

# ABB BALDOR RELIANCE III

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## Customer information packet

### CEM7060T

30//25HP, 1770//1470RPM, 3PH, 60//50HZ, 286T

Class - CLI GP D; CLII GP F,G

Division - Division I

**Specifications**

|                                       |                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                                                                       |
| <b>Frame</b>                          | 286TC                                                                                                      |
| <b>Frame Material</b>                 | Iron                                                                                                       |
| <b>Frequency</b>                      | 50.00 Hz<br>60.00 Hz                                                                                       |
| <b>Haz Area Class and Group</b>       | CLI GP D; CLII GP F,G                                                                                      |
| <b>Haz Area Division</b>              | Division I                                                                                                 |
| <b>Motor Letter Type</b>              | Three Phase                                                                                                |
| <b>Output @ Frequency</b>             | 25.000 HP @ 50 HZ<br>30.000 HP @ 60 HZ                                                                     |
| <b>Phase</b>                          | 3                                                                                                          |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                                                                           |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>380.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>190.0 V @ 50 HZ                                   |
| <b>Agency Approvals</b>               | CSA<br>UL                                                                                                  |
| <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>              | 76.000 A @ 208.0 V<br>74.000 A @ 190.0 V<br>72.000 A @ 230.0 V<br>37.000 A @ 380.0 V<br>36.000 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                                                                          |
| <b>Drip Cover</b>                     | No Drip Cover                                                                                              |
| <b>Duty Rating</b>                    | CONT                                                                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | V          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 10E251     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 10WGY758   |
| <b>Layout</b>       | 10LYE251   |
| <b>Eff. date</b>    | 02-15-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#10       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 06-10-2010 |

|                               |                           |
|-------------------------------|---------------------------|
| Efficiency @ 100% Load        | 93.6 %                    |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device               | NO FEEDBACK               |
| Front Face Code               | Standard                  |
| Front Shaft Indicator         | None                      |
| Haz Area Temp Code            | T3C                       |
| Heater Indicator              | No Heater                 |
| High Voltage Full Load Amps   | 36.0 a                    |
| Insulation Class              | F                         |
| Inverter Code                 | Not Inverter              |
| KVA Code                      | G                         |
| Lifting Lugs                  | Standard Lifting Lugs     |
| Locked Bearing Indicator      | Locked Bearing            |
| Motor Lead Exit               | Ko Box                    |
| Motor Lead Quantity/Wire Size | 9 @ 10 AWG                |
| Motor Lead Termination        | Flying Leads              |
| Motor Standards               | NEMA                      |
| Motor Type                    | X1056M                    |
| Mounting Arrangement          | F1                        |
| Number of Poles               | 4                         |
| Overall Length                | 28.61 IN                  |
| Power Factor                  | 83                        |
| Product Family                | General Purpose           |
| Pulley End Bearing Type       | Ball                      |
| Pulley Face Code              | C-Face                    |
| Pulley Shaft Indicator        | Standard                  |
| Rodent Screen                 | None                      |
| RoHS Status                   | ROHS NON-COMPLIANT        |
| Service Factor                | 1.00                      |
| Shaft Diameter                | 1.875 IN                  |
| Shaft Extension Location      | Pulley End                |
| Shaft Ground Indicator        | No Shaft Grounding        |
| Shaft Rotation                | Reversible                |
| Shaft Slinger Indicator       | No Slinger                |

|                            |                            |
|----------------------------|----------------------------|
| Speed                      | 1470 rpm<br>1770 rpm       |
| Speed Code                 | Single Speed               |
| Starting Method            | Direct on line             |
| Thermal Device - Bearing   | None                       |
| Thermal Device - Winding   | Normally Closed Thermostat |
| Vibration Sensor Indicator | No Vibration Sensor        |
| Winding Thermal 1          | None                       |
| Winding Thermal 2          | None                       |

**Nameplate**

| NP1426XPSLEV |                  |              |      |      |   |  |  |  |  |
|--------------|------------------|--------------|------|------|---|--|--|--|--|
| NO.          |                  | CC           | 010A |      |   |  |  |  |  |
| SER.         |                  |              |      |      |   |  |  |  |  |
| SPEC.        | 10E251Y758G1     |              |      |      |   |  |  |  |  |
| CAT.NO.      | CEM7060T         |              |      |      |   |  |  |  |  |
| HP           | 30//25           | T. CODE      | T3C  |      |   |  |  |  |  |
| VOLTS        | 230/460//190/380 |              |      |      |   |  |  |  |  |
| AMPS         | 72/36//74/37     |              |      |      |   |  |  |  |  |
| RPM          | 1770//1470       |              |      |      |   |  |  |  |  |
| HZ           | 60//50           | PH           | 3    | CL   | F |  |  |  |  |
| SER.F.       | 1.00             | DES          | A    | CODE | G |  |  |  |  |
| RATING       | 40C AMB-CONT     |              |      |      |   |  |  |  |  |
| FRAME        | 286TC            | NEMA-NOM-EFF | 93.6 |      |   |  |  |  |  |
|              |                  | PF           | 83   |      |   |  |  |  |  |
| BLANK        |                  |              |      |      |   |  |  |  |  |

**AC Induction Motor Performance Data**

Record # 53248

Typical performance - not guaranteed values

| Winding: 10WGY758-R017 |        |                  | Type: 1056M  |                                          | Enclosure: XPFC       |                |         |
|------------------------|--------|------------------|--------------|------------------------------------------|-----------------------|----------------|---------|
| Nameplate Data         |        |                  |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                |         |
| Rated Output (HP)      |        | 30//25           |              | Full Load Torque                         |                       | 89.1 LB-FT     |         |
| Volts                  |        | 230/460//190/380 |              | Start Configuration                      |                       | direct on line |         |
| Full Load Amps         |        | 72/36//74/37     |              | Breakdown Torque                         |                       | 270 LB-FT      |         |
| R.P.M.                 |        | 1770//1470       |              | Pull-up Torque                           |                       | 128 LB-FT      |         |
| Hz                     | 60//50 | Phase            | 3            | Locked-rotor Torque                      |                       | 145 LB-FT      |         |
| NEMA Design Code       |        | B                | KVA Code     | G                                        | Starting Current      |                | 235 A   |
| Service Factor (S.F.)  |        | 1                |              | No-load Current                          |                       | 15.9 A         |         |
| NEMA Nom. Eff.         |        | 93.6             | Power Factor | 83                                       | Line-line Res. @ 25°C |                | 0.226 Ω |
| Rating - Duty          |        | 40C AMB-CONT     |              | Temp. Rise @ Rated Load                  |                       | 57°C           |         |
|                        |        |                  |              | Locked-rotor Power Factor                |                       | 32             |         |
|                        |        |                  |              | Rotor inertia                            |                       | 4.45 LB-FT2    |         |

**Load Characteristics 460 V, 60 Hz, 30 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 44   | 66   | 75   | 83   | 83   | 83   |
| Efficiency      | 90.6 | 93.7 | 94.3 | 94   | 93.2 | 93   |
| Speed           | 1794 | 1787 | 1781 | 1774 | 1766 | 1757 |
| Line amperes    | 17.9 | 23   | 30.1 | 36.2 | 45.3 | 54.5 |

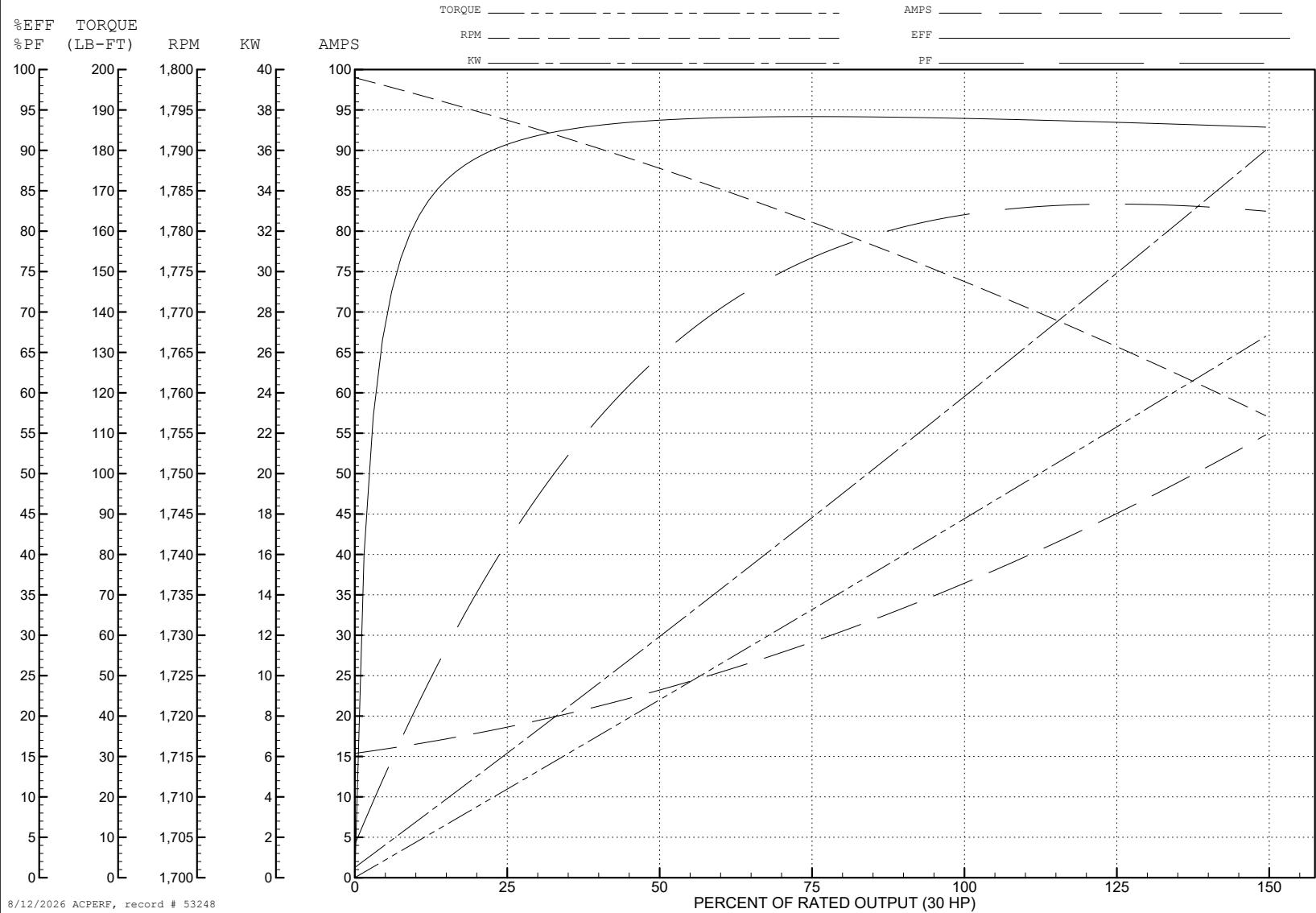
ABB Motors and Mechanical Inc.

WINDING # 10WGY758

Typical performance - not guaranteed values.

30 HP 3 PH 60 HZ 1774 RPM 460 V 1056M

TORQUES (LB-FT): PO=270 PU=128 LR=145 LRA=235



**AC Induction Motor Performance Data**

Record # 53249

Typical performance - not guaranteed values

| Winding: 10WGY758-R017 |  |                  |  | Type: 1056M                              |  | Enclosure: XPFC |  |
|------------------------|--|------------------|--|------------------------------------------|--|-----------------|--|
| Nameplate Data         |  |                  |  | 380 V, 50 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |  | 30//25           |  | Full Load Torque                         |  | 89.3 LB-FT      |  |
| Volts                  |  | 230/460//190/380 |  | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |  | 72/36//74/37     |  | Breakdown Torque                         |  | 267 LB-FT       |  |
| R.P.M.                 |  | 1770//1470       |  | Pull-up Torque                           |  | 131 LB-FT       |  |
| Hz                     |  | 60//50           |  | Phase                                    |  | 3               |  |
| NEMA Design Code       |  | B                |  | KVA Code                                 |  | G               |  |
| Service Factor (S.F.)  |  | 1                |  | No-load Current                          |  | 15.5 A          |  |
| NEMA Nom. Eff.         |  | 93.6             |  | Power Factor                             |  | 83              |  |
| Rating - Duty          |  | 40C              |  | AMB-CONT                                 |  |                 |  |
|                        |  |                  |  | Temp. Rise @ Rated Load                  |  | 57°C            |  |
|                        |  |                  |  | Locked-rotor Power Factor                |  | 35              |  |
|                        |  |                  |  | Rotor inertia                            |  | 4.45 LB-FT2     |  |

**Load Characteristics 380 V, 50 Hz, 25 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 45   | 67   | 76   | 83   | 83   | 83   |
| Efficiency      | 90   | 93.2 | 93.7 | 93.4 | 91.9 | 92   |
| Speed           | 1494 | 1487 | 1481 | 1474 | 1466 | 1457 |
| Line amperes    | 17.6 | 22.9 | 30.2 | 36.5 | 45.9 | 55.5 |

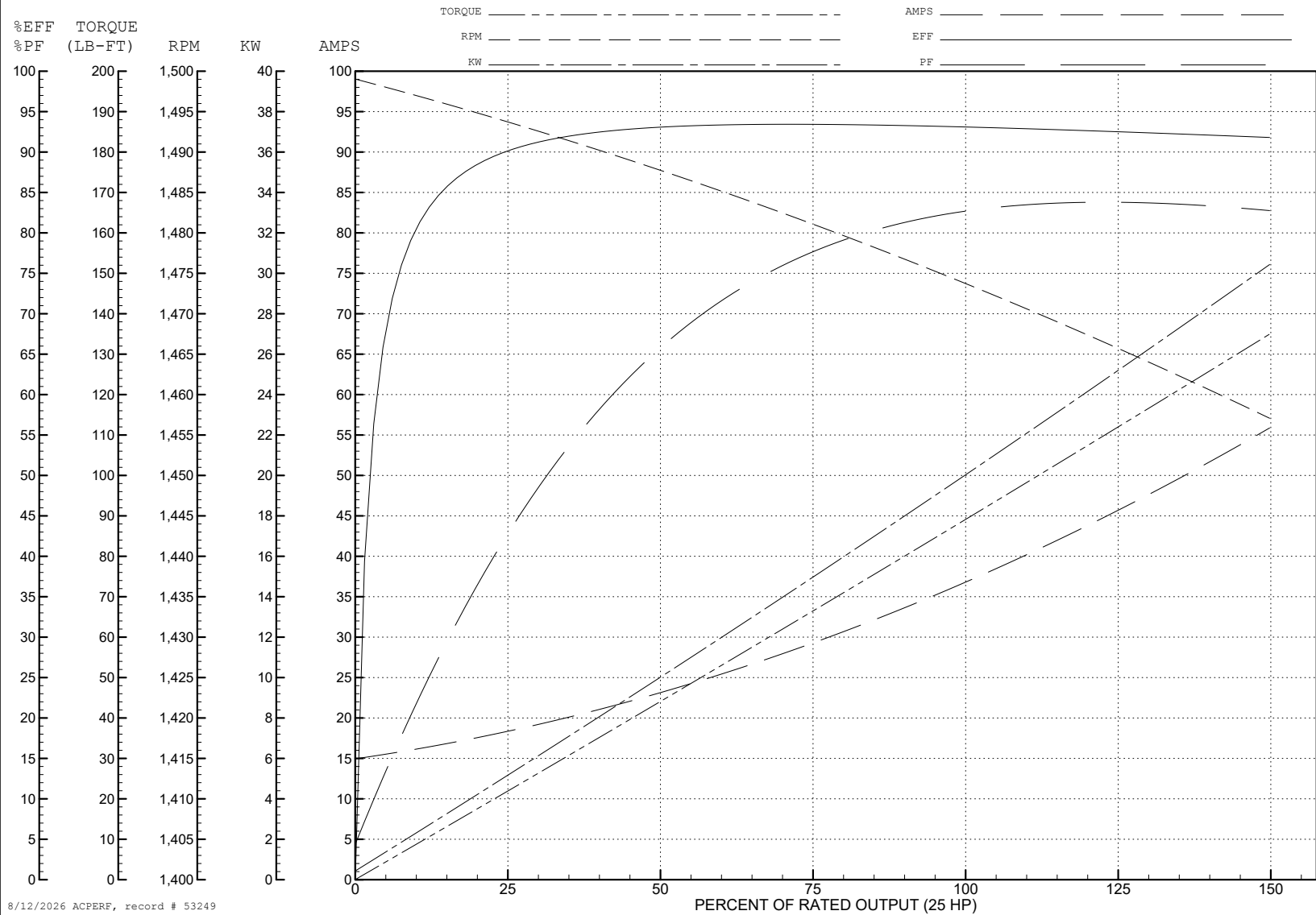
ABB Motors and Mechanical Inc.

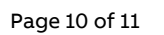
WINDING # 10WGY758

Typical performance - not guaranteed values.

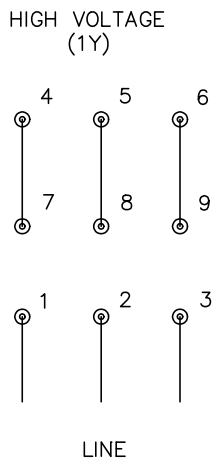
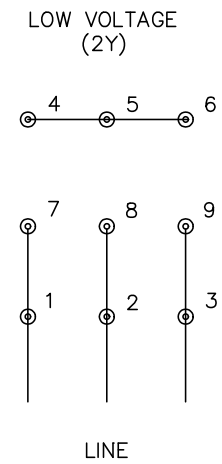
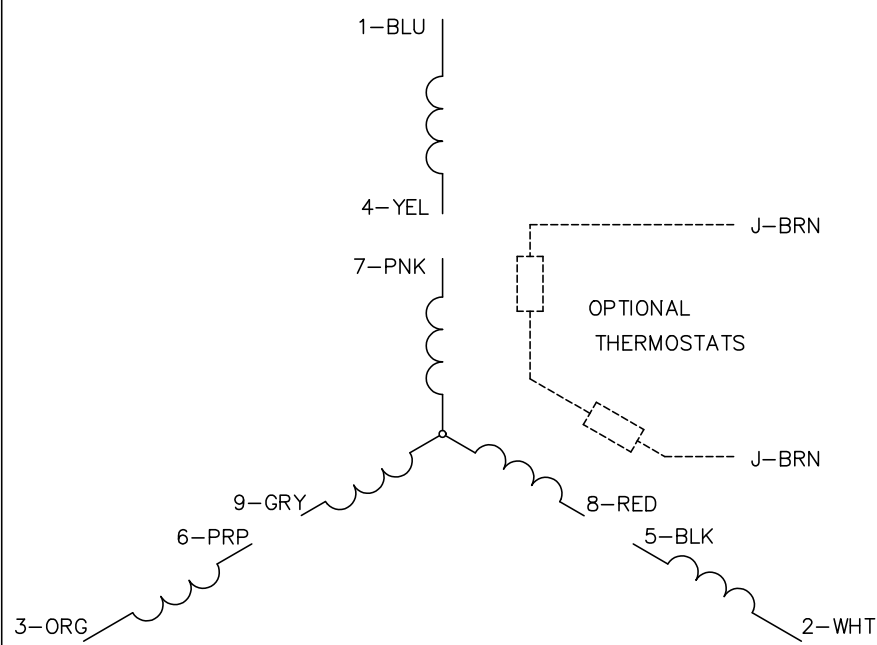
25 HP 3 PH 50 HZ 1474 RPM 380 V 1056M

TORQUES (LB-FT): PO=267 PU=131 LR=149 LRA=224





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