

# ABB BALDOR RELIANCE III

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## Customer information packet

### M3611T-57

3HP, 1450RPM, 3PH, 50HZ, 182T, 3630M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                        |
|---------------------------------------|----------------------------------------|
| <b>Enclosure</b>                      | TEFC                                   |
| <b>Frame</b>                          | 182T                                   |
| <b>Frame Material</b>                 | Steel                                  |
| <b>Frequency</b>                      | 50.00 Hz                               |
| <b>Haz Area Class and Group</b>       | None                                   |
| <b>Haz Area Division</b>              | Not Applicable                         |
| <b>Motor Letter Type</b>              | Three Phase                            |
| <b>Output @ Frequency</b>             | 3.000 HP @ 50 HZ                       |
| <b>Phase</b>                          | 3                                      |
| <b>Synchronous Speed @ Frequency</b>  | 1500 RPM @ 50 HZ                       |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 50 HZ<br>400.0 V @ 50 HZ     |
| <b>Agency Approvals</b>               | CSA<br>CE<br>UR                        |
| <b>Ambient Temperature</b>            | 40 °C                                  |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                       |
| <b>Auxiliary Box Lead Termination</b> | None                                   |
| <b>Base Indicator</b>                 | Rigid                                  |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                |
| <b>Blower</b>                         | None                                   |
| <b>Current @ Voltage</b>              | 4.900 A @ 400.0 V<br>8.500 A @ 230.0 V |
| <b>Design Code</b>                    | B                                      |
| <b>Drip Cover</b>                     | No Drip Cover                          |
| <b>Duty Rating</b>                    | CONT                                   |
| <b>Efficiency @ 100% Load</b>         | 85.0 %                                 |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated              |
| <b>Feedback Device</b>                | NO FEEDBACK                            |
| <b>Front Face Code</b>                | Standard                               |
| <b>Front Shaft Indicator</b>          | None                                   |
| <b>Heater Indicator</b>               | No Heater                              |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | M          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 36A001     |
| <b>Base</b>         |            |
| <b>Status</b>       | NLA/A      |
| <b>Elec. spec.</b>  | 36WGS808   |
| <b>Layout</b>       | 36LYA001   |
| <b>Eff. date</b>    | 10-28-2016 |
| <b>CD Diagram</b>   | CD0022     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 6#16       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-19-2011 |

|                               |                     |
|-------------------------------|---------------------|
| High Voltage Full Load Amps   | 4.9 a               |
| Insulation Class              | F                   |
| Inverter Code                 | Not Inverter        |
| KVA Code                      | K                   |
| Lifting Lugs                  | No Lifting Lugs     |
| Locked Bearing Indicator      | No Locked Bearing   |
| Motor Lead Exit               | Ko Box              |
| Motor Lead Quantity/Wire Size | 6 @ 16 AWG          |
| Motor Lead Termination        | Flying Leads        |
| Motor Standards               | NEMA                |
| Motor Type                    | 3630M               |
| Mounting Arrangement          | F1                  |
| Number of Poles               | 4                   |
| Overall Length                | 16.54 IN            |
| Power Factor                  | 77                  |
| 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                | 1.125 IN            |
| Shaft Extension Location      | Pulley End          |
| Shaft Ground Indicator        | No Shaft Grounding  |
| Shaft Rotation                | Reversible          |
| Shaft Slinger Indicator       | No Slinger          |
| Speed                         | 1450 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**

| NP2717L      |                        |      |     |      |    |          |    |  |  |
|--------------|------------------------|------|-----|------|----|----------|----|--|--|
| CAT NO       | M3611T-57              |      |     |      |    |          |    |  |  |
| SPEC.        | 36A001S808H1           |      |     |      |    |          |    |  |  |
| HP           | 3                      |      |     |      |    | PH       | 3  |  |  |
| VOLTS        | 230/400                |      |     |      |    |          |    |  |  |
| AMP          | 8.5/4.9                |      |     |      |    |          |    |  |  |
| FRAME        | 182T                   |      | HZ  | 50   |    | I.P.     | 54 |  |  |
| SER.F.       | 1.15                   | CODE | K   | DES  | B  | CL       | F  |  |  |
| NEMA-NOM-EFF | 85                     |      |     |      |    | % (100%) |    |  |  |
| PF           | 77                     |      |     |      |    |          |    |  |  |
| RATING       | 40C AMB-CONT           |      |     |      | CC |          |    |  |  |
| DE BRG       | 6206                   |      | ODE | 6205 |    |          |    |  |  |
| ENCL         | TEFC                   | SN   |     |      |    |          |    |  |  |
| BLANK        | IE2-85.3(75%)82.9(50%) |      |     |      |    |          |    |  |  |
|              |                        |      |     |      |    |          |    |  |  |
|              |                        |      |     |      |    |          |    |  |  |

**AC Induction Motor Performance Data**

Record # 35194

Typical performance - not guaranteed values

| Winding: 36WGS808-R001 |          |         | Type: 3630M                              |   | Enclosure: TEFC         |                       |        |        |
|------------------------|----------|---------|------------------------------------------|---|-------------------------|-----------------------|--------|--------|
| Nameplate Data         |          |         | 400 V, 50 Hz:<br>High Voltage Connection |   |                         |                       |        |        |
| Rated Output (HP)      |          | 3       | Full Load Torque                         |   | 10.8 LB-FT              |                       |        |        |
| Volts                  |          | 230/400 | Start Configuration                      |   | direct on line          |                       |        |        |
| Full Load Amps         |          | 8.5/4.9 | Breakdown Torque                         |   | 40.3 LB-FT              |                       |        |        |
| R.P.M.                 |          | 1450    | Pull-up Torque                           |   | 23.9 LB-FT              |                       |        |        |
| Hz                     | 50 Phase | 3       | Locked-rotor Torque                      |   | 28.4 LB-FT              |                       |        |        |
| NEMA Design Code       |          | B       | KVA Code                                 | K | Starting Current        |                       | 35.9 A |        |
| Service Factor (S.F.)  |          | 1.15    | No-load Current                          |   | 2.59 A                  |                       |        |        |
| NEMA Nom. Eff.         |          | 85      | Power Factor                             |   | 77                      | Line-line Res. @ 25°C |        | 3.72 Ω |
| Rating - Duty          |          | 40C     | AMB-CONT                                 |   | Temp. Rise @ Rated Load |                       | 58°C   |        |
| S.F. Amps              |          |         | Temp. Rise @ S.F. Load                   |   | 69°C                    |                       |        |        |
|                        |          |         | Locked-rotor Power Factor                |   | 48                      |                       |        |        |
|                        |          |         | Rotor inertia                            |   | 0.279 LB-FT2            |                       |        |        |

**Load Characteristics 400 V, 50 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 37   | 57   | 71   | 77   | 82   | 83   | 80   |
| Efficiency      | 76.5 | 82.9 | 85.3 | 85.7 | 84.2 | 82.7 | 84.8 |
| Speed           | 1489 | 1478 | 1466 | 1453 | 1437 | 1420 | 1443 |
| Line amperes    | 2.83 | 3.31 | 3.98 | 4.88 | 5.84 | 7.04 | 5.46 |

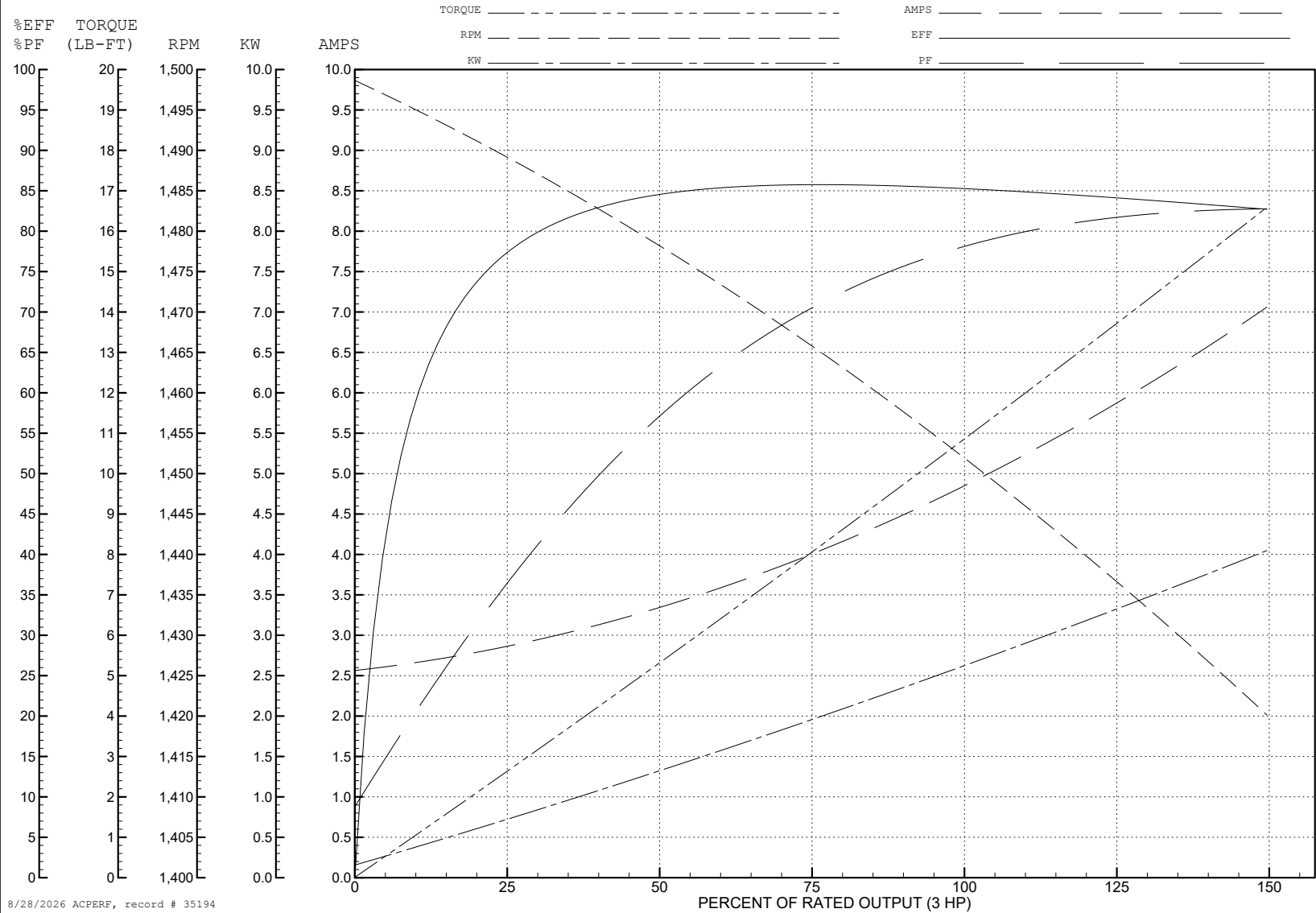
ABB Motors and Mechanical Inc.

WINDING # 36WGS808

Typical performance - not guaranteed values.

3 HP 3 PH 50 HZ 1450 RPM 400 V 3630M

TORQUES (LB-FT) : PO=40.3 PU=23.9 LR=28.4 LRA=35.9



**AC Induction Motor Performance Data**

Record # 64313

Typical performance - not guaranteed values

| Winding: 36WGS808-R001 |          |                 | Type: 3630M                             |  | Enclosure: TEFC |  |
|------------------------|----------|-----------------|-----------------------------------------|--|-----------------|--|
| Nameplate Data         |          |                 | 230 V, 50 Hz:<br>Low Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | 3               | Full Load Torque                        |  | 10.82 LB-FT     |  |
| Volts                  |          | 230/400         | Start Configuration                     |  | direct on line  |  |
| Full Load Amps         |          | 8.5/4.9         | Breakdown Torque                        |  | 39.95 LB-FT     |  |
| R.P.M.                 |          | 1450            | Pull-up Torque                          |  | 23.67 LB-FT     |  |
| Hz                     | 50 Phase | 3               | Locked-rotor Torque                     |  | 28.13 LB-FT     |  |
| NEMA Design Code       |          | B KVA Code      | Starting Current                        |  | 61.88 A         |  |
| Service Factor (S.F.)  |          | 1.15            | No-load Current                         |  | 4.45 A          |  |
| NEMA Nom. Eff.         |          | 85 Power Factor | Line-line Res. @ 25°C                   |  | 1.24 Ω          |  |
| Rating - Duty          |          | 40C AMB-CONT    | Temp. Rise @ Rated Load                 |  | 58°C            |  |
| S.F. Amps              |          |                 | Temp. Rise @ S.F. Load                  |  | 70°C            |  |
|                        |          |                 | Locked-rotor Power Factor               |  | 47.9            |  |
|                        |          |                 | Rotor inertia                           |  | 0.279 LB-FT2    |  |

**Load Characteristics 230 V, 50 Hz, 3 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125   | 150   | S.F. |
|-----------------|------|------|------|------|-------|-------|------|
| Power Factor    | 37   | 57   | 71   | 77   | 82    | 83    | 80   |
| Efficiency      | 76.6 | 84.3 | 85.5 | 85.7 | 84.1  | 82.5  | 84.7 |
| Speed           | 1489 | 1478 | 1466 | 1453 | 1437  | 1419  | 1443 |
| Line amperes    | 4.87 | 5.71 | 6.89 | 8.47 | 10.14 | 12.24 | 9.47 |



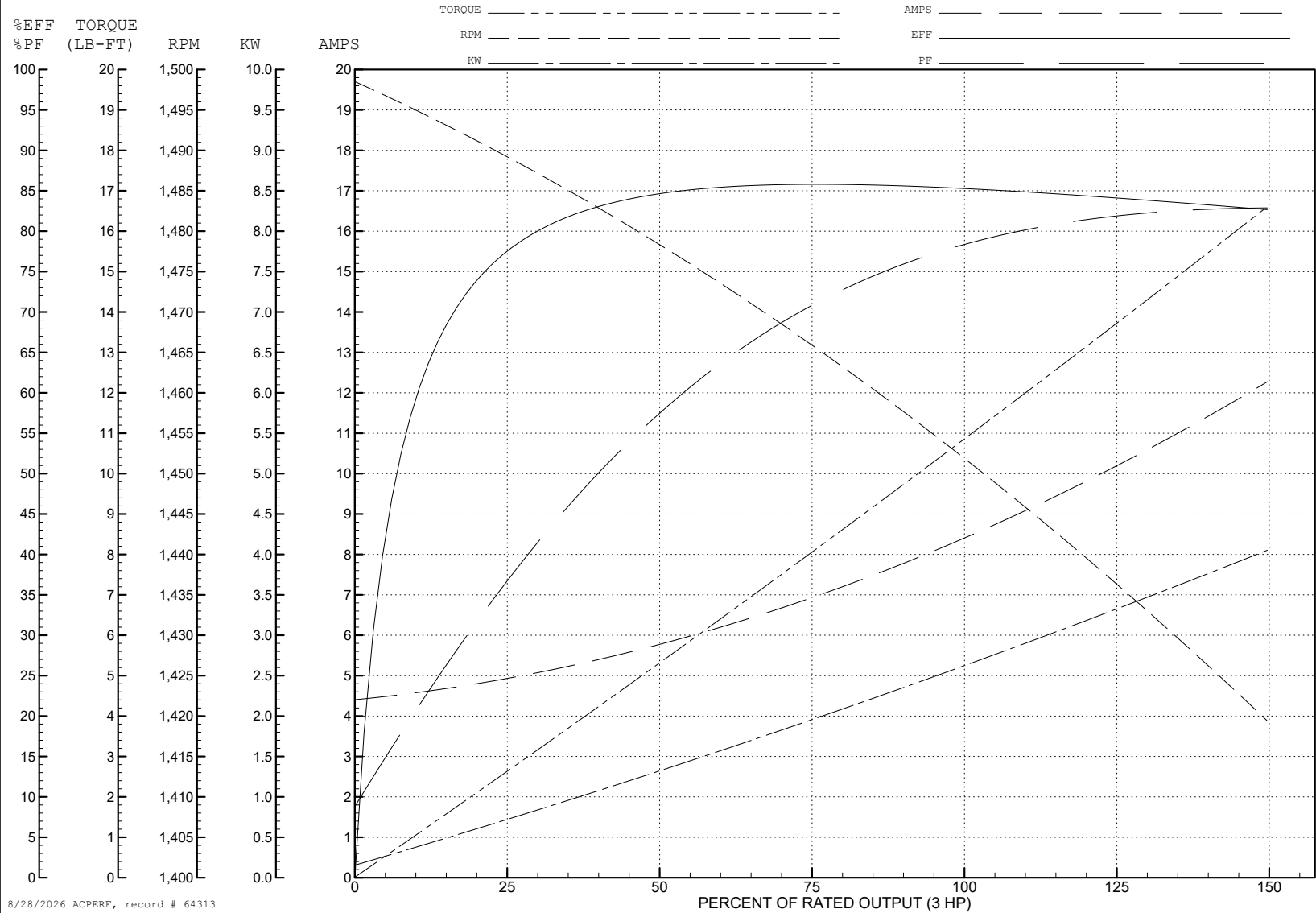
ABB Motors and Mechanical Inc.

WINDING # 36WGS808

Typical performance - not guaranteed values.

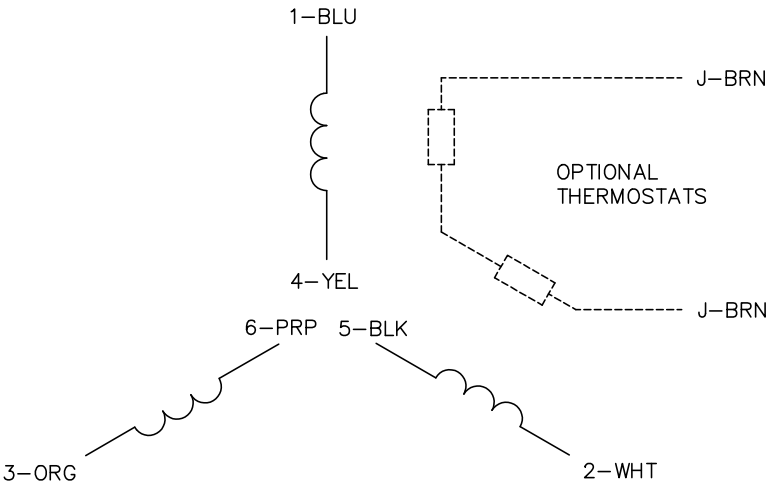
3 HP 3 PH 50 HZ 1450 RPM 230 V 3630M

TORQUES (LB-FT) : PO=39.95 PU=23.67 LR=28.13 LRA=61.88

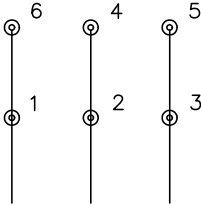




CD0022

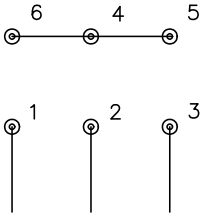


LOW VOLTAGE  
(1D)



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.

|                                           |         |                        |              |
|-------------------------------------------|---------|------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS |         |                        |              |
| REV. LTR: F                               | BY: JLP | REVISED: 01/21/99 3:54 | TDR: 0171435 |
| CD0022                                    |         | FILE: AAA00005144      | MDL: -       |
|                                           |         | MTL: -                 |              |

**BALDOR ELECTRIC Co.**

3PH, DV, 6 LEADS, DELTA/WYE CONNECTION

CD0022