

# ABB BALDOR RELIANCE III

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## Customer information packet

### BM3542-S

.75HP, 1750RPM, 3PH, 60HZ, 56, 3514M, TEFC, F3

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                             |
|---------------------------------------|-------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                        |
| <b>Frame</b>                          | 56                                                          |
| <b>Frame Material</b>                 | Steel                                                       |
| <b>Frequency</b>                      | 60.00 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>             | .750 HP @ 60 HZ                                             |
| <b>Phase</b>                          | 3                                                           |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                            |
| <b>Voltage @ Frequency</b>            | 208.0 V @ 60 HZ<br>230.0 V @ 60 HZ<br>460.0 V @ 60 HZ       |
| <b>Agency Approvals</b>               | UR<br>CE<br>CSA                                             |
| <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>Brake Torque</b>                   | 3.0 lb-ft                                                   |
| <b>Current @ Voltage</b>              | 2.900 A @ 208.0 V<br>2.800 A @ 230.0 V<br>1.400 A @ 460.0 V |
| <b>Design Code</b>                    | B                                                           |
| <b>Drip Cover</b>                     | No Drip Cover                                               |
| <b>Duty Rating</b>                    | CONT                                                        |
| <b>Efficiency @ 100% Load</b>         | 78.5 %                                                      |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                   |
| <b>Feedback Device</b>                | NO FEEDBACK                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | K          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 35X053     |
| <b>Base</b>         |            |
| <b>Status</b>       | INA/A      |
| <b>Elec. spec.</b>  | 35WGP672   |
| <b>Layout</b>       | 35LYX053   |
| <b>Eff. date</b>    | 05-17-2023 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 10-30-2013 |

| Front Face Code               | Special Combinations Not Listed |
|-------------------------------|---------------------------------|
| Front Shaft Indicator         | None                            |
| Heater Indicator              | No Heater                       |
| High Voltage Full Load Amps   | 1.4 a                           |
| Insulation Class              | F                               |
| Inverter Code                 | Not Inverter                    |
| KVA Code                      | M                               |
| Lifting Lugs                  | No Lifting Lugs                 |
| Locked Bearing Indicator      | No 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                    | 3514M                           |
| Mounting Arrangement          | F3                              |
| Number of Poles               | 4                               |
| Overall Length                | 14.37 IN                        |
| Power Factor                  | 66                              |
| Product Family                | General Purpose                 |
| Pulley End Bearing Type       | Ball                            |
| Pulley Face Code              | Standard                        |
| Pulley Shaft Indicator        | Standard                        |
| Rodent Screen                 | None                            |
| Service Factor                | 1.15                            |
| Shaft Diameter                | 0.875 IN                        |
| Shaft Extension Location      | Pulley End                      |
| Shaft Ground Indicator        | No Shaft Grounding              |
| Shaft Rotation                | Reversible                      |
| Shaft Slinger Indicator       | No Slinger                      |
| Speed                         | 1750 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                |

Nameplate

| NP1372L      |              |      |     |    |      |   |    |   |  |
|--------------|--------------|------|-----|----|------|---|----|---|--|
| CAT.NO.      |              |      |     |    |      |   |    |   |  |
| SPEC.        | 35X053P672G1 |      |     |    |      |   |    |   |  |
| HP           | .75          |      |     |    |      |   |    |   |  |
| VOLTS        | 208-230/460  |      |     |    |      |   |    |   |  |
| AMP          | 2.9-2.8/1.4  |      |     |    |      |   |    |   |  |
| FRAME        | 56           |      | HZ  | 60 |      |   | PH | 3 |  |
| SER.F.       | 1.15         | CODE |     | M  | DES  | B | CL | F |  |
| NEMA-NOM-EFF | 78.5         | PF   |     | 66 |      |   |    |   |  |
| RATING       | 40C AMB-CONT |      |     |    |      |   |    |   |  |
| CC           |              |      |     |    |      |   |    |   |  |
| DE           | 6205         |      | ODE |    | 6205 |   |    |   |  |
| ENCL         | TEFC         | SN   |     |    |      |   |    |   |  |
|              | IP44         |      |     |    |      |   |    |   |  |

**AC Induction Motor Performance Data**

Record # 43834

Typical performance - not guaranteed values

| Winding: 35WGP672-R040 |    |             | Type: 3514M                              |                       | Enclosure: TEFC         |            |      |
|------------------------|----|-------------|------------------------------------------|-----------------------|-------------------------|------------|------|
| Nameplate Data         |    |             | 460 V, 60 Hz:<br>High Voltage Connection |                       |                         |            |      |
| Rated Output (HP)      |    | .75         | Full Load Torque                         |                       | 2.26 LB-FT              |            |      |
| Volts                  |    | 208-230/460 | Start Configuration                      |                       | direct on line          |            |      |
| Full Load Amps         |    | 2.9-2.8/1.4 | Breakdown Torque                         |                       | 11.5 LB-FT              |            |      |
| R.P.M.                 |    | 1750        | Pull-up Torque                           |                       | 6.93 LB-FT              |            |      |
| Hz                     | 60 | Phase       | 3                                        | Locked-rotor Torque   |                         | 7.71 LB-FT |      |
| NEMA Design Code       |    | B           | KVA Code                                 | Starting Current      |                         | 10.5 A     |      |
| Service Factor (S.F.)  |    | 1.15        | No-load Current                          |                       | 1.07 A                  |            |      |
| NEMA Nom. Eff.         |    | 78.5        | Power Factor                             | Line-line Res. @ 25°C |                         | 20.4 Ω     |      |
| Rating - Duty          |    | 40C         | AMB-CONT                                 |                       | Temp. Rise @ Rated Load |            | 78°C |
| S.F. Amps              |    |             |                                          |                       | Temp. Rise @ S.F. Load  |            | 86°C |
|                        |    |             | Rotor inertia                            |                       | 0.0827 LB-FT2           |            |      |

**Load Characteristics 460 V, 60 Hz, 0.75 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 28   | 44   | 56   | 66   | 74   | 79   | 71   |
| Efficiency      | 57.4 | 71.1 | 76.3 | 78.8 | 78.8 | 78.5 | 78.8 |
| Speed           | 1789 | 1777 | 1766 | 1751 | 1736 | 1722 | 1742 |
| Line amperes    | 1.08 | 1.14 | 1.22 | 1.36 | 1.52 | 1.69 | 1.46 |

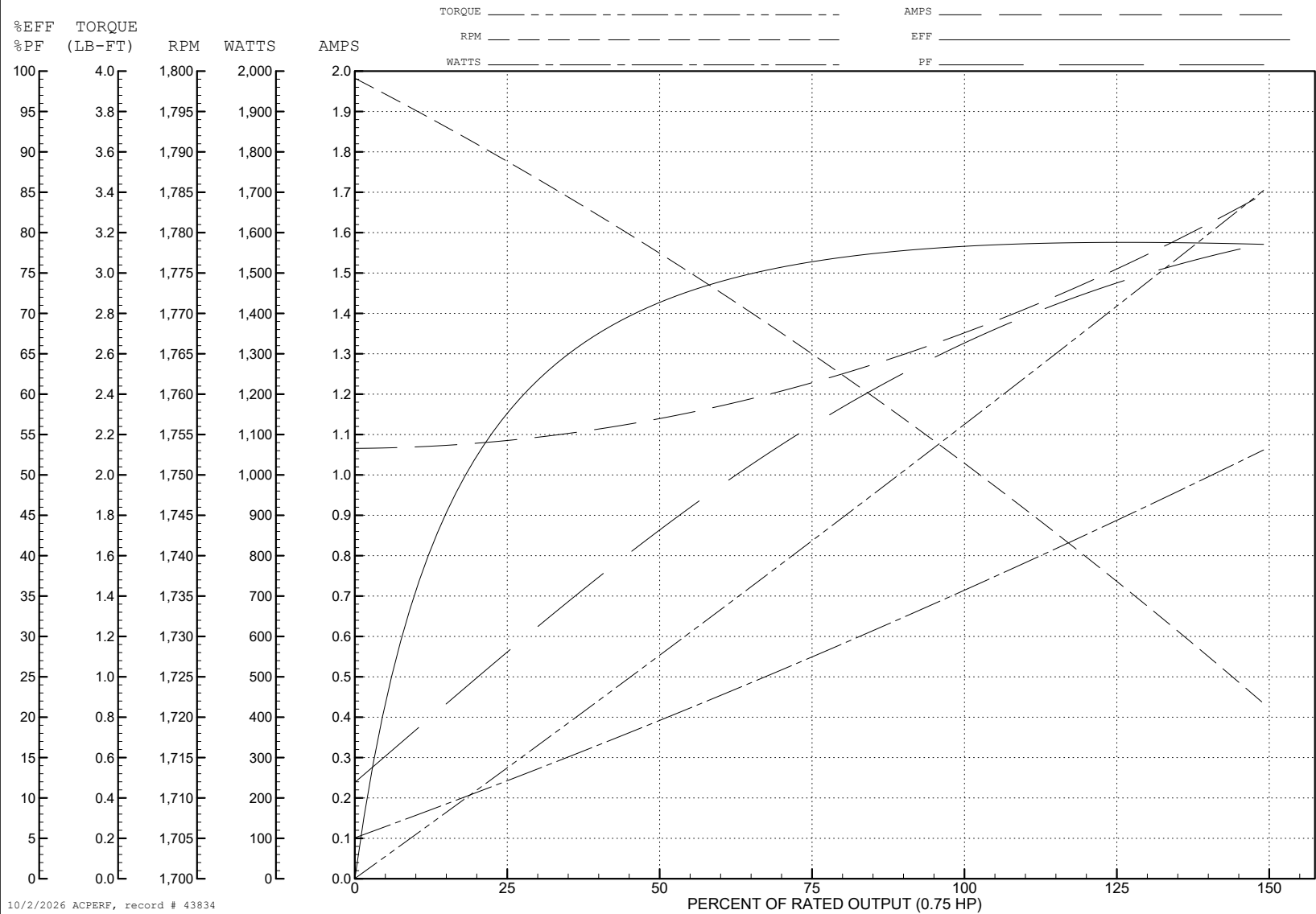
ABB Motors and Mechanical Inc.

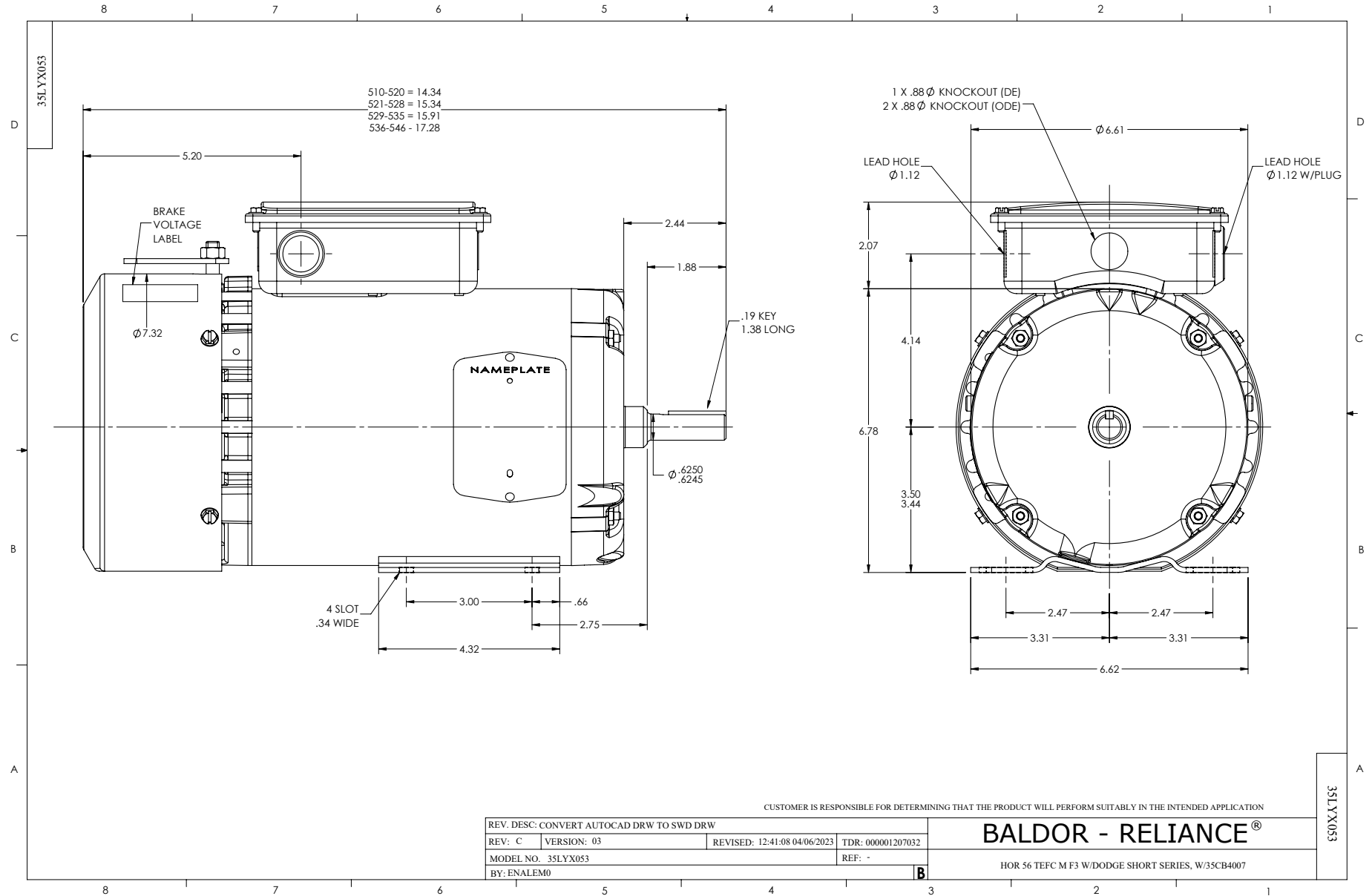
WINDING # 35WGP672

Typical performance - not guaranteed values.

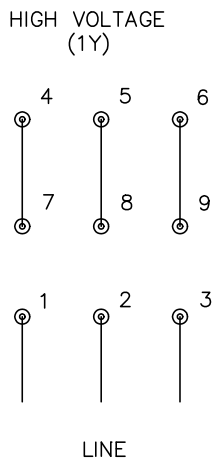
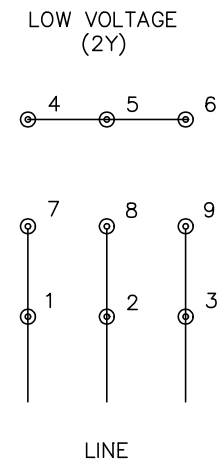
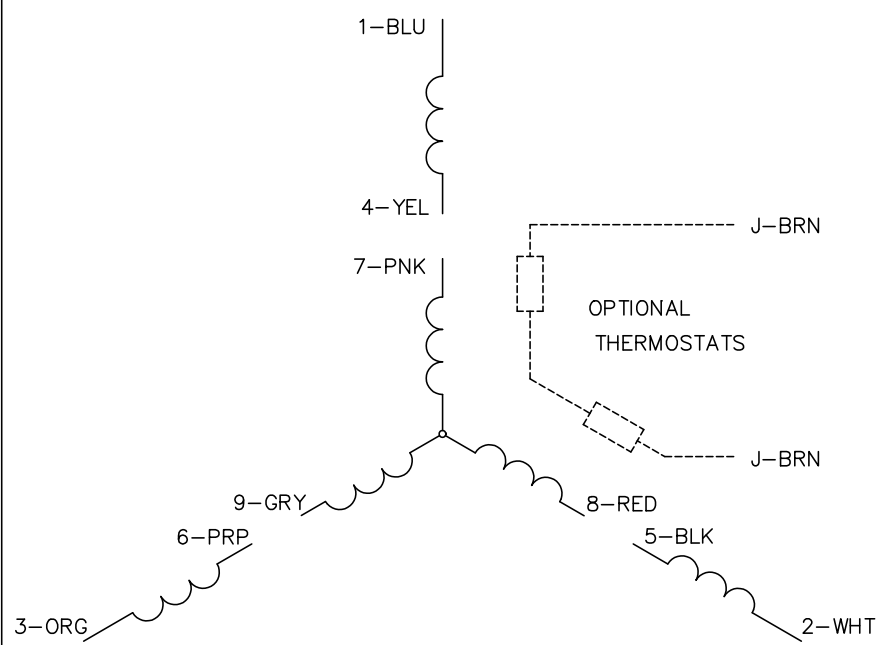
0.75 HP 3 PH 60 HZ 1750 RPM 460 V 3514M

TORQUES (LB-FT): PO=11.5 PU=6.93 LR=7.71 LRA=10.5





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