

# ABB BALDOR RELIANCE III

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## Customer information packet

### CECP83584T-4

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 0524M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                                       |                                                          |
|---------------------------------------|----------------------------------------------------------|
| <b>Enclosure</b>                      | TEFC                                                     |
| <b>Frame</b>                          | 145TC                                                    |
| <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>             | 1.500 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                                          |
| <b>Agency Approvals</b>               | CCSA US<br>CSA EEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<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>Constant Torque Speed Range</b>    | 1.3                                                      |
| <b>Current @ Voltage</b>              | 2.300 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>         | 86.5 %                                                   |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                |
| <b>Feedback Device</b>                | NO FEEDBACK                                              |
| <b>Front Shaft Indicator</b>          | None                                                     |
| <b>Haz Area Temp Code</b>             | T4                                                       |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | D          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 05E943     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 05WGX557   |
| <b>Layout</b>       | 05LYE943   |
| <b>Eff. date</b>    | 04-14-2025 |
| <b>CD Diagram</b>   | CD0006     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 3#18       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 03-11-2022 |

|                                      |                                |
|--------------------------------------|--------------------------------|
| <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 Ready                 |
| <b>KVA Code</b>                      | M                              |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs          |
| <b>Locked Bearing Indicator</b>      | Locked Bearing                 |
| <b>Max Speed</b>                     | 2700 rpm                       |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 18 AWG                     |
| <b>Motor Lead Termination</b>        | Flying Leads                   |
| <b>Motor Standards</b>               | NEMA                           |
| <b>Motor Type</b>                    | 0524M                          |
| <b>Mounting Arrangement</b>          | F1                             |
| <b>Number of Poles</b>               | 4                              |
| <b>Overall Length</b>                | 13.38 IN                       |
| <b>Power Factor</b>                  | 72                             |
| <b>Product Family</b>                | Chem Process S/P 32-8 IEEE 841 |
| <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>                | 0.875 IN                       |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding             |
| <b>Shaft Rotation</b>                | Reversible                     |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger                  |
| <b>Speed</b>                         | 1770 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                           |
| <b>Winding Thermal 2</b>             | None                           |

**Nameplate**

| NP4328          |              |      |       |      |    |       |   |  |  |
|-----------------|--------------|------|-------|------|----|-------|---|--|--|
| CAT.NO.         | CECP83584T-4 |      |       |      |    |       |   |  |  |
| SPEC.           | 05E943X557G1 |      |       |      |    |       |   |  |  |
| HP              | 1.5 TE       |      |       | IP   | 56 |       |   |  |  |
| VOLTS           | 460          |      |       |      |    |       |   |  |  |
| AMPS            | 2.3          |      |       |      |    |       |   |  |  |
| R.P.M.          | 1770         |      |       |      |    |       |   |  |  |
| FRAME           | 145TC        |      | HZ    | 60   |    | PH    | 3 |  |  |
| SER.F.          | 1.15         | CODE | M     | DES. | B  | CLASS | F |  |  |
| RATING          | 40C AMB-CONT |      |       |      |    |       |   |  |  |
| SN              |              |      |       |      |    |       |   |  |  |
| DE              | 6205         |      | ODE   | 6205 |    |       |   |  |  |
| NEMA NOM. EFF.  | 86.5         |      | P.F.  | 72   |    |       |   |  |  |
| GUAR. MIN. EFF. | 84           |      | CC    | 010A |    |       |   |  |  |
| T. CODE         | T4           |      | TEMP= | 135  |    |       |   |  |  |

| NP3186       |              |            |      |                         |    |  |
|--------------|--------------|------------|------|-------------------------|----|--|
| SPEC.        | 05E943X557G1 |            |      |                         |    |  |
| ABMA DE BRG  | 25BC02X30X   |            |      |                         |    |  |
| ABMA ODE BRG | 25BC02X30X   |            |      |                         |    |  |
| GREASE       | POLYREX EM   |            |      |                         |    |  |
| MOTOR WEIGHT | 60           | ROTOR BARS | 27   | STATOR BARS             | 36 |  |
| MAX. R.P.M.  | 2700         | MAX. KVAR  | 0.63 |                         |    |  |
|              | SFA 2.3      |            |      |                         |    |  |
| INV.TYPE     | PWM          |            |      |                         |    |  |
| T=           | 135          |            |      |                         |    |  |
| CHP          | 60           | TO         | 90   |                         |    |  |
| CT           | 1.3          | TO         | 60   |                         |    |  |
| VT           | -0           | TO         | 60   |                         |    |  |
| HTR-VOLTS    | HTR-AMPS     |            |      |                         |    |  |
| HTR-WATTS    |              |            |      | MAX. SPACE HEATER TEMP. |    |  |

**Parts List**

| Part number   | Description                              | Quantity |
|---------------|------------------------------------------|----------|
| SA407566      | SA 05E943X557G1                          | 1.000 ea |
| RA399065      | RA 05E943X557G1                          | 1.000 ea |
| 35FN3002A05SP | EXFN, PLASTIC, 6.376 OD, .638 ID         | 1.000 ea |
| HW3201A05     | 3/8-16 EYEBOLT                           | 1.000 ea |
| 06CB1001A01G  | CONDUIT BOX, MACH GRAY                   | 1.000 ea |
| RM1016        | LEAD SEPARATOR GASKET - 305/306 C.P.MOTO | 1.000 ea |
| 51XW2520A12   | SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75  | 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.                | 1.000 ea |
| WD1000B16     | T&B CX70TN OR L70P TERMINAL LUG          | 1.000 ea |
| 51XN1032A20   | 10-32 X 1 1/4 HX WS SL SR                | 2.000 ea |
| 05EP1100A02G  | FREP TEFC 205,GRSR,RLF,DRAIN FITTING,INP | 1.000 ea |
| HW4601B22     | INPRO SEAL, 205 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 |
| HA4010A01     | T-DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .0 | 1.000 ea |
| HW5100A05     | WVY WSHR F/205 & 304 BRGS                | 1.000 ea |
| 35EP1329A32G  | EP ENCL 205 BRG,GRSR,RLF,NPT DRAIN,INPRO | 1.000 ea |
| HW4601B22     | INPRO SEAL, 205 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 |
| HA4010A01     | T-DRAIN PLUG,416 S.S.,W/ 1/4-28 THD & .0 | 1.000 ea |
| 51XN1032A20   | 10-32 X 1 1/4 HX WS SL SR                | 2.000 ea |
| HA3100A28     | THRUBOLT 10-32 X 8.187                   | 4.000 ea |
| 35FH1000A19G  | 35FH1000A19 W/GRAY FLUIDIZ               | 1.000 ea |
| 10XN2520A16   | 1/4-20 X 1 HEX HEAD CAP SCR, ZINC PLATED | 3.000 ea |
| HW1001A25     | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 3.000 ea |
| WD4100A03     | DE-750 HEYCO PLUG 62MP0750 MICRO PLASTIC | 1.000 ea |

|              |                                          |          |
|--------------|------------------------------------------|----------|
| 06CB1503A01G | LIPPED CONDUIT BOX LID, MACH GRAY EPOXY  | 1.000 ea |
| 06GS1009     | GASKET, KOBX LID, 1/8" THICK BLACK NEOPR | 1.000 ea |
| 10XN2520A12  | 1/4-20 X 3/4 HEX HEAD CAP                | 2.000 ea |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 ea |
| HW2501D13    | KEY, 3/16 SQ X 1.375                     | 1.000 ea |
| HA7000A01    | KEY RETAINER 7/8" DIA SHAFT              | 1.000 ea |
| MJ5001A02    | 732 CL SEALANT 3 OZ DIXIE BEARING 289100 | 0.010 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 |
| MG1025N19    | WILKOFAST, 778.50, RELIANCE BLUE-GREEN 8 | 0.022 ga |
| LC0006       | CONNECTION LABEL                         | 1.000 ea |
| LB1449       | DIV-2/NEC WARNING LABEL                  | 1.000 ea |
| NP4328       | SS IEEE841-2021 DIV-2 UL EEV CSA-C US    | 1.000 ea |
| NP3186       | SS IEEE841 INV AUX DATA INFORMATION      | 1.000 ea |
| 36PA1000     | PKG GRP, PRINT PK1016A08                 | 1.000 ea |
| MN416A01     | TAG-INSTAL-MAINT no wire (2500 bx)11/25  | 1.000 ea |
| FE-0000002   | ZRTG FE ASSEMBLY                         | 1.000 ea |
| PE-0000002   | ZRTG PE ASSEMBLY                         | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 95437

Typical performance - not guaranteed values

| Winding: 05WGX557-R001 |      |              | Type: 0524M                           |                       | Enclosure: TEFC |  |
|------------------------|------|--------------|---------------------------------------|-----------------------|-----------------|--|
| Nameplate Data         |      |              | 460 V, 60 Hz:<br>Single Voltage Motor |                       |                 |  |
| Rated Output (HP)      |      | 1.5          | Full Load Torque                      |                       | 4.48 LB-FT      |  |
| Volts                  |      | 460          | Start Configuration                   |                       | direct on line  |  |
| Full Load Amps         |      | 2.3          | Breakdown Torque                      |                       | 18.8 LB-FT      |  |
| R.P.M.                 |      | 1770         | Pull-up Torque                        |                       | 9.6 LB-FT       |  |
| Hz                     | 60   | Phase        | 3                                     | Locked-rotor Torque   | 12.6 LB-FT      |  |
| NEMA Design Code       | B    | KVA Code     | M                                     | Starting Current      | 19.7 A          |  |
| Service Factor (S.F.)  |      | 1.15         | No-load Current                       |                       | 1.51 A          |  |
| NEMA Nom. Eff.         | 86.5 | Power Factor | 72                                    | Line-line Res. @ 25°C | 11.8 Ω          |  |
| Rating - Duty          |      | 40C AMB-CONT | Temp. Rise @ Rated Load               |                       | 48°C            |  |
| S.F. Amps              |      | 2.5          | Temp. Rise @ S.F. Load                |                       | 57°C            |  |
|                        |      |              | Locked-rotor Power Factor             |                       | 58.4            |  |
|                        |      |              | Rotor inertia                         |                       | 0.173 lb-ft²    |  |

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

| % of Rated Load | 25   | 50   | 75   | 100  | 125  | 150  | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor    | 31   | 49   | 63   | 72   | 78   | 81   | 76   |
| Efficiency      | 75.1 | 83.5 | 86   | 86.5 | 85.8 | 84.8 | 86.1 |
| Speed           | 1792 | 1785 | 1777 | 1769 | 1760 | 1750 | 1764 |
| Line amperes    | 1.56 | 1.72 | 1.97 | 2.28 | 2.65 | 3.06 | 2.5  |



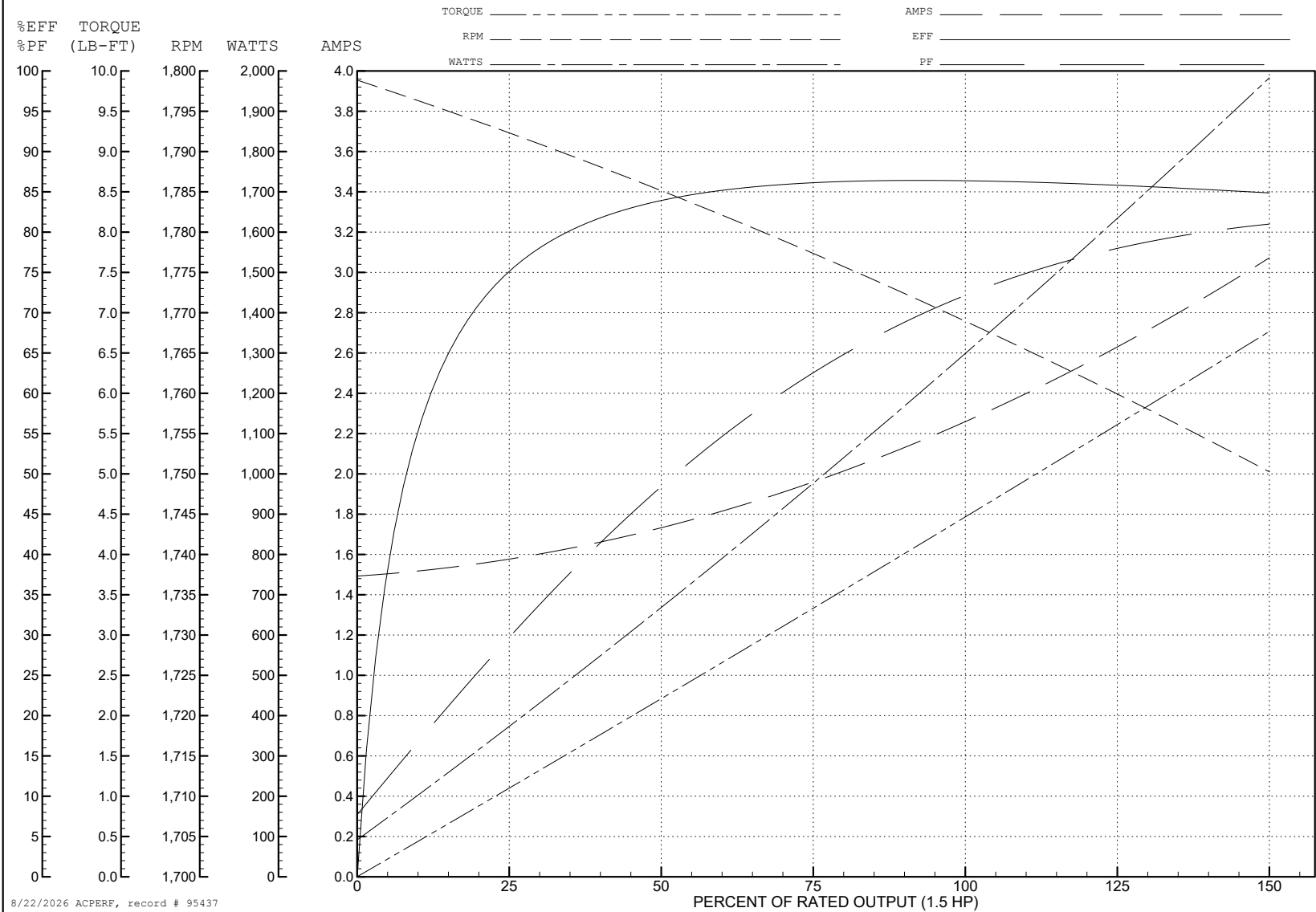
ABB Motors and Mechanical Inc.

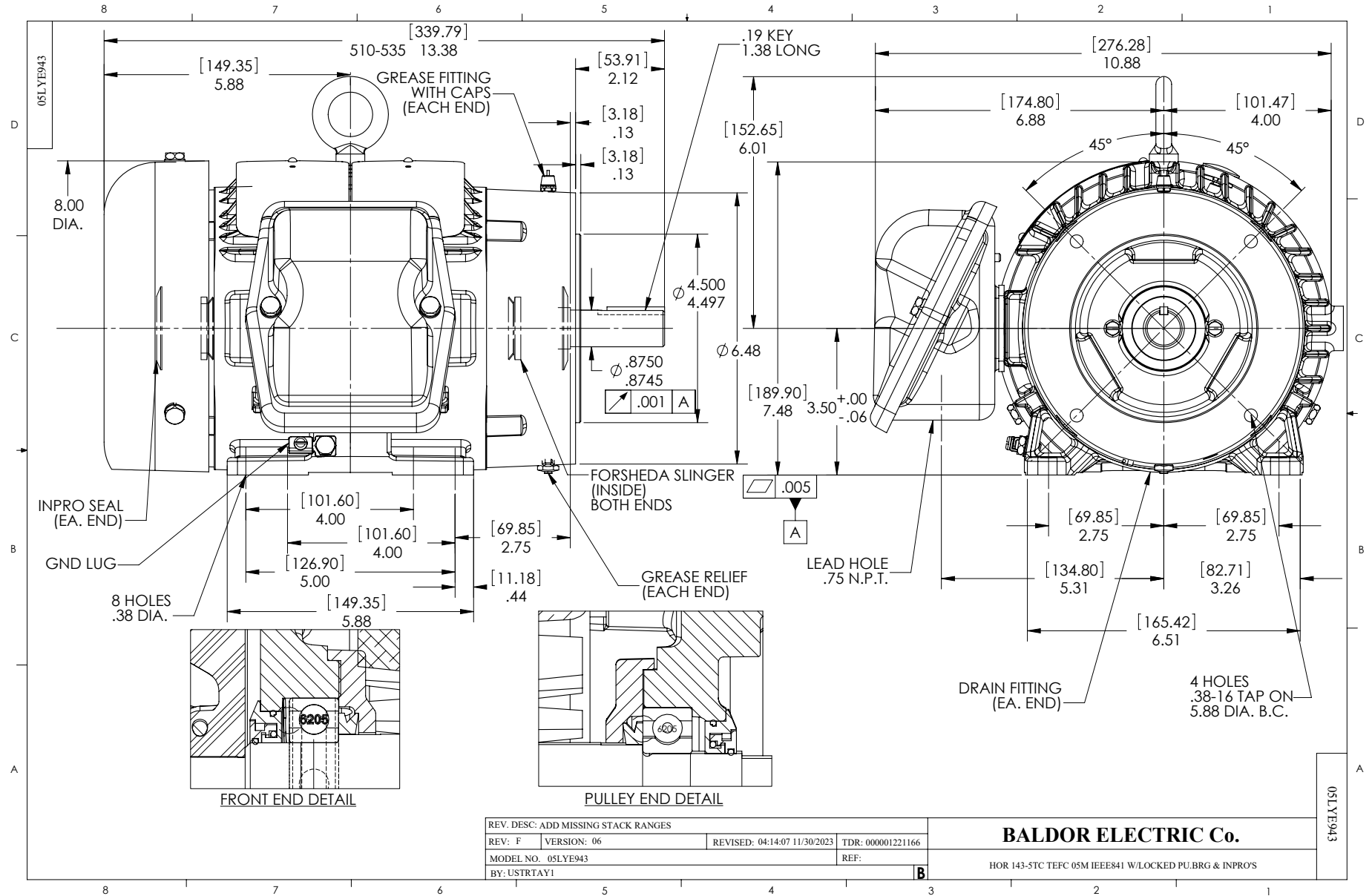
WINDING # 05WGX557

Typical performance - not guaranteed values.

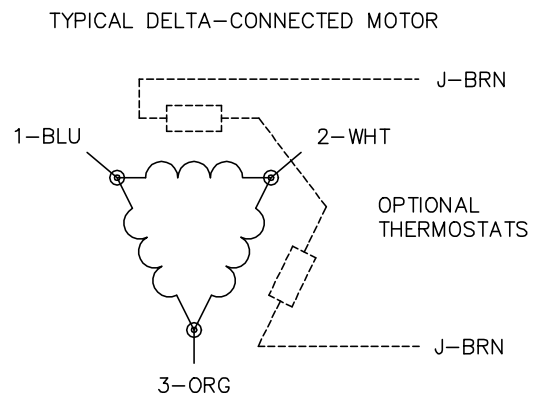
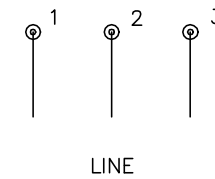
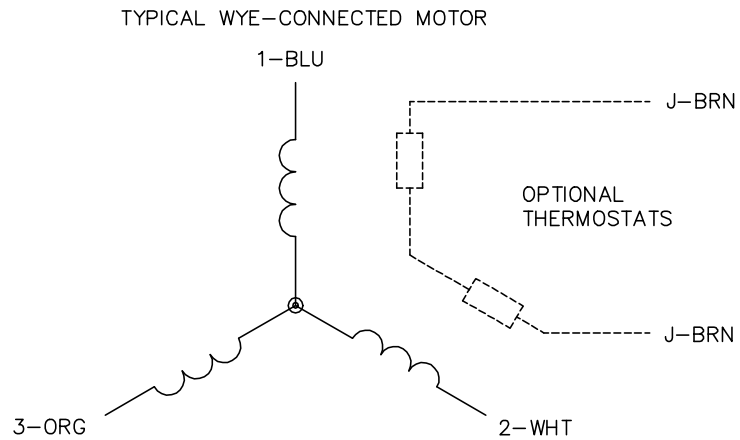
1.5 HP 3 PH 60 HZ 1770 RPM 460 V 0524M

TORQUES (LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7





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