

# ABB BALDOR RELIANCE III

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## Customer information packet

### CECP83768T-4

5HP, 1160RPM, 3PH, 60HZ, 215TC, 0748M, TEFC, F1

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                       |                                                          |
|---------------------------------------|----------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                     |
| <b>Frame</b>                          | 215TC                                                    |
| <b>Frame Material</b>                 | Iron                                                     |
| <b>Frequency</b>                      | 60.00 Hz                                                 |
| <b>Haz Area Class and Group</b>       | CLI GP A,B,C,D                                           |
| <b>Haz Area Division</b>              | Division II                                              |
| <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                                          |
| <b>Agency Approvals</b>               | CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR<br>CCSA US |
| <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>    | 2.0                                                      |
| <b>Current @ Voltage</b>              | 7.100 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>         | 89.5 %                                                   |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                |
| <b>Enclosure Modification</b>         | 841                                                      |
| <b>Feedback Device</b>                | NO FEEDBACK                                              |
| <b>Front Face Code</b>                | Standard                                                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | X          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 07M320     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 07WGX815   |
| <b>Layout</b>       | 07LYM320   |
| <b>Eff. date</b>    | 08-04-2022 |
| <b>CD Diagram</b>   | CD0006     |
| <b>Poles</b>        | 06         |
| <b>Leads</b>        | 3#14       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 11-18-2013 |

|                               |                                |
|-------------------------------|--------------------------------|
| Front Shaft Indicator         | None                           |
| Haz Area Temp Code            | T3C                            |
| Heater Indicator              | No Heater                      |
| High Voltage Full Load Amps   | 7.1 a                          |
| Insulation Class              | F                              |
| Inverter Code                 | Inverter Ready                 |
| KVA Code                      | J                              |
| Lifting Lugs                  | Standard Lifting Lugs          |
| Locked Bearing Indicator      | Locked Bearing                 |
| Max Speed                     | 1800 rpm                       |
| Motor Lead Exit               | Ko Box                         |
| Motor Lead Quantity/Wire Size | 3 @ 14 AWG                     |
| Motor Lead Termination        | Ring Terminals                 |
| Motor Standards               | NEMA                           |
| Motor Type                    | 0748M                          |
| Mounting Arrangement          | F1                             |
| Number of Poles               | 6                              |
| Overall Length                | 20.23 IN                       |
| Power Factor                  | 73                             |
| Product Family                | Chem Process S/P 32-8 IEEE 841 |
| Pulley End Bearing Type       | Ball                           |
| Pulley Face Code              | C-Face                         |
| Pulley Shaft Indicator        | Standard                       |
| Rodent Screen                 | None                           |
| Service Factor                | 1.15                           |
| Shaft Diameter                | 1.375 IN                       |
| Shaft Extension Location      | Pulley End                     |
| Shaft Ground Indicator        | No Shaft Grounding             |
| Shaft Rotation                | Reversible                     |
| Shaft Slinger Indicator       | Shaft Slinger                  |
| Speed                         | 1160 rpm                       |
| Speed Code                    | Single Speed                   |
| Starting Method               | Direct on line                 |
| Thermal Device - Bearing      | None                           |

|                            |                     |
|----------------------------|---------------------|
| Thermal Device - Winding   | None                |
| Vibration Sensor Indicator | No Vibration Sensor |
| Winding Thermal 1          | None                |
| Winding Thermal 2          | None                |

Nameplate

| NP4328          |              |      |       |      |      |       |    |   |  |
|-----------------|--------------|------|-------|------|------|-------|----|---|--|
| CAT.NO.         | CECP83768T-4 |      |       |      |      |       |    |   |  |
| SPEC.           | 07M320X815G3 |      |       |      |      |       |    |   |  |
| HP              | 5 TE         |      |       |      | IP   | 56    |    |   |  |
| VOLTS           | 460          |      |       |      |      |       |    |   |  |
| AMPS            | 7.1          |      |       |      |      |       |    |   |  |
| R.P.M.          | 1160         |      |       |      |      |       |    |   |  |
| FRAME           | 215TC        |      | HZ    |      | 60   |       | PH | 3 |  |
| SER.F.          | 1.15         | CODE | J     | DES. | B    | CLASS |    | F |  |
| RATING          | 40C AMB-CONT |      |       |      |      |       |    |   |  |
| SN              |              |      |       |      |      |       |    |   |  |
| DE              | 6307         |      | ODE   |      | 6307 |       |    |   |  |
| NEMA NOM. EFF.  | 89.5         |      | P.F.  |      | 73   |       |    |   |  |
| GUAR. MIN. EFF. | 87.5         |      | CC    |      | 010A |       |    |   |  |
| T. CODE         | T3C          |      | TEMP= |      | 160  |       |    |   |  |

| NP3186       |              |                         |  |      |             |  |    |  |     |
|--------------|--------------|-------------------------|--|------|-------------|--|----|--|-----|
| SPEC.        | 07M320X815G3 |                         |  |      |             |  |    |  |     |
| ABMA DE BRG  | 35BC03X30X   |                         |  |      |             |  |    |  |     |
| ABMA ODE BRG | 35BC03X30X   |                         |  |      |             |  |    |  |     |
| GREASE       | POLYREX EM   |                         |  |      |             |  |    |  |     |
| MOTOR WEIGHT | 226          | ROTOR BARS              |  | 28   | STATOR BARS |  | 36 |  |     |
| MAX. R.P.M.  | 1800         | MAX. KVAR               |  | 1.88 |             |  |    |  |     |
|              |              |                         |  |      |             |  |    |  |     |
| INV.TYPE     | PWM          |                         |  |      |             |  |    |  |     |
| T=           | 160          |                         |  |      |             |  |    |  |     |
| CHP          | 60           | TO                      |  | 90   |             |  |    |  |     |
| CT           | 2.0          | TO                      |  | 60   |             |  |    |  |     |
| VT           | -0           | TO                      |  | 60   |             |  |    |  |     |
| HTR-VOLTS    | N/A          | HTR-AMPS                |  | N/A  |             |  |    |  |     |
| HTR-WATTS    |              | MAX. SPACE HEATER TEMP. |  |      |             |  |    |  | N/A |

**Parts List**

| Part number  | Description                              | Quantity |
|--------------|------------------------------------------|----------|
| SA272408     | SA 07M320X815G3                          | 1.000 ea |
| RA259017     | RA 07M320X815G3                          | 1.000 ea |
| 37FN3002C01  | EXFN, PLASTIC, 6.00 OD, 1.155 ID         | 1.000 ea |
| HW3201A05    | 3/8-16 EYEBOLT                           | 1.000 ea |
| 09CB1002A05G | CONDUIT BOX, 1.00 N.P.T. (GRAY)          | 1.000 ea |
| RM1017       | LEAD SEPERATOR GASKET MODEL 307 1/8" THK | 1.000 ea |
| 19XW2520A16  | SCREW,1/4-20X1 TAPTITE-II OR ROLOC 91    | 2.000 ea |
| 11XW1032G06  | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| HW3001B01    | BRASS CUP WASHER, FOR #10 SCREW          | 1.000 ea |
| 10XN2520S06  | 1/4 20X3/8 HX HD CAP S.S.                | 2.000 ea |
| WD1000B16    | T&B CX70TN OR L70P TERMINAL LUG          | 2.000 ea |
| 07EP1119A02G | 307 BRG,C.I.FH,GRSR,RLF,DRAIN FITTING,IN | 1.000 ea |
| HW4601B25    | INPRO SEAL, 307 BRG, MINI66              | 1.000 ea |
| 10XN2520A26  | 1/4-20X 1 5/8 HEX HD                     | 4.000 ea |
| HW4500A32    | FIT./EXT 1698-B (ALEMITE)GREASE FITTING  | 1.000 ea |
| HA4051A00    | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4010A01    | T-DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .0 | 1.000 ea |
| HW5100A08    | W3118-035 WVY WSHR (WB)                  | 1.000 ea |
| 37EP1314A01G | PU ENDPLATE, MACH GRAY                   | 1.000 ea |
| HW4601B25    | INPRO SEAL, 307 BRG, MINI66              | 1.000 ea |
| HW4500A01    | 1641B(ALEMITE)400 UNIV, GREASE FITT      | 1.000 ea |
| HA4051A00    | PLASTIC CAP FOR GREASE FITTING           | 1.000 ea |
| HW4500A17    | 317400 ALEMITE GREASE RELIEF             | 1.000 ea |
| HA4002A03    | #304 S.S. DRAIN FITTING, .125 NPT (.44 H | 1.000 ea |
| 10XN2520A30  | HEX HD CAP SCREW-STD THD-.25 X 20 THD PE | 2.000 ea |
| XY3118A12    | 5/16-18 HEX NUT DIRECTIONAL SERRATION    | 4.000 ea |
| 07FH1001A01G | SPL FAN HOUSING, 307, W/GREASER, GRAY EP | 1.000 ea |
| 10XN2520A28  | 1/4-20X 1 3/4 HEX HD                     | 3.000 ea |
| WD4100A02    | DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL  | 1.000 ea |
| 12CB1503G    | CONDUIT BOX CAST. (GRAY)                 | 1.000 ea |

|             |                                          |          |
|-------------|------------------------------------------|----------|
| 09GS1013A01 | 09 GS FOR 09CB3501 LID - BLACK NEOPRENE  | 1.000 ea |
| 10XN2520A12 | 1/4-20 X 3/4 HEX HEAD CAP                | 2.000 ea |
| MJ5001A02   | 732 CL SEALANT 3 OZ DIXIE BEARING 289100 | 0.010 ea |
| HW1001A25   | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 ea |
| HW2501F21   | KEY, 5/16 SQ X 2.375                     | 1.000 ea |
| HA7000A02   | KEY RETAINER RING, 1 1/8 DIA, 1 3/8 DIA  | 1.000 ea |
| MJ5001A27   | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL  | 0.001 qt |
| MJ1000A73   | INPRO P-80 ASSEMBLY LUB./ 1 QT. CONTAIN  | 0.001 qt |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 ea |
| LB1624      | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LT0019A00   | MOTOR NO-LOAD PERFORMANCE DATA SHEET     | 1.000 ea |
| WD1000D21   | TRM,T&B #B71M,RING,18-14,.25,NON-INSL    | 3.000 ea |
| MJ1000A02   | GREASE, POLYREX EM EXXON                 | 0.050 lb |
| HA3104A32   | THRUBOLT- 5/16-18 X12.750                | 4.000 ea |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB                | 1.000 ea |
| MG1025N19   | WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8  | 0.036 ga |
| LC0006      | CONNECTION LABEL                         | 1.000 ea |
| LB1449      | DIV-2/NEC WARNING LABEL                  | 1.000 ea |
| MN416A01    | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| NP4328      | SS IEEE841-2021 DIV-2 UL EEV CSA-C US    | 1.000 ea |
| LB1002N     | LABEL,MARINE DUTY (ON ROLLS)             | 1.000 ea |
| NP3186      | SS IEEE841 INV AUX DATA INFORMATION      | 1.000 ea |
| 07PA1011    | PKG GRP, 07 CAST IRON PK1181             | 1.000 ea |
| 10XL3807A28 | 3/8-7 X 1 3/4" LAG SCREW                 | 2.000 ea |



**AC Induction Motor Performance Data**

Record # 92525

Typical performance - not guaranteed values

| Winding: 07WGX815-R027 |  |      | Type: 0748M                           |  | Enclosure: TEFC         |                       |            |          |
|------------------------|--|------|---------------------------------------|--|-------------------------|-----------------------|------------|----------|
| Nameplate Data         |  |      | 460 V, 60 Hz:<br>Single Voltage Motor |  |                         |                       |            |          |
| Rated Output (HP)      |  | 5    | Full Load Torque                      |  | 22.59 LB-FT             |                       |            |          |
| Volts                  |  | 460  | Start Configuration                   |  | direct on line          |                       |            |          |
| Full Load Amps         |  | 7.1  | Breakdown Torque                      |  | 75.8 LB-FT              |                       |            |          |
| R.P.M.                 |  | 1161 | Pull-up Torque                        |  | 44.2 LB-FT              |                       |            |          |
| Hz                     |  | 60   | Phase                                 |  | 3                       | Locked-rotor Torque   | 49.8 LB-FT |          |
| NEMA Design Code       |  | B    | KVA Code                              |  | J                       | Starting Current      |            | 46 A     |
| Service Factor (S.F.)  |  | 1.15 | No-load Current                       |  | 3.68 A                  |                       |            |          |
| NEMA Nom. Eff.         |  | 89.5 | Power Factor                          |  | 73                      | Line-line Res. @ 25°C |            | 1.7842 Ω |
| Rating - Duty          |  | 40C  | AMB-CONT                              |  | Temp. Rise @ Rated Load |                       | 49°C       |          |
| S.F. Amps              |  |      | Temp. Rise @ S.F. Load                |  | 60°C                    |                       |            |          |
|                        |  |      | Locked-rotor Power Factor             |  | 21.4                    |                       |            |          |

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

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 34     | 55     | 66     | 73     | 76     | 78     | 75   |
| Efficiency      | 85.2   | 89.8   | 90.4   | 89.5   | 88.5   | 86.8   | 88.9 |
| Speed           | 1189.6 | 1180.9 | 1170.9 | 1160.6 | 1148.4 | 1134.8 | 1153 |
| Line amperes    | 3.99   | 4.78   | 5.85   | 7.16   | 8.65   | 10.4   | 8.05 |

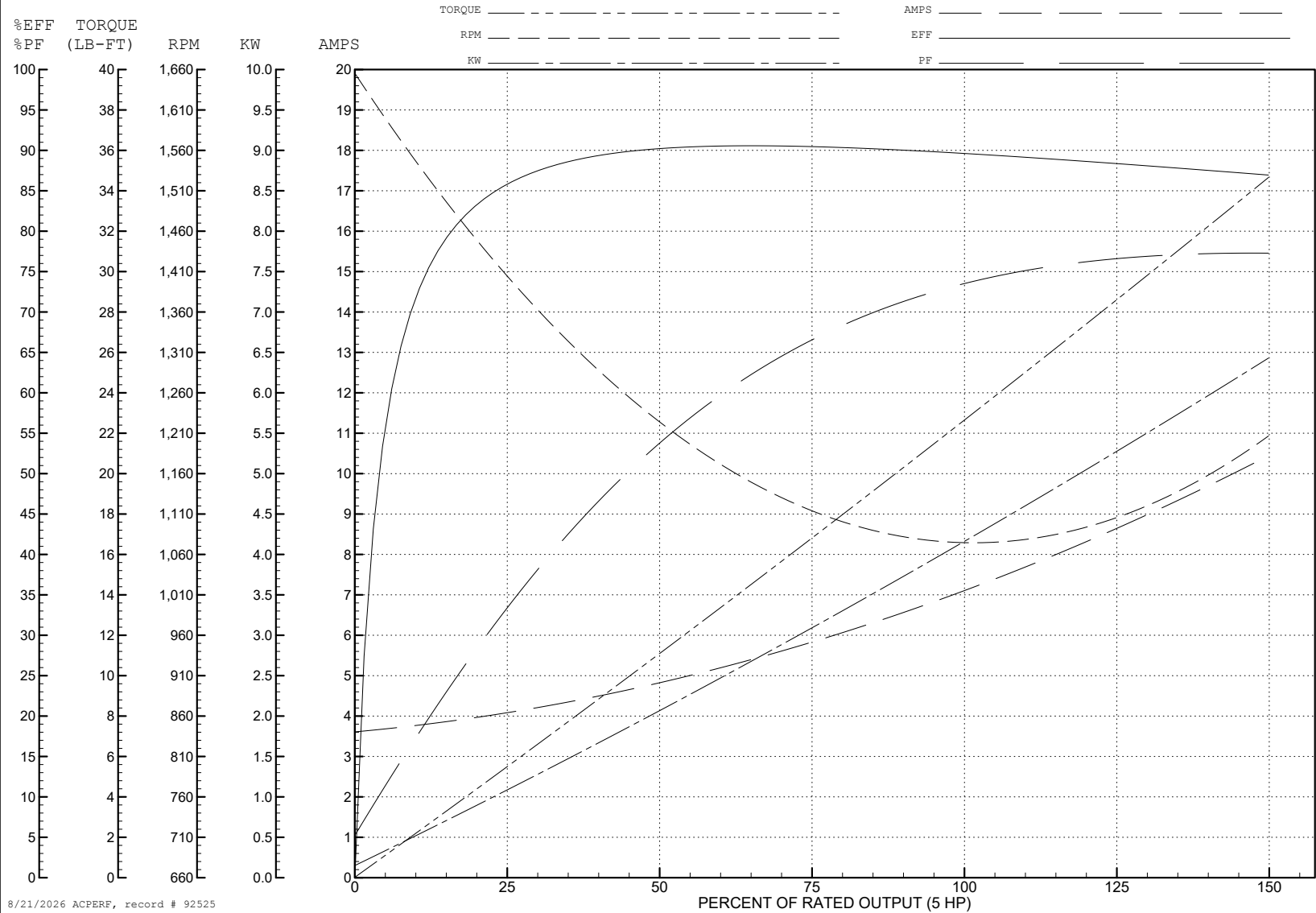
ABB Motors and Mechanical Inc.

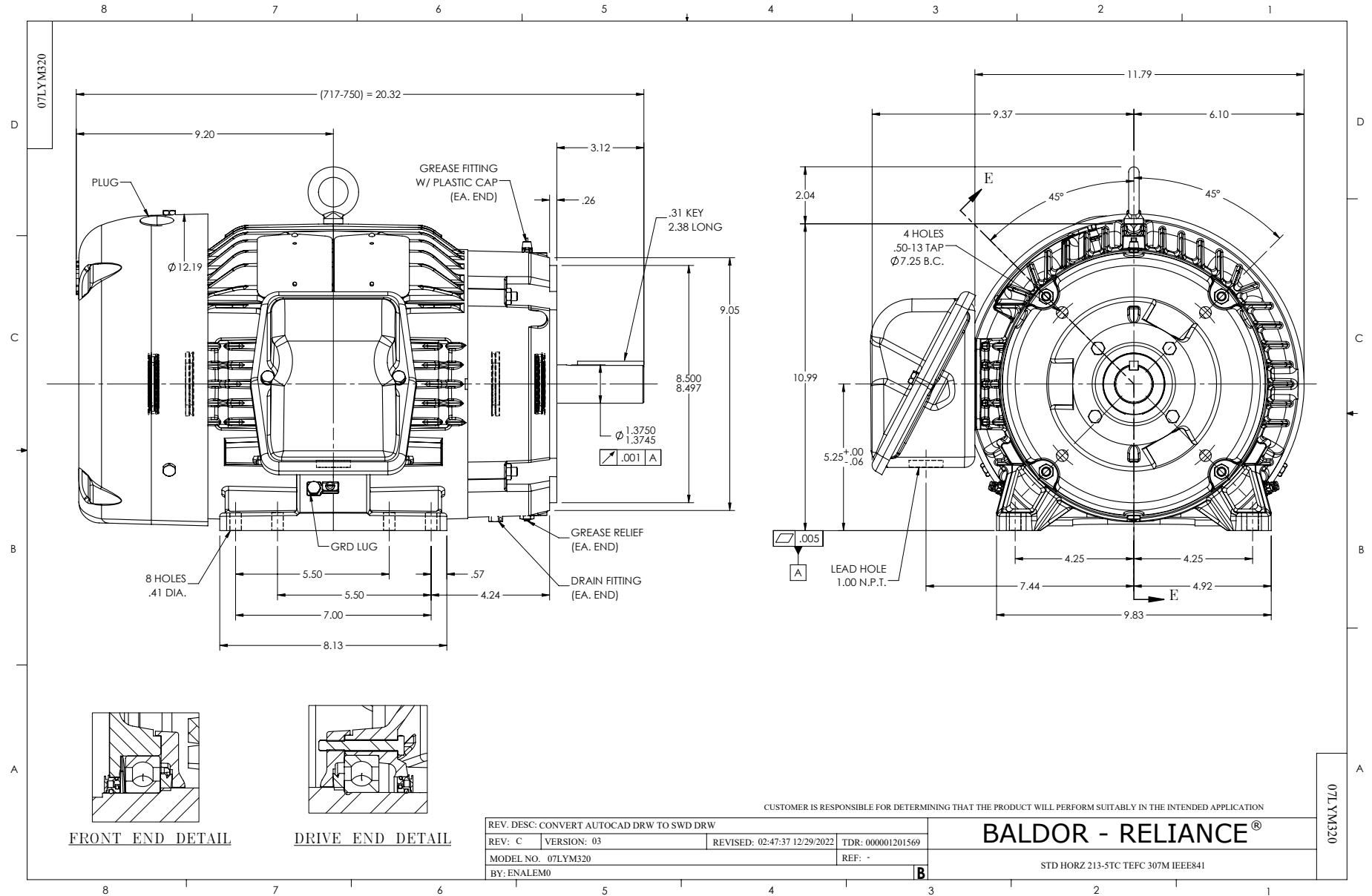
WINDING # 07WGX815

Typical performance - not guaranteed values.

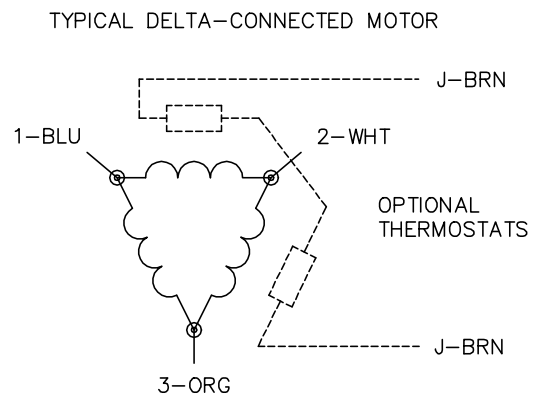
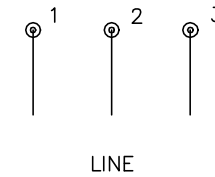
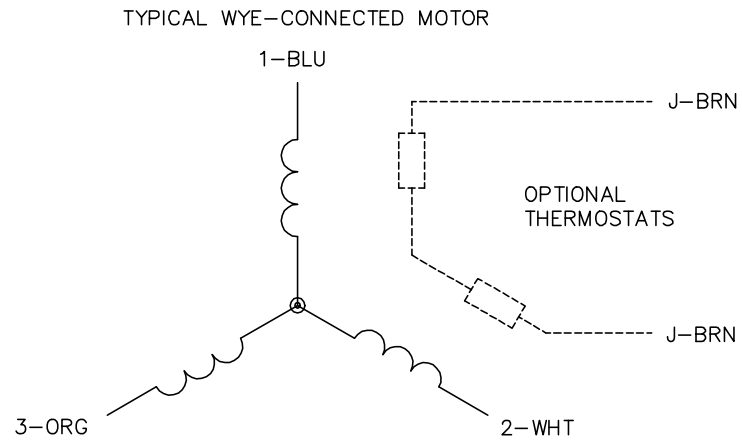
5 HP 3 PH 60 HZ 1161 RPM 460 V 0748M

TORQUES (LB-FT) : PO=75.8 PU=44.2 LR=49.8 LRA=46





CD0006


**NOTES:**

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

REV. DESC: ADD CLASS CONN00000007

REV. LTR: E

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\141

REVISED: 10: 24: 49 02/19/2019

BY: ENBRIRO

MTL: —


**BALDOR - RELIANCE®**

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1