

# ABB BALDOR RELIANCE III

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## Customer information packet

### DRX181564T

1.5HP, 1170//970RPM, 3PH, 60HZ, 182T, XPFC, F1

Class - CLI GP C,D

Division - Division I

**Specifications**

|                                       |                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------|
| <b>Enclosure</b>                      | XPFC                                                                             |
| <b>Frame</b>                          | 182T                                                                             |
| <b>Frame Material</b>                 | Iron                                                                             |
| <b>Frequency</b>                      | 50.00 Hz<br>60.00 Hz                                                             |
| <b>Haz Area Class and Group</b>       | CLI GP C,D                                                                       |
| <b>Haz Area Division</b>              | Division I                                                                       |
| <b>Motor Letter Type</b>              | Three Phase                                                                      |
| <b>Output @ Frequency</b>             | 1.500 HP @ 60 HZ<br>1.000 HP @ 50 HZ                                             |
| <b>Phase</b>                          | 3                                                                                |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                                                                 |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>190.0 V @ 50 HZ<br>230.0 V @ 60 HZ<br>380.0 V @ 50 HZ         |
| <b>Agency Approvals</b>               | UL<br>CSA EEV                                                                    |
| <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>Constant Torque Speed Range</b>    | 6                                                                                |
| <b>Current @ Voltage</b>              | 2.297 A @ 380.0 V<br>2.500 A @ 460.0 V<br>4.400 A @ 190.0 V<br>5.000 A @ 230.0 V |
| <b>Design Code</b>                    | B                                                                                |
| <b>Drip Cover</b>                     | No Drip Cover                                                                    |
| <b>Duty Rating</b>                    | CONT                                                                             |

**Part Detail**

|                     |              |
|---------------------|--------------|
| <b>Revision</b>     | C            |
| <b>Type</b>         | AC           |
| <b>Mech. spec.</b>  |              |
| <b>Base</b>         |              |
| <b>Status</b>       | PRD/A        |
| <b>Elec. spec.</b>  | 06WGW969     |
| <b>Layout</b>       | 06LY-000-044 |
| <b>Eff. date</b>    | 02-28-2024   |
| <b>CD Diagram</b>   | CD0005       |
| <b>Poles</b>        | 06           |
| <b>Leads</b>        | 9#16         |
| <b>Proprietary</b>  | False        |
| <b>Created date</b> | 05-01-2019   |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Efficiency @ 100% Load</b>        | 87.5 %                     |
| <b>Electrically Isolated Bearing</b> | Not Electrically Isolated  |
| <b>Feedback Device</b>               | NO FEEDBACK                |
| <b>Haz Area Temp Code</b>            | T3C                        |
| <b>Heater Indicator</b>              | No Heater                  |
| <b>High Voltage Full Load Amps</b>   | 2.3 a                      |
| <b>Insulation Class</b>              | F                          |
| <b>Inverter Code</b>                 | Inverter Duty              |
| <b>IP Rating</b>                     | NONE                       |
| <b>KVA Code</b>                      | K                          |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs      |
| <b>Locked Bearing Indicator</b>      | Locked Bearing             |
| <b>Max Speed</b>                     | 1800 rpm                   |
| <b>Motor Lead Termination</b>        | Flying Leads               |
| <b>Motor Standards</b>               | NEMA                       |
| <b>Motor Type</b>                    | 0630M                      |
| <b>Mounting Arrangement</b>          | F1                         |
| <b>Number of Poles</b>               | 6                          |
| <b>Overall Length</b>                | 17.56 IN                   |
| <b>Power Factor</b>                  | 65                         |
| <b>Product Family</b>                | General Purpose            |
| <b>Pulley Face Code</b>              | Standard                   |
| <b>Rodent Screen</b>                 | None                       |
| <b>RoHS Status</b>                   | ROHS NON-COMPLIANT         |
| <b>Service Factor</b>                | 1.00                       |
| <b>Shaft Diameter</b>                | 1.125 IN                   |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding         |
| <b>Shaft Rotation</b>                | Reversible                 |
| <b>Speed</b>                         | 1170 rpm                   |
| <b>Speed Code</b>                    | Single Speed               |
| <b>Starting Method</b>               | Direct on line             |
| <b>Thermal Device - Bearing</b>      | None                       |
| <b>Thermal Device - Winding</b>      | Normally Closed Thermostat |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor        |

|                   |      |
|-------------------|------|
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

**Nameplate**

| NP1401XPSLEV |                  |        |   |              |         |          |                     |      |         |          |  |    |
|--------------|------------------|--------|---|--------------|---------|----------|---------------------|------|---------|----------|--|----|
| NO.          |                  |        |   |              |         |          | CC                  | 010A |         |          |  |    |
| S/N          |                  |        |   |              |         |          | TEMP CODE           |      | T3C     |          |  |    |
| SPEC.        | 06-0000-0118     |        |   |              |         |          | INV.TYPE            |      | PWM     |          |  |    |
| CAT.NO.      | DRX181564T       |        |   |              |         |          | C HP FR             | 60   | C HP TO | 90       |  |    |
| HP           | 1.5//1           |        |   |              |         |          | CT HZ FROM          |      | 6       | CT HZ TO |  | 60 |
| VOLTS        | 230/460//190/380 |        |   |              |         |          | VT HZ FROM          |      | 6       | VT HZ TO |  | 60 |
| AMPS         | 5/2.5//4.4/2.297 |        |   |              | MAG CUR |          | 3/1.5               |      |         |          |  |    |
| RPM          | 1170//970        |        |   |              | MX RPM  |          | 1800                |      |         |          |  |    |
| HZ           | 60//50           | PH     | 3 | CL           | F       | NOM.EFF. |                     | 87.5 |         |          |  |    |
| SER.F.       | 1.00             | DES    | B | SL HZ        | 1.5     | WK2      | 0.282               |      |         |          |  |    |
| FRAME        | 182T             | RATING |   | 40C AMB-CONT |         |          |                     |      |         |          |  |    |
|              | 55C AMB @1.0SF   |        |   |              |         |          |                     |      |         |          |  |    |
|              | 1.15SF SINEWAVE  |        |   |              |         |          | NEMA MG-1 PT 5,IP55 |      |         |          |  |    |

**AC Induction Motor Performance Data**

Record # 75917

Typical performance - not guaranteed values

| Winding: 06WGW969-R007 |  |                   |  | Type: 0630M                            |  | Enclosure: TEFC |  |
|------------------------|--|-------------------|--|----------------------------------------|--|-----------------|--|
| Nameplate Data         |  |                   |  | 460 V, 60 Hz:<br>High Speed Connection |  |                 |  |
| Rated Output (HP)      |  | 1.5//1            |  | Full Load Torque                       |  | 6.76 LB-FT      |  |
| Volts                  |  | 230/460//190/380  |  | Start Configuration                    |  | direct on line  |  |
| Full Load Amps         |  | 5/2.5//4.4/2.2970 |  | Breakdown Torque                       |  | 23.83 LB-FT     |  |
| R.P.M.                 |  | 1170              |  | Pull-up Torque                         |  | 12.5 LB-FT      |  |
| Hz                     |  | 60//50            |  | Phase                                  |  | 3               |  |
| NEMA Design Code       |  | B                 |  | KVA Code                               |  | K               |  |
| Service Factor (S.F.)  |  | 1                 |  | Starting Current                       |  | 16.19 A         |  |
| NEMA Nom. Eff.         |  | 87.5              |  | Power Factor                           |  | 65              |  |
| Rating - Duty          |  | 40C AMB-CONT      |  | Temp. Rise @ Rated Load                |  | 27°C            |  |
| S.F. Amps              |  |                   |  | Temp. Rise @ S.F. Load                 |  | 31°C            |  |
|                        |  |                   |  | Locked-rotor Power Factor              |  | 30.4            |  |
|                        |  |                   |  | Rotor inertia                          |  | 0.282 LB-FT2    |  |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 29   | 45   | 57   | 65   | 70   | 73   |
| Efficiency      | 71.5 | 81.5 | 84.5 | 85.7 | 85.6 | 84.5 |
| Speed           | 1193 | 1186 | 1179 | 1171 | 1163 | 1152 |
| Line amperes    | 1.71 | 1.92 | 2.21 | 2.54 | 2.95 | 3.42 |

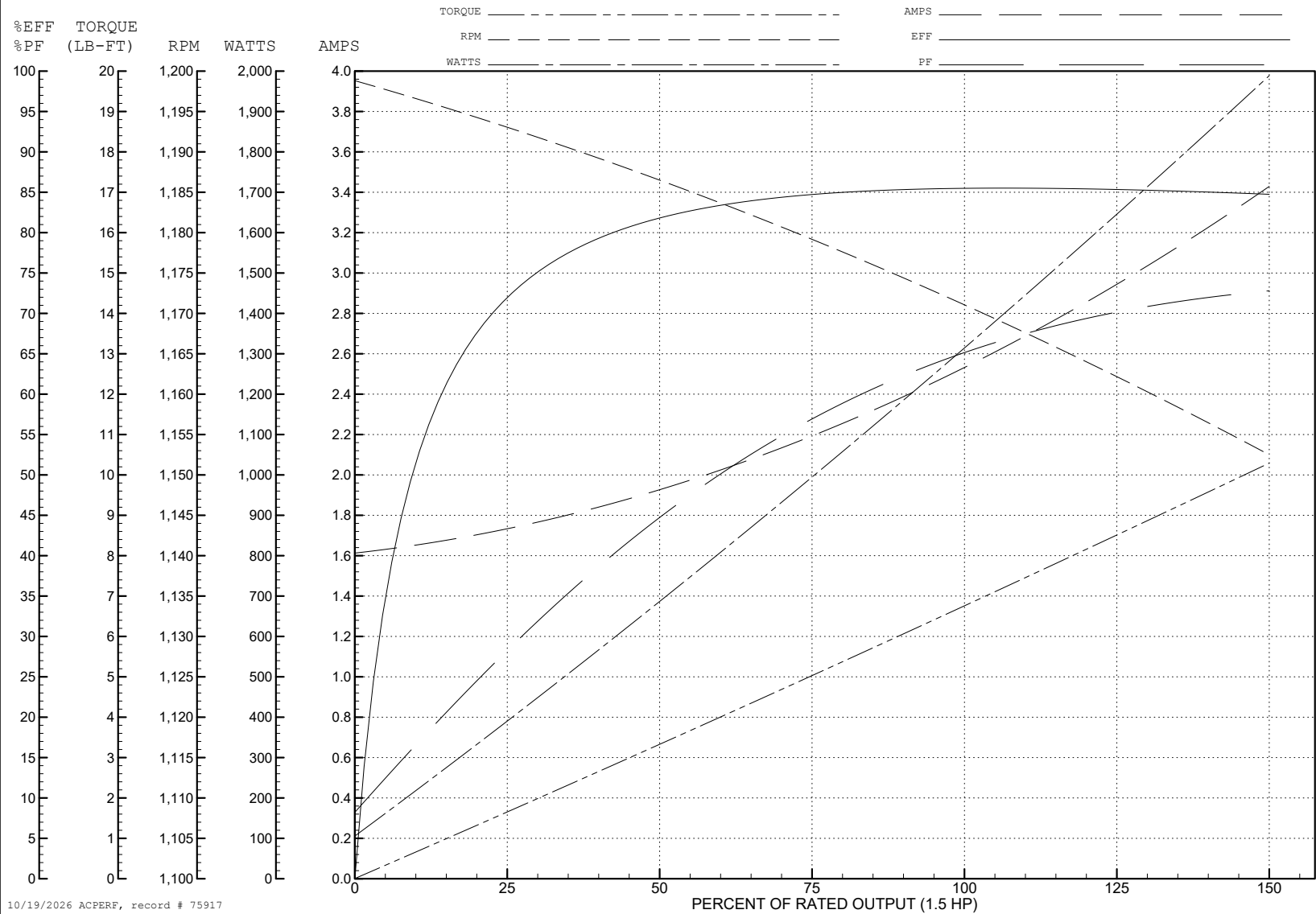
ABB Motors and Mechanical Inc.

WINDING # 06WGW969

Typical performance - not guaranteed values.

1.5 HP 3 PH 60 HZ 1170 RPM 460 V 0630M

TORQUES (LB-FT): PO=23.83 PU=12.5 LR=15.8 LRA=16.19



**AC Induction Motor Performance Data**

Record # 75918

Typical performance - not guaranteed values

| Winding: 06WGW969-R007 |  |                   | Type: 0630M  |                                          | Enclosure: TEFC       |                  |             |         |
|------------------------|--|-------------------|--------------|------------------------------------------|-----------------------|------------------|-------------|---------|
| Nameplate Data         |  |                   |              | 380 V, 50 Hz:<br>High Voltage Connection |                       |                  |             |         |
| Rated Output (HP)      |  | 1.5//1            |              | Full Load Torque                         |                       | 5.42 LB-FT       |             |         |
| Volts                  |  | 230/460//190/380  |              | Start Configuration                      |                       | direct on line   |             |         |
| Full Load Amps         |  | 5/2.5//4.4/2.2970 |              | Breakdown Torque                         |                       | 22.86 LB-FT      |             |         |
| R.P.M.                 |  | 1170              |              | Pull-up Torque                           |                       | 13.14 LB-FT      |             |         |
| Hz                     |  | 60//50            | Phase        | 3                                        | Locked-rotor Torque   |                  | 16.61 LB-FT |         |
| NEMA Design Code       |  | B                 |              | KVA Code                                 | K                     | Starting Current |             | 15.76 A |
| Service Factor (S.F.)  |  | 1                 |              | No-load Current                          |                       | 1.61 A           |             |         |
| NEMA Nom. Eff.         |  | 87.5              | Power Factor | 65                                       | Line-line Res. @ 25°C |                  | 7.01 Ω      |         |
| Rating - Duty          |  | 40C AMB-CONT      |              | Temp. Rise @ Rated Load                  |                       | 21°C             |             |         |
|                        |  |                   |              | Locked-rotor Power Factor                |                       | 34.4             |             |         |
|                        |  |                   |              | Rotor inertia                            |                       | 0.282 LB-FT2     |             |         |

**Load Characteristics 380 V, 50 Hz, 1 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  |
|-----------------|------|------|------|------|------|------|
| Power Factor    | 25   | 40   | 51   | 60   | 66   | 71   |
| Efficiency      | 68.3 | 79.4 | 83.2 | 84.8 | 84.9 | 84.1 |
| Speed           | 994  | 989  | 983  | 977  | 970  | 962  |
| Line amperes    | 1.66 | 1.81 | 2.01 | 2.24 | 2.54 | 2.87 |

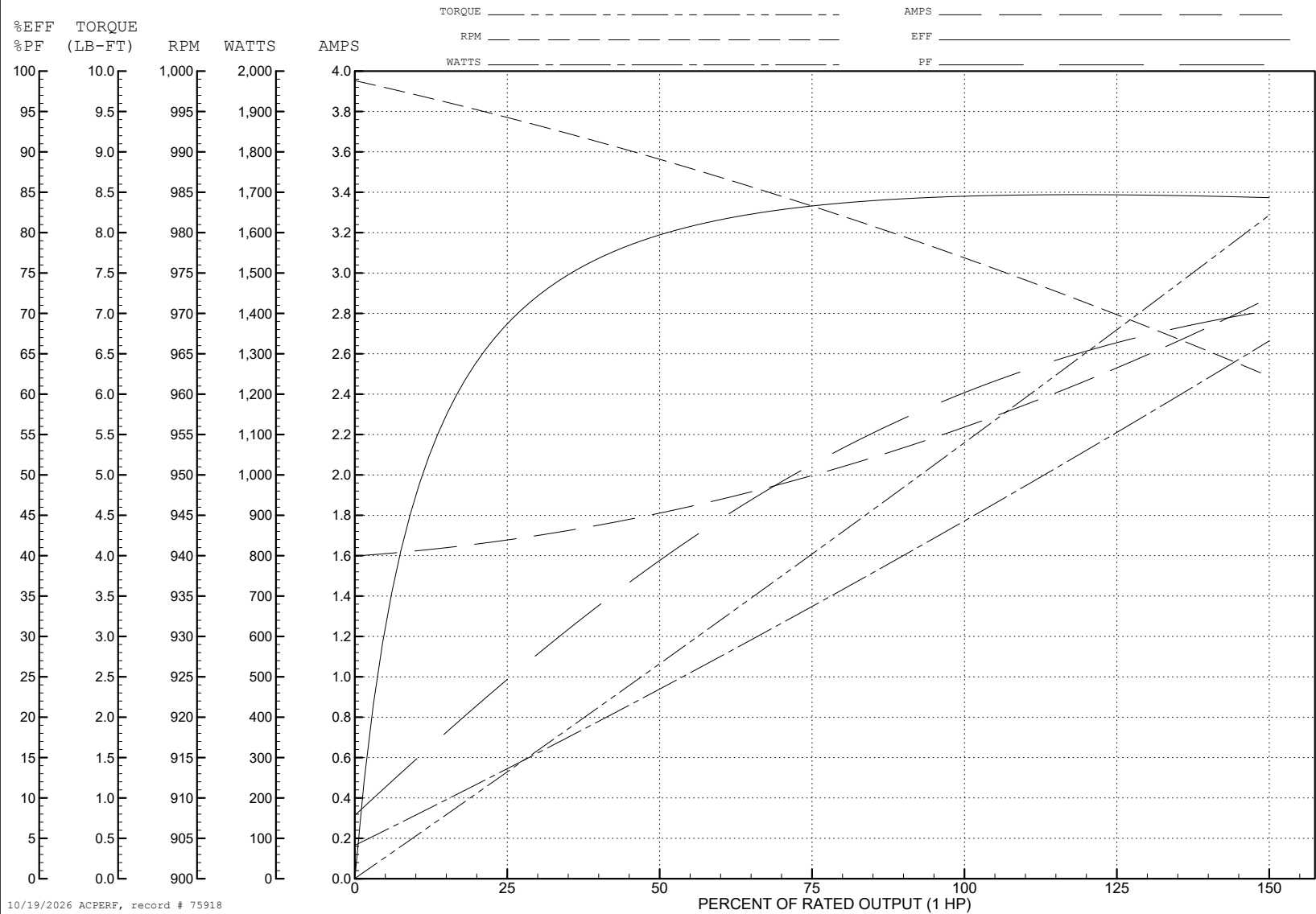
ABB Motors and Mechanical Inc.

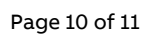
WINDING # 06WGW969

Typical performance - not guaranteed values.

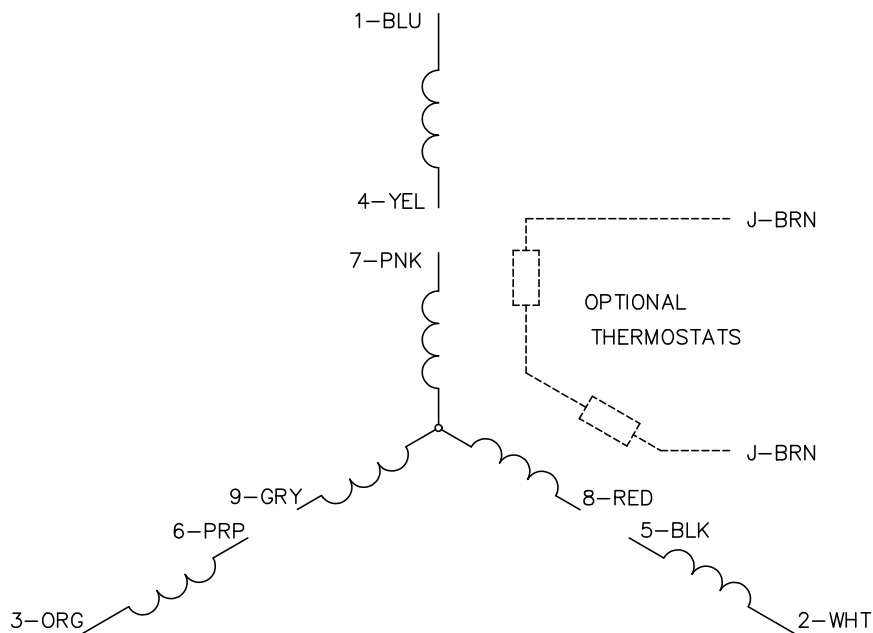
1 HP 3 PH 50 HZ 1170 RPM 380 V 0630M

TORQUES (LB-FT): PO=22.86 PU=13.14 LR=16.61 LRA=15.76

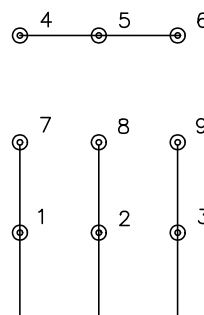




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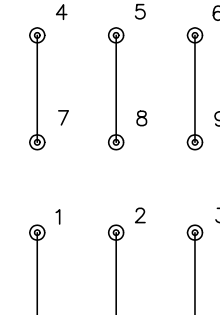


LOW VOLTAGE  
(2Y)



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.

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