

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM2513T-CI

15HP, 1765RPM, 3PH, 60HZ, 254T, 0936M, OPEN, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | OPEN                                                           |
| <b>Frame</b>                          | 254T                                                           |
| <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>             | 15.000 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>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>              | 35.600 A @ 230.0 V<br>37.500 A @ 208.0 V<br>17.800 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>         | 93.0 %                                                         |
| <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                                                           |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | U          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 09B01      |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 09WGZ565   |
| <b>Layout</b>       | 09LYB001   |
| <b>Eff. date</b>    | 04-07-2026 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#12       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-08-2010 |

|                                      |                       |
|--------------------------------------|-----------------------|
| <b>Heater Indicator</b>              | No Heater             |
| <b>High Voltage Full Load Amps</b>   | 17.8 a                |
| <b>Insulation Class</b>              | F                     |
| <b>Inverter Code</b>                 | Inverter Ready        |
| <b>KVA Code</b>                      | G                     |
| <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 @ 12 AWG            |
| <b>Motor Lead Termination</b>        | Flying Leads          |
| <b>Motor Standards</b>               | NEMA                  |
| <b>Motor Type</b>                    | 0936M                 |
| <b>Mounting Arrangement</b>          | F1                    |
| <b>Number of Poles</b>               | 4                     |
| <b>Overall Length</b>                | 20.62 IN              |
| <b>Power Factor</b>                  | 85                    |
| <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>                | 1.625 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>                         | 1765 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**

| NP3554LUA |                           |                         |              |                           |        |      |         |            |        |      |      |
|-----------|---------------------------|-------------------------|--------------|---------------------------|--------|------|---------|------------|--------|------|------|
| CAT.NO.   | EM2513T-CI                |                         |              | P/N                       |        |      |         |            |        | ENCL | OPEN |
| SPEC.     | 09B001Z565G1              | CC                      | 010A         | FRAME                     |        | 254T | SER.NO. |            |        |      |      |
| HP        | 15                        |                         | CLASS        |                           | F      | HZ   | 60      |            |        |      |      |
| RPM       | 1765                      |                         | PH           | 3                         | DES    |      | B       |            |        |      |      |
| VOLTS     | 230/460                   |                         |              | CODE                      |        | G    | ODE BRG | 6208       | DE BRG | 6309 |      |
| AMPS      | 35.6/17.8                 |                         |              |                           |        |      |         |            |        |      |      |
| RATING    | 40C AMB-CONT              |                         | NEMA-NOM-EFF |                           |        | 93   | GREASE  | POLYREX EM |        |      |      |
| PF        | 85                        | SER.F.                  | 1.15         | CT30-60(2:1) VT3-60(20:1) |        |      |         |            |        |      |      |
| USABLE AT | 50HZ 15HP 190/380V 42/21A |                         |              |                           | SF 1.0 |      |         |            |        |      |      |
| HTR-VOLTS | HTR-AMPS                  | MAX. SPACE HEATER TEMP. |              |                           |        |      |         |            |        |      |      |

**Parts List**

| Part number | Description                              | Quantity |
|-------------|------------------------------------------|----------|
| SA191940    | SA 09B001Z565G1                          | 1.000 ea |
| RA179595    | RA 09B001Z565G1                          | 1.000 ea |
| HW3201A01   | 1/2-13 EYEBOLT                           | 1.000 ea |
| HW1002A63   | WASHER, 5/8 HI-COLLAR SPRLCKWASHER       | 1.000 ea |
| 09CB3003    | CB W/1.75" DIA LD HL - 37, 39, 307 & 309 | 1.000 ea |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 ea |
| WD1000B16   | T&B CX70TN OR L70P TERMINAL LUG          | 1.000 ea |
| 59XW2520G07 | .25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN  | 1.000 ea |
| 09AD2000A01 | 45R DEFLECTOR, 309 OPEN                  | 1.000 ea |
| HW1001A10   | WASHER, #10 SPLT LK, ZN X                | 3.000 ea |
| HW1001A10   | WASHER, #10 SPLT LK, ZN X                | 3.000 ea |
| 09EP1200A01 | FR ENDPLATE, MACH                        | 1.000 ea |
| 10XN3816K52 | 3/8-16 X 3-1/4 HEX HEAD CAP SCREW GRD 5  | 4.000 ea |
| HW1001A38   | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| 09CB3501SP  | CONDUIT BOX LID FOR 09CB3001 & 09CB3002  | 1.000 ea |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 2.000 ea |
| HW5100A08   | W3118-035 WVY WSHR (WB)                  | 1.000 ea |
| 09EP1201A01 | PU ENDPLATE, MACH                        | 1.000 ea |
| 09AD2000A01 | 45R DEFLECTOR, 309 OPEN                  | 1.000 ea |
| 10XN3816K52 | 3/8-16 X 3-1/4 HEX HEAD CAP SCREW GRD 5  | 4.000 ea |
| HW1001A38   | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HW2501G25   | KEY, 3/8 SQ X 2.875                      | 1.000 ea |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| LD7020D09   | LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS  | 1.000 ea |
| HW4500A03   | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HW4500A20   | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| HA4051A00   | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| MG1050Y01   | CELEROL BALDOR GOLD *5 GALLON BUCKET*    | 0.050 ga |
| MJ1000A02   | GREASE, POLYREX EM EXXON                 | 0.080 lb |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |

|             |                                          |          |
|-------------|------------------------------------------|----------|
| HW4500A03   | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HW4500A20   | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| HA4051A00   | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0181      | CONNECTION LABEL                         | 1.000 ea |
| NP3554LUA   | SS SUPER-E VPWM INV READY,CURUS-EEV,PREM | 1.000 ea |
| 09PA1000    | PACKAGING GROUP COMBINED PRINT           | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 73293

Typical performance - not guaranteed values

| Winding: 09WGZ565-R001 |          |              | Type: 0936M                              |  | Enclosure: OPEN |  |
|------------------------|----------|--------------|------------------------------------------|--|-----------------|--|
|                        |          |              |                                          |  |                 |  |
| Nameplate Data         |          |              | 460 V, 60 Hz:<br>High Voltage Connection |  |                 |  |
| Rated Output (HP)      |          | 15           | Full Load Torque                         |  | 44.55 LB-FT     |  |
| Volts                  |          | 230/460      | Start Configuration                      |  | direct on line  |  |
| Full Load Amps         |          | 35.6/17.8    | Breakdown Torque                         |  | 149 LB-FT       |  |
| R.P.M.                 |          | 1765         | Pull-up Torque                           |  | 67.2 LB-FT      |  |
| Hz                     | 60 Phase | 3            | Locked-rotor Torque                      |  | 92.8 LB-FT      |  |
| NEMA Design Code       |          | B            | KVA Code                                 |  | G               |  |
| Starting Current       |          | 119 A        | No-load Current                          |  | 7.66 A          |  |
| Service Factor (S.F.)  |          | 1.15         | Line-line Res. @ 25°C                    |  | 0.64931 Ω       |  |
| NEMA Nom. Eff.         |          | 93           | Power Factor                             |  | 85              |  |
| Rating - Duty          |          | 40C AMB-CONT | Temp. Rise @ Rated Load                  |  | 41°C            |  |
| S.F. Amps              |          |              | Temp. Rise @ S.F. Load                   |  | 50°C            |  |
|                        |          |              | Locked-rotor Power Factor                |  | 34.2            |  |

**Load Characteristics 460 V, 60 Hz, 15 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 45     | 68     | 78     | 83     | 85     | 86     | 84   |
| Efficiency      | 88.2   | 92     | 92.6   | 92.2   | 91.3   | 90.2   | 91.7 |
| Speed           | 1792.4 | 1784.7 | 1776.2 | 1767.3 | 1757.4 | 1746.5 | 1761 |
| Line amperes    | 8.76   | 11.2   | 14.5   | 18.3   | 22.6   | 27.1   | 20.9 |

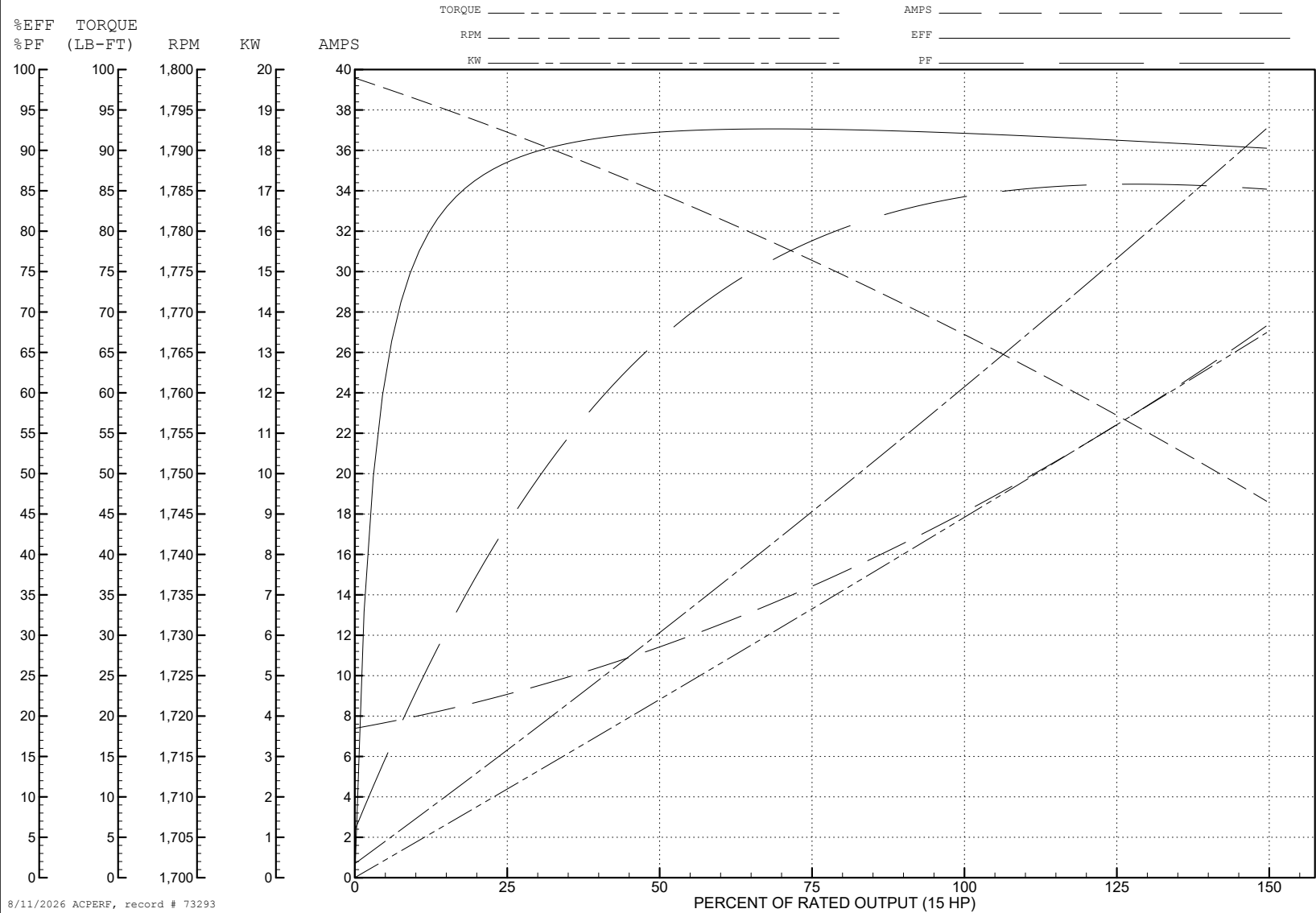
ABB Motors and Mechanical Inc.

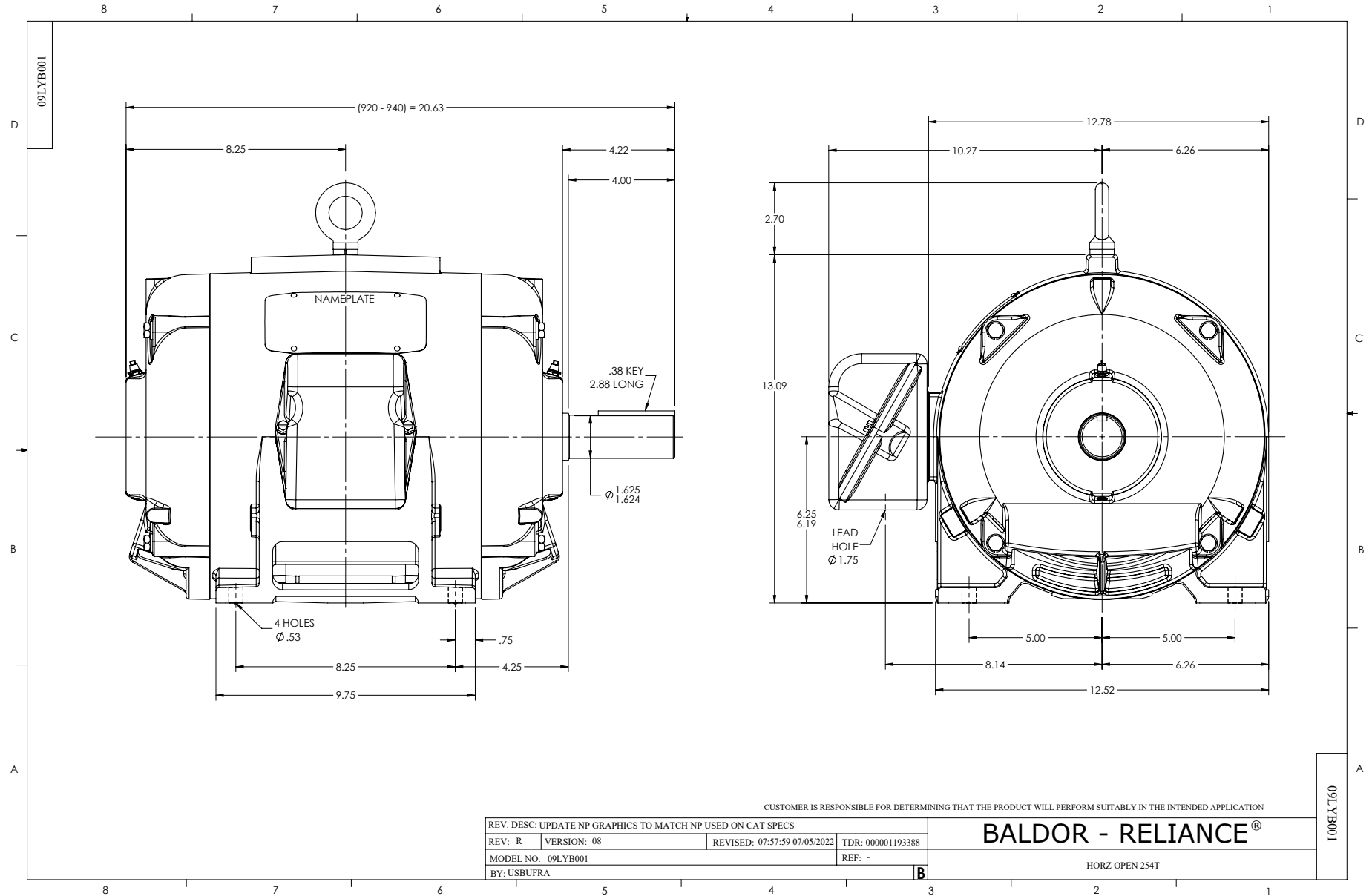
WINDING # 09WGZ565

Typical performance - not guaranteed values.

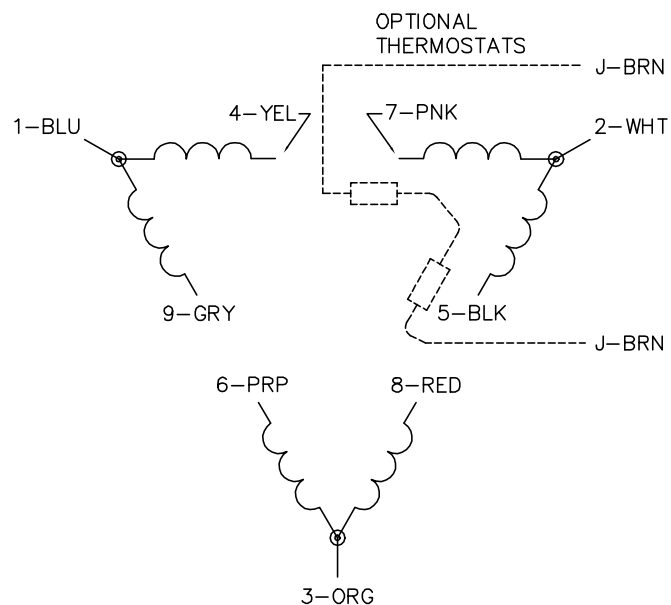
15 HP 3 PH 60 HZ 1765 RPM 460 V 0936M

TORQUES (LB-FT): PO=149 PU=67.2 LR=92.8 LRA=119

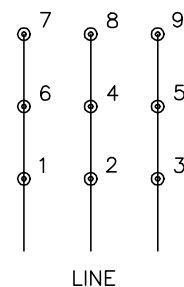




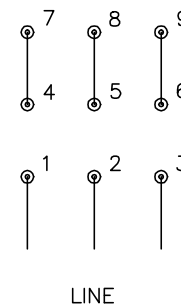
CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



**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.

CD0180

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: —



**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1