

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM3768T

5HP, 1160RPM, 3PH, 60HZ, 215T, 0746M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                               |
|---------------------------------------|---------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                          |
| <b>Frame</b>                          | 215T                                                          |
| <b>Frame Material</b>                 | Iron                                                          |
| <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>             | 5.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                             |
| <b>Synchronous Speed @ Frequency</b>  | 1200 RPM @ 60 HZ                                              |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                            |
| <b>Agency Approvals</b>               | CURUSEEV<br>NEMA PREMIUM<br>NEMA PREMIUM (OLD LOGO)           |
| <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>              | 15.300 A @ 208.0 V<br>7.400 A @ 460.0 V<br>14.800 A @ 230.0 V |
| <b>Design Code</b>                    | A                                                             |
| <b>Drip Cover</b>                     | No Drip Cover                                                 |
| <b>Duty Rating</b>                    | CONT                                                          |
| <b>Efficiency @ 100% Load</b>         | 89.5 %                                                        |
| <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                                                          |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | T          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 07H002     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 07WGY763   |
| <b>Layout</b>       | 07LYH002   |
| <b>Eff. date</b>    | 04-29-2024 |
| <b>CD Diagram</b>   | CD0005     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 05-07-2010 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Heater Indicator</b>              | No Heater             |
| <b>High Voltage Full Load Amps</b>   | 7.4 a                 |
| <b>Insulation Class</b>              | F                     |
| <b>Inverter Code</b>                 | Inverter Ready        |
| <b>KVA Code</b>                      | K                     |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs |
| <b>Locked Bearing Indicator</b>      | No Locked Bearing     |
| <b>Motor Lead Exit</b>               | Ko Box                |
| <b>Motor Lead Quantity/Wire Size</b> | 9 @ 14 AWG            |
| <b>Motor Lead Termination</b>        | Flying Leads          |
| <b>Motor Standards</b>               | NEMA                  |
| <b>Motor Type</b>                    | 0746M                 |
| <b>Mounting Arrangement</b>          | F1                    |
| <b>Number of Poles</b>               | 6                     |
| <b>Overall Length</b>                | 18.45 IN              |
| <b>Power Factor</b>                  | 71                    |
| <b>Product Family</b>                | General Purpose       |
| <b>Pulley End Bearing Type</b>       | Ball                  |
| <b>Pulley Face Code</b>              | Standard              |
| <b>Pulley Shaft Indicator</b>        | Standard              |
| <b>Rodent Screen</b>                 | None                  |
| <b>Service Factor</b>                | 1.15                  |
| <b>Shaft Diameter</b>                | 1.375 IN              |
| <b>Shaft Extension Location</b>      | Pulley End            |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding    |
| <b>Shaft Rotation</b>                | Reversible            |
| <b>Shaft Slinger Indicator</b>       | No Slinger            |
| <b>Speed</b>                         | 1160 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>      | None                  |
| <b>Vibration Sensor Indicator</b>    | No Vibration Sensor   |
| <b>Winding Thermal 1</b>             | None                  |

Winding Thermal 2

None

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Nameplate

| NP3441LUA                   |              |     |      |      |     |   |       |   |       |
|-----------------------------|--------------|-----|------|------|-----|---|-------|---|-------|
| CAT.NO.                     | EM3768T      |     |      |      |     |   |       |   |       |
| SPEC                        | 07H002Y763   |     |      |      |     |   |       |   |       |
| HP                          | 5            |     |      |      |     |   |       |   |       |
| VOLTS                       | 230/460      |     |      |      |     |   |       |   |       |
| AMPS                        | 14.8/7.4     |     |      |      |     |   |       |   |       |
| RPM                         | 1160         |     |      |      |     |   |       |   |       |
| FRAME                       | 215T         |     | HZ   | 60   |     |   | PH    | 3 |       |
| SF                          | 1.15         |     | CODE | K    | DES | A | CLASS | F |       |
| NEMA NOM. EFF               | 89.5         |     | PF   | 71   |     |   |       |   |       |
| RATING                      | 40C AMB-CONT |     |      |      |     |   |       |   |       |
| CC                          | 010A         |     |      |      |     |   |       |   |       |
| ENCL                        | TEFC         | SER |      |      |     |   |       |   |       |
| DE                          | 6307         |     | ODE  | 6206 |     |   |       |   |       |
| VPWM INVERTER READY         | SFA 16.6/8.3 |     |      |      |     |   |       |   |       |
| CT6-60H(10:1)VT3-60H(20:1   |              |     |      |      |     |   |       |   |       |
| 50Hz 5HP 190/380V 17.2/8.6A |              |     |      |      |     |   |       |   | SF1.0 |

**Accessories**

| Part number | Description | Multiplier |
|-------------|-------------|------------|
| 37-1304     | C FACE KIT  | A8         |

**AC Induction Motor Performance Data**

Record # 50558

Typical performance - not guaranteed values

| Winding: 07WGY763-R005 |    |          | Type: 0746M                              |                     | Enclosure: TEFC           |            |             |
|------------------------|----|----------|------------------------------------------|---------------------|---------------------------|------------|-------------|
| Nameplate Data         |    |          | 460 V, 60 Hz:<br>High Voltage Connection |                     |                           |            |             |
| Rated Output (HP)      |    | 5        | Full Load Torque                         |                     | 22.8 LB-FT                |            |             |
| Volts                  |    | 230/460  | Start Configuration                      |                     | direct on line            |            |             |
| Full Load Amps         |    | 14.8/7.4 | Breakdown Torque                         |                     | 81.3 LB-FT                |            |             |
| R.P.M.                 |    | 1160     | Pull-up Torque                           |                     | 49.9 LB-FT                |            |             |
| Hz                     | 60 | Phase    | 3                                        | Locked-rotor Torque |                           | 59.9 LB-FT |             |
| NEMA Design Code       |    | A        | KVA Code                                 | K                   | Starting Current          |            | 54.8 A      |
| Service Factor (S.F.)  |    | 1.15     | No-load Current                          |                     | 4.03 A                    |            |             |
| NEMA Nom. Eff.         |    | 89.5     | Power Factor                             | 71                  | Line-line Res. @ 25°C     |            | 1.64 Ω      |
| Rating - Duty          |    | 40C      | AMB-CONT                                 |                     | Temp. Rise @ Rated Load   |            | 50°C        |
| S.F. Amps              |    |          |                                          |                     | Temp. Rise @ S.F. Load    |            | 61°C        |
|                        |    |          |                                          |                     | Locked-rotor Power Factor |            | 22.2        |
|                        |    |          |                                          |                     | Rotor inertia             |            | 1.14 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 5 HP**

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 32   | 51   | 63   | 70   | 74   | 76   | 72   |
| Efficiency      | 84.9 | 89.7 | 90.6 | 90.4 | 89.2 | 87.7 | 89.7 |
| Speed           | 1190 | 1181 | 1174 | 1164 | 1153 | 1141 | 1157 |
| Line amperes    | 4.32 | 5.06 | 6.12 | 7.48 | 8.92 | 10.5 | 8.34 |

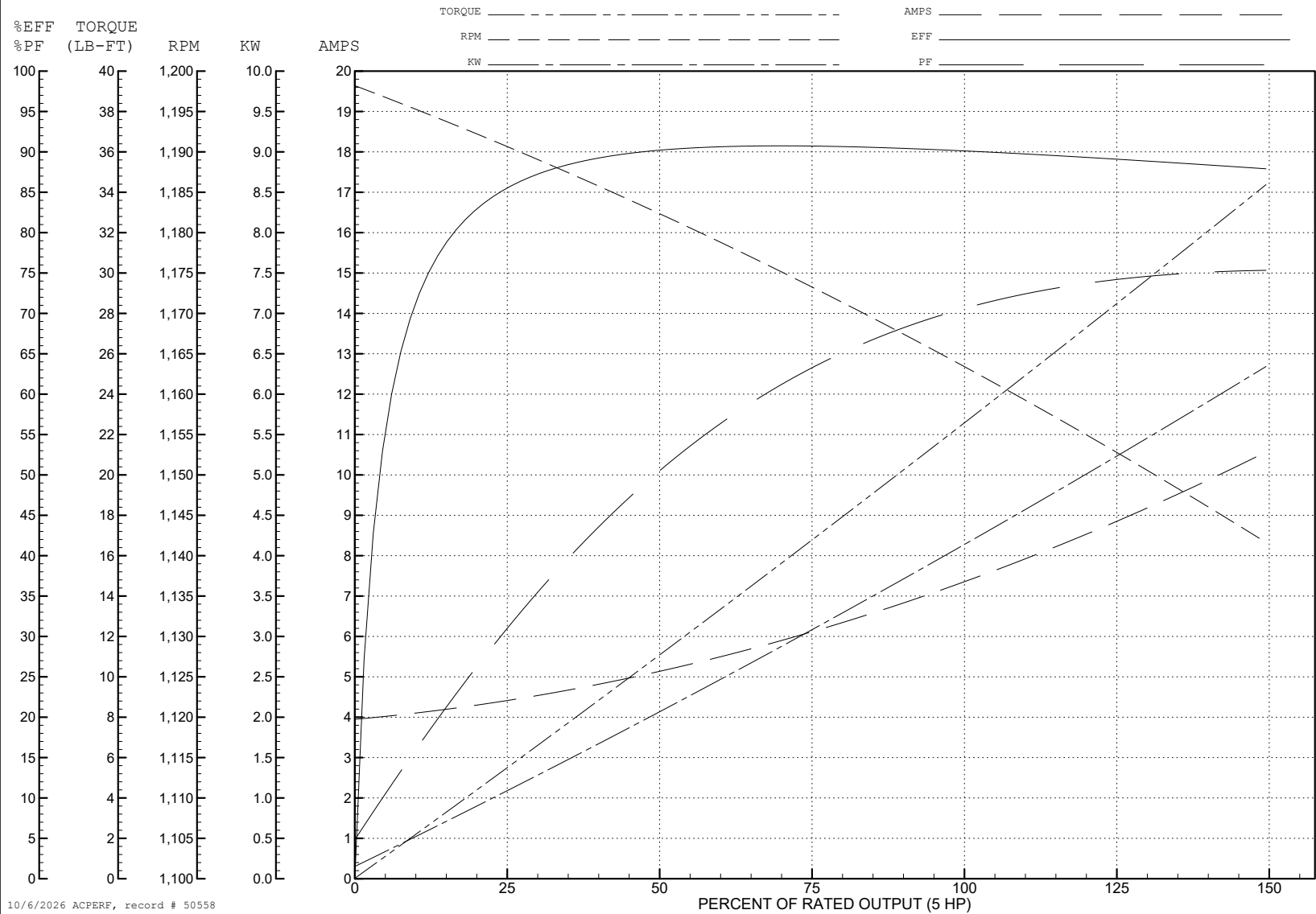
ABB Motors and Mechanical Inc.

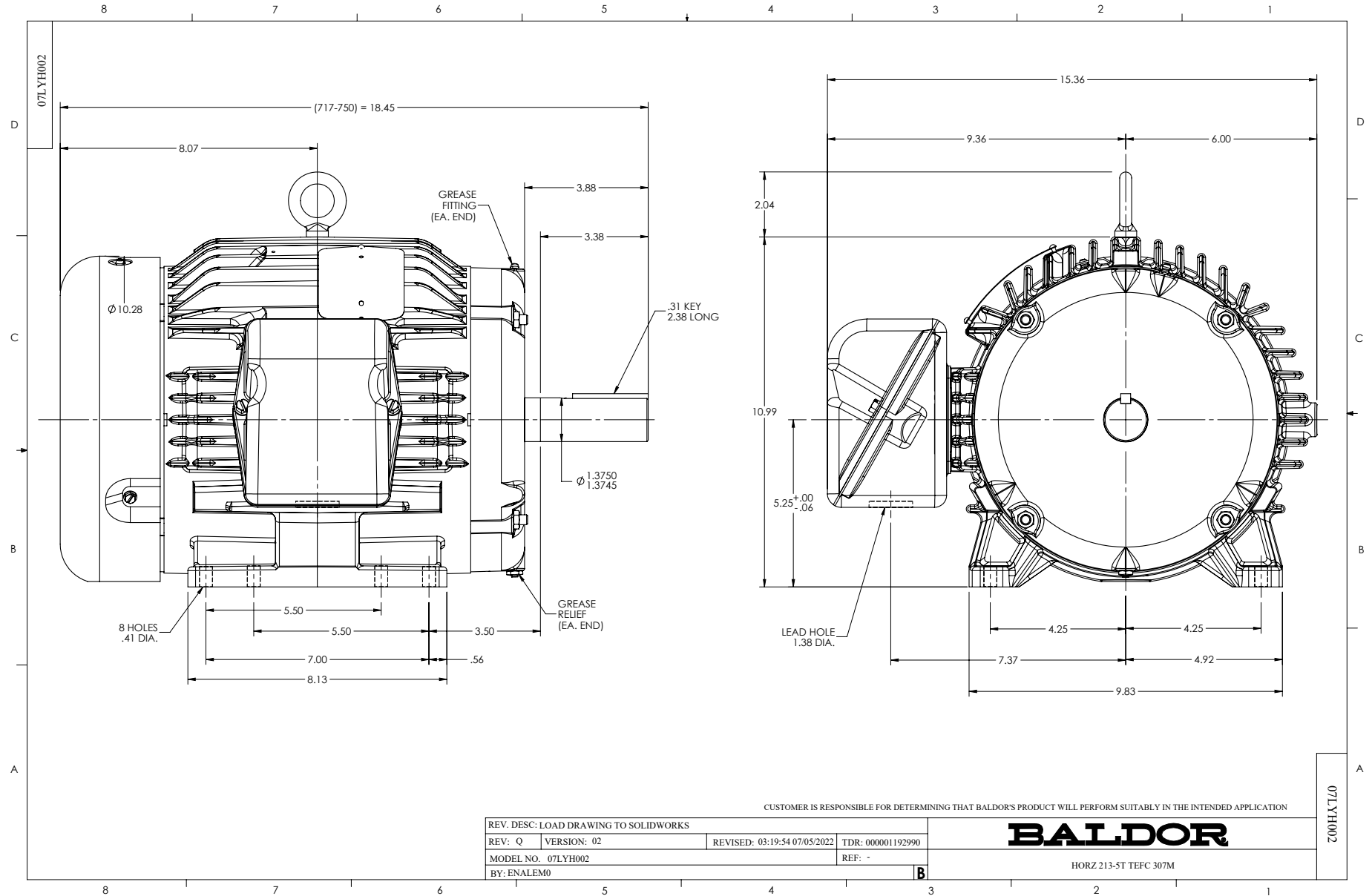
WINDING # 07WGY763

Typical performance - not guaranteed values.

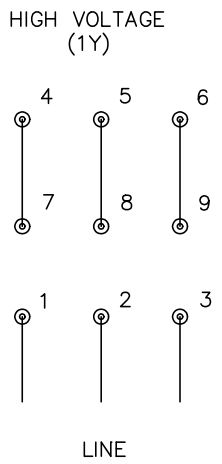
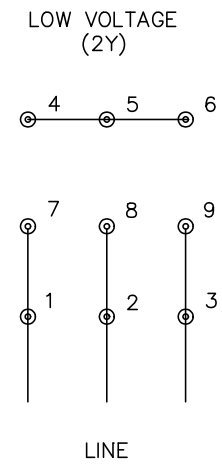
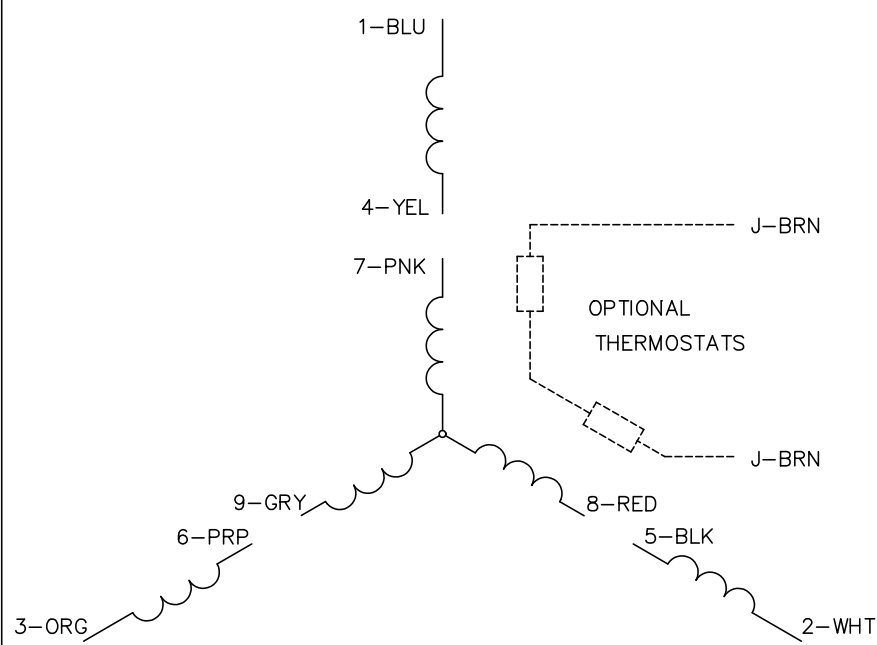
5 HP 3 PH 60 HZ 1160 RPM 460 V 0746M

TORQUES (LB-FT): PO=81.3 PU=49.9 LR=59.9 LRA=54.8





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