



AIR-COOLED SCROLL CHILLERS STYLE A

YLAA0070 – YLAA0170

70 – 150 TON

246 – 527 kW

60 Hz

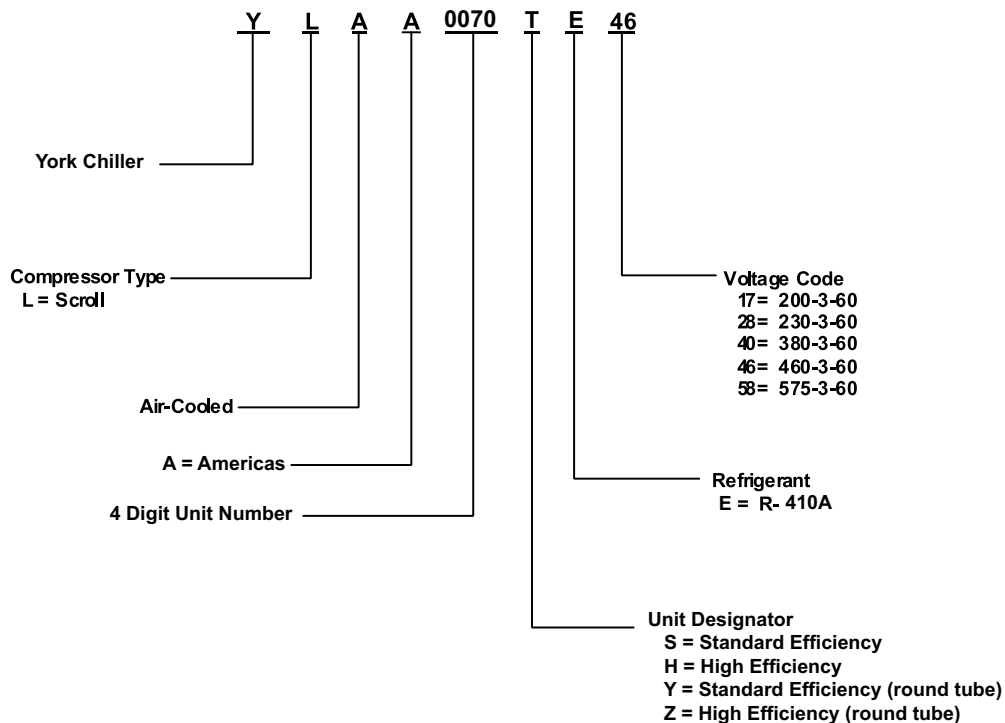
R-410A

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NOMENCLATURE

The model number denotes the following characteristics of the unit:





NEW PACE...NEW WORLD

*Johnson Controls, the leader in equipment controls and hvac equipment is proud to offer the **YORK**, air-cooled scroll chiller. This all-in-one package is a true plug and play equipment that provides superb efficiency and performance. This chiller is completely self-contained*

and is designed for outdoor (roof or ground level) installation. An optional hydro-kit makes installations in the service replacement or in new building installations very convenient. Each unit includes zero ozone depletion refrigerant (R-410A), hermetic scroll compressors, a liquid cooler, air cooled condenser, and a weather resistant microprocessor control center, all mounted on a formed steel base.

ENVIRONMENTAL RESPONSIBILITY ...STANDARD

TEMPO makes you the leader in environmental practices through innovation, not added cost. With the combination of R-410A refrigerant and a 30-50% reduction of refrigerant used vs. similar chillers, the TEMPO chiller provides you with the most ecologically friendly equipment. Partnered with it's low sound properties (for noise pollution prevention), this chiller is a true earth-friendly offering.

REDUCED TOTAL COST OF OWNERSHIP...

Industry leading energy efficiency, easy maintenance and durability minimize your cost of ownership. Efficiency; environmentally responsibility that pays you back...

- Real world energy efficiency is measured in IPLV (part load) performance
- Tempo's industry leading IPLV's deliver cash to your bottom line
- Serviceability...Easier maintenance pays twice: sustained chiller efficiency and lower cost maintenance contracts
- Corrosion resistant condenser coils extend life and improve performance

MORE BUILDING...LESS CHILLER

TEMPO offers a lighter, smaller and quieter chiller minimizing

your installed cost and maximizing usable building space.

- More space for you
- Smaller chiller footprint saves valuable space
- Tempo is the lowest weight chiller available, lighter than our previous generation chiller by 20-35%
- Hydronic pump kit option can save both space and cost by integrating the chilled water pumps as a factory mounted chiller option
- Standard low sound and affordable sound attenuation options allow flexibility in locating chiller and reduce cost for field constructed sound barriers

MANY APPLICATIONS, ONE

Performance, Sound and Hydronic pump kits are all configurable to suit your many needs... Performance can be configured with standard and high full-load efficiency models (an industry first)

- Multiple sound configurations...only spend on what you need.
- Pumps can be factory mounted
- Hydronic pump kits can be configured for a wide range of flow and head pressure with single or dual (standby) pump
- Standard corrosion resistance for coastal applications
- Small weight and footprint allow you maximum choice in locating the chiller

Specifications

GENERAL

The 70 - 150 Ton (246 - 527kW) **YLAA** models are shipped complete from the factory ready for installation and use.

The unit is pressure-tested, evacuated, and fully charged with a zero Ozone Depletion Potential Refrigerant R-410A 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 1000 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 YLAA 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 ANSI/AWWA C-606 couplings.

CONDENSER

Coils - Condenser coils are made of a single material to avoid galvanic corrosion due to dissimilar metals. Coils and headers are brazed as one piece. Integral sub cooling is included. The design working pressure of the coil is 650 PSIG (45 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. They 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.

Microcomputer 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 back-lighting 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

Microcomputer Control Center - continued

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 lithium battery-backed RTC memory for 5 years minimum.

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 stan-

dard on-board RS485 communication port.)

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

Accessories and Options

POWER OPTIONS:

COMPRESSOR POWER CONNECTIONS – Single-point 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 – 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 NON-FUSED DISCONNECT SWITCH OR MULTIPLE-POINT NON-FUSED DISCONNECT SWITCHES – 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 - 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 – 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) – Units will operate to 30°F (-1°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 30°F (-1°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)**

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 – 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)**

COMPRESSOR, PIPING, EVAPORATOR OPTIONS:

LOW TEMPERATURE BRINE – Required for brine chilling below 30°F (-1°C) leaving brine temperature for YLAA0014-0080 models. Option includes resized thermal expansion valve. Low temperature brine is standard on YLAA0090-0134 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)**

Accessories and Options – continued

DX COOLER 300 (21 BAR) PSIG DWP WATERSIDE

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

FLANGES (ANSI/AWWA C-606 COUPLINGS 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 3R 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)**

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 3 - 40 PSID, deadband 0.5 - 0.8 psi, with 1/4" NPTE Pressure Connections.

HYDRO-KIT – Factory installed Hydro-Kit suitable for water glycol systems with up to 35% glycol at leaving temperatures down to 20 F. The Hydro-kit option is available in a single or dual configuration (dual as standby duty only), with totally enclosed permanently lubricated pump motors.

The hydro-kit option comes standard with a balancing valve, flow switch, pressure ports, suction guide, strainer, bleed and drain valves and frost protection.

Expansion tanks are optional within the Hydro-Kit option.

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)**

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

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 pres-

sure control, YORK recommends the use of Condenser Louvered Panels for winter applications where wind gusts 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)**

COIL END HAIL GUARD – Louvered panel attached to exposed coil end. **(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)**

ULTRA QUIET FANS – Lower RPM, 8-pole fan motors are used with steeper-pitch fans. **(Factory-Mounted)**

TWO SPEED 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)**

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Design Parameters

Nominal Evaporator Water Flow

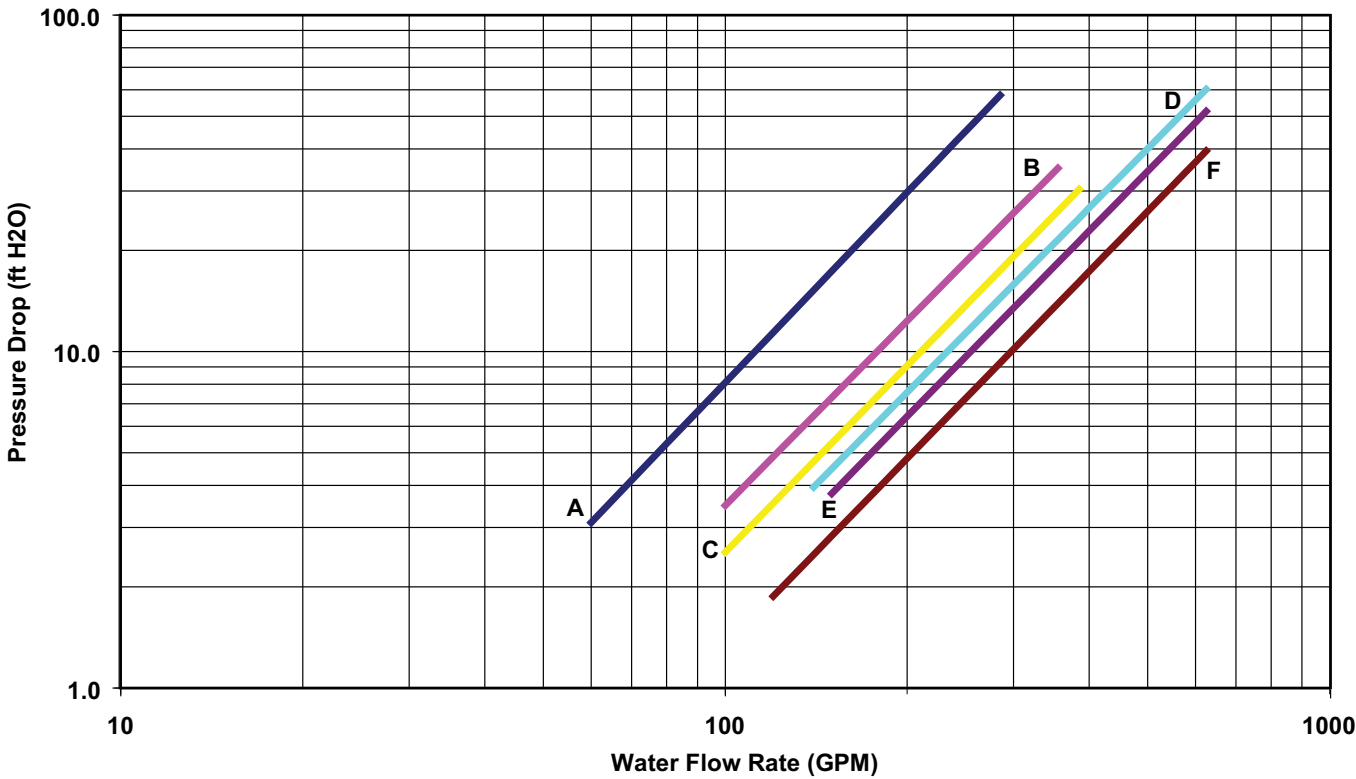
Unit Designation	Temperature		Water Flow (gpm) MIN	Water Flow (gpm) MAX	Air On Condenser (°F)	
	Min (°F)	Max (°F)			Min	Max
YLAA0070	40	55	60	285	0	125
YLAA0080	40	55	100	355	0	125
YLAA0090	40	55	140	625	0	125
YLAA0091	40	55	100	385	0	125
YLAA0101	40	55	100	385	0	125
YLAA0115	40	55	100	385	0	125
YLAA0120	40	55	150	625	0	125
YLAA0135	40	55	120	625	0	125
YLAA0150	40	55	120	625	0	125
YLAA0155	40	55	150	625	0	125

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 YLAA00140080 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.

Water Pressure Drop

YLAA Evaporator Pressure Drop (IP Units)



EVAPORATOR	YLAA MODELS
A	70SE
B	80SE
C	91HE, 101HE, 115SE
D	120SE, 155SE
E	90SE
F	135SE, 150SE

Selection Data and Procedures

GUIDE TO SELECTION

Capacity ratings for YORK YLAA Packaged Air-Cooled Liquid Chillers, shown on pages 18 through 23 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/JCI Office or representative.

SELECTION RULES

1. Ratings – Ratings may be interpolated, but must not be extrapolated. The Ratings given on pages 18 through 23 and the DESIGN PARAMETERS given on page 10 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 18 through 23 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. 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

		0.0001		0.00025	
ALTITUDE	TEMP SPLIT	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 a JCI - YLAA 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:

EXAMPLE – WATER CHILLING

1. GIVEN: Provide a capacity of 90 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
3. From the Ratings on pages 18 - 23:
SELECT: YLAA0090SE (English Units)
91.4 Tons
82 Compressor KW
12.4 Unit EER
4. Calculate Compressor kW at 50 Tons:
 $kW = (90-91.4) \times 80.7 = 80.7 \text{ kW}$

5. Calculate GPM:

$$\text{GPM} = \frac{90 \text{ Tons} \times 24}{216 \text{ GPM}}$$

10°F RANGE

6. From Page 10, read 10 ft of water cooler pressure drop for GPM:
7. A YLAA0090 is suitable.

EXAMPLE – BRINE CHILLING

1. **GIVEN:** Provide a capacity of 80 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 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 18 - 23:

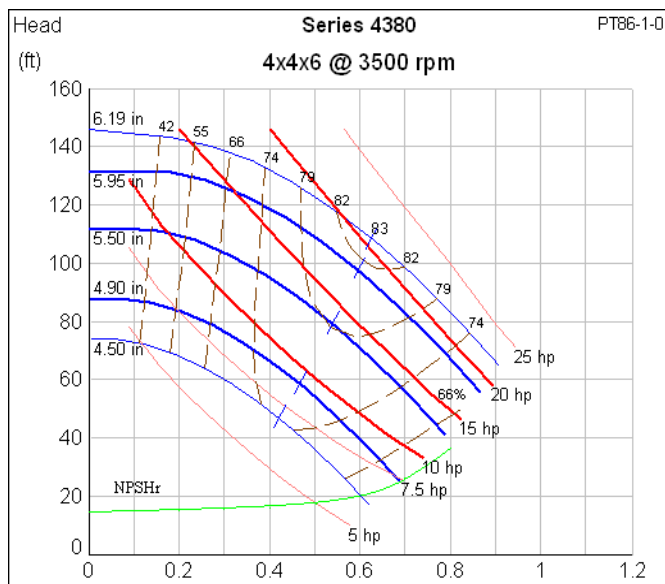
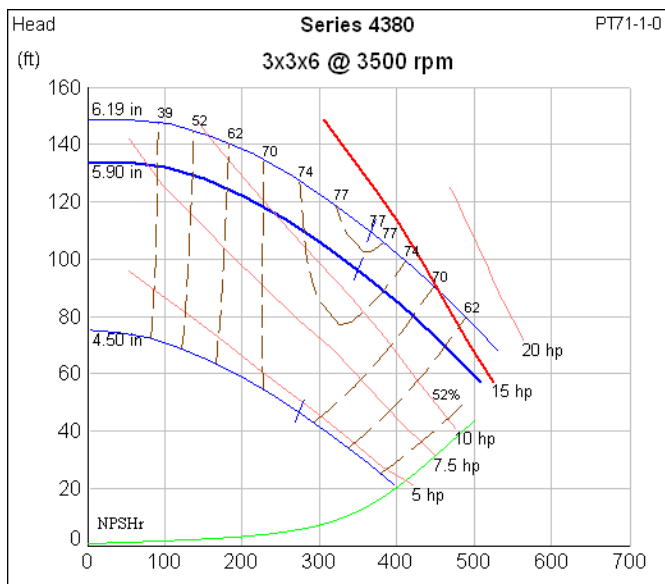
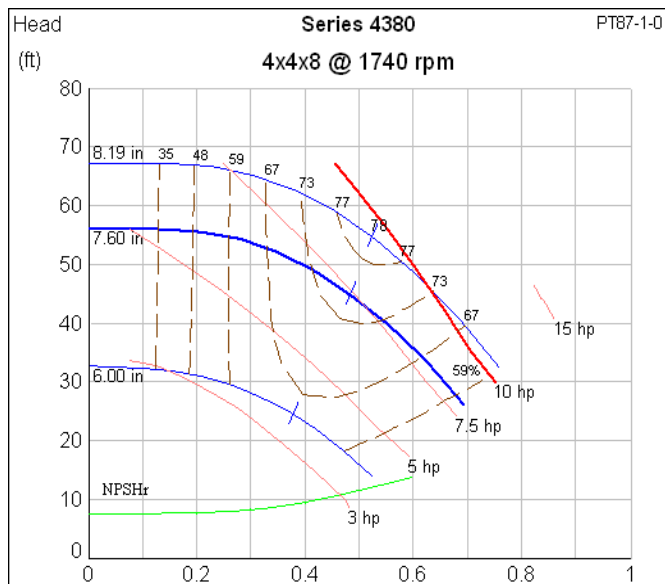
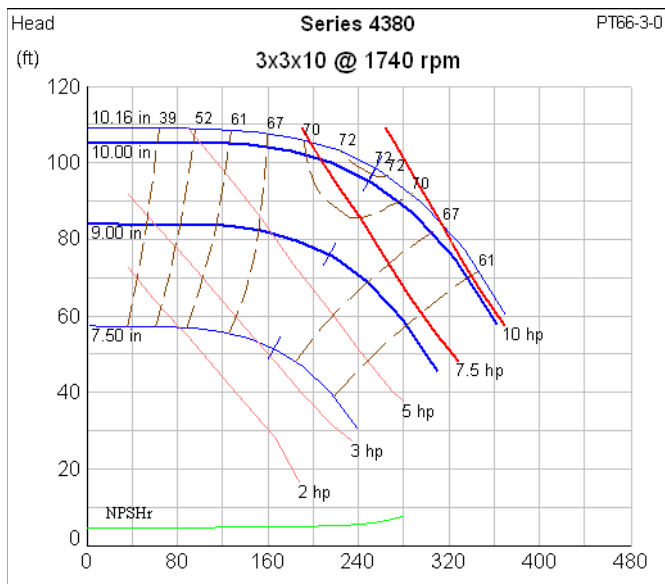
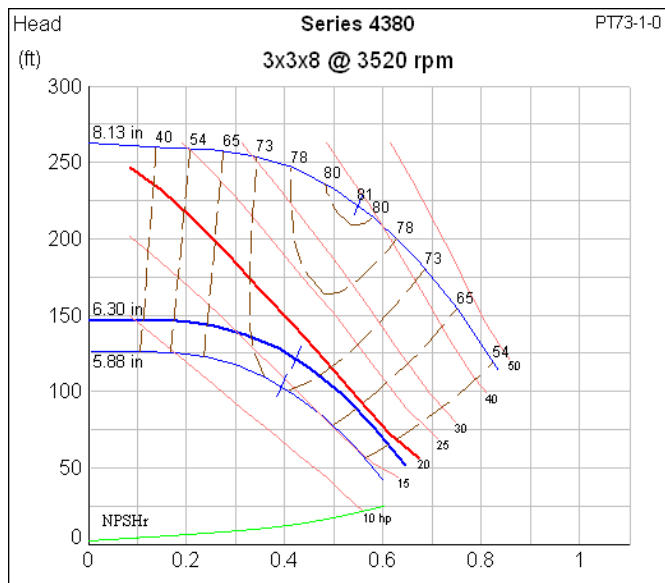
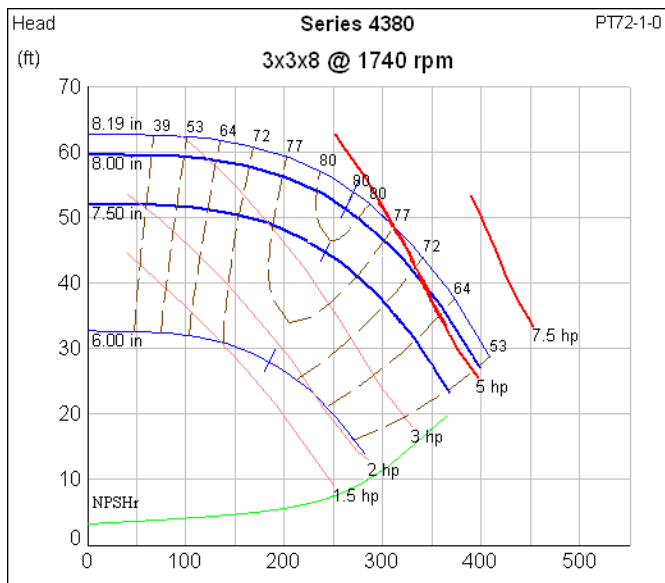
SELECT: YLAA0090 (English Units)

91.4 Tons 82.0 Compressor kW

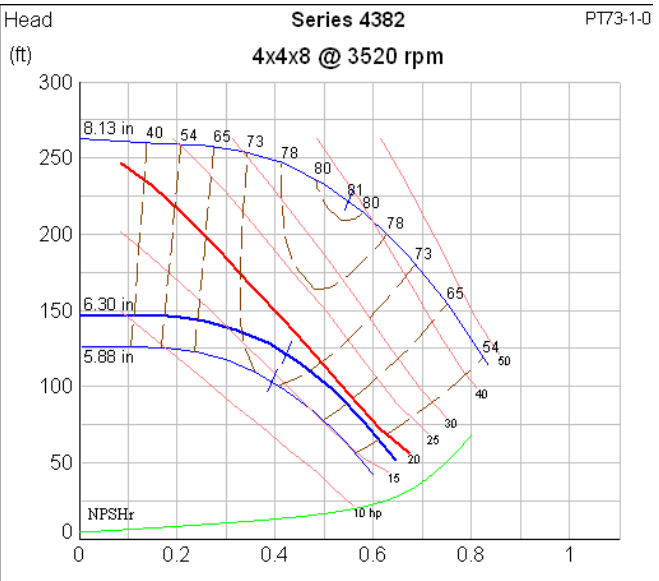
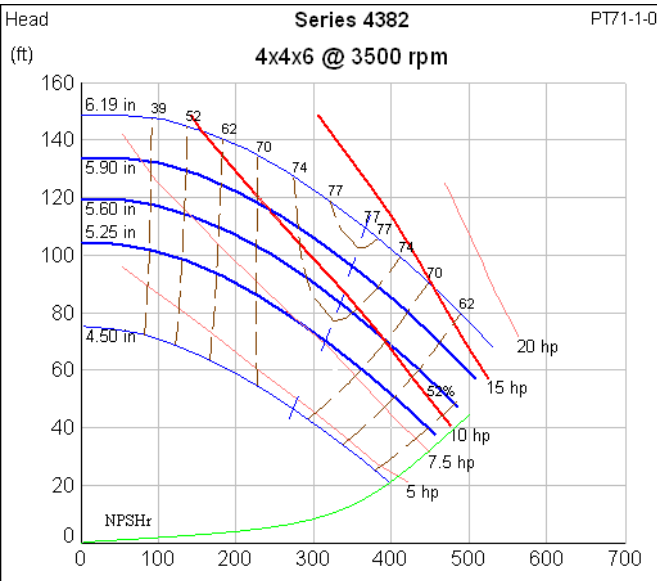
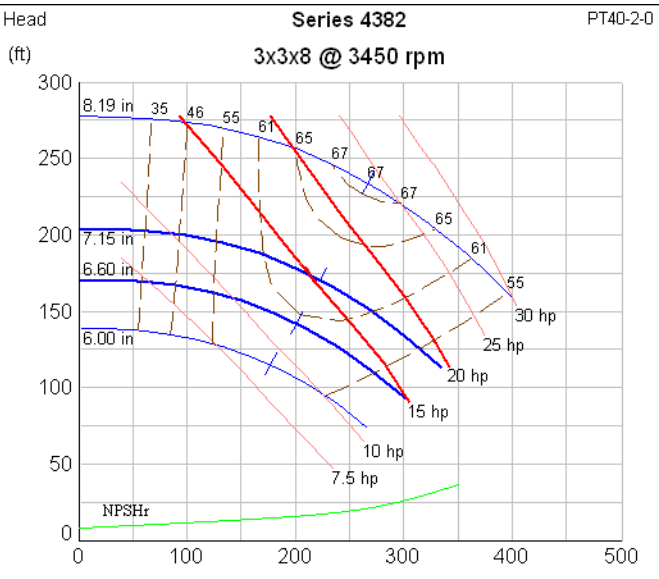
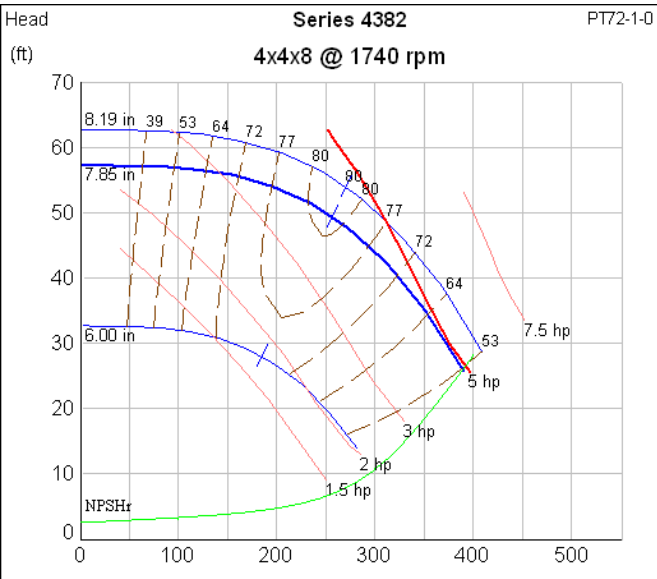
6. Determine YLAA0090 brine cooling capacity and Compressor kW requirement:
A. Tons = 91.4 x .974 x .983 = 87.51
B. Compr. kW = 82.0 x .995 x 1.021 = 83.3
Determine average full load Compressor kW at 80 tons: (80/87.51) x 83.3 = 76.15kW
8. Determine Ethylene Glycol GPM:
Tons x Gal. °F/min/Ton factor
GPM = Range 80.0 x 26.1

GPM = 10 GPM = 208.8
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 pages 18-19 at 88.7 GPM for the YLAA0090.
READ: 6.8 Ft. H₂O Pressure Drop
C. Cooler Pressure Drop = 6.8 x 1.096 or 7.5 Ft. H₂O
10. YLAA0090 is suitable.

Single Pump Curves



Dual Pump Curves



Ratings - 60 Hz

MODEL: YLAA0070SE

IPLV= 15.1

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	69.3	59.9	12.5	67.6	63.2	11.6	65.7	66.7	10.7	63.9	70.5	9.9	61.9	74.5	9.1	59.6	78.5	8.4
42.0	71.6	60.5	12.8	69.8	63.8	11.9	67.9	67.3	11.0	65.9	71.1	10.2	63.9	75.1	9.4	61.5	79.1	8.6
44.0	73.9	61.1	13.1	72.0	64.4	12.1	70.1	68.0	11.3	68.1	71.7	10.4	66.0	75.8	9.6	63.5	79.7	8.8
45.0	75.0	61.4	13.2	73.1	64.7	12.3	71.2	68.3	11.4	69.1	72.1	10.5	67.0	76.1	9.7	64.5	80.1	8.9
46.0	76.2	61.8	13.4	74.3	65.0	12.4	72.3	68.6	11.5	70.2	72.4	10.7	68.1	76.4	9.8	65.5	80.4	9.0
48.0	78.6	62.4	13.6	76.6	65.7	12.7	74.5	69.2	11.8	72.4	73.0	10.9	70.2	77.1	10.1	67.6	81.0	9.2
50.0	81.1	63.0	13.9	79.0	66.3	13.0	76.8	69.9	12.0	74.6	73.7	11.1	72.4	77.7	10.3	69.7	81.7	9.5

MODEL: YLAA0080SE

IPLV= 15.1

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	76.8	66.3	12.6	74.7	70.0	11.7	72.6	74.0	10.8	70.5	78.2	10.0	68.2	82.8	9.2	65.6	87.3	8.4
42.0	79.3	67.0	12.9	77.2	70.7	12.0	75.0	74.6	11.1	72.8	78.9	10.2	70.5	83.5	9.4	67.8	88.0	8.6
44.0	81.8	67.7	13.2	79.6	71.4	12.2	77.4	75.4	11.3	75.1	79.6	10.4	72.8	84.2	9.6	70.0	88.7	8.8
45.0	83.1	68.1	13.3	80.9	71.7	12.4	78.7	75.7	11.4	76.3	80.0	10.6	73.9	84.6	9.7	71.1	89.1	8.9
46.0	84.4	68.4	13.5	82.2	72.1	12.5	79.9	76.1	11.6	77.5	80.4	10.7	75.1	84.9	9.8	72.2	89.4	9.0
48.0	87.0	69.2	13.8	84.7	72.9	12.8	82.4	76.9	11.8	79.9	81.2	10.9	77.5	85.7	10.1	74.5	90.2	9.2
50.0	89.7	70.0	14.0	87.3	73.7	13.0	84.9	77.7	12.1	82.4	81.9	11.2	79.9	86.5	10.3	76.8	91.0	9.4

MODEL: YLAA0090SE

IPLV= 15.5

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	91.0	76.9	13.1	88.5	81.0	12.1	85.9	85.5	11.2	83.2	90.3	10.3	80.4	95.4	9.4	77.1	100.4	8.6
42.0	94.0	77.8	13.3	91.4	82.0	12.4	88.7	86.5	11.4	85.9	91.3	10.5	83.1	96.4	9.7	79.7	101.4	8.8
44.0	96.9	78.7	13.6	94.3	82.9	12.6	91.5	87.4	11.7	88.7	92.2	10.8	85.8	97.3	9.9	82.4	102.4	9.1
45.0	98.4	79.2	13.7	95.7	83.4	12.7	92.9	87.9	11.8	90.1	92.7	10.9	87.2	97.8	10.0	83.7	102.9	9.2
46.0	100.0	79.7	13.9	97.2	83.9	12.9	94.4	88.5	11.9	91.5	93.2	11.0	88.6	98.3	10.1	85.1	103.4	9.3
48.0	103.0	80.7	14.1	100.2	84.9	13.1	97.3	89.5	12.1	94.3	94.3	11.2	91.4	99.4	10.3	87.7	104.4	9.5
50.0	106.1	81.8	14.4	103.2	86.0	13.4	100.2	90.6	12.4	97.2	95.4	11.4	94.2	100.4	10.5	90.5	105.5	9.7

MODEL: YLAA0091HE

IPLV= 14.9

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	92.4	70.1	13.8	90.0	73.8	12.9	87.6	77.8	12.0	85.2	82.1	11.1	82.6	86.8	10.2	79.5	91.5	9.4
42.0	95.5	70.7	14.2	93.1	74.4	13.2	90.6	78.5	12.3	88.0	82.8	11.4	85.4	87.5	10.5	82.2	92.2	9.6
44.0	98.6	71.4	14.5	96.1	75.2	13.5	93.6	79.2	12.6	90.9	83.5	11.7	88.2	88.2	10.8	84.9	92.9	9.9
45.0	100.2	71.8	14.7	97.7	75.5	13.7	95.1	79.5	12.7	92.4	83.9	11.8	89.7	88.5	10.9	86.3	93.2	10.0
46.0	101.8	72.2	14.9	99.2	75.9	13.9	96.6	79.9	12.9	93.9	84.2	11.9	91.1	88.9	11.0	87.7	93.6	10.2
48.0	105.1	72.9	15.2	102.4	76.6	14.2	99.7	80.6	13.2	96.9	85.0	12.2	94.0	89.6	11.3	90.6	94.3	10.4
50.0	108.4	73.7	15.5	105.6	77.4	14.5	102.8	81.4	13.5	100.0	85.8	12.5	97.0	90.4	11.6	93.4	95.1	10.7

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
6. The shaded points are certified in accordance with ARI Standard 550/590-98

MODEL: YLAA0070SE	IPLV= 15.1
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	57.1	82.6	7.7	54.6	87.0	7.0	52.0	91.6	6.4
42.0	59.0	83.2	7.9	56.4	87.6	7.2	53.8	92.2	6.5
44.0	60.9	83.9	8.1	58.3	88.3	7.4	55.5	92.9	6.7
45.0	61.9	84.2	8.2	59.2	88.6	7.5	56.4	93.2	6.8
46.0	62.9	84.5	8.3	60.2	88.9	7.5	57.3	93.6	6.9
48.0	64.9	85.2	8.5	62.1	89.6	7.7	59.2	94.2	7.0
50.0	66.9	85.9	8.7	64.0	90.3	7.9	61.0	94.9	7.2

MODEL: YLAA0080SE	IPLV= 15.1
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	62.9	92.0	7.6	60.1	96.9	7.0	48.9	80.4	6.7
42.0	65.0	92.7	7.8	62.1	97.7	7.1	50.6	80.9	6.9
44.0	67.1	93.4	8.0	64.1	98.4	7.3	52.3	81.4	7.1
45.0	68.2	93.8	8.1	65.2	98.8	7.4	53.2	81.7	7.2
46.0	69.2	94.2	8.2	66.2	99.2	7.5	54.1	82.0	7.3
48.0	71.4	95.0	8.4	68.3	100.0	7.7	55.9	82.6	7.5
50.0	73.7	95.8	8.6	70.5	100.8	7.9	57.8	83.2	7.7

MODEL: YLAA0090SE	IPLV= 15.5
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	73.8	105.7	7.9	70.4	111.2	7.2	48.8	72.0	7.4
42.0	76.3	106.7	8.1	72.8	112.2	7.3	50.6	72.5	7.7
44.0	78.8	107.7	8.3	75.3	113.2	7.5	52.4	73.0	7.9
45.0	80.1	108.2	8.4	76.5	113.7	7.6	53.3	73.3	8.0
46.0	81.4	108.7	8.5	77.7	114.3	7.7	54.2	73.5	8.1
48.0	84.1	109.8	8.7	80.3	115.3	7.9	56.0	74.1	8.3
50.0	86.7	110.9	8.8	71.9	93.6	8.6	57.9	74.7	8.5

MODEL: YLAA0091HE	IPLV= 14.9
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	76.3	96.4	8.6	73.1	101.5	7.9	69.8	107.0	7.2
42.0	78.9	97.1	8.8	75.6	102.2	8.1	72.2	107.7	7.4
44.0	81.6	97.8	9.1	78.2	103.0	8.3	74.7	108.4	7.6
45.0	82.9	98.1	9.2	79.5	103.3	8.4	76.0	108.8	7.7
46.0	84.3	98.5	9.3	80.8	103.7	8.5	77.2	109.2	7.8
48.0	87.0	99.2	9.6	83.4	104.4	8.7	79.8	109.9	8.0
50.0	89.8	100.0	9.8	86.1	105.2	9.0	82.4	110.7	8.2

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
6. The shaded points are certified in accordance with ARI Standard 550/590-98

Ratings - 60 Hz – continued

MODEL: YLAA0101HE

IPLV= 15.4

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	103.5	83.9	13.2	100.8	88.5	12.3	98.1	93.4	11.4	95.2	98.7	10.5	92.3	104.4	9.7	88.8	110.0	8.9
42.0	106.9	84.7	13.5	104.1	89.3	12.6	101.3	94.2	11.7	98.4	99.6	10.8	95.4	105.2	9.9	91.8	110.9	9.1
44.0	110.3	85.6	13.8	107.5	90.2	12.9	104.6	95.1	11.9	101.6	100.4	11.0	98.5	106.1	10.2	94.8	111.8	9.3
45.0	112.1	86.0	14.0	109.2	90.6	13.0	106.3	95.5	12.1	103.2	100.9	11.2	100.1	106.6	10.3	96.3	112.2	9.5
46.0	113.8	86.5	14.1	110.9	91.1	13.2	107.9	96.0	12.2	104.8	101.3	11.3	101.7	107.0	10.4	97.9	112.7	9.6
48.0	117.4	87.4	14.5	114.4	92.0	13.4	111.3	97.0	12.5	108.2	102.3	11.6	104.9	108.0	10.7	101.0	113.6	9.8
50.0	121.1	88.4	14.8	118.0	93.0	13.7	114.8	98.0	12.7	111.5	103.3	11.8	108.2	109.0	10.9	104.2	114.6	10.0

MODEL: YLAA0115SE

IPLV= 14.6

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	120.1	104.1	12.6	117.0	109.6	11.7	113.7	115.6	10.9	110.4	122.0	10.0	106.9	128.7	9.2	102.8	135.3	8.5
42.0	123.9	105.3	12.9	120.7	110.9	12.0	117.4	116.8	11.1	113.9	123.2	10.3	110.4	129.9	9.5	106.2	136.5	8.7
44.0	127.9	106.5	13.2	124.5	112.1	12.2	121.1	118.0	11.3	117.6	124.4	10.5	113.9	131.1	9.7	109.6	137.8	8.9
45.0	129.9	107.1	13.3	126.5	112.7	12.4	123.0	118.6	11.5	119.4	125.0	10.6	115.7	131.8	9.8	111.3	138.4	9.0
46.0	131.8	107.7	13.4	128.4	113.3	12.5	124.9	119.3	11.6	121.2	125.7	10.7	117.5	132.4	9.9	113.0	139.1	9.1
48.0	135.9	108.9	13.7	132.3	114.6	12.7	128.7	120.5	11.8	124.9	127.0	10.9	121.1	133.7	10.1	116.5	140.4	9.3
50.0	140.0	110.2	14.0	136.3	115.9	13.0	132.6	121.9	12.1	128.7	128.3	11.2	124.8	135.1	10.3	120.0	141.8	9.5

MODEL: YLAA0120SE

IPLV= 14.8

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	126.7	106.1	13.1	123.2	111.7	12.1	119.7	117.5	11.3	116.0	123.9	10.4	112.3	130.5	9.6	107.8	137.1	8.8
42.0	130.8	107.3	13.4	127.2	112.9	12.4	123.6	118.8	11.5	119.8	125.2	10.6	115.9	131.9	9.8	111.4	138.4	9.0
44.0	135.0	108.6	13.6	131.3	114.2	12.7	127.5	120.1	11.8	123.6	126.5	10.9	119.7	133.2	10.0	115.0	139.8	9.2
45.0	137.1	109.3	13.8	133.3	114.9	12.8	129.5	120.8	11.9	125.6	127.2	11.0	121.5	133.9	10.1	116.8	140.5	9.3
46.0	139.2	110.0	13.9	135.4	115.6	12.9	131.5	121.5	12.0	127.5	127.9	11.1	123.4	134.6	10.2	118.6	141.2	9.4
48.0	143.4	111.3	14.2	139.5	117.0	13.2	135.6	122.9	12.2	131.4	129.3	11.3	127.3	136.0	10.5	122.3	142.6	9.6
50.0	147.7	112.7	14.4	143.7	118.4	13.4	139.6	124.5	12.4	135.4	130.8	11.5	131.1	137.5	10.7	126.0	144.1	9.8

MODEL: YLAA0135SE

IPLV= 15.4

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	133.9	112.1	12.8	130.4	118.1	11.9	126.8	124.4	11.0	123.1	131.3	10.2	119.3	138.6	9.4	114.8	145.7	8.7
42.0	138.2	113.3	13.1	134.6	119.3	12.2	131.0	125.6	11.3	127.2	132.5	10.5	123.2	139.8	9.7	118.6	147.0	8.9
44.0	142.7	114.5	13.4	139.0	120.5	12.5	135.2	126.9	11.6	131.3	133.8	10.7	127.3	141.1	9.9	122.5	148.2	9.1
45.0	144.9	115.1	13.5	141.2	121.1	12.6	137.3	127.5	11.7	133.4	134.4	10.8	129.3	141.7	10.0	124.4	148.9	9.2
46.0	147.2	115.8	13.7	143.4	121.8	12.7	139.5	128.2	11.8	135.5	135.1	10.9	131.3	142.3	10.1	126.4	149.6	9.3
48.0	151.8	117.1	14.0	147.8	123.1	13.0	143.9	129.5	12.1	139.7	136.4	11.2	135.5	143.7	10.3	130.4	150.9	9.5
50.0	156.4	118.4	14.2	152.4	124.5	13.3	148.2	131.0	12.3	144.0	137.8	11.4	139.7	145.1	10.6	134.4	152.3	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
6. The shaded points are certified in accordance with ARI Standard 550/590-98

MODEL: YLAA0101HE	IPLV= 15.4
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	85.3	115.9	8.1	81.7	122.1	7.4	68.9	106.7	7.1
42.0	88.1	116.8	8.3	84.4	123.0	7.6	71.3	107.3	7.3
44.0	91.1	117.7	8.6	87.2	123.9	7.8	73.8	108.1	7.5
45.0	92.5	118.1	8.7	88.6	124.4	7.9	75.1	108.4	7.6
46.0	94.0	118.6	8.8	90.1	124.9	8.0	76.3	108.8	7.7
48.0	97.0	119.6	9.0	93.0	125.8	8.2	78.9	109.5	7.9
50.0	100.1	120.6	9.2	95.9	126.9	8.4	58.3	69.4	8.8

MODEL: YLAA0115SE	IPLV= 14.6
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	98.6	142.2	7.8	94.3	149.5	7.1	89.9	157.2	6.4
42.0	101.8	143.5	8.0	97.4	150.8	7.3	92.9	158.4	6.6
44.0	105.1	144.8	8.1	100.6	152.1	7.4	95.9	159.7	6.8
45.0	106.8	145.4	8.2	102.2	152.7	7.5	56.5	71.0	8.4
46.0	108.5	146.1	8.3	103.8	153.4	7.6	57.5	71.3	8.5
48.0	111.8	147.4	8.5	107.0	154.7	7.8	59.5	71.7	8.7
50.0	115.2	148.8	8.7	110.3	156.1	8.0	61.6	72.2	9.0

MODEL: YLAA0120SE	IPLV= 14.8
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	103.3	144.0	8.0	98.6	151.2	7.3	93.8	158.8	6.7
42.0	106.7	145.4	8.2	101.9	152.6	7.5	54.8	70.6	8.1
44.0	110.2	146.7	8.4	105.3	154.0	7.7	56.8	71.1	8.4
45.0	111.9	147.4	8.5	107.0	154.7	7.8	57.8	71.3	8.5
46.0	113.7	148.1	8.6	108.6	155.4	7.9	58.8	71.6	8.6
48.0	117.2	149.6	8.8	112.1	156.9	8.1	60.9	72.1	8.9
50.0	120.8	151.1	9.0	115.5	158.4	8.2	63.0	72.6	9.1

MODEL: YLAA0135SE	IPLV= 15.4
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	110.1	153.3	7.9	105.3	161.3	7.2	84.3	124.1	7.4
42.0	113.8	154.6	8.1	108.9	162.6	7.4	87.3	125.0	7.6
44.0	117.5	155.9	8.3	112.5	163.9	7.6	90.3	125.8	7.8
45.0	119.4	156.5	8.4	114.3	164.5	7.7	91.8	126.2	7.9
46.0	121.3	157.2	8.5	116.2	165.2	7.8	93.4	126.6	8.0
48.0	125.2	158.6	8.7	119.9	166.6	8.0	96.5	127.5	8.2
50.0	129.1	160.0	8.9	123.6	168.0	8.2	99.6	128.4	8.4

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
6. The shaded points are certified in accordance with ARI Standard 550/590-98

Ratings - 60 Hz – continued

MODEL: YLAA0150SE

IPLV= 15.2

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	147.8	128.1	12.5	144.0	135.0	11.6	140.0	142.3	10.8	135.9	150.1	10.0	131.7	158.4	9.2	126.7	166.5	8.4
42.0	152.6	129.5	12.8	148.6	136.4	11.9	144.6	143.7	11.0	140.3	151.5	10.2	136.0	159.8	9.4	130.8	168.0	8.7
44.0	157.4	130.9	13.1	153.3	137.8	12.2	149.2	145.1	11.3	144.8	153.0	10.4	140.4	161.3	9.6	135.0	169.5	8.9
45.0	159.9	131.6	13.2	155.7	138.5	12.3	151.5	145.9	11.4	147.1	153.7	10.6	142.6	162.0	9.7	137.2	170.3	9.0
46.0	162.4	132.3	13.4	158.1	139.3	12.4	153.8	146.6	11.5	149.4	154.5	10.7	144.8	162.8	9.9	139.3	171.1	9.1
48.0	167.3	133.8	13.6	163.0	140.8	12.7	158.5	148.2	11.8	154.0	156.0	10.9	149.2	164.4	10.1	143.6	172.6	9.3
50.0	172.4	135.4	13.9	167.9	142.4	12.9	163.3	149.8	12.0	158.6	157.7	11.1	153.8	166.0	10.3	148.0	174.3	9.5

MODEL: YLAA0155SE

IPLV= 15.1

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	151.2	129.4	12.7	147.2	136.2	11.8	143.1	143.5	10.9	138.8	151.3	10.1	134.4	159.5	9.3	129.2	167.7	8.6
42.0	156.1	130.8	13.0	152.0	137.7	12.1	147.7	144.9	11.2	143.3	152.8	10.3	138.8	161.0	9.5	133.4	169.2	8.8
44.0	161.1	132.3	13.3	156.8	139.2	12.3	152.5	146.5	11.4	147.9	154.3	10.6	143.3	162.5	9.8	137.7	170.8	9.0
45.0	163.6	133.0	13.4	159.3	139.9	12.5	154.8	147.2	11.6	150.2	155.1	10.7	145.5	163.3	9.9	139.9	171.5	9.1
46.0	166.1	133.8	13.5	161.7	140.7	12.6	157.2	148.0	11.7	152.6	155.9	10.8	147.8	164.1	10.0	142.1	172.4	9.2
48.0	171.2	135.3	13.8	166.7	142.3	12.8	162.0	149.7	11.9	157.3	157.5	11.0	152.4	165.8	10.2	146.4	174.0	9.4
50.0	172.7	136.0	13.9	171.7	143.9	13.1	166.9	151.4	12.2	162.0	159.2	11.3	157.0	167.5	10.4	151.0	175.7	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
6. The shaded points are certified in accordance with ARI Standard 550/590-98

MODEL: YLAA0150SE	IPLV= 15.2
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	121.5	175.2	7.7	116.2	184.2	7.1	94.6	147.5	7.1
42.0	125.5	176.6	7.9	120.1	185.7	7.2	97.9	148.5	7.3
44.0	129.6	178.1	8.1	124.0	187.2	7.4	101.2	149.6	7.4
45.0	131.6	178.9	8.2	126.0	188.0	7.5	102.8	150.1	7.5
46.0	133.7	179.7	8.3	128.0	188.8	7.6	104.5	150.7	7.6
48.0	137.9	181.3	8.5	132.0	190.4	7.8	107.9	151.8	7.8
50.0	142.1	182.9	8.7	136.1	192.0	7.9	111.4	153.0	8.0

MODEL: YLAA0155SE	IPLV= 15.1
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AIR TEMPERATURE ON - CONDENSER (°F)

LCWT (°F)	105.0			110.0			115.0		
	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER
40.0	123.8	176.2	7.8	118.3	185.2	7.1	95.7	148.0	7.1
42.0	127.9	177.8	8.0	122.3	186.8	7.3	99.1	149.1	7.3
44.0	132.1	179.3	8.2	126.3	188.4	7.5	102.5	150.2	7.5
45.0	134.2	180.1	8.3	128.4	189.2	7.6	104.2	150.8	7.6
46.0	136.3	181.0	8.4	130.4	190.0	7.7	105.9	151.3	7.7
48.0	140.6	182.6	8.6	134.5	191.7	7.9	109.4	152.5	7.9
50.0	144.9	184.4	8.8	118.2	146.4	8.9	112.9	153.7	8.1

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
6. The shaded points are certified in accordance with ARI Standard 550/590-98

Part Load Ratings – Standard Efficiency

YLAA0070SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	66.0	75.8	9.6
83.3	88.3	58.6	56.8	11.1
66.7	80.9	50.5	39.9	13.0
50.0	70.8	39.4	26.6	14.9
33.3	60.0	27.4	15.5	17.5
16.7	55.0	13.7	7.3	18.3

IPLV: 15.1 EER

YLAA0080SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	72.8	84.2	9.6
83.6	88.4	64.8	64.2	11.0
66.7	80.6	55.3	43.5	13.2
50.3	71.0	43.6	29.9	15.0
33.3	59.3	29.5	17.1	17.3
16.9	55.0	15.6	9.0	17.5

IPLV: 15.1 EER

YLAA0090SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	85.8	97.3	9.9
83.6	88.1	76.0	72.5	11.5
49.3	69.3	49.1	31.7	16.0
32.8	59.8	35.5	19.8	18.4
16.4	55.0	16.7	9.3	18.3

IPLV: 15.6 EER

YLAA0115SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	113.9	131.1	9.7
75.0	84.3	93.6	83.9	12.0
50.0	72.0	70.2	45.2	15.3
25.0	55.0	33.3	22.8	16.3

IPLV: 14.6 EER

YLAA0120SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	119.7	133.2	10.0
75.0	83.9	97.6	84.7	12.4
50.0	70.8	71.5	44.8	15.6
25.0	55.0	33.4	22.9	16.3

IPLV: 14.8 EER

YLAA0135SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	127.3	141.1	9.9
75.0	81.3	98.2	75.7	32.2
50.0	67.8	69.5	44.4	16.3
25.0	55.0	35.0	19.5	18.4

IPLV: 15.5 EER

YLAA0150SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	140.4	161.3	9.6
80.0	87.7	123.2	112.7	11.7
60.0	77.1	98.6	73	13.7
40.0	64.5	69.0	43.3	16.6
20.0	55.0	34.7	19.7	18.1

IPLV: 15.2 EER

YLAA0155SE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	143.3	162.5	9.8
80.0	87.5	125.3	113.2	11.9
60.0	76.6	99.3	72.9	13.8
40.0	63.7	68.6	42.9	16.6
20.0	55.0	36.1	20	18.5

IPLV: 15.2 EER

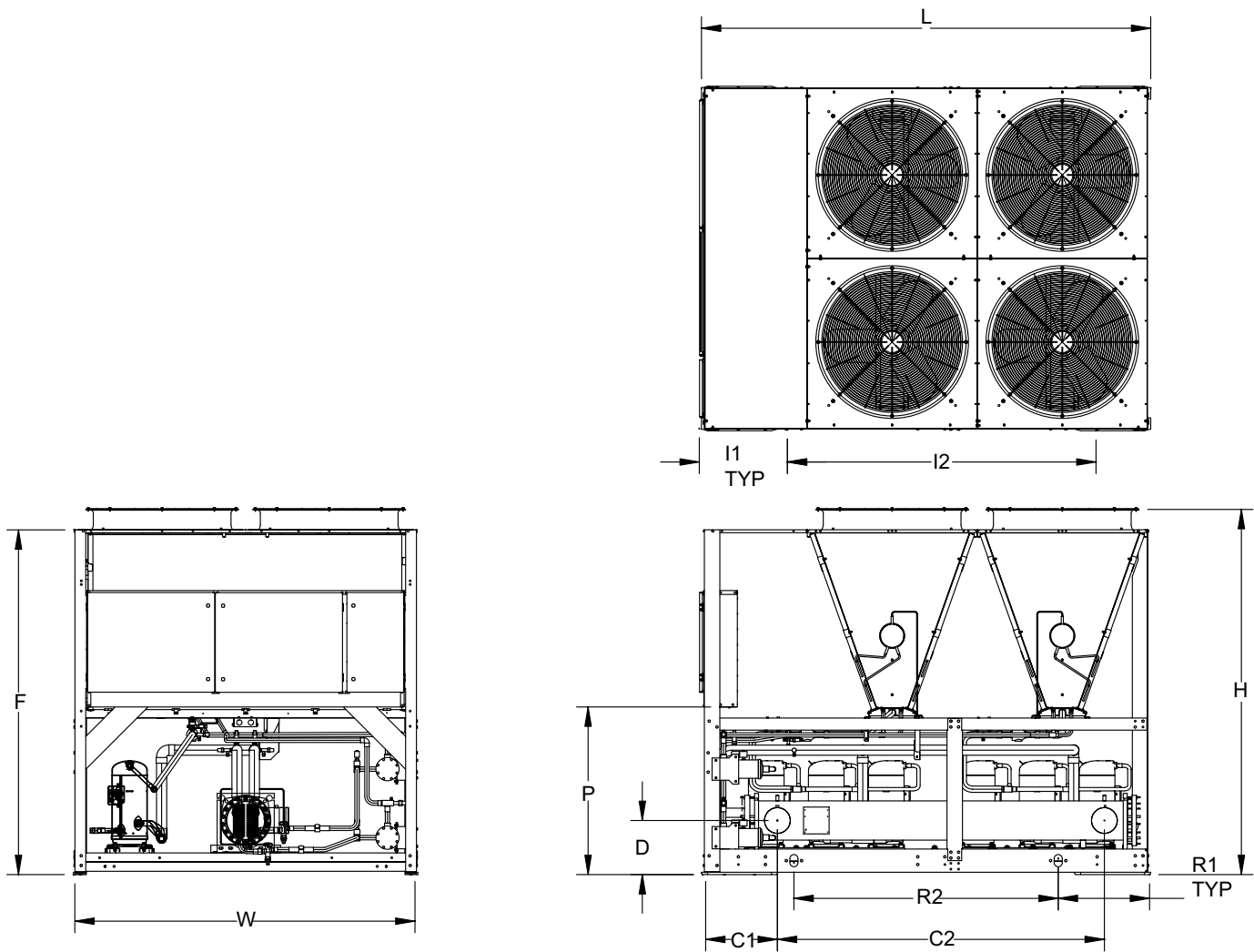
Part Load Ratings – High Efficiency

YLAA0091HE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	88.2	88.2	10.8
83.8	88.3	78.3	67.2	12.2
50.0	70.0	51.5	31.2	14.9
16.2	55.0	16.1	8.9	18.3
IPLV: 14.9 EER				
YLAA0091HE				
% DISPL	AMBIENT DEG °F	TONS	COMP KW	EER
100.0	95.0	98.5	106.1	10.2
86.1	89.4	89.2	82.3	11.6
57.0	75.3	66.1	44.3	14.6
43.0	65.7	50.5	31.5	16.6
13.9	55.0	16.1	9	18.1
IPLV: 15.4 EER				

Physical Data - English

Refrigerant R-410A	Model Number YLAA									
	0070SE	0080SE	0090SE	0091HE	0101HE	0115SE	0120SE	0135SE	0150SE	0155SE
General Unit Data										
Nominal Tons, R-410A	68.0	74.7	86.7	88.1	98.3	112.0	115.6	126.8	140.2	143.1
Length	116.1	116.1	116.1	142.7	142.7	142.7	142.7	187.7	187.7	187.7
Width	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
Height	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2	94.2
Number of Refrigerant Circuits	2	2	2	2	2	2	2	2	2	2
Refrigerant Charge, Operating										
R-410A, ckt1 / ckt2, lbs	42.9/42.9	49.5/42.9	49.5/51.7	51.7/51.7	33.0/70.4	70.4/70.4	70.4/70.4	105.6/51.7	105.6/70.4	105.6/70.4
Oil Charge, ckt1 / ckt2, gallons	2.58 / 2.58	3.28 / 2.58	3.28 / 2.76	2.76 / 2.76	3.28 / 3.33	3.33 / 3.33	3.33 / 3.33	4.99 / 2.76	4.99 / 3.33	4.99 / 3.33
Shipping Weight										
	4112	4541	4949	5334	5569	5644	5921	6803	6958	7152
Operating Weight										
	4450	4948	5435	5762	5997	6072	6473	7260	7415	7705
Compressors, scroll type										
Compressors per circuit	3/3	3/3	3/2	2/2	3/2	2/2	2/2	3/2	3/2	3/2
Compressors per unit	6	6	5	4	5	4	4	5	5	5
Nominal Tons per compressor										
Circuit 1	13	15	15	15/32	15	32	32	32	32	32
Circuit 2	13	13	15/32	15/32	32	32	32	15/32	32	32
Condenser										
Total Face Area ft2	106.9	106.9	106.9	160.3	160.3	160.3	160.3	213.8	213.8	213.8
Number of Rows	1	1	1	1	1	1	1	1	1	1
Fins per Inch	20	20	20	20	20	20	20	20	20	20
Condenser Fans, Low Sound										
Number of Fans, ckt1 / ckt2.	2/2	2/2	2/2	3/3	2/4	3/3	3/3	4/4	4/4	4/4
Fan hp	2	2	2	2	2	2	2	2	2	2
Fan RPM	1160	1160	1160	1160	1160	1160	1160	1160	1160	1160
Total Chiller CFM	62400	62400	62400	93600	93600	93600	93600	124800	124800	124800
Evaporator										
Water Volume, gallons	40	49	58	51	51	51	66	55	55	66
Maximum Water Side Pressure, PSIG	150	150	150	150	150	150	150	150	150	150
Maximum Refrigerant Side Pressure, PSIG	450	450	450	450	450	450	450	450	450	450
Minimum Chiller Water Flow Rate, gpm	60	100	140	100	100	100	150	120	120	150
Maximum Chiller Water Flow Rate, gpm	285	355	625	385	385	385	625	625	625	625
Water Connections Size, inches	6	6	8	6	6	6	8	8	8	8

Dimensions – Four Fan Units

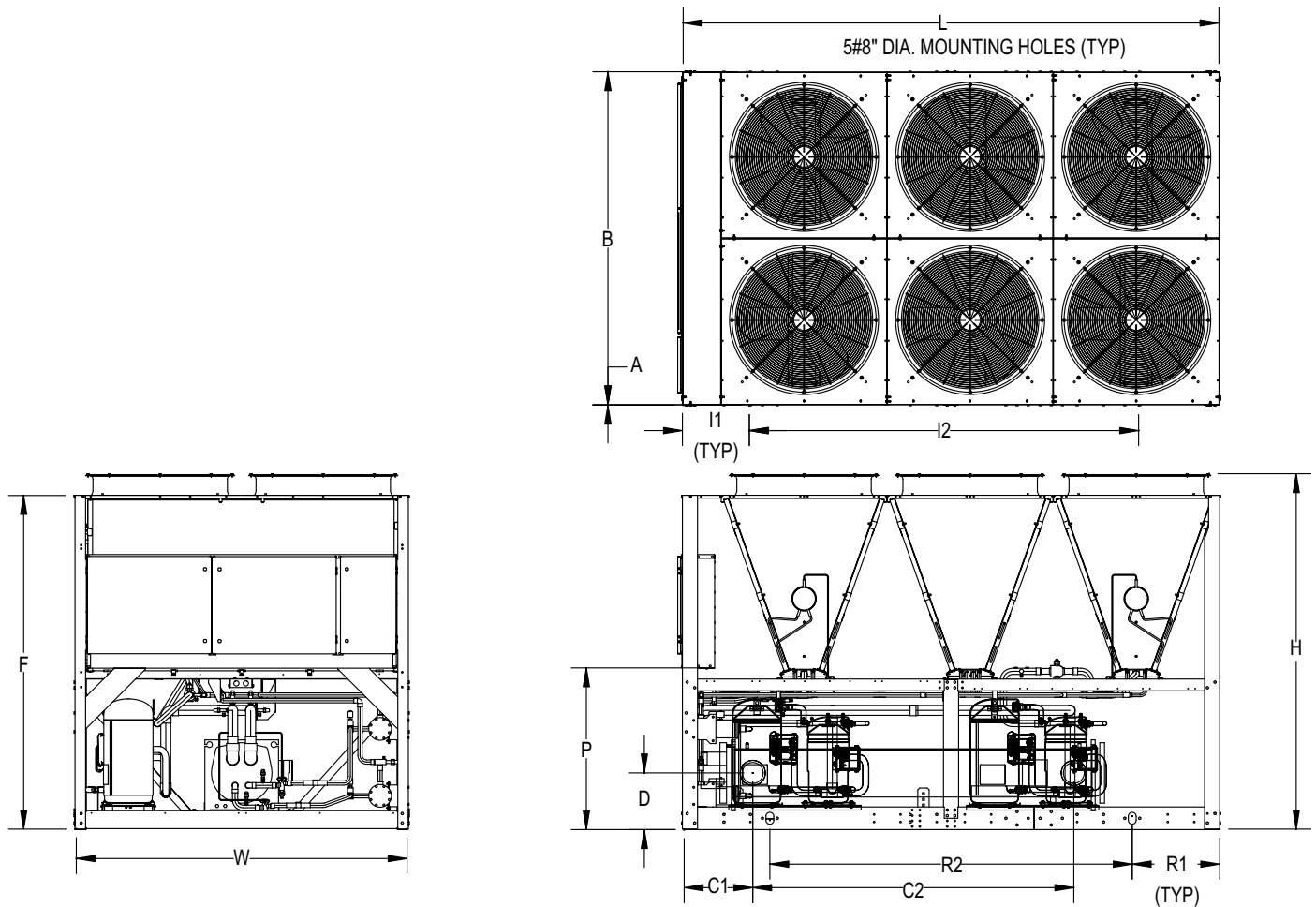


YLAA Model	L (length)	W (width)	H (height)	F	P	D	C1	C2	R2	R1	AVM LOCATIONS					
											I1	I2	I5	I6	A	B
YLAA0070SE	116	88.25	94.2	88.5	42.75	13.4	19	84.5	68.3	23	19.5	76.6	19.5	76.6	1.36	85.5
YLAA0080SE	116	88.25	94.2	88.5	42.75	15	18.6	85	68.3	23	19.5	76.6	19.5	76.6	1.36	85.5
YLAA0090SE	116	88.25	94.2	88.5	42.75	16.25	19.6	83	68.3	23	19.5	76.6	19.5	76.6	1.36	85.5

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.

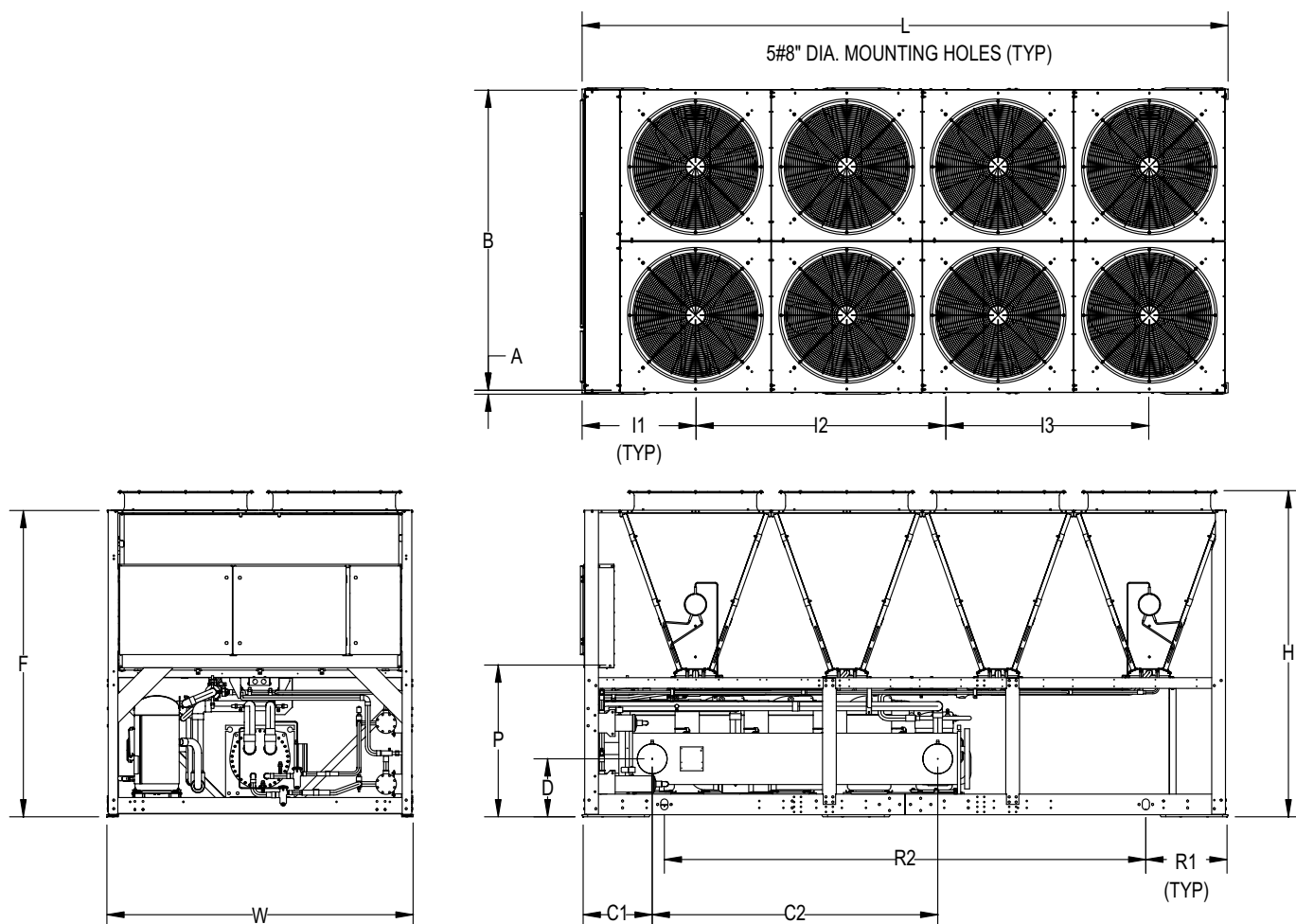
Dimensions – Six Fan Units



YLAA Model	L (length)	W (width)	H (height)	F	P	D	C1	C2	R2	R1
YLAA0091HE	143.5	88.25	94.2	88.5	42.75	15	18.6	85	96	23
YLAA0101HE	143.5	88.25	94.2	88.5	42.75	15	18.6	85	96	23
YLAA0115SE	143.5	88.25	94.2	88.5	42.75	15	18.6	85	96	23
YLAA0120SE	143.5	88.25	94.2	88.5	42.75	17.25	22	102	96	23

YLAA Model	AVM LOCATIONS							
	I1	I2	I3	I5	I6	I7	A	B
YLAA0091HE	7.6	48.5	68.66	7.6	48.5	68.66	1.36	85.5
YLAA0101HE	7.6	48.5	68.66	7.6	48.5	68.66	1.36	85.5
YLAA0115SE	7.6	48.5	68.66	7.6	48.5	68.66	1.36	85.5
YLAA0120SE	7.6	48.5	68.66	7.6	48.5	68.66	1.36	85.5

Dimensions – Eight Fan Units



YLAA Model	L (length)	W (width)	H (height)	F	P	D	C1	C2	R2	R1
YLAA0035SE	187.5	88.25	94.2	88.5	42.75	16.25	19.6	83	140	23
YLAA0150SE	187.5	88.25	94.2	88.5	42.75	16.25	19.6	83	140	23
YLAA0155SE	187.5	88.25	94.2	88.5	42.75	17.25	22	102	140	23

YLAA Model	AVM LOCATIONS									
	I1	I2	I3	I4	I5	I6	I7	I8	A	B
YLAA0035SE	7.6	48.5	64.53	58	7.6	48.5	64.53	58	1.36	85.5
YLAA0150SE	7.6	48.5	64.53	58	7.6	48.5	64.53	58	1.36	85.5
YLAA0155SE	7.6	48.5	64.53	58	7.6	48.5	64.53	58	1.36	85.5

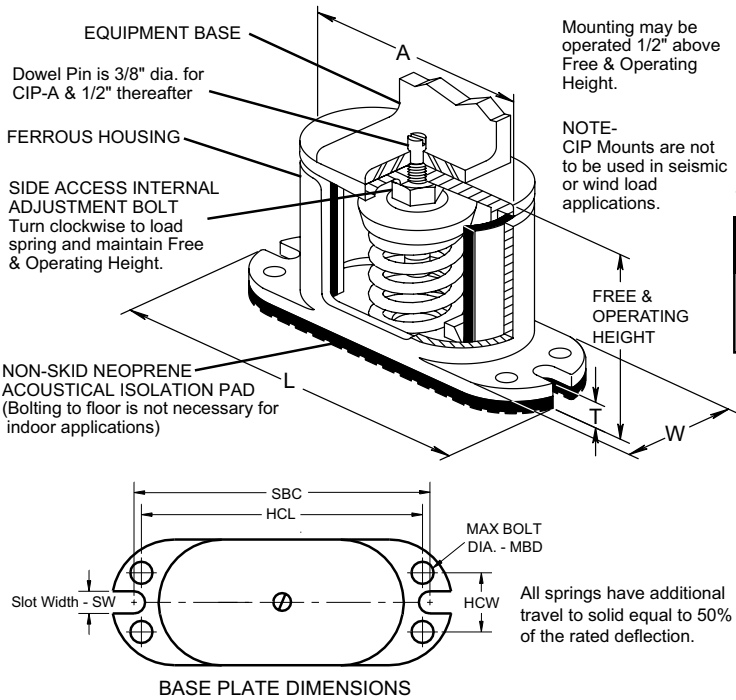
NOTE:

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.

ONE INCH DEFLECTION SPRING ISOLATOR CROSS-REFERENCE

CIP-X-

Illustration shows single spring CIP-B or CIP-C mount.



TYPE CIP DIMENSIONS (inches)†

Size	A	L	T	W	SW	HCL	HCW	MBD	SBC	Free Ht.	Min Ht.
CIP-B	5 3/4	8 1/4	1/2	2 3/4	7/16	6 1/2	1 1/2	3/8	7 1/4	6 1/8	5 1/4
CIP-C	6 5/8	8 7/8	9/16	3 1/2	7/16	7 1/4	1 3/4	3/8	7 7/8	6 3/4	6 3/4

†Casting dimensions may vary ±1/8"

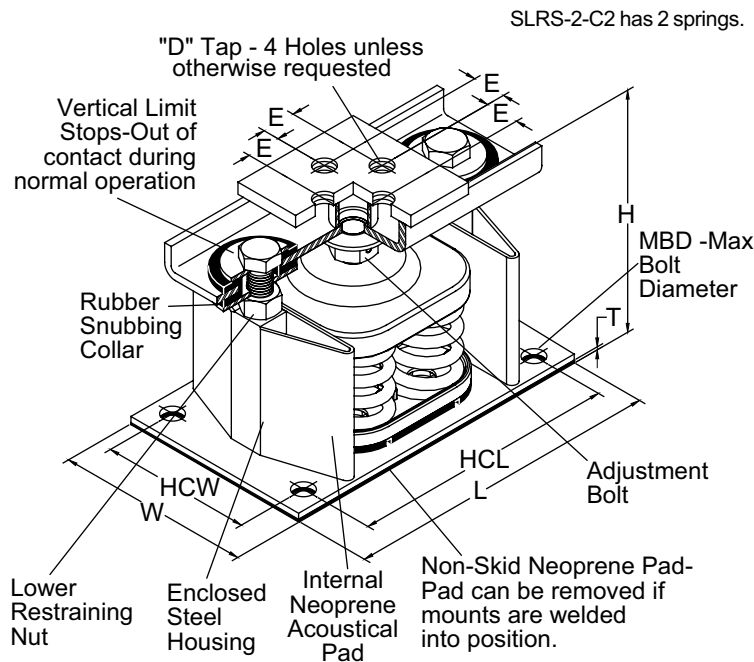
FOR UNITS WITH <u>ALL</u> POINT LOADS LESS THAN 1404 LBS (637 KG)			
Weight Range (lbs)	Weight Range (kg)	Model Number	Color
239 to 384 lbs	108 to 174 kg	CIP-B-	Red
384 to 639 lbs	174 to 290 kg	CIP-B-	White
639 to 851 lbs	290 to 386 kg	CIP-B-	Blue
851 to 1064 lbs	386 to 483 kg	CIP-B-	Gray
1064 to 1404 lbs	483 to 637 kg	CIP-B-	Black

FOR UNITS WITH <u>ANY</u> POINT LOAD ABOVE 1404 LBS (637 KG)			
Weight Range (lbs)	Weight Range (kg)	Model Number	Color
Up to 851 lbs	Up to 386 kg	CIP-C-	Black
851 to 1149 lbs	386 to 521 kg	CIP-C-	Yellow
1149 to 1489 lbs	521 to 675 kg	CIP-C-	Black
1489 to 1786 lbs	675 to 910 kg	CIP-C-	Yellow w/ Red
1786 to 2028 lbs	910 to 920 kg	CIP-C-	Yellow w/ Green
2028 to 2254 lbs	920 to 1022 kg	CIP-C-	Red w/ Red
2254 to 2936 lbs	1022 to 1332 kg	CIP-C-	Red w/ Green

Isolator Details (cont'd)

TWO INCH DEFLECTION, SEISMIC SPRING ISOLATOR CROSS-REFERENCE

SLRS

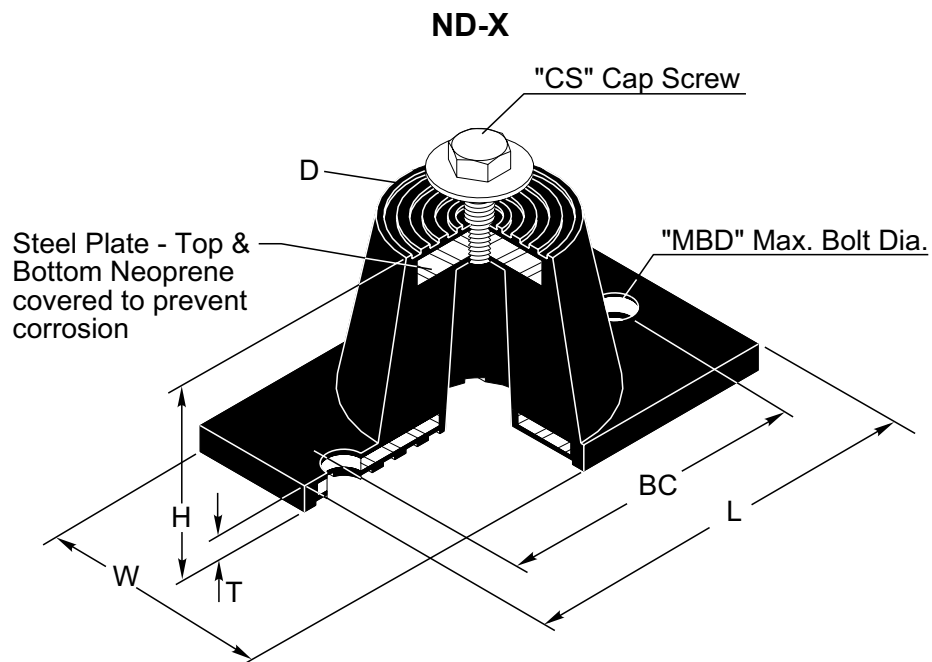


ENGLISH									
SIZE	H	T	D	E	L	HCL	W	HCW	MBD
2-C2	8 1/2	3/8	5/8	1 3/8	14	12 1/4	5 1/4	3 1/2	5/8"

SI									
SIZE	H	T	D	E	L	HCL	W	HCW	MBD
2-C2	215.9	9.5	15.9	34.9	355.6	311.2	133.4	88.9	5/8"

*Weight Range (lbs)	Weight Range (kg)	Model Number	Color
Up to 358 lbs	Up to 162 kg	SLRS-2-C2-	Red
358 to 443 lbs	162 to 201 kg	SLRS-2-C2-	White
443 to 582 lbs	201 to 264 kg	SLRS-2-C2-	Black
582 to 783 lbs	264 to 335 kg	SLRS-2-C2-	Blue
783 to 1038 lbs	335 to 471 kg	SLRS-2-C2-	Green
1038 to 1497 lbs	471 to 679 kg	SLRS-2-C2-	Gray
1497 to 2058 lbs	679 to 933 kg	SLRS-2-C2-	Silver
2058 to 2619 lbs	933 to 1188 kg	SLRS-2-C2-	Gray w/ red
2619 to 3180 lbs	1188 to 1442 kg	SLRS-2-C2-	Silver w/ red

NEOPRENE ISOLATOR CROSS-REFERENCE



ENGLISH								
Size	D	H	L	T	W	BC	CS	MBD
ND-C	2 9/16	2 3/4	5 1/2	1/4	2 5/16	4 1/80	1/2- 13 x 1"	1/2"
ND-D	3 3/8	2 3/4	6 1/4	5/16	4	5	1/2- 13 x 1"	1/2"
ND-DS	3 3/8	2 3/4	6 1/4	5/16	4	5	1/2- 13 x 1"	1/2"
SI								
ND-C	65.1	69.9	139.7	6.4	58.7	101.9	1/2- 13 x 1"	1/2"
ND-D	85.7	69.9	158.8	7.9	101.6	127.0	1/2- 13 x 1"	1/2"
ND-DS	85.7	69.9	158.8	7.9	101.6	127.0	1/2- 13 x 1"	1/2"

Weight Range (lbs)	Weight Range (kg)	Model Number	Color
Up to 751 lbs	Up to 341 kg	ND-C	Yellow
751 to 1651 lbs	341 to 749 kg	ND-D	Yellow
1651 to 3226 lbs	749 to 1463 kg	ND-E	Yellow

Electrical Notes

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 95°F (35°C) 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

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Electrical Data w/o Pumps

Model YLAA	Volts (11)	Freq	Minimum Ckt. Ampacity (MCA)	Min. N/F/ Disconnect Switch	Min. Dual Elem. Fuse	Max Dual Element Fuse Size	Lugs/ Phase (1)	Field Wiring Lugs STD Terminal Block Lug Wire Range	Field Wiring Lugs OPT None Fuse Disconnect Lug Wire Range	Field Wiring Lugs OPT Circuit Breaker Lug Wire Range
0070SE	200	60	287	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	230	60	286	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	380	60	173	200	200	200	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
	460	60	144	200	150	150	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
	575	60	114	150	125	125	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
0080SE	200	60	326	400	350	350	4	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	230	60	325	400	350	350	4	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	380	60	209	250	225	225	2	#4AWG-500kcmil	*250kcmil - 500kcmil	*250kcmil - 500kcmil
	460	60	159	200	175	175	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
	575	60	137	200	150	150	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
0090SE	200	60	365	600	400	400	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	230	60	364	600	400	400	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	380	60	240	400	250	250	2	#4AWG-500kcmil	*250kcmil - 500kcmil	*250kcmil - 500kcmil
	460	60	177	200	200	200	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
	575	60	160	200	175	175	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
0091HE	200	60	398	600	400	400	4	#4AWG-500kcmil	** (2) 250kcmil - 500kcmil	** (2) 250kcmil - 500kcmil
	230	60	396	600	400	400	4	#4AWG-500kcmil	** (2) 250kcmil - 500kcmil	** (2) 250kcmil - 500kcmil
	380	60	254	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	460	60	197	250	200	200	2	#4AWG-500kcmil	6AWG - 350kcmil	6AWG - 350kcmil
	575	60	175	200	175	175	2	#4AWG-500kcmil	4AWG - 300kcmil	4AWG - 300kcmil
0101HE	200	60	451	600	500	500	4	#4AWG-500kcmil	** (2) 250kcmil - 500kcmil	** (2) 250kcmil - 500kcmil
	230	60	449	600	500	500	4	#4AWG-500kcmil	** (2) 250kcmil - 500kcmil	** (2) 250kcmil - 500kcmil
	380	60	290	400	350	350	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	460	60	222	250	250	250	2	#4AWG-500kcmil	*250kcmil - 500kcmil	*250kcmil - 500kcmil
	575	60	198	250	225	225	2	#4AWG-500kcmil	6AWG - 350kcmil	6AWG - 350kcmil
0115SE	200	60	511	600	600	600	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	230	60	510	600	600	600	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	380	60	321	400	350	350	4	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	460	60	255	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	575	60	227	250	250	250	2	#4AWG-500kcmil	*250kcmil - 500kcmil	*250kcmil - 500kcmil
0120SE	200	60	511	600	600	600	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	230	60	510	600	600	600	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	380	60	321	400	350	350	4	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	460	60	255	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	575	60	227	250	250	250	2	#4AWG-500kcmil	*250kcmil - 500kcmil	*250kcmil - 500kcmil
0135SE	200	60	579	800	700	700	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	230	60	577	800	700	700	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	380	60	366	600	400	400	4	#4AWG-500kcmil	** (2) 250kcmil - 500kcmil	** (3) 2/0 - 400kcmil
	460	60	288	400	350	350	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	575	60	256	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
0150SE	200	60	635	800	700	700	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	230	60	634	800	700	700	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	380	60	399	600	450	450	4	#4AWG-500kcmil	** (2) 250kcmil - 500kcmil	** (2) 250kcmil - 500kcmil
	460	60	318	400	350	350	4	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	575	60	282	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
0155SE	200	60	635	800	700	700	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	230	60	634	800	700	700	4	#4AWG-500kcmil	** (3) 2/0 - 400kcmil	** (3) 2/0 - 400kcmil
	380	60	399	600	450	450	4	#4AWG-500kcmil	** (2) 250kcmil - 500kcmil	** (2) 250kcmil - 500kcmil
	460	60	318	400	350	350	4	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil
	575	60	282	400	300	300	2	#4AWG-500kcmil	*(2) 3/0 - 250kcmil	*(2) 3/0 - 250kcmil

NOTE:

* will come with two sets of lugs: 250-500kcmil & (2)3/0-250kcmil

** will come with two sets of lugs: (2)250-500kcmil & (3)2/0-400kcmil

Electrical Data w/ Pumps

CHILLER MODEL YLAA & PUMP	VOLTS	HZ	Pump FLA	SYSTEM #1									SYSTEM #2								
				COMPR 1		COMPR 2		COMPR 3		FAN			COMPR 1		COMPR 2		COMPR 3		FAN		
				RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA
0070 A & K- 5HP	208	60	15.4	41	270	41	270	41	270	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	13.9	41	270	41	270	41	270	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	8.1	25	163	25	163	25	163	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	6.95	21	135	21	135	21	135	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	5.56	16	108	16	108	16	108	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0070 B - 7.5HP	208	60	21.4	41	270	41	270	41	270	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	20.4	41	270	41	270	41	270	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	12	25	163	25	163	25	163	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	10.2	21	135	21	135	21	135	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	8.2	16	108	16	108	16	108	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0070 C - 10HP (1)	208	60	32.2	41	270	41	270	41	270	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	28.4	41	270	41	270	41	270	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	15.4	25	163	25	163	25	163	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	14.2	21	135	21	135	21	135	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	11.4	16	108	16	108	16	108	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0070 D, M & N - 15HP	208	60	41.7	41	270	41	270	41	270	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	36.3	41	270	41	270	41	270	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	22.03	25	163	25	163	25	163	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	18.2	21	135	21	135	21	135	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	14.5	16	108	16	108	16	108	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0070 K - 5HP	208	60	15.4	41	270	41	270	41	270	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	13.9	41	270	41	270	41	270	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	8.1	25	163	25	163	25	163	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	6.95	21	135	21	135	21	135	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	5.56	16	108	16	108	16	108	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0070 L - 10HP (2)	208	60	27.1	41	270	41	270	41	270	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	27.1	41	270	41	270	41	270	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	24.5	25	163	25	163	25	163	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	12.3	21	135	21	135	21	135	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	9.84	16	108	16	108	16	108	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0080 A & K- 5HP	208	60	15.4	53	425	53	425	53	425	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	13.9	53	425	53	425	53	425	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	8.1	36	239	36	239	36	239	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	6.95	25	192	25	192	25	192	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	5.56	23	154	23	154	23	154	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0080 B - 7.5HP	208	60	21.4	53	425	53	425	53	425	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	20.4	53	425	53	425	53	425	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	12	36	239	36	239	36	239	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	10.2	25	192	25	192	25	192	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	8.2	23	154	23	154	23	154	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0080 C - 10HP (1)	208	60	32.2	53	425	53	425	53	425	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	28.4	53	425	53	425	53	425	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	15.4	36	239	36	239	36	239	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	14.2	25	192	25	192	25	192	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	11.4	23	154	23	154	23	154	2	2.9	15	16	108	16	108	16	108	2	2.9	15

MINIMUM CIRCUIT AMPS	MIN REC WIRE GA 75°C, CU	Min Ckt Amps (derated, 0.82)	MIN REC WIRE GA 75°C, CU	MIN N/F DISC SW	MIN DUAL ELEM FUSE	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	NFDS Lug Range
303	350 MCM	369	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
300	350 MCM	366	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
181	3/0 AWG	221	4/0 AWG	250	200	225	225	225	6AWG - 350kcmil
151	2/0 AWG	185	3/0 AWG	200	175	175	175	175	4AWG - 300kcmil
120	# 1 AWG	146	1/0 AWG	150	125	150	150	150	4AWG - 300kcmil
309	350 MCM	376	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
307	350 MCM	374	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
185	3/0 AWG	226	4/0 AWG	250	200	225	225	225	6AWG - 350kcmil
155	2/0 AWG	189	3/0 AWG	200	175	200	200	200	4AWG - 300kcmil
123	# 1 AWG	149	1/0 AWG	150	150	150	150	150	4AWG - 300kcmil
319	400 MCM	390	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
315	400 MCM	384	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
189	3/0 AWG	230	250 MCM	250	200	225	225	225	6AWG - 350kcmil
159	2/0 AWG	193	3/0 AWG	200	175	200	200	200	4AWG - 300kcmil
126	# 1 AWG	153	2/0 AWG	150	150	150	150	150	4AWG - 300kcmil
329	400 MCM	401	(2) 4/0 AWG	400	350	400	400	400	(2) 250kcmil - 500kcmil
323	400 MCM	394	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
195	3/0 AWG	238	250 MCM	250	225	225	225	225	6AWG - 350kcmil
163	2/0 AWG	198	3/0 AWG	200	175	200	200	200	4AWG - 300kcmil
129	# 1 AWG	157	2/0 AWG	150	150	150	150	150	4AWG - 300kcmil
303	350 MCM	369	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
300	350 MCM	366	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
181	3/0 AWG	221	4/0 AWG	250	200	225	225	225	4AWG - 300kcmil
151	2/0 AWG	185	3/0 AWG	200	175	175	175	175	4AWG - 300kcmil
120	# 1 AWG	146	1/0 AWG	150	125	150	150	150	2AWG - 4/0
314	400 MCM	383	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
314	400 MCM	382	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
198	3/0 AWG	241	250 MCM	250	225	225	225	225	6AWG - 350kcmil
157	2/0 AWG	191	3/0 AWG	200	175	200	200	200	4AWG - 300kcmil
124	# 1 AWG	151	2/0 AWG	150	150	150	150	150	4AWG - 300kcmil
341	500 MCM	416	(2) 4/0 AWG	400	400	400	400	400	(2) 3/0 - 250kcmil
339	500 MCM	413	(2) 4/0 AWG	400	400	400	400	400	(2) 3/0 - 250kcmil
218	4/0 AWG	265	300 MCM	250	250	300	300	300	250kcmil - 500kcmil
166	2/0 AWG	203	4/0 AWG	200	175	200	200	200	4AWG - 300kcmil
142	1/0 AWG	173	2/0 AWG	200	150	175	175	175	4AWG - 300kcmil
347	500 MCM	423	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
345	500 MCM	421	(2) 4/0 AWG	400	400	400	400	400	(2) 3/0 - 250kcmil
221	4/0 AWG	270	300 MCM	250	250	300	300	300	250kcmil - 500kcmil
169	2/0 AWG	207	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
145	1/0 AWG	177	3/0 AWG	200	175	175	175	175	4AWG - 300kcmil
358	500 MCM	436	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
353	500 MCM	431	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
225	4/0 AWG	274	300 MCM	250	250	300	300	300	250kcmil - 500kcmil
173	2/0 AWG	211	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
148	1/0 AWG	181	3/0 AWG	200	175	175	175	175	4AWG - 300kcmil

Electrical Data w/ Pumps – continued

CHILLER MODEL YLAA & PUMP	VOLTS	HZ	Pump FLA	SYSTEM #1									SYSTEM #2								
				COMPR 1		COMPR 2		COMPR 3		FAN			COMPR 1		COMPR 2		COMPR 3		FAN		
				RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA
0080 D, M & N - 15HP	208	60	41.7	53	425	53	425	53	425	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	36.3	53	425	53	0	53	425	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	22.03	36	239	36	425	36	239	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	18.2	25	192	25	239	25	192	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	14.5	23	154	23	221	23	154	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0080 K - 5HP	208	60	15.4	53	425	53	425	53	425	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	13.9	53	425	53	425	53	425	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	8.1	36	239	36	239	36	239	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	6.95	25	192	25	192	25	192	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	5.56	23	154	23	154	23	154	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0080 L - 10HP (2)	208	60	27.1	53	425	53	425	53	425	2	7.6	31	41	270	41	270	41	270	2	7.6	31
	230	60	27.1	53	425	53	425	53	425	2	7.4	37	41	270	41	270	41	270	2	7.4	37
	380	60	24.5	36	239	36	239	36	239	2	4.5	22	25	163	25	163	25	163	2	4.5	22
	460	60	12.3	25	192	25	192	25	192	2	4.0	19	21	135	21	135	21	135	2	4.0	19
	575	60	9.84	23	154	23	154	23	154	2	2.9	15	16	108	16	108	16	108	2	2.9	15
0090 A & K - 5HP	208	60	15.4	53	425	53	425	53	425	2	7.6	31	109	599	53	425			2	7.6	31
	230	60	13.9	53	425	53	425	53	425	2	7.4	37	109	599	53	425			2	7.4	37
	380	60	8.1	36	239	36	239	36	239	2	4.5	22	69	358	36	239			2	4.5	22
	460	60	6.95	25	192	25	192	25	192	2	4.0	19	54	310	25	192			2	4.0	19
	575	60	5.56	23	154	23	154	23	154	2	2.9	15	49	239	23	154			2	2.9	15
0090 B - 7.5HP	208	60	21.4	53	425	53	425	53	425	2	7.6	31	109	599	53	425			2	7.6	31
	230	60	20.4	53	425	53	425	53	425	2	7.4	37	109	599	53	425			2	7.4	37
	380	60	12	36	239	36	239	36	239	2	4.5	22	69	358	36	239			2	4.5	22
	460	60	10.2	25	192	25	192	25	192	2	4.0	19	54	310	25	192			2	4.0	19
	575	60	8.2	23	154	23	154	23	154	2	2.9	15	49	239	23	154			2	2.9	15
0090 D, M & N - 15HP	208	60	41.7	53	425	53	425	53	425	2	7.6	31	109	599	53	425			2	7.6	31
	230	60	36.3	53	425	53	425	53	425	2	7.4	37	109	599	53	425			2	7.4	37
	380	60	22.03	36	239	36	239	36	239	2	4.5	22	69	358	36	239			2	4.5	22
	460	60	18.2	25	192	25	192	25	192	2	4.0	19	54	310	25	192			2	4.0	19
	575	60	14.5	23	154	23	154	23	154	2	2.9	15	49	239	23	154			2	2.9	15
0090 E - 20HP	208	60	54.7	53	425	53	425	53	425	2	7.6	31	109	599	53	425			2	7.6	31
	230	60	49.5	53	425	53	425	53	425	2	7.4	37	109	599	53	425			2	7.4	37
	380	60	29.1	36	239	36	239	36	239	2	4.5	22	69	358	36	239			2	4.5	22
	460	60	24.8	25	192	25	192	25	192	2	4.0	19	54	310	25	192			2	4.0	19
	575	60	19.84	23	154	23	154	23	154	2	2.9	15	49	239	23	154			2	2.9	15
0090 K - 5HP	208	60	15.4	53	425	53	425	53	425	2	7.6	31	109	599	53	425			2	7.6	31
	230	60	13.9	53	425	53	425	53	425	2	7.4	37	109	599	53	425			2	7.4	37
	380	60	8.1	36	239	36	239	36	239	2	4.5	22	69	358	36	239			2	4.5	22
	460	60	6.95	25	192	25	192	25	192	2	4.0	19	54	310	25	192			2	4.0	19
	575	60	5.56	23	154	23	154	23	154	2	2.9	15	49	239	23	154			2	2.9	15

MINIMUM CIRCUIT AMPS	MIN REC WIRE GA 75°C, CU	Min Ckt Amps (derated, 0.82)	MIN REC WIRE GA 75°C, CU	MIN N/F DISC SW	MIN DUAL ELEM FUSE	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	NFDS Lug Range
367	500 MCM	448	(2) 4/0 AWG	600	400	450	450	450	(2) 250kcmil - 500kcmil
361	500 MCM	440	(2) 4/0 AWG	600	400	450	450	450	(2) 250kcmil - 500kcmil
232	250 MCM	282	300 MCM	400	250	300	300	300	250kcmil - 500kcmil
177	3/0 AWG	216	4/0 AWG	200	200	225	225	225	4AWG - 300kcmil
151	2/0 AWG	184	3/0 AWG	200	175	175	175	175	4AWG - 300kcmil
341	500 MCM	416	(2) 4/0 AWG	400	400	400	400	400	(2) 250kcmil - 500kcmil
339	500 MCM	413	(2) 4/0 AWG	400	400	400	400	400	(2) 250kcmil - 500kcmil
218	4/0 AWG	265	300 MCM	250	250	300	300	300	250kcmil - 500kcmil
166	2/0 AWG	203	4/0 AWG	200	175	200	200	200	4AWG - 300kcmil
142	1/0 AWG	173	2/0 AWG	200	150	175	175	175	4AWG - 300kcmil
353	500 MCM	430	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
352	500 MCM	429	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
234	250 MCM	285	350 MCM	400	250	300	300	300	250kcmil - 500kcmil
171	2/0 AWG	209	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
146	1/0 AWG	179	3/0 AWG	200	175	175	175	175	4AWG - 300kcmil
380	600 MCM	464	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
378	500 MCM	461	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
248	250 MCM	303	350 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
184	3/0 AWG	224	4/0 AWG	250	200	225	225	225	6AWG - 350kcmil
165	2/0 AWG	202	4/0 AWG	200	175	200	200	200	4AWG - 300kcmil
386	600 MCM	471	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
384	600 MCM	469	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
252	250 MCM	307	350 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
187	3/0 AWG	228	4/0 AWG	250	200	225	225	225	6AWG - 350kcmil
168	2/0 AWG	205	4/0 AWG	200	175	200	200	200	4AWG - 300kcmil
406	(2) 4/0 AWG	496	(2) 250 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
400	(2) 4/0 AWG	488	(2) 250 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
262	300 MCM	320	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
195	3/0 AWG	238	250 MCM	250	225	225	225	225	6AWG - 350kcmil
174	2/0 AWG	213	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
419	(2) 4/0 AWG	512	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
413	(2) 4/0 AWG	504	(2) 250 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
269	300 MCM	328	400 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
202	4/0 AWG	246	250 MCM	250	225	250	250	250	6AWG - 350kcmil
180	3/0 AWG	219	4/0 AWG	200	200	225	225	225	4AWG - 300kcmil
380	600 MCM	464	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
378	500 MCM	461	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
248	250 MCM	303	350 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
184	3/0 AWG	224	4/0 AWG	250	200	225	225	225	4AWG - 300kcmil
165	2/0 AWG	202	4/0 AWG	200	175	200	200	200	4AWG - 300kcmil

Electrical Data w/ Pumps – continued

CHILLER MODEL YLAA & PUMP	VOLTS	HZ	Pump FLA	SYSTEM #1									SYSTEM #2								
				COMPR 1		COMPR 2		COMPR 3		FAN			COMPR 1		COMPR 2		COMPR 3		FAN		
				RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA
0090 L - 10HP (2)	208	60	27.1	53	425	53	425	53	425	2	7.6	31	109	599	53	425			2	7.6	31
	230	60	27.1	53	425	53	425	53	425	2	7.4	37	109	599	53	425			2	7.4	37
	380	60	24.5	36	239	36	239	36	239	2	4.5	22	69	358	36	239			2	4.5	22
	460	60	12.3	25	192	25	192	25	192	2	4.0	19	54	310	25	192			2	4.0	19
	575	60	9.84	23	154	23	154	23	154	2	2.9	15	49	239	23	154			2	2.9	15
0091 A & K - 5HP	208	60	15.4	109	599	53	425			3	7.6	31	109	599	53	425			3	7.6	31
	230	60	13.9	109	599	53	425			3	7.4	37	109	599	53	425			3	7.4	37
	380	60	8.1	69	358	36	239			3	4.5	22	69	358	36	239			3	4.5	22
	460	60	6.95	54	310	25	192			3	4.0	19	54	310	25	192			3	4.0	19
	575	60	5.56	49	239	23	154			3	2.9	15	49	239	23	154			3	2.9	15
0091 B - 7.5HP	208	60	21.4	109	599	53	425			3	7.6	31	109	599	53	425			3	7.6	31
	230	60	20.4	109	599	53	425			3	7.4	37	109	599	53	425			3	7.4	37
	380	60	12	69	358	36	239			3	4.5	22	69	358	36	239			3	4.5	22
	460	60	10.2	54	310	25	192			3	4.0	19	54	310	25	192			3	4.0	19
	575	60	8.2	49	239	23	154			3	2.9	15	49	239	23	154			3	2.9	15
0091 D, M & N - 15HP	208	60	41.7	109	599	53	425			3	7.6	31	109	599	53	425			3	7.6	31
	230	60	36.3	109	599	53	425			3	7.4	37	109	599	53	425			3	7.4	37
	380	60	22.03	69	358	36	239			3	4.5	22	69	358	36	239			3	4.5	22
	460	60	18.2	54	310	25	192			3	4.0	19	54	310	25	192			3	4.0	19
	575	60	14.5	49	239	23	154			3	2.9	15	49	239	23	154			3	2.9	15
0091 E - 20HP	208	60	54.7	109	599	53	425			3	7.6	31	109	599	53	425			3	7.6	31
	230	60	49.5	109	599	53	425			3	7.4	37	109	599	53	425			3	7.4	37
	380	60	29.1	69	358	36	239			3	4.5	22	69	358	36	239			3	4.5	22
	460	60	24.8	54	310	25	192			3	4.0	19	54	310	25	192			3	4.0	19
	575	60	19.84	49	239	23	154			3	2.9	15	49	239	23	154			3	2.9	15
0091 K - 5HP	208	60	15.4	109	599	53	425			3	7.6	31	109	599	53	425			3	7.6	31
	230	60	13.9	109	599	53	425			3	7.4	37	109	599	53	425			3	7.4	37
	380	60	8.1	69	358	36	239			3	4.5	22	69	358	36	239			3	4.5	22
	460	60	6.95	54	310	25	192			3	4.0	19	54	310	25	192			3	4.0	19
	575	60	5.56	49	239	23	154			3	2.9	15	49	239	23	154			3	2.9	15
0091 L - 10HP (2)	208	60	27.1	109	599	53	425			3	7.6	31	109	599	53	425			3	7.6	31
	230	60	27.1	109	599	53	425			3	7.4	37	109	599	53	425			3	7.4	37
	380	60	24.5	69	358	36	239			3	4.5	22	69	358	36	239			3	4.5	22
	460	60	12.3	54	310	25	192			3	4.0	19	54	310	25	192			3	4.0	19
	575	60	9.84	49	239	23	154			3	2.9	15	49	239	23	154			3	2.9	15
0101 B & F - 7.5HP	208	60	21.4	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	20.4	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	12	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	10.2	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	8.2	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15

MINIMUM CIRCUIT AMPS	MIN REC WIRE GA 75°C, CU	Min Ckt Amps (derated, 0.82)	MIN REC WIRE GA 75°C, CU	MIN N/F DISC SW	MIN DUAL ELEM FUSE	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	NFDS Lug Range
392	600 MCM	478	(2) 250 MCM	600	450	450	450	450	(2) 250kcmil - 500kcmil
391	600 MCM	477	(2) 250 MCM	600	450	450	450	450	(2) 250kcmil - 500kcmil
264	300 MCM	323	400 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
189	3/0 AWG	231	250 MCM	250	200	225	225	225	6AWG - 350kcmil
170	2/0 AWG	207	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
413	(2) 4/0 AWG	504	(2) 250 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
410	(2) 4/0 AWG	500	(2) 250 MCM	600	450	450	450	450	(2) 250kcmil - 500kcmil
263	300 MCM	320	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
204	4/0 AWG	248	250 MCM	250	225	225	225	225	6AWG - 350kcmil
180	3/0 AWG	220	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
419	(2) 4/0 AWG	511	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
417	(2) 4/0 AWG	508	(2) 250 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
266	300 MCM	325	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
207	4/0 AWG	252	250 MCM	250	225	225	225	225	6AWG - 350kcmil
183	3/0 AWG	223	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
439	(2) 4/0 AWG	536	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
433	(2) 4/0 AWG	528	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
276	300 MCM	337	500 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
215	4/0 AWG	262	300 MCM	250	225	250	250	250	6AWG - 350kcmil
189	3/0 AWG	231	250 MCM	250	200	225	225	225	6AWG - 350kcmil
452	(2) 4/0 AWG	552	(2) 300 MCM	600	500	500	500	500	(2) 250kcmil - 500kcmil
446	(2) 4/0 AWG	544	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
284	300 MCM	346	500 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
221	4/0 AWG	270	300 MCM	250	225	250	250	250	6AWG - 350kcmil
195	3/0 AWG	237	250 MCM	250	200	225	225	225	6AWG - 350kcmil
413	(2) 4/0 AWG	504	(2) 250 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
410	(2) 4/0 AWG	500	(2) 250 MCM	600	450	450	450	450	(2) 250kcmil - 500kcmil
263	300 MCM	320	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
204	4/0 AWG	248	250 MCM	250	225	225	225	225	6AWG - 350kcmil
180	3/0 AWG	220	4/0 AWG	200	200	200	200	200	4AWG - 300kcmil
425	(2) 4/0 AWG	518	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
424	(2) 4/0 AWG	517	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
279	300 MCM	340	500 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
209	4/0 AWG	255	250 MCM	250	225	250	250	250	6AWG - 350kcmil
185	3/0 AWG	225	4/0 AWG	200	200	225	225	225	4AWG - 300kcmil
472	(2) 250 MCM	576	(2) 300 MCM	600	500	600	600	600	(2) 250kcmil - 500kcmil
470	(2) 250 MCM	573	(2) 300 MCM	600	500	600	600	600	(2) 250kcmil - 500kcmil
302	350 MCM	369	500 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
232	250 MCM	283	300 MCM	400	250	300	300	300	250kcmil - 500kcmil
206	4/0 AWG	252	250 MCM	250	225	300	300	300	6AWG - 350kcmil

Electrical Data w/ Pumps – continued

CHILLER MODEL YLAA & PUMP	VOLTS	HZ	Pump FLA	SYSTEM #1									SYSTEM #2								
				COMPR 1		COMPR 2		COMPR 3		FAN			COMPR 1		COMPR 2		COMPR 3		FAN		
				RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA
0101 B - 7.5HP	208	60	21.4	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	20.4	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	12	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	10.2	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	8.2	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15
0101 D & O - 15HP	208	60	41.7	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	36.3	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	22.03	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	18.2	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	14.5	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15
0101 E & P - 20HP	208	60	54.7	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	49.5	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	29.1	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	24.8	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	19.84	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15
0101 K- 5HP	208	60	15.4	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	13.9	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	8.1	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	6.95	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	5.56	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15
0101 L - 10HP (2)	208	60	27.1	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	27.1	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	24.5	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	12.3	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	9.84	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15
0101 O - 15HP	208	60	41.7	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	36.3	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	22.03	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	18.2	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	14.5	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15
0101 P - 20HP	208	60	54.7	53	425	53	425	53	425	2	7.6	31	109	599	109	599			4	7.6	31
	230	60	49.5	53	425	53	425	53	425	2	7.4	37	109	599	109	599			4	7.4	37
	380	60	29.1	36	239	36	239	36	239	2	4.5	22	69	358	69	358			4	4.5	22
	460	60	24.8	25	192	25	192	25	192	2	4.0	19	54	310	54	310			4	4.0	19
	575	60	19.84	23	154	23	154	23	154	2	2.9	15	49	239	49	239			4	2.9	15
0115 0120 F - 7.5HP	208	60	21.4	109	599	109	599			3	7.6	31	109	599	109	599			3	7.6	31
	230	60	20.4	109	599	109	599			3	7.4	37	109	599	109	599			3	7.4	37
	380	60	12	69	358	69	358			3	4.5	22	69	358	69	358			3	4.5	22
	460	60	10.2	54	310	54	310			3	4.0	19	54	310	54	310			3	4.0	19
	575	60	8.2	49	239	49	239			3	2.9	15	49	239	49	239			3	2.9	15

MINIMUM CIRCUIT AMPS	MIN REC WIRE GA 75°C, CU	Min Ckt Amps (derated, 0.82)	MIN REC WIRE GA 75°C, CU	MIN N/F DISC SW	MIN DUAL ELEM FUSE	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	NFDS Lug Range
472	(2) 250 MCM	576	(2) 300 MCM	600	500	600	600	600	(2) 250kcmil - 500kcmil
470	(2) 250 MCM	573	(2) 300 MCM	600	500	600	600	600	(2) 250kcmil - 500kcmil
302	350 MCM	369	500 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
232	250 MCM	283	300 MCM	400	250	300	300	300	250kcmil - 500kcmil
206	4/0 AWG	252	250 MCM	250	225	300	300	300	250kcmil - 500kcmil
492	(2) 250 MCM	600	(2) 350 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
486	(2) 250 MCM	592	(2) 350 MCM	600	600	600	600	600	(2) 250kcmil - 500kcmil
312	400 MCM	381	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
240	250 MCM	293	350 MCM	400	300	300	300	300	250kcmil - 500kcmil
213	4/0 AWG	259	300 MCM	250	225	300	300	300	6AWG - 350kcmil
505	(2) 250 MCM	616	(2) 350 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
499	(2) 250 MCM	608	(2) 350 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
320	400 MCM	390	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
246	250 MCM	301	350 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
218	4/0 AWG	266	300 MCM	250	250	300	300	300	6AWG - 350kcmil
466	(2) 250 MCM	568	(2) 300 MCM	600	500	600	600	600	(2) 250kcmil - 500kcmil
463	(2) 250 MCM	565	(2) 300 MCM	600	500	600	600	600	(2) 250kcmil - 500kcmil
299	350 MCM	364	500 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
229	4/0 AWG	279	300 MCM	250	250	300	300	300	250kcmil - 500kcmil
204	4/0 AWG	248	250 MCM	250	225	300	300	300	6AWG - 350kcmil
478	(2) 250 MCM	583	(2) 300 MCM	600	600	600	600	600	(2) 250kcmil - 500kcmil
477	(2) 250 MCM	581	(2) 300 MCM	600	600	600	600	600	(2) 250kcmil - 500kcmil
315	400 MCM	384	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
234	250 MCM	285	350 MCM	400	250	300	300	300	250kcmil - 500kcmil
208	4/0 AWG	254	250 MCM	250	225	300	300	300	6AWG - 350kcmil
492	(2) 250 MCM	600	(2) 350 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
486	(2) 250 MCM	592	(2) 350 MCM	600	600	600	600	600	(3) 2/0 - 400kcmil
312	400 MCM	381	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
240	250 MCM	293	350 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
213	4/0 AWG	259	300 MCM	250	225	300	300	300	250kcmil - 500kcmil
505	(2) 250 MCM	616	(2) 350 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
499	(2) 250 MCM	608	(2) 350 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
320	400 MCM	390	600 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil
246	250 MCM	301	350 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
218	4/0 AWG	266	300 MCM	250	250	300	300	300	250kcmil - 500kcmil
532	(2) 300 MCM	649	(2) 400 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
530	(2) 300 MCM	646	(2) 400 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
333	400 MCM	406	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
265	300 MCM	324	400 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
235	250 MCM	287	350 MCM	400	250	300	300	300	250kcmil - 500kcmil

Electrical Data w/ Pumps – continued

CHILLER MODEL YLAA & PUMP	VOLTS	HZ	Pump FLA	SYSTEM #1									SYSTEM #2								
				COMPR 1		COMPR 2		COMPR 3		FAN			COMPR 1		COMPR 2		COMPR 3		FAN		
				RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA
0115 0120 C - 10HP (1)	208	60	32.2	109	599	109	599			3	7.6	31	109	599	109	599			3	7.6	31
	230	60	28.4	109	599	109	599			3	7.4	37	109	599	109	599			3	7.4	37
	380	60	15.4	69	358	69	358			3	4.5	22	69	358	69	358			3	4.5	22
	460	60	14.2	54	310	54	310			3	4.0	19	54	310	54	310			3	4.0	19
	575	60	11.4	49	239	49	239			3	2.9	15	49	239	49	239			3	2.9	15
0115 0120 D, M & O - 15HP	208	60	41.7	109	599	109	599			3	7.6	31	109	599	109	599			3	7.6	31
	230	60	36.3	109	599	109	599			3	7.4	37	109	599	109	599			3	7.4	37
	380	60	22.03	69	358	69	358			3	4.5	22	69	358	69	358			3	4.5	22
	460	60	18.2	54	310	54	310			3	4.0	19	54	310	54	310			3	4.0	19
	575	60	14.5	49	239	49	239			3	2.9	15	49	239	49	239			3	2.9	15
0115 0120 E & P - 20HP	208	60	54.7	109	599	109	599			3	7.6	31	109	599	109	599			3	7.6	31
	230	60	49.5	109	599	109	599			3	7.4	37	109	599	109	599			3	7.4	37
	380	60	29.1	69	358	69	358			3	4.5	22	69	358	69	358			3	4.5	22
	460	60	24.8	54	310	54	310			3	4.0	19	54	310	54	310			3	4.0	19
	575	60	19.84	49	239	49	239			3	2.9	15	49	239	49	239			3	2.9	15
0115 0120 K - 5HP	208	60	15.4	109	599	109	599			3	7.6	31	109	599	109	599			3	7.6	31
	230	60	13.9	109	599	109	599			3	7.4	37	109	599	109	599			3	7.4	37
	380	60	8.1	69	358	69	358			3	4.5	22	69	358	69	358			3	4.5	22
	460	60	6.95	54	310	54	310			3	4.0	19	54	310	54	310			3	4.0	19
	575	60	5.56	49	239	49	239			3	2.9	15	49	239	49	239			3	2.9	15
0115 0120 O - 15HP	208	60	41.7	109	599	109	599			3	7.6	31	109	599	109	599			3	7.6	31
	230	60	36.3	109	599	109	599			3	7.4	37	109	599	109	599			3	7.4	37
	380	60	22.03	69	358	69	358			3	4.5	22	69	358	69	358			3	4.5	22
	460	60	18.2	54	310	54	310			3	4.0	19	54	310	54	310			3	4.0	19
	575	60	14.5	49	239	49	239			3	2.9	15	49	239	49	239			3	2.9	15
0135 F - 7.5HP	208	60	21.4	109	599	109	599	109	599	4	7.6	31	109	599	53	425			4	7.6	31
	230	60	20.4	109	599	109	599	109	599	4	7.4	37	109	599	53	425			4	7.4	37
	380	60	12	69	358	69	358	69	358	4	4.5	22	69	358	36	239			4	4.5	22
	460	60	10.2	54	310	54	310	54	310	4	4.0	19	54	310	25	192			4	4.0	19
	575	60	8.2	49	239	49	239	49	239	4	2.9	15	49	239	23	154			4	2.9	15
0135 C - 10HP (1)	208	60	32.2	109	599	109	599	109	599	4	7.6	31	109	599	53	425			4	7.6	31
	230	60	28.4	109	599	109	599	109	599	4	7.4	37	109	599	53	425			4	7.4	37
	380	60	15.4	69	358	69	358	69	358	4	4.5	22	69	358	36	239			4	4.5	22
	460	60	14.2	54	310	54	310	54	310	4	4.0	19	54	310	25	192			4	4.0	19
	575	60	11.4	49	239	49	239	49	239	4	2.9	15	49	239	23	154			4	2.9	15

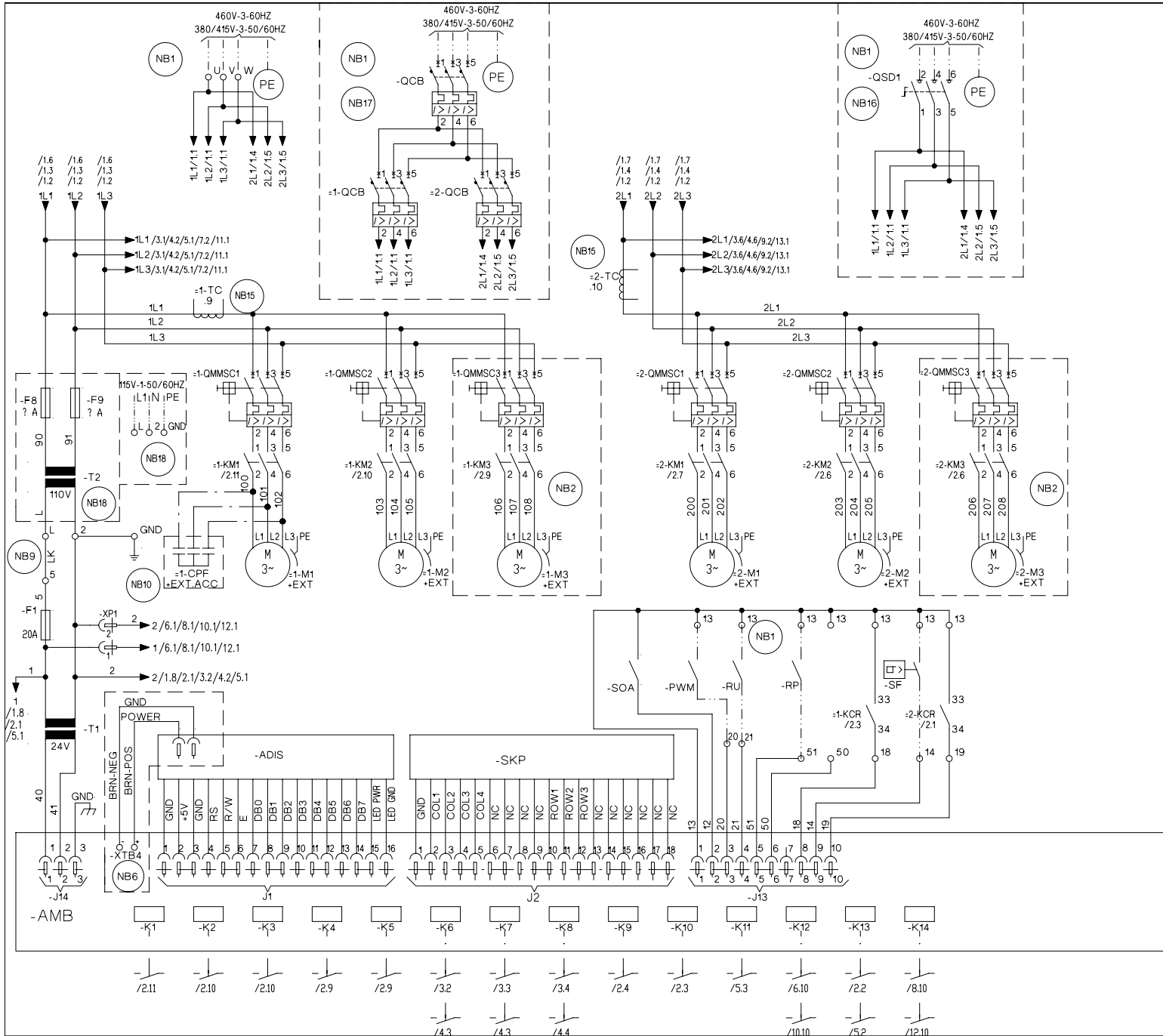
MINIMUM CIRCUIT AMPS	MIN REC WIRE GA 75°C, CU	Min Ckt Amps (derated, 0.82)	MIN REC WIRE GA 75°C, CU	MIN N/F DISC SW	MIN DUAL ELEM FUSE	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	NFDS Lug Range
543	(2) 300 MCM	662	(2) 400MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
538	(2) 300 MCM	656	(2) 400MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
336	500 MCM	410	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
269	300 MCM	329	400 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
238	250 MCM	291	350 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
552	(2) 300 MCM	674	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
546	(2) 300 MCM	666	(3) 300 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
343	500 MCM	418	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
273	300 MCM	333	400 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
241	250 MCM	294	350 MCM	400	300	300	300	300	250kcmil - 500kcmil
565	(2) 300 MCM	690	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
559	(2) 300 MCM	682	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
350	500 MCM	427	(2) 4/0 AWG	400	400	450	450	450	(2) 250kcmil - 500kcmil
280	300 MCM	341	500 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
247	250 MCM	301	350 MCM	400	300	300	300	300	250kcmil - 500kcmil
526	(2) 300 MCM	642	(2) 400 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
523	(2) 300 MCM	638	(2) 400 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
329	400 MCM	401	(2) 4/0 AWG	400	350	400	400	400	(2) 250kcmil - 500kcmil
262	300 MCM	320	400 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
232	250 MCM	283	300 MCM	400	250	300	300	300	(2) 3/0 - 250kcmil
552	(2) 300 MCM	674	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
546	(2) 300 MCM	666	(3) 300 MCM	600	600	700	700	700	(3) 2/0 - 400kcmil
343	500 MCM	418	(2) 4/0 AWG	400	400	450	450	450	(2) 3/0 - 250kcmil
273	300 MCM	333	400 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
241	250 MCM	294	350 MCM	400	300	300	300	300	250kcmil - 500kcmil
586	(2) 300 MCM	715	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
584	(2) 300 MCM	712	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
369	500 MCM	451	(2) 4/0 AWG	600	400	450	450	450	(2) 250kcmil - 500kcmil
291	350 MCM	355	500 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
258	300 MCM	314	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
597	(2) 350 MCM	728	(3) 300 MCM	800	700	700	700	700	(3) 2/0 - 400kcmil
592	(2) 350 MCM	721	(3) 300 MCM	800	700	700	700	700	(3) 2/0 - 400kcmil
373	500 MCM	455	(2) 4/0 AWG	600	400	450	450	450	(2) 250kcmil - 500kcmil
295	350 MCM	360	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
261	300 MCM	318	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil

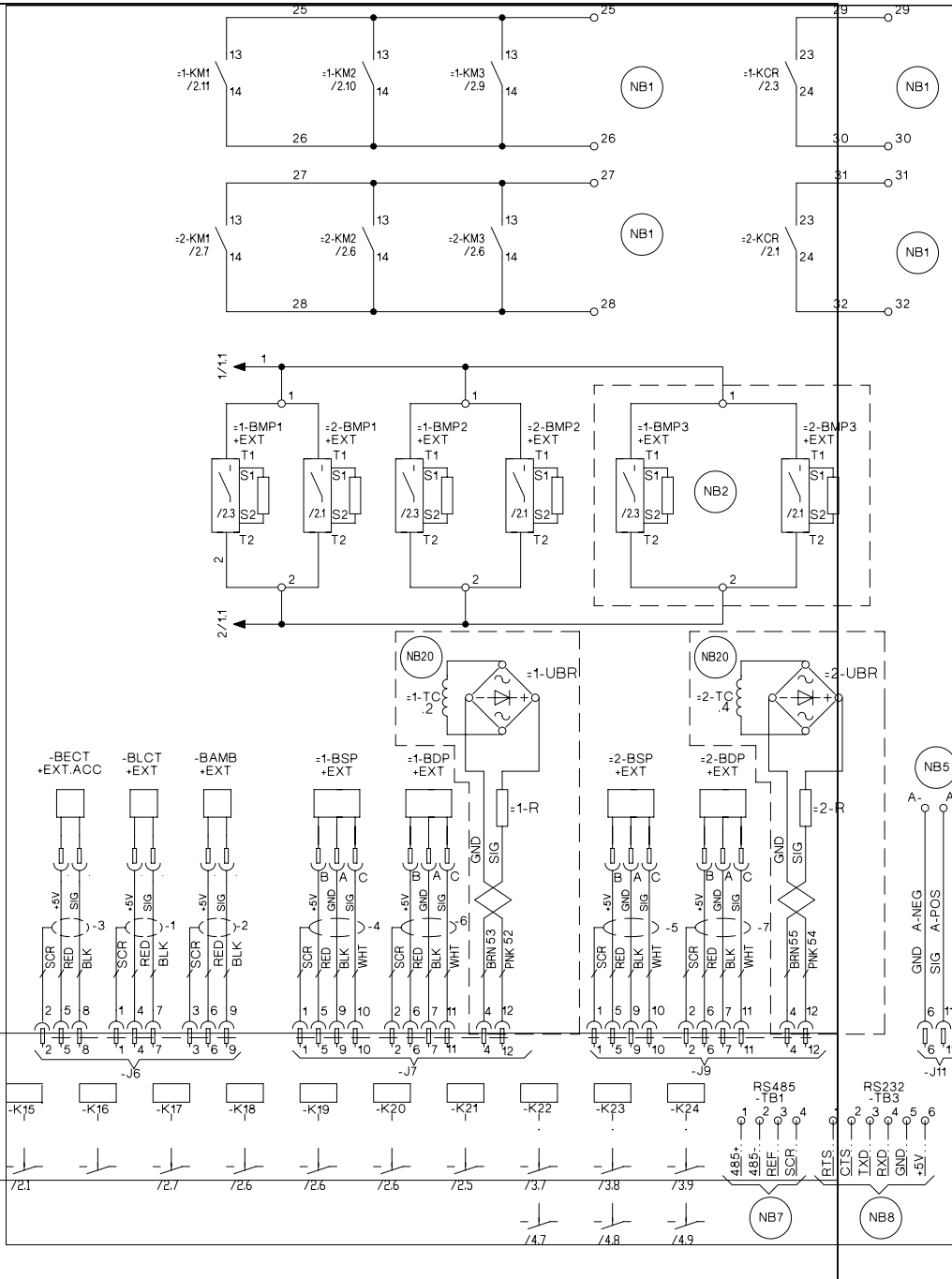
Electrical Data w/ Pumps – continued

0135 D, M & O - 15HP	208	60	41.7	109	599	109	599	109	599	4	7.6	31	109	599	53	425			4	7.6	31
	230	60	36.3	109	599	109	599	109	599	4	7.4	37	109	599	53	425			4	7.4	37
	380	60	22.03	69	358	69	358	69	358	4	4.5	22	69	358	36	239			4	4.5	22
	460	60	18.2	54	310	54	310	54	310	4	4.0	19	54	310	25	192			4	4.0	19
	575	60	14.5	49	239	49	239	49	239	4	2.9	15	49	239	23	154			4	2.9	15
CHILLER MODEL YLAA & PUMP	VOLTS	HZ	Pump FLA	SYSTEM # 1									SYSTEM # 2								
				COMPR 1		COMPR 2		COMPR 3		FAN			COMPR 1		COMPR 2		COMPR 3		FAN		
				RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA	QTY	FLA	LRA
0135 E & R - 20HP	208	60	54.7	109	599	109	599	109	599	4	7.6	31	109	599	53	425			4	7.6	31
	230	60	49.5	109	599	109	599	109	599	4	7.4	37	109	599	53	425			4	7.4	37
	380	60	29.1	69	358	69	358	69	358	4	4.5	22	69	358	36	239			4	4.5	22
	460	60	24.8	54	310	54	310	54	310	4	4.0	19	54	310	25	192			4	4.0	19
	575	60	19.84	49	239	49	239	49	239	4	2.9	15	49	239	23	154			4	2.9	15
0135 K - 5HP	208	60	15.4	109	599	109	599	109	599	4	7.6	31	109	599	53	425			4	7.6	31
	230	60	13.9	109	599	109	599	109	599	4	7.4	37	109	599	53	425			4	7.4	37
	380	60	8.1	69	358	69	358	69	358	4	4.5	22	69	358	36	239			4	4.5	22
	460	60	6.95	54	310	54	310	54	310	4	4.0	19	54	310	25	192			4	4.0	19
	575	60	5.56	49	239	49	239	49	239	4	2.9	15	49	239	23	154			4	2.9	15
0150 0155 G - 10HP (1)	208	60	32.2	109	599	109	599	109	599	4	7.6	31	109	599	109	599			4	7.6	31
	230	60	28.4	109	599	109	599	109	599	4	7.4	37	109	599	109	599			4	7.4	37
	380	60	15.4	69	358	69	358	69	358	4	4.5	22	69	358	69	358			4	4.5	22
	460	60	14.2	54	310	54	310	54	310	4	4.0	19	54	310	54	310			4	4.0	19
	575	60	11.4	49	239	49	239	49	239	4	2.9	15	49	239	49	239			4	2.9	15
0150 0155 H & L - 10HP (2)	208	60	27.1	109	599	109	599	109	599	4	7.6	31	109	599	109	599			4	7.6	31
	230	60	27.1	109	599	109	599	109	599	4	7.4	37	109	599	109	599			4	7.4	37
	380	60	24.5	69	358	69	358	69	358	4	4.5	22	69	358	69	358			4	4.5	22
	460	60	12.3	54	310	54	310	54	310	4	4.0	19	54	310	54	310			4	4.0	19
	575	60	9.84	49	239	49	239	49	239	4	2.9	15	49	239	49	239			4	2.9	15
0150 0155 I, M & O - 15HP	208	60	41.7	109	599	109	599	109	599	4	7.6	31	109	599	109	599			4	7.6	31
	230	60	36.3	109	599	109	599	109	599	4	7.4	37	109	599	109	599			4	7.4	37
	380	60	22.03	69	358	69	358	69	358	4	4.5	22	69	358	69	358			4	4.5	22
	460	60	18.2	54	310	54	310	54	310	4	4.0	19	54	310	54	310			4	4.0	19
	575	60	14.5	49	239	49	239	49	239	4	2.9	15	49	239	49	239			4	2.9	15
0150 0155 J & R - 20HP	208	60	54.7	109	599	109	599	109	599	4	7.6	31	109	599	109	599			4	7.6	31
	230	60	49.5	109	599	109	599	109	599	4	7.4	37	109	599	109	599			4	7.4	37
	380	60	29.1	69	358	69	358	69	358	4	4.5	22	69	358	69	358			4	4.5	22
	460	60	24.8	54	310	54	310	54	310	4	4.0	19	54	310	54	310			4	4.0	19
	575	60	19.84	49	239	49	239	49	239	4	2.9	15	49	239	49	239			4	2.9	15

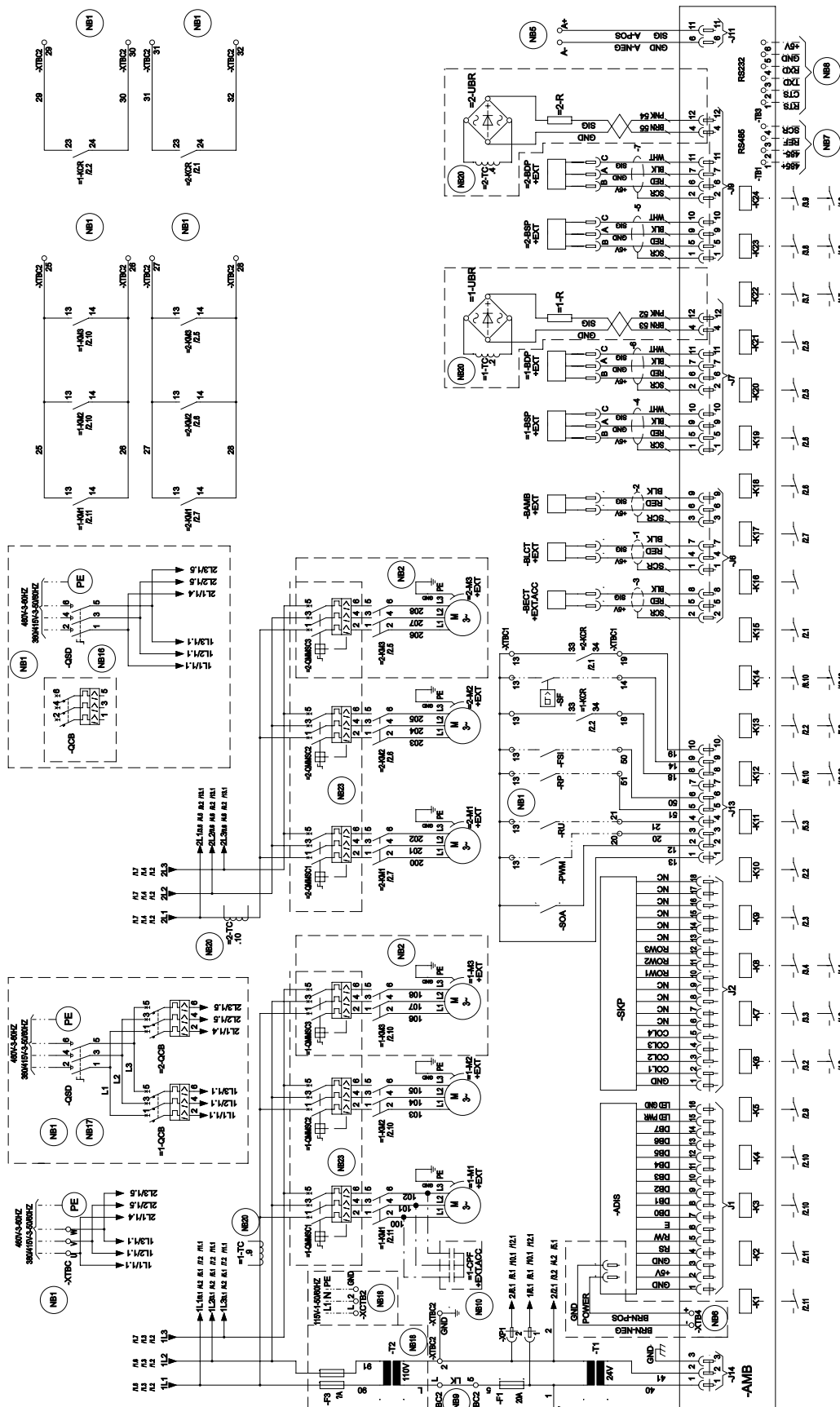
606	(2) 350 MCM	740	(3) 300 MCM	800	700	700	700	700	(3) 2/0 - 400kcmil
599	(2) 350 MCM	731	(3) 300 MCM	800	700	700	700	700	(3) 2/0 - 400kcmil
379	500 MCM	463	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
299	350 MCM	365	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
264	300 MCM	322	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
MINIMUM CIRCUIT AMPS	MIN REC WIRE GA 75°C, CU	Min Ckt Amps (derated, 0.82)	MIN REC WIRE GA 75°C, CU	MIN N/F DISC SW	MIN DUAL ELEM FUSE	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	MAX DUAL ELEM FUSE MAX CB	NFDS Lug Range
619	(2) 350 MCM	755	(3) 300 MCM	800	700	700	700	700	(3) 2/0 - 400kcmil
613	(2) 350 MCM	747	(3) 300 MCM	800	700	700	700	700	(3) 2/0 - 400kcmil
387	600 MCM	471	(2) 250 MCM	600	400	450	450	450	(2) 250kcmil - 500kcmil
306	350 MCM	373	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
269	300 MCM	328	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
580	(2) 300 MCM	707	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
577	(2) 300 MCM	704	(3) 300 MCM	800	600	700	700	700	(3) 2/0 - 400kcmil
366	500 MCM	446	(2) 4/0 AWG	600	400	450	450	450	(2) 250kcmil - 500kcmil
288	350 MCM	351	500 MCM	400	300	350	350	350	(2) 3/0 - 250kcmil
255	250 MCM	311	400 MCM	400	300	300	300	300	(2) 3/0 - 250kcmil
668	(3) 300 MCM	814	(3) 350 MCM	800	700	800	800	800	(3) 2/0 - 400kcmil
662	(3) 300 MCM	808	(3) 350 MCM	800	700	800	800	800	(3) 2/0 - 400kcmil
414	(2) 4/0 AWG	505	(2) 250 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
332	400 MCM	405	(2) 4/0 AWG	400	350	400	400	400	(2) 3/0 - 250kcmil
293	350 MCM	358	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
662	(3) 300 MCM	808	(3) 350 MCM	800	700	800	800	800	(3) 2/0 - 400kcmil
661	(3) 300 MCM	806	(3) 350 MCM	800	700	800	800	800	(3) 2/0 - 400kcmil
423	(2) 4/0 AWG	516	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
330	400 MCM	402	(2) 4/0 AWG	400	350	400	400	400	(2) 3/0 - 250kcmil
292	350 MCM	356	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
677	(3) 300 MCM	826	(3) 350 MCM	800	800	800	800	800	(3) 2/0 - 400kcmil
670	(3) 300 MCM	817	(3) 350 MCM	800	700	800	800	800	(3) 2/0 - 400kcmil
421	(2) 4/0 AWG	513	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
336	500 MCM	410	(2) 4/0 AWG	400	350	400	400	400	(2) 3/0 - 250kcmil
296	350 MCM	361	500 MCM	400	350	350	350	350	(2) 3/0 - 250kcmil
690	(3) 300 MCM	842	(3) 350 MCM	800	800	800	800	800	(3) 2/0 - 400kcmil
683	(3) 300 MCM	833	(3) 350 MCM	800	800	800	800	800	(3) 2/0 - 400kcmil
428	(2) 4/0 AWG	522	(2) 300 MCM	600	450	500	500	500	(2) 250kcmil - 500kcmil
342	500 MCM	418	(2) 4/0 AWG	400	400	400	400	400	(2) 3/0 - 250kcmil
302	350 MCM	368	500 MCM	400	350	400	400	400	(2) 3/0 - 250kcmil

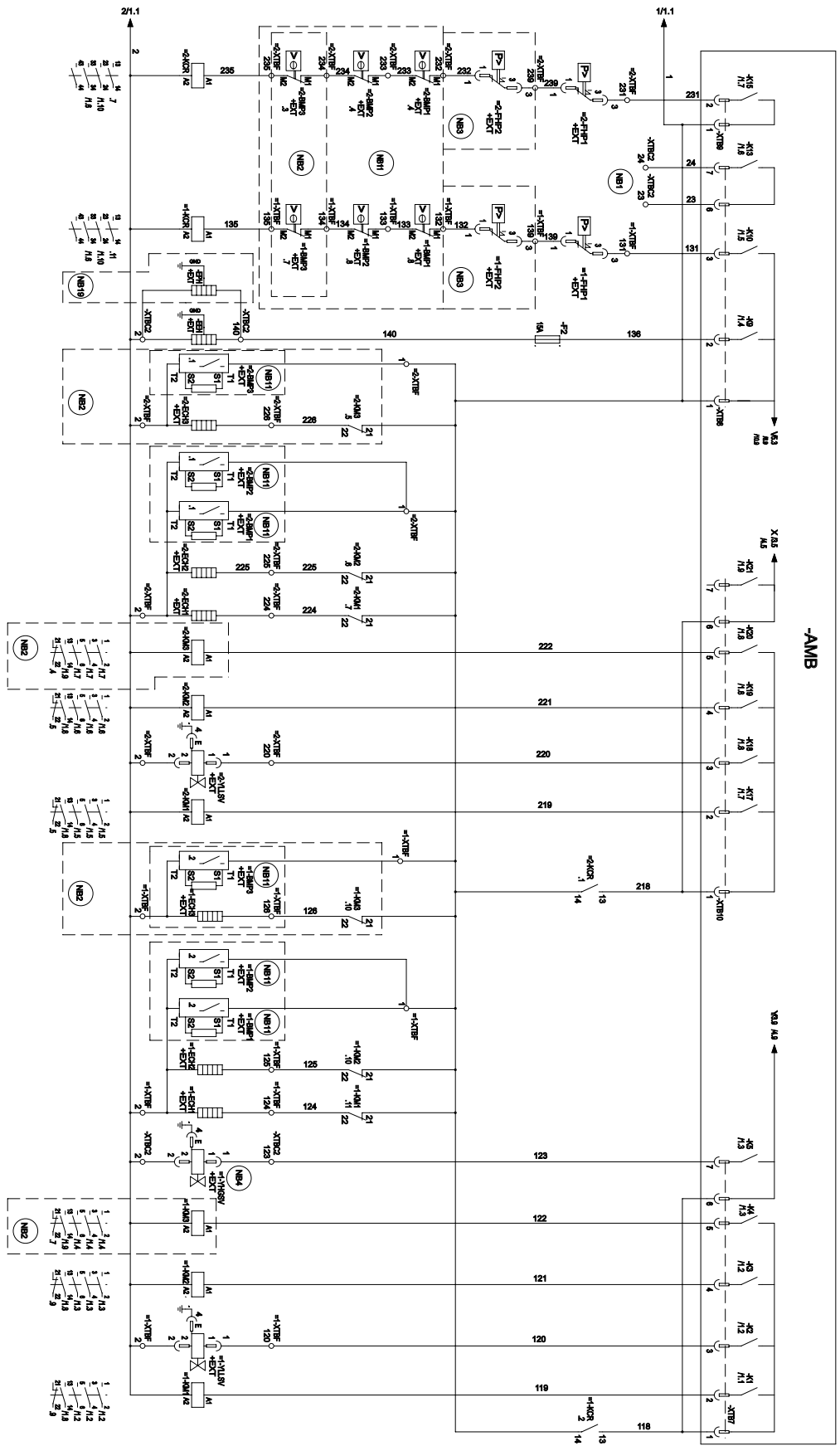
Wiring Diagram



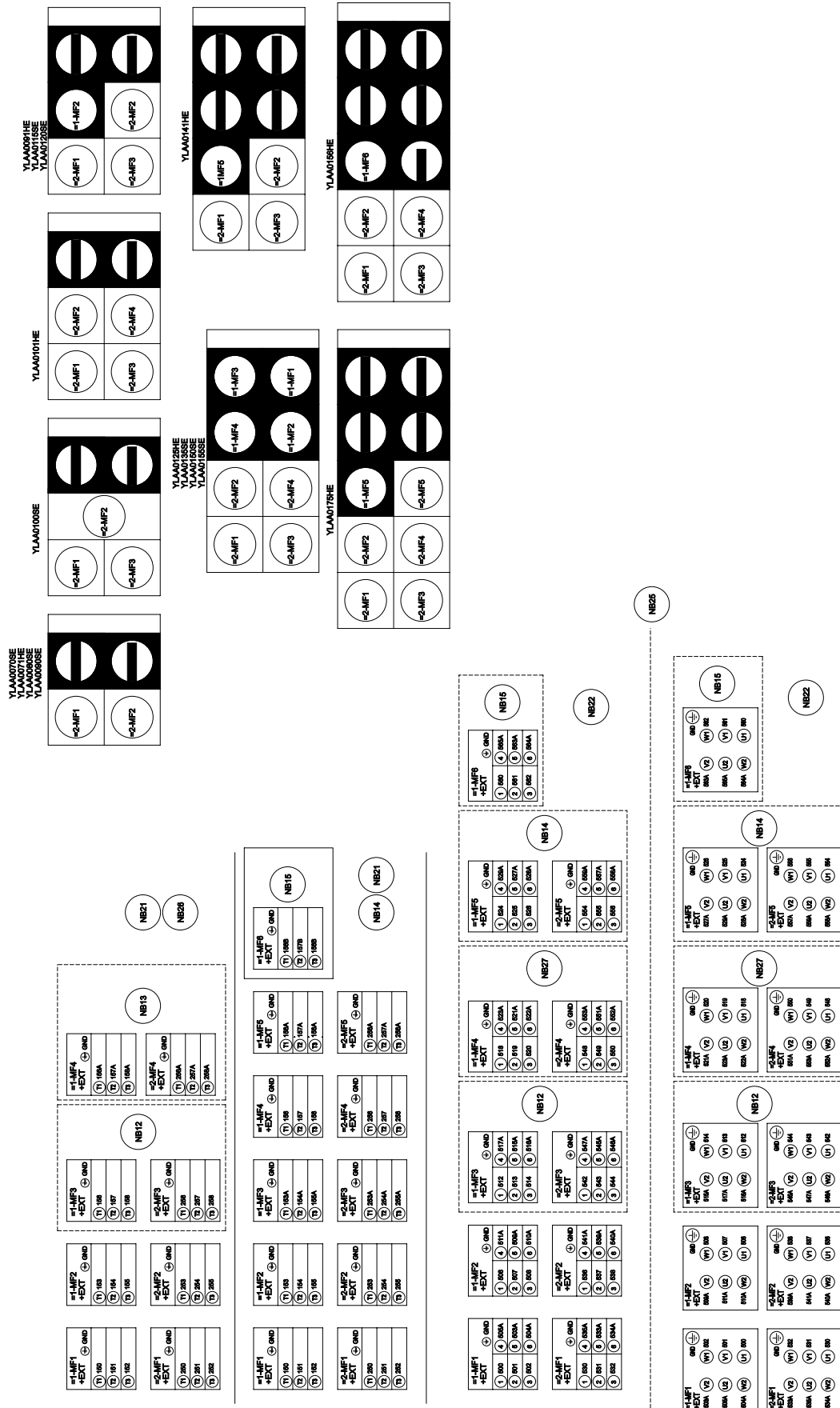


Elementary Wiring





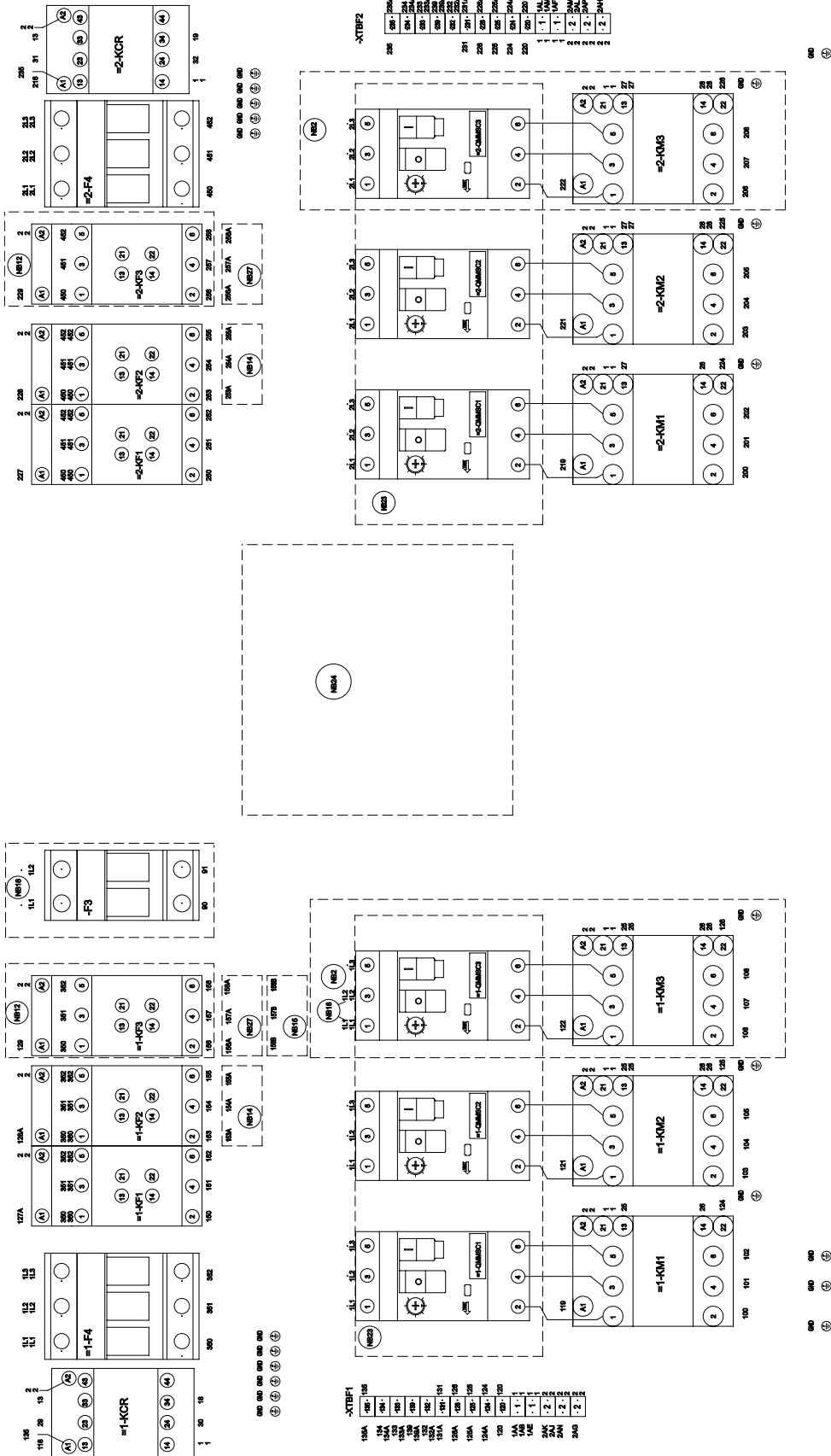
Condenser Fan Mapping and Sequencing



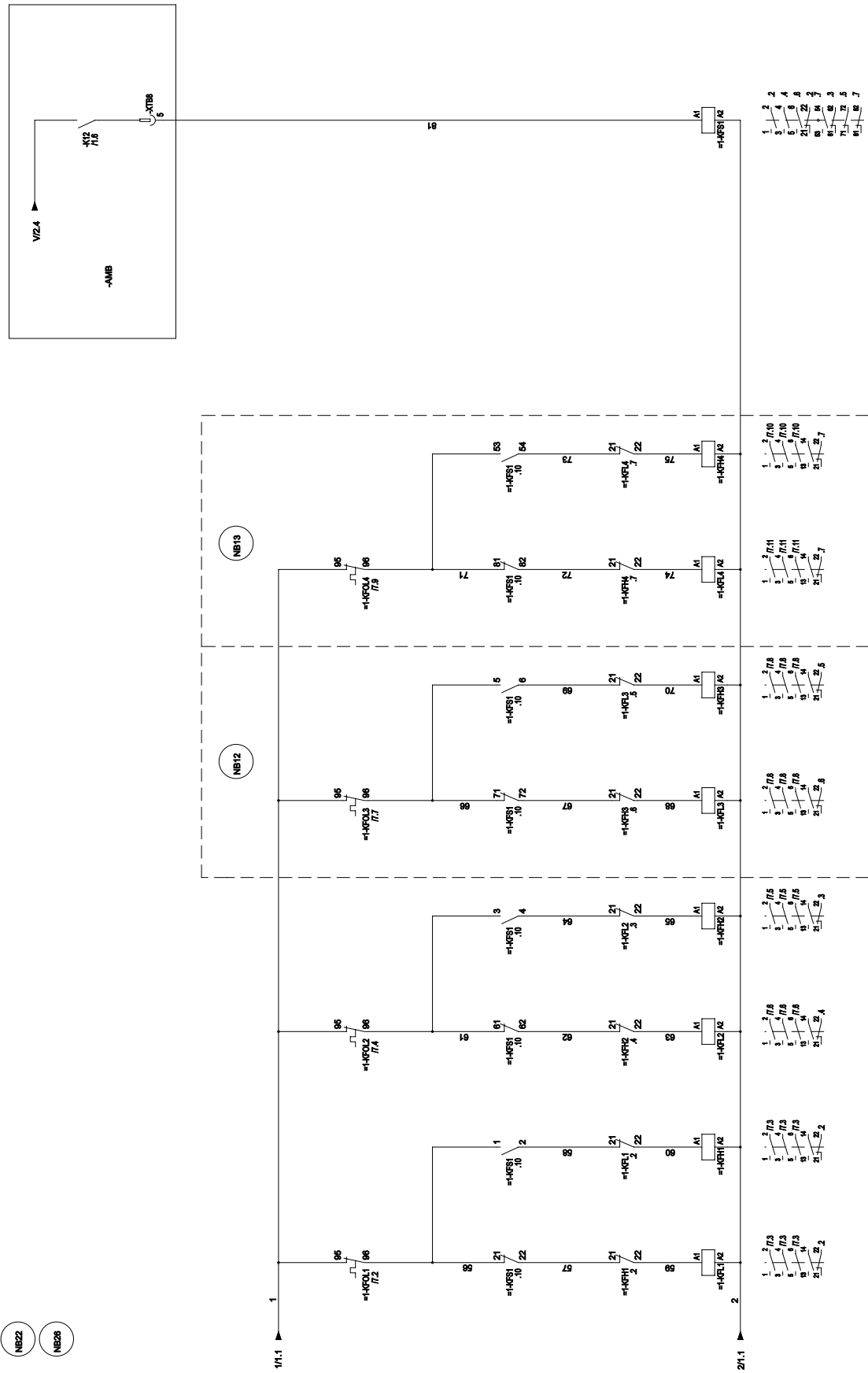




Power Panel







Designation	DESCRIPTION
ACC	ACCESSORY
- ADIS	DISPLAY BOARD
- AMB	MICRO BOARD

- BAMB	AMBIENT
- BDP	DISCHARGE PRESSURE
- BECT	ENTERING CHILLED TEMPERATURE
- BLCT	LEAVING CHILLED TEMPERATURE
	NOT FITTED ON REMOTE EVAP UNITS

- BMP	MOTOR PROTECTOR COMPRESSOR
- BSP	SUCTION PRESSURE

- CPF	CAPACITOR POWER FACTOR
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- ECH	CRANKCASE HEATER
- EEH	EVAPORATOR HEATER
- EPH	PUMP HEATER
- EXT	EXTERNAL TO CONTROL PANEL

- F	FUSE
- FHP	HIGH PRESSURE CUTOFF
- FSI	FAN SPEED INHIBIT TWO SPEED FAN OPTION ONLY

GND	GROUND
G/Y	GREEN / YELLOW

J	PLUG BOARD CONNECTOR
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-K	CIRCUIT BOARD RELAY
-KF	FAN CONTACTOR LINE
-KFH	FAN CONTACTOR HIGH SPEED (INCLUDING COIL SUPPRESSOR)
-KFL	FAN CONTACTOR LOW SPEED (INCLUDING COIL SUPPRESSOR)
-KFOL	FAN OVERLOAD
-KFS	RELAY FAN SPEED
-KM	COMPRESSOR CONTACTOR (INCLUDING COIL SUPPRESSOR)
-KCR	CONTROL RELAY
-KP	PUMP CONTACTOR PART (INCLUDING COIL SUPPRESSOR)

- M	COMPRESSOR MOTOR
-MF	MOTOR FAN
-MP	MOTOR PUMP

NU	NOT USED
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PE	PROTECTIVE EARTH
PWM	PULSE WIDTH MODULATION TEMP RESET or REMOTE UNLOAD 2nd STEP

Designation	DESCRIPTION
- QCB	CIRCUIT BREAKER
- QMMS	MANUAL MOTOR STARTER COMPRESSOR
- QMMS	MANUAL MOTOR STARTER PUMP
- QSD	SWITCH DISCONNECT

R	RESISTOR
RED	RED
RP	RUN PERMISSIVE
RU	REMOTE UNLOAD 1st STEP

SCR	SCREEN
- SF	FLOW SWITCH
- SKP	KEYPAD
- SOA	SWITCH OFF AUTO

- T	TRANSFORMER
- TC	TRANSFORMER CURRENT

- UBR	BRIDGE RECTIFIER
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WHT	WHITE
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- XTBC	TERMINAL BLOCK CUSTOMER
- XTBF	TERMINAL BLOCK FACTORY

- YHGSV	HOT GAS SOLENOID VALVE (INCLUDING COIL SUPPRESSOR)
- YLLSV	LIQUID LINE SOLENOID VALVE (INCLUDING COIL SUPPRESSOR)
	FIELD MOUNTED AND WIRED ON REMOTE EVAP UNITS

- ZCPR	COMPRESSOR
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	NOTE WELL (SEE NOTE)
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	WIRING AND ITEMS SHOWN THUS ARE STANDARD YORK ACCESSORIES
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	WIRING AND ITEMS SHOWN THUS ARE NOT SUPPLIED BY YORK
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	ITEMS THUS ENCLOSED FORM A COMPONENTS OR SETS OF COMPONENTS
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Notes – continued

GENERAL	
a.	THIS DRAWING IS BASED ON IEC SYMBOLS.
b.	FIELD WIRING TO BE IN ACCORDANCE WITH THE RELEVANT ELECTRICAL CODE AS WELL AS ALL OTHER APPLICABLE CODES AND SPECIFICATIONS
c.	ALL SOURCES OF SUPPLY SHOWN ON THIS DIAGRAM TO BE TAKEN FROM ONE MAIN ISOLATOR, NOT SHOWN OR SUPPLIED BY YORK.
d.	GREEN AND YELLOW WIRE IS USED FOR EARTH, MULTI-COLOURED CABLE USED FOR LOW VOLTAGE. RED WIRE USED FOR A.C. CONTROL, BLUE WIRE FOR NEUTRAL, BLACK WIRE FOR A.C. AND D.C. POWER. ORANGE WIRE SHOULD BE USED FOR INTERLOCK CONTROL WIRING SUPPLIED BY EXTERNAL SOURCE.
e.	LEGEND DESIGNATION DEPICTS COMPONENT ABBREVIATIONS. NUMBER PREFIX LOCATED, IF APPLICABLE, ON SCHEMATIC CIRCUIT, REFERS TO SYSTEM THEREON, E.G.= 1-FHP2 REFERS TO HIGH PRESSURE CUTOUT NO 2 ON SYSTEM NO 1.
f.	ALL WIRING TO CONTROL SECTION VOLTAGE FREE CONTACTS REQUIRES A SUPPLY PROVIDED BY THE CUSTOMER MAXIMUM VOLTAGE 240 VOLTS. THE CUSTOMER MUST TAKE PARTICULAR CARE WHEN DERIVING THE SUPPLIES FOR THE VOLTAGE FREE TERMINALS WITH REGARD TO A COMMON POINT OF ISOLATION. THUS, THESE CIRCUITS WHEN USED MUST BE FED VIA THE COMMON POINT OF ISOLATION THE VOLTAGE TO THESE CIRCUITS IS REMOVED WHEN THE COMMON POINT OF ISOLATION TO THE UNIT IS OPENED. THIS COMMON POINT OF ISOLATION IS NOT SUPPLIED BY YORK. THE YORK VOLTAGE FREE CONTACTS ARE RATED AT 100VA. ALL INDUCTIVE DEVICES {RELAYS} SWITCH BY THE YORK VOLTAGE FREE CONTACTS MUST HAVE THEIR COIL SUPPRESSED USING STANDARD R/C SUPPRESSORS.
g.	CUSTOMER VOLTAGE FREE CONTACTS CONNECTED TO TERMINAL 13 MUST BE RATED AT 30V 5ma
h.	NO CONTROLS {RELAYS ETC.} SHOULD BE MOUNTED IN ANY SECTION OF THE CONTROL PANEL. ADDITIONALLY, CONTROL WIRING NOT CONNECTED TO THE YORK CONTROL PANEL SHOULD NOT BE RUN THROUGH THE PANEL. IF THESE PRECAUTIONS ARE NOT FOLLOWED, ELECTRICAL NOISE COULD CAUSE MALFUNCTIONS OR DAMAGE TO THE UNIT AND ITS CONTROLS.
NOTES	
1	REFER TO INSTALATION COMMISIONING OPERATION AND MAINTENANCE MANUAL FOR CUSTOMER CONNECTIONS AND CUSTOMER CONNECTION NOTES, NON COMPLIANCE TO THESE INSTRUCTIONS WILL INVALIDATE UNIT WARRANTY.
2	WIRING AND COMPONENTS FOR COMPRESSOR 3 ONLY FITTED WHEN UNIT HAS 3 COMPRESSORS ON THE SYSTEM. 1-BMP3 IS REPLACED BY A LINK ACROSS TERMINALS 134 & 135. 2-BMP3 IS REPLACED BY A LINK ACROSS TERMINALS 234 & 235.
3	FHP2 IS ONLY FITTED ON CE YLAA ??? AND ABOVE. WHEN NOT FITTED 1-FHP2 IS REPLACED BY A LINK ACROSS TERMINALS 132 & 139. 2-FHP2 IS REPLACED BY A LINK ACROSS TERMINALS 232 & 239
4	FITTED ON UNITS WITH HOT GAS BYPASS OPTION.
5	EMS OPTION IS WIRED AS SHOWN
6	THIS WIRING MUST BE USED FOR OLD DISPLAY 031-0110-000
7	NETWORK CONNECTION POINT
8	PRINTER PORT
9	REMOTE EMERGENCY STOP CAN BE WIRED BETWEEN TERMINAL L AND 5 AFTER REMOVING LINK
10	POWER FACTOR CORRECTION ACCESSORY. POWER FACTOR CORRECTION FITTED TO EACH COMPRESSOR CONTACTOR
11	NOT FITTED ON COMPRESSORS WITH INTERNAL MOTOR PROTECTION. FOR SYTEM 1 TERMINALS 132 & 133, 133 & 134 AND 134 & 135 ARE LINKED. FOR SYTEM 2 TERMINALS 232 & 233, 233 & 234 AND 234 & 235 ARE LINKED.
12	ONLY FITTED ON SYSTEMS WITH 3 OR 4 FANS
13	ONLY FITTED ON SYSTEMS WITH 4 FANS
14	ONLY FITTED ON SYSTEMS WITH 5 FANS
15	ONLY FITTED ON SYSTEMS WITH 6 FANS
16	INPUT SWITCH DISCONNECT(STANDARD ON CE UNITS) OR CIRCUIT BREAKER OPTION REPLACES INPUT TERMINAL BLOCK
17	INPUT SWITCH DISCONNECT & SYSTEM CIRCUIT BREAKER OPTION REPLACES INPUT TERMINAL BLOCK
18	115V CONTROL CIRCIUT REQUIRES A 115V SUPPLY UNLESS CONTROL CIRCUIT TRANSFORMER -T2 & -F3 ARE FITTED (STANDARD ON CE UNITS)
19	FOR OPTIONAL HYDRO KIT. HEATER -EPH IS FITTED AND WIRED AS SHOWN. ON SINLGE PUMP -KP1, -QMMSP1 & -MP1 ARE FITTED & WIRED AS SHOWN. ON TWO PUMP HYDRO KITS -KP2, -QMMSP2 & -MP2 ARE ALSO FITTED AND WIRED AS SHOWN.
20	CURRENT MEASUREMENT OPTION WIRED AS SHOW
21	ONLY FITTED ON SYSTEMS WITH SINGLE SPEED FANS
22	ONLY FITTED ON SYSTEMS WITH TWO SPEED FANS
23	OPTIONAL COMPRESSOR MANUAL MOTORS STARTERS (STANDARD ON CE UNITS)
24	SEE SHEET 3 OF CONNECTION DIAGRAM FOR POWER INPUT OPTIONS
25	ALTERNATE CONNECTIONS SHOWN FOR DIFFERENT TWO SPEED MOTOR TYPES
26	ONLY FITTED ON SYSTEMS WITH A MAXIMUM OF 4 FANS

Application Data

UNIT LOCATION

The YLAA 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 (5/8" 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.

Guide Specifications

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 with ZERO Ozone Depletion Potential Refrigerant R-410A
 - 2. Electrical power and control connections
 - 3. Chilled water connections
 - 4. Factory Start-Up
 - 5. Charge of refrigerant and oil (Except for Remote Evaporator applications).

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 compliance.*
 - 3. ANSI/NFPA Standard 70 – *National Electrical Code (N.E.C.).*
 - 4. *ASME Boiler & Pressure Vessel Code, Section 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.
 - 8. OSHA – Occupational Safety and Health Act
- 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. Chiller manufacturer shall have a factory trained and supported service organization that is within a 50 mile radius of the site.
- D. 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.
- C. Protect the chiller and its accessories from the weather and dirt exposure during shipment.
- D. During shipment, provide protective covering over vulnerable components. Fit nozzles and open ends with plastic enclosures.

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 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, 1000 hour, 5% salt spray test, yields minimum ASTM 1654 rating of "6".
- C. Service Isolation valves: Service discharge (ball type) isolation valves are added to unit per system. This includes a system high-pressure relief valve in compliance with ASHRAE15.
- D. Pressure Transducers and Readout Capability
 - 1. Discharge Pressure Transducers: Permits unit to sense and display discharge pressure.
 - 2. Suction Pressure Transducers: Permits unit to sense and display suction pressure.

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.
10. Compressor Motor overloads capable of monitoring compressor motor current. Provides extra protection against compressor reverse rotation, phase-loss and phase imbalance

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, thermostatic expansion valves, and flexible, closed-cell foam insulated suction line and suction pressure transducer.

2.04 HEAT EXCHANGERS

A. Evaporator: YLAA

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 450 psig (3103 kPa) refrigerant side design working pressure and 150 PSIG (1034 kPa) water side design working pressure.
3. Shell covered with 3.4" (19mm), flexible, closed cell insulation, thermal conductivity of 0.26k ([BTU/HR-Ft² -°F]/in.) maximum. Water nozzles with grooves for mechanical couplings, and insulated by Contractor after pipe installation.
4. Provide vent and drain fittings, and thermostatically controlled heaters to protect to -20°F (-29°C) ambient in off-cycle.

B. Air Cooled Condenser:

1. Coils: Condenser coils are made of a single material to avoid galvanic corrosion due to dissimilar metals.

Coils and headers are brazed as one piece. Integral sub cooling is included. The design working pressure of the coil is 650 PSIG (45 bar).

2. Low Sound Fans: Shall be dynamically and statically balanced, direct drive, corrosion resistant glass fiber 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,

Guide Specifications – continued

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 system 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 compressor 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, com-

pressor 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. Compressor, control and fan motor power wiring shall be located in an enclosed panel or 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.
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.
2. 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 incoming power wiring, which must comply with the National Electric Code and/or local codes.
3. 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.

- 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. Power Factor Correction Capacitors: Provided to correct unit compressor factors to a 0.90-0.95.
- G. Condenser Coil Environmental Protection:
 - 1. 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).
- H. 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 coils painted as per remainder of unit cabinet. Heavy gauge, welded wire-mesh, coated to resist corrosion, around base of machine to restrict unauthorized access.
 - 5. End Louver (Hail Guard): Louvered steel panels on external condenser coil faces located at the ends of the chiller.
- I. Flow Switch (Field-mounted): Vapor proof SPDT, NEMA 4X switch (___ 150 PSIG or ___ 300 PSIG), -20°F to 250°F.
- J. 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.
- K. Evaporator options:
 - 1. Provide 1-1/2" cooler insulation in lieu of standard 3/4".
 - 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.
- L. 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.
- M. Microprocessor Membrane Keypad Graphics on in lieu of Standard English:
 - 1. French language.
 - 2. German language.
 - 3. Spanish language.
- N. 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.
- O. Low Temperature Process Brine: Leaving chilled liquid setpoint range 20°F to 50°F.
- P. Chicago Code Relief Valves to meet Chicago Code requirements.
- Q. 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.
- R. Sound Reduction (Factory-mounted):
 - 1. Ultra Quiet - Low speed, reduced noise fans
 - 2. Compressor Acoustic Sound Blankets
 - 3. Compressor Acoustic Enclosure
- S. 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

Guide Specifications – continued

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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