ABB BALDOR RELIANCE

# Customer information packet

## EM31115-G

1HP, 3500RPM, 3PH, 60HZ, 56, 3512M, OPEN, F1, N
Class - None
Division - Not Applicable

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11/13/2026 9:25:54 AM

## Specifications

| | |
|---|---|
| **Enclosure** | OPEN |
| **Frame** | 56 |
| **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** | 1.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3600 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | UR |
| | CSA |
| **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** | 1.450 A @ 460.0 V |
| | 2.900 A @ 230.0 V |
| | 3.000 A @ 208.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 80.0 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Face Code** | Standard |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |

## Part Detail

| | |
|---|---|
| **Revision** | N |
| **Type** | AC |
| **Mech. spec.** | 35E2520 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGP987 |
| **Layout** | 35LYE2520 |
| **Eff. date** | 01-12-2026 |
| **CD Diagram** | CD0005 |
| **Poles** | 02 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 08-16-2016 |

| | |
|---|---|
| **High Voltage Full Load Amps** | 1.5 a |
| **Insulation Class** | H |
| **Inverter Code** | Not Inverter |
| **KVA Code** | K |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | No Locked Bearing |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3512M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 11.07 IN |
| **Power Factor** | 80 |
| **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** | 1.25 |
| **Shaft Diameter** | 0.625 IN |
| **Shaft Extension Location** | Pulley End |
| **Shaft Ground Indicator** | Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 3500 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.** | EM31115-G | | | | | | | | | |
| **SPEC.** | 35E2520P987G1 | | | | | | | | | |
| **HP** | 1 | | | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | | | |
| **AMPS** | 2.9/1.45 | | | | | | | | | |
| **RPM** | 3500 | | | | | | | | | |
| **FRAME** | 56 | **HZ** | 60 | | | **PH** | 3 | | | |
| **SF** | 1.25 | **CODE** | K | **DES** | B | **CLASS** | H | | | |
| **NEMA NOM. EFF** | 80 | **PF** | 80 | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | |
| **CC** | | | | | | | | | | |
| **ENCL** | OPEN | **SN** | | | | | | | | |
| **DE** | 6205 | **ODE** | 6203 | | | | | | | |
| **VPWM INVERTER READY** | | SFA 3.4/1.7 | | | | | | | | |
| **CT30-60(2:1) VT3-60(20:1)** | | | | | | | | | | |
| **USABLE AT** | 50HZ 1HP 190/380V 3.4/1.9A | | | | | | | | | SF1.0 |

**AC Induction Motor Performance Data**
Record # 58816
Typical performance - not guaranteed values

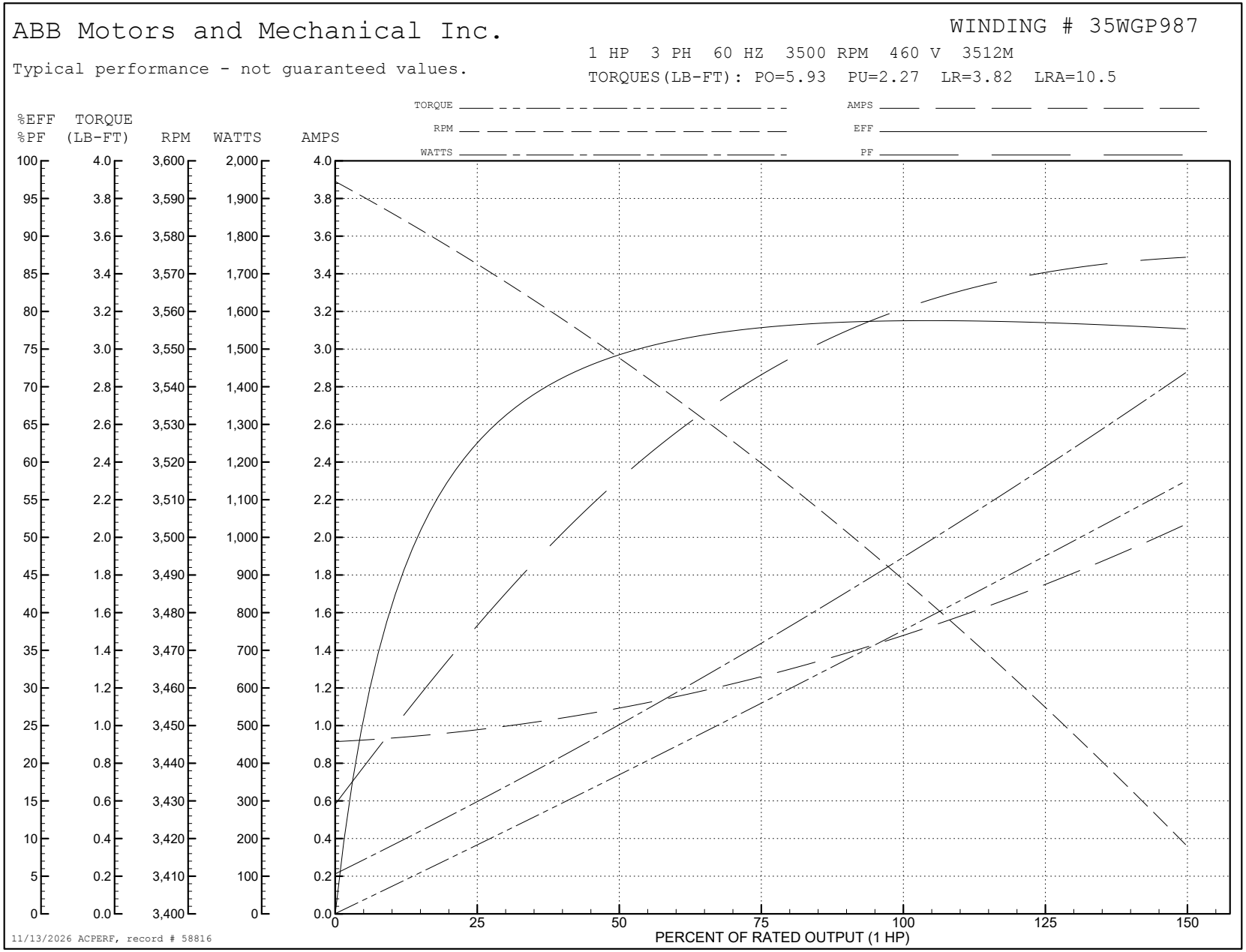
| **Winding:** 35WGP987-R007 | **Type:** 3512M | **Enclosure:** OPEN |
|---|---|---|

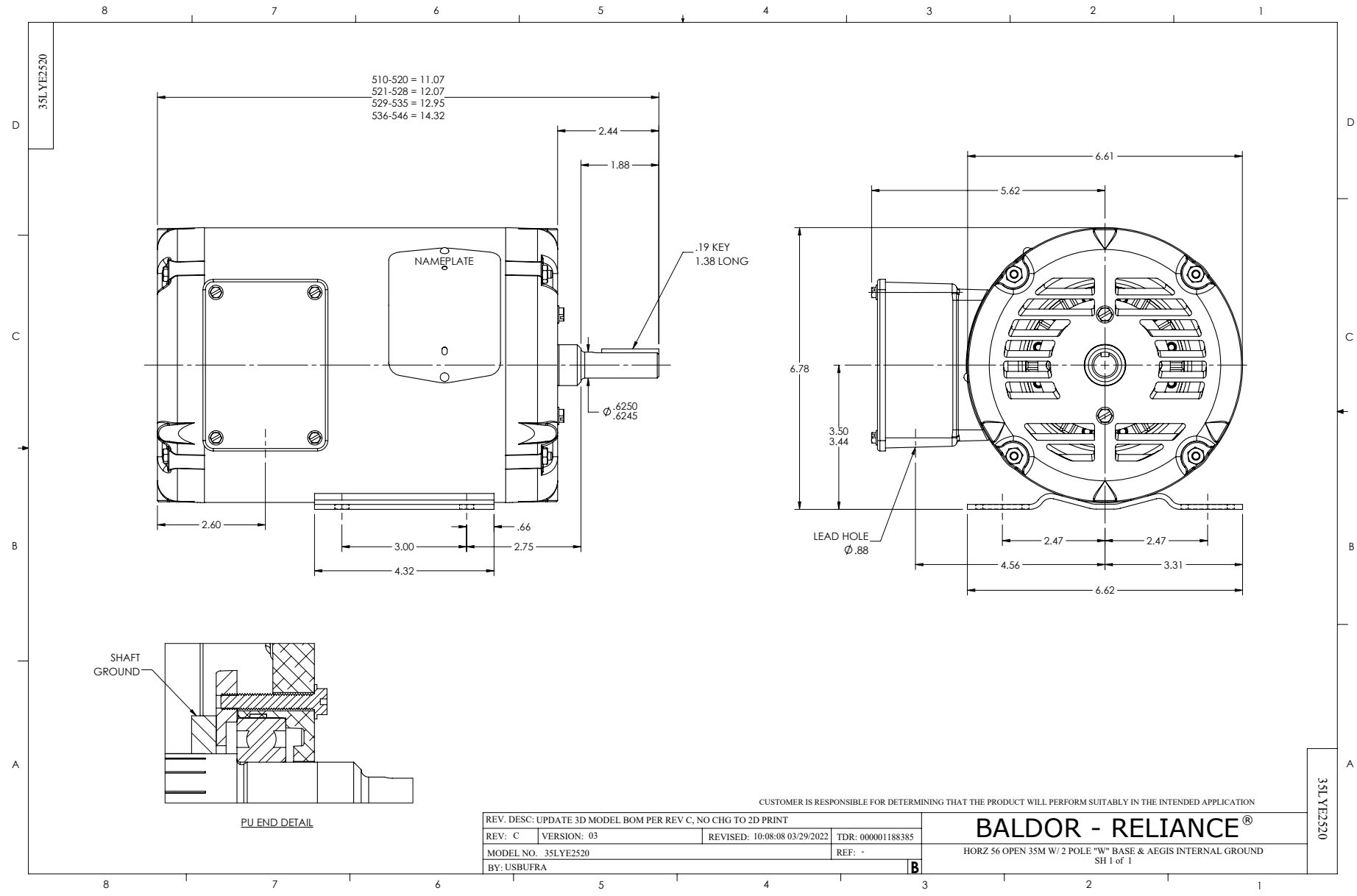
| **Nameplate Data** | | | |
|---|---|---|---|
| **Rated Output (HP)** | | | 1 |
| **Volts** | | | 230/460 |
| **Full Load Amps** | | | 2.9/1.45 |
| **R.P.M.** | | | 3500 |
| **Hz** | 60 | **Phase** | 3 |
| **NEMA Design Code** | B | **KVA Code** | K |
| **Service Factor (S.F.)** | | | 1.25 |
| **NEMA Nom. Eff.** | 80 | **Power Factor** | 80 |
| **Rating - Duty** | | | 40C AMB-CONT |
| **S.F. Amps** | | | 3.4/1.7 |

| **460 V, 60 Hz: High Voltage Connection** | |
|---|---|
| **Full Load Torque** | 1.47 LB-FT |
| **Start Configuration** | direct on line |
| **Breakdown Torque** | 5.93 LB-FT |
| **Pull-up Torque** | 2.27 LB-FT |
| **Locked-rotor Torque** | 3.82 LB-FT |
| **Starting Current** | 10.5 A |
| **No-load Current** | 0.924 A |
| **Line-line Res. @ 25ºC** | 19.3 Ω |
| **Temp. Rise @ Rated Load** | 32°C |
| **Temp. Rise @ S.F. Load** | 39°C |
| **Locked-rotor Power Factor** | 66 |
| **Rotor inertia** | 0.0332 LB-FT2 |

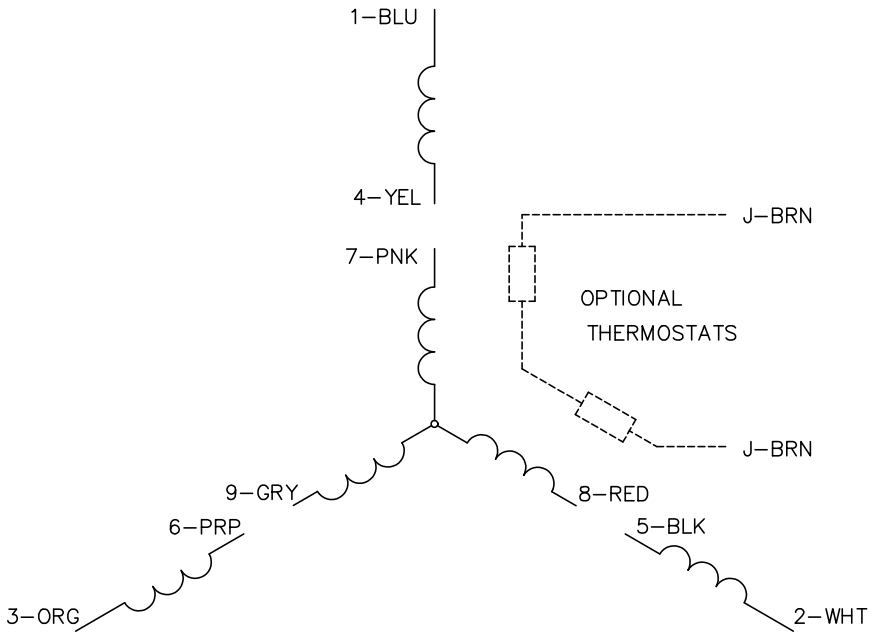
**Load Characteristics 460 V, 60 Hz, 1 HP**

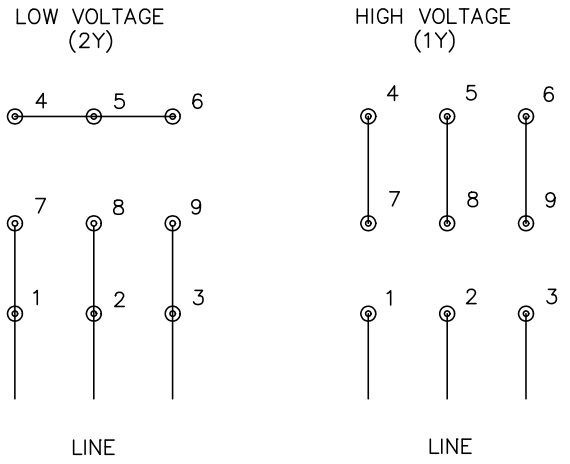
| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 38 | 57 | 71 | 79 | 84 | 88 | 86 |
| **Efficiency** | 61.6 | 73.9 | 77.9 | 78.6 | 78.8 | 77.6 | 79.6 |
| **Speed** | 3573 | 3548 | 3522 | 3492 | 3456 | 3418 | 3464 |
| **Line amperes** | 0.969 | 1.07 | 1.25 | 1.47 | 1.75 | 2.06 | 1.72 |


ABB Motors and Mechanical Inc.
WINDING # 35WGP987
1 HP 3 PH 60 HZ 3500 RPM 460 V 3512M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=5.93 PU=2.27 LR=3.82 LRA=10.5
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
11/13/2026 ACPERF, record # 58816


35LYE2520
510-520 = 11.07
521-528 = 12.07
529-535 = 12.95
536-546 = 14.32
2.44
1.88
NAMEPLATE
.19 KEY
1.38 LONG
Ø.6250
.6245
2.60
.66
3.00
2.75
4.32
6.61
5.62
6.78
3.50
3.44
LEAD HOLE
Ø.88
2.47
2.47
4.56
3.31
6.62
SHAFT
GROUND
PU END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV C, NO CHG TO 2D PRINT
REV: C
VERSION: 03
REVISED: 10:08:08 03/29/2022
TDR: 000001188385
MODEL NO. 35LYE2520
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HORZ 56 OPEN 35M W/ 2 POLE "W" BASE & AEGIS INTERNAL GROUND
SH 1 of 1
35LYE2520

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 |