

# ABB BALDOR RELIANCE III

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## Customer information packet

### EHM4100T

15HP, 1175RPM, 3PH, 60HZ, 284T, 1046M, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                           |
| <b>Frame</b>                          | 284T                                                           |
| <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>  | 1200 RPM @ 60 HZ                                               |
| <b>Voltage @ Frequency</b>            | 460.0 V @ 60 HZ<br>230.0 V @ 60 HZ                             |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<br>UR                                           |
| <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>              | 42.000 A @ 208.0 V<br>42.000 A @ 230.0 V<br>21.000 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                              |
| <b>Drip Cover</b>                     | No Drip Cover                                                  |
| <b>Duty Rating</b>                    | CONT                                                           |
| <b>Efficiency @ 100% Load</b>         | 91.7 %                                                         |
| <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>     | Z          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 10H756     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 10WGY561   |
| <b>Layout</b>       | 10LYH756   |
| <b>Eff. date</b>    | 06-13-2025 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 9#10       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 10-18-2013 |

|                               |                          |
|-------------------------------|--------------------------|
| Heater Indicator              | No Heater                |
| High Voltage Full Load Amps   | 21.0 a                   |
| Insulation Class              | F                        |
| Inverter Code                 | Not Inverter             |
| KVA Code                      | H                        |
| 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                    | 1046M                    |
| Mounting Arrangement          | F1                       |
| Number of Poles               | 6                        |
| Overall Length                | 27.76 IN                 |
| Power Factor                  | 73                       |
| 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                | 1.875 IN                 |
| Shaft Extension Location      | Pulley End               |
| Shaft Ground Indicator        | Mounting Provisions Only |
| Shaft Rotation                | Reversible               |
| Shaft Slinger Indicator       | No Slinger               |
| Speed                         | 1175 rpm                 |
| Speed Code                    | Single Speed             |
| Starting Method               | Direct on line           |
| Thermal Device - Bearing      | NONE (OLD)               |
| Thermal Device - Winding      | None                     |
| Vibration Sensor Indicator    | No Vibration Sensor      |
| Winding Thermal 1             | None                     |

Winding Thermal 2

None

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## Nameplate

| NP2138L      |               |    |    |        |       |      |        |  |            |  |           |  |         |  |      |        |      |
|--------------|---------------|----|----|--------|-------|------|--------|--|------------|--|-----------|--|---------|--|------|--------|------|
| CAT.NO.      | EHM4100T      |    |    |        | P/N   |      |        |  |            |  | ENCLOSURE |  | TEFC    |  |      |        |      |
| SPEC.        | 10H756Y561G1  |    |    | CC     | 010A  |      | FRAME  |  | 284T       |  | S/N       |  |         |  |      |        |      |
| HP           | 15            |    |    |        | CLASS |      | F      |  | HZ         |  | 60        |  |         |  |      |        |      |
| RPM          | 1175          |    |    |        | PH    |      | 3      |  | DES        |  | A         |  |         |  |      |        |      |
| VOLT         | 230/460       |    |    |        |       |      |        |  | KVA-CODE   |  | H         |  | ODE BRG |  | 6309 | DE BRG | 6311 |
| AMP          | 42/21         |    |    |        |       |      |        |  |            |  |           |  |         |  |      |        |      |
| RATING       | 40C AMB-CONT  |    |    |        |       |      | GREASE |  | POLYREX EM |  |           |  |         |  |      |        |      |
| NEMA-NOM-EFF | 91.7          | PF | 73 | SER.F. |       | 1.15 |        |  |            |  |           |  |         |  |      |        |      |
|              | SFA 45.6/22.8 |    |    |        |       |      |        |  |            |  |           |  |         |  |      |        |      |
| HTR-VOLTS    | HTR-AMPS      |    |    |        |       |      |        |  |            |  |           |  |         |  |      |        |      |

**Parts List**

| Part number  | Description                              | Quantity |
|--------------|------------------------------------------|----------|
| SA270926     | SA 10H756Y561G1                          | 1.000 ea |
| RA257555     | RA 10H756Y561G1                          | 1.000 ea |
| 09FN3001B02  | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 ea |
| 10CB3000SP   | KOBX, CAST W/2.00 LEAD HOLE              | 1.000 ea |
| 09GS1000     | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE    | 1.000 ea |
| 10XN3118K12  | 5/16-18 X .75 GRADE 5, ZINC PLATED       | 4.000 ea |
| HW1001A31    | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| WD1000B25    | GND LUG, BURNDY L125HP OR T&B L125HP-BB  | 1.000 ea |
| 19XW3118G08  | .31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN   | 1.000 ea |
| 10EP1106A01  | FR ENDPLATE, MACH                        | 1.000 ea |
| 10XN3816K32  | BOLT, 3/8-16X2 HH YZ(5)                  | 4.000 ea |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HA4017A01    | 1/8 X 4 GREASE EXT (F/S)                 | 1.000 ea |
| HW5100A11    | W3917-042 WVY WSHR (WB)                  | 1.000 ea |
| 10XN2520K36  | 1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P | 2.000 ea |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 ea |
| 10XN3118K40  | 5/16-18 X 2.50" HEX HD, GRADE 5          | 4.000 ea |
| HW1001A31    | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 ea |
| 10EP1105A106 | PU ENDPLATE, MACH W/1/2 SH GND MTG       | 1.000 ea |
| 84XN0632J08  | #6-32 X .50 SOCK HD, BK OX               | 2.000 ea |
| 84XN0540J08  | 5-40 X 1/2" SHCS, BLACK OXIDE            | 3.000 ea |
| 10XN3816K28  | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 ea |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| 10FH4000     | 310 FAN HOUSING STAMPED, PRIMED W/O P SU | 1.000 ea |
| 51XF2520A08  | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 4.000 ea |
| 10CB3500SP   | CONDUIT BOX LID, CAST                    | 1.000 ea |
| 10GS1000     | GASKET, CONDUIT BOX LID                  | 1.000 ea |
| 51XW2520A12  | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 ea |
| HW2501H28    | KEY, 1/2 SQ X 3.250                      | 1.000 ea |
| MN416A01     | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| HW4500A35    | 1/8 NPT STEEL HEX CAP, ZINC              | 1.000 ea |

|             |                                          |          |
|-------------|------------------------------------------|----------|
| HW4500A20   | 1/8NPT SL PIPE PLUG                      | 1.000 ea |
| HA4054      | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| MJ1000A02   | GREASE, POLYREX EM EXXON                 | 0.130 lb |
| HW4500A20   | 1/8NPT SL PIPE PLUG                      | 2.000 ea |
| HA4054      | SHORT T-DRAIN FITTING, .125" N.P.T.      | 1.000 ea |
| HW2500A25   | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| MG1050G01   | CELEROL MEDIUM CHARCOAL METALLIC GRAY    | 0.070 ga |
| 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 |
| NP2138L     | ALUM SUPER-E UL PREM CC (300             | 1.000 ea |
| 10PA1000    | PACKAGING GROUP COMBINED PRINT PK1023A07 | 1.000 ea |
| LB1350      | BAR CODE LABEL FOR YORK                  | 1.000 ea |
| FE-0000022  | ZRTG FE ASSEMBLY                         | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 29743

Typical performance - not guaranteed values

| Winding: 10WGY561-R001 |    |         | Type: 1046M  |                                          | Enclosure: TEFC       |                           |         |             |
|------------------------|----|---------|--------------|------------------------------------------|-----------------------|---------------------------|---------|-------------|
| Nameplate Data         |    |         |              | 460 V, 60 Hz:<br>High Voltage Connection |                       |                           |         |             |
| Rated Output (HP)      |    | 15      |              | Full Load Torque                         |                       | 66.68 LB-FT               |         |             |
| Volts                  |    | 230/460 |              | Start Configuration                      |                       | direct on line            |         |             |
| Full Load Amps         |    | 42/21   |              | Breakdown Torque                         |                       | 213 LB-FT                 |         |             |
| R.P.M.                 |    | 1175    |              | Pull-up Torque                           |                       | 93.1 LB-FT                |         |             |
| Hz                     | 60 | Phase   | 3            | Locked-rotor Torque                      |                       | 114 LB-FT                 |         |             |
| NEMA Design Code       |    | A       | KVA Code     | H                                        | Starting Current      |                           | 144 A   |             |
| Service Factor (S.F.)  |    | 1.15    |              | No-load Current                          |                       | 12.4 A                    |         |             |
| NEMA Nom. Eff.         |    | 91.7    | Power Factor | 73                                       | Line-line Res. @ 25°C |                           | 0.502 Ω |             |
| Rating - Duty          |    | 40C     |              | AMB-CONT                                 |                       | Temp. Rise @ Rated Load   |         | 43°C        |
| S.F. Amps              |    |         |              |                                          |                       | Temp. Rise @ S.F. Load    |         | 51°C        |
|                        |    |         |              |                                          |                       | Locked-rotor Power Factor |         | 32.9        |
|                        |    |         |              |                                          |                       | Rotor inertia             |         | 5.63 LB-FT2 |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 32   | 52   | 65   | 72   | 76   | 78   | 75   |
| Efficiency      | 83   | 89.4 | 91.3 | 91.7 | 91.4 | 90.8 | 91.7 |
| Speed           | 1196 | 1193 | 1189 | 1185 | 1181 | 1177 | 1181 |
| Line amperes    | 13.2 | 15.1 | 17.9 | 21.3 | 25.3 | 29.6 | 23.4 |

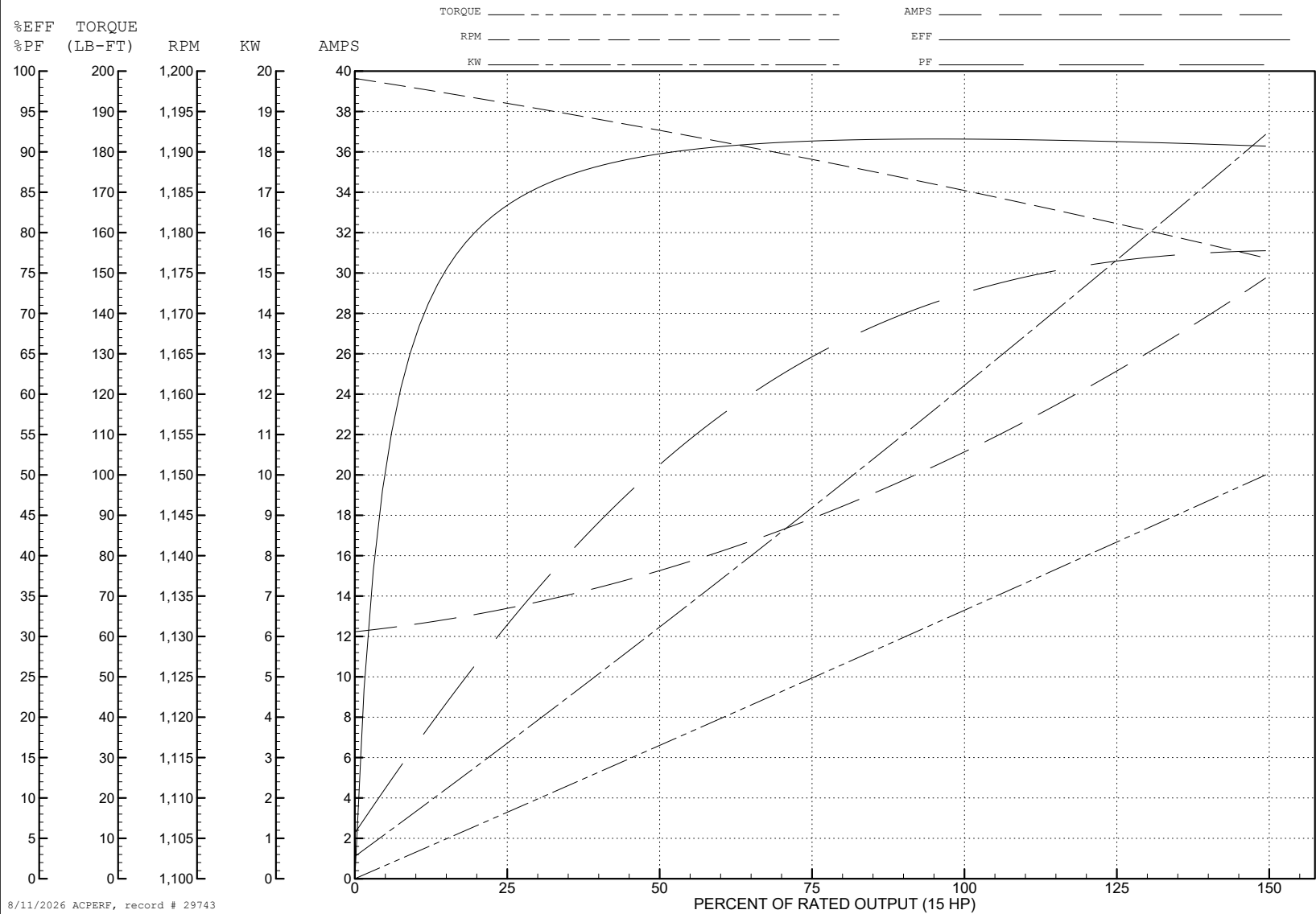
ABB Motors and Mechanical Inc.

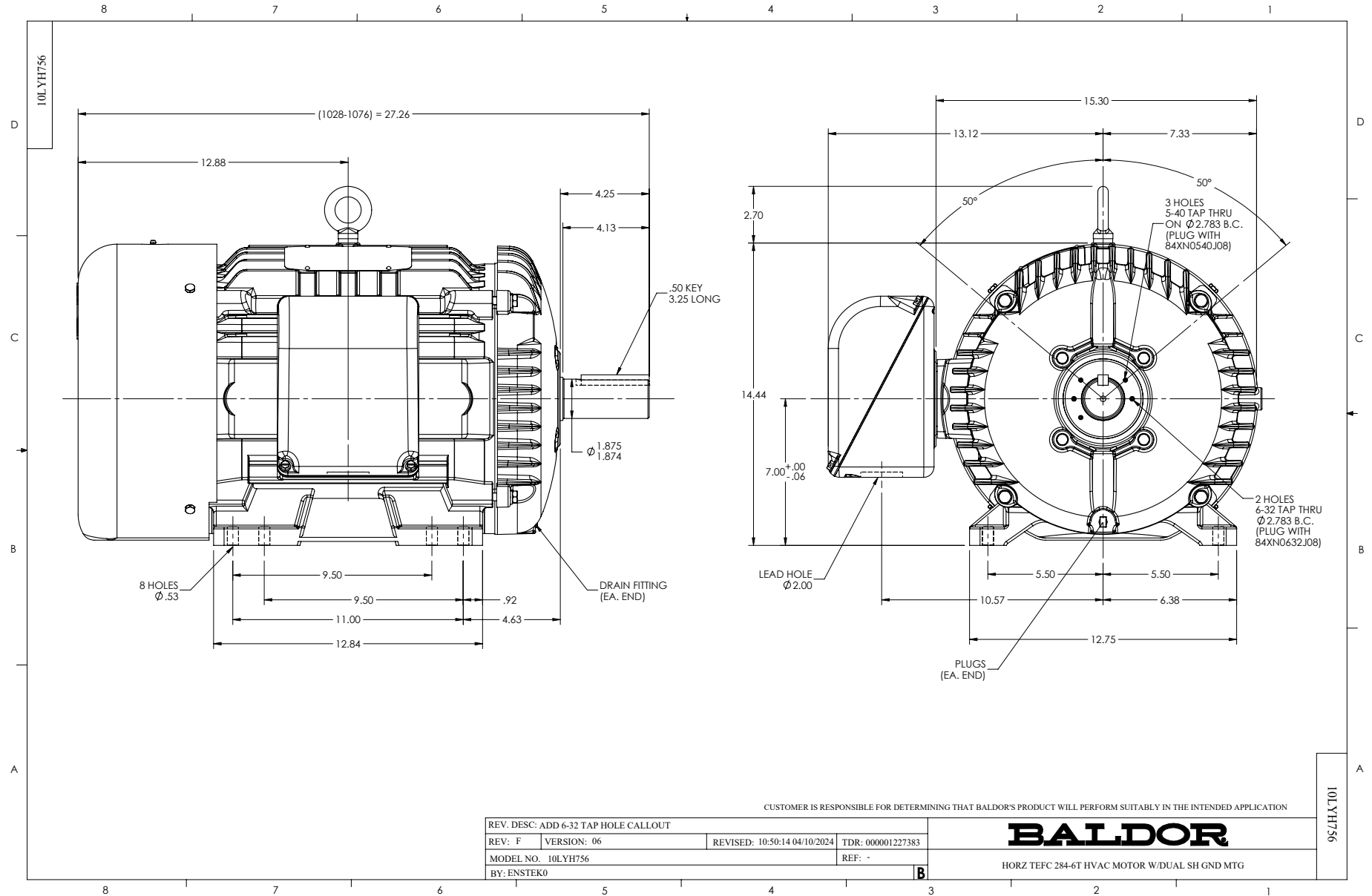
WINDING # 10WGY561

Typical performance - not guaranteed values.

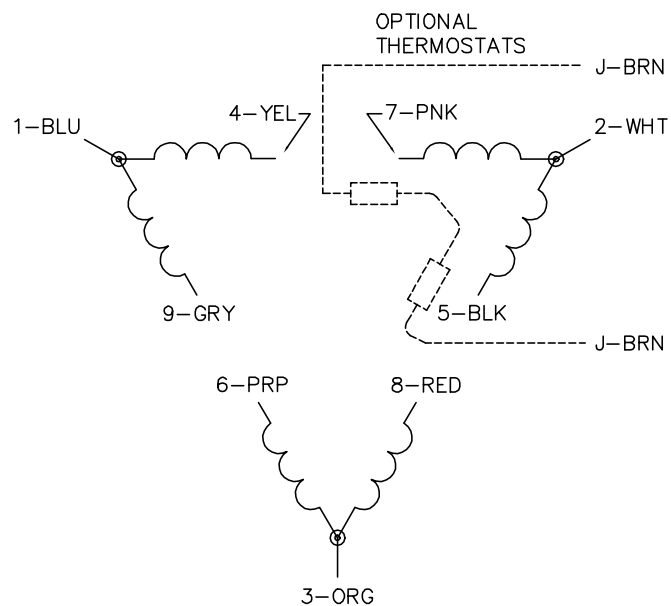
15 HP 3 PH 60 HZ 1175 RPM 460 V 1046M

TORQUES (LB-FT): PO=213 PU=93.1 LR=114 LRA=144

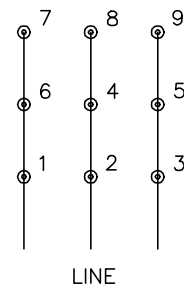




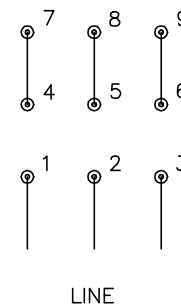
CD0180



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