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# Customer information packet

## ECP83580T-4

1HP, 3450RPM, 3PH, 60HZ, 143T, 0514M, TEFC, F1

ELECTRIC MOTOR WHOLESale.COM

Class - CLI GP A,B,C,D

Division - Division II

## Specifications

|                                |                           |
|--------------------------------|---------------------------|
| Enclosure                      | TEFC                      |
| Frame                          | 143T                      |
| Frame Material                 | Iron                      |
| Frequency                      | 60.00 Hz                  |
| Motor Letter Type              | Three Phase               |
| Output @ Frequency             | 1.000 HP @ 60 HZ          |
| Phase                          | 3                         |
| Synchronous Speed @ Frequency  | 3600 RPM @ 60 HZ          |
| Voltage @ Frequency            | 460.0 V @ 60 HZ           |
| XP Class and Group             | CLI GP A,B,C,D            |
| XP Division                    | Division II               |
| Agency Approvals               | UR<br>CSA<br>CSA EEV      |
| Ambient Temperature            | 40 °C                     |
| Auxillary Box                  | No Auxillary Box          |
| Auxillary Box Lead Termination | None                      |
| Base Indicator                 | Rigid                     |
| Bearing Grease Type            | Polyrex EM (-20F +300F)   |
| Blower                         | None                      |
| Design Code                    | B                         |
| Drip Cover                     | No Drip Cover             |
| Duty Rating                    | CONT                      |
| Electrically Isolated Bearing  | Not Electrically Isolated |
| Feedback Device                | NO FEEDBACK               |
| Front Shaft Indicator          | None                      |
| Heater Indicator               | No Heater                 |
| Insulation Class               | F                         |
| Inverter Code                  | Not Inverter              |
| Lifting Lugs                   | Standard Lifting Lugs     |
| Locked Bearing Indicator       | Locked Bearing            |
| Motor Lead Quantity/Wire Size  | 3 @ 18 AWG                |

## Part detail

|              |            |
|--------------|------------|
| Revision     | N          |
| Type         | AC         |
| Mech. spec.  | 05E811     |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | 05WGX522   |
| Layout       | 05LYE811   |
| Eff. date    | 07-01-2022 |
| CD Diagram   | CD0006     |
| Poles        | 02         |
| Leads        | 3#18       |
| Proprietary  | False      |
| Created date | 07-15-2019 |

|                                   |                                |
|-----------------------------------|--------------------------------|
| <b>Motor Lead Termination</b>     | Flying Leads                   |
| <b>Motor Standards</b>            | NEMA                           |
| <b>Motor Type</b>                 | 0514M                          |
| <b>Mounting Arrangement</b>       | F1                             |
| <b>Number of Poles</b>            | 2                              |
| <b>Overall Length</b>             | 12.88 IN                       |
| <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>RoHS Status</b>                | ROHS COMPLIANT                 |
| <b>Service Factor</b>             | 1.25                           |
| <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>                      | 3450 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**

| <b>NP4328E</b>         |              |              |      |             |   |              |   |  |  |
|------------------------|--------------|--------------|------|-------------|---|--------------|---|--|--|
| <b>CAT.NO.</b>         | ECP83580T-4  |              |      |             |   |              |   |  |  |
| <b>SPEC.</b>           | 05E811X522G1 |              |      |             |   |              |   |  |  |
| <b>HP</b>              | 1 TE         | <b>IP</b>    | 56   |             |   |              |   |  |  |
| <b>VOLTS</b>           | 460          |              |      |             |   |              |   |  |  |
| <b>AMPS</b>            | 1.65         |              |      |             |   |              |   |  |  |
| <b>R.P.M.</b>          | 3500         |              |      |             |   |              |   |  |  |
| <b>FRAME</b>           | 143T         | <b>HZ</b>    | 60   | <b>PH</b>   | 3 |              |   |  |  |
| <b>SER.F.</b>          | 1.25         | <b>CODE</b>  | L    | <b>DES.</b> | B | <b>CLASS</b> | F |  |  |
| <b>RATING</b>          | 40C AMB-CONT |              |      |             |   |              |   |  |  |
| <b>SN</b>              |              |              |      |             |   |              |   |  |  |
| <b>DE</b>              | 6205         | <b>ODE</b>   | 6205 |             |   |              |   |  |  |
| <b>NEMA NOM. EFF.</b>  | 77           | <b>P.F.</b>  | 78   |             |   |              |   |  |  |
| <b>GUAR. MIN. EFF.</b> | 74           | <b>CC</b>    | 010A |             |   |              |   |  |  |
| <b>T. CODE</b>         | T4           | <b>TEMP=</b> | 135  |             |   |              |   |  |  |

**NP3186E**

|                     |              |                                |      |
|---------------------|--------------|--------------------------------|------|
| <b>SPEC.</b>        | 05E811X522G1 |                                |      |
| <b>ABMA DE BRG</b>  | 25BC02X30X   |                                |      |
| <b>ABMA ODE BRG</b> | 25BC02X30X   |                                |      |
| <b>GREASE</b>       | POLYREX EM   |                                |      |
| <b>MOTOR WEIGHT</b> | 60           | <b>ROTOR BARS</b>              | 20   |
|                     |              | <b>STATOR BARS</b>             | 24   |
| <b>MAX. R.P.M.</b>  | 5400         | <b>MAX. KVAR</b>               | 0.41 |
|                     | SFA 1.88     |                                |      |
| <b>INV.TYPE</b>     | PWM          |                                |      |
| <b>T=</b>           | 135          |                                |      |
| <b>CHP</b>          | 60           | <b>TO</b>                      | 90   |
| <b>CT</b>           | 1.8          | <b>TO</b>                      | 60   |
| <b>VT</b>           | 0-           | <b>TO</b>                      | 60   |
| <b>HTR-VOLTS</b>    | N/A          | <b>HTR-AMPS</b>                | N/A  |
| <b>HTR-WATTS</b>    | N/A          | <b>MAX. SPACE HEATER TEMP.</b> | N/A  |

## Parts list

| Part number  | Description                              | Quantity |
|--------------|--|----------|
| SA371857     | SA 05E811X522G1                          | 1.000 ea |
| RA361569     | RA 05E811X522G1                          | 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.                | 2.000 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 |
| 05EP1100A01G | PUEP ENCL 205,BRG RET,GRSR,RLF,DRAIN FIT | 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 |
| HA3100A37    | THRUBOLT 10-32 X 8.500                   | 4.000 ea |
| XY1032A02    | 10-32 HEX NUT DIRECTIONAL SERRATION      | 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 |
| MJ5001A14    | DYNAPRO SEALANT, CP MTR VC#2508050 (603  | 0.010 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 |
| 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 |
| LB1002N      | LABEL,MARINE DUTY (ON ROLLS)             | 1.000 ea |
| LB1115N      | LABEL,LIFTING DEVICE (ON ROLLS)          | 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 |
| 34FN3002B01  | EXTERNAL FAN, PLASTIC, .637/.639 HUB W/  | 1.000 ea |
| 51XB1214A16  | 12-14X1.00 HXWSSLD SERTYB                | 1.000 ea |
| MG1025N19    | WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8  | 0.220 ga |
| LB1119N      | WARNING LABEL                            | 1.000 ea |
| LC0006       | CONNECTION LABEL                         | 1.000 ea |
| LB1449       | DIV-2/NEC WARNING LABEL                  | 1.000 ea |
| NP4328E      | SS IEEE841-2021 DIV-2 UL CSA-C US EEV    | 1.000 ea |
| NP3186E      | SS IEEE841 INV AUX DATA INFORMATION      | 1.000 ea |
| 36PA1000     | PKG GRP, PRINT PK1016A06                 | 1.000 ea |
| MN416A01     | TAG-INSTAL-MAINT no wire (2200bx) 4/22   | 1.000 ea |

**AC Induction Motor Performance Data**

Record # 84212

Typical performance - not guaranteed values

| Winding: 05WGX522-R001 |                   | Type: 0514M  |   | Enclosure: TEFC |                |
|------------------------|-------------------|--------------|---|-----------------|----------------|
| <b>Nameplate Data</b>  |                   |              | <b>460 V, 60 Hz:<br/>Single Voltage Motor</b> |                 |                |
| Rated Output (HP)      |                   | 1            | Full Load Torque                              |                 | 1.51 LB-FT     |
| Volts                  |                   | 460          | Start Configuration                           |                 | direct on line |
| Full Load Amps         |                   | 1.5          | Breakdown Torque                              |                 | 6.77 LB-FT     |
| R.P.M.                 |                   | 3450         | Pull-up Torque                                |                 | 3.58 LB-FT     |
| Hz                     | 60 Phase          | 3            | Locked-rotor Torque                           |                 | 5.13 LB-FT     |
| NEMA Design Code       | B KVA Code        | L            | Starting Current                              |                 | 11.5 A         |
| Service Factor (S.F.)  |                   | 1.25         | No-load Current                               |                 | 0.922 A        |
| NEMA Nom. Eff.         | 81.5 Power Factor | 78           | Line-line Res. @ 25°C                         |                 | 18.77 Ω        |
| Rating - Duty          |                   | 40C AMB-CONT | Temp. Rise @ Rated Load                       |                 | 37°C           |
| S.F. Amps              |                   | 1.8          | Temp. Rise @ S.F. Load                        |                 | 46°C           |
|                        |                   |              | Locked-rotor Power Factor                     |                 | 66.3           |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 38     | 57     | 69     | 78     | 83     | 86     | 83   |
| Efficiency      | 65.3   | 76.8   | 80.7   | 81.9   | 81.8   | 80.8   | 81.8 |
| Speed           | 3569.6 | 3544.6 | 3516.9 | 3488.1 | 3456.3 | 3421.1 | 3456 |
| Line amperes    | 0.973  | 1.09   | 1.26   | 1.48   | 1.73   | 2.03   | 1.73 |



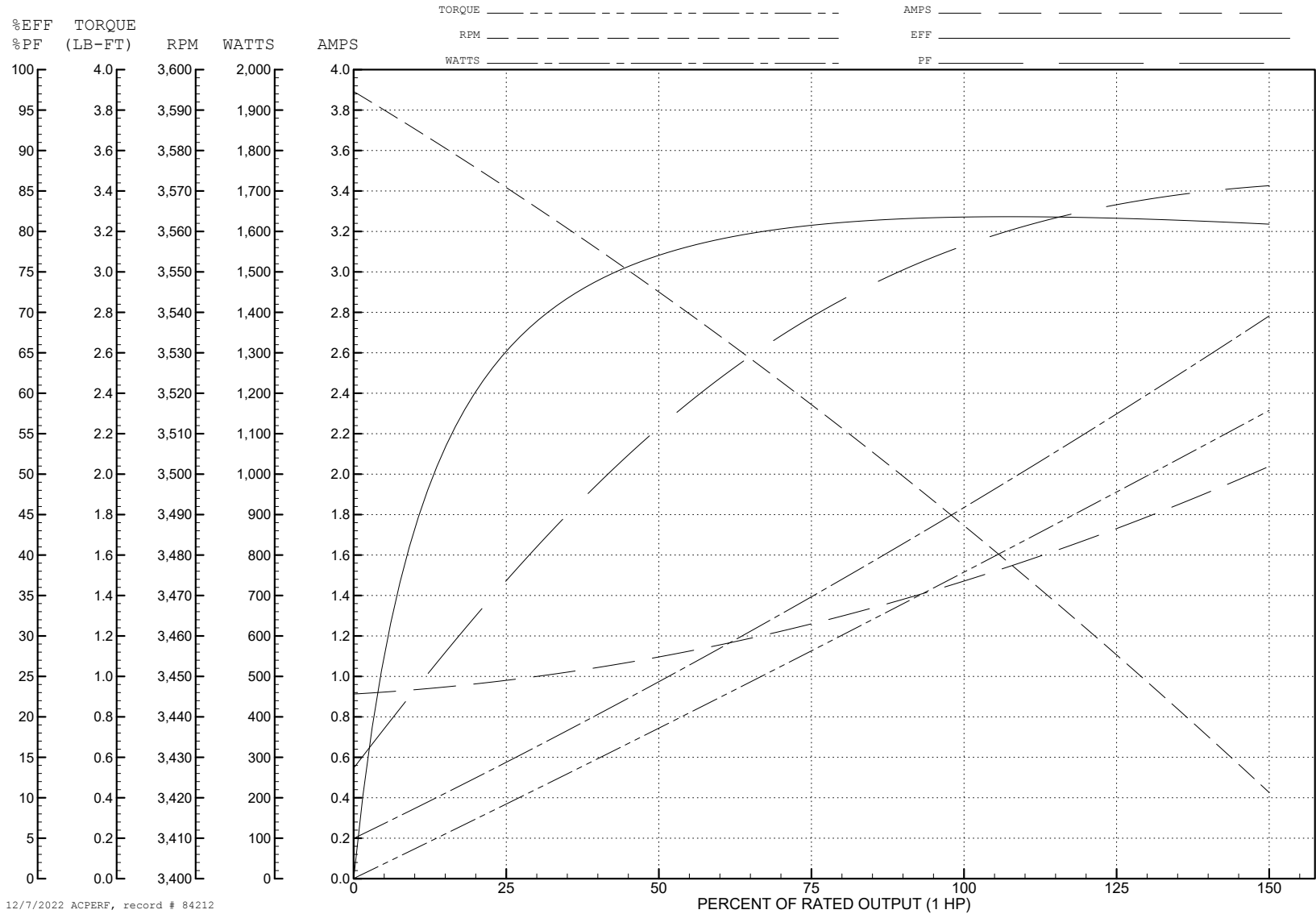
ABB Motors and Mechanical Inc.

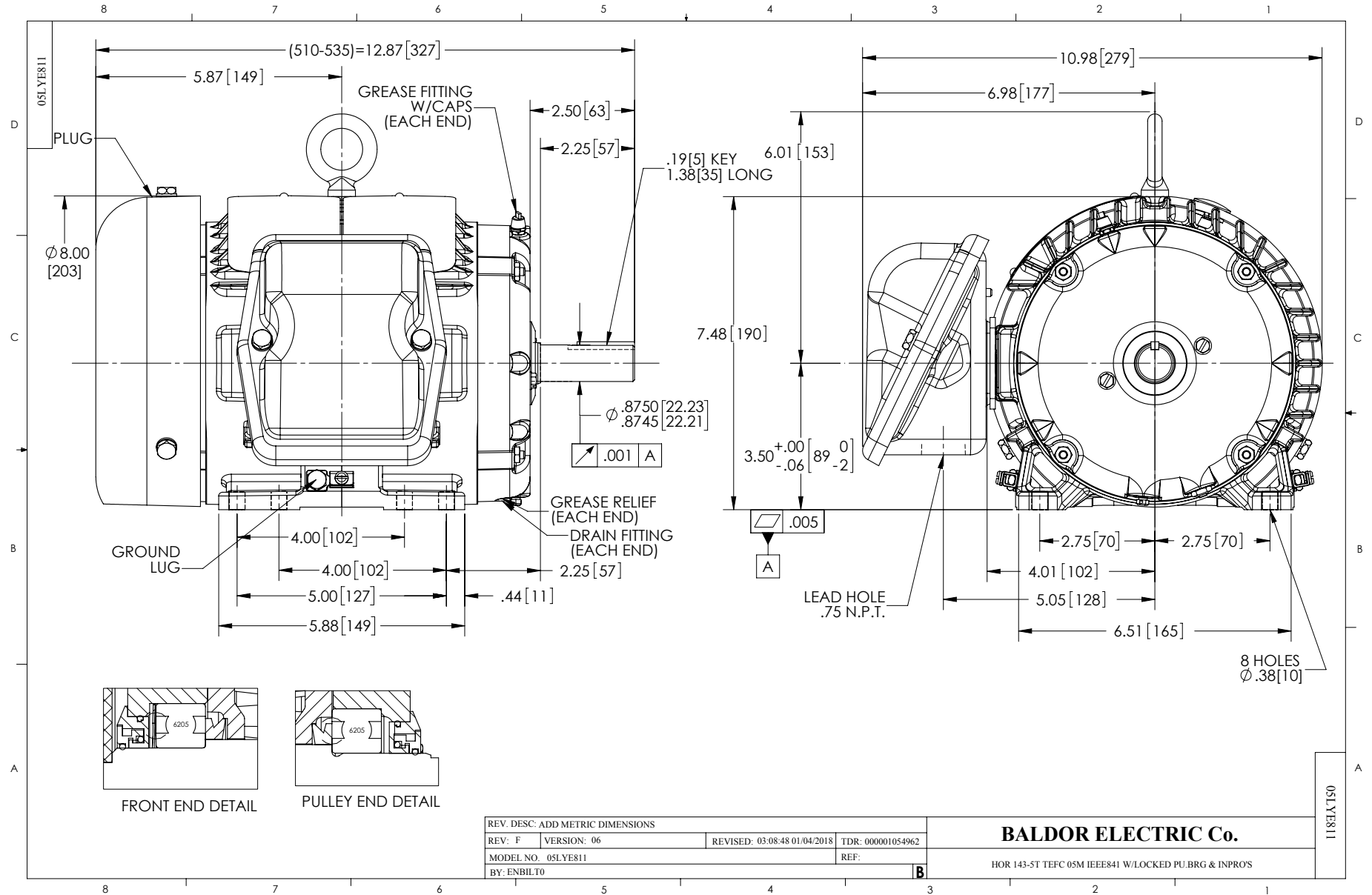
WINDING # 05WGX522

Typical performance - not guaranteed values.

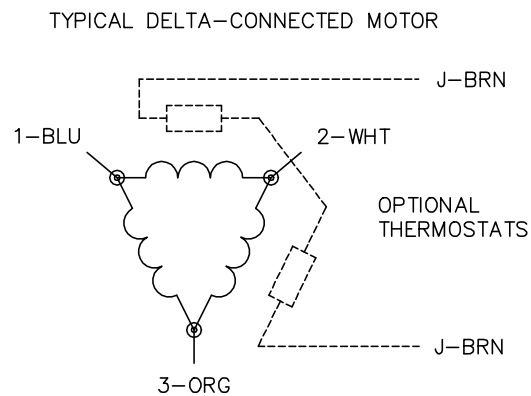
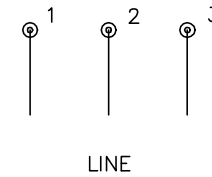
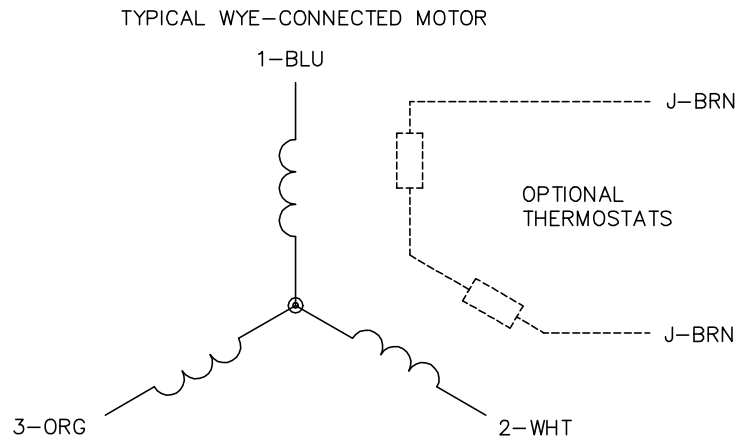
1 HP 3 PH 60 HZ 3450 RPM 460 V 0514M

TORQUES (LB-FT): PO=6.77 PU=3.58 LR=5.13 LRA=11.5





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