



Large Air-Cooled Commercial Condensing Units

Technical Bulletin: LACC_005_030520



Products that provide lasting solutions.

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

Large Air-Cooled Commercial Condensing Units

Table of Contents

Model Introduction

Nomenclature	2
Features for All Models	3

CS Single Systems

CSD Medium Temperature R-404A	4
CSD Medium Temperature R-407A	5
CSD Medium Temperature R-448A	6
CSE Medium Temperature R-404A	7
CSE Medium Temperature R-407A	8
CSE Medium Temperature R-448A	9
CSB Medium Temperature R-404A	10
CSB Medium Temperature R-407A	11
CSB Medium Temperature R-448A	12
CSD Low Temperature R-404A	13
CSD Low Temperature R-407A	14
CSD Low Temperature R-448A	15
CSE Low Temperature R-404A	16
CSE Low Temperature R-407A	17
CSE Low Temperature R-448A	18
CSB Low Temperature R-404A	19
CSB Low Temperature R-407A	20
CSB Low Temperature R-448A	21
CSD MCA / MOPD Calculation	22
CS Single Series Model Specifications	23
Annual Walk-In Energy Factor (AWEF)	23
- CSB Single Series Units	24
- CSD Single Series Units	25
- CSE Single Series Units	26

CP Parallel Systems

CPD Medium Temperature R-404A	28
CPD Medium Temperature R-407A	29
CPD Medium Temperature R-448A	30
CPE Medium Temperature R-404A	31
CPE Medium Temperature R-407A	32
CPE Medium Temperature R-448A	33
CPB Medium Temperature R-404A	34
CPB Medium Temperature R-407A	35
CPB Medium Temperature R-448A	36
CPD Low Temperature R-404A	37
CPD Low Temperature R-407A	38
CPD Low Temperature R-448A	39
CPE Low Temperature R-404A	40
CPE Low Temperature R-407A	41
CPE Low Temperature R-448A	42
CPB Low Temperature R-404A	43

CPB Low Temperature R-407A	44
CPB Low Temperature R-448A	45
CPD MCA / MOPD Calculation	46
CP Parallel Series Model Specifications	47
Annual Walk-In Energy Factor (AWEF)	47
- CPB Parallel Series Units	48
- CPD Parallel Series Units	49
- CPE Parallel Series Units	50

CD Dual Systems

CDD Medium Temperature R-404A	52
CDD Medium Temperature R-407A	53
CDD Medium Temperature R-448A	54
CDE Medium Temperature R-404A	55
CDE Medium Temperature R-407A	56
CDE Medium Temperature R-448A	57
CDB Medium Temperature R-404A	58
CDB Medium Temperature R-407A	59
CDB Medium Temperature R-448A	60
CDD Low Temperature R-404A	61
CDD Low Temperature R-407A	62
CDD Low Temperature R-448A	63
CDE Low Temperature R-404A	64
CDE Low Temperature R-407A	65
CDE Low Temperature R-448A	66
CDB Low Temperature R-404A	67
CDB Low Temperature R-407A	68
CDB Low Temperature R-448A	69
CDD MCA / MOPD Calculation	70
CD Dual Series Model Specifications	71

Dimensional Drawings

CS Single Systems	72
CP Parallel Systems	74
CD Dual Systems	77

Piping Schematics

80

Warranty

Please refer to our website at www.krack.com

Model Introduction

Nomenclature

Character Position: 1,2345,6,7,89101112

CS	B	-	0300	-	L	Q	M
----	---	---	------	---	---	---	---

CONDENSING UNIT FAMILY:
CS = Commercial Single Compressor
CP = Commercial Parallel Compressor
CD = Commercial Dual Compressor

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

TOTAL HP AND CONDENSER:
xxyy
xxx = Total Horsepower
y = 0 for Standard Condenser
1 for Oversized Condenser
2 for Title 24 Condenser

APPLICATION TEMPERATURE:
M = Medium
L = Low

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

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

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.

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

- Ample 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 VFD to vary the speed to meet the complete regulation.

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.

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	3DB3R12ME	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		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	3DS3R17ME	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		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	4DBNR20ME	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		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	4DHNR22ME	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		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	4DJNR28ME	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		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	6DHNR35ME	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		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	6DJNR40ME	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
Unit	Compressor	Cond	Capacity (MBH)									
CSD-0100-MS	3DB3R12ME	S	107.5	100.4	118.5	110.7	130.2	121.6	142.7	133.2	N/A	N/A
CSD-0101-MS		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	3DS3R17ME	S	144.4	130.4	158.0	142.2	172.5	155.3	179.0	161.0	N/A	N/A
CSD-0151-MS		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	4DBNR20ME	S	173.7	154.4	190.2	171.2	207.3	186.6	218.3	197.1	N/A	N/A
CSD-0201-MS		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	4DHNR22ME	S	193.5	174.5	211.3	190.2	229.3	206.4	240.0	217.0	N/A	N/A
CSD-0251-MS		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	4DJNR28ME	S	229.8	206.2	251.4	226.3	273.8	246.4	287.0	258.0	N/A	N/A
CSD-0301-MS		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	6DHNR35ME	S	280.1	250.8	305.6	275.0	332.3	299.1	371.0	334.0	N/A	N/A
CSD-0351-MS		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	6DJNR40ME	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 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	
CSD-0100-MS	3DB3R12ME	S	43.6	5.4	62.9	100	20	2.5	29.0	45	16.5	2.5	24.3	40	11310
CSD-0101-MS		O		10.8	68.3	110		5.0	31.5	50		5.0	26.8	40	12210
CSD-0102-MS		T		5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11410
CSD-0150-MS	3DS3R17ME	S	59.6	10.8	88.4	150	29.0	5.0	42.8	70	23.6	5.0	35.7	60	12210
CSD-0151-MS		O		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12310
CSD-0152-MS		T		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12410
CSD-0200-MS	4DBNR20ME	S	72.1	10.8	104.0	175	36.1	5.0	51.6	80	31.4	5.0	45.5	70	12210
CSD-0201-MS		O		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12310
CSD-0202-MS		T		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12410
CSD-0250-MS	4DHNR22ME	S	74.4	10.8	106.8	175	41.1	5.0	57.8	100	34.4	5.0	49.1	80	12310
CSD-0251-MS		O		16.2	121.8	200		7.5	60.3	100		7.5	51.6	80	13310
CSD-0252-MS		T		10.8	116.4	200		5.0	57.8	100		5.0	49.1	80	12410
CSD-0300-MS	4DJNR28ME	S	105.4	10.8	145.6	250	52.7	5.0	72.4	125	44.1	5.0	61.4	100	12312
CSD-0301-MS		O		16.2	151.0	250		7.5	74.9	125		7.5	63.9	100	13310
CSD-0302-MS		T		10.8	145.6	250		5.0	72.4	125		5.0	61.4	100	12410
CSD-0350-MS	6DHNR35ME	S	125.1	16.2	175.6	300	62.6	7.5	87.2	150	43.1	7.5	62.5	100	13310
CSD-0351-MS		O		21.6	181.0	300		10.0	89.7	150		10.0	65.0	100	22310
CSD-0352-MS		T		16.2	175.6	300		7.5	87.2	150		7.5	62.5	100	13410
CSD-0400-MS	6DJNR40ME	S	142.9	16.2	197.8	300	71.4	7.5	98.3	150	52.1	7.5	73.9	125	13310
CSD-0401-MS*		O		21.6	203.2	300		10.0	100.8	150		10.0	76.4	125	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".

4 LARGE AIR-COOLED COMMERCIAL CONDENSING UNITS

Specifications subject to change without notice.

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
Unit	Compressor	Cond	Capacity (MBH)											
CSD-0100-MQ	3DB3R12ME	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
Unit	Compressor	Cond	Capacity (MBH)									
CSD-0100-MQ	3DB3R12ME	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 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	
CSD-0100-MQ	3DB3R12ME	S	43.6	5.4	62.9	100	20	2.5	29.0	45	16.5	2.5	24.3	40	11310
CSD-0101-MQ		O		10.8	68.3	110		5.0	31.5	50		5.0	26.8	40	12210
CSD-0102-MQ		T		5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11410
CSD-0150-MQ	3DS3R17ME	S	59.6	10.8	88.4	150	29.0	5.0	42.8	70	23.6	5.0	35.7	60	12210
CSD-0151-MQ		O		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12310
CSD-0152-MQ		T		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12410
CSD-0200-MQ	4DBNR20ME	S	72.1	10.8	104.0	175	36.1	5.0	51.6	80	31.4	5.0	45.5	70	12210
CSD-0201-MQ		O		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12310
CSD-0202-MQ		T		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12410
CSD-0250-MQ	4DHNR22ME	S	82.1	10.8	116.4	200	41.1	5.0	57.8	100	34.4	5.0	49.1	80	12310
CSD-0251-MQ		O		16.2	121.8	200		7.5	60.3	100		7.5	51.6	80	13310
CSD-0252-MQ		T		10.8	116.4	200		5.0	57.8	100		5.0	49.1	80	12410
CSD-0300-MQ	4DJNR28ME	S	105.4	10.8	145.6	250	52.7	5.0	72.4	125	44.1	5.0	61.4	100	12312
CSD-0301-MQ		O		16.2	151.0	250		7.5	74.9	125		7.5	63.9	100	13310
CSD-0302-MQ		T		10.8	145.6	250		5.0	72.4	125		5.0	61.4	100	12410
CSD-0350-MQ	6DHNR35ME	S	125.1	16.2	175.6	300	62.6	7.5	87.2	150	43.1	7.5	62.5	100	13310
CSD-0351-MQ		O		21.6	181.0	300		10.0	89.7	150		10.0	65.0	100	22310
CSD-0352-MQ		T		16.2	175.6	300		7.5	87.2	150		7.5	62.5	100	13410
CSD-0400-MQ	6DJNR40ME	S	142.9	16.2	197.8	300	71.4	7.5	98.3	150	52.1	7.5	73.9	125	13310
CSD-0401-MQ*		O		21.6	203.2	300		10.0	100.8	150		10.0	76.4	125	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 "Q" at the end of the model nomenclature with an "F".

CS Single Systems

CSD Medium Temp R-448A

CSD Performance Data - Medium Temperature R-448A - 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-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	4DHN22ME	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	6DHN35ME	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	
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-0100-MT	3DB3R12ME	S	111.8	105.4	124.5	118.4	136.7	130.1	149.8	142.5	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
CSD-0102-MT		T	114.0	107.5	126.9	120.8	139.4	132.7	152.8	145.4	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
CSD-0151-MT		O	153.2	141.3	168.2	156.5	186.1	169.4	198.0	182.0	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
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
CSD-0201-MT		O	185.7	168.6	207.9	187.1	229.5	208.7	245.0	225.0	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
CSD-0250-MT	4DHN22ME	S	205.1	186.7	226.1	203.5	247.6	222.9	265.0	243.0	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
CSD-0252-MT		T	209.2	190.4	230.6	207.6	252.6	227.3	270.3	247.9	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
CSD-0301-MT		O	249.3	230.8	276.5	250.9	302.4	274.4	321.0	295.0	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
CSD-0350-MT	6DHN35ME	S	288.5	265.8	314.8	283.3	342.3	308.0	378.0	350.0	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
CSD-0352-MT		T	294.3	271.2	321.1	289.0	349.1	314.2	385.6	357.0	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
CSD-0401-MT*		O	368.4	339.8	403.2	375.2	443.9	409.1	471.0	437.0	N/A	N/A

Electrical Specifications R-448A

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	
CSD-0100-MT	3DB3R12ME	S	43.6	5.4	62.9	100	20	2.5	29.0	45	16.5	2.5	24.3	40	11310
CSD-0101-MT		O		10.8	68.3	110		5.0	31.5	50		5.0	26.8	40	12210
CSD-0102-MT		T		5.4	62.9	100		2.5	29.0	45		2.5	24.3	40	11410
CSD-0150-MT	3DS3R17ME	S	59.6	10.8	88.4	150	29.0	5.0	42.8	70	23.6	5.0	35.7	60	12210
CSD-0151-MT		O		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12310
CSD-0152-MT		T		10.8	88.4	150		5.0	42.8	70		5.0	35.7	60	12410
CSD-0200-MT	4DBNR20ME	S	72.1	10.8	104.0	175	36.1	5.0	51.6	80	31.4	5.0	45.5	70	12210
CSD-0201-MT		O		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12310
CSD-0202-MT		T		10.8	104.0	175		5.0	51.6	80		5.0	45.5	70	12410
CSD-0250-MT	4DHN22ME	S	82.1	10.8	116.4	200	41.1	5.0	57.8	100	34.4	5.0	49.1	80	12310
CSD-0251-MT		O		16.2	121.8	200		7.5	60.3	100		7.5	51.6	80	13310
CSD-0252-MT		T		10.8	116.4	200		5.0	57.8	100		5.0	49.1	80	12410
CSD-0300-MT	4DJNR28ME	S	105.4	10.8	145.6	250	52.7	5.0	72.4	125	44.1	5.0	61.4	100	12310
CSD-0301-MT		O		16.2	151.0	250		7.5	74.9	125		7.5	63.9	100	13310
CSD-0302-MT		T		10.8	145.6	250		5.0	72.4	125		5.0	61.4	100	12410
CSD-0350-MT	6DHN35ME	S	125.1	16.2	175.6	300	62.6	7.5	87.2	150	43.1	7.5	62.5	100	13310
CSD-0351-MT		O		21.6	181.0	300		10.0	89.7	150		10.0	65.0	100	22310
CSD-0352-MT		T		16.2	175.6	300		7.5	87.2	150		7.5	62.5	100	13410
CSD-0400-MT	6DJNR40ME	S	142.9	16.2	197.8	300	71.4	7.5	98.3	150	52.1	7.5	73.9	125	13310
CSD-0401-MT*		O		21.6	203.2	300		10.0	100.8	150		10.0	76.4	125	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".

6 LARGE AIR-COOLED COMMERCIAL CONDENSING UNITS

Specifications subject to change without notice.

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

Saturated Suction Temperature (SST)		25°F		30°F		35°F		40°F		45°F		50°F	
Ambient Temperature	Unit	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
		Capacity (MBH)											
CSE-0100-MS	4TES-12	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	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	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	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	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	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	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 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	
CSE-0100-MS	4TES-12	S	52.1	5.4	73.5	125	23.6	2.5	33.5	50	18.9	2.5	27.3	45	11310
CSE-0101-MS		O		10.8	78.9	125		5	36.0	60		5	29.8	45	12210
CSE-0102-MS		T		5.4	73.5	125		2.5	33.5	50		2.5	27.3	45	11410
CSE-0150-MS	4NES-20	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	26.3	5.0	39.1	60	12210
CSE-0151-MS		O		10.8	102.7	175		5.0	46.6	80		5.0	39.1	60	12310
CSE-0152-MS		T		10.8	102.7	175		5.0	46.6	80		5.0	39.1	60	12410
CSE-0200-MS	4JE-22	S	75.8	10.8	108.6	175	34.3	5.0	49.4	80	27.1	5.0	40.1	60	12210
CSE-0201-MS		O		10.8	108.6	175		5.0	49.4	80		5.0	40.1	60	12310
CSE-0202-MS		T		10.8	108.6	175		5.0	49.4	80		5.0	40.1	60	12410
CSE-0250-MS	4HE-25	S	93.2	10.8	130.3	225	42.1	5.0	59.1	100	33.6	5.0	48.2	80	12310
CSE-0251-MS		O		16.2	135.7	225		7.5	61.6	100		7.5	50.7	80	13310
CSE-0252-MS		T		10.8	130.3	225		5.0	59.1	100		5.0	48.2	80	12410
CSE-0300-MS	4GE-30	S	110.6	10.8	152.1	250	50.0	5.0	69.0	110	40.0	5.0	56.2	90	12312
CSE-0301-MS		O		16.2	157.5	250		7.5	71.5	110		7.5	58.7	100	13310
CSE-0302-MS		T		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90	12410
CSE-0350-MS	6HE-35	S	129.5	16.2	181.1	300	58.6	7.5	82.3	125	46.4	7.5	66.7	110	13310
CSE-0351-MS		O		21.6	186.5	300		10.0	84.8	125		10.0	69.2	110	22310
CSE-0352-MS		T		16.2	181.1	300		7.5	82.3	125		7.5	66.7	110	13410
CSE-0400-MS	6GE-40	S	173.8	16.2	236.5	400	78.6	7.5	107.3	175	62.9	7.5	87.3	150	13310
CSE-0401-MS*		O		21.6	241.9	400		10.0	109.8	175		10.0	89.8	150	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".

LARGE AIR-COOLED COMMERCIAL CONDENSING UNITS

Specifications subject to change without notice.

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	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)										
CSE-0100-MQ	4TES-12	S	48.3	47.3	57.3	55.5	67.1	63.7	77.4	72.0	87.0	82.1	97.7
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
CSE-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
CSE-0150-MQ	4NES-20	S	74.7	66.9	85.3	77.6	97.2	88.5	111.1	100.4	125.1	114.4	140.3
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
CSE-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
CSE-0200-MQ	4JE-22	S	84.6	77.4	96.1	88.9	108.9	100.6	124.3	113.7	139.7	129.4	156.1
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
CSE-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
CSE-0250-MQ	4HE-25	S	99.2	90.5	112.7	104.0	127.7	117.8	145.7	133.2	163.9	151.9	183.8
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
CSE-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
CSE-0300-MQ	4GE-30	S	115.4	105.2	131.2	120.8	148.5	136.8	169.1	154.5	189.8	175.4	212.3
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
CSE-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
CSE-0350-MQ	6HE-35	S	148.0	135.1	168.3	155.1	190.7	176.0	217.4	199.0	244.7	226.6	273.7
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
CSE-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
CSE-0400-MQ	6GE-40	S	172.5	157.7	196.0	181.0	221.7	204.7	252.5	231.0	283.4	262.4	316.3
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

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	4TES-12	S	109.0	102.1	121.3	114.8	134.4	126.3	147.1	139.6	162.1	153.9	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
CSE-0102-MQ		T	111.2	104.2	123.8	117.1	137.1	128.8	150.1	142.4	165.4	157.0	178.1
CSE-0150-MQ	4NES-20	S	156.8	142.2	174.4	156.9	192.8	173.5	222.9	200.6	246.6	230.6	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
CSE-0152-MQ		T	166.3	151.2	185.3	170.3	205.6	187.3	240.5	224.8	261.6	244.6	279.9
CSE-0200-MQ	4JE-22	S	173.8	159.2	192.6	173.3	212.4	191.1	235.8	212.2	260.8	241.5	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
CSE-0202-MQ		T	184.4	169.1	204.8	189.7	226.3	207.8	254.4	235.4	276.7	256.1	305.3
CSE-0250-MQ	4HE-25	S	204.8	187.6	226.8	204.1	250.0	225.0	271.9	244.7	311.1	288.5	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
CSE-0252-MQ		T	208.9	191.3	231.3	208.2	255.0	229.5	277.3	249.6	317.3	294.3	338.9
CSE-0300-MQ	4GE-30	S	236.5	216.3	261.9	235.7	288.4	259.6	313.7	282.3	340.8	315.7	379.8
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
CSE-0302-MQ		T	238.9	218.5	264.5	238.1	291.3	262.1	316.8	285.1	344.2	318.8	383.6
CSE-0350-MQ	6HE-35	S	304.7	279.4	337.5	303.8	373.2	335.8	406.3	365.6	447.4	414.6	495.8
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
CSE-0352-MQ		T	310.8	285.0	344.3	309.9	380.6	342.6	414.4	373.0	456.3	422.9	499.7
CSE-0400-MQ	6GE-40	S	351.6	322.3	389.6	350.7	429.4	386.5	467.0	420.3	513.5	475.1	568.3
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

Electrical Specifications 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	52.1	5.4	73.5	125	23.6	2.5	33.5	50	18.9	2.5	27.3	45	11310
CSE-0101-MQ		O		10.8	78.9	125		5	36.0	60		5	29.8	45	12210
CSE-0102-MQ		T		5.4	73.5	125		2.5	33.5	50		2.5	27.3	45	11410
CSE-0150-MQ	4NES-20	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	26.3	5.0	39.1	60	12210
CSE-0151-MQ		O		10.8	102.7	175		5.0	46.6	80		5.0	39.1	60	12310
CSE-0152-MQ		T		10.8	102.7	175		5.0	46.6	80		5.0	39.1	60	12410
CSE-0200-MQ	4JE-22	S	75.8	10.8	108.6	175	34.3	5.0	49.4	80	27.1	5.0	40.1	60	12210
CSE-0201-MQ		O		10.8	108.6	175		5.0	49.4	80		5.0	40.1	60	12310
CSE-0202-MQ		T		10.8	108.6	175		5.0	49.4	80		5.0	40.1	60	12410
CSE-0250-MQ	4HE-25	S	93.2	10.8	130.3	225	42.1	5.0	59.1	100	33.6	5.0	48.2	80	12310
CSE-0251-MQ		O		16.2	135.7	225		7.5	61.6	100		7.5	50.7	80	13310
CSE-0252-MQ		T		10.8	130.3	225		5.0	59.1	100		5.0	48.2	80	12410
CSE-0300-MQ	4GE-30	S	110.6	10.8	152.1	250	50.0	5.0	69.0	110	40.0	5.0	56.2	90	12312
CSE-0301-MQ		O		16.2	157.5	250		7.5	71.5	110		7.5	58.7	100	13310
CSE-0302-MQ		T		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90	12410
CSE-0350-MQ	6HE-35	S	129.5	16.2	181.1	300	58.6	7.5	82.3	125	46.4	7.5	66.7	110	13310
CSE-0351-MQ		O		21.6	186.5	300		10.0	84.8	125		10.0	69.2	110	22310
CSE-0352-MQ		T		16.2	181.1	300		7.5	82.3	125		7.5	66.7	110	13410
CSE-0400-MQ	6GE-40	S	173.8	16.2	236.5	400	78.6	7.5	107.3	175	62.9	7.5	87.3	150	13310
CSE-0401-MQ*		O		21.6	241.9	400		10.0	109.8	175		10.0	89.8	150	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 "Q" at the end of the model nomenclature with an "F".

8 LARGE AIR-COOLED COMMERCIAL CONDENSING UNITS

Specifications subject to change without notice.

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	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)											
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	156.6	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
Unit	Compressor	Cond	Capacity (MBH)											
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 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	
CSE-0100-MT	4TES-12	S	52.1	5.4	73.5	125	23.6	2.5	33.5	50	18.9	2.5	27.3	45	11310
CSE-0101-MT		O		10.8	78.9	125		5	36.0	60		5	29.8	45	12210
CSE-0102-MT		T		5.4	73.5	125		2.5	33.5	50		2.5	27.3	45	11410
CSE-0150-MT	4NES-20	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	26.3	5.0	39.1	60	12210
CSE-0151-MT		O		10.8	102.7	175		5.0	46.6	80		5.0	39.1	60	12310
CSE-0152-MT		T		10.8	102.7	175		5.0	46.6	80		5.0	39.1	60	12410
CSE-0200-MT	4JE-22	S	75.8	10.8	108.6	175	34.3	5.0	49.4	80	27.1	5.0	40.1	60	12210
CSE-0201-MT		O		10.8	108.6	175		5.0	49.4	80		5.0	40.1	60	12310
CSE-0202-MT		T		10.8	108.6	175		5.0	49.4	80		5.0	40.1	60	12410
CSE-0250-MT	4HE-25	S	93.2	10.8	130.3	225	42.1	5.0	59.1	100	33.6	5.0	48.2	80	12310
CSE-0251-MT		O		16.2	135.7	225		7.5	61.6	100		7.5	50.7	80	13310
CSE-0252-MT		T		10.8	130.3	225		5.0	59.1	100		5.0	48.2	80	12410
CSE-0300-MT	4GE-30	S	110.6	10.8	152.1	250	50.0	5.0	69.0	110	40.0	5.0	56.2	90	12312
CSE-0301-MT		O		16.2	157.5	250		7.5	71.5	110		7.5	58.7	100	13310
CSE-0302-MT		T		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90	12410
CSE-0350-MT	6HE-35	S	129.5	16.2	181.1	300	58.6	7.5	82.3	125	46.4	7.5	66.7	110	13310
CSE-0351-MT		O		21.6	186.5	300		10.0	84.8	125		10.0	69.2	110	22310
CSE-0352-MT		T		16.2	181.1	300		7.5	82.3	125		7.5	66.7	110	13410
CSE-0400-MT	6GE-40	S	173.8	16.2	236.5	400	78.6	7.5	107.3	175	62.9	7.5	87.3	150	13310
CSE-0401-MT*		O		21.6	241.9	400		10.0	109.8	175		10.0	89.8	150	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".

LARGE AIR-COOLED COMMERCIAL CONDENSING UNITS

Specifications subject to change without notice.

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
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 R-404A

Voltage			208-230/3/60				460/3/60				575/3/60				
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Condenser LAVF
CSB-0100-MS	4TES-9	S	34.8	5.4	51.9	80	15.7	2.5	23.6	40	13.6	2.5	20.7	30	11310
CSB-0101-MS		O		10.8	57.3	90		5	26.1	40		5	23.2	30	12210
CSB-0102-MS		T		5.4	51.9	80		2.5	23.6	40		2.5	20.7	30	11410
CSB-0150-MS	4NES-14	S	49.0	10.8	75.1	125	22.1	5.0	34.1	50	17.7	5.0	28.3	45	12210
CSB-0151-MS		O		10.8	75.1	125		5.0	34.1	50		5.0	28.3	45	12310
CSB-0152-MS		T		10.8	75.1	125		5.0	34.1	50		5.0	28.3	45	12410
CSB-0200-MS	4JE-15	S	61.6	10.8	90.8	150	27.9	5.0	41.4	70	22.3	5.0	34.1	50	12210
CSB-0201-MS		O		10.8	90.8	150		5.0	41.4	70		5.0	34.1	50	12310
CSB-0202-MS		T		10.8	90.8	150		5.0	41.4	70		5.0	34.1	50	12410
CSB-0250-MS	4HE-18	S	66.7	10.8	97.2	150	30.1	5.0	44.1	70	24.1	5.0	36.3	60	12310
CSB-0251-MS		O		16.2	102.6	150		7.5	46.6	70		7.5	38.8	60	13310
CSB-0252-MS		T		10.8	97.2	150		5.0	44.1	70		5.0	36.3	60	12410
CSB-0300-MS	4GE-23	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	25.7	5.0	38.3	60	12312
CSB-0301-MS		O		16.2	108.1	175		7.5	49.1	80		7.5	40.8	60	13310
CSB-0302-MS		T		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60	12410
CSB-0350-MS	6HE-28	S	95.6	16.2	138.7	225	43.2	7.5	63.0	100	34.6	7.5	52.0	80	13310
CSB-0351-MS		O		21.6	144.1	225		10.0	65.5	110		10.0	54.5	90	22310
CSB-0352-MS		T		16.2	138.7	225		7.5	63.0	100		7.5	52.0	80	13410
CSB-0400-MS	6GE-34	S	104.3	16.2	149.6	250	47.1	7.5	67.9	110	37.1	7.5	55.1	90	13310
CSB-0401-MS*		O		21.6	155.0	250		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.

- 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".

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				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-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	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 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	34.8	5.4	51.9	80	15.7	2.5	23.6	40	13.6	2.5	20.7	30	11310
CSB-0101-MQ		O		10.8	57.3	90		5	26.1	40		5	23.2	30	12210
CSB-0102-MQ		T		5.4	51.9	80		2.5	23.6	40		2.5	20.7	30	11410
CSB-0150-MQ	4NES-14	S	49.0	10.8	75.1	125	22.1	5.0	34.1	50	17.7	5.0	28.3	45	12210
CSB-0151-MQ		O		10.8	75.1	125		5.0	34.1	50		5.0	28.3	45	12310
CSB-0152-MQ		T		10.8	75.1	125		5.0	34.1	50		5.0	28.3	45	12410
CSB-0200-MQ	4JE-15	S	61.6	10.8	90.8	150	27.9	5.0	41.4	70	22.3	5.0	34.1	50	12210
CSB-0201-MQ		O		10.8	90.8	150		5.0	41.4	70		5.0	34.1	50	12310
CSB-0202-MQ		T		10.8	90.8	150		5.0	41.4	70		5.0	34.1	50	12410
CSB-0250-MQ	4HE-18	S	66.7	10.8	97.2	150	30.1	5.0	44.1	70	24.1	5.0	36.3	60	12310
CSB-0251-MQ		O		16.2	102.6	150		7.5	46.6	70		7.5	38.8	60	13310
CSB-0252-MQ		T		10.8	97.2	150		5.0	44.1	70		5.0	36.3	60	12410
CSB-0300-MQ	4GE-23	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	25.7	5.0	38.3	60	12312
CSB-0301-MQ		O		16.2	108.1	175		7.5	49.1	80		7.5	40.8	60	13310
CSB-0302-MQ		T		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60	12410
CSB-0350-MQ	6HE-28	S	95.6	16.2	138.7	225	43.2	7.5	63.0	100	34.6	7.5	52.0	80	13310
CSB-0351-MQ		O		21.6	144.1	225		10.0	65.5	110		10.0	54.5	90	22310
CSB-0352-MQ		T		16.2	138.7	225		7.5	63.0	100		7.5	52.0	80	13410
CSB-0400-MQ	6GE-34	S	104.3	16.2	149.6	250	47.1	7.5	67.9	110	37.1	7.5	55.1	90	13310
CSB-0401-MQ*		O		21.6	155.0	250		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.

- 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 "Q" 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		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-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
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	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	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

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 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	34.8	5.4	51.9	80	15.7	2.5	23.6	40	13.6	2.5	20.7	30	11310
CSB-0101-MT		O		10.8	57.3	90		5	26.1	40		5	23.2	30	12210
CSB-0102-MT		T		5.4	51.9	80		2.5	23.6	40		2.5	20.7	30	11410
CSB-0150-MT	4NES-14	S	49.0	10.8	75.1	125	22.1	5.0	34.1	50	17.7	5.0	28.3	45	12210
CSB-0151-MT		O		10.8	75.1	125		5.0	34.1	50		5.0	28.3	45	12310
CSB-0152-MT		T		10.8	75.1	125		5.0	34.1	50		5.0	28.3	45	12410
CSB-0200-MT	4JE-15	S	61.6	10.8	90.8	150	27.9	5.0	41.4	70	22.3	5.0	34.1	50	12210
CSB-0201-MT		O		10.8	90.8	150		5.0	41.4	70		5.0	34.1	50	12310
CSB-0202-MT		T		10.8	90.8	150		5.0	41.4	70		5.0	34.1	50	12410
CSB-0250-MT	4HE-18	S	66.7	10.8	97.2	150	30.1	5.0	44.1	70	24.1	5.0	36.3	60	12310
CSB-0251-MT		O		16.2	102.6	150		7.5	46.6	70		7.5	38.8	60	13310
CSB-0252-MT		T		10.8	97.2	150		5.0	44.1	70		5.0	36.3	60	12410
CSB-0300-MT	4GE-23	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	25.7	5.0	38.3	60	12312
CSB-0301-MT		O		16.2	108.1	175		7.5	49.1	80		7.5	40.8	60	13310
CSB-0302-MT		T		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60	12410
CSB-0350-MT	6HE-28	S	95.6	16.2	138.7	225	43.2	7.5	63.0	100	34.6	7.5	52.0	80	13310
CSB-0351-MT		O		21.6	144.1	225		10.0	65.5	110		10.0	54.5	90	22310
CSB-0352-MT		T		16.2	138.7	225		7.5	63.0	100		7.5	52.0	80	13410
CSB-0400-MT	6GE-34	S	104.3	16.2	149.6	250	47.1	7.5	67.9	110	37.1	7.5	55.1	90	13310
CSB-0401-MT*		O		21.6	155.0	250		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 for * 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".

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
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	4DJNF76KE	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	6DHNF93KE	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	6DJNF11ME	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
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	4DJNF76KE	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	6DHNF93KE	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	6DJNF11ME	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 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	
CSD-0150-LS*	4DKNF63KE	S	52.6	5.4	74.1	125	26.3	2.5	36.9	60	20.9	2.5	29.9	50	11410
CSD-0151-LS		O		10.8	79.5	125		5.0	39.4	60		5.0	32.4	50	12210
CSD-0220-LS	4DJNF76KE	S	64.3	10.8	94.2	150	32.1	5.0	46.7	80	29.1	5.0	42.5	70	12210
CSD-0221-LS		O		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70	12310
CSD-0222-LS		T		10.8	94.2	150		5.0	46.7	80		5.0	42.5	70	12410
CSD-0270-LS	6DHNF93KE	S	80.7	10.8	114.7	175	40.4	5.0	56.9	90	33.8	5.0	48.4	80	12310
CSD-0271-LS		O		16.2	120.1	200		7.5	59.4	100		7.5	50.9	80	13210
CSD-0272-LS		T		10.8	114.7	175		5.0	56.9	90		5.0	48.4	80	12410
CSD-0300-LS	6DJNF11ME	S	95.7	10.8	133.4	225	47.9	5.0	66.3	110	39.3	5.0	55.3	90	12310
CSD-0301-LS		O		16.2	138.8	225		7.5	68.8	110		7.5	57.8	90	13310
CSD-0302-LS		T		10.8	133.4	225		5.0	66.3	110		5.0	55.3	90	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

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	6DHNF93KE	T	44.9	39.7	51.4	45.8	61.1	54.4	70.7	62.7
CSD-0270-LQ		S	46.2	38.3	58.4	49.3	70.4	61.5	83.1	73.1
CSD-0271-LQ	6DHNF93KE	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	6DJNF11ME	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	Cond	Capacity (MBH)									
CSD-0150-LQ*	4DKNF63KE	S	64.7	58.1	73.0	67.1	82.2	75.5	92.2	83.8	N/A	N/A
CSD-0151-LQ		O	65.8	60.0	74.5	68.8	85.1	77.7	95.8	87.4	N/A	N/A
CSD-0220-LQ	4DJNF76KE	S	78.5	70.6	91.0	81.2	104.6	93.6	119.5	108.1	N/A	N/A
CSD-0221-LQ		O	80.4	71.5	93.2	84.1	107.4	97.0	122.9	111.1	N/A	N/A
CSD-0222-LQ	6DHNF93KE	T	82.0	72.9	95.1	85.8	109.5	98.9	125.4	113.3	N/A	N/A
CSD-0270-LQ		S	96.0	85.8	111.2	100.7	127.6	115.8	145.3	130.5	N/A	N/A
CSD-0271-LQ	6DHNF93KE	O	97.4	87.1	111.6	101.3	128.3	116.7	146.4	133.1	N/A	N/A
CSD-0272-LQ		T	98.0	87.5	113.4	102.8	130.1	118.1	148.2	134.4	N/A	N/A
CSD-0300-LQ	6DJNF11ME	S	115.5	102.7	133.1	118.6	150.9	137.2	171.6	156.0	N/A	N/A
CSD-0301-LQ		O	117.2	105.5	135.5	123.5	155.5	140.3	177.6	161.7	N/A	N/A
CSD-0302-LQ	6DJNF11ME	T	116.6	104.7	134.4	121.0	153.9	139.9	175.0	159.1	N/A	N/A

Electrical Specifications 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	6DHNF93KE	T	80.7	10.8	94.2	150	40.4	5.0	46.7	80	33.8	5.0	42.5	70
CSD-0270-LQ		S		10.8	114.7	175		5.0	56.9	90		5.0	48.4	80
CSD-0271-LQ	6DHNF93KE	O		16.2	120.1	200	47.9	7.5	59.4	100	39.3	7.5	50.9	80
CSD-0272-LQ		T		10.8	114.7	175		5.0	56.9	90		5.0	48.4	80
CSD-0300-LQ	6DJNF11ME	S	95.7	10.8	133.4	225	47.9	5.0	66.3	110	39.3	5.0	55.3	90
CSD-0301-LQ		O		16.2	138.8	225		7.5	68.8	110		7.5	57.8	90
CSD-0302-LQ	6DJNF11ME	T		10.8	133.4	225		5.0	66.3	110		5.0	55.3	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 for * 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 "Q" 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	6DHNF93KE	T	42.9	34.9	52.6	44.7	63.2	55.0	73.9	64.8
CSD-0270-LT		S	49.8	41.4	61.2	51.8	72.9	63.7	85.9	75.7
CSD-0271-LT	6DHNF93KE	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	6DJNF11ME	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	6DHNF93KE	T	85.6	75.3	98.1	88.6	112.9	102.0	127.9	116.7	N/A	N/A
CSD-0270-LT		S	100.3	88.7	114.9	104.1	131.7	118.3	149.8	136.0	N/A	N/A
CSD-0271-LT	6DHNF93KE	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	6DJNF11ME	T	121.5	108.1	139.9	124.7	160.1	144.1	182.0	163.8	N/A	N/A

Electrical Specifications 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	6DHNF93KE	T	80.7	10.8	94.2	150	40.4	5.0	46.7	80	33.8	5.0	42.5	70
CSD-0270-LT		S		10.8	114.7	175		5.0	56.9	90		5.0	48.4	80
CSD-0271-LT	6DHNF93KE	O		16.2	120.1	200	47.9	7.5	59.4	100	39.3	7.5	50.9	80
CSD-0272-LT		T		10.8	114.7	175		5.0	56.9	90		5.0	48.4	80
CSD-0300-LT	6DJNF11ME	S	95.7	10.8	133.4	225	47.9	5.0	66.3	110	39.3	5.0	55.3	90
CSD-0301-LT		O		16.2	138.8	225		7.5	68.8	110		7.5	57.8	90
CSD-0302-LT	6DJNF11ME	T		10.8	133.4	225		5.0	66.3	110		5.0	55.3	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	12310
CSD-0272-LT	12410
CSD-0300-LT	12310
CSD-0301-LT	12310
CSD-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

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*	4HE-25	S	34.2	29.8	41.2	36.2	48.8	43.2	57.0	50.8	65.9	59.0
CSE-0151-LS		O	35.1	30.6	42.3	37.3	50.2	44.5	58.8	52.4	68.3	61.1
CSE-0220-LS	4GE-30	S	40.8	35.4	48.9	42.9	58.0	51.1	67.8	60.1	78.4	70.0
CSE-0221-LS		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		T	53.0	46.6	63.8	56.6	75.7	67.5	88.6	79.4	102.8	92.2
CSE-0300-LS	6GE-40	S	62.2	54.3	74.2	65.0	87.5	77.2	102.0	91.0	118.3	105.9
CSE-0301-LS		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*	4HE-25	S	75.7	67.9	86.0	77.5	97.2	87.7	109.1	98.7
CSE-0151-LS		O	78.6	70.5	89.6	80.6	101.4	91.6	114.2	103.2
CSE-0220-LS	4GE-30	S	90.1	80.6	102.4	92.0	115.7	104.1	129.8	117.2
CSE-0221-LS		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		T	118.4	106.3	134.9	121.4	152.5	137.5	171.3	154.9
CSE-0300-LS	6GE-40	S	135.9	121.9	154.7	139.1	174.4	157.4	195.3	176.5
CSE-0301-LS		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 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	93.2	5.4	124.9	200	42.1	2.5	56.6	100	33.6	2.5	45.7	80
CSE-0151-LS		O		10.8	130.3	225		5.0	59.1	100		5.0	48.2	80
CSE-0220-LS	4GE-30	S	110.6	10.8	152.1	250	50.0	5.0	69.0	110	40.0	5.0	56.2	90
CSE-0221-LS		O		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90
CSE-0222-LS		T		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90
CSE-0270-LS	6HE-35	S	129.5	10.8	175.7	300	58.6	5.0	79.8	125	46.4	5.0	64.2	110
CSE-0271-LS		O		16.2	181.1	300		7.5	82.3	125		7.5	66.7	110
CSE-0272-LS		T		10.8	175.7	300		5.0	79.8	125		5.0	64.2	110
CSE-0300-LS	6GE-40	S	173.8	10.8	231.1	400	78.6	5.0	104.8	175	62.9	5.0	84.8	125
CSE-0301-LS		O		16.2	236.5	400		7.5	107.3	175		7.5	87.3	150
CSE-0302-LS		T		10.8	231.1	400		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 for * 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
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		T	N/A	N/A	43.5	N/A	53.4	46.1	64.0	56.2	75.7	66.9
CSE-0270-LQ	6HE-35	S	N/A	N/A	53.1	N/A	65.3	56.9	78.2	69.2	92.7	82.3
CSE-0271-LQ		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
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		T	89.0	78.9	102.3	92.2	118.2	107.9	134.5	121.7
CSE-0270-LQ	6HE-35	S	109.1	96.9	125.7	113.1	145.0	132.1	164.5	148.9
CSE-0271-LQ		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 R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CSE-0150-LQ*	4HE-25	S	93.2	5.4	124.9	200	42.1	2.5	56.6	100	33.6	2.5	45.7	80
CSE-0151-LQ		O		10.8	130.3	225		5.0	59.1	100		5.0	48.2	80
CSE-0220-LQ	4GE-30	S	110.6	10.8	152.1	250	50.0	5.0	69.0	110	40.0	5.0	56.2	90
CSE-0221-LQ		O		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90
CSE-0222-LQ		T		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90
CSE-0270-LQ	6HE-35	S	129.5	10.8	175.7	300	58.6	5.0	79.8	125	46.4	5.0	64.2	110
CSE-0271-LQ		O		16.2	181.1	300		7.5	82.3	125		7.5	66.7	110
CSE-0272-LQ		T		10.8	175.7	300		5.0	79.8	125		5.0	64.2	110
CSE-0300-LQ	6GE-40	S	173.8	10.8	231.1	400	78.6	5.0	104.8	175	62.9	5.0	84.8	125
CSE-0301-LQ		O		16.2	236.5	400		7.5	107.3	175		7.5	87.3	150
CSE-0302-LQ		T		10.8	231.1	400		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

- 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 "Q" 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

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	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH)									
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	6HE-35	T	36.2	N/A	45.1	38.2	55.2	47.8	66.1	58.1	78.2	69.1
CSE-0270-LT		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	6GE-40	T	45.1	N/A	56.1	48.1	68.9	60.1	82.4	73.0	97.7	86.7
CSE-0300-LT		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
Unit	Compressor	Cond	Capacity (MBH)							
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	6HE-35	T	91.8	82.3	106.6	96.0	121.9	111.2	138.7	125.4
CSE-0270-LT		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	6GE-40	T	114.9	103.1	133.6	120.2	152.5	138.9	173.0	156.5
CSE-0300-LT		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 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	93.2	5.4	124.9	200	42.1	2.5	56.6	100	33.6	2.5	45.7	80
CSE-0151-LT		O		10.8	130.3	225		5.0	59.1	100		5.0	48.2	80
CSE-0220-LT	4GE-30	S	110.6	10.8	152.1	250	50.0	5.0	69.0	110	40.0	5.0	56.2	90
CSE-0221-LT		O		10.8	152.1	250		5.0	69.0	110		5.0	56.2	90
CSE-0222-LT	6HE-35	T	129.5	10.8	152.1	250	58.6	5.0	69.0	110	46.4	5.0	56.2	90
CSE-0270-LT		S		10.8	175.7	300		5.0	79.8	125		5.0	64.2	110
CSE-0271-LT		O		16.2	181.1	300		7.5	82.3	125		7.5	66.7	110
CSE-0272-LT	6GE-40	T	173.8	10.8	175.7	300	78.6	5.0	79.8	125	62.9	5.0	64.2	110
CSE-0300-LT		S		10.8	231.1	400		5.0	104.8	175		5.0	84.8	125
CSE-0301-LT		O		16.2	236.5	400		7.5	107.3	175		7.5	87.3	150
CSE-0302-LT		T		10.8	231.1	400		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 for * 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	6GE-34	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	6GE-34	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 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	66.7	5.4	91.8	150	30.1	2.5	41.6	70	24.1	2.5	33.8	50
CSB-0151-LS		O		10.8	97.2	150		5.0	44.1	70		5.0	36.3	60
CSB-0220-LS	4GE-23	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	25.7	5.0	38.3	60
CSB-0221-LS		O		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60
CSB-0222-LS	6HE-28	T	95.6	10.8	102.7	175	43.2	5.0	46.6	80	34.6	5.0	38.3	60
CSB-0270-LS		S		10.8	133.3	225		5.0	60.5	100		5.0	49.5	80
CSB-0271-LS	6GE-34	O	104.3	16.2	138.7	225	47.1	7.5	63.0	100	37.1	7.5	52.0	80
CSB-0272-LS		T		10.8	133.3	225		5.0	60.5	100		5.0	49.5	80
CSB-0300-LS	6GE-34	S	104.3	10.8	144.2	250	47.1	5.0	65.4	110	37.1	5.0	52.6	90
CSB-0301-LS		O		16.2	149.6	250		7.5	67.9	110		7.5	55.1	90
CSB-0302-LS		T		10.8	144.2	250		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

- 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

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			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-LQ*	4HE-18	S	N/A	N/A	35.0	N/A	42.9	37.2	51.3	45.2	60.6	53.7
CSB-0151-LQ		O	N/A	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	N/A	41.6	N/A	51.0	43.9	61.0	53.5	72.1	63.7
CSB-0221-LQ		O	N/A	N/A	42.7	N/A	52.4	45.2	62.7	55.1	74.2	65.6
CSB-0222-LQ		T	N/A	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	N/A	53.1	N/A	65.3	56.9	78.2	69.2	92.7	82.3
CSB-0271-LQ		O	N/A	N/A	53.6	N/A	65.9	57.4	78.9	69.9	93.7	83.1
CSB-0272-LQ		T	N/A	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	N/A	63.1	N/A	77.0	66.4	91.8	81.0	108.8	96.4
CSB-0301-LQ		O	N/A	N/A	64.2	N/A	78.4	67.7	93.7	82.6	111.1	98.6
CSB-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
Unit	Compressor	Cond	Capacity (MBH)							
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 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	66.7	5.4	91.8	150	30.1	2.5	41.6	70	24.1	2.5	33.8	50
CSB-0151-LQ		O		10.8	97.2	150		5.0	44.1	70		5.0	36.3	60
CSB-0220-LQ	4GE-23	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	25.7	5.0	38.3	60
CSB-0221-LQ		O		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60
CSB-0222-LQ		T		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60
CSB-0270-LQ	6HE-28	S	95.6	10.8	133.3	225	43.2	5.0	60.5	100	34.6	5.0	49.5	80
CSB-0271-LQ		O		16.2	138.7	225		7.5	63.0	100		7.5	52.0	80
CSB-0272-LQ		T		10.8	133.3	225		5.0	60.5	100		5.0	49.5	80
CSB-0300-LQ	6GE-34	S	104.3	10.8	144.2	250	47.1	5.0	65.4	110	37.1	5.0	52.6	90
CSB-0301-LQ		O		16.2	149.6	250		7.5	67.9	110		7.5	55.1	90
CSB-0302-LQ		T		10.8	144.2	250		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

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * 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 "Q" 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

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
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		T	36.2	N/A	45.1	38.2	55.2	47.8	66.1	58.1	78.2	69.1
CSB-0270-LT	6HE-28	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		T	45.1	N/A	56.1	48.1	68.9	60.1	82.4	73.0	97.7	86.7
CSB-0300-LT	6GE-34	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
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		T	91.8	82.3	106.6	96.0	121.9	111.2	138.7	125.4
CSB-0270-LT	6HE-28	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		T	114.9	103.1	133.6	120.2	152.5	138.9	173.0	156.5
CSB-0300-LT	6GE-34	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 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	66.7	5.4	91.8	150	30.1	2.5	41.6	70	24.1	2.5	33.8	50
CSB-0151-LT		O		10.8	97.2	150		5.0	44.1	70		5.0	36.3	60
CSB-0220-LT	4GE-23	S	71.1	10.8	102.7	175	32.1	5.0	46.6	80	25.7	5.0	38.3	60
CSB-0221-LT		O		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60
CSB-0222-LT		T		10.8	102.7	175		5.0	46.6	80		5.0	38.3	60
CSB-0270-LT	6HE-28	S	95.6	10.8	133.3	225	43.2	5.0	60.5	100	34.6	5.0	49.5	80
CSB-0271-LT		O		16.2	138.7	225		7.5	63.0	100		7.5	52.0	80
CSB-0272-LT		T		10.8	133.3	225		5.0	60.5	100		5.0	49.5	80
CSB-0300-LT	6GE-34	S	104.3	10.8	144.2	250	47.1	5.0	65.4	110	37.1	5.0	52.6	90
CSB-0301-LT		O		16.2	149.6	250		7.5	67.9	110		7.5	55.1	90
CSB-0302-LT		T		10.8	144.2	250		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

- 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

CSD MCA / MOPD Calculation

Model CSD-0300LxM

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

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

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

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

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

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

Sound Data for C-Series

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

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

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

*-D,E,B

** S(R-404A), Q(R-407A), T(R-448A)

*** Receiver capacity based on 80% full.

Annual Walk-In Energy Factor (AWEF)

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

AWEF EXAMPLE:

Insert refrigerant letter in () to produce model number.

Example: CSD-0100-M() for R404A will be CSD-0100MS with AWEF of 7.6.

CS Single Systems

Annual Walk-In Energy Factor (AWEF)

CSD Single Series Units - Medium Temperature

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

NOTE:

See Tables on pages 4 - 6 for more data.

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

CSD Single Series Units - Low Temperature

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

NOTE:

See Tables on pages 13 - 15 for more data.

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

NOTE:

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

AWEF EXAMPLE:

Insert refrigerant letter in () to produce model number.

Example: CSD-0100-M() for R404A will be CSD-0100MS with AWEF of 7.6.

CS Single Systems

Annual Walk-In Energy Factor (AWEF)

CSE Single Series Units - Medium Temperature

NOTE:
See Tables on pages 7 - 9
for more data.
“()” = See AWEF Example
on page 23.

Bitzer Ecoline Models	R-404A	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

NOTE:
See Tables on pages 16 - 18
for more data.
“()” = See AWEF Example
on page 23.

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:

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

NOTE:

See Tables on pages 10 - 12 for more data.

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

CSB Single Series Units - Low Temperature

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

NOTE:

See Tables on pages 19 - 21 for more data.

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

AWEF EXAMPLE:

Insert refrigerant letter in () to produce model number.

Example: CSB-0100-M() for R404A will be CSB-0100MS with AWEF of 7.6.

CS Single Systems

Notes

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	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 Capacity (MBH)																	
CPD-0100-MS	2 - 2DC3R53KE	S	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	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	2 - 2DA3R89KE	S	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			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	2 - 3DA3R10ME	T	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 - 3DB3R12ME	S	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 - 3DF3R15ME	T	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			S	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 - 3DS3R17ME	S	O	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			S	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*	2 - 4DBNR20ME	S	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*			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	2 - 4DHNR22ME	S	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			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	2 - 4DJNR28ME	T	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*			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	2 - 4DNR35ME	S	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	2 - 6DHNR35ME	O	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 - 6DJNR40ME	T	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			S	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*		S	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	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit Capacity (MBH)									
CPD-0100-MS	2 - 2DC3R53KE	98.1	90.4	108.7	100.4	120.2	111.0	N/A	N/A
CPD-0101-MS*		102.2	94.2	113.6	105.1	125.9	116.7	N/A	N/A
CPD-0150-MS*	2 - 2DL3R78KE	144.0	133.4	149.1	138.5	165.0	153.4	N/A	N/A
CPD-0151-MS		149.1	136.9	158.9	147.3	174.6	162.2	N/A	N/A
CPD-0160-MS	2 - 2DA3R89KE	166.9	155.2	184.2	171.4	202.4	188.3	N/A	N/A
CPD-0161-MS		170.3	158.7	188.3	175.4	207.3	193.2	N/A	N/A
CPD-0162-MS	2 - 3DA3R10ME	173.7	161.9	192.1	178.9	211.4	197.1	N/A	N/A
CPD-0180-MS		197.9	184.6	217.7	203.4	238.7	223.0	N/A	N/A
CPD-0181-MS*	2 - 3DB3R12ME	204.4	190.9	225.6	210.7	248.1	231.9	N/A	N/A
CPD-0200-MS		237.0	221.3	260.5	243.2	285.4	266.6	N/A	N/A
CPD-0201-MS	2 - 3DF3R15ME	244.6	229.1	269.5	252.6	296.2	277.6	N/A	N/A
CPD-0202-MS		241.8	225.8	265.7	248.0	291.1	272.0	N/A	N/A
CPD-0240-MS*	2 - 3DS3R17ME	275.6	256.8	302.7	282.3	331.5	309.1	N/A	N/A
CPD-0241-MS		282.9	264.2	311.7	291.1	342.1	319.5	N/A	N/A
CPD-0300-MS	2 - 4DBNR20ME	317.2	297.2	348.6	326.4	382.1	357.6	N/A	N/A
CPD-0301-MS*		320.3	300.1	352.3	329.9	386.6	361.9	N/A	N/A
CPD-0400-MS	2 - 4DHNR22ME	377.0	353.3	403.1	386.4	441.5	420.7	N/A	N/A
CPD-0401-MS		384.5	361.1	418.8	397.9	462.4	442.6	N/A	N/A
CPD-0402-MS	2 - 4DJNR28ME	409.9	388.9	443.7	426.3	507.3	485.2	N/A	N/A
CPD-0500-MS*		446.8	403.5	487.0	459.8	527.6	476.5	N/A	N/A
CPD-0600-MS*	2 - 6DHNR35ME	502.7	452.4	547.6	519.8	603.5	542.3	N/A	N/A
CPD-0601-MS		526.5	473.5	575.9	547.7	627.6	564.0	N/A	N/A
CPD-0700-MS	2 - 6DJNR40ME	612.1	550.9	665.5	629.0	773.2	695.5	N/A	N/A
CPD-0701-MS		670.1	603.8	735.1	681.8	804.1	723.3	N/A	N/A
CPD-0702-MS		624.3	561.9	678.8	610.9	788.6	709.4	N/A	N/A
CPD-0800-MS*		743.1	668.8	807.3	726.6	883.6	798.4	N/A	N/A
CPD-0801-MS*		775.4	701.4	845.6	764.5	918.9	830.3	N/A	N/A

- 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".

Electrical Specifications 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	
CPD-0100-MS	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CPD-0101-MS*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CPD-0150-MS*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CPD-0151-MS		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CPD-0160-MS	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CPD-0161-MS		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CPD-0162-MS	2 - 3DA3R10ME	T	41.0	10.8	85.8	110	20.0	5.0	38.2	50	16.4	5.0	36.1	45	12410
CPD-0180-MS		S		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12210
CPD-0181-MS*	2 - 3DA3R10ME	O	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12410
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	51.5	70		5	43.3	60	12410
CPD-0240-MS*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CPD-0241-MS		O		16.2	127.4	175		7.5	62.1	80		7.5	-	-	13310
CPD-0300-MS	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CPD-0301-MS*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CPD-0400-MS	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CPD-0401-MS		O		21.6	186.25	250		10.0	92.7	125		10.0	81.9	110	22310
CPD-0402-MS	2 - 4DBNR20ME	T	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13410
CPD-0500-MS*		S		16.2	204.0	250		7.5	101.5	125		7.5	86.0	110	13410
CPD-0501-MS	2 - 4DHNR22ME	O	82.1	32.4	220.2	300	41.1	15.0	109.0	150	34.4	15.0	93.5	125	23310
CPD-0600-MS*		S		21.6	261.8	350		10.0	130.1	175		10.0	110.5	150	22410
CPD-0601-MS	2 - 4DJNR28ME	S	105.4	32.4	272.6	350	52.7	15.0	135.1	175	44.1	15.0	115.5	150	23310
CPD-0700-MS		O		32.4	317.0	400		15.0	157.3	200		15.0	113.1	150	23310
CPD-0701-MS	2 - 6DHNR35ME	O	125.1	43.2	327.8	450	62.6	20.0	162.3	225	43.1	20.0	118.1	150	24310
CPD-0702-MS		T		32.4	317.0	400		15.0	157.3	200		15.0	113.1	150	23410
CPD-0800-MS*	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	52.1	15.0	133.5	175	23410
CPD-0801-MS*		O		43.2	367.6	500		20.0	182.2	250		20.0	138.5	175	24410

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	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-0100-MQ	2 - 2DC3R53KE	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*	2 - 2DL3R78KE	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	136.9	128.4
CPD-0160-MQ	2 - 2DA3R89KE	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	2 - 3DA3R10ME	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*	2 - 3DB3R12ME	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	2 - 3DF3R15ME	O	115.7	109.0	129.3	121.8	143.9	135.6	159.5	150.3	179.7	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*	2 - 3DS3R17ME	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	2 - 4DBNR20ME	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	2 - 4DHNR22ME	S	86.4	77.2	99.5	88.9	111.7	100.9	122.1	112.1	138.9	128.9	156.3	144.2	174.3	161.2
CPD-0401-MQ		O	89.0	79.5	102.6	91.8	115.4	104.4	125.8	115.4	142.4	131.4	158.8	146.7	176.8	163.7
CPD-0402-MQ	2 - 4DJNR28ME	T	88.2	78.7	101.5	90.7	113.9	102.9	124.1	114.1	141.1	130.1	157.1	145.0	174.1	161.0
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	2 - 6DHNR35ME	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	2 - 6DJNR40ME	O	239.4	217.1	272.9	252.0	312.6	288.2	349.0	321.6	396.5	360.9	443.3	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

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".

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	Unit Capacity (MBH)							
CPD-0100-MQ	2 - 2DC3R53KE	S	101.1	94.9	113.1	105.4	125.0	117.6	N/A	N/A
CPD-0101-MQ*		O	105.3	99.0	118.2	110.3	130.9	123.7	N/A	N/A
CPD-0150-MQ*	2 - 2DL3R78KE	S	148.3	140.1	155.1	145.4	171.6	162.6	N/A	N/A
CPD-0151-MQ		O	153.6	143.7	165.3	154.7	181.6	171.9	N/A	N/A
CPD-0160-MQ	2 - 2DA3R89KE	S	171.9	163.0	191.6	179.9	210.5	199.6	N/A	N/A
CPD-0161-MQ		O	175.5	166.6	195.8	184.2	215.6	204.8	N/A	N/A
CPD-0162-MQ	2 - 3DA3R10ME	T	179.0	170.0	199.7	187.9	219.9	208.9	N/A	N/A
CPD-0180-MQ		S	203.8	193.9	226.4	213.6	248.2	236.4	N/A	N/A
CPD-0181-MQ*	2 - 3DB3R12ME	O	210.5	200.5	234.6	221.3	258.0	245.9	N/A	N/A
CPD-0200-MQ		S	244.2	232.4	270.9	255.3	296.8	282.6	N/A	N/A
CPD-0201-MQ	2 - 3DF3R15ME	O	251.9	240.5	280.3	265.2	308.1	294.3	N/A	N/A
CPD-0202-MQ		T	249.0	237.1	276.3	260.4	302.7	288.3	N/A	N/A
CPD-0240-MQ*	2 - 3DS3R17ME	S	283.9	269.7	314.8	296.5	344.8	327.6	N/A	N/A
CPD-0241-MQ		O	291.4	277.4	324.2	305.7	355.8	338.6	N/A	N/A
CPD-0300-MQ	2 - 4DBNR20ME	S	326.7	312.1	362.6	342.7	397.4	379.1	N/A	N/A
CPD-0301-MQ*		O	329.9	315.1	366.4	346.4	402.0	383.6	N/A	N/A
CPD-0400-MQ	2 - 4DHNR22ME	S	392.0	352.8	433.1	393.8	485.1	440.9	N/A	N/A
CPD-0401-MQ		O	408.2	367.4	450.4	409.6	504.5	458.5	N/A	N/A
CPD-0402-MQ	2 - 4DJNR28ME	T	399.9	359.9	441.8	401.7	494.8	449.7	N/A	N/A
CPD-0500-MQ*		S	430.4	387.4	474.8	427.3	547.9	504.0	N/A	N/A
CPD-0501-MQ	2 - 6DHNR35ME	O	464.7	427.7	516.2	470.6	569.8	524.2	N/A	N/A
CPD-0600-MQ*		S	517.8	466.0	564.0	507.6	627.6	569.4	N/A	N/A
CPD-0601-MQ	2 - 6DJNR40ME	O	542.3	492.4	593.2	543.6	652.7	592.2	N/A	N/A
CPD-0700-MQ		S	618.2	556.4	672.2	604.9	773.2	709.4	N/A	N/A
CPD-0701-MQ		O	670.1	615.9	735.1	675.0	804.1	737.8	N/A	N/A
CPD-0702-MQ		T	630.6	567.5	685.6	617.0	788.6	723.6	N/A	N/A
CPD-0800-MQ*		S	772.8	695.5	839.6	755.6	910.1	846.3	N/A	N/A
CPD-0801-MQ*		O	790.9	729.5	871.0	802.7	946.5	880.1	N/A	N/A

Electrical Specifications 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	
CPD-0100-MQ	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CPD-0101-MQ*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CPD-0150-MQ*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CPD-0151-MQ		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CPD-0160-MQ	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CPD-0161-MQ		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CPD-0162-MQ	2 - 3DA3R10ME	T	41.0	10.8	85.8	110	20.0	5.0	38.2	50	16.4	5.0	36.1	45	12410
CPD-0180-MQ		S		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12210
CPD-0181-MQ*	2 - 3DA3R10ME	O	41.0	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		5.0	51.5	70		5.0	43.3	60	12310
CPD-0201-MQ	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-MQ		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CPD-0240-MQ*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CPD-0241-MQ		O		16.2	127.4	175		7.5	62.1	80		7.5	-	-	13310
CPD-0300-MQ	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CPD-0301-MQ*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CPD-0400-MQ	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CPD-0401-MQ		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CPD-0402-MQ	2 - 4DBNR20ME	T	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	22310
CPD-0500-MQ*		S		16.2	204.0	250		7.5	101.5	125		7.5	86.0	110	13410
CPD-0501-MQ	2 - 4DHNr22ME	O	82.1	32.4	220.2	300	41.1	15.0	109.0	150	34.4	15.0	93.5	125	23310
CPD-0600-MQ*		S		21.6	261.8	350		10.0	130.1	175		10.0	110.5	150	22410
CPD-0601-MQ	2 - 4DJNR28ME	O	105.4	32.4	272.6	350	52.7	15.0	135.1	175	44.1	15.0	115.5	150	23310
CPD-0700-MQ		S		32.4	317.0	400		15.0	157.3	200		15.0	113.1	150	23310
CPD-0701-MQ	2 - 6DHNr35ME	O	125.1	43.2	327.8	450	62.6	20.0	162.3	225	43.1	20.0	118.1	150	24310
CPD-0702-MQ		T		32.4	317.0	400		15.0	157.3	200		15.0	113.1	150	23410
CPD-0800-MQ*	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	52.1	15.0	133.5	175	23410
CPD-0801-MQ*		O		43.2	367.6	500		20.0	187.2	250		20.0	138.5	175	24410

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			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)											
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*	2 - 2DL3R78KE	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		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	2 - 2DA3R89KE	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		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	2 - 3DA3R10ME	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		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*	2 - 3DB3R12ME	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 - 3DF3R15ME	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 - 3DS3R17ME	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 - 4DBNR20ME	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	2 - 4DHNR22ME	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		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	2 - 4DJNR28ME	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*		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	2 - 6DHN35ME	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*		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	2 - 6DJNR40ME	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 - 6DHN35ME	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			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-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*	2 - 2DL3R78KE	S	135.1	126.4	151.2	142.8	156.6	148.2	173.3	164.1	N/A	N/A
CPD-0151-MT		O	139.6	130.9	156.6	146.5	166.9	157.6	183.4	173.5	N/A	N/A
CPD-0160-MT	2 - 2DA3R89KE	S	156.6	146.7	175.2	166.1	193.4	183.4	212.5	201.5	N/A	N/A
CPD-0161-MT		O	159.5	149.7	178.9	169.8	197.7	187.7	217.6	206.7	N/A	N/A
CPD-0162-MT	2 - 3DA3R10ME	T	162.7	152.7	182.4	173.2	201.7	191.5	222.0	210.8	N/A	N/A
CPD-0180-MT		S	186.3	175.4	207.8	197.5	228.6	217.6	250.6	238.6	N/A	N/A
CPD-0181-MT*	2 - 3DB3R12ME	O	192.2	181.0	214.6	204.3	236.9	225.6	260.5	248.2	N/A	N/A
CPD-0200-MT		S	223.6	210.8	248.9	236.8	273.5	260.2	299.7	285.3	N/A	N/A
CPD-0201-MT	2 - 3DF3R15ME	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 - 3DS3R17ME	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 - 4DBNR20ME	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	2 - 4DHNR22ME	S	358.1	321.4	399.6	359.6	441.4	401.3	489.6	444.9	N/A	N/A
CPD-0401-MT		O	371.5	337.4	416.1	374.5	459.1	417.3	509.2	462.7	N/A	N/A
CPD-0402-MT	2 - 4DJNR28ME	T	365.2	327.9	407.6	366.8	450.2	409.3	499.4	453.8	N/A	N/A
CPD-0500-MT*		S	398.9	362.7	438.6	394.7	479.2	431.3	553.0	513.2	N/A	N/A
CPD-0501-MT	2 - 6DHN35ME	O	427.9	390.0	473.6	435.8	526.0	479.4	575.1	533.7	N/A	N/A
CPD-0600-MT*		S	482.6	437.1	527.8	475.1	580.5	522.4	633.6	574.8	N/A	N/A
CPD-0601-MT	2 - 6DJNR40ME	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 - 6DHN35ME	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

- 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 LAFV 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".

Electrical Specifications R-448A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				Condenser LAFV
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CPD-0100-MT	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CPD-0101-MT*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CPD-0150-MT*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CPD-0151-MT		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CPD-0160-MT	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CPD-0161-MT		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CPD-0162-MT	2 - 3DA3R10ME	T	41.0	10.8	85.8	110	20.0	5.0	38.2	50	16.4	5.0	36.1	45	12410
CPD-0180-MT		S		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12210
CPD-0181-MT*	2 - 3DA3R10ME	O	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12410
CPD-0200-MT		S		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12310
CPD-0201-MT	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-MT		T		10.8	111.9	150		5	51.5	70		5	43.3	60	12410
CPD-0240-MT*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CPD-0241-MT		O		16.2	127.4	175		7.5	62.1	80		7.5	-	-	13310
CPD-0300-MT	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CPD-0301-MT*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CPD-0400-MT	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CPD-0401-MT		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CPD-0402-MT	2 - 4DBNR20ME	T	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13410
CPD-0500-MT*		S		16.2	204.0	250		7.5	101.5	125		7.5	86.0	110	13410
CPD-0501-MT	2 - 4DHN22ME	O	82.1	32.4	220.2	300	41.1	15.0	109.0	150	34.4	15.0	93.5	125	23310
CPD-0600-MT*		S		21.6	261.8	350		10.0	130.1	175		10.0	110.5	150	22410
CPD-0601-MT	2 - 4DJNR28ME	O	105.4	32.4	272.6	350	52.7	15.0	135.1	175	44.1	15.0	115.5	150	23310
CPD-0700-MT		S		32.4	317.0	400		15.0	157.3	200		15.0	113.1	150	23310
CPD-0701-MT	2 - 6DHN35ME	O	125.1	43.2	327.8	450	62.6	20.0	162.3	225	43.1	20.0	118.1	150	24310
CPD-0702-MT		T		32.4	317.0	400		15.0	157.3	200		15.0	113.1	150	23410
CPD-0800-MT	2 - 6DJNR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	52.1	15.0	133.5	175	23410
CPD-0801-MT*		O		43.2	367.6	500		20.0	182.2	250		20.0	138.5	175	24410

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
Unit	Compressor	Cond	Unit Capacity (MBH)													
CPE-0100-MS	2 - 4FES-5	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*	2 - 4EES-6	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	2 - 4DES-7	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	2 - 4CES-9	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*	2 - 4TES-12	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	2 - 4PES-15	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*	2 - 4NES-20	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	2 - 4JE-22	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	2 - 4HE-25	S	177.2	160.4	199.2	180.2	223.2	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	2 - 4GE-30	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	2 - 6HE-35	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	2 - 6GE-40	O	247.4	223.4	278.2	251.4	311.8	282.2	349.0	316.2	389.3	353.6	432.0	393.0	476.8	433.6
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	2 - 6GE-40	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	553.6
CPE-0800-MS*	2 - 6GE-40	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

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 LAFV 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".

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
Unit	Compressor	Cond	Unit Capacity (MBH)									
CPE-0100-MS	2 - 4FES-5	S	96.9	89.1	106.9	98.5	117.5	108.7	133.4	123.8	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
CPE-0150-MS*	2 - 4EES-6	S	146.1	134.6	161.0	148.7	176.7	163.6	196.7	182.4	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
CPE-0160-MS	2 - 4DES-7	S	153.2	141.4	169.1	156.3	186.3	172.4	202.6	188.9	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
CPE-0162-MS	2 - 4CES-9	T	160.4	148.6	177.3	164.6	195.4	181.9	214.9	200.4	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
CPE-0181-MS*	2 - 4TES-12	O	204.6	189.5	225.0	208.5	247.0	229.1	270.7	251.3	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
CPE-0201-MS	2 - 4PES-15	O	247.2	229.9	271.9	253.6	298.7	278.7	327.4	305.2	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
CPE-0240-MS*	2 - 4NES-20	S	281.7	262.1	309.1	288.0	338.4	315.6	369.4	344.3	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
CPE-0300-MS	2 - 4JE-22	S	330.5	307.2	363.1	337.8	398.0	370.5	428.8	398.6	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
CPE-0400-MS	2 - 4HE-25	S	371.0	333.9	404.8	364.3	440.2	396.2	486.9	442.3	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
CPE-0402-MS	2 - 4GE-30	T	378.4	340.6	412.9	371.6	449.0	404.1	496.7	451.2	N/A	N/A
CPE-0500-MS*		S	428.6	385.7	467.0	420.3	507.6	456.8	560.8	525.5	N/A	N/A
CPE-0501-MS	2 - 6HE-35	O	462.8	420.3	506.7	461.2	553.8	504.4	604.0	549.6	N/A	N/A
CPE-0600-MS*		S	508.6	457.7	554.6	499.1	603.2	542.9	655.4	595.6	N/A	N/A
CPE-0601-MS	2 - 6GE-40	O	524.2	476.7	574.1	522.2	626.6	569.8	681.6	619.4	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
CPE-0701-MS	2 - 6GE-40	O	686.8	625.0	752.4	684.2	821.6	747.2	894.8	813.6	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
CPE-0800-MS*	2 - 6GE-40	S	756.5	680.9	825.9	743.3	898.0	808.2	987.5	896.3	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

Electrical Specifications 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	
CPE-0100-MS	2 - 4FES-5	S	29.9	5.4	75.7	100	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CPE-0101-MS*		O		5.4	75.7	100		2.5	36.9	50		2.5	25.5	35	11410
CPE-0150-MS*	2 - 4EES-6	S	34.6	5.4	86.3	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CPE-0151-MS		O		10.8	91.7	125		5.0	40.0	50		5.0	29.8	40	12210
CPE-0160-MS	2 - 4DES-7	S	38.1	10.8	99.5	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CPE-0161-MS		O		10.8	99.5	125		5.0	44.8	60		5.0	33.9	45	12310
CPE-0162-MS	2 - 4CES-9	T	42.1	10.8	99.5	125	19.0	5.0	44.8	60	15.2	5.0	33.9	45	12410
CPE-0180-MS		S		10.8	108.5	150		5.0	49.3	60		5.0	40.4	50	12210
CPE-0181-MS*	2 - 4TES-12	O	52.1	10.8	108.5	150	23.6	5.0	49.3	60	18.9	5.0	40.4	50	12410
CPE-0200-MS		S		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12310
CPE-0201-MS	2 - 4PES-15	O	60.0	16.2	136.4	175	27.1	7.5	62.1	80	21.8	7.5	51.2	70	13310
CPE-0202-MS		T		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CPE-0240-MS*	2 - 4NES-20	S	71.1	10.8	148.8	200	32.1	5.0	67.5	90	26.3	5.0	55.3	70	12410
CPE-0241-MS		O		16.2	154.2	200		7.5	70.0	90		7.5	57.8	80	13310
CPE-0300-MS	2 - 4JE-22	S	75.8	16.2	179.2	250	34.3	7.5	81.2	110	27.1	7.5	67.9	90	13310
CPE-0301-MS*		O		16.2	179.2	250		7.5	81.2	110		7.5	67.9	90	13410
CPE-0400-MS	2 - 4HE-25	S	93.2	16.2	189.8	250	42.1	7.5	86.2	110	33.6	7.5	69.7	90	13310
CPE-0401-MS		O		21.6	195.2	250		10.0	88.7	125		10.0	72.2	100	22310
CPE-0402-MS	2 - 4GE-30	T	110.6	16.2	189.8	250	50.0	7.5	86.2	110	40.0	7.5	69.7	90	13410
CPE-0500-MS*		S		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110	13410
CPE-0501-MS	2 - 6HE-35	O	129.5	32.4	245.1	300	58.6	15.0	111.2	150	46.4	15.0	91.8	125	23310
CPE-0600-MS*		S		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125	22410
CPE-0601-MS	2 - 6GE-40	O	173.8	32.4	284.3	350	78.6	15.0	129.0	175	62.9	15.0	106.2	125	23310
CPE-0700-MS		S		32.4	326.8	450		15.0	148.4	200		15.0	120.6	150	23310
CPE-0701-MS	2 - 2GE-40	O	173.8	43.2	337.6	450	20.0	153.4	200	20.0	125.6	150	24310		
CPE-0702-MS		T		32.4	326.8	450		15.0	148.4		200	15.0	120.6	150	23410
CPE-0800-MS*	2 - 2GE-40	S	173.8	32.4	426.5	600	20.0	193.4	250	20.0	157.7	200	23410		
CPE-0801-MS*		O		43.2	437.3	600		20.0	198.4		250	20.0	167.7	225	24410

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			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-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	2 - 4CES-9	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		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*	2 - 4TES-12	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		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	2 - 4PES-15	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-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
CPE-0240-MQ*	2 - 4NES-20	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 - 4JES-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	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
CPE-0402-MQ	2 - 4HE-25	T	171.7	157.1	195.1	180.1	220.8	204.0	251.6	230.3	283.2	262.2	316.5	290.1	352.1	322.7
CPE-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
CPE-0501-MQ	2 - 4GE-30	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
CPE-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
CPE-0601-MQ	2 - 6HE-35	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		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
CPE-0701-MQ	2 - 6GE-40	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*		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			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-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
CPE-0101-MQ*		O	106.3	100.0	118.8	110.7	131.1	123.7	144.3	136.4	159.6	150.1
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
CPE-0151-MQ		O	157.8	148.4	175.9	164.1	193.7	182.7	212.8	201.1	235.2	220.8
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
CPE-0161-MQ		O	162.0	152.9	180.8	169.4	199.2	189.0	219.2	208.2	243.1	228.6
CPE-0162-MQ	2 - 4CES-9	T	165.2	156.0	184.4	172.8	203.2	192.8	223.5	212.4	248.0	233.1
CPE-0180-MQ		S	200.9	189.6	222.8	208.4	244.0	230.7	270.7	256.2	N/A	N/A
CPE-0181-MQ*	2 - 4TES-12	O	210.8	199.0	234.0	218.9	256.9	242.8	281.5	266.4	311.0	292.1
CPE-0200-MQ		S	242.7	229.6	268.8	252.5	294.3	279.2	327.4	311.1	N/A	N/A
CPE-0201-MQ	2 - 4PES-15	O	254.7	241.4	282.8	266.3	310.6	295.4	340.5	323.5	376.3	353.3
CPE-0202-MQ		T	247.5	234.2	274.2	257.6	300.2	284.7	334.0	317.3	368.8	346.3
CPE-0240-MQ*	2 - 4NES-20	S	290.2	275.2	321.4	302.5	352.0	334.5	384.1	364.9	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
CPE-0300-MQ	2 - 4JES-20	S	340.4	322.6	377.6	354.7	413.9	392.7	445.9	422.5	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
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
CPE-0401-MQ		O	401.5	371.9	443.7	407.4	484.2	448.2	526.7	487.6	581.1	550.3
CPE-0402-MQ	2 - 4HE-25	T	389.8	350.8	429.4	386.5	467.0	420.3	516.5	478.2	569.5	539.3
CPE-0500-MQ*		S	441.5	397.3	485.7	437.1	527.9	475.1	604.0	560.2	N/A	N/A
CPE-0501-MQ	2 - 4GE-30	O	476.7	441.3	527.0	484.3	576.0	534.7	628.2	582.6	671.5	639.9
CPE-0600-MQ*		S	523.9	471.5	576.8	519.1	627.3	564.6	681.6	631.3	749.7	N/A
CPE-0601-MQ	2 - 6HE-35	O	539.9	500.5	597.1	548.3	651.7	604.0	708.9	656.6	779.7	742.9
CPE-0700-MQ		S	675.1	607.6	746.2	671.6	812.6	731.3	894.8	829.2	970.6	N/A
CPE-0701-MQ	2 - 6GE-40	O	707.4	656.3	782.5	718.4	854.5	792.0	930.6	862.4	1009.4	961.9
CPE-0702-MQ		T	688.6	619.7	761.1	685.0	828.8	745.9	912.7	845.8	990.0	942.7
CPE-0800-MQ*		S	779.2	701.3	858.9	773.0	933.9	840.5	1027.0	950.1	1131.9	N/A
CPE-0801-MQ*		O	814.9	755.2	900.4	826.1	982.4	909.5	1068.1	988.1	1177.1	1121.2

Electrical Specifications R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				Condense LAVF
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CPE-0100-MQ	2 - 4FES-5	S	29.9	5.4	75.7	100	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CPE-0101-MQ*		O		5.4	75.7	100		2.5	36.9	50		2.5	25.5	35	11410
CPE-0150-MQ*	2 - 4EES-6	S	34.6	5.4	86.3	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CPE-0151-MQ		O		10.8	91.7	125		5.0	40.0	50		5.0	29.8	40	12210
CPE-0160-MQ	2 - 4DES-7	S	38.1	10.8	99.5	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CPE-0161-MQ		O		10.8	99.5	125		5.0	44.8	60		5.0	33.9	45	12310
CPE-0162-MQ	2 - 4CES-9	T	42.1	10.8	99.5	125	19.0	5.0	44.8	60	15.2	5.0	33.9	45	12410
CPE-0180-MQ		S		10.8	108.5	150		5.0	49.3	60		5.0	40.4	50	12210
CPE-0181-MQ*	2 - 4TES-12	O	52.1	10.8	108.5	150	23.6	5.0	49.3	60	18.9	5.0	40.4	50	12410
CPE-0200-MQ		S		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12310
CPE-0201-MQ	2 - 4PES-15	O	60.0	16.2	136.4	175	27.1	7.5	62.1	80	21.8	7.5	51.2	70	13310
CPE-0202-MQ		T		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CPE-0240-MQ*	2 - 4NES-20	S	71.1	16.2	148.8	200	32.1	5.0	67.5	90	26.3	5.0	55.3	70	12410
CPE-0241-MQ		O		16.2	154.2	200		7.5	70.0	90		7.5	57.8	80	13310
CPE-0300-MQ	2 - 4JFE-22	S	75.8	16.2	179.2	250	34.3	7.5	81.2	110	27.1	7.5	67.9	90	13310
CPE-0301-MQ*		O		16.2	179.2	250		7.5	81.2	110		7.5	67.9	90	13410
CPE-0400-MQ	2 - 4HE-25	S	93.2	16.2	189.8	250	42.1	7.5	86.2	110	33.6	7.5	69.7	90	13410
CPE-0500-MQ*		O		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110	13410
CPE-0501-MQ	2 - 4GE-30	S	110.6	32.4	245.1	300	50.0	15.0	111.2	150	40.0	15.0	91.8	125	23310
CPE-0600-MQ*		O		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125	22410
CPE-0601-MQ	2 - 6HE-35	S	129.5	32.4	284.3	350	58.6	15.0	129.0	175	46.4	15.0	106.2	125	23310
CPE-0700-MQ		O		32.4	326.8	450		15.0	148.4	200		15.0	120.6	150	23310
CPE-0701-MQ	2 - 6GE-40	S	173.8	43.2	337.6	450	78.6	20.0	153.4	200	62.9	20.0	126.5	150	24310
CPE-0702-MQ		T		32.4	326.8	450		15.0	148.4	200		15.0	120.6	150	23410
CPE-0800-MQ*	2 - 6GE-40	S	173.8	32.4	426.5	600	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CPE-0801-MQ*		O		43.2	437.3	600		20.0	198.4	250		20.0	162.7	225	24410

CP Parallel Systems

CPE Medium Temp R-448A

CPE 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			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-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	71.5	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	2 - 4DES-7	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		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	2 - 4CES-9	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 - 4TES-12	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 - 4PES-15	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 - 4NES-20	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 - 4JE-22	S	156.5	147.6	176.4	166.3	198.2	186.9	221.8	209.2	251.5	238.4	282.8	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	2 - 4HE-25	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		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
CPE-0402-MT	2 - 4GE-30	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*		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*	2 - 6HE-35	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*		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	441.3
CPE-0601-MT	2 - 6GE-40	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	455.0
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 - 6GE-40	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	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
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

- 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".

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
Unit	Compressor	Cond	Unit Capacity (MBH)									
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	214.8	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	2 - 4CES-9	T	168.5	159.0	186.1	176.1	205.1	194.6	225.7	214.4	245.6	233.1
CPE-0180-MT		S	204.8	193.2	224.9	212.4	246.3	232.9	273.3	258.1	N/A	N/A
CPE-0181-MT*	2 - 4TES-12	O	214.8	202.8	236.3	223.1	259.4	245.1	284.2	268.9	308.1	292.1
CPE-0200-MT		S	247.4	234.0	271.4	257.4	297.1	281.8	330.6	314.0	N/A	N/A
CPE-0201-MT	2 - 4PES-15	O	259.6	246.0	285.5	271.3	313.6	298.2	343.8	326.5	372.8	353.3
CPE-0202-MT		T	252.3	238.7	276.8	262.5	303.0	287.4	337.2	320.3	365.3	346.3
CPE-0240-MT*	2 - 4NES-20	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	368.0	349.5	403.3	383.1	436.8	414.7
CPE-0300-MT	2 - 4JE-22	S	347.0	328.7	381.3	361.5	417.9	396.4	450.2	426.5	N/A	N/A
CPE-0301-MT*		O	353.6	334.6	389.2	368.5	427.3	404.7	468.2	443.5	506.6	480.3
CPE-0400-MT	2 - 4HE-25	S	389.6	360.6	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	2 - 4GE-30	T	397.3	367.6	433.5	390.2	471.5	424.3	521.5	482.7	564.1	539.3
CPE-0500-MT*		S	450.0	405.0	490.4	441.3	533.0	479.7	609.8	565.5	N/A	N/A
CPE-0501-MT	2 - 6HE-35	O	485.9	449.7	532.0	493.5	581.5	539.7	634.2	588.1	665.1	639.9
CPE-0600-MT*		S	534.0	480.6	582.3	524.1	633.4	570.0	688.2	637.3	742.56	N/A
CPE-0601-MT	2 - 6GE-40	O	550.4	510.1	602.8	558.8	667.9	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 - 6GE-40	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

Electrical Specifications 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	
CPE-0100-MT	2 - 4FES-5	S	29.9	5.4	75.7	100	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CPE-0101-MT*		O		5.4	75.7	100		2.5	36.9	50		2.5	25.5	35	11410
CPE-0150-MT*	2 - 4EES-6	S	34.6	5.4	86.3	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CPE-0151-MT		O		10.8	91.7	125		5.0	40.0	50		5.0	29.8	40	12210
CPE-0160-MT	2 - 4DES-7	S	38.1	10.8	99.5	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CPE-0161-MT		O		10.8	99.5	125		5.0	44.8	60		5.0	33.9	45	12310
CPE-0162-MT	2 - 4CES-9	T	42.1	10.8	99.5	125	19.0	5.0	44.8	60	15.2	5.0	33.9	45	12410
CPE-0180-MT		S		10.8	108.5	150		5.0	49.3	60		5.0	40.4	50	12210
CPE-0181-MT*	2 - 4TES-12	O	52.1	10.8	108.5	150	23.6	5.0	49.3	60	18.9	5.0	40.4	50	12410
CPE-0200-MT		S		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12310
CPE-0201-MT	2 - 4PES-15	T	60.0	16.2	136.4	175	27.1	7.5	62.1	80	21.8	7.5	51.2	70	13310
CPE-0240-MT*		O		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CPE-0241-MT	2 - 4NES-20	S	71.1	10.8	148.8	200	32.1	5.0	67.5	90	26.3	5.0	55.3	70	12410
CPE-0300-MT		O		16.2	154.2	200		7.5	70.0	90		7.5	57.8	80	13310
CPE-0301-MT*	2 - 4JFE-22	S	75.8	16.2	179.2	250	34.3	7.5	81.2	110	27.1	7.5	69.9	90	13310
CPE-0400-MT		O		26.2	179.2	250		7.5	81.2	110		7.5	69.9	90	13410
CPE-0401-MT	2 - 4GE-30	S	110.6	16.2	189.8	250	50.0	7.5	86.2	110	40.0	10.0	72.2	100	22310
CPE-0402-MT		T		21.6	195.2	250		10.0	88.7	125		10.0	72.2	100	22310
CPE-0500-MT*	2 - 6HE-35	S	129.5	16.2	189.8	250	58.6	7.5	86.2	110	46.4	7.5	69.7	90	13410
CPE-0501-MT		T		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110	13410
CPE-0600-MT*	2 - 6GE-40	S	173.8	32.4	245.1	300	78.6	15.0	111.2	150	62.9	15.0	91.8	125	23310
CPE-0601-MT		O		21.6	273.5	350		15.0	124.0	175		15.0	101.2	125	22410
CPE-0602-MT	2 - 702-MT	S	110.6	32.4	284.3	350	50.0	15.0	129.0	175	40.0	15.0	106.2	125	23310
CPE-0700-MT		O		32.4	326.8	450		15.0	148.4	200		15.0	120.6	150	23310
CPE-0701-MT	2 - 702-MT	S	129.5	43.2	337.6	450	58.6	20.0	153.4	200	46.4	20.0	125.6	150	24310
CPE-0702-MT		T		32.4	326.8	450		15.0	148.4	200		15.0	120.6	150	23410
CPE-0800-MT*	2 - 702-MT	S	173.8	32.4	426.5	600	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CPE-0801-MT*		O		43.2	437.3	600		20.0	198.4	250		20.0	162.7	225	24410

CP Parallel Systems

CPB Medium Temp R-404A

CPB Performance Data - Medium Temperature R-404A - 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
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	2 - 4CES-6	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		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*	2 - 4TES-9	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		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	2 - 4GES-12	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 - 4NES-14	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 - 4JES-15	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	223.2	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	2 - 4HE-18	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*		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	2 - 4GE-23	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*		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	2 - 6HE-28	O	247.4	223.4	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		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	655.4	589.9
CPB-0701-MS	2 - 6GE-34	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 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	
CPB-0100-MS	2 - 4FES-3	S	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CPB-0101-MS*		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25	11410
CPB-0150-MS*	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CPB-0151-MS		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30	12210
CPB-0160-MS	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CPB-0161-MS		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35	12310
CPB-0162-MS	2 - 4CES-6	T	30.8	10.8	71.0	90	15.8	5.0	33.5	45	12.5	5.0	28.7	35	12410
CPB-0180-MS		S		10.8	83.1	110		5.0	42.1	50		5.0	34.3	45	12210
CPB-0181-MS*	2 - 4GES-12	O	34.8	10.8	83.1	125	15.7	5.0	42.1	50	13.6	5.0	34.3	45	12410
CPB-0200-MS		S		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12310
CPB-0201-MS	2 - 4TES-9	O	42.7	16.2	97.5	125	19.3	7.5	44.3	60	16.0	7.5	39.3	50	13310
CPB-0202-MS		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12410
CPB-0240-MS*	2 - 4NES-14	S	49.0	10.8	109.9	150	22.1	5.0	49.9	60	17.7	5.0	42.2	50	12410
CPB-0241-MS		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60	13310
CPB-0300-MS	2 - 4JES-15	S	61.6	16.2	129.5	175	27.9	7.5	58.7	80	22.3	7.5	48.5	60	13310
CPB-0301-MS*		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MS	2 - 4JE-15	S	66.7	16.2	157.8	200	30.1	7.5	71.8	100	24.1	7.5	58.9	80	13310
CDB-0401-MS		O		21.6	163.2	225		10.0	74.3	100		10.0	61.4	80	22310
CPB-0402-MS	2 - 4HE-18	T	71.1	16.2	157.8	200	32.1	7.5	71.8	100	25.7	7.5	58.9	80	13410
CPB-0500-MS*		S		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80	13410
CPB-0501-MS	2 - 4GE-23	O	95.6	32.4	185.5	250	43.2	15.0	84.2	110	37.1	15.0	70.4	90	23310
CPB-0600-MS*		S		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90	22410
CPB-0601-MS	2 - 6HE-28	O	104.3	32.4	195.4	250	47.1	15.0	88.7	110	37.1	15.0	74.0	100	23310
CPB-0700-MS		S		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125	23310
CPB-0701-MS	2 - 6GE-34	O		43.2	261.3	350	47.1	20.0	118.7	150	37.1	20.0	99.1	125	24310
CPB-0702-MS		T		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125	23410
CPB-0800-MS*	2 - 6GE-34	S		32.4	270.1	350	47.1	15.0	122.5	150	37.1	15.0	99.7	125	23410
CPB-0801-MS*		O		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125	24410

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * 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".

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	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-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*	2 - 4EES-4	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	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	2 - 4DES-5	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	2 - 4CES-6	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*	2 - 4TES-9	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	2 - 4TES-9	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*	2 - 4PES-12	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	2 - 4NES-14	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	2 - 4JE-15	S	168.3	154.0	191.2	176.6	216.5	200.0	246.7	225.8	277.6	267.0	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	2 - 4HE-18	T	171.7	157.1	195.1	180.1	220.8	204.0	251.6	230.3	283.2	262.2	316.5	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	2 - 4HE-18	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	2 - 4GE-23	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	2 - 6HE-28	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*	2 - 6GE-34	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 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	
CPB-0100-MQ	2 - 4FES-3	S	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CPB-0101-MQ*		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25	11410
CPB-0150-MQ*	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CPB-0151-MQ		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30	12210
CPB-0160-MQ	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CPB-0161-MQ		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35	12310
CPB-0162-MQ	2 - 4CES-6	T	30.8	10.8	71.0	90	15.8	5.0	33.5	45	12.5	5.0	28.7	35	12410
CPB-0180-MQ		S		10.8	83.1	110		5.0	42.1	50		5.0	34.3	45	12210
CPB-0181-MQ*	2 - 4TES-9	O		10.8	83.1	125	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12410
CPB-0200-MQ		S		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12310
CPB-0201-MQ	2 - 4TES-9	O	34.8	16.2	97.5	125	15.7	7.5	44.3	60	13.6	7.5	39.3	50	13310
CPB-0202-MQ		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12410
CPB-0240-MQ*	2 - 4PES-12	S	42.7	10.8	109.9	150	19.3	5.0	49.9	60	16.0	5.0	42.2	50	12410
CPB-0241-MQ		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60	13310
CPB-0300-MQ	2 - 4NES-14	S	49.0	16.2	129.5	175	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13310
CPB-0301-MQ*		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MT	2 - 4JE-15	S	61.6	16.2	157.8	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80	13310
CDB-0401-MT		O		21.6	163.2	225		10.0	74.3	100		10.0	61.4	80	12310
CPB-0402-MQ	2 - 4HE-18	T		16.2	157.8	200		7.5	71.8	100		7.5	58.9	80	13410
CPB-0500-MQ*		S	66.7	16.2	169.3	225	30.1	7.5	76.7	100	24.1	7.5	62.9	80	13410
CPB-0501-MQ	2 - 4HE-18	O		32.4	185.5	250		15.0	84.2	110		15.0	70.4	90	23310
CPB-0600-MQ*	2 - 4GE-23	S	71.1	21.6	184.6	250	32.1	10.0	83.7	110	25.7	10.0	69.0	90	22410
CPB-0601-MQ		O		32.4	195.4	250		15.0	88.7	110		15.0	74.0	100	23310
CPB-0700-MQ	2 - 6HE-28	S	95.6	32.4	250.5	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125	23310
CPB-0701-MQ		O		43.2	261.3	350		20.0	118.7	150		20.0	99.1	125	24310
CPB-0702-MQ	2 - 6GE-34	T		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125	23410
CPB-0800-MQ*		S	104.3	32.4	270.1	350	47.1	15.0	122.5	150	37.1	15.0	99.7	125	23410
CPB-0801-MQ*		O		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125	24410

- 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 "Q" at the end of the model nomenclature with an "F".

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			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-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*		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		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		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 - 4CES-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		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 - 4TES-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	214.8	202.8
CPB-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	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		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		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*		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		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*		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*		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		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 - 6GE-34	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		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*		S	355.9	325.2	408.4	373.1	461.8	426.0	520.4	480.5	583.9	540.3	651.5	598.9	717.0	657.2	794.3	714.9
CPB-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	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 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	
CPB-0100-MT	2 - 4FES-3	S	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CPB-0101-MT		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25	11410
CPB-0150-MT	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CPB-0151-MT		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30	12210
CPB-0160-MT	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CPB-0161-MT		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35	12310
CPB-0162-MT	2 - 4CES-6	T	30.8	10.8	71.0	90	15.8	5.0	33.5	45	12.5	5.0	28.7	35	12410
CPB-0180-MT		S		10.8	83.1	110		5.0	42.1	50		5.0	34.3	45	12210
CPB-0181-MT	2 - 4TES-9	O	34.8	10.8	83.1	125	15.7	5.0	42.1	50	13.6	5.0	34.3	45	12410
CPB-0200-MT		S		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12310
CPB-0201-MT	2 - 4TES-9	O	42.7	16.2	97.5	125	19.3	7.5	44.3	60	16.0	7.5	39.3	50	13310
CPB-0202-MT		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12410
CPB-0240-MT	2 - 4PES-12	S	49.0	10.8	109.9	150	22.1	5.0	49.9	60	17.7	5.0	42.2	50	12410
CPB-0241-MT		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60	13310
CPB-0300-MT	2 - 4NES-14	S	61.6	16.2	129.5	175	30.1	7.5	58.7	80	24.1	7.5	48.5	60	13310
CPB-0301-MT		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60	13410
CPB-0400-MT	2 - 4JE-15	S	66.7	16.2	157.8	200	32.1	7.5	71.8	100	25.7	7.5	58.9	80	13310
CPB-0401-MT		O		21.6	163.2	225		10.0	74.3	100		10.0	61.4	80	22310
CPB-0402-MT	2 - 4HE-18	T	71.1	16.2	157.8	200	34.6	7.5	71.8	100	37.1	7.5	58.9	80	13410
CPB-0500-MT		S		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80	13410
CPB-0501-MT	2 - 4GE-23	O	95.6	32.4	185.5	250	43.2	15.0	84.2	110	34.6	15.0	70.4	90	23310
CPB-0600-MT		S		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90	22410
CPB-0601-MT	2 - 6HE-28	O	104.3	32.4	195.4	250	47.1	15.0	88.7	110	37.1	15.0	74.0	100	23310
CPB-0700-MT		S		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125	23310
CPB-0701-MT	2 - 6GE-34	O		43.2	261.3	350		20.0	118.7	150		20.0	99.1	125	24310
CPB-0702-MT		T		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125	23410
CPB-0800-MT		S		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125	23410
CPB-0801-MT		O		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125	24410

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * 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".

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			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-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	2 - 4DJNF76KE	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	2 - 6DJNF11ME	S	134.5	116.8	157.5	138.9	182.4	162.3	209.0	187.1	237.5	213.2
CPD-0601-LS		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	
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-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	2 - 4DJNF76KE	S	192.6	173.6	214.4	193.7	237.4	214.8	N/A	N/A
CPD-0441-LS*		O	198.3	178.9	221.4	200.0	245.8	222.3	N/A	N/A
CPD-0540-LS*	2 - 6DHNF93KE	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	2 - 6DJNF11ME	S	267.8	240.8	299.9	269.8	333.8	300.2	N/A	N/A
CPD-0601-LS		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 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	65.6	90	20.9	5	53.3	70
CPD-0301-LS		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CPD-0440-LS	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CPD-0441-LS*		O		21.6	169.2	225		7.5	83.8	110		10.0	76.6	100
CPD-0540-LS*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	33.8	7.5	84.7	110
CPD-0541-LS*		O		21.6	206.2	250		10.0	102.3	125		10.0	87.2	110
CPD-0600-LS	2 - 6DJNF11ME	S	95.7	21.6	239.9	300	47.9	10.0	119.2	150	39.3	10.0	99.6	125
CPD-0601-LS		O		32.4	250.7	300		15.0	124.2	150		15.0	104.6	125
CPD-0602-LS		T		21.6	239.9	300		10.0	119.2	150		10.0	99.6	125

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

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

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

CP Parallel Systems

CPD Low Temp R-407A

CPD Performance Data - Low Temperature R-407A - 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
CPD-0301-LQ		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 - 6DHNF93KE	S	91.1	75.3	115.2	96.9	138.7	120.9	163.5	143.4	188.8	168.3
CPD-0541-LQ*		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
CPD-0301-LQ		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
CPD-0441-LQ*		O	186.4	168.2	214.8	194.0	245.8	222.3	N/A	N/A
CPD-0540-LQ*	2 - 6DHNF93KE	S	218.2	197.2	250.1	226.3	284.1	254.5	N/A	N/A
CPD-0541-LQ*		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
CPD-0601-LQ		O	270.9	246.9	311.2	280.7	355.1	323.3	N/A	N/A
CPD-0602-LQ		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 R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CPD-0300-LQ*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5	65.6	90	20.9	5	53.3	70
CPD-0301-LQ		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CPD-0440-LQ	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CPD-0441-LQ*		O		21.6	169.2	225		10.0	83.8	110		10.0	76.6	100
CPD-0540-LQ*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	33.8	7.5	84.7	110
CPD-0541-LQ*		O		21.6	206.2	250		10.0	102.3	125		10.0	87.2	110
CPD-0600-LQ	2 - 6DJNF11ME	S	95.7	21.6	239.9	300	47.9	10.0	119.2	150	39.3	10.0	99.6	125
CPD-0601-LQ		O		32.4	250.7	300		15.0	124.2	150		15.0	104.6	125
CPD-0602-LQ		T		21.6	239.9	300		10.0	119.2	150		10.0	99.6	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 for * 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 "Q" 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	Unit	Compressor	Cond	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
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		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*		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 - 6DHNFF93KE	S		98.2	81.4	120.8	101.8	143.6	125.2	169.1	148.5	197.3	174.0
CPD-0541-LT*		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		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

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	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
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		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*		O		192.4	173.5	221.4	200.0	250.7	229.0	N/A	N/A
CPD-0540-LT*	2 - 6DHNFF93KE	S		225.4	203.7	258.1	231.1	293.0	265.3	N/A	N/A
CPD-0541-LT*		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		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

Electrical Specifications 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		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CPD-0440-LT	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CPD-0441-LT*		O		21.6	169.2	225		10.0	83.8	110		10.0	76.6	100
CPD-0540-LT*	2 - 6DHNFF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	33.8	7.5	84.7	110
CPD-0541-LT*		O		21.6	206.2	250		10.0	102.3	125		10.0	87.2	110
CPD-0600-LT	2 - 6DJNF11ME	S	95.7	21.6	239.9	300	47.9	10.0	119.2	150	39.3	10.0	99.6	125
CPD-0601-LT		O		32.4	250.7	300		15.0	124.2	150		15.0	104.6	125
CPD-0602-LT		T		21.6	239.9	300		10.0	119.2	150		10.0	99.6	125

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

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

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

CP Parallel Systems

CPE Low Temp R-404A

CPE Performance Data - Low Temperature R-404A - 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-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
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 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	93.2	10.8	223.5	300	42.1	5	101.2	125	33.6	5	81.8	110
CPE-0301-LS		O		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110
CPE-0440-LS	2 - 4GE-30	S	110.6	16.2	268.1	350	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CPE-0441-LS*		O		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125
CPE-0540-LS*	2 - 6HE-35	S	129.5	16.2	310.6	400	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CPE-0541-LS*		O		21.6	316.0	400		10.0	143.4	200		10.0	115.6	150
CPE-0600-LS	2 - 6GE-40	S	173.8	21.6	415.7	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CPE-0601-LS		O		32.4	426.5	600		15.0	193.4	250		15.0	157.7	200
CPE-0602-LS		T		21.6	415.7	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 for * 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
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	2 - 4GE-30	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*	2 - 6HE-35	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	2 - 6GE-40	S	101.8	86.8	123.8	106.2	151.0	130.5	180.5	159.0	213.9	189.5
CPE-0601-LQ		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
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	2 - 4GE-30	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*	2 - 6HE-35	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	2 - 6GE-40	S	250.4	223.2	287.7	259.9	331.0	302.4	374.0	337.6
CPE-0601-LQ		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 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	93.2	10.8	223.5	300	42.1	5	101.2	125	33.6	5	81.8	110
CPE-0301-LQ		O		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110
CPE-0440-LQ	2 - 4GE-30	S	110.6	16.2	268.1	350	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CPE-0441-LQ*		O		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125
CPE-0540-LQ*	2 - 6HE-35	S	129.5	16.2	310.6	400	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CPE-0541-LQ*		O		21.6	316.0	400		10.0	143.4	200		10.0	115.6	150
CPE-0600-LQ	2 - 6GE-40	S	173.8	21.6	415.7	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CPE-0601-LQ		O		32.4	426.5	600		15.0	193.4	250		15.0	157.7	200
CPE-0602-LQ		T		21.6	415.7	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

- 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 "Q" 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

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	2 - 4GE-30	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*	2 - 6HE-35	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	2 - 6GE-40	S	104.2	N/A	128.1	108.8	156.2	135.1	186.6	164.3	220.9	195.7
CPE-0601-LT		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	2 - 4GE-30	S	173.0	155.2	200.6	180.6	229.0	208.7	260.4	235.1
CPE-0441-LT*		O	180.0	161.4	209.1	188.3	239.0	218.0	272.0	245.7
CPE-0540-LT*	2 - 6HE-35	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	2 - 6GE-40	S	258.4	232.8	299.8	270.9	341.2	311.7	385.4	347.9
CPE-0601-LT		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 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	93.2	10.8	223.5	300	42.1	5	101.2	125	33.6	5	81.8	110
CPE-0301-LT		O		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110
CPE-0440-LT	2 - 4GE-30	S	110.6	16.2	268.1	350	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CPE-0441-LT*		O		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125
CPE-0540-LT*	2 - 6HE-35	S	129.5	16.2	310.6	400	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CPE-0541-LT*		O		21.6	316.0	400		10.0	143.4	200		10.0	115.6	150
CPE-0600-LT	2 - 6GE-40	S	173.8	21.6	415.7	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CPE-0601-LT		O		32.4	426.5	600		15.0	193.4	250		15.0	157.7	200
CPE-0602-LT		T		21.6	415.7	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 for * 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			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-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
CPB-0301-LS		O	72.3	63.0	87.1	76.8	103.4	91.7	121.1	107.9	140.7	125.9
CPB-0440-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
CPB-0441-LS*		O	83.6	72.6	100.4	88.2	119.0	105.2	139.4	123.8	161.3	144.1
CPB-0540-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
CPB-0541-LS*		O	105.5	92.5	127.6	112.4	151.2	134.4	177.0	157.8	204.8	183.7
CPB-0600-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
CPB-0601-LS		O	126.3	110.4	150.6	132.4	177.8	157.4	208.2	185.6	241.6	216.7
CPB-0602-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			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Unit Capacity (MBH)							
CPB-0300-LS*	2 - 4HE-18	S	151.4	135.8	172.0	155.0	194.4	175.4	218.2	197.4
CPB-0301-LS		O	161.9	145.2	184.6	166.0	208.9	188.7	235.3	212.6
CPB-0440-LS	2 - 4GE-23	S	178.4	160.0	202.6	182.4	229.0	206.6	257.8	232.8
CPB-0441-LS*		O	185.6	166.4	211.2	190.2	239.0	215.8	269.3	243.3
CPB-0540-LS*	2 - 6HE-28	S	226.4	204.0	257.6	232.0	291.2	263.0	327.0	296.0
CPB-0541-LS*		O	235.4	211.8	268.6	242.2	304.4	275.0	342.7	310.0
CPB-0600-LS	2 - 6GE-34	S	266.4	240.0	302.8	273.6	341.2	308.6	381.6	344.5
CPB-0601-LS		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 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	66.7	10.8	163.9	225	30.1	5	74.2	100	24.1	5	60.4	80
CPB-0301-LS		O		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80
CPB-0440-LS	2 - 4GE-23	S	71.1	16.2	179.2	250	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CPB-0441-LS		O		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90
CPB-0540-LS	2 - 6HE-28	S	95.6	16.2	234.3	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CPB-0541-LS		O		21.6	239.7	300		10.0	108.7	150		10.0	89.1	125
CPB-0600-LS	2 - 6GE-34	S	104.3	21.6	259.3	350	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CPB-0601-LS		O		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125
CPB-0602-LS		T		21.6	259.3	350		10.0	117.5	150		10.0	94.7	125

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

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 (or * at the end of the model) – meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

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

CP Parallel Systems

CPB Low Temp R-407A

CPB Performance Data - Low Temperature R-407A - 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)									
CPB-0300-LQ*	2 - 4HE-18	S	N/A	N/A	70.0	N/A	85.9	74.3	102.6	90.4	121.3	107.4
CPB-0301-LQ		O	N/A	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	
Ambient Temperature			95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
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 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	66.7	10.8	163.9	225	30.1	5	74.2	100	24.1	5	60.4	80
CPB-0301-LQ		O		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80
CPB-0440-LQ	2 - 4GE-23	S	71.1	16.2	179.2	250	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CPB-0441-LQ*		O		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90
CPB-0540-LQ*	2 - 6HE-28	S	95.6	16.2	234.3	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CPB-0541-LQ*		O		21.6	239.7	300		10.0	108.7	150		10.0	89.1	125
CPB-0600-LQ	2 - 6GE-34	S	104.3	21.6	259.3	350	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CPB-0601-LQ		O		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125
CPB-0602-LQ		T		21.6	259.3	350		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 for * 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 "Q" 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	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit Capacity (MBH)													
CPB-0300-LT*	2 - 4HE-18	S	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	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	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	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	95°F	105°F	95°F	105°F	95°F	105°F	95°F	105°F
Unit Capacity (MBH)											
CPB-0300-LT*	2 - 4HE-18	S	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	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	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	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 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	66.7	10.8	163.9	225	30.1	5	74.2	100	24.1	5	60.4	80
CPB-0301-LT		O		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80
CPB-0440-LT	2 - 4GE-23	S	71.1	16.2	179.2	250	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CPB-0441-LT*		O		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90
CPB-0540-LT*	2 - 6HE-28	S	95.6	16.2	234.3	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CPB-0541-LT*		O		21.6	239.7	300		10.0	108.7	150		10.0	89.1	125
CPB-0600-LT	2 - 6GE-34	S	104.3	21.6	259.3	350	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CPB-0601-LT		O		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125
CPB-0602-LT		T		21.6	259.3	350		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 "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

CPD MCA / MOPD Calculation

Model CPD-0440LxM

Compressor 1 RLA		22.3
Compressor 2 RLA	+	22.3
Condenser Fans	+	5.4
Control*	+	3.0
25% Compressor RLA	+	5.6
MCA		58.6
Evaporator Fan RLA	+	12.0
Calculated MCA		70.6
Compressor RLA 1	+	22.3
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			
		Liq. OD	Suct. OD	Dia. x Length	(lb)	(lb)	(lb)	(lb)	See pgs. 74 - 76	See pg. 81
10 hp	CP*0100M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1793	CP-11	CP PIPE 1W
	CP*0101M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1857	CP-11	CP PIPE 1W
15 hp	CP*0150M**	7/8	1 5/8	8 5/8 x 48	75	83	80	1884	CP-11	CP PIPE 1W
	CP*0151M**	7/8	1 5/8	8 5/8 x 60	94	103	100	2416	CP-12	CP PIPE 1W
16 hp	CP*0160M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	2423	CP-12	CP PIPE 1W
	CP*0161M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	2485	CP-12	CP PIPE 1W
	CP*0162M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2544	CP-12	CP PIPE 1W
18 hp	CP*0180M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	2578	CP-12	CP PIPE 1W
	CP*0181M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	2774	CP-12	CP PIPE 1W
20 hp	CP*0200M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	2705	CP-12	CP PIPE 1W
	CP*0201M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	3122	CP-13	CP PIPE 1W
	CP*0202M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	2764	CP-12	CP PIPE 1W
24 hp	CP*0240M**	1 3/8	2 1/8	10 3/4 x 48	114	125	121	2770	CP-12	CP PIPE 1W
	CP*0241M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	3124	CP-13	CP PIPE 1W
30 hp	CP*0300M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3160	CP-13	CP PIPE 1W
	CP*0301M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3322	CP-13	CP PIPE 1W
40 hp	CP*0400M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3213	CP-13	CP PIPE 1W
	CP*0401M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	3560	CP-22	CP PIPE 2W
	CP*0402M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3301	CP-13	CP PIPE 1W
50 hp	CP*0500M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	3410	CP-13	CP PIPE 1W
	CP*0501M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	4389	CP-23	CP PIPE 2W
60 hp	CP*0600M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	3833	CP-22	CP PIPE 2W
	CP*0601M**	1 3/8	2 5/8	10 3/4 x 108	263	289	279	4448	CP-23	CP PIPE 2W
70 hp	CP*0700M**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	4397	CP-23	CP PIPE 2W
	CP*0701M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	5412	CP-24	CP PIPE 2W
	CP*0702M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	4999	CP-23	CP PIPE 2W
80 hp	CP*0800M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	5058	CP-23	CP PIPE 2W
	CP*0801M**	1 5/8	3 1/8	10 3/4 x 144	347	382	368	5816	CP-24	CP PIPE 2W
30 hp	CP*0300L**	1 1/8	2 5/8	10 3/4 x 48	114	125	121	2737	CP-12	CP PIPE 1W
	CP*0301L**	1 1/8	2 5/8	10 3/4 x 48	114	125	121	3230	CP-13	CP PIPE 1W
44 hp	CP*0440L**	1 1/8	3 1/8	10 3/4 x 48	114	125	121	3167	CP-13	CP PIPE 1W
	CP*0441L**	1 1/8	3 1/8	10 3/4 x 72	174	191	184	3509	CP-13	CP PIPE 1W
54 hp	CP*0540L**	1 3/8	3 1/8	10 3/4 x 72	174	191	184	3463	CP-13	CP PIPE 1W
	CP*0541L**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	3872	CP-22	CP PIPE 2W
60 hp	CP*0600L**	1 3/8	3 1/8	10 3/4 x 72	174	191	184	3772	CP-22	CP PIPE 2W
	CP*0601L**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	4566	CP-23	CP PIPE 2W
	CP*0602L**	1 3/8	3 1/8	10 3/4 x 96	233	256	247	3890	CP-22	CP PIPE 2W

*-D,E,B

** S(R-404A), Q(R-407A), T(R-448A)

*** Receiver capacity based on 80% full.

Annual Walk-In Energy Factor (AWEF)

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

AWEF EXAMPLE:

Insert refrigerant letter in () to produce model number.

Example: CPD-0100-M() for R404A will be CPD-0100MS with AWEF of 7.6.

CP Parallel Systems

Annual Walk-In Energy Factor (AWEF)

CPD Parallel Series Units - Medium Temperature

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

NOTE:

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

See Tables on pages 28 - 30 for more data.

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

CPD Parallel Series Units - Low Temperature

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

NOTE:

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

See Tables on pages 37 - 39 for more data.

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

AWEF EXAMPLE:

Insert refrigerant letter in () to produce model number.

Example: CPD-0100-M() for R404A will be CPD-0100MS with AWEF of 7.6.

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

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.

NOTE:

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

See Tables on pages 40 - 42 for more data.

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

AWEF EXAMPLE:

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

CP Parallel Systems

Annual Walk-In Energy Factor (AWEF)

CPB Parallel Series Units - Medium Temperature

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

NOTE:

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

See Tables on pages 34 - 36 for more data.

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

CPB Parallel Series Units - Low Temperature

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

NOTE:

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

See Tables on pages 43 - 45 for more data.

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

AWEF EXAMPLE:

Insert refrigerant letter in () to produce model number.

Example: CPB-0100-M() for R404A will be CPB-0100MS with AWEF of 7.6.

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	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	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
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
CDD-0150-MS*	2 - 2DL3R78KE	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
CDD-0151-MS		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
CDD-0160-MS	2 - 2DA3R89KE	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
CDD-0161-MS		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
CDD-0162-MS	2 - 3DA3R10ME	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
CDD-0180-MS		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
CDD-0181-MS*	2 - 3DB3R12ME	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
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
CDD-0201-MS	2 - 3DF3R15ME	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
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
CDD-0240-MS*	2 - 3DS3R17ME	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
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
CDD-0300-MS	2 - 4DBNR20ME	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
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
CDD-0400-MS	2 - 4DHN22ME	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
CDD-0401-MS		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
CDD-0402-MS	2 - 4DJNR28ME	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
CDD-0500-MS*		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
CDD-0501-MS*	2 - 6DHN35ME	O	106.3	96.4	119.1	107.7	133.5	120.6	149.4	134.9	166.6	150.3	184.8	166.8	203.8
CDD-0600-MS*		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
CDD-0601-MS	2 - 6DJNR40ME	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
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
CDD-0701-MS	2 - 6DJNR40ME	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
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
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
CDD-0801-MS*		O	190.0	172.2	212.7	192.8	237.3	210.9	263.9	239.1	292.2	264.7	322.3	291.9	354.2

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	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit	Capacity (MBH) Per Circuit
CDD-0100-MS	2 - 2DC3R53KE	S	49.1	45.2	54.4	50.2	60.1	55.5	N/A
CDD-0101-MS*		O	51.1	47.1	56.8	52.5	62.9	58.3	N/A
CDD-0150-MS*	2 - 2DL3R78KE	S	72.0	66.7	74.6	69.3	82.5	76.7	N/A
CDD-0151-MS		O	74.6	68.4	79.5	73.6	87.3	81.1	N/A
CDD-0160-MS	2 - 2DA3R89KE	S	83.4	77.6	92.1	85.7	101.2	94.1	N/A
CDD-0161-MS		O	85.2	79.4	94.1	87.7	103.6	96.6	N/A
CDD-0162-MS	2 - 3DA3R10ME	T	86.9	80.9	96.0	89.5	105.7	98.5	N/A
CDD-0180-MS		S	98.9	92.3	108.8	101.7	119.3	111.5	N/A
CDD-0181-MS*	2 - 3DB3R12ME	O	102.2	95.5	112.8	105.4	124.0	116.0	N/A
CDD-0200-MS		S	118.5	110.7	130.3	121.6	142.7	133.3	N/A
CDD-0201-MS	2 - 3DF3R15ME	O	122.3	114.5	134.7	126.3	148.1	138.8	N/A
CDD-0202-MS		T	120.9	112.9	132.9	124.0	145.6	136.0	N/A
CDD-0240-MS*	2 - 3DS3R17ME	S	137.8	128.4	151.4	141.2	165.8	154.5	N/A
CDD-0241-MS		O	141.5	132.1	155.9	145.6	171.1	159.7	N/A
CDD-0300-MS	2 - 4DBNR20ME	S	158.6	148.6	174.3	163.2	191.0	178.8	N/A
CDD-0301-MS*		O	160.1	150.0	176.2	164.9	193.3	180.9	N/A
CDD-0400-MS	2 - 4DHN22ME	S	188.5	169.6	205.3	184.7	226.7	202.2	N/A
CDD-0401-MS		O	198.1	176.6	216.5	193.2	235.8	210.3	N/A
CDD-0402-MS	2 - 4DJNR28ME	T	192.3	173.0	209.4	188.4	231.2	206.3	N/A
CDD-0500-MS*		S	205.0	184.5	221.9	199.7	238.7	214.8	N/A
CDD-0501-MS*	2 - 6DHN35ME	O	223.4	201.8	243.5	219.9	263.8	238.3	N/A
CDD-0600-MS*		S	251.4	226.3	273.8	246.4	297.1	267.4	N/A
CDD-0601-MS	2 - 6DJNR40ME	O	263.3	236.8	288.0	258.9	313.8	282.0	N/A
CDD-0700-MS		S	306.1	275.5	332.8	299.5	360.6	324.5	N/A
CDD-0701-MS	2 - 6DJNR40ME	O	335.1	301.9	367.6	330.9	402.1	361.7	N/A
CDD-0702-MS		T	312.2	281.0	339.5	305.5	367.8	331.0	N/A
CDD-0800-MS*	2 - 6DJNR40ME	S	371.6	334.4	403.7	363.3	441.8	399.2	N/A
CDD-0801-MS*		O	387.7	350.7	422.8	382.3	459.5	415.2	N/A

Electrical Specifications R-404A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFD)				575/3/60 (TFE)				Condense LAVF
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CDD-0100-MS	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CDD-0101-MS*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CDD-0150-MS*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CDD-0151-MS		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CDD-0160-MS	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CDD-0161-MS		O		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CDD-0162-MS	2 - 3DA3R10ME	T	41.0	10.8	85.8	110	20.0	5.0	38.2	50	16.4	5.0	36.1	45	12410
CDD-0180-MS		S		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12210
CDD-0181-MS*	2 - 3DB3R12ME	O	43.6	10.8	106.1	125	20.0	5.0	51.5	70	16.5	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 - 3DF3R15ME	O	48.1	16.2	117.3	150	23.6	7.5	54.0	70	-	7.5	45.8	60	13310
CDD-0202-MS		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CDD-0240-MS*	2 - 3DF3R15ME	S	59.6	10.8	122.0	150	29.0	5.0	59.6	80	23.6	5.0	-	-	12410
CDD-0241-MS		O		16.2	127.4	175		7.5	62.1	80		-	7.5	-	-
CDD-0300-MS	2 - 3DS3R17ME	S	72.1	16.2	153.3	200	36.1	7.5	74.3	100	31.4	7.5	61.8	80	13310
CDD-0301-MS*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CDD-0400-MS	2 - 4DBNR20ME	S	82.1	16.2	181.4	250	41.1	7.5	90.2	125	34.4	7.5	79.4	110	13310
CDD-0401-MS		O		21.6	186.8	250		10.0	92.7	125		10.0	81.9	110	22310
CDD-0402-MS	2 - 4DHN22ME	T	105.4	16.2	181.4	250	52.7	7.5	90.2	125	44.1	7.5	79.4	110	13410
CDD-0500-MS*		S		16.2	204.0	250		7.5	101.5	125		7.5	86.0	110	13410
CDD-0501-MS*	2 - 4DJNR28ME	O	125.1	32.4	220.2	300	62.6	15.0	109.0	150	43.1	15.0	93.5	125	23310
CDD-0600-MS*		S		21.6	261.8	350		10.0	130.1	175		10.0	110.5	150	22410
CDD-0601-MS	2 - 6DHN35ME	O	142.9	32.4	272.6	350	71.4	15.0	135.1	175	52.1	15.0	115.5	150	23310
CDD-0700-MS		S		32.4	317.0	400		15.0	157.4	200		15.0	113.1	150	23310
CDD-0701-MS	2 - 6DHN35ME	O	125.1	43.2	327.8	450	62.6	20.0	162.4	225	43.1	20.0	118.1	150	24310
CDD-0702-MS		T		32.4	317.0	400		15.0	157.4	200		15.0	113.1	150	23410
CDD-0800-MS*	2 - 6DJNR40ME	S	142.9	32.4	356.8	450	71.4	15.0	177.2	250	52.1	15.0	133.5	175	23410
CDD-0801-MS*		O		43.2	367.6	500		20.0	182.2	250		20.0	138.5	175	24410

- 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 LAUF 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".

CD Dual Systems

CDD Medium Temp R-407A

CDD 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	105°F	95°F	105°F	95°F	105°F
Unit	Compressor	Cond	Capacity (MBH) Per Circuit													
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	2 - 2DA3R89KE	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		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	2 - 3DA3R10ME	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		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*	2 - 3DB3R12ME	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 - 3DF3R15ME	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 - 3DS3R17ME	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 - 4DBNR20ME	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	2 - 4DHN22ME	S	86.4	82.6	96.5	92.1	106.9	102.0	117.9	112.8	132.8	127.5	148.8	141.8	165.6	157.7
CDD-0401-MQ		O	89.0	85.2	99.5	95.1	110.4	105.4	121.4	116.2	137.2	131.9	153.2	146.2	172.1	163.9
CDD-0402-MQ	2 - 4DJNR28ME	T	88.2	84.4	98.9	94.5	109.9	104.9	120.9	115.8	136.8	131.5	152.8	145.8	171.7	163.5
CDD-0500-MQ*		S	99.8	95.9	110.9	106.4	122.9	117.8	134.9	129.7	151.9	146.5	169.8	162.5	189.1	180.8
CDD-0501-MQ	2 - 6DHN35ME	O	104.2	100.2	117.9	113.5	130.9	125.8	143.9	138.7	161.9	156.5	180.8	173.5	200.9	191.4
CDD-0600-MQ*		S	130.2	126.3	134.5	129.9	147.9	142.5	160.9	155.4	176.9	171.4	196.8	189.3	216.4	206.4
CDD-0601-MQ	2 - 6DJNR40ME	O	139.7	135.6	156.5	151.9	169.9	164.4	182.9	177.4	199.9	194.4	221.9	215.4	242.9	232.4
CDD-0700-MQ		S	143.7	139.1	163.4	158.0	176.7	169.4	206.8	199.1	233.0	225.3	256.1	248.4	283.3	274.3
CDD-0701-MQ	2 - 6DHN3R35ME	O	149.2	143.7	171.0	165.4	191.2	180.0	217.7	206.2	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

- 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".

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
				Capacity (MBH) Per Circuit							
CDD-0100-MQ	2 - 2DC3R53KE		S	50.5	47.4	56.5	52.7	62.5	58.8	N/A	N/A
CDD-0101-MQ*			O	52.6	49.5	59.1	55.2	65.5	61.8	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
CDD-0151-MQ			O	76.8	71.9	82.6	77.3	90.8	86.0	N/A	N/A
CDD-0160-MQ	2 - 2DA3R89KE		S	85.9	81.5	95.8	90.0	105.2	99.8	N/A	N/A
CDD-0161-MQ			O	87.7	83.3	97.9	92.1	107.8	102.4	N/A	N/A
CDD-0162-MQ	2 - 3DA3R10ME		T	89.5	85.0	99.9	93.9	109.9	104.4	N/A	N/A
CDD-0180-MQ			S	101.9	96.9	113.2	106.8	124.1	118.2	N/A	N/A
CDD-0181-MQ*	2 - 3DA3R10ME		O	105.3	100.2	117.3	110.6	129.0	122.9	N/A	N/A
CDD-0200-MQ			S	122.1	116.2	135.5	127.7	148.4	141.3	N/A	N/A
CDD-0201-MQ	2 - 3DB3R12ME		O	126.0	120.3	140.1	132.6	154.0	147.2	N/A	N/A
CDD-0202-MQ			T	124.5	118.5	138.2	130.2	151.4	144.1	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
CDD-0241-MQ			O	145.7	138.7	162.1	152.8	177.9	169.3	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
CDD-0301-MQ*			O	164.9	157.5	183.2	173.2	201.0	191.8	N/A	N/A
CDD-0400-MQ	2 - 4DBNR20ME		S	196.0	176.4	216.5	196.9	242.6	220.4	N/A	N/A
CDD-0401-MQ			O	204.1	183.7	225.2	204.8	252.3	229.3	N/A	N/A
CDD-0402-MQ	2 - 4DBNR20ME		T	199.9	180.0	220.9	200.9	247.4	224.9	N/A	N/A
CDD-0500-MQ*			S	215.3	193.7	237.4	213.7	260.2	234.2	N/A	N/A
CDD-0501-MQ	2 - 4DHN22ME		O	232.3	213.9	258.1	235.3	284.9	262.1	N/A	N/A
CDD-0600-MQ*			S	258.9	233.0	282.0	253.8	312.0	280.8	N/A	N/A
CDD-0601-MQ	2 - 4DJNR28ME		O	271.2	246.3	296.6	271.8	326.4	296.1	N/A	N/A
CDD-0700-MQ			S	309.2	278.2	336.1	302.5	364.2	327.8	N/A	N/A
CDD-0701-MQ	2 - 6DHN35ME		O	335.1	307.9	367.6	337.5	402.1	368.9	N/A	N/A
CDD-0702-MQ			T	315.3	283.8	342.9	308.6	371.5	334.3	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
CDD-0801-MQ*			O	395.5	364.7	435.5	401.4	473.3	440.1	N/A	N/A

Electrical Specifications 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	
CDD-0100-MQ	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CDD-0101-MQ*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CDD-0150-MQ*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CDD-0151-MQ		S		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CDD-0160-MQ	2 - 2DA3R89KE	S	32.0	10.8	85.8	110	14.1	5.0	38.2	50	13.3	5.0	36.1	45	12210
CDD-0161-MQ		S		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12310
CDD-0162-MQ	2 - 3DA3R10ME	T	41.0	10.8	85.8	110	20.0	5.0	38.2	50	16.4	5.0	36.1	45	12410
CDD-0180-MQ		O		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12210
CDD-0181-MQ*	2 - 3DB3R12ME	O	43.6	10.8	106.1	125	20.0	5.0	51.5	70	16.5	5.0	43.1	60	12410
CDD-0200-MQ		S		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12310
CDD-0201-MQ	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
CDD-0202-MQ		S		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CDD-0240-MQ*	2 - 3DF3R15ME	O	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CDD-0241-MQ		S		16.2	127.4	175		5.0	62.1	80	-	7.5	-	-	13310
CDD-0300-MQ	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CDD-0301-MQ*		S		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CDD-0400-MQ	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CDD-0401-MQ		T		16.2	186	250		10.0	92.7	125		10.0	81.9	110	22310
CDD-0402-MQ	2 - 4DBNR20ME	S	72.1	16.2	181.4	250	36.1	7.5	90.2	125	31.4	7.5	79.4	110	13310
CDD-0500-MQ*		T		16.2	204.0	250		7.5	101.5	125		7.5	86.0	110	13410
CDD-0501-MQ	2 - 4DHNRR22ME	S	82.1	32.4	220.2	300	41.1	15.0	109.0	150	34.4	15.0	93.5	125	23310
CDD-0600-MQ*		O		21.6	261.8	350		10.0	130.1	175		10.0	110.5	150	22310
CDD-0601-MQ	2 - 4DJNRR28ME	O	105.4	32.4	272.2	350	52.7	15.0	135.1	175	44.1	15.0	115.5	150	23310
CDD-0700-MQ		S		32.4	317.0	400		15.0	157.4	200		15.0	113.1	150	23310
CDD-0701-MQ	2 - 6DHNRR35ME	O	125.1	43.2	327.8	450	62.6	20.0	162.4	225	43.1	20.0	118.1	150	24310
CDD-0702-MQ		T		32.4	317.0	400		15.0	157.4	200		15.0	113.1	150	23410
CDD-0800-MQ*	2 - 6DJNRR40ME	S	142.9	32.4	356.8	500	71.4	15.0	177.2	250	52.1	15.0	133.5	175	23410
CDD-0801-MQ*		O		43.2	367.6	500		20.0	182.2	250		20.0	138.5	175	24410

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	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
	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	36.1	34.0	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	2 - 2DA3R89KE	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	2 - 3DA3R10ME	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	66.4	62.8	74.8	71.0	84.1	79.1	93.1	87.7
	CDD-0181-MT*	2 - 3DA3R10ME	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	2 - 3DB3R12ME	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*	2 - 3DF3R15ME	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	94.3	89.6	106.5	101.2	119.9	112.9	133.1	122.2
	CDD-0300-MT	2 - 3DS3R17ME	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	2 - 4DBNR20ME	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	138.1	168.2	151.2	185.7	168.7
	CDD-0402-MT	2 - 4DBNR20ME	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*	2 - 4DHN22ME	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*	2 - 4DJNR28ME	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	122.1	112.0	142.1	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	2 - 6DHN35ME	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		S	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	2 - 6DJNR40ME	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*	2 - 6DJNR40ME	O	184.3	170.5	208.4	194.7	237.3	219.4	266.5	248.7	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				
	CDD-0100-MT	2 - 2DC3R53KE	S	51.5	48.3	57.1	53.7	63.1	59.4	N/A
	CDD-0101-MT*		O	53.7	50.4	59.7	56.2	66.1	62.4	N/A
	CDD-0150-MT*	2 - 2DL3R78KE	S	75.6	71.4	78.3	74.1	86.6	82.1	N/A
	CDD-0151-MT		O	78.3	73.2	83.4	78.8	91.7	86.8	N/A
	CDD-0160-MT	2 - 2DA3R89KE	S	87.6	83.1	96.7	91.7	106.2	100.7	N/A
	CDD-0161-MT		O	89.4	84.9	98.9	93.9	108.8	103.4	N/A
	CDD-0162-MT	2 - 3DA3R10ME	T	91.2	86.6	100.8	95.7	111.0	105.4	N/A
	CDD-0180-MT		S	103.9	98.8	114.3	108.8	125.3	119.3	N/A
	CDD-0181-MT*	2 - 3DB3R12ME	O	107.3	102.2	118.5	112.7	130.2	124.1	N/A
	CDD-0200-MT		S	124.5	118.4	136.8	130.1	149.8	142.6	N/A
	CDD-0201-MT	2 - 3DF3R15ME	O	128.4	122.6	141.5	135.1	155.5	148.5	N/A
	CDD-0202-MT		T	126.9	120.8	139.5	132.7	152.8	145.5	N/A
	CDD-0240-MT*	2 - 3DF3R15ME	S	144.7	137.4	158.9	151.0	174.0	165.3	N/A
	CDD-0241-MT		O	148.5	141.3	163.6	155.7	179.6	170.9	N/A
	CDD-0300-MT	2 - 3DS3R17ME	S	166.5	159.0	183.0	174.6	200.6	191.3	N/A
	CDD-0301-MT*		O	168.1	160.5	185.0	176.5	203.0	193.6	N/A
	CDD-0400-MT	2 - 4DBNR20ME	S	199.8	179.8	220.7	200.6	244.8	222.5	N/A
	CDD-0401-MT		O	208.1	187.2	229.5	208.7	254.6	231.4	N/A
	CDD-0402-MT	2 - 4DHN22ME	T	203.8	183.4	225.1	204.6	249.7	226.9	N/A
	CDD-0500-MT*		S	219.4	197.4	239.7	215.7	262.6	236.3	N/A
	CDD-0501-MT	2 - 4DHN22ME	O	236.8	217.9	263.0	239.7	287.5	266.9	N/A
	CDD-0600-MT*		S	264.0	237.6	290.2	261.2	314.9	283.4	N/A
	CDD-0601-MT	2 - 4DJNR28ME	O	276.5	251.0	302.4	274.4	329.5	298.9	N/A
	CDD-0700-MT		S	315.3	283.8	342.8	308.5	367.8	331.0	N/A
	CDD-0701-MT	2 - 6DHN3R5ME	O	341.8	314.0	371.3	344.1	406.1	376.2	N/A
	CDD-0702-MT		T	321.6	289.4	349.6	314.7	375.2	337.7	N/A
	CDD-0800-MT*	2 - 6DJNR40ME	S	393.9	354.5	427.9	385.1	459.5	427.2	N/A
	CDD-0801-MT*		O	403.2	375.2	443.9	409.1	477.9	444.3	N/A

Electrical Specifications R-448A

Voltage			208-230/3/60 (TFC)				460/3/60 (TFC)				575/3/60 (TFC)				Condense LAVF
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CDD-0100-MT	2 - 2DC3R53KE	S	22.3	5.4	58.6	80	10.4	2.5	27.4	35	7.7	2.5	21.0	25	11210
CDD-0101-MT*		O		5.4	58.6	80		2.5	27.4	35		2.5	21.0	25	11410
CDD-0150-MT*	2 - 2DL3R78KE	S	31.6	5.4	79.5	110	13.9	2.5	35.3	45	13.2	2.5	33.4	45	11410
CDD-0151-MT		O		10.8	84.9	110		5.0	37.8	50		5.0	35.9	45	12210
CDD-0160-MT	2 - 2DA3R89KE	S		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12210
CDD-0161-MT		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-MT	2 - 3DA3R10ME	T		10.8	85.8	110		5.0	38.2	50		5.0	36.1	45	12410
CDD-0180-MT		S		10.8	106.1	125		5.0	51.5	70		5.0	43.1	60	12210
CDD-0181-MT*	2 - 3DB3R12ME	O	41.0	10.8	106.1	125	20.0	5.0	51.5	70	16.4	5.0	43.1	60	12410
CDD-0200-MT		S		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12310
CDD-0201-MT	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
CDD-0202-MT		T		10.8	111.9	150		5.0	51.5	70		5.0	43.3	60	12410
CDD-0240-MT*	2 - 3DF3R15ME	S	48.1	10.8	122.0	150	23.6	5.0	59.6	80	-	5.0	-	-	12410
CDD-0241-MT		O		16.2	127.4	175		7.5	62.1	80	-	7.5	-	-	13310
CDD-0300-MT	2 - 3DS3R17ME	S	59.6	16.2	153.3	200	29.0	7.5	74.3	100	23.6	7.5	61.8	80	13310
CDD-0301-MT*		O		16.2	153.3	200		7.5	74.3	100		7.5	61.8	80	13410
CDD-0400-MT	2 - 4DBNR20ME	S		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13310
CDD-0401-MT		O	72.1	21.6	186.8	250	36.1	10.0	92.7	125	31.4	10.0	81.9	110	22310
CDD-0402-MT	2 - 4DHN22ME	T		16.2	181.4	250		7.5	90.2	125		7.5	79.4	110	13410
CDD-0500-MT*		S	82.1	16.2	204.0	250	41.1	7.5	101.5	125	34.4	7.5	86.0	110	13410
CDD-0501-MT*	2 - 4DHN22ME	O		32.4	220.2	300		15.0	109.0	150		15.0	93.5	125	23310
CDD-0600-MT*		S		21.6	261.8	350		10.0	130.1	175		10.0	110.5	150	22410
CDD-0601-MT	2 - 4DJNR28ME	O	105.4	32.4	272.6	350	52.7	10.0	135.1	175	44.1	10.0	115.5	150	23310
CDD-0700-MT		S		32.4	317.0	400		15.0	157.4	200		15.0	113.1	150	23310
CDD-0701-MT	2 - 6DHN35ME	O	125.1	43.2	327.8	450	62.6	25.0	167.8	225	43.1	25.0	118.1	150	24210
CDD-0702-MT		T		32.4	317.0	400		15.0	157.4	200		15.0	113.1	150	23310
CDD-0800-MT*	2 - 6DJNR40ME	S		32.4	356.8	500		15.0	177.2	250		15.0	133.5	175	23410
CDD-0801-MT*		O	142.9	43.2	367.6	500	71.4	20.0	182.2	250	52.1	20.0	138.5	175	24410

CD Dual Systems

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			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													
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*	2 - 4EES-6	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	2 - 4DES-7	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-0161-MS		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
CDE-0162-MS	2 - 4CES-9	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-0180-MS		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
CDE-0181-MS*	2 - 4TES-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
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	108.9	99.1
CDE-0201-MS	2 - 4TES-12	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*	2 - 4PES-15	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	2 - 4NES-20	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	2 - 4JE-22	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	2 - 4HE-25	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	2 - 4GE-30	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	2 - 4GE-30	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	298.7	271.3
CDE-0701-MS	2 - 6HE-35	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	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
CDE-0800-MS*	2 - 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	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

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".

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
Unit	Compressor	Cond	Capacity (MBH) Per Circuit									
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*	2 - 4EES-6	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	2 - 4DES-7	S	76.6	70.7	84.6	78.1	93.1	86.2	102.3	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	2 - 4CES-9	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*	2 - 4TES-12	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	2 - 4TES-12	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	123.5	115.5	131.8	122.7	144.3	134.3	160.6	149.7	N/A	N/A
CDE-0240-MS*	2 - 4PES-15	S	140.9	131.1	154.5	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	2 - 4NES-20	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	2 - 4JE-22	S	185.5	167.0	202.4	182.2	220.1	198.1	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	2 - 4HE-25	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	2 - 4GE-30	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	2 - 4GE-30	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	2 - 6HE-35	O	343.4	312.5	375.2	342.1	410.8	373.6	447.4	406.8	N/A	N/A
CDE-0702-MS		T	334.3	300.8	369.0	329.4	398.5	358.7	438.8	399.0	N/A	N/A
CDE-0800-MS*	2 - 6GE-40	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

Electrical Specifications 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	
CDE-0100-MS	2 - 4FES-5	S	29.9	5.4	75.7	100	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CDE-0101-MS*		O		5.4	75.7	100		2.5	36.9	50		2.5	25.5	35	11410
CDE-0150-MS*	2 - 4EES-6	S	34.6	5.4	86.3	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CDE-0151-MS		O		10.8	91.7	125		5.0	40.0	50		5.0	29.8	40	12210
CDE-0160-MS	2 - 4DES-7	S	38.1	10.8	99.5	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12210
CDE-0161-MS		O		10.8	99.5	125		5.0	44.8	60		5.0	33.9	45	12310
CDE-0162-MS	2 - 4CES-9	T	42.1	10.8	99.5	125	19.0	5.0	44.8	60	15.2	5.0	33.9	45	12410
CDE-0180-MS		S		10.8	108.5	150		5.0	49.3	60		5.0	40.4	50	12210
CDE-0181-MS*	2 - 4CES-9	O	42.1	10.8	108.5	150	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12410
CDE-0200-MS		S		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12310
CDE-0201-MS	2 - 4TES-12	O	52.1	16.2	136.4	175	23.6	7.5	62.1	80	18.9	7.5	51.2	70	13310
CDE-0202-MS		T		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CDE-0240-MS*	2 - 4PES-15	S	60.0	10.8	148.8	200	27.1	5.0	67.5	90	21.8	5.0	55.3	70	12410
CDE-0241-MS		O		16.2	154.2	200		7.5	70.0	90		7.5	67.9	90	13310
CDE-0300-MS	2 - 4NES-20	S	71.1	16.2	179.2	250	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13310
CDE-0301-MS*		O		16.2	179.2	250		7.5	81.2	110		7.5	67.9	90	13410
CDE-0400-MS	2 - 4JEE-22	S	75.8	16.2	189.8	250	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13310
CDE-0401-MS		O		21.6	195.2	250		10.0	88.7	125		10.0	72.2	100	12310
CDE-0402-MS	2 - 4JEE-22	T	75.8	16.2	189.8	250	34.3	7.5	86.2	110	27.1	7.5	69.7	90	13410
CDE-0500-MS*		S		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110	13410
CDE-0501-MS	2 - 4HE-25	O	93.2	32.4	245.1	300	42.1	15.0	111.2	150	33.6	15.0	91.8	125	23310
CDE-0600-MS*		S		21.6	273.5	350		10.0	120.0	175		10.0	101.2	125	22410
CDE-0601-MS	2 - 4GE-30	O	110.6	32.4	284.3	350	50.0	15.0	129.0	175	40.0	15.0	106.2	125	23310
CDE-0700-MS		S		32.4	326.8	450		15.0	148.4	200		15.0	126.6	150	23310
CDE-0701-MS	2 - 6HE-35	O	129.5	32.4	337.6	450	58.6	20.0	163.8	250	46.4	20.0	126.6	150	23410
CDE-0702-MS		T		32.4	426.8	450		15.0	148.4	200		15.0	126.6	150	23410
CDE-0800-MS	2 - 6GE-40	S	173.8	32.4	426.5	600	78.6	15.0	193.4	250	62.9	15.0	157.7	200	23410
CDE-0801-MS*		O		43.2	437.3	600		20.0	198.4	250		20.0	162.7	225	24410

CD Dual Systems

CDE Medium Temp R-407A

CDE Performance Data - Medium Temperature R-407A - 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													
CDE-0100-MQ	2 - 4FES-5	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
CDE-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
CDE-0150-MQ*		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
CDE-0151-MQ	2 - 4EES-6	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
CDE-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
CDE-0161-MQ		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
CDE-0162-MQ	2 - 4DES-7	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
CDE-0180-MQ		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
CDE-0181-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
CDE-0200-MQ	2 - 4TES-12	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
CDE-0201-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
CDE-0202-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
CDE-0240-MQ*	2 - 4PES-15	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
CDE-0241-MQ		O	66.6	62.2	75.1	70.1	84.4	78.8	94.4	88.1	107.2	101.2	120.6	112.9	134.4	126.0
CDE-0300-MQ		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
CDE-0301-MQ*	2 - 4NES-20	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
CDE-0400-MQ		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
CDE-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
CDE-0402-MQ	2 - 4JE-22	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
CDE-0500-MQ*		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
CDE-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
CDE-0600-MQ*	2 - 4GE-30	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
CDE-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
CDE-0700-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	304.7	279.4
CDE-0701-MQ	2 - 6HE-35	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
CDE-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
CDE-0800-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	351.6	322.3
CDE-0801-MQ*	2 - 6GE-40	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	105°F	95°F	105°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	57.6	69.4	65.6	N/A	N/A
CDE-0101-MQ*		O	53.2	50.0	59.4	55.4	65.6	61.8	72.1	68.2	79.8	75.0
CDE-0150-MQ*		S	75.2	70.7	83.7	78.1	91.9	86.7	102.3	96.7	N/A	N/A
CDE-0151-MQ	2 - 4EES-6	O	78.9	74.2	87.9	82.0	96.9	91.4	106.4	100.6	117.6	110.4
CDE-0160-MQ		S	78.9	74.2	87.9	82.0	96.9	91.4	105.4	100.1	N/A	N/A
CDE-0161-MQ		O	81.0	76.5	90.4	84.7	99.6	94.5	109.6	104.1	121.6	114.3
CDE-0162-MQ	2 - 4DES-7	T	82.6	78.0	92.2	86.4	101.6	96.4	111.8	106.2	124.0	116.6
CDE-0180-MQ		S	100.4	94.8	111.4	104.2	122.0	115.4	135.4	128.1	N/A	N/A
CDE-0181-MQ*		O	105.4	99.5	117.0	109.5	128.5	121.4	140.8	133.2	155.5	146.1
CDE-0200-MQ	2 - 4TES-12	S	121.3	114.8	134.4	126.3	147.1	139.6	163.7	155.5	N/A	N/A
CDE-0201-MQ		O	127.3	120.7	141.4	133.1	155.3	147.7	170.3	161.7	188.2	176.7
CDE-0202-MQ		T	123.8	117.1	137.1	128.8	150.1	142.4	167.0	158.6	184.4	173.1
CDE-0240-MQ*	2 - 4PES-15	S	145.1	137.6	160.7	151.2	176.0	167.3	192.1	182.5	N/A	N/A
CDE-0241-MQ		O	149.5	141.7	166.0	156.0	182.2	173.1	199.7	189.8	220.5	207.4
CDE-0300-MQ		S	170.2	161.3	188.8	177.4	207.0	196.3	223.0	211.2	N/A	N/A
CDE-0301-MQ*	2 - 4NES-20	O	173.5	164.2	192.7	180.8	211.6	200.5	231.9	219.7	255.8	240.1
CDE-0400-MQ		S	191.1	172.0	210.5	189.4	228.9	206.0	253.2	234.4	N/A	N/A
CDE-0401-MQ		O	200.7	186.0	221.8	203.7	242.1	224.1	263.3	243.8	290.6	275.2
CDE-0402-MQ	2 - 4JE-22	T	194.9	175.4	214.7	193.2	233.5	210.1	258.3	239.1	284.8	269.7
CDE-0500-MQ*		S	220.7	198.7	242.8	218.6	264.0	237.6	302.0	280.1	N/A	N/A
CDE-0501-MQ*		O	238.3	220.6	263.5	242.1	288.0	267.3	314.1	291.3	335.8	319.9
CDE-0600-MQ*	2 - 4GE-30	S	261.9	235.7	288.4	259.6	313.7	282.3	340.8	315.7	379.8	N/A
CDE-0601-MQ*		O	270.0	250.2	298.6	274.2	325.8	302.0	354.4	328.3	389.8	371.5
CDE-0700-MQ		S	303.6	303.6	373.2	335.9	408.3	365.7	447.4	414.6	496.8	N/A
CDE-0701-MQ	2 - 6HE-35	O	353.7	328.1	391.2	359.2	427.2	398.0	465.3	431.2	504.8	480.9
CDE-0702-MQ		T	344.3	309.9	380.6	342.6	414.5	373.0	456.3	422.9	499.7	471.3
CDE-0800-MQ*		S	389.6	350.7	429.4	386.5	467.0	420.3	513.5	475.1	568.3	N/A
CDE-0801-MQ*	2 - 6GE-40	O	407.5	377.6	450.2	413.1	491.2	454.7	534.0	494.1	588.6	560.6

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

Electrical Specifications R-407A

Voltage			208-230/3/60				460/3/60				575/3/60				Condense LAVF
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	
CDE-0100-MQ	2 - 4FES-5	S	29.9	5.4	75.7	100	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CDE-0101-MQ*		O		5.4	75.7	100		2.5	36.9	50		2.5	25.5	35	11410
CDE-0150-MQ*		S		5.4	86.3	110		2.5	37.5	50		2.5	27.3	35	11410
CDE-0151-MQ	2 - 4EES-6	O	34.6	10.8	91.7	125	14.9	5.0	40.0	50	10.5	5.0	29.8	40	12210
CDE-0160-MQ		S		10.8	99.5	125		5.0	44.8	60		5.0	33.9	45	12210
CDE-0161-MQ		O		10.8	99.5	125		5.0	44.8	60		5.0	33.9	45	12310
CDE-0162-MQ	2 - 4DES-7	T	38.1	10.8	99.5	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12410
CDE-0180-MQ		S		10.8	108.5	150		5.0	49.3	60		5.0	40.4	50	12210
CDE-0181-MQ*		O		10.8	108.5	150		5.0	49.3	60		5.0	40.4	50	12410
CDE-0200-MQ	2 - 4CES-9	S	42.1	10.8	131.0	175	19.0	5.0	59.6	80	15.2	5.0	48.7	60	12310
CDE-0201-MQ		O		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CDE-0202-MQ		T		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CDE-0240-MQ*	2 - 4TES-12	O	52.1	16.2	136.4	175	23.6	7.5	62.1	80	18.9	7.5	51.2	70	13310
CDE-0241-MQ		T		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CDE-0242-MQ		S		10.8	148.8	200		5.0	67.5	90		5.0	55.3	70	12410
CDE-0243-MQ	2 - 4PES-15	O	60.0	16.2	154.2	200	27.1	7.5	70.0	90	21.8	7.5	57.8	80	13310
CDE-0300-MQ		S		16.2	179.2	250		7.5	81.2	110		7.5	67.9	90	13310
CDE-0301-MQ*		O		16.2	179.2	250		7.5	81.2	110		7.5	67.9	90	13410
CDE-0400-MQ	2 - 4NES-20	S	71.1	16.2	189.8	250	32.1	7.5	86.2	110	26.3	7.5	69.7	90	13310
CDE-0401-MQ		T		16.2	189.8	250		7.5	86.2	110		7.5	69.7	90	13310
CDE-0402-MQ		S		16.2	189.8	250		7.5	86.2	110		7.5	69.7	90	13310
CDE-0500-MQ*	2 - 4JE-22	O	75.8	21.6	195.2	250	34.3	10.0	88.7	125	27.1	10.0	72.2	100	12210
CDE-0501-MQ		T		16.2	189.8	250		7.5	86.2	110		7.5	69.7	90	12310
CDE-0502-MQ		S		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110	13410
CDE-0550-MQ*	2 - 4HE-25	O	93.2	32.4	245.1	300	42.1	15.0	111.2	150	33.6	15.0	91.8	125	23310
CDE-0600-MQ*		S		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125	22410
CDE-0601-MQ		O		32.4	284.3	350		15.0	129.0	175		15.0	106.2	125	23310
CDE-0700-MQ	2 - 4GE-30	S	110.6	32.4	328.6	450	50.0	15.0	148.4	200	40.0	15.0	126.6	150	24310
CDE-0701-MQ		O		43.2	337.8	450		20.0	163.4	200		20.0	126.6	150	24310
CDE-0702-MQ		T		32.4	328.6	450		15.0	148.4	200		15.0	126.6	150	23410
CDE-0800-MQ*	2 - 6HE-35	S	129.5	32.4	426.8	600	58.6	15.0	193.4	250	46.4	15.0	157.7	200	23410
CDE-0801-MQ*		O		43.2	437.3	600		20.0	198.4	250		20.0	167.7	225	24410
CDE-0802-MQ*		T		32.4	426.8	600		15.0	193.4	250		15.0	157.7	200	23410

CD Dual Systems

CDE Medium Temp R-448A

CDE 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			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													
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		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	2 - 4DES-7	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*		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
CDE-0200-MT	2 - 4CES-9	S	58.2	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		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*	2 - 4PES-15	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	132.4	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		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	2 - 4JE-22	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		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*	2 - 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	241.2	220.5
CDE-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
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

- 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".

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
Unit	Compressor	Cond	Capacity (MBH) Per Circuit									
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
CDE-0101-MT*		O	54.2	51.0	60.0	56.4	66.2	62.4	72.8	68.9	79.0	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
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	107.4	101.5	N/A	N/A
CDE-0161-MT		O	82.6	77.9	91.2	86.3	100.6	95.4	110.6	105.1	120.4	114.3
CDE-0162-MT	2 - 4DES-7	T	84.2	79.5	93.1	88.1	102.6	97.3	112.8	107.2	122.8	116.6
CDE-0180-MT		S	102.4	96.6	112.5	106.2	123.2	116.5	136.7	129.3	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	2 - 4TES-12	S	123.7	117.0	135.7	128.7	148.5	140.9	165.3	157.0	N/A	N/A
CDE-0201-MT		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	128.2	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
CDE-0241-MT		O	152.4	144.4	167.6	159.0	184.0	174.7	201.7	191.5	215.4	207.4
CDE-0300-MT		S	175.5	164.4	190.6	180.7	209.0	198.2	225.1	213.2	N/A	N/A
CDE-0301-MT*	2 - 4NES-20	O	176.8	167.3	194.6	184.2	213.7	202.5	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
CDE-0401-MT		O	204.6	189.5	224.0	207.6	244.4	226.2	265.9	246.1	287.8	275.2
CDE-0402-MT	2 - 4JE-22	T	198.7	178.8	216.8	195.1	235.7	212.2	260.7	241.4	282.0	269.7
CDE-0500-MT*		S	225.0	202.5	245.2	220.7	266.5	239.8	304.9	282.7	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	331.4	386.1	371.5
CDE-0700-MT		S	344.1	309.7	376.7	339.1	410.2	369.2	451.7	418.5	491.0	N/A
CDE-0701-MT	2 - 6HE-35	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*		S	397.2	357.5	433.5	390.2	471.5	424.3	518.4	479.5	562.9	N/A
CDE-0801-MT*	2 - 6GE-40	O	415.4	384.8	454.5	420.9	495.9	459.0	539.2	498.7	583.0	560.6

Electrical Specifications 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	
CDE-0100-MT	2 - 4FES-5	S	29.9	5.4	75.7	100	14.6	2.5	36.9	50	9.7	2.5	25.5	35	11210
CDE-0101-MT*		O		5.4	75.7	100		2.5	36.9	50		2.5	25.5	35	11410
CDE-0150-MT*		S	34.6	5.4	86.3	110	14.9	2.5	37.5	50	10.5	2.5	27.3	35	11410
CDE-0151-MT	2 - 4EES-6	O		10.8	91.7	125		5.0	40.0	50	5.0	5.0	29.8	40	12210
CDE-0160-MT		S		10.8	99.5	125		5.0	44.8	60	5.0	5.0	33.9	45	12210
CDE-0161-MT		O	38.1	10.8	99.5	125	17.0	5.0	44.8	60	12.3	5.0	33.9	45	12310
CDE-0162-MT	2 - 4DES-7	T		10.8	99.5	125		5.0	44.8	60		5.0	33.9	45	12410
CDE-0180-MT		S		10.8	108.5	150		5.0	49.3	60		5.0	40.4	50	12210
CDE-0181-MT*		O	42.1	10.8	108.5	150	19.0	5.0	49.3	60	15.2	5.0	40.4	50	12410
CDE-0200-MT	2 - 4CES-9	S		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12310
CDE-0201-MT		O	52.1	16.2	136.4	175	23.6	7.5	62.1	80	18.9	7.5	51.2	70	13310
CDE-0202-MT		T		10.8	131.0	175		5.0	59.6	80		5.0	48.7	60	12410
CDE-0240-MT*	2 - 4PES-15	S		10.8	148.8	200		5.0	67.5	90	21.8	5.0	55.3	70	12410
CDE-0241-MT		O	60.0	16.2	154.2	200	27.1	7.5	70.0	90	21.8	7.5	57.8	80	13310
CDE-0300-MT		S		16.2	179.2	250		7.5	81.2	110		7.5	67.9	90	13310
CDE-0301-MT*	2 - 4NES-20	O	71.1	16.2	179.2	250	32.1	7.5	81.2	110	26.3	7.5	67.9	90	13410
CDE-0400-MT		S		16.2	189.8	250		7.5	86.2	110		7.5	69.7	90	13310
CDE-0401-MT	2 - 4JE-22	O	75.8	21.6	195.2	250	34.3	10.0	88.7	125	27.1	10.0	72.2	100	22310
CDE-0402-MT		T		16.2	189.8	250		7.5	86.2	110		7.5	69.7	90	13410
CDE-0500-MT	2 - 4HE-25	S		16.2	228.9	300		7.5	103.7	125	33.6	7.5	84.3	110	13410
CDE-0501-MT		O	93.2	32.4	245.1	300	42.1	15.0	111.2	150	33.6	15.0	91.8	125	23310
CDE-0600-MT*		S		21.6	273.5	350	50.0	10.0	124.0	175	40.0	10.0	101.2	125	22410
CDE-0601-MT	2 - 4GE-30	O	110.6	32.4	284.3	350		15.0	129.0	175	40.0	15.0	106.2	125	23310
CDE-0700-MT		S		32.4	328.8	450		15.0	148.4	200		15.0	120.6	150	23810
CDE-0701-MT	2 - 6HE-35	O	129.5	32.4	337.6	450	58.6	20.0	153.0	200	46.4	20.0	125.0	150	24310
CDE-0702-MT		T		32.4	328.8	450		15.0	148.4	200		15.0	120.6	150	23410
CDE-0800-MT*	2 - 6GE-40	S		32.4	426.5	600		15.0	193.4	250	62.9	15.0	157.7	200	23410
CDE-0801-MT*		O	173.8	43.2	437.3	600	78.6	20.0	198.4	250	62.9	20.0	162.7	225	24410

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			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) Per Circuit															
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
CDB-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	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
CDB-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	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
CDB-0161-MS		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 - 4CES-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
CDB-0180-MS		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 - 4TES-9	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
CDB-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	117.8	109.3
CDB-0201-MS	2 - 4PES-12	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
CDB-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	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	119.0	140.9	131.1
CDB-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	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
CDB-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	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
CDB-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	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
CDB-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	214.3	192.9
CDB-0501-MS	2 - 6HE-28	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
CDB-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	254.3	228.9
CDB-0601-MS	2 - 6GE-34	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
CDB-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	298.7	271.3	327.7	294.9
CDB-0701-MS	2 - 6GE-34	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
CDB-0702-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
CDB-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	378.3	340.5
CDB-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	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 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	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CDB-0101-MS*		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25	11410
CDB-0150-MS*	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CDB-0151-MS		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30	12210
CDB-0160-MS	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CDB-0161-MS		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35	12310
CDB-0162-MS	2 - 4CES-6	T		10.8	71.0	90		5.0	33.5	45		5.0	28.7	35	12410
CDB-0180-MS		S	30.8	10.8	83.1	110	15.8	5.0	42.1	50	12.5	5.0	34.3	45	12210
CDB-0181-MS*		O		10.8	83.1	125		5.0	42.1	50		5.0	34.3	45	12410
CDB-0200-MS	2 - 4TES-9	S	34.8	10.8	92.1	125	15.7	5.0	41.8	50	13.6	5.0	36.8	50	12310
CDB-0201-MS		O		16.2	97.5	125		7.5	44.3	60		7.5	39.3	50	13310
CDB-0202-MS	2 - 4PES-12	T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12410
CDB-0240-MS*		S	42.7	10.8	109.9	150	19.3	5.0	49.9	60	16.0	5.0	42.2	50	12410
CDB-0241-MS		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60	13310
CDB-0300-MS	2 - 4NES-14	S	49.0	16.2	129.5	175	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13310
CDB-0301-MS*		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MS	2 - 4JE-15	S	61.6	16.2	157.8	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80	13310
CDB-0401-MS		O		21.6	163.2	225		10.0	74.3	100		10.0	61.4	80	22310
CDB-0402-MS	2 - 4HE-18	T		16.2	157.8	200		7.5	71.8	100		7.5	58.9	80	13410
CDB-0500-MS*		S	66.7	16.2	169.3	225	30.1	7.5	76.7	100	24.1	7.5	62.9	80	13410
CDB-0501-MS		O		32.4	185.5	250		15.0	84.2	110		15.0	70.4	90	23310
CDB-0600-MS*	2 - 4GE-23	S	71.1	21.6	184.6	250	32.1	10.0	83.7	110	25.7	10.0	69.0	90	22410
CDB-0601-MS		O		32.4	195.4	250		15.0	88.7	110		15.0	74.0	100	23310
CDB-0700-MS	2 - 6HE-28	S	95.6	32.4	250.5	300	43.2	15.0	113.7	150	34.6	15.0	94.1	125	23310
CDB-0701-MS		O		43.2	261.3	350		20.0	118.7	150		20.0	99.1	125	24310
CDB-0702-MS	2 - 6GE-34	T		32.4	250.5	300		15.0	113.7	150		15.0	94.1	125	23410
CDB-0800-MS*		S	104.3	32.4	270.1	350	47.1	15.0	122.5	150	37.1	15.0	99.7	125	23410
CDB-0801-MS*		O		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125	24410

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * 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".

CD Dual Systems

CDB Medium Temp R-407A

CDB 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	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																
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	2 - 4DES-5	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		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	2 - 4CES-6	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		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-0181-MQ*	2 - 4TES-9	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-0200-MQ		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-0201-MQ	2 - 4PES-12	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-0202-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-0240-MQ*	2 - 4NES-14	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	107.2	101.2	120.6	112.9	134.4	126.0	149.5	141.7	
CDB-0300-MQ	2 - 4JE-15	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 - 4HE-18	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	2 - 4GE-23	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*		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	2 - 6HE-28	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*		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	2 - 6GE-34	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		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	2 - 6JE-15	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 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	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CDB-0101-MQ*		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25	11410
CDB-0150-MQ*	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CDB-0151-MQ		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30	12210
CDB-0160-MQ	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CDB-0161-MQ		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35	12310
CDB-0162-MQ	2 - 4CES-6	T	30.8	10.8	71.0	90	15.8	5.0	33.5	45	12.5	5.0	28.7	35	12410
CDB-0180-MQ		S		10.8	83.1	110		5.0	42.1	50		5.0	34.3	45	12210
CDB-0181-MQ*	2 - 4TES-9	O	34.8	10.8	83.1	125	15.7	5.0	42.1	50	13.6	5.0	34.3	45	12410
CDB-0200-MQ		S		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12310
CDB-0201-MQ	2 - 4PES-12	O	42.7	16.2	97.5	125	19.3	7.5	44.3	60	16.0	7.5	39.3	50	13310
CDB-0202-MQ		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12410
CDB-0240-MQ*	2 - 4NES-14	S	49.0	10.8	109.9	150	19.3	5.0	49.9	60	16.0	5.0	42.2	50	12410
CDB-0241-MQ		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60	13310
CDB-0300-MQ	2 - 4JE-15	S	61.6	16.2	129.5	175	22.1	7.5	58.7	80	17.7	7.5	48.5	60	13310
CDB-0301-MQ*		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MQ	2 - 4HE-18	S	66.7	16.2	157.8	200	27.9	7.5	71.8	100	22.3	7.5	58.9	80	13310
CDB-0401-MQ		O		32.4	185.5	250		15.0	84.2	110		15.0	70.4	90	22310
CDB-0402-MQ	2 - 6HE-28	T	95.6	21.6	163.2	225	43.2	10.0	74.3	100	34.6	10.0	61.4	80	22310
CDB-0500-MQ*		S		16.2	157.8	200		7.5	71.8	100		7.5	58.9	80	13410
CDB-0501-MQ	2 - 6GE-34	O	104.3	32.4	169.3	225	47.1	15.0	76.7	100	37.1	15.0	62.9	80	13410
CDB-0600-MQ*		S		32.4	185.5	250		15.0	84.2	110		15.0	70.4	90	22310
CDB-0601-MQ	2 - 6JE-15	O	104.3	21.6	184.6	250	43.2	10.0	83.7	110	34.6	10.0	69.0	90	22410
CDB-0700-MQ		S		32.4	195.4	250		15.0	88.7	110		15.0	74.0	100	23310
CDB-0701-MQ	2 - 6HE-28	S	95.6	32.4	250.5	300	47.1	15.0	113.7	150	37.1	15.0	94.1	125	23310
CDB-0702-MQ		O		43.2	261.3	350		20.0	118.7	150		20.0	99.1	125	24310
CDB-0800-MQ*	2 - 6GE-34	T	104.3	32.4	250.5	300	47.1	15.0	113.7	150	37.1	15.0	94.1	125	23410
CDB-0801-MQ*		S		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125	23410
CDB-0801-MQ*	2 - 6GE-34	O	104.3	43.2	280.9	350	47.1	20.0	127.5	175	37.1	20.0	104.7	125	24410
CDB-0801-MQ*		S		43.2	280.9	350		20.0	127.5	175		20.0	104.7	125	24410

- 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".

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			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) Per Circuit															
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	2 - 4CES-6	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		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*	2 - 4TES-9	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		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	2 - 4PES-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	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 - 4NES-14	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 - 4JE-15	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 - 4GE-18	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	2 - 4GE-23	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*		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	2 - 6HE-28	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*		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	2 - 6GE-34	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		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	2 - 6GE-34	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	316.9	290.6	351.0	315.9
CDB-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	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 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	
CDB-0100-MT	2 - 4FES-3	S	22.2	5.4	58.4	80	9.0	2.5	24.3	30	6.9	2.5	19.2	25	11210
CDB-0101-MT		O		5.4	58.4	80		2.5	24.3	30		2.5	19.2	25	11410
CDB-0150-MT	2 - 4EES-4	S	24.8	5.4	64.2	80	10.3	2.5	27.2	35	8.3	2.5	22.4	30	11410
CDB-0151-MT		O		10.8	69.6	90		5.0	29.7	40		5.0	24.9	30	12210
CDB-0160-MT	2 - 4DES-5	S	25.4	10.8	71.0	90	12.0	5.0	33.5	45	10.0	5.0	28.7	35	12210
CDB-0161-MT		O		10.8	71.0	110		5.0	33.5	45		5.0	28.7	35	12310
CDB-0162-MT	2 - 4CES-6	T	30.8	10.8	71.0	90	15.8	5.0	33.5	45	12.5	5.0	28.7	35	12410
CDB-0180-MT		S		10.8	83.1	110		5.0	42.1	50		5.0	34.3	45	12210
CDB-0181-MT	2 - 4TES-9	O	34.8	10.8	83.1	125	15.7	5.0	42.1	50	13.6	5.0	34.3	45	12410
CDB-0200-MT		S		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12310
CDB-0201-MT	2 - 4PES-12	O	42.7	16.2	97.5	125	19.3	7.5	44.3	60	16.0	7.5	39.3	50	13310
CDB-0202-MT		T		10.8	92.1	125		5.0	41.8	50		5.0	36.8	50	12410
CDB-0240-MT*	2 - 4NES-14	S	49.0	10.8	109.9	150	22.1	5.0	49.9	60	17.7	5.0	42.2	50	12410
CDB-0241-MT		O		16.2	115.3	150		7.5	52.4	70		7.5	44.7	60	13310
CDB-0300-MT	2 - 4JE-15	S	61.6	16.2	129.5	175	27.9	7.5	58.7	80	22.3	7.5	48.5	60	13310
CDB-0301-MT		O		16.2	129.5	175		7.5	58.7	80		7.5	48.5	60	13410
CDB-0400-MT	2 - 4GE-18	S	66.7	16.2	157.8	200	30.1	7.5	71.8	100	24.1	7.5	58.9	80	13310
CDB-0401-MT		O		16.2	157.8	200		7.5	71.8	100		7.5	58.9	80	13410
CDB-0402-MT	2 - 4GE-23	T	71.1	21.6	163.2	225	32.1	10.0	74.3	100	25.7	10.0	61.4	80	22310
CDB-0500-MT		S		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80	13410
CDB-0501-MT	2 - 6HE-28	O	95.6	32.4	185.5	250	43.2	15.0	84.2	110	34.6	15.0	70.4	90	23310
CDB-0600-MT		S		15.0	88.7	110		15.0	88.7	110		15.0	74.0	100	23310
CDB-0601-MT	2 - 6GE-34	T	104.3	32.4	250.5	300	47.1	15.0	113.7	150	37.1	15.0	94.1	125	23310
CDB-0700-MT		S		20.0	118.7	150		20.0	118.7	150		20.0	99.1	125	24310
CDB-0701-MT		O		15.0	113.7	150		15.0	113.7	150		15.0	94.1	125	23410
CDB-0702-MT		T		15.0	113.7	150		15.0	113.7	150		15.0	94.1	125	23410
CDB-0800-MT		S		32.4	270.1	350		32.4	270.1	350		32.4	270.1	350	23410
CDB-0801-MT		O		43.2	280.9	350		43.2	280.9	350		43.2	280.9	350	24410

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * 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".

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

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-LS*	2 - 4DKNF63KE	S	79.4	72.1	88.4	80.3	98.1	89.1	N/A	N/A	N/A
CDD-0301-LS		O	84.4	77.0	94.2	86.0	105.0	95.8	N/A	N/A	N/A
CDD-0440-LS	2 - 4DJNF76KE	S	96.3	86.8	107.2	96.9	118.7	107.4	N/A	N/A	N/A
CDD-0441-LS*		O	99.2	89.5	110.7	100.0	122.9	111.2	N/A	N/A	N/A
CDD-0540-LS*	2 - 6DHNF93KE	S	119.9	108.4	134.5	121.7	149.5	135.4	N/A	N/A	N/A
CDD-0541-LS*		O	123.6	112.1	138.9	126.2	155.0	140.9	N/A	N/A	N/A
CDD-0600-LS	2 - 6DJNF11ME	S	133.9	120.4	150.0	134.9	166.9	150.1	N/A	N/A	N/A
CDD-0601-LS		O	139.7	126.0	157.2	141.8	175.8	158.5	N/A	N/A	N/A
CDD-0602-LS		T	136.6	122.8	153.0	137.6	170.2	153.1	N/A	N/A	N/A

Electrical Specifications R-404A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDD-0300-LS*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5	65.6	90	20.9	5	53.3	70
CDD-0301-LS		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CDD-0440-LS	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CDD-0441-LS*		O		21.6	169.2	225		10.0	83.8	110		10.0	76.6	100
CDD-0540-LS*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	33.8	7.5	84.7	110
CDD-0541-LS*		O		21.6	206.2	250		10.0	102.3	125		10.0	87.2	110
CDD-0600-LS	2 - 6DJNF11ME	S	95.7	21.6	239.9	300	47.9	10.0	119.2	150	39.3	10.0	99.6	125
CDD-0601-LS		O		32.4	250.7	300		15.0	124.2	150		15.0	104.6	125
CDD-0602-LS		T		21.6	239.9	300		10.0	119.2	150		10.0	99.6	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
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	
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-LQ*	2 - 4DKNF63KE	S	73.0	67.1	82.2	75.5	92.2	83.8	N/A	N/A
CDD-0301-LQ		O	76.8	70.9	87.6	80.0	98.7	90.0	N/A	N/A
CDD-0440-LQ	2 - 4DJNF76KE	S	90.5	80.7	104.0	93.0	118.7	107.4	N/A	N/A
CDD-0441-LQ*		O	93.2	84.1	107.4	97.0	122.9	111.2	N/A	N/A
CDD-0540-LQ*	2 - 6DHNF93KE	S	109.1	98.6	125.1	113.2	142.0	127.3	N/A	N/A
CDD-0541-LQ*		O	111.2	100.9	127.8	116.1	145.7	132.4	N/A	N/A
CDD-0600-LQ	2 - 6DJNF11ME	S	131.2	116.8	148.5	134.9	168.6	153.1	N/A	N/A
CDD-0601-LQ		O	135.5	123.5	155.6	140.4	177.6	161.7	N/A	N/A
CDD-0602-LQ		T	133.8	119.1	151.5	137.6	171.9	156.2	N/A	N/A

Electrical Specifications R-407A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDD-0300-LQ*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5	65.6	90	20.9	5	53.3	70
CDD-0301-LQ		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CDD-0440-LQ	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CDD-0441-LQ*		O		21.6	169.2	225		10.0	83.8	110		10.0	76.6	100
CDD-0540-LQ*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	33.8	7.5	84.7	110
CDD-0541-LQ*		O		21.6	206.2	250		10.0	102.3	125		10.0	87.2	110
CDD-0600-LQ	2 - 6DJNF11ME	S	95.7	21.6	239.9	300	47.9	10.0	119.2	150	39.3	10.0	99.6	125
CDD-0601-LQ		O		32.4	250.7	300		15.0	124.2	150		15.0	104.6	125
CDD-0602-LQ		T		21.6	239.9	300		10.0	119.2	150		10.0	99.6	125

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

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * 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 "Q" 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
CDD-0301-LT		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
CDD-0301-LT		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 R-448A

Voltage			208-230/3/60				460/3/60				575/3/60			
Unit	Compressor	Cond	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD	Comp RLA	Cond FLA	MCA	MOPD
CDD-0300-LT*	2 - 4DKNF63KE	S	52.6	10.8	132.1	175	26.3	5	65.6	90	20.9	5	53.3	70
CDD-0301-LT		O		16.2	137.5	175		7.5	68.1	90		7.5	55.8	70
CDD-0440-LT	2 - 4DJNF76KE	S	64.3	16.2	163.8	225	32.1	7.5	81.3	110	29.1	7.5	74.1	100
CDD-0441-LT*		O		21.6	169.2	225		10.0	83.8	110		10.0	76.6	100
CDD-0540-LT*	2 - 6DHNF93KE	S	80.7	16.2	200.8	250	40.4	7.5	99.8	125	33.8	7.5	84.7	110
CDD-0541-LT*		O		21.6	206.2	250		10.0	102.3	125		10.0	87.2	110
CDD-0600-LT	2 - 6DJNF11ME	S	95.7	21.6	239.9	300	47.9	10.0	119.2	150	39.3	10.0	99.6	125
CDD-0601-LT		O		32.4	250.7	300		15.0	124.2	150		15.0	104.6	125
CDD-0602-LT		T		21.6	239.9	300		10.0	119.2	150		10.0	99.6	125

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

1. Condenser size in the 8th position of the model number are: 0 - Standard, 1 - Oversize, 2 (or * at the end of the model) - meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

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

CD Dual Systems

CDE Low Temp R-404A

CDE Performance Data - Low Temperature R-404A - 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-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
CDE-0301-LS		O	36.2	31.5	43.6	38.4	51.7	45.8	60.6	54.0	70.3	62.9
CDE-0440-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
CDE-0441-LS*		O	41.8	36.3	50.2	44.1	59.5	52.6	69.7	61.9	80.7	72.1
CDE-0540-LS*	2 - 6HE-35	S	51.3	45.0	61.9	54.6	73.3	65.1	85.7	76.3	98.8	88.7
CDE-0541-LS*		O	52.7	46.2	63.8	56.2	75.6	67.2	88.5	78.9	102.4	91.8
CDE-0600-LS	2 - 6GE-40	S	61.3	53.5	72.8	64.0	85.8	75.9	100.3	89.3	116.2	104.1
CDE-0601-LS		O	63.2	55.2	75.3	66.2	88.9	78.7	104.1	92.8	120.8	108.3
CDE-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)			-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-LS*	2 - 4HE-25	S	75.7	67.9	86.0	77.5	97.2	87.7	109.1	98.7
CDE-0301-LS		O	81.0	72.6	92.3	83.0	104.4	94.3	117.6	106.3
CDE-0440-LS	2 - 4GE-30	S	89.2	80.0	101.3	91.2	114.5	103.3	128.9	116.4
CDE-0441-LS*		O	92.8	83.2	105.6	95.1	119.5	107.9	134.6	121.7
CDE-0540-LS*	2 - 6HE-35	S	113.2	102.0	128.8	116.0	145.6	131.5	163.5	148.0
CDE-0541-LS*		O	117.7	105.9	134.3	121.1	152.2	137.5	171.4	155.0
CDE-0600-LS	2 - 6GE-40	S	133.2	120.0	151.4	136.8	170.6	154.3	190.8	172.3
CDE-0601-LS		O	138.8	125.2	158.3	143.3	179.1	162.3	201.1	182.0
CDE-0602-LS		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 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	93.2	10.8	223.5	300	42.1	5	101.2	125	33.6	5	81.8	110
CDE-0301-LS		O		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110
CDE-0440-LS	2 - 4GE-30	S	110.6	16.2	268.1	350	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CDE-0441-LS*		O		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125
CDE-0540-LS*	2 - 6HE-35	S	129.5	16.2	310.6	400	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CDE-0541-LS*		O		21.6	316.0	400		10.0	143.4	200		10.0	115.6	150
CDE-0600-LS	2 - 6GE-40	S	173.8	21.6	415.7	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CDE-0601-LS		O		32.4	426.5	600		15.0	193.4	250		15.0	157.7	200
CDE-0602-LS		T		21.6	415.7	500		10.0	188.4	250		10.0	152.7	200

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

- Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * 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
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	2 - 4GE-30	S	33.7	28.6	41.4	35.4	50.8	43.7	60.7	53.2	71.7	63.3
CDE-0441-LQ*		O	34.7	29.4	42.7	36.6	52.4	45.2	62.7	55.1	74.2	65.6
CDE-0540-LQ*	2 - 6HE-35	S	42.6	36.5	52.6	45.3	64.5	56.0	77.1	67.9	90.9	80.7
CDE-0541-LQ*		O	43.7	37.4	54.2	46.6	66.5	57.8	79.7	70.2	94.2	83.5
CDE-0600-LQ	2 - 6GE-40	S	50.9	43.3	61.9	53.1	75.5	65.3	90.3	79.5	106.9	94.7
CDE-0601-LQ		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
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	2 - 4GE-30	S	83.8	74.4	96.2	86.6	111.1	101.2	126.3	114.1
CDE-0441-LQ*		O	87.2	77.4	100.3	90.3	115.9	105.7	131.9	119.3
CDE-0540-LQ*	2 - 6HE-35	S	106.4	94.9	122.4	110.2	141.2	128.9	160.2	145.0
CDE-0541-LQ*		O	110.6	98.5	127.6	115.0	147.6	134.8	168.0	151.9
CDE-0600-LQ	2 - 6GE-40	S	125.2	111.6	143.8	130.0	165.5	151.2	187.0	168.9
CDE-0601-LQ		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 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	93.2	10.8	223.5	300	42.1	5	101.2	125	33.6	5	81.8	110
CDE-0301-LQ		O		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110
CDE-0440-LQ	2 - 4GE-30	S	110.6	16.2	268.1	350	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CDE-0441-LQ*		O		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125
CDE-0540-LQ*	2 - 6HE-35	S	129.5	16.2	310.6	400	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CDE-0541-LQ*		O		21.6	316.0	400		10.0	143.4	200		10.0	115.6	150
CDE-0600-LQ	2 - 6GE-40	S	173.8	21.6	415.7	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CDE-0601-LQ		O		32.4	426.5	600		15.0	193.4	250		15.0	157.7	200
CDE-0602-LQ		T		21.6	415.7	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

- 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 "Q" 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

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
CDE-0301-LT		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
CDE-0441-LT*		O	35.5	N/A	44.2	37.5	54.1	46.8	64.8	56.9	76.7	67.8
CDE-0540-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
CDE-0541-LT*		O	44.8	N/A	56.1	47.8	68.8	59.8	82.3	72.6	97.3	86.3
CDE-0600-LT	2 - 6GE-40	S	52.1	N/A	64.1	54.4	78.1	67.6	93.3	82.2	110.4	97.9
CDE-0601-LT		O	53.7	N/A	66.3	56.3	80.9	70.0	96.8	85.4	114.8	101.8
CDE-0602-LT		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
CDE-0301-LT		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
CDE-0441-LT*		O	90.0	80.7	104.5	94.1	119.5	109.0	135.9	122.9
CDE-0540-LT*	2 - 6HE-35	S	109.8	98.9	127.5	114.8	145.6	132.8	165.1	149.5
CDE-0541-LT*		O	114.2	102.7	133.0	119.9	152.2	138.9	173.1	156.6
CDE-0600-LT	2 - 6GE-40	S	129.2	116.4	149.9	135.4	170.6	155.8	192.7	174.0
CDE-0601-LT		O	134.6	121.4	156.7	141.9	179.1	163.9	203.1	183.8
CDE-0602-LT		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 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	93.2	10.8	223.5	300	42.1	5	101.2	125	33.6	5	81.8	110
CDE-0301-LT		O		16.2	228.9	300		7.5	103.7	125		7.5	84.3	110
CDE-0440-LT	2 - 4GE-30	S	110.6	16.2	268.1	350	50.0	7.5	121.5	150	40.0	7.5	98.7	125
CDE-0441-LT*		O		21.6	273.5	350		10.0	124.0	175		10.0	101.2	125
CDE-0540-LT*	2 - 6HE-35	S	129.5	16.2	310.6	400	58.6	7.5	140.9	200	46.4	7.5	113.1	150
CDE-0541-LT*		O		21.6	316.0	400		10.0	143.4	200		10.0	115.6	150
CDE-0600-LT	2 - 6GE-40	S	173.8	21.6	415.7	500	78.6	10.0	188.4	250	62.9	10.0	152.7	200
CDE-0601-LT		O		32.4	426.5	600		15.0	193.4	250		15.0	157.7	200
CDE-0602-LT		T		21.6	415.7	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 for * 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
CDB-0301-LS		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
CDB-0441-LS*		O	41.8	36.3	50.2	44.1	59.5	52.6	69.7	61.9	80.7	72.1
CDB-0540-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
CDB-0541-LS*		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
CDB-0601-LS		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
CDB-0301-LS		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
CDB-0441-LS*		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
CDB-0541-LS*		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
CDB-0601-LS		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 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	66.7	10.8	163.9	225	30.1	5	74.2	100	24.1	5	60.4	80
CDB-0301-LS		O		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80
CDB-0440-LS	2 - 4GE-23	S	71.1	16.2	179.2	250	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CDB-0441-LS*		O		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90
CDB-0540-LS*	2 - 6HE-28	S	95.6	16.2	234.3	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CDB-0541-LS*		O		21.6	239.7	300		10.0	108.7	150		10.0	89.1	125
CDB-0600-LS	2 - 6GE-34	S	104.3	21.6	259.3	350	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CDB-0601-LS		O		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125
CDB-0602-LS		T		21.6	259.3	350		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 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	66.7	10.8	163.9	225	30.1	5	74.2	100	24.1	5	60.4	80
CDB-0301-LQ		O		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80
CDB-0440-LQ	2 - 4GE-23	S	71.1	16.2	179.2	250	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CDB-0441-LQ		O		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90
CDB-0540-LQ	2 - 6HE-28	S	95.6	16.2	234.3	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CDB-0541-LQ		O		21.6	239.7	300		10.0	108.7	150		10.0	89.1	125
CDB-0600-LQ	2 - 6GE-34	S	104.3	21.6	259.3	350	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CDB-0601-LQ		O		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125
CDB-0602-LQ		T		21.6	259.3	350		10.0	117.5	150		10.0	94.7	125

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

1. Condenser size in the 8th position of the model number are: 0 – Standard, 1 – Oversize, 2 for * at the end of the model) – meets Title 24 efficiency requirement and need VFD added to vary fan speed to meet the full regulation.
2. Calculated MCA and MOPD in the table includes compressor, condenser fans and control circuit. Use the MCA / MOPD Calculation at the end of section to include evaporator fans and defrost loads when powered from the condensing unit.

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

CD Dual Systems

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			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-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
CDB-0301-LT		O	30.7	N/A	38.3	32.7	47.1	40.8	56.3	49.7	66.8	59.2
CDB-0440-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
CDB-0441-LT*		O	35.5	N/A	44.2	37.5	54.1	46.8	64.8	56.9	76.7	67.8
CDB-0540-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
CDB-0541-LT*		O	44.8	N/A	56.1	47.8	68.8	59.8	82.3	72.6	97.3	86.3
CDB-0600-LT	2 - 6GE-34	S	52.1	N/A	64.1	54.4	78.1	67.6	93.3	82.2	110.4	97.9
CDB-0601-LT		O	53.7	N/A	66.3	56.3	80.9	70.0	96.8	85.4	114.8	101.8
CDB-0602-LT		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							
CDB-0300-LT*	2 - 4HE-18	S	73.4	65.9	85.1	76.7	97.2	88.6	110.2	99.7
CDB-0301-LT		O	78.5	70.4	91.4	82.2	104.4	95.3	118.8	107.4
CDB-0440-LT	2 - 4GE-23	S	86.5	77.6	100.3	90.3	114.5	104.3	130.2	117.6
CDB-0441-LT*		O	90.0	80.7	104.5	94.1	119.5	109.0	135.9	122.9
CDB-0540-LT*	2 - 6HE-28	S	109.8	98.9	127.5	114.8	145.6	132.8	165.1	149.5
CDB-0541-LT*		O	114.2	102.7	133.0	119.9	152.2	138.9	173.1	156.6
CDB-0600-LT	2 - 6GE-34	S	129.2	116.4	149.9	135.4	170.6	155.8	192.7	174.0
CDB-0601-LT		O	134.6	121.4	156.7	141.9	179.1	163.9	203.1	183.8
CDB-0602-LT		T	131.8	118.7	152.9	138.1	174.0	159.0	196.6	177.5

Electrical Specifications 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	66.7	10.8	163.9	225	30.1	5	74.2	100	24.1	5	60.4	80
CDB-0301-LT		O		16.2	169.3	225		7.5	76.7	100		7.5	62.9	80
CDB-0440-LT	2 - 4GE-23	S	71.1	16.2	179.2	250	32.1	7.5	81.2	110	25.7	7.5	66.5	90
CDB-0441-LT*		O		21.6	184.6	250		10.0	83.7	110		10.0	69.0	90
CDB-0540-LT*	2 - 6HE-28	S	95.6	16.2	234.3	300	43.2	7.5	106.2	150	34.6	7.5	86.6	110
CDB-0541-LT*		O		21.6	239.7	300		10.0	108.7	150		10.0	89.1	125
CDB-0600-LT	2 - 6GE-34	S	104.3	21.6	259.3	350	47.1	10.0	117.5	150	37.1	10.0	94.7	125
CDB-0601-LT		O		32.4	270.1	350		15.0	122.5	150		15.0	99.7	125
CDB-0602-LT		T		21.6	259.3	350		10.0	117.5	150		10.0	94.7	125

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

- 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

CDD MCA / MOPD Calculation

Model CDD-0401MxK

Compressor 1 RLA		22.3
Compressor 2 RLA	+	22.3
Condenser Fans	+	5.4
Control*	+	3.0
25% Compressor RLA	+	5.6
MCA		58.6

Evaporator Fan RLA	+	16.0
Calculated MCA		74.6

Compressor RLA 1	+	22.3
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 PIPE
	CD*0101M**	7/8	1 1/8	8 5/8 x 28	43	47	46	1812	CD-11	CD PIPE
15 hp	CD*0150M**	7/8	1 3/8	8 5/8 x 28	43	47	46	1839	CD-11	CD PIPE
	CD*0151M**	7/8	1 3/8	8 5/8 x 28	43	47	46	2371	CD-12	CD PIPE
16 hp	CD*0160M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2378	CD-12	CD PIPE
	CD*0161M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2440	CD-12	CD PIPE
	CD*0162M**	1 1/8	1 3/8	8 5/8 x 28	43	47	46	2499	CD-12	CD PIPE
18 hp	CD*0180M**	1 1/8	1 5/8	8 5/8 x 28	43	47	46	2533	CD-12	CD PIPE
	CD*0181M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2729	CD-12	CD PIPE
20 hp	CD*0200M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2660	CD-12	CD PIPE
	CD*0201M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	3077	CD-13	CD PIPE
	CD*0202M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2719	CD-12	CD PIPE
24 hp	CD*0240M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	2725	CD-12	CD PIPE
	CD*0241M**	1 1/8	1 5/8	8 5/8 x 48	75	83	80	3079	CD-13	CD PIPE
30 hp	CD*0300M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	3115	CD-13	CD PIPE
	CD*0301M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3277	CD-13	CD PIPE
40 hp	CD*0400M**	1 1/8	2 1/8	8 5/8 x 48	75	83	80	3168	CD-13	CD PIPE
	CD*0401M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3515	CD-22	CD PIPE
	CD*0402M**	1 1/8	2 1/8	8 5/8 X 60	94	103	100	3256	CD-13	CD PIPE
50 hp	CD*0500M**	1 1/8	2 1/8	8 5/8 x 60	94	103	100	3381	CD-13	CD PIPE
	CD*0501M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	4329	CD-23	CD PIPE
60 hp	CD*0600M**	1 1/8	2 1/8	10 3/4 x 48	114	125	121	3776	CD-22	CD PIPE
	CD*0601M**	1 1/8	2 1/8	10 3/4 x 72	174	191	184	4474	CD-23	CD PIPE
70 hp	CD*0700M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	4319	CD-23	CD PIPE
	CD*0701M**	1 3/8	2 1/8	10 3/4 x 72	174	191	184	5329	CD-24	CD PIPE
	CD*0702M**	1 3/8	2 1/8	10 3/4 X 72	174	191	184	4916	CD-23	CD PIPE
80 hp	CD*0800M**	1 3/8	2 5/8	10 3/4 x 72	174	191	184	4942	CD-23	CD PIPE
	CD*0801M**	1 3/8	2 5/8	10 3/4 x 96	233	256	247	5895	CD-24	CD PIPE
30 hp	CD*0300L**	7/8	2 1/8	8 5/8 x 48	75	83	80	2719	CD-12	CD PIPE
	CD*0301L**	7/8	2 1/8	8 5/8 x 48	75	83	80	3212	CD-13	CD PIPE
44 hp	CD*0440L**	7/8	2 1/8	8 5/8 x 48	75	83	80	3179	CD-13	CD PIPE
	CD*0441L**	7/8	2 1/8	8 5/8 x 60	106	117	112	3526	CD-13	CD PIPE
54 hp	CD*0540L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	3477	CD-13	CD PIPE
	CD*0541L**	1 1/8	2 5/8	8 5/8 x 60	106	117	112	3788	CD-22	CD PIPE
60 hp	CD*0600L**	1 1/8	2 5/8	8 5/8 x 60	94	103	100	3765	CD-22	CD PIPE
	CD*0601L**	1 1/8	2 5/8	10 3/4 x 48	128	141	136	4527	CD-23	CD PIPE
	CD*0602L**	1 1/8	2 5/8	8 5/8 X 60	94	103	100	3883	CD-22	CD PIPE

*-D,E,B

** S(R-404A), Q(R-407A), T(R-448A)

*** Receiver capacity based on 80% full.

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

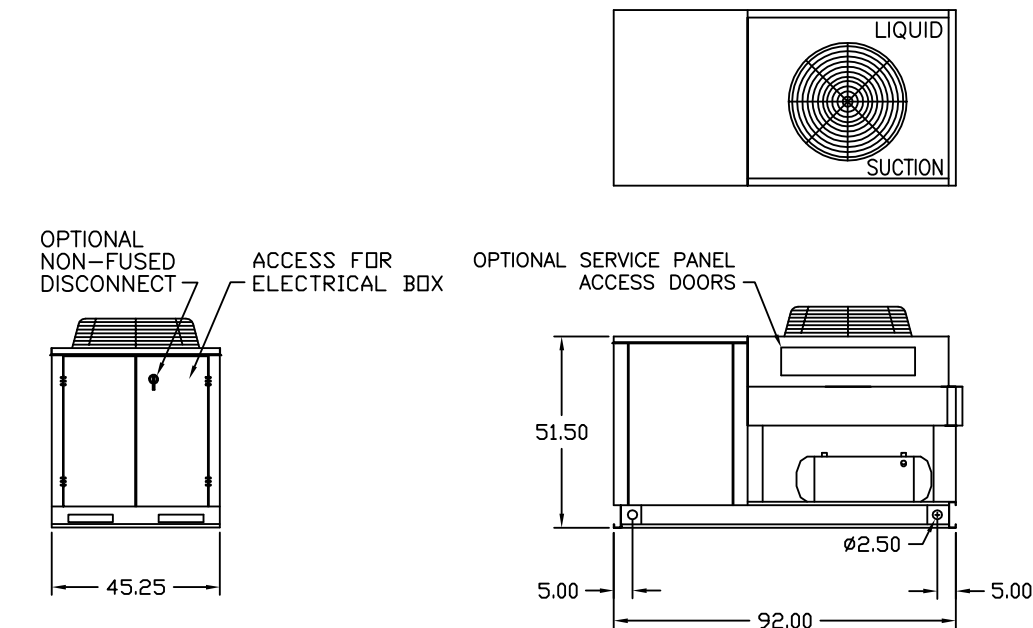
Annual Walk-In Energy Factor (AWEF)

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

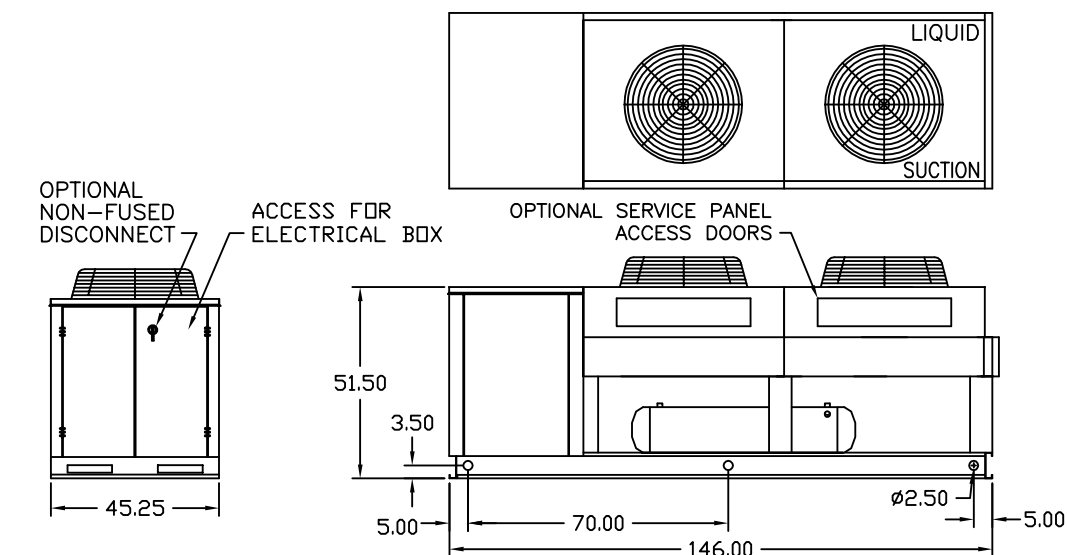
Dimensional Drawings

CS Single Systems

CS-11



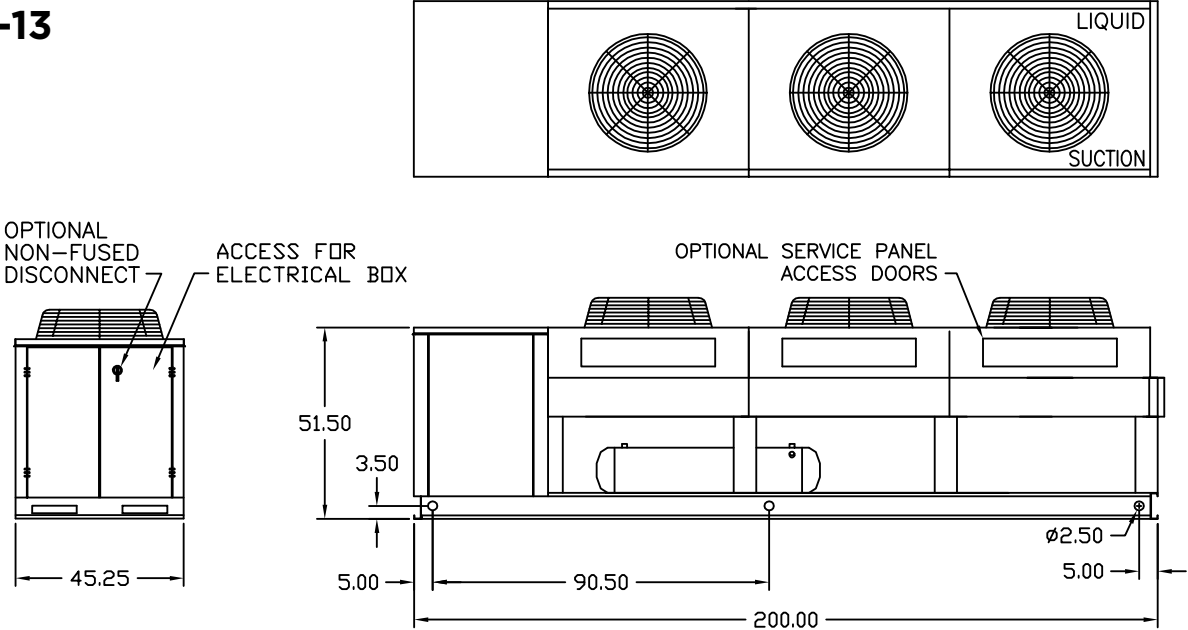
CS-12



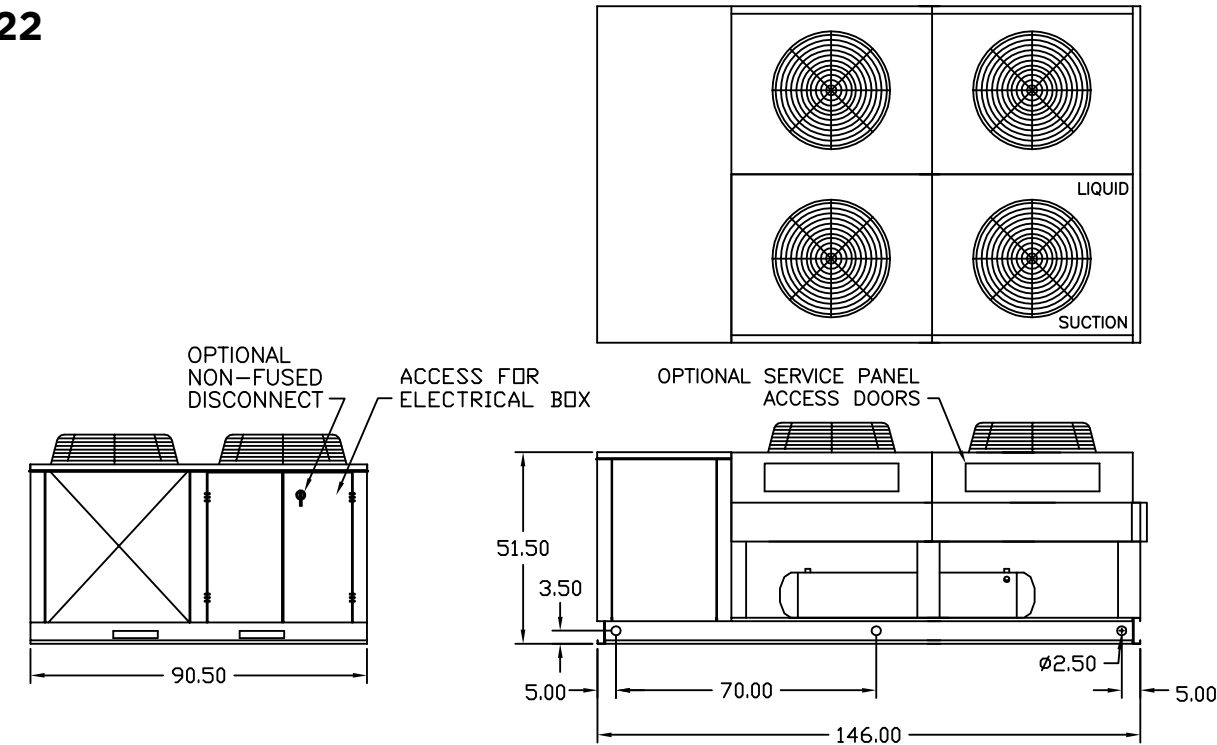
Dimensional Drawings

CS Single Systems

CS-13



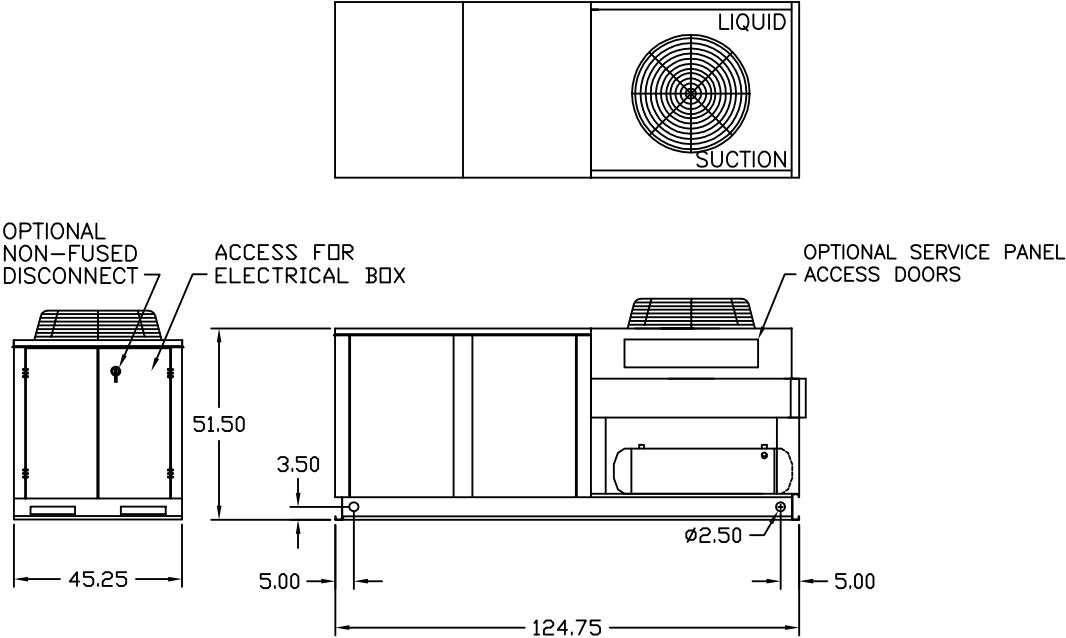
CS-22



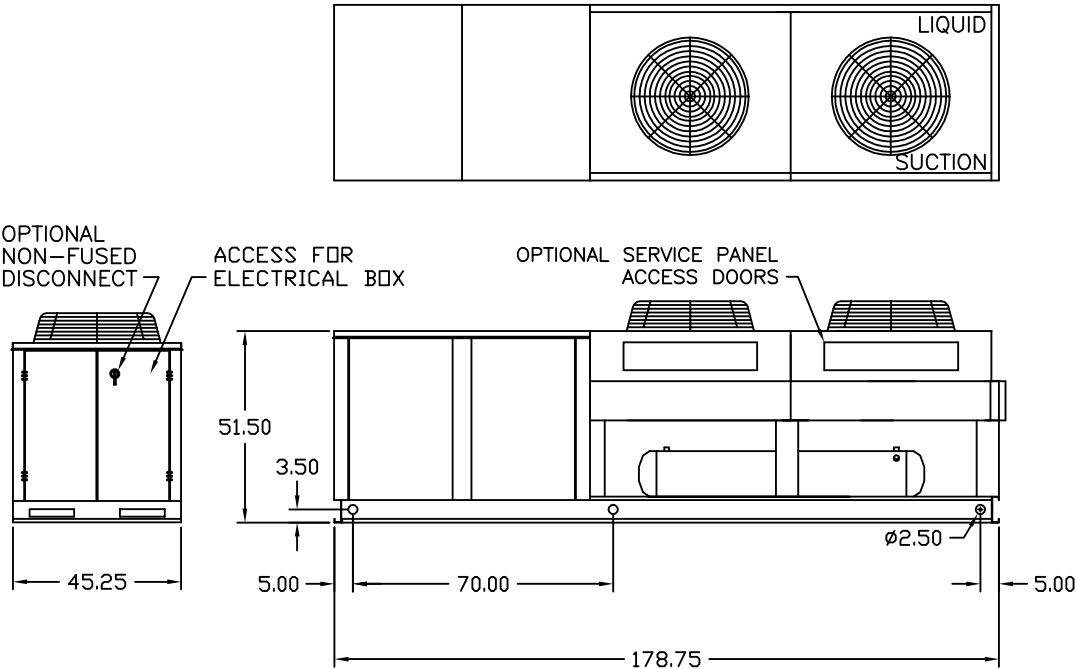
Dimensional Drawings

CP Parallel Systems

CP-11



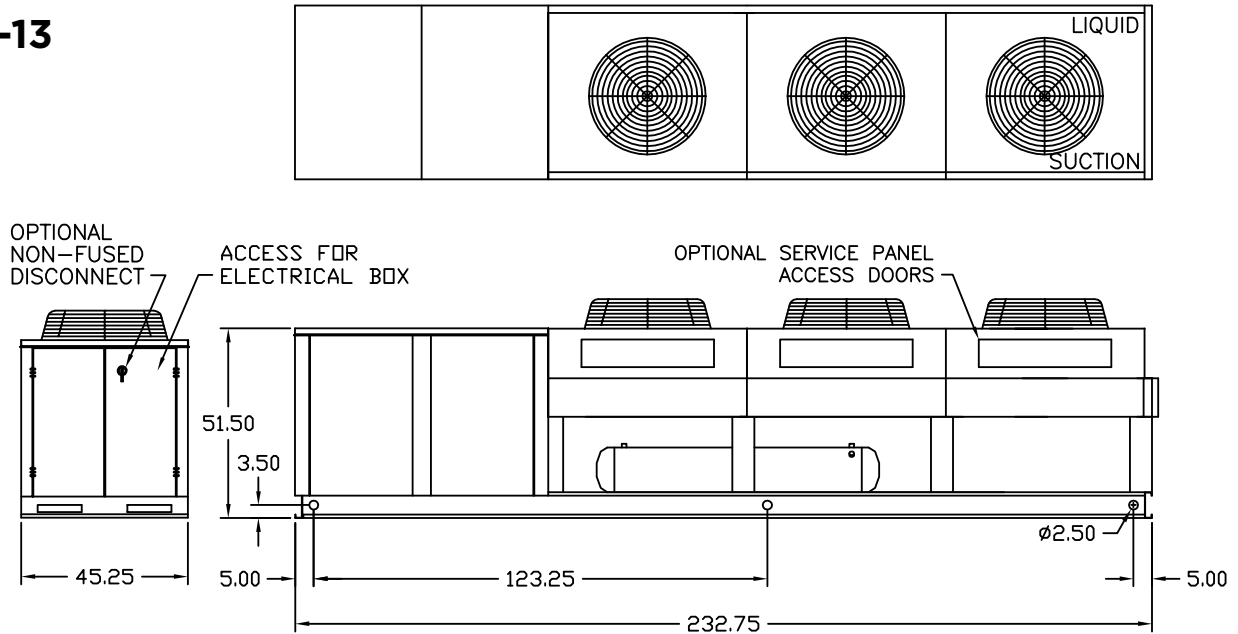
CP-12



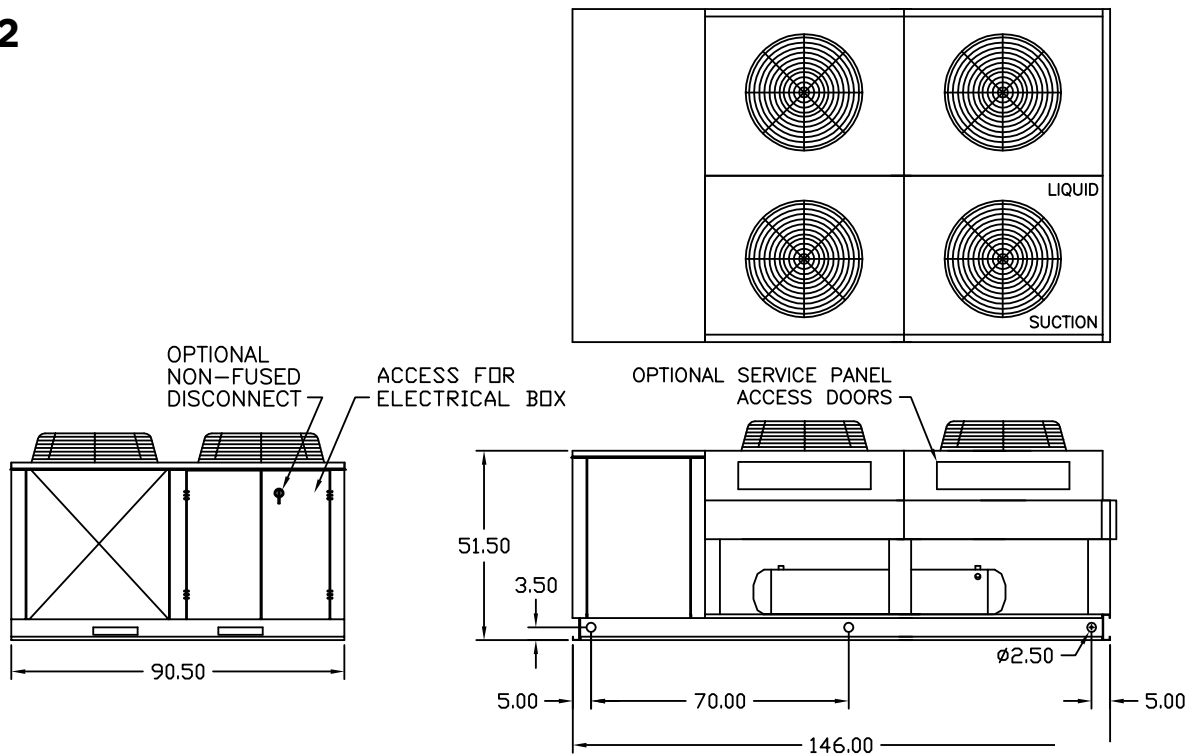
Dimensional Drawings

CP Parallel Systems

CP-13



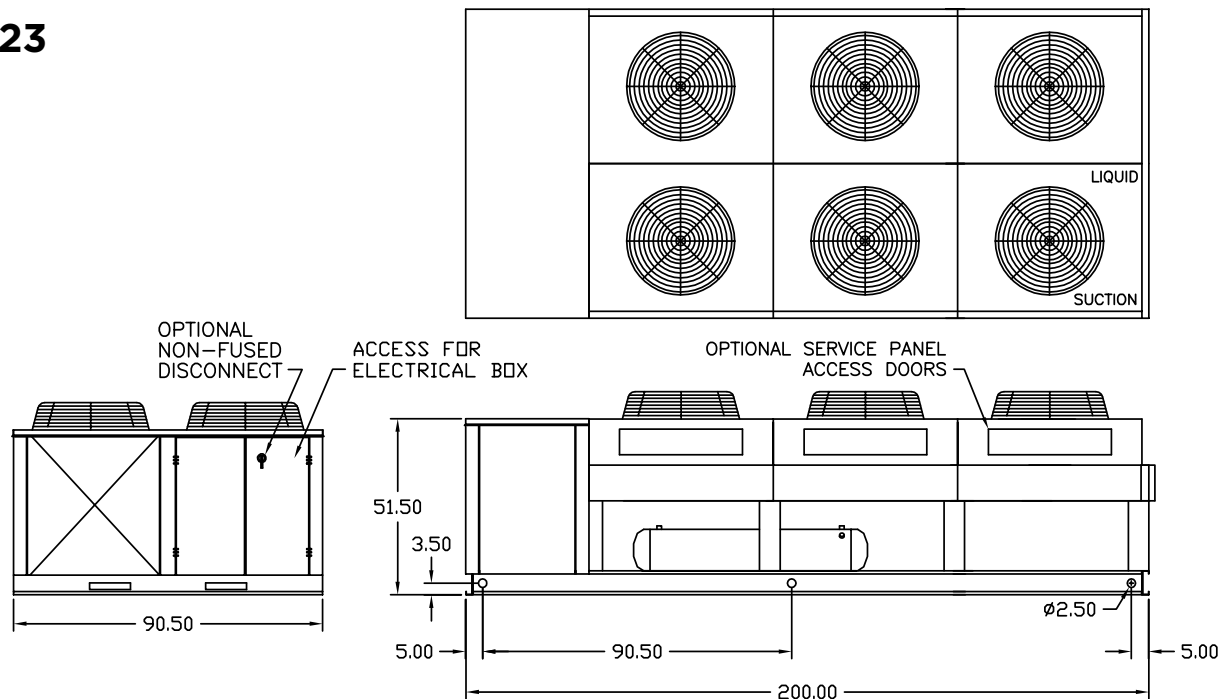
CP-22



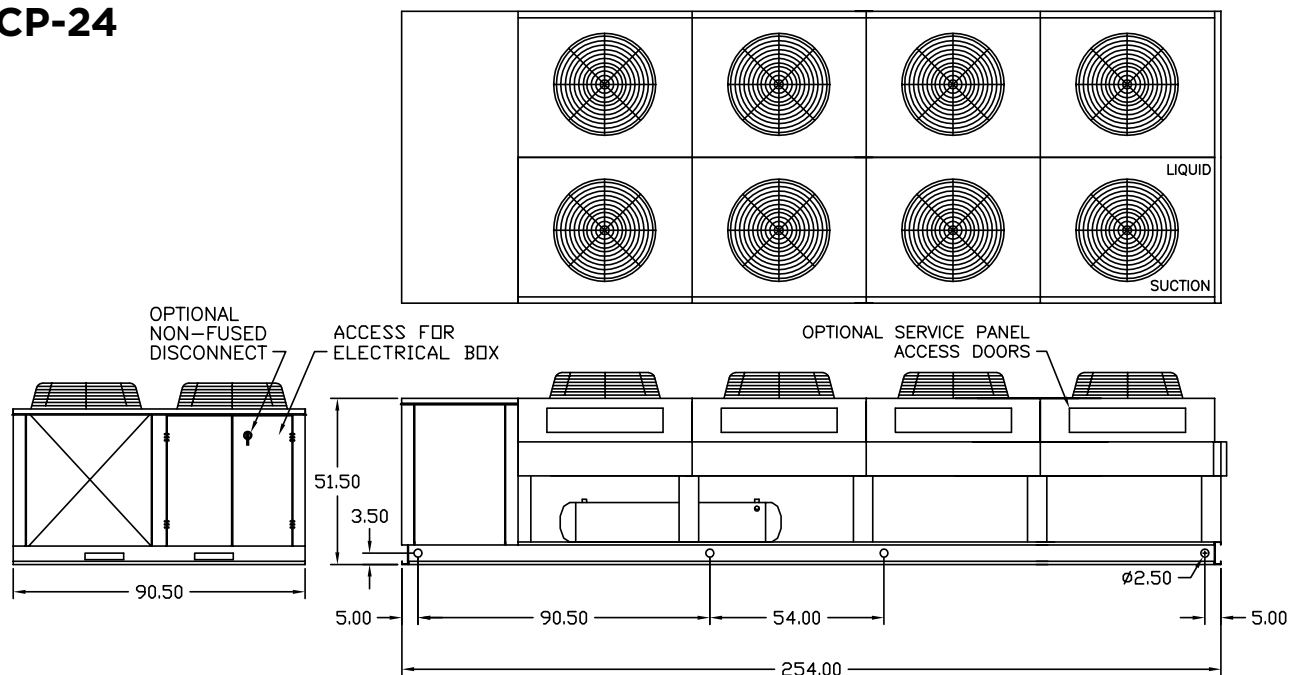
Dimensional Drawings

CP Parallel Systems

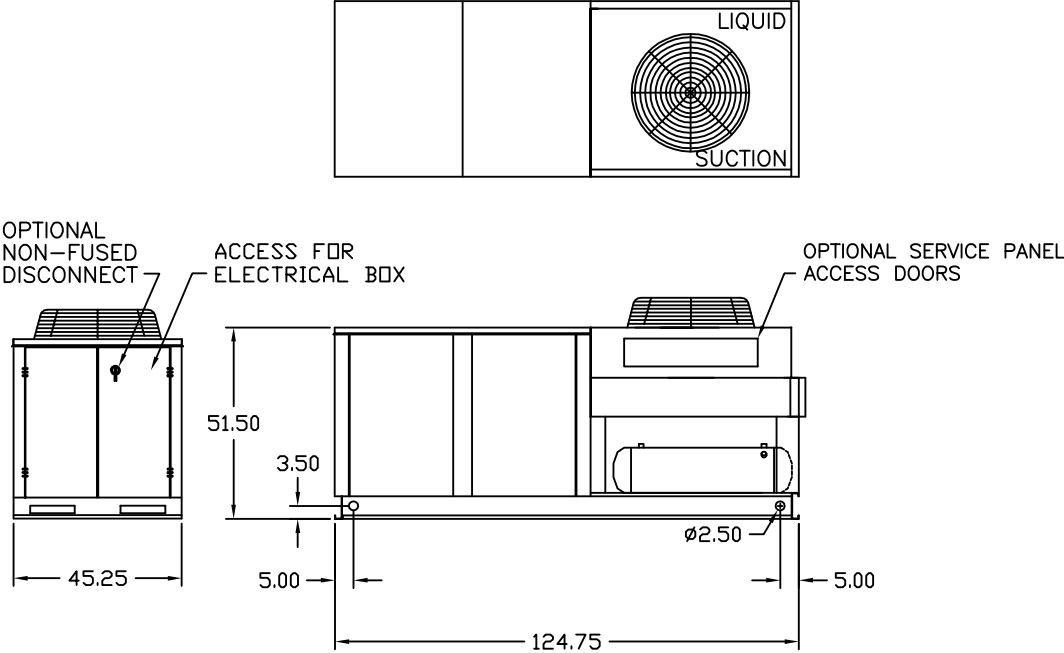
CP-23



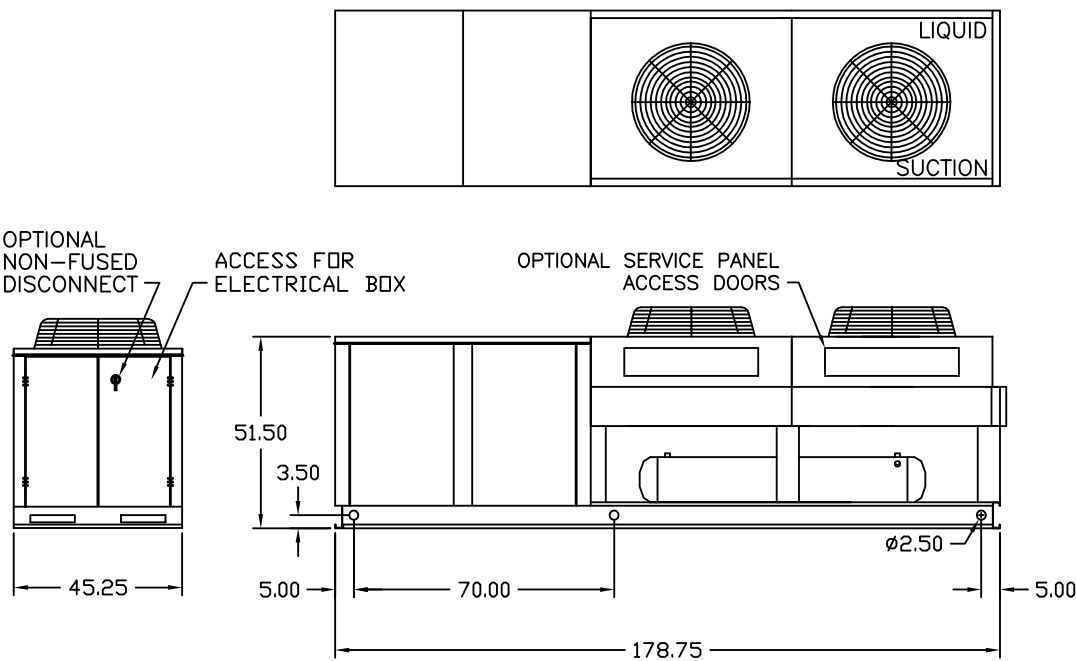
CP-24



CD-11



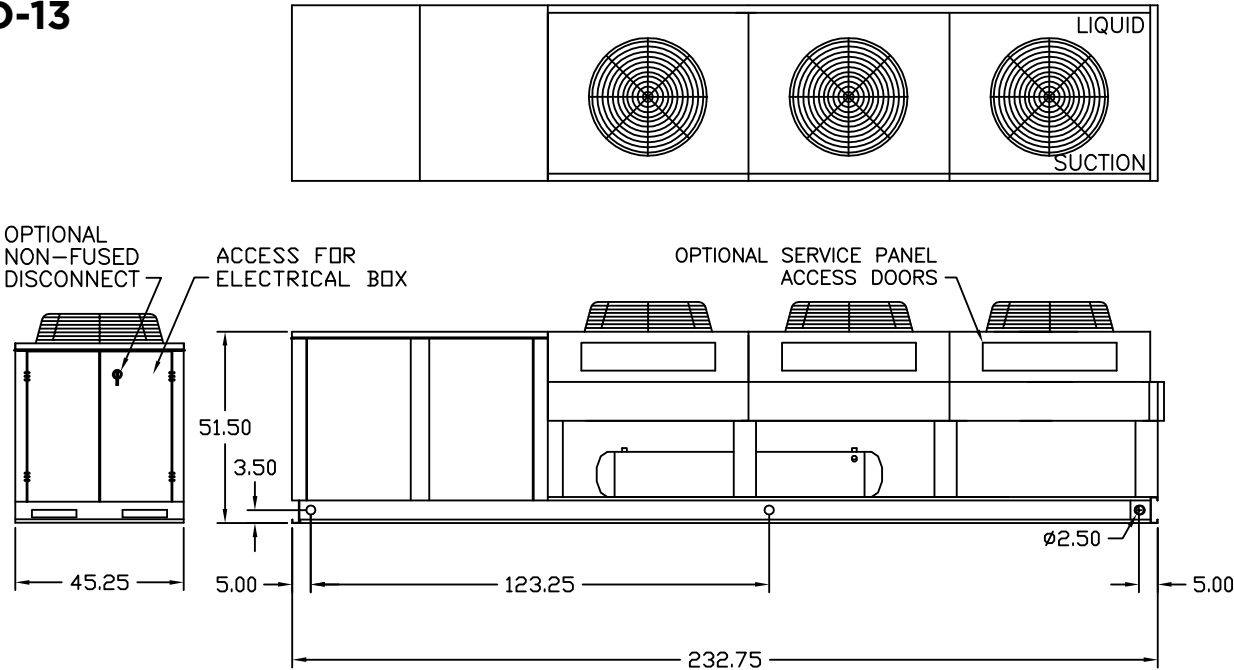
CD-12



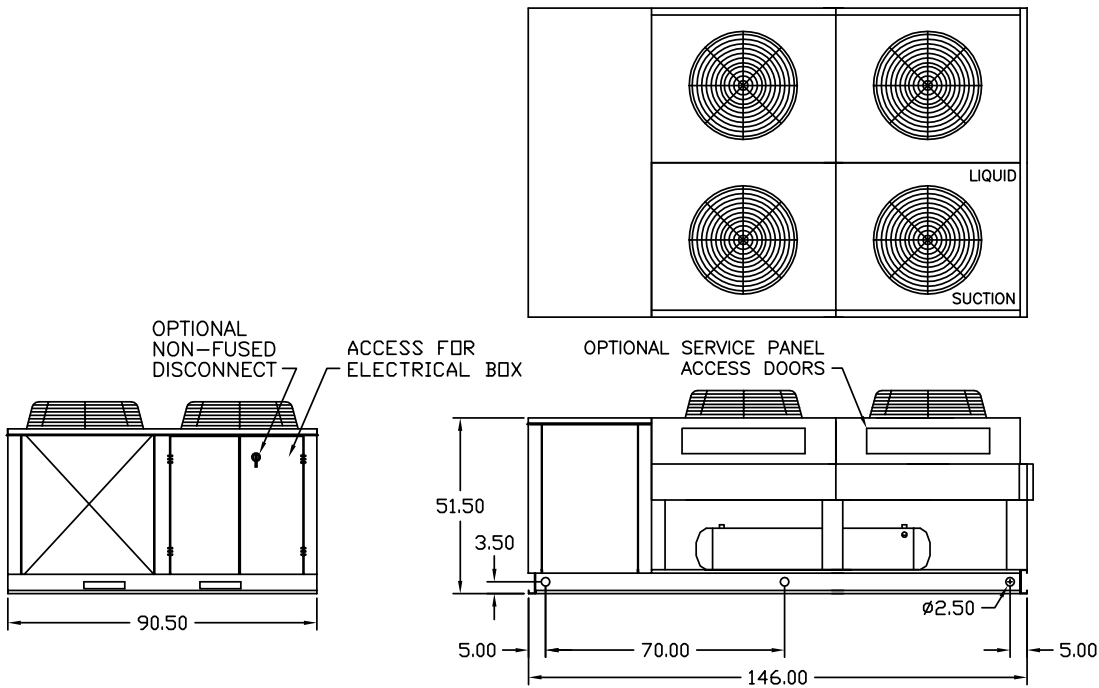
Dimensional Drawings

CD Dual Systems

CD-13



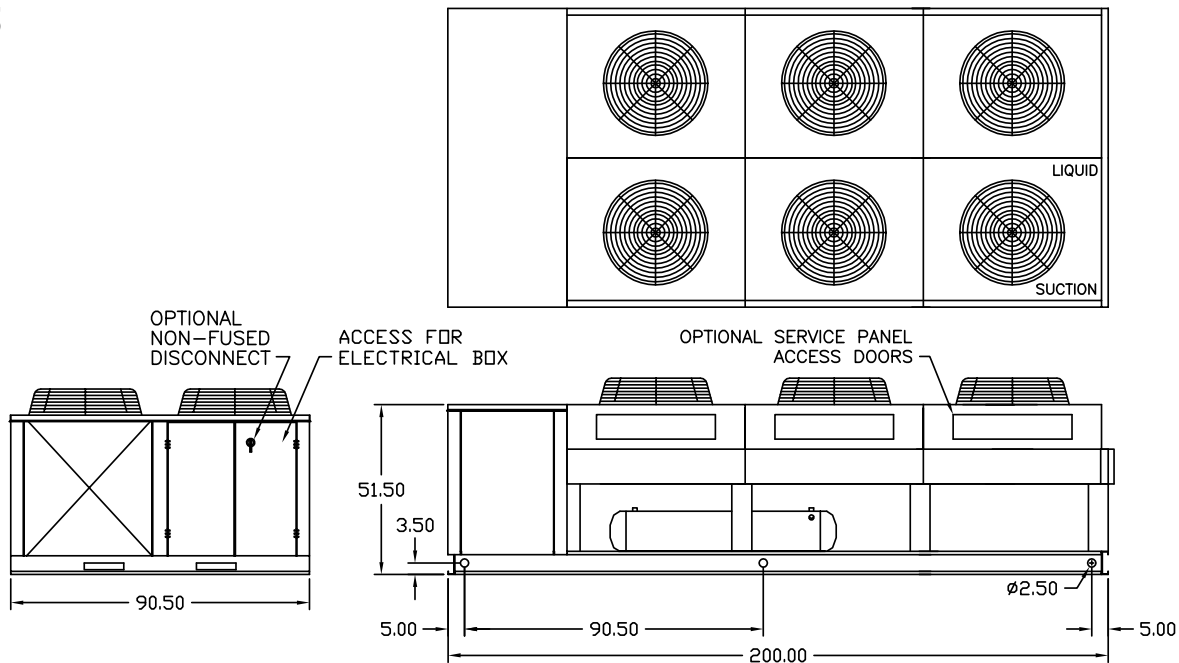
CD-22



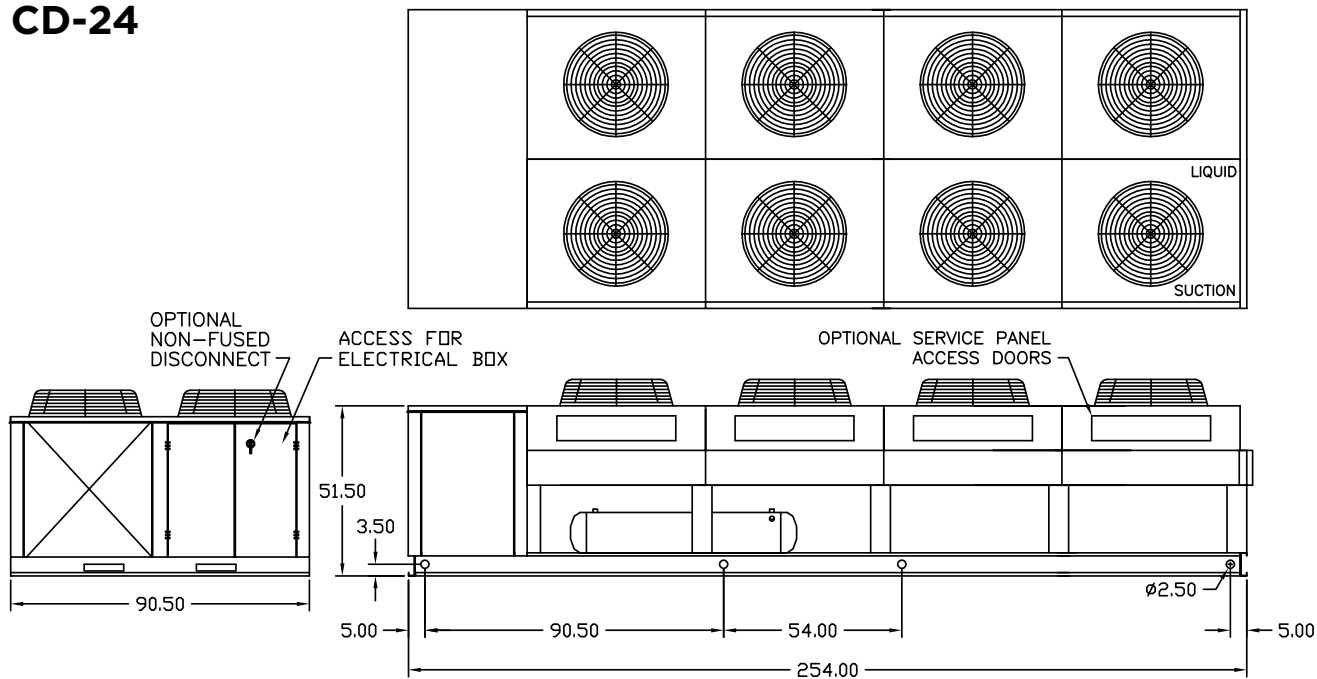
Dimensional Drawings

CD Dual Systems

CD-23

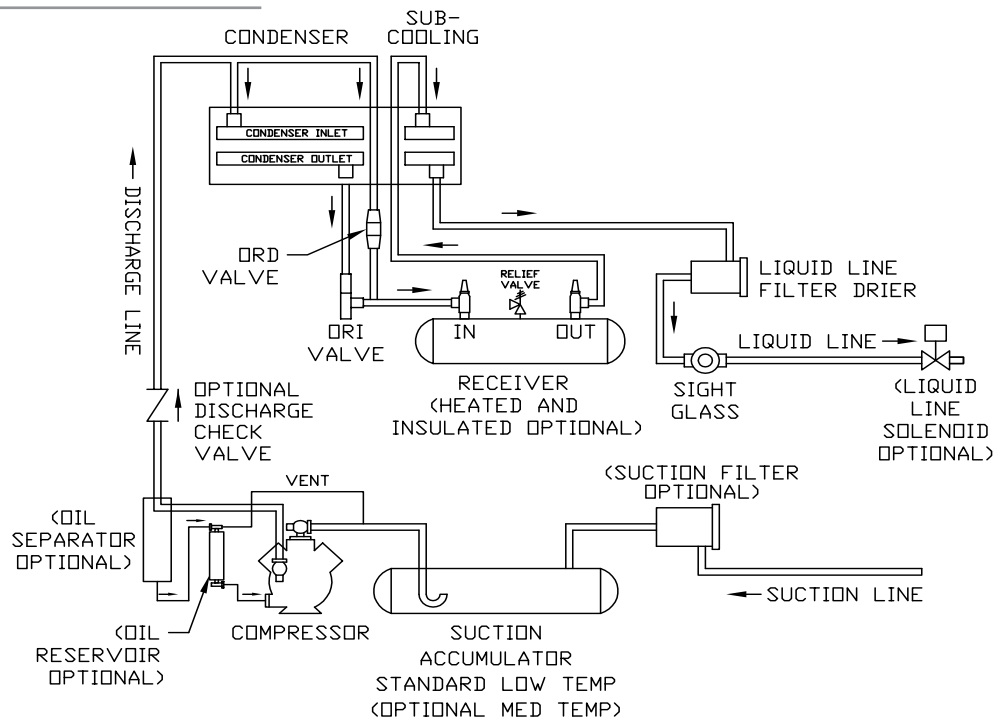


CD-24

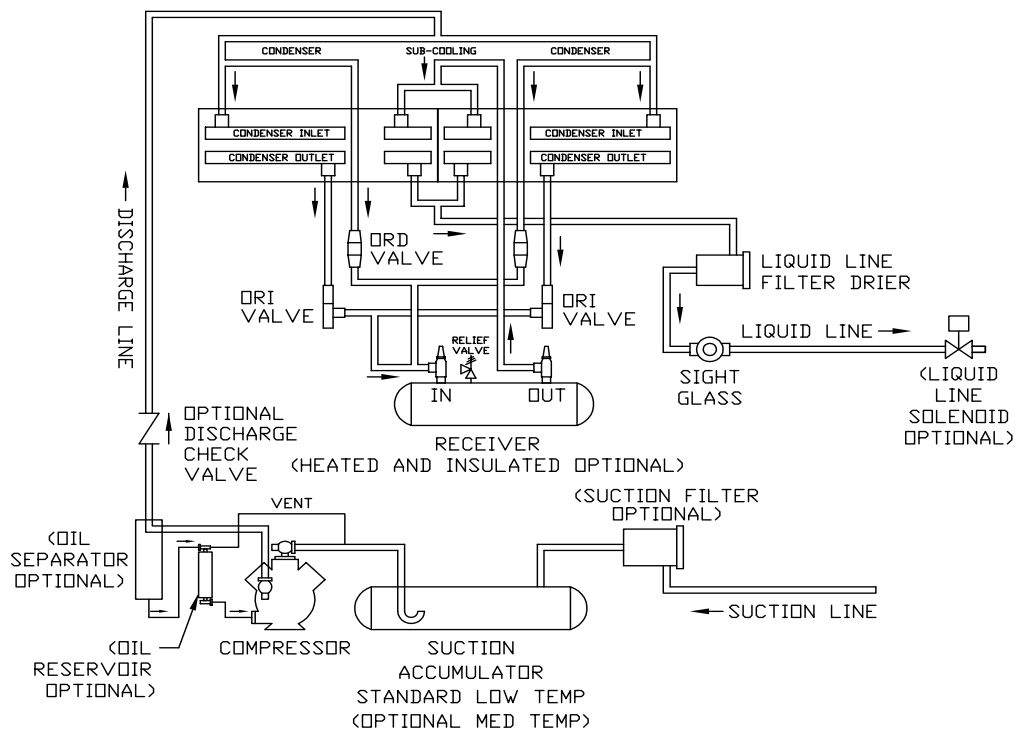


Piping Schematics

CS Single Piping - 1 Wide Coil

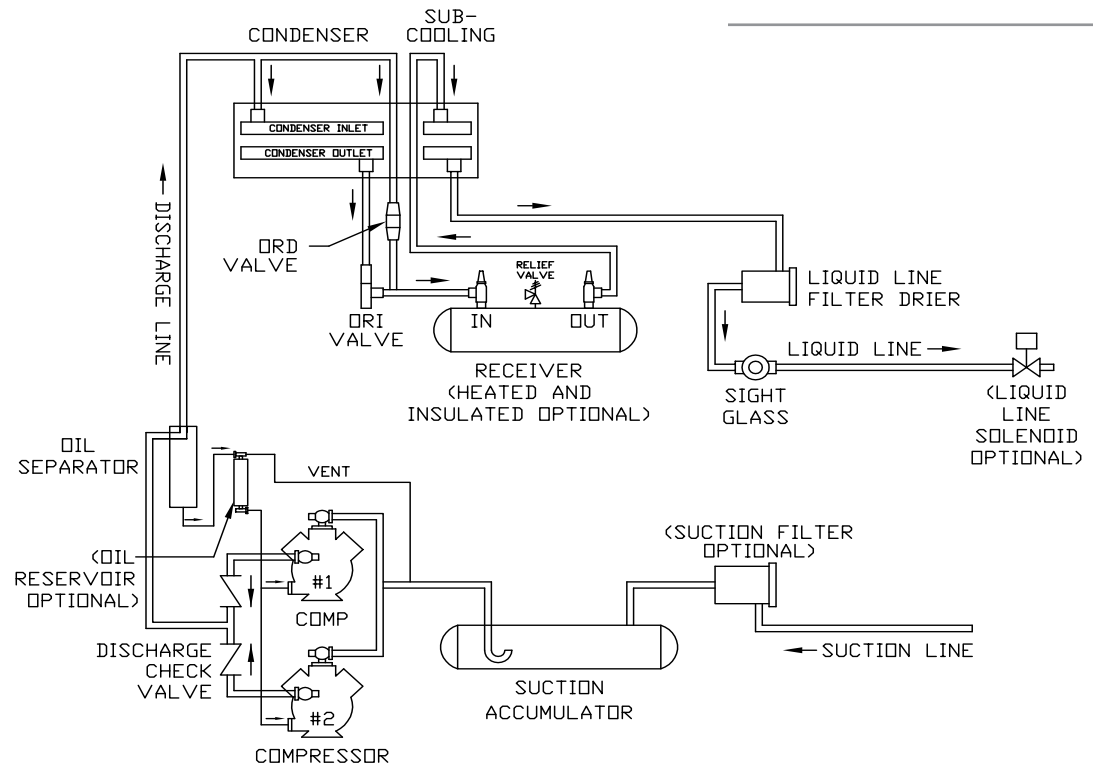


CS Single Piping - 2 Wide Coil

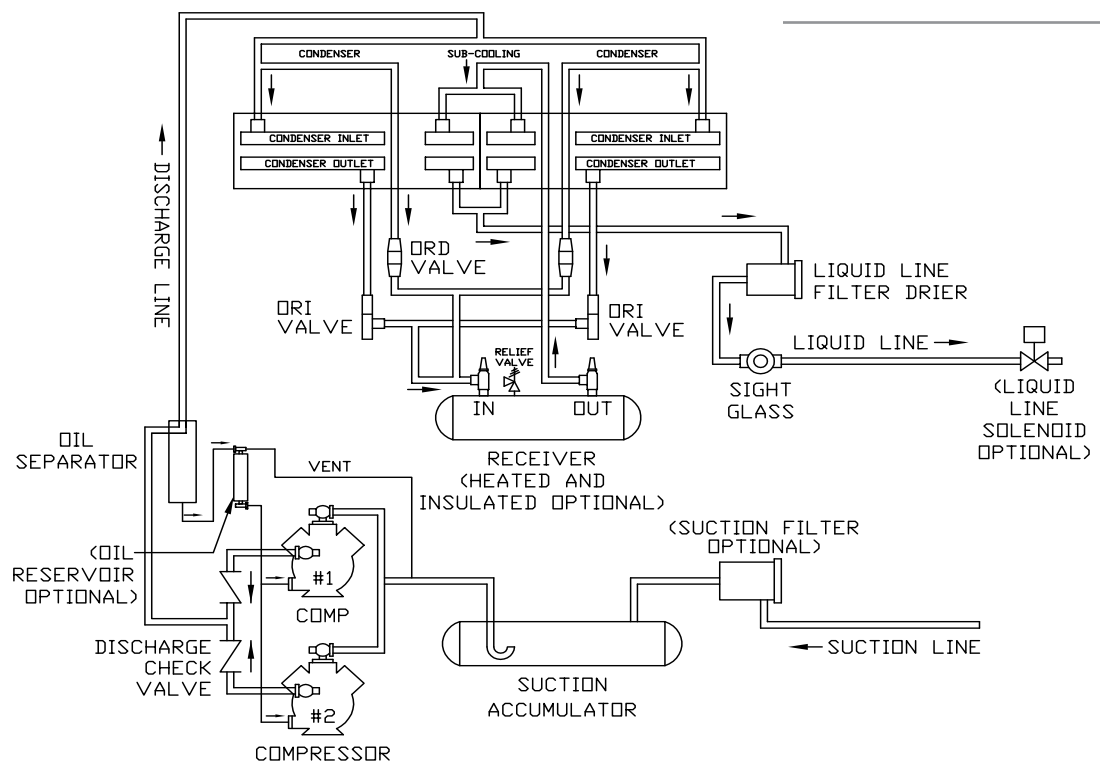


Piping Schematics

CP Parallel Piping - 1 Wide Coil

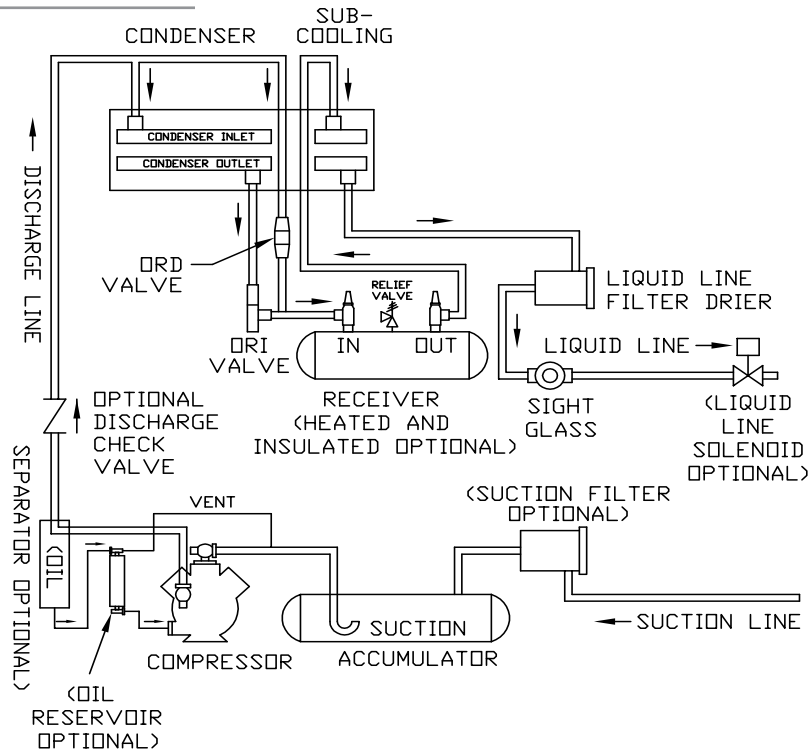


CP Parallel Piping - 2 Wide Coil

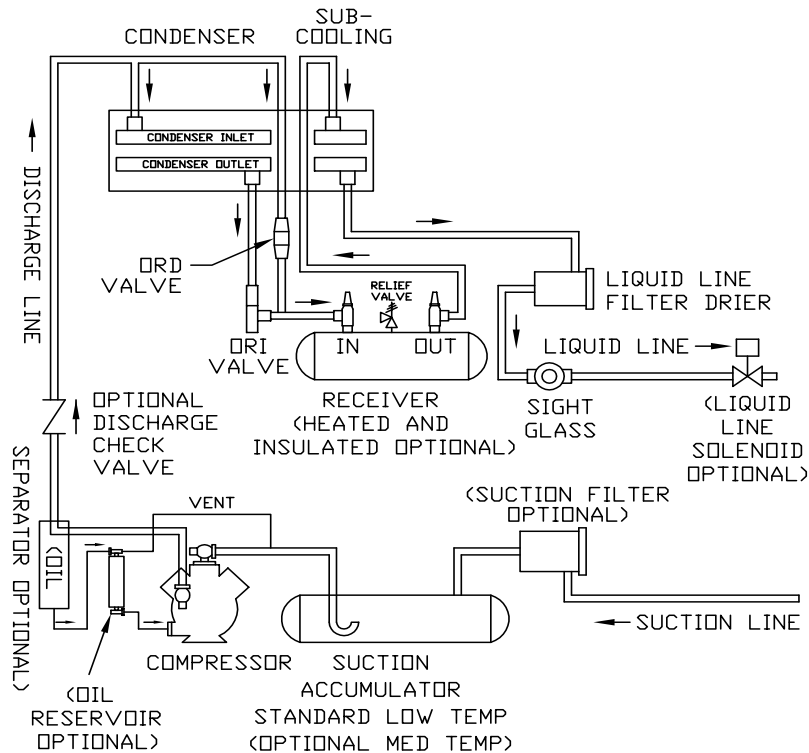


Piping Schematics

CD Dual Piping - Refrigerant Circuit 1



CD Dual Piping - Refrigerant Circuit 2



Notes

Large Air-Cooled Commercial Condensing Units

Notes



Use your QR reader to
reference current document
version on www.krack.com.



Krack, a Hussmann Corporation brand

1049 Lily Cache Lane, Suite A
Bolingbrook, Illinois 60440
Ph: 630.629.7500

www.krack.com
www.hussmann.com