ABB BALDOR RELIANCE

# Customer information packet

## VESWDM3546

1HP, 1770RPM, 3PH, 60HZ, 56C, 3522M, TENV, F1, N
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **Frame** | 56C |
| **Frame Material** | Stainless Steel |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 1.000 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 |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | No Mounting |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Current @ Voltage** | 3.340 A @ 230.0 V |
| | 3.300 A @ 208.0 V |
| | 1.670 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 85.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |

## Part Detail

| | |
|---|---|
| **Revision** | D |
| **Type** | AC |
| **Mech. spec.** | 35S617 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGZ818 |
| **Layout** | 35LYS617 |
| **Eff. date** | 06-05-2025 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#18 Y |
| **Proprietary** | False |
| **Created date** | 10-01-2021 |

| | |
|---|---|
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 1.7 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | M |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3522M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 12.06 IN |
| **Power Factor** | 66 |
| **Product Family** | Wash Down Paint Free |
| **Pulley End Bearing Type** | Sealed Bearing |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 0.625 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**

| NP1669L | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | VESWDM3546 | | | | | | | | | | |
| **SPEC.** | 35S617Z818G1 | | | | | | | | | | |
| **HP** | 1 | | | | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | | | | |
| **AMP** | 3.34/1.67 | | | | | | | | | | |
| **RPM** | 1770 | | | | | | | | | | |
| **FRAME** | 56C | | **HZ** | 60 | | | **PH** | 3 | | | |
| **SER.F.** | 1.15 | **CODE** | M | **DES** | B | **CLASS** | F | | | | |
| **NEMA-NOM-EFF** | 85.5 | **PF** | 66 | | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | | |
| **CC** | 010A | | | | | | | | | | |
| **DE** | 6205 | | **ODE** | 6203 | | | | | | | |
| **ENCL** | TENV | **SN** | | | | | | | | | |
| **BLANK** | SFA 3.5/1.75 | | | | | | | | | | |

**Parts List**

| Part number | Description | Quantity |
|---|---|---|
| SA398795 | SA 35S617Z818G1 | 1.000 ea |
| RA389816 | RA 35S617Z818G1 | 1.000 ea |
| NS2512A01 | INSULATOR, CONDUIT BOX X | 1.000 ea |
| 35CB5001A03 | CONDUIT BOX KIT, FOR SUPER II WASHDOWN | 1.000 ea |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 35EP3122D00U | MASTER ODE,203 BRG,.125NPT DRNS(BALL BUR | 1.000 ea |
| HW4500S33 | 1/8 NPT STAINLESS #304 SS PLUG | 3.000 ea |
| HW5100A03 | WAVY WASHER (W1543-017) | 1.000 ea |
| 35EP3307E00U | MASTER DE,205 BRG,1.623SH,.125NPT DRNS,C | 1.000 ea |
| HW4500S33 | 1/8 NPT STAINLESS #304 SS PLUG | 3.000 ea |
| HW4606A02 | JM CLIPPER/SEAL (LWE-0938-1624-AL23) | 1.000 ea |
| 12XN1032S20 | 10-32 X 1-1/4 HEX M.S. , STAINLESS STEEL | 2.000 ea |
| HA1049A01 | DUBO LOK WASHER SIZE 10 (NYLON LOCK SEAL | 4.000 ea |
| HA1049A01 | DUBO LOK WASHER SIZE 10 (NYLON LOCK SEAL | 2.000 ea |
| HW2502D13 | SS KEY, 3/16 SQ X 1.375 | 1.000 ea |
| HA7000A04 | KEY RETAINER 0.625 DIA SHAFTS | 1.000 ea |
| MJ5001A02 | 732 CL SEALANT 3 OZ DIXIE BEARING 289100 | 0.001 ea |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 ea |
| LB1164 | LABEL,WARNING AND DRAIN | 1.000 ea |
| HA5027A02 | HA4054 T-DRAIN X2 BAGGED WITH LABEL | 1.000 ea |
| MJ1000A02 | GREASE, POLYREX EM EXXON | 0.050 lb |
| HA3100S24 | THRUBOLT 8.625 LENGTH 1.250 TH LENGTH SS | 4.000 ea |
| LC0005 | CONN.DIA.,TY M,9-LD,DUAL VOLT,REVERSING | 1.000 ea |
| NP1669L | SS WD SUPER-E UL PREM REV MTG | 1.000 ea |
| 35PA1066 | PKG GRP, PRINT PK1008A07 | 1.000 ea |
| PK3082 | STYROFOAM CRADLE | 1.000 ea |
| MN416A01 | TAG-INSTAL-MAINT no wire (2500 bx)11/25 | 1.000 ea |
| FE-0000001 | ZRTG FE ASSEMBLY | 1.000 ea |
| PE-0000001 | ZRTG PE ASSEMBLY | 1.000 ea |

**AC Induction Motor Performance Data**
Record # 89784
Typical performance - not guaranteed values

| **Winding:** 35WGZ818-R002 | **Type:** 3522M | **Enclosure:** TENV |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1 | **Full Load Torque** | 2.99 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 3.34/1.67 | **Breakdown Torque** | 16.6 LB-FT |
| **R.P.M.** | | | 1770 | **Pull-up Torque** | 7.42 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 10.32 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | M | **Starting Current** | 16.1 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 1.23 A |
| **NEMA Nom. Eff.** | 85.5 | **Power Factor** | 66 | **Line-line Res. @ 25ºC** | 14.4 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 63°C |
| **S.F. Amps** | | | 3.5/1.75 | **Temp. Rise @ S.F. Load** | 71°C |
| | | | | **Locked-rotor Power Factor** | 60.4724 |
| | | | | **Rotor inertia** | 0.159 lb-ft² |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 27 | 43 | 56 | 66 | 73 | 78 | 72 |
| **Efficiency** | 70.8 | 81.2 | 84.5 | 85.9 | 85.8 | 85.2 | 85.5 |
| **Speed** | 1793 | 1786 | 1781 | 1773 | 1766 | 1758 | 1768 |
| **Line amperes** | 1.25 | 1.34 | 1.49 | 1.67 | 1.87 | 2.12 | 1.75 |

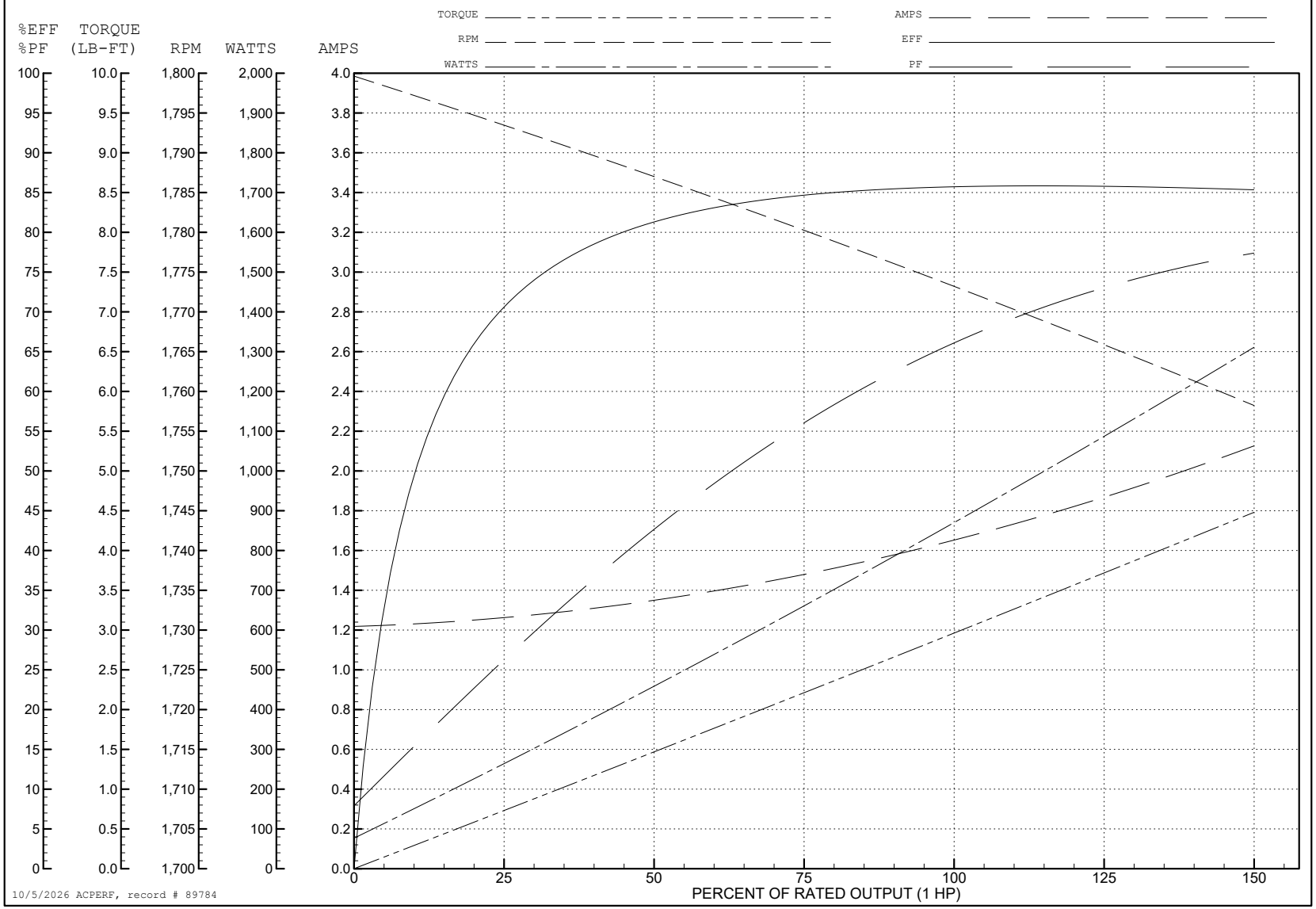
ABB Motors and Mechanical Inc.

WINDING # 35WGZ818

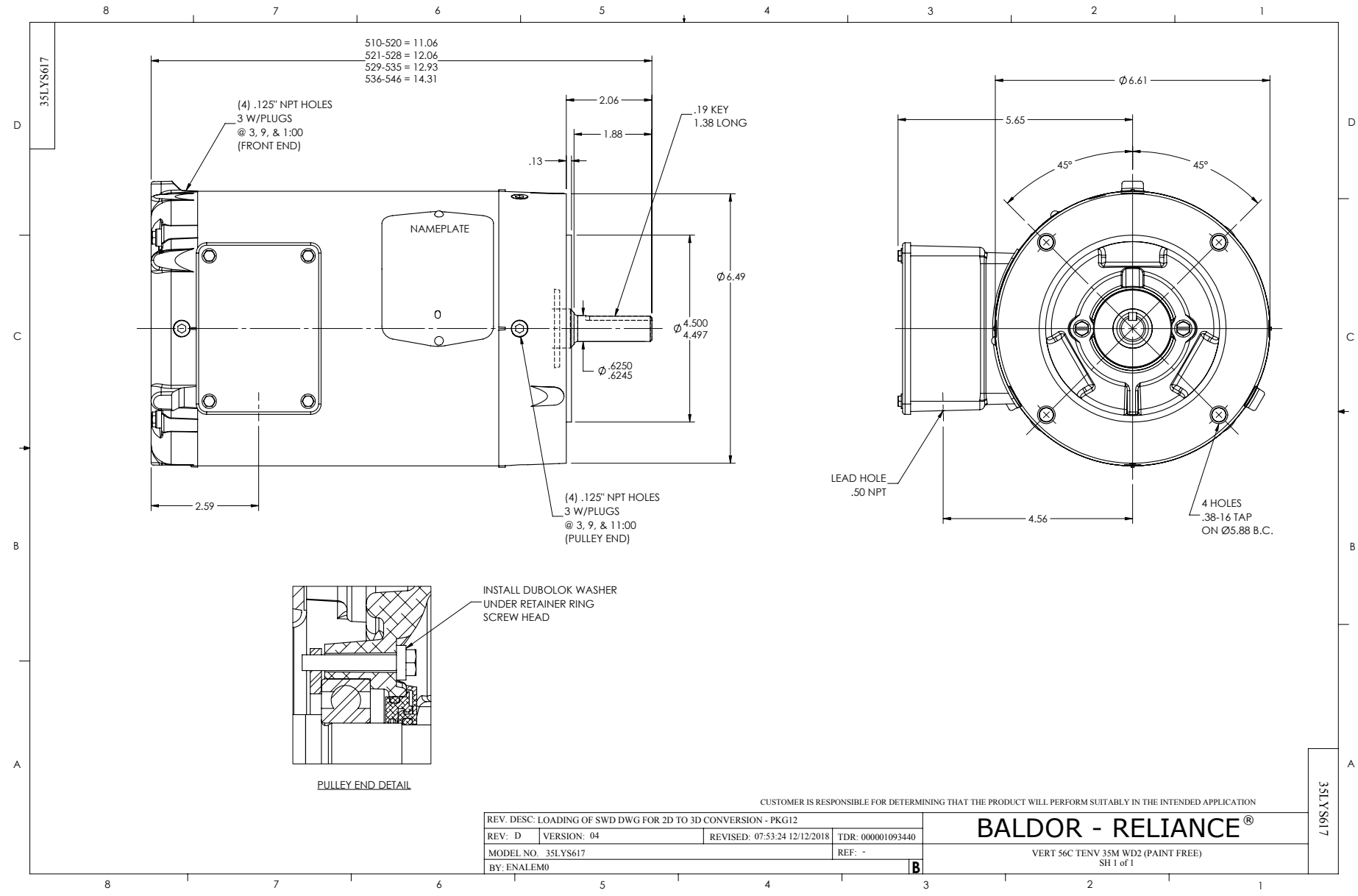
1 HP 3 PH 60 HZ 1770 RPM 460 V 3522M

Typical performance - not guaranteed values.

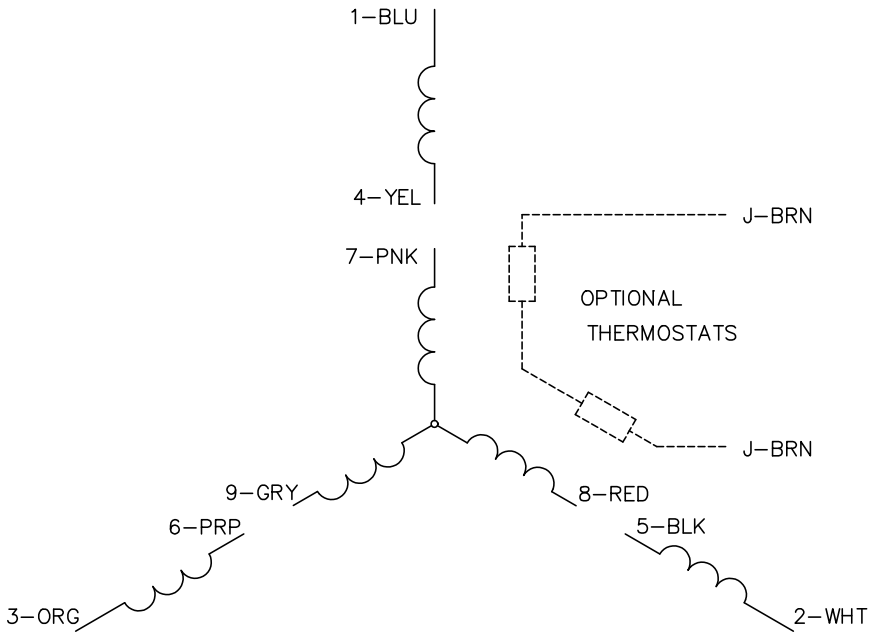
TORQUES(LB-FT): PO=16.6 PU=7.42 LR=10.32 LRA=16.1

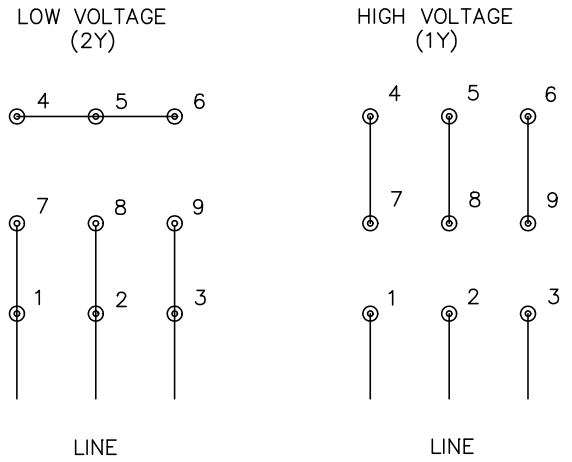



10/5/2026 ACPERF, record # 89784


35LYS617
510-520 = 11.06
521-528 = 12.06
529-535 = 12.93
536-546 = 14.31
(4) .125" NPT HOLES
3 W/PLUGS
@ 3, 9, & 1:00
(FRONT END)
2.06
1.88
.13
.19 KEY
1.38 LONG
NAMEPLATE
Ø6.49
Ø 4.500
4.497
Ø .6250
.6245
2.59
(4) .125" NPT HOLES
3 W/PLUGS
@ 3, 9, & 11:00
(PULLEY END)
Ø6.61
5.65
45°
45°
LEAD HOLE
.50 NPT
4.56
4 HOLES
.38-16 TAP
ON Ø5.88 B.C.
INSTALL DUBOLOK WASHER
UNDER RETAINER RING
SCREW HEAD
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION - PKG12
REV: D
VERSION: 04
REVISED: 07:53:24 12/12/2018
TDR: 000001093440
MODEL NO. 35LYS617
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
VERT 56C TENV 35M WD2 (PAINT FREE)
SH 1 of 1
35LYS617

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 |