



Customer information packet

EM4103T-58

25HP, 1475RPM, 3PH, 50HZ, 284T, 1056M, TEFC, F1

ELECTRIC MOTOR WHOLESALE.COM

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|---------------------------|
| Enclosure | TEFC |
| Frame | 284T |
| Frame Material | Iron |
| Frequency | 50.00 Hz |
| Output @ Frequency | 25.000 HP @ 50 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 1500 RPM @ 50 HZ |
| Voltage @ Frequency | 400.0 V @ 50 HZ |
| XP Class and Group | None |
| XP Division | Not Applicable |
| Agency Approvals | CE CSA UR WEEE |
| 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 |
| Current @ Voltage | 37.000 A @ 400.0 V |
| Design Code | A |
| Drip Cover | No Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 92.6 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Face Code | Standard |
| Front Shaft Indicator | None |
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 37.0 a |
| Insulation Class | F |

Part detail

| | |
|--------------|------------|
| Revision | K |
| Type | AC |
| Mech. spec. | 10C151 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 10WGZ391 |
| Layout | 10LYC151 |
| Eff. date | 09-02-2020 |
| CD Diagram | CD0382 |
| Poles | 04 |
| Leads | 6#8 |
| Proprietary | False |
| Created date | 03-31-2015 |

| | |
|-------------------------------|-----------------------|
| Inverter Code | Inverter Ready |
| KVA Code | H |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Motor Lead Exit | Ko Box |
| Motor Lead Quantity/Wire Size | 6 @ 8 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 1056M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 27.76 IN |
| Power Factor | 79 |
| Product Family | General Purpose |
| Pulley End Bearing Type | Ball |
| Pulley Face Code | Standard |
| Pulley Shaft Indicator | Standard |
| Rodent Screen | None |
| RoHS Status | ROHS COMPLIANT |
| Service Factor | 1.15 |
| Shaft Diameter | 1.875 IN |
| Shaft Extension Location | Pulley End |
| Shaft Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | Shaft Slinger |
| Speed | 1475 rpm |
| Speed Code | Single Speed |
| Starting Method | Wye Start - Delta Run |
| Thermal Device - Bearing | NONE (OLD) |
| Thermal Device - Winding | None |
| Vibration Sensor Indicator | No Vibration Sensor |
| Winding Thermal 1 | None |
| Winding Thermal 2 | None |

Nameplate

| NP3444L | | | | | | | | | |
|----------------------------------|------------------------|-----------------------|------------|------------|-----------|-------------|----|--|--|
| CAT NO | EM4103T-58 | | | | | | | | |
| SPEC. | 10C151Z391G1 | | | | | | | | |
| HP | 25 | | | | | PH | 3 | | |
| VOLTS | 400 | | | | | | | | |
| AMP | 37 | | | | | | | | |
| RPM | 1475 | | | | | | | | |
| FRAME | 284T | | HZ | 50 | | I.P. | 54 | | |
| SER.F. | 1.15 | CODE | H | DES | A | CL | F | | |
| NOM.EFF. | 92.6 | | | | | | | | |
| PF | 79 | USABLE AT 208V | | | | | | | |
| RATING | 40C AMB-CONT | | | | CC | | | | |
| DE BRG | 6311 | | ODE | 6309 | | | | | |
| ENCL | TEFC | SN | | | | | | | |
| VPWM INVERTER READY | | | | | | | | | |
| CT5-50(10:1)VT2.5-50(20:1 | | | | | | | | | |
| BLANK | IE3-92.6(75%)91.2(50%) | | | | | | | | |

Parts list

| Part number | Description | Quantity |
|-------------|------------------------------------------|----------|
| SA296034 | SA 10C151Z391G1 | 1.000 ea |
| RA282085 | RA 10C151Z391G1 | 1.000 ea |
| 10CB3000SP | KOBX, CAST W/2.00 LEAD HOLE | 1.000 ea |
| 09GS1000SP | 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 |
| HA4017A01 | 1/8 X 4 GREASE EXT (F/S) | 1.000 ea |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 ea |
| HW5100A11 | W3917-042 WVY WSHR (WB) | 1.000 ea |
| 10XN2520K32 | 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 |
| 10EP1105A01 | PU ENDPLATE | 1.000 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 | 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 |
| 10GS1000SP | GASKET, CONDUIT BOX LID | 1.000 ea |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 4.000 ea |
| HW4600B40 | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 ea |
| HW2501H28 | KEY, 1/2 SQ X 3.250 | 1.000 ea |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 ea |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 ea |
| HW4500A21 | 1618BALEMITE FITTING 825 UNIVERSAL | 1.000 ea |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 ea |

| | | |
|-------------|------------------------------------------|----------|
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 ea |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.130 lb |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 ea |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 ea |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 ea |
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 ea |
| 09FN3001C02 | EXTERNAL FAN, PLASTIC | 1.000 ea |
| HW2500A25 | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.125 ga |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 ea |
| LB1119N | WARNING LABEL | 1.000 ea |
| LC0382 | CONNECTION LABEL | 1.000 ea |
| NP3444L | ALUM SUPER-E VPWM INV READY NEMA IE3 UL | 1.000 ea |
| 10PA1000 | PACKAGING GROUP COMBINED PRINT PK1023A06 | 1.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 3/19 | 1.000 ea |
| FE-0000022 | ZRTG FE ASSEMBLY | 1.000 ea |
| LB1594 | MYLAR WEEE WHEELIE BIN SYMBOL FOR CE MOT | 1.000 ea |
| PE-0000013 | ZRTG PE ASSEMBLY | 1.000 ea |

AC Induction Motor Performance Data

Record # 49906

Typical performance - not guaranteed values

| Winding: 10WGZ391-R001 | | Type: 1056M | | Enclosure: TEFC | |
|-------------------------------|----------|----------------------------------|-----------------------------------------------|------------------------|--|
| Nameplate Data | | | 400 V, 50 Hz: Single Voltage Motor | | |
| Rated Output (HP) | 25 | Full Load Torque | 88.9 LB-FT | | |
| Volts | 400 | Start Configuration | direct on line | | |
| Full Load Amps | 37 | Breakdown Torque | 332 LB-FT | | |
| R.P.M. | 1475 | Pull-up Torque | 151 LB-FT | | |
| Hz | 50 | Locked-rotor Torque | 190 LB-FT | | |
| NEMA Design Code | A | Starting Current | 255 A | | |
| Service Factor (S.F.) | 1.15 | No-load Current | 18.1 A | | |
| NEMA Nom. Eff. | 92.6 | Line-line Res. @ 25°C | 0.221 Ω | | |
| Rating - Duty | 40C | Temp. Rise @ Rated Load | 64°C | | |
| S.F. Amps | AMB-CONT | Temp. Rise @ S.F. Load | 77°C | | |
| | | Locked-rotor Power Factor | 34.5 | | |
| | | Rotor inertia | 4.47 LB-FT ² | | |

Load Characteristics 400 V, 50 Hz, 25 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|------------------------|-----------|-----------|-----------|------------|------------|------------|-------------|
| Power Factor | 39 | 61 | 72 | 79 | 82 | 84 | 77 |
| Efficiency | 86.7 | 91.2 | 92.6 | 93 | 92.3 | 91.5 | 92.7 |
| Speed | 1493 | 1488 | 1483 | 1478 | 1471 | 1464 | 1475 |
| Line amperes | 19.8 | 24.1 | 30.2 | 36.7 | 44.4 | 53.7 | 43.1 |

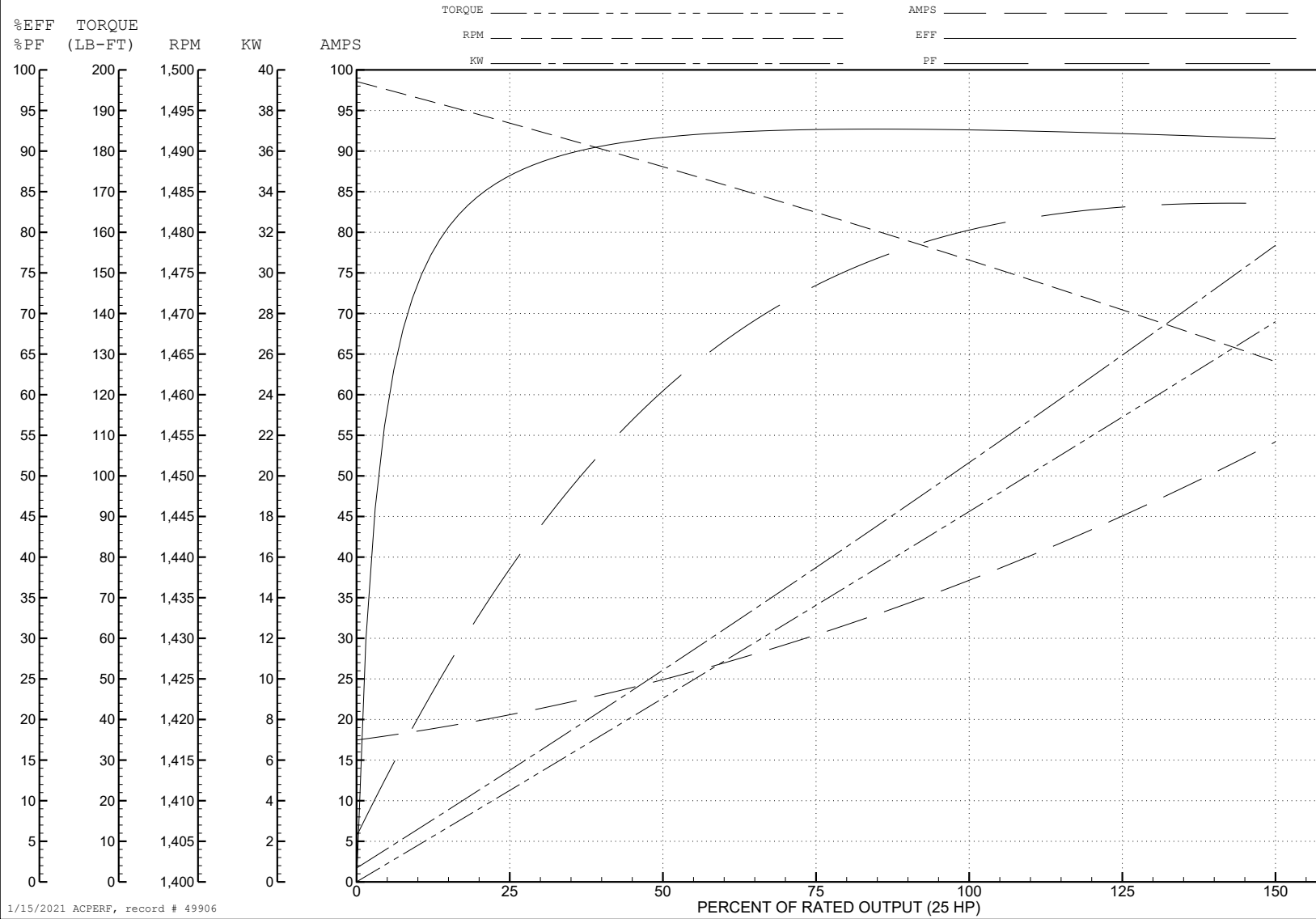
ABB Motors and Mechanical Inc.

WINDING # 10WGZ391

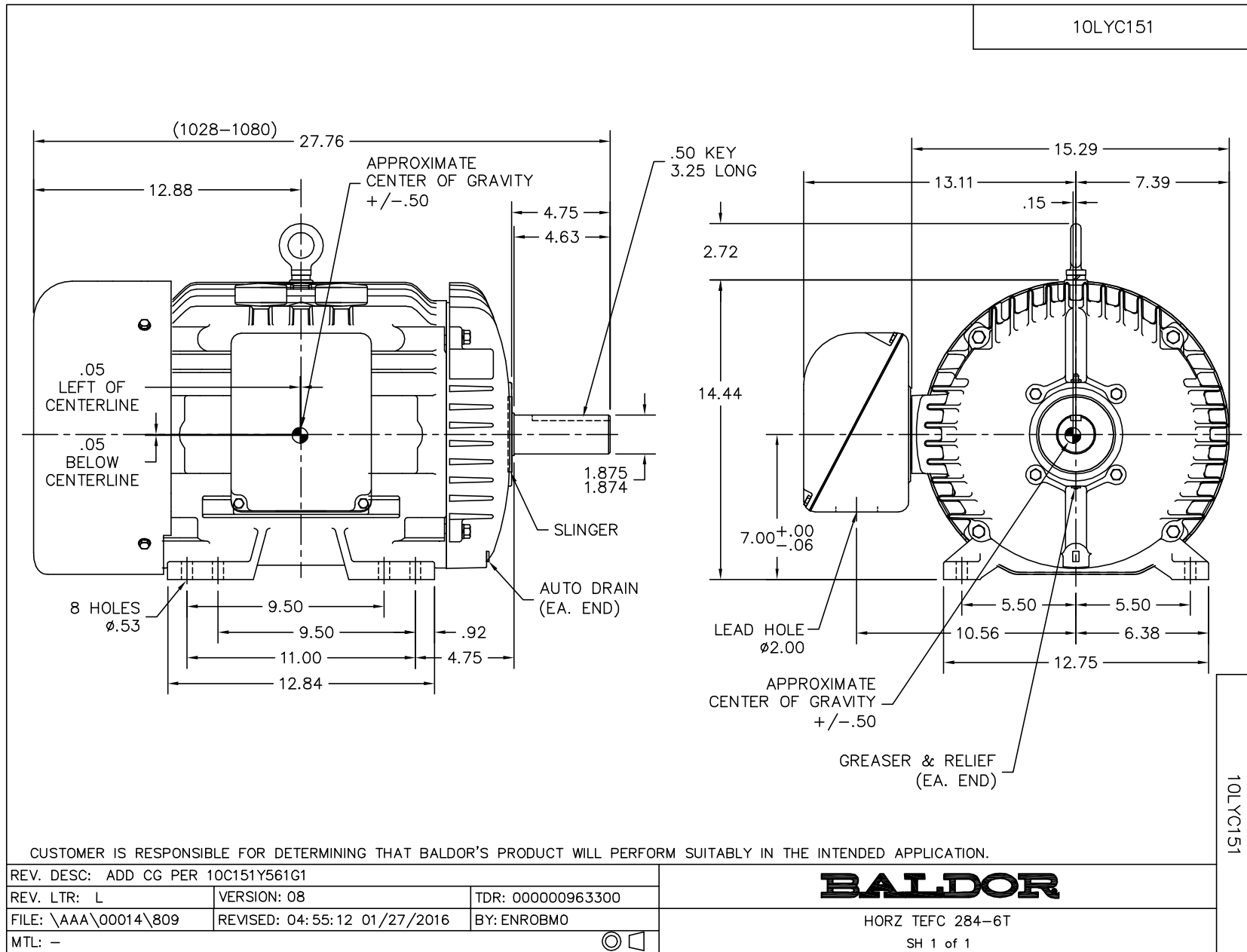
Typical performance - not guaranteed values.

25 HP 3 PH 50 HZ 1475 RPM 400 V 1056M

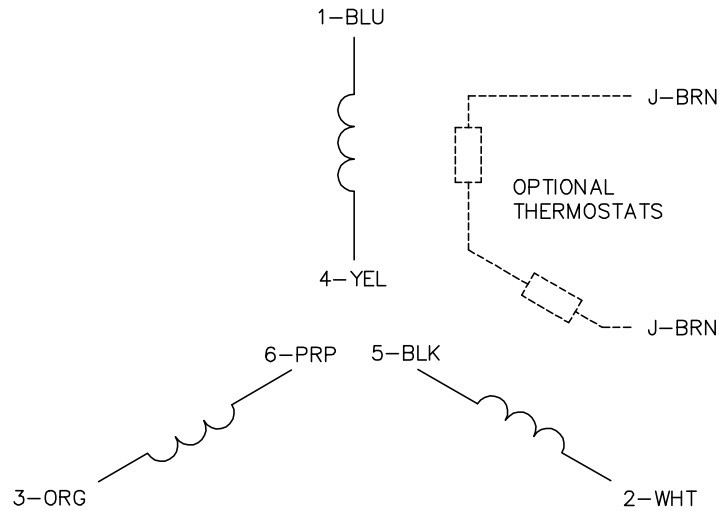
TORQUES (LB-FT): PO=332 PU=151 LR=190 LRA=255



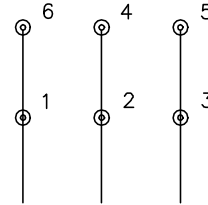
1/15/2021 ACPERF, record # 49906



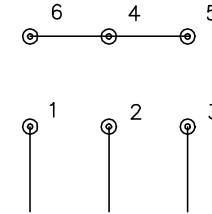
CD0382



RUN CONNECTION (1D)



START CONNECTION (1Y)



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.
5. FOR ACROSS-THE-LINE STARTING, USE 'RUN' CONNECTION.

CD0382

| | | |
|-----------------------------------|------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: F | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\243 | REVISED: 09:05:32 02/19/2019 | BY: ENBRIRO |
| MTL: - | © □ | |

BALDOR - RELIANCE®

3PH, SV, 6 LEADS, Y START/D RUN

SH 1 of 1