

BALDOR • RELIANCE

Customer information packet

VEM3311T

7.5HP, 1770RPM, 3PH, 60HZ, 213TC, 3734M, ODP, F

Class - None

Division - Not Applicable

Specifications

| | |
|--------------------------------|---|
| Enclosure | ODP |
| Frame | 213TC |
| Frame Material | Steel |
| Frequency | 60.00 Hz |
| Haz Area Class and Group | None |
| Haz Area Division | Not Applicable |
| Motor Letter Type | Three Phase |
| Output @ Frequency | 7.500 HP @ 60 HZ |
| Phase | 3 |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ |
| Voltage @ Frequency | 230.0 V @ 60 HZ 460.0 V @ 60 HZ |
| Agency Approvals | CSA EEV NEMA PREMIUM NEMA_PREMIUM UR |
| Ambient Temperature | 40 °C |
| Auxillary Box | No Auxillary Box |
| Auxillary Box Lead Termination | None |
| Base Indicator | No Mounting |
| Bearing Grease Type | Polyrex EM (-20F +300F) |
| Blower | None |
| Current @ Voltage | 9.800 A @ 460.0 V 20.600 A @ 208.0 V 19.600 A @ 230.0 V |
| Design Code | A |
| Drip Cover | Drip Cover |
| Duty Rating | CONT |
| Efficiency @ 100% Load | 91.0 % |
| Electrically Isolated Bearing | Not Electrically Isolated |
| Feedback Device | NO FEEDBACK |
| Front Shaft Indicator | None |

Part detail

| | |
|--------------|------------|
| Revision | D |
| Type | AC |
| Mech. spec. | 37K446 |
| Base | |
| Status | PRD/A |
| Elec. spec. | 37WGL863 |
| Layout | 37LYK446 |
| Eff. date | 06-11-2024 |
| CD Diagram | CD0005 |
| Poles | 04 |
| Leads | 9#14 |
| Proprietary | False |
| Created date | 01-29-2021 |

| | |
|-------------------------------|-----------------------|
| Heater Indicator | No Heater |
| High Voltage Full Load Amps | 9.8 a |
| Insulation Class | F |
| Inverter Code | Inverter Ready |
| KVA Code | J |
| Lifting Lugs | Standard Lifting Lugs |
| Locked Bearing Indicator | Locked Bearing |
| Motor Lead Quantity/Wire Size | 9 @ 14 AWG |
| Motor Lead Termination | Flying Leads |
| Motor Standards | NEMA |
| Motor Type | 3734M |
| Mounting Arrangement | F1 |
| Number of Poles | 4 |
| Overall Length | 18.91 IN |
| Power Factor | 79 |
| Product Family | General Purpose |
| 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 Ground Indicator | No Shaft Grounding |
| Shaft Rotation | Reversible |
| Shaft Slinger Indicator | No Slinger |
| Speed | 1770 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

| NP3553LUA | | | | | | | | | |
|----------------------------------|--------------------------------|-------------|------|------------|---|--------------|---|-------|--|
| CAT.NO. | VEM3311T | | | | | | | | |
| SPEC. | 37K446L863G1 | | | | | | | | |
| HP | 7.5 | | | | | | | | |
| VOLTS | 230/460 | | | | | | | | |
| AMPS | 19.6/9.8 | | | | | | | | |
| RPM | 1770 | | | | | | | | |
| FRAME | 213TC | HZ | 60 | PH | 3 | | | | |
| SF | 1.15 | CODE | J | DES | A | CLASS | F | | |
| NEMA NOM. EFF | 91 | PF | 79 | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | |
| CC | 010A | | | | | | | | |
| ENCL | ODP | SN | | | | | | | |
| DE | 6307 | ODE | 6206 | | | | | | |
| VPWM INVERTER READY | | | | | | | | | |
| CT30-60(2:1) VT3-60(20:1) | | | | | | | | | |
| USABLE AT | 50HZ 7.5HP 190/380V 23.2/11.6A | | | | | | | SF1.0 | |

Parts list

| Part number | Description | Quantity |
|---------------|--|----------|
| SA390855 | SA 37K446L863G1 | 1.000 ea |
| RA381323 | RA 37K446L863G1 | 1.000 ea |
| HW3200A01 | 3/8-16X3/4 EYEBOLT WELDED F/S | 1.000 ea |
| 37CB3006 | 37 CB CASTING W/1.38 LEAD HOLE @ 6:00 | 1.000 ea |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 ea |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 37EP3203A01 | A00 W/FH MTG | 1.000 ea |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 ea |
| HW5100A06 | W2420-025 WVY WSHR (WB) | 1.000 ea |
| 37EP3400A02 | FACE MT EP-OPEN-307 BRG-213-215TC W/BAFF | 1.000 ea |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 ea |
| 37AD2000A01 | BAFFLE PLATE, STAMPED PLATED | 1.000 ea |
| 60XW0632A06 | 6-32 X 3/8 TORX HEAD SCREW TAPTITE II | 4.000 ea |
| 10XN2520A28 | 1/4-20X 1 3/4 HEX HD | 4.000 ea |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 4.000 ea |
| XY3118A12 | 5/16-18 HEX NUT DIRECTIONAL SERRATION | 4.000 ea |
| 37FH4000A05SP | DRIP COVER, W/ PRIMER | 1.000 ea |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 ea |
| 37CB4516 | LIPPED LID FOR 37 FRAME NEC KOBX | 1.000 ea |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 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 |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 ea |
| MJ1000A02 | GREASE, POLYREX EM EXXON | 0.050 lb |
| MG1050Y01 | CELEROL BALDOR GOLD *** NLA IN 5 GALLON | 0.028 ga |
| HA3104A14 | THRUBOLT- 5/16-18 X12.125(OHIO) | 4.000 ea |
| LC0005 | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING | 1.000 ea |
| NP3553LUA | ALUM SUPER-E VPWM INV READY UL CC NEMA P | 1.000 ea |
| 37PA1074 | PALLET PACK GRP, PRINT BOX PK1026A06 | 1.000 ea |
| PK3082 | STYROFOAM CRADLE | 1.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2500bx)4/22 | 1.000 ea |

AC Induction Motor Performance Data

Record # 85452

Preliminary Data Sheet

| Winding: 37WGL863-R001 | | Type: 3734M | Enclosure: OPSB | |
|------------------------|-----------------|---------------------|--|--------------------------|
| Nameplate Data | | | 460 V, 60 Hz: High Voltage Connection | |
| Rated Output (HP) | 7.5 | Full Load Torque | 22.2 LB-FT | |
| Volts | 230/460 | Start Configuration | direct on line | |
| Full Load Amps | 19.6/9.8 | Breakdown Torque | 74.8 LB-FT | |
| R.P.M. | 1770 | Pull-up Torque | 37.1 LB-FT | |
| Hz | 60 Phase | 3 | Locked-rotor Torque | 45.4 LB-FT |
| NEMA Design Code | A KVA Code | J | Starting Current | 72 A |
| Service Factor (S.F.) | | 1.15 | No-load Current | 4.87 A |
| NEMA Nom. Eff. | 91 Power Factor | 79 | Line-line Res. @ 25°C | 1.67 Ω |
| Rating - Duty | 40C AMB-CONT | | Temp. Rise @ Rated Load | 35°C |
| S.F. Amps | 22.0/11.0 | | Temp. Rise @ S.F. Load | 47°C |
| | | | Locked-rotor Power Factor | 45.8 |
| | | | Rotor inertia | 0.836 lb-ft ² |

Load Characteristics 460 V, 60 Hz, 7.5 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 39 | 60 | 73 | 79 | 82 | 83 | 81 |
| Efficiency | 85 | 90.1 | 91.1 | 90.9 | 90.1 | 89 | 90.3 |
| Speed | 1793 | 1786 | 1779 | 1772 | 1764 | 1755 | 1766 |
| Line amperes | 5.34 | 6.47 | 7.99 | 9.87 | 11.9 | 14.2 | 11.1 |

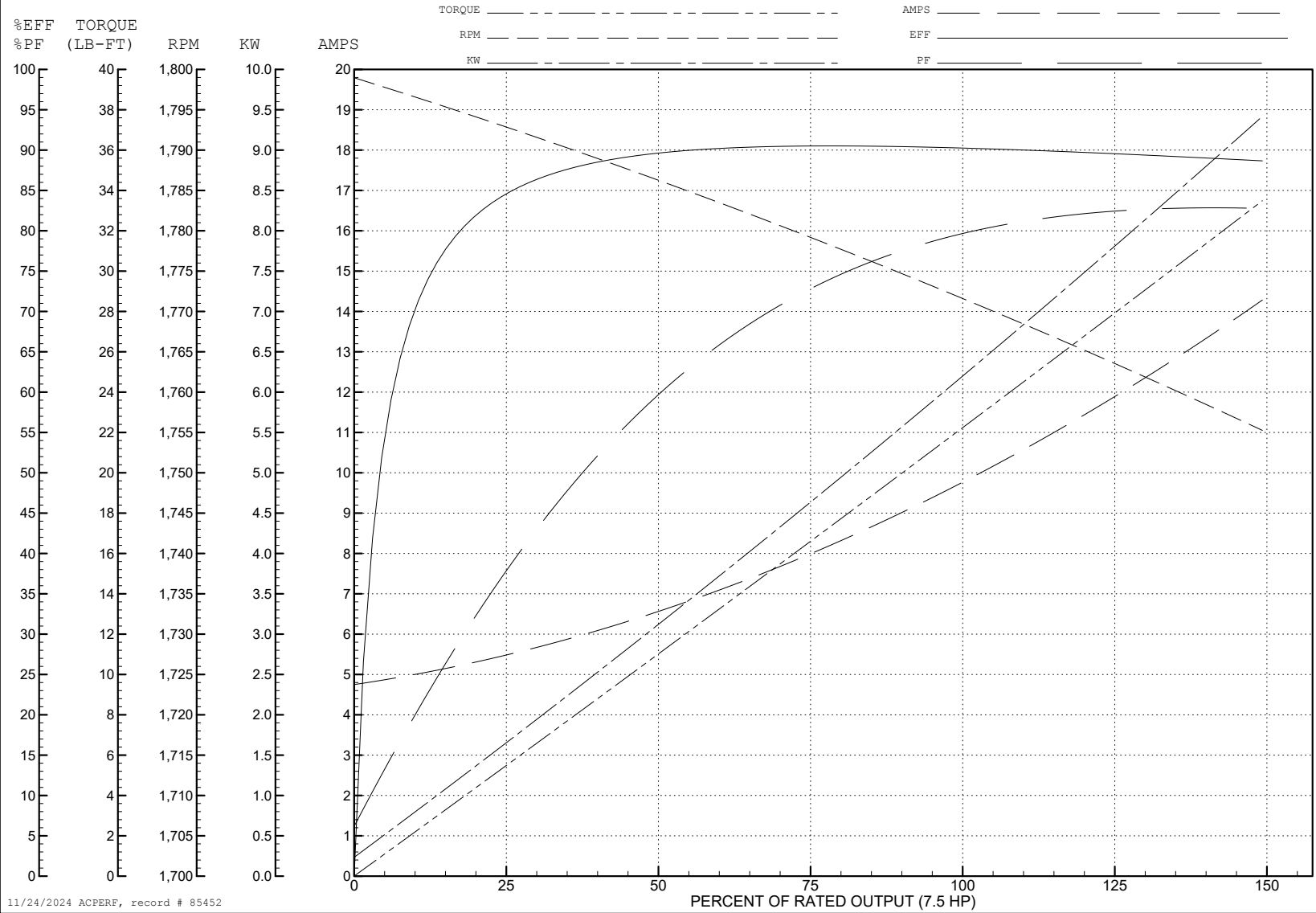
ABB Motors and Mechanical Inc.

WINDING # 37WGL863

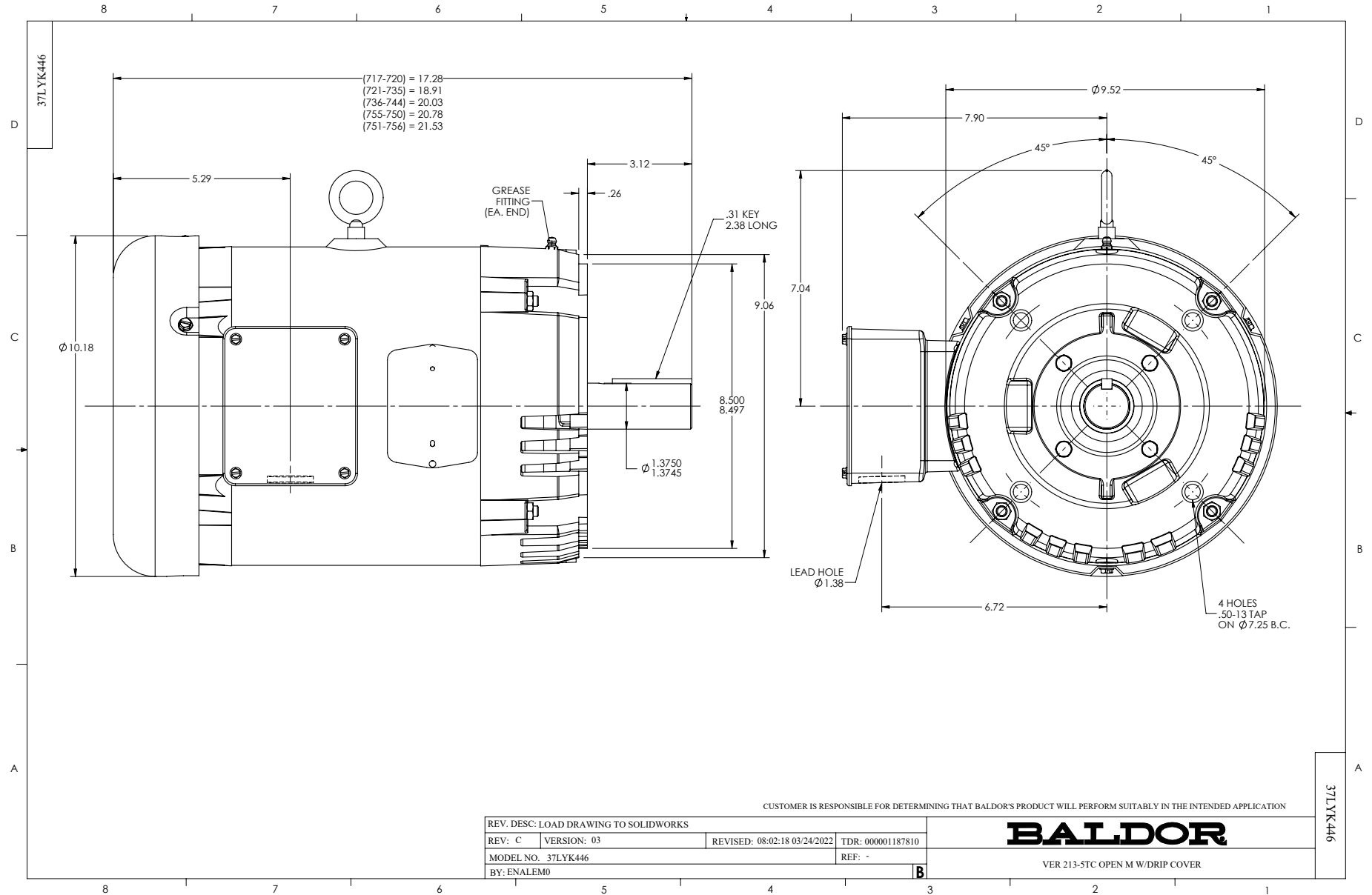
Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3734M

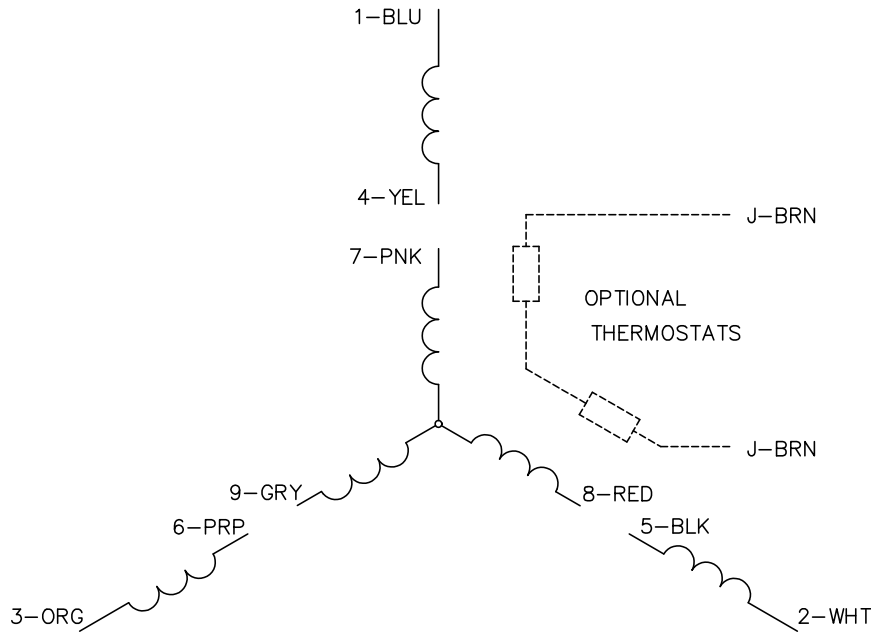
TORQUES (LB-FT): PO=74.8 PU=37.1 LR=45.4 LRA=72



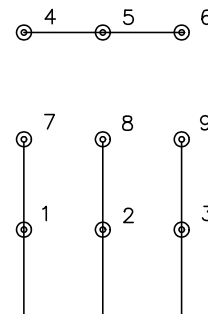
11/24/2024 ACPERF, record # 85452



CD0005



LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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.

| | | | |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| S00000 | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005