# Customer information packet

CECP83580-4

1HP, 3500RPM, 3PH, 60HZ, 56C, 0514M, TEFC, F3, N
Class - CLI GP A,B,C,D
Division - Division II

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 56C |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | CLI GP A,B,C,D |
| **Haz Area Division** | Division II |
| **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 |
| **Agency Approvals** | CCSA US |
| | CSA EEV |
| | NEMA PREMIUM |
| | NEMA_PREMIUM |
| | UR |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | Rigid |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Constant Torque Speed Range** | 1.7 |
| **Current @ Voltage** | 1.650 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 77.0 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Haz Area Temp Code** | T4 |

## Part Detail

| | |
|---|---|
| **Revision** | D |
| **Type** | AC |
| **Mech. spec.** | 05G312 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 05WGX522 |
| **Layout** | 05LYG312 |
| **Eff. date** | 08-06-2026 |
| **CD Diagram** | CD0006 |
| **Poles** | 02 |
| **Leads** | 3#18 |
| **Proprietary** | False |
| **Created date** | 03-25-2022 |

| | |
|---|---|
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 1.7 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |
| **KVA Code** | L |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 5400 rpm |
| **Motor Lead Quantity/Wire Size** | 3 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 0514M |
| **Mounting Arrangement** | F3 |
| **Number of Poles** | 2 |
| **Overall Length** | 14.81 IN |
| **Power Factor** | 74 |
| **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 |
| **RoHS Status** | ROHS COMPLIANT |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 0.625 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 3500 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.** | CECP83580-4 | | | | | | | |
| **SPEC.** | 05G312X522G1 | | | | | | | |
| **HP** | 1 TE | | | **IP** | 56 | | | |
| **VOLTS** | 460 | | | | | | | |
| **AMPS** | 1.5 | | | | | | | |
| **R.P.M.** | 3490 | | | | | | | |
| **FRAME** | 56C | **HZ** | 60 | | | **PH** | 3 | |
| **SER.F.** | 1.15 | **CODE** | L | **DES.** | B | **CLASS** | F | |
| **RATING** | 40C AMB-CONT | | | | | | | |
| **SN** | | | | | | | | |
| **DE** | 6205 | **ODE** | 6205 | | | | | |
| **NEMA NOM. EFF.** | 77 | **P.F.** | 77 | | | | | |
| **GUAR. MIN. EFF.** | 74 | **CC** | 010A | | | | | |
| **T. CODE** | T4 | **TEMP=** | 135 | | | | | |

| NP3186 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SPEC.** | 05G312X522G1 | | | | | | |
| **ABMA DE BRG** | 25BC02X30X | | | | | | |
| **ABMA ODE BRG** | 25BC02X30X | | | | | | |
| **GREASE** | POLYREX EM | | | | | | |
| **MOTOR WEIGHT** | 56 | **ROTOR BARS** | 20 | **STATOR BARS** | 24 | | |
| **MAX. R.P.M.** | 5400 | **MAX. KVAR** | 0.41 | | | | |
| | SFA 1.88 | | | | | | |
| **INV.TYPE** | PWM | | | | | | |
| **T=** | 135 | | | | | | |
| **CHP** | 60 | **TO** | 90 | | | | |
| **CT** | 1.7 | **TO** | 60 | | | | |
| **VT** | -0 | **TO** | 60 | | | | |
| **HTR-VOLTS** | N/A | **HTR-AMPS** | N/A | | | | |
| **HTR-WATTS** | N/A | | | **MAX. SPACE HEATER TEMP.** | N/A | | |

**AC Induction Motor Performance Data**
Record # 91487
Typical performance - not guaranteed values

| **Winding:** 05WGX522-R001 | **Type:** 0514M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1 | **Full Load Torque** | 1.5031 LB-FT |
| **Volts** | | | 460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 1.5 | **Breakdown Torque** | 6.4882 LB-FT |
| **R.P.M.** | | | 3500 | **Pull-up Torque** | 15.1 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 4.241 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 11.6507 A |
| **Service Factor (S.F.)** | | | 1.25 | **No-load Current** | 1.1026 A |
| **NEMA Nom. Eff.** | 77 | **Power Factor** | 74 | **Line-line Res. @ 25ºC** | 18.4 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 35°C |
| **S.F. Amps** | | | 1.8 | **Temp. Rise @ S.F. Load** | 42°C |
| | | | | **Locked-rotor Power Factor** | 66.3262 |
| | | | | **Rotor inertia** | 0.0387 lb-ft² |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 38.2337 | 54.3923 | 66.2507 | 74.5256 | 80.1108 | 83.8765 | 80 |
| **Efficiency** | 53.0159 | 67.4833 | 73.5821 | 77 | 77.6584 | 77.9077 | 77.7 |
| **Speed** | 3568.338 | 3547.098 | 3524.598 | 3500.477 | 3474.737 | 3447.016 | 3475 |
| **Line amperes** | 1.1624 | 1.2778 | 1.4414 | 1.6462 | 1.8836 | 2.1498 | 1.88 |

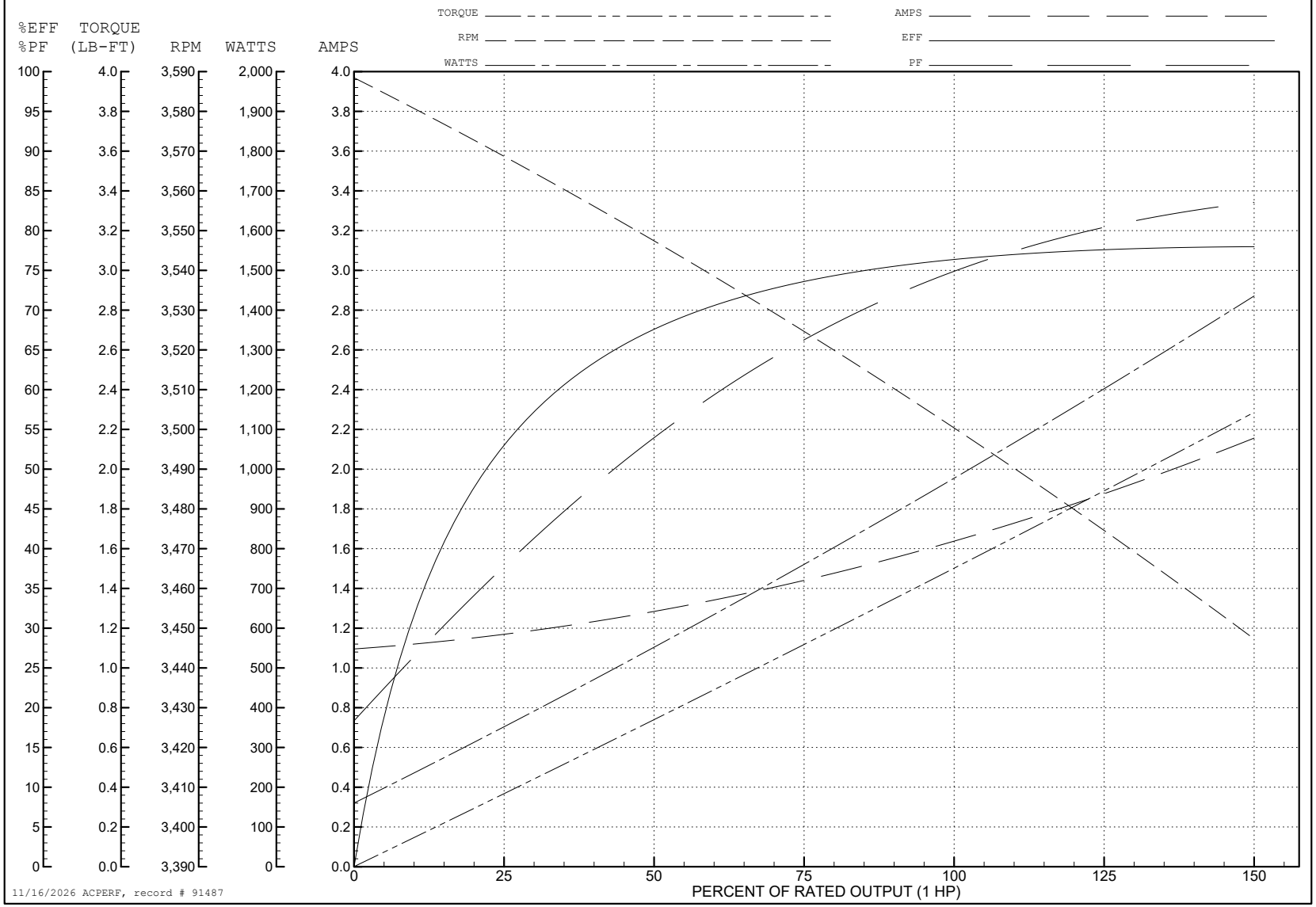
ABB Motors and Mechanical Inc.

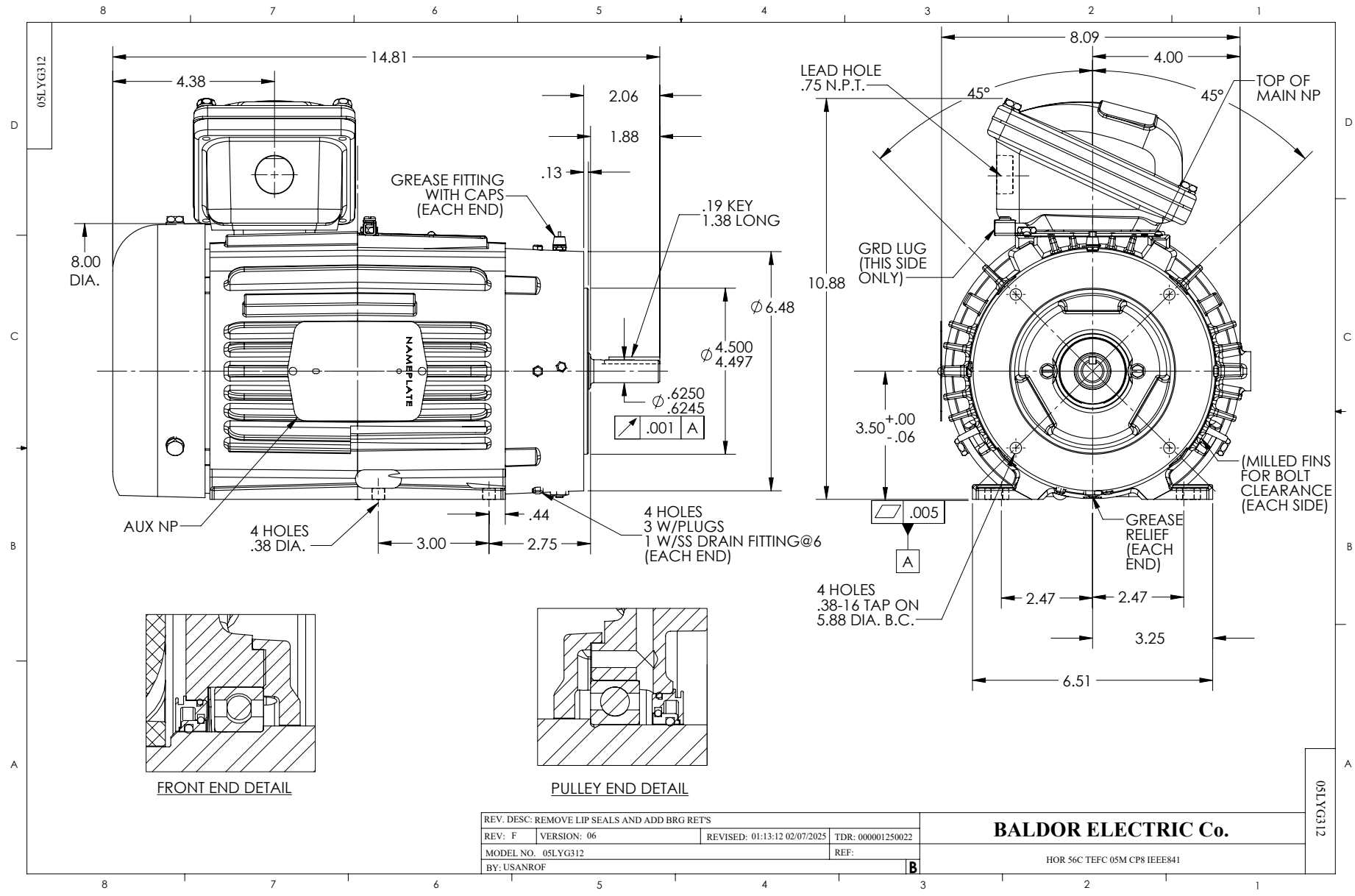
WINDING # 05WGX522

1 HP 3 PH 60 HZ 3500 RPM 460 V 0514M

Typical performance - not guaranteed values.

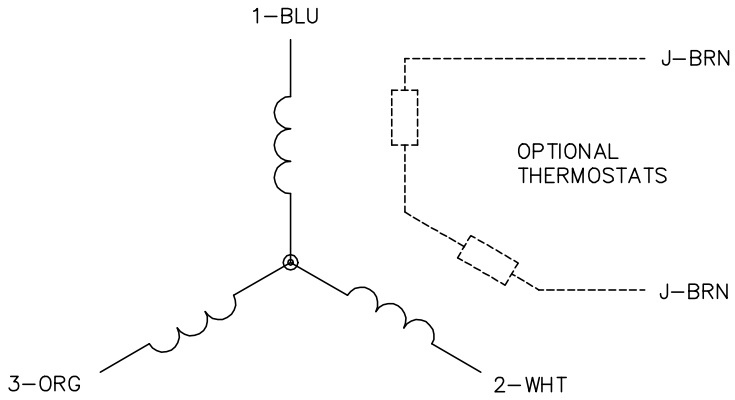
TORQUES(LB-FT): PO=6.4882 PU=15.1 LR=4.241 LRA=11.6507

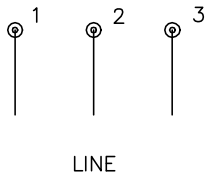



05LYG312
14.81
4.38
2.06
1.88
.13
GREASE FITTING WITH CAPS (EACH END)
.19 KEY 1.38 LONG
8.00 DIA.
NAMEPLATE
⌀6.48
⌀4.500 4.497
⌀.6250 .6245
.001 A
AUX NP
4 HOLES .38 DIA.
3.00
2.75
.44
4 HOLES 3 W/PLUGS 1 W/SS DRAIN FITTING@6 (EACH END)
8.09
4.00
LEAD HOLE .75 N.P.T.
45°
45°
TOP OF MAIN NP
GRD LUG (THIS SIDE ONLY)
10.88
3.50 +.00 -.06
.005
A
(MILLED FINS FOR BOLT CLEARANCE (EACH SIDE)
GREASE RELIEF (EACH END)
4 HOLES .38-16 TAP ON 5.88 DIA. B.C.
2.47
2.47
3.25
6.51
FRONT END DETAIL
PULLEY END DETAIL
REV. DESC: REMOVE LIP SEALS AND ADD BRG RET'S
REV: F
VERSION: 06
REVISED: 01:13:12 02/07/2025
TDR: 000001250022
MODEL NO. 05LYG312
REF:
BY: USANROF
B
BALDOR ELECTRIC Co.
HOR 56C TEFC 05M CP8 IEEE841
05LYG312

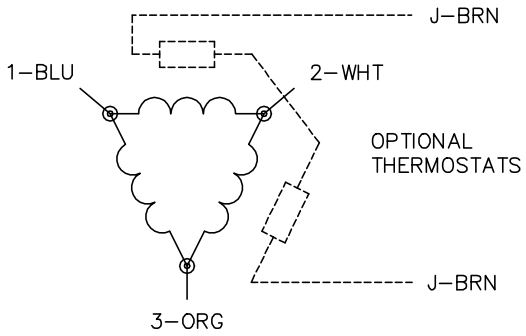
CD0006

TYPICAL WYE–CONNECTED MOTOR




TYPICAL DELTA–CONNECTED MOTOR




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: ENBRIR0 |
| MTL: – | | |

BALDOR - RELIANCE®

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

SH 1 of 1