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# Customer information packet

## EM3155T-BG

2HP, 3450RPM, 3PH, 60HZ, 143T, 3524M, OPSB, F1

Class - None

Division - Not Applicable

## Specifications

|                                |   |
|--------------------------------|---|
| Enclosure                      | OPSB  |
| Frame                          | 143T  |
| Frame Material                 | Steel   |
| Frequency                      | 60.00 Hz  |
| Haz Area Class and Group       | None  |
| Haz Area Division              | Not Applicable  |
| Motor Letter Type              | Three Phase   |
| Output @ Frequency             | 2.000 HP @ 60 HZ  |
| Phase                          | 3   |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ  |
| Voltage @ Frequency            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                          |
| Agency Approvals               | CSA<br>CSA EEV<br>UR  |
| Ambient Temperature            | 40 °C   |
| Auxillary Box                  | No Auxillary Box  |
| Auxillary Box Lead Termination | None  |
| Base Indicator                 | Rigid   |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None  |
| Current @ Voltage              | 5.000 A @ 230.0 V<br>5.600 A @ 208.0 V<br>2.500 A @ 460.0 V |
| Design Code                    | B   |
| Drip Cover                     | No Drip Cover   |
| Duty Rating                    | CONT  |
| Efficiency @ 100% Load         | 85.5 %  |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK   |
| Front Face Code                | Standard  |
| Front Shaft Indicator          | None  |

## Part detail

|              |            |
|--------------|------------|
| Revision     | S          |
| Type         | AC         |
| Mech. spec.  | 35E2261    |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 35WGQ054   |
| Layout       | 35LYE2261  |
| Eff. date    | 06-11-2024 |
| CD Diagram   | CD0005     |
| Poles        | 02         |
| Leads        | 9#18       |
| Proprietary  | False      |
| Created date | 10-30-2013 |

|                               |                     |
|-------------------------------|---------------------|
| Heater Indicator              | No Heater           |
| High Voltage Full Load Amps   | 2.5 a               |
| Insulation Class              | H                   |
| Inverter Code                 | Inverter Ready      |
| KVA Code                      | K                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing      |
| Motor Lead Exit               | Ko Box              |
| Motor Lead Quantity/Wire Size | 9 @ 18 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3524M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 2                   |
| Overall Length                | 11.62 IN            |
| Power Factor                  | 87                  |
| Product Family                | General Purpose     |
| Pulley End Bearing Type       | Ball                |
| Pulley Face Code              | Standard            |
| Pulley Shaft Indicator        | Standard            |
| Rodent Screen                 | None                |
| RoHS Status                   | ROHS COMPLIANT      |
| Service Factor                | 1.15                |
| Shaft Diameter                | 0.875 IN            |
| Shaft Extension Location      | Pulley End          |
| Shaft Ground Indicator        | Shaft Grounding     |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 3450 rpm            |
| Speed Code                    | Single Speed        |
| Starting Method               | Direct on line      |
| Thermal Device - Bearing      | None                |
| Thermal Device - Winding      | None                |
| Vibration Sensor Indicator    | No Vibration Sensor |

Winding Thermal 1

None

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Winding Thermal 2

None

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**Nameplate**

| <b>NP3553L</b>                   |               |             |           |            |   |              |   |  |  |
|----------------------------------|---------------|-------------|-----------|------------|---|--------------|---|--|--|
| <b>CAT.NO.</b>                   | EM3155T-BG    |             |           |            |   |              |   |  |  |
| <b>SPEC</b>                      | 35E2261Q054G1 |             |           |            |   |              |   |  |  |
| <b>HP</b>                        | 2             |             |           |            |   |              |   |  |  |
| <b>VOLTS</b>                     | 230/460       |             |           |            |   |              |   |  |  |
| <b>AMPS</b>                      | 5/2.5         |             |           |            |   |              |   |  |  |
| <b>RPM</b>                       | 3450          |             |           |            |   |              |   |  |  |
| <b>FRAME</b>                     | 143T          |             | <b>HZ</b> | 60         |   | <b>PH</b>    | 3 |  |  |
| <b>SF</b>                        | 1.15          | <b>CODE</b> | K         | <b>DES</b> | B | <b>CLASS</b> | H |  |  |
| <b>NEMA NOM. EFF</b>             | 85.5          | <b>PF</b>   | 87        |            |   |              |   |  |  |
| <b>RATING</b>                    | 40C AMB-CONT  |             |           |            |   |              |   |  |  |
| <b>CC</b>                        | 010A          |             |           |            |   |              |   |  |  |
| <b>ENCL</b>                      | OPSB          | <b>SER</b>  |           |            |   |              |   |  |  |
| <b>DE</b>                        | 6205          | <b>ODE</b>  | 6203      |            |   |              |   |  |  |
| <b>VPWM INVERTER READY</b>       |               |             |           |            |   |              |   |  |  |
| <b>CT30-60(2:1) VT3-60(20:1)</b> |               |             |           |            |   |              |   |  |  |

## Parts list

| Part number | Description                              | Quantity |
|-------------|--|----------|
| SA271992    | SA 35E2261Q054G1                         | 1.000 ea |
| RA258611    | RA 35E2261Q054G1                         | 1.000 ea |
| HA6362ZP    | LIFTING LUG FOR 36 FRAME MOTORS.         | 2.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| NS2512A01   | INSULATOR, CONDUIT BOX X                 | 1.000 ea |
| 35CB3009    | 35 CB W/1.09 DIA. LEAD HOLE @ 6:         | 1.000 ea |
| 51XB1016A07 | 10-16 X 7/16 HXWSSLD SERTYB              | 2.000 ea |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 35EP3209G00 | MASTER ODE,203 BRG                       | 1.000 ea |
| HW5100A03   | WAVY WASHER (W1543-017)                  | 1.000 ea |
| 35EP3210C00 | MASTER DE,205 BRG,1.000SH,LCK BRG        | 1.000 ea |
| 51XN1032A18 | 10-32 X 1 1/8 HX WS SL SR (ESKAY)        | 2.000 ea |
| XY1032A02   | 10-32 HEX NUT DIRECTIONAL SERRATION      | 4.000 ea |
| 35CB4521    | 35 LIPPED CB LID (GALV & PHOSPH)         | 1.000 ea |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| HW2501D13   | KEY, 3/16 SQ X 1.375                     | 1.000 ea |
| HA7000A01   | KEY RETAINER 7/8" DIA SHAFT              | 1.000 ea |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| LB1508      | LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81 | 1.000 ea |
| MJ1000A02   | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| MG1050Y01   | CELEROL BALDOR GOLD *** NLA IN 5 GALLON  | 0.017 ga |
| HA3100A45   | THRUBOLT 10-32 X 8.875                   | 4.000 ea |
| 35AD2016A01 | BAFFLE PLATE,MOD 35 OPSB-INT SHAFT GRD   | 1.000 ea |
| 35AD2005A01 | BAFFLE PLATE,MOD 35-SLTD BAND MTRS TDR   | 1.000 ea |
| LC0145B01   | CONNECTION LABEL                         | 1.000 ea |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500bx)4/22    | 1.000 ea |
| NP3553L     | ALUM SUPER-E,VPWM INV READY,UL EV,CC,NEM | 1.000 ea |
| 36PA1000    | PKG GRP, PRINT PK1016A06                 | 1.000 ea |
| FE-0000001  | ZRTG FE ASSEMBLY                         | 1.000 ea |
| PE-0000001  | ZRTG PE ASSEMBLY                         | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 53133

Typical performance - not guaranteed values

| Winding: 35WGQ054-R009 |                   | Type: 3524M               | Enclosure: OPSB                                  |  |
|------------------------|-------------------|---------------------------|--|--|
| <b>Nameplate Data</b>  |                   |                           | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | 2                 | Full Load Torque          | 3 LB-FT  |  |
| Volts                  | 230/460           | Start Configuration       | direct on line                                   |  |
| Full Load Amps         | 5/2.5             | Breakdown Torque          | 11 LB-FT   |  |
| R.P.M.                 | 3450              | Pull-up Torque            | 8 LB-FT  |  |
| Hz                     | 60 Phase          | Locked-rotor Torque       | 9.6 LB-FT  |  |
| NEMA Design Code       | B KVA Code        | Starting Current          | 21.5 A   |  |
| Service Factor (S.F.)  | 1.15              | No-load Current           | 1 A  |  |
| NEMA Nom. Eff.         | 85.5 Power Factor | Line-line Res. @ 25°C     | 7.37 Ω   |  |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load   | 31°C   |  |
| S.F. Amps              |                   | Temp. Rise @ S.F. Load    | 37°C   |  |
|                        |                   | Locked-rotor Power Factor | 53.6   |  |
|                        |                   | Rotor inertia             | 0.0657 LB-FT <sup>2</sup>                        |  |

**Load Characteristics 460 V, 60 Hz, 2 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 51   | 70   | 81   | 86   | 87   | 88   | 87   |
| Efficiency      | 78.3 | 85.2 | 86.9 | 86.5 | 85.6 | 84.2 | 86   |
| Speed           | 3570 | 3541 | 3510 | 3476 | 3441 | 3403 | 3455 |
| Line amperes    | 1.2  | 1.6  | 2    | 2.5  | 3.1  | 3.7  | 2.86 |

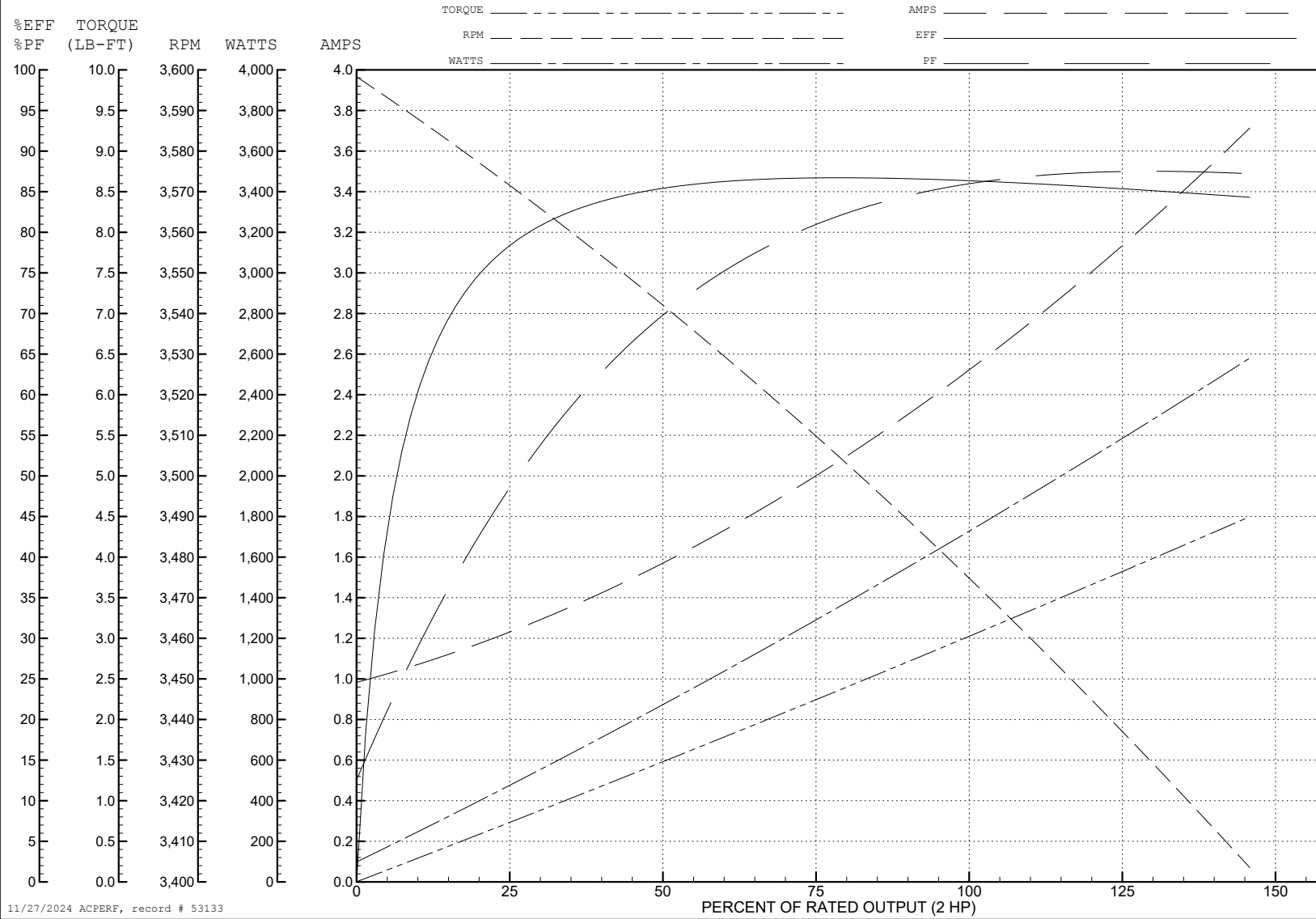
ABB Motors and Mechanical Inc.

WINDING # 35WGQ054

Typical performance - not guaranteed values.

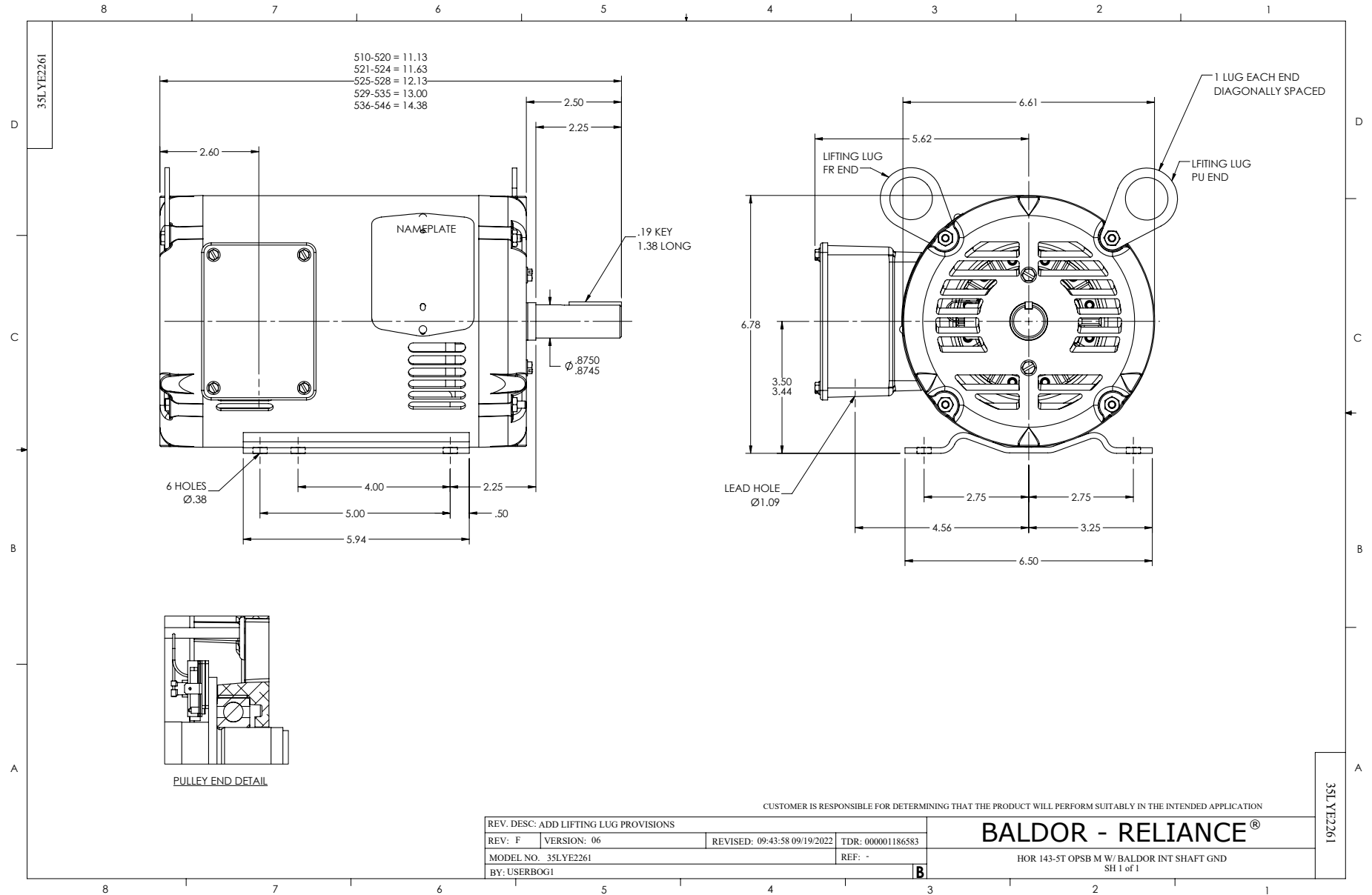
2 HP 3 PH 60 HZ 3450 RPM 460 V 3524M

TORQUES (LB-FT): PO=11 PU=8 LR=9.6 LRA=21.5



11/27/2024 ACPERF, record # 53133

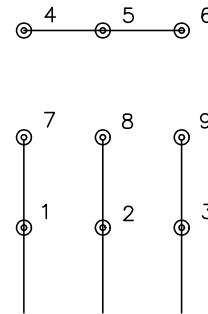




CD0005

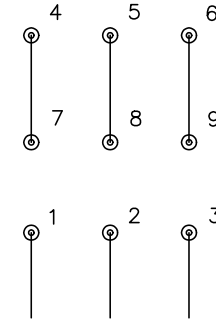


LOW VOLTAGE  
(2Y)



LINE

HIGH VOLTAGE  
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

|   |         |                         |              |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000                                    |         | FILE: AAA00005140       | MDL: -       |
|   |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS