ABB BALDOR RELIANCE

# Customer information packet

## EWDM4102T

20HP, 1175RPM, 3PH, 60HZ, 286T, TEFC, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 286T |
| **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** | 1200 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | CSA EEV |
| | 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** | 52.000 A @ 230.0 V |
| | 26.000 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 91.7 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Enclosure Modification** | Severe Duty Features |
| **Feedback Device** | NO FEEDBACK |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 26.0 a |

## Part Detail

| | |
|---|---|
| **Revision** | J |
| **Type** | AC |
| **Mech. spec.** | |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 10WGZ467 |
| **Layout** | 10LYN057 |
| **Eff. date** | 02-14-2024 |
| **CD Diagram** | CD0180 |
| **Poles** | 06 |
| **Leads** | 9#10 |
| **Proprietary** | False |
| **Created date** | 08-19-2019 |

| | |
|---|---|
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |
| **IP Rating** | IP55 |
| **KVA Code** | G |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 1800 rpm |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 1056M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 6 |
| **Overall Length** | 27.56 IN |
| **Power Factor** | 78 |
| **Product Family** | Washdown Features |
| **Pulley Face Code** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 1.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Speed** | 1175 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.** | EWDM4102T | | | | | | | | |
| **SPEC.** | 10-0000-1005 | | | | | | | | |
| **HP** | 20 | | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | | |
| **AMP** | 52/26 | | | | | | | | |
| **RPM** | 1175 | | | | | | | | |
| **FRAME** | 286T | **HZ** | 60 | | | **PH** | 3 | | |
| **SER.F.** | 1.15 | **CODE** | G | **DES** | B | **CLASS** | F | | |
| **NEMA-NOM-EFF** | 91.7 | **PF** | 78 | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **CC** | 010A | | | | | | | | |
| **DE** | 6311 | **ODE** | 6309 | | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | | |
| **BLANK** | 20:1 VT/CT @ 1.00SF | | | | | | | | |

**Parts List**

| Part number | Description | Quantity |
|---|---|---|
| SA373159 | SA 10-0000-1005 | 1.000 ea |
| RA362943 | RA 10-0000-1005 | 1.000 ea |
| LB1624 | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0181 | CONNECTION LABEL | 1.000 ea |
| NP1669L | SS WD SUPER-E UL PREM REV MTG | 1.000 ea |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2500 bx)11/25 | 1.000 ea |
| 10FH1007WP | FAN COVER, W/WHITE EPOXY, PRIMED CASTING | 1.000 ea |
| HW1001S31 | WASHER, 5/16 SPLT LK, STAINLESS STEEL | 3.000 ea |
| 10XN3118S24 | 5/16-18 X 1 1/2 HEX HD SS | 3.000 ea |
| 09FN3001C02 | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 ea |
| HW2500A25 | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 ea |
| MJ1000A02 | GREASE, POLYREX EM EXXON | 0.130 lb |
| WD4100A02 | DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL | 1.000 ea |
| 10EP1104A61WP | FREP, MACH W/O GRSRS & RET HLS W/WHITE E | 1.000 ea |
| 10XN3816S28 | 3/8-16 X 1 3/4 HEX HD CAP SCREW, STAINLE | 4.000 ea |
| HW1001S38 | WASHER, 3/8 SPLT LK, STAINLESS STEEL | 4.000 ea |
| HW4600B67 | V-RING SLINGER 1.770 X 2.170 X .28 VITON | 1.000 ea |
| HW5100A11 | W3917-042 WVY WSHR (WB) | 1.000 ea |
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 ea |
| 10EP1105A11P | MACH. - W/ SEAL, NO GRSRS. - EPOXY PRIME | 1.000 ea |
| HW1001S38 | WASHER, 3/8 SPLT LK, STAINLESS STEEL | 4.000 ea |
| 10XN3816S28 | 3/8-16 X 1 3/4 HEX HD CAP SCREW, STAINLE | 4.000 ea |
| HW4600B40 | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 ea |
| HW4600A53 | SEAL 2.00 X 3.00 X 0.313 SINGLE LIP | 1.000 ea |
| 10XN3118S40 | 5/16-18X2 1/2 HEX HD SS | 4.000 ea |
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 ea |
| 10CB3000A05P | SPL CO BOX MACH. W/2" PIPE TAP, EPOXY PR | 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 |
| 10CB3500P | CONDUIT BOX LID, CAST - EPOXY PRIMED | 1.000 ea |
| 10GS1000A01 | CONDUIT BOX LID GASKET NEOPRENE | 1.000 ea |
| 19XT2520S12 | 1/4-20X3/4 HWH NO SLOT TY.23 18-8 S.S. | 4.000 ea |
| HW1001S25 | WASHER, 1/4 SPLT LK, STAINLESS STEEL | 4.000 ea |
| MG1025W01 | WILKOFAST, 781.01, SIGNAL WHITE #9003 | 0.125 ga |
| MJ5001A27 | 32220KN GRAY SEALER *MIN BUY 4 QTS=1GAL | 0.031 qt |
| MJ5002A01 | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.033 ea |
| MJ5002A01 | SILICON RUBBER SEALANT, 732CL 10.3 OZ TU | 0.025 ea |
| 10PA1000 | PACKAGING GROUP COMBINED PRINT PK1023A07 | 1.000 ea |
| HW2502H28 | #303 SS,SQ KEY 1/2 X 3.250 | 1.000 ea |
| 51XB1214S20 | 12-14X1.25 HXWSSLD SERTYB, SS | 1.000 ea |

**AC Induction Motor Performance Data**
Record # 59571
Typical performance - not guaranteed values

| **Winding:** 10WGZ467-R003 | **Type:** 1056M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | **460 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|
| **Rated Output (HP)** | | 20 | **Full Load Torque** | 89.1 LB-FT |
| **Volts** | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | 52/26 | **Breakdown Torque** | 236 LB-FT |
| **R.P.M.** | | 1175 | **Pull-up Torque** | 95.1 LB-FT |
| **Hz** | 60 **Phase** | 3 | **Locked-rotor Torque** | 137 LB-FT |
| **NEMA Design Code** | B **KVA Code** | G | **Starting Current** | 143 A |
| **Service Factor (S.F.)** | | 1.15 | **No-load Current** | 11.6 A |
| **NEMA Nom. Eff.** | 91.7 **Power Factor** | 78 | **Line-line Res. @ 25ºC** | 0.47101 Ω |
| **Rating - Duty** | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 63°C |
| **S.F. Amps** | | | **Temp. Rise @ S.F. Load** | 79°C |
| | | | **Locked-rotor Power Factor** | 31.8 |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 41 | 63 | 73 | 78 | 80 | 80 | 79 |
| **Efficiency** | 88.6 | 92.1 | 92.5 | 91.9 | 90.8 | 89.2 | 91.2 |
| **Speed** | 1194.6 | 1189.1 | 1183.8 | 1177.1 | 1169.8 | 1160.7 | 1173 |
| **Line amperes** | 13.1 | 16.4 | 20.7 | 26.1 | 32 | 39.1 | 29.6 |

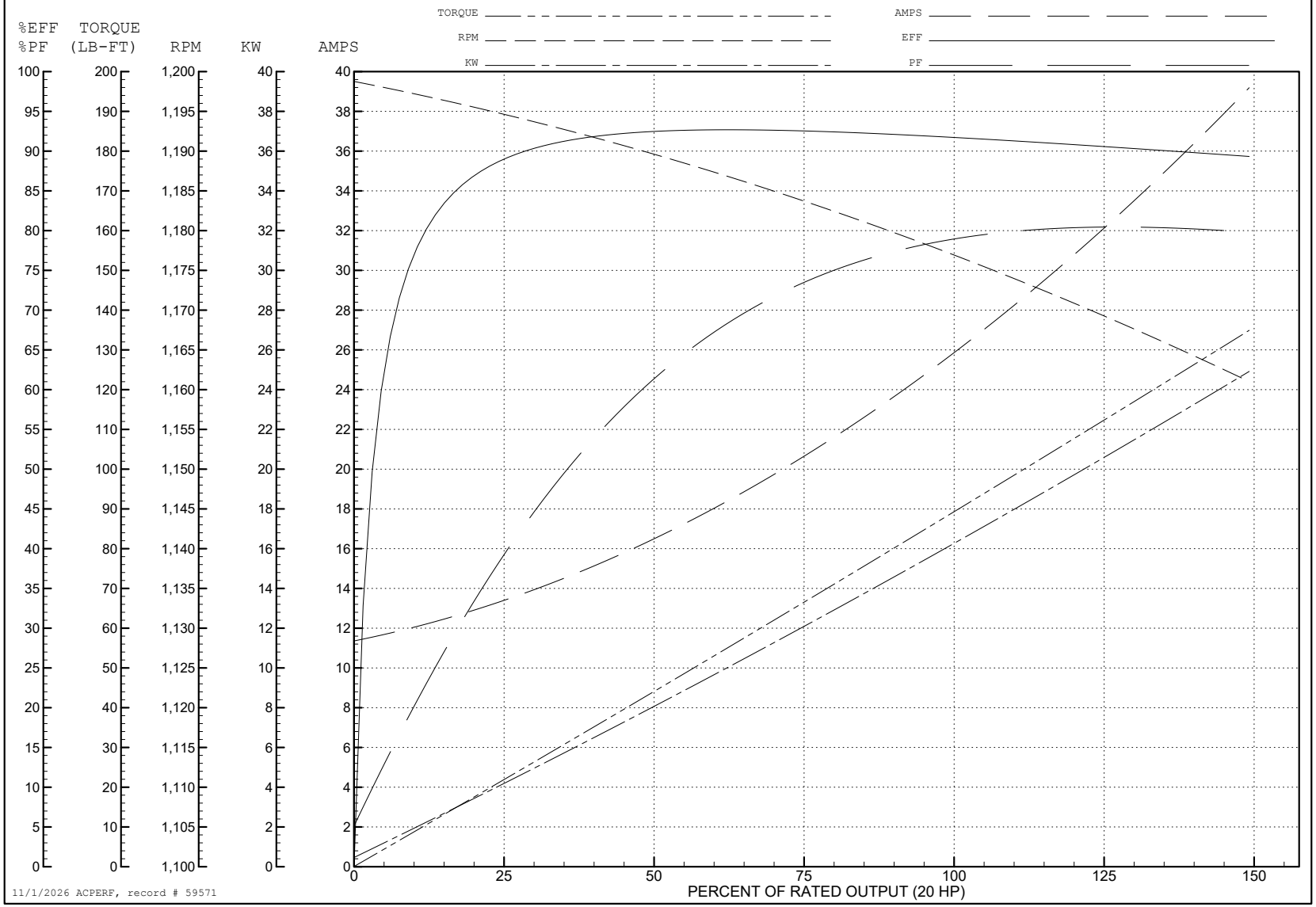
ABB Motors and Mechanical Inc.

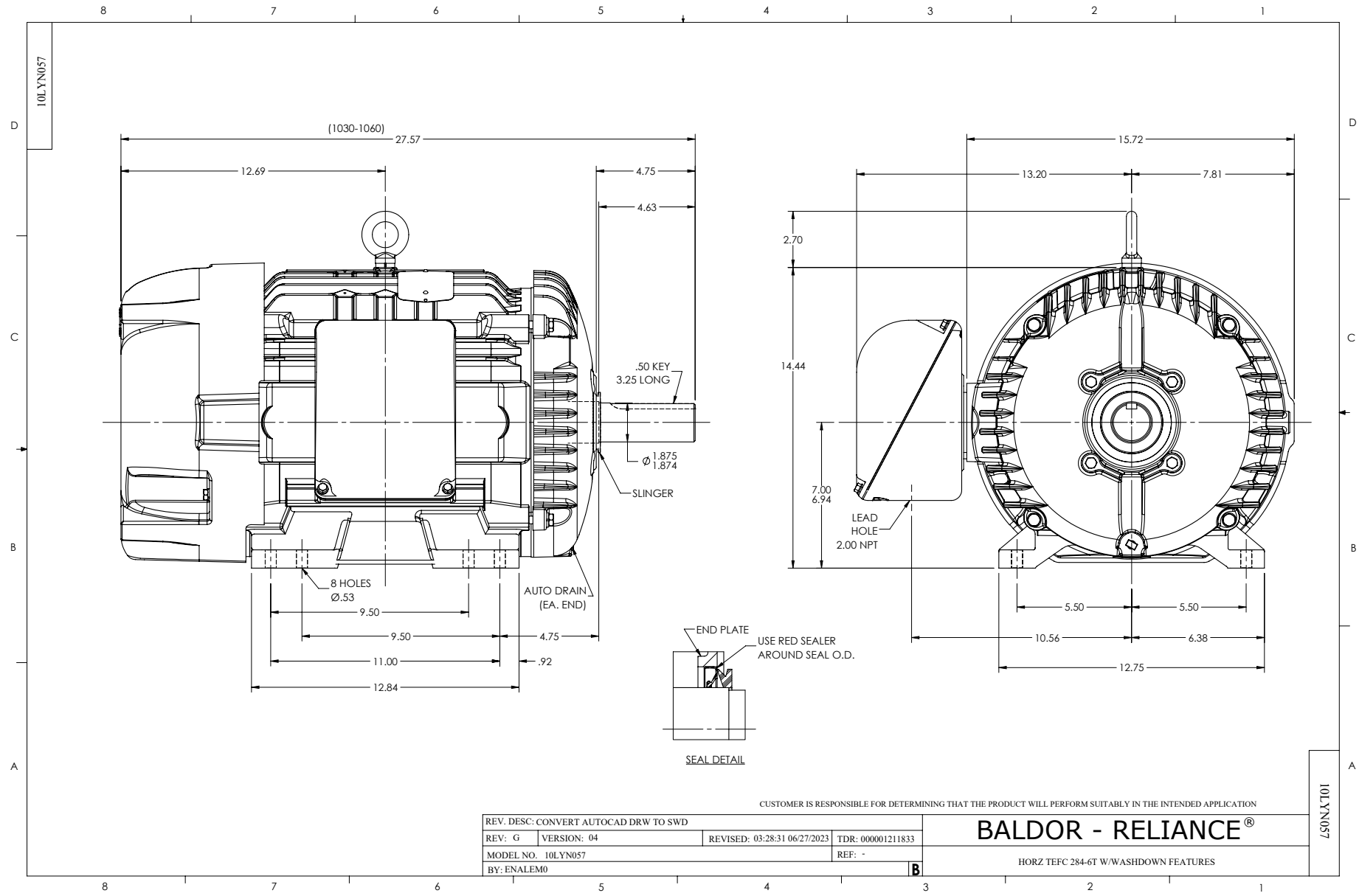
WINDING # 10WGZ467

20 HP 3 PH 60 HZ 1175 RPM 460 V 1056M

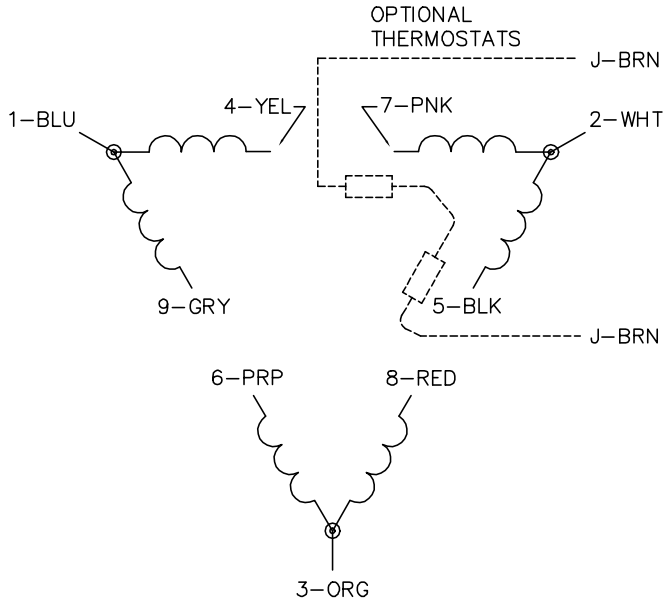
Typical performance - not guaranteed values.

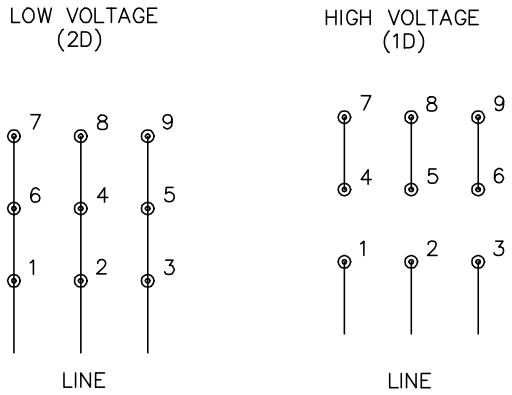
TORQUES(LB-FT): PO=236 PU=95.1 LR=137 LRA=143




10LYN057
(1030-1060)
27.57
12.69
4.75
4.63
.50 KEY
3.25 LONG
Ø 1.875
1.874
SLINGER
8 HOLES
Ø.53
AUTO DRAIN
(EA. END)
9.50
9.50
4.75
11.00
.92
12.84
15.72
13.20
7.81
2.70
14.44
7.00
6.94
LEAD
HOLE
2.00 NPT
5.50
5.50
10.56
6.38
12.75
END PLATE
USE RED SEALER
AROUND SEAL O.D.
SEAL DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD DRW TO SWD
REV: G
VERSION: 04
REVISED: 03:28:31 06/27/2023
TDR: 000001211833
MODEL NO. 10LYN057
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HORZ TEFC 284-6T W/WASHDOWN FEATURES
10LYN057

CD0180




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.

CD0180

| | | |
|---|---|---|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: D | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\148 | REVISED: 10:25:29 02/19/2019 | BY: ENBRIR0 |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1