SECTION G

WIRING DIAGRAMS

The wiring diagram guide lists compressors by model designation. These are indexed against an Electrical Characteristics code. (The third group of numbers in the model number.) The third letter of third group of the model number may be missing. It may be any one of a number of letters representing electrical characteristics.

These diagrams represent typical wiring connections for the compressors listed but may not be identical to the diagram in the compressor terminal box.

Discontinued wiring diagrams listed in the back of this section are for compressors that are no longer available by Emerson Climate Technologies, Inc. The replacement wiring diagram is not necessary the same as the old wiring diagram show in the front of this section. Use caution when selecting the appropriate wiring diagram.

This section contains current information on Copeland® brand products. Information on obsolete models can be obtained from your local Emerson Climate Technologies wholesaler.
### WELDED COMPRESSORS DIAGRAMS

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1. DIAGRAM MOLDED IN COMPRESSOR TERMINAL BOX.
2. MAY REQUIRE PTC THERMISTOR
3. 59 FRAME
4. 70 FRAME
5. 63 FRAME
6. 4 PIN SENSOR CONNECTION
7. FOR PROPER WIRING SEE SYSTEM WIRING DIAGRAM

NOTE: ASTERISK AFTER FIRST TWO LETTERS INDICATES MAY BE ANY LETTER DEPENDING ON ELECTRICAL CHARACTERISTICS.
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(4) 63 FRAME
(5) FOR PROPER WIRING SEE SYSTEM WIRING DIAGRAM

NOTE: ASTERISK AFTER FIRST TWO LETTERS INDICATES MAY BE ANY LETTER DEPENDING ON ELECTRICAL CHARACTERISTICS.
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1. SIX LEAD MOTOR
2. THREE LEAD MOTOR
3. 50 HERTZ APPLICATIONS
4. VDE GROUNDING
5. SMALLER VERSION OF 0899
6. DUAL VOLTAGE MODULE
7. 24 VOLT MODULE

NOTE: ASTERISK AFTER FIRST TWO LETTERS INDICATES MAY BE ANY LETTER DEPENDING ON ELECTRICAL CHARACTERISTICS.
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(1) SIX LEAD MOTOR  
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(3) 50 HERTZ APPLICATIONS  
(4) VDE GROUNDING  
(5) SMALLER VERSION OF 0899  
(6) DUAL VOLTAGE MODULE  
(7) 24 VOLT MODULE

NOTE: ASTERISK AFTER FIRST TWO LETTERS INDICATES MAY BE ANY LETTER DEPENDING ON ELECTRICAL CHARACTERISTICS.
The following tables lists discontinued wiring diagrams and their replacements.

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<td>NEW DIAGRAM</td>
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<td>ES*</td>
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<td>ES*</td>
<td>0854</td>
<td>0897, See note 2</td>
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Notes:
1. Models replaced with dual voltage 31aa module.
   (Requires a jumper wire from L2 to LO for 120V and L2 to HI for 240V)
2. Models replaced with dual voltage 41aa module.
   (Jumper wire not required)
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 60 °C WIRE FOR AMPACITY DETERMINATION.
INTERNAL MOTOR PROTECTION-ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.

PTC THERMISTER (WHEN REQD)
RUN CAPACITOR (WHEN REQD)

START CAPACITOR (WHEN REQD)

POTENTIAL RELAY (WHEN REQD)
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL “R”.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

9-93 052-0767-00
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL “R”.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL "1".
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

9-93 052-0769-00

Wiring Diagram 0769
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 0770
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL "R".
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
PTC THERMISTOR (WHEN REQ'D)

LINE

RUN CAPACITOR (WHEN REQ'D)
START CAPACITOR (WHEN REQ'D)

POTENTIAL RELAY (WHEN REQ'D)

OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

4-95 005-0821-00

Wiring Diagram 005-0776, 005-0821
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM. ONLY.
MINIMUM AMPLITUDE OF MOTOR PROTECTION.
EXTERNAL TIME FOR RESET.
ALLOW TIME TO ELAPSE FOR HEATER TO COOL.
CRANKCASE HEATER MUST NOT BE CONNECTED TO TERMINAL "L".
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY AND PRODUCT NAMEPLATE.
SEE SYSTEM NAMEPLATE.

Wiring Diagram 0776/0777

9-93 052-0776-00

9-93 052-0777-00
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
PRIMAR Y SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION-ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.

Wiring Diagram 0778/0779

T1
T2
T3

MOTOR WINDING CONNECTIONS

3-96 052-0779-00

9-93 052-0778-00
START CAPACITOR CURRENT (WHEN REQD) RELAY (WHEN REQD)
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION- ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL "L".
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS- SEE SYSTEM NAMEPLATE.

Wiring Diagram 0780
PTC THERMISTER (WHEN REQD)
RUN CAPACITOR (WHEN REQD)

PROTECTOR BLACK
RED
LINE

YELLOW
START CAPACITOR (WHEN REQD) BLUE

POTENTIAL RELAY (WHEN REQD)

USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL “R”.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 0781
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION-ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.

Wiring Diagram 0802
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 0803
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO
ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN
ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—
SEE SYSTEM NAMEPLATE.

Wiring Diagram 0804
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH
REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH
REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 0806
USE COPPER CONDUCTORS ONLY. USE MINIMUM 75 °C WIRE FOR AMPLITUDE DETERMINATION. USE EXTERNAL MOTOR PROTECTION ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH SYSTEM NAMEPLATE.

Wiring Diagram 0809
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH
REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CAPACITY CONTROL VALVE(S), FAN OR CRANKCASE HEATER,
WHEN APPLIED, MUST BE CONNECTED ONLY TO THEIR RATED
VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE
IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT
APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 0816
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL "R".
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS.
SEE SYSTEM NAMEPLATE.

3-96 052-0818-00
PROTECTOR
RUN CAPACITOR (WHEN REQD)
S
C
R
LINE
YELLOW
START CAPACITOR (WHEN REQD)
BLUE
BLACK
RED
LINE
POTENTIAL RELAY (WHEN REQD)

USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPLITUDE DETERMINATION.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL "R".
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED
ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE
IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT
APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 0821
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75 C WIRE FOR AMPACITY DETERMINATION. EXTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL "1". OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

LINE

1
2
R
C
S

START
CAPACITOR

RED

BLUE

CURRENT
RELAY

2
5

RUN
CAPACITOR

BLACK

YELLOW

MOTOR WINDING
CONNECTIONS

C
S
R

Wiring Diagram 0822
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPERAGE DETERMINATION.
EXTERNAL MOTOR PROTECTIONALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN
APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL “R”.
OVERCURRENT PROTECTION DEVICE
RATING AND TYPE MUST BE IN
ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—
SEE SYSTEM NAMEPLATE.

PROTECTOR
BLACK

C

RED

S

LINE

3-96

START CAPACITOR (WHEN REQD)
POTENTIAL RELAY (WHEN REQD)

052-0831-00

USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPERAGE DETERMINATION.
EXTERNAL MOTOR PROTECTIONALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN
APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL “R”.
OVERCURRENT PROTECTION DEVICE
RATING AND TYPE MUST BE IN
ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—
SEE SYSTEM NAMEPLATE.

052-0832-00
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION- ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED
ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST
BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT
APPROVALS-SEE SYSTEM NAMEPLATE.  9-93  052-0833-00

Wiring Diagram 0833
Wiring Diagram 0834

USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION-ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL “R”.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 0837

9-93 052-0837-00
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPLITUDE DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH
REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

N’UTILISER QUE DES CONDUCTEURS EN CUIVRE.
UTILISER CE MATÉRIEL SEULEMENT DANS UN RÉSEAU MIS À LA TERRE.
UTILISER UN FIL D’AU MOINS 75 °C POUR DETERMINER LE COURANT ADMISSIBLE.
PROTECTION PRIMAIRE MONOPHASÉE FOURNIE.
PROTECTION INTERNE DU MOTEUR: PRÉVOIR UN DELAI POUR LE RÉARMEMENT.
LE CHAUFFE-CARTEUR NE DOIT ÊTRE CONNECTÉ QU’A UN RÉSEAU DE MEME TENSION NOMINALE.
LE TYPE ET LES CARACTÉRISTIQUES NOMINALES DU DISPOSITIF DE PROTECTION CONTRE LES
SURINTENSITÉS DOIVENT ÊTRE CONFORMES AUX EXIGENCES DES POUVOIRS DE RÉGLEMENTATION
VISANT LE PRODUIT FINI. VOIR LA PLAQUE SIGNALÉTIQUE.

NUR KUPFERVERBINDUNGEN VERWENGEN.
ANLAGE NUR MIT EINUNG VERWENGEN.
ZU BESTIMMUNG DES BETRIEBSTROMES MUSSEN KABEL VERWENDET WERDEN, DIE FÜR EINE
BELASTUNG VON MINDESTENS 75 °C GEEIGNET SIND.
SCHUTZ BEI PHASENAUSFALL AUF DER PRIMARSEITE IST GEWÄRLEISTET.
INTERNER MOTORSCHUTZ-BENOTIGT ZEIT ZUM RÜCKSCHALTEN.
BEI VERWENDUNG EINES KURBELGEHÄUSEHEIZERS DIESEN NUR MIT NENNSPANNUNG BETREIBEN.
NENNLÄSTIGUNG UND TYP DES ÜBERSTROMSCHUTZSCHALTERS MUSSEN IN ÜBEREINSTIMMUNG
MIT ZUTREFFENDEN VORSCHRIFTEN SEIN—BITTE TYPSCILD BEACHTEN.

Wiring Diagram 0840
Wiring Diagram 0865
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE. TO CORRECT IMPROPER MOTOR ROTATION, SWITCH ANY TWO SUPPLY LINES.

Wiring Diagram 0880
Wiring Diagram 0897 (Top)
WHEN CHECKING MOTOR PROTECTION SYSTEM:

MODULE VOLTAGE MUST BE DISCONNECTED BEFORE CHECKING MOTOR SENSORS. USE OHMMETER ONLY TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS. SENSOR RESISTANCE MEASURED FROM TERMINALS (C TO SL, 2L, SL3) WITH MOTOR TEMPERATURE BELOW 60°C (140°F) SHOULD BE WITHIN THE FOLLOWING LIMIT: 30 TO 2400 OHMS. REFER TO COPELAND AE BULLETIN #10-1264. MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.

USE MINIMUM 75°C (167°F) WIRE FOR AMPLITUDE DETERMINATION.

USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.

PRIMARY SINGLE-PHASE FAILURE PROTECTION IS PROVIDED. PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVES, MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.

OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS - SEE SYSTEM NAMEPLATE.

ELECTRICAL SYMBOL LEGEND

- CONTROLLER COIL
- NORMALLY OPEN TIME CLOSING CONTACT
- NORMALLY CLOSED TIME DELAY
- NORMALLY CLOSED CONTACTOR CONTACTS
- MAX ONE SECOND TIME DELAY
- CONTROL CONTACTS (DOWN CLOSED)
- MECHANICAL INTERFACE

Wiring Diagram 0900 (Bottom)
NOTE:
SOLID STATE MODULE HAS 30 MINUTES TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP.

EN CAS DE DECLENCHEMENT DU MODULE DE PROTECTION, LE REARMEMENT EST RETARDE A 30 MINUTES.

NOTIZ:
MOTORSCHEMGERÄT HAT EINE ZEITVERZögERUNG VON 30 MINUTEN ZUM RÜCKSCHALTEN
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Wiring Diagram 0914 (Top)

PART WINDING START CONNECTED

ACROSS THE LINE CONNECTED

CONTROL CIRCUIT VOLTAGE

LINE VOLTAGE

M1 M2 PROTECTOR MODULE

ELECTRICAL SYMBOL LEGEND

- CONTACTOR COIL
- NORMALLY OPEN TIME CLOSED CONTACT
- NORMALLY OPEN CONTACTOR CONTACTS
- MAX ONE SECOND TIME DELAY
- CONTROL CONTACTS SHOWN CLOSED
USE MINIMUM 75C COPPER WIRE FOR AMPACITY DETERMINATION. WHEN PROVIDED, CRANKCASE HEATER AND FAN MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE. SYSTEM OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS - SEE SYSTEM NAMEPLATE. FAN LEADS ARE FACTORY PROVIDED ON CONDENSING UNITS.
USE MINIMUM 75°C COPPER WIRE FOR AMPACTIVITY DETERMINATION. WHEN PROVIDED, CRANKCASE HEATER AND FAN MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE. SYSTEM OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS – SEE SYSTEM NAMEPLATE. FAN LEADS ARE FACTORY PROVIDED ON CONDENSING UNITS 8-02 052-0930-00
USE MINIMUM 75C COPPER WIRE FOR AMPACITY DETERMINATION.
WHEN PROVIDED, CRANKCASE HEATER AND FAN MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
SYSTEM OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS - SEE SYSTEM NAMEPLATE.

11-02 052-0931-00
USE MINIMUM 75C COPPER WIRE FOR AMPACITY DETERMINATION.
WHEN PROVIDED, CRANKCASE HEATER AND FAN MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
SYSTEM OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

11-02 052-0932-00
**symbols/symboles/symbol**

- **thermal sensors/capteurs thermiques**
- **protector module voltage/tension du module dispositif de protection/anschlussspannung der schutzgeräte**
- **to control circuit/verleite le circuit de commande/zum steuelektroanlagen**

**when checking solid state module:**

- **do not short across s1 and s2 sensor terminals**
- **module has 35 minutes time delay before reset in event of protector trip.**

**lors de la verification du module electronique:**

- **en cas de declenchement du module dispositif de protection, le ressaisie est retendra a 5 minutes.**

**bei prufung des motorschutzgerate:**

- **die sensoranschluse s1 und s2 dürfen nicht überbrückt werden.**
- **wenn das schutzsystem auschaltet, hat das schutzgerät eine zeitverselgerung von 35 minutes zum rückschalten.**

**use copper conductors only.**

- **use minimum 12 gauge for capacity determination.**
- **use this equipment on a grounded system only.**
- **permanent single phase failure protection is provided.**
- **protector module and optional coilheater must be connected only to their rated voltage.**
- **overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals.**
- **see system nameplate.**

**n'utiliser que des conducteurs en cuivre.**

- **utiliser un fil de moins 12 pour determiner le courant admissible.**
- **utiliser cet equipement seulement sur un circuit a la terre.**
- **protection permanente monophasée fournie.**
- **le module de dispositif de protection et le chauffante-cable doivent etre brancher a la tension nommaler.**
- **le type et les caracteristiques nominales du dispositif de protection contre le surintensite doivent etre conforme aux exigence des pouvoir de reparation visiter le produit fini - voir la plaque signalétique.**

**non réutiliser les composants.**

- **pour determiner les conditions de mise en place, voir la plaque signalétique.**

**richtige technische angelegenheiten:**

- **alle netzanschlueße müssen korrekt verwendet werden.**
- **die platten sind nach 35 minutes geschützt.**

**wiring diagram 0953**
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS —SEE SYSTEM NAMEPLATE. TO CORRECT IMPROPER MOTOR ROTATION, SWITCH ANY TWO SUPPLY LINES.

Wiring Diagram 1199
NOTE:
SOLID STATE MODULE HAS 30 MINUTES
TIME DELAY BEFORE RESET IN EVENT
OF PROTECTOR TRIP.

NOTE:
EN CAS DE DECLANCHEMENT DU MODULE
DE PROTECTION, LE REARMEMENT EST RETARDE
DE 30 MINUTES.

NOTE:
MOTORSCHUTZGER- T HAT EINE ZEITVERZ+GERUNG
VON 30 MINUTEN ZUM R_CKSCHALTEN

NOTE:
SOLID STATE MODULE HAS 30 MINUTES
TIME DELAY BEFORE RESET IN EVENT
OF PROTECTOR TRIP.

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TIME DELAY BEFORE RESET IN EVENT
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DE PROTECTION, LE REARMEMENT EST RETARDE
DE 30 MINUTES.

NOTE:
MOTORSCHUTZGER- T HAT EINE ZEITVERZ+GERUNG
VON 30 MINUTEN ZUM R_CKSCHALTEN

NOTE: Wiring Diagram 1201

NOTE: Wiring Diagram 1201
USE COPPER CONDUCTORS ONLY.

USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.

USE MINIMUM 75 C WIRE FOR AMPACITY DETERMINATION.

PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.

INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.

CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.

OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
USE COPPER CONDUCTORS ONLY. USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION.
INTERNAL MOTOR PROTECTION – ALLOW TIME FOR RESET OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE CRANKCASE HEATER. WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. TO CORRECT IMPROPER ROTATION OF THREE PHASE MODELS, SWITCH ANY TWO SUPPLY LINES. REFER TO THE APPLICABLE SYSTEM WIRING DIAGRAM.
USE MINIMUM 75C COPPER WIRE FOR AMPACITY DETERMINATION.
WHEN PROVIDED, CRANKCASE HEATER AND FAN MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
SYSTEM OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS - SEE SYSTEM NAMEPLATE.

8-02  052-1223-00

Wiring Diagram 1223
USE COPPER CONDUCTORS ONLY. USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. TO CORRECT IMPROPER ROTATION OF THREE PHASE MODELS, SWITCH ANY TWO SUPPLY LINES. REFER TO THE APPLICABLE SYSTEM WIRING DIAGRAM.

Wiring Diagram 005-1270
Use copper conductors only. Use this equipment on a grounded system only. Use minimum 75°C wire for ampacity determination. Internal motor protection allows time for reset. Primary single phase failure protection is provided. Crankcase heater, when applied, must be connected only to its rated voltage. Overcurrent protection device rating and type must be in accordance with regulatory agency and product approvals. - See system nameplate.

To correct improper motor rotation, switch any two supply lines.

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**Wiring Diagram 005-1271**

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G62
## Wiring Diagram 1318

<table>
<thead>
<tr>
<th>TWO SPEED</th>
<th>SINGLE PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE LOW SPEED</td>
<td>LINE HIGH SPEED</td>
</tr>
<tr>
<td>T3</td>
<td>T1</td>
</tr>
<tr>
<td>T8</td>
<td>T1</td>
</tr>
<tr>
<td>T2</td>
<td>T2</td>
</tr>
</tbody>
</table>

**External Wiring Diagram**

**When checking motor protection system:**

Use ohmmeter only (9 volts maximum) to check sensor resistance. Do not short across the terminals.

Sensor resistance measured from terminals S1 to S2 with motor temperature below 60 °C (140 °F) should be within the following limit: 90 to 7800 ohms.

In event of protector trip or loss of module power, modules may have no minimum OFF time or four minute minimum OFF time.

Use copper conductors only.

Use minimum 75 °C wire for ampacity determination.

Use this equipment on a grounded system only.

Protector module and optional crankcase heater must be connected only to their rated voltage.

Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.

See system manufacturer's wiring diagram for start component connections.

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5-04 052-1318-00
<table>
<thead>
<tr>
<th>TWO SPEED</th>
<th>THREE PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE LOW SPEED</td>
<td>T1 T2 T3</td>
</tr>
<tr>
<td>LINE HIGH SPEED</td>
<td>T1 T2 T3</td>
</tr>
</tbody>
</table>

**Wiring Diagram Connections**

**Motor Winding Connections**

**When checking motor protection system:**
- Use ohmmeter only (9 volts maximum) to check sensor resistance. Do not short across the terminals.
- Sensor resistance measured from terminals S1 to S2 with motor temperature below 60 °C (140 °F), should be within the following limit: 90 to 7800 ohms.
- In event of protector trip or loss of module power, modules may have no minimum off time or four minute minimum off time.

**Use copper conductors only.**
- Use minimum 75 °C wire for ampacity determination.
- Use this equipment on a grounded system only.
- Protector module and optional crankcase heater must be connected only to their rated voltage.
- Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.
- See system manufacturer’s wiring diagram for start component connections.

5-04 052-1319-00

**Wiring Diagram 1319**
WHEN CHECKING MOTOR PROTECTION SYSTEM:
MODULE VOLTAGE MUST BE DISCONNECTED BEFORE CHECKING MOTOR SENSORS TERMINAL "C" HAS THE SAME VOLTAGE AS TERMINAL "L1".
USE OHM METER ONLY TO CHECK SENSOR RESISTANCE.
DO NOT SHORT ACROSS THE TERMINALS.
SENSOR RESISTANCE MEASURED FROM TERMINALS (C TO 1,3,2,5,3) WITH MOTOR TEMPERATURE BELOW 66°F (19°C) SHOULD BE WITHIN THE FOLLOWING LIMIT: 30 TO 300 OHMS.
REFER TO GENERAL AC BULLETIN P4A-1264.
MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 25 °C (14°F) WIRE FOR AMPLITUDE DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE PROTECTION NOT PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAULT, OR CAPACITY CONTROL VALVE MUST BE CONNECTED ONLY TO THE RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY AND PRODUCT APPROVALS SEE SYSTEM NAMEPLATE.

1 2 3
Wiring Diagram 1852

When checking motor protection system:
- Module voltage must be disconnected before checking motor sensors. Terminal "C" has the voltage as terminal "L".
- Use ohmmeter only to check sensor resistance. Do not short across the terminals.
- Sensor resistance measured from terminals (C to L, L2, L3) with motor temperature below 40°C (104°F), should be within the following limits: 38 to 2400 ohms. Refer to Copeland Bulletin 476-1264.
- Module has two minute time delay before reset in event of protector trip or loss of module power.

Use copper conductors only.
- Use minimum 75°C (167°F) wire for amperage determination.
- Use this equipment on a grounded system only.
- Primary single phase failure protection is provided.
- Protector module and optional crankcase heater, fan or capacitor control valves, must be connected only to their rated voltage.
- DO NOT connect protective devices having an NTP button.
- Use values in accordance with regulatory agency and product approvals - see system nameplate.

Electrical Symbol Legend:
- Contactor coil
- Normally open time delayed contact
- Normally open contactor contacts
- Max one second time delay
- Control contacts shown closed

Motor Winding Connections
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WHEN CHECKING MOTOR PROTECTION SYSTEM:
MODULE VOLTAGE MUST BE DISCONNECTED BEFORE CHECKING MOTOR SENSORS.
USE OHMMETER ONLY TO CHECK SENSOR RESISTANCE.
DO NOT SHORT ACROSS THE TERMINALS.
SENSOR RESISTANCE MEASURED FROM TERMINALS (C TO $1, $2, $3) WITH MOTOR TEMPERATURE BELOW
60 °C (140 °F), SHOULD BE WITHIN THE FOLLOWING LIMIT: 30 TO 2400 OHMS.
REFER TO EMERSON CLIMATE TECHNOLOGIES, INC.
AE BULLETIN #10-1264.
MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C (167 °F) WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVE(S)
MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Wiring Diagram 2167 (Left Side)
ACROSS THE LINE CONNECTED

LINE VOLTAGE

PROTECTOR MODULE VOLTAGE

TO CONTROL CIRCUIT

120 OR 240 VOLT MODULE WIRING

Wiring Diagram 2167 (Right Side)
Wiring Diagram 2169 (Top)

**ACROSS THE LINE CONNECTED**

**PART WINDING START CONNECTED**

**ACROSS THE LINE CONNECTED**
Wiring Diagram 2169 (Bottom)

When checking motor protection system:
Module voltage must be disconnected before checking motor sensors.
Use ohmmeter only to check sensor resistance, do not short across the terminals.
Sensor resistance measured from terminals (c to sl, sl2, sl3) with motor temperature below 50 °C (122 °F) should be within the following limit: 50 to 2400 ohms.
Refer to Emerson Climate Technologies, Inc. AE Bulletin A10-1264.
Module has two minute time delay before reset in event of protector trip or loss of module power.

Use copper conductors only.
Use minimum 75 °C (167 °F) wire for ampacity determination.
Use this equipment on a grounded system only.
Primary single phase failure protection is provided.
Protector module and optional crankcase heater, fan, or capacity control valve(s) must be connected only to their rated voltage.
Overcurrent protection device rating and type must be in accordance with regulatory agency and product approvals—see system nameplate.

Electrical symbol legend:
- Contactor coil
- Normally open time delayed contact
- Normally open contact
- Contactor contacts
- Optimal one second time delay
- Control contacts shown closed

Motor winding connections:

7-06 053-2169-00
WHEN CHECKING MOTOR PROTECTION SYSTEM:
MODULE VOLTAGE MUST BE DISCONNECTED BEFORE CHECKING MOTOR SENSORS.
USE OHMMETER ONLY TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.
SENSOR RESISTANCE MEASURED FROM TERMINALS (C TO S1,S2,S3) WITH MOTOR TEMPERATURE BELOW 60 °C (140 °F). SHOULD BE WITHIN THE FOLLOWING LIMIT: 30 TO 2400 OHMS. REFER TO EMERSON CLIMATE TECHNOLOGIES, INC. AE BULLETIN #10-1264.
MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

POUR VÉRIFIER LE SYSTÈME DE PROTECTION DU MOTEUR:
LA TENSION DU MODULE DORT BE DECONNECTÉE AVANT DE VÉRIFIER LES CAPTEURS DU MOTEUR.
UTILISER UNIQUEMENT UN OHMMÈTRE POUR VÉRIFIER LA RESISTANCE DE CAPTEUR.
NE PAS CAUSER DE COURT-CIRCUIT ENTRE LES BORNES.
LA RESISTANCE DE CAPTEUR MESURÉE ENTRE LES BORNES (C A S1,S2,S3) AVEC LA TEMPERATURE DU MOTEUR INFÉRIEURE À 80 °C (140 °F), DOIT ÊTRE DANS LA PLAGE SUIVANTE: 30 À 2400 OHMS.
SE REPORTER AU BULLETIN EMERSON CLIMATE TECHNOLOGIES, INC. AE N° 10-1264.
LE MODULE A UN TEMPS D'ATTENTE DE DEUX MINUTES AVANT DE SE RÉINITIALISER EN CAS DE DÉCLENCHEMENT DE LA PROTECTION OU DE COUPURE DE L'ALIMENTATION DU MODULE.

AL VERIFICAR EL SISTEMA DE PROTECCIÓN DEL MOTOR:
DEBE DESCONECTAR EL VOLTAGE DEL MÓDULO ANTES DE VERIFICAR LOS SENSORES DEL MOTOR.
UTILICE EL OHMÍMETRO ÚNICAMENTE PARA VERIFICAR LA RESISTENCIA DEL SENSOR.
NO HAGA UN CORO CON LAS TERMINALES.
LA RESISTENCIA DEL SENSOR MEDIDA EN LAS TERMINALES (C A S1,S2,S3) CON LA TEMPERATURA DEL MOTOR POR DEBAJO DE 60 °C (140 °F), DEBE ESTAR DENTRO DEL SIGUIENTE LÍMITE: 30 A 2400 OHMS.
CONSULTE EL BULLETIN EMERSON CLIMATE TECHNOLOGIES, INC. AE N° 10-1264.
EL MÓDULO TIENE UNA DEMORA DE DOS MINUTOS ANTES DE REESTABLECERSE, EN CASO DE QUE SE DISPARÉ EL PROTECTOR O SE PERDÁ LA ENERGÍA EN EL MÓDULO.

Wiring Diagram 2177 (Left Side)
Wiring Diagram 2177 (Right Side)
Discontinued
Wiring Diagram 005-0492, 0637
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 60 °C WIRE FOR AMPACITY DETERMINATION.
EXTERNAL MOTOR PROTECTION - ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
ON 115 VOLT, CONNECT NEUTRAL TO TERMINAL "I".
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 005-0655, 0697
Discontinued Wiring Diagram 005-0678-00, 005-0679-00
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY AND PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE. EXTERNAL THERMOSTAT, WHEN PROVIDED MUST BE FIELD CONNECTED TO 24 VOLT COMPRESSOR CONTROL CIRCUIT.

Discontinued
Wiring Diagram 005-0706
WHEN CHECKING SOLID STATE MODULE:
USE OHMMETER ONLY (6 Volts Maximum) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.

RESISTANCE ACROSS EACH MOTOR SENSOR SHOULD BE APPROXIMATELY 500 TO 2400 OHMS WITH A MOTOR TEMPERATURE BELOW 60 °C.

MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.
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Discontinued
Wiring Diagram 0748 (Left Side)
Discontinued

Wiring Diagram 0748 (Right Side)
Discontinued
Wiring Diagram 0751
USE COPPER CONDUCTORS ONLY.

USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.

USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.

PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.

PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.

OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.

9-93

052-0752-00

Discontinued
Wiring Diagram 0752
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
INTERNAL MOTOR CONNECTION—ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS – SEE SYSTEM NAMEPLATE. EXTERNAL THERMOSTAT, WHEN PROVIDED MUST BE FIELD CONNECTED TO 24 VOLT COMPRESSOR CONTROL CIRCUIT.

Discontinued
Wiring Diagram 0756
**DELTA CONNECTED**

TO CONTROL CIRCUIT

PROTECTOR MODULE VOLTAGE

L1 L2 L3

U1 Y2 X4 Y5

W3 Z6

SENSORS

WHEN CHECKING SOLID STATE MODULE:

USE OHMMETER ONLY (6 VOLTS MAXIMUM) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.

RESISTANCE ACROSS MOTOR SENSORS SHOULD BE APPROXIMATELY 1500 TO 7000 OHMS WITH A MOTOR TEMPERATURE BELOW 60 °C.

MODULE HAS FOUR MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

**STAR CONNECTED**

TO CONTROL CIRCUIT

PROTECTOR MODULE VOLTAGE

L1 L2 L3

U1 Y2 X4 Y5

W3 Z6

SENSORS

USE COPPER CONDUCTORS ONLY.

USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.

USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.

PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.

PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.

OVERTURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.
Discontinued Wiring Diagram 0758

**DELTA CONNECTED**

- Protector Module Voltage
- Main (L1, L2, L3)
- To Control Circuit
- Orange Sensor Connections
- Black Sensor Connections

**STAR CONNECTED**

- Protector Module Voltage
- Main (L1, L2, L3)
- To Control Circuit
- Orange Sensor Connections
- Black Sensor Connections

---

**When checking solid state module:**

- Use ohmmeter only (6 volts maximum) to check sensor resistance. Do not short across the terminals.
- Resistance across each motor sensor should be approximately 500 to 2400 ohms with a motor temperature below 60 °C.
- Module has two minute time delay before reset in event of protector trip or loss of module power.

**Use copper conductors only.**

- Use minimum 75 °C wire for ampacity determination.
- Use this equipment on a grounded system only.
- Primary single phase failure protection is provided.
- Protector module and optional crankcase heater must be connected only to their rated voltage.
- Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.

---

Motor Winding Connections

9-92 052-0758-00
Discontinued
Wiring Diagram 0759
WHEN CHECKING SOLID STATE MODULE:
USE OHMMETER ONLY (6 VOLTS MAXIMUM.) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.
RESISTANCE ACROSS EACH MOTOR SENSOR SHOULD BE APPROXIMATELY 500 TO 2400 OHMS WITH A MOTOR TEMPERATURE BELOW 60 °C.
MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVE(S) MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

MOTOR WINDING CONNECTIONS
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When checking solid state module, use ohmmeter only (6 volts maximum) to check sensor resistance. Do not short across the terminals.

Resistance across each motor sensor should be approximately 500 to 2400 ohms with a motor temperature below 60 °C.

Module has two minute time delay before reset in event of protector trip or loss of module power.

Discontinued
Wiring Diagram 0762 (Left Side)
Discontinued

Wiring Diagram 0762 (Right Side)
Discontinued
Wiring Diagram 0763 (Left Side)
Discontinued
Wiring Diagram 0763 (Right Side)
Discontinued

Wiring Diagram 0765 (Left Side)
Discontinued
Wiring Diagram 0765 (Right Side)
Discontinued
Wiring Diagram 005-0777
Discontinued
Wiring Diagram 0784
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 005-0788
Discontinued

Wiring Diagram 005-0799-00, 005-0800-00
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 C WIRE FOR AMPACITY DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 005-0800-01
DELTA CONNECTED
FIELD CONNECTIONS

TO CONTROL CIRCUIT

MAIN
L1 L2 L3

PROTECTOR MODULE VOLTAGE

U1 V2 X4 Y5

W3 Z6

SENSORS

When checking solid state module:
Use ohmmeter only (6 volts maximum) to check sensor resistance. Do not short across the terminals.
Resistance across motor sensors should be approximately 1500 to 7800 ohms with a motor temperature below 60 °C.
Module has four minute time delay before reset in event of protector trip or loss of module power.

STAR CONNECTED
FIELD CONNECTIONS

TO CONTROL CIRCUIT

MAIN
L1 L2 L3

PROTECTOR MODULE VOLTAGE

U1 V2 X4 Y5

W3 Z6

SENSORS

Use copper conductors only.
Use minimum 75 °C wire for ampacity determination.
Use this equipment on a grounded system only.
Primary single phase failure protection is provided.
Protector module and optional crankcase heater must be connected only to their rated voltage.
Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.
Discontinued
Wiring Diagram 0811
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE.
CONNECT NEUTRAL TO TERMINAL ”I(L)”.
EXTERNAL MOTOR PROTECTION – ALLOW TIME FOR RESET.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS–
SEE SYSTEM NAMEPLATE.

9-93 052-0813-00

Discontinued
Wiring Diagram 0813
DELTA CONNECTED

PROTECTOR MODULE VOLTAGE

TO CONTROL CIRCUIT

MAIN
L1 L2 L3

W3 Z6

ORANGE

BLACK

SENSE

WHEN CHECKING SOLID STATE MODULE,
USE OHMMETER ONLY (6 VOLS MAXIMUM) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.

RESISTANCE ACROSS EACH MOTOR SENSOR SHOULD BE APPROXIMATELY 500 TO 2400 OHMS WITH A MOTOR TEMPERATURE BELOW 60 °C.

STAR CONNECTED

PROTECTOR MODULE VOLTAGE

TO CONTROL CIRCUIT

MAIN
L1 L2 L3

W3 Z6

ORANGE

BLACK

SENSE

USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

MOTOR WINDING CONNECTIONS

9-93 052-0815-00
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 60°C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 005-0819
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.

USE COPPER CONDUCTORS ONLY.

USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION.

USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.

PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.

OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

**THE 40AA300E MODULE HAS A FOUR MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER. THE 40AA100E MODULE IS NOT FURNISHED WITH A TIME DELAY DEVICE.**

WHEN CHECKING PROTECTOR USE OHM Meter ONLY (6 VOLTS MAXIMUM) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.

RESISTANCE ACROSS MOTOR SENSORS SHOULD BE APPROXIMATELY 750 OHMS WITH A MOTOR TEMPERATURE BELOW 60°C.

SENSORS 120 OR 240 VOLT MODULE WIRING

**DELTA CONNECTED**

**STAR CONNECTED**

Discontinued
Wiring Diagram 0823
G109

Discontinued

DELTA CONNECTED
FIELD CONNECTIONS

MAIN
L1 L2 L3

TO CONTROL CIRCUIT

TO SENSORS

TO MODULE

SENSOR

DELTA CONNECTED
FIELD CONNECTIONS

MAIN
L1 L2 L3

TO CONTROL CIRCUIT

TO SENSORS

TO MODULE

SENSOR

WHEN CHECKING PROTECTOR
USE OHMMETER ONLY (2.5 VOLTS MAXIMUM)
TO CHECK SENSOR RESISTANCE. DO NOT
SHORT ACROSS THE TERMINALS.
RESISTANCE ACROSS MOTOR SENSORS SHOULD
BE APPROXIMATELY 750 OHMS WITH A MOTOR
TEMPERATURE BELOW 60 °C.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY
DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED
SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE
PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL
CRANKCASE HEATER MUST BE CONNECTED
ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE
RATING AND TYPE MUST BE IN
ACCORDANCE WITH REGULATORY AGENCY
END PRODUCT APPROVALS—SEE SYSTEM
NAMEPLATE.

MOTOR WINDING
CONNECTIONS

9-93 052-0824-00
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE. TO CORRECT IMPROPER MOTOR ROTATION, SWITCH ANY TWO SUPPLY LINES.

MOTOR WINDING CONNECTIONS
10-93 052-0826-00
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 005-0837
USE COPPER CONDUCTORS ONLY.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
EXTERNAL THERMOSTAT, WHEN PROVIDED MUST BE FIELD CONNECTED TO 24 VOLT COMPRESSOR CONTROL CIRCUIT.
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY AND PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.
Discontinued

Wiring Diagram 0841 (Left Side)
ACROSS THE LINE CONNECTED

PROTECTOR MODULE VOLTAGE
TENSION DU CIRCUIT DE COMMANDE
STELEERSTROMKREISSPANNUNG

3 \( \sqrt{2} \) V 50/60 Hz
L1 L2 L3

TO CONTROL CIRCUIT
VERS LE CIRCUIT DE COMMANDE
ZUM STELEERSTROMKREIS

12-93 052-0841-00

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPLITUDE DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY
CONTROL VALVE(S), MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE
WITH REGULATORY AGENCY AND PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

N'UTILISER QUE DES CONDUCTEURS EN CUIVRE.
UTILISER UN FIL D'AU MOINS 75 °C POUR DETERMINER LE COURANT ADMISSIBLE.
UTILISER CE MATERIEL SEULMENT DANS UN RESEAU MIS A LA TERRE.
PROTECTION PRIMAIRE MONOPHASEE FOURNIE
LE MODULE DU DISPOSITIF DE PROTECTION ET LE CHAUFFE-CRANTE, LE
VENTILATEUR OU LES DISPOSITIFS DE VARIATION DE PUISSANCE FACULTATIFS
NE DOIVENT ETRE CONNECTEES QU'A UN RESEAU DE MEME TENSION NOMINALE.
LE TYPE ET LES CARACTERISTIQUES NOMINALES DU DISPOSITIF DE PROTECTION
CONTRE LES SURINTENSITES DOIVENT ETRE CONFORMES AUX EXIGENCES DES
POUVOIRS DE REGLEMENTATION VISANT LE PRODUIT FINI. VOIR LA PLAQUE
SIGNALETIQUE.

NUR KUPFERVERBINDUNGEN VERWENDEN.
ZUR BESTIMMUNG DES BETRIEBSTROMES MUSS KABEL VERWENDET WERDEN,
DIE FUREINE BELASTUNG VON MINDESTENS 75 °C GEHEIZT SIND.
ANLAGE NUR MIT ERDUNG VERWENDEN.
SCHUTZ BEI PHASENAUSFALL AUF DER PRIMARSEITE IST GEWAHRLEISTET.
SCHUTZGERAET, KURBELGEHUSEHEIZER, ZUSATZLUFTER ODER
LEISTUNGSREGELVENTIL(S) DURKEN NUR MIT NEINSERJANG BETRIEBEN WERDEN.
NENNLEISTUNG UND TYP DES ÜBERSTROMSCHUTZSCHALTERS MUSS IN
ÜBEREINSTIMMUNG MIT ZUTREFFENDEN VORSCHRIFTEN SEIN—BITTE TYPENSCHILD
BEACHTEN.

Discontinued
Wiring Diagram 0841 (Right Side)
Discontinued
Wiring Diagram 0848
Discontinued Wiring Diagram 0849

PART WINDING START CONNECTED

LINE VOLTAGE

\[ \phi_1 \phi_2 \phi_3 \]

\[ \phi_1 \phi_2 \phi_3 \]

PROTECTOR MODULE VOLTAGE

\[ C1 \]

\[ C2 \]

CONTROLS

TD

TD

BLACK

BROWN

CONTROL CIRCUIT POWER

BLACK

CONTROL CIRCUIT POWER

BLACK

INTERNAL MOTOR WINDING CONNECTIONS

\[ 1 \]

\[ 2 \]

\[ 3 \]

\[ 7 \]

\[ 8 \]

\[ 9 \]

ACROSS THE LINE CONNECTED

PROTECTOR MODULE VOLTAGE

\[ \phi_1 \phi_2 \phi_3 \]

\[ \phi_1 \phi_2 \phi_3 \]

TO CONTROL CIRCUIT

BLACK

BROWN

CONTROL CIRCUIT POWER

BLACK

CONTROL CIRCUIT POWER

BLACK

INTERNAL MOTOR WINDING CONNECTIONS

\[ 7 \]

\[ 8 \]

\[ 9 \]

\[ \phi_1 \phi_2 \phi_3 \]

\[ \phi_1 \phi_2 \phi_3 \]

ELECTRICAL SYMBOL LEGEND

- \( \square \): CONTACTOR COIL
- \( \square \): MAX ONE SECOND TIME DELAY
- \( \triangle \): NORMALLY OPEN TIME CLOSED CONTACT
- \( \triangledown \): NORMALLY OPEN CONTACTOR CONTACTS SHOWN CLOSED

WHEN CHECKING SOLID STATE MODULE:

- USE OHMETER ONLY (6 VOLTS MAXIMUM) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.
- RESISTANCE ACROSS EACH MOTOR SENSOR SHOULD BE APPROXIMATELY 500 TO 2400 OHMS WITH A MOTOR TEMPERATURE BELOW 60 °C.
- MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.

- USE MINIMUM 75 °C WIRE FOR AMPLITUDE DETERMINATION.
- USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
- PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
- PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVE(S), MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
- OVERTURE PROTECTION DEVIANCE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
WHEN CHECKING SOLID STATE MODULE:
MODULE VOLTAGE MUST BE DISCONNECTED BEFORE CHECKING MOTOR SENSORS. TERMINAL "C" HAS THE SAME VOLTAGE AS TERMINAL "L1".
USE OHM METER ONLY TO CHECK SENSOR RESISTANCE.
DO NOT SHORT ACROSS THE TERMINALS.
RESISTANCE ACROSS EACH MOTOR SENSOR SHOULD BE APPROXIMATELY 500 TO 2400 OHMS WITH A MOTOR TEMPERATURE BELOW 60 °C.
MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVE(S) MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

MOTOR WINDING CONNECTIONS

Discontinued
Wiring Diagram 0853 (Left Side)
Discontinued
Wiring Diagram 0853 (Right Side)
Discontinued
Wiring Diagram 0854 (Top)
Discontinued
Wiring Diagram 0855
This page is left blank intentionally.
Discontinued
Wiring Diagram 0856 (Top)
Discontinued
Wiring Diagram 0856 (Bottom)
Discontinued

Wiring Diagram 0857 (Left Side)
Discontinued
Wiring Diagram 0857 (Right Side)
Discontinued
Wiring Diagram 0858 (Top)
Discontinued
Wiring Diagram 0858 (Bottom)
PART WINDING START CONNECTED

CONTROL CIRCUIT VOLTAGE

LINE VOLTAGE

C1
TD
C2

TD

M1 M2 PROTECTOR MODULE

INTERNAL CONNECTION

TO CONTROL CIRCUIT

PROTECTOR MODULE VOLTAGE

C1

C2

BR
M1
M2
S1
S2
S3
L0
L1
L2
L3

120 VOLT MODULE WIRING

WHEN CHECKING SOLID STATE MODULE:

MODULE VOLTAGE MUST BE DISCONNECTED BEFORE CHECKING MOTOR SENSORS. TERMINAL “C” HAS THE SAME VOLTAGE AS TERMINAL “L1”.

USE OHM METER ONLY TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.

RESISTANCE ACROSS EACH MOTOR SENSOR SHOULD BE APPROXIMATELY 500 TO 2400 OHMS WITH A MOTOR TEMPERATURE BELOW 60 °C.

MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

Discontinued

Wiring Diagram 0859 (Left Side)
ACROSS THE LINE CONNECTED

LINE VOLTAGE

\[ \Phi_1, \Phi_2, \Phi_3 \]

ELECTRICAL SYMBOL LEGEND

1. CONTROLLER COIL
2. NORMALLY OPEN TIME CLOSED CONTACT
3. NORMALLY OPEN CONTACOR CONTACTS
4. MAX ONE SECOND TIME DELAY
5. CONTROL CONTACTS SHOWN CLOSED

MOTOR WINDING CONNECTIONS

1 2 3

INTERNAL CONNECTION

TO CONTROL CIRCUIT

PROTECTOR MODULE VOLTAGE

240 VOLT MODULE WIRING

BK/WH TRACER

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVE(S), MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 0859 (Right Side)
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION-ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 005-0860
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE. TO CORRECT IMPROPER MOTOR ROTATION. SWITCH ANY TWO SUPPLY LINES. 

Discontinued
Wiring Diagram 005-0868
Discontinued
Wiring Diagram 0874
Discontinued

Wiring Diagram 0875
**Discontinued**

**Wiring Diagram 0876**

**DELTA CONNECTED**

**STAR CONNECTED**

When checking protector:
- Use ohmmeter only (6 volts maximum) to check sensor resistance. Do not short across the terminals.
- Resistance across motor sensors should be approximately 750 ohms with a motor temperature below 60 °C.
- Module has four minute time delay before reset in event of protector trip or loss of module power.

Use copper conductors only.
- Use minimum 26 AWG wire for ampacity determination.
- Use this equipment on a grounded system only.
- Primary single phase failure protection is provided.
- Protector module and optional crankcase heater must be connected only to their rated voltage.
- Overcurrent protection device rating and type must be in accordance with regulatory agency and product approvals—see system nameplate.

Motor wiring connections:

10-96 052-0876-00
WHEN CHECKING PROTECTOR

USE OHMETER ONLY (6 VOLTS MAXIMUM) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.

SENSOR RESISTANCE MEASURED FROM TERMINALS S1 TO S2 WITH MOTOR TEMPERATURE BELOW 60 °C (140 °F), SHOULD BE WITHIN THE FOLLOWING LIMIT: 90 TO 7800 OHMS.

IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER, MODULES MAY HAVE NO MINIMUM OFF TIME OR FOUR MINUTE MINIMUM OFF TIME.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 0882
Discontinued

Wiring Diagram 0883
Discontinued

Wiring Diagram 0884
TWO SPEED THREE PHASE

LINE LOW SPEED

LINE HIGH SPEED

MOTOR WINDING CONNECTIONS

PROTECTOR MODULE VOLTAGE

TO CONTROL CIRCUIT

SENSORS

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARLY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE. 2-97 052-0885-00

Discontinued
Wiring Diagram 0885
This page is left blank intentionally.
WHEN CHECKING MOTOR PROTECTION SYSTEM:
MODULE VOLTAGE MUST BE DISCONNECTED BEFORE CHECKING MOTOR SENSORS.

USE OHMMETER ONLY TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.

SENSOR RESISTANCE MEASURED FROM TERMINALS (C TO SL, S2, S3) WITH MOTOR TEMPERATURE BELOW 60 °C (140 °F), SHOULD BE WITHIN THE FOLLOWING LIMIT: 30 TO 2400 OHMS. REFER TO COPELAND AE BULLETIN #10-1264.

MODULE HAS TWO MINUTE TIME DELAY BEFORE RESET IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER.

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C (167 °F) WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.

PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVE(S) MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.

OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS-SEE SYSTEM NAMEPLATE.

Discontinued
Wiring Diagram 0896 (Left Side)
Discontinued
Wiring Diagram 0896 (Right Side)
Discontinued Wiring Diagram 0898 (Top)
Discontinued

Wiring Diagram 0898 (Bottom)

When checking motor protection system:
- Module voltage must be disconnected before checking motor sensors.
- Use diemeter only to check sensor resistance.
- Do not short across the terminals.
- Sensor resistance measured from terminals (C to S1, S2, S3) with motor temperature below 40 °C (104 °F) should be within the following limit: 30 to 2400 ohms.
- Refer to Copeland AE Bulletin #1457/1458.
- Module has two minute time delay before reset in event of protector trip or loss of module power.

Electrical symbol legend:
- Contactor coil
- Normally open time closed contact
- Normally open contactor contacts
- Max one second time delay
- Control contacts shown closed

Use copper conductor only.
- Use minimum 75 °C (167 °F) wire for ammonia determination.
- Use this equipment on a grounded system only.
- Primary single phase failure protections provided by protector module and optional crankcase heater/fan, or capacity control values must be connected only to their rated voltage.
- Overcurrent protection device rating and type must be in accordance with regulatory agency and product approvals; use system nameplate.
Discontinued
Wiring Diagram 0899 (Top)
When checking motor protection system:

Module voltage must be disconnected before checking motor sensors.

Use ohmmeter only to check sensor resistance. Do not short across the terminals.

Sensor resistance measured from terminals (C to S1, S2, S3) with motor temperature below 60°C (140°F) should be within the following limit: 30 to 2400 ohms. Refer to Copeland AE Bulletin #10-1264.

Module has two minute time delay before reset in event of protector trip or loss of module power.

Use copper conductors only.

Use minimum 75°C (167°F) wire for ampacity determination.

Use this equipment on a grounded system only.

Primary single phase failure protection is provided.

Protector module and optional crankcase heater, fan, or capacity control valve(s), must be connected only to their rated voltage.

Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals. See system nameplate.

Electrical symbol legend:

- Contactor coil
- Normally open time closed contact
- Normally open contactor contacts
- Max one second time delay
- Control contacts shown closed

Discontinued Wiring Diagram 0899 (Bottom)
Discontinued

Wiring Diagram 0902 (Left Side)
Discontinued
Wiring Diagram 0902 (Right Side)
Discontinued Wiring Diagram 0917

DELTA CONNECTED

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

STAR CONNECTED

IN EVENT OF PROTECTOR TRIP OR LOSS OF MODULE POWER, MODULES MAY HAVE NO MINIMUM OFF TIME OR FOUR MINUTE MINIMUM OFF TIME.

WHEN CHECKING PROTECTOR
USE OHMMETER ONLY (6 VOLTS MAXIMUM) TO CHECK SENSOR RESISTANCE. DO NOT SHORT ACROSS THE TERMINALS.
SENSOR RESISTANCE MEASURED FROM TERMINALS S1 TO S2 WITH MOTOR TEMPERATURE BELOW 60 °C (140 °F) SHOULD BE WITHIN THE FOLLOWING LIMIT 1500 TO 7800 OHMS.
USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.
SEE SYSTEM MANUFACTURER'S WIRING DIAGRAM FOR START COMPONENT CONNECTIONS.

Discontinued
Wiring Diagram 0918
TWO SPEED  THREE PHASE

LINE LOW SPEED

LINE HIGH SPEED

MOTOR WINDING CONNECTIONS

PROTECTOR MODULE VOLTAGE

TO CONTROL CIRCUIT

SENSORS

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 C WIRE FOR AMPACITY DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.  1-00  052-0919-00

Discontinued

Wiring Diagram 0919
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY AND PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE. TO CORRECT IMPROPER MOTOR ROTATION, SWITCH ANY TWO SUPPLY LINES.

MOTOR WINDING CONNECTION

Discontinued
Wiring Diagram 005-0922
Discontinued
Wiring Diagram 0948

1. **Motor Winding Connections**

2. **Wiring Diagram 0948**

3. **Use copper conductors only.**
   Use minimum 75 C wire for ampacity determination.
   Use this equipment on a grounded system only.
   Primary single phase failure protection is provided.
   Protector module and optional crankcase heater must be connected only to their rated voltage.
   Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.

4. **When checking protector**

   Use ohmmeter only (6 volts maximum) to check sensor resistance. Do not short across the terminals.

   Resistance across motor sensors should be approximately 750 ohms with a motor temperature below 60 C.

   **
   The 40AA300E module has a four minute time delay before reset in event of protector trip or loss of module power.
   The 40AA100E module is not furnished with a time delay device.

5. **120 or 240 Volt Module Wiring**

   Sensors to control circuit protector module voltage.

   Use this equipment on a grounded system only.

   Primary single phase failure protection is provided.

   Protector module and optional crankcase heater must be connected only to their rated voltage.

   Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.
Discontinued

Wiring Diagram 0949

**DELTA CONNECTED**

- **SENSORS**
- **MAIN PROTECTOR MODULE** and **OPTIONAL CRANKCASE HEATER** must be connected only to their rated voltage.
- Use copper conductors only.
- Primary single phase failure protection is provided.
- Use this equipment on a grounded system only.
- Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.

**STAR CONNECTED**

- **SENSORS**
- **MAIN PROTECTOR MODULE** and **OPTIONAL CRANKCASE HEATER** must be connected only to their rated voltage.
- Overcurrent protection device rating and type must be in accordance with regulatory agency end product approvals—see system nameplate.

When checking protector:
- Use ohmmeter only (6 volts maximum) to check sensor resistance. Do not short across the terminals.
- Resistance across motor sensors should be approximately 750 ohms with a motor temperature below 60°C.
- The 40AA300E module has a four minute time delay before reset in event of protector trip or loss of module power. The 40AA100E module is not furnished with a time delay device.
- Use minimum 75°C wire for ampacity determination.
- Use minimum 75°C wire for ampacity determination.

<table>
<thead>
<tr>
<th>L1</th>
<th>L2</th>
<th>L3</th>
</tr>
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<tbody>
<tr>
<td>V2</td>
<td>Y5X4</td>
<td>Z6</td>
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</tbody>
</table>

*Motor Winding Connections*

PART No. 40AA300E

**PART No. 40AA300E**
USE COPPER CONDUCTORS ONLY. USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY. USE MINIMUM 75 °C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS - SEE SYSTEM NAMEPLATE. TO CORRECT IMPROPER MOTOR ROTATION, SWITCH ANY TWO SUPPLY LINES.

Discontinued
Wiring Diagram 005-1043
USE COPPER CONDUCTORS ONLY. USE MINIMUM 75°C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION—ALLOW TIME FOR RESET. OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE. CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. TO CORRECT IMPROPER ROTATION OF THREE PHASE MODELS, SWITCH ANY TWO SUPPLY LINES. REFER TO THE APPLICABLE SYSTEM WIRING DIAGRAM.
USE COPPER CONDUCTORS ONLY. USE MINIMUM 75° C WIRE FOR AMPACITY DETERMINATION. INTERNAL MOTOR PROTECTION - ALLOW TIME FOR RESET OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY AGENCY END PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE CRANKCASE HEATER, WHEN APPLIED, MUST BE CONNECTED ONLY TO ITS RATED VOLTAGE. TO CORRECT IMPROPER ROTATION OF THREE PHASE MODELS, SWITCH ANY TWO SUPPLY LINES. REFER TO THE APPLICABLE SYSTEM WIRING DIAGRAM.
Use copper conductors only. Use this equipment on a grounded system only. Use minimum 75 °C wire for ampacity determination. Internal motor protection—allow time for reset. Primary single phase failure protection is provided.

Crankcase heater, when applied, must be connected only to its rated voltage.

Overcurrent protection device rating and type must be in accordance with regulatory end product approvals—see system nameplate.

External thermostat, when provided, must be field connected to 24 volt compressor control circuit. To correct improper motor rotation, switch any to supply lines.

Discontinued
Wiring Diagram 1196
WHEN CHECKING MOTOR PROTECTION SYSTEM:

- Module Voltage must be disconnected before checking motor sensors.
- Use ohmmeter only to check sensor resistance.
- Do not short across the terminals.
- Sensor resistance measured from terminals (C to S1, S2, S3) with motor temperature below 60 °C (140 °F). Should be within the following limits: 50 to 2400 ohms.
- Refer to Copeland AE Bulletin 810-1264.
- Module has two minute time delay before reset in event of protector trip or loss of module power.

POUR VÉRIFIER LE SYSTÈME DE PROTECTION DU MOTEUR:

- La tension du module doit être déconnectée avant de vérifier les capteurs du moteur.
- Utiliser uniquement un ohmmètre pour vérifier la résistance de capteur.
- Ne pas causer de court-circuit entre les bornes.
- La résistance du capteur mesurée entre les bornes (C à S1, S2, S3) avec la température du moteur inférieure à 60 °C (140 °F). Doit être dans la plage suivante: 50 à 2400 ohms.
- Se reporter au bulletinCopeland AE N° 10-1264.
- Le module a un temps d'attente de deux minutes avant de se réinitialiser en cas de déclenchement de la protection ou de coupure de l'alimentation du module.

AL VERIFICAR EL SISTEMA DE PROTECCIÓN DEL MOTOR:

- Debe desconectar el voltaje del módulo antes de verificar los sensores del motor.
- Utilice el ohmmetro únicamente para verificar la resistencia del sensor.
- No haga un corto con las terminales.
- La resistencia del sensor medido en las terminales (C a S1, S2, S3) con la temperatura del motor por debajo de 60 °C (140 °F). Debe estar dentro del siguiente límite: 50 a 2400 ohms.
- Consulte el boletín Copeland AE B10-1264.
- El módulo tiene una demora de dos minutos antes de restablecerse. En caso de que se dispare el protector o se pierda la energía en el módulo.
PART WINDING START CONNECTED

CONTROL CIRCUIT VOLTAGE
TENSION DU CIRCUIT DE CONTRÔLE
VOLTAJE DEL CIRCUITO DE CONTROL

CONTROL CONTROLS

PART WINDING START CONNECTED

ACROSS THE LINE CONNECTED

USE COPPER CONDUCTORS ONLY.
USE MINIMUM 75 °C (167 °F) WIRE FOR AMPERAGE DETERMINATION.
USE THIS EQUIPMENT ON A GROUNDED SYSTEM ONLY.
PRIMARY SINGLE PHASE FAILURE PROTECTION IS PROVIDED.
PROTECTOR MODULE AND OPTIONAL CRANKCASE HEATER, FAN, OR CAPACITY CONTROL VALVE(S),
MUST BE CONNECTED ONLY TO THEIR RATED VOLTAGE.
OVERCURRENT PROTECTION DEVICE RATING AND TYPE MUST BE IN ACCORDANCE WITH REGULATORY
AGENCY AND PRODUCT APPROVALS—SEE SYSTEM NAMEPLATE.

UTILISER UNIQUEMENT DES CONDUCTEURS EN Cuivre.
UTILISER CET EQUIPEMENT UNIQUEMENT AVEC UN SYSTEME MIS A LA MASSE.
UTILISER UN FIL DE 75 °C (167 °F) MINIMUM POUR DETERMINER LE COURANT
ADMISSIBLE.
LA PROTECTION CONTRE LES DÉFAILLANCES PRIMAIRES A PHASE UNIQUE EST FOURNIE.
PROTECTION INTERNE DU MOTEUR – ATTENDRE SUFFISAMMENT DE TEMPS AVANT LA
REINITIALISATION.
LOURSE QU’UNREAFFEUR DU CARTER MOTEUR EST UTILISE, IL DOIT ETRE RACCORDE
UNIQUEMENT A SA TENSION NOMINALE.
LA VALEUR NOMINALE ET LE TYPE DU DISPOSITIF DE PROTECTION CONTRE LA
SURINTENSITE DOIVENT ETRE CONFORMES AUX APPROBATIONS DU PRODUIT FINAL DES
AGENCES DE REGLEMENTATION – VOIR LA PLAQUE SIGNALÉTIQUE DU SYSTÈME.

UTILICE ÚNICAMENTE CONDUCTORES DE Cobre.
USE ESTE EQUIPO ÚNICAMENTE EN UN SISTEMA CON TIERRAS.
UTILICE CABLE CON UN MÍNIMO DE 75 °C (167 °F) PARA LA DETERMINACIÓN DE
LA CAPACIDAD EN AMPEROS.
INCLUYE PROTECCIÓN PRINCIPAL CONTRA FALLAS MONOFÁSICAS.
PROTECCIÓN INTERNA DEL MOTOR – DEJAR PASAR UNOS MOMENTOS PARA QUE SE
REESTABLEZCA.
CUANDO SE UTILICE EL CALENTADOR DEL CARTER DEBE ESTAR CONECTADO
ÚNICAMENTE AL VOLTAJE CORRESPONDIENTE A SU CAPACIDAD.
LA CAPACIDAD Y TIPO DEL DISPOSITIVO DE PROTECCIÓN DE SOBRECORRIENTE DEBEN
ESTAR DE CONFORMIDAD CON LO APROBADO POR LA AGENCIA REGULADORA DE PRODUCTOS
FINALES – CONSULTE LA PLAQUES CON LOS DATOS DEL SISTEMA.

Discontinued
Wiring Diagram 1299 (Right Side)