-0701-MT	O	341.8	314.0	371.3	344.1	406.1	376.2	N/A	N/A	N/A
CDD-0702-MT	T	321.6	289.4	349.6	314.7	375.2	337.7	N/A	N/A	N/A
CDD-0800-MT*	S	393.9	354.5	427.9	385.1	459.5	427.2	N/A	N/A	N/A
CDD-0801-MT*	O	403.2	375.2	443.9	409.1	477.9	444.3	N/A	N/A	N/A

Voltage			208-230/360 (TFC)				460/360 (TFD)				575/360 (TFF)				Condenser LAVF
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	S	S	5.4	5.8	60	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CDD-0101-MT*	O	O	5.4	5.8	60	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11410
CDD-0150-MT*	S	S	5.4	79.5	110	139	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CDD-0151-MT*	O	O	10.8	84.9	110	139	13.9	5.0	37.8	50	13.2	5.0	35.9	45	12210
CDD-0160-MT	S	S	10.8	85.8	110	141	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CDD-0161-MT	O	O	10.8	85.8	110	141	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12410
CDD-0162-MT	T	T	10.8	85.8	110	141	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12410
CDD-0180-MT*	S	S	10.8	106.1	125	20.0	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12410
CDD-0181-MT*	O	O	10.8	111.9	150	20.0	20.0	5.0	51.5	70	16.4	5.0	43.3	60	12310
CDD-0200-MT	S	S	16.2	117.3	150	20.0	20.0	7.5	54.0	70	16.5	7.5	45.8	60	13310
CDD-0202-MT	T	T	10.8	111.9	150	20.0	20.0	5.0	51.5	70	16.4	5.0	43.3	60	12410
CDD-0240-MT*	S	S	10.8	122.0	150	23.6	23.6	7.5	59.6	80	-	7.5	-	-	12410
CDD-0241-MT*	O	O	16.2	127.4	175	23.6	23.6	7.5	62.1	80	-	7.5	-	-	13310
CDD-0300-MT	S	S	16.2	153.3	200	29.0	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CDD-0301-MT*	O	O	16.2												

## CDE Medium Temp R-404A

### CDE Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F										
CDE-0100-MS	2 - 4FES-5	S	22.1	20.1	24.9	22.6	28.0	25.4	31.3	28.5	35.4	32.3	39.6	36.3	43.9	40.3
CDE-0101-MS*	O	23.3	21.7	26.3	24.4	29.5	27.4	33.0	30.7	37.3	34.6	41.8	38.7	46.5	42.9	
CDE-0150-MS*	S	33.5	30.5	37.7	34.4	42.4	38.6	47.4	43.2	53.2	48.8	59.5	54.7	66.0	60.8	
CDE-0151-MS	O	34.9	31.9	39.3	36.0	44.2	40.5	49.5	45.3	55.8	51.3	62.4	57.5	69.3	63.9	
CDE-0160-MS	S	34.9	31.9	39.3	36.0	44.2	40.5	49.5	45.3	55.8	51.3	62.4	57.5	69.3	63.9	
CDE-0162-MS	T	36.4	33.3	41.0	37.6	46.1	42.2	51.6	47.2	58.3	53.5	65.2	60.0	72.4	66.9	
CDE-0181-MS*	O	47.4	44.5	53.4	50.1	60.1	56.3	67.2	63.0	75.6	70.3	84.3	77.9	92.9	86.0	
CDE-0200-MS	S	55.1	50.8	62.1	57.3	69.8	64.4	78.1	72.0	87.3	80.5	96.9	89.6	106.9	99.1	
CDE-0201-MS	O	57.4	52.9	64.7	59.6	72.7	67.0	81.4	75.0	91.2	83.9	101.5	93.6	112.2	103.9	
CDE-0202-MS	T	56.2	51.8	63.4	58.4	71.2	65.6	79.7	73.5	89.1	82.1	98.8	91.3	109.0	101.1	
CDE-0240-MS*	S	65.8	60.8	74.1	68.5	83.3	77.0	93.2	86.2	104.6	96.9	116.3	107.9	128.1	119.0	
CDE-0241-MS	O	67.3	62.2	75.8	70.1	85.2	78.8	95.4	88.1	107.2	99.2	119.4	110.7	131.8	122.3	
CDE-0300-MS	S	76.7	71.0	86.4	80.0	97.2	89.9	108.7	100.6	122.1	113.0	136.0	126.0	150.0	139.3	
CDE-0301-MS*	O	77.9	72.0	87.7	81.2	98.6	91.2	110.4	102.1	124.0	114.8	138.2	128.0	152.7	141.7	
CDE-0400-MS	S	88.6	80.2	99.6	90.1	111.6	101.0	124.6	112.9	138.8	126.0	153.6	139.4	169.2	153.6	
CDE-0401-MS	O	91.3	82.6	102.9	93.1	115.6	104.7	129.4	117.3	144.4	131.2	160.3	145.7	177.2	161.0	
CDE-0402-MS	T	90.4	81.8	101.6	91.9	113.8	103.0	127.1	115.2	141.6	128.5	156.7	142.2	172.6	156.7	
CDE-0500-MS*	S	102.7	92.6	115.2	104.0	128.9	116.6	143.9	130.3	160.3	145.4	177.6	160.8	195.7	177.2	
CDE-0501-MS	O	107.6	97.2	121.2	109.7	136.0	123.4	152.4	138.4	170.6	154.9	189.8	172.4	210.1	190.7	
CDE-0600-MS*	S	121.5	109.6	136.7	123.3	153.1	138.2	170.8	154.5	189.8	172.0	210.2	190.4	231.9	210.0	
CDE-0601-MS	O	123.7	111.7	139.1	125.7	155.9	141.1	174.5	158.1	194.7	176.8	216.0	196.5	238.4	216.8	
CDE-0700-MS	S	155.8	140.7	175.3	158.3	196.6	177.8	219.6	199.0	244.7	222.2	271.0	246.4	289.7	271.3	
CDE-0701-MS	O	160.3	144.8	180.5	163.3	202.7	183.7	227.1	206.1	253.9	230.5	282.2	256.6	312.0	284.0	
CDE-0702-MS	T	159.8	143.5	178.8	161.5	200.5	181.4	224.0	203.0	249.6	226.6	276.4	251.3	304.7	276.7	
CDE-0800-MS*	S	181.6	164.3	204.2	184.7	228.6	206.8	255.1	231.0	283.4	257.3	313.2	284.3	344.7	312.9	
CDE-0801-MS*	O	186.6	168.9	209.6	190.1	235.0	213.4	263.0	239.0	293.7	266.9	326.1	296.4	360.0	327.2	

Saturated Suction Temperature (SST)			30°F		35°F		40°F		45°F		50°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CDE-0100-MS	2 - 4FES-5	S	48.5	44.6	53.4	49.3	58.8	54.4	66.7	61.9	N/A	N/A
CDE-0101-MS*	O	51.6	47.6	57.1	52.7	63.0	58.3	69.4	64.4	N/A	N/A	
CDE-0150-MS*	S	73.0	67.3	80.5	74.4	88.3	81.8	98.4	91.2	N/A	N/A	
CDE-0151-MS*	O	76.6	70.7	84.6	78.1	93.1	86.2	102.3	94.9	N/A	N/A	
CDE-0160-MS	S	76.6	70.7	84.6	78.1	93.1	86.2	101.3	94.4	N/A	N/A	
CDE-0161-MS	O	78.6	72.8	86.9	80.7	95.8	89.1	105.4	98.2	N/A	N/A	
CDE-0162-MS	T	80.2	74.3	88.6	82.3	97.7	90.9	107.5	100.2	N/A	N/A	
CDE-0180-MS	S	97.5	90.3	107.1	99.2	117.3	108.8	130.1	120.8	N/A	N/A	
CDE-0181-MS*	O	102.3	94.8	112.5	104.2	123.5	114.5	135.4	125.7	N/A	N/A	
CDE-0200-MS	S	117.8	109.3	129.2	120.3	141.5	131.7	157.4	146.7	N/A	N/A	
CDE-0201-MS	O	123.6	115.0	136.0	126.8	149.3	139.3	163.7	152.6	N/A	N/A	
CDE-0202-MS	T	120.2	111.5	131.8	122.7	144.3	134.3	160.6	149.7	N/A	N/A	
CDE-0240-MS*	S	140.9	131.1	164.5	144.0	169.2	157.8	184.7	172.1	N/A	N/A	
CDE-0241-MS	O	145.1	134.9	159.6	148.6	175.2	163.3	192.1	179.0	N/A	N/A	
CDE-0300-MS	S	165.2	153.6	181.6	168.9	199.0	185.2	214.4	199.3	N/A	N/A	
CDE-0301-MS*	O	168.4	156.4	185.3	172.2	203.5	189.1	223.0	207.3	N/A	N/A	
CDE-0400-MS	S	185.5	167.0	202.4	182.2	220.1	196.1	243.5	221.2	N/A	N/A	
CDE-0401-MS	O	194.9	177.1	213.3	194.0	232.8	211.4	253.2	230.0	N/A	N/A	
CDE-0402-MS	T	189.2	170.3	206.4	185.8	224.5	202.1	248.3	225.6	N/A	N/A	
CDE-0500-MS*	S	214.3	192.9	233.5	210.2	253.8	228.4	290.4	264.2	N/A	N/A	
CDE-0501-MS	O	231.4	210.1	253.4	230.6	276.9	252.2	302.0	274.8	N/A	N/A	
CDE-0600-MS*	S	254.3	228.9	277.3	249.6	301.6	271.4	327.7	297.8	N/A	N/A	
CDE-0601-MS	O	262.1	238.3	287.1	261.1	313.3	284.9	340.8	309.7	N/A	N/A	
CDE-0700-MS	S	327.7	294.9	358.8	322.9	390.7	351.6	430.2	391.2	N/A	N/A	
CDE-0701-MS	O	343.4	312.5	376.2	342.1	410.8	373.6	447.4	406.8	N/A	N/A	
CDE-0702-MS	T	334.3	300.8	366.0	329.4	398.5	358.7	438.8	399.0	N/A	N/A	
CDE-0800-MS*	S	378.3	340.5	412.9	371.6	449.0	404.1	493.8	448.2	N/A	N/A	
CDE-0801-MS*	O	395.6	359.6	432.9	393.4	472.3	429.0	513.5	466.1	N/A	N/A	

Voltage	208-230/3/60				460/3/60				575/3/60				Condenser LAVF
	Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	
CDE-0100-MS	S	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	14.6	2.5	36.9	50	10.5	2.5	27.3	35	11410
CDE-0150-MS*	S	5.4	78.8	110	14.9	2.5	37.5	50	12.3	5.0	33.9	45	12210
CDE-0151-MS	O	10.8	84.2	110	14.9	5.0	40.0	50	15.2	5.0	33.9	45	12210
CDE-0160-MS	S	10.8	91.4	125	17.0	5.0	44.8	60	15.2	5.0	40.4	50	12410
CDE-0161-MS	O	10.8	91.4	125	17.0	5.0	44.8	60	15.2	5.0	40.4	50	12410
CDE-0162-MS	T	10.8	91.4	125	17.0	5.0	44.8	60	15.2	5.0	40.4	50	12410
CDE-0180-MS	S	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12410
CDE-0181-MS*	O	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12410
CDE-0200-MS	S	10.8	119.8	150	23.6	7.5	62.1	80	18.9	7.5	51.2	70	13310
CDE-0201-MS	O	47.1	16.2	125.2	150	5.0	59.6	80	18.9	5.0	48.7	60	12410
CDE-0240-MS*	S	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	27.1	7.5	70.0	90	21.8	7.5	57.8	80	13310
CDE-0300-MS	S	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	32.1	7.5	81.2</td						

# CD Dual Systems

## CDE Medium Temp R-407A

### CDE Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-5°F	0°F	5°F	10°F	15°F	20°F	25°F
Ambient Temperature	95°F	105°F*	95°F	105°F	95°F	105°F	95°F	105°F	95°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit						
CDE-0100-MQ	2 - 4FES-5	S	21.9	20.1	24.6	22.6	27.7	25.4	31.0
CDE-0101-MQ*		O	23.1	21.7	26.0	24.4	29.2	27.4	32.7
CDE-0150-MQ*		S	33.1	30.5	37.3	34.4	42.0	38.6	47.0
CDE-0151-MQ		O	34.6	31.9	38.9	36.0	43.8	40.5	49.0
CDE-0160-MQ		S	34.6	31.9	38.9	36.0	43.8	40.5	49.0
CDE-0161-MQ		O	35.3	32.7	39.6	36.8	44.8	41.4	50.1
CDE-0162-MQ		T	36.0	33.3	40.6	37.6	45.7	42.2	51.1
CDE-0180-MQ		S	45.1	42.0	50.8	47.3	57.1	53.1	63.9
CDE-0181-MQ*		O	46.9	44.5	52.9	50.1	59.5	56.3	66.5
CDE-0200-MQ		S	54.6	50.8	61.5	57.3	69.1	64.4	77.4
CDE-0201-MQ		O	56.8	52.9	64.1	59.6	72.0	67.0	80.6
CDE-0202-MQ		T	55.7	51.8	62.7	58.4	70.5	65.6	78.9
CDE-0240-MQ*		S	65.1	60.8	73.4	68.5	82.5	77.0	92.3
CDE-0241-MQ		O	66.6	62.2	75.1	70.1	84.4	78.8	94.4
CDE-0300-MQ		S	75.9	71.0	85.6	80.0	96.2	89.9	107.6
CDE-0301-MQ*		O	77.1	72.0	86.9	81.2	97.6	91.2	109.3
CDE-0400-MQ		S	84.2	77.0	95.6	88.3	108.3	100.0	123.4
CDE-0401-MQ		O	86.7	79.3	98.8	91.2	112.1	103.7	128.1
CDE-0402-MQ		T	85.9	78.5	97.5	90.1	110.4	102.0	125.8
CDE-0500-MQ*		S	97.6	88.9	110.6	101.9	125.0	115.4	142.5
CDE-0501-MQ		O	102.2	93.3	116.4	107.5	131.9	122.2	150.9
CDE-0600-MQ*		S	115.4	105.2	131.2	120.8	148.5	136.8	169.1
CDE-0601-MQ		O	117.5	107.2	133.5	123.2	151.2	139.7	172.8
CDE-0700-MQ		S	148.0	135.1	168.3	155.1	190.7	176.0	217.4
CDE-0701-MQ		O	152.3	139.0	173.3	160.0	196.6	181.9	224.8
CDE-0702-MQ		T	151.0	137.8	171.7	158.2	194.5	179.5	221.8
CDE-0800-MQ*		S	172.5	157.7	196.0	181.0	221.7	204.7	262.5
CDE-0801-MQ*		O	177.3	162.1	201.2	186.3	228.0	211.3	260.4
									239.0
									293.7
									272.2
									329.4
									302.3
									367.2
									337.0

Saturated Suction Temperature (SST)			30°F	35°F	40°F	45°F	50°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	
Unit	Compressor	Cond	Capacity (MBH) Per Circuit					
CDE-0100-MQ	2 - 4FES-5	S	49.9	46.8	55.6	51.7	61.1	
CDE-0101-MQ*		O	53.2	50.0	59.4	55.4	65.6	
CDE-0150-MQ*		S	75.2	70.7	83.7	78.1	91.9	
CDE-0151-MQ		O	78.9	74.2	87.9	82.0	96.9	
CDE-0160-MQ		S	78.9	74.2	87.9	82.0	96.9	
CDE-0161-MQ		O	81.0	76.5	90.4	84.7	99.6	
CDE-0162-MQ		T	82.6	78.0	92.2	86.4	101.6	
CDE-0180-MQ		S	100.4	94.8	111.4	104.2	122.0	
CDE-0181-MQ*		O	105.4	99.5	117.0	109.5	128.5	
CDE-0200-MQ		S	121.3	114.8	134.4	126.3	147.1	
CDE-0201-MQ		O	127.3	120.7	141.4	133.1	155.3	
CDE-0202-MQ		T	123.8	117.1	137.1	128.8	150.1	
CDE-0240-MQ*		S	145.1	137.6	160.7	151.2	176.0	
CDE-0241-MQ		O	149.5	141.7	166.0	156.0	182.2	
CDE-0300-MQ		S	170.2	161.3	188.8	177.4	207.0	
CDE-0301-MQ*		O	173.5	164.2	192.7	180.8	211.6	
CDE-0400-MQ		S	191.1	172.0	210.5	189.4	228.9	
CDE-0401-MQ		O	200.7	186.0	221.8	203.7	242.1	
CDE-0402-MQ		T	194.9	175.4	214.7	193.2	233.5	
CDE-0500-MQ*		S	220.7	198.7	242.8	218.6	264.0	
CDE-0501-MQ		O	238.3	220.6	263.5	242.1	288.0	
CDE-0600-MQ*		S	261.9	235.7	288.4	259.6	313.7	
CDE-0601-MQ		O	270.0	250.2	298.6	274.2	325.8	
CDE-0700-MQ		S	337.5	303.8	373.2	335.8	406.3	
CDE-0701-MQ		O	353.7	328.1	391.2	359.2	427.2	
CDE-0702-MQ		T	344.3	309.9	380.6	342.6	414.5	
CDE-0800-MQ*		S	389.6	350.7	429.4	386.5	467.0	
CDE-0801-MQ*		O	407.5	377.6	450.2	413.1	491.2	
								454.7
								534.0
								494.1
								588.6
								560.6

### 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	Condenser LAVF
CDE-0100-MQ	S	27.0	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5
CDE-0101-MQ*	O	5.4	69.2	90	14.6	2.5	36.9	50	9.7	2.5	25.5	35
CDE-0150-MQ*	S	31.3	5.4	78.8	110	14.9	2.5	37.5	50	10.5	2.5	27.3
CDE-0151-MQ	O	10.8	84.2	110	14.9	5.0	40.0	50	10.5	5.0	29.8	40
CDE-0160-MQ	S	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45
CDE-0161-MQ		O	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9
CDE-0162-MQ		T	10.8	91.4	125	17.0	5.0	44.8	60	12.3	5.0	33.9
CDE-0180-MQ	S	38.1	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4
CDE-0181-MQ*	O	10.8	99.5	125	19.0	5.0	49.3	60	15.2	5.0	40.4	50
CDE-0200-MQ	S	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60
CDE-0201-MQ	O	16.2	125.2	150	23.6	7.5	62.1	80	18.9	7.5	51.2	70
CDE-0202-MQ	T	10.8	119.8	150	23.6	5.0	59.6	80	18.9	5.0	48.7	60
CDE-0240-MQ*	S	54.3	10.8	138.0	175	27.1	5.0	67.5	90	21.8	5.0	55.3
CDE-0241-MQ	O	16.2	141.4	175	27.1	7.5	70.0	90	21.8	7.5	57.8	80
CDE-0300-MQ	S	64.3	16.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9
CDE-0301-MQ*	O	16.2	163.9	225	32.1	7.5	81.2	110	26.3	7.5	67.9	90
CDE-0400-MQ	S	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90
CDE-0401-MQ	O	21.6	179.0	225	34.3	10.0	88.7	125	27.1	10.0	72.2	100
CDE-0402-MQ	T	16.2	173.6	225	34.3	7.5	86.2	110	27.1	7.5	69.7	90
CDE-0500-MQ*	S	84.3	16.2	208.9	250	42.1	7.5	103.7	125	33.6	15.0	91.8
CDE-0501-MQ	O	32.4	225.1	300	42.1	15.0	111.2	150	33.6	15.0	102.6	125
CDE-0600-MQ*	S	100.0	21.6	249.6	300	50.0	10.0	124.0	175	40.0	10.0	101.2
CDE-0601-MQ	O	32.4	260.4	350	50.0	15.0	129.0	175	40.0	15.0	106.2	125
CDE-0700-MQ	S	32.4	298.9	400	58.6	15.0	148.4	200	46.4	20.0	125.6	150
CDE-0701-MQ	O	32.4	298.9	400	58.6	15.0	148.4	200	46.4	20.0	120.6	150
CDE-0702-MQ	T	32.4	298.9	400	58.6	15.0	148.4	200	46.4	20.0	120.6	150
CDE-0800-MQ*	S	157.1	32.4	388.9	500	78.6	20.0	198.4	250	62.9	20.0	162.7
CDE-0801-MQ*	O	43.2	399.7	500	78.6	20.0	198.4	250	62.9	20.0	162.7	225

- 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.
- 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.
- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-407A capacity and electrical data for R-407F while replacing the "O" at the end of the model nomenclature with an "F".

## CDE Medium Temp R-448A

### CDE Performance Data - Medium Temperature R-448A- Total Capacity

Saturated Suction Temperature (SST)			CDE Performance Data - Medium Temperature R-448A- Total Capacity													
Ambient Temperature		Unit	Capacity (MBH) Per Circuit	-5°F	0°F	5°F	10°F	15°F	20°F	25°F						
		Compressor	Cond	95°F	105°F	95°F										
				95°F	105°F	95°F										
CDE-0100-MT	2 - 4FES-5	S	22.5	20.9	25.4	23.5	28.5	26.4	31.9	29.6	36.5	34.0	41.2	38.1	45.6	42.3
CDE-0101-MT*		O	23.8	22.5	26.8	25.4	30.1	28.5	33.7	31.9	38.5	36.3	43.5	40.6	48.4	45.1
CDE-0150-MT*		S	34.1	31.7	38.5	35.8	43.2	40.2	48.4	45.0	54.8	51.2	61.8	57.4	68.6	63.8
CDE-0151-MT	2 - 4EES-6	O	35.6	33.2	40.1	37.4	45.1	42.1	50.5	47.1	57.5	53.9	64.9	60.4	72.0	67.0
CDE-0160-MT		S	35.6	33.2	40.1	37.4	45.1	42.1	50.5	47.1	57.5	53.9	64.9	60.4	72.0	67.0
CDE-0161-MT	2 - 4DES-7	O	36.4	34.0	41.0	38.3	46.1	43.0	51.6	48.2	58.8	55.0	66.5	61.8	73.8	68.9
CDE-0162-MT		T	37.1	34.7	41.8	39.1	47.0	43.9	52.6	49.1	60.0	56.2	67.8	63.0	75.3	70.2
CDE-0180-MT		S	46.5	43.6	52.4	49.2	58.9	55.3	65.9	61.8	74.3	69.9	83.3	77.9	92.1	86.0
CDE-0181-MT*	2 - 4CES-9	O	48.4	46.2	54.5	52.1	61.3	58.6	66.6	65.6	77.8	73.8	87.6	81.8	96.6	90.3
CDE-0200-MT		S	56.2	52.8	63.4	59.5	71.2	66.9	79.7	74.9	89.9	84.5	100.8	94.0	111.2	104.1
CDE-0201-MT	2 - 4TES-12	O	58.6	55.0	66.0	62.0	74.2	69.7	83.0	78.0	93.9	88.1	105.5	98.3	116.7	109.1
CDE-0202-MT		T	57.3	53.9	64.6	60.7	72.6	68.3	81.3	76.4	91.7	86.2	102.8	95.9	113.4	106.2
CDE-0240-MT*		S	67.1	63.2	75.6	71.3	85.0	80.1	95.1	89.6	107.7	101.7	120.9	113.3	133.2	125.0
CDE-0241-MT		O	68.6	64.7	77.3	72.9	86.9	81.9	97.3	91.7	110.4	104.2	124.2	116.2	137.1	128.4
CDE-0300-MT		S	78.2	73.8	88.2	83.2	99.1	93.5	110.9	104.6	125.8	118.7	141.4	132.3	156.0	146.3
CDE-0301-MT*	2 - 4NES-20	O	79.4	74.9	89.5	84.4	100.6	94.9	112.6	106.2	127.8	120.5	143.7	134.4	158.8	148.8
CDE-0400-MT		S	86.8	79.4	99.6	91.0	112.7	104.0	127.1	117.4	143.0	132.3	159.7	146.4	176.0	161.3
CDE-0401-MT	2 - 4JE-22	O	89.5	81.8	102.9	94.0	116.8	107.8	132.0	122.0	148.7	137.8	166.7	153.0	184.3	169.1
CDE-0402-MT		T	88.6	81.0	101.6	92.8	115.0	106.1	129.6	119.8	145.8	134.9	162.9	149.3	179.5	164.5
CDE-0500-MT*		S	100.6	91.7	115.2	105.0	130.2	120.1	146.8	135.5	165.1	152.7	184.7	168.8	203.5	186.1
CDE-0501-MT	2 - 4HE-25	O	105.4	96.2	121.2	110.8	137.4	127.1	155.4	143.9	175.7	162.6	197.4	181.0	218.5	200.2
CDE-0600-MT*		S	119.1	108.5	136.7	124.5	154.6	142.3	174.2	160.7	195.5	180.6	218.6	199.9	241.2	220.5
CDE-0601-MT	2 - 4GE-30	O	121.2	110.6	139.1	127.0	157.5	145.3	178.0	164.4	200.5	185.6	224.6	206.3	227.6	
CDE-0700-MT		S	152.7	139.3	175.3	159.9	198.6	183.1	224.0	207.0	252.0	233.3	281.8	258.7	310.6	284.9
CDE-0701-MT	2 - 6HE-35	O	157.1	143.4	180.5	164.9	204.7	189.2	231.6	214.3	261.5	242.0	293.5	269.4	324.5	298.2
CDE-0702-MT		T	155.7	142.1	178.8	163.1	202.5	186.8	228.5	211.1	257.1	238.0	287.5	263.9	316.9	290.6
CDE-0800-MT*		S	178.0	162.7	204.2	186.5	230.9	213.0	260.2	240.2	291.9	270.2	325.7	298.5	358.5	328.5
CDE-0801-MT*	2 - 6GE-40	O	182.9	167.2	209.6	192.0	237.4	219.8	268.3	248.6	302.5	280.2	339.1	311.2	374.4	343.6

Saturated Suction Temperature (SST)			CDE Performance Data - Medium Temperature R-448A- Total Capacity													
Ambient Temperature		Unit	Capacity (MBH) Per Circuit	30°F	35°F	40°F	45°F	50°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
		Compressor	Cond	95°F	105°F											
				95°F	105°F											
CDE-0100-MT	2 - 4FES-5	S	50.9	47.7	56.1	52.7	61.7	58.2	70.0	66.2	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0101-MT*		O	64.2	51.0	60.0	56.4	66.2	62.4	72.8	68.8	70.0	75.0				
CDE-0150-MT*		S	76.7	72.0	84.5	79.6	92.7	87.5	103.3	97.6	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0151-MT	2 - 4EES-6	O	80.4	75.6	88.8	83.6	97.8	92.2	107.4	101.5	116.5	110.4				
CDE-0160-MT		S	80.4	75.6	88.8	83.6	97.8	92.2	106.4	101.1	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0161-MT	2 - 4DES-7	O	82.6	77.9	91.2	86.3	100.6	95.4	110.6	105.1	120.4	114.3				
CDE-0162-MT		T	84.2	79.5	93.1	88.1	102.6	97.3	112.8	107.2	122.8	116.6				
CDE-0180-MT	2 - 4CES-9	S	102.4	96.6	112.5	106.2	123.2	116.5	136.7	129.3	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0181-MT*		O	107.4	101.4	118.1	111.5	129.7	122.6	142.1	134.5	154.0	146.1				
CDE-0200-MT		T	123.7	117.0	135.7	128.7	148.5	140.9	165.3	157.0	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0201-MT	2 - 4TES-12	O	129.8	123.0	142.8	135.7	156.8	149.1	171.9	163.3	186.4	176.7				
CDE-0202-MT		T	126.2	119.3	138.4	131.2	151.5	143.7	168.6	160.1	182.7	173.1				
CDE-0240-MT*	2 - 4PES-15	S	147.9	140.2	162.3	154.1	177.7	168.8	193.9	184.2	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0300-MT	2 - 4NES-20	S	173.5	164.4	190.6	180.7	209.0	198.2	225.1	213.2	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0301-MT*		O	176.8	167.3	194.6	184.2	213.7	202.3	234.1	221.8	253.3	240.1				
CDE-0400-MT		S	194.8	175.3	212.5	191.3	231.1	208.0	255.6	236.6	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0401-MT	2 - 4JE-22	O	204.6	189.5	224.0	207.6	244.4	226.2	265.9	246.1	287.8	275.2				
CDE-0402-MT		T	198.7	178.8	216.8	195.1	235.7	212.2	260.7	241.4	282.0	269.7				
CDE-0500-MT*	2 - 4HE-25	S	225.0	202.5	245.2	220.7	266.5	239.8	304.9	282.7	N/A	N/A	N/A	N/A	N/A	N/A
CDE-0501-MT		O	243.0	224.8	266.1	246.7	290.7	269.9	317.1	294.0	332.6	319.9				
CDE-0600-MT*	2 - 4GE-30	S	267.0	240.3	291.2	262.0	316.7	285.0	344.1	318.6	376.2	N/A				
CDE-0601-MT		O	275.2	255.0	301.5	279.4	329.0	304.8	357.8	334.1	386.1	371.5				
CDE-0700-MT	2 - 6HE-35	S	344.1	309.7	376.7	339.1	410.2	369.2	451.7	418.5	491.0	N/A	N/A	N/A	N/A	N/A
CDE-0701-MT		O	360.6	334.4	395.0	366.0	431.3	399.8	469.8	435.3	500.0	480.9				
CDE-0702-MT		T	351.0	315.9	384.3	345.8	418.4	376.6	460.7	426.9	495.0	471.3				
CDE-0800-MT*	2 - 6GE-40	S	397.2	357.5	433.5	390.2	471.5	424.3	518.4	479.5	562.9	N/A				
CDE-0801-MT*		O	415.4	384.8	454.5	420.9	495.9	459.0	539.2	498.7	583.0	560.6				

Voltage			208-230/3/60				460/3/60				575/3/60				Condenser LAVF	
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 -															

# CD Dual Systems

## CDB Medium Temp R-404A

### CDB Performance Data - Medium Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F												
CDB-0100-MS	2 - 4FES-3	S	22.1	20.1	24.9	22.6	28.0	25.4	31.3	28.5	35.4	32.3	39.6	36.3	43.9	40.3	48.5	44.6
		O	23.3	21.7	26.3	24.4	29.5	27.4	33.0	30.7	37.3	34.6	41.8	38.7	46.5	42.9	51.6	47.6
CDB-0150-MS*	2 - 4EES-4	S	33.5	30.5	37.7	34.4	42.4	38.6	47.4	43.2	53.2	48.8	59.5	54.7	66.0	60.8	73.0	67.3
		O	34.9	31.9	39.3	36.0	44.2	40.5	49.5	45.3	55.8	51.3	62.4	57.5	69.3	63.9	76.6	70.7
CDB-0160-MS	2 - 4DES-5	S	34.9	31.9	39.3	36.0	44.2	40.5	49.5	45.3	55.8	51.3	62.4	57.5	69.3	63.9	76.6	70.7
		O	35.7	32.7	40.2	36.8	45.2	41.4	50.6	46.3	57.1	52.4	64.0	58.9	71.0	65.6	78.6	72.8
CDB-0162-MS	2 - 4ACES-6	T	36.4	33.3	41.0	37.6	46.1	42.2	51.6	47.2	58.3	53.5	65.2	60.0	72.4	66.9	80.2	74.3
		S	45.5	42.0	51.3	47.3	57.7	53.1	64.6	59.5	72.1	66.6	80.1	74.2	88.5	81.9	97.5	90.3
CDB-0181-MS*	2 - 4PES-12	O	47.4	44.5	53.4	50.1	60.1	56.3	67.2	63.0	75.6	70.3	84.3	77.9	92.9	86.0	102.3	94.8
		S	55.1	50.8	62.1	57.3	69.8	64.4	78.1	72.0	87.3	80.5	96.9	89.6	106.9	99.1	117.8	109.3
CDB-0200-MS	2 - 4TES-9	O	57.4	52.9	64.7	59.6	72.7	67.0	81.4	75.0	91.2	83.9	101.5	93.6	112.2	103.9	123.6	115.0
		T	56.2	51.8	63.4	58.4	71.2	65.6	79.7	73.5	89.1	82.1	98.8	91.3	109.0	101.1	120.2	111.5
CDB-0240-MS*	2 - 4HE-18	S	65.8	60.8	74.1	68.5	83.3	77.0	93.2	86.2	104.6	96.9	116.3	107.9	128.1	119.6	140.9	131.1
		O	67.3	62.2	75.8	70.1	85.2	78.8	95.4	88.1	107.2	99.2	119.4	110.7	131.8	122.3	145.1	134.9
CDB-0300-MS	2 - 4NES-14	S	76.7	71.0	86.4	80.0	97.2	89.9	108.7	100.6	122.1	113.0	136.0	126.0	150.0	139.3	165.2	153.6
		O	77.9	72.0	87.7	81.2	98.6	91.2	110.4	102.1	124.0	114.8	138.2	128.0	152.7	141.7	168.4	156.4
CDB-0400-MS	2 - 4JE-15	S	88.6	80.2	99.6	90.1	111.6	101.0	124.6	112.9	138.8	126.0	153.6	139.4	169.2	153.6	185.5	167.0
		O	91.3	82.6	102.9	93.1	115.6	104.7	129.4	117.3	144.4	131.2	160.3	145.7	177.2	161.0	194.9	177.1
CDB-0402-MS	2 - 4GE-23	T	90.4	81.8	101.6	91.9	113.8	103.0	127.1	115.2	141.6	128.5	156.7	142.2	172.6	156.7	189.2	170.3
		S	102.7	92.6	115.2	104.0	128.9	116.6	143.9	130.3	160.3	145.4	177.6	160.8	195.7	177.2	214.3	192.9
CDB-0500-MS*	2 - 4PES-12	O	107.6	97.2	121.2	109.7	136.0	123.4	152.4	138.4	170.6	154.9	189.8	172.4	210.1	190.7	231.4	210.1
		S	121.5	109.6	136.7	123.3	153.1	138.2	170.8	154.5	189.8	172.0	210.2	190.4	231.9	210.0	254.3	228.9
CDB-0601-MS	2 - 4GE-28	O	123.7	111.7	139.1	125.7	155.9	141.1	174.5	158.1	194.7	176.8	216.0	196.5	238.4	216.8	262.1	238.3
		S	155.8	140.7	175.3	158.3	196.6	177.8	219.6	199.0	244.7	222.2	271.0	246.4	298.7	271.3	327.7	294.9
CDB-0700-MS	2 - 6HE-28	O	160.3	144.8	180.5	163.3	202.7	183.7	227.1	206.1	253.9	230.5	282.2	256.6	312.0	284.0	343.4	312.5
		T	158.9	143.5	178.8	161.5	200.5	181.4	224.0	203.0	249.6	226.6	276.4	251.3	304.7	276.7	334.3	300.8
CDB-0800-MS*	2 - 6GE-34	S	181.6	164.3	204.2	184.7	228.6	206.8	255.1	231.0	283.4	257.3	313.2	284.3	344.7	312.9	378.3	340.5
		O	186.6	168.9	209.6	190.1	235.0	213.4	263.0	239.0	293.7	266.9	326.1	296.4	360.0	327.2	395.6	359.6

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.

### Electrical Specifications - Medium Temperature R-404A

Voltage	208-230/3/60					460/3/60					575/3/60					Condenser LAVF
	Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
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	11210
		O	20.1	5.4	53.6	70	9.0	2.5	24.3	30	6.9	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	11410
		O	22.4	10.8	64.2	80	10.3	5.0	29.7	40	8.3	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	12210
		O	23.0	10.8	65.6	80	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12310	
CDB-0162-MS	2 - 4ACES-6	T	27.9	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12210	12210
		S	27.9	10.8	76.6	100	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12410	
CDB-0180-MS*	2 - 4PES-12	O	31.4	10.8	84.5	110	15.7	5.0	41.8	50	13.6	5.0	36.8	50	12310	12310
		S	31.4	16.2	89.9	110	15.7	7.5	44.3	60	13.6	7.5	39.3	50	13310	
CDB-0200-MS	2 - 4TES-9	O	38.6	10.8	100.7	125	19.3	5.0	49.9	60	16.0	5.0	42.2	50	12410	12410
		S	38.6	16.2	106.1	125	19.3	7.5	52.4	70	16.0	7.5	44.7	60	13310	
CDB-0201-MS	2 - 4NES-14	O	44.3	16.2	118.9	150	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13310	13310
		S	44.3	16.2	118.9	150	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13410	
CDB-0240-MS*	2 - 4HE-18	O	60.3	32.4	171.1	225	30.1	15.0	84.2	110	24.1	15.0	70.4	90	23310	23310
		S	60.3	32.4	171.1	225	30.1	15.0	84.2	110	24.1	15.0	70.4	90	23310	
CDB-0300-MS	2 - 4GE-23	O	64.3	21.6	169.3	225	32.1	15.0	88.7	110	25.7	15.0	74.0	100	23310	23310
		S	64.3	32.4	180.1	225	32.1	15.0	113.7	150	34.6	20.0	99.1	125	24310	
CDB-0301-MS*	2 - 6HE-28	O	86.4	43.2	240.6	300	43.2	15.0	113.7	150	34.6	20.0	99.1	125	23410	23410
		S	86.4	32.4	229.8	300	43.2	15.0	122.5	150	37.1	20.0	104.7	125	24410	
CDB-0700-MS	2 - 6GE-34	S	94.3	32.4	247.6	300	47.1	20.0	127.5	175	37.1	20.0	104.7	125	24410	24410
		O	94.3	43.2	258.4	350	47.1	20.0	127.5	175	37.1	20.0	104.7	125	24410	

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".

# CD Dual Systems

## CDB Medium Temp R-407A

### CDB Performance Data - Medium Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			CDB Performance Data - Medium Temperature R-407A - Total Capacity																						
Ambient Temperature Unit	Compressor	Cond	Capacity (MBH) Per Circuit																						
			95°F	105°F*	0°F	95°F	105°F	5°F	95°F	105°F	10°F	95°F	105°F	15°F	95°F	105°F	20°F	95°F	105°F	25°F	95°F	105°F	30°F	95°F	105°F
CDB-0100-MQ	2 - 4FES-3	S	21.9	20.1	24.6	22.6	27.7	25.4	31.0	28.5	35.4	33.0	40.0	37.0	44.7	41.5	49.9	46.8							
CDB-0101-MQ*		O	23.1	21.7	26.0	24.4	29.2	27.4	32.7	30.7	37.3	35.3	42.2	39.4	47.4	44.2	53.2	50.0							
CDB-0150-MQ*	2 - 4EES-4	S	33.1	30.5	37.3	34.4	42.0	38.6	47.0	43.2	53.2	49.7	60.1	55.8	67.3	62.6	75.2	70.7							
CDB-0151-MQ		O	34.6	31.9	38.9	36.0	43.8	40.5	49.0	45.3	55.8	52.3	63.0	58.7	70.6	65.8	78.9	74.2							
CDB-0160-MQ		S	34.6	31.9	38.9	36.0	43.8	40.5	49.0	45.3	55.8	52.3	63.0	58.7	70.6	65.8	78.9	74.2							
CDB-0161-MQ	2 - 4DES-5	O	35.3	32.7	39.8	36.8	44.8	41.4	50.1	46.3	57.1	53.5	64.6	60.0	72.4	67.6	81.0	76.5							
CDB-0162-MQ		T	36.0	33.3	40.6	37.6	45.7	42.2	51.1	47.2	58.3	54.5	65.9	61.2	73.9	68.9	82.6	78.0							
CDB-0180-MQ*	2 - 4CES-6	S	45.1	42.0	50.8	47.3	57.1	53.1	63.9	59.5	72.1	67.9	80.9	75.6	90.3	84.4	100.4	94.8							
CDB-0200-MQ		O	46.9	44.5	52.9	50.1	59.5	56.3	66.5	63.0	75.6	71.7	85.1	79.5	94.8	88.6	105.4	99.5							
CDB-0201-MQ	2 - 4TES-9	S	54.6	50.8	61.5	57.3	69.1	64.4	77.4	72.0	87.3	82.1	97.9	91.3	109.0	102.1	121.3	114.8							
CDB-0202-MQ		O	56.8	52.9	64.1	59.6	72.0	67.0	80.6	75.0	91.2	85.6	102.5	95.5	114.4	107.1	127.3	120.7							
CDB-0204-MQ*		T	55.7	51.8	62.7	58.4	70.5	65.6	78.9	73.5	89.1	83.7	99.8	93.2	111.2	104.2	123.8	117.1							
CDB-0241-MQ	2 - 4PES-12	S	65.1	60.8	73.4	68.5	82.5	77.0	92.3	86.2	104.6	98.8	117.4	110.1	130.7	122.6	145.1	137.6							
CDB-0241-MQ		O	66.6	62.2	75.1	70.1	84.4	78.8	94.4	88.1	107.1	101.2	120.6	112.9	134.4	126.0	149.5	141.7							
CDB-0300-MQ	2 - 4NES-14	S	75.9	71.0	85.6	80.0	96.2	89.9	107.6	100.6	122.1	115.3	137.3	128.5	153.0	143.5	170.2	161.3							
CDB-0301-MQ*		O	77.1	72.0	86.9	81.2	97.6	91.2	109.3	102.1	124.0	117.0	139.6	130.6	155.7	145.9	173.5	164.2							
CDB-0400-MQ	2 - 4JE-15	S	84.2	77.0	95.6	88.3	108.3	100.0	123.4	112.9	138.8	128.5	155.1	142.2	172.6	158.2	191.1	172.0							
CDB-0401-MQ		O	86.7	79.3	98.8	91.2	112.1	103.7	128.1	117.3	144.4	133.8	161.9	148.6	180.7	165.8	200.7	186.0							
CDB-0402-MQ		T	85.9	78.5	97.5	90.1	110.4	102.0	125.8	115.2	141.6	131.1	158.2	145.0	176.0	161.4	194.9	175.4							
CDB-0500-MQ*	2 - 4HE-18	S	97.6	88.9	110.6	101.9	125.0	115.4	142.5	130.3	160.3	148.3	179.4	164.0	199.6	182.5	220.7	198.7							
CDB-0501-MQ		O	102.2	93.3	116.4	107.5	131.9	122.2	150.9	138.4	170.6	158.0	191.7	175.8	214.3	196.4	238.3	220.6							
CDB-0600-MQ*	2 - 4GE-23	S	115.4	105.2	131.2	120.8	148.5	136.8	169.1	154.5	189.8	175.4	212.3	194.2	236.5	216.3	261.9	235.7							
CDB-0601-MQ		O	117.5	107.2	133.5	123.2	151.2	139.7	172.8	158.1	194.7	180.3	218.2	200.4	243.2	223.3	270.0	250.2							
CDB-0700-MQ	2 - 6HE-28	S	148.0	135.1	168.3	155.1	190.7	176.0	217.4	199.0	244.7	226.6	273.7	251.3	304.7	279.4	337.5	303.8							
CDB-0701-MQ		O	152.3	139.0	173.3	160.0	196.6	181.9	224.8	206.1	253.9	235.1	285.0	261.7	318.2	292.5	353.7	328.1							
CDB-0702-MQ		T	151.0	137.8	171.7	158.2	194.5	179.5	221.8	203.0	249.6	231.2	279.2	256.4	310.8	285.0	344.3	309.9							
CDB-0800-MQ*	2 - 6GE-34	S	172.5	157.7	196.0	181.0	221.7	204.7	252.5	231.0	283.4	262.4	316.3	290.0	351.6	322.3	389.6	350.7							
CDB-0801-MQ*		O	177.3	162.1	201.2	186.3	228.0	211.3	260.4	239.0	293.7	272.2	329.4	302.3	367.2	337.0	407.5	377.6							

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.

### Electrical Specifications - Medium Temperature R-407A

Voltage	208-230/3/60				460/3/60				575/3/60				Condenser LAVF		
	Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
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		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		5.0	41.8	50		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-0400-MQ		O		16.2	118.9	150		7.5	58.7	80		7.5	48.5	60	13410
CDB-0401-MQ	2 - 4JE-15	S	55.7	21.6	144.5	200	27.9	7.5	71.8	100	22.3	10.0	58.9	80	13310
CDB-0402-MQ		O		16.2	144.5	200		7.5	71.8	100		7.5	61.4	80	22310
CDB-0500-MQ*	2 - 4HE-18	S	60.3	32.4	171.1	225	30.1	15.0	84.2	110	24.1	15.0	70.4	90	23310
CDB-0501-MQ		O		32.4	180.1	225		15.0	88.7	110		15.0	74.0	100	23310
CDB-0600-MQ*	2 - 4GE-23	S	64.3	21.6	169.3	225	32.1	15.0	113.7	150	25.7	10.0	69.0	90	22410
CDB-0601-MQ		O		32.4	180.1	225		15.0	113.7	150		15.0	94.1	125	23310
CDB-0700-MQ	2 - 6HE-28	S	86.4	43.2	229.8	300	43.2	20.0	118.7	150	34.6	20.0	99.1	125	24310
CDB-0701-MQ		O		32.4	229.8	300		15.0	122.5	150		15.0	94.1	125	23410
CDB-0702-MQ		T		32.4	247.6	300		15.0</td							

# CD Dual Systems

## CDB Medium Temp R-448A

### CDB Performance Data - Medium Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-5°F		0°F		5°F		10°F		15°F		20°F		25°F		30°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F*	95°F	105°F										
CDB-0100-MT	2 - 4FES-3	S	22.5	20.9	25.4	23.5	28.5	26.4	31.9	29.6	36.5	34.0	41.2	38.1	45.6	42.3	50.9	47.7
CDB-0101-MT*		O	23.8	22.5	26.8	25.4	30.1	28.5	33.7	31.9	38.5	36.3	43.5	40.6	48.4	45.1	54.2	51.0
CDB-0150-MT*	2 - 4EES-4	S	34.1	31.7	38.5	35.8	43.2	40.2	48.4	45.0	54.8	51.2	61.8	57.4	68.6	63.8	76.7	72.0
CDB-0151-MT		O	35.6	33.2	40.1	37.4	45.1	42.1	50.5	47.1	57.5	53.9	64.9	60.4	72.0	67.0	80.4	75.6
CDB-0160-MT	2 - 4DES-5	S	35.6	33.2	40.1	37.4	45.1	42.1	50.5	47.1	57.5	53.9	64.9	60.4	72.0	67.0	80.4	75.6
CDB-0161-MT		O	36.4	34.0	41.0	38.3	46.1	43.0	51.6	48.2	58.8	55.0	66.5	61.8	73.8	68.9	82.6	77.9
CDB-0162-MT		T	37.1	34.7	41.8	39.1	47.0	43.9	52.6	49.1	60.0	56.2	67.8	63.0	75.3	70.2	84.2	79.5
CDB-0180-MT	2 - 4CES-6	S	46.5	43.6	52.4	49.2	58.9	55.3	65.9	61.8	74.3	69.9	83.3	77.9	92.1	86.0	102.4	96.6
CDB-0181-MT*		O	48.4	46.2	54.5	52.1	61.3	58.6	68.6	65.6	77.8	73.8	87.6	81.8	96.6	90.3	107.4	101.4
CDB-0200-MT	2 - 4TES-9	S	56.2	52.8	63.4	59.5	71.2	66.9	79.7	74.9	89.9	84.5	100.8	94.0	111.2	104.1	123.7	117.0
CDB-0201-MT		O	58.6	55.0	66.0	62.0	74.2	69.7	83.0	78.0	93.9	88.1	105.5	98.3	116.7	109.1	129.8	123.0
CDB-0202-MT		T	57.3	53.9	64.6	60.7	72.6	68.3	81.3	76.4	91.7	86.2	102.8	95.9	113.4	106.2	126.2	119.3
CDB-0240-MT*	2 - 4PES-12	S	67.1	63.2	75.6	71.3	85.0	80.1	95.1	89.6	107.7	101.7	120.9	113.3	133.2	125.0	147.9	140.2
CDB-0241-MT		O	68.6	64.7	77.3	72.9	86.9	81.9	97.3	91.7	110.4	104.2	124.2	116.2	137.1	128.4	152.4	144.4
CDB-0300-MT	2 - 4NES-14	S	78.2	73.8	88.2	83.2	99.1	93.5	110.9	104.6	125.8	118.7	141.4	132.3	156.0	146.3	173.5	164.4
CDB-0301-MT*		O	79.4	74.9	89.5	84.4	100.6	94.9	112.6	106.2	127.8	120.5	143.7	134.4	158.8	148.8	176.8	167.3
CDB-0400-MT	2 - 4JE-15	S	86.8	79.4	99.6	91.0	112.7	104.0	127.1	117.4	143.0	132.3	159.7	146.4	176.0	161.3	194.8	175.3
CDB-0401-MT		O	89.5	81.8	102.9	94.0	116.8	107.8	132.0	122.0	148.7	137.8	166.7	153.0	184.3	169.1	204.6	189.5
CDB-0402-MT		T	88.6	81.0	101.6	92.8	115.0	106.1	129.6	119.8	145.8	134.9	162.9	149.3	179.5	164.5	198.7	178.8
CDB-0500-MT*	2 - 4HE-18	S	100.6	91.7	115.2	105.0	130.2	120.1	146.8	135.5	165.1	152.7	184.7	168.8	203.5	186.1	225.0	202.5
CDB-0501-MT		O	105.4	96.2	121.2	110.8	137.4	127.1	155.4	143.9	175.7	162.6	197.4	181.0	218.5	200.2	243.0	224.8
CDB-0600-MT*	2 - 4GE-23	S	119.1	108.5	136.7	124.5	154.6	142.3	174.2	160.7	195.5	180.6	218.6	199.9	241.2	220.5	267.0	240.3
CDB-0601-MT		O	121.2	110.6	139.1	127.0	157.5	145.3	178.0	164.4	200.5	185.6	224.6	206.3	247.9	227.6	275.2	255.0
CDB-0700-MT	2 - 6HE-28	S	152.7	139.3	175.3	159.9	198.6	183.1	224.0	207.0	252.0	233.3	281.8	258.7	310.6	284.9	344.1	309.7
CDB-0701-MT		O	157.1	143.4	180.5	164.9	204.7	189.2	231.6	214.3	261.5	242.0	293.5	269.4	324.5	298.2	360.6	334.4
CDB-0702-MT		T	155.7	142.1	178.8	163.1	202.5	186.8	228.5	211.1	257.1	238.0	287.5	263.9	316.8	290.6	351.0	315.9
CDB-0800-MT*	2 - 6GE-34	S	178.0	162.7	204.2	186.5	230.9	213.0	260.2	240.2	291.9	270.2	325.7	298.5	358.5	328.5	397.2	357.5
CDB-0801-MT*		O	182.9	167.2	209.6	192.0	237.4	219.8	268.3	248.6	302.5	280.2	339.1	311.2	374.4	343.6	415.4	384.8

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.

### 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
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	12410
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		5.0	41.8	50		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	13410
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	21.6	144.5	200	27.9	10.0	74.3	100	22.3	10.0	61.4	80	22310
CDB-0401-MT		O		16.2	144.5	200		7.5	71.8	100		7.5	58.9	80	13410
CDB-0402-MT		T		16.2	144.5	200		7.5	71.8	100		7.5	62.9	80	13410
CDB-0500-MT	2 - 4HE-18	S	60.3	32.4	171.1	225	30.1	15.0	84.2	110	24.1	15.0	70.4	90	23310
CDB-0501-MT		O		32.4	171.1	225		10.0	83.7	110		10.0	69.0	90	22410
CDB-0600-MT	2 - 4GE-23	S	64.3	21.6	169.3	225	32.1	15.0	88.7	110	25.7	15.0	74.0	100	23310
CDB-0601-MT		O		32.4	180.1	225		15.0	113.7	150		15.0	94.1	125	23310
CDB-0700-MT	2 - 6HE-28	S	86.4	32.4	229.8	300	43.2	20.0	118.7	150	34.6	20.0	99.1	125	24310
CDB-0701-MT		O		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	20.0	104.7	125	23410
CDB-0801-MT		O		43.2	258.4	350		20.0	127.5	175		20.0	104.7	125	24410

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".

# CD Dual Systems

## CDD Low Temp R-404A

### CDD Performance Data - Low Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)				-40°F		-35°F		-30°F		-25°F		-20°F		
Ambient Temperature				95°F	105°F									
Unit	Compressor	Cond	Capacity (MBH) Per Circuit	S	40.9	36.6	48.3	43.5	55.6	50.3	63.2	57.3	71.1	64.5
CDD-0300-LS*	2 - 4DKNF63KE	O		43.0	38.6	50.8	46.0	58.6	53.4	66.7	60.9	75.3	68.7	
CDD-0301-LS		S		48.4	41.7	57.3	50.3	66.5	59.0	76.0	67.9	85.9	77.2	
CDD-0440-LS	2 - 4DJNF76KE	O		49.5	42.9	58.6	51.6	68.1	60.6	78.0	69.8	88.3	79.4	
CDD-0441-LS*		S		59.2	51.6	69.4	61.3	80.7	72.0	92.9	83.4	106.1	95.6	
CDD-0540-LS*	2 - 6DHNF93KE	O		60.5	53.0	71.0	63.0	82.6	74.0	95.3	85.9	109.0	98.7	
CDD-0541-LS*		S		67.3	58.4	78.8	69.5	91.2	81.2	104.5	93.6	118.8	106.6	
CDD-0600-LS	2 - 6DJNF11ME	O		69.4	60.6	81.3	72.0	94.3	84.2	108.3	97.2	123.4	111.1	
CDD-0601-LS		T		68.6	59.6	80.4	70.9	93.0	82.8	106.6	95.5	121.2	108.7	
CDD-0602-LS														

Saturated Suction Temperature (SST)				-15°F		-10°F		-5°F		0°F		
Ambient Temperature				95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
Unit	Compressor	Cond	Capacity (MBH) Per Circuit	S	79.4	72.1	88.4	80.3	98.1	89.1	N/A	N/A
CDD-0300-LS*	2 - 4DKNF63KE	O		84.4	77.0	94.2	86.0	105.0	95.8	N/A	N/A	
CDD-0301-LS		S		96.3	86.8	107.2	96.9	118.7	107.4	N/A	N/A	
CDD-0440-LS	2 - 4DJNF76KE	O		99.2	89.5	110.7	100.0	122.9	111.2	N/A	N/A	
CDD-0441-LS*		S		119.9	108.4	134.5	121.7	149.5	135.4	N/A	N/A	
CDD-0540-LS*	2 - 6DHNF93KE	O		123.6	112.1	138.9	126.2	155.0	140.9	N/A	N/A	
CDD-0541-LS*		S		133.9	120.4	150.0	134.9	166.9	150.1	N/A	N/A	
CDD-0600-LS	2 - 6DJNF11ME	O		139.7	126.0	157.2	141.8	175.8	158.5	N/A	N/A	
CDD-0601-LS		T		136.6	122.8	153.0	137.6	170.2	153.1	N/A	N/A	
CDD-0602-LS												

### 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	10.8	132.1	175		5.0	65.6	90		5.0	53.3	70	
CDD-0301-LS		O	52.6	16.2	137.5	175	26.3	7.5	68.1	90	20.9	7.5	55.8	70
CDD-0440-LS	2 - 4DJNF76KE	S	64.3	16.2	163.8	225		7.5	81.3	110		7.5	74.1	100
CDD-0441-LS*		O	64.3	16.2	169.2	225	32.1	7.5	83.8	110	29.1	7.5	76.6	100
CDD-0540-LS*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250		7.5	99.8	125		32.5	81.8	110
CDD-0541-LS*		O	80.7	21.6	206.2	250	40.4	10.0	102.3	125	10.0	84.3	110	
CDD-0600-LS		S	21.6	239.7	300			10.0	119.1	150		10.0	100.3	125
CDD-0601-LS	2 - 6DJNF11ME	O	95.6	32.4	250.5	300	47.8	15.0	124.1	150	39.6	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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
- 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F			
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Capacity (MBH) Per Circuit											
CDD-0300-LQ*	2 - 4DKNF63KE	S	33.9	30.0	40.6	36.5	47.8	43.3	56.2	50.4	64.7	58.1		
CDD-0301-LQ		O	35.6	31.7	42.7	38.2	51.0	45.9	58.7	54.2	67.8	61.8		
CDD-0440-LQ	2 - 4DJNF76KE	S	43.1	38.4	49.9	43.8	57.9	51.3	67.6	59.1	78.2	70.3		
CDD-0441-LQ*		O	44.1	39.0	50.4	44.9	59.9	53.3	69.4	61.4	80.4	71.5		
CDD-0540-LQ*	2 - 6DHNF93KE	S	45.6	37.7	57.6	48.4	69.4	60.5	81.8	71.7	94.4	84.1		
CDD-0541-LQ*		O	46.6	38.7	58.9	50.4	71.0	62.2	83.9	73.9	97.0	86.9		
CDD-0600-LQ	2 - 6DJNF11ME	S	53.8	43.8	68.6	57.7	83.0	71.5	97.2	86.1	114.0	101.3		
CDD-0601-LQ		O	56.9	46.7	70.7	60.5	85.8	74.9	101.8	89.4	117.2	105.5		
CDD-0602-LQ	T	54.9	44.7	69.9	58.8	84.7	72.9	99.1	87.8	116.3	103.3			

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F		5°F			
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit											
CDD-0300-LQ*	2 - 4DKNF63KE	S	73.0	67.1	82.2	75.5	92.2	83.8	N/A	N/A	20.9	5.0	53.3	70
CDD-0301-LQ		O	76.8	70.9	87.6	80.0	98.7	90.0	N/A	N/A	7.5	68.1	55.8	70
CDD-0440-LQ	2 - 4DJNF76KE	S	90.5	80.7	104.0	93.0	118.7	107.4	N/A	N/A	29.1	7.5	74.1	100
CDD-0441-LQ*		O	93.2	84.1	107.4	97.0	122.9	111.2	N/A	N/A	32.5	7.5	76.6	100
CDD-0540-LQ*	2 - 6DHNF93KE	S	109.1	98.6	125.1	113.2	142.0	127.3	N/A	N/A	10.0	7.5	81.8	110
CDD-0541-LQ*		O	111.2	100.9	127.8	116.1	145.7	132.4	N/A	N/A	10.0	84.3	110	
CDD-0600-LQ	2 - 6DJNF11ME	S	131.2	116.8	148.5	134.9	168.6	153.1	N/A	N/A	10.0	100.3	125	
CDD-0601-LQ		O	135.5	123.5	155.6	140.4	177.6	161.7	N/A	N/A	15.0	105.3	125	
CDD-0602-LQ	T	133.8	119.1	151.5	137.6	171.9	156.2	N/A	N/A	10.0	100.3	125		

### 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	10.8	132.1	175	26.3	5.0	65.6	90	20.9	5.0	53.3	70	
CDD-0301-LQ		O	52.6	16.2	137.5	175	7.5	68.1	90	7.5	55.8	70		
CDD-0440-LQ	2 - 4DJNF76KE	S	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100	
CDD-0441-LQ*		O	64.3	16.2	169.2	225	7.5	83.8	110	32.5	7.5	76.6	100	
CDD-0540-LQ*	2 - 6DHNF93KE	S	16.2	200.8	250	40.4	7.5	99.8	125	10.0	102.3	125		
CDD-0541-LQ*		O	80.7	21.6	206.2	250	10.0	119.1	150	39.6	15.0	105.3	125	
CDD-0600-LQ	2 - 6DJNF11ME	S	21.6	239.7	300	47.8	15.0	124.1	150	10.0	119.1	150		
CDD-0601-LQ		O	95.6	32.4	250.5	300	10.0	119.1	150	10.0	100.3	125		
CDD-0602-LQ	T	21.6	239.7	300										

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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-407A capacity and electrical data for R-407F while replacing the "0" at the end of the model nomenclature with an "F".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CD Dual Systems

## CDD Low Temp R-448A

### CDD Performance Data - Low Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit									
CDD-0300-LT*	2 - 4DKNF63KE	S	34.8	29.6	42.5	37.0	50.0	44.8	58.1	52.1	66.1	60.6
		O	36.5	31.3	44.2	39.1	52.7	47.0	60.7	55.4	70.8	63.9
CDD-0440-LT	2 - 4DJNF76KE	S	40.7	33.4	50.4	42.3	60.5	51.9	70.7	61.1	81.6	72.6
CDD-0441-LT*		O	42.1	34.3	51.6	43.9	62.0	53.9	72.5	63.5	83.9	73.8
CDD-0540-LT*	2 - 6DHNF93KE	S	49.1	40.8	60.4	50.9	71.8	62.6	84.5	74.2	98.7	87.0
CDD-0541-LT*		O	50.2	41.9	61.8	52.3	73.5	64.4	86.7	76.5	100.3	89.8
CDD-0600-LT	2 - 6DJNF11ME	S	57.9	46.1	71.7	60.5	85.7	73.9	101.4	88.9	117.6	104.5
CDD-0601-LT		O	60.4	49.7	74.8	62.6	89.6	77.5	106.1	93.3	122.2	110.0
CDD-0602-LT	T	59.0	47.1	73.1	61.7	87.4	75.4	103.4	90.7	120.0	106.6	

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit							
CDD-0300-LT*	2 - 4DKNF63KE	S	75.4	69.2	85.7	77.9	95.2	86.4	N/A	N/A
		O	79.3	73.2	90.5	82.6	100.8	92.9	N/A	N/A
CDD-0440-LT	2 - 4DJNF76KE	S	93.4	83.3	106.1	95.9	121.1	110.6	N/A	N/A
CDD-0441-LT*		O	96.2	86.8	110.7	100.0	125.4	114.5	N/A	N/A
CDD-0540-LT*	2 - 6DHNF93KE	S	112.7	101.9	129.1	115.6	146.5	132.7	N/A	N/A
CDD-0541-LT*		O	116.2	105.4	133.3	119.9	150.4	136.7	N/A	N/A
CDD-0600-LT	2 - 6DJNF11ME	S	135.2	120.4	154.5	138.9	175.2	157.6	N/A	N/A
CDD-0601-LT		O	141.1	127.3	161.9	146.1	182.8	166.4	N/A	N/A
CDD-0602-LT	T	137.9	122.8	157.6	141.7	178.7	160.8	N/A	N/A	

### 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	10.8	132.1	175	26.3	5	65.6	90	20.9	5.0	53.3	70	
		O	52.6	16.2	137.5	175	7.5	68.1	90		7.5	55.8	70	
CDD-0440-LT	2 - 4DJNF76KE	S	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100	
		O	64.3	16.2	169.2	225	7.5	83.8	110		7.5	76.6	100	
CDD-0441-LT*	2 - 6DHNF93KE	S	16.2	200.8	250	40.4	7.5	99.8	125	32.5	7.5	81.8	110	
		O	80.7	21.6	206.2	250	10.0	102.3	125		10.0	84.3	110	
CDD-0540-LT*	2 - 6DJNF11ME	S	21.6	239.7	300	47.8	10.0	119.1	150	39.6	10.0	100.3	125	
		O	95.6	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

- 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.
- 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 "I" 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CDE-0300-LS*	2 - 4HE-25	S	34.2	29.8	41.2	36.2	48.8	43.2	57.0	50.8	65.9	59.0
		O	36.2	31.5	43.6	38.4	51.7	45.8	60.6	54.0	70.3	62.9
CDE-0301-LS	2 - 4GE-30	S	40.6	35.3	48.7	42.7	57.7	50.8	67.4	59.8	77.9	69.6
		O	41.8	36.3	50.2	44.1	59.5	52.6	69.7	61.9	80.7	72.1
CDE-0440-LS	2 - 4HE-35	S	51.3	45.0	61.9	54.6	73.3	65.1	85.7	76.3	98.8	88.7
		O	52.7	46.2	63.8	56.2	75.6	67.2	88.5	78.9	102.4	91.8
CDE-0441-LS*	2 - 6HE-35	S	61.3	53.5	72.8	64.0	85.8	75.9	100.3	89.3	116.2	104.1
		O	63.2	55.2	75.3	66.2	88.9	78.7	104.1	92.8	120.8	108.3
CDE-0600-LS	2 - 6GE-40	S	62.5	54.6	74.3	65.3	87.5	77.4	102.3	91.1	118.5	106.2
		O	62.5	54.6	74.3	65.3	87.5	77.4	102.3	91.1	118.5	106.2
Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F			
Ambient Temperature				95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	
CDE-0300-LS*	2 - 4HE-25	S	75.7	67.9	86.0	77.5	97.2	87.7	109.1	98.7		
		O	81.0	72.6	92.3	83.0	104.4	94.3	117.6	106.3		
CDE-0301-LS	2 - 4GE-30	S	89.2	80.0	101.3	91.2	114.5	103.3	128.9	116.4		
		O	92.8	83.2	105.6	95.1	119.5	107.9	134.6	121.7		
CDE-0440-LS	2 - 6HE-35	S	113.2	102.0	128.8	116.0	145.6	131.5	163.5	148.0		
		O	117.7	105.9	134.3	121.1	152.2	137.5	171.4	155.0		
CDE-0441-LS*	2 - 6GE-40	S	133.2	120.0	151.4	136.8	170.6	154.3	190.8	172.3		
		O	138.8	125.2	158.3	143.3	179.1	162.3	201.1	182.0		
		T	135.9	122.4	154.4	139.5	174.0	157.4	194.6	175.7		

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

### 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
		O	16.2	16.2	208.9	250		7.5	103.7	125		7.5	84.3	110
CDE-0301-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
		O	16.2	244.2	300	50.0		7.5	124.0	175		7.5	101.2	125
CDE-0440-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
		O	21.6	288.1	400	58.6		10.0	143.4	200		10.0	115.6	150
CDE-0441-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
		O	32.4	388.9	500	78.6		15.0	193.4	250		15.0	157.7	200
CDE-0600-LS		T	21.6	378.1	500	78.6		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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
- Compressor head cooling fan is included for all low temperature applications.

# CD Dual Systems

## CDE Low Temp R-407A

### CDE Performance Data - Low Temperature R-407A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit									
CDE-0300-LQ*	2 - 4HE-25	S	N/A	N/A	35.0	N/A	42.9	37.2	51.3	45.2	60.6	53.7
CDE-0301-LQ		O	N/A	N/A	37.0	N/A	45.5	39.4	54.5	48.0	64.7	57.3
CDE-0440-LQ		S	33.7	28.6	41.4	35.4	50.8	43.7	60.7	53.2	71.7	63.3
CDE-0441-LQ*	2 - 4GE-30	O	34.7	29.4	42.7	36.6	52.4	45.2	62.7	55.1	74.2	65.6
CDE-0540-LQ*		S	42.6	36.5	52.6	45.3	64.5	56.0	77.1	67.9	90.9	80.7
CDE-0541-LQ*	2 - 6HE-35	O	43.7	37.4	54.2	46.6	66.5	57.8	79.7	70.2	94.2	83.5
CDE-0600-LQ		S	50.9	43.3	61.9	53.1	75.5	65.3	90.3	79.5	106.9	94.7
CDE-0601-LQ	2 - 6GE-40	O	52.5	44.7	64.0	54.9	78.2	67.7	93.7	82.6	111.1	98.6
CDE-0602-LQ		T	51.9	44.2	63.1	54.2	77.0	66.6	92.1	81.1	109.0	96.6

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F	
Ambient Temperature	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit							
CDE-0300-LQ*	2 - 4HE-25	S	71.2	63.1	81.7	73.6	94.3	85.9	106.9	96.7
CDE-0301-LQ		O	76.1	67.5	87.7	78.9	101.3	92.5	115.3	104.2
CDE-0440-LQ		S	83.8	74.4	96.2	86.6	111.1	101.2	126.3	114.1
CDE-0441-LQ*	2 - 4GE-30	O	87.2	77.4	100.3	90.3	115.9	105.7	131.9	119.3
CDE-0540-LQ*		S	106.4	94.9	122.4	110.2	141.2	128.9	160.2	145.0
CDE-0541-LQ*	2 - 6HE-35	O	110.6	98.5	127.6	115.0	147.6	134.8	168.0	151.9
CDE-0600-LQ		S	125.2	111.6	143.8	130.0	165.5	151.2	187.0	168.9
CDE-0601-LQ	2 - 6GE-40	O	130.5	116.4	150.4	136.1	173.7	159.1	197.1	178.4
CDE-0602-LQ		T	127.7	113.8	146.7	132.6	168.8	154.2	190.7	172.2

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

### 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	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		S	16.2	244.2	300	50.0	7.5	121.5	150	40.0	7.5	98.7	125	
CDE-0441-LQ*	2 - 4GE-30	O	21.6	249.6	300		10.0	124.0	175		10.0	101.2	125	
CDE-0540-LQ*		S	16.2	282.7	350	58.6	7.5	140.9	200	46.4	7.5	113.1	150	
CDE-0541-LQ*	2 - 6HE-35	O	21.6	288.1	400		10.0	143.4	200		10.0	115.6	150	
CDE-0600-LQ		S	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200	
CDE-0601-LQ	2 - 6GE-40	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 "O" 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit									
CDE-0300-LT*	2 - 4HE-25	S	29.1	N/A	36.3	30.8	44.4	38.4	53.0	46.7	62.6	55.5
		O	30.7	N/A	38.3	32.7	47.1	40.8	56.3	49.7	66.8	59.2
CDE-0440-LT	2 - 4GE-30	S	34.5	N/A	42.9	36.3	52.5	45.2	62.7	55.0	74.0	65.4
		O	35.5	N/A	44.2	37.5	54.1	46.8	64.8	56.9	76.7	67.8
CDE-0441-LT*	2 - 6HE-35	S	43.6	N/A	54.5	46.4	66.7	57.9	79.7	70.2	93.9	83.4
		O	44.8	N/A	56.1	47.8	68.8	59.8	82.3	72.6	97.3	86.3
CDE-0540-LT*	2 - 6HE-35	S	52.1	N/A	64.1	54.4	78.1	67.6	93.3	82.2	110.4	97.9
		O	53.7	N/A	66.3	56.3	80.9	70.0	96.8	85.4	114.8	101.8
CDE-0600-LT	2 - 6GE-40	T	53.1	N/A	65.3	55.5	79.6	68.9	95.1	83.8	112.6	99.8

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit							
CDE-0300-LT*	2 - 4HE-25	S	73.4	65.9	85.1	76.7	97.2	88.6	110.2	99.7
		O	78.5	70.4	91.4	82.2	104.4	95.3	118.8	107.4
CDE-0440-LT	2 - 4GE-30	S	86.5	77.6	100.3	90.3	114.5	104.3	130.2	117.6
		O	90.0	80.7	104.5	94.1	119.5	109.0	135.9	122.9
CDE-0441-LT*	2 - 6HE-35	S	109.8	98.9	127.5	114.8	145.6	132.8	165.1	149.5
		O	114.2	102.7	133.0	119.9	152.2	138.9	173.1	156.6
CDE-0540-LT*	2 - 6HE-35	S	129.2	116.4	149.9	135.4	170.6	155.8	192.7	174.0
		O	134.6	121.4	156.7	141.9	179.1	163.9	203.1	183.8
CDE-0600-LT	2 - 6GE-40	T	131.8	118.7	152.9	138.1	174.0	159.0	196.6	177.5

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

### 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
		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
		O		21.6	249.6	300		10.0	124.0	175		10.0	101.2	125
CDE-0441-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
		O		21.6	288.1	400		10.0	143.4	200		10.0	115.6	150
CDE-0540-LT*	2 - 6HE-35	S	157.1	21.6	378.1	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
		O		32.4	388.9	500		15.0	193.4	250		15.0	157.7	200
CDE-0600-LT	2 - 6GE-40	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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-448A capacity and electrical data for R-449A while replacing the "T" at the end of the model nomenclature with a "R".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CD Dual Systems

## CDB Low Temp R-404A

### CDB Performance Data - Low Temperature R-404A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F			
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Capacity (MBH) Per Circuit											
CDB-0300-LS*	2 - 4HE-18	S	34.2	29.8	41.2	36.2	48.8	43.2	57.0	50.8	65.9	59.0		
		O	36.2	31.5	43.6	38.4	51.7	45.8	60.6	54.0	70.3	62.9		
CDB-0440-LS	2 - 4GE-23	S	40.6	35.3	48.7	42.7	57.7	50.8	67.4	59.8	77.9	69.6		
		O	41.8	36.3	50.2	44.1	59.5	52.6	69.7	61.9	80.7	72.1		
CDB-0441-LS*	2 - 6HE-28	S	51.3	45.0	61.9	54.6	73.3	65.1	85.7	76.3	98.8	88.7		
		O	52.7	46.2	63.8	56.2	75.6	67.2	88.5	78.9	102.4	91.8		
CDB-0600-LS	2 - 6GE-34	S	61.3	53.5	72.8	64.0	85.8	75.9	100.3	89.3	116.2	104.1		
		O	63.2	55.2	75.3	66.2	88.9	78.7	104.1	92.8	120.8	108.3		
CDB-0602-LS		T	62.5	54.6	74.3	65.3	87.5	77.4	102.3	91.1	118.5	106.2		

Saturated Suction Temperature (SST)			-20°F		-15°F		-10°F		-5°F		0°F			
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Capacity (MBH) Per Circuit											
CDB-0300-LS*	2 - 4HE-18	S	65.9	59.0	75.7	67.9	86.0	77.5	97.2	87.7	109.1	98.7		
		O	70.3	62.9	81.0	72.6	92.3	83.0	104.4	94.3	117.6	106.3		
CDB-0440-LS	2 - 4GE-23	S	77.9	69.6	89.2	80.0	101.3	91.2	114.5	103.3	128.9	116.4		
		O	80.7	72.1	92.8	83.2	105.6	95.1	119.5	107.9	134.6	121.7		
CDB-0540-LS*	2 - 6HE-28	S	98.8	88.7	113.2	102.0	128.8	116.0	145.6	131.5	163.5	148.0		
		O	102.4	91.8	117.7	105.9	134.3	121.1	152.2	137.5	171.4	155.0		
CDB-0600-LS	2 - 6GE-34	S	116.2	104.1	133.2	120.0	151.4	136.8	170.6	154.3	190.8	172.3		
		O	120.8	108.3	138.8	125.2	158.3	143.3	179.1	162.3	201.1	182.0		
CDB-0602-LS		T	118.5	106.2	135.9	122.4	154.4	139.5	174.0	157.4	194.6	175.7		

### 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	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80	
		O	16.2	154.9	200		7.5	76.7	100		7.5	62.9	80	
CDB-0440-LS	2 - 4GE-23	S	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90	
		O	16.2	163.9	225		7.5	83.7	110		7.5	69.0	90	
CDB-0540-LS*	2 - 6HE-28	S	16.2	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110	
		O	21.6	219.0	300		10.0	108.7	150		10.0	89.1	125	
CDB-0600-LS	2 - 6GE-34	S	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125	
		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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-404A capacity and electrical data for R-507A while replacing the "S" at the end of the model nomenclature with a "P".
- 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 - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit									
CDB-0300-LQ*	2 - 4HE-18	S	N/A	N/A	35.0	N/A	42.9	37.2	51.3	45.2	60.6	53.7
CDB-0301-LQ		O	N/A	N/A	37.0	N/A	45.5	39.4	54.5	48.0	64.7	57.3
CDB-0440-LQ	2 - 4GE-23	S	33.7	28.6	41.4	35.4	50.8	43.7	60.7	53.2	71.7	63.3
CDB-0441-LQ*		O	34.7	29.4	42.7	36.6	52.4	45.2	62.7	55.1	74.2	65.6
CDB-0540-LQ*	2 - 6HE-28	S	42.6	36.5	52.6	45.3	64.5	56.0	77.1	67.9	90.9	80.7
CDB-0541-LQ*		O	43.7	37.4	54.2	46.6	66.5	57.8	79.7	70.2	94.2	83.5
CDB-0600-LQ	2 - 6GE-34	S	50.9	43.3	61.9	53.1	75.5	65.3	90.3	79.5	106.9	94.7
CDB-0601-LQ		O	52.5	44.7	64.0	54.9	78.2	67.7	93.7	82.6	111.1	98.6
CDB-0602-LQ		T	51.9	44.2	63.1	54.2	77.0	66.6	92.1	81.1	109.0	96.6

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F			
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F		
Unit	Compressor	Cond	Capacity (MBH) Per Circuit									
CDB-0300-LQ*	2 - 4HE-18	S	71.2	63.1	81.7	73.6	94.3	85.9	106.9	96.7		
CDB-0301-LQ		O	76.1	67.5	87.7	78.9	101.3	92.5	115.3	104.2		
CDB-0440-LQ	2 - 4GE-23	S	83.8	74.4	96.2	86.6	111.1	101.2	126.3	114.1		
CDB-0441-LQ*		O	87.2	77.4	100.3	90.3	115.9	105.7	131.9	119.3		
CDB-0540-LQ*	2 - 6HE-28	S	106.4	94.9	122.4	110.2	141.2	128.9	160.2	145.0		
CDB-0541-LQ*		O	110.6	98.5	127.6	115.0	147.6	134.8	168.0	151.9		
CDB-0600-LQ	2 - 6GE-34	S	125.2	111.6	143.8	130.0	165.5	151.2	187.0	168.9		
CDB-0601-LQ		O	130.5	116.4	150.4	136.1	173.7	159.1	197.1	178.4		
CDB-0602-LQ		T	127.7	113.8	146.7	132.6	168.8	154.2	190.7	172.2		

### 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		21.6	236.8	300		10.0	117.5	150		10.0	94.7	125
CDB-0601-LQ		O	94.3	32.4	247.6	300	47.1	15.0	122.5	150	37.1	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

- 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.
- 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.

- Condensing unit capacities are calculated based on the LAVF condenser model shown in the table and mid-point temperatures.
- Use R-407A capacity and electrical data for R-407F while replacing the "0" at the end of the model nomenclature with an "F".
- Compressor head cooling fan and liquid injection are included on all low temperature units.

# CD Dual Systems

## CDB Low Temp R-448A

### CDB Performance Data - Low Temperature R-448A - Total Capacity

Saturated Suction Temperature (SST)			-40°F		-35°F		-30°F		-25°F		-20°F	
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CDB-0300-LT*	2 - 4HE-18	S	29.1	N/A	36.3	30.8	44.4	38.4	53.0	46.7	62.6	55.5
		O	30.7	N/A	38.3	32.7	47.1	40.8	56.3	49.7	66.8	59.2
CDB-0301-LT	2 - 4GE-23	S	34.5	N/A	42.9	36.3	52.5	45.2	62.7	55.0	74.0	65.4
		O	35.5	N/A	44.2	37.5	54.1	46.8	64.8	56.9	76.7	67.8
CDB-0440-LT*	2 - 6HE-28	S	43.6	N/A	54.5	46.4	66.7	57.9	79.7	70.2	93.9	83.4
		O	44.8	N/A	56.1	47.8	68.8	59.8	82.3	72.6	97.3	86.3
CDB-0540-LT*	2 - 6HE-28	S	52.1	N/A	64.1	54.4	78.1	67.6	93.3	82.2	110.4	97.9
		O	53.7	N/A	66.3	56.3	80.9	70.0	96.8	85.4	114.8	101.8
CDB-0600-LT	2 - 6GE-34	S	53.1	N/A	65.3	55.5	79.6	68.9	95.1	83.8	112.6	99.8
		T	53.1	N/A	65.3	55.5	79.6	68.9	95.1	83.8	112.6	99.8

Saturated Suction Temperature (SST)			-15°F		-10°F		-5°F		0°F			
Ambient Temperature	Unit	Compressor	Cond	Capacity (MBH) Per Circuit	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
CDB-0300-LT*	2 - 4HE-18	S	73.4	65.9	85.1	76.7	97.2	88.6	110.2	99.7		
		O	78.5	70.4	91.4	82.2	104.4	95.3	118.8	107.4		
CDB-0301-LT	2 - 4GE-23	S	86.5	77.6	100.3	90.3	114.5	104.3	130.2	117.6		
		O	90.0	80.7	104.5	94.1	119.5	109.0	135.9	122.9		
CDB-0440-LT*	2 - 6HE-28	S	109.8	98.9	127.5	114.8	145.6	132.8	165.1	149.5		
		O	114.2	102.7	133.0	119.9	152.2	138.9	173.1	156.6		
CDB-0540-LT*	2 - 6HE-28	S	129.2	116.4	149.9	135.4	170.6	155.8	192.7	174.0		
		O	134.6	121.4	156.7	141.9	179.1	163.9	203.1	183.8		
CDB-0600-LT	2 - 6GE-34	S	131.8	118.7	152.9	138.1	174.0	159.0	196.6	177.5		
		T	131.8	118.7	152.9	138.1	174.0	159.0	196.6	177.5		

### 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
CDB-0300-LT*	2 - 4HE-18	S	10.8	149.5	200	30.1	5.0	74.2	100	24.1	5.0	60.4	80	
		O	16.2	154.9	200		7.5	76.7	100		7.5	62.9	80	
CDB-0301-LT	2 - 4GE-23	S	16.2	163.9	225	32.1	7.5	81.2	110	25.7	7.5	66.5	90	
		O	16.2	163.9	225		7.5	83.7	110		7.5	69.0	90	
CDB-0440-LT	2 - 6HE-28	S	21.6	213.6	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110	
		O	21.6	219.0	300		10.0	108.7	150		10.0	89.1	125	
CDB-0540-LT*	2 - 6HE-28	S	21.6	236.8	300	47.1	10.0	117.5	150	37.1	10.0	94.7	125	
		O	32.4	247.6	300		15.0	122.5	150		10.0	99.7	125	
CDB-0600-LT	2 - 6GE-34	S	21.6	236.8	300		10.0	117.5	150		10.0	94.7	125	
		T	94.3											

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

- 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.
- 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 "I" 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

## 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
<b>MCA</b>		<b>58.6</b>
Evaporator Fan RLA	+	16.0
<b>Calculated MCA</b>		<b>74.6</b>
Compressor RLA 1	+	22.3
Calculated 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 Systems

## 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*0101M**	7/8	1 1/8	8 5/8 x 28	43	47	46	1812	CD-11
15 hp	CD*0150M**	7/8	1 3/8	8 5/8 x 28	43	47	46	1839	CD-11
	CD*0151M**	7/8	1 3/8	8 5/8 x 28	43	47	46	2371	CD-12
16 hp	CD*0160M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2378	CD-12
	CD*0161M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2440	CD-12
	CD*0162M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2499	CD-12
18 hp	CD*0180M**	1 1/8	1 5/8	8 5/8 x 28	43	47	46	2533	CD-12
	CD*0181M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2729	CD-12
20 hp	CD*0200M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2660	CD-12
	CD*0201M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	3077	CD-13
	CD*0202M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2719	CD-12
24 hp	CD*0240M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2725	CD-12
	CD*0241M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	3079	CD-13
30 hp	CD*0300M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	3115	CD-13
	CD*0301M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3277	CD-13
40 hp	CD*0400M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	3168	CD-13
	CD*0401M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3515	CD-22
	CD*0402M**	1 1/8	2 1/8	8 5/8 X 60	94	103	100	3256	CD-13
50 hp	CD*0500M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3381	CD-13
	CD*0501M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	4329	CD-23
60 hp	CD*0600M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	3776	CD-22
	CD*0601M**	1 1/8	2 1/8	10 3/4 x 72	174	191	184	4474	CD-23
70 hp	CD*0700M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	4319	CD-23
	CD*0701M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	5329	CD-24
	CD*0702M**	1 3/8	2 1/8	10 3/4 X 72	174	191	184	4916	CD-23
80 hp	CD*0800M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	4942	CD-23
	CD*0801M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	5895	CD-24
30 hp	CD*0300L**	7/8	2 1/8	8 5/8 x 48	75	83	80	2719	CD-12
	CD*0301L**	7/8	2 1/8	8 5/8 x 48	75	83	80	3212	CD-13
44 hp	CD*0440L**	7/8	2 1/8	8 5/8 x 48	75	83	80	3179	CD-13
	CD*0441L**	7/8	2 1/8	8 5/8 x 60	106	117	112	3526	CD-13
54 hp	CD*0540L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	3477	CD-13
	CD*0541L**	1 1/8	2 5/8	8 5/8 x 60	106	117	112	3788	CD-22
60 hp	CD*0600L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	3765	CD-22
	CD*0601L**	1 1/8	2 5/8	10 3/4 x 48	128	141	136	4527	CD-23
	CD*0602L**	1 1/8	2 5/8	8 5/8 X 60	94	103	100	3883	CD-22

\*-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.

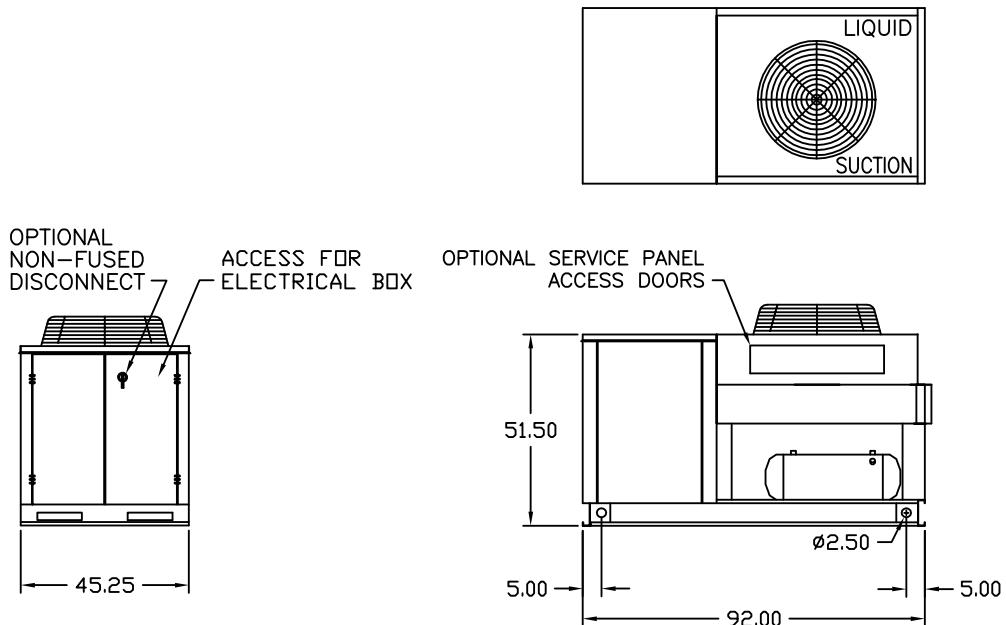
## Annual Walk-In Energy Factor (AWEF)

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.

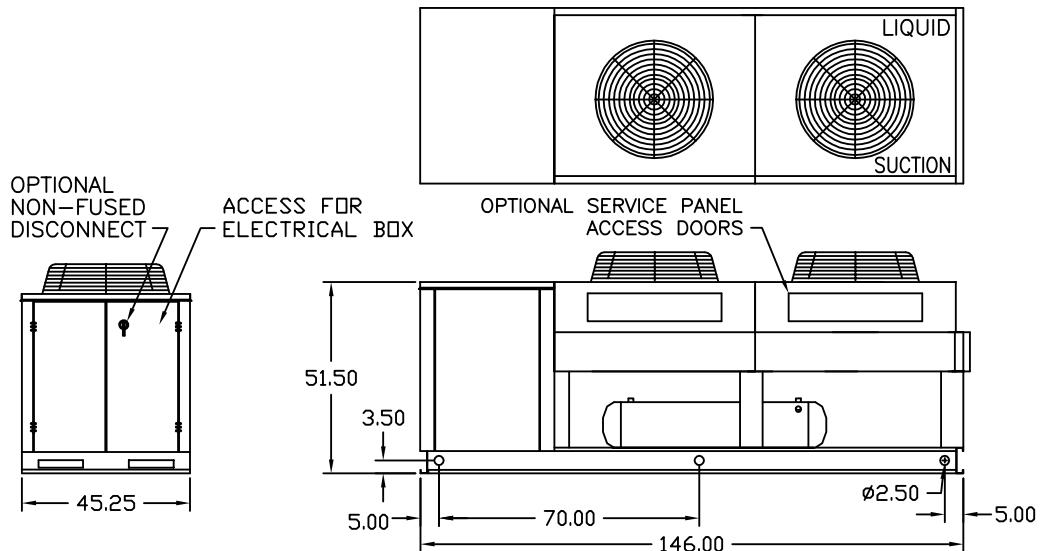
# Dimensional Drawings

## CS Single Systems

**CS-11**



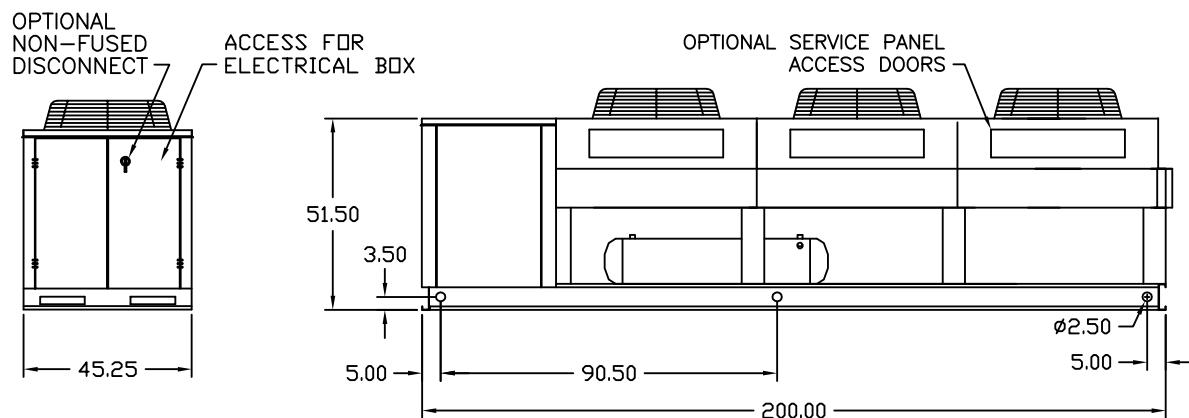
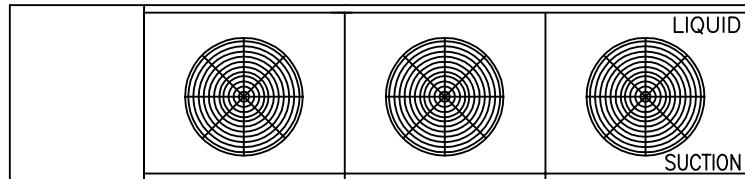
**CS-12**



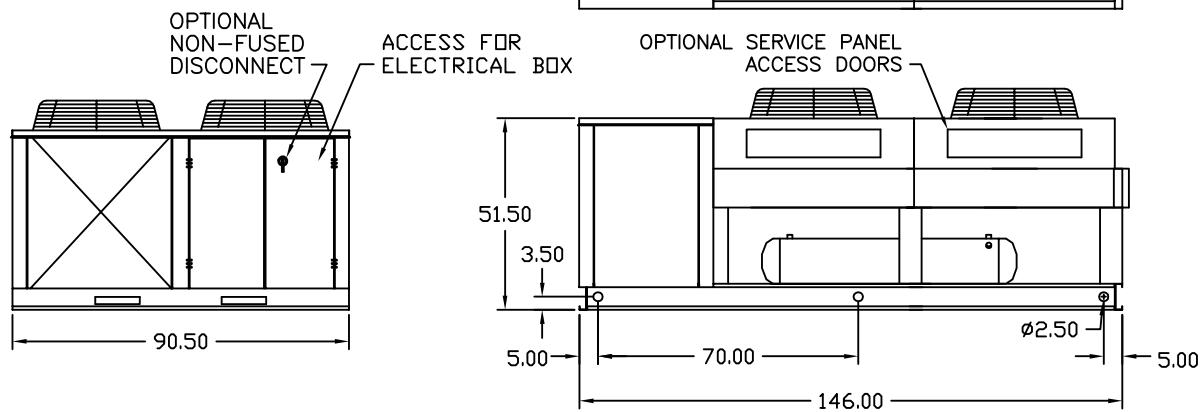
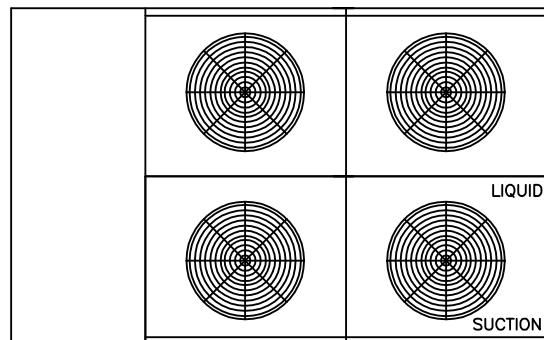
# Dimensional Drawings

## CS Single Systems

**CS-13**



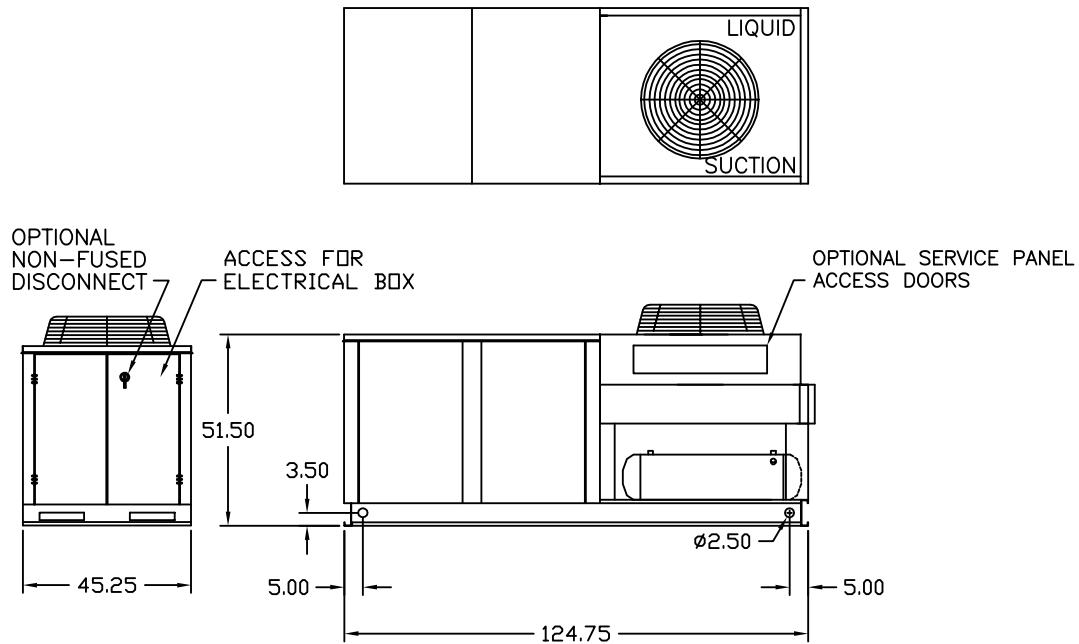
**CS-22**



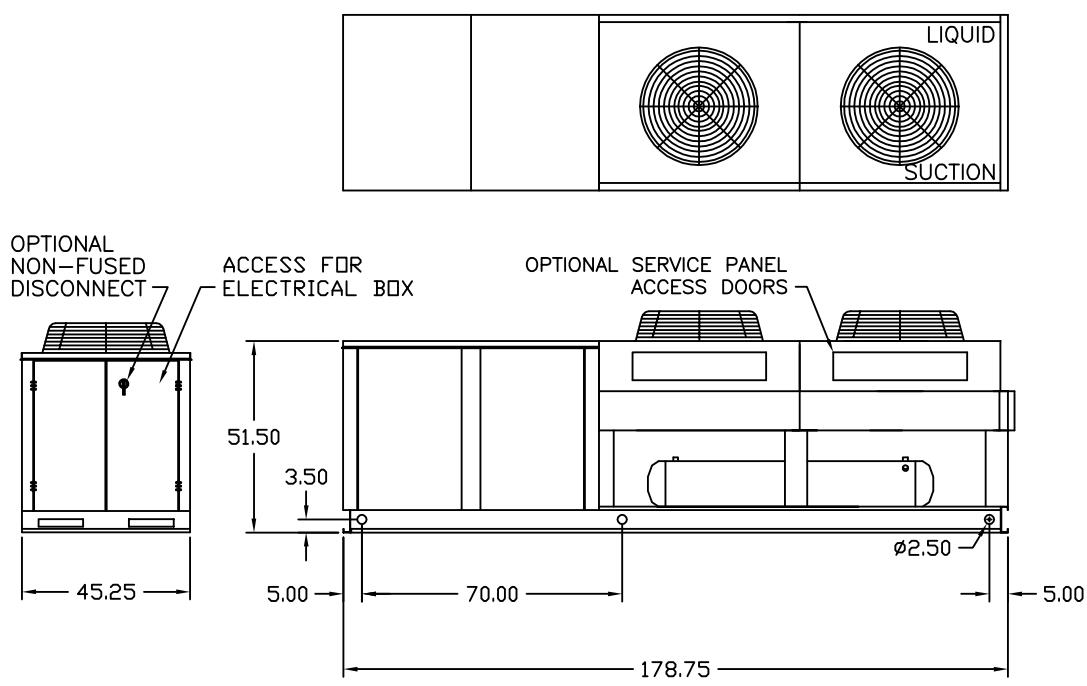
# Dimensional Drawings

## CP Parallel Systems

**CP-11**



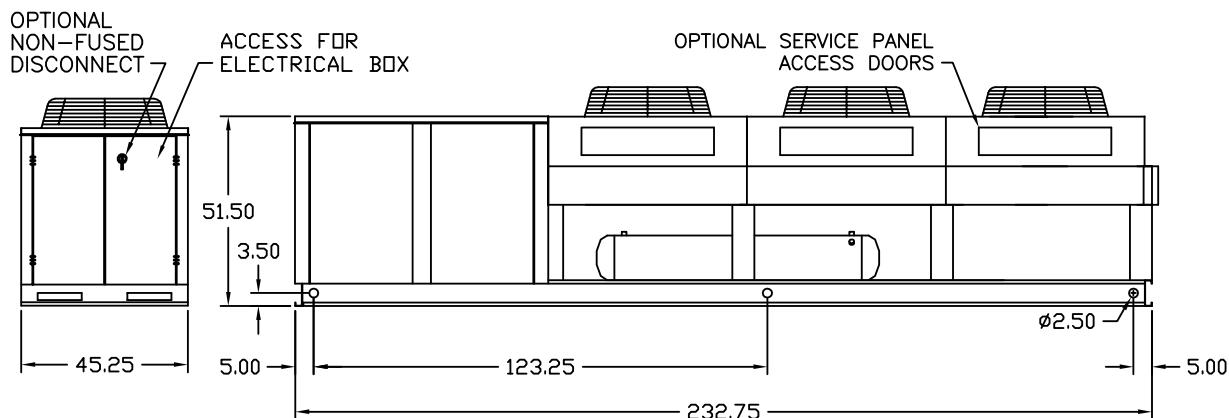
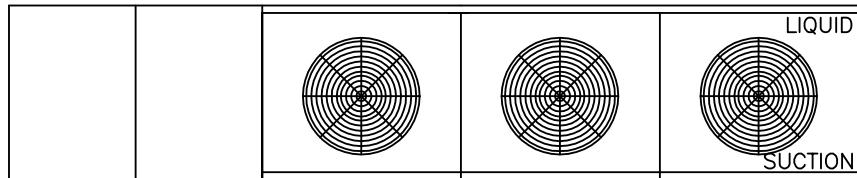
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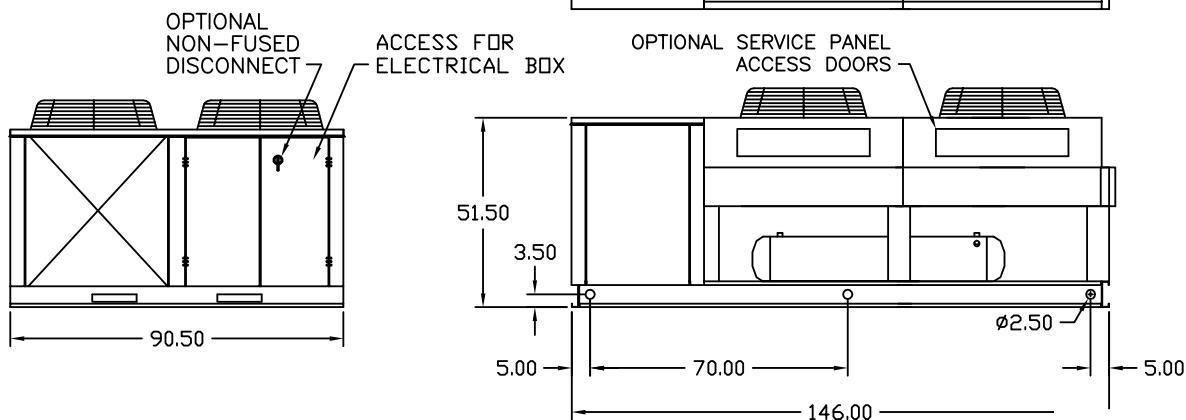
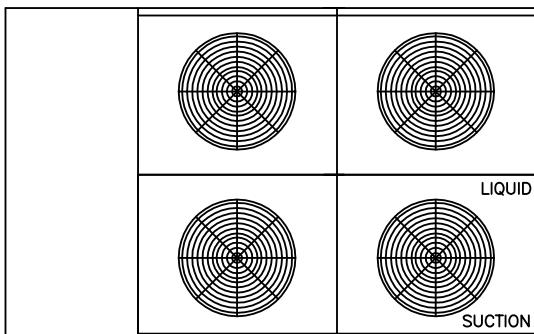
# Dimensional Drawings

## CP Parallel Systems

**CP-13**



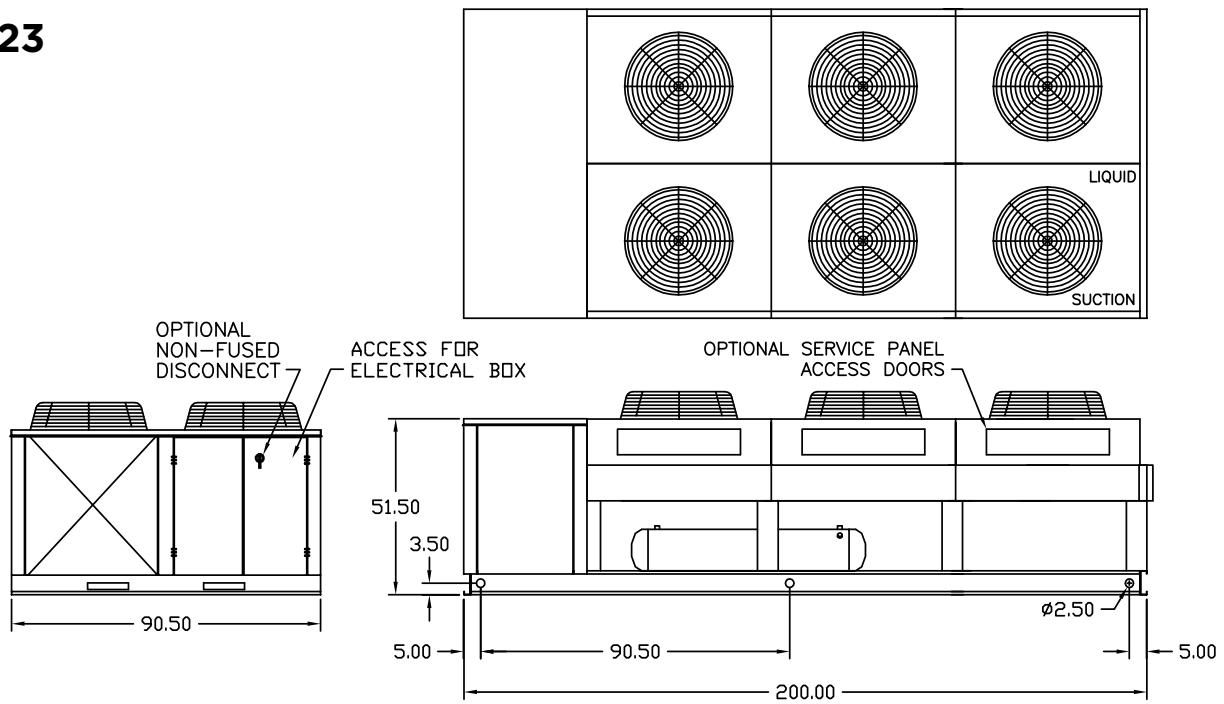
**CP-22**



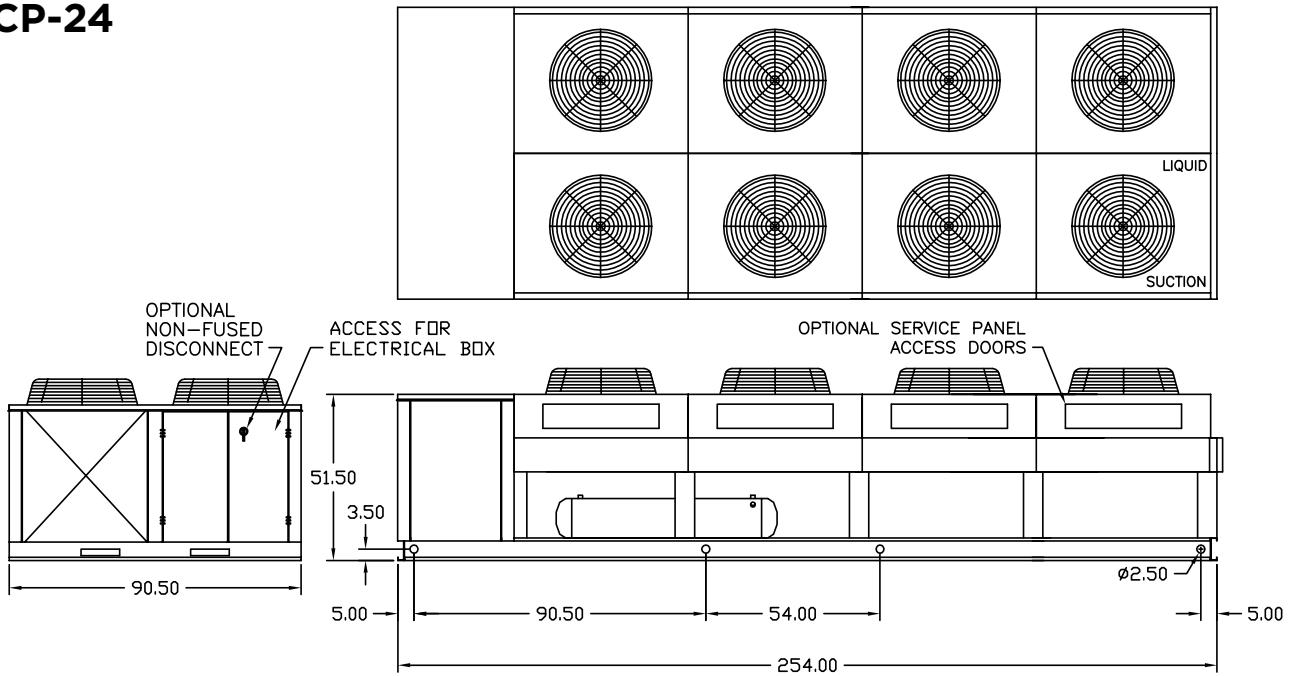
# Dimensional Drawings

## CP Parallel Systems

**CP-23**



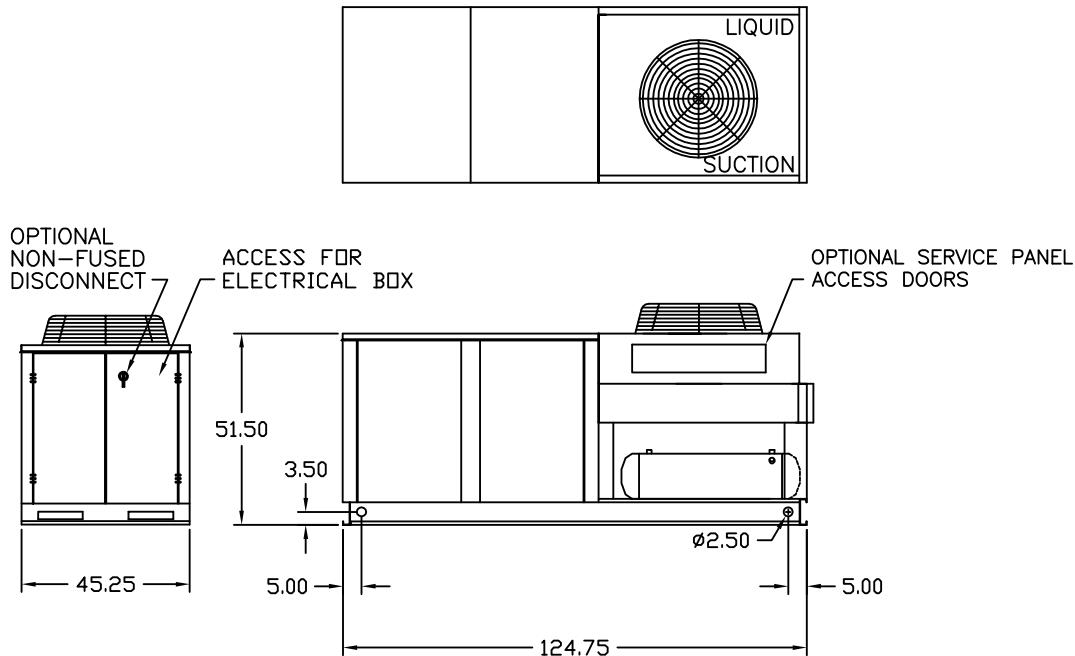
**CP-24**



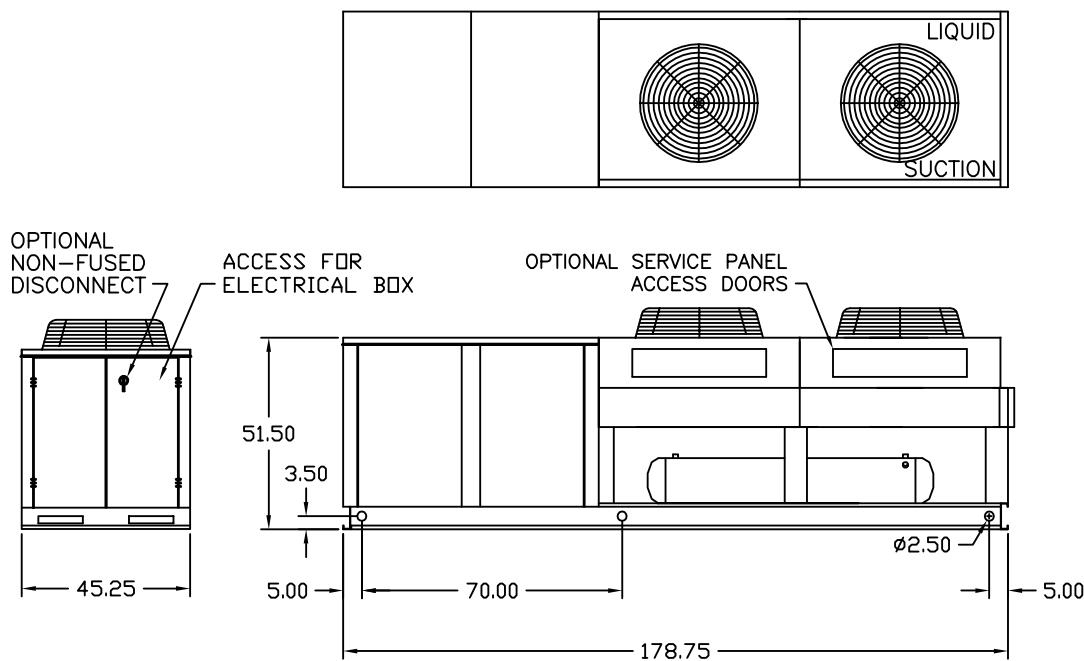
# Dimensional Drawings

*CD Dual Systems*

**CD-11**



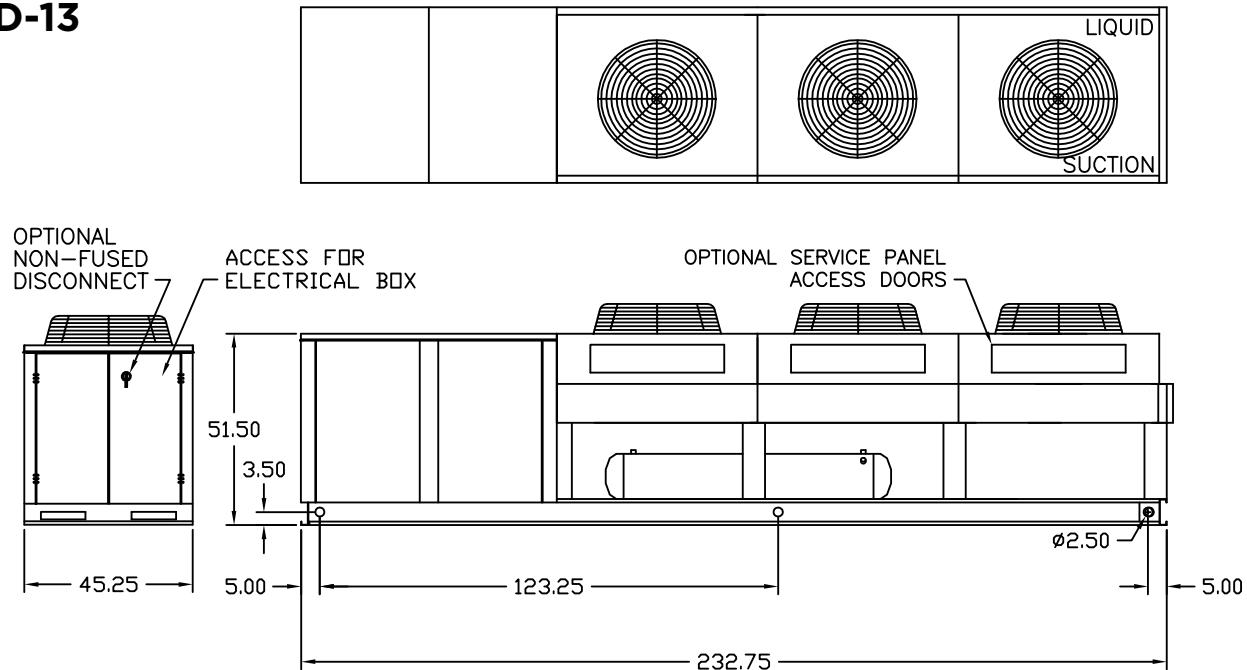
**CD-12**



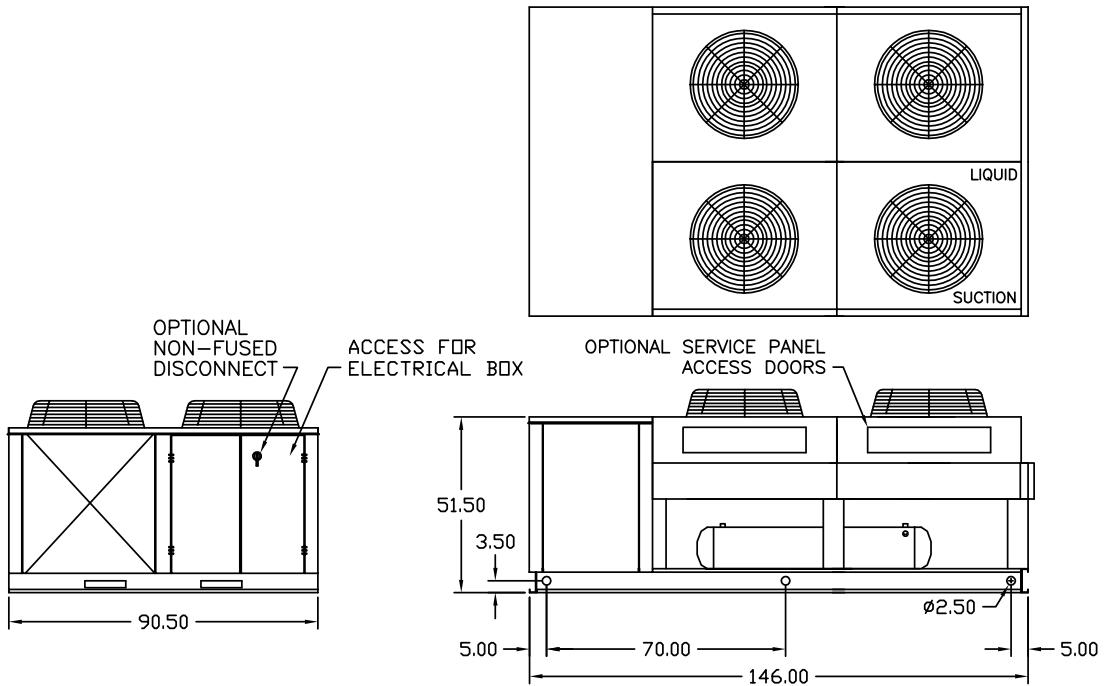
# Dimensional Drawings

## CD Dual Systems

**CD-13**



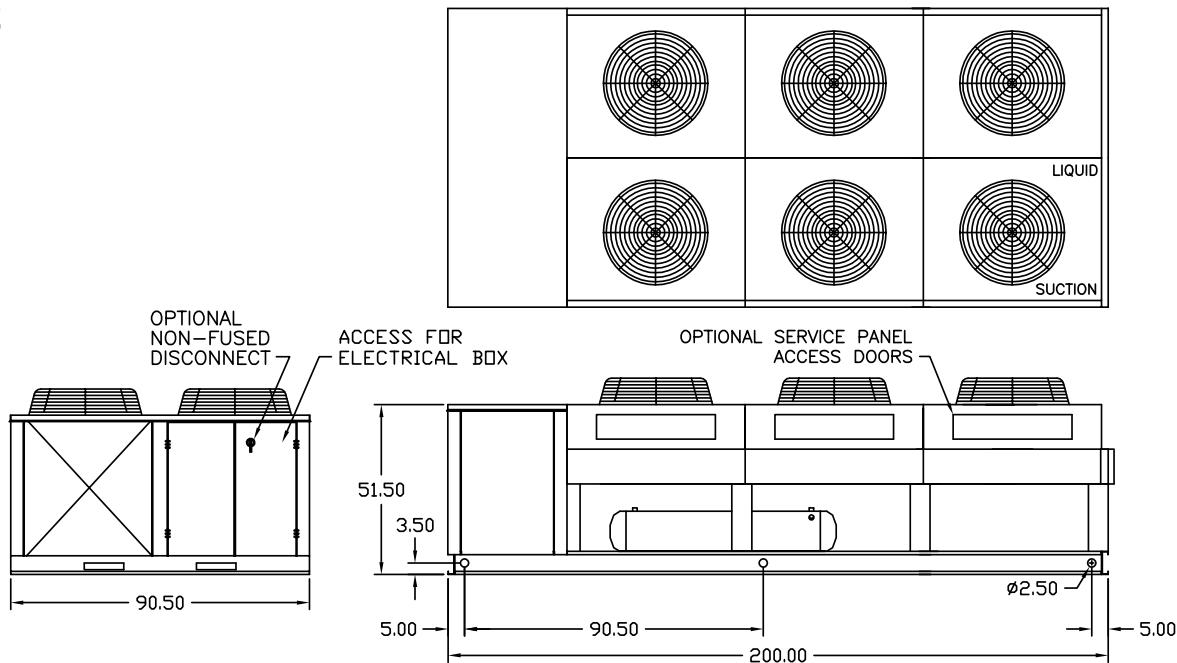
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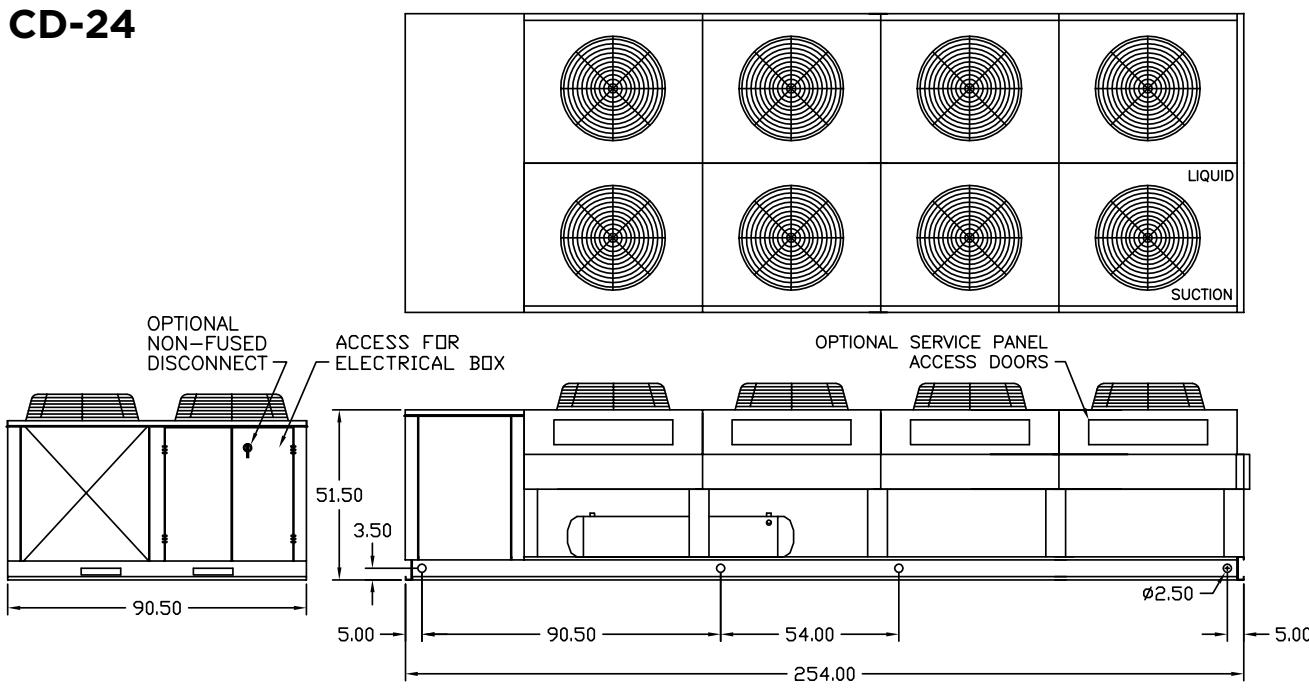
# Dimensional Drawings

## CD Dual Systems

**CD-23**

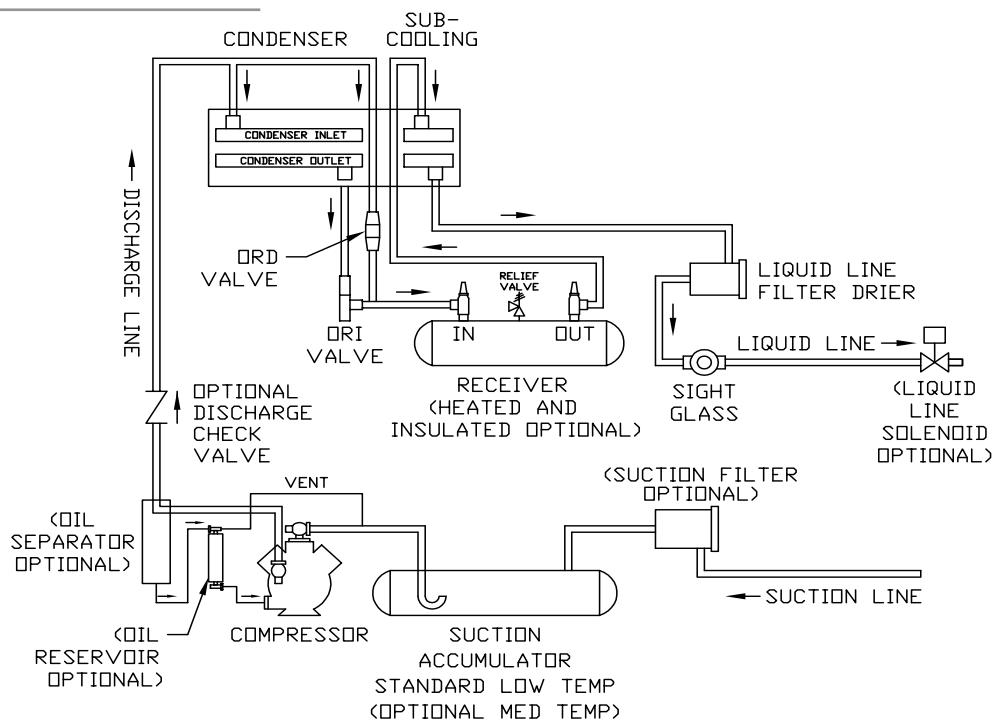


**CD-24**

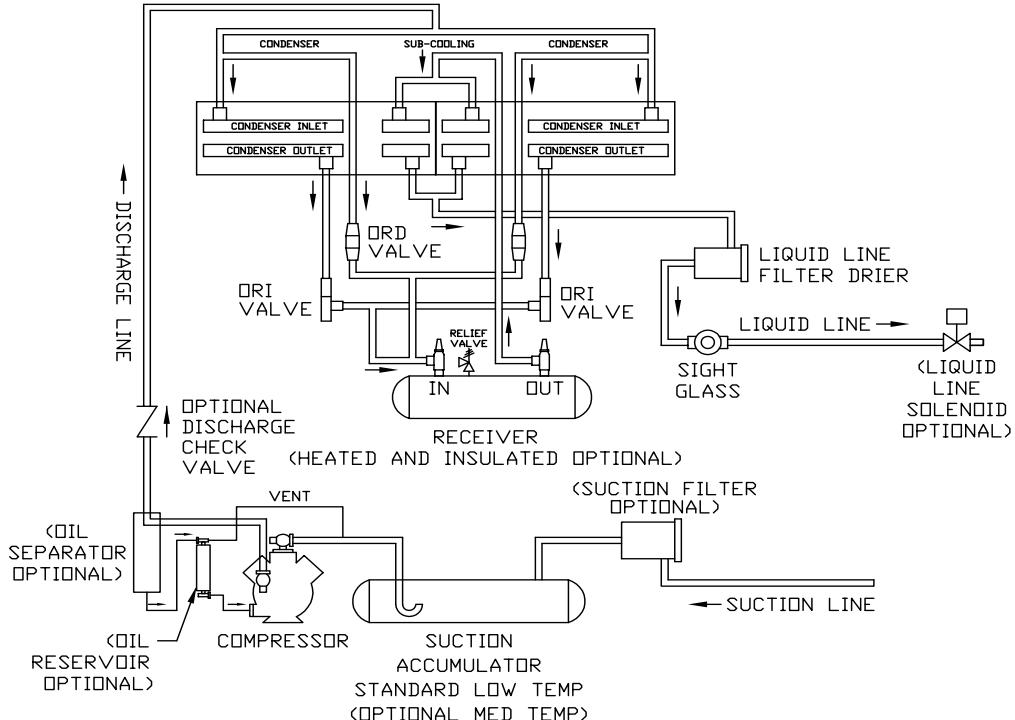


# Piping Schematics

## CS Single Piping - 1 Wide Coil

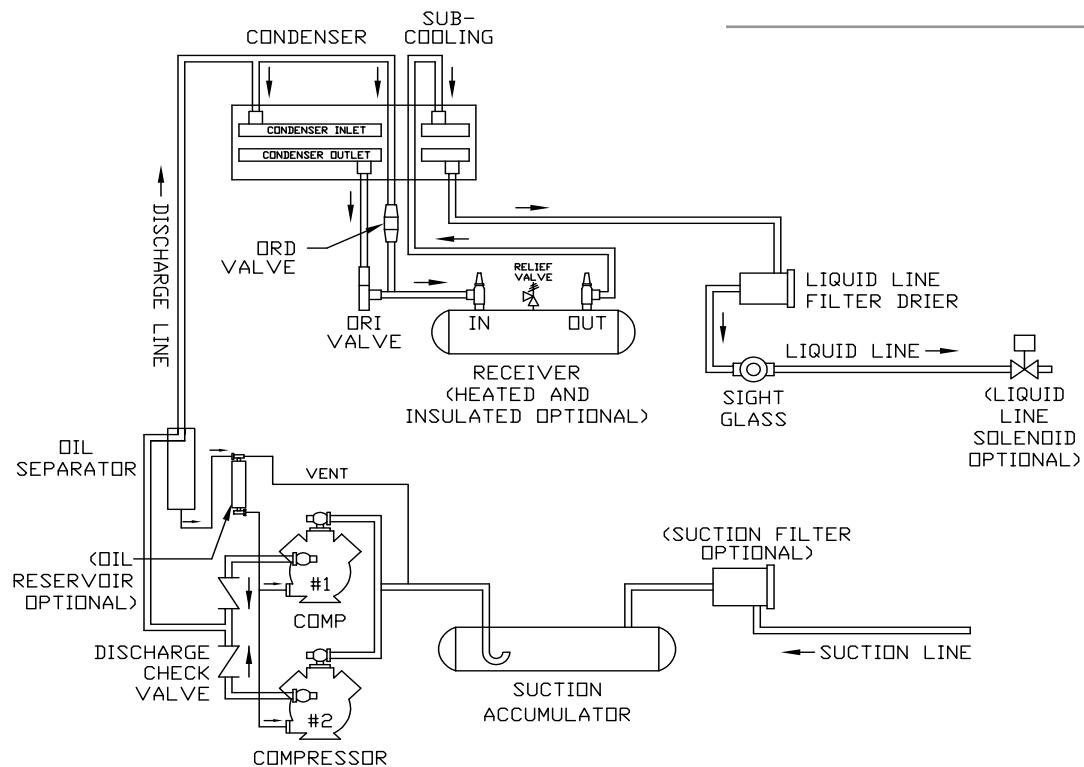


## CS Single Piping - 2 Wide Coil

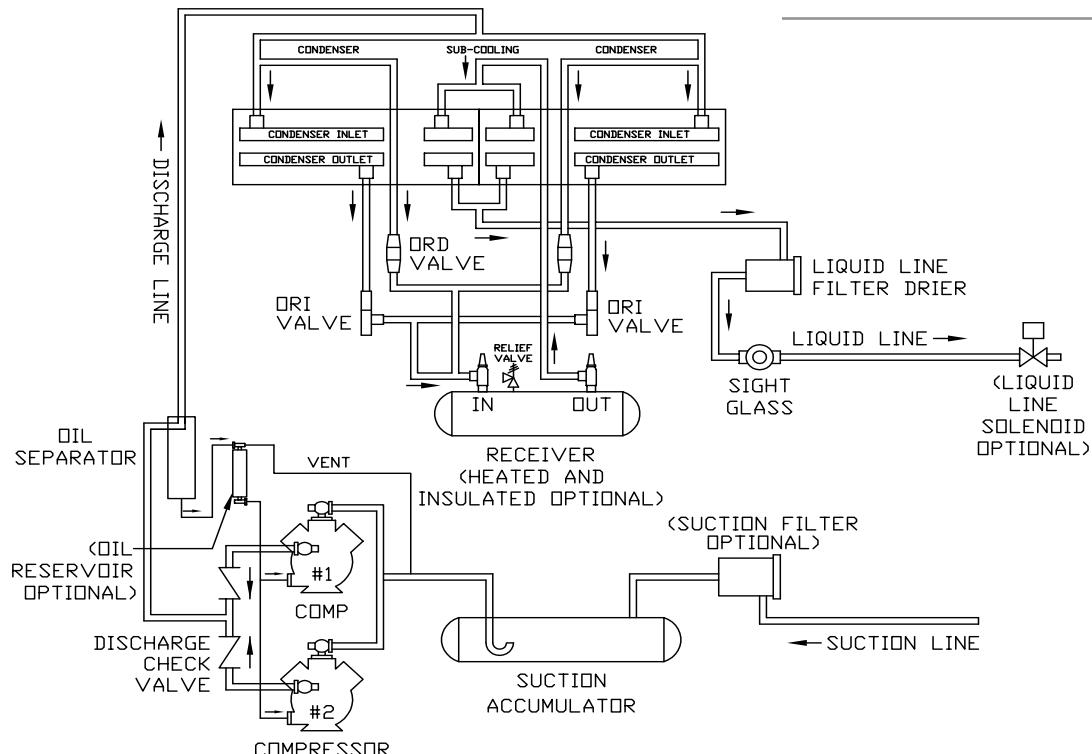


# Piping Schematics

*CP Parallel Piping - 1 Wide Coil*

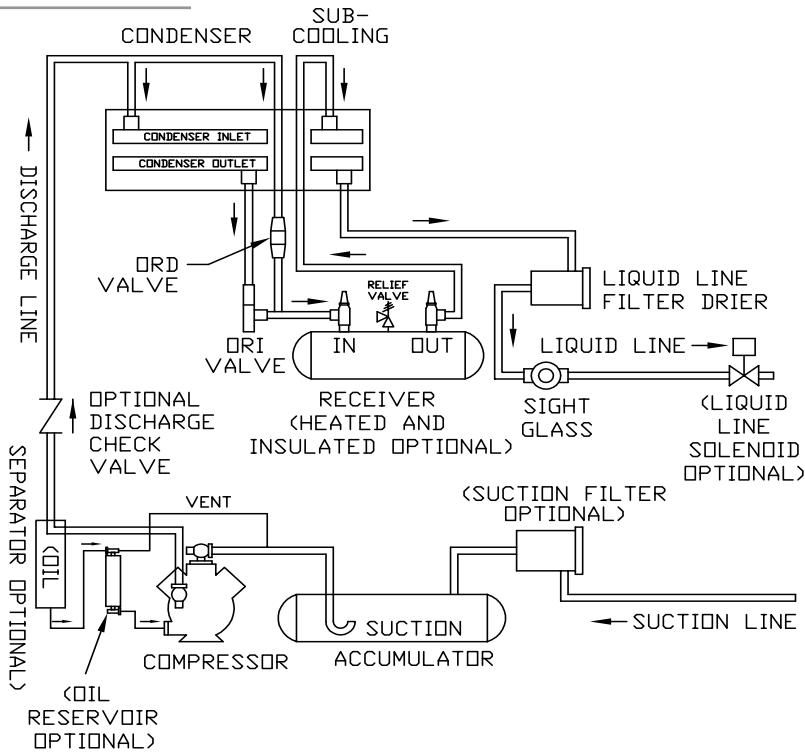


*CP Parallel Piping - 2 Wide Coil*

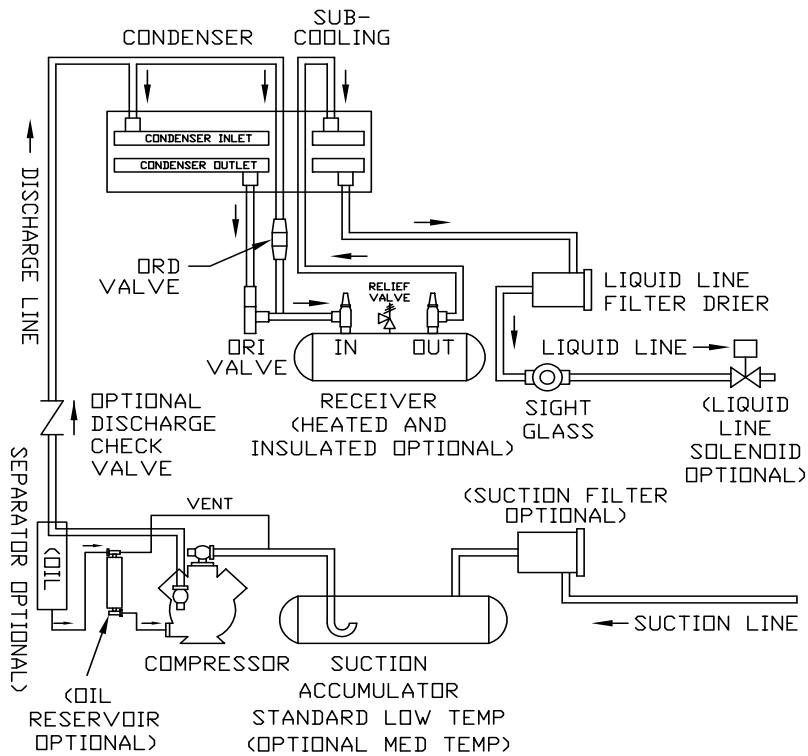


# Piping Schematics

## CD Dual Piping - Refrigerant Circuit 1



## CD Dual Piping - Refrigerant Circuit 2



# **Large Air-Cooled Condensing Units**

## Notes

# **Large Air-Cooled Condensing Units**

## Notes

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LARGE AIR-COOLED CONDENSING UNITS

*Specifications subject to change without notice.*



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