

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECTM3704T

3 AIR OVERHP, 1160RPM, 3PH, 60HZ, 213TZ, 3738

Class - None

Division - Not Applicable

**Specifications**

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Enclosure                      | TEAO                                                        |
| Frame                          | 213TZ                                                       |
| 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             | 3.000 HP @ 60 HZ                                            |
| Phase                          | 3                                                           |
| Synchronous Speed @ Frequency  | 1200 RPM @ 60 HZ                                            |
| Voltage @ Frequency            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                          |
| Agency Approvals               | UR<br>CSA                                                   |
| Ambient Temperature            | 40 °C                                                       |
| Auxiliary Box                  | NO AUXILLARY BOX                                            |
| Auxiliary Box Lead Termination | None                                                        |
| Base Indicator                 | Rigid                                                       |
| Bearing Grease Type            | Polyrex EM (-20F +300F)                                     |
| Blower                         | None                                                        |
| Current @ Voltage              | 4.600 A @ 460.0 V<br>9.200 A @ 230.0 V<br>9.600 A @ 208.0 V |
| Design Code                    | B                                                           |
| Drip Cover                     | No Drip Cover                                               |
| Duty Rating                    | CONT                                                        |
| Efficiency @ 100% Load         | 89.5 %                                                      |
| Electrically Isolated Bearing  | Not Electrically Isolated                                   |
| Feedback Device                | NO FEEDBACK                                                 |
| Front Face Code                | Standard                                                    |
| Front Shaft Indicator          | None                                                        |
| Heater Indicator               | No Heater                                                   |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | H          |
| Type         | AC         |
| Mech. spec.  | 37Q128     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 37WGS519   |
| Layout       | 37LYQ128   |
| Eff. date    | 06-27-2024 |
| CD Diagram   | CD0005     |
| Poles        | 06         |
| Leads        | 9#14       |
| Proprietary  | False      |
| Created date | 01-04-2017 |

|                               |                            |
|-------------------------------|----------------------------|
| High Voltage Full Load Amps   | 4.6 a                      |
| Insulation Class              | F                          |
| Inverter Code                 | Inverter Ready             |
| KVA Code                      | L                          |
| Lifting Lugs                  | Standard Lifting Lugs      |
| Locked Bearing Indicator      | No Locked Bearing          |
| Motor Lead Exit               | Ko Box                     |
| Motor Lead Quantity/Wire Size | 9 @ 14 AWG                 |
| Motor Lead Termination        | Flying Leads               |
| Motor Standards               | NEMA                       |
| Motor Type                    | 3738M                      |
| Mounting Arrangement          | F1                         |
| Number of Poles               | 6                          |
| Overall Length                | 17.45 IN                   |
| Power Factor                  | 68                         |
| Product Family                | WP Below Decks Marine Duty |
| Pulley End Bearing Type       | Ball                       |
| Pulley Face Code              | Standard                   |
| Pulley Shaft Indicator        | Tapped & Key               |
| Rodent Screen                 | None                       |
| RoHS Status                   | ROHS COMPLIANT             |
| Service Factor                | 1.00                       |
| Shaft Diameter                | 1.375 IN                   |
| Shaft Extension Location      | Pulley End                 |
| Shaft Ground Indicator        | No Shaft Grounding         |
| Shaft Rotation                | Reversible                 |
| Shaft Slinger Indicator       | Shaft Slinger              |
| Speed                         | 1160 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                       |

Winding Thermal 2

None

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**Nameplate**

| NP2117L      |              |  |      |      |     |    |    |   |  |
|--------------|--------------|--|------|------|-----|----|----|---|--|
| CAT.NO.      | ECTM3704T    |  |      |      |     |    |    |   |  |
| SPEC.        | 37Q128S519G1 |  |      |      |     |    |    |   |  |
| HP           | 3 AIR OVER   |  |      |      |     |    |    |   |  |
| VOLTS        | 230/460      |  |      |      |     |    |    |   |  |
| AMP          | 9.2/4.6      |  |      |      |     |    |    |   |  |
| RPM          | 1160         |  |      |      |     |    |    |   |  |
| FRAME        | 213TZ        |  | HZ   | 60   |     | PH | 3  |   |  |
| SER.F.       | 1.00         |  | CODE | L    | DES | B  | CL | F |  |
| NEMA-NOM-EFF | 89.5         |  | PF   | 68   |     |    |    |   |  |
| RATING       | 40C AMB-CONT |  |      |      |     |    |    |   |  |
| CC           |              |  |      |      |     |    |    |   |  |
| DE           | 6307         |  | ODE  | 6206 |     |    |    |   |  |
| ENCL         | TEAO         |  | SN   |      |     |    |    |   |  |

**Parts List**

| Part number | Description                              | Quantity |
|-------------|------------------------------------------|----------|
| SA332186    | SA 37Q128S519G1                          | 1.000 ea |
| RA320256    | RA 37Q128S519G1                          | 1.000 ea |
| HW3200A01   | 3/8-16X3/4 EYEBOLT WELDED F/S            | 1.000 ea |
| 37CB3005A04 | 37 CB .75 NPT @ 6:00                     | 1.000 ea |
| 37GS1000SP  | GASKET, CONDUIT BOX STD., .06 THICK LEXI | 1.000 ea |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 ea |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 37EP3101B88 | FREP 37L&M-TENV MTR, FACE DRAINS         | 1.000 ea |
| HA4054      | SHORT T-DRAIN FITTING, .125" N.P.T.      | 3.000 ea |
| 37PE3100A42 | 37 PUEP ASSEMBLY FOR SEAL                | 1.000 ea |
| HW4600H13   | SEAL 1.375 X 2.125 X 0.313 SINGLE LIP DB | 1.000 ea |
| HW5100A08   | W3118-035 WVY WSHR (WB)                  | 1.000 ea |
| XY3118A12   | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 ea |
| 37CB4516    | LIPPED LID FOR 37 FRAME NEC KOBX         | 1.000 ea |
| 37GS1008    | 37 GS FOR CB LID - LEXIDE                | 1.000 ea |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| HW4600C51   | 31X39X7.5MM FACE SEAL FOR 1.375 DIA. SH  | 1.000 ea |
| HW4600G52   | DOME SLINGER, 5.438 OD X 1.370/1.320 ID  | 1.000 ea |
| HW2501F21   | KEY, 5/16 SQ X 2.375                     | 1.000 ea |
| HA7000A02   | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 ea |
| MJ5001A27   | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 qt |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 2.000 ea |
| MJ1000A02   | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| MG1050Y01   | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.028 ga |
| HA3104A17   | 5/16-18X13.250 T-BLT/OHIO                | 4.000 ea |
| LC0005      | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING  | 1.000 ea |
| NP2117L     | SS SUPER-E UL CC                         | 1.000 ea |
| 37PA1074    | PALLET PACK GRP, PRINT BOX PK1026A06     | 1.000 ea |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 61099

Typical performance - not guaranteed values

| Winding: 37WGS519-R040 |    |              | Type: 3738M                              |                           | Enclosure: TEAO       |              |         |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|--------------|---------|
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |              |         |
| Rated Output (HP)      |    | 3 AIR OVER   | Full Load Torque                         |                           | 13.61 LB-FT           |              |         |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |              |         |
| Full Load Amps         |    | 9.2/4.6      | Breakdown Torque                         |                           | 43.8 LB-FT            |              |         |
| R.P.M.                 |    | 1160         | Pull-up Torque                           |                           | 20.43 LB-FT           |              |         |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 25.89 LB-FT  |         |
| NEMA Design Code       |    | B            | KVA Code                                 | L                         | Starting Current      |              | 28.09 A |
| Service Factor (S.F.)  |    | 1            |                                          | No-load Current           |                       | 2.67 A       |         |
| NEMA Nom. Eff.         |    | 89.5         | Power Factor                             | 68                        | Line-line Res. @ 25°C |              | 2.67 Ω  |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       |              |         |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 22.9         |         |
|                        |    |              |                                          | Rotor inertia             |                       | 0.945 LB-FT2 |         |

**Load Characteristics 460 V, 60 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 31   | 51   | 63   | 70   | 74   | 77   |
| Efficiency      | 81.9 | 86.9 | 89   | 88.2 | 86.9 | 84.5 |
| Speed           | 1189 | 1180 | 1170 | 1158 | 1144 | 1129 |
| Line amperes    | 2.77 | 3.18 | 3.8  | 4.57 | 5.47 | 6.47 |

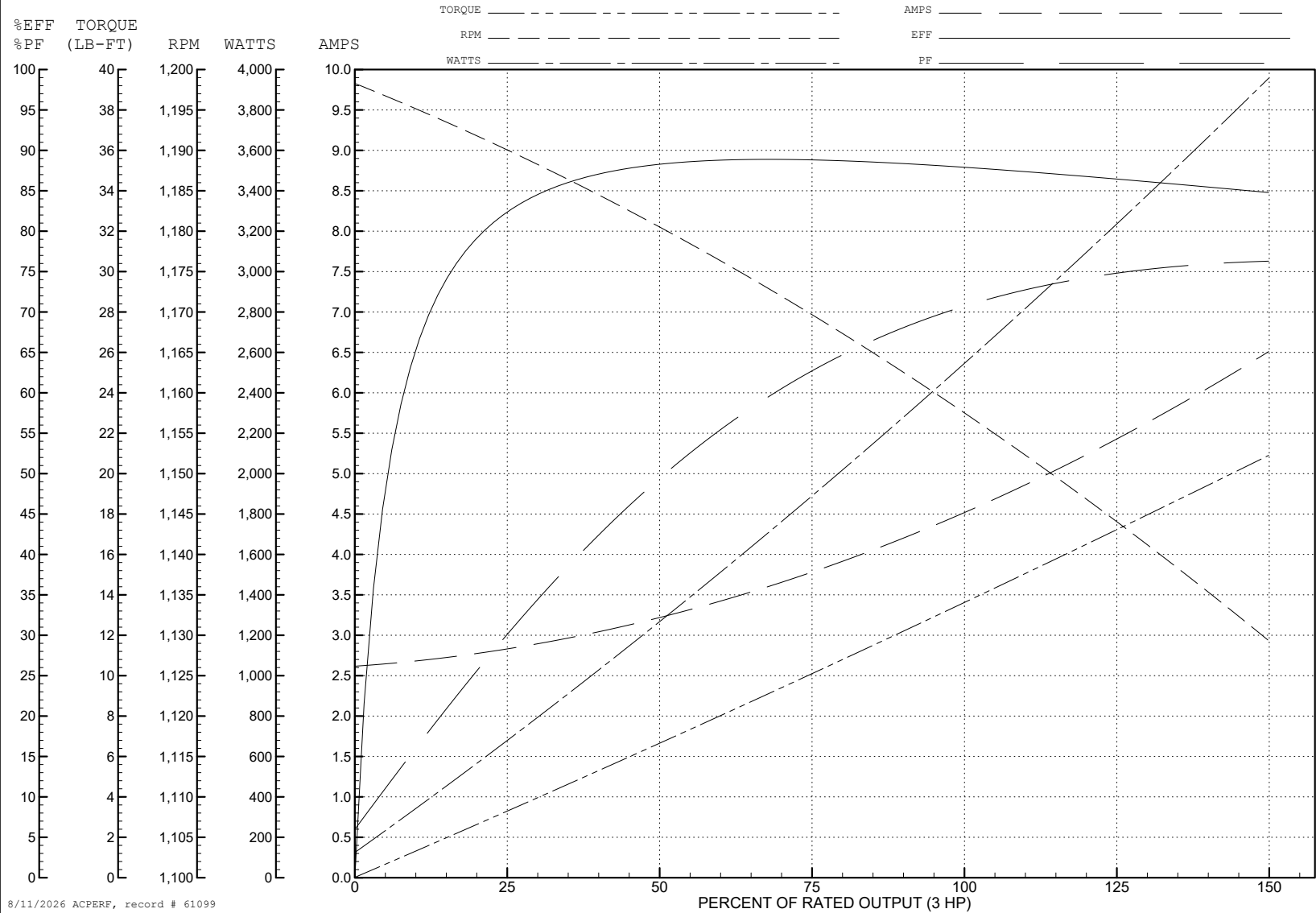
ABB Motors and Mechanical Inc.

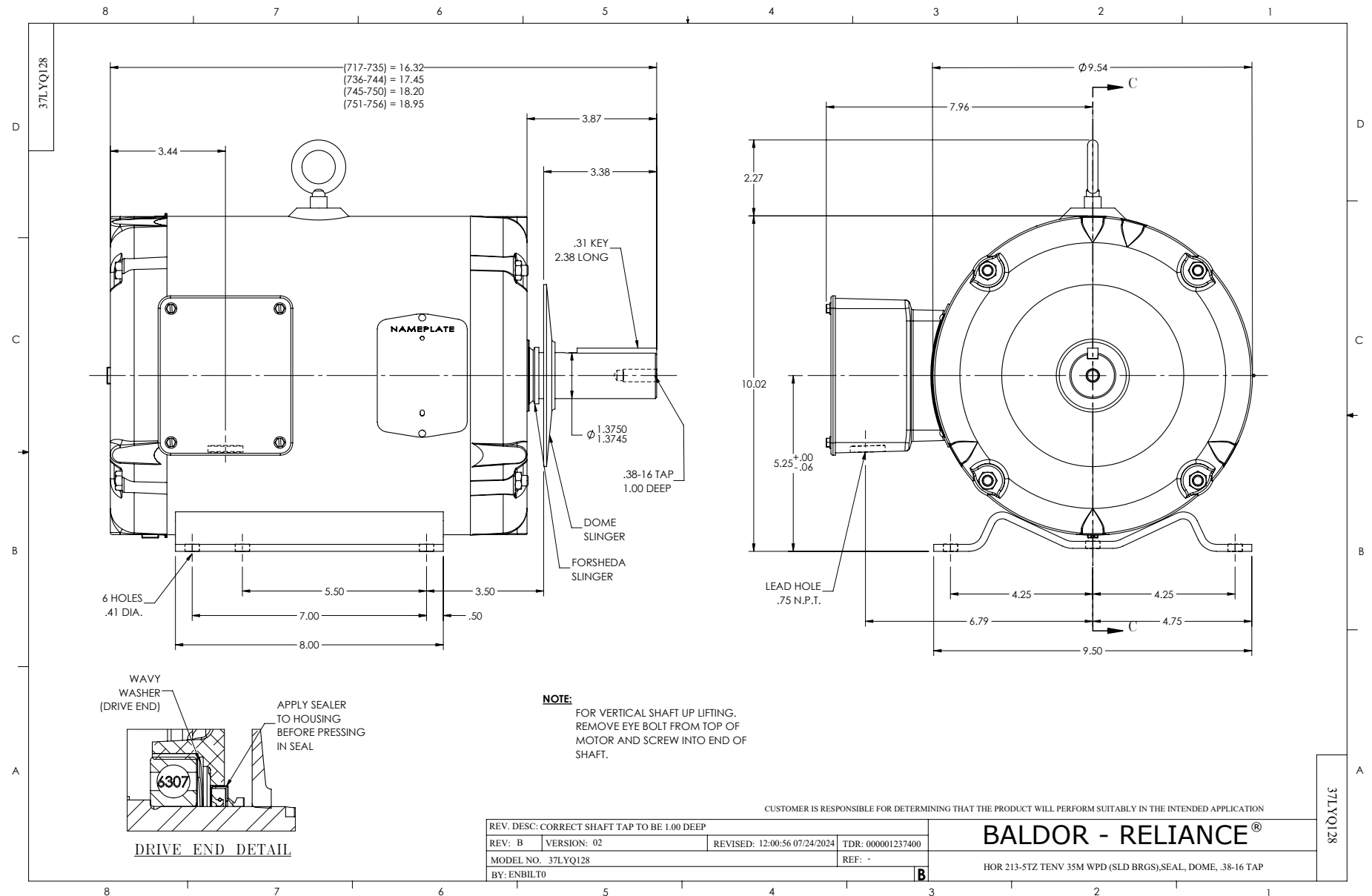
WINDING # 37WGS519

Typical performance - not guaranteed values.

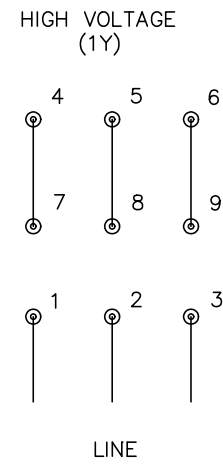
3 HP 3 PH 60 HZ 1160 RPM 460 V 3738M

TORQUES (LB-FT) : PO=43.8 PU=20.43 LR=25.89 LRA=28.09





CD0005



- 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.

|                                           |         |                         |              |
|-------------------------------------------|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                         |              |
| REV. LTR: E                               | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 900000                                    |         | FILE: AAA00005140       | MDL: -       |
|                                           |         | MTL: -                  |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 9 LEADS

CD0005