

Replacement Parts List No. 700014200  
New 08/09

**Daikin McQuay Pathfinder™  
Air Cooled Chiller  
Screw Compressor  
2 Circuit**

Model: AWS  
Sizes: 280- 350  
Vintage: A  
R134a  
50 Hz

**DAIKIN McQUAY™**

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# Parts List Revision History

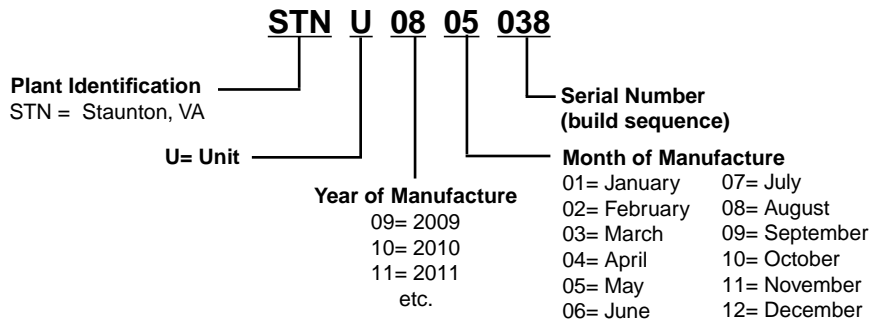
| Revision | Date  | Description |
|----------|-------|-------------|
| NEW      | 08/09 | New         |
|          |       |             |



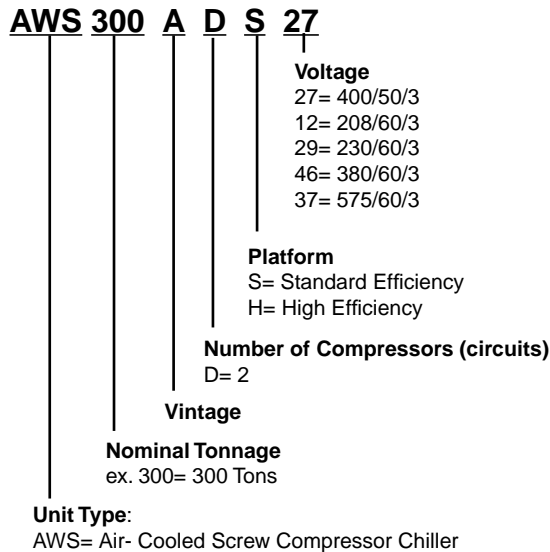
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# Nomenclature

## Serial Number



## Unit Model Number- Dataplate



# Nomenclature

## Unit Model Number- Complete

**AWS 350A D SE NN ST S A WD Y 27 WN V N N N LM N G Y N N VL S R**  
**Code 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25**

**Code L F G ND YNNNNNNN000000N N NNYNNNNNNNN00000000000000000000**  
**26 27 28 29 30-36 37 38-45**

**Code ENDSUDPLYNNNNNNNNNNRA1D00 NN M 6 NN Y S 00**  
**46-55 56 57 58 59 60 61 62**

- |   |   |
|---|---|
| <p><b>02 Size (in nominal tons)</b><br/>                 280A= 300 Tons 'A' Vintage<br/>                 300A= 300 Tons 'A' Vintage<br/>                 320A= 320 Tons 'A' Vintage<br/>                 350A= 350 Tons 'A' Vintage</p> <p><b>03 Number of Compressors</b><br/>                 D= 2<br/>                 T= 3</p> <p><b>04 Platform</b><br/>                 SE= Standard Package- Standard Efficiency<br/>                 HE= Standard Package- High Efficiency</p> <p><b>05 Construction</b><br/>                 NN= Standard</p> <p><b>06 Sound</b><br/>                 ST= Standard Sound<br/>                 LN= Low Noise- Sound Enclosure</p> <p><b>07 Unit Operation</b><br/>                 S= Standard (40° - 60° F LWT)<br/>                 A= Lower Operation (34° - 39° F LWT)<br/>                 B= Brine Operation (20° - 33° F LWT)</p> <p><b>08 Condenser Coil Fins</b><br/>                 A= Aluminum Fin (Standard)<br/>                 C= Copper Fin<br/>                 B= Aluminum Fin w/Prefab Black Fin Coating<br/>                 E= Aluminum Fin w/Electro Fin Coating<br/>                 F= Copper Fin w/Electro Fin Coating</p> <p><b>09 Compressor Starter</b><br/>                 WD= Wye- Delta w/Compressor Overloads<br/>                 SS= Solid State</p> <p><b>10 Always Y</b></p> <p><b>11 Voltage</b><br/>                 52= 400/50/3</p> <p><b>12 Power Connection</b><br/>                 PC= Single Point Power Block &amp; Circuit Breakers<br/>                 DC= Single Point Disconnect &amp; Circuit Breakers<br/>                 DH= High Short Circuit Current Rating + DC<br/>                 WN= Multiple Point Disconnect- No Circuit Breaker<br/>                 WH= High Short Circuit Current Rating + WN</p> <p><b>13 Phase Voltage</b><br/>                 V= Phase &amp; Under/Over Voltage Protection w/LED<br/>                 N= None</p> | <p><b>14 Meters</b><br/>                 N= None<br/>                 A= Meters: Unit Amp &amp; Volt</p> <p><b>15 Control Box Ambient</b><br/>                 N= None<br/>                 H= With Exhaust Fans</p> <p><b>16 Compressor Capacitor</b><br/>                 N= None<br/>                 C= Power Correction Capacitors .95</p> <p><b>17 Communication</b><br/>                 NN= None<br/>                 LM= LonMark<br/>                 MB= Mod Bus<br/>                 BN= BACnet w/ MSTP<br/>                 BE= BACnet w/ Ethernet</p> <p><b>18 Display Options</b><br/>                 N= On Controller Only<br/>                 U= Unit Remote Display</p> <p><b>19 Ground Fault</b><br/>                 N= None<br/>                 G= Ground Fault Protection for the Unit</p> <p><b>20 Always Y</b></p> <p><b>21 Unit Options</b><br/>                 L= Slide Transducer</p> <p><b>22 Water Flow</b><br/>                 N= None<br/>                 A= Water Flow Indication on Evaporator Only</p> <p><b>23 Evaporator Connection</b><br/>                 VL= Victaulic/ Left Hand<br/>                 VR= Victaulic/ Right Hand</p> <p><b>24 Evaporator Insulation</b><br/>                 S= Standard Evaporator- Single Layer<br/>                 D= Standard Evaporator- Double Insulation</p> <p><b>25 Relief Valve</b><br/>                 R= Single Valve<br/>                 D= Dual Valve</p> <p><b>26 Fans</b><br/>                 L= Standard Low Noise Fan Motors</p> <p><b>27 Head Pressure</b><br/>                 F= Fantrol Only (35° F Minimum)<br/>                 V= VFD (First Fans/ Circuit)</p> |
|---|---|

# Nomenclature

## Unit Model Number- Complete, Continued

- |   |  |
|---|--|
| <p><b>28 Guards</b><br/> G= Condenser Coil Grilles Only<br/> F= Condenser Coil &amp; Base Frame Grilles<br/> L= Condenser Coil Louvers<br/> B= Condenser Coil Louvers &amp; Base Guard Louvers<br/> C= Condenser Coil Louvers and Base Frame Grilles</p> <p><b>29 Tubing Options</b><br/> ND= With Discharge Shut-Off Valve<br/> SD= With Suction and Discharge Shut-Off Valve<br/> LD= ND + Liquid Line Solenoid<br/> SL= DS + Liquid Line Solenoid</p> <p><b>30 Always Y</b></p> <p><b>31 Water Pump</b><br/> NN= None</p> <p><b>32 Pump Type</b><br/> NNNN= No Pump Package</p> <p><b>33 Pump Connection</b><br/> N= No Pump Package</p> <p><b>34 Pump Flow</b><br/> Always 0000</p> <p><b>35 Total Head</b><br/> Always 000</p> <p><b>36 Pump Starter</b><br/> N= No Pump Package</p> <p><b>37 Pump Gauges</b><br/> N= None</p> <p><b>38 Pump Suction Valve</b><br/> N= None</p> <p><b>39 Pump Discharge Valve</b><br/> N= None</p> <p><b>40 Always Y</b></p> <p><b>41 Impeller Trim</b><br/> NNNN= No Pumps</p> <p><b>42 Expansion Tank</b><br/> NN= None</p> <p><b>43 Buffer Tank</b><br/> NN= None</p> <p><b>44 % of Glycol</b><br/> 000= None</p> <p><b>45 Pump Number</b><br/> All 0's= None</p> | <p><b>46 Approvals</b><br/> N= No agency label</p> <p><b>47 CRN- Evaporator</b><br/> N= None</p> <p><b>48 Unit Start</b><br/> ISU= International- No Start Up Provided</p> <p><b>49 Standard Warranty</b><br/> TPN= International 1st Year Standard Warranty</p> <p><b>50 Always Y</b></p> <p><b>51 Extended Compressor Warranty</b><br/> NNNN= No Extended Compressor Warranty<br/> CPE*= Compressor Only- Parts Only (*= no. of years)<br/> CBE*= Compressor Only- Parts &amp; Labor (*= no. of years)</p> <p><b>52 Always NNN</b></p> <p><b>53 Extended Unit Warranty</b><br/> NNNN= None<br/> EPE*= Ext. Unit- Parts Only (*= no. of years)<br/> EBE*= Ext. Unit- Parts &amp; Labor (*= no. of years)</p> <p><b>54 Refrigerant Warranty</b><br/> NNN= None</p> <p><b>55 Delayed Warranty Start</b><br/> D00= 0 months</p> <p><b>56 Always NN</b></p> <p><b>57 Brand Name</b><br/> D= DaikenMcQuay<br/> M= McQuay</p> <p><b>58 Hertz</b><br/> 5= 50 Hertz</p> <p><b>59 &amp; 60 Always YY</b></p> <p><b>61 Misc.</b><br/> S= Standard Unit<br/> X= Special</p> <p><b>62 Major Unit Change Revision</b><br/> 00= No Revision</p> |
|---|--|

# Electrical Legend

| Sch. Sym. | Description                            | Location                    |
|-----------|--|-----------------------------|
| AC        | Alarm Control                          | Control Panel               |
| AM1       | Ammeter                                | Switch Box Door             |
| CC1       | Control Compressor Cir. 1              | Starter Panel- Compressor 1 |
| CC2       | Control Compressor Cir. 2              | Starter Panel- Compressor 2 |
| C10       | EXV-1 Connector                        | Starter Panel- Compressor 1 |
| C101      | Fan Harness Connector                  | Condenser Fan Section       |
| C102      | Fan Harness Connector                  | Condenser Fan Section       |
| C103      | Fan Harness Connector                  | Condenser Fan Section       |
| C104      | Fan Harness Connector                  | Condenser Fan Section       |
| C105      | Fan Harness Connector                  | Condenser Fan Section       |
| C106      | Fan Harness Connector                  | Condenser Fan Section       |
| C107      | Fan Harness Connector                  | Condenser Fan Section       |
| C108      | Fan Harness Connector                  | Condenser Fan Section       |
| C109      | Fan Harness Connector                  | Condenser Fan Section       |
| C110      | Fan Harness Connector                  | Condenser Fan Section       |
| C111      | Fan Harness Connector                  | Condenser Fan Section       |
| C112      | Fan Harness Connector                  | Condenser Fan Section       |
| C20       | EXV-2 Connector                        | Starter Panel- Compressor 2 |
| C201      | Fan Harness Connector                  | Condenser Fan Section       |
| C202      | Fan Harness Connector                  | Condenser Fan Section       |
| C203      | Fan Harness Connector                  | Condenser Fan Section       |
| C204      | Fan Harness Connector                  | Condenser Fan Section       |
| C205      | Fan Harness Connector                  | Condenser Fan Section       |
| C206      | Fan Harness Connector                  | Condenser Fan Section       |
| C207      | Fan Harness Connector                  | Condenser Fan Section       |
| C208      | Fan Harness Connector                  | Condenser Fan Section       |
| C209      | Fan Harness Connector                  | Condenser Fan Section       |
| C210      | Fan Harness Connector                  | Condenser Fan Section       |
| C211      | Fan Harness Connector                  | Condenser Fan Section       |
| C212      | Fan Harness Connector                  | Condenser Fan Section       |
| DP-1      | Condenser Pressure Cir. 1              | Discharge Line- Circuit 1   |
| DP-2      | Condenser Pressure Cir. 2              | Discharge Line- Circuit 2   |
| EEXV1     | Expansion Valve Controller Cir. 1      | Starter Panel- Compressor 1 |
| EEXV2     | Expansion Valve Controller Cir. 2      | Starter Panel- Compressor 2 |
| ESV-1     | Economizer Solenoid Valve Cir. 1       | Liquid Line- Circuit 1      |
| ESV-2     | Economizer Solenoid Valve Cir. 2       | Liquid Line- Circuit 2      |
| EXV-1     | Electronic Expansion Valve Cir. 1      | Liquid Line- Circuit 1      |
| EXV-2     | Electronic Expansion Valve Cir. 2      | Liquid Line- Circuit 2      |
| FC        | Fans Control                           | Control Panel               |
| F0-1      | Crankcase Heater 1 Fuses/ MSP          | Starter Panel- Compressor 1 |
| F0-2      | Crankcase Heater 2 Fuses/ MSP          | Starter Panel- Compressor 2 |
| F1        | Compressor 1 Circuit Breaker           | Power Panel- Right          |
| F100      | Fan Circuit Breaker Cir. 1             | Power Panel- Left           |
| F112      | Phase Volt Monitor Cir. 1              | Power Panel- Left           |
| F116      | Evaporator Flow Switch                 | Evaporator Inlet            |
| F12       | Outlet Fuse                            | Power Panel- Left           |
| F120      | Transformer T1 Protection              | Power Panel- Left           |
| F13       | High Pressure Switch Cir. 1            | Compressor 1                |
| F130      | Phase Volt Monitor Fuse Cir. 1         | Power Panel- Left           |
| F2        | Compressor 2 Circuit Breaker           | Power Panel- Right          |
| F200      | Fan Circuit Breaker 2                  | Power Panel- Left           |
| F212      | Phase Voltage Monitor Cir. 2           | Power Panel- Left           |
| F230      | Phase Volt Monitor Fuse Circuit Cir. 2 | Power Panel- Left           |

## Electrical Legend, Continued

| Sch. Sym. | Description                              | Location                    |
|-----------|--|-----------------------------|
| F23       | High Pressure Switch Circuit Cir. 2      | Compressor 2                |
| F5-1      | Thermal Relay                            | Starter Panel- Compressor 1 |
| F5-2      | Thermal Relay                            | Starter Panel- Compressor 2 |
| F59       | Evaporator Heater Fuse                   | Control Panel               |
| F90       | Thermostat                               | Control Panel               |
| FTB107    | Fan Terminal Block Cir. 1                | Power Panel- Left           |
| FTB110    | Fan Terminal Block Cir. 1                | Power Panel- Left           |
| FTB207    | Fan Terminal Block Cir. 2                | Power Panel- Left           |
| FTB210    | Fan Terminal Block Cir. 2                | Power Panel- Left           |
| GFR1      | Ground Fault Relay Cir. 1                | Power Panel- Left           |
| GFR2      | Ground Fault Relay Cir. 2                | Power Panel- Left           |
| K11       | Emergency Stop Contactor                 | Control Panel               |
| K16       | Fan Stage Cir. 1                         | Power Panel- Left           |
| K26       | Fan Stage Cir. 2                         | Power Panel- Left           |
| K2B-1     | Contactor                                | Starter Panel- Compressor 1 |
| K2B-2     | Contactor                                | Starter Panel- Compressor 2 |
| KM10      | Power Factor Correction Contactor Cir. 1 | Starter Panel- Compressor 1 |
| KM101     | Fan Motor Contactor                      | Power Panel- Left           |
| KM10-1    | Contactor                                | Starter Panel- Compressor 1 |
| KM102     | Fan Motor Contactor                      | Power Panel- Left           |
| KM10-2    | Contactor                                | Starter Panel- Compressor 2 |
| KM105     | Fan Motor Contactor                      | Power Panel- Left           |
| KM107     | Fan Motor Contactor                      | Power Panel- Left           |
| KM1-1     | Compressor Contactor                     | Starter Panel- Compressor 1 |
| KM110     | Fan Motor Contactor                      | Power Panel- Left           |
| KM1-2     | Compressor Contactor                     | Starter Panel- Compressor 2 |
| KM20      | Power Factor Correction Contactor Cir. 2 | Starter Panel- Compressor 2 |
| KM201     | Fan Motor Contactor                      | Power Panel- Left           |
| KM202     | Fan Motor Contactor                      | Power Panel- Left           |
| KM203     | Fan Motor Contactor                      | Power Panel- Left           |
| KM205     | Fan Motor Contactor                      | Power Panel- Left           |
| KM207     | Fan Motor Contactor                      | Power Panel- Left           |
| KM2-1     | Compressor Contactor                     | Starter Panel- Compressor 2 |
| KM2-2     | Compressor Contactor                     | Starter Panel- Compressor 2 |
| KM2-3     | Compressor Contactor                     | Starter Panel- Compressor 2 |
| KT-1      | Auxilliary Relay Cir. 1                  | Starter Panel- Compressor 1 |
| KT1-1     | Delay Relay                              | Starter Panel- Compressor 1 |
| KT1-2     | Delay Relay                              | Starter Panel- Compressor 2 |
| KT-2      | Aux. Relay Cir. 2                        | Starter Panel- Compressor 2 |
| LJV-1     | Liquid Injection Solenoid/Relay Cir. 1   | Liquid Line/Starter Panel 1 |
| LJV-2     | Liquid Injection Solenoid/Relay Cir. 2   | Liquid Line/Starter Panel 2 |
| LR1       | Line Reactor Cir. 1                      | Power Panel- Left           |
| LR2       | Line Reactor Cir. 2                      | Power Panel- Left           |
| LSV-1     | Liquid Line Solenoid Cir. 1              | Liquid Line- Circuit 1      |
| LSV-2     | Liquid Line Solenoid Cir. 2              | Liquid Line- Circuit 2      |
| M1        | Compressor Cir. 1                        | Base                        |
| M10       | Forced Ventilation                       | Switch Box End              |
| M101      | Fan Motor                                | Power Panel- Left           |
| M102      | Fan Motor                                | Power Panel- Left           |
| M103      | Fan Motor                                | Power Panel- Left           |
| M104      | Fan Motor                                | Power Panel- Left           |
| M105      | Fan Motor                                | Power Panel- Left           |
| M106      | Fan Motor                                | Power Panel- Left           |

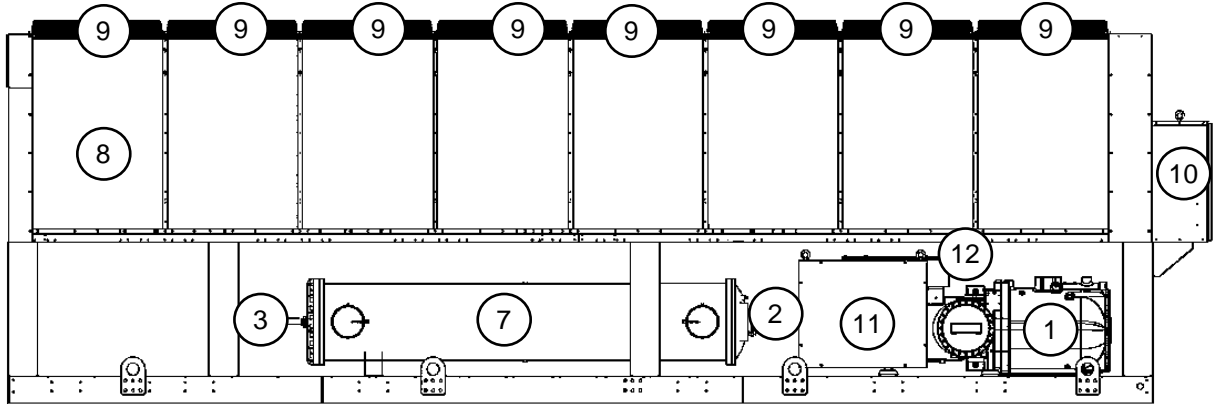


## Electrical Legend, Continued

| Sch. Sym. | Description                             | Location                    |
|-----------|---|-----------------------------|
| M107      | Fan Motor                               | Power Panel- Left           |
| M108      | Fan Motor                               | Power Panel- Left           |
| M109      | Fan Motor                               | Power Panel- Left           |
| M110      | Fan Motor                               | Power Panel- Left           |
| M111      | Fan Motor                               | Power Panel- Left           |
| M112      | Fan Motor                               | Power Panel- Left           |
| M2        | Compressor Cir. 2                       | Base                        |
| M201      | Fan Motor                               | Power Panel- Left           |
| M202      | Fan Motor                               | Power Panel- Left           |
| M203      | Fan Motor                               | Power Panel- Left           |
| M204      | Fan Motor                               | Power Panel- Left           |
| M205      | Fan Motor                               | Power Panel- Left           |
| M206      | Fan Motor                               | Power Panel- Left           |
| M207      | Fan Motor                               | Power Panel- Left           |
| M207      | Fan Motor                               | Power Panel- Left           |
| M208      | Fan Motor                               | Power Panel- Left           |
| M209      | Fan Motor                               | Power Panel- Left           |
| M210      | Fan Motor                               | Power Panel- Left           |
| M211      | Fan Motor                               | Power Panel- Left           |
| M212      | Fan Motor                               | Power Panel- Left           |
| MP1       | Motor Thermal Protection                | Starter Panel- Compressor 1 |
| MP2       | Motor Thermal Protection                | Starter Panel- Compressor 2 |
| MPR1      | Motor Protection Relay Cir. 1           | Starter Panel- Compressor 1 |
| MPR2      | Motor Protection Relay Cir. 2           | Starter Panel- Compressor 2 |
| OP-1      | Oil Pressure Cir. Cir. 1                | Compressor 1                |
| OP-2      | Oil Pressure Cir. Cir. 2                | Compressor 2                |
| Q0        | Unit ON - OFF Switch                    | Control Panel               |
| Q1        | Pump Down Switch Cir. 1                 | Control Panel               |
| Q10       | Main Power Block or Disconnect Switch 1 | Power Panel- Right          |
| Q20       | Main Power Block or Disconnect Switch 2 | Power Panel- Right          |
| Q101      | Fan MSP                                 | Power Panel- Left           |
| Q102      | Fan MSP                                 | Power Panel- Left           |
| Q103      | Fan MSP                                 | Power Panel- Left           |
| Q105      | Fan MSP                                 | Power Panel- Left           |
| Q107      | Fan MSP                                 | Power Panel- Left           |
| Q11       | Emergency Stop Switch                   | Control Box Door            |
| Q110      | Fan MSP                                 | Power Panel- Left           |
| Q12       | Automatic Circuit Breaker               | Control Panel               |
| Q2        | Pump Down Switch Cir. 2                 | Control Panel               |
| Q201      | Fan MSP                                 | Power Panel- Left           |
| Q202      | Fan MSP                                 | Power Panel- Left           |
| Q203      | Fan MSP                                 | Power Panel- Left           |
| Q203      | Fan MSP                                 | Power Panel- Left           |
| Q205      | Fan MSP                                 | Power Panel- Left           |
| Q205      | Fan MSP                                 | Power Panel- Left           |
| Q207      | Fan MSP                                 | Power Panel- Left           |
| Q210      | Fan MSP                                 | Power Panel- Left           |
| R1        | Compressor Crankcase Heater Cir. 1      | Compressor 1                |
| R2        | Compressor Crankcase Heater Cir. 2      | Compressor 2                |
| R5        | Evaporator Heater                       | Evaporator Shell            |
| SL-1      | Slide Indicator Cir. 1                  | Compressor 1                |
| SL-2      | Slide Indicator Cir. 2                  | Compressor 2                |



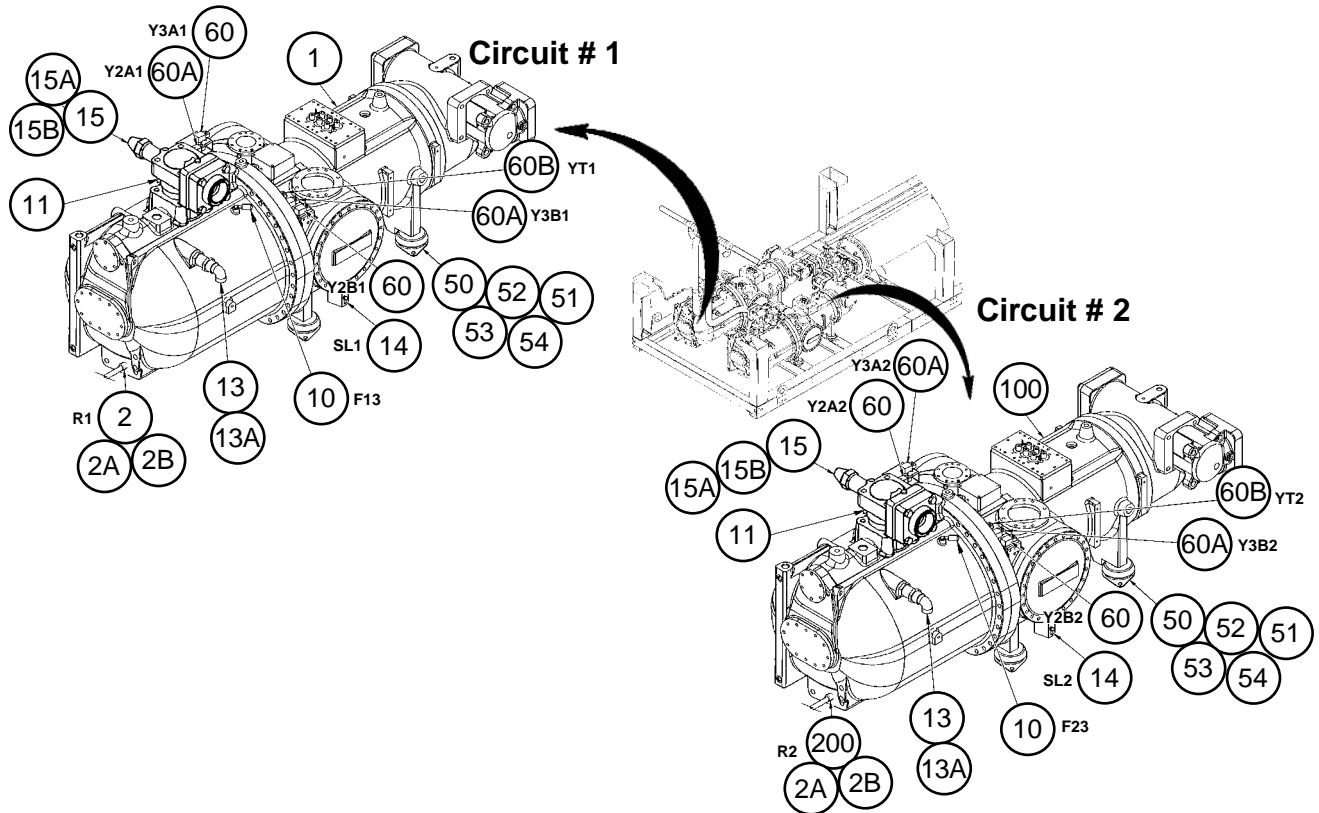
## Unit Layout (Unit Size 300ADS Shown)



| Ref. No. | Description                                   | Location              |
|----------|---|-----------------------|
| 1        | Compressors                                   | Refrigeration Section |
| 2        | Tubing (suction, discharge, liquid injection) | Refrigeration Section |
| 3        | Liquid Line and Economizer                    | Refrigeration Section |
| 7        | Evaporator                                    | Refrigeration Section |
| 8        | Condenser Coil                                | Refrigeration Section |
| 9        | Condenser Fans                                | Refrigeration Section |
| 10       | Unit Switch Box/Control Panel                 | Controls Section      |
| 11       | Compressor Starter Panel                      | Controls Section      |
| 12       | Compressor Terminal Box                       | Controls Section      |

# Refrigeration Section

## Compressors, Heaters, Pressure Switches, Transducers, Solenoid Valves, Relief Valves, Compressor Mounting



| Ref No. | Sch. Sym. | Part Description                      | Part Number   | Qty. |
|---------|-----------|---------------------------------------|---------------|------|
| 1       |           | Compressor- Circuit #1                | see next page |      |
| 2       | R1        | Heater- Compressor                    | see next page |      |
| 2A      |           | Well- Heater                          | 300043894     | 2    |
| 2B      |           | Bushing- Heater                       | 132010016     | 2    |
| 10      | F13, 23   | Switch- High Pressure Control 290 PSI | 073074009     | 2    |
| 11      | OP1, 2    | Transducer- Oil Pressure 0 to 30 bar  | 1000109562    | 2    |
| 13      |           | Valve- Relief 325 PSI                 | 735045859     | 2    |
| 13A     |           | Elbow- Relief Valve 1"                | 10000108772   | 2    |
| 14      | SL1, 2    | Transducer- Slide Indicator C21= L, B | 10000108766   | 2    |
| 15      |           | Valve- Shut Off 4.12                  | 735039813     | 2    |
| 15A     |           | Screw- Hex                            | 330821925     | 8    |
| 15B     |           | Washer- Lock                          | 048164816     | 8    |
| 50      |           | Isolator- Compressor                  | 10000107046   | 4    |
| 51      |           | Screw- Compressor Mount               | 330821905     | 24   |
| 52      |           | Washer, Plain- Compressor Mount       | 040500310     | 32   |
| 53      |           | Washer, Lock- Compressor Mount        | 048164814     | 24   |
| 54      |           | Nut- Compressor Mount                 | 330721904     | 16   |
| 60      | Y2*1-1, 2 | Valve, Solenoid- Load                 | 1             | 4    |
| 60A     | Y3*1-1, 2 | Valve, Solenoid- Unload               | 1             | 4    |
| 60B     | YT-1, 2   | Valve, Solenoid- Turbo                | 1             | 2    |
| 100     |           | Compressor- Circuit #2                | see next page |      |
| 200     | R2        | Heater- Compressor                    | see next page |      |

<sup>1</sup> All solenoids are comprised of 4 components: Valve Body p/n 072932001; Valve Coil p/n 131066074; Valve Support Adapter p/n 332637801; Valve Support Gasket p/n 332130201.

**Refrigeration Section**  
**Compressors & Heaters**  
**Standard Efficiency Units (Code 04= SE)**  
**Components**

| Ref No. | Sch. Sym. | Part Description               | Part Number | Unit Size |  |  |  |  |         |         |
|---------|-----------|--------------------------------|-------------|-----------|--|--|--|--|---------|---------|
|         |           |                                |             |           |  |  |  |  | 280 ADS | 300 ADS |
| 1       |           | Compressor- Circuit #1         | 10000102363 |           |  |  |  |  | 1       |         |
|         |           | Compressor- Circuit #1         | 10000102364 |           |  |  |  |  |         | 1       |
| 2       | R1        | Heater- Compressor, Circuit #1 | 735041266   |           |  |  |  |  | 1       | 1       |
| 100     |           | Compressor- Circuit #2         | 10000102364 |           |  |  |  |  | 1       | 1       |
| 200     | R2        | Heater- Compressor, Circuit #2 | 735041266   |           |  |  |  |  | 1       | 1       |
|         |           |                                |             |           |  |  |  |  |         |         |

# Refrigeration Section

## Compressors & Heaters

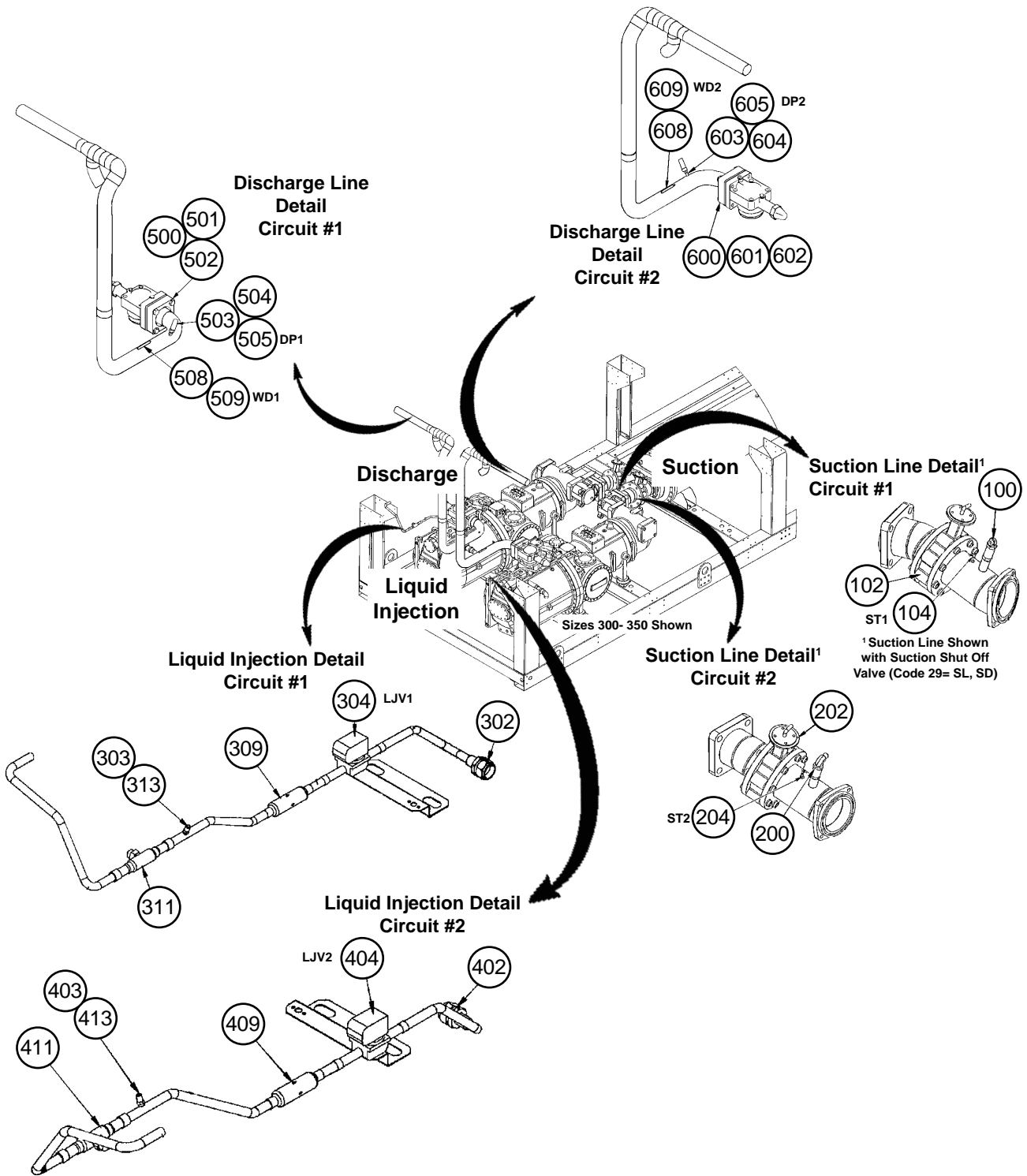
### High Efficiency Units (Code 04= HE)

### Components

| Ref No. | Sch. Sym. | Part Description               | Part Number | Unit Size |  |  |  |         |         |         |
|---------|-----------|--------------------------------|-------------|-----------|--|--|--|---------|---------|---------|
|         |           |                                |             |           |  |  |  | 300 ADH | 320 ADH | 350 ADH |
| 1       |           | Compressor- Circuit #1         | 10000102363 |           |  |  |  | 1       | 1       |         |
|         |           | Compressor- Circuit #1         | 10000102364 |           |  |  |  |         |         | 1       |
| 2       | R1        | Heater- Compressor, Circuit #1 | 735041266   |           |  |  |  | 1       | 1       | 1       |
| 100     |           | Compressor- Circuit #2         | 10000102363 |           |  |  |  | 1       |         |         |
|         |           | Compressor- Circuit #1         | 10000102364 |           |  |  |  |         | 1       | 1       |
| 200     | R2        | Heater- Compressor, Circuit #2 | 735041266   |           |  |  |  | 1       | 1       | 1       |
|         |           |                                |             |           |  |  |  |         |         |         |

# Refrigeration Section

## Suction Lines, Discharge Lines, Liquid Injection Lines Diagrams



# Refrigeration Section

## Suction Lines, Discharge Lines, Liquid Injection Components

| Ref No.                             | Sch. Sym. | Part Description                           | Part Number | Qty. |
|-------------------------------------|-----------|--|-------------|------|
| <b>Suction Line- Circuit #1</b>     |           |  |             |      |
| 100                                 |           | Valve- Relief 200 PSI                      | 735045852   | 1    |
| 102                                 |           | Valve- Suction Shutoff Butterfly           | 10000107082 | 1    |
| 104                                 | ST1       | Sensor- Suction Temperature                | 193414602   | 1    |
| N/S                                 | SP1       | Transducer- Suction -1 to 7 bar            | 10000109563 | 1    |
| <b>Suction Line- Circuit #2</b>     |           |  |             |      |
| 200                                 |           | Valve- Relief 200 PSI                      | 735045852   | 1    |
| 202                                 |           | Valve- Suction Shutoff Butterfly           | 10000107082 | 1    |
| 204                                 | ST2       | Sensor- Suction Temperature                | 193414602   | 1    |
| N/S                                 | SP2       | Transducer- Suction Pressure -1 to 7 bar   | 10000109563 | 1    |
| <b>Liquid Injection- Circuit #1</b> |           |  |             |      |
| 302                                 |           | Fitting- Rotolock                          | 10000107074 | 1    |
| 303                                 |           | Valve- Schrader                            | 071100801   | 1    |
| 304                                 | LJV1      | Valve- Solenoid 120V                       | 331451002   | 1    |
| 309                                 |           | Strainer                                   | 735030506   | 1    |
| 311                                 |           | Valve- Ball                                | 330286003   | 1    |
| 313                                 |           | Cap- Valve                                 | 032943500   | 1    |
| <b>Liquid Injection- Circuit #2</b> |           |  |             |      |
| 402                                 |           | Fitting- Rotolock                          | 10000107074 | 1    |
| 403                                 |           | Valve- Schrader                            | 071100801   | 1    |
| 404                                 | LJV2      | Valve- Solenoid 120V                       | 331451002   | 1    |
| 409                                 |           | Strainer                                   | 735030506   | 1    |
| 411                                 |           | Valve- Ball                                | 330286003   | 1    |
| 413                                 |           | Cap- Valve                                 | 032943500   | 1    |
| <b>Discharge Line- Circuit #1</b>   |           |  |             |      |
| 500                                 |           | Coupling 3.13                              | 10000108703 | 1    |
| 501                                 |           | Kit- Flange 4.12                           | 735016406   | 1    |
| 502                                 |           | Screw .75 x 3.5                            | 735033967   | 4    |
| 503                                 |           | Valve- Schrader                            | 071100801   | 1    |
| 504                                 |           | Core- Valve                                | 026541100   | 1    |
| 505                                 | DP1       | Transducer- Discharge Pressure 0 to 30 bar | 10000109562 | 1    |
| 508                                 |           | Tube- Sensor                               | 070228901   | 1    |
| 509                                 | WD1       | Sensor- Discharge Temperature              | 193414602   | 1    |
| <b>Discharge Line- Circuit #2</b>   |           |  |             |      |
| 600                                 |           | Coupling 3.13                              | 10000108703 | 1    |
| 601                                 |           | Kit- Flange 4.12                           | 735016406   | 1    |
| 602                                 |           | Screw .75 x 3.5                            | 735033967   | 4    |
| 603                                 |           | Valve- Schrader                            | 071100801   | 1    |
| 604                                 |           | Core- Valve                                | 026541100   | 1    |
| 605                                 | DP2       | Transducer- Discharge Pressure 0 to 30 bar | 10000109562 | 1    |
| 608                                 |           | Tube- Sensor                               | 070228901   | 1    |
| 609                                 | WD2       | Sensor- Discharge Temperature              | 193414602   | 1    |

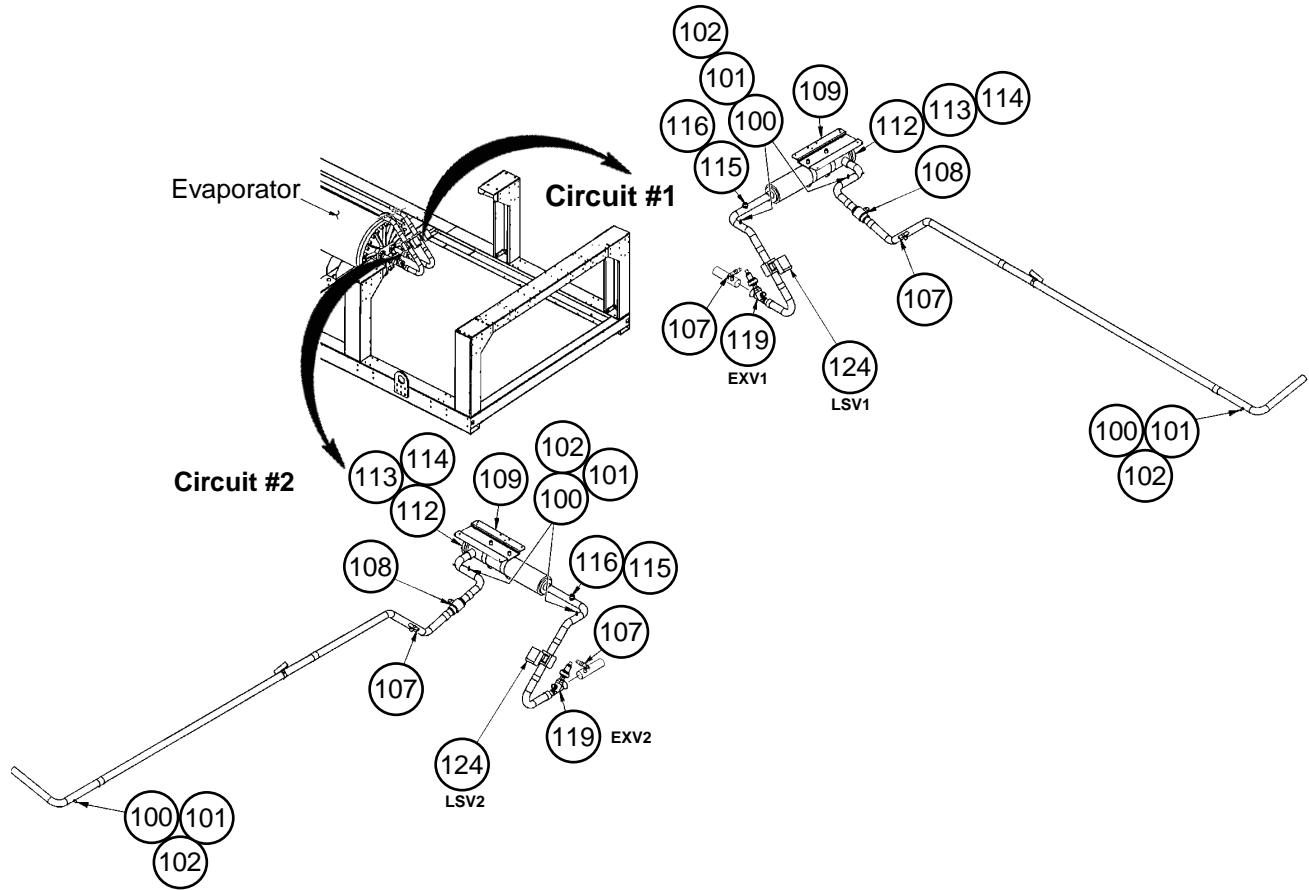


# Refrigeration Section

## Liquid Lines- Standard Efficiency Units (Code 04= SE)

### Sizes 280ADS, 300ADS

### Diagrams & Components



| Ref No. | Sch. Sym. | Part Description            | Part Number              | Qty. |
|---------|-----------|-----------------------------|--------------------------|------|
| 100     |           | Valve- Schrader             | 071100801                | 6    |
| 101     |           | Core- Valve                 | 026541100                | 6    |
| 102     |           | Cap- Valve                  | 032943500                | 6    |
| 107     |           | Valve- Charge               | .37 x .37<br>038689900   | 4    |
| 108     |           | Valve- Ball                 | 1.625<br>330286087       | 2    |
| 109     |           | Bracket- Drier              | 10000101769              | 2    |
| 112     |           | Shell- Filter Drier         | 071993505                | 2    |
| 113     |           | Core- Filter Drier          | 070339101                | 8    |
| 114     |           | Kit- Drier Gasket           | 074783601                | 4    |
| 115     |           | Saddle- Sight Glass         | 330508705                | 2    |
| 116     |           | Cap- Sight Glass            | 330508701                | 2    |
| 119     | EXV1, 2   | Valve- Electronic Expansion | 12V/6W<br>10000107041    | 2    |
| 124     | LSV1, 2   | Valve- Liquid Line Solenoid | C29= LD, SL<br>331451007 | 2    |

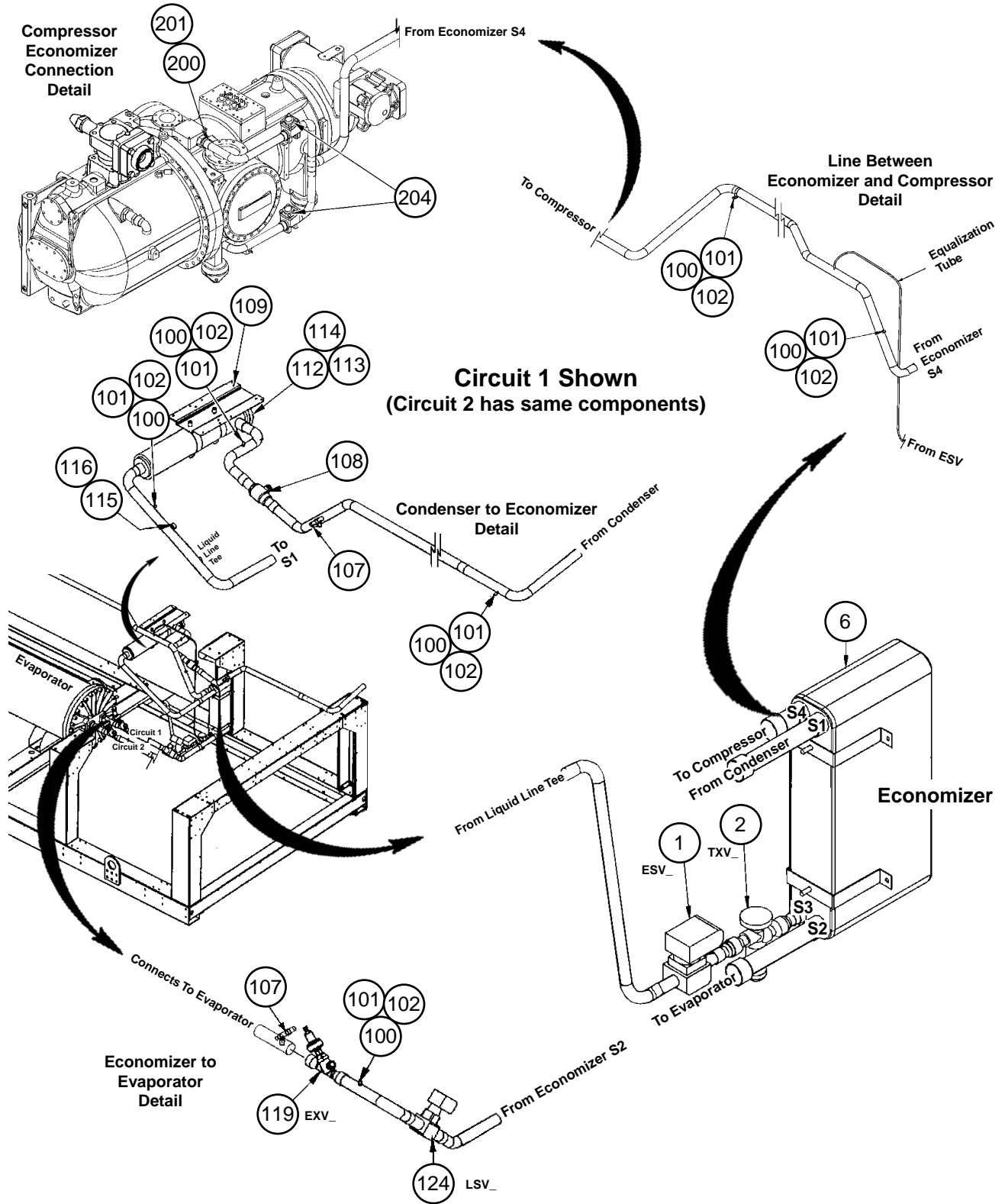
NOTE: Quantities listed are for the unit. Each circuit uses ½ the quantity listed.

# Refrigeration Section

## Liquid Lines with Economizer- High Efficiency Units (Code 04= HE)

### Sizes 300ADH, 320ADH, 350ADH

### Diagrams



# Refrigeration Section

## Liquid Lines with Economizer- High Efficiency Units (Code 04= HE)

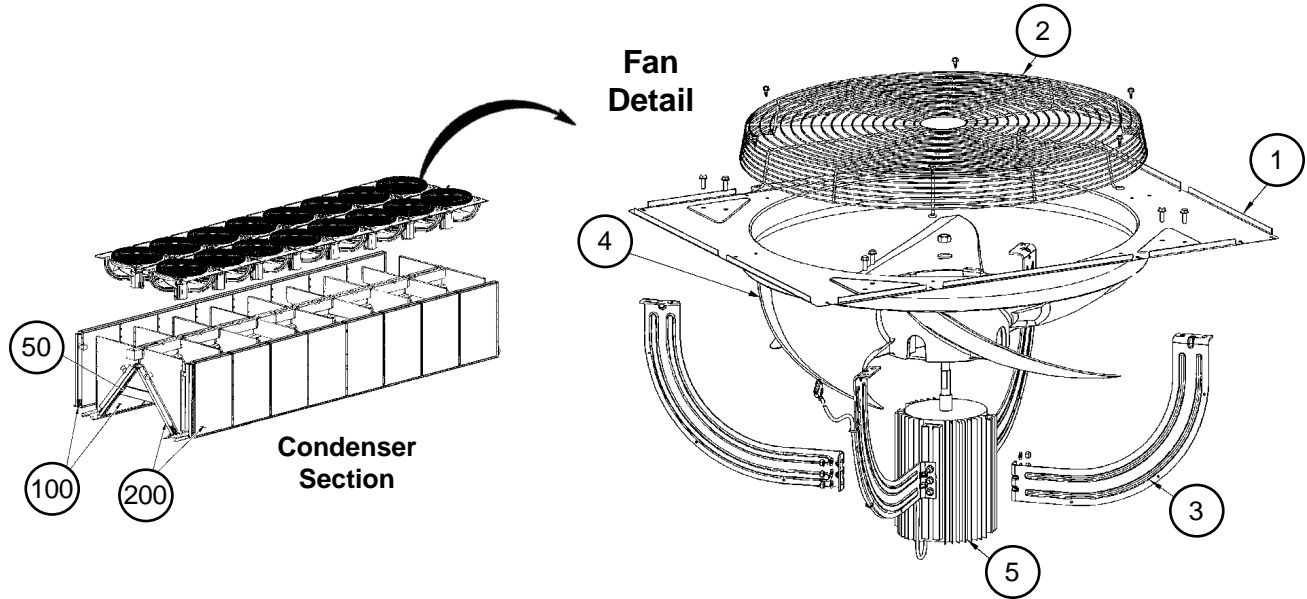
### Sizes 300ADH, 320ADH, 350ADH

### Diagrams

| Ref No. | Sch. Sym. | Part Description                        | Part Number | Qty. |
|---------|-----------|---|-------------|------|
| 1       | ESV1, 2   | Valve- Economizer Solenoid              | 331451003   | 2    |
| 2       | TXV1, 2   | Valve- Thermal Expansion                | 10000107028 | 2    |
| 6       |           | Economizer- Brazed Plate                | 10000107022 | 2    |
| 100     |           | Valve- Schrader                         | 071100801   | 8    |
| 101     |           | Core- Valve                             | 026541100   | 8    |
| 102     |           | Cap- Valve                              | 032943500   | 8    |
| 107     |           | Valve- Charge .37 x .37                 | 038689900   | 4    |
| 108     |           | Valve- Ball 1.625                       | 330286087   | 2    |
| 109     |           | Bracket- Drier                          | 10000101769 | 2    |
| 112     |           | Shell- Filter Drier                     | 071993505   | 2    |
| 113     |           | Core- Filter Drier                      | 070339101   | 8    |
| 114     |           | Kit- Drier Gasket                       | 074783601   | 4    |
| 115     |           | Saddle- Sight Glass                     | 330508705   | 2    |
| 116     |           | Cap- Sight Glass                        | 330508701   | 2    |
| 119     | EXV1, 2   | Valve- Electronic Expansion 12V/6W      | 10000107041 | 2    |
| 124     | LSV1, 2   | Valve- Liquid Line Solenoid C29= LD, SL | 331451007   | 2    |
| 200     |           | Connector- Economizer 1-3/4- 12 UN      | 10000105027 | 4    |
| 201     |           | Fitting- Economizer 1-3/4- 12 UN        | 10000107073 | 4    |
| 204     |           | Valve- Check 1.38S                      | 070300705   | 4    |

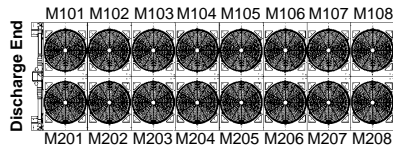
NOTE: Quantities listed are for the unit. Each circuit uses ½ the quantity listed.

# Refrigeration Section Condenser Coils and Fans Components

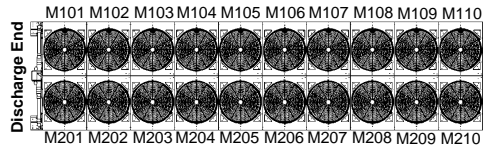


## Fan Location Detail

### AWS 280, 300



### AWS 320, 350



| Ref No. | Sch. Sym. | Part Description                 | Part Number | Unit Sizes |          |          |
|---------|-----------|----------------------------------|-------------|------------|----------|----------|
|         |           |                                  |             |            | 280, 300 | 320, 350 |
| 1       |           | Panel- Fan Deck                  | 10000108765 |            | 16       | 20       |
| 2       |           | Grille- Fan                      | 10000107008 |            | 16       | 20       |
| 3       |           | Bracket- Fan Motor               | 10000100048 |            | 64       | 80       |
| 4       |           | Blade- Fan                       | 10000107009 |            | 16       | 20       |
| 5       | M***      | Motor- Fan 1.4 HP                | 10000108803 |            | 16       | 20       |
| 50      | WAA       | Sensor- Outdoor Air <sup>1</sup> | 193414601   |            | 1        | 1        |
| 100     |           | Coils- Condenser Circuit 1       | 2           |            |          |          |
| 200     |           | Coils- Condenser Circuit 2       | 2           |            |          |          |

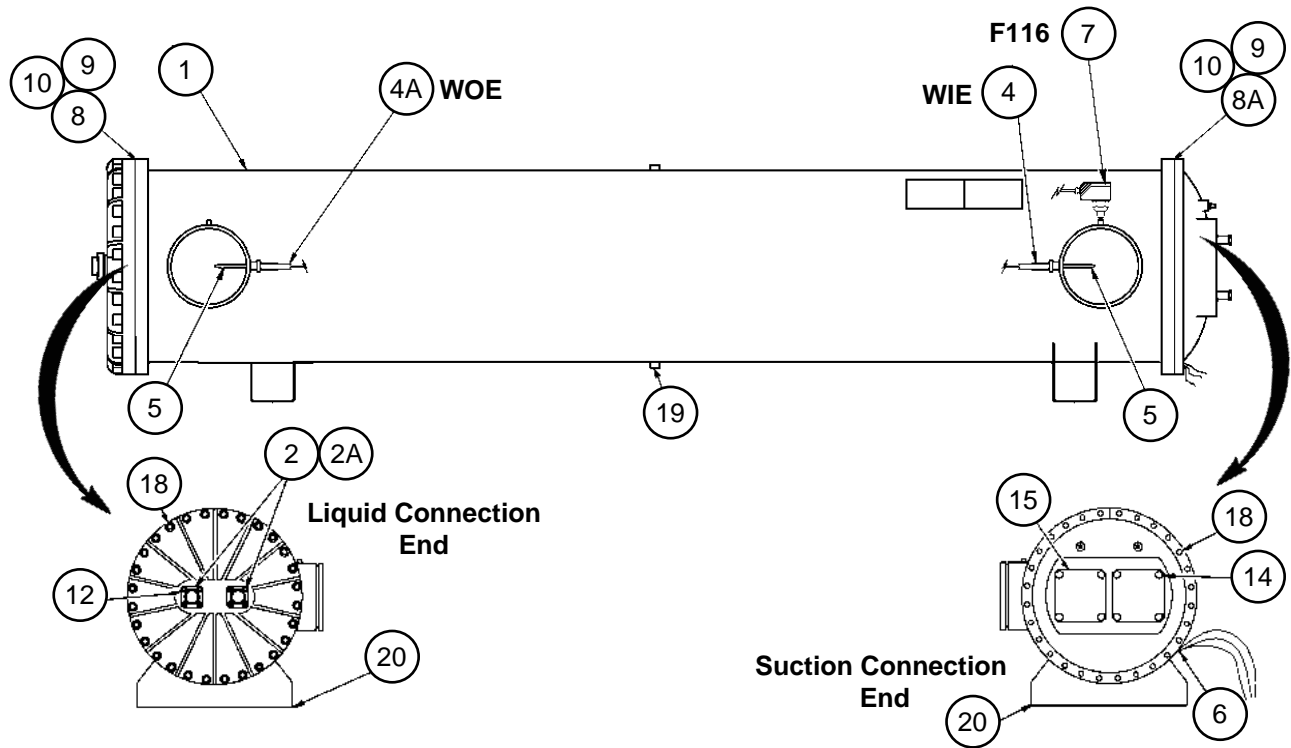
<sup>1</sup> Mounted to Condenser Coil tubesheet behind the switch box.

<sup>2</sup> Contact McQuay Parts.

\*\*\*= Fan number 101 - 212.

# Refrigeration Section

## Evaporator and Components

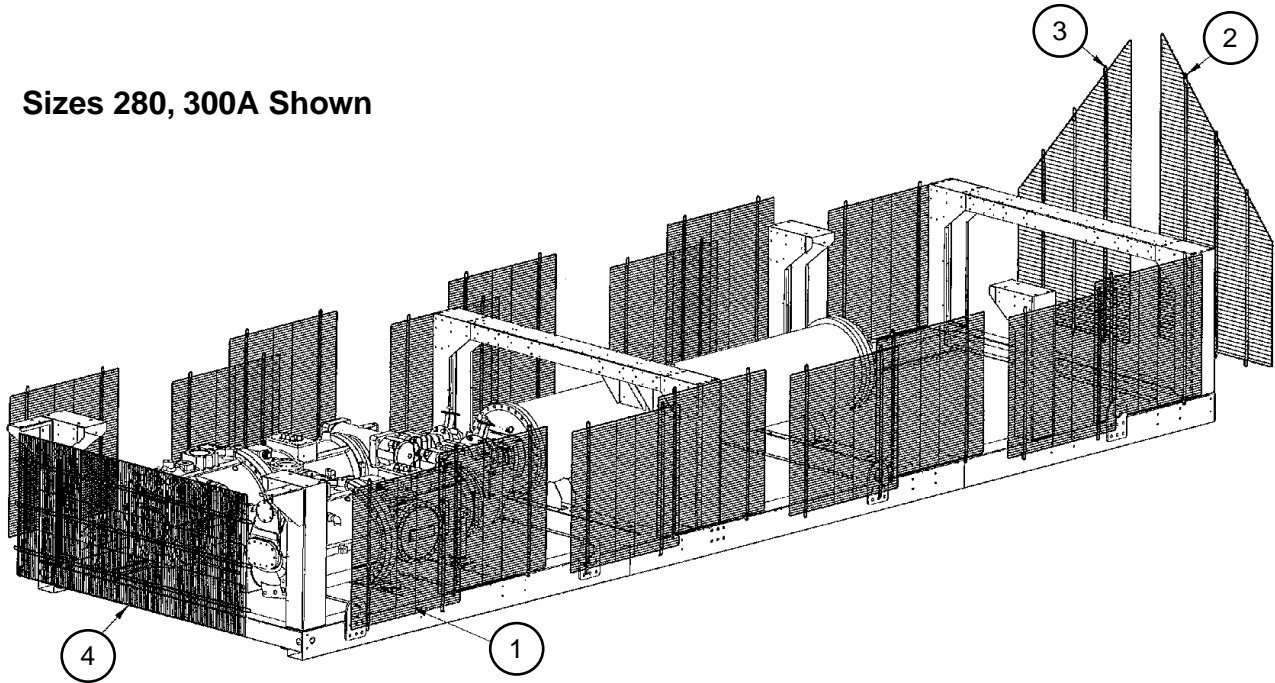


| Ref No. | Sch. Sym. | Part Description              | Unit Sizes  |             | Qty.        |   |
|---------|-----------|-------------------------------|-------------|-------------|-------------|---|
|         |           |                               | 280, 300    | 320,350     |             |   |
| 1       |           | Evaporator- Complete Assembly |             |             |             |   |
|         |           | Left Hand Connection          | Code 23= VL | 10000108718 | 10000108719 | 1 |
|         |           | Right Hand Connection         | Code 23= VR | 10000108748 | 10000108749 | 1 |
| 2       |           | Ferrule- Liquid               | E44070016   | E44070016   | 2           |   |
| 2A      |           | Flange- Liquid                | E44060007   | E44060007   | 2           |   |
| 4       | WIE       | Sensor- Evaporator Inlet      | 193414603   | 193414603   | 1           |   |
| 4A      | WOE       | Sensor- Evaporator Outlet     | 193414603   | 193414603   | 1           |   |
| 5       |           | Well- Sensor                  | 070716307   | 070716307   | 2           |   |
| 6       | R5        | Heater- Evaporator            | E44191111   | E44191111   | 1           |   |
| 7       | F116      | Switch- Evaporator Flow       | E44135062   | E44135062   | 1           |   |
|         |           | Cable- F116                   | 330571403   | 330571403   | 1           |   |
| 8       |           | Gasket- Inlet Head            | E44135062   | E44135062   | 1           |   |
| 8A      |           | Gasket- Suction Head          | E44135062   | E44135062   | 1           |   |
| 9       |           | Gasket- Distributor           | E44135072   | E44135072   | 2           |   |
| 10      |           | O'Ring- Tube Sheet            | E0062000    | E0062000    | 2           |   |
| 12      |           | Bolt- Liquid Ferrule          | E10125400   | E10125400   | 8           |   |
| 14      |           | Bolt- Suction Connection      | E14156000   | E14156000   | 8           |   |
| 15      |           | O'Ring- Suction               | E44136600   | E44136600   | 2           |   |
| 18      |           | Bolt- Head                    | E16157000   | E16157000   | 56          |   |
| 19      |           | Valve- Mini Ball              | .50 NPT     | 071596201   | 071596201   | 1 |
| 20      |           | Pad- Vibration                | 4" x 3.25"  | 735008725   | 735008725   | 4 |

# Base Frame Grilles

Code 28= F, C

Sizes 280, 300A Shown



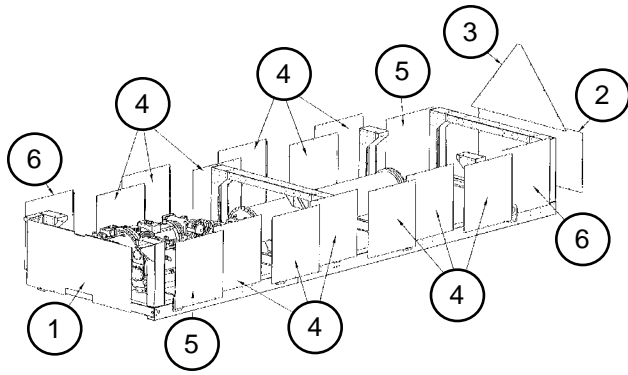
| Ref No. | Part Description                     | Part Number | Unit Size |      |      |      |
|---------|--------------------------------------|-------------|-----------|------|------|------|
|         |                                      |             | 280A      | 300A | 320A | 350A |
| 1       | Grille- Base <sup>1</sup>            | 10000108704 | 16        | 16   | 20   | 20   |
| 2       | Grille- Left Hand Rear <sup>2</sup>  | 10000108705 | 1         | 1    | 1    | 1    |
| 3       | Grille- Right Hand Rear <sup>2</sup> | 10000108706 | 1         | 1    | 1    | 1    |
| 4       | Grille- Front <sup>2</sup>           | 10000108707 | 1         | 1    | 1    | 1    |

<sup>1</sup> Each base grille is attached using four (4) screws p/n 331578401.

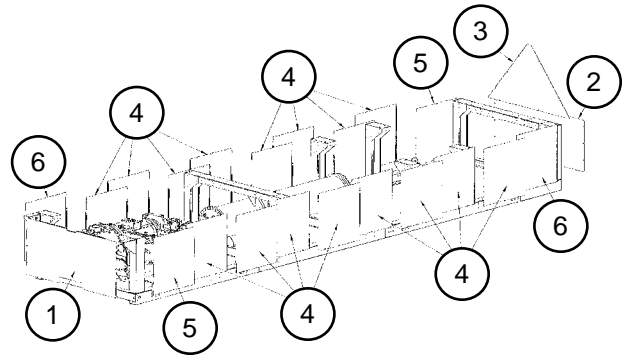
<sup>2</sup> Each front or rear grille is attached using six (6) screws p/n 331578401.

# Base Frame Louvers

## Code 28= B



**Sizes 280A & 300A**



**Sizes 320A & 350A**

| Ref No. | Part Description                         | Part Number | Unit Size |      |      |      |
|---------|--|-------------|-----------|------|------|------|
|         |  |             | 280A      | 300A | 320A | 350A |
| 1       | Louvered Panel- Front <sup>1</sup>       | 10000101794 | 1         | 1    | 1    | 1    |
| 2       | Louvered Panel- Rear Bottom <sup>2</sup> | 10000101795 | 1         | 1    | 1    | 1    |
| 3       | Louvered Panel- Rear Top <sup>1</sup>    | 10000101796 | 1         | 1    | 1    | 1    |
| 4       | Louvered Panel- Side <sup>3</sup>        | 10000101797 | 12        | 12   | 16   | 16   |
| 5       | Louvered Panel- Side <sup>3</sup>        | 10000101798 | 2         | 2    | 2    | 2    |
| 6       | Louvered Panel- Side <sup>3</sup>        | 10000101799 | 2         | 2    | 2    | 2    |

<sup>1</sup> Each bottom end louvered panel is attached using ten (10) screws p/n 331578401.

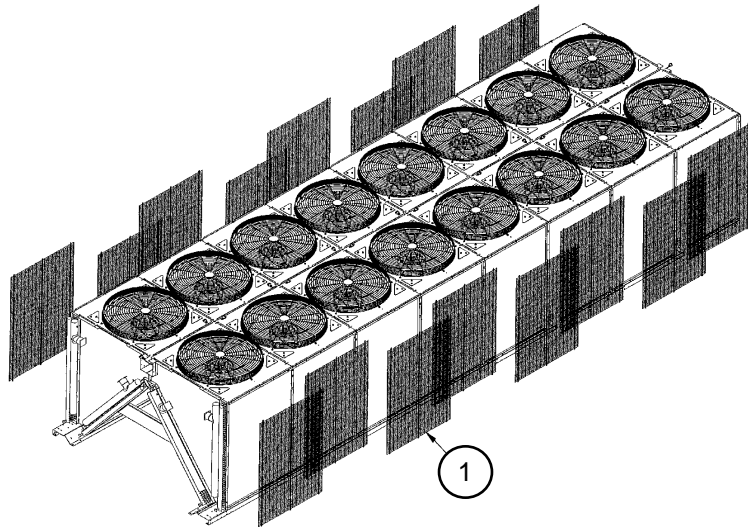
<sup>2</sup> Each top rear louvered panel is attached using twelve (12) screws p/n 331578401.

<sup>3</sup> Each top rear louvered panel is attached using six (6) screws p/n 331578401.

# Coil Grilles

Code 28= G, F

Size 300A Shown



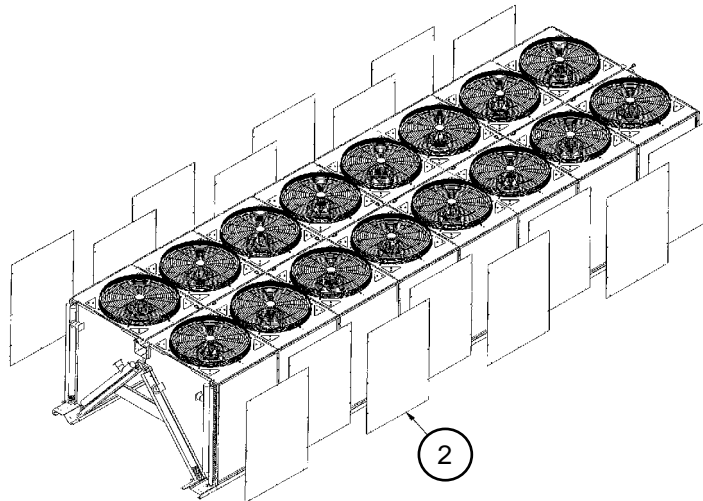
| Ref No. | Part Description          | Part Number | Unit Size |      |      |      |
|---------|---------------------------|-------------|-----------|------|------|------|
|         |                           |             | 280A      | 300A | 320A | 350A |
| 1       | Grille- Coil <sup>1</sup> | 10000107007 | 16        | 16   | 20   | 20   |

<sup>1</sup> Each coil louver is attached using six (6) screws p/n 331578401.

# Coil Louvers

Code 28= L, B, C

Size 300A Shown



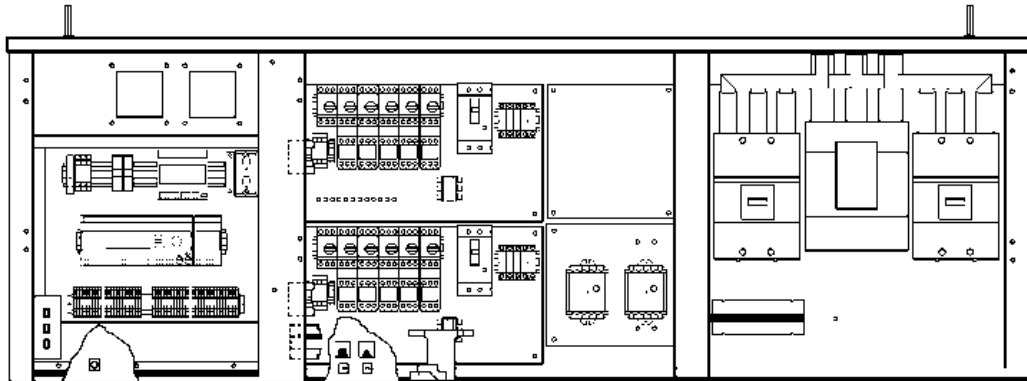
| Ref No. | Part Description                  | Part Number | Unit Size |      |      |      |
|---------|-----------------------------------|-------------|-----------|------|------|------|
|         |                                   |             | 280A      | 300A | 320A | 350A |
| 2       | Louvered Panel- Coil <sup>1</sup> | 10000101793 | 16        | 16   | 20   | 20   |

<sup>1</sup> Each coil louver is attached using six (6) screws p/n 331578401.



# Controls

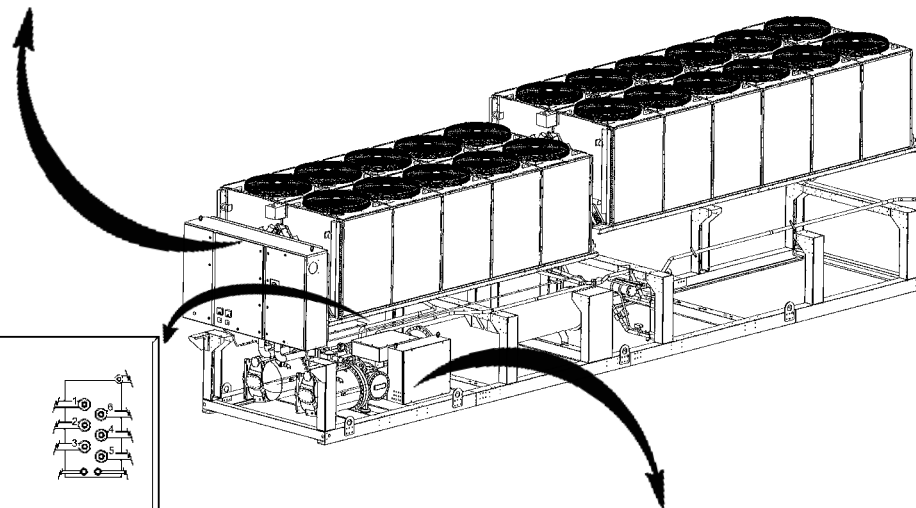
## Box Locations and Label Detail



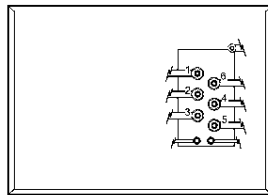
**Control Panel**  
(detailed on following page)

**Power Panel- Left Side**  
(detailed on page after next)

**Power Panel- Right Side**  
(detailed 2 pages after next)



**Terminal Box**  
(one per compressor)  
(detailed 8 pages after next)



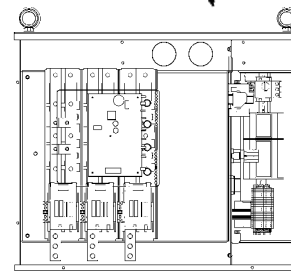
### Label Detail

For all control components not detailed or for unit specific controls (i.e. main disconnect, solid state contactors), please contact McQuay Parts with the **Control Box Serial Number** and **Control Box Part Number**. These numbers are located on the Control box rating label (see example below). This label is found inside the panel.

**Control Box Serial Number**  
"S" + Year + ##### + detail#

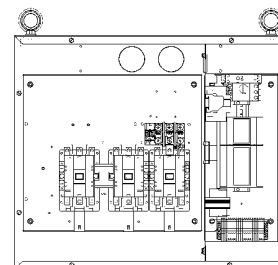


**Control Box Part Number**



**Solid State Starter Panel**  
(one per compressor)  
(detailed 4 pages after next)

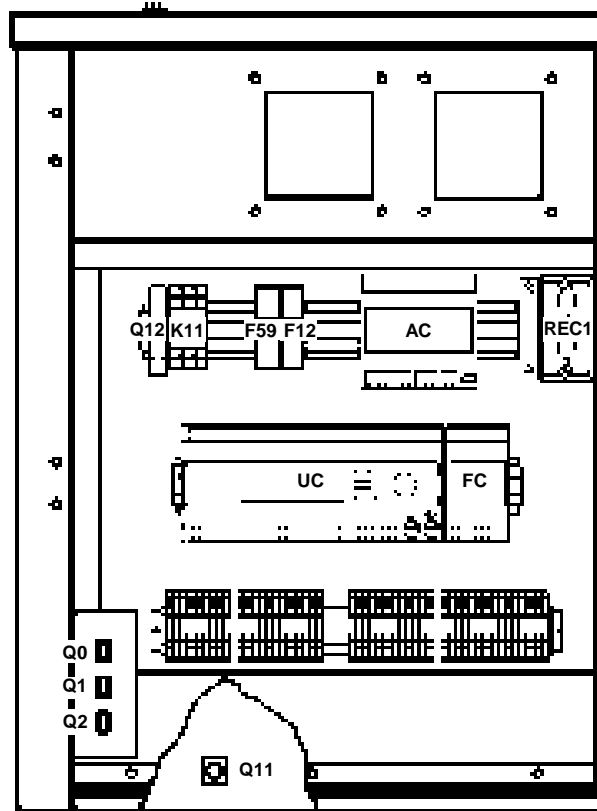
or



**Wye- Delta Starter Panel**  
(one per compressor)  
(detailed 6 pages after next)

# Controls

## Control Panel Detail

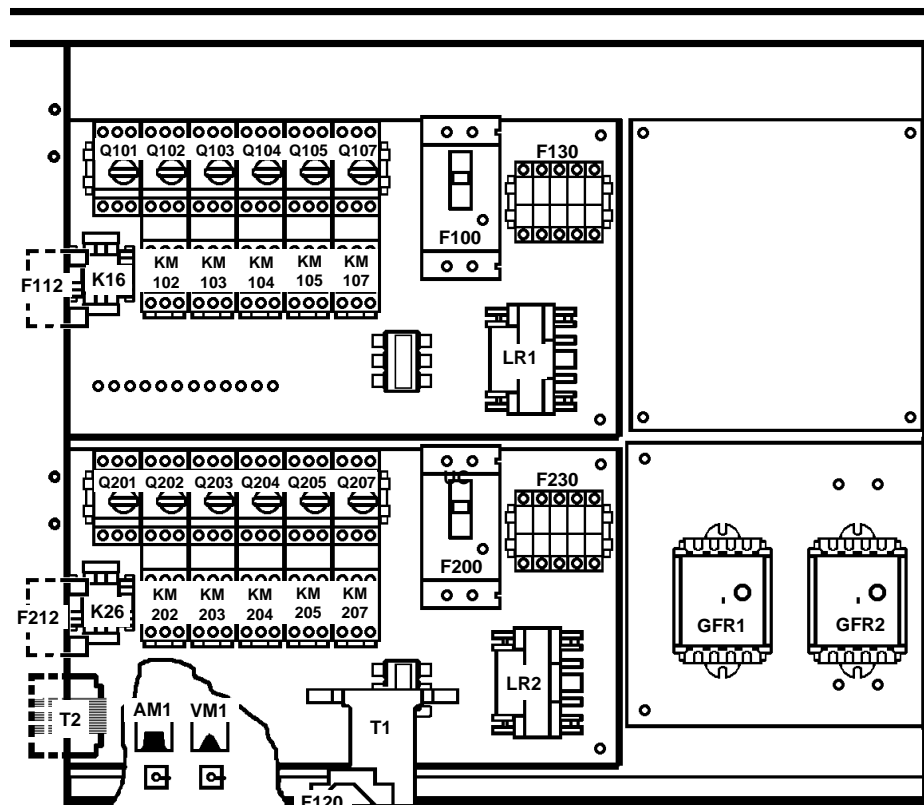


| Sch. Sym. | Part Description                    |            | Part Number | Qty. |
|-----------|-------------------------------------|------------|-------------|------|
| Q0        | Switch- Unit Shut Off               |            | 300046456   | 1    |
| Q1        | Switch- Pumpdown                    | Circuit #1 | 300046456   | 1    |
| Q2        | Switch- Pumpdown                    | Circuit #2 | 300046456   | 1    |
| Q11       | Switch- Emergency Stop <sup>1</sup> |            | 300046448   | 1    |
| Q12       | Circuit Breaker                     |            | 300046447   | 1    |
| K11       | Relay- Emergency Stop               |            | 300046445   | 1    |
| F12       | Fuse- Outlet                        |            | 300046446   | 1    |
| F59       | Fuse- Evaporator Heater Protection  |            | 300046455   | 1    |
| REC1      | Receptacle                          |            | 330472601   | 1    |
| UC        | Controller- MicroTech III           |            | 193407301   | 1    |
| FC        | Expansion Controller- Fans          |            | 193407601   | 1    |
| AC        | Expansion Controller- Alarms        |            | 193407501   | 1    |

<sup>1</sup> Mounted through the door.

# Controls

## Power Panel- Left Side Detail



| Sch. Sym.  | Part Description                 |                  | Part Number | Qty.  |
|------------|----------------------------------|------------------|-------------|-------|
| Q101- 107  | MSP- Fans                        | Circuit #1       | 300046443   | 1/fan |
| Q201- 207  | MSP- Fans                        | Circuit #2       | 300046443   | 1/fan |
| KM102- 107 | Contactora- Fans                 | Circuit #1       | 300046444   | 1/fan |
| KM202- 207 | Contactora- Fans                 | Circuit #2       | 300046444   | 1/fan |
| F112       | Phase Voltage Monitor            | Circuit #1       | 300040118   | 1     |
| F212       | Phase Voltage Monitor            | Circuit #2       | 300040118   | 1     |
| K16        | Relay- Fan Motor                 | Circuit #1       | 300046445   | 1     |
| K26        | Relay- Fan Motor                 | Circuit #2       | 300046445   | 1     |
| T2         | Transformer                      | 24V              | 300046472   | 1     |
| T1         | Transformer- Control             | 208/230/460:120V | 300046453   | 1     |
| F120       | Fuse- Control Transformer        | 460V             | 300046449   | 1     |
| F100       | Circuit Breaker- Circuit #1 Fans | 600V/100A        | 300043195   | 1     |
| F200       | Circuit Breaker- Circuit #2 Fans | 600V/100A        | 300043195   | 1     |
| F130       | Fuse- PVM                        | Circuit #1       | 300046454   | 1     |
| F230       | Fuse- PVM                        | Circuit #2       | 300046454   | 1     |
| GFR1       | Relay- Ground Fault              | Circuit #1       | 330315101   | 1     |
| GFR2       | Relay- Ground Fault              | Circuit #2       | 330315101   | 1     |
| AM1        | Ammeter: 0-600A <sup>1,2</sup>   | Code 14= A       | 300046458   | 1     |
| VM1        | Volt Meter: 0- 600V <sup>1</sup> | Code 14= A       | 300046460   | 1     |
| LR1        | Line Reactor                     | 2HP, 460V        | 300046411   | 1     |
| LR2        | Line Reactor                     | 2HP, 460V        | 300046411   | 1     |
| VFD1       | VFD <sup>3</sup>                 | 2HP, 460V        | 300046412   | 1     |
| VFD2       | VFD <sup>3</sup>                 | 2HP, 460V        | 300046412   | 1     |

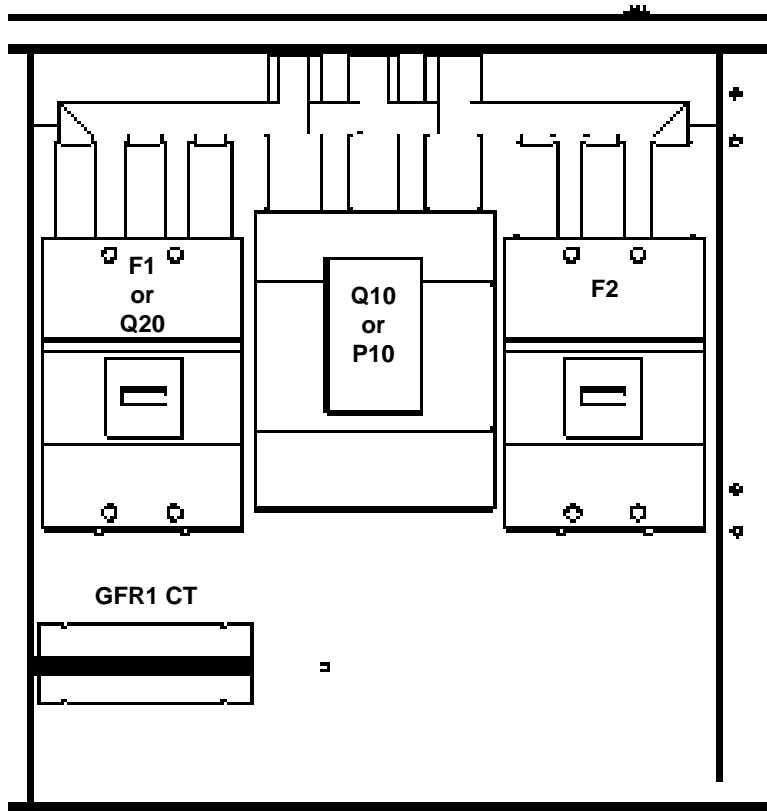
<sup>1</sup> Mounted on the outside of the power panel door.

<sup>2</sup> 0- 1500A ammeter is p/n 300046459.

<sup>3</sup> Not shown - The VFD is located on the back of the power panel below the condenser.

# Controls

## Power Panel- Right Side Detail



**Single Point Connection (Code 12= PC, DC, DH)  
Shown**

| Sch. Sym. | Part Description                       | Part Number                  | Qty.          |
|-----------|--|------------------------------|---------------|
| Q10, 20   | Switch- Main Disconnect                | C12= DC, DH                  | 1, 2          |
| P10       | Power Block- Main                      | C12= PC                      | 1             |
| F1        | Circuit Breaker- Circuit #1 Compressor | C12= PC, DC, DH <sup>3</sup> | See Next Page |
| F2        | Circuit Breaker- Circuit #2 Compressor | C12= PC, DC, DH <sup>3</sup> | See Next Page |
| GFR1 CT   | Transformer- Ground Fault              | C19= G                       | 300043558 1   |

<sup>1</sup> The main disconnect or power block selection is based on unit options. Contact McQuay Parts to insure proper replacement part number.

<sup>2</sup> The Q20 is used in Multiple Point Disconnect units (C12= WN, WH).

<sup>3</sup> F1 and F2 are not used in Multiple Point Disconnect units (C12= WN, WH).

# Controls

## Power Panel- Right Side Detail, Continued

### Circuit Breakers

#### Standard Efficiency Units (Code 04= SE)

| Sch. Sym. | Part Description                | Part Number | Unit Size |  |  |  |         |         |   |
|-----------|---------------------------------|-------------|-----------|--|--|--|---------|---------|---|
|           |                                 |             |           |  |  |  | 280 ADS | 300 ADS |   |
| F1        | Circuit Breaker- Circuit #1     |             |           |  |  |  |         |         |   |
|           | Single Point (C12= PC, DC)      | 400A        | 300046490 |  |  |  |         | 1       |   |
|           | Single Point (C12= PC, DC)      | 600A        | 300046486 |  |  |  |         |         | 1 |
|           | SP High Short Circuit (C12= DH) | 400A        | 300046491 |  |  |  |         | 1       |   |
|           | SP High Short Circuit (C12= DH) | 600A        | 300046487 |  |  |  |         |         | 1 |
| F2        | Circuit Breaker- Circuit #2     |             |           |  |  |  |         |         |   |
|           | Single Point (C12= PC, DC)      | 600A        | 300046486 |  |  |  |         | 1       | 1 |
|           | SP High Short Circuit (C12= DH) | 600A        | 300046487 |  |  |  |         | 1       | 1 |

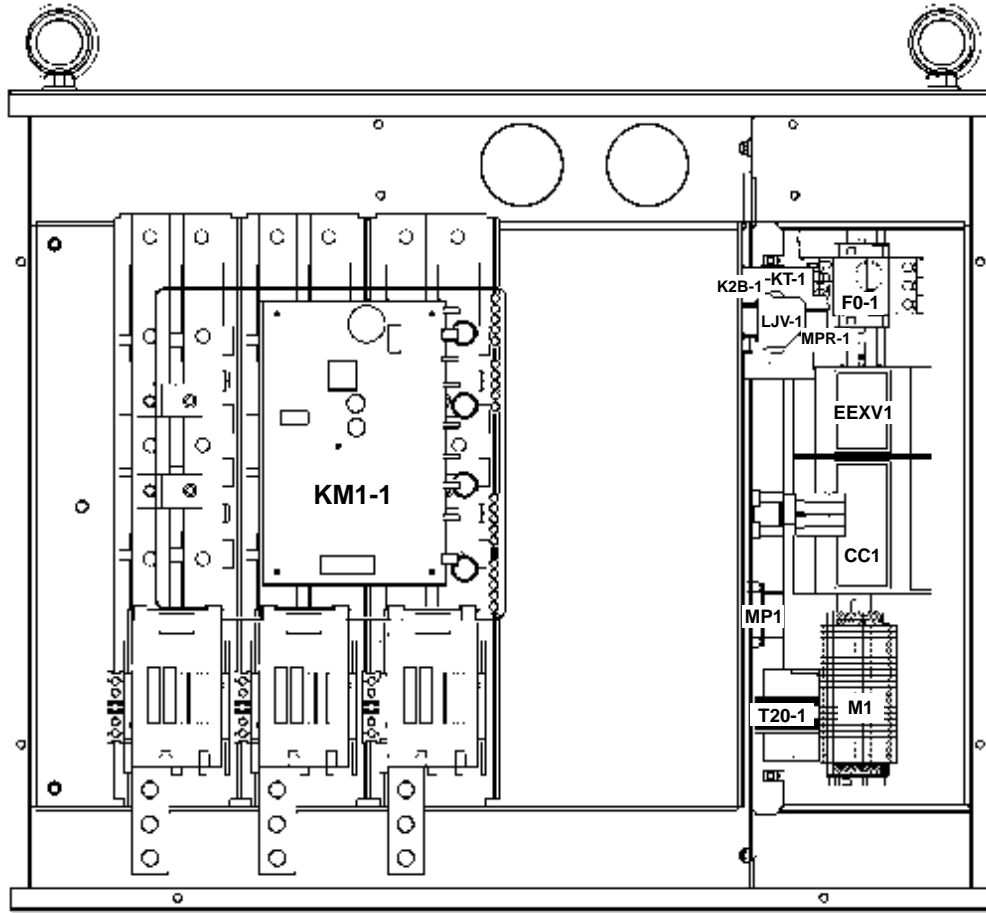
#### High Efficiency Units (Code 04= HE)

| Sch. Sym. | Part Description                | Part Number | Unit Size |  |  |  |         |         |         |
|-----------|---------------------------------|-------------|-----------|--|--|--|---------|---------|---------|
|           |                                 |             |           |  |  |  | 300 ADH | 320 ADH | 350 ADH |
| F1        | Circuit Breaker- Circuit #1     |             |           |  |  |  |         |         |         |
|           | Single Point (C12= PC, DC)      | 400A        | 300046490 |  |  |  |         | 1       | 1       |
|           | Single Point (C12= PC, DC)      | 600A        | 300046486 |  |  |  |         |         | 1       |
|           | SP High Short Circuit (C12= DH) | 400A        | 300046491 |  |  |  |         | 1       | 1       |
|           | SP High Short Circuit (C12= DH) | 600A        | 300046487 |  |  |  |         |         | 1       |
| F2        | Circuit Breaker- Circuit #1     |             |           |  |  |  |         |         |         |
|           | Single Point (C12= PC, DC)      | 400A        | 300046490 |  |  |  |         | 1       |         |
|           | Single Point (C12= PC, DC)      | 600A        | 300046486 |  |  |  |         |         | 1       |
|           | SP High Short Circuit (C12= DH) | 400A        | 300046491 |  |  |  |         | 1       |         |
|           | SP High Short Circuit (C12= DH) | 600A        | 300046487 |  |  |  |         |         | 1       |

# Controls

## Solid State Starter Panel- Circuit 1

### Code 09= SS



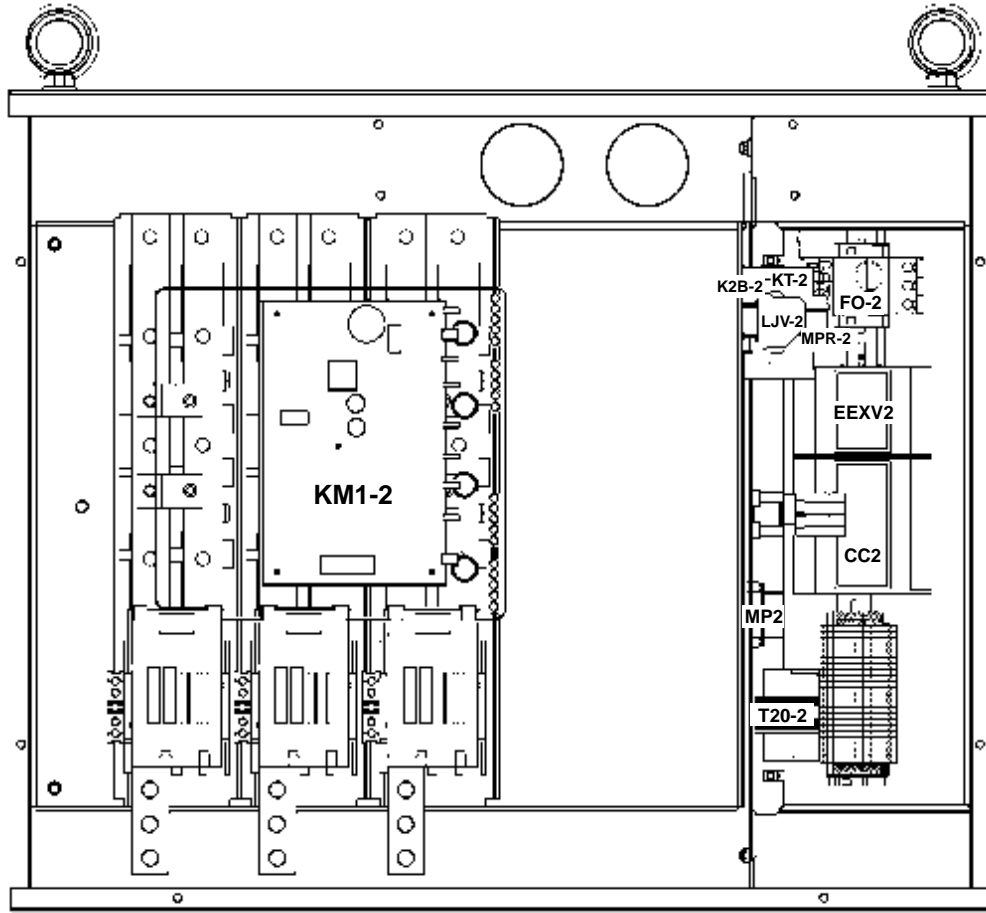
| Sch. Sym. | Part Description            | Part Number | Unit Size |  |          |  |          |  |          |  |
|-----------|-----------------------------|-------------|-----------|--|----------|--|----------|--|----------|--|
|           |                             |             | 300       |  | 320,350  |  | 380      |  | 405      |  |
|           |                             |             | 400/50/3  |  | 400/50/3 |  | 400/50/3 |  | 400/50/3 |  |
| KM1-1     | Contactora- Solid State     | 1           | 1         |  | 1        |  | 1        |  | 1        |  |
| K2B-1     | Contactora- Turbo           | 349934724   | 1         |  | 1        |  | 1        |  | 1        |  |
| KT-1      | Relay- Turbo Solenoid       | 300046470   | 1         |  | 1        |  | 1        |  | 1        |  |
| LJV-1     | Relay- Liquid Injection     | 300046470   | 1         |  | 1        |  | 1        |  | 1        |  |
| F0-1      | MSP- Heater                 | 300044140   | 1         |  | 1        |  | 1        |  | 1        |  |
| MPR-1     | Relay- Motor Protection     | 330278110   | 1         |  | 1        |  | 1        |  | 1        |  |
| EEXV1     | Controller- Expansion Valve | 300046465   | 1         |  | 1        |  | 1        |  | 1        |  |
| CC1       | Controller- Circuit         | 193407501   | 1         |  | 1        |  | 1        |  | 1        |  |
| T20-1     | Transformer- 120V to 24V    | 300046466   | 1         |  | 1        |  | 1        |  | 1        |  |
| MP1       | Motor Protector             | 330343902   | 1         |  | 1        |  | 1        |  | 1        |  |

<sup>1</sup> The Solid State contactors are specific to the unit. Contact McQuay Parts with the information from the control box data plate for replacement.

# Controls

## Solid State Starter Panel- Circuit 2

### Code 09= SS



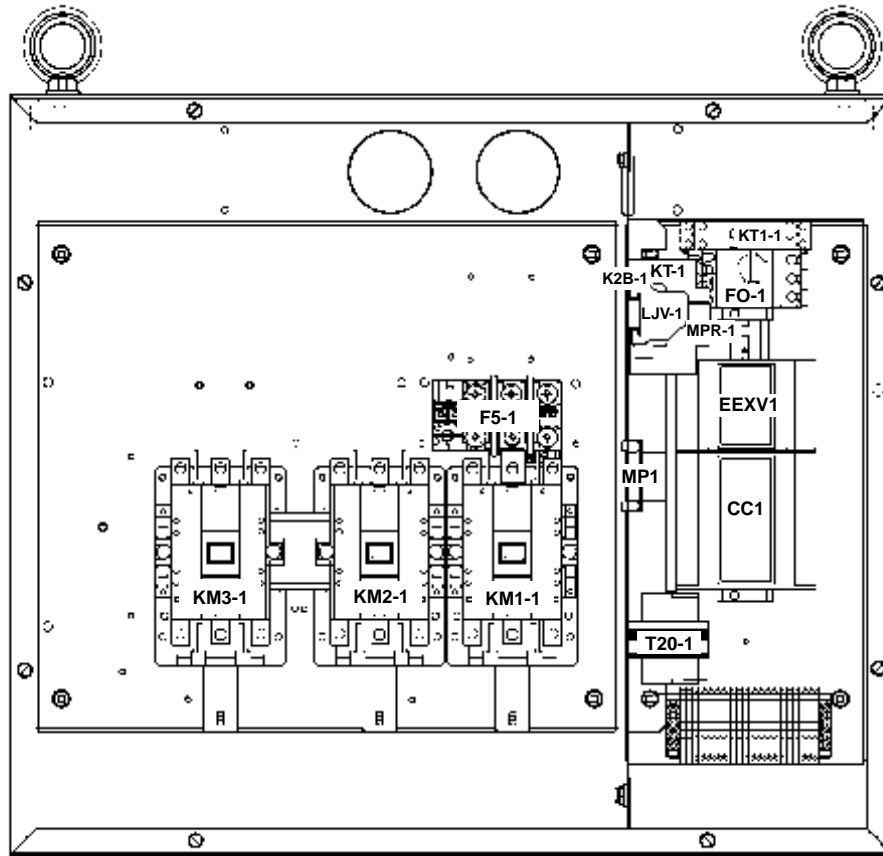
| Sch. Sym. | Part Description            | Part Number | Unit Size |  |          |  |          |  |          |  |  |  |  |
|-----------|-----------------------------|-------------|-----------|--|----------|--|----------|--|----------|--|--|--|--|
|           |                             |             | 300       |  | 320,350  |  | 380      |  | 405      |  |  |  |  |
|           |                             |             | 400/50/3  |  | 400/50/3 |  | 400/50/3 |  | 400/50/3 |  |  |  |  |
| KM1-2     | Contactora- Solid State     | 1           | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| K2B-2     | Contactora- Turbo           | 349934724   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| KT-2      | Relay- Turbo Solenoid       | 300046470   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| LJV-2     | Relay- Liquid Injection     | 300046470   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| FO-2      | MSP- Heater                 | 300044140   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| MPR-2     | Relay- Motor Protection     | 330278110   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| EEXV2     | Controller- Expansion Valve | 300046465   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| CC2       | Controller- Circuit         | 193407501   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| T20-2     | Transformer- 120V to 24V    | 300046466   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| MP2       | Motor Protector             | 330343902   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |

<sup>1</sup> The Solid State contactors are specific to the unit. Contact McQuay Parts with the information from the control box data plate for replacement.

# Controls

## Wye-Delta Starter Panel- Circuit 1

### Code 09= WD



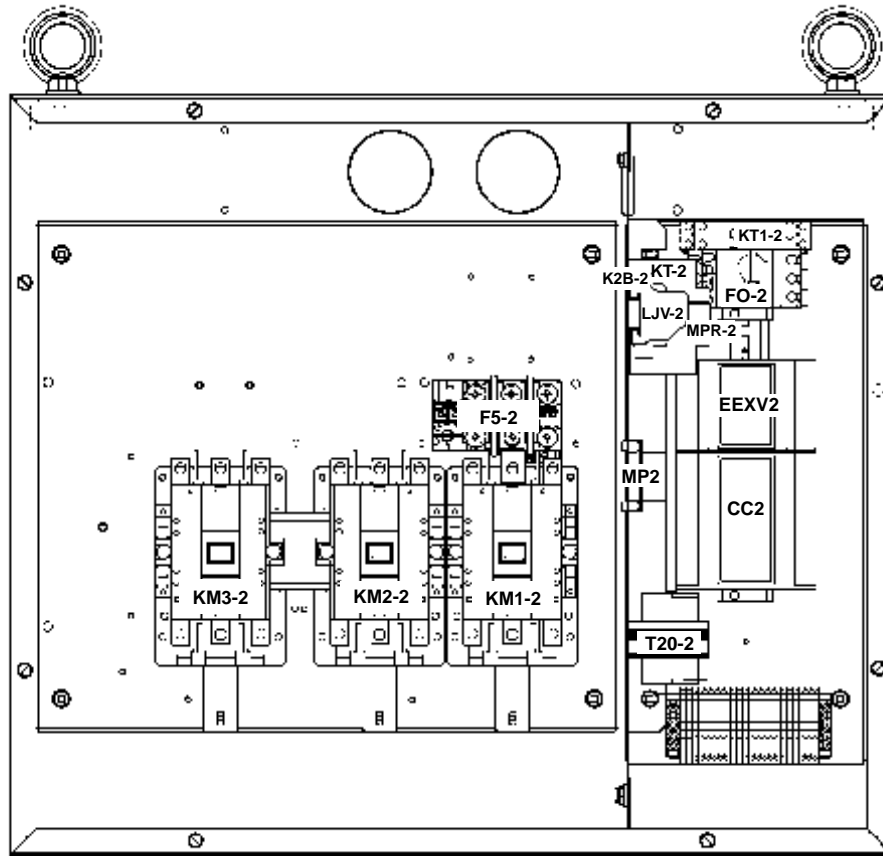
| Sch. Sym. | Part Description            | Part Number | Unit Size |  |          |  |          |  |          |  |  |  |  |
|-----------|-----------------------------|-------------|-----------|--|----------|--|----------|--|----------|--|--|--|--|
|           |                             |             | 300, 320  |  | 350      |  | 380      |  | 405      |  |  |  |  |
|           |                             |             | 400/50/3  |  | 400/50/3 |  | 400/50/3 |  | 400/50/3 |  |  |  |  |
| KM1-1     | Contactora- Wye Delta 250A  | 300042136   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| KM2-1     | Contactora- Wye Delta 250A  | 300042136   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| KM3-1     | Contactora- Wye Delta 180A  | 300040787   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| F5-1      | Overload- Thermal 150A      | 300046494   | 1         |  |          |  |          |  |          |  |  |  |  |
|           | Overload- Thermal 200A      | 300046495   |           |  | 1        |  | 1        |  | 1        |  |  |  |  |
| K2B-1     | Contactora- Turbo Relay     | 349934724   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| KT-1      | Time Delay- Starter         | 300046469   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| KT1-1     | Relay- Turbo Solenoid       | 300046470   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| LJV-1     | Relay- Liquid Injection     | 300046470   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| FO-1      | Heater- MSP                 | 300044140   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| MPR-1     | Relay- Motor Protection     | 330278110   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| EEXV1     | Controller- Expansion Valve | 300046465   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| CC1       | Controller- Circuit         | 193407501   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| T20-1     | Transformer- 120V to 24V    | 300046466   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |
| MP1       | Motor Protector             | 330343902   | 1         |  | 1        |  | 1        |  | 1        |  |  |  |  |



# Controls

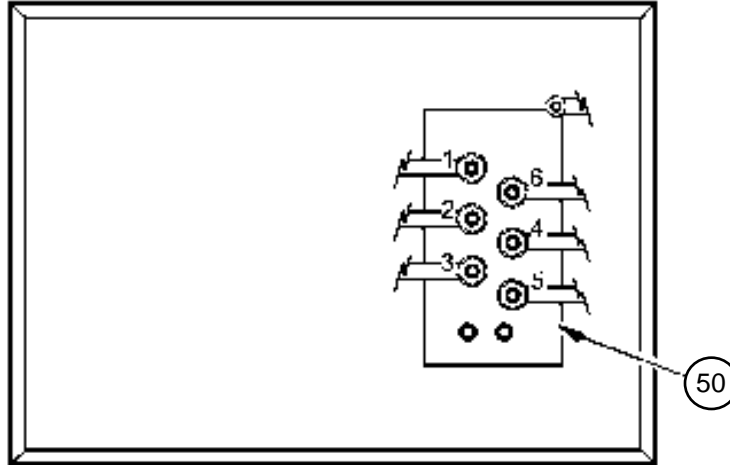
## Wye-Delta Starter Panel- Circuit 2

### Code 09= WD



| Sch. Sym. | Part Description            | Part Number    | Unit Size |  |          |  |          |  |          |  |
|-----------|-----------------------------|----------------|-----------|--|----------|--|----------|--|----------|--|
|           |                             |                | 300       |  | 320, 350 |  | 380      |  | 405      |  |
|           |                             |                | 400/50/3  |  | 400/50/3 |  | 400/50/3 |  | 400/50/3 |  |
| KM1-2     | Contactora- Wye Delta       | 250A 300042136 | 1         |  | 1        |  | 1        |  | 1        |  |
| KM2-2     | Contactora- Wye Delta       | 250A 300042136 | 1         |  | 1        |  | 1        |  | 1        |  |
| KM3-2     | Contactora- Wye Delta       | 180A 300040787 | 1         |  | 1        |  | 1        |  | 1        |  |
| F5-2      | Overload- Thermal           | 150A 300046494 | 1         |  |          |  |          |  |          |  |
|           | Overload- Thermal           | 200A 300046495 |           |  | 1        |  | 1        |  | 1        |  |
| K2B-2     | Contactora- Turbo Relay     | 349934724      | 1         |  | 1        |  | 1        |  | 1        |  |
| KT-2      | Time Delay- Starter         | 300046469      | 1         |  | 1        |  | 1        |  | 1        |  |
| KT1-2     | Relay- Turbo Solenoid       | 300046470      | 1         |  | 1        |  | 1        |  | 1        |  |
| LJV-2     | Relay- Liquid Injection     | 300046470      | 1         |  | 1        |  | 1        |  | 1        |  |
| FO-2      | Heater- MSP                 | 300044140      | 1         |  | 1        |  | 1        |  | 1        |  |
| MPR-2     | Relay- Motor Protection     | 330278110      | 1         |  | 1        |  | 1        |  | 1        |  |
| EEXV2     | Controller- Expansion Valve | 300046465      | 1         |  | 1        |  | 1        |  | 1        |  |
| CC2       | Controller- Circuit         | 193407501      | 1         |  | 1        |  | 1        |  | 1        |  |
| T20-2     | Transformer- 120V to 24V    | 300046466      | 1         |  | 1        |  | 1        |  | 1        |  |
| MP2       | Motor Protector             | 330343902      | 1         |  | 1        |  | 1        |  | 1        |  |

# Controls Terminal Box



| Ref. No. | Sch. Sym. | Part Description       | Part Number | Unit Size |  |  |          |  |  |          |  |  |          |  |  |
|----------|-----------|------------------------|-------------|-----------|--|--|----------|--|--|----------|--|--|----------|--|--|
|          |           |                        |             | 300       |  |  | 320,350  |  |  | 380      |  |  | 405      |  |  |
|          |           |                        |             | 400/50/3  |  |  | 400/50/3 |  |  | 400/50/3 |  |  | 400/50/3 |  |  |
| 50       |           | Terminal Plate - Motor | 330875701   | 1         |  |  | 1        |  |  | 1        |  |  | 1        |  |  |

# Accessories

## Isolators— Rubber-In-Shear- Aluminum Fin Coils (Code 08= A, B, E)

| Description | Sizes              | Part No.  | Isolators <sup>1</sup>         |
|-------------|--------------------|-----------|--------------------------------|
| R-I-S Kit   | 280, 300, 320, 350 | 332325801 | 2- Charcoal; 4- Lime; 2- Brown |

<sup>1</sup> Color Codes: Charcoal= 331481404; Brown= 331481401; Lime= 331481403; Brick Red= 331481402.

## Isolators— Rubber-In-Shear- Copper Fin Coils (Code 08= C, F)

| Description | Sizes    | Part No.  | Isolators <sup>1</sup>    |
|-------------|----------|-----------|---------------------------|
| R-I-S Kit   | 280, 300 | 332325803 | 4- Charcoal; 4- Brick Red |
| R-I-S Kit   | 320, 350 | 332325802 | 4- Charcoal; 4- Lime      |

<sup>1</sup> Color Codes: Charcoal= 331481404; Brown= 331481401; Lime= 331481403; Brick Red= 331481402.

## Isolators— Springs - Aluminum Fin Coils (Code 08= A, B, E)

| Description | Sizes    | Kit Part No. | Isolators <sup>1</sup>                 | Housings <sup>2</sup> |
|-------------|----------|--------------|--|-----------------------|
| Spring Kit  | 280, 300 | 332320801    | 16- Dark Green; 8- Dark Purple; 8- Red | 8- CP4                |
| Spring Kit  | 320, 350 | 332320802    | 8- Dark Green; 16- Gray; 8- Black      | 8- CP4                |

<sup>1</sup> Color Codes: Dark Green= 332620800; Dark Purple= 332620600; Red= 332620400; Gray= 332620900; Black= 332620500.

<sup>2</sup> Housing Codes: CP4= 026219800.

## Isolators— Springs - Copper Fin Coils (Code 08= C, F)

| Description | Sizes    | Kit Part No. | Isolators <sup>1</sup>                  | Housings <sup>2</sup> |
|-------------|----------|--------------|---|-----------------------|
| Spring Kit  | 280, 300 | 332320802    | 8- Dark Green; 16- Gray; 8- Black       | 8- CP4                |
| Spring Kit  | 320, 350 | 332320803    | 8- Dark Green; 8- Dark Purple; 16- Gray | 8- CP4                |

<sup>1</sup> Color Codes: Dark Green= 332620800; Dark Purple= 332620600; Gray= 332620900; Black= 332620500.

<sup>2</sup> Housing Codes: CP4= 026219800.

# Accessories

## Flow Switches

| Description                 | Part No.  |
|-----------------------------|-----------|
| Flow Switch- Paddle         | 017503300 |
| Flow Switch Kit- Electronic | 332688401 |
| Flow Switch Only            | 331796201 |
| Cable- Flow Switch          | 330571404 |

## Sound Enclosure Kit

| Description  | Part No.  |
|--------------|-----------|
| Complete Kit | 332523852 |

## Base Grilles

| Description                                   | Part No.               |
|---|------------------------|
| Base Grille Kit includes grilles and hardware |                        |
| AWS 300                                       | 332688116 <sup>1</sup> |
| AWS 320, 350                                  | 332688120 <sup>1</sup> |
| AWS 380                                       | 332688122 <sup>1</sup> |
| AWS 405                                       | 332688124 <sup>1</sup> |

<sup>1</sup> Part number and locations are detailed in the Cabinet section.

## Coil Louvers

| Description                                   | Part No.               |
|---|------------------------|
| Coil Louver Kit includes louvers and hardware |                        |
| AWS 300                                       | 332688216 <sup>1</sup> |
| AWS 320, 350                                  | 332688220 <sup>1</sup> |
| AWS 380                                       | 332688222 <sup>1</sup> |
| AWS 405                                       | 332688224 <sup>1</sup> |

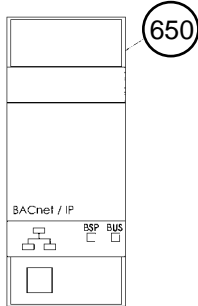
<sup>1</sup> Part number and locations are detailed in the Cabinet section.

## Base and Coil Louvers

| Description  | Part No.               |
|--|------------------------|
| Base and Coil Louver Kit includes louvers and hardware |                        |
| AWS 300  | 332688316 <sup>1</sup> |
| AWS 320, 350   | 332688320 <sup>1</sup> |
| AWS 380  | 332688322 <sup>1</sup> |
| AWS 405  | 332688324 <sup>1</sup> |

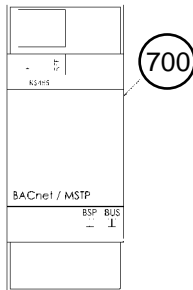
<sup>1</sup> Part number and locations are detailed in the Cabinet section.

# Accessories



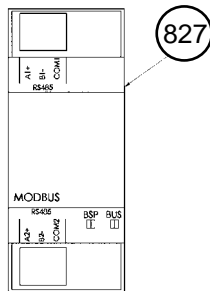
## BACnet MS/TP Communications Module

| Ref. No. | Description                  | Part Number | Qty. |
|----------|------------------------------|-------------|------|
|          | BACnet MS/TP Kit             | 350147414   |      |
| 650      | BACnet MS/TP Interface Board | 193408301   | 1    |



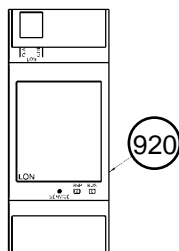
## BACnet with IP/Ethernet

| Ref. No. | Description                        | Part Number | Qty. |
|----------|------------------------------------|-------------|------|
|          | BACnet IP/Ethernet Kit             | 350147415   |      |
| 700      | BACnet IP/Ethernet Interface Board | 193408101   | 1    |



## MODBUS Communications Module

| Ref. No. | Description                       | Part Number | Qty. |
|----------|-----------------------------------|-------------|------|
|          | MODBUS Installation Kit           | 350147413   |      |
| 827      | MODBUS Communications Module Only | 193408401   | 1    |



## LonMark Communications Module

| Ref. No. | Description                        | Part Number | Qty. |
|----------|------------------------------------|-------------|------|
|          | LonMark Installation Kit           | 350147412   |      |
| 920      | LonMark Communications Module Only | 193408203   | 1    |



## Remote Display Kit

| Ref. No. | Description            | Part Number | Qty. |
|----------|------------------------|-------------|------|
|          | Remote Display Kit     | 350147416   | 1    |
| 950      | Control- Remote Keypad | 193408001   | 1    |