YORK
A JOHNSON CONTROLS COMPANY

ARI PERFORMANCE CERTIFIED
ARI Standard 550/590 AC

YCAL0014 – YCAL0030
YCAL0070 - YCAL0134
10 - 30 and 70 – 130 TON
35 - 105 and 246 – 456 kW
60 Hz
R-22 & HFC-407C

ETL

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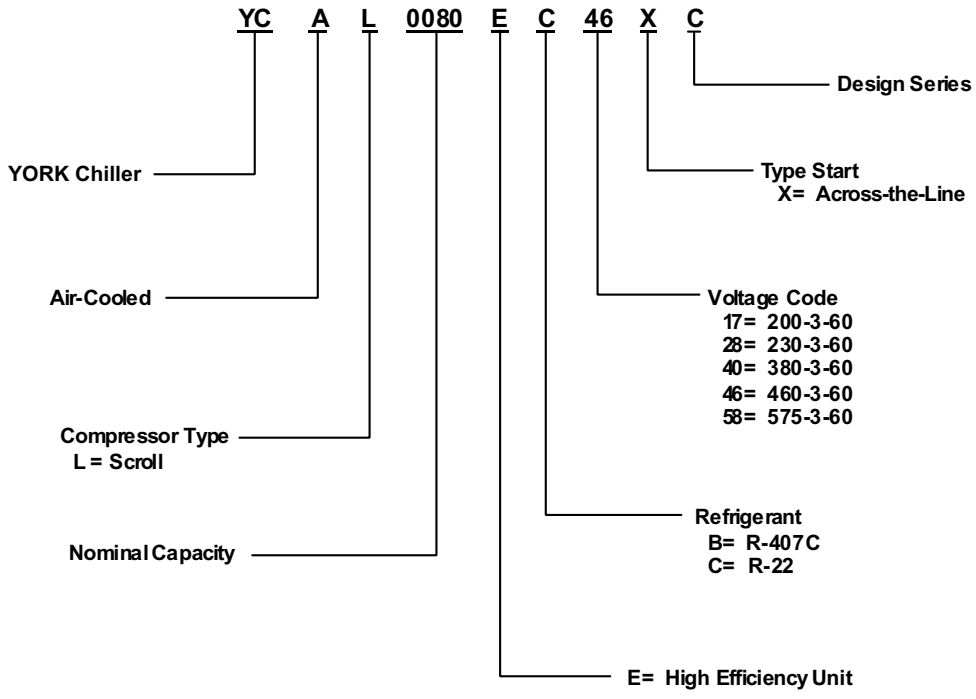


Introduction

YORK Millennium® Air-Cooled Scroll Chillers provide chilled water for all air conditioning applications using central station air handling or terminal units. They are completely self-contained and are designed for outdoor (roof or ground level) installation. Each unit includes hermetic scroll compressors, a liquid cooler, air cooled condenser, and a weather resistant microprocessor control center, all mounted on a formed steel base.

Specifications

GENERAL

The 10 - 30 and 70 - 135 Ton (35 - 105 and 246 - 475 kW) YCAL models are shipped complete from the factory ready for installation and use.

The unit is pressure-tested, evacuated, and fully charged with either Refrigerant-22 (HCFC-22) or chlorine-free R-407C (HFC-407C) and includes an initial oil charge. After assembly, a complete operational test is performed with water flowing through the cooler to assure that the refrigeration circuit operates correctly.

The unit structure is heavy-gauge, galvanized steel. This galvanized steel is coated with baked-on powder paint, which, when subjected to ASTM B117 500 hour, salt spray testing, yields a minimum ASTM 1654 rating of “6”. Units are designed in accordance with NFPA 70 (National Electric Code), ASHRAE/ANSI 15 Safety code for mechanical refrigeration, ASME and rated in accordance with ARI Standard 550/590-98.

COMPRESSORS

The chiller has suction-gas cooled, hermetic, scroll compressors. The YCAL compressors incorporate a compliant scroll design in both the axial and radial direction. All rotating parts are statically and dynamically balanced. A large internal volume and oil reservoir provides greater liquid tolerance. Compressor crankcase heaters are also included for extra protection against liquid migration.

COOLER

The cooler is equipped with a heater controlled by a separate thermostat. The heater provides freeze protection for the cooler down to -20°F (-29°C) ambient. The cooler is covered with 3/4" flexible, closed-cell, foam insulation (K=0.25).

The water baffles are constructed of galvanized steel to resist corrosion. The removable heads allow access to the internally enhanced, seamless, copper tubes. Vent and drain connections are included.

Water inlet and outlet connections are grooved for compatibility with field supplied victaulic connections.

CONDENSER

Coils – Fin and tube condenser coils of seamless, internally-enhanced, high-condensing-coefficient, corrosion resistant copper tubes are arranged in staggered rows, mechanically expanded into aluminum fins. Integral subcooling is included. The design working pressure of the coil is 450 PSIG (31 bar).

Fans – The condenser fans are composed of corrosion-resistant aluminum hub and glass-fiber-reinforced polypropylene composite blades molded into a low noise airfoil section. The are designed for maximum efficiency and are statically and dynamically balanced for vibration free operation. They are directly driven by independent motors, and positioned for vertical air discharge. The fan guards are constructed of heavy-gauge, rust-resistant, coated steel. All blades are statically and dynamically balanced for vibration-free operation.

Motors – The fan motors are Totally Enclosed Air-Over, squirrel-cage type, current protected. They feature ball bearings that are double-sealed and permanently lubricated.

Provisions are included for: pumpdown at shutdown; optional remote chilled water temperature reset and two steps of demand load limiting from an external building automation system. Unit alarm contacts are standard.

The operating program is stored in non-volatile memory (EPROM) to eliminate chiller failure due to AC powered failure/battery discharge. Programmed setpoints are retained in non-rechargable, lithium-battery-backed RTC (Real Time Clock) memory for 5 years minimum.

POWER PANEL

Each panel contains:

- Compressor power terminals
- Compressor motor starting contactors per I.E.C.*
- Control power terminals to accept incoming for 115-1-60 control power
- Fan contactors & overload current protection

The power wiring is routed through liquid-tight conduit to the compressors and fans.

* International Electrotechnical Commission

MILLENNIUM CONTROL CENTER

All controls are contained in a NEMA 3R/12 cabinet with hinged outer door and includes:

Liquid Crystal Display with Light Emitting Diode backlighting for outdoor viewing:
Two display lines
Twenty characters per line

Color coded 12-button non-tactile keypad with sections for:

DISPLAY/PRINT of typical information:
Chilled liquid temperatures
Ambient temperature
System pressures (each circuit)
Operating hours and starts (each compressor)
Print calls up to the liquid crystal display:
Operating data for the systems
History of fault shutdown data for up to the last six fault shutdown conditions

An RS-232 port, in conjunction with this press-to-print button, is provided to permit the capability of hard copy print-outs via a separate printer (by others).

ENTRY section to:
ENTER setpoints or modify system values

SETPOINTS updating can be performed to:
Chilled liquid temperature setpoint and range
Remote reset temperature range
Set daily schedule/holiday for start/stop
Manual override for servicing
Low and high ambient cutouts
Number of compressors
Low liquid temperature cutout
Low suction pressure cutout
High discharge pressure cutout
Anti-recycle timer (compressor start cycle time)
Anti-coincident timer (delay compressor starts)

UNIT section to:
Set time
Set unit options

UNIT ON/OFF switch

The microprocessor control center is capable of displaying the following:

- Return and leaving liquid temperature
- Low leaving liquid temperature cutout setting
- Low ambient temperature cutout setting
- Outdoor air temperature
- English or Metric data
- Suction pressure cutout setting
- Each system suction pressure
- Discharge pressure (optional)
- Liquid Temperature Reset via a YORK ISN DDC or Building Automation System (by others) via:
  - a pulse width modulated (PWM) input as standard
  - a 4-20 milliamp or 0 -10 VDC input, or contact closure with the optional B.A.S. interface option
- Anti-recycle timer status for each system
- Anti-coincident system start timer condition
- Compressor run status
- No cooling load condition
- Day, date and time
- Daily start/stop times
- Holiday status
- Automatic or manual system lead/lag control
- Lead system definition
- Compressor starts & operating hours (each compressor)
- Status of hot gas valves, evaporator heater and fan operation
- Run permissive status
- Number of compressors running
- Liquid solenoid valve status
- Load & unload timer status
- Water pump status

Accessories and Options

POWER OPTIONS:

COMPRESSOR POWER CONNECTIONS – Single-point (YCAL0014 - 0030) and multiple-point (YCAL0070-0134) terminal block connection(s) are provided as standard. The following power connections are available as options. (See electrical data for specific voltage and options availability.) (**Factory-mounted**.)

SINGLE-POINT SUPPLY TERMINAL BLOCK – (*Available on YCAL0070 - 0080 models (standard on YCAL0014 - 0034 models)).* Includes enclosure, terminal-block and interconnecting wiring to the compressors. Separate external protection must be supplied, by others, in the incoming compressor-power wiring*. (Do not include this option if either the Single-Point Non-Fused Disconnect Switch or Single-Point Circuit Breaker options have been included.)*

SINGLE-POINT OR MULTIPLE-POINT SUPPLY TERMINAL BLOCK(S) WITH INDIVIDUAL SYSTEM BREAKERS - (*Available on YCAL0090-0134 models*) Includes single- or dual-point terminal block connection(s) with factory interconnecting wiring from the terminal block to factory supplied system circuit breakers.

SINGLE-POINT NON-FUSED DISCONNECT SWITCH (*Available on YCAL0070-0080 models*) **OR MULTIPLE-POINT NON-FUSED DISCONNECT SWITHCHES** (*Available on YCAL0090-0134 models*) – Unit-mounted disconnect switch(es) with external, lockable handle (in compliance with Article 440-14 of N.E.C.), can be supplied to isolate the unit power voltage for servicing. Separate external fusing must be supplied, by others in the power wiring, which must comply with the National Electrical Code and/or local codes*.*

SINGLE-POINT NON-FUSED DISCONNECT SWITCH WITH INDIVIDUAL SYSTEM BREAKERS - (*Available on YCAL0090-0134 models*) Includes unit-mounted disconnect switch with external, lockable handles (in compliance with Article 440-14 of N.E.C.) to isolate unit power voltage for servicing. Factory interconnecting wiring is provided from the disconnect switch to factory supplied system circuit breakers.

SINGLE-POINT CIRCUIT BREAKER – (*Available on YCAL0014-0030 and YCAL0070 - 0080 models*) – A unit mounted circuit breaker with external, lockable handle (in compliance with N.E.C. Article 440-14), can be supplied to isolate the power voltage for servicing. *(This option includes the Single-Point Power connection.)*

CONTROL TRANSFORMER – Converts unit power voltage to 115-1-60 (0.5 or 1.0 KVA capacity). Factory mounting includes primary and secondary wiring between the transformer and the control panel. (**Factory-mounted**.)

POWER FACTOR CORRECTION CAPACITORS – Will correct unit compressor power factors to a 0.90-0.95. (**Factory-mounted**.)

CONTROL OPTIONS:

AMBIENT KIT (LOW) – (*Available on YCAL0014-0030 and YCAL0070 - 0080 models only [standard on YCAL0090-0134 models]*) Units will operate to 25°F (-4°C). This accessory includes all necessary components to permit chiller operation to 0°F (-18°C). (*This option includes the Discharge Pressure Transducer / Readout Capability option.)* For proper head pressure control in applications below 25°F (-4°C) where wind gusts may exceed 5 mph, it is recommended that Optional Condenser Louvered Enclosure Panels also be included. (**Factory-mounted**.)

AMBIENT KIT (HIGH) – Required if units are to operate when the ambient temperature is above 115°F (46°C). Includes sun shield panels and discharge pressure transducers. *(This option includes the Discharge Pressure Transducer / Readout Capability option.)* (**Field-mounted**.)

BUILDING AUTOMATION SYSTEM INTERFACE – The factory addition of a Printed Circuit Board to accept a 4-20 milliamp, 0-10VDC or contact closure input to reset the leaving chiller liquid temperature from a Building Automation System. *(Only one of following options can be offered on a unit at a time: BAS, Remote Control Panel or Multi-unit Sequence Control.)* (**Factory-mounted**.)

- (The standard unit capabilities include remote start-stop, remote water temperature reset via a PWM input signal or up to two steps of demand (load) limiting depending on model.)
- (The standard control panel can be directly connected to a YORK Building Automated System via the standard on-board RS485 communication port.)

LANGUAGE LCD AND KEYPAD DISPLAY – Spanish, French, German, and Italian unit LCD controls and keypad display available. Standard language is English.

DISCHARGE PRESSURE TRANSDUCERS AND READ-OUT CAPABILITY – (*Available on YCAL0014-0030 and YCAL0070 - 0080 models only [standard on YCAL0090-0134 models]*) The addition of pressure transducers allows models to sense and display discharge pressure. This is recommended for brine chilling applications. *(This option is included with either the low or high ambient kits.)* (**Factory-mounted**.)

MOTOR CURRENT MODULE – Capable of monitoring compressor motor current. Provides extra protection against compressor reverse rotation, phase-loss and phase imbalance. Option consists of one module per electrical system. (**Factory-mounted**.)

REMOTE CONTROL PANEL AND WALL ADAPTOR– (*Available on YCAL0014-0030 and YCAL0070 - 0080 models only*)*(Only one of following options can be offered on a unit at a time: BAS, Remote Control Panel,Optiview Remote Graphic Panel or Multi-unit Sequence Control.)* (**Field-mounted**.)

OPTIVIEW REMOTE CONTROL PANEL - Graphical interface panel to remotely control and monitor up to 8 different units. (*Refer to form 201.18-SG4 for detailed information*)

MULTI-UNIT SEQUENCING – A separate Sequencing Control Center is provided to handle sequencing control of up to eight chillers in parallel based on mixed liquid temperature (interconnecting wiring by others). *(Only one of following options can be offered on a unit at a time: BAS, Remote Control Panel or Multi-unit Sequence Control.)* (**Factory-mounted**.)

COMPRESSOR, PIPING, EVAPORATOR OPTIONS:

LOW TEMPERATURE BRINE – Required for brine chilling below 30°F (-1°C) leaving brine temperature for YCAL0014-0030 and YCAL0070 - 0080 models. Option includes resized thermal expansion valve. Low temperature brine is standard on YCAL0090-0134 models. (**Factory-mounted**)

CHICAGO CODE RELIEF VALVES – Unit will be provided with relief valves to meet Chicago code requirements. (**Factory-mounted**.)

SERVICE ISOLATION VALVE – Service suction and discharge (ball type) isolation valves are added to unit per system. This option also includes a system high pressure relief valve in compliance with ASHRAE 15. (**Factory-mounted**.)

HOT GAS BY-PASS – Permits continuous, stable operation at capacities below the minimum step of compressor unloading to as low as 5% capacity (depending on both the unit and operating conditions) by introducing an artificial load on the cooler. Hot gas by-pass is installed on only refrigerant system #1 on two-circuited units. (**Factory-mounted**.)

DX COOLER 300 (21 bar) PSIG DWP WATERSIDE – The waterside will be of 300 PSIG (21 bar) instead of the standard 150 PSIG DWP(10.5 bar). 300 PSIG R.F. flanges are included on the DX cooler nozzles. (**Factory-mounted**.) The companion flanges will be field-supplied by others.

FLANGES (WELD TYPE) – Consists of 150 lb. (standard 150 psi [10.5 bar] cooler) R.F. flanges to convert to flanged cooler-connections and includes companion flanges. *(300 lb. flanges included on optional DX cooler 300 PSIG DWP waterside)* (**Field-mounted**.)

FLANGES (VICTAULIC TYPE) – Consists of (2) Flange adapter for grooved end pipe (standard 150 psi [10.5 bar] cooler). *(Not available on optional DX cooler 300 PSIG DWP waterside.)* (**Field-mounted**.)

FLOW SWITCH – The flow switch or its equivalent must be furnished with each unit.

150 psig (10.5 bar) DWP – For standard units. Johnson Controls model F61MG-1C Vapor-proof SPDT, NEMA 4X switch (150 PSIG [10.5 bar] DWP), -20°F to 250°F (-29°C to 121°C), with 1" NPT connection for upright mounting in horizontal pipe. (**Field-mounted**.)

300 psig (21 bar) DWP – For units with optional 300 PSIG (21 bar) DX cooler. McDonnell & Miller model FS7-4W Vapor-proof SPDT, NEMA 4X switch (300 PSIG (21 bar) DWP), -20°F to 300°F (-29°C to 149°C), with 1¼ inch MPT connection for upright mounting in horizontal pipe. (**Field-mounted**.)

DIFFERENTIAL PRESSURE SWITCH – Alternative to an above mentioned flow switch. Pretempco model DPS300A-P40PF-82582-5 (300 psi max. working pressure), SPDT 5 amp 125/250VAC switch, Range 0 - 40 PSID, deadband 0.5 - 0.8 psi, with 1/4" NPTE Pressure Connections.

REMOTE DX COOLER – A split system arrangement with the cooler, leaving & return water sensors, liquid line solenoid valves, filter driers, sightglasses & TXVs shipped loose for field connection to the air-cooled condensing section. The DX cooler and outdoor section will have a nitrogen holding charge. Interconnecting rigid piping, wiring and refrigerant are by others. Includes YORK Service start-up. See Form 150.62-NM1.1 (200) for other application information. *(This option includes the Crankcase Heater option.)*(**Field-mounted**.)

CONDENSER AND CABINET OPTIONS:

Condenser coil protection against corrosive environments is available by choosing any of the following options. For additional application recommendations, refer to FORM 150.12-ES1. (**Factory-mounted**.)

Accessories and Options - cont.

PRE-COATED FIN CONDENSER COILS – The air-cooled condenser coils are constructed of epoxy-coated aluminum fins. This can provide corrosion resistance comparable to copper-fin coils in typical seashore locations. Either these or the post-coated coils (below), are recommended for units being installed at the seashore or where salt spray may hit the unit.

POST-COATED DIPPED CONDENSER COILS – The unit is built with dipped-cured condenser coils. This is another choice for seashore and other corrosive applications (with the exception of strong alkalies, oxidizers and wet bromine, chlorine and fluorine in concentrations greater than 100 ppm).

COPPER FIN CONDENSER COILS – The unit constructed with condenser coils which have copper fins. (This is not recommended for units in areas where they may be exposed to acid rain.)

ENCLOSURE PANELS (UNIT) – Tamperproof Enclosure Panels prevent unauthorized access to units. Enclosure Panels can provide an aesthetically pleasing alternative to expensive fencing. Additionally, for proper head pressure control, YORK recommends the use of Condenser Louvered Panels for winter applications where wind gustss may exceed five miles per hour. The following types of enclosure panels are available:

WIRE PANELS (Full Unit) – Consists of welded wire-mesh guards mounted on the exterior of the unit. Prevents unauthorized access, yet provides free air flow. (**Factory-mounted**.)

WIRE/LOUVERED PANELS – Consists of welded wire-mesh panels on the bottom part of unit and louvered panels on the condenser section of the unit. (Factory- mounted).

LOUVERED PANELS (Condenser Coil Only) – Louvered panels are mounted on the sides and ends of the condenser coils for protection. (**Factory-mounted**.)

LOUVERED PANELS (Full Unit) – Louvered panels surround the front, back, and sides of the unit. They prevent unauthorized access and visually screen unit components. Unrestricted air flow is permitted through generously sized louvered openings. This option is applicable for any outdoor design ambient temperature up to 115°F (46°). (**Factory-mounted**.)

SOUND ATTENUATION – One or both of the following sound attenuation options are recommended for residential or other similar sound sensitive locations:

COMPRESSOR ACOUSTIC SOUND BLANKET – Each compressor is individually enclosed by an acoustic sound blanket. The sound blankets are made with one layer of acoustical absorbent textile fiber of 5/8" (15mm) thickness; one layer of anti-vibrating heavy material thickness of 1/8" (3mm). Both are closed by two sheets of welded PVC, reinforced for temperature and UV resistance. (**Factory-mounted**.)

LOW SOUND FANS – Lower RPM, 8-pole fan motors are used with steeper-pitch fans. (**Factory-mounted**.)

VIBRATION ISOLATORS – Level adjusting, spring type 1" (25.4mm) or seismic deflection or neoprene pad isolators for mounting under unit base rails. (**Field-mounted**.)

Selection

GUIDE TO SELECTION

Capacity ratings for YORK YCAL Packaged Air-Cooled Liquid Chillers, shown on pages 16 through 39 cover the majority of design applications for these units. For unusual applications or uses beyond the scope of this catalog, please consult your nearest YORK Office or representative.

SELECTION RULES

1. **Ratings** – Ratings may be interpolated, but must not be extrapolated. The Ratings given on pages 16 through 39 and the DESIGN PARAMETERS given on page 11 indicate the limits of application for these chillers.
2. **Cooler Water** – Ratings are based upon 2.4 GPM per ton which is equal to a 10°F chilled water range and a 0.0001 fouling factor for the cooler at sea level. Tables on pages 16 through 39 give capacity, compressor kW required, cooler GPM and unit EER.
3. **Condenser** – Ratings are given in terms of air on condenser in degrees Fahrenheit.
4. **Copper Fin Condenser Ratings** – Since the thermal conductivity of copper is slightly higher than aluminum, apply the following corrections to the standard ratings. Tons x 0.97 and compressor kW x 0.99.
5. **Performance Data Correction Factors** – Ratings are based on 0.0001 cooler fouling factor, 10°F chilled water range and at sea level. For operation at different conditions, apply the appropriate correction factor from the following table.

FOULING FACTOR					
ALTITUDE	TEMP SPLIT	0.0001		0.00025	
		TONS	COMPR kW	TONS	COMPR kW
SEA LEVEL	8	0.994	0.999	0.991	0.998
	10	1.000	1.000	0.993	0.999
	12	1.005	1.001	0.999	0.999
	14	1.008	1.002	1.005	1.000
2000 FT.	8	0.990	1.010	0.984	1.009
	10	0.995	1.010	0.990	1.009
	12	0.999	1.011	0.995	1.010
	14	1.004	1.015	0.998	1.011
4000 FT.	8	0.983	1.021	0.977	1.020
	10	0.989	1.024	0.983	1.021
	12	0.994	1.025	0.988	1.024
	14	0.997	1.026	0.993	1.025
6000 FT.	8	0.978	1.035	0.973	1.034
	10	0.982	1.037	0.978	1.035
	12	0.987	1.037	0.980	1.036
	14	0.992	1.038	0.986	1.037

6. **Ethylene Glycol Correction Factors** – The following factors are to be applied to the standard ratings for units cooling ethylene glycol.

ETHYLENE GLYCOL					
% WEIGHT	TONS kW	COMPR	GPM°F/ TON	PRESS DROP	FREEZE PT
10	0.985	0.997	24.1	1.034	26
20	0.981	0.996	24.9	1.062	16
30	0.974	0.995	26.1	1.096	5
40	0.966	0.991	27.5	1.134	-10
50	0.957	0.989	29.1	1.172	-32

7. **Propylene Glycol Correction Factors** – The following factors are to be applied to the standard ratings for units cooling propylene glycol.

PROPYLENE GLYCOL					
% WEIGHT	TONS kW	COMPR	GPM°F/ TON	PRESS DROP	FREEZE PT
10	0.983	0.996	24.2	1.048	27
20	0.974	0.995	24.4	1.086	19
30	0.961	0.990	25.1	1.134	8
40	0.946	0.98	26.0	1.186	-5
50	0.928	0.984	27.2	1.247	-25

METHOD OF SELECTION

To select of YORK Packaged Air-Cooled Liquid Chiller, the following data must be known:

1. Design Capacity in tons refrigeration (TR).
2. Entering and Leaving Liquid Temperatures.
3. Outside ambient air temperature in degrees F.
4. GPM of chilled liquid.

Determine capacity requirements from the following formula:

$$GPM = \frac{TR \times 24}{RANGE\ (°F)}$$

EXAMPLE – WATER CHILLING

1. **GIVEN:** Provide a capacity of 50 Tons at 42°F leaving water 10°F range, 0.0001FF, 80°F air on the condenser, at sea level and 60 Hz.
2. **FIND:** Unit Size
   Compressor kW Input
   Unit EER
3. From the Ratings on pages 16 - 46:

   SELECT: YCAL0050 (English Units)

53.1 Tons
48.7 Compressor kW
11.7 Unit EER

4. Calculate Compressor kW at 50 Tons:

$$kW = \frac{50}{53.1} \times 48.7kW = 45.9kW$$

5. Calculate GPM:

$$GPM = \frac{50 \text{ Tons} \times 24}{10°F \text{ Range}} = 120 \text{ GPM}$$

6. From Page 14, read 10 ft of water cooler pressure drop for GPM:
7. A YCAL0050 is suitable.

EXAMPLE – Brine Chilling

1. **GIVEN:** Provide a capacity of 34 tons cooling 30% by weight Ethylene Glycol from 50°F to 40°F, 0.00025FF, 95°F air on the condenser, 60 Hz and 4000 ft. altitude.
2. **DETERMINE:**
   Unit Size
   kW Input
   Ethylene Glycol GPM
   Cooler Pressure Drop
3. See Ethylene Glycol correction factors, for 30% by weight Ethylene Glycol.

   READ: .974 Tons factor
   .995 Compr. kW factor
   26.1 Gal./°F/Tons factor

4. See Performance Data Correction Factors for 0.00025 fouling factor and 4000 ft. altitude.

   READ: .983 Tons factor
   1.021 kW factor
5. From RATINGS on pages 16 - 46:

   SELECT: YCAL0040 (English Units)
   36.1 Tons
   38.6 Compressor kW

6. Determine YCAL0040 brine cooling capacity and Compressor kW requirement:
   A. Tons = 36.1 x .974 x .983 = 34.6
   B. Compr. kW = 38.6 x .995 x 1.021 = 39.2
7. Determine average full load Compressor kW at 34 tons:
   34 tons x (39.2 kW) = 38.5 Compressor kW
   34.6 tons
8. Determine Ethylene Glycol GPM:

$$GPM = \frac{\text{Tons} \times \text{Gal. °F/min/Ton factor}}{\text{Range}}$$

$$GPM = \frac{34.0 \times 26.1}{10}$$

$$GPM = 88.7$$

9. Determine Cooler Pressure Drop:
   A. See Ethylene Glycol correction factors for 30% by weight Ethylene Glycol.

   READ: 1.096 Pressure Drop Factor

   B. See page 14 at 88.7 GPM for the YCAL0040.

   READ: 6.5 Ft. H_2O Pressure Drop

   C. Cooler Pressure Drop = 6.5 x 1.096 or 7.1 Ft. H_2O

10. YCAL0040 is suitable.

Design Parameters

ENGLISH UNITS

YCAL	LEAVING WATER					
	TEMPERATURE (°F)		COOLER FLOW (GPM[3])		AIR ON CONDENSER (°F)	
	MIN[1]	MAX[2]	MIN	MAX	MIN[4]	MAX[5]
0014	40	55	25	60	0	125
0020	40	55	25	60	0	125
0024	40	55	30	70	0	125
0030	40	55	35	170	0	125
0070	40	55	100	350	0	125
0074	40	55	100	350	0	125
0080	40	55	100	400	0	125
0090	40	55	138	525	0	125
0094	40	55	138	525	0	125
0104	40	55	156	625	0	125
0114	40	55	156	625	0	125
0124	40	55	156	625	0	125
0134	40	55	156	625	0	125

SI UNITS

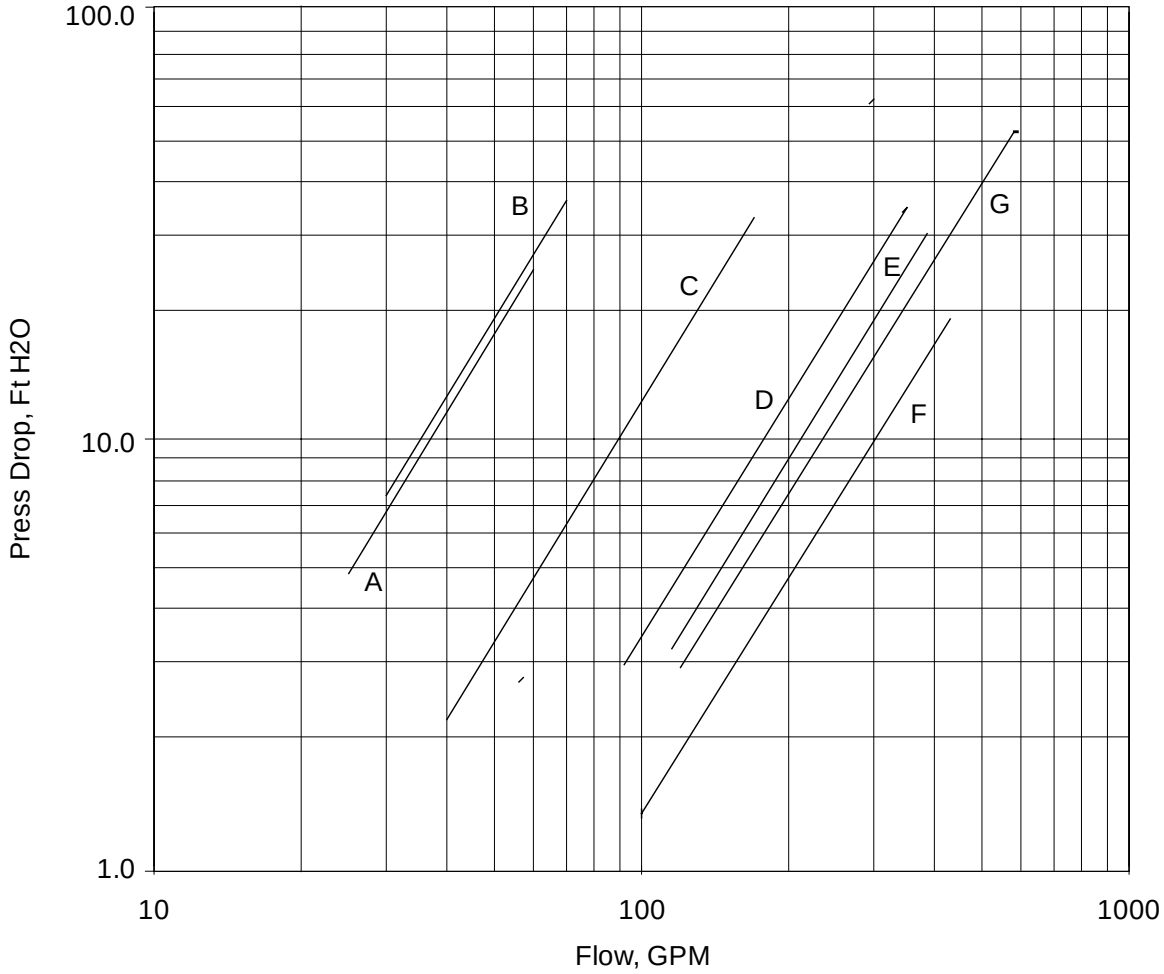
YCAL	LEAVING WATER					
	TEMPERATURE (°C)		COOLER FLOW (l/s[3])		AIR ON CONDENSER (°C)	
	MIN[1]	MAX[2]	MIN	MAX	MIN[4]	MAX[5]
0014	4.4	12.8	1.6	3.8	-17.7	51.7
0020	4.4	12.8	1.6	3.8	-17.7	51.7
0024	4.4	12.8	1.9	4.4	-17.7	51.7
0030	4.4	12.8	2.2	10.7	-17.7	51.7
0070	4.4	12.8	6.3	22.1	-17.7	51.7
0074	4.4	12.8	6.3	22.1	-17.7	51.7
0080	4.4	12.8	6.3	25.2	-17.7	51.7
0090	4.4	12.8	8.7	33.1	-17.7	51.7
0094	4.4	12.8	8.7	33.1	-17.7	51.7
0104	4.4	12.8	9.8	39.4	-17.7	51.7
0114	4.4	12.8	9.8	39.4	-17.7	51.7
0124	4.4	12.8	9.8	39.4	-17.7	51.7
0134	4.4	12.8	9.8	39.4	-17.7	51.7

NOTES:

1. For leaving brine temperature below 40°F (4.4°C), contact your nearest YORK Office for application requirements.
2. For leaving water temperature higher than 55°F (12.8°C), contact the nearest YORK Office for application guidelines.
3. The evaporator is protected against freezing to -20°F (-28.8°C) with an electric heater as standard.
4. For operation at temperatures below 25°F (-3.9°C), the optional Low Ambient Kit will need to be installed on the system (for YCAL0014-0080 models only).
5. For operation at temperatures above 115°F (46.1°C), the optional High Ambient Kit will need to be installed on the system.

Pressure Drop Curves

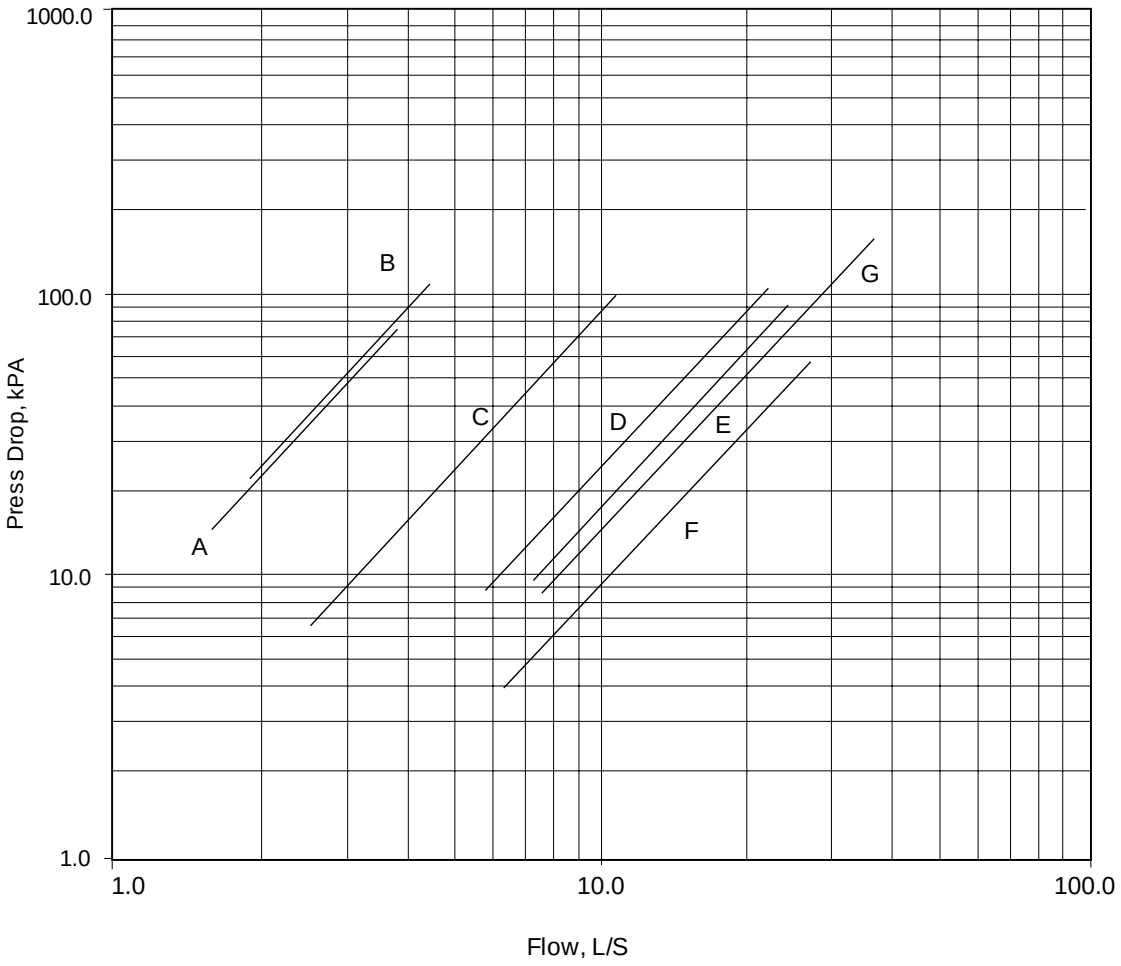
ENGLISH



MODEL YCAL	COOLER CURVE
0014, 0020	A
0024	B
0030	C
0070, 0074	D
0080	E
0090, 0094	F
0104, 0114, 0124, 0134	G

Note: Water Pressure Drop Curves may extend past the minimum and maximum water flow ranges. See page 11 for minimum and maximum flow points.

SI



MODEL YCAL	COOLER CURVE
0014, 0020	A
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0090, 0094	F
0104, 0114, 0124, 0134	G

Note: Water Pressure Drop Curves may extend past the minimum and maximum water flow ranges. See page 11 for minimum and maximum flow points.

Ratings - R-22 English

YCAL0014EC

IPLV=13.1

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	13.6	10.9	11.9	13.3	11.5	11.1	12.9	12.1	10.4	12.6	12.8	9.7	12.3	13.6	9.0	12.0	14.4	8.4
42.0	14.1	10.9	12.3	13.7	11.5	11.5	13.4	12.2	10.7	13.1	12.9	10.0	12.8	13.7	9.3	12.4	14.5	8.6
44.0	14.6	11.0	12.7	14.2	11.6	11.9	13.9	12.3	11.1	13.6	13.0	10.3	13.2	13.7	9.6	12.9	14.6	8.9
45.0	14.9	11.0	12.9	14.6	11.7	12.1	14.1	12.3	11.2	13.8	13.0	10.5	13.5	13.8	9.7	13.1	14.6	9.1
46.0	15.1	11.1	13.1	14.8	11.7	12.2	14.5	12.4	11.5	14.1	13.1	10.6	13.7	13.8	9.9	13.4	14.6	9.2
48.0	15.7	11.1	13.5	15.3	11.8	12.6	14.9	12.4	11.8	14.6	13.1	11.0	14.3	13.9	10.2	13.8	14.7	9.5
50.0	16.2	11.2	13.9	15.8	11.8	13.0	15.5	12.5	12.1	15.2	13.2	11.4	14.7	14.0	10.5	14.4	14.8	9.8

YCAL0020EC

IPLV=13.6

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	18.7	15.5	12.3	18.2	16.4	11.4	17.8	17.4	10.6	17.3	18.4	9.8	16.8	19.5	9.1	16.3	20.6	8.4
42.0	19.3	15.6	12.6	18.9	16.5	11.7	18.4	17.5	10.9	17.9	18.5	10.1	17.4	19.6	9.3	16.9	20.7	8.6
44.0	20.0	15.7	13.0	19.5	16.6	12.1	19.0	17.6	11.2	18.5	18.6	10.4	18.0	19.7	9.6	17.5	20.9	8.9
45.0	20.3	15.8	13.2	19.9	16.7	12.2	19.4	17.7	11.4	18.9	18.7	10.5	18.3	19.8	9.7	17.8	20.9	9.0
46.0	20.7	15.8	13.3	20.2	16.7	12.4	19.7	17.7	11.5	19.2	18.8	10.7	18.7	19.9	9.9	18.1	21.0	9.1
48.0	21.4	15.9	13.7	20.9	16.9	12.7	20.4	17.9	11.8	19.8	18.9	11.0	19.3	20.0	10.2	18.8	21.2	9.4
50.0	22.1	16.1	14.1	21.6	17.0	13.1	21.1	18.0	12.2	20.5	19.0	11.3	20.0	20.1	10.4	19.4	21.3	9.7

YCAL0024EC

IPLV=13.6

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	23.0	19.6	12.3	22.5	20.6	11.5	22.0	21.7	10.8	21.4	22.9	10.0	20.9	24.2	9.3	20.3	25.5	8.6
42.0	23.8	19.7	12.7	23.3	20.7	11.9	22.8	21.8	11.1	22.2	23.0	10.3	21.6	24.3	9.6	21.1	25.7	8.9
44.0	24.6	19.9	13.0	24.1	20.9	12.2	23.6	22.0	11.4	23.0	23.2	10.6	22.4	24.5	9.9	21.8	25.8	9.1
45.0	25.1	19.9	13.2	24.5	21.0	12.4	24.0	22.1	11.6	23.4	23.3	10.8	22.8	24.5	10.0	22.2	25.9	9.3
46.0	25.5	20.0	13.4	24.9	21.0	12.6	24.4	22.1	11.7	23.8	23.3	10.9	23.2	24.6	10.2	22.6	26.0	9.4
48.0	26.4	20.2	13.8	25.8	21.2	12.9	25.2	22.3	12.1	24.6	23.5	11.2	24.0	24.8	10.4	23.3	26.2	9.7
50.0	27.3	20.3	14.1	26.7	21.3	13.3	26.1	22.5	12.4	25.5	23.7	11.5	24.8	24.9	10.7	24.1	26.3	9.9

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0014EC

IPLV=13.1

AIR TEMPERATURE ON CONDENSER (°F)															
LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	11.7	15.3	7.8	11.3	16.2	7.2	11.0	17.1	6.6	10.6	18.2	6.1	5.3	8.6	5.6
42.0	12.1	15.3	8.0	11.8	16.3	7.4	11.4	17.2	6.8	11.0	18.2	6.3	5.5	8.7	5.8
44.0	12.6	15.4	8.3	12.2	16.3	7.6	11.8	17.3	7.0	11.4	18.3	6.5	5.7	8.7	6.0
45.0	12.8	15.5	8.4	12.4	16.4	7.8	12.0	17.3	7.2	11.6	18.4	6.6	5.9	8.7	6.1
46.0	13.0	15.5	8.5	12.6	16.4	7.9	12.2	17.4	7.3	11.8	18.4	6.7	6.0	8.7	6.3
48.0	13.5	15.6	8.8	13.1	16.5	8.1	12.7	17.5	7.5	12.2	18.5	6.9	6.1	8.7	6.4
50.0	14.0	15.7	9.1	13.6	16.6	8.4	13.1	17.6	7.7	12.7	18.6	7.1	6.5	8.7	6.8

YCAL0020EC

IPLV=13.6

AIR TEMPERATURE ON CONDENSER (°F)															
LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	15.8	21.8	7.7	15.3	23.0	7.1	14.9	24.3	6.6	14.3	25.7	6.0	7.3	11.9	5.9
42.0	16.4	21.9	7.9	15.9	23.2	7.3	15.4	24.5	6.8	14.9	25.8	6.2	7.7	12.0	6.3
44.0	17.0	22.1	8.2	16.4	23.3	7.5	15.9	24.6	7.0	15.4	26.0	6.4	8.0	12.0	6.5
45.0	17.3	22.1	8.3	16.7	23.4	7.6	16.2	24.7	7.1	15.7	26.1	6.5	8.2	12.0	6.6
46.0	17.6	22.2	8.4	17.0	23.5	7.7	16.5	24.8	7.2	15.9	26.2	6.6	8.3	12.1	6.7
48.0	18.2	22.4	8.7	17.5	23.6	8.0	17.0	25.0	7.4	16.5	26.4	6.8	8.6	12.1	6.9
50.0	18.8	22.5	8.9	18.2	23.8	8.2	17.5	25.1	7.5	17.1	26.5	7.0	8.9	12.2	7.2

YCAL0024EC

IPLV=13.6

AIR TEMPERATURE ON CONDENSER (°F)															
LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	19.7	26.9	8.0	19.1	28.5	7.3	18.4	30.1	6.7	17.7	31.7	6.1	17.0	33.5	5.6
42.0	20.4	27.1	8.2	19.8	28.6	7.6	19.1	30.2	6.9	18.4	31.9	6.3	17.6	33.7	5.8
44.0	21.2	27.3	8.4	20.5	28.8	7.8	19.8	30.4	7.2	19.1	32.1	6.6	18.3	33.9	6.0
45.0	21.5	27.3	8.6	20.9	28.9	7.9	20.2	30.5	7.3	19.4	32.2	6.7	10.1	15.1	6.7
46.0	21.9	27.4	8.7	21.2	29.0	8.0	20.5	30.6	7.4	19.8	32.3	6.8	10.2	15.2	6.8
48.0	22.7	27.6	9.0	22.0	29.2	8.3	21.3	30.8	7.6	20.5	32.5	7.0	10.6	15.2	7.1
50.0	23.5	27.8	9.2	22.8	29.3	8.5	22.0	31.0	7.8	21.2	32.7	7.2	11.0	15.3	7.3

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-22 English Cont.

YCAL0030EC

IPLV=14.1

	AIR TEMPERATURE ON CONDENSER (°F)																	
LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	29.1	24.0	13.0	28.4	25.4	12.1	27.8	26.8	11.3	27.1	28.4	10.4	26.4	30.1	9.6	25.7	31.8	8.9
42.0	30.1	24.2	13.4	29.4	25.6	12.5	28.8	27.0	11.6	28.1	28.6	10.7	27.3	30.3	9.9	26.6	32.0	9.2
44.0	31.1	24.4	13.7	30.5	25.8	12.8	29.7	27.2	11.9	29.0	28.8	11.0	28.3	30.5	10.2	27.6	32.3	9.4
45.0	31.6	24.5	13.9	31.0	25.9	13.0	30.3	27.4	12.0	29.5	28.9	11.2	28.8	30.6	10.3	28.0	32.4	9.6
46.0	32.2	24.6	14.1	31.5	26.0	13.1	30.8	27.5	12.2	30.0	29.0	11.3	29.3	30.7	10.5	28.5	32.5	9.7
48.0	33.3	24.8	14.4	32.6	26.2	13.5	31.8	27.7	12.5	31.1	29.3	11.6	30.3	31.0	10.8	29.5	32.7	10.0
50.0	34.4	25.1	14.8	33.6	26.5	13.8	32.9	27.9	12.8	32.1	29.5	11.9	31.3	31.2	11.1	30.5	33.0	10.2

YCAL0070EC

IPLV=14.3

	AIR TEMPERATURE ON CONDENSER (°F)																	
LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	72.2	61.4	12.7	70.6	64.7	11.9	69.0	68.3	11.0	67.3	72.2	10.2	65.5	76.3	9.5	63.7	80.6	8.7
42.0	74.8	61.9	13.1	73.0	65.2	12.2	71.5	68.8	11.3	69.7	72.6	10.5	67.8	76.8	9.7	65.9	81.2	9.0
44.0	77.4	62.4	13.4	75.7	65.8	12.5	73.9	69.3	11.7	72.1	73.2	10.8	70.2	77.3	10.0	68.2	81.7	9.3
45.0	78.7	62.7	13.6	77.0	66.0	12.7	75.2	69.6	11.8	73.3	73.4	11.0	71.4	77.6	10.2	69.4	82.0	9.4
46.0	80.0	63.0	13.8	78.3	66.3	12.9	76.4	69.9	12.0	74.6	73.7	11.1	72.6	77.8	10.3	70.6	82.3	9.5
48.0	82.7	63.5	14.1	80.9	66.8	13.2	79.0	70.4	12.3	77.1	74.2	11.4	75.1	78.4	10.6	73.0	82.9	9.8
50.0	85.5	64.0	14.5	83.6	67.3	13.5	81.6	70.9	12.6	79.6	74.8	11.7	77.6	79.0	10.9	75.5	83.4	10.0

YCAL0074EC

IPLV=14.4

	AIR TEMPERATURE ON CONDENSER (°F)																	
LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	78.3	68.1	12.5	76.6	71.9	11.7	74.7	76.0	10.8	72.9	80.4	10.0	70.9	85.0	9.3	69.0	89.9	8.6
42.0	81.0	68.7	12.9	79.2	72.5	12.0	77.3	76.7	11.1	75.4	81.1	10.3	73.4	85.7	9.5	71.4	90.6	8.8
44.0	83.8	69.3	13.2	81.9	73.2	12.3	80.0	77.3	11.4	78.0	81.7	10.6	76.0	86.4	9.8	73.8	91.3	9.0
45.0	85.2	69.7	13.4	83.3	73.5	12.4	81.3	77.6	11.6	79.3	82.1	10.7	77.2	86.8	9.9	75.1	91.7	9.1
46.0	86.6	70.0	13.5	84.7	73.9	12.6	82.7	78.0	11.7	80.6	82.4	10.8	78.5	87.1	10.0	76.4	92.1	9.3
48.0	89.5	70.6	13.9	87.5	74.5	12.9	85.4	78.7	12.0	83.3	83.1	11.1	81.2	87.8	10.3	78.9	92.8	9.5
50.0	92.4	71.3	14.2	90.4	75.2	13.2	88.3	79.4	12.3	86.1	83.9	11.4	83.8	88.6	10.5	81.5	93.6	9.7

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0030EC

IPLV=14.1

AIR TEMPERATURE ON CONDENSER (°F)															
LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	25.0	33.6	8.2	24.2	35.5	7.6	23.5	37.5	7.0	22.7	39.6	6.4	11.7	18.7	6.5
42.0	25.9	33.9	8.5	25.1	35.8	7.8	24.3	37.8	7.2	23.6	39.9	6.6	12.1	18.7	6.8
44.0	26.8	34.1	8.7	26.0	36.0	8.0	25.2	38.1	7.4	12.9	17.8	7.5	12.5	18.8	6.9
45.0	27.3	34.2	8.8	26.5	36.2	8.1	25.6	38.2	7.5	13.1	17.8	7.6	12.7	18.8	7.0
46.0	27.7	34.4	9.0	26.9	36.3	8.3	26.1	38.3	7.6	13.4	17.9	7.8	12.9	18.9	7.2
48.0	28.7	34.6	9.2	27.8	36.6	8.5	27.0	38.6	7.8	13.9	17.9	8.0	13.4	19.0	7.4
50.0	29.7	34.9	9.4	28.8	36.8	8.7	27.9	38.9	8.0	14.4	18.0	8.3	13.9	19.1	7.6

YCAL0070EC

IPLV=14.3

AIR TEMPERATURE ON CONDENSER (°F)															
LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	61.7	85.2	8.1	59.7	90.1	7.4	57.6	95.2	6.8	55.4	100.6	6.2	37.4	65.5	6.2
42.0	63.9	85.8	8.3	61.6	90.7	7.6	59.7	95.9	7.0	57.5	101.3	6.4	38.8	65.8	6.4
44.0	66.2	86.4	8.5	64.1	91.3	7.8	61.9	96.5	7.2	50.6	82.2	6.8	40.2	66.1	6.6
45.0	67.3	86.7	8.6	65.2	91.6	7.9	62.8	96.8	7.3	42.5	62.7	7.3	41.0	66.3	6.7
46.0	68.5	87.0	8.8	66.3	91.9	8.1	64.0	97.2	7.4	43.3	62.8	7.5	41.7	66.4	6.8
48.0	70.9	87.6	9.0	68.6	92.6	8.3	66.3	97.8	7.6	44.9	63.1	7.7	43.3	66.7	7.1
50.0	73.2	88.1	9.3	71.0	93.2	8.5	68.6	98.5	7.8	46.5	63.3	8.0	44.7	67.0	7.3

YCAL0074EC

IPLV=14.4

AIR TEMPERATURE ON CONDENSER (°F)															
LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	66.9	95.0	7.9	64.7	100.4	7.2	62.6	106.0	6.7	50.6	87.4	6.5	40.9	72.2	6.2
42.0	69.3	95.8	8.1	67.1	101.2	7.5	64.8	106.8	6.8	52.5	87.9	6.7	42.4	72.7	6.4
44.0	71.7	96.5	8.3	69.4	102.0	7.7	56.4	83.8	7.5	54.4	88.5	6.8	44.0	73.1	6.6
45.0	72.9	96.9	8.4	70.6	102.4	7.8	57.4	84.1	7.6	46.4	69.4	7.3	44.7	73.3	6.7
46.0	74.1	97.3	8.5	71.8	102.8	7.9	58.4	84.4	7.7	47.2	69.6	7.4	45.6	73.5	6.8
48.0	76.6	98.1	8.8	74.3	103.6	8.1	60.4	84.9	7.9	48.9	70.0	7.6	47.2	73.9	7.0
50.0	79.2	98.9	9.0	76.7	104.5	8.3	62.5	85.5	8.1	50.6	70.4	7.9	48.9	74.4	7.2

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-22 English Cont.

YCAL0080EC

IPLV=14.6

	AIR TEMPERATURE ON CONDENSER (°F)																	
LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	85.0	74.6	12.5	83.0	79.0	11.6	81.0	83.6	10.7	78.9	88.5	9.9	76.8	93.5	9.2	74.7	98.9	8.5
42.0	87.9	75.4	12.8	85.8	79.7	11.9	83.8	84.4	11.0	81.6	89.3	10.2	79.5	94.4	9.4	77.3	99.8	8.7
44.0	90.8	76.1	13.1	88.7	80.5	12.2	86.6	85.2	11.3	84.4	90.1	10.4	82.2	95.3	9.7	79.9	100.8	8.9
45.0	92.3	76.5	13.3	90.2	80.9	12.3	88.0	85.6	11.4	85.8	90.6	10.6	83.6	95.7	9.8	81.2	101.2	9.0
46.0	93.8	76.9	13.5	91.7	81.3	12.5	89.5	86.0	11.6	87.2	91.0	10.7	84.9	96.2	9.9	82.6	101.7	9.1
48.0	96.9	77.7	13.8	94.7	82.1	12.8	92.4	86.9	11.8	90.1	91.8	11.0	87.8	97.1	10.1	85.3	102.6	9.4
50.0	100.0	78.5	14.1	97.8	83.0	13.1	95.4	87.7	12.1	93.1	92.7	11.2	90.6	98.0	10.4	88.1	103.6	9.6

YCAL0090EC

IPLV=13.8

	AIR TEMPERATURE ON CONDENSER (°F)																	
LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	85.3	69.7	12.7	83.4	73.1	11.9	81.5	76.8	11.2	79.5	80.8	10.4	77.6	84.9	9.7	75.6	89.4	9.0
42.0	88.3	70.5	13.0	86.4	73.9	12.2	84.4	77.6	11.5	82.4	81.5	10.7	80.3	85.7	10.0	78.3	90.2	9.3
44.0	91.4	71.3	13.4	89.4	74.7	12.6	87.4	78.3	11.8	85.3	82.3	11.0	83.2	86.5	10.3	81.1	91.0	9.6
45.0	93.0	71.7	13.5	90.9	75.1	12.7	88.9	78.7	11.9	86.8	82.7	11.1	84.7	86.9	10.4	82.5	91.4	9.7
46.0	94.6	72.1	13.7	92.5	75.5	12.9	90.4	79.1	12.1	88.3	83.1	11.3	86.2	87.3	10.5	84.0	91.9	9.8
48.0	97.8	72.9	14.0	95.7	76.3	13.2	93.6	80.0	12.4	91.4	83.9	11.6	89.1	88.1	10.8	86.9	92.7	10.1
50.0	101.2	73.8	14.3	99.0	77.2	13.5	96.8	80.9	12.7	94.5	84.8	11.9	92.3	89.0	11.1	89.9	93.6	10.3

YCAL0094EC

IPLV=13.8

	AIR TEMPERATURE ON CONDENSER (°F)																	
LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	92.5	76.4	12.7	90.4	80.1	11.9	88.2	84.1	11.2	86.1	88.4	10.4	83.9	92.8	9.7	81.7	97.6	9.0
42.0	95.7	77.3	13.0	93.6	81.0	12.2	91.4	84.9	11.5	89.1	89.2	10.7	86.9	93.7	10.0	84.6	98.5	9.3
44.0	99.1	78.2	13.3	96.8	81.9	12.5	94.6	85.8	11.7	92.2	90.0	11.0	89.9	94.6	10.2	87.6	99.4	9.5
45.0	100.7	78.7	13.5	98.5	82.3	12.7	96.2	86.3	11.9	93.8	90.5	11.1	91.5	95.0	10.4	89.1	99.9	9.7
46.0	102.5	79.2	13.7	100.2	82.8	12.8	97.8	86.7	12.0	95.5	90.9	11.3	93.1	95.5	10.5	90.7	100.4	9.8
48.0	105.9	80.2	14.0	103.6	83.8	13.1	101.2	87.7	12.3	98.8	91.9	11.5	96.3	96.4	10.8	93.7	101.3	10.0
50.0	109.5	81.3	14.3	107.1	84.8	13.4	104.6	88.7	12.6	102.1	92.8	11.8	99.6	97.4	11.0	97.1	102.3	10.3

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0080EC

IPLV=14.6

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	72.4	104.5	7.8	70.2	110.4	7.2	68.0	116.4	6.6	46.2	74.7	6.8	44.8	78.8	6.3
42.0	74.9	105.4	8.0	72.7	111.3	7.4	69.9	117.3	6.8	47.8	75.1	7.0	46.4	79.4	6.5
44.0	77.6	106.4	8.2	75.1	112.3	7.6	72.7	118.5	7.0	49.5	75.6	7.2	48.0	79.9	6.6
45.0	78.9	106.9	8.3	76.4	112.8	7.7	74.0	119.0	7.1	50.4	75.9	7.3	48.8	80.1	6.7
46.0	80.2	107.4	8.4	77.7	113.3	7.8	75.2	119.6	7.1	51.3	76.1	7.4	49.5	80.4	6.8
48.0	82.8	108.4	8.6	80.3	114.4	8.0	54.9	72.6	8.3	53.1	76.7	7.6	51.3	80.9	7.0
50.0	85.6	109.5	8.8	83.0	115.5	8.1	56.8	73.1	8.5	54.9	77.2	7.8	53.1	81.5	7.2

YCAL0090EC

IPLV=13.8

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	73.5	94.2	8.4	71.4	99.3	7.8	69.3	104.7	7.2	67.2	110.4	6.7	65.0	116.5	6.1
42.0	76.2	95.0	8.6	74.1	100.1	8.0	71.9	105.5	7.4	69.7	111.3	6.8	67.5	117.4	6.3
44.0	78.9	95.8	8.9	76.7	101.0	8.2	74.5	106.4	7.6	72.3	112.2	7.1	70.0	118.3	6.5
45.0	80.3	96.2	9.0	78.1	101.4	8.4	75.9	106.8	7.7	73.6	112.7	7.2	71.3	118.8	6.6
46.0	81.7	96.7	9.1	79.5	101.8	8.5	77.2	107.3	7.8	74.9	113.1	7.3	72.6	119.3	6.7
48.0	84.7	97.6	9.4	82.4	102.7	8.7	80.0	108.2	8.1	77.7	114.1	7.5	55.8	83.9	7.1
50.0	87.6	98.4	9.6	85.2	103.6	8.9	82.9	109.1	8.3	80.4	115.0	7.7	57.9	84.5	7.3

YCAL0094EC

IPLV=13.8

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	79.5	102.7	8.4	77.3	108.2	7.8	75°F	113.9	7.2	72.8	119.9	6.7	70.6	126.2	6.2
42.0	82.4	103.6	8.6	80.0	109.1	8.0	77.8	114.9	7.4	75.5	121.0	6.9	73.3	127.3	6.4
44.0	85.3	104.6	8.9	82.9	110.1	8.2	80.6	115.8	7.6	78.3	122.0	7.1	75.9	128.4	6.5
45.0	86.8	105.0	9.0	84.4	110.5	8.3	82.0	116.3	7.7	79.7	122.5	7.2	77.4	129.0	6.6
46.0	88.3	105.5	9.1	85.9	111.0	8.5	83.5	116.9	7.9	81.1	123.0	7.3	78.7	129.6	6.7
48.0	91.3	106.5	9.3	88.9	112.0	8.7	86.5	117.9	8.1	84.0	124.1	7.5	42.9	58.0	7.5
50.0	94.6	107.5	9.6	92.0	113.1	8.9	89.5	118.9	8.3	87.0	125.2	7.7	44.5	58.4	7.7

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-22 English Cont.

YCAL0104EC

IPLV=14.0

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	102.6	88.5	12.4	100.3	93.1	11.6	97.9	97.9	10.8	95.5	103.1	10.1	93.0	108.7	9.3	90.4	114.6	8.7
42.0	106.2	89.6	12.7	103.8	94.1	11.9	101.3	99.0	11.1	98.8	104.2	10.3	96.3	109.8	9.6	93.6	115.7	8.9
44.0	109.9	90.7	13.0	107.4	95.2	12.2	104.9	100.1	11.3	102.2	105.3	10.6	99.6	110.9	9.8	96.9	116.9	9.1
45.0	111.8	91.3	13.1	109.2	95.8	12.3	106.7	100.7	11.5	104.0	105.9	10.7	101.4	111.5	9.9	98.6	117.5	9.2
46.0	113.7	91.8	13.3	111.1	96.4	12.4	108.5	101.2	11.6	105.8	106.4	10.8	103.1	112.1	10.1	100.3	118.1	9.3
48.0	117.5	93.0	13.6	114.9	97.5	12.7	112.2	102.4	11.9	109.4	107.6	11.1	106.6	113.3	10.3	103.8	119.4	9.6
50.0	121.4	94.2	13.9	118.7	98.7	13.0	115.9	103.6	12.2	113.1	108.9	11.3	110.2	114.6	10.6	107.3	120.6	9.8

YCAL0114EC

IPLV=13.7

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	113.8	96.6	12.3	111.3	101.6	11.5	108.8	107.0	10.8	106.2	112.7	10.0	103.6	118.8	9.3	100.8	125.3	8.7
42.0	117.8	97.7	12.6	115.3	102.7	11.8	112.6	108.1	11.0	110.0	113.8	10.3	107.3	119.9	9.6	104.5	126.5	8.9
44.0	121.9	98.8	12.9	119.3	103.8	12.1	116.6	109.2	11.3	113.9	114.9	10.6	111.1	121.1	9.8	108.2	127.7	9.1
45.0	124.0	99.3	13.1	121.4	104.4	12.3	118.6	109.7	11.5	115.8	115.5	10.7	113.0	121.7	10.0	110.1	128.3	9.3
46.0	126.2	99.8	13.3	123.4	104.9	12.4	120.7	110.3	11.6	117.8	116.1	10.8	115.0	122.3	10.1	112.0	128.9	9.4
48.0	130.5	101.0	13.6	127.7	106.1	12.7	124.8	111.5	11.9	121.9	117.3	11.1	118.9	123.5	10.4	115.9	130.2	9.6
50.0	135.0	102.1	13.9	132.0	107.2	13.0	129.1	112.7	12.2	126.1	118.5	11.4	123.0	124.8	10.6	119.9	131.4	9.9

YCAL0124EC

IPLV=13.5

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	124.4	107.1	12.3	121.6	112.6	11.5	118.7	118.5	10.7	115.8	124.7	10.0	112.9	131.4	9.3	109.9	138.4	8.6
42.0	128.7	108.4	12.6	125.8	113.8	11.8	122.9	119.7	11.0	119.9	126.0	10.3	116.9	132.6	9.5	113.8	139.8	8.9
44.0	133.2	109.6	12.9	130.2	115.1	12.1	127.2	121.0	11.3	124.1	127.2	10.5	121.0	134.0	9.8	117.8	141.1	9.1
45.0	135.4	110.3	13.0	132.4	115.8	12.2	129.3	121.6	11.4	126.2	127.9	10.6	123.0	134.6	9.9	119.8	141.9	9.2
46.0	137.7	110.9	13.2	134.6	116.4	12.4	131.5	122.3	11.5	128.4	128.6	10.8	125.1	135.3	10.0	121.9	142.5	9.3
48.0	142.4	112.3	13.5	139.2	117.7	12.6	136.0	123.6	11.8	132.7	129.9	11.0	129.4	136.7	10.3	126.0	143.9	9.5
50.0	147.2	113.6	13.8	143.9	119.1	12.9	140.6	125.0	12.1	137.2	131.3	11.3	133.8	138.1	10.5	130.4	145.4	9.8

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0104EC

IPLV=14.0

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	87.8	120.9	8.0	85.2	127.7	7.4	82.4	134.9	6.8	79.6	142.5	6.2	64.7	116.1	6.1
42.0	91.0	122.1	8.2	88.2	128.9	7.6	85.4	136.2	7.0	82.6	143.9	6.4	67.1	117.1	6.3
44.0	94.2	123.3	8.4	91.4	130.2	7.8	88.5	137.5	7.2	85.6	145.2	6.6	69.6	118.1	6.5
45.0	95.8	123.9	8.5	93.0	130.8	7.9	90.1	138.2	7.3	87.1	145.9	6.7	52.5	82.5	6.7
46.0	97.4	124.6	8.6	94.6	131.5	8.0	91.7	138.8	7.4	74.5	112.8	7.2	53.4	82.8	6.8
48.0	100.9	125.8	8.9	98.0	132.7	8.2	95.0	140.1	7.5	77.2	113.8	7.4	55.3	83.4	7.0
50.0	104.4	127.1	9.1	101.3	134.1	8.4	98.3	141.5	7.7	80.0	114.9	7.6	57.5	84.1	7.3

YCAL0114EC

IPLV=13.7

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	98.0	132.3	8.0	95.0	139.8	7.4	92.0	147.8	6.8	88.9	156.4	6.2	85.6	165.5	5.7
42.0	101.6	133.5	8.2	98.6	141.0	7.6	95.5	149.1	7.0	92.2	157.7	6.4	88.9	166.8	5.9
44.0	105.2	134.7	8.5	102.2	142.3	7.8	99.0	150.4	7.2	95.7	159.0	6.6	92.2	168.2	6.1
45.0	107.1	135.4	8.6	104.0	142.9	7.9	100.8	151.0	7.3	97.4	159.7	6.7	94.0	168.9	6.2
46.0	109.0	136.0	8.7	105.9	143.6	8.0	102.6	151.7	7.4	99.2	160.4	6.8	66.9	104.0	6.8
48.0	112.8	137.3	8.9	109.6	144.9	8.3	106.2	153.1	7.6	102.8	161.8	7.0	69.2	104.7	7.0
50.0	116.7	138.6	9.2	113.4	146.3	8.5	110.0	154.5	7.8	106.5	163.2	7.2	71.7	105.5	7.2

YCAL0124EC

IPLV=13.5

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	106.8	146.0	8.0	103.7	154.0	7.4	100.5	162.5	6.8	97.3	171.6	6.3	78.6	143.1	6.0
42.0	110.7	147.4	8.2	107.3	155.4	7.6	104.2	164.1	7.0	100.9	173.1	6.5	81.5	144.3	6.2
44.0	114.6	148.8	8.4	111.3	157.0	7.8	108.0	165.5	7.2	104.6	174.7	6.6	84.6	145.5	6.4
45.0	116.6	149.5	8.5	113.3	157.6	7.9	109.9	166.3	7.3	106.5	175.5	6.7	86.2	146.1	6.4
46.0	118.6	150.3	8.6	115.2	158.4	8.0	111.9	167.1	7.4	108.4	176.3	6.8	73.3	113.8	6.9
48.0	122.7	151.6	8.9	119.3	159.9	8.2	115.8	168.6	7.6	112.2	177.9	7.0	75.9	114.7	7.1
50.0	126.9	153.1	9.1	123.4	161.4	8.4	119.8	170.2	7.8	97.4	141.3	7.5	78.7	115.6	7.3

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0134EC

IPLV= 13.3

AIR TEMPERATURE ON CONDENSER (°F)

LCWT (°F)	75°F			80°F			85°F			90°F			95°F			100°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	134.4	118.8	12.1	131.3	124.8	11.3	128.1	131.2	10.6	124.9	138.1	9.8	121.7	145.3	9.1	118.4	153.1	8.5
42.0	139.1	120.2	12.4	135.9	126.2	11.6	132.6	132.6	10.8	129.3	139.5	10.1	126.0	146.8	9.4	122.6	154.6	8.7
44.0	143.8	121.7	12.7	140.5	127.7	11.9	137.2	134.1	11.1	133.8	140.9	10.3	130.3	148.3	9.6	126.9	156.1	8.9
45.0	146.2	122.5	12.8	142.9	128.4	12.0	139.5	134.8	11.2	136.0	141.7	10.5	132.6	149.1	9.7	129.0	157.0	9.0
46.0	148.7	123.2	13.0	145.3	129.1	12.1	141.8	135.5	11.3	138.3	142.4	10.6	134.8	149.8	9.8	131.3	157.7	9.2
48.0	153.6	124.8	13.2	150.1	130.7	12.4	146.6	137.1	11.6	143.0	144.0	10.8	139.3	151.4	10.1	135.7	159.3	9.4
50.0	158.8	126.4	13.5	155.1	132.2	12.7	151.5	138.6	11.9	147.8	145.5	11.1	144.1	152.9	10.3	140.4	160.9	9.6

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0134EC

IPLV= 13.3

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	115.2	161.3	7.9	111.9	169.9	7.3	108.6	179.0	6.7	105.4	188.7	6.2	71.3	121.9	6.3
42.0	119.2	162.9	8.1	115.9	171.6	7.5	112.5	180.9	6.9	109.2	190.5	6.4	73.9	122.9	6.5
44.0	123.4	164.5	8.3	119.8	173.4	7.7	116.5	182.5	7.1	113.1	192.3	6.6	76.7	123.9	6.7
45.0	125.5	165.3	8.4	122.0	174.1	7.8	118.6	183.4	7.2	115.1	193.2	6.7	78.0	124.4	6.7
46.0	127.7	166.2	8.5	124.2	174.9	7.9	120.6	184.3	7.3	117.1	194.1	6.7	79.5	124.9	6.8
48.0	132.1	167.6	8.7	128.5	176.6	8.1	124.8	186.0	7.5	121.2	196.0	6.9	82.3	125.9	7.0
50.0	136.6	169.3	8.9	132.9	178.3	8.3	129.1	187.8	7.7	87.8	120.4	7.8	85.2	126.9	7.2

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-22 SI

YCAL0014EC

COP=3.85

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	48.2	11.1	3.5	46.1	12.3	3.1	44.1	13.6	2.7	42.1	15.1	2.4	39.8	16.8	2.0	37.3	18.6	1.7
6.0	49.8	11.2	3.6	47.6	12.4	3.1	45.5	13.7	2.8	43.5	15.2	2.4	41.2	16.9	2.1	38.5	18.7	1.8
7.0	51.4	11.3	3.7	49.2	12.4	3.2	47.0	13.8	2.8	44.9	15.3	2.5	42.5	16.9	2.2	39.8	18.8	1.9
8.0	53.0	11.3	3.8	51.0	12.5	3.3	48.6	13.8	2.9	46.3	15.3	2.6	43.9	17.0	2.2	41.2	18.8	1.9
9.0	54.8	11.4	3.9	52.7	12.6	3.4	50.1	13.9	3.0	47.8	15.4	2.6	45.3	17.1	2.3	42.6	18.9	2.0
10.0	56.5	11.5	4.0	54.2	12.6	3.5	52.0	14.0	3.1	49.4	15.5	2.7	46.8	17.2	2.3	43.9	19.0	2.0
11.0	58.2	11.5	4.1	55.8	12.7	3.6	53.7	14.1	3.2	50.9	15.6	2.8	48.3	17.2	2.4	24.2	8.5	2.1

YCAL0020EC

COP=4.00

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	66.2	15.9	3.5	63.2	17.6	3.1	60.2	19.5	2.7	56.9	21.6	2.3	53.8	23.9	2.0	50.5	26.3	1.7
6.0	68.3	16.0	3.6	65.2	17.7	3.2	62.1	19.6	2.8	58.7	21.7	2.4	55.6	24.0	2.1	52.2	26.5	1.8
7.0	70.4	16.1	3.7	67.3	17.8	3.3	64.1	19.8	2.8	60.8	21.9	2.5	57.3	24.2	2.1	54.0	26.6	1.8
8.0	72.6	16.2	3.8	69.4	18.0	3.3	66.1	19.9	2.9	62.7	22.0	2.5	59.0	24.3	2.2	55.7	26.8	1.9
9.0	74.8	16.3	3.9	71.5	18.1	3.4	68.1	20.0	3.0	64.6	22.1	2.6	60.7	24.4	2.2	57.3	27.0	1.9
10.0	77.1	16.4	4.0	73.7	18.2	3.5	70.2	20.1	3.1	66.6	22.3	2.7	62.5	24.6	2.3	32.0	11.8	2.2
11.0	79.4	16.5	4.1	75.9	18.3	3.6	72.3	20.3	3.1	68.6	22.4	2.7	64.8	24.8	2.4	33.1	11.8	2.3

YCAL0024EC

COP=3.98

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	81.5	20.0	3.6	78.3	22.0	3.2	74.8	24.2	2.8	71.0	26.7	2.4	66.9	29.5	2.1	62.4	32.5	1.8
6.0	84.1	20.2	3.7	80.8	22.1	3.2	77.2	24.4	2.8	73.3	26.9	2.5	69.1	29.7	2.1	64.6	32.7	1.8
7.0	86.8	20.3	3.8	83.3	22.3	3.3	79.6	24.5	2.9	75.7	27.0	2.5	71.4	29.8	2.2	66.8	32.9	1.9
8.0	89.5	20.4	3.9	85.9	22.4	3.4	82.1	24.7	3.0	78.1	27.2	2.6	73.7	30.0	2.3	69.0	33.1	1.9
9.0	92.2	20.6	4.0	88.6	22.5	3.5	84.7	24.8	3.1	80.5	27.3	2.7	76.1	30.1	2.3	71.3	33.3	2.0
10.0	95.1	20.7	4.0	91.3	22.7	3.6	87.3	24.9	3.2	83.0	27.5	2.7	78.5	30.3	2.4	73.6	33.5	2.0
11.0	97.9	20.9	4.1	94.0	22.8	3.7	89.9	25.1	3.2	85.5	27.6	2.8	80.9	30.5	2.4	75.9	33.6	2.1

NOTES:
1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

YCAL0030EC

COP=4.14

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	103.1	24.6	3.8	98.9	27.2	3.3	94.5	30.2	2.9	89.9	33.4	2.5	85.1	36.9	2.2	42.4	18.1	2.0
6.0	106.4	24.8	3.9	102.0	27.4	3.4	97.5	30.4	2.9	92.8	33.6	2.6	87.9	37.1	2.2	43.8	18.1	2.1
7.0	109.6	25.0	4.0	105.2	27.6	3.5	100.6	30.6	3.0	95.7	33.8	2.6	90.7	37.3	2.3	45.3	18.2	2.2
8.0	113.0	25.2	4.0	108.4	27.8	3.5	103.7	30.8	3.1	98.7	34.0	2.7	93.6	37.6	2.3	46.8	18.3	2.2
9.0	116.4	25.4	4.1	111.7	28.0	3.6	106.9	31.0	3.2	101.8	34.2	2.8	96.5	37.8	2.4	48.3	18.4	2.3
10.0	119.8	25.6	4.2	115.1	28.2	3.7	110.1	31.2	3.2	104.9	34.5	2.8	99.5	38.1	2.4	49.9	18.4	2.4
11.0	123.3	25.8	4.3	118.5	28.4	3.8	113.4	31.4	3.3	108.0	34.7	2.9	102.4	38.3	2.5	51.5	18.5	2.4

YCAL0070EC

COP=4.18

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	256.2	63.0	3.7	245.8	69.3	3.2	234.5	76.5	2.8	222.3	84.6	2.4	209.3	93.5	2.1	136.9	63.5	2.0
6.0	264.2	63.4	3.8	253.5	69.7	3.3	241.9	77.0	2.9	229.4	85.1	2.5	215.4	94.0	2.1	141.6	63.8	2.0
7.0	272.4	63.9	3.9	261.3	70.2	3.4	249.4	77.5	3.0	236.6	85.6	2.6	222.2	94.5	2.2	146.4	64.0	2.1
8.0	280.8	64.4	4.0	269.3	70.7	3.5	257.1	77.9	3.0	243.9	86.1	2.6	230.2	95.2	2.3	151.2	64.3	2.1
9.0	289.3	64.8	4.0	277.4	71.2	3.6	264.9	78.4	3.1	251.5	86.6	2.7	237.3	95.8	2.3	156.0	64.5	2.2
10.0	298.0	65.3	4.1	285.7	71.7	3.6	272.8	79.0	3.2	258.8	87.1	2.8	244.7	96.3	2.4	161.3	64.8	2.3
11.0	306.9	65.8	4.2	294.2	72.2	3.7	280.9	79.5	3.3	266.9	87.7	2.8	252.1	96.9	2.4	166.4	65.0	2.3

YCAL0074EC

COP=4.22

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	277.7	69.9	3.6	266.1	77.2	3.2	253.7	85.4	2.8	240.9	94.3	2.4	227.0	104.1	2.1	149.8	70.1	2.0
6.0	286.2	70.5	3.7	274.3	77.8	3.2	261.7	86.0	2.8	248.5	95.0	2.4	234.3	104.8	2.1	154.7	70.5	2.0
7.0	295.0	71.0	3.8	282.8	78.4	3.3	269.8	86.6	2.9	256.1	95.7	2.5	241.8	105.6	2.2	159.8	70.8	2.1
8.0	303.9	71.6	3.9	291.2	79.0	3.4	278.0	87.3	3.0	264.0	96.4	2.6	249.3	106.4	2.2	165.0	71.2	2.1
9.0	313.0	72.2	4.0	300.0	79.6	3.5	286.3	87.9	3.0	272.0	97.1	2.6	216.1	83.1	2.4	170.3	71.6	2.2
10.0	322.2	72.9	4.0	308.8	80.3	3.6	294.8	88.6	3.1	280.1	97.8	2.7	222.8	83.6	2.5	175.7	72.0	2.2
11.0	331.6	73.5	4.1	317.8	80.9	3.6	303.4	89.3	3.2	288.3	98.6	2.7	229.5	84.1	2.5	180.8	72.3	2.3

NOTES:
1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

Ratings - R-22 SI Cont.

YCAL0080EC

COP=4.28

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	301.0	76.7	3.6	288.0	84.9	3.1	274.7	94.0	2.7	260.4	103.8	2.4	244.8	114.3	2.0	162.9	76.5	2.0
6.0	310.2	77.4	3.7	297.0	85.6	3.2	283.2	94.8	2.8	268.8	104.6	2.4	254.1	115.4	2.1	169.0	77.1	2.0
7.0	319.6	78.1	3.8	306.0	86.4	3.3	291.7	95.5	2.9	277.2	105.5	2.5	261.8	116.3	2.1	173.6	77.4	2.1
8.0	329.1	78.8	3.9	315.2	87.1	3.4	300.6	96.4	2.9	285.5	106.5	2.5	269.5	117.2	2.2	179.1	77.9	2.1
9.0	338.7	79.5	3.9	324.5	87.9	3.4	309.6	97.2	3.0	293.9	107.3	2.6	277.8	118.2	2.2	184.8	78.4	2.2
10.0	348.6	80.3	4.0	333.9	88.7	3.5	318.6	98.0	3.0	302.7	108.3	2.6	286.0	119.2	2.3	190.6	78.9	2.2
11.0	358.5	81.1	4.1	343.6	89.5	3.6	327.9	98.9	3.1	311.5	109.2	2.7	208.3	71.9	2.7	196.4	79.4	2.3

YCAL0090EC

COP=4.04

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	302.6	71.4	3.7	290.3	78.0	3.3	277.6	85.3	2.9	264.7	93.6	2.5	251.2	102.9	2.2	237.5	113.3	1.9
6.0	312.1	72.1	3.8	299.4	78.6	3.4	286.5	86.0	3.0	273.2	94.3	2.6	259.7	103.7	2.3	245.5	114.0	2.0
7.0	321.9	72.9	3.9	308.9	79.3	3.4	295.7	86.8	3.0	282.1	95.1	2.7	268.1	104.4	2.3	253.7	114.9	2.0
8.0	331.9	73.6	3.9	318.8	80.1	3.5	305.1	87.5	3.1	291.0	95.8	2.7	276.7	105.2	2.4	262.1	115.7	2.1
9.0	342.1	74.4	4.0	328.6	80.8	3.6	314.5	88.2	3.2	300.3	96.6	2.8	285.7	106.0	2.5	270.5	116.6	2.1
10.0	352.8	75.1	4.1	338.7	81.6	3.7	324.4	89.0	3.3	309.7	97.4	2.9	294.8	106.9	2.5	279.3	117.5	2.2
11.0	363.5	76.0	4.2	349.1	82.4	3.7	334.4	89.8	3.3	319.3	98.2	2.9	303.9	107.8	2.6	288.2	118.4	2.2

YCAL0094EC

COP=4.05

LCWT (°C)	AIR TEMPERATURE ON - CONDENSER (°C)																	
	25°C			30°C			35°C			40°C			45°C			50°C		
	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	327.9	78.3	3.7	314.2	85.3	3.3	300.2	93.3	2.9	286.1	102.1	2.5	271.9	112.1	2.2	257.6	123.0	1.9
6.0	338.2	79.1	3.8	324.2	86.1	3.4	309.8	94.1	3.0	295.4	102.9	2.6	280.5	112.9	2.3	266.1	123.8	2.0
7.0	348.8	79.9	3.8	334.4	86.9	3.4	319.6	94.9	3.0	304.7	103.8	2.7	289.7	113.8	2.3	275°F	124.8	2.0
8.0	359.5	80.8	3.9	344.7	87.7	3.5	329.4	95.6	3.1	314.5	104.6	2.7	299.0	114.7	2.4	283.9	125.8	2.1
9.0	370.4	81.7	4.0	355.3	88.6	3.6	339.5	96.5	3.2	324.0	105.5	2.8	308.7	115.6	2.4	293.0	126.8	2.1
10.0	381.6	82.6	4.1	366.1	89.5	3.7	350.3	97.4	3.2	334.3	106.4	2.9	318.3	116.5	2.5	302.2	127.9	2.2
11.0	392.9	83.6	4.2	377.1	90.4	3.7	360.8	98.3	3.3	344.5	107.4	2.9	328.0	117.6	2.6	311.7	128.9	2.2

NOTES:

1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

YCAL0104EC

COP=4.12

AIR TEMPERATURE ON - CONDENSER (°C)																		
LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	363.3	90.8	3.6	348.5	99.5	3.2	332.7	109.2	2.8	316.2	120.2	2.4	299.1	132.6	2.1	236.5	112.9	1.9
6.0	375.3	91.8	3.7	359.4	100.4	3.2	343.2	110.2	2.8	326.3	121.3	2.5	308.7	133.7	2.1	244.3	113.7	2.0
7.0	386.8	92.8	3.7	370.7	101.4	3.3	354.0	111.2	2.9	336.6	122.4	2.5	318.7	134.9	2.2	252.5	114.6	2.0
8.0	398.7	93.8	3.8	382.1	102.5	3.4	365.0	112.3	3.0	347.2	123.5	2.6	329.0	136.0	2.2	260.5	115.5	2.1
9.0	410.9	94.9	3.9	393.8	103.5	3.4	376.2	113.4	3.0	358.1	124.6	2.6	339.3	137.3	2.3	268.9	116.4	2.1
10.0	423.2	96.0	4.0	405.7	104.6	3.5	387.6	114.6	3.1	369.1	125.8	2.7	349.9	138.5	2.3	277.8	117.4	2.2
11.0	435.8	97.1	4.0	417.8	105.8	3.6	399.3	115.7	3.2	380.3	127.0	2.8	360.7	139.7	2.4	286.6	118.3	2.2

YCAL0114EC

COP=4.01

AIR TEMPERATURE ON - CONDENSER (°C)																		
LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP
5.0	403.7	99.1	3.6	387.4	108.6	3.2	370.7	119.4	2.8	352.9	131.5	2.4	334.0	145.1	2.1	313.8	160.6	1.8
6.0	416.4	100.1	3.6	399.7	109.6	3.2	382.5	120.4	2.8	364.4	132.5	2.5	345.1	146.3	2.2	324.4	161.8	1.8
7.0	429.5	101.1	3.7	412.3	110.6	3.3	394.6	121.4	2.9	376.1	133.6	2.5	356.4	147.5	2.2	335.4	163.0	1.9
8.0	442.8	102.1	3.8	425.2	111.7	3.4	407.0	122.5	3.0	388.0	134.8	2.6	367.9	148.6	2.3	346.5	164.3	1.9
9.0	456.5	103.1	3.9	438.3	112.7	3.5	419.7	123.6	3.0	400.2	135.9	2.7	379.6	149.9	2.3	357.8	165.6	2.0
10.0	470.4	104.1	4.0	451.8	113.8	3.5	432.6	124.8	3.1	412.7	137.1	2.7	391.7	151.1	2.4	369.3	166.9	2.0
11.0	484.8	105.2	4.1	465.6	114.9	3.6	445.9	125.9	3.2	425.4	138.4	2.8	403.9	152.4	2.4	380.9	168.4	2.1

YCAL0124EC

COP=3.96

AIR TEMPERATURE ON - CONDENSER (°C)																		
LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP
5.0	440.9	109.9	3.6	422.7	120.3	3.1	400.6	131.7	2.7	384.5	145.1	2.4	364.5	159.8	2.1	343.9	176.1	1.8
6.0	454.7	111.0	3.6	435.9	121.4	3.2	416.7	133.1	2.8	396.8	146.4	2.5	376.2	161.2	2.1	297.3	140.1	1.9
7.0	468.8	112.2	3.7	449.5	122.6	3.3	429.7	134.4	2.9	409.3	147.7	2.5	388.1	162.4	2.2	307.2	141.1	2.0
8.0	483.2	113.3	3.8	463.4	123.8	3.4	443.0	135.6	3.0	422.1	149.0	2.6	400.9	163.8	2.3	317.4	142.2	2.0
9.0	497.8	114.5	3.9	477.5	125.0	3.4	456.6	136.9	3.0	435.3	150.2	2.6	413.5	165.2	2.3	327.7	143.2	2.1
10.0	512.8	115.8	3.9	491.9	126.2	3.5	470.6	138.1	3.1	448.8	151.5	2.7	426.4	166.6	2.4	338.1	144.4	2.1
11.0	528.2	117.0	4.0	506.7	127.5	3.6	484.9	139.3	3.2	462.4	152.9	2.8	439.5	168.0	2.4	348.8	145.5	2.2

NOTES:
1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

Ratings - R-22 SI Cont.

YCAL0134EC

COP = 3.90

	AIR TEMPERATURE ON - CONDENSER (C)																	
LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	476.4	121.9	3.5	456.1	133.2	3.1	435.4	146.1	2.7	414.4	160.3	2.4	393.0	176.2	2.1	372.6	193.5	1.8
6.0	491.1	123.1	3.6	470.3	134.5	3.2	449.0	147.4	2.8	427.5	161.8	2.4	405.8	177.8	2.1	268.8	119.5	2.0
7.0	506.1	124.5	3.6	484.8	135.8	3.2	463.0	148.7	2.8	440.8	163.3	2.5	418.9	179.3	2.2	277.6	120.4	2.1
8.0	521.4	125.8	3.7	499.5	137.2	3.3	477.0	150.1	2.9	454.4	164.8	2.5	432.1	180.8	2.2	286.7	121.2	2.1
9.0	537.1	127.2	3.8	514.6	138.5	3.4	491.6	151.6	3.0	468.7	166.1	2.6	445.5	182.3	2.3	295.9	122.1	2.2
10.0	553.3	128.7	3.9	530.0	140.0	3.4	506.6	152.9	3.0	483.0	167.5	2.7	459.3	183.9	2.3	305.2	122.9	2.2
11.0	569.0	130.1	3.9	545.7	141.4	3.5	521.8	154.3	3.1	497.6	169.0	2.7	473.3	185.5	2.4	314.9	123.8	2.3

NOTES:
1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

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Ratings - R-407C English Units

YCAL0014EB

IPLV=12.6

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	13.4	11.2	11.4	13.0	11.9	10.6	12.6	12.7	9.8	12.3	13.5	9.0	11.7	14.7	8.0	11.3	15.6	7.3
42.0	13.9	11.3	11.8	13.5	12.0	11.0	13.1	12.7	10.2	12.7	13.5	9.4	12.2	14.7	8.3	11.7	15.6	7.6
44.0	14.4	11.3	12.3	14.1	12.0	11.4	13.7	12.8	10.5	13.2	13.6	9.7	12.7	14.8	8.6	12.2	15.7	7.9
45.0	14.7	11.4	12.5	14.3	12.1	11.6	13.9	12.8	10.7	13.5	13.6	9.9	12.9	14.8	8.8	12.5	15.7	8.1
46.0	15.0	11.4	12.7	14.6	12.1	11.8	14.2	12.8	10.9	13.8	13.6	10.0	13.2	14.8	9.0	12.7	15.7	8.3
48.0	15.6	11.5	13.1	15.2	12.2	12.2	14.7	12.9	11.2	14.3	13.7	10.4	13.7	14.8	9.3	13.2	15.7	8.6
50.0	16.2	11.5	13.5	15.7	12.2	12.6	15.3	13.0	11.6	14.8	13.8	10.7	14.2	14.8	9.7	13.8	15.8	8.9

YCAL0020EB

IPLV=12.9

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	18.2	16.4	11.4	17.7	17.5	10.5	17.2	18.6	9.6	16.6	19.7	8.9	16.1	21.0	8.1	15.6	22.2	7.5
42.0	18.9	16.5	11.7	18.4	17.6	10.8	17.8	18.7	10.0	17.3	19.9	9.2	16.7	21.1	8.4	16.2	22.4	7.7
44.0	19.6	16.6	12.1	19.1	17.7	11.2	18.5	18.8	10.3	17.9	20.0	9.5	17.4	21.2	8.7	16.8	22.5	8.0
45.0	20.0	16.7	12.3	19.4	17.8	11.3	18.9	18.9	10.5	18.3	20.0	9.6	17.7	21.3	8.8	17.1	22.6	8.1
46.0	20.4	16.8	12.5	19.8	17.8	11.5	19.2	18.9	10.6	18.6	20.1	9.8	18.0	21.3	9.0	17.5	22.6	8.2
48.0	21.1	16.9	12.9	20.5	17.9	11.9	19.9	19.0	10.9	19.3	20.2	10.1	18.7	21.5	9.3	18.1	22.8	8.5
50.0	21.9	17.0	13.3	21.3	18.0	12.2	20.7	19.2	11.3	20.0	20.4	10.4	19.4	21.6	9.5	18.8	22.9	8.8

YCAL0024EB

IPLV=13.2

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	22.7	20.5	11.7	22.1	21.7	10.8	21.4	23.0	10.0	20.9	24.1	9.3	20.2	25.6	8.6	19.5	27.1	7.9
42.0	23.6	20.6	12.1	22.9	21.8	11.2	22.3	23.1	10.3	21.6	24.5	9.5	20.9	26.0	8.7	20.2	27.5	8.0
44.0	24.5	20.8	12.5	23.8	22.0	11.5	23.1	23.3	10.7	22.4	24.7	9.8	21.7	26.1	9.0	21.0	27.7	8.3
45.0	24.9	20.9	12.6	24.2	22.1	11.7	23.6	23.3	10.8	22.9	24.7	10.0	22.1	26.2	9.2	21.4	27.8	8.4
46.0	25.4	21.0	12.8	24.7	22.2	11.9	24.0	23.5	11.0	23.3	24.8	10.1	22.6	26.3	9.3	21.8	27.9	8.5
48.0	26.3	21.1	13.2	25.6	22.3	12.2	24.9	23.6	11.3	24.2	25.0	10.4	23.4	26.5	9.6	22.6	28.0	8.8
50.0	27.3	21.3	13.6	26.6	22.5	12.6	25.8	23.8	11.6	25.1	25.2	10.7	24.3	26.7	9.9	23.5	28.3	9.1

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0014EB

IPLV=12.6

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F) 105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	11.1	16.1	7.0	10.7	17.1	6.4	10.3	18.1	5.9	5.2	8.8	5.4	5.0	9.3	4.9
42.0	11.3	16.6	7.0	11.1	17.1	6.7	10.7	18.1	6.1	5.4	8.8	5.6	5.2	9.3	5.1
44.0	11.8	16.6	7.3	11.4	17.6	6.7	11.1	18.2	6.3	5.6	8.8	5.8	5.4	9.3	5.4
45.0	12.1	16.6	7.4	11.6	17.6	6.8	11.2	18.7	6.3	5.7	8.8	5.9	5.5	9.3	5.5
46.0	12.3	16.7	7.6	11.9	17.7	7.0	11.4	18.7	6.4	5.9	8.8	6.1	5.6	9.3	5.6
48.0	12.8	16.7	7.9	12.3	17.7	7.2	11.9	18.7	6.6	6.1	8.8	6.3	5.9	9.4	5.8
50.0	13.3	16.7	8.2	12.8	17.7	7.5	12.4	18.8	6.9	6.4	8.9	6.6	6.1	9.4	6.0

YCAL0020EB

IPLV=12.9

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F) 105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	15.1	23.6	6.8	14.5	25.0	6.3	14.0	26.5	5.8	7.3	12.3	5.8	7.0	13.1	5.3
42.0	15.7	23.7	7.1	15.1	25.1	6.5	14.6	26.6	6.0	7.6	12.4	6.0	7.3	13.1	5.5
44.0	16.3	23.9	7.3	15.7	25.3	6.7	15.2	26.8	6.2	7.9	12.4	6.2	7.6	13.3	5.7
45.0	16.6	23.9	7.4	16.0	25.4	6.8	15.5	26.9	6.3	8.0	12.5	6.3	7.7	13.3	5.8
46.0	16.9	24.0	7.6	16.3	25.5	6.9	15.8	27.0	6.4	8.2	12.5	6.4	7.9	13.3	5.9
48.0	17.5	24.2	7.8	16.9	25.6	7.2	8.9	11.8	7.3	8.5	12.6	6.7	8.2	13.3	6.1
50.0	18.2	24.3	8.0	17.6	25.8	7.4	9.2	11.9	7.5	8.9	12.6	6.9	8.6	13.4	6.4

YCAL0024EB

IPLV=13.2

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F) 105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	18.9	28.6	7.2	18.2	30.2	6.6	17.5	31.9	6.1	16.8	33.6	5.6	8.6	16.2	5.4
42.0	19.5	29.1	7.3	18.8	30.8	6.7	18.1	32.5	6.2	17.5	33.8	5.7	9.0	16.3	5.7
44.0	20.3	29.3	7.6	19.5	31.0	6.9	18.8	32.7	6.4	9.8	15.5	6.4	9.4	16.3	5.9
45.0	20.7	29.4	7.7	19.9	31.1	7.1	19.2	32.8	6.5	10.0	15.5	6.5	9.6	16.4	6.0
46.0	21.1	29.5	7.8	20.3	31.2	7.2	19.6	32.9	6.6	10.2	15.5	6.6	9.8	16.4	6.1
48.0	21.9	29.7	8.1	21.1	31.4	7.4	20.4	33.1	6.8	10.6	15.6	6.9	10.2	16.5	6.3
50.0	22.7	29.9	8.3	21.9	31.6	7.6	21.2	33.4	7.0	11.0	15.7	7.1	10.6	16.6	6.6

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-407C English Cont.

YCAL0030EB

IPLV=13.6

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	27.9	24.7	12.2	27.2	26.2	11.2	26.4	27.8	10.4	25.5	29.9	9.4	24.9	31.3	8.8	24.1	33.2	8.0
42.0	28.9	25.1	12.4	28.1	26.6	11.5	27.3	28.3	10.5	26.5	30.0	9.7	25.7	31.9	8.9	24.9	33.8	8.2
44.0	30.0	25.2	12.8	29.2	26.8	11.8	28.4	28.4	10.9	27.6	30.2	10.0	26.7	32.0	9.2	25.9	33.9	8.5
45.0	30.5	25.3	13.0	29.7	26.8	12.0	28.9	28.5	11.1	28.1	30.3	10.2	27.2	32.1	9.4	26.4	34.0	8.6
46.0	31.1	25.4	13.2	30.3	26.9	12.2	29.4	28.6	11.3	28.6	30.3	10.4	27.8	32.2	9.5	26.9	34.1	8.7
48.0	32.2	25.5	13.6	31.4	27.1	12.6	30.5	28.8	11.6	29.7	30.5	10.7	28.8	32.4	9.8	27.9	34.3	9.0
50.0	33.4	25.7	14.1	32.5	27.3	13.0	31.6	29.0	12.0	30.7	30.7	11.0	29.8	32.6	10.1	28.9	34.5	9.3

YCAL0070EB

IPLV=13.8

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	69.0	63.5	11.8	67.1	67.3	10.9	65.1	71.4	10.0	63.0	75.8	9.2	61.0	80.4	8.4	58.9	85.3	7.7
42.0	71.6	63.9	12.1	69.6	67.8	11.2	67.5	72.0	10.3	65.5	76.3	9.4	63.3	81.0	8.7	61.2	85.8	7.9
44.0	74.3	64.5	12.5	72.2	68.3	11.5	70.1	72.5	10.6	67.9	76.9	9.7	65.7	81.6	8.9	63.5	86.5	8.2
45.0	75.6	64.8	12.7	73.5	68.6	11.7	71.4	72.8	10.8	69.2	77.2	9.9	67.0	81.9	9.1	64.7	86.8	8.3
46.0	77.0	65.1	12.9	74.9	68.9	11.9	72.7	73.1	10.9	70.5	77.5	10.0	68.2	82.2	9.2	65.9	87.1	8.4
48.0	79.8	65.7	13.2	77.6	69.5	12.2	75.3	73.7	11.2	73.0	78.2	10.3	70.7	82.9	9.5	68.4	87.8	8.7
50.0	82.7	66.3	13.6	80.4	70.2	12.5	78.1	74.4	11.5	75.7	78.8	10.6	73.3	83.6	9.7	70.9	88.5	8.9

YCAL0074EB

IPLV=14.2

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	75°F	70.1	11.7	72.9	74.4	10.8	70.8	79.0	9.9	68.7	83.8	9.1	66.5	88.9	8.3	64.3	94.3	7.6
42.0	77.7	70.8	12.0	75.7	75°F	11.1	73.5	79.6	10.2	71.3	84.5	9.4	69.0	89.6	8.6	66.8	95.0	7.9
44.0	80.6	71.4	12.4	78.4	75.7	11.4	76.2	80.3	10.5	73.9	85.2	9.6	71.6	90.3	8.8	69.3	95.8	8.1
45.0	82.0	71.8	12.5	79.8	76.0	11.6	77.6	80.6	10.6	75.3	85.5	9.8	72.9	90.7	9.0	70.5	96.2	8.2
46.0	83.5	72.1	12.7	81.3	76.4	11.7	79.0	81.0	10.8	76.6	85.9	9.9	74.2	91.1	9.1	71.8	96.6	8.3
48.0	86.5	72.7	13.0	84.2	77.1	12.0	81.8	81.7	11.1	79.4	86.7	10.2	76.9	91.9	9.4	74.4	97.4	8.6
50.0	89.5	73.5	13.4	87.1	77.9	12.3	84.7	82.5	11.4	82.2	87.5	10.5	79.7	92.7	9.6	77.1	98.3	8.8

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0030EB

IPLV=13.3

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	23.4	35.2	7.4	22.6	37.3	6.7	21.8	39.6	6.2	11.1	18.9	6.2	10.7	20.0	5.6
42.0	24.1	35.8	7.5	23.3	38.0	6.9	12.1	17.8	7.0	11.6	18.9	6.4	11.2	20.1	5.9
44.0	25.1	36.0	7.8	24.2	38.1	7.1	12.5	17.9	7.3	12.1	19.0	6.7	11.6	20.1	6.1
45.0	25.5	36.1	7.9	24.7	38.2	7.2	12.8	17.9	7.4	12.3	19.0	6.8	11.9	20.2	6.2
46.0	26.0	36.2	8.0	25.1	38.4	7.3	13.0	18.0	7.5	12.6	19.1	6.9	12.1	20.2	6.3
48.0	27.0	36.4	8.3	26.1	38.6	7.6	13.6	18.0	7.8	13.1	19.1	7.2	12.6	20.3	6.5
50.0	28.0	36.6	8.5	27.1	38.8	7.8	14.1	18.1	8.1	13.6	19.2	7.4	13.1	20.4	6.8

YCAL0070EB

IPLV=13.8

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	56.8	90.3	7.0	54.7	95.4	6.4	52.7	100.6	5.9	35.7	65.6	5.9	34.2	69.2	5.4
42.0	59.0	90.9	7.3	56.9	96.1	6.6	54.8	101.4	6.1	37.1	66.1	6.1	35.7	69.7	5.6
44.0	61.3	91.5	7.5	59.1	96.8	6.9	40.2	62.9	6.9	38.7	66.5	6.3	36.9	70.9	5.7
45.0	62.5	91.9	7.6	60.3	97.1	7.0	41.0	63.1	7.0	39.4	66.7	6.4	37.6	71.1	5.8
46.0	63.7	92.2	7.7	61.4	97.5	7.1	41.8	63.3	7.1	40.2	67.0	6.5	38.4	71.3	5.9
48.0	66.1	93.0	7.9	63.8	98.3	7.3	43.2	64.2	7.3	41.6	67.9	6.7	40.0	71.7	6.1
50.0	68.5	93.8	8.2	66.2	99.1	7.5	45.0	64.5	7.6	43.3	68.2	6.9	41.7	72.1	6.3

YCAL0074EB

IPLV=14.2

LCWT (°F)	AIR TEMPERATURE ON CONDENSER (°F)														
	105°F			110°F			115°F			120°F			125°F		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	62.1	99.8	7.0	59.9	105.7	6.4	48.4	87.4	6.2	39.2	72.5	5.9	37.6	76.7	5.4
42.0	64.5	100.6	7.2	62.2	106.5	6.6	50.4	88.0	6.4	40.7	73.0	6.1	39.1	77.2	5.6
44.0	66.9	101.4	7.4	64.5	107.4	6.8	44.1	69.3	6.9	42.4	73.4	6.3	40.6	78.0	5.7
45.0	68.1	101.9	7.5	55.4	84.1	7.3	44.9	69.6	7.1	43.2	73.7	6.4	41.4	78.2	5.8
46.0	69.4	102.3	7.6	56.4	84.4	7.4	45.8	69.8	7.2	44.0	73.9	6.5	42.2	78.4	5.9
48.0	71.9	103.2	7.8	58.6	85.0	7.7	47.4	70.5	7.4	45.7	74.6	6.7	43.9	78.9	6.1
50.0	74.5	104.1	8.1	60.8	85.6	7.9	49.3	70.9	7.6	47.5	75.1	7.0	45.6	79.4	6.4

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-407C English Cont.

YCAL0080EB

IPLV=14.4

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	81.6	77.5	11.6	79.4	82.3	10.7	77.2	87.3	9.8	74.9	92.7	9.0	72.6	98.2	8.3	70.2	104.2	7.6
42.0	84.6	78.3	11.9	82.4	83.0	11.0	80.0	88.1	10.1	77.7	93.4	9.3	75.3	99.1	8.5	72.8	105.1	7.8
44.0	87.7	79.0	12.3	85.3	83.8	11.3	82.9	88.9	10.4	80.5	94.3	9.6	78.0	100.0	8.8	75.5	106.0	8.0
45.0	89.2	79.4	12.4	86.8	84.2	11.4	84.4	89.3	10.5	81.9	94.7	9.7	79.4	100.4	8.9	76.8	106.5	8.1
46.0	90.8	79.8	12.6	88.3	84.7	11.6	85.9	89.7	10.7	83.4	95.2	9.8	80.8	100.9	9.0	78.2	107.0	8.3
48.0	93.9	80.6	12.9	91.4	85.5	11.9	88.9	90.6	11.0	86.3	96.1	10.1	83.7	101.8	9.2	81.0	107.9	8.5
50.0	97.2	81.4	13.2	94.6	86.3	12.2	92.0	91.6	11.2	89.3	97.0	10.3	86.6	102.8	9.5	83.8	109.0	8.7

YCAL0090EB

IPLV=13.6

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	82.5	72.8	11.8	80.4	76.8	11.0	78.2	80.9	10.2	76.0	85.4	9.5	73.6	90.2	8.7	71.2	95.4	8.0
42.0	85.7	73.4	12.2	83.6	77.4	11.4	81.3	81.6	10.6	79.0	86.0	9.8	76.6	90.8	9.0	74.1	96.0	8.3
44.0	89.1	74.0	12.6	86.8	78.0	11.7	84.5	82.2	10.9	82.1	86.7	10.1	79.6	91.5	9.3	77.0	96.7	8.6
45.0	90.8	74.3	12.8	88.5	78.3	11.9	86.1	82.6	11.1	83.7	87.1	10.3	81.2	91.9	9.5	78.6	97.0	8.7
46.0	92.5	74.6	13.0	90.1	78.7	12.1	87.7	82.9	11.2	85.3	87.4	10.4	82.7	92.2	9.6	80.1	97.4	8.9
48.0	96.0	75.3	13.4	93.5	79.4	12.4	91.1	83.6	11.6	88.5	88.2	10.7	85.9	93.0	9.9	83.2	98.1	9.2
50.0	99.4	76.0	13.7	97.0	80.1	12.8	94.5	84.4	11.9	91.8	88.9	11.0	89.1	93.8	10.2	86.3	98.9	9.4

YCAL0094EB

IPLV=13.4

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	88.8	80.0	11.7	86.5	84.4	10.9	84.3	88.8	10.2	82.0	93.6	9.4	79.6	98.6	8.7	77.1	104.0	8.1
42.0	92.2	80.8	12.1	89.9	85.1	11.2	87.5	89.7	10.5	85.1	94.4	9.7	82.7	99.5	9.0	80.1	104.8	8.3
44.0	95.7	81.5	12.4	93.3	85.9	11.6	90.9	90.5	10.8	88.4	95.3	10.0	85.8	100.3	9.3	83.2	105.7	8.6
45.0	97.4	81.9	12.6	95.0	86.3	11.7	92.5	90.9	10.9	90.0	95.7	10.1	87.4	100.8	9.4	84.8	106.2	8.7
46.0	99.2	82.2	12.8	96.8	86.7	11.9	94.3	91.3	11.1	91.7	96.2	10.3	89.1	101.3	9.5	86.4	106.7	8.8
48.0	102.9	83.0	13.2	100.3	87.5	12.2	97.7	92.2	11.4	95.1	97.1	10.6	92.4	102.2	9.8	89.6	107.6	9.1
50.0	106.6	83.9	13.5	104.0	88.3	12.6	101.3	93.1	11.7	98.6	98.0	10.9	95.8	103.2	10.1	92.9	108.6	9.3

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0080EB

IPLV=14.4

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	67.8	110.4	6.9	65.4	117.0	6.3	44.5	75.5	6.5	42.8	80.0	5.9	41.1	84.7	5.4
42.0	70.4	111.3	7.1	67.8	118.0	6.5	46.3	75.9	6.7	44.5	80.5	6.1	42.7	85.3	5.6
44.0	72.9	112.3	7.3	70.3	119.0	6.7	48.1	76.4	6.9	46.3	81.0	6.3	44.4	85.7	5.8
45.0	74.2	112.8	7.4	71.6	119.5	6.8	49.0	76.6	7.1	47.2	81.2	6.4	45.3	86.0	5.9
46.0	75.6	113.3	7.5	62.3	96.2	7.3	50.0	76.8	7.2	48.1	81.4	6.5	46.2	86.3	6.0
48.0	78.3	114.4	7.8	53.8	73.0	8.1	51.9	77.4	7.4	49.9	82.0	6.7	47.9	86.8	6.1
50.0	81.0	115.4	8.0	55.8	73.4	8.3	53.8	77.8	7.6	51.8	82.5	7.0	49.8	87.4	6.3

YCAL0090EB

IPLV=13.6

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	68.7	101.0	7.4	66.5	106.0	6.8	63.8	112.5	6.2	60.4	121.0	5.5	57.4	128.9	4.9
42.0	71.5	101.6	7.6	69.2	106.7	7.1	66.4	113.2	6.4	63.0	121.5	5.7	45.5	89.6	5.4
44.0	74.4	102.3	7.9	72.0	107.5	7.3	68.7	114.9	6.6	65.7	122.0	5.9	47.4	90.0	5.6
45.0	75.8	102.6	8.0	73.4	107.9	7.4	70.1	115.2	6.7	67.0	122.3	6.0	48.4	90.2	5.7
46.0	77.3	103.0	8.2	74.8	108.3	7.5	71.5	115.5	6.8	68.4	122.5	6.2	49.4	90.4	5.9
48.0	80.3	103.7	8.4	77.4	109.7	7.7	74.4	116.2	7.0	71.2	123.2	6.4	51.1	91.7	6.0
50.0	83.4	104.5	8.7	80.4	110.5	8.0	77.3	116.9	7.3	74.0	123.9	6.6	53.1	92.3	6.2

YCAL0094EB

IPLV=13.4

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	74.5	109.8	7.4	71.9	115.9	6.8	69.0	122.6	6.2	66.1	129.8	5.6	33.9	61.8	5.6
42.0	77.5	110.6	7.7	74.7	116.8	7.0	71.8	123.4	6.4	68.8	130.5	5.8	35.6	62.0	5.9
44.0	80.5	111.5	7.9	77.6	117.7	7.3	74.7	124.3	6.6	71.6	131.3	6.0	37.3	61.8	6.2
45.0	82.0	112.0	8.0	79.1	118.1	7.4	76.1	124.7	6.7	73.0	131.8	6.1	38.0	62.0	6.3
46.0	83.5	112.4	8.1	80.6	118.6	7.5	77.6	125.2	6.8	74.4	132.2	6.2	38.8	62.2	6.4
48.0	86.7	113.4	8.4	83.7	119.5	7.7	80.6	126.1	7.1	77.3	133.1	6.4	40.4	62.6	6.6
50.0	89.9	114.4	8.6	86.8	120.5	7.9	83.6	127.1	7.3	80.2	134.1	6.6	41.8	63.4	6.8

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-407C English Cont.

YCAL0104EB

IPLV=14.0

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	99.3	91.7	11.6	96.6	96.8	10.8	93.8	102.2	10.0	91.0	108.1	9.2	88.0	114.4	8.4	85.0	121.3	7.7
42.0	103.0	92.6	12.0	100.3	97.8	11.1	97.4	103.3	10.2	94.5	109.2	9.4	91.4	115.6	8.7	88.2	122.5	7.9
44.0	106.9	93.7	12.3	104.0	98.9	11.4	101.1	104.4	10.5	98.0	110.3	9.7	94.9	116.7	8.9	91.6	123.6	8.2
45.0	108.8	94.2	12.4	105.9	99.4	11.5	102.9	105.0	10.7	99.8	110.9	9.8	96.7	117.3	9.1	93.3	124.2	8.3
46.0	110.8	94.7	12.6	107.9	100.0	11.7	104.8	105.5	10.8	101.7	111.5	10.0	98.4	117.9	9.2	95.0	124.9	8.4
48.0	114.8	95.8	12.9	111.8	101.1	12.0	108.6	106.7	11.1	105.4	112.8	10.2	102.0	119.2	9.4	98.6	126.1	8.6
50.0	119.0	96.9	13.3	115.8	102.3	12.3	112.5	108.0	11.4	109.2	113.9	10.5	105.8	120.4	9.7	102.2	127.3	8.9

YCAL0114EB

IPLV=13.9

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	111.4	99.4	11.7	108.4	105.0	10.9	105.3	111.0	10.1	102.0	117.5	9.3	98.6	124.6	8.5	95.1	132.4	7.8
42.0	115.7	100.4	12.1	112.6	106.0	11.2	109.4	112.0	10.4	106.0	118.5	9.6	102.5	125.6	8.8	98.9	133.4	8.0
44.0	120.0	101.4	12.4	116.9	107.0	11.5	113.6	113.1	10.7	110.1	119.6	9.9	106.5	126.7	9.1	102.8	134.5	8.3
45.0	122.3	101.9	12.6	119.1	107.6	11.7	115.7	113.6	10.8	112.2	120.2	10.0	108.5	127.3	9.2	104.8	135.0	8.4
46.0	124.5	102.5	12.8	121.3	108.2	11.9	117.8	114.3	11.0	114.3	120.7	10.2	110.6	127.8	9.3	106.8	135.6	8.5
48.0	129.1	103.6	13.1	125.7	109.3	12.2	122.2	115.4	11.3	118.6	121.9	10.4	114.8	129.0	9.6	110.9	136.8	8.8
50.0	133.8	104.8	13.5	130.3	110.5	12.5	126.7	116.6	11.6	123.0	123.2	10.7	119.1	130.3	9.9	115.0	138.0	9.1

YCAL0124EB

IPLV=13.3

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	75°F			80°F			85°F			90°F			95°F			100°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	119.9	111.2	11.5	116.8	117.4	10.6	113.6	123.9	9.9	110.2	130.8	9.1	106.7	138.3	8.4	103.1	146.5	7.7
42.0	124.4	112.4	11.8	121.2	118.6	10.9	117.9	125.1	10.1	114.4	132.1	9.4	110.9	139.6	8.6	107.1	147.7	7.9
44.0	129.1	113.6	12.1	125.7	119.8	11.2	122.3	126.4	10.4	118.8	133.4	9.6	115.1	140.9	8.9	111.2	149.1	8.2
45.0	131.4	114.2	12.3	128.1	120.5	11.4	124.6	127.1	10.6	120.9	134.1	9.8	117.2	141.6	9.0	113.3	149.7	8.3
46.0	133.8	114.8	12.4	130.4	121.1	11.5	126.8	127.8	10.7	123.2	134.8	9.9	119.4	142.3	9.1	115.4	150.4	8.4
48.0	138.7	116.1	12.8	135.2	122.4	11.9	131.5	129.1	11.0	127.7	136.1	10.2	123.8	143.7	9.4	119.7	151.8	8.6
50.0	143.7	117.3	13.1	140.0	123.7	12.2	136.2	130.5	11.3	132.3	137.6	10.4	128.3	145.2	9.7	124.1	153.3	8.9

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0104EB

IPLV=14.0

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	81.7	128.9	7.0	78.4	137.1	6.4	74.9	146.1	5.7	71.1	156.0	5.1	43.1	89.2	5.2
42.0	84.9	130.0	7.2	81.5	138.2	6.6	77.9	147.2	5.9	74.1	156.9	5.3	45.0	89.6	5.4
44.0	88.2	131.2	7.5	84.7	139.3	6.8	80.9	148.2	6.1	65.8	120.9	6.0	47.1	89.6	5.6
45.0	89.9	131.7	7.6	86.3	139.9	6.9	82.5	148.8	6.2	67.1	121.3	6.1	47.9	90.2	5.7
46.0	91.5	132.4	7.7	87.9	140.5	7.0	84.1	149.3	6.3	68.4	121.7	6.2	49.1	90.0	5.8
48.0	95.0	133.6	7.9	91.2	141.7	7.2	87.4	150.5	6.5	71.1	122.5	6.4	51.1	90.5	6.1
50.0	98.5	134.8	8.1	94.7	142.9	7.4	90.7	151.7	6.7	73.9	123.4	6.6	53.2	91.0	6.3

YCAL0114EB

IPLV=13.9

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	91.4	141.0	7.1	87.6	150.5	6.4	83.6	160.9	5.7	79.4	172.3	5.1	53.4	113.3	5.0
42.0	95.1	141.9	7.3	91.2	151.3	6.6	87.0	161.8	5.9	82.8	173.1	5.3	55.8	113.4	5.2
44.0	98.9	143.0	7.5	94.9	152.3	6.8	90.6	162.6	6.1	86.2	174.0	5.5	58.3	113.6	5.5
45.0	100.8	143.5	7.7	96.7	152.9	6.9	92.4	163.1	6.2	88.0	174.4	5.6	59.6	113.8	5.6
46.0	102.8	144.1	7.8	98.6	153.4	7.1	94.3	163.6	6.4	89.7	174.9	5.7	60.9	114.0	5.7
48.0	106.7	145.2	8.0	102.5	154.5	7.3	98.0	164.7	6.6	93.4	175.8	5.9	63.5	114.3	5.9
50.0	110.8	146.5	8.3	106.4	155.7	7.5	101.9	165.8	6.8	97.2	176.8	6.1	66.2	114.8	6.2

YCAL0124EB

IPLV=13.3

AIR TEMPERATURE ON CONDENSER (°F)

LCWT	105°F			110°F			115°F			120°F			125°F		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	99.4	155.3	7.0	95.4	164.9	6.4	91.3	175.4	5.8	87.0	186.8	5.2	58.9	122.1	5.2
42.0	103.3	156.6	7.2	99.2	166.1	6.6	95.0	176.6	6.0	90.5	187.9	5.4	61.5	122.5	5.4
44.0	107.2	157.9	7.5	103.1	167.4	6.8	98.7	177.8	6.2	94.2	189.0	5.6	64.1	123.0	5.6
45.0	109.3	158.6	7.6	105.0	168.1	6.9	100.7	178.4	6.3	96.1	189.6	5.6	65.5	123.3	5.7
46.0	111.3	159.3	7.7	107.1	168.7	7.0	102.6	179.1	6.4	97.9	190.2	5.7	66.8	123.6	5.8
48.0	115.5	160.6	7.9	111.1	170.1	7.2	106.6	180.4	6.6	101.8	191.5	5.9	69.6	124.2	6.0
50.0	119.8	162.1	8.1	115.3	171.5	7.4	110.6	181.8	6.8	89.6	152.3	6.4	72.4	124.9	6.2

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0134EB

IPLV= 13.1

AIR TEMPERATURE ON CONDENSER (°F)																		
LCWT (°F)	75.0			80.0			85.0			90.0			95.0			100.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	128.5	123.1	11.2	125.2	129.7	10.4	121.9	136.7	9.7	118.4	144.1	9.0	114.9	152.0	8.3	111.2	160.5	7.6
42.0	133.2	124.5	11.5	129.9	131.2	10.7	126.4	138.2	9.9	122.9	145.7	9.2	119.2	153.6	8.5	115.4	162.1	7.8
44.0	138.1	125.8	11.8	134.6	132.6	11.0	131.1	139.7	10.2	127.4	147.2	9.5	123.6	155.2	8.7	119.7	163.7	8.1
45.0	140.6	126.5	12.0	137.1	133.3	11.1	133.4	140.5	10.3	129.7	148.0	9.6	125.9	156.0	8.9	121.9	164.5	8.2
46.0	143.2	127.2	12.1	139.5	134.1	11.3	135.8	141.2	10.5	132.1	148.8	9.7	128.2	156.8	9.0	124.1	165.3	8.3
48.0	148.3	128.6	12.5	144.6	135.5	11.6	140.8	142.7	10.7	136.8	150.4	10.0	132.8	158.5	9.2	128.6	166.9	8.5
50.0	153.7	129.9	12.8	149.7	137.0	11.9	145.8	144.3	11.0	141.7	152.0	10.2	137.6	160.0	9.5	133.3	168.6	8.7

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

YCAL0134EB

IPLV= 13.1

	AIR TEMPERATURE ON CONDENSER (°F)														
LCWT	105.0			110.0			115.0			120.0			125.0		
(°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	107.3	169.6	7.0	103.3	179.4	6.4	99.0	190.0	5.8	94.6	201.3	5.3	64.5	154.4	5.3
42.0	111.4	171.2	7.2	107.3	180.9	6.6	102.9	191.0	6.0	98.3	202.8	5.4	67.1	160.9	5.5
44.0	115.6	172.8	7.4	111.3	182.6	6.8	106.9	192.0	6.2	102.2	204.1	5.6	69.9	167.6	5.7
45.0	117.7	173.6	7.5	113.4	183.4	6.9	108.9	193.0	6.3	104.2	204.8	5.7	71.3	170.9	5.8
46.0	119.8	174.5	7.6	115.5	184.1	7.0	110.9	194.0	6.4	106.2	205.6	5.8	72.7	174.4	5.9
48.0	124.3	176.0	7.8	119.8	185.7	7.2	115.1	196.0	6.6	110.2	207.2	6.0	75.6	181.3	6.1
50.0	128.8	177.7	8.0	124.2	187.4	7.4	119.4	197.0	6.8	82.0	127.9	6.9	78.6	188.4	6.3

NOTES:

1. kW = Compressor Input Power
2. EER = Chiller EER (includes power from compressors, fans, and the control panels 0.8 kW)
3. LCWT = Leaving Chilled Water Temperature
4. Ratings are based upon 2.4 GPM cooler water per ton and 0.0001 fouling factor
5. Rated in accordance with ARI Standard 550/590-98
6. The shaded points are certi ed in accordance with ARI Standard 550/590-98

Ratings - R-407C SI

YCAL0014EB

COP=3.69

AIR TEMPERATURE ON - CONDENSER (°C)																		
LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	47.5	11.5	3.3	45.1	12.9	2.9	41.9	14.7	2.4	39.3	16.4	2.1	37.4	17.7	1.8	18.3	9.0	1.6
6.0	49.1	11.6	3.4	46.6	12.9	3.0	43.4	14.8	2.5	40.8	16.4	2.1	38.8	17.8	1.9	19.0	9.0	1.6
7.0	50.8	11.6	3.5	48.3	13.0	3.1	45.0	14.8	2.6	42.3	16.4	2.2	39.7	18.2	1.9	19.7	9.0	1.7
8.0	52.6	11.7	3.6	49.9	13.0	3.2	46.7	14.8	2.7	43.9	16.5	2.3	41.1	18.3	2.0	20.5	9.0	1.7
9.0	54.4	11.7	3.7	51.6	13.1	3.3	48.4	14.8	2.8	45.5	16.5	2.4	42.7	18.3	2.0	21.3	9.0	1.8
10.0	56.2	11.8	3.9	53.4	13.1	3.4	50.1	14.8	2.8	47.1	16.5	2.4	44.2	18.4	2.1	22.1	9.1	1.9
11.0	57.8	12.0	3.9	54.9	13.3	3.4	51.8	14.9	2.9	48.8	16.6	2.5	45.8	18.4	2.2	22.9	9.1	1.9

YCAL0020EB

COP=3.79

AIR TEMPERATURE ON - CONDENSER (°C)																		
LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	64.6	16.9	3.3	61.2	18.9	2.8	57.7	21.0	2.4	54.4	23.4	2.1	51.1	25.9	1.8	25.8	12.6	1.7
6.0	66.8	17.0	3.4	63.3	19.0	2.9	59.8	21.1	2.5	56.3	23.5	2.1	52.9	26.1	1.8	26.8	12.7	1.7
7.0	69.0	17.1	3.5	65.4	19.1	3.0	61.8	21.2	2.6	58.2	23.6	2.2	54.8	26.2	1.9	27.6	12.8	1.8
8.0	71.3	17.2	3.6	67.6	19.2	3.1	63.9	21.4	2.7	60.2	23.8	2.3	56.7	26.4	1.9	28.7	12.8	1.8
9.0	73.7	17.3	3.7	69.9	19.3	3.2	66.0	21.5	2.7	62.3	23.9	2.3	58.6	26.6	2.0	29.7	12.9	1.9
10.0	76.1	17.4	3.8	72.2	19.4	3.3	68.3	21.6	2.8	64.4	24.1	2.4	60.6	26.7	2.1	30.8	12.9	2.0
11.0	78.6	17.5	3.9	74.5	19.5	3.3	70.5	21.8	2.9	66.5	24.2	2.5	62.6	26.9	2.1	31.9	12.9	2.0

YCAL0024EB

COP=3.86

AIR TEMPERATURE ON - CONDENSER (°C)																		
LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	80.5	21.0	3.4	76.4	23.3	2.9	72.1	25.9	2.5	67.9	28.4	2.2	63.8	31.4	1.9	31.7	15.7	1.7
6.0	83.2	21.2	3.5	79.1	23.4	3.0	74.6	26.0	2.6	70.1	28.9	2.2	65.6	31.9	1.9	32.9	15.8	1.8
7.0	86.1	21.3	3.6	81.8	23.6	3.1	77.2	26.2	2.7	72.6	29.0	2.3	68.0	32.0	2.0	34.2	15.8	1.8
8.0	89.0	21.5	3.7	84.5	23.7	3.2	79.9	26.3	2.7	75.2	29.2	2.4	70.5	32.2	2.0	35.5	15.9	1.9
9.0	91.9	21.6	3.8	87.3	23.9	3.3	82.6	26.5	2.8	77.8	29.4	2.4	73.0	32.4	2.1	36.8	16.0	2.0
10.0	94.9	21.8	3.9	90.2	24.1	3.4	85.4	26.7	2.9	80.4	29.6	2.5	75.5	32.7	2.1	38.2	16.1	2.0
11.0	98.0	22.0	4.0	93.2	24.3	3.4	88.2	26.9	3.0	83.1	29.8	2.6	78.1	32.9	2.2	39.5	16.1	2.1

NOTES:

1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

YCAL0030EB

COP=3.98

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP
5.0	98.5	25.6	3.5	93.7	28.6	3.0	88.8	31.8	2.6	83.8	35.3	2.2	78.6	39.2	1.9	39.4	19.3	1.8
6.0	101.9	25.7	3.6	97.0	28.7	3.1	91.9	31.9	2.7	86.7	35.5	2.3	81.4	39.4	1.9	40.9	19.4	1.8
7.0	105.4	25.9	3.7	100.3	28.8	3.2	95.1	32.1	2.7	89.7	35.6	2.3	84.2	39.6	2.0	42.4	19.5	1.9
8.0	108.9	26.0	3.8	103.7	29.0	3.3	98.3	32.2	2.8	92.8	35.8	2.4	87.1	39.7	2.1	43.9	19.5	2.0
9.0	112.5	26.2	3.9	107.1	29.1	3.4	101.6	32.4	2.9	95.9	36.0	2.5	90.1	40.0	2.1	45.5	19.6	2.0
10.0	116.1	26.3	4.0	110.6	29.3	3.5	105.0	32.6	3.0	99.1	36.2	2.5	50.4	17.7	2.5	47.1	19.6	2.1
11.0	119.9	26.5	4.1	114.2	29.5	3.5	108.4	32.8	3.1	102.4	36.4	2.6	52.1	17.7	2.5	48.8	19.7	2.2

YCAL0070EB

COP=4.05

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP
5.0	244.4	65.2	3.4	231.7	72.5	2.9	218.6	80.7	2.5	205.2	89.5	2.1	191.8	98.9	1.8	125.9	67.3	1.7
6.0	252.6	65.7	3.5	239.6	73.0	3.0	226.1	81.2	2.6	212.3	90.1	2.2	198.7	99.5	1.9	130.6	67.7	1.8
7.0	261.1	66.2	3.6	247.6	73.5	3.1	233.7	81.8	2.6	219.7	90.7	2.3	205.7	100.2	1.9	135.4	68.1	1.8
8.0	269.7	66.7	3.7	255.8	74.1	3.2	241.6	82.3	2.7	227.2	91.3	2.3	212.9	100.9	2.0	139.5	69.1	1.8
9.0	278.5	67.2	3.8	264.2	74.6	3.2	249.6	82.9	2.8	234.8	92.0	2.4	220.2	101.7	2.0	144.7	69.4	1.9
10.0	287.5	67.8	3.9	272.8	75.2	3.3	257.8	83.6	2.9	242.6	92.7	2.4	160.5	63.1	2.3	150.0	69.8	2.0
11.0	296.7	68.4	3.9	281.6	75.8	3.4	266.2	84.2	2.9	250.7	93.4	2.5	166.2	63.4	2.4	155.5	70.1	2.0

YCAL0074EB

COP=4.17

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP	kWo	kW*i*	COP
5.0	265.6	72.1	3.4	252.2	80.2	2.9	238.3	89.2	2.5	224.1	99.1	2.1	176.4	85.8	1.9	138.2	74.4	1.7
6.0	274.4	72.7	3.5	260.6	80.9	3.0	246.3	89.9	2.6	231.7	99.8	2.2	182.7	86.3	2.0	143.3	74.8	1.8
7.0	283.4	73.3	3.5	269.2	81.5	3.1	254.5	90.6	2.6	239.5	100.5	2.2	189.1	86.8	2.0	148.4	75.2	1.8
8.0	292.6	73.9	3.6	278.0	82.1	3.1	262.9	91.3	2.7	247.4	101.3	2.3	195.7	87.4	2.1	153.3	76.0	1.9
9.0	301.9	74.5	3.7	286.9	82.8	3.2	271.4	92.0	2.8	255.5	102.1	2.4	202.3	87.9	2.1	158.8	76.3	1.9
10.0	311.5	75.2	3.8	296.0	83.5	3.3	280.1	92.7	2.8	263.8	102.9	2.4	175.8	69.3	2.3	164.3	76.8	2.0
11.0	321.2	75.9	3.9	305.3	84.2	3.4	288.9	93.5	2.9	272.3	103.7	2.5	181.8	69.7	2.4	170.0	77.2	2.0

NOTES:

1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

Ratings - R-407C SI Cont.

YCAL0080EB

COP=4.22

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	289.2	79.7	3.3	274.8	88.8	2.9	260.0	98.7	2.5	244.7	109.6	2.1	162.1	74.0	2.0	151.1	82.1	1.7
6.0	298.5	80.5	3.4	283.8	89.5	3.0	268.5	99.4	2.5	252.8	110.4	2.2	167.8	74.3	2.1	156.5	82.5	1.8
7.0	308.2	81.2	3.5	293.0	90.2	3.0	277.3	100.3	2.6	261.1	111.3	2.2	173.7	74.8	2.1	162.0	83.0	1.8
8.0	317.9	81.9	3.6	302.4	91.0	3.1	286.2	101.1	2.7	269.5	112.2	2.3	179.7	75.2	2.2	167.7	83.4	1.9
9.0	328.0	82.6	3.7	312.0	91.7	3.2	295.3	101.9	2.7	278.1	113.2	2.3	185.8	75.6	2.3	173.4	83.9	1.9
10.0	338.2	83.3	3.8	321.7	92.5	3.2	304.6	102.8	2.8	286.9	114.1	2.4	192.1	76.1	2.3	179.3	84.4	2.0
11.0	348.6	84.1	3.8	331.5	93.5	3.3	314.0	103.7	2.8	295.9	115.1	2.4	198.5	76.5	2.4	185.4	84.9	2.0

YCAL0090EB

COP=3.98

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	292.8	74.6	3.4	278.8	82.1	3.0	264.1	90.5	2.6	248.3	100.2	2.2	232.8	110.2	1.9	212.8	124.3	1.6
6.0	303.1	75.2	3.5	288.7	82.7	3.1	273.6	91.1	2.7	257.3	100.7	2.3	241.3	110.9	2.0	221.0	124.7	1.6
7.0	313.6	75.7	3.6	298.8	83.3	3.2	283.2	91.7	2.8	266.6	101.3	2.4	250.0	111.5	2.0	229.4	125.1	1.7
8.0	324.3	76.3	3.7	309.1	83.9	3.3	293.1	92.4	2.8	276.0	102.0	2.5	257.7	113.0	2.1	238.0	125.6	1.7
9.0	335.2	76.9	3.8	319.6	84.6	3.4	303.1	93.1	2.9	285.6	102.6	2.5	266.9	113.6	2.2	246.8	126.2	1.8
10.0	346.2	77.7	3.9	330.3	85.3	3.4	313.4	93.8	3.0	295.4	103.3	2.6	276.2	114.3	2.2	255.6	126.8	1.9
11.0	357.6	78.3	4.0	341.2	86.0	3.5	323.9	94.5	3.1	305.4	104.1	2.7	285.7	115.0	2.3	264.8	127.5	1.9

YCAL0094EB

COP=3.92

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25°C			30°C			35°C			40°C			45°C			50°C		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	314.9	82.1	3.4	300.3	90.2	3.0	285.2	99.0	2.6	269.1	109.0	2.3	251.7	120.3	1.9	232.8	133.1	1.6
6.0	325.7	82.8	3.5	310.7	90.9	3.1	295.1	99.8	2.7	278.6	109.8	2.3	260.7	121.0	2.0	241.4	133.8	1.7
7.0	336.8	83.5	3.6	321.3	91.7	3.1	305.2	100.6	2.7	288.2	110.6	2.4	269.9	121.8	2.0	250.1	134.6	1.7
8.0	348.1	84.2	3.7	332.1	92.4	3.2	315.5	101.4	2.8	298.0	111.4	2.4	279.2	122.7	2.1	259.0	135.3	1.8
9.0	359.6	84.9	3.8	343.1	93.2	3.3	326.0	102.3	2.9	308.0	112.3	2.5	288.8	123.5	2.2	268.1	136.1	1.8
10.0	371.1	85.7	3.9	354.4	94.0	3.4	336.8	103.2	3.0	318.3	113.2	2.6	298.5	124.4	2.2	277.3	137.1	1.9
11.0	383.1	86.4	3.9	365.9	94.8	3.5	347.8	104.0	3.0	328.7	114.1	2.6	308.4	125.4	2.3	286.9	137.9	1.9

NOTES:

1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

YCAL0104EB

COP=4.10

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25.0			30.0			35.0			40.0			45.0			50.0		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	351.9	94.2	3.4	334.3	103.9	2.9	315.5	115.0	2.5	295.4	127.9	2.1	273.6	142.9	1.8	213.4	122.9	1.6
6.0	363.8	95.1	3.4	345.6	104.9	3.0	326.3	116.0	2.6	305.6	128.9	2.2	283.3	143.9	1.8	221.4	123.5	1.7
7.0	375.9	96.0	3.5	357.2	105.9	3.1	337.4	117.0	2.6	316.1	130.0	2.2	293.2	144.9	1.9	229.6	124.2	1.7
8.0	388.3	97.0	3.6	369.1	106.9	3.1	348.6	118.2	2.7	326.8	131.0	2.3	303.5	145.9	1.9	237.9	124.9	1.8
9.0	401.0	98.0	3.7	381.1	108.0	3.2	360.1	119.3	2.8	337.8	132.1	2.4	313.9	147.0	2.0	246.4	125.6	1.8
10.0	413.9	99.0	3.8	393.5	109.1	3.3	371.9	120.4	2.8	349.0	133.3	2.4	324.6	148.1	2.0	255.1	126.4	1.9
11.0	427.0	100.1	3.9	406.1	110.2	3.4	384.0	121.5	2.9	360.5	134.4	2.5	335.5	149.2	2.1	198.9	88.4	2.0

YCAL0114EB

COP=4.06

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25.0			30.0			35.0			40.0			45.0			50.0		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	394.9	102.1	3.4	375°F	112.8	3.0	353.7	125.1	2.5	330.6	139.7	2.2	305.8	157.0	1.8	278.8	177.7	1.5
6.0	408.5	103.0	3.5	388.1	113.7	3.0	366.2	126.1	2.6	342.6	140.6	2.2	317.0	157.9	1.8	289.5	178.3	1.5
7.0	422.4	103.9	3.6	401.4	114.7	3.1	378.9	127.1	2.7	354.7	141.5	2.3	328.5	158.7	1.9	300.4	179.0	1.6
8.0	436.5	104.9	3.7	415.0	115.7	3.2	392.0	128.1	2.8	367.1	142.5	2.3	340.3	159.6	2.0	311.6	179.8	1.6
9.0	450.9	106.0	3.8	428.9	116.8	3.3	405.2	129.2	2.8	379.7	143.6	2.4	352.4	160.6	2.0	323.1	180.6	1.7
10.0	465.6	107.1	3.8	443.0	117.9	3.4	418.7	130.3	2.9	392.7	144.7	2.5	364.7	161.6	2.1	334.9	181.4	1.7
11.0	480.7	108.2	3.9	457.5	119.1	3.4	432.6	131.4	3.0	405.9	145.8	2.5	377.4	162.6	2.1	347.0	182.3	1.8

YCAL0124EB

COP=3.91

AIR TEMPERATURE ON - CONDENSER (°C)

LCWT	25.0			30.0			35.0			40.0			45.0			50.0		
(°C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
5.0	425.1	114.2	3.3	404.5	125.8	2.9	382.5	139.0	2.5	358.9	154.1	2.1	333.4	171.7	1.8	258.3	152.3	1.6
6.0	439.5	115.3	3.4	418.3	127.0	3.0	395.7	140.1	2.6	371.5	155.2	2.2	345.3	172.8	1.8	268.1	152.9	1.6
7.0	454.2	116.4	3.5	432.3	128.1	3.0	409.2	141.4	2.6	384.3	156.4	2.3	357.5	173.9	1.9	278.0	153.7	1.7
8.0	469.2	117.6	3.6	446.7	129.4	3.1	422.9	142.6	2.7	397.2	157.7	2.3	369.9	175.1	2.0	288.2	154.4	1.7
9.0	484.5	118.7	3.6	461.4	130.6	3.2	436.8	143.9	2.8	410.7	159.0	2.4	382.6	176.3	2.0	298.6	155.2	1.8
10.0	500.2	119.9	3.7	476.3	131.9	3.3	451.2	145.1	2.8	424.4	160.3	2.4	395.6	177.6	2.1	309.2	156.1	1.8
11.0	516.1	121.1	3.8	491.7	133.1	3.3	465.8	146.5	2.9	438.4	161.6	2.5	408.9	178.9	2.1	320.1	156.9	1.9

NOTES:

1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

Ratings - R-407C SI Cont.

YCAL0134EB

COP = 3.84

AIR TEMPERATURE ON - CONDENSER (C)

LCWT	25.0			30.0			35.0			40.0			45.0			50.0		
(°C)	KWo	KWi	COP	KWo	KWi	COP	KWo	KWi	COP	KWo	KWi	COP	KWo	KWi	COP	KWo	KWi	COP
5.0	455.4	126.4	3.2	434.0	138.9	2.8	411.5	152.8	2.5	387.3	168.5	2.1	361.1	186.4	1.8	237.9	126.8	1.7
6.0	470.5	127.7	3.3	448.5	140.3	2.9	425.3	154.2	2.5	400.5	169.9	2.2	373.6	187.8	1.9	246.7	127.6	1.7
7.0	486.0	128.9	3.4	463.3	141.6	3.0	439.4	155.7	2.6	413.9	171.4	2.2	386.4	189.1	1.9	255.7	128.3	1.8
8.0	501.9	130.2	3.5	478.4	143.0	3.0	453.8	157.1	2.7	427.5	173.0	2.3	399.5	190.6	2.0	264.8	129.1	1.9
9.0	518.1	131.4	3.6	493.9	144.4	3.1	468.5	158.6	2.7	441.7	174.3	2.3	412.9	192.0	2.0	274.1	129.9	1.9
10.0	534.8	132.7	3.6	509.7	145.8	3.2	483.7	160.0	2.8	456.1	175.8	2.4	426.6	193.5	2.1	283.6	130.7	2.0
11.0	551.6	134.0	3.7	526.0	147.2	3.3	499.2	161.5	2.8	470.8	177.4	2.5	440.5	195.1	2.1	293.3	131.5	2.0

NOTES:

1. kWo = Unit kW Cooling Capacity Output
2. kWi = Compressor kW Input
3. COP = Coef cient of Performance (Based upon compressor and fan input kW)
4. LCWT = Leaving Chilled Water Temperature
5. Ratings based upon 0.15L/s cooler water per kW

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Part Load Ratings - R-22 English Units

YCAL0014EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	13.2	13.7	9.6
50.0	69.0	7.5	4.9	14.2
IPLV:13.1 EER				

YCAL0020EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	18.0	19.7	9.6
50.0	69.0	10.2	6.9	14.8
IPLV:13.6 EER				

YCAL0024EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	22.4	24.5	9.9
50.0	68.6	12.5	8.8	14.7
IPLV: 13.6EER				

YCAL0030EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	28.3	30.5	10.2
50.0	68.0	15.5	10.7	15.4
IPLV:14.1 EER				

YCAL0034EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	34.0	38.9	9.8
66.7	79.4	25.1	19.9	13.3
33.3	58.1	13.1	7.9	16.9
IPLV:14.6 EER				

YCAL0070EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	70.2	77.3	10.0
83.3	87.3	61.3	57.2	11.5
66.7	79.0	51.5	39.8	13.2
50.0	67.7	38.2	28.5	14.4
33.3	57.6	26.4	15.9	16.4
16.7	55.0	13.0	7.8	16.5
IPLV:14.3 EER				

YCAL0074EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	76.0	86.4	9.8
84.3	88.0	67.1	66.2	11.0
66.7	79.3	56.1	43.9	13.3
51.0	68.6	42.5	33.5	13.8
33.3	58.1	29.2	17.3	17.0
17.7	55.0	15.8	9.0	17.7
IPLV:14.4 EER				

YCAL0080EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	82.2	95.3	9.7
83.3	87.5	71.9	69.9	11.3
66.7	79.4	60.8	47.8	13.4
50.0	67.9	45.0	34.4	14.3
33.3	58.0	31.6	18.3	17.4
16.7	55.0	15.6	8.9	17.7
IPLV:14.6 EER				

YCAL0090EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	83.2	86.5	10.3
77.8	83.3	67.0	58.2	12.0
50.0	66.9	44.2	33.4	14.4
27..8	55.0	24.5	16.5	16.1
IPLV:13.8 EER				

YCAL0094EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	89.9	94.6	10.2
75°F	82.5	71.2	61.1	12.2
50.0	67.3	48.4	37.1	14.3
25.0	55.0	24.4	16.4	16.1
IPLV:13.8 EER				

YCAL0104EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	99.6	110.9	9.8
81.8	86.7	85.9	78.7	11.5
59.1	74.4	65.4	49.0	13.5
40.9	61.9	44.6	31.3	15.4
18.2	55.0	20.2	12.9	16.5
IPLV:14.0 EER				

YCAL0114EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	111.1	121.1	9.8
83.3	87.2	96.6	90.1	11.1
66.7	77.2	78.1	67.9	12.5
50.0	67.4	59.9	45.5	14.1
33.3	56.9	40.5	26.6	16.1
16.7	55.0	20.0	13.0	16.3
IPLV:13.7 EER				

YCAL0124EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	121.0	134.0	9.8
85.2	87.8	106.4	102.6	10.9
66.7	77.3	85.3	75.8	12.3
51.9	68.3	67.2	53.2	13.8
33.3	57.1	44.6	30.0	15.9
18.5	55.0	23.9	16.2	16.0
IPLV:13.5 EER				

YCAL0134EC				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	130.3	148.3	9.6
83.3	87.5	114.1	110.6	10.9
66.7	77.4	92.2	84.5	12.1
50.0	67.7	71.1	56.9	13.7
33.3	57.3	48.5	33.7	15.6
16.7	55.0	23.9	16.3	15.8
IPLV:13.3 EER				

Part Load Ratings - R-22 SI Units

YCAL0014EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	46.5	13.7	2.81
50.0	20.6	26.4	4.9	4.17
IPLV:3.85 COP				

YCAL0020EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	63.4	19.7	2.82
50.0	20.6	36.0	6.9	4.35
IPLV:4.00 COP				

YCAL0024EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	78.8	24.5	2.89
50.0	20.3	44.1	8.8	4.31
IPLV:3.98 COP				

YCAL0030EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	99.6	30.5	2.99
50.0	20.0	54.7	10.7	4.50
IPLV:4.14 COP				

YCAL0034EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	119.6	38.9	2.87
66.7	26.3	88.4	19.9	3.90
33.3	14.5	46.0	7.9	4.96
IPLV:4.29 COP				

YCAL0070EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	247.0	77.3	2.94
83.3	30.7	215.5	57.2	3.37
66.7	26.1	181.0	39.8	3.88
50.0	19.8	134.5	28.5	4.22
33.3	14.2	92.9	15.9	4.81
16.7	12.8	45.7	7.8	4.83
IPLV:4.18 COP				

YCAL0074EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	267.1	86.4	2.87
84.3	31.1	235.9	66.2	3.23
66.7	26.3	197.2	43.9	3.89
51.0	20.3	149.3	33.5	4.05
33.3	14.5	102.9	17.3	4.98
17.7	12.8	55.6	9.0	5.17
IPLV:4.22 COP				

YCAL0080EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	289.0	95.3	2.83
83.3	30.8	253.0	69.9	3.30
66.7	26.3	213.9	47.8	3.92
50.0	19.9	158.4	34.4	4.19
33.3	14.5	111.0	18.3	5.10
16.7	12.8	54.9	8.9	5.19
IPLV:4.28 COP				

YCAL0090EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	292.7	86.5	3.01
77.8	28.5	235.7	58.2	3.51
50.0	19.4	155.6	33.4	4.21
27..8	12.8	86.2	16.5	4.72
IPLV:4.04 COP				

YCAL0094EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	316.3	94.6	3.00
75°F	28.1	250.4	61.1	3.57
50.0	19.6	170.2	37.1	4.18
25.0	12.8	85.9	16.4	4.71
IPLV: 4.05 COP				

YCAL0104EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	350.4	110.9	2.88
81.8	30.4	302.1	78.7	3.37
59.1	23.5	229.9	49.0	3.96
40.9	16.6	157.0	31.3	4.50
18.2	12.8	70.9	12.9	4.83
IPLV:4.12 COP				

YCAL0124EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	425.4	134.0	2.87
85.2	31.0	374.1	102.6	3.20
66.7	25.2	300.1	75.8	3.62
51.9	20.2	236.3	53.2	4.03
33.3	14.0	156.9	30.0	4.67
18.5	12.8	84.1	16.2	4.68
IPLV:3.96 COP				

YCAL0114EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	390.6	121.1	2.88
83.3	30.7	339.9	90.1	3.25
66.7	25.1	274.6	67.9	3.66
50.0	19.6	210.6	45.5	4.13
33.3	13.8	142.6	26.6	4.72
16.7	12.8	70.5	13.0	4.77
IPLV:4.01 COP				

YCAL0134EC				
% DISPL.	AMBIENT DEG C	UNIT kW*o*	COMPR kW*i*	COP
100.0	35.0	458.4	148.3	2.82
83.3	30.8	401.3	110.6	3.21
66.7	25.2	324.3	84.5	3.54
50.0	19.8	249.9	56.9	4.01
33.3	14.1	170.5	33.7	4.57
16.7	12.8	84.0	16.3	4.63
IPLV: 3.90 COP				

Part Load Ratings - R-407C English Units

YCAL0014EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	12.7	14.8	8.6
50.0	69.7	7.3	5.0	13.7
IPLV:12.6 EER				

YCAL0024EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	21.7	26.1	9.0
50.0	69.9	12.6	9.2	14.4
IPLV:13.2 EER				

YCAL0034EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	31.7	40.7	8.7
66.7	80.5	24.0	20.9	12.2
33.3	59.9	13.1	8.1	16.6
IPLV:14.1 EER				

YCAL0074EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	71.6	90.3	8.8
84.3	88.6	63.9	69.1	10.1
66.7	80.3	54.1	45.9	12.3
51.0	70.0	41.7	34.6	13.2
33.3	59.6	29.4	17.4	17.0
17.7	55.0	16.1	8.7	18.6
IPLV:14.2 EER				

YCAL0090EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	79.6	91.5	9.3
77.8	84.1	65.1	61.3	11.1
50.0	68.4	44.3	34.2	14.0
27.8	55.0	24.6	16.1	16.5
IPLV:13.6 EER				

YCAL0020EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	17.4	21.2	8.7
50.0	70.1	10.2	7.2	14.1
IPLV:12.9 EER				

YCAL0030EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	26.7	32.0	9.2
50.0	69.5	15.4	11.0	14.9
IPLV:13.6 EER				

YCAL0070EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	65.7	81.6	8.9
83.3	88.0	58.0	60.3	10.4
66.7	80.1	49.5	42.0	12.2
50.0	69.4	37.6	29.4	13.8
33.3	59.4	26.7	16.4	16.2
16.7	55.0	13.1	7.9	16.4
IPLV:13.8 EER				

YCAL0080EB				
% DISPL.	**AMBIENT DEG F**	TONS	COMPR kW	EER
100.0	**95.0**	78.0	100.0	8.8
83.3	88.0	68.9	73.6	10.3
66.7	80.3	58.9	50.4	12.4
50.0	69.2	44.4	35.8	13.6
33.3	59.7	32.1	18.4	17.7
16.7	55.0	15.9	8.6	18.5
IPLV:14.4 EER				

YCAL0094EB				
% DISPL.	**AMBIENT DEG F**	**TONS**	**COMPR kW**	**EER**
100.0	95.0	85.8	100.3	9.3
75°F	83.1	68.8	64.5	11.2
50.0	68.2	47.5	38.0	13.7
25.0	55.0	24.5	16.1	16.5
IPLV:13.4 EER				

YCAL0104EB				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	94.9	116.7	8.9
81.8	87.4	82.9	83.2	10.6
59.1	75.8	64.5	51.0	12.9
40.9	63.5	45.0	31.7	15.3
18.2	55.0	20.8	12.4	17.5
IPLV:14.0 EER				

YCAL0124EB				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	115.1	140.9	8.9
85.2	88.3	102.2	108.5	10.0
66.7	78.5	83.3	78.8	11.6
51.9	69.6	66.3	54.9	13.2
33.3	58.6	45.2	29.9	16.2
18.5	55.0	24.2	15.7	16.5
IPLV:13.3 EER				

YCAL0114EB				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	106.5	126.7	9.1
83.3	87.8	93.9	94.5	10.3
66.7	78.6	77.5	70.1	12.0
50.0	69.1	60.5	46.5	14.0
33.3	58.6	41.8	26.5	16.7
16.7	55.0	20.7	12.5	17.3
IPLV:13.9 EER				

YCAL0134EB				
% DISPL.	AMBIENT DEG F	TONS	COMPR kW	EER
100.0	95.0	123.6	155.2	8.7
83.3	87.9	108.9	116.0	10.0
66.7	78.3	89.2	87.6	11.3
50.0	68.8	69.7	58.3	13.1
33.3	58.6	48.7	33.2	15.8
16.7	55.0	24.1	15.7	16.5
IPLV: 13.1 EER				

Part Load Ratings - R-407C SI Units

YCAL0014EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	44.5	14.8	2.53
50.0	21.0	25.8	5.0	4.03
IPLV:3.69 COP				

YCAL0024EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	76.4	26.1	2.64
50.0	21.1	44.5	9.2	4.21
IPLV:3.86 COP				

YCAL0034EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	111.3	40.7	2.56
66.7	27.0	84.5	20.9	3.57
33.3	15.5	46.2	8.1	4.86
IPLV:4.13 COP				

YCAL0074EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	251.8	90.3	2.59
84.3	31.4	224.8	69.1	2.96
66.7	26.9	190.3	45.9	3.61
51.0	21.1	146.8	34.6	3.86
33.3	15.3	103.3	17.4	4.98
17.7	12.8	56.7	8.7	5.45
IPLV:4.17 COP				

YCAL0090EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	280.0	91.5	2.74
77.8	28.9	229.1	61.3	3.26
50.0	20.2	155.7	34.2	4.12
27.8	12.8	86.6	16.1	4.84
IPLV:3.98 COP				

YCAL0020EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	61.1	21.2	2.55
50.0	21.2	35.8	7.2	4.14
IPLV:3.79 COP				

YCAL0030EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	94.0	32.0	2.70
50.0	20.9	54.1	11.0	4.36
IPLV:3.98 COP				

YCAL0070EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	231.2	81.6	2.62
83.3	31.1	204.1	60.3	3.04
66.7	26.7	173.9	42.0	3.56
50.0	20.8	132.4	29.4	4.04
33.3	15.2	93.9	16.4	4.73
16.7	12.8	46.2	7.9	4.80
IPLV:4.05 COP				

YCAL0080EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	274.4	100.0	2.57
83.3	31.1	242.2	73.6	3.01
66.7	26.8	207.2	50.4	3.62
50.0	20.6	156.2	35.8	3.99
33.3	15.4	112.8	18.4	5.17
16.7	12.8	56.0	8.6	5.43
IPLV:4.22 COP				

YCAL0094EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	301.8	100.3	2.72
75°F	28.4	241.9	64.5	3.29
50.0	20.1	167.1	38.0	4.01
25.0	12.8	86.3	16.1	4.83
IPLV:3.92 COP				

YCAL0104EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	333.7	116.7	2.62
81.8	30.8	291.5	83.2	3.10
59.1	24.3	226.8	51.0	3.78
40.9	17.5	158.4	31.7	4.49
18.2	12.8	73.1	12.4	5.13
IPLV:4.10 COP				

YCAL0124EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	404.7	140.9	2.61
85.2	31.3	359.5	108.5	2.92
66.7	25.8	293.1	78.8	3.41
51.9	20.9	233.3	54.9	3.87
33.3	14.8	159.1	29.9	4.75
18.5	12.8	84.9	15.7	4.84
IPLV:3.91 COP				

YCAL0114EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	374.7	126.7	2.66
83.3	31.0	330.1	94.5	3.03
66.7	25.9	272.5	70.1	3.53
50.0	20.6	212.7	46.5	4.10
33.3	14.8	147.1	26.5	4.88
16.7	12.8	72.6	12.5	5.07
IPLV:4.06 COP				

YCAL0134EB				
% DISPL.	AMBIENT DEG C	UNIT kWo	COMPR kWi	COP
100.0	35.0	434.7	155.2	2.56
83.3	31.0	383.1	116.0	2.94
66.7	25.7	313.7	87.6	3.31
50.0	20.5	245.2	58.3	3.85
33.3	14.8	171.1	33.2	4.64
16.7	12.8	84.8	15.7	4.84
IPLV: 3.83 COP				

Physical Data - English Units

	Model Number YCAL				
	0014	0020	0024	0030	0034
General Unit Data					
Nominal Tons, R-22	13.2	18.0	22.4	28.3	34.0
Nominal Tons, R-407C	12.7	17.4	21.7	26.7	31.7
Number of Refrigerant Circuits	1	1	1	1	1
Refrigerant Charge					
R-22, ckt1 / ckt2, lbs	44	44	58	72	72
R-407C, ckt1 / ckt2, lbs	42	42	55	69	69
Oil Charge, ckt1 / ckt2, gallons	2.2	2.2	2.2	2.2	3.3
Shipping Weight					
Aluminum Fin Coils, lbs	2472	2488	2857	2933	3279
Copper Fin Coils, lbs	2622	2638	3007	3083	3429
Operating Weight					
Aluminum Fin Coils, lbs	2548	2564	2940	3036	3381
Copper Fin Coils, lbs	2762	2778	3275	3371	3717
Compressors, scroll type					
Compressors per circuit	2	2	2	2	3
Compressors per unit	2	2	2	2	3
Nominal Tons per compressor	7.5	10	13	15	13
Condenser					
Total Face Area ft^2	47.2	47.2	66.1	66.1	66.1
Number of Rows	2	2	2	3	3
Fins per Inch	13	13	13	13	13
Condenser Fans					
Number of Fans total	2	2	2	2	2
Fan hp/kw	2 / 1.4	2 / 1.4	2 / 1.4	2 / 1.4	2 / 1.4
Fan RPM	1140	1140	1140	1140	1140
Number of Blades	3	3	3	3	3
Total Chiller CFM	16257	16257	23500	23500	23500
Evaporator, Direct Expansion					
Diameter x Length	8”x6’	8”x6’	8”x6.5’	8”x7’	8”x7’
Water Volume, gallons	9.2	9.2	10.0	12.3	12.3
Maximum Water Side Pressure, PSIG	150	150	150	150	150
Maximum Refrigerant Side Pressure, PSIG	350	350	350	350	350
Minimum Chiller Water Flow Rate, gpm	25	25	30	35	60
Maximum Chiller Water Flow Rate, gpm	60	60	70	170	170
Water Connections, inches	3	3	3	4	4

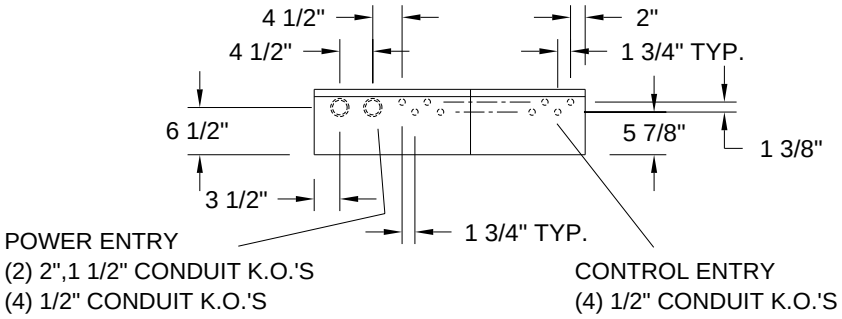
Model Number YCAL								
0070	0074	0080	0090	0094	0104	0114	0124	0134
70.2	76.0	82.2	83.2	89.9	99.6	111.1	121.0	130.3
65.7	71.6	78.0	79.6	85.8	94.9	106.5	115.1	124.3
2	2	2	2	2	2	2	2	2
76/76	78/76	80/80	94/90	94/94	103/103	112/112	112/112	112/112
72/72	74/72	76/76	90/86	90/90	98/98	108/108	108/108	108/108
3.3/3.3	3.3/3.3	3.3/3.3	4.2/4.2	4.2/4.2	6.3/4.2	6.3/6.3	6.3/6.3	6.3/6.3
6045	6217	6448	6541	6619	7434	9001	9289	9677
6425	6597	6828	7369	7448	8378	10261	10549	10937
6386	6558	6779	6981	7059	7923	9491	9779	10167
6829	7001	7222	7809	7888	8867	10751	11039	11427
3	3	3	2	2	3/2	3	3	3
6	6	6	4	4	5	6	6	6
13/13	15/13	15/15	25/20	25/25	20/25	20/20	25/20	25/25
149.3	149.3	149.3	168.0	168.0	192.0	222.0	222.0	222.0
3	3	3	3	3	3	3	3	3
13	13	13	13	13	13	13	13	13
4	4	4	6	6	6	8	8	8
2 / 1.7	2 / 1.7	2 / 1.7	2/1.8	2/1.8	2/1.8	2/1.8	2/1.8	2/1.8
1140	1140	1140	1140	1140	1140	1140	1140	1140
3	3	3	3	3	3	3	3	3
55253	54550	53760	79800	79800	85800	106400	106400	106400
12”x8’	12”x8’	12”x8’	14”x8’	14”x8’	15”x8’	15”x8’	15”x8’	15”x8’
41.2	41.2	39.9	53.0	53.0	58.9	58.9	58.9	58.9
150	150	150	150	150	150	150	150	150
350	350	350	350	350	350	350	350	350
100	100	100	125	138	150	165	180	180
350	350	385	525	525	625	625	625	625
6	6	6	8	8	8	8	8	8

Physical Data - SI Units

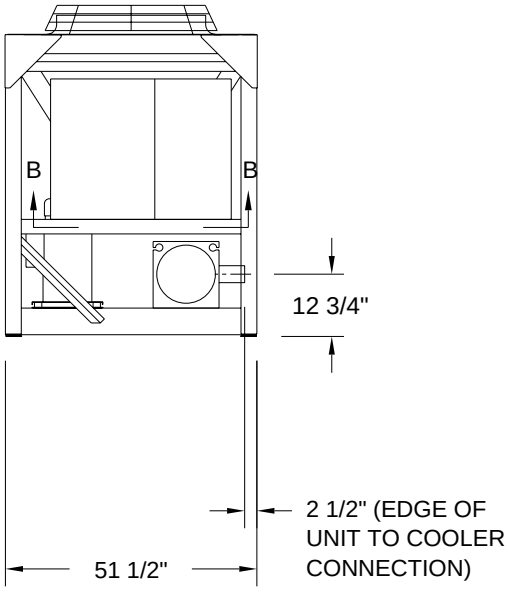
	Model Number YCAL				
	0014	0020	0024	0030	0034
General Unit Data					
Nominal kW, R-22	46.4	63.3	78.8	99.5	119.6
Nominal kW, R-407C	44.7	61.2	76.3	93.9	111.5
Number of Refrigerant Circuits	1	1	1	1	1
Refrigerant Charge					
R-22, ckt1 / ckt2, kg	14.5	17.3	24.4	29.5	31.4
R-407C, ckt1 / ckt2, kg	14.5	17.3	24.4	29.5	31.4
Oil Charge, ckt1 / ckt2, liters	8.3	8.3	8.3	8.3	12.5
Shipping Weight					
Aluminum Fin Coils, kg	1121	1129	1296	1330	1487
Copper Fin Coils, kg	1189	1197	1364	1398	1555
Operating Weight					
Aluminum Fin Coils, kg	1156	1163	1334	1377	1534
Copper Fin Coils, kg	1224	1231	1402	1445	1602
Compressors, scroll type					
Compressors per circuit	2	2	2	2	3
Compressors per unit	2	2	2	2	3
Nominal kWo per compressor	26	35	46	53	46
Condenser					
Total Face Area meters^2	4	4	6	6	6
Number of Rows	2	2	2	3	3
Fins per m	512	512	512	512	512
Condenser Fans					
Number of Fans total	2	2	2	2	2
Fan hp/kw	2 / 1.4	2 / 1.4	2 / 1.4	2 / 1.4	2 / 1.4
Fan RPM	1140	1140	1140	1140	1140
Number of Blades	3	3	3	3	3
Total Chiller Airflow l/s	7672	7672	11091	11091	11091
Evaporator, Direct Expansion					
Diameter x Length	203x1829	203x1830	203x1981	210x2134	210x2134
Water Volume, liters	34.9	34.9	37.7	46.7	46.7
Maximum Water Side Pressure, bar	10	10	10	10	10
Maximum Refrigerant Side Pressure, bar	24	24	24	24	24
Minimum Chiller Water Flow Rate, l/s	1.6	1.6	1.9	2.2	3.8
Maximum Chiller Water Flow Rate, l/s	3.8	3.8	4.4	10.7	10.7
Water Connections, inches	3	3	3	4	4

Model Number YCAL								
0070	0074	0080	0090	0094	0104	0114	0124	0134
246.9	267.3	289.1	292.6	316.2	350.3	390.7	425.6	457.9
231.1	251.8	274.3	280.0	301.8	333.8	374.6	404.8	436.9
2	2	2	2	2	2	2	2	2
34.1/34.1	41.8/37.7	45.5/45.5	43/35	43/43	51/43	51/51	51/51	51/51
30/30	40/30	40/40	41/34	41/41	49/41	49/49	49/49	49/49
12.5/12.5	12.5/12.5	12.5/12.5	16/16	16/16	24/16	24/24	24/24	24/24
2742	2820	2925	2967	3002	3372	4086	4217	4393
2914	2992	3097	3343	3378	3800	4658	4789	4965
2897	2975	3075	3167	3202	3594	4308	4439	4615
3069	3147	3247	3542	3578	4022	4881	5011	5187
3	3	3	2	2	3/2	3	3	3
6	6	6	4	4	5	6	6	6
46/46	53/46	53/53	88/70	88/88	70/88	70/70	88/70	88/88
14	14	14	16.0	16.0	18.0	21.0	21.0	21.0
2	3	3	3	3	3	3	3	3
512	512	512	512	512	512	512	512	512
4	4	4	6	6	6	8	8	8
2 / 1.7	2 / 1.7	2 / 1.7	2 / 1.8	2 / 1.8	2 / 1.8	2 / 1.8	2 / 1.8	2 / 1.8
1140	1140	1140	1140	1140	1140	1140	1140	1140
3	3	3	3	3	3	3	3	3
26076	25744	25371	37660	37660	39784	50214	50214	50214
309x2438	309x2438	315x2438	356x2438	356x2438	381x2438	381x2438	381x2438	381x2438
156.1	156.1	151.1	200.6	200.6	222.9	222.9	222.9	222.9
10	10	10	10	10	10	10	10	10
24	24	24	24	24	24	24	24	24
6.3	6.3	6.3	7.9	8.7	9.5	10.4	11.4	11.4
22.1	22.1	24.3	33.1	33.1	39.4	39.4	39.4	39.4
6	6	6	8	8	8	8	8	8

Dimensions - YCAL0014-YCAL0020 English



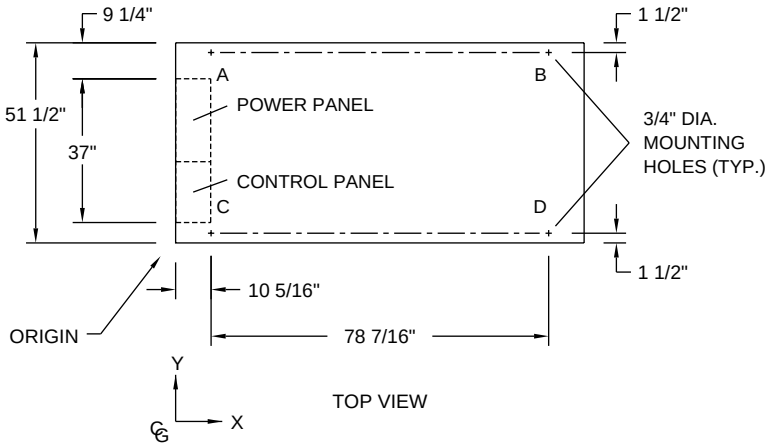
VIEW B-B

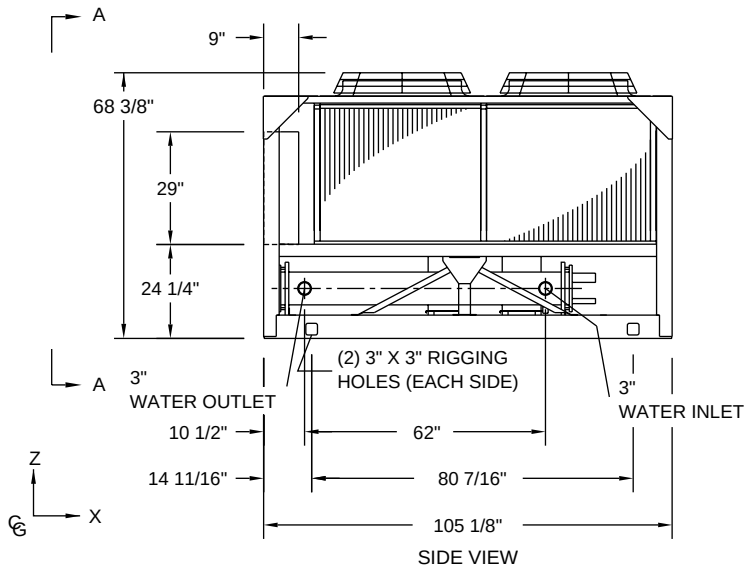


VIEW A-A

NOTE:

Placement on a level surface of free of obstructions (including snow, for winter operation) or air circulation ensures rated performance, reliable operation, and ease of maintenance. Site restrictions may compromise minimum clearances indicated below, resulting in unpredictable airflow patterns and possible diminished performance. YORK's unit controls will optimize operation without nuisance high-pressure safety cutouts; however, the system designer must consider potential performance degradation. Access to the unit control center assumes the unit is no higher than on spring isolators. Recommended minimum clearances: Side to wall – 6'; rear to wall – 6'; control panel to end wall – 4'0"; top – no obstructions allowed; distance between adjacent units – 10'. No more than one adjacent wall may be higher than the unit.





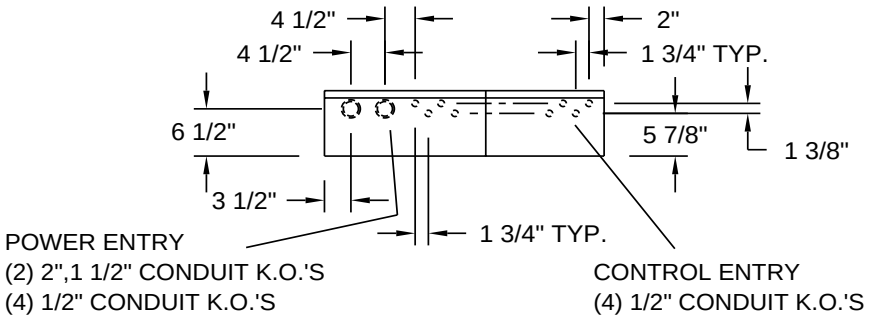
ALUMINUM

YCAL	Center of Gravity (in.)		
	X	Y	Z
0014	44.8	24.1	28.3
0020	44.8	24.1	28.3

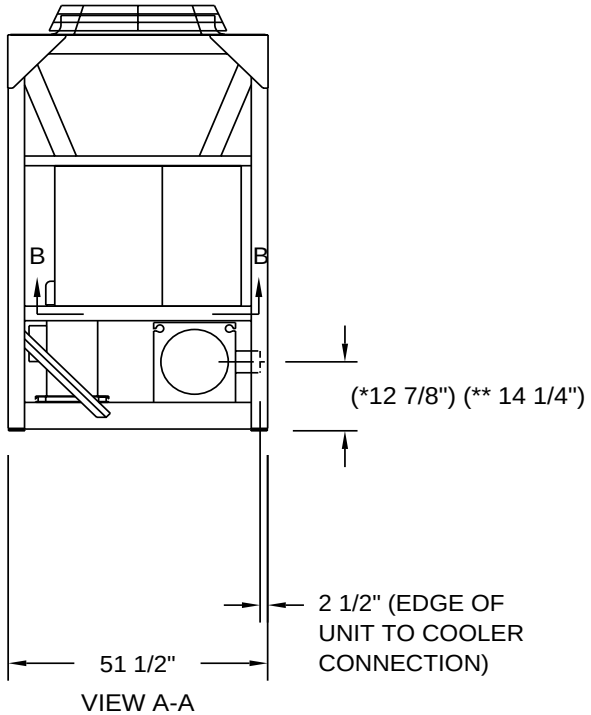
COPPER

YCAL	Center of Gravity (in.)		
	X	Y	Z
0014	45.4	24.2	28.8
0020	45.4	24.2	28.8

Dimensions - YCAL0024-YCAL0030 English



VIEW B-B



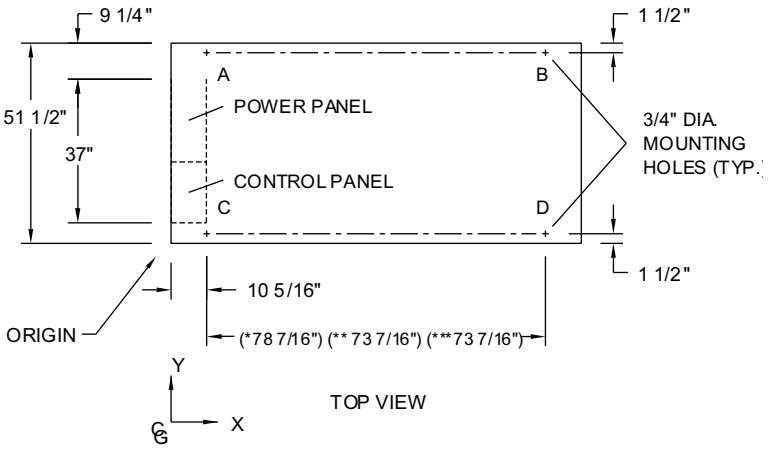
VIEW A-A

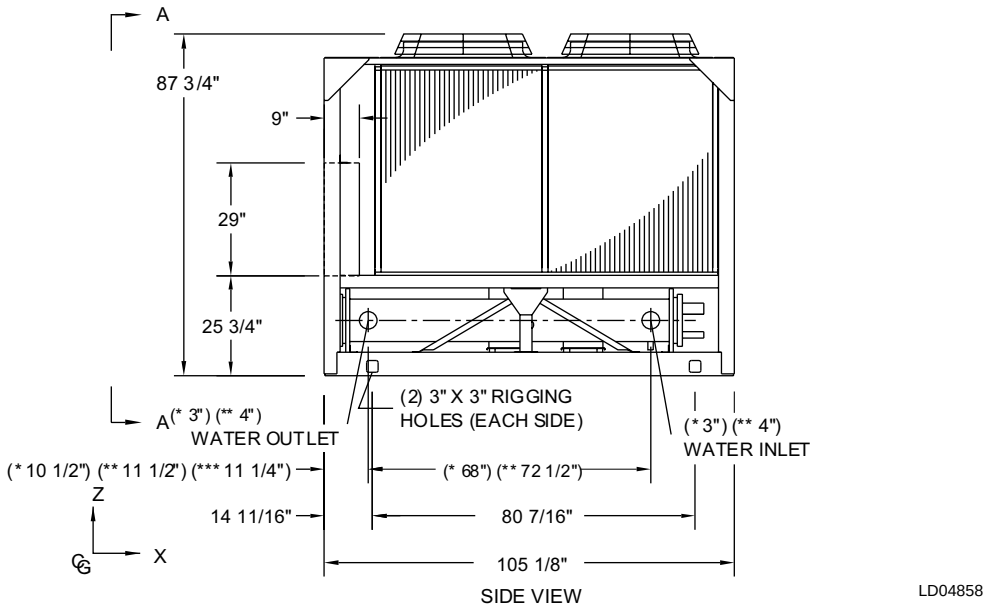
LD04857

* Refers to Model YCAL0024
** Refers to Model YCAL0030 and YCAL0034

NOTE:

Placement on a level surface of free of obstructions (including snow, for winter operation) or air circulation ensures rated performance, reliable operation, and ease of maintenance. Site restrictions may compromise minimum clearances indicated below, resulting in unpredictable airflow patterns and possible diminished performance. YORK's unit controls will optimize operation without nuisance high-pressure safety cutouts; however, the system designer must consider potential performance degradation. Access to the unit control center assumes the unit is no higher than on spring isolators. Recommended minimum clearances: Side to wall – 6'; rear to wall – 6'; control panel to end wall – 4'0"; top – no obstructions allowed; distance between adjacent units – 10'. No more than one adjacent wall may be higher than the unit.





* Refers to Model YCAL0024
** Refers to Model YCAL0030 and YCAL0034

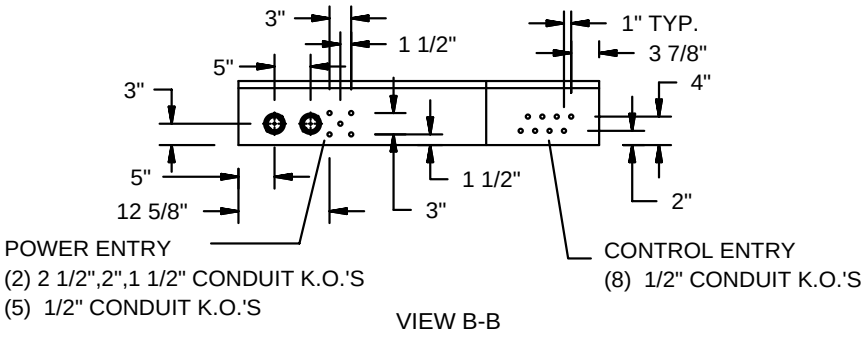
ALUMINUM

YCAL	Center of Gravity (in.)		
	X	Y	Z
0024	45.0	24.4	35.3
0030	45.0	24.4	34.9
0034	45.0	25.5	33.8

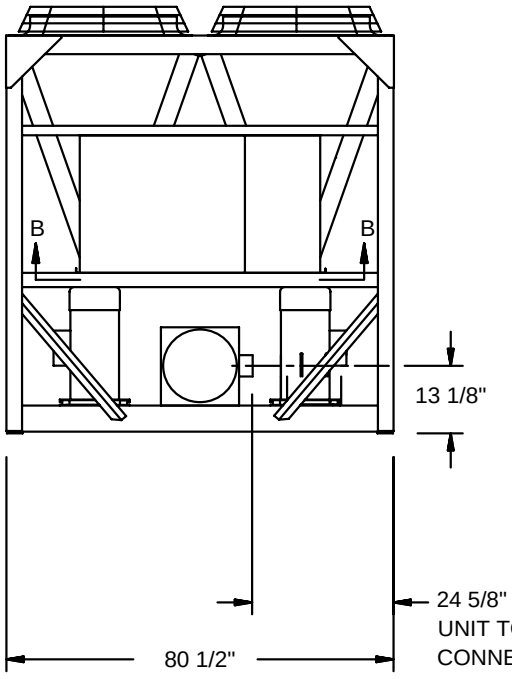
COPPER

YCAL	Center of Gravity (in.)		
	X	Y	Z
0024	45.8	24.5	36.2
0030	45.8	24.5	35.8
0034	45.7	25.5	34.7

Dimensions - YCAL0070-YCAL0080 English



VIEW B-B



VIEW A-A

NOTE:

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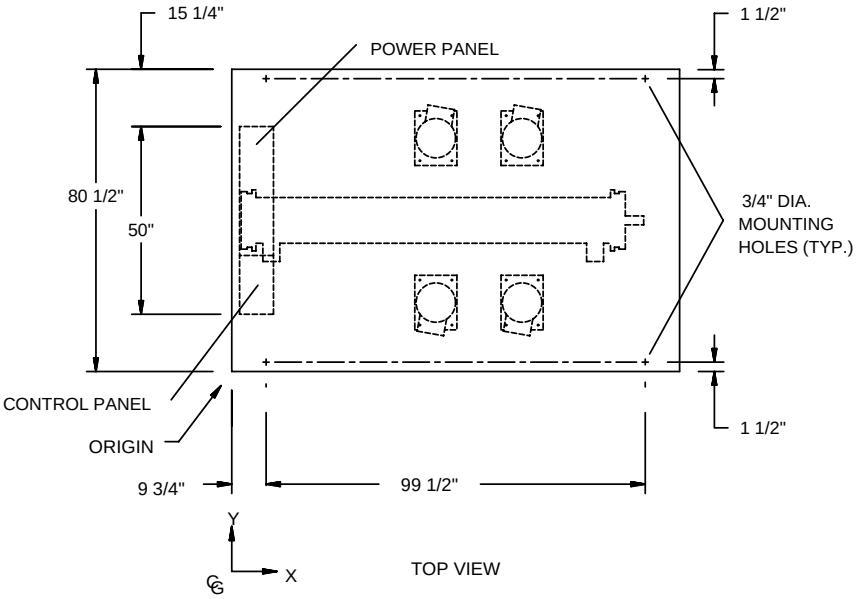
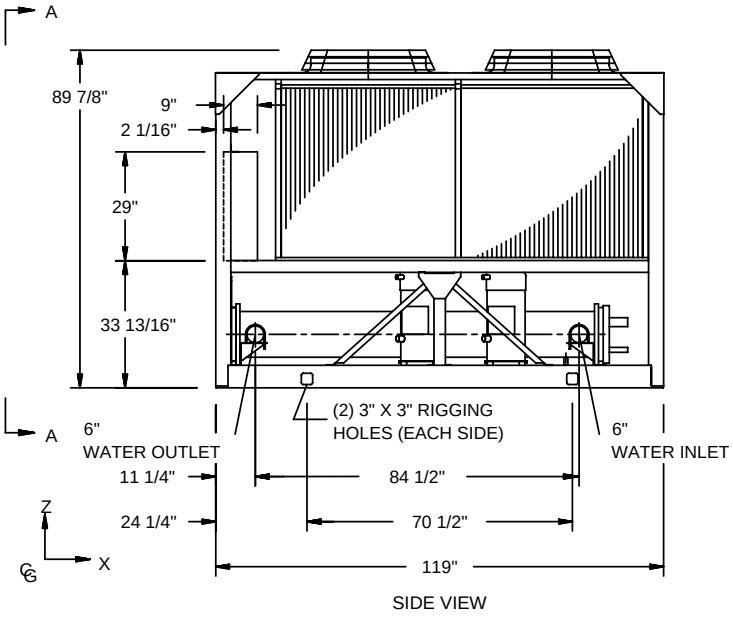




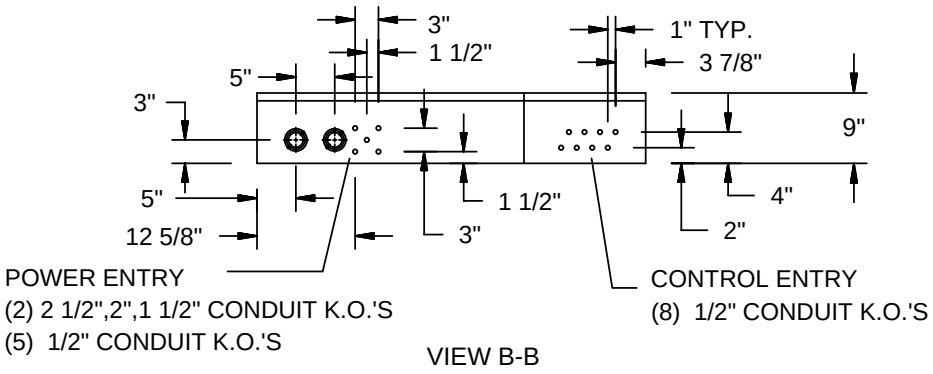
ALUMINUM

YCAL	Center of Gravity (in.)		
	X	Y	Z
0060	58.5	40.2	39.4
0064	56.5	45.8	39.4
0070	56.6	45.4	39.4
0074	56.6	45.7	39.5
0080	56.6	45.4	39.0

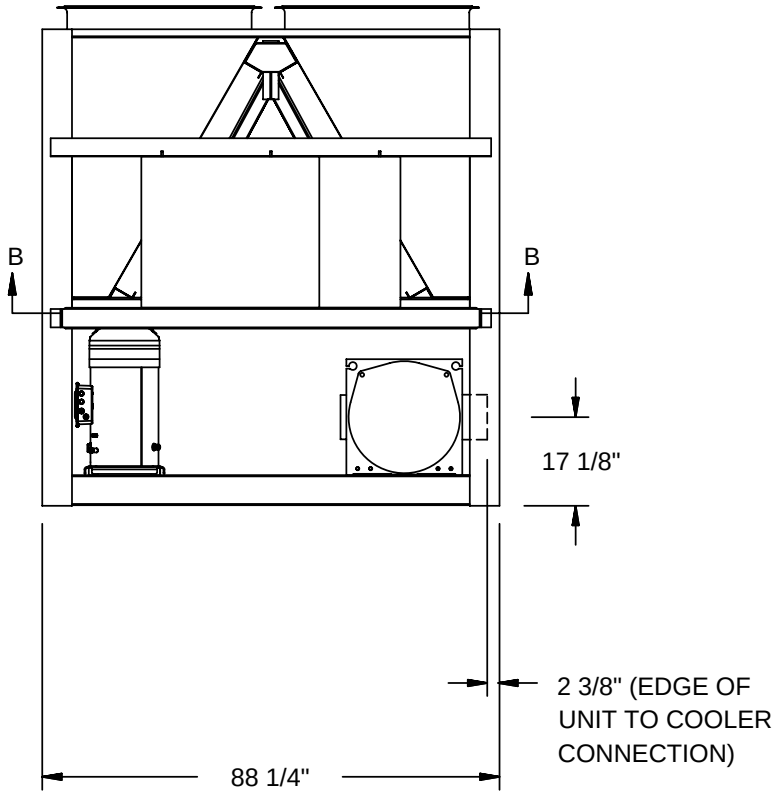
COPPER

YCAL	Center of Gravity (in.)		
	X	Y	Z
0060	58.6	40.2	39.8
0064	56.7	45.7	40.0
0070	56.8	45.5	40.0
0074	56.8	45.7	40.1
0080	56.8	45.5	39.6

Dimensions - YCAL0090-YCAL0094 English



VIEW B-B



VIEW A-A

NOTE:

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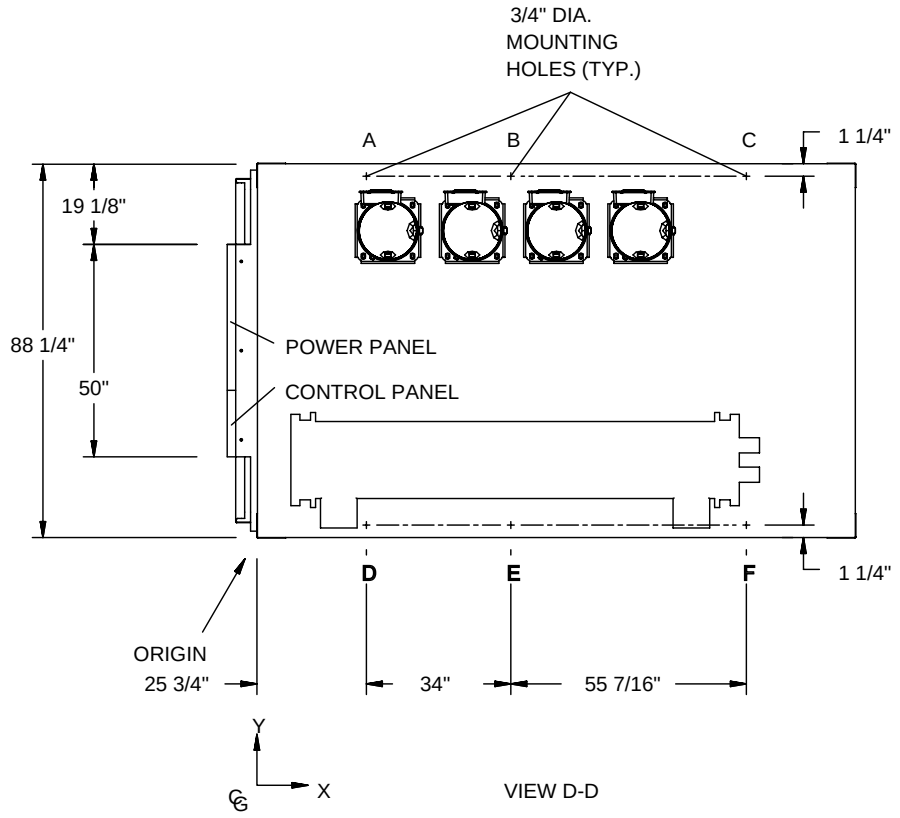
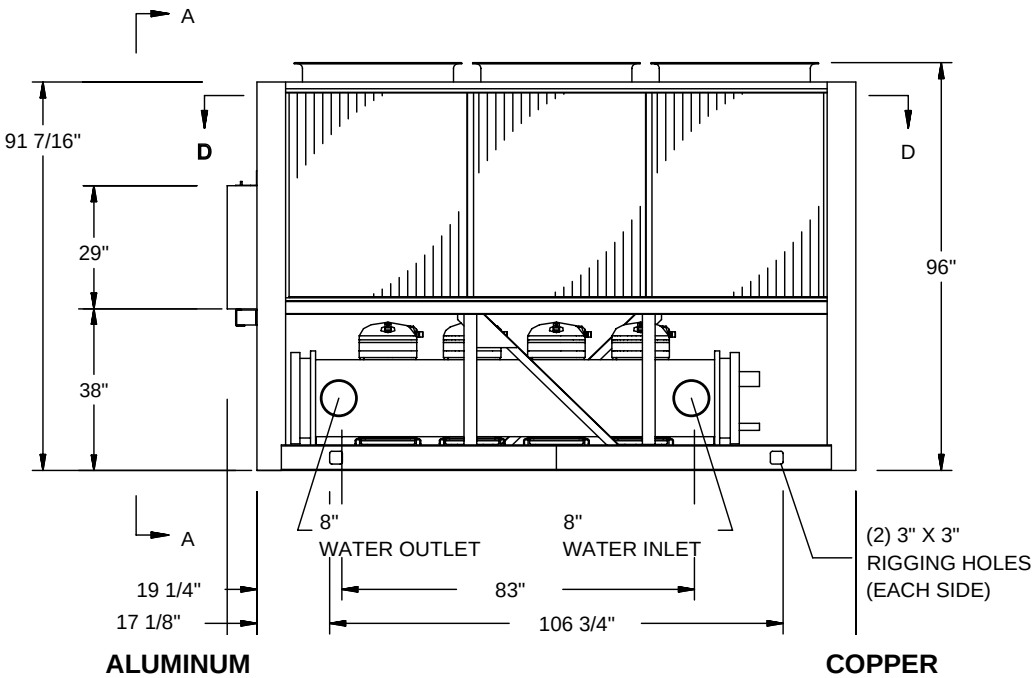


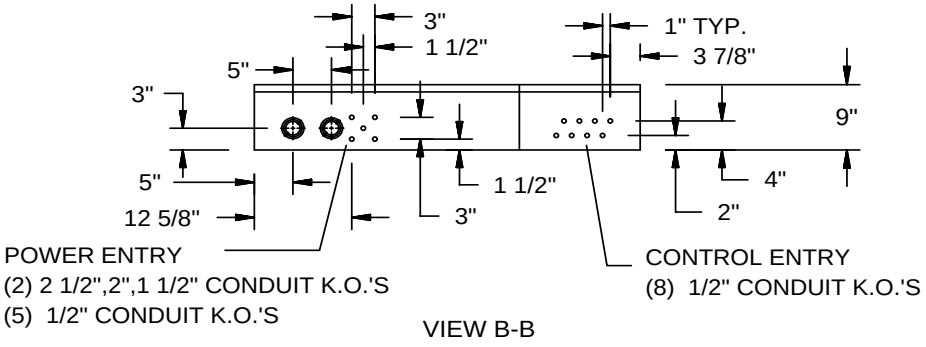


ALUMINUM **COPPER**

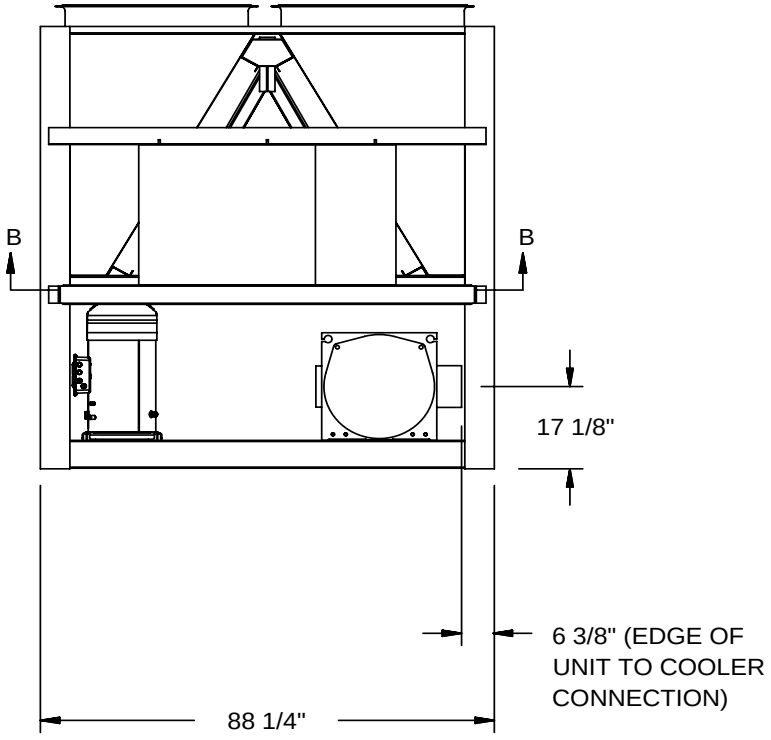
YCAL	Center of Gravity (in.)		
	X	Y	Z
0090	63.4	44.3	42.1
0094	64.3	44.4	41.9

YCAL	Center of Gravity (in.)		
	X	Y	Z
0090	64.1	44.3	44.5
0094	64.8	44.4	44.2

Dimensions - YCAL0104 English



VIEW B-B



VIEW A-A

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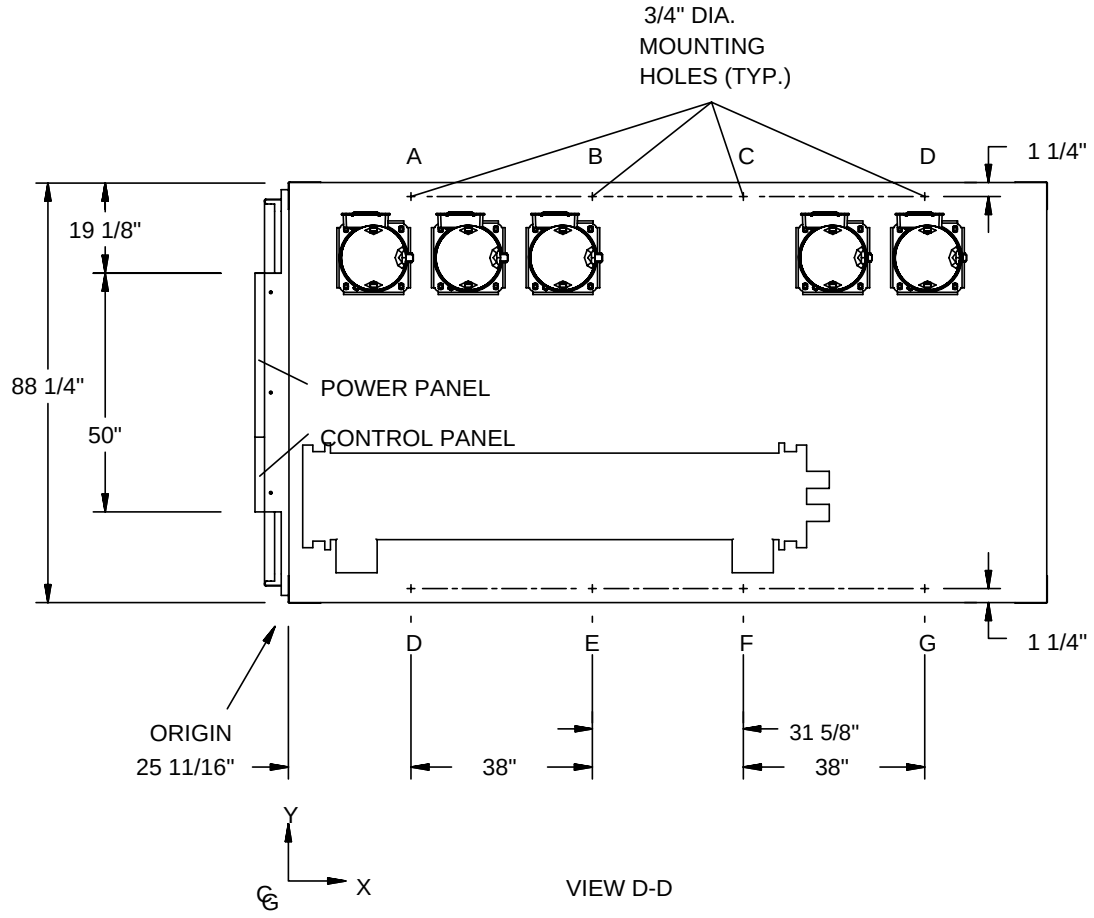
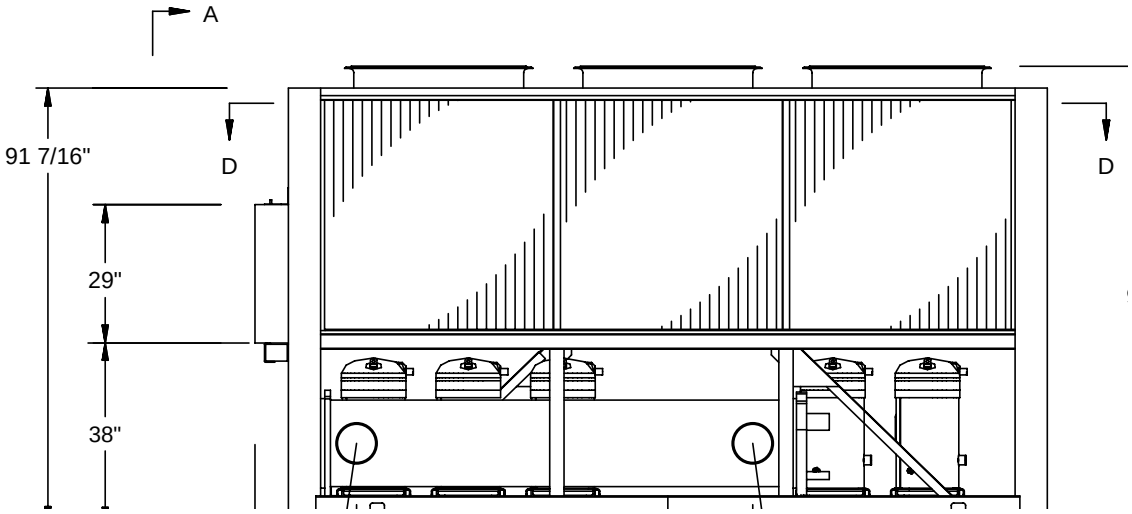




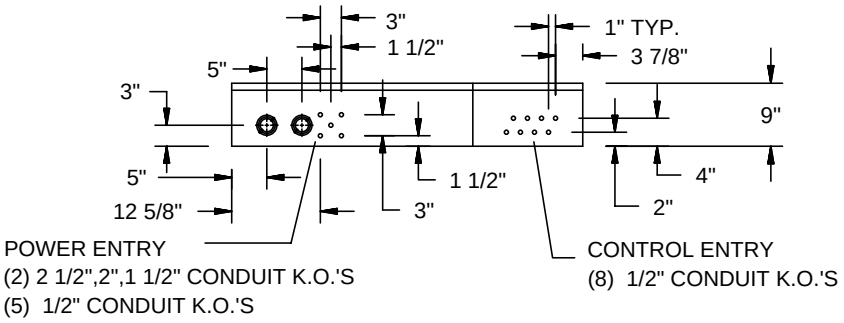
ALUMINUM

YCAL	Center of Gravity (in.)		
	X	Y	Z
0104	70.3	45.7	40.8

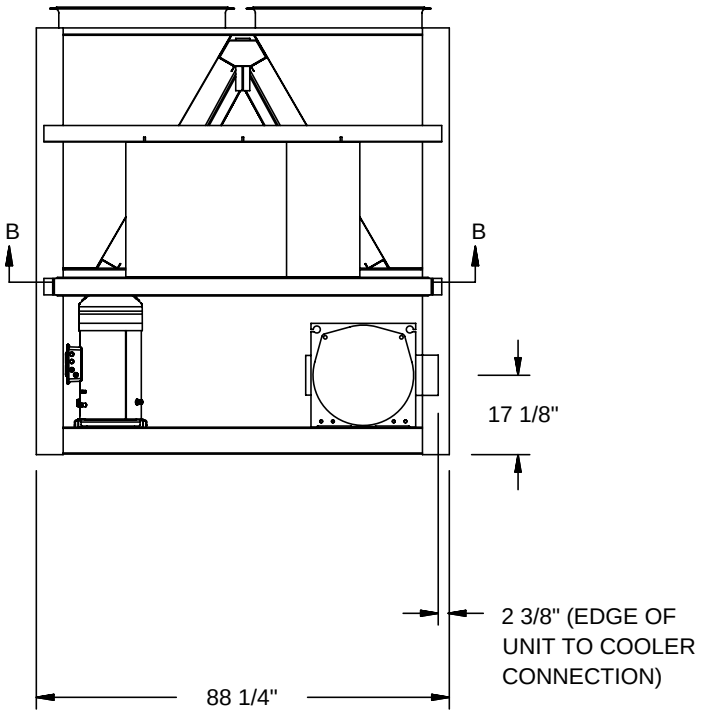
COPPER

YCAL	Center of Gravity (in.)		
	X	Y	Z
0104	71.3	45.5	42.7

Dimensions - YCAL0114 - YCAL0134 English



VIEW B-B



VIEW A-A

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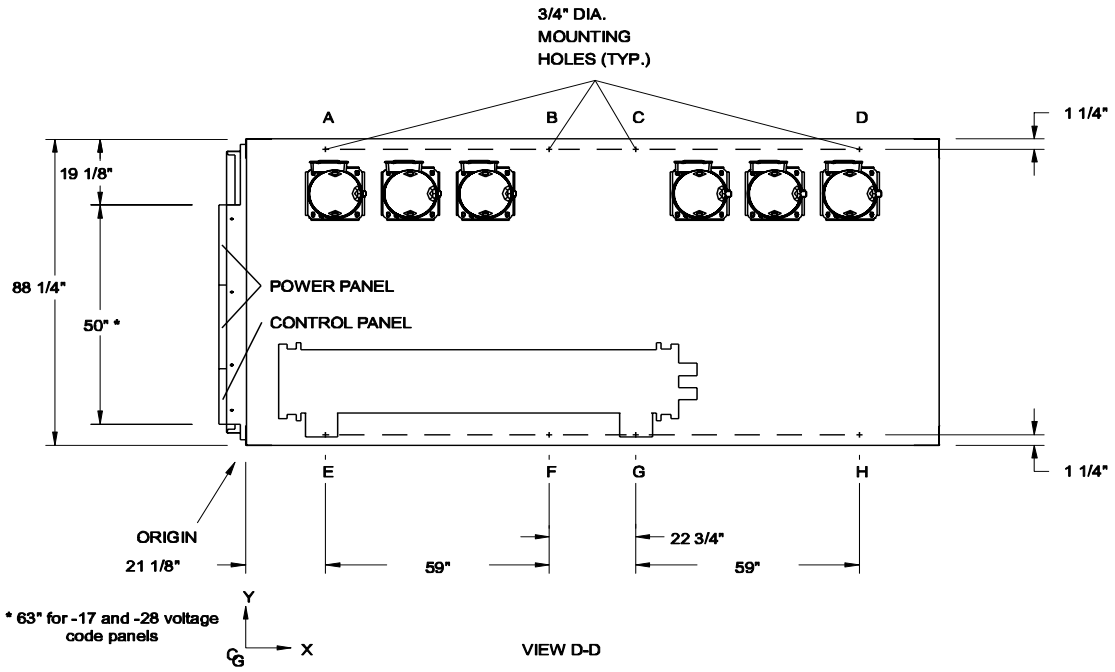
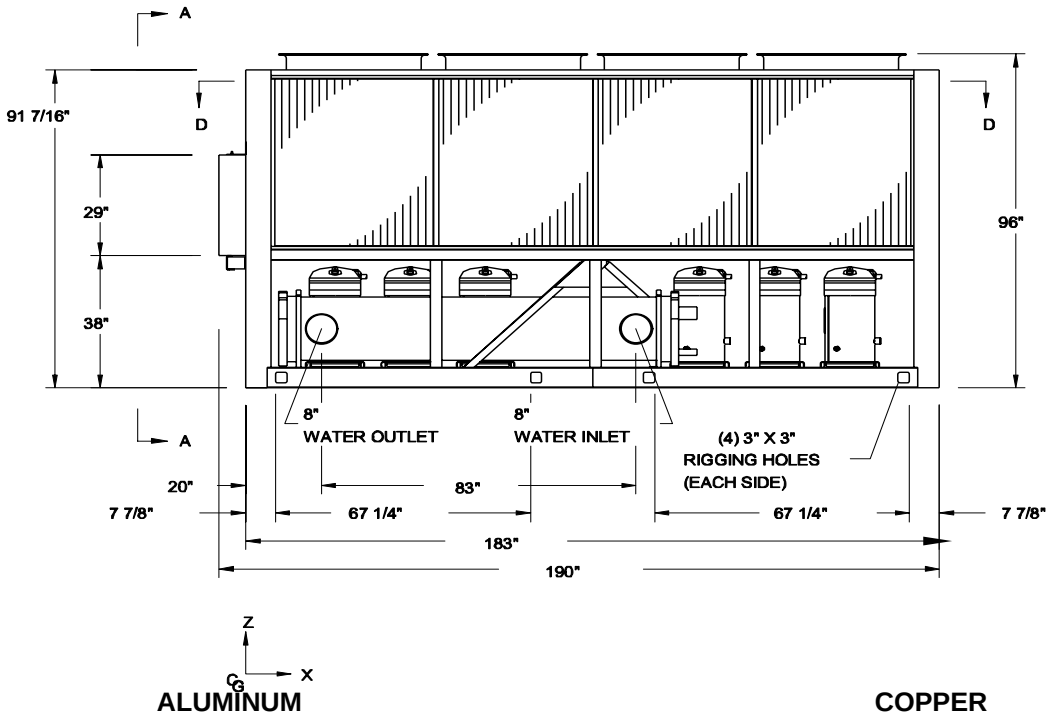




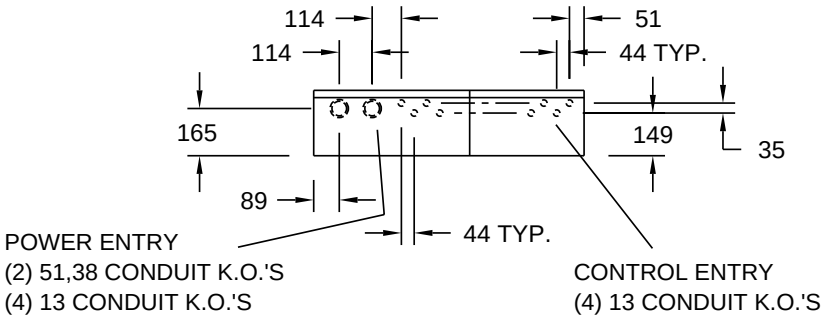
ALUMINUM

YCAL	Center of Gravity (in.)		
	X	Y	Z
0114	82.2	45.5	43.7
0124	81.1	46.2	43.1
0134	81.9	46.8	42.5

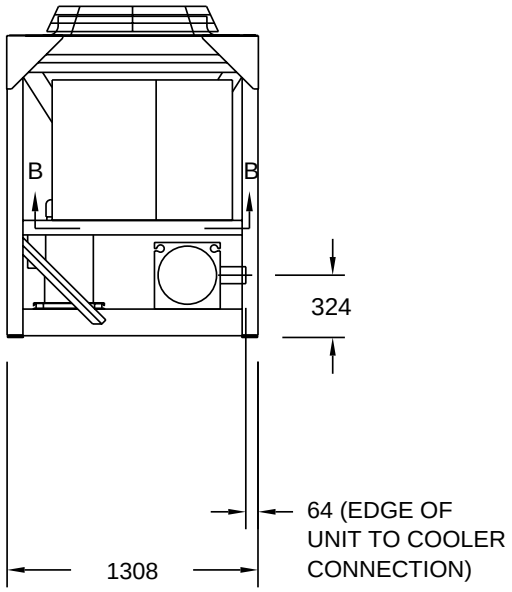
COPPER

YCAL	Center of Gravity (in.)		
	X	Y	Z
0114	83.3	45.2	45.3
0124	82.3	45.9	44.7
0134	82.9	46.5	44.2

Dimensions - YCAL0014-YCAL0020 SI



VIEW B-B



VIEW A-A

LD04870

NOTE: *All dimensions are in mm unless specified otherwise.*

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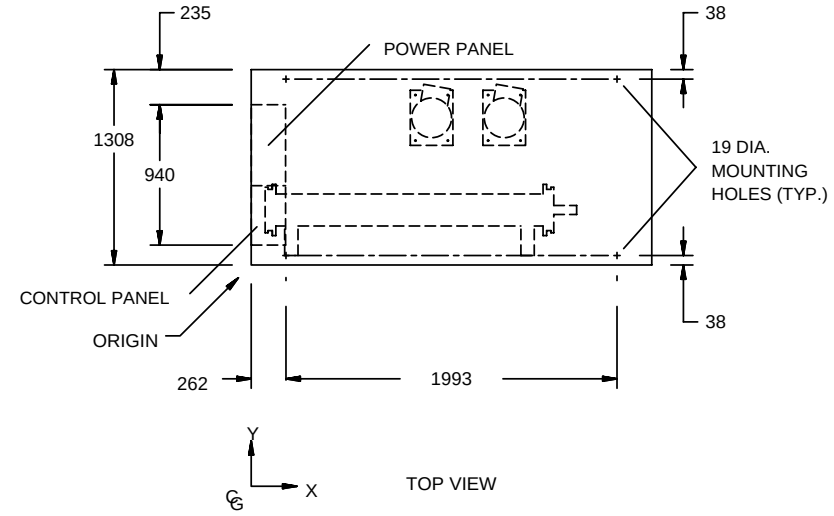
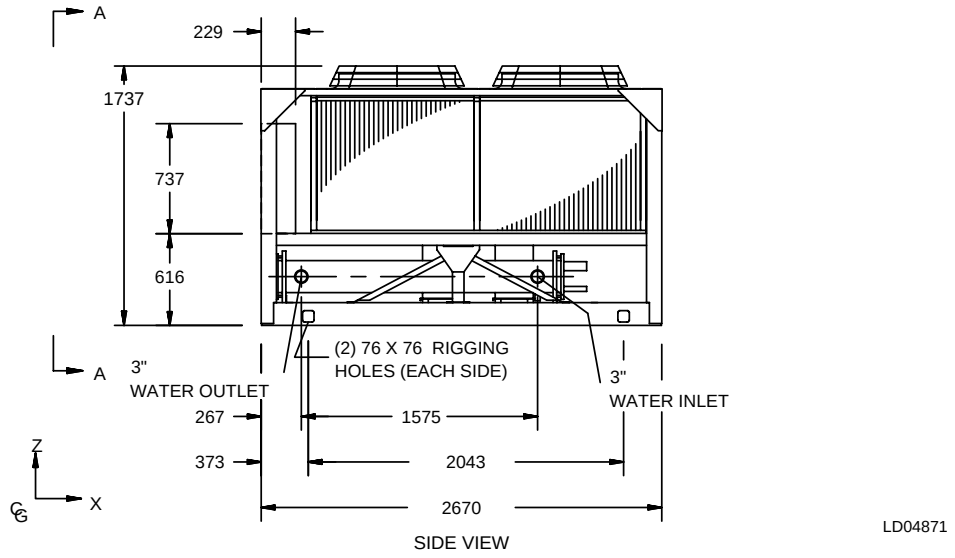




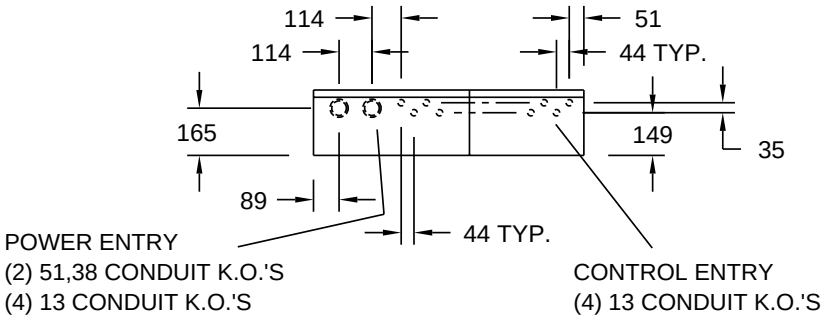
ALUMINUM

YCAL	Center of Gravity (mm)		
	X	Y	Z
0014	1138	612	719
0020	1138	611	719

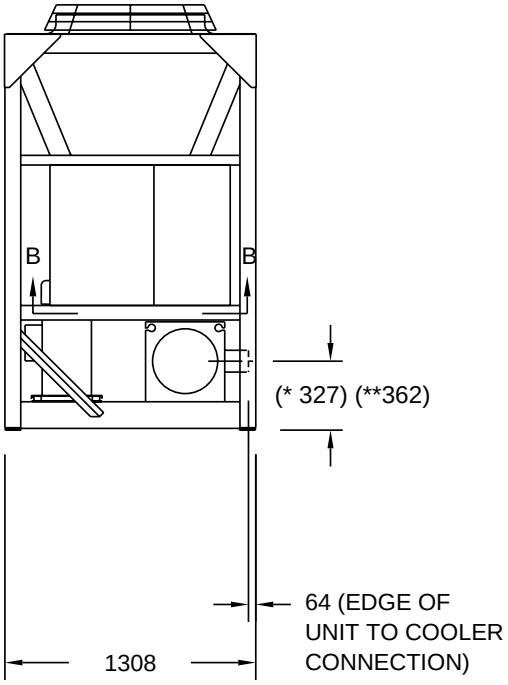
COPPER

YCAL	Center of Gravity (mm)		
	X	Y	Z
0014	1153	615	731
0020	1153	615	731

Dimensions - YCAL0024-YCAL0030 SI



VIEW B-B



VIEW A-A

LD04859

* Refers to Model YCAL0024
** Refers to Model YCAL0030 and YCAL0034

NOTE: *All dimensions are in mm unless specified otherwise.*

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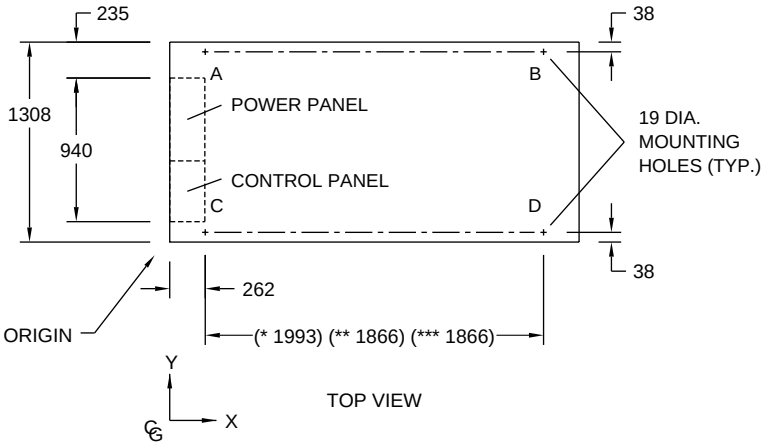
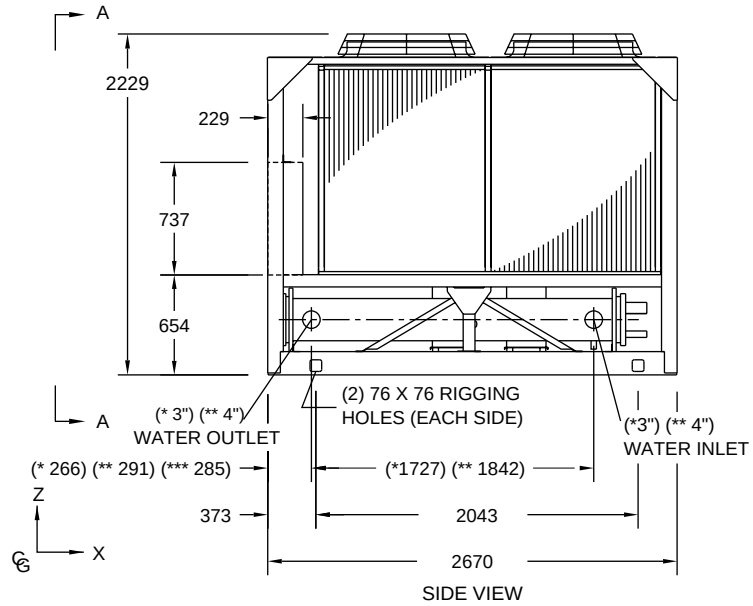




LD04860

* Refers to Model YCAL0024
** Refers to Model YCAL0030 and YCAL0034

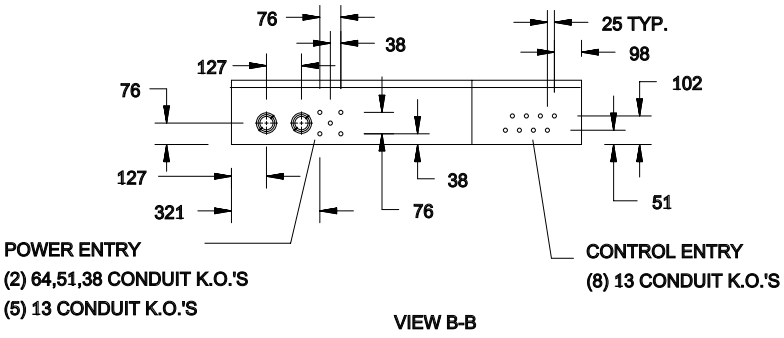
ALUMINUM

YCAL	Center of Gravity (mm)		
	X	Y	Z
0024	1142	619	897
0030	1144	620	887
0034	1142	646	860

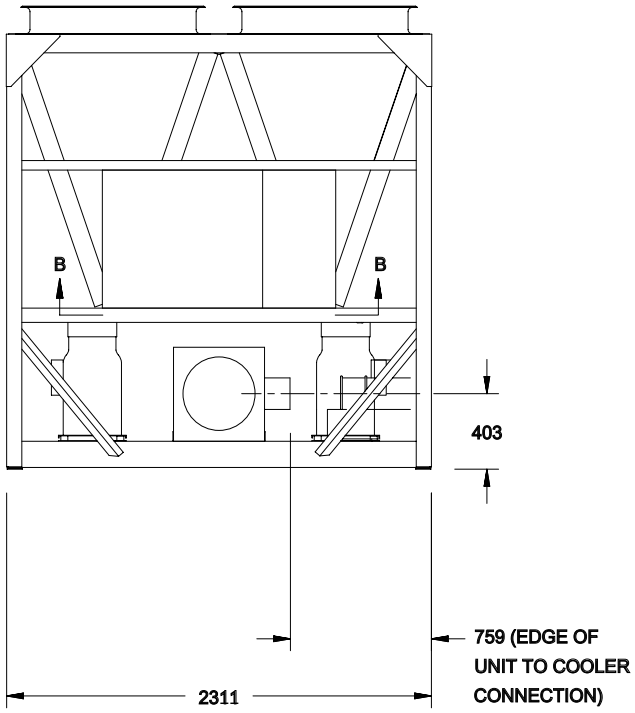
COPPER

YCAL	Center of Gravity (mm)		
	X	Y	Z
0024	1162	623	919
0030	1163	623	909
0034	1160	647	882

Dimensions -YCAL0070-YCAL0080 SI



VIEW B-B



VIEW A-A

LD04878

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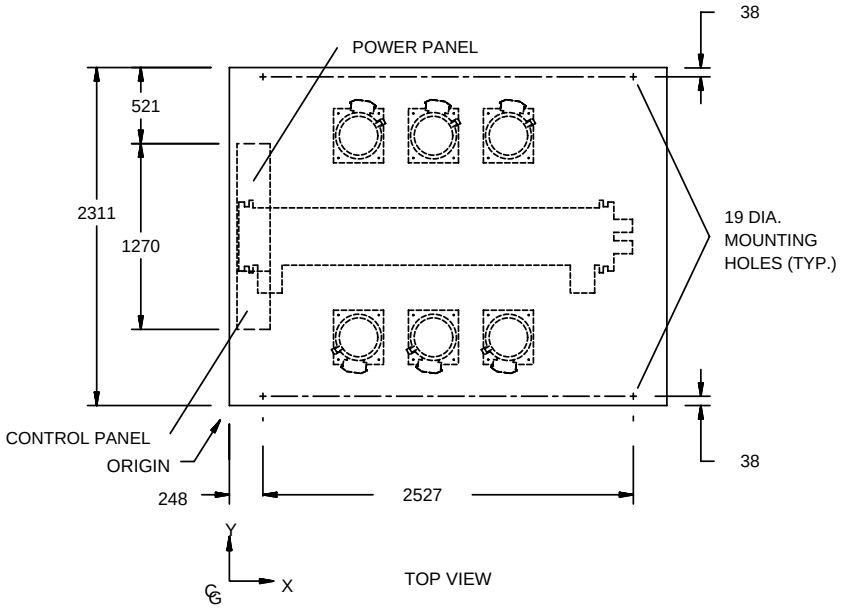
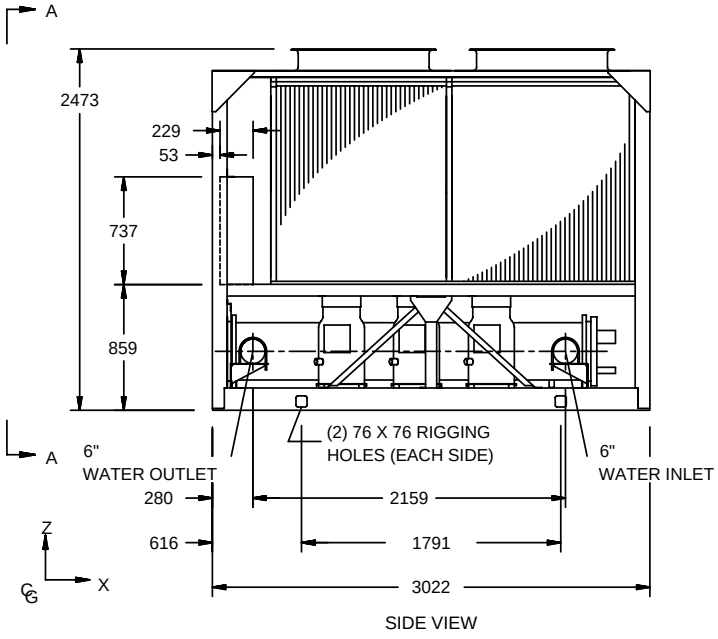




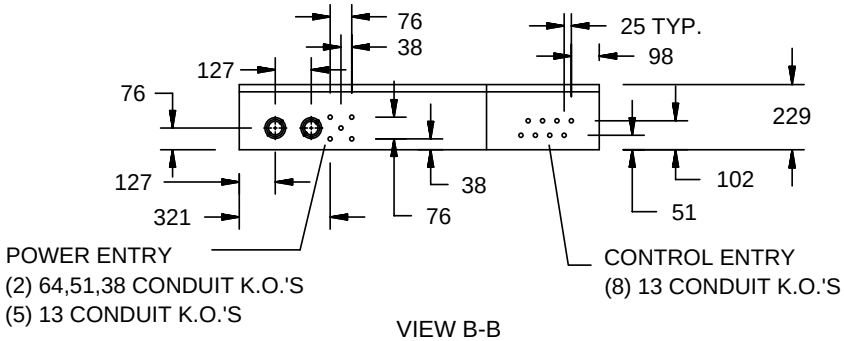
ALUMINUM

YCAL	Center of Gravity (mm)		
	X	Y	Z
0060	1485	1021	1001
0064	1435	1162	1001
0070	1437	1154	1002
0074	1438	1161	1003
0080	1437	1154	991

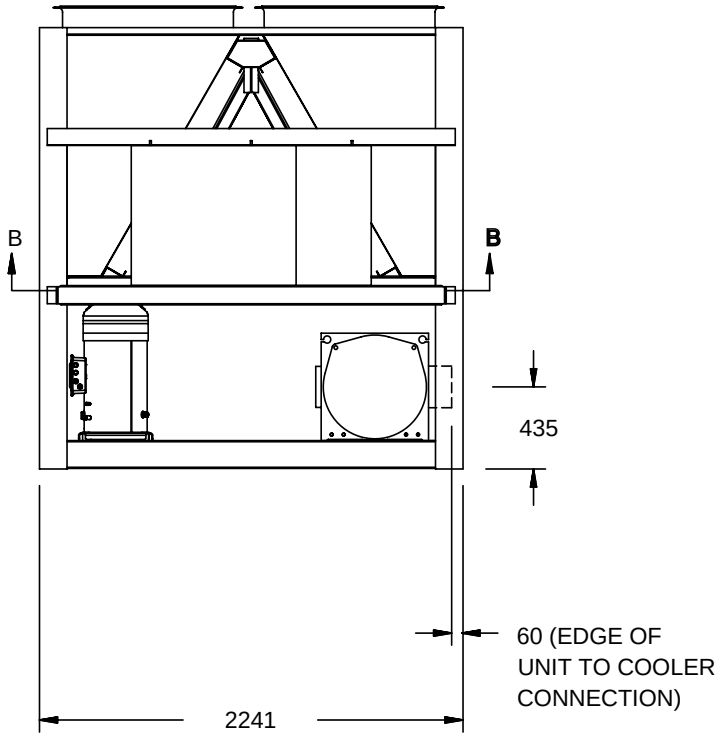
COPPER

YCAL	Center of Gravity (mm)		
	X	Y	Z
0060	1487	1021	1010
0064	1440	1162	1016
0070	1442	1154	1017
0074	1443	1160	1018
0080	1442	1154	1006

Dimensions - YCAL0090-YCAL0094 SI



VIEW B-B

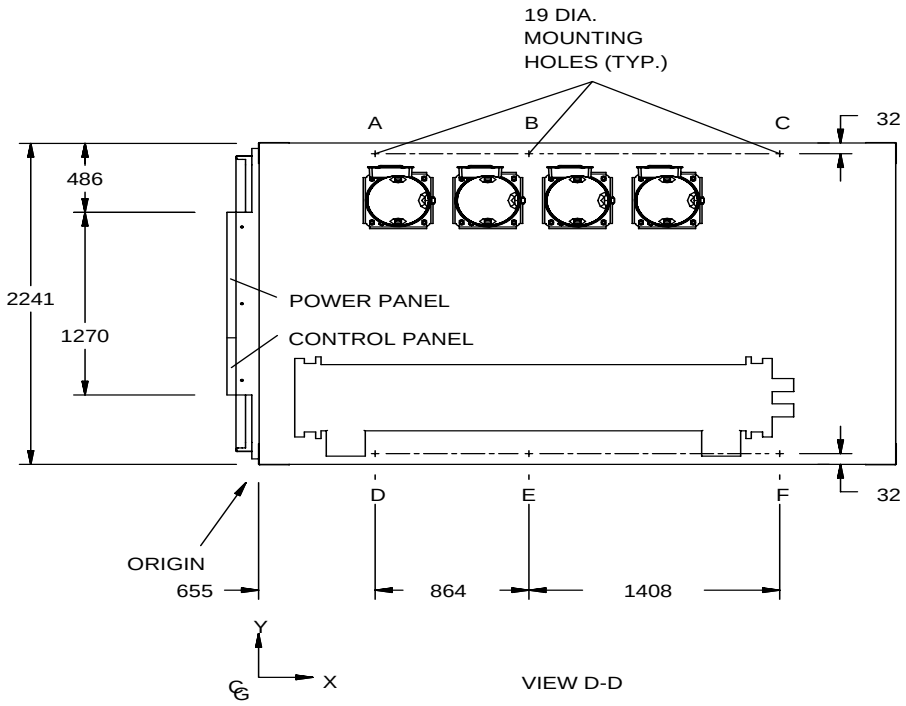


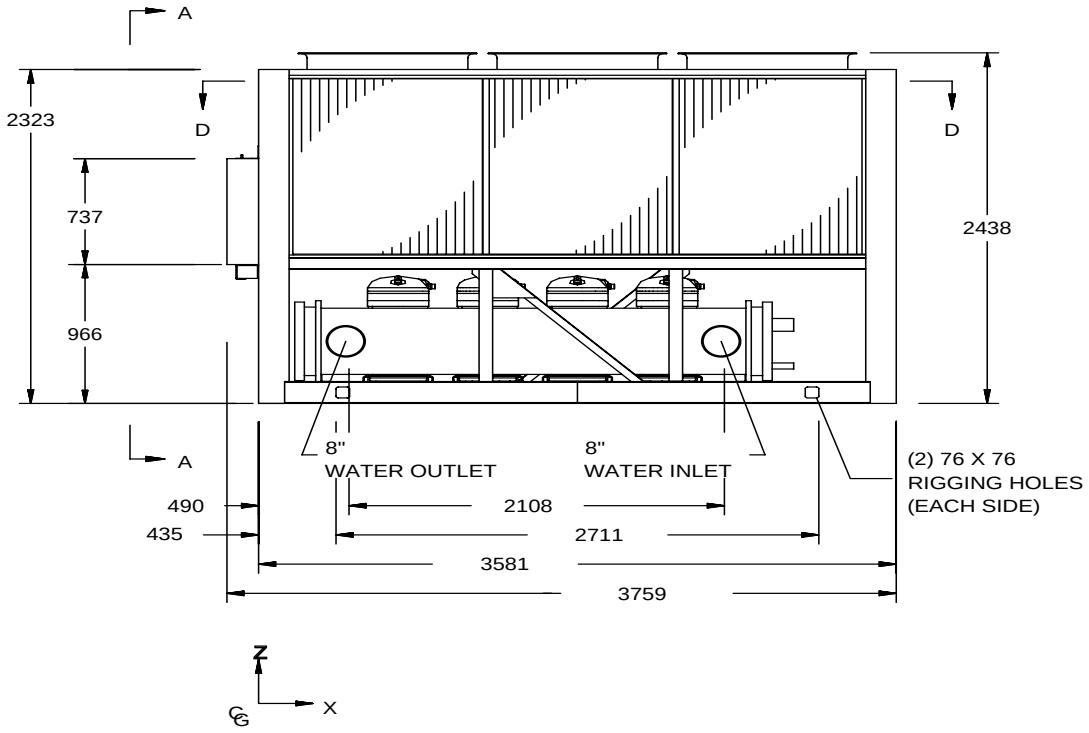
VIEW A-A

NOTE: *All dimensions are in mm unless specified otherwise.*

NOTE:

Placement on a level surface of free of obstructions (including snow, for winter operation) or air circulation ensures rated performance, reliable operation, and ease of maintenance. Site restrictions may compromise minimum clearances indicated below, resulting in unpredictable airflow patterns and possible diminished performance. YORK's unit controls will optimize operation without nuisance high-pressure safety cutouts; however, the system designer must consider potential performance degradation. Access to the unit control center assumes the unit is no higher than on spring isolators. Recommended minimum clearances: Side to wall – 2m; rear to wall – 2m; control panel to end wall – 1.2m; top – no obstructions allowed; distance between adjacent units – 3m. No more than one adjacent wall may be higher than the unit.





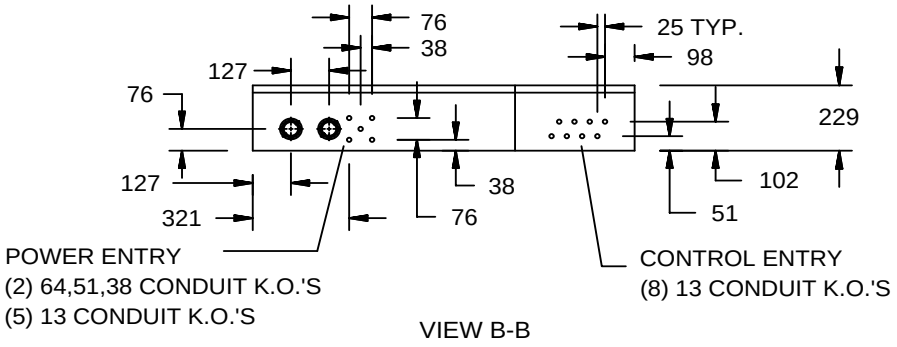
ALUMINUM

YCAL	Center of Gravity (mm)		
	X	Y	Z
0090	1610	1125	1069
0094	1633	1128	1064

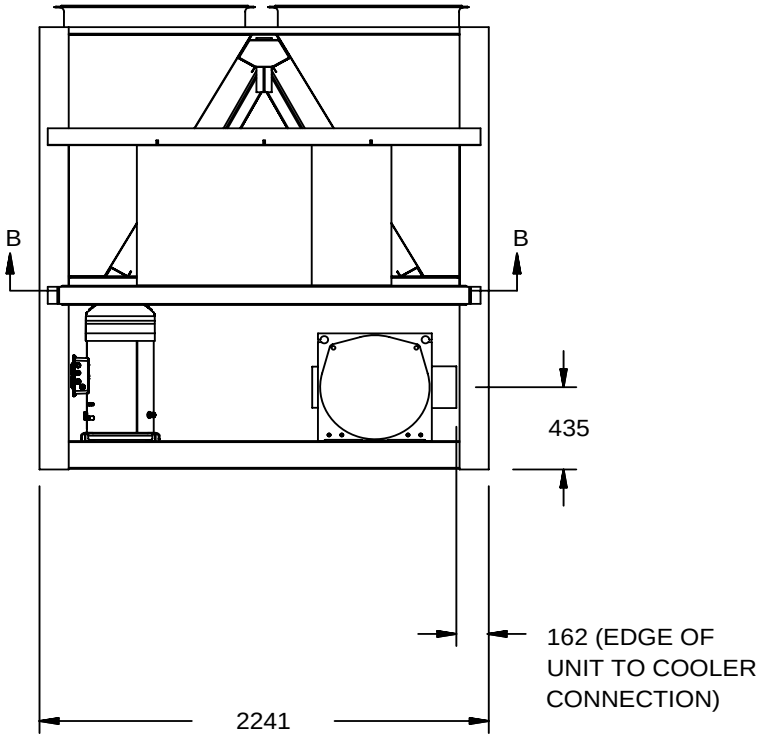
COPPER

YCAL	Center of Gravity (mm)		
	X	Y	Z
0090	1628	1125	1130
0094	1646	1127	1124

Dimensions - YCAL0104 SI



VIEW B-B



VIEW A-A

NOTE: *All dimensions are in mm unless specified otherwise.*

NOTE:

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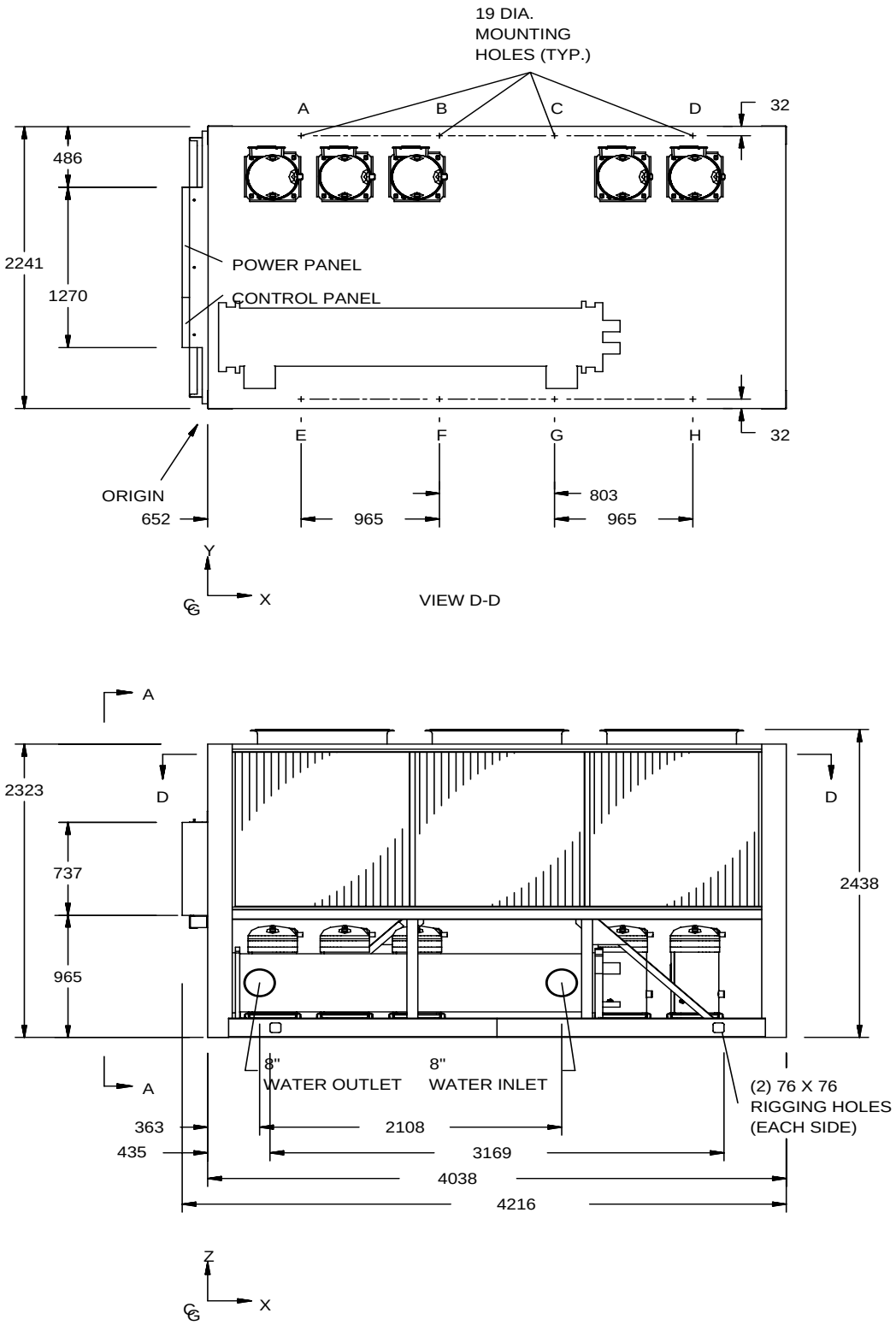


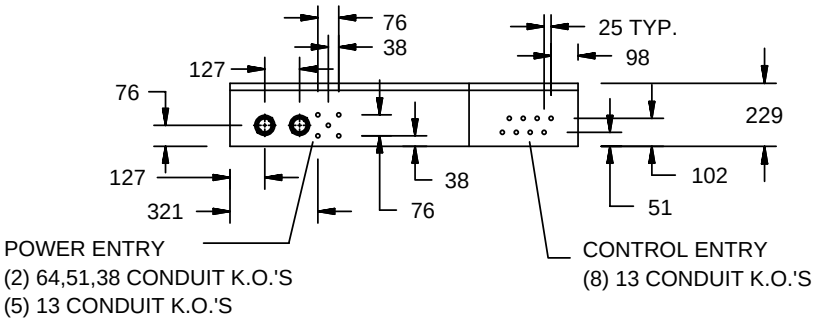
ALUMINUM

YCAL	Center of Gravity (mm)		
	X	Y	Z
0104	1786	1160	1035

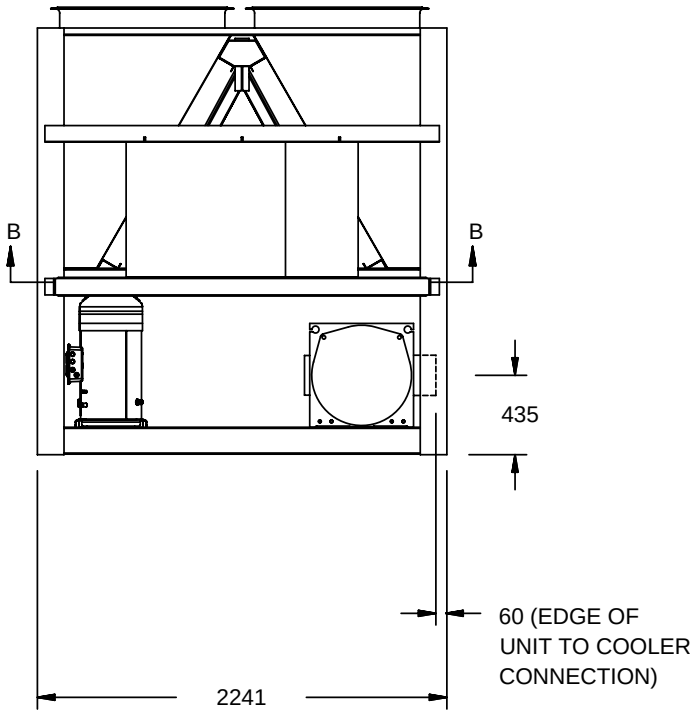
COPPER

YCAL	Center of Gravity (mm)		
	X	Y	Z
0104	1811	1155	1084

Dimensions - YCAL0114 - YCAL0134 SI



VIEW B-B

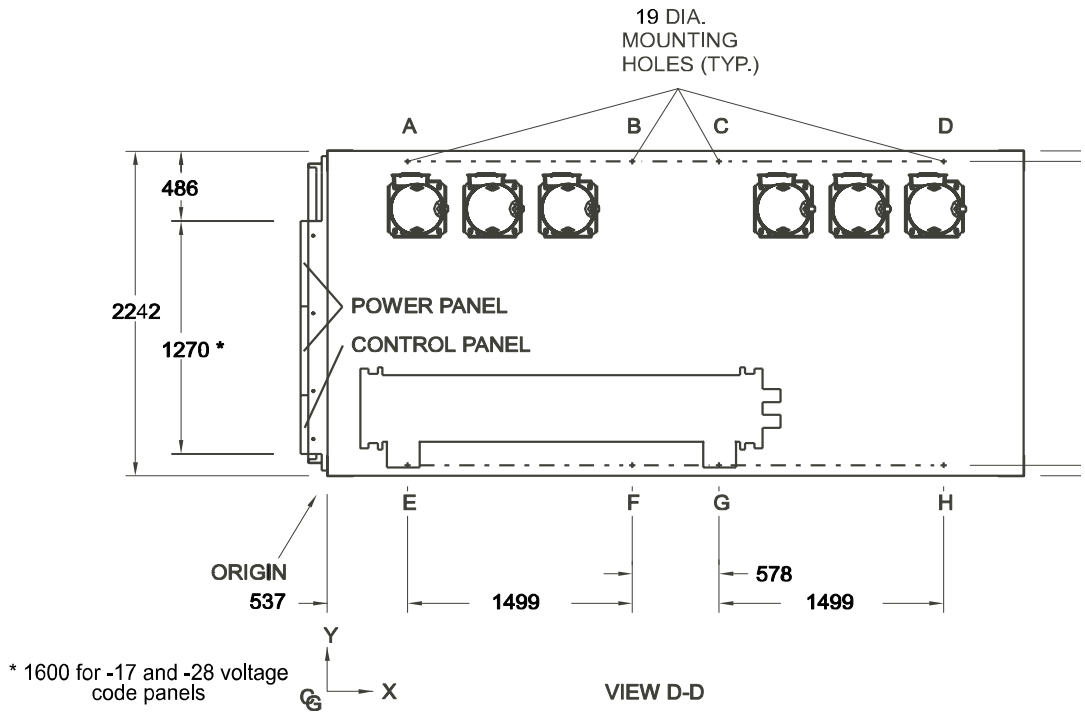


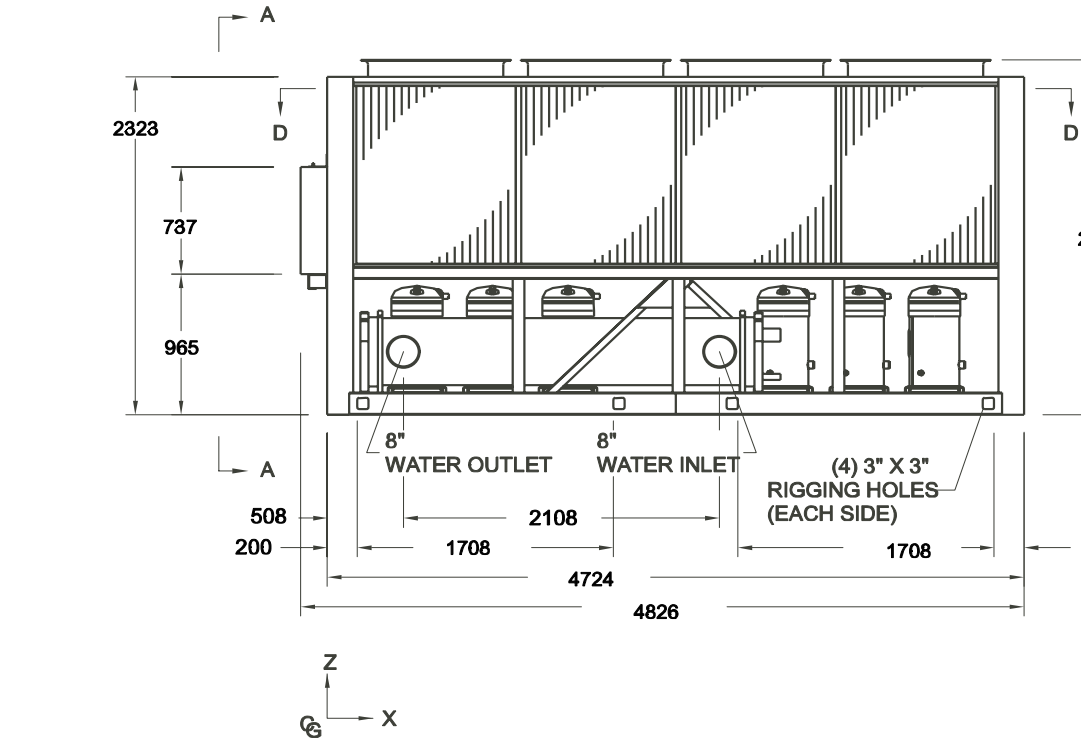
VIEW A-A

NOTE: *All dimensions are in mm unless specified otherwise.*

NOTE:

Placement on a level surface of free of obstructions (including snow, for winter operation) or air circulation ensures rated performance, reliable operation, and ease of maintenance. Site restrictions may compromise minimum clearances indicated below, resulting in unpredictable airflow patterns and possible diminished performance. YORK's unit controls will optimize operation without nuisance high-pressure safety cutouts; however, the system designer must consider potential performance degradation. Access to the unit control center assumes the unit is no higher than on spring isolators. Recommended minimum clearances: Side to wall – 2m; rear to wall – 2m; control panel to end wall – 1.2m; top – no obstructions allowed; distance between adjacent units – 3m. No more than one adjacent wall may be higher than the unit.





ALUMINUM

YCAL	Center of Gravity (mm)		
	X	Y	Z
0114	2087	1156	1110
0124	2059	1172	1094
0134	2079	1189	1080

COPPER

YCAL	Center of Gravity (mm)		
	X	Y	Z
0114	2115	1148	1151
0124	2089	1166	1135
0134	2106	1181	1121

Weight Distribution

ALUMINUM FIN COILS

English Units

Aluminum Fin Coil Weight Distribution (lbs)									
YCAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**Total**
0014	668	524	760	596	---	---	---	---	2,548
0020	672	527	765	600	---	---	---	---	2,564
0024	776	615	864	685	---	---	---	---	2,940
0030	758	680	842	755	---	---	---	---	3,036
0034	882	789	903	807	---	---	---	---	3,381
0070	1,688	1,501	1,692	1,505	---	---	---	---	6,386
0074	1,742	1,552	1,727	1,538	---	---	---	---	6,558
0080	1,792	1,593	1,797	1,597	---	---	---	---	6,779
0090	1,307	1,172	1,037	1,249	1,155	1,061	---	---	6,981
0094	1,292	1,188	1,082	1,269	1,166	1,062	---	---	7,059
0104	1,344	1,133	923	712	1,246	1,050	855	660	7,923
0114	1,531	1,326	1,121	916	1,439	1,246	1,053	860	9,491
0124	1,644	1,403	1,162	921	1,490	1,271	1,053	835	9,779
0134	1,704	1,469	1,235	1,000	1,499	1,293	1,086	880	10,167

SI Units

Aluminum Fin Coil Weight Distribution (kg)									
YCAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**Total**
0014	303	238	345	270	---	---	---	---	1,156
0020	305	239	347	272	---	---	---	---	1,163
0024	352	279	392	311	---	---	---	---	1,333
0030	344	309	382	343	---	---	---	---	1,377
0034	400	358	410	366	---	---	---	---	1,534
0070	766	681	768	683	---	---	---	---	2,897
0074	790	704	783	698	---	---	---	---	2,975
0080	813	723	815	724	---	---	---	---	3,075
0090	593	532	470	567	524	481	---	---	3,167
0094	586	539	491	576	529	482	---	---	3,202
0104	610	514	419	323	565	476	388	299	3,594
0114	694	601	508	415	653	565	478	390	4,305
0124	746	636	527	418	676	577	478	379	4,436
0134	773	667	560	454	680	586	493	399	4,612

English Units

Copper Fin Coil Weight Distribution (lbs)									
YCAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**Total**
0014	718	581	809	654	---	---	---	---	2,762
0020	722	584	814	658	---	---	---	---	2,778
0024	854	704	941	776	---	---	---	---	3,275
0030	830	776	912	853	---	---	---	---	3,371
0034	954	885	974	904	---	---	---	---	3,717
0070	1,799	1,612	1,803	1,616	---	---	---	---	6,829
0074	1,852	1,662	1,838	1,649	---	---	---	---	7,001
0080	1,903	1,704	1,907	1,708	---	---	---	---	7,222
0090	1,427	1,310	1,193	1,409	1,293	1,177	---	---	7,809
0094	1,414	1,326	1,237	1,391	1,304	1,216	---	---	7,888
0104	1,460	1,251	1,041	832	1,364	1,169	973	777	8,867
0114	1,688	1,483	1,279	1,074	1,597	1,404	1,210	1,017	10,751
0124	1,799	1,560	1,320	1,081	1,649	1,430	1,210	990	11,039
0134	1,859	1,626	1,393	1,160	1,659	1,451	1,243	1,035	11,427

SI Units

Copper Fin Coil Weight Distribution (kg)									
YCAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**Total**
0014	326	263	367	297	---	---	---	---	1,253
0020	327	265	369	299	---	---	---	---	1,260
0024	387	319	427	352	---	---	---	---	1,486
0030	377	352	414	387	---	---	---	---	1,529
0034	433	402	442	410	---	---	---	---	1,686
0070	816	731	818	733	---	---	---	---	3,098
0074	840	754	833	748	---	---	---	---	3,176
0080	863	773	865	775	---	---	---	---	3,276
0090	647	594	541	639	586	534	---	---	3,542
0094	641	601	561	631	591	552	---	---	3,578
0104	662	567	472	377	619	530	441	352	4,022
0114	765	673	580	487	724	637	549	461	4,877
0124	816	707	599	490	748	648	549	449	5,007
0134	843	738	632	526	752	658	564	470	5,183

Isolator Selections - *Aluminum Fin Coils*

1" DEFLECTION ISOLATOR SELECTION - VMC TYPE

Aluminum Fin, 1" Isolator Selections								
YCAL	VMC Type CP-x-xx							
	A	B	C	D	E	F	G	H
0014	CP-1-27	CP-1-26	CP-1-28	CP-1-27	---	---	---	---
0020	CP-1-27	CP-1-26	CP-1-28	CP-1-27	---	---	---	---
0024	CP-1-28	CP-1-27	CP-1-28	CP-1-28	---	---	---	---
0030	CP-1-28	CP-1-27	CP-1-28	CP-1-28	---	---	---	---
0034	CP-1-28	CP-1-28	CP-1-31	CP-1-28	---	---	---	---
0070	CP-2-28	CP-2-28	CP-2-28	CP-2-28	---	---	---	---
0074	CP-2-28	CP-2-28	CP-2-28	CP-2-28	---	---	---	---
0080	CP-2-28	CP-2-28	CP-2-28	CP-2-28	---	---	---	---
0090	CP-2-27	CP-2-27	CP-2-26	CP-2-27	CP-2-27	CP-2-26	---	---
0094	CP-2-27	CP-2-27	CP-2-26	CP-2-27	CP-2-27	CP-2-26	---	---
0104	CP-2-27	CP-2-27	CP-2-26	CP-2-25	CP-2-27	CP-2-26	CP-2-26	CP-2-25
0114	CP-2-28	CP-2-27	CP-2-27	CP-2-26	CP-2-27	CP-2-27	CP-2-26	CP-2-25
0124	CP-2-28	CP-2-27	CP-2-27	CP-2-26	CP-2-27	CP-2-27	CP-2-26	CP-2-25
0134	CP-2-28	CP-2-27	CP-2-27	CP-2-26	CP-2-27	CP-2-27	CP-2-26	CP-2-25

SEISMIC ISOLATOR SELECTION - VMC TYPE

Aluminum Fin, Seismic Isolator Selections								
YCAL	VMC Model # AEQM-xxxx							
	A	B	C	D	E	F	G	H
0014	AEQM-97	AEQM-96	AEQM-98	AEQM-97	---	---	---	---
0020	AEQM-97	AEQM-96	AEQM-98	AEQM-97	---	---	---	---
0024	AEQM-98	AEQM-97	AEQM-98	AEQM-98	---	---	---	---
0030	AEQM-98	AEQM-97	AEQM-98	AEQM-98	---	---	---	---
0034	AEQM-98	AEQM-98	AEQM-99	AEQM-98	---	---	---	---
0070	AEQM-1625	AEQM-1600	AEQM-1625	AEQM-1600	---	---	---	---
0074	AEQM-1625	AEQM-1600	AEQM-1625	AEQM-1600	---	---	---	---
0080	AEQM-1625	AEQM-1600	AEQM-1625	AEQM-1600	---	---	---	---
0090	AEQM-1600	AEQM-1600	AEQM-1300	AEQM-1600	AEQM-1300	AEQM-1300	---	---
0094	AEQM-1600	AEQM-1600	AEQM-1300	AEQM-1600	AEQM-1300	AEQM-1300	---	---
0104	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1000	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1000
0114	AEQM-1625	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1000
0124	AEQM-1625	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1000
0134	AEQM-1625	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1000

NEOPRENE ISOLATOR SELECTION - VMC TYPE

Aluminum Fin, Neoprene Mount Selections								
YCAL	VMC Type RD							
	A	B	C	D	E	F	G	H
0014	-3 Grn	-2 Gray	-3 Gray	-3 Grn	---	---	---	---
0020	-3 Grn	-2 Gray	-3 Gray	-3 Grn	---	---	---	---
0024	-3 Gray	-3 Grn	-3 Gray	-3 Grn	---	---	---	---
0030	-3 Gray	-3 Grn	-3 Gray	-3 Grn	---	---	---	---
0034	-3 Gray	-3 Grn	-3 Gray	-3 Grn	---	---	---	---
0070	-4 Red	-4 Red	-4 Red	-4 Red	---	---	---	---
0074	-4 Red	-4 Red	-4 Red	-4 Red	---	---	---	---
0080	-4 Red	-4 Red	-4 Red	-4 Red	---	---	---	---
0090	-4 Blk	-4 Blk	-3 Gray	-4 Blk	-4 Blk	-3 Gray	---	---
0094	-4 Blk	-4 Blk	-3 Gray	-4 Blk	-4 Blk	-3 Gray	---	---
0104	-4 Blk	-4 Blk	-3 Gray	-3 Grn	-4 Blk	-3 Gray	-3 Gray	-3 Grn
0114	-4 Red	-4 Blk	-4 Blk	-3 Gray	-4 Blk	-4 Blk	-3 Gray	-3 Gray
0124	-4 Red	-4 Blk	-4 Blk	-3 Gray	-4 Blk	-4 Blk	-3 Gray	-3 Gray
0134	-4 Red	-4 Blk	-4 Blk	-3 Gray	-4 Blk	-4 Blk	-3 Gray	-3 Gray

Isolator Selections - Copper Fin Coils

1" DEFLECTION ISOLATOR SELECTION - VMC TYPE

Copper Fin, 1” Isolator Selections								
VMC Type CP-x-xx								
YCAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
0014	CP-1-27	CP-1-26	CP-1-28	CP-1-27	---	---	---	---
0020	CP-1-27	CP-1-26	CP-1-28	CP-1-27	---	---	---	---
0024	CP-1-28	CP-1-27	CP-1-31	CP-1-28	---	---	---	---
0030	CP-1-28	CP-1-27	CP-1-31	CP-1-28	---	---	---	---
0034	CP-1-31	CP-1-28	CP-1-31	CP-1-28	---	---	---	---
0070	CP-2-28	CP-2-28	CP-2-28	CP-2-28	---	---	---	---
0074	CP-2-31	CP-2-28	CP-2-31	CP-2-28	---	---	---	---
0080	CP-2-31	CP-2-28	CP-2-31	CP-2-28	---	---	---	---
0090	CP-2-28	CP-2-27	CP-2-27	CP-2-28	CP-2-27	CP-2-27	---	---
0094	CP-2-28	CP-2-27	CP-2-27	CP-2-28	CP-2-27	CP-2-27	---	---
0104	CP-2-28	CP-2-27	CP-2-26	CP-2-26	CP-2-28	CP-2-27	CP-2-26	CP-2-25
0114	CP-2-32	CP-2-31	CP-2-28	CP-2-27	CP-2-31	CP-2-28	CP-2-28	CP-2-26
0124	CP-2-32	CP-2-31	CP-2-28	CP-2-27	CP-2-31	CP-2-28	CP-2-28	CP-2-26
0134	CP-2-32	CP-2-31	CP-2-28	CP-2-27	CP-2-31	CP-2-28	CP-2-28	CP-2-26

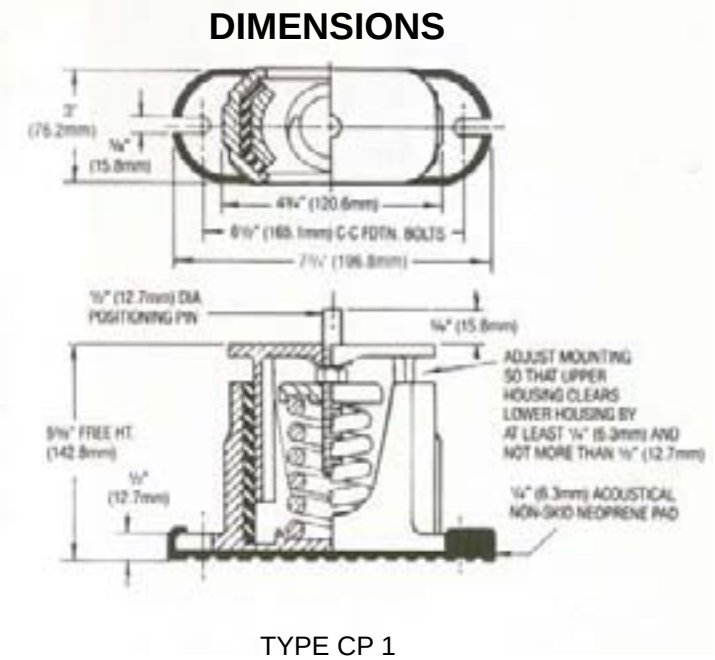
SEISMIC ISOLATOR SELECTION - VMC TYPE

Copper Fin, Seismic Isolator Selections								
VMC Model # AEQM-xxxx								
YCAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
0014	AEQM-97	AEQM-96	AEQM-98	AEQM-97	---	---	---	---
0020	AEQM-97	AEQM-96	AEQM-98	AEQM-97	---	---	---	---
0024	AEQM-98	AEQM-97	AEQM-99	AEQM-98	---	---	---	---
0030	AEQM-98	AEQM-97	AEQM-99	AEQM-98	---	---	---	---
0034	AEQM-99	AEQM-98	AEQM-99	AEQM-98	---	---	---	---
0070	AEQM-1625	AEQM-1625	AEQM-1625	AEQM-1625	---	---	---	---
0074	AEQM-1625	AEQM-1625	AEQM-1625	AEQM-1625	---	---	---	---
0080	AEQM-1625	AEQM-1625	AEQM-1625	AEQM-1625	---	---	---	---
0090	AEQM-1600	AEQM-1600	AEQM-1600	AEQM-1600	AEQM-1600	AEQM-1600	---	---
0094	AEQM-1600	AEQM-1600	AEQM-1600	AEQM-1600	AEQM-1600	AEQM-1600	---	---
0104	AEQM-1625	AEQM-1600	AEQM-1300	AEQM-1000	AEQM-1600	AEQM-1300	AEQM-1300	AEQM-1000
0114	AEQM-1625	AEQM-1625	AEQM-1600	AEQM-1000	AEQM-1625	AEQM-1600	AEQM-1300	AEQM-1000
0124	AEQM-1625	AEQM-1625	AEQM-1600	AEQM-1000	AEQM-1625	AEQM-1600	AEQM-1300	AEQM-1000
0134	AEQM-1625	AEQM-1625	AEQM-1600	AEQM-1000	AEQM-1625	AEQM-1600	AEQM-1300	AEQM-1000

NEOPRENE ISOLATOR SELECTION - VMC TYPE

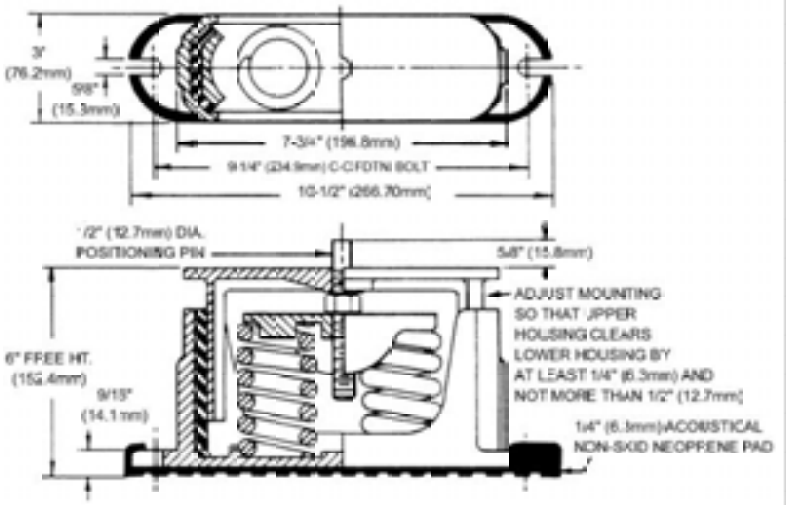
Copper Fin, Neoprene Mount Selections								
VMC Type RD								
YCAL	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
0014	-3 Grn	-3 Grn	-3 Gray	-3 Grn	---	---	---	---
0020	-3 Grn	-3 Grn	-3 Gray	-3 Grn	---	---	---	---
0024	-3 Gray	-3 Gray	-3 Gray	-3 Gray	---	---	---	---
0030	-3 Gray	-3 Gray	-3 Gray	-3 Gray	---	---	---	---
0034	-3 Gray	-3 Gray	-3 Gray	-3 Gray	---	---	---	---
0070	-4 Red	-4 Red	-4 Red	-4 Red	---	---	---	---
0074	-4 Red	-4 Red	-4 Red	-4 Red	---	---	---	---
0080	-4 Red	-4 Red	-4 Red	-4 Red	---	---	---	---
0090	-4 Blk	-4 Blk	-4 Blk	-4 Blk	-4 Blk	-4 Blk	---	---
0094	-4 Blk	-4 Blk	-4 Blk	-4 Blk	-4 Blk	-4 Blk	---	---
0104	-4 Blk	-4 Blk	-3 Gray	-3 Gray	-4 Blk	-4 Blk	-3 Gray	-3 Gray
0114	-4 Red	-4 Red	-4 Blk	-4 Blk	-4 Red	-4 Blk	-4 Blk	-3 Gray
0124	-4 Red	-4 Red	-4 Blk	-4 Blk	-4 Red	-4 Blk	-4 Blk	-3 Gray
0134	-4 Red	-4 Red	-4 Blk	-4 Blk	-4 Red	-4 Blk	-4 Blk	-3 Gray

DIMENSIONS



LD03839

TYPE CP 1



LD03840

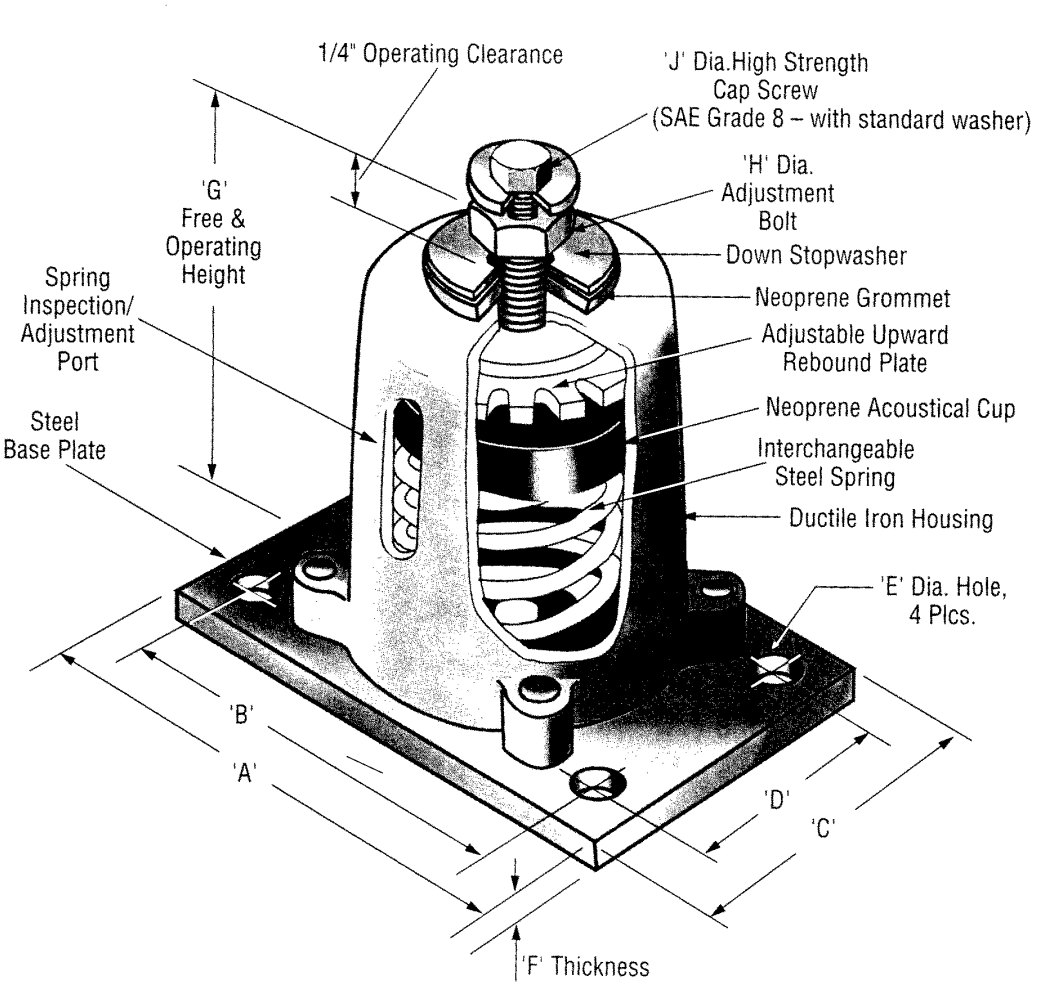
TYPE CP 2

ISOLATOR SPRING IDENTIFICATION TABLE

1" DEFLECTION			SEISMIC		
MODEL	**PART- #**	**COLOR**	**MODEL**	**PART #**	**COLOR**
CP-1-26	308439-26	PURPLE	**AEQM-96**	301055-96	BLACK
CP-1-27	308439-27	ORANGE	**AEQM-97**	301055-97	WHITE
CP-1-28	308439-28	GREEN	**AEQM-98**	301055-98	GRAY
CP-1-31	308439-31	GRAY	**AEQM-99**	301055-99	BLUE
CP-2-25	308439-25	RED	**AEQM-1000**	30106-1000	GREEN
CP-2-26	308692-26	PURPLE	**AEQM-1300**	30106-1300	YELLOW
CP-2-27	308962-27	ORANGE	**AEQM-1600**	301060-1600	GRAY
CP-2-28	308692-28	GREEN	**AEQM-1625**	301060-1625	RED
CP-2-31	308692-31	GRAY	**AEQM-1628**	301060-1628	GRAY/GREEN

DIMENSIONS

MODEL #	A	B	C	D	E	F	G	H	J
AEQM-97	7	5-1/2	4-1/2	2-1/2	5/8	1/4	7-1/4	5/8	3/8
AEQM-98	7	5-1/2	4-1/2	2-1/2	5/8	1/4	7-1/4	5/8	3/8
AEQM-99	7	5-1/2	4-1/2	2-1/2	5/8	1/4	7-1/4	5/8	3/8
AEQM-1000	8-1/2	6-1/2	6	4-1/2	3/4	3/8	8-3/8	7/8	1/2
AEQM-1300	8-1/2	6-1/2	6	4-1/2	3/4	3/8	8-3/8	7/8	1/2
AEQM-1600	8-1/2	6-1/2	6	4-1/2	3/4	3/8	8-3/8	7/8	1/2
AEQM-1625	8-1/2	6-1/2	6	4-1/2	3/4	3/8	8-3/8	7/8	1/2
AEQM-1628	8-1/2	6-1/2	6	4-1/2	3/4	3/8	8-3/8	7/8	1/2



TYPE AEQM

Electrical Data

NOTES:

1. Minimum Circuit Ampacity (MCA) is based on 125% of the rated load amps for the largest motor plus 100% of the rated load amps for all other loads included in the circuit, per N.E.C. Article 430-24. If the optional Factory Mounted Control Transformer is provided, add the following MCA values to the electrical tables for the system providing power to the transformer: -17, add 2.5 amps; -28, add 2.3 amps; -40, add 1.5 amps, -46, add 1.3 amps; -58, add 1 amps.

2. The minimum recommended disconnect switch is based on 115% of the rated load amps for all loads included in the circuit, per N.E.C. Article 440.

3. Minimum fuse size is based upon 150% of the rated load amps for the largest motor plus 100% of the rated load amps for all other loads included in the circuit to avoid nuisance trips at start-up due to lock rotor amps. It is not recommended in applications where brown outs, frequent starting and stopping of the unit, and/or operation at ambient temperatures in excess of 95ºF (35ºC) is anticipated.

4. Maximum fuse size is based upon 225% of the rated load amps for the largest motor plus 100% of the rated load amps for all other loads included in the circuit, per N.E.C. Article 440-22.

5. Circuit breakers must be UL listed and CSA certified and maximum size is based on 225% of the rated load amps for the largest motor plus 100% of the rated load amps for all other loads included in the circuit. Otherwise, an HACR-type circuit breakers must be used. Maximum HACR circuit breaker rating is based on 225% of the rated load amps for the largest motor plus 100% of the rated load amps for all other loads included in the circuit.

6. The “INCOMING WIRE RANGE” is the minimum and maximum wire size that can be accommodated by the unit wiring lugs. The (2) preceding the wire range indicates the number of termination points available per phase of the wire range specified. Actual wire size and number of wires per phase must be determined based on the National Electrical Code, **using copper connectors only**. Field wiring must also comply with local codes.

7. A ground lug is provided for each compressor system to accommodate a field grounding conductor per N.E.C. Table 250-95. A control circuit grounding lug is also supplied.

8. The supplied disconnect is a “Disconnecting Means” as defined in the N.E.C. 100, and is intended for isolating the unit for the available power supply to perform maintenance and troubleshooting. This disconnect is not intended to be a Load Break Device.

9. Field Wiring by others which complies to the National Electrical Code & Local Codes.

LEGEND

ACR-LINE	ACROSS THE LINE START
C.B.	CIRCUIT BREAKER
D.E.	DUAL ELEMENT FUSE
DISC SW	DISCONNECT SWITCH
FACT MOUNT CB	FACTORY MOUNTED CIRCUIT BREAKER
FLA	FULL LOAD AMPS
HZ	HERTZ
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MIN	MINIMUM
MIN NF	MINIMUM NON FUSED
RLA	RATED LOAD AMPS
S.P. WIRE	SINGLE POINT WIRING
UNIT MTD SERV SW	UNIT MOUNTED SERVICE (NON-FUSED DISCONNECT SWITCH)
LRA	LOCKED ROTOR AMPS

VOLTAGE CODE

-17 = 200-3-60
-28 = 230-3-60
-40 = 380-3-60
-46 = 460-3-60
-58 = 575-3-60

YCAL0014 - YCAL0034

SINGLE POINT POWER SUPPLY CONNECTIONS (See Fig. 1)

(One Field Provided Power Supply to the chiller. Field connections to Factory Provided Power Terminal Block (standard), Non-Fused Disconnect Switch (optional) or Circuit Breaker (optional).)

MODEL YCAL	VOLT	HZ	SINGLE POINT FIELD SUPPLIED WIRING									SYSTEM #1 COMPRESSOR & FAN							
			MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]			COMPR. #1		COMPR. #2		COMPR. #3		FANS	
					MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (std)	NF DISC. SWITCH (opt)	CIRCUIT BREAKER (opt)	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA (EA)
0014	200	60	81	100	90	100	90	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	28.3	189	28.3	189	—	—	2	7.6
	230	60	75	100	90	100	90	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	26.2	189	26.2	189	—	—	2	7.4
	380	60	44	60	50	50	50	50	# 10 - # 1	# 14 - 1/0	# 14 - 2	15.1	112	15.1	112	—	—	2	4.5
	460	60	37	60	40	45	40	45	# 10 - # 1	# 14 - 1/0	# 14 - 2	12.5	99	12.5	99	—	—	2	4.0
	575	60	29	60	35	35	35	35	# 10 - # 1	# 14 - 1/0	# 14 - 2	10.0	74	10.0	74	—	—	2	2.9
0020	200	60	101	150	110	125	110	125	# 10 - # 1	# 14 - 1/0	# 2 - 4/0	37.4	278	37.4	278	—	—	2	7.6
	230	60	94	100	110	125	110	125	# 10 - # 1	# 14 - 1/0	# 2 - 4/0	34.6	278	34.6	278	—	—	2	7.4
	380	60	54	60	60	70	60	70	# 10 - # 1	# 14 - 1/0	# 14 - 2	19.9	151	19.9	151	—	—	2	4.5
	460	60	46	60	50	60	50	60	# 10 - # 1	# 14 - 1/0	# 14 - 2	16.5	127	16.5	127	—	—	2	4.0
	575	60	36	60	40	45	40	45	# 10 - # 1	# 14 - 1/0	# 14 - 2	13.2	100	13.2	100	—	—	2	2.9
0024	200	60	128	150	150	175	150	175	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0	49.4	350	49.4	350	—	—	2	7.6
	230	60	119	150	150	150	150	150	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0	45.8	350	45.8	350	—	—	2	7.4
	380	60	69	100	80	90	80	90	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	26.4	195	26.4	195	—	—	2	4.5
	460	60	58	60	70	70	70	70	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	21.8	158	21.8	158	—	—	2	4.0
	575	60	46	60	50	60	50	60	# 10 - # 1	# 14 - 1/0	# 14 - 2	17.4	125	17.4	125	—	—	2	2.9
0030	200	60	138	150	175	175	175	175	# 10 - 3/0	# 2 - 4/0	# 3 - 300	53.8	425	53.8	425	—	—	2	7.6
	230	60	128	150	150	175	150	175	# 10 - 3/0	# 2 - 4/0	# 3 - 300	49.8	425	49.8	425	—	—	2	7.4
	380	60	74	100	90	100	90	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	28.7	239	28.7	239	—	—-	2	4.5
	460	60	62	100	70	80	70	80	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	23.7	187	23.7	187	—	—	2	4.0
	575	60	49	60	60	60	60	60	# 10 - # 1	# 14 - 1/0	# 14 - 2	19.0	148	19.0	148	—	—	2	2.9
0034	200	60	178	200	200	225	200	225	# 10 - 300	# 3 - 300	# 3 - 300	49.4	350	49.4	350	49.4	350	2	7.6
	230	60	165	200	200	200	200	200	# 10 - 300	# 3 - 300	# 3 - 300	45.8	350	45.8	350	45.8	350	2	7.4
	380	60	96	150	110	110	110	110	# 10 - # 1	# 14 - 1/0	# 2 - 4/0	26.4	195	26.4	195	26.4	195	2	4.5
	460	60	79	100	90	100	90	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	21.8	158	21.8	158	21.8	158	2	4.0
	575	60	63	100	70	70	70	70	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	17.4	125	17.4	125	17.4	125	2	2.9

UNIT VOLTAGE	UNIT VOLTAGE	CONTROL POWER	MCA	OVER CURRENT PROTECTION, SEE NOTE B		NF DISC Sw
			NOTE A	MIN	MAX	
MODELS w/o CONTROL TRANS		115-1-60/50	15A	10A	15A	30 A / 240V
MODELS w/ CONTROL TRANS	-17	200-1-60	15A	10A	15A	30 A / 240V
	-28	230-1-60	15A	10A	15A	30 A / 240V
	-40	380-1-60	15A	10A	15A	30 A / 480V
	-46	460-1-60	15A	10A	15A	30 A / 480V
	-58	575-1-60	15A	10A	15A	30 A / 600V

A. Minimum #14 AWG, 75°C, Copper Recommended

B. Minimum and Maximum Over Current Protection, Dual Element Fuse or Circuit Breaker

VOLTAGE RANGE			
VOLTAGE CODE	UNIT POWER	MIN.	MAX.
-17	200-3-60	180	220
-28	230-3-60	207	253
-40	380/415-3-60	342	440
-46	460-3-60	414	506
-58	575-3-60	517	633

Electrical Data

YCAL0040 - YCAL0080

DUAL POINT POWER SUPPLY CONNECTIONS (See Fig. 2)

(Two Field Provided Power Supply Circuits to the chiller. Field connections to Factory Provided Terminal Blocks per system)

MODEL YCAL	VOLT	HZ	SYSTEM #1 FIELD SUPPLIED WIRING									SYSTEM #1 COMPRESSOR & FAN							
			MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]			COMPR. #1		COMPR. #2		COMPR. #3		FANS	
					MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (std)	NF DISC. SWITCH (opt)	CIR BREAKER (opt)	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)
0070	200	60	178	200	200	225	200	225	# 10 - 300	# 3 - 300	# 3 - 300	49.4	350	49.4	350	49.4	350	2	7.8
	230	60	165	200	200	200	200	200	# 10 - 300	# 3 - 300	# 3 - 300	45.8	350	45.8	350	45.8	350	2	7.8
	380	60	96	150	110	110	110	110	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	26.4	195	26.4	195	26.4	195	2	4.7
	460	60	79	100	90	100	90	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	21.8	158	21.8	158	21.8	158	2	4.0
	575	60	63	100	70	80	70	80	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	17.4	125	17.4	125	17.4	125	2	3.1
0074	200	60	192	250	225	225	225	225	# 10 - 300	# 3 - 300	# 3 - 300	53.8	425	53.8	425	53.8	425	2	7.8
	230	60	178	200	200	225	200	225	# 10 - 300	# 3 - 300	# 3 - 300	49.8	425	49.8	425	49.8	425	2	7.8
	380	60	103	150	125	125	125	125	# 10 - # 1	# 2 - 4/0	# 2 - 4/0	28.7	239	28.7	239	28.7	239	2	4.7
	460	60	86	100	100	100	100	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	23.7	187	23.7	187	23.7	187	2	4.0
	575	60	68	100	80	80	80	80	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	19.0	148	19.0	148	19.0	148	2	3.1
0080	200	60	192	250	225	225	225	225	# 10 - 300	# 3 - 300	# 3 - 300	53.8	425	53.8	425	53.8	425	2	7.8
	230	60	178	200	200	225	200	225	# 10 - 300	# 3 - 300	# 3 - 300	49.8	425	49.8	425	49.8	425	2	7.8
	380	60	103	150	125	125	125	125	# 10 - # 1	# 2 - 4/0	# 2 - 4/0	28.7	239	28.7	239	28.7	239	2	4.7
	460	60	86	100	100	100	100	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	23.7	187	23.7	187	23.7	187	2	4.0
	575	60	68	100	80	80	80	80	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	19.0	148	19.0	148	19.0	148	2	3.1

See Notes on page 100.

YCAL0040 - YCAL0080

DUAL POINT POWER SUPPLY CONNECTIONS (See Fig. 2)

(Two Field Provided Power Supply Circuits to the chiller. Field connections to Factory Provided Terminal Blocks per system)

SYSTEM #2 FIELD SUPPLIED WIRING							SYSTEM #2 COMPRESSOR & FAN									
MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]			COMPR. #1		COMPR. #2		COMPR. #3		FANS	
		MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (std)	NF DISC. SWITCH (opt)	CIR BREAKER (opt)	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)
178	200	200	225	200	225	# 10 - 300	# 3 - 300	# 3 - 300	49.4	350	49.4	350	49.4	350	2	7.8
165	200	200	200	200	200	# 10 - 300	# 3 - 300	# 3 - 300	45.8	350	45.8	350	45.8	350	2	7.8
96	150	110	110	110	110	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	26.4	195	26.4	195	26.4	195	2	4.7
79	100	90	100	90	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	21.8	158	21.8	158	21.8	158	2	4.0
63	100	70	80	70	80	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	17.4	125	17.4	125	17.4	125	2	3.1
178	200	200	225	200	225	# 10 - 300	# 3 - 300	# 3 - 300	49.4	350	49.4	350	49.4	350	2	7.8
165	200	200	200	200	200	# 10 - 300	# 3 - 300	# 3 - 300	45.8	350	45.8	350	45.8	350	2	7.8
96	150	110	110	110	110	# 10 - # 1	# 14 - 1/0	# 2 - 4/0	26.4	195	26.4	195	26.4	195	2	4.7
79	100	90	100	90	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	21.8	158	21.8	158	21.8	158	2	4.0
63	100	70	80	70	80	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	17.4	125	17.4	125	17.4	125	2	3.1
192	250	225	225	225	225	# 10 - 300	# 3 - 300	# 3 - 300	53.8	425	53.8	425	53.8	425	2	7.8
178	200	200	225	200	225	# 10 - 300	# 3 - 300	# 3 - 300	49.8	425	49.8	425	49.8	425	2	7.8
103	150	125	125	125	125	# 10 - # 1	# 2 - 4/0	# 2 - 4/0	28.7	239	28.7	239	28.7	239	2	4.7
86	100	100	100	100	100	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	23.7	187	23.7	187	23.7	187	2	4.0
68	100	80	80	80	80	# 10 - # 1	# 14 - 1/0	# 14 - 1/0	19.0	148	19.0	148	19.0	148	2	3.1

YCAL0040 - YCAL0080

SINGLE POINT POWER SUPPLY CONNECTIONS (see Fig. 1)

(One Field Provided Power Supply Circuit to the chiller. Field connections to Factory Provided Terminal Block (optional), Non-Fused Disconnect Switch (optional) or Circuit Breaker (optional).)

MODEL YCAL	VOLT	HZ	SINGLE POINT FIELD SUPPLIED WIRING								
			MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]		
					MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (opt)	NF DISC. SWITCH (opt)	CIRCUIT BREAKER (opt)
0070	200	60	342	400	400	400	400	400	(2) # 10 - 3/0	250-500	250-500
	230	60	318	400	350	350	350	350	# 4 - 500	250-500	250-500
	380	60	185	250	200	200	200	200	# 10 - 300	# 6 - 350	# 4 - 300
	460	60	153	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 4 - 300
	575	60	122	150	150	150	150	150	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0
0074	200	60	356	400	400	400	400	400	(2) # 10 - 300	250-500	250-500
	230	60	331	400	350	350	350	350	# 4 - 500	250-500	250-500
	380	60	192	250	200	200	200	200	# 10 - 300	# 6 - 350	# 4 - 300
	460	60	159	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 4 - 300
	575	60	127	150	150	150	150	150	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0
0080	200	60	369	600	400	400	400	400	(2) # 10 - 300	(3) 2/0 - 400	250-500
	230	60	343	400	400	400	400	400	(2) # 10 - 300	250-500	250-500
	380	60	199	250	225	225	225	225	# 10 - 300	# 6 - 350	# 4 - 300
	460	60	165	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 4 - 300
	575	60	131	150	150	150	150	150	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0

YCAL0040 - YCAL0080

SINGLE POINT POWER SUPPLY CONNECTIONS (see Fig. 1)

(One Field Provided Power Supply Circuit to the chiller. Field connections to Factory Provided Terminal Block (optional), Non-Fused Disconnect Switch (optional) or Circuit Breaker (optional).

SYSTEM #1 COMPRESSOR & FAN								SYSTEM #2 FIELD SUPPLIED WIRING							
COMPR. #1		COMPR. #2		COMPR. #3		FANS		COMPR. #1		COMPR. #2		COMPR. #3		FANS	
RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)
49.4	350	49.4	350	49.4	350	2	7.8	49.4	350	49.4	350	49.4	350	2	7.8
45.8	350	45.8	350	45.8	350	2	7.8	45.8	350	45.8	350	45.8	350	2	7.8
26.4	195	26.4	195	26.4	195	2	4.7	26.4	195	26.4	195	26.4	195	2	4.7
21.8	158	21.8	158	21.8	158	2	4.0	21.8	158	21.8	158	21.8	158	2	4.0
17.4	125	17.4	125	17.4	125	2	3.1	17.4	125	17.4	125	17.4	125	2	3.1
53.8	425	53.8	425	53.8	425	2	7.8	49.4	350	49.4	350	49.4	350	2	7.8
49.8	425	49.8	425	49.8	425	2	7.8	45.8	350	45.8	350	45.8	350	2	7.8
28.7	239	28.7	239	28.7	239	2	4.7	26.4	195	26.4	195	26.4	195	2	4.7
23.7	187	23.7	187	23.7	187	2	4.0	21.8	158	21.8	158	21.8	158	2	4.0
19.0	148	19.0	148	19.0	148	2	3.1	17.4	125	17.4	125	17.4	125	2	3.1
53.8	425	53.8	425	53.8	425	2	7.8	53.8	425	53.8	425	53.8	425	2	7.8
49.8	425	49.8	425	49.8	425	2	7.8	49.8	425	49.8	425	49.8	425	2	7.8
28.7	239	28.7	239	28.7	239	2	4.7	28.7	239	28.7	239	28.7	239	2	4.7
23.7	187	23.7	187	23.7	187	2	4.0	23.7	187	23.7	187	23.7	187	2	4.0
19.0	148	19.0	148	19.0	148	2	3.1	19.0	148	19.0	148	19.0	148	2	3.1

YCAL0040 - YCAL0080

SINGLE POINT POWER SUPPLY CONNECTIONS (see Fig. 1)

(One Field Provided Power Supply Circuit to the chiller. Field connections to Factory Provided Terminal Block (optional), Non-Fused Disconnect Switch (optional) or Circuit Breaker (optional).)

MODEL YCAL	VOLT	HZ	SINGLE POINT FIELD SUPPLIED WIRING								
			MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]		
					MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (opt)	NF DISC. SWITCH (opt)	CIRCUIT BREAKER (opt)
0070	200	60	342	400	400	400	400	400	(2) # 10 - 3/0	250-500	250-500
	230	60	318	400	350	350	350	350	# 4 - 500	250-500	250-500
	380	60	185	250	200	200	200	200	# 10 - 300	# 6 - 350	# 4 - 300
	460	60	153	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 4 - 300
	575	60	122	150	150	150	150	150	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0
0074	200	60	356	400	400	400	400	400	(2) # 10 - 300	250-500	250-500
	230	60	331	400	350	350	350	350	# 4 - 500	250-500	250-500
	380	60	192	250	200	200	200	200	# 10 - 300	# 6 - 350	# 4 - 300
	460	60	159	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 4 - 300
	575	60	127	150	150	150	150	150	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0
0080	200	60	369	600	400	400	400	400	(2) # 10 - 300	(3) 2/0 - 400	250-500
	230	60	343	400	400	400	400	400	(2) # 10 - 300	250-500	250-500
	380	60	199	250	225	225	225	225	# 10 - 300	# 6 - 350	# 4 - 300
	460	60	165	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 4 - 300
	575	60	131	150	150	150	150	150	# 10 - 3/0	# 2 - 4/0	# 2 - 4/0

YCAL0040 - YCAL0080

SINGLE POINT POWER SUPPLY CONNECTIONS (see Fig. 1)

(One Field Provided Power Supply Circuit to the chiller. Field connections to Factory Provided Terminal Block (optional), Non-Fused Disconnect Switch (optional) or Circuit Breaker (optional).

SYSTEM #1 COMPRESSOR & FAN								SYSTEM #2 FIELD SUPPLIED WIRING							
COMPR. #1		COMPR. #2		COMPR. #3		FANS		COMPR. #1		COMPR. #2		COMPR. #3		FANS	
RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)
49.4	350	49.4	350	49.4	350	2	7.8	49.4	350	49.4	350	49.4	350	2	7.8
45.8	350	45.8	350	45.8	350	2	7.8	45.8	350	45.8	350	45.8	350	2	7.8
26.4	195	26.4	195	26.4	195	2	4.7	26.4	195	26.4	195	26.4	195	2	4.7
21.8	158	21.8	158	21.8	158	2	4.0	21.8	158	21.8	158	21.8	158	2	4.0
17.4	125	17.4	125	17.4	125	2	3.1	17.4	125	17.4	125	17.4	125	2	3.1
53.8	425	53.8	425	53.8	425	2	7.8	49.4	350	49.4	350	49.4	350	2	7.8
49.8	425	49.8	425	49.8	425	2	7.8	45.8	350	45.8	350	45.8	350	2	7.8
28.7	239	28.7	239	28.7	239	2	4.7	26.4	195	26.4	195	26.4	195	2	4.7
23.7	187	23.7	187	23.7	187	2	4.0	21.8	158	21.8	158	21.8	158	2	4.0
19.0	148	19.0	148	19.0	148	2	3.1	17.4	125	17.4	125	17.4	125	2	3.1
53.8	425	53.8	425	53.8	425	2	7.8	53.8	425	53.8	425	53.8	425	2	7.8
49.8	425	49.8	425	49.8	425	2	7.8	49.8	425	49.8	425	49.8	425	2	7.8
28.7	239	28.7	239	28.7	239	2	4.7	28.7	239	28.7	239	28.7	239	2	4.7
23.7	187	23.7	187	23.7	187	2	4.0	23.7	187	23.7	187	23.7	187	2	4.0
19.0	148	19.0	148	19.0	148	2	3.1	19.0	148	19.0	148	19.0	148	2	3.1

Electrical Data

YCAL0090 - YCAL0134

MULTIPLE POINT POWER SUPPLY CONNECTIONS (see Fig. 3)

(Two Field Provided Power Supply Circuits to the chiller. Field connections to Factory Provided Terminal Blocks (standard), Non-Fused Disconnect Switches (optional), or Individual System Circuit Breakers (optional) per electrical system)

MODEL YCAL	VOLT	HZ	SYSTEM #1 FIELD SUPPLIED WIRING								
			MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]		
					MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (std)	NF DISC. SWITCHES (opt)	CIR BREAKERS (opt)
0090	200	60	221	250	250	300	250	300	# 10 - 300	(1) # 6 - 350	(1) # 6 - 350
	230	60	204	250	250	250	250	250	# 10 - 300	(1) # 4 - 300	(1) # 6 - 350
	380	60	119	150	150	150	150	150	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	99	150	110	125	110	125	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
	575	60	78	100	90	100	90	100	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0094	200	60	221	250	250	300	250	300	# 10 - 300	(1) # 6 - 350	(1) # 6 - 350
	230	60	206	250	250	250	250	250	# 10 - 300	(1) # 4 - 300	(1) # 6 - 350
	380	60	120	150	150	150	150	150	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	99	150	110	125	110	125	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
	575	60	79	100	90	100	90	100	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0104	200	60	251	400	300	300	300	300	# 4 - 500	250 - 500	250 - 500
	230	60	233	250	250	250	250	250	# 4 - 500	250 - 500	250 - 500
	380	60	135	150	150	150	150	150	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	112	150	125	125	125	125	# 10 - 3/0	(1) # 6 - 350	# 3 - 3/0
	575	60	89	100	100	110	100	110	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0114	200	60	251	400	300	300	300	300	# 4 - 500	250 - 500	250 - 500
	230	60	233	250	250	250	250	250	# 4 - 500	250 - 500	250 - 500
	380	60	135	150	150	150	150	150	# 14 - 2/0	(1) # 6 - 350	# 6 - 350
	460	60	112	150	125	125	125	125	# 14 - 2/0	(1) # 6 - 350	# 3 - 3/0
	575	60	89	100	100	110	100	110	# 14 - 2/0	(1) # 6 - 350	# 3 - 3/0
0124	200	60	317	400	350	400	350	400	# 4 - 500	250 - 500	250 - 500
	230	60	294	400	350	350	350	350	# 4 - 500	250 - 500	250 - 500
	380	60	171	200	200	200	200	200	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	141	200	175	175	175	175	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	575	60	113	150	125	125	125	125	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0134	200	60	317	400	350	400	350	400	# 4 - 500	250 - 500	250 - 500
	230	60	294	400	350	350	350	350	# 4 - 500	250 - 500	250 - 500
	380	60	171	200	200	200	200	200	# 10 - 3/0	# 6 - 350	# 6 - 350
	460	60	141	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 6 - 350
	575	60	113	150	125	125	125	125	# 12 - # 1	# 6 - 350	#3 - 3/0

MODEL YCAL	VOLT	HZ	SYSTEM #2 FIELD SUPPLIED WIRING								
			MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]		
					MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (std)	NF DISC. SWITCHES (opt)	CIR BREAKERS (opt)
0090	200	60	181	200	225	250	225	250	# 10 - 300	(1) # 4 - 300	(1) # 4 - 300
	230	60	168	200	200	225	200	225	# 10 - 300	(1) # 4 - 300	(1) # 4 - 300
	380	60	98	150	125	125	125	125	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
	460	60	81	100	90	110	100	110	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
	575	60	65	100	80	90	80	90	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0094	200	60	221	250	250	300	250	300	# 10 - 300	(1) # 6 - 350	# 6 - 350
	230	60	206	250	250	250	250	250	# 10 - 300	(1) # 4 - 300	# 6 - 350
	380	60	120	150	150	150	150	150	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	99	150	110	125	110	125	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
	575	60	79	100	90	100	90	100	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0104	200	60	221	250	250	300	250	300	# 10 - 300	(1) # 6 - 350	# 6 - 350
	230	60	206	250	250	250	250	250	# 10 - 300	(1) # 4 - 300	# 6 - 350
	380	60	120	150	150	150	150	150	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	99	150	110	125	110	125	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
	575	60	79	100	90	100	90	100	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0114	200	60	251	400	300	300	300	300	# 4 - 500	250 - 500	250 - 500
	230	60	233	250	250	250	250	250	# 4 - 500	250 - 500	250 - 500
	380	60	135	150	150	150	150	150	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	112	150	125	125	125	125	# 10 - 3/0	(1) # 6 - 350	# 3 - 3/0
	575	60	89	100	100	110	100	110	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0124	200	60	259	400	300	300	300	300	# 4 - 500	250 - 500	250 - 500
	230	60	241	400	300	300	300	300	# 4 - 500	250 - 500	250 - 500
	380	60	140	150	150	175	150	175	# 10 - 3/0	(1) # 6 - 350	# 6 - 350
	460	60	116	150	125	125	125	125	# 10 - 3/0	(1) # 6 - 350	# 3 - 3/0
	575	60	92	100	100	110	100	110	# 12 - # 1	(1) # 6 - 350	# 3 - 3/0
0134	200	60	314	400	350	400	350	400	# 4 - 500	250 - 500	250 - 500
	230	60	294	400	350	350	350	350	# 4 - 500	250 - 500	250 - 500
	380	60	171	200	200	200	200	200	# 10 - 3/0	# 6 - 350	# 6 - 350
	460	60	141	200	175	175	175	175	# 10 - 3/0	# 6 - 350	# 6 - 350
	575	60	113	150	125	125	125	125	# 12 - # 1	# 6 - 350	#3 - 3/0

See Notes on page 100.

YCAL0090 - YCAL0134

MULTIPLE POINT POWER SUPPLY CONNECTIONS (see Fig. 3)

(Two Field Provided Power Supply Circuits to the chiller. Field connections to Factory Provided Terminal Blocks (standard), Non-Fused Disconnect Switches (optional), or Individual System Circuit Breakers (optional) per electrical system)

SYSTEM #1 COMPRESSOR & FAN

COMPR. #1		COMPR. #2		COMPR. #3		FANS	
RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)
87.2	500	87.2	500	—	—	3	7.8
80.8	500	80.8	500	—	—	3	7.8
46.6	305	46.6	305	—	—	3	4.7
38.5	250	38.5	250	—	—	3	4.0
30.8	198	30.8	198	—	—	3	3.1
87.2	500	87.2	500	—	—	3	7.8
80.8	500	80.8	500	—	—	3	7.8
46.6	305	46.6	305	—	—	3	4.7
38.5	250	38.5	250	—	—	3	4.0
30.8	198	30.8	198	—	—	3	3.1
69.4	505	69.4	505	69.4	505	3	7.8
64.3	505	64.3	505	64.3	505	3	7.8
37.0	280	37.0	280	37.0	280	3	4.7
30.6	225	30.6	225	30.6	225	3	4.0
24.5	180	24.5	180	24.5	180	3	3.1
69.4	505	69.4	505	69.4	505	4	7.8
64.3	505	64.3	505	64.3	505	4	7.8
37.0	280	37.0	280	37.0	280	4	4.7
30.6	225	30.6	225	30.6	225	4	4.0
24.5	180	24.5	180	24.5	180	4	3.1
87.2	500	87.2	500	87.2	500	4	7.8
80.8	500	80.8	500	80.8	500	4	7.8
46.6	305	46.6	305	46.6	305	4	4.7
38.5	250	38.5	250	38.5	250	4	4.0
30.8	198	30.8	198	30.8	198	4	3.1
87.2	500	87.2	500	87.2	500	4	7.8
80.8	500	80.8	500	80.8	500	4	7.8
46.6	305	46.6	305	46.6	305	4	4.7
38.5	250	38.5	250	38.5	250	4	4.0
30.8	198	30.8	198	30.8	198	4	3.1

SYSTEM #2 COMPRESSOR & FAN

COMPR. #1		COMPR. #2		COMPR. #3		FANS	
RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)
69.4	505	69.4	505	—	—	3	7.8
64.3	505	64.3	505	—	—	3	7.8
37.0	280	37.0	280	—	—	3	4.7
30.6	225	30.6	225	—	—	3	4.0
24.5	180	24.5	180	—	—	3	3.1
87.2	500	87.2	500	—	—	3	7.8
80.8	500	80.8	500	—	—	3	7.8
46.6	305	46.6	305	—	—	3	4.7
38.5	250	38.5	250	—	—	3	4.0
30.8	198	30.8	198	—	—	3	3.1
87.2	500	87.2	500	—	—	3	7.8
80.8	500	80.8	500	—	—	3	7.8
46.6	305	46.6	305	—	—	3	4.7
38.5	250	38.5	250	—	—	3	4.0
30.8	198	30.8	198	—	—	3	3.1
69.4	505	69.4	505	69.4	505	4	7.8
64.3	505	64.3	505	64.3	505	4	7.8
37.0	280	37.0	280	37.0	280	4	4.7
30.6	225	30.6	225	30.6	225	4	4.0
24.5	180	24.5	180	24.5	180	4	3.1
69.4	505	69.4	505	69.4	505	4	7.8
64.3	505	64.3	505	64.3	505	4	7.8
37.0	280	37.0	280	37.0	280	4	4.7
30.6	225	30.6	225	30.6	225	4	4.0
24.5	180	24.5	180	24.5	180	4	3.1
87.2	500	87.2	500	87.2	500	4	7.8
80.8	500	80.8	500	80.8	500	4	7.8
46.6	305	46.6	305	46.6	305	4	4.7
38.5	250	38.5	250	38.5	250	4	4.0
30.8	198	30.8	198	30.8	198	4	3.1

YCAL0090 - YCAL0134

SINGLE POINT POWER SUPPLY CONNECTIONS WITH INDIVIDUAL SYSTEM CIRCUIT BREAKERS (see Fig. 4)

(One Field Provided Power Supply Circuit to the chiller. Field connections to Factory Provided Teminal Block (optional) or Non-Fused Disconnect Switch (optional). Includes Individual Branch Circuit Protection (Breakers) per electrical system)

MODEL YCAL	VOLT	HZ	SINGLE POINT FIELD SUPPLIED WIRING							
			MCA[1]	MIN N/F DISC SW[2]	D.E. FUSE		CKT. BKR.[5]		INCOMING (LUGS) WIRE RANGE[6]	
					MIN[3]	MAX[4]	MIN	MAX	TERMINAL BLOCK (opt)	NF DISC. SWITCH (opt)
0090	200	60	385	600	450	450	450	450	(2) # 6 - 500	(3) 2/0 - 400
	230	60	358	400	400	400	400	400	(2) # 6 - 500	(3) 2/0 - 400
	380	60	208	250	225	250	225	250	# 10 - 300	(1) # 6 - 350
	460	60	172	200	200	200	200	200	# 10 - 3/0	(1) # 6 - 350
	575	60	137	150	150	150	150	150	# 10 - 3/0	(1) # 6 - 350
0094	200	60	420	600	450	500	450	500	(2) # 6 - 500	(2) 250 - 500
	230	60	391	600	450	450	450	450	(2) # 6 - 500	(2) 250 - 500
	380	60	227	250	250	250	250	250	# 10 - 300	(1 or 2) 3/0 - 500
	460	60	188	250	200	225	200	225	# 10 - 300	(1) # 6 - 350
	575	60	150	200	175	175	175	175	# 10 - 3/0	(1) # 6 - 350
0104	200	60	454	600	500	500	500	500	(2) # 6 - 500	(2) 250 - 500
	230	60	422	600	450	450	450	450	(2) # 6 - 500	(2) 250 - 500
	380	60	245	400	300	300	300	300	# 4 - 500	(1 or 2) 3/0 - 500
	460	60	203	250	225	225	225	225	# 10 - 300	(1) # 6 - 350
	575	60	162	200	175	175	175	175	# 10 - 3/0	(1) # 6 - 350
0114	200	60	483	600	600	600	600	600	(2) # 6 - 500	(2) 250 - 500
	230	60	449	600	500	500	500	500	(2) # 6 - 500	(2) 250 - 500
	380	60	261	400	300	300	300	300	# 4 - 500	(1 or 2) 3/0 - 500
	460	60	223	250	250	250	250	250	# 10 - 300	(1 or 2) 3/0 - 500
	575	60	172	200	200	200	200	200	# 10 - 300	(1) # 6 - 350
0124	200	60	553	800	600	600	600	600	(2) # 6 - 500	(2) 250 - 500
	230	60	514	600	600	600	600	600	(2) # 6 - 500	(2) 250 - 500
	380	60	299	400	350	350	350	350	# 4 - 500	(1 or 2) 3/0 - 500
	460	60	247	400	300	300	300	300	# 10 - 300	(1 or 2) 3/0 - 500
	575	60	197	250	225	225	225	225	# 10 - 300	(1) # 6 - 350
0134	200	60	611	800	700	700	700	700	(2) # 6 - 500	(2) 250 - 500
	230	60	568	800	600	600	600	600	(2) # 6 - 500	(2) 250 - 500
	380	60	330	400	350	350	350	350	# 4 - 500	(1 or 2) 3/0 - 500
	460	60	271	400	300	300	300	300	# 4 - 500	(1 or 2) 3/0 - 500
	575	60	218	250	225	225	225	225	# 10 - 300	(1) 6AWG - 350

YCAL0090 - YCAL0134

SINGLE POINT POWER SUPPLY CONNECTIONS WITH INDIVIDUAL SYSTEM CIRCUIT BREAKERS (see Fig. 4)

(One Field Provided Power Supply Circuit to the chiller. Field connections to Factory Provided Teminal Block (optional) or Non-Fused Disconnect Switch (optional). Includes Individual Branch Circuit Protection (Breakers) per electrical system)

SYSTEM #1 COMPRESSOR & FAN								SYSTEM #2 FIELD SUPPLIED WIRING							
COMPR. #1		COMPR. #2		COMPR. #3		FANS		COMPR. #1		COMPR. #2		COMPR. #3		FANS	
RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA(EA)
87.2	500	87.2	500	—	—	3	7.8	69.4	505	69.4	505	—	—	3	7.8
80.8	500	80.8	500	—	—	3	7.8	64.3	505	64.3	505	—	—	3	7.8
46.6	305	46.6	305	—	—	3	4.7	37.0	280	37.0	280	—	—	3	4.7
38.5	250	38.5	250	—	—	3	4.0	30.6	225	30.6	225	—	—	3	4.0
30.8	198	30.8	198	—	—	3	3.1	24.5	180	24.5	180	—	—	3	3.1
87.2	500	87.2	500	—	—	3	7.8	87.2	500	87.2	500	—	—	3	7.8
80.8	500	80.8	500	—	—	3	7.8	80.8	500	80.8	500	—	—	3	7.8
46.6	305	46.6	305	—	—	3	4.7	46.6	305	46.6	305	—	—	3	4.7
38.5	250	38.5	250	—	—	3	4.0	38.5	250	38.5	250	—	—	3	4.0
30.8	198	30.8	198	—	—	3	3.1	30.8	198	30.8	198	—	—	3	3.1
69.4	505	69.4	505	69.4	505	3	7.8	87.2	500	87.2	500	—	—	3	7.8
64.3	505	64.3	505	64.3	505	3	7.8	80.8	500	80.8	500	—	—	3	7.8
37.0	280	37.0	280	37.0	280	3	4.7	46.6	305	46.6	305	—	—	3	4.7
30.6	225	30.6	225	30.6	225	3	4.0	38.5	250	38.5	250	—	—	3	4.0
24.5	180	24.5	180	24.5	180	3	3.1	30.8	198	30.8	198	—	—	3	3.1
69.4	505	69.4	505	69.4	505	4	7.8	69.4	505	69.4	505	69.4	505	4	7.8
64.3	505	64.3	505	64.3	505	4	7.8	64.3	505	64.3	505	64.3	505	4	7.8
37.0	280	37.0	280	37.0	280	4	4.7	37.0	280	37.0	280	37.0	280	4	4.7
30.6	225	30.6	225	30.6	225	4	4.0	30.6	225	30.6	225	30.6	225	4	4.0
24.5	180	24.5	180	24.5	180	4	3.1	24.5	180	24.5	180	24.5	180	4	3.1
87.2	500	87.2	500	87.2	500	4	7.8	69.4	505	69.4	505	69.4	505	4	7.8
80.8	500	80.8	500	80.8	500	4	7.8	64.3	505	64.3	505	64.3	505	4	7.8
46.6	305	46.6	305	46.6	305	4	4.7	37.0	280	37.0	280	37.0	280	4	4.7
38.5	250	38.5	250	38.5	250	4	4.0	30.6	225	30.6	225	30.6	225	4	4.0
30.8	198	30.8	198	30.8	198	4	3.1	24.5	180	24.5	180	24.5	180	4	3.1
87.2	500	87.2	500	87.2	500	4	7.8	87.2	500	87.2	500	87.2	500	4	7.8
80.8	500	80.8	500	80.8	500	4	7.8	80.8	500	80.8	500	80.8	500	4	7.8
46.6	305	46.6	305	46.6	305	4	4.7	46.6	305	46.6	305	46.6	305	4	4.7
38.5	250	38.5	250	38.5	250	4	4.0	38.5	250	38.5	250	38.5	250	4	4.0
30.8	198	30.8	198	30.8	198	4	3.1	30.8	198	30.8	198	30.8	198	4	3.1

Figure 1: Single Point Supply Connection – Terminal Block, Non-Fused Disconnect Switch or Circuit Breaker (YCAL0043-0253)

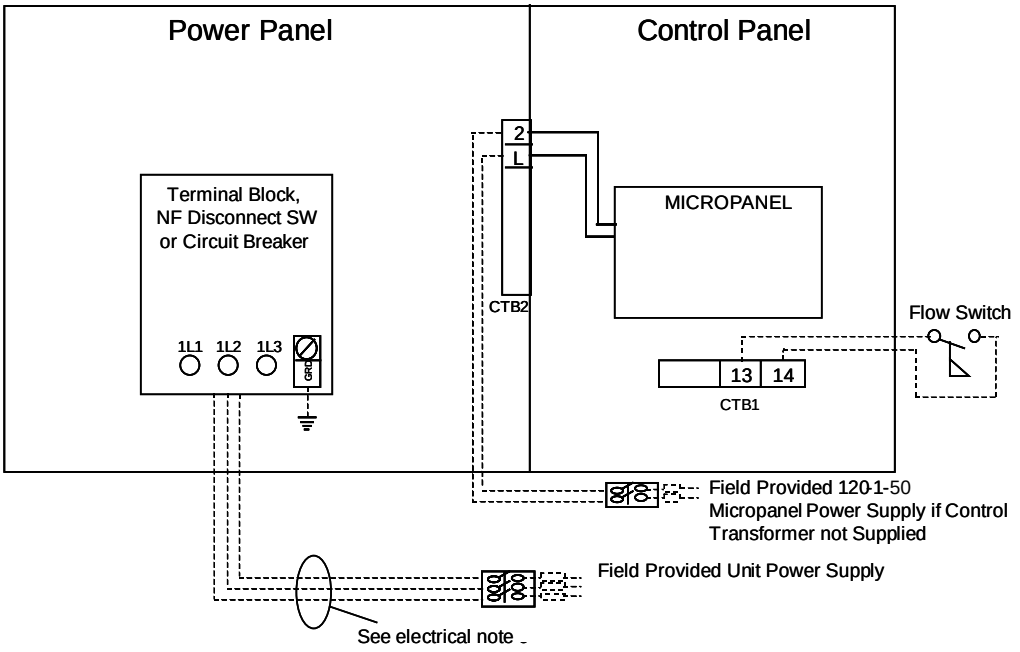
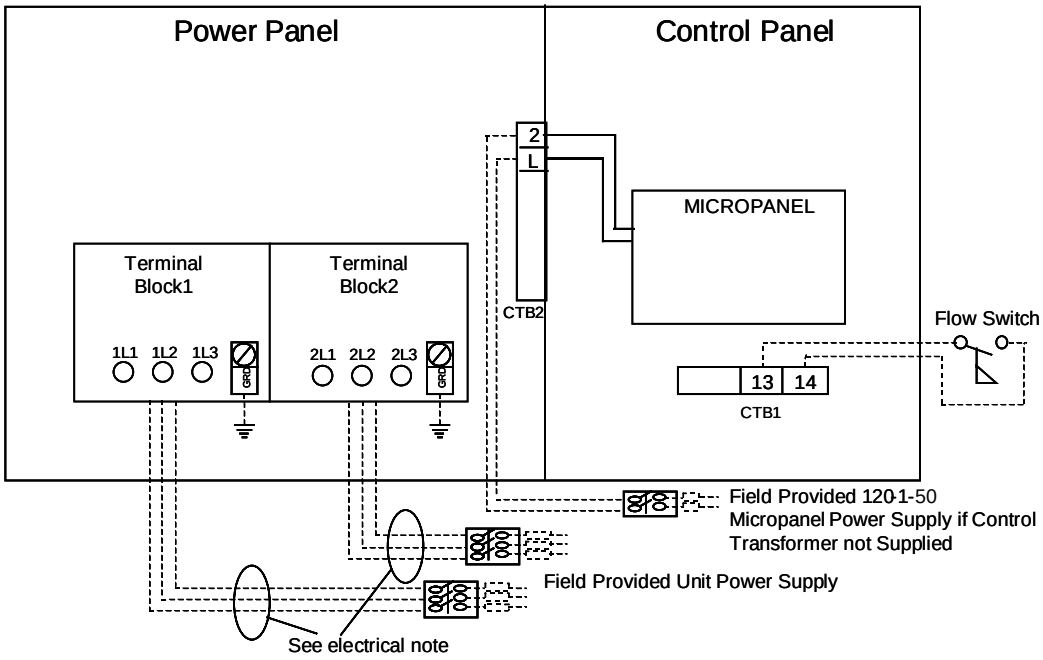


Figure 2: Multiple Point Power Supply Connection – Terminal Block (YCAL0107-00253)



Note: Field wiring by others in accordance with (IAW) National Electrical Code (NEC) and all applicable local codes.

Figure 3: Multiple Point Power Supply Connection – Terminal Block, Non-Fused Disconnect Switches or Circuit Breakers (YCAL0287-0377)

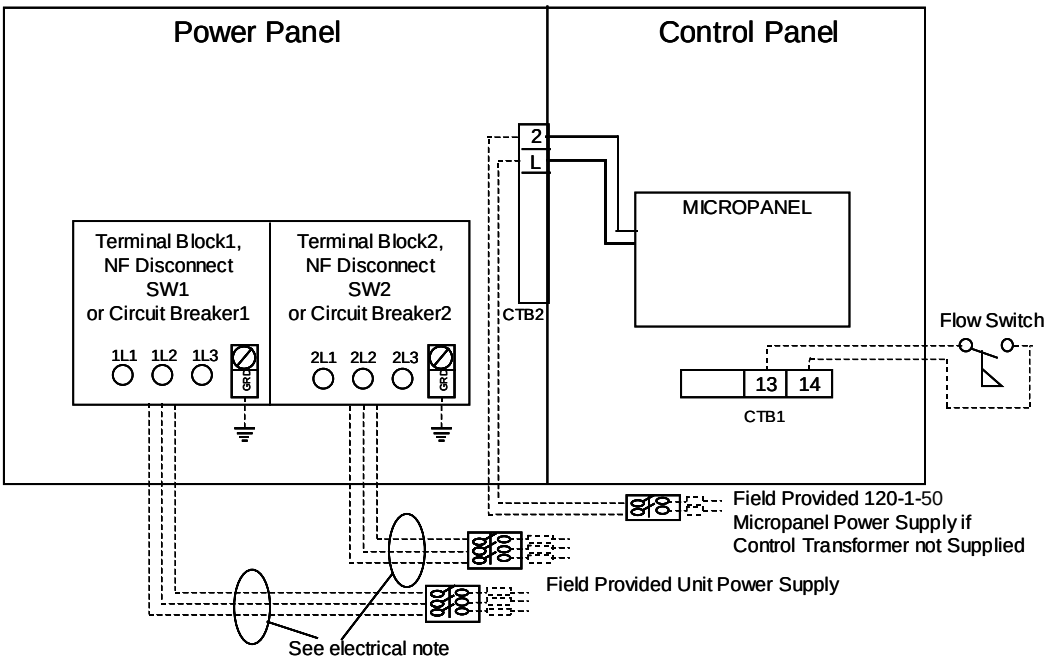
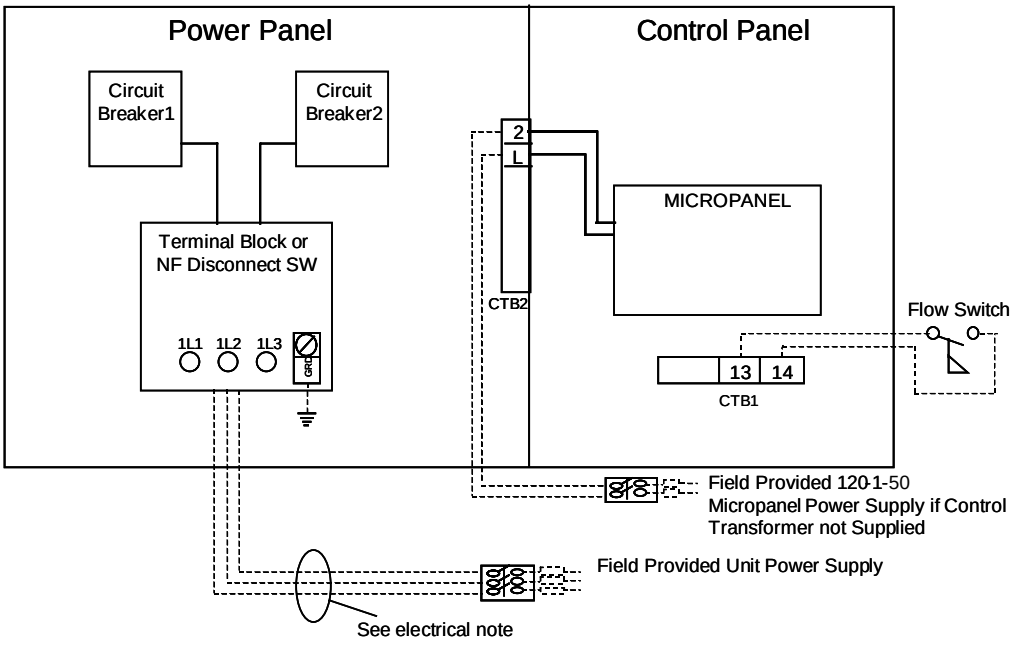
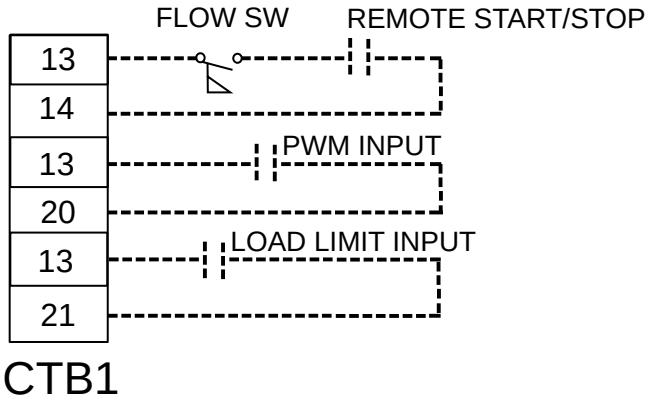


Figure 4: Single Point Supply Connection – Terminal Block or Non-Fused Disconnect Switch to Individual System Circuit Breakers (YCAL0280-0377)

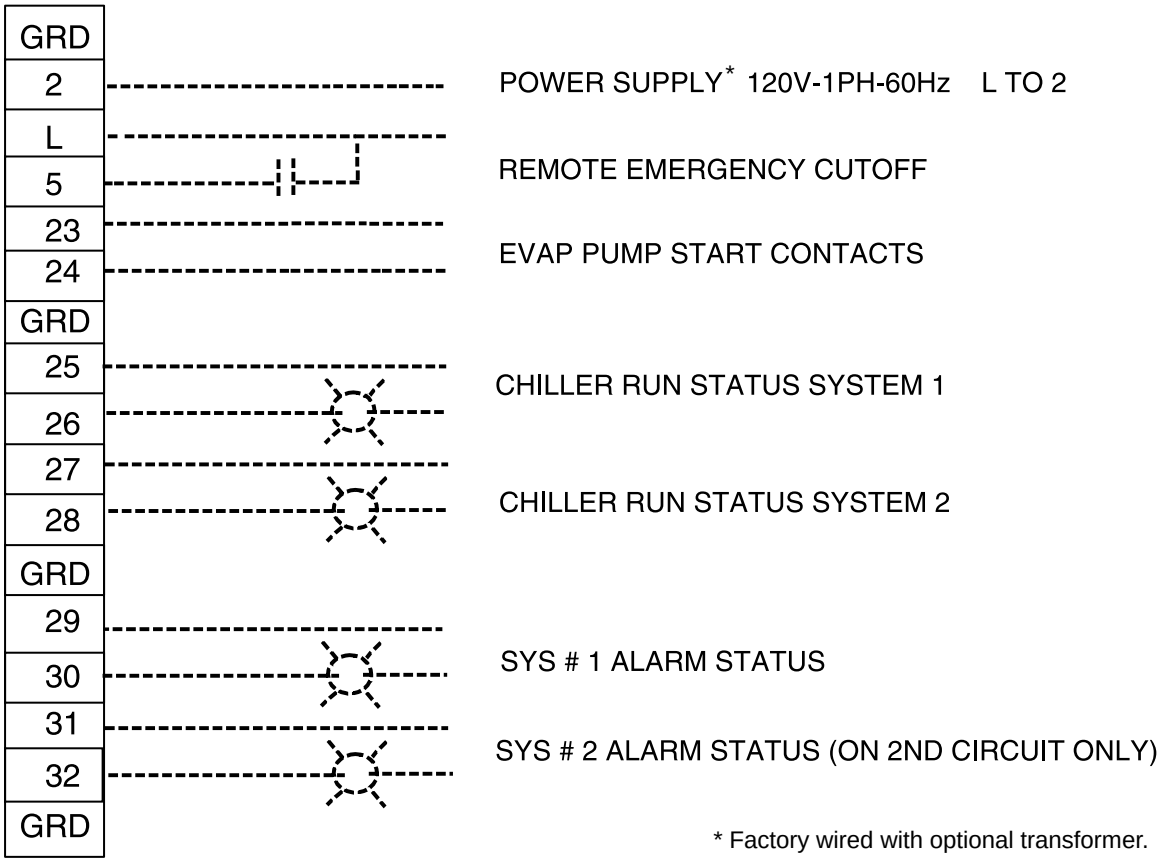


Note: Field wiring by others in accordance with (IAW) National Electrical Code (NEC) and all applicable local codes.

Control Wiring



CTB1



* Factory wired with optional transformer.

CTB2

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Application Data

UNIT LOCATION

The YCAL chillers are designed for outdoor installation. When selecting a site for installation, be guided by the following conditions:

1. For outdoor locations of the unit, select a place having an adequate supply of fresh air for the condenser.

2. Avoid locations beneath windows or between structures where normal operating sounds may be objectionable.

3. Installation sites may be either on a roof, or at ground level. (See FOUNDATION.)

4. The condenser fans are the propeller-type, and are not recommended for use with duct work in the condenser air stream.

5. When it is desirable to surround the unit(s), it is recommended that the screening be able to pass the required chiller CFM without exceeding 0.1" of water external static pressure.

6. Protection against corrosive environments is available by supplying the units with either copper fin, cured phenolic, or epoxy coating on the condenser coils. The phenolic or epoxy coils should be offered with any units being installed at the seashore or where salt spray may hit the unit.

In installations where winter operation is intended and snow accumulations are expected, additional height must be provided to ensure normal condenser air flow.

Recommended clearances for units are given in DIMENSIONS. When the available space is less, the unit(s) must be equipped with the discharge pressure transducer option to permit high pressure unloading in the event that air recirculation were to occur.

FOUNDATION

The unit should be mounted on a flat and level foundation, ground or roof, capable of supporting the entire operating weight of the equipment. Operating weights are given in the PHYSICAL DATA tables.

ROOF LOCATIONS – Choose a spot with adequate structural strength to safely support the entire weight of the unit and service personnel. Care must be taken not to damage the roof during installation. If the roof is “bonded”, consult the building contractor or architect for special installation requirements. Roof installations should incorporate the use of spring-type isolators to minimize the transmission of vibration into the building structure.

GROUND LEVEL INSTALLATIONS – It is important that the units be installed on a substantial base that will not settle, causing strain on the liquid lines and resulting in possible leaks. A one-piece concrete slab with footers extending below the frost line is highly recommended. Additionally, the slab should not be tied to the main building foundation as noises will telegraph.

Mounting holes (11/16" diameter) are provided in the steel channel for bolting the unit to its foundation. See DIMENSIONS.

For ground level installations, precautions should be taken to protect the unit from tampering by or injury to unauthorized persons. Screws on access panels will prevent casual tampering; however, further safety precautions, such as unit enclosure options, a fenced-in enclosure, or locking devices on the panels may be advisable. Check local authorities for safety regulations.

CHILLED LIQUID PIPING

The chilled liquid piping system should be laid out so that the circulating pump discharges into the cooler. The inlet and outlet cooler liquid connections are given in DIMENSIONS.

Hand stop valves are recommended for use in all lines to facilitate servicing. Drain connections should be provided at all low points to permit complete drainage of the cooler and system piping. Additionally, a strainer (40 mesh) is recommended for use on the INLET line to the cooler.

Pressure gauge connections are recommended for installation in the inlet and outlet water lines. Gauges are not furnished with the unit and are to be furnished by other suppliers.

The chilled liquid lines that are exposed to outdoor ambients should be wrapped with a supplemental heater cable and covered with insulation. As an alternative, ethylene glycol should be added to protect against freeze-up during low ambient periods.

A flow switch is available as an accessory on all units. The flow switch (or its equivalent) must be installed in the leaving water piping of the cooler and must not be used to start and stop the unit.

PART 1 – GENERAL

1.01 SCOPE

A. The requirements of the General Conditions, Supplementary Conditions, Division 1, and Drawings apply to all Work herein.

B. Provide Microprocessor controlled, multiple-scroll compressor, air-cooled, liquid chillers of the scheduled capacities as shown and indicated on the Drawings, including but not limited to:
   1. Chiller package
   2. Electrical power and control connections
   3. Chilled water connections

1.02 QUALITY ASSURANCE

A. Products shall be Designed, Tested, Rated and Certified in accordance with, and installed in compliance with applicable sections of the following Standards and Codes:
   1. ANSI/ASHRAE Standard 15 – *Safety Code for Mechanical Refrigeration*
   2. ASHRAE 90.1– *Energy Efficiency compli ance*.
   3. ANSI/NFPA Standard 70 – *National Electrical Code (N.E.C.).*
   4. *ASME Boiler & Pressure Vessel Code, Sec tion VIII, Division 1.*
   5. ARI Standard 550/590 – *Positive Displacement* Compressors and Air Cooled Rotary Screw Water-Chilling Packages.
   6. Conform to Intertek Testing Services, formerly ETL, for construction of chillers and provide ETL/cETL Listing label.
   7. Manufactured in facility registered to ISO 9002.

B. Factory Test: Chiller shall be pressure-tested, evacuated and fully charged with refrigerant and oil, and shall be factory operational run tested with water flowing through the vessel.

C. Warranty: Manufacturer shall Warrant all equipment and material of its manufacture against defects in workmanship and material for a period of one year from date of initial start-up or eighteen (18) months from date of shipment, whichever occurs first.

1.03 DELIVERY AND HANDLING

A. Unit shall be delivered to job site fully assembled, and charged with refrigerant and oil by the Manufacturer.

B. Unit shall be stored and handled per Manufacturer's instructions.

PART 2 - PRODUCTS

2.01 CHILLER MATERIALS AND COMPONENTS

A. General: Install and commission, as shown on the schedules and plans, factory assembled, charged, and tested air cooled scroll compressor chiller(s) as specified herein. Chiller shall be designed, selected, and constructed using a refrigerant with Flammability rating of "1", as defined by ANSI/ASHRAE STANDARD - 34 *Number Designation and Safety Classification of Refrigerants*. Chiller shall include, but is not limited to: a complete system with a single refrigerant circuit 35 tons (123kW) and below, and not less than two refrigerant circuits above 35 tons (123kW), scroll compressors, direct expansion type evaporator, air-cooled condenser, refrigerant, lubrication system, interconnecting wiring, safety and operating controls including capacity controller, control center, motor starting components, and special features as specified herein or required for safe, automatic operation.

B. Cabinet: External structural members shall be constructed of heavy gauge, galvanized steel coated with baked on powder paint which, when subject to ASTM B117, 500 hour, 5% salt spray test, yields minimum ASTM 1654 rating of "6".

2.02 COMPRESSORS

Compressors: Shall be hermetic, scroll-type, including:

1. Compliant design for axial and radial sealing
2. Refrigerant flow through the compressor with 100% suction cooled motor.
3. Large suction side free volume and oil sump to provide liquid handling capability.
4. Compressor crankcase heaters to provide extra liquid migration protection.
5. Annular discharge check valve and reverse vent assembly to provide low pressure drop, silent shutdown and reverse rotation protection.
6. Initial Oil charge.
7. Oil Level sightglass.
8. Vibration isolator mounts for compressors.
9. Brazed-type connections for fully hermetic refrigerant circuits.

2.03 REFRIGERANT CIRCUIT COMPONENTS

Each refrigerant circuit shall include: liquid line shutoff valve with charging port, low side pressure relief device, filter-drier, solenoid valve, sight glass with moisture indicator, expansion valves, and flexible, closed-cell foam insulated suction line.

2.04 HEAT EXCHANGERS

A. Evaporator:
   1. Direct expansion type with refrigerant inside high efficiency copper tubes, chilled liquid forced over the tubes by galvanized steel baffles.
   2. Constructed, tested, and stamped in accordance with applicable sections of ASME pressure vessel code for minimum 350 PSIG (24 bar)refrigerant side design working pres sure and150 PSIG (10 bar) water side design working pressure.
   3. Shell covered with ¾" (19mm), flexible, closed cell insulation, thermal conductivity of 0.26k ([BTU/HR-Ft^2-°F]/in.) maximum. Water nozzles with grooves for mechanical couplings, and in sulated by Contractor after pipe installation.
   4. Provide vent and drain fittings, and thermostati cally controlled heaters to protect to -20°F (29°C) ambient in off-cycle.

B. Air Cooled Condenser:
   1. Coils: Internally enhanced, seamless copper tubes, mechanically expanded into aluminum alloy fins with full height collars. Subcooling coil an integral part of condenser. Design working pressure shall be 450 PSIG (31 bar).

   2. Fans: Shall be dynamically and statically bal anced, direct drive, corrosion resistant glass fi ber reinforced composite blades molded into a low noise, full-airfoil cross section, providing vertical air discharge and low sound. Each fan in its own compartment to prevent crossflow during fan cycling. Guards of heavy gauge, PVC (polyvinylchloride) coated or galvanized steel.

   3. Fan Motors: High efficiency, direct drive, 6 pole, 3 phase, insulation class “F”, current protected, Totally Enclosed Air-Over (TEAO), rigid mounted, with double sealed, permanently lubricated, ball bearings.

2.05 CONTROLS

A. General: Automatic start, stop, operating, and protection sequences across the range of scheduled conditions and transients.

B. Microprocessor Enclosure: Rain and dust tight NEMA 3R/12 (IP55) powder painted steel cabinet with hinged, latched, and gasket sealed door.

C. Microprocessor Control Center:
   1. Automatic control of compressor start/stop, anti-coincidence and anti-recycle timers, automatic pumpdown shutdown, condenser fans, evaporator pump, evaporator heater, unit alarm contacts, and chiller operation from 0°F to 125°F (-18°C to 52°C) ambient. Automatic reset to normal chiller operation after power failure.
   2. Remote water temperature reset via a Pulse Width Modulated (PWM) input signal or up to two steps of demand (load) limiting.
   3. Software stored in non-volatile memory, with programmed setpoints retained in lithium battery backed real time clock (RTC) memory for minimum 5 years.
   4. Forty character liquid crystal display, descriptions in English (or Spanish, French, Italian, or German), numeric data in English (or Metric) units. Sealed keypad with sections for Setpoints, Display/Print, Entry, Unit Options & clock, and On/Off Switch.
   5. Programmable Setpoints (within Manufacturer limits): display language; chilled liquid temperature setpoint and range, remote reset temperature range, set daily schedule/holiday for start/stop, manual override for servicing, low and high ambient cutouts, number of compressors, low liquid temperature cutout, low suction pressure cutout, high discharge pressure cutout, anti-recycle timer (compressor start cycle time), and anti-coincident timer (delay compressor starts).
   6. Display Data: Return and leaving liquid temperatures, low leaving liquid temperature cutout setting, low ambient temperature cutout setting, outdoor air temperature, English or metric data, suction pressure cutout setting, each sys tem suction pressure,discharge pressure (optional), liquid temperature reset via a YORK ISN DDC or Building Automation System (by others) via PWM input as standard or a 4-20milliamp or 0-10 VDC input or contact closure with optional BAS interface, anti-recycle timer status for each compressor, anti-coincident system start timer condition, compressor run status, no cooling load condition, day, date and time, daily start/stop times, holiday status, automatic or manual system lead/lag control, lead system definition, compressor starts/operating hours (each), status of hot gas valves, evaporator heater and fan operation, run permissive status, number

of compressors running, liquid solenoid valve status, load & unload timer status, water pump status.

7. System Safeties: Shall cause individual com pressor systems to perform auto shut down; manual reset required after the third trip in 90 minutes. Includes: high discharge pressure, low suction pressure, high pressure switch, and motor protector. Compressor motor protector shall protect against damage due to high input current or thermal overload of windings.
8. Unit Safeties: Shall be automatic reset and cause compressors to shut down if low ambient, low leaving chilled liquid temperature, under voltage, and flow switch operation. Contractor shall provide flow switch and wiring per chiller manufacturer requirements.
9. Alarm Contacts: Low ambient, low leaving chilled liquid temperature, low voltage, low battery, and (per compressor circuit): high discharge pressure, and low suction pressure.

D. Manufacturer shall provide any controls not listed above, necessary for automatic chiller operation. Mechanical Contractor shall provide field control wiring necessary to interface sensors to the chiller control system.

2.06 POWER CONNECTION AND DISTRIBUTION

A. Power Panels:
1. NEMA 3R/12 (IP55) rain/dust tight, powder painted steel cabinets with hinged, latched, and gasket sealed outer doors. Provide main power connection(s), control power connections, compressor and fan motor start contactors, current overloads, and factory wiring.
2. Power supply shall enter unit at a single location, be 3 phase of scheduled voltage, and connect to individual terminal blocks per compressor. Separate disconnecting means and/ or external branch circuit protection (by Contractor) required per applicable local or national codes.

B. Exposed compressor, control and fan motor power wiring shall be routed through liquid tight conduit.

2.07 ACCESSORIES AND OPTIONS

Some accessories and options supercede standard product features. Your YORK representative will be pleased to provide assistance.

A. Microprocessor controlled, Factory installed Across-the-Line type compressor motor starters as standard.

B. Outdoor Ambient Temperature Control
1. Low Ambient Control: Permits unit operation to 0°F ambient. Standard unit controls to 25°F ambient. Low Ambient Control standard on YCAL0090-0134 models.
2. High Ambient Control: Permits unit operation above 115°F ambient.

C. Power Supply Connections:
1. Single Point Power Supply: Single point Terminal Block for field connection and interconnecting wiring to the compressors. Separate external protection must be supplied, by others, in the incoming power wiring, which must comply with the National Electric Code and/or local codes. Single Point Supply option avail a b l e on YCAL0040-0080 models and standard on YCAL0014 - 0034 models.
2. Single Point or Multiple Point Power Supply with individual System Breakers: Single or Multiple Point Terminal Block(s) for field connection and factory interconnecting wiring to factory supplied system breakers . Available on YCAL0090-0134 models.
3. Single Point or Multiple Point Disconnect: Single or Dual point Non-Fused Disconnect(s) and lockable external handle (in compliance with Article 440-14 of N.E.C.) can be supplied to isolate the unit power voltage for servicing. Separate external fusing must be supplied, by others, in the in coming power wiring, which must comply with the National Electric Code and/or local codes.
4. Single Point Disconnect with Individual System Breakers: Single point Terminal Block with Non-Fused Disconnect and lockable external handle (in compliance with Article 440-14 of N.E.C.) can be supplied to isolate power voltage for servicing. Factory interconnecting wiring from disconnect to factory supplied circuit breakers. Available on YCAL0090-0134 models.
5. Single Point Circuit Breaker: Single point Terminal Block with Circuit Breaker and lockable external handle (in compliance with Article 440 14 of N.E.C.) can be supplied to isolate power voltage for servicing. Incoming power wiring must comply with the National Electric Code and/or local codes. Single Point Circuit Break ers available on YCAL0014-0080 models.

D. Pressure Transducers and Readout Capability

1. Discharge Pressure Transducers: Permits unit to sense and display discharge pressure. Standard on YCAL0080-0134 models.

E. Control Power Transformer: Converts unit power voltage to 120-1-60 (500 VA capacity). Factory- mounting includes primary and secondary wiring between the transformer and the control panel.

F. Motor Current Module: Capable of monitoring compressor motor current. Provides extra protection against compressor reverse rotation, phase-loss and phase imbalance. Option consists of one module per electrical system. (Factory-mounted.)

G. Power Factor Correction Capacitors: Provided to correct unit compressor factors to a 0.90-0.95.

H. Condenser Coil Environmental Protection:

1. Pre-Coated: Epoxy coated aluminum fin stock to guard from corrosive agents and insulate against galvanic potential. For mild seashore or industrial locations.
2. Copper Fin: Provide copper fins in lieu of aluminum.
3. Post-Coated Dipped: Dipped-cured coating on condenser coils for seashore and other corrosive applications (with the exception of strong alkalis, oxidizers, and wet bromine, chlorine and fluorine in concentrations greater than 100ppm).

I. Protective Chiller Panels (Factory or Field Mounted

1. Louvered Panels (condenser coils only): Painted steel as per remainder of unit cabinet, over external condenser coil faces.
2. Wire Panels (full unit): Heavy gauge, welded wire-mesh, coated to resist corrosion, to protect condenser coils from incidental damage and restrict unauthorized access to internal components.
3. Louvered Panels (full unit): Painted steel as per remainder of unit cabinet, to protect condenser coils from incidental damage, visually screen internal components, and prevent unauthorized access to internal components.
4. Louvered/Wire Panels: Louvered steel panels on external condenser coil faces, painted as per remainder of unit cabinet. Heavy gauge, welded wire-mesh, coated to resist corrosion, around base of machine to restrict unauthorized access.

J. Flow Switch (Field-mounted): Vapor proof SPDT, NEMA 4X switch (___150 PSIG or ___300 PSIG), -20°F to 250°F.

K. Differential Pressure Switch: Alternative to an above mentioned flow switch. Pretempco model DPS300A-P40PF-82582-5 (300 psi max. working pressure) SPDT 5 amp 125/250VAC switch, Range 0 - 40 PSID, deadband 0.5 - 0.8 psi, with 1/4" NPTE Pressure Connections.

L. Evaporator options:

1. Provide 1½" cooler insulation in lieu of standard ¾".
2. Provide DX Cooler with 300 PSIG water-side design working pressure in lieu of standard 150 PSIG.
3. Provide Raised Face Flanges for field installation on cooler nozzles and field piping:
   a. 150 PSIG, welded Flanges.
   b. 300 PSIG, welded Flanges.

M. Service Isolation valves: Service suction and dis charge (ball type) isolation valves are added to unit per system. This option also includes a system high pressure relief valve in compliance with ASHRAE 15. (Factory-mounted.)

N. Remote Cooler: Manufacturer shall provide separately: chiller less evaporator, leaving and return water sensors, and liquid line components (solenoid valves, filter driers, sight glasses, and TXVs), as discrete elements of a complete factory system. Contractor shall be field erect system and provide interconnecting refrigerant piping and wiring in accordance with Manufacturer recommendations, and project plans and schedules. Where not otherwise specified, Contractor provided system piping shall be in accordance with applicable sections of ASHRAE Handbook.

O. Hot Gas By-Pass: Permits continuous, stable operation at capacities below the minimum step of unloading to as low as 5% capacity (depending on both the unit & operating conditions) by introducing an artificial load on the cooler. Hot gas by-pass is installed on only one refrigerant circuit.

P. Microprocessor Membrane Keypad Graphics on in lieu of Standard English:

1. French language.
2. German language.
3. Spanish language.

4. Italian language.

Q. Thermal Storage: Leaving chilled liquid setpoint range for charge cycle from 25°F to 20°F minimum, with automatic reset of the leaving brine temperature up to 40°F above the setpoint.

R. Low Temperature Process Brine: Leaving chilled liquid setpoint range 20°F to 50°F.

S. Chicago Code Relief Valves to meet Chicago Code requirements.

T. Building Automation System (EMS) Reset Interface: Chiller to accept 4 to 20mA, 0 to 10 VDC, or discrete contact closure input to reset the leaving chilled liquid temperature.

U. Remote Control Panel (Field-mounted): Auxiliary panel for remote user interface for functions normally made at the unit control center. Available on YCAL0014-0080 models.

V. OptiView Remote Control Panel (Field-mounted): Graphical interface panel to remotely control and monitor up to 8 different units.

W. Multi-Unit Sequencing Panel (Field-mounted): Separate Sequencing control center is provided to permit control of up to eight chillers in parallel based on mixed liquid temperature.

X. Sound Reduction (Factory-mounted):
1. Low speed, reduced noise fans
2. Compressor Acoustic Sound Blankets

Y. Vibration Isolation (Field-mounted):
1. Neoprene Pad Isolators.
2. 1 Inch Deflection Spring Isolators: Level adjustable, spring and cage type isolators for mounting under the unit base rails.
3. 2 Inch Deflection Seismic Isolators: Level adjustable, restrained mounts in rugged welded steel housing with vertical and horizontal limit stops. Housings shall be designed to withstand a minimum 1.0g accelerated force in all directions to 2 inches.

PART 3 - EXECUTION

3.01 INSTALLATION

A. General: Rig and Install in full accordance with Manufacturers requirements, Project drawings, and Contract documents.

B. Location: Locate chiller as indicated on drawings, including cleaning and service maintenance clearance per Manufacturer instructions. Adjust and level chiller on support structure.

C. Components: Installing Contractor shall provide and install all auxiliary devices and accessories for fully operational chiller.

D. Electrical: Coordinate electrical requirements and connections for all power feeds with Electrical Contractor (Division 16).

E. Controls: Coordinate all control requirements and connections with Controls Contractor.

F. Finish: Installing Contractor shall paint damaged and abraded factory finish with touch-up paint matching factory finish.

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