ABB BALDOR RELIANCE

# Customer information packet

## EWDM4112T

20HP, 880RPM, 3PH, 60HZ, 324T, 1256M, TEFC, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 324T |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 20.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 900 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 |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | Rigid |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Current @ Voltage** | 62.000 A @ 208.0 V |
| | 60.000 A @ 230.0 V |
| | 30.000 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 90.2 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |

## Part Detail

| | |
|---|---|
| **Revision** | B |
| **Type** | AC |
| **Mech. spec.** | 12P064 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 12WGZ306 |
| **Layout** | 12LYP064 |
| **Eff. date** | 02-14-2024 |
| **CD Diagram** | CD0005 |
| **Poles** | 08 |
| **Leads** | 9#10 |
| **Proprietary** | False |
| **Created date** | 04-18-2023 |

| | |
|---|---|
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 30.0 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | G |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Quantity/Wire Size** | 9 @ 10 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 1256M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 8 |
| **Overall Length** | 30.28 IN |
| **Power Factor** | 68 |
| **Product Family** | Washdown Features |
| **Pulley End Bearing Type** | Sealed Bearing |
| **Pulley Face Code** | Standard |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 2.125 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | Shaft Slinger |
| **Speed** | 880 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**

| NP1669L | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | EWDM4112T | | | | | | | |
| **SPEC.** | 12P064Z306 | | | | | | | |
| **HP** | 20 | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | |
| **AMP** | 60/30 | | | | | | | |
| **RPM** | 880 | | | | | | | |
| **FRAME** | 324T | **HZ** | 60 | | | **PH** | 3 | |
| **SER.F.** | 1.15 | **CODE** | G | **DES** | B | **CLASS** | F | |
| **NEMA-NOM-EFF** | 90.2 | **PF** | 68 | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | |
| **CC** | 010A | | | | | | | |
| **DE** | 6312 | **ODE** | 6311 | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | |
| **BLANK** | 10:1 CT/VT | | | | | | | |

**Parts List**

| Part number | Description | Quantity |
|---|---|---|
| SA413523 | SA 12P064Z306 | 1.000 ea |
| RA405236 | RA 12P064Z306 | 1.000 ea |
| 10FN3001A02 | 310 FAN, PLASTIC 2.000 DIA. BORE | 1.000 ea |
| 10CB1000A203P | KOBX W/2.00 NPT & .31 GND MTG, EPOXY PRI | 1.000 ea |
| 09GS1010 | GASKET, DWG, LEADWIRE SEPERATOR | 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 |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 1.000 ea |
| 12EP1107A12WP | FREP TENV 324-6T NO GREASERS W/WHITE EPO | 1.000 ea |
| HA3400S08 | STUD 1/2-13X7.75 HEX SS WELKER | 4.000 ea |
| HW5100A13 | W4627-047 WVY WSHER | 1.000 ea |
| HW4600B40 | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 ea |
| 12EP1106A12P | PU ENDPLATE, MACH W/EPOXY PRIMER (NO GRE | 1.000 ea |
| 10XN3118S40 | 5/16-18X2 1/2 HEX HD SS | 4.000 ea |
| 10XN5013S28 | 1/2-13X1 3/4 HEX SS CAP | 4.000 ea |
| 12FH1002WP | FAN COVER, W/WHITE EPOXY, PRIMED CASTING | 1.000 ea |
| XY5013S12 | 1/2-13 HEX R.H. NUT ST.S | 4.000 ea |
| HW1001S50 | WASHER, 1/2 SPLT LK, STAINLESS STEEL | 4.000 ea |
| 10CB1500P | CONDUIT BOX LID, CAST W/EPOXY PRIMER | 1.000 ea |
| 14GS1003 | GASKET CONDUIT BOX LID, NEOP | 1.000 ea |
| 10XN2520S12 | BOLT 1/4 - 20X 3/4 HEX HEAD SS (F/S) | 4.000 ea |
| HW1001S25 | WASHER, 1/4 SPLT LK, STAINLESS STEEL | 4.000 ea |
| HW4600B34 | SINGLE LIP SEAL 2.250 X 2.997 X .438,DBL | 1.000 ea |
| HW4600B41 | V-RING SLINGER 2.125 X 2.880 X 0.280 | 1.000 ea |
| HW2502H33 | #303 SS,SQ KEY 1/2 X 3.875 | 1.000 ea |
| MJ5001A27 | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL | 0.031 qt |
| HA4001A01SP | DRAIN PLUG, PLASTIC (MICRO PLAS) | 1.000 ea |
| MJ1000A02 | GREASE, POLYREX EM EXXON | 0.200 lb |
| HA4001A01SP | DRAIN PLUG, PLASTIC (MICRO PLAS) | 1.000 ea |

| | | |
|---|---|---|
| HW2500A25 | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB | 1.000 ea |
| MG1025W01 | WILKOFAST, 781.01, SIGNAL WHITE #9003 | 0.125 ga |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 4.000 ea |
| LC0005E01 | SPL CONN.DIA./WARN.LABEL(LC0005/LB1119) | 1.000 ea |
| NP1669L | SS WD SUPER-E UL PREM REV MTG | 1.000 ea |
| 12PA1000 | PACKAGING GROUP PRINT PK1024A08 | 1.000 ea |
| LB1624 | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2500 bx)11/25 | 1.000 ea |

**AC Induction Motor Performance Data**
Record # 92443
Typical performance - not guaranteed values

| **Winding:** 12WGZ306-R001 | **Type:** 1256M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 20 | **Full Load Torque** | 119 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 60/30 | **Breakdown Torque** | 278 LB-FT |
| **R.P.M.** | | | 880 | **Pull-up Torque** | 156 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 164 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | G | **Starting Current** | 141 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 17.47 A |
| **NEMA Nom. Eff.** | 90.2 | **Power Factor** | 68 | **Line-line Res. @ 25ºC** | 0.37 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 56°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 68°C |
| | | | | **Locked-rotor Power Factor** | 34 |
| | | | | **Rotor inertia** | 7.46 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 20 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 30 | 49 | 61 | 68 | 72 | 73 | 68 |
| **Efficiency** | 85 | 90.1 | 91 | 90.7 | 89.9 | 88.5 | 90.4 |
| **Speed** | 894 | 890 | 885 | 881 | 875 | 868 | 878 |
| **Line amperes** | 18.32 | 20.94 | 25.08 | 30.17 | 36.38 | 43.47 | 34.9 |

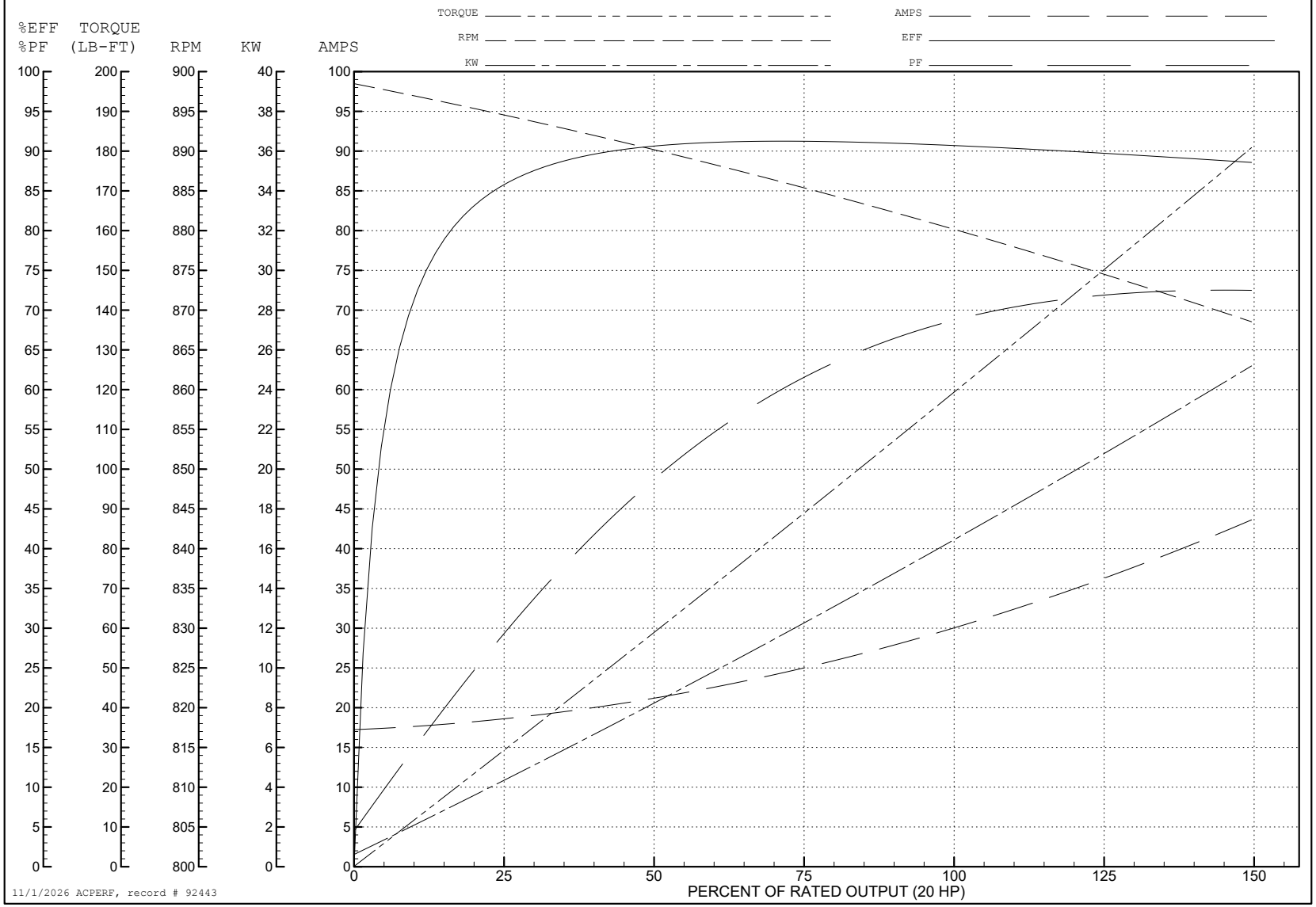
ABB Motors and Mechanical Inc.

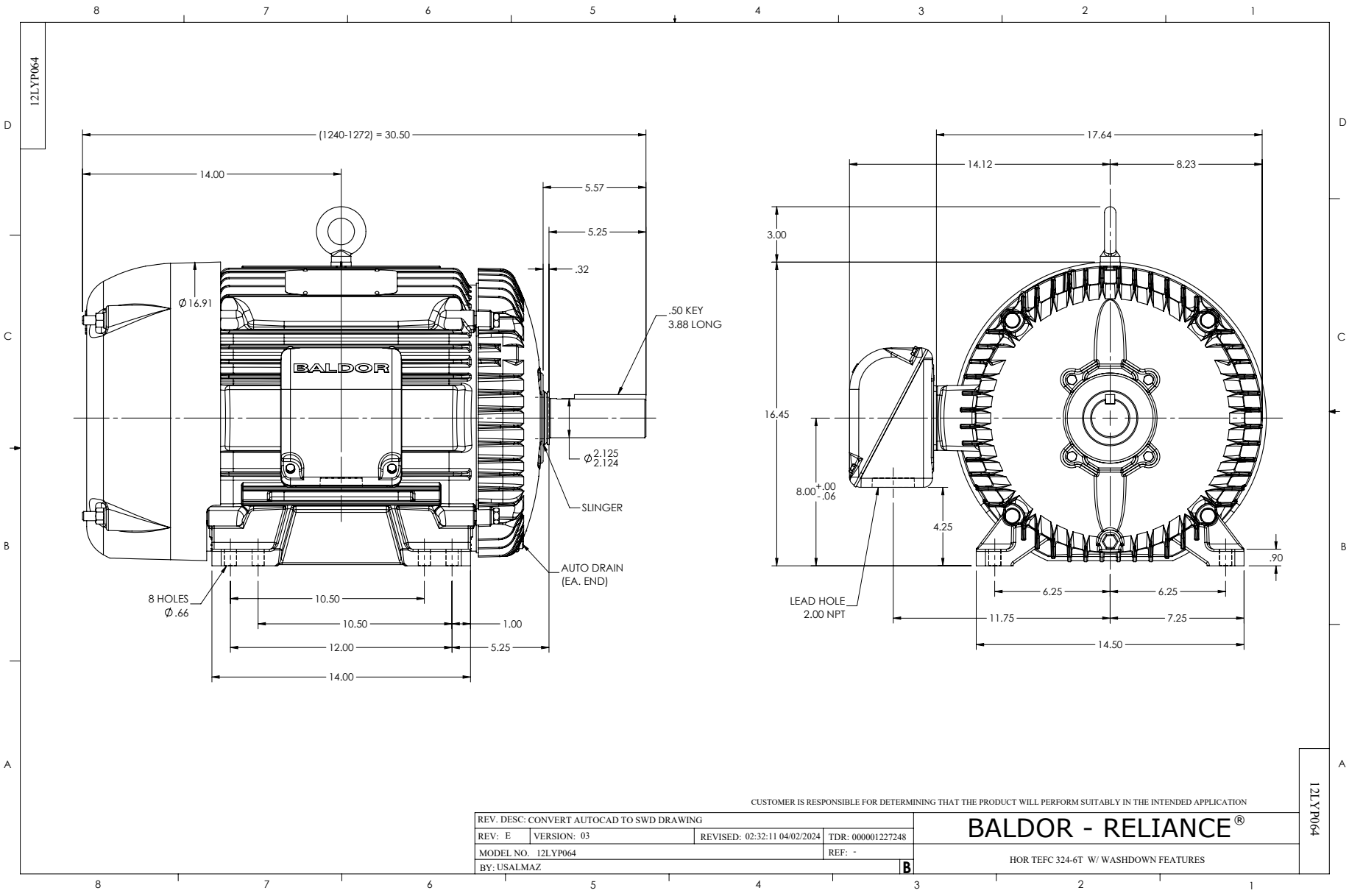
WINDING # 12WGZ306

20 HP 3 PH 60 HZ 880 RPM 460 V 1256M

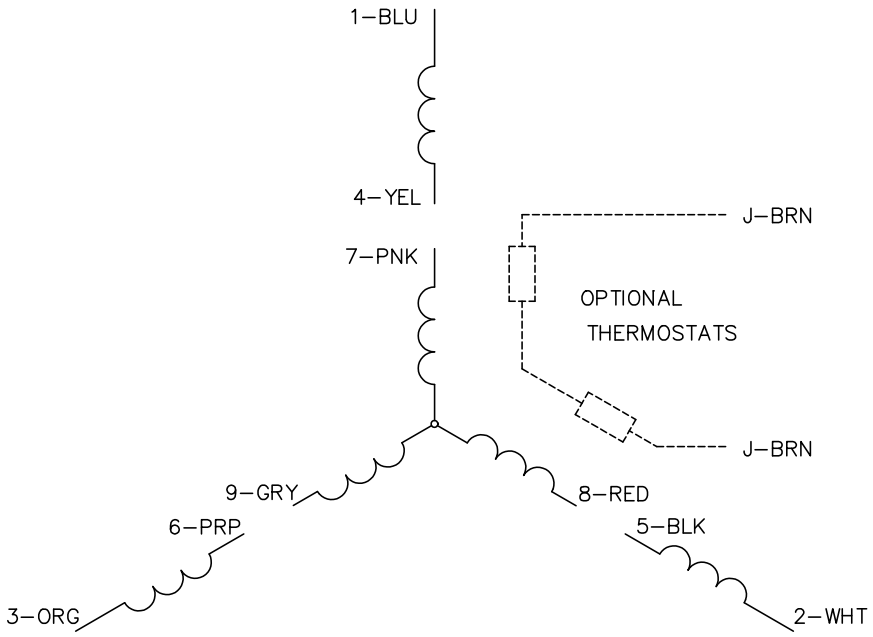
Typical performance - not guaranteed values.

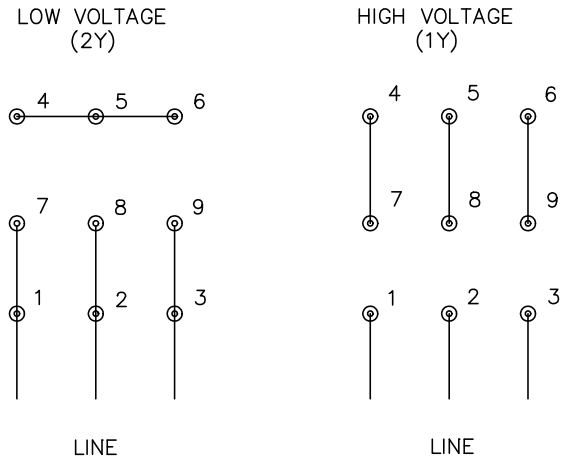
TORQUES(LB-FT): PO=278 PU=156 LR=164 LRA=141




12LYP064
(1240-1272) = 30.50
14.00
5.57
5.25
.32
Ø16.91
.50 KEY
3.88 LONG
BALDOR
Ø2.125
2.124
SLINGER
AUTO DRAIN
(EA. END)
8 HOLES
Ø.66
10.50
10.50
1.00
12.00
5.25
14.00
17.64
14.12
8.23
3.00
16.45
8.00 +.00 -.06
4.25
.90
LEAD HOLE
2.00 NPT
6.25
6.25
11.75
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD TO SWD DRAWING
REV: E
VERSION: 03
REVISED: 02:32:11 04/02/2024
TDR: 000001227248
MODEL NO. 12LYP064
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
HOR TEFC 324-6T W/ WASHDOWN FEATURES
12LYP064

CD0005




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.

CD0005

| | | | |
|---|---|---|---|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | BALDOR ELECTRIC Co. |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| CD0005 | | FILE: AAA00005140 | MDL: – |
| | | MTL: – | 3PH, DV, 9 LEADS |