ABB BALDOR RELIANCE

# Customer information packet

## CWDM3537

.5HP, 3450RPM, 3PH, 60HZ, 56C, 3512M, TENV, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **Frame** | 56C |
| **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** | .500 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3600 RPM @ 60 HZ |
| **Voltage @ Frequency** | 208.0 V @ 60 HZ |
| | 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** | .900 A @ 460.0 V |
| | 1.800 A @ 230.0 V |
| | 1.900 A @ 208.0 V |
| | 2.100 A @ 208.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 70.0 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Face Code** | Standard |

## Part Detail

| | |
|---|---|
| **Revision** | AN |
| **Type** | AC |
| **Mech. spec.** | 35T964 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WG1706 |
| **Layout** | 35LYT964 |
| **Eff. date** | 07-25-2025 |
| **CD Diagram** | CD0005 |
| **Poles** | 02 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 06-22-2007 |

| | |
|---|---|
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 0.9 a |
| **Insulation Class** | F |
| **Inverter Code** | Not Inverter |
| **KVA Code** | L |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | 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** | 76 |
| **Product Family** | Wash Down |
| **Pulley End Bearing Type** | Sealed Bearing |
| **Pulley Face Code** | C-Face |
| **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** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | Shaft Slinger |
| **Speed** | 3450 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**

| NP1496L | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | CWDM3537 | | | | | | | | |
| **SPEC.** | 35T964-1706G1 | | | | | | | | |
| **HP** | .5 | | | | | | | | |
| **VOLTS** | 208-230/460 | | | | | | | | |
| **AMP** | 1.9-1.8/.9 | | | | | | | | |
| **RPM** | 3450 | | | | | | | | |
| **FRAME** | 56C | | **HZ** | 60 | | | **PH** | 3 | |
| **SER.F.** | 1.25 | **CODE** | L | **DES** | B | **CLASS** | | F | |
| **NEMA-NOM-EFF** | 70 | **PF** | 76 | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **CC** | | | | | | | | | |
| **DE** | 6205 | | **ODE** | 6203 | | | | | |
| **ENCL** | TENV | **SN** | | | | | | | |
| | SFA 2.1-2/1 | | | | | | | | |

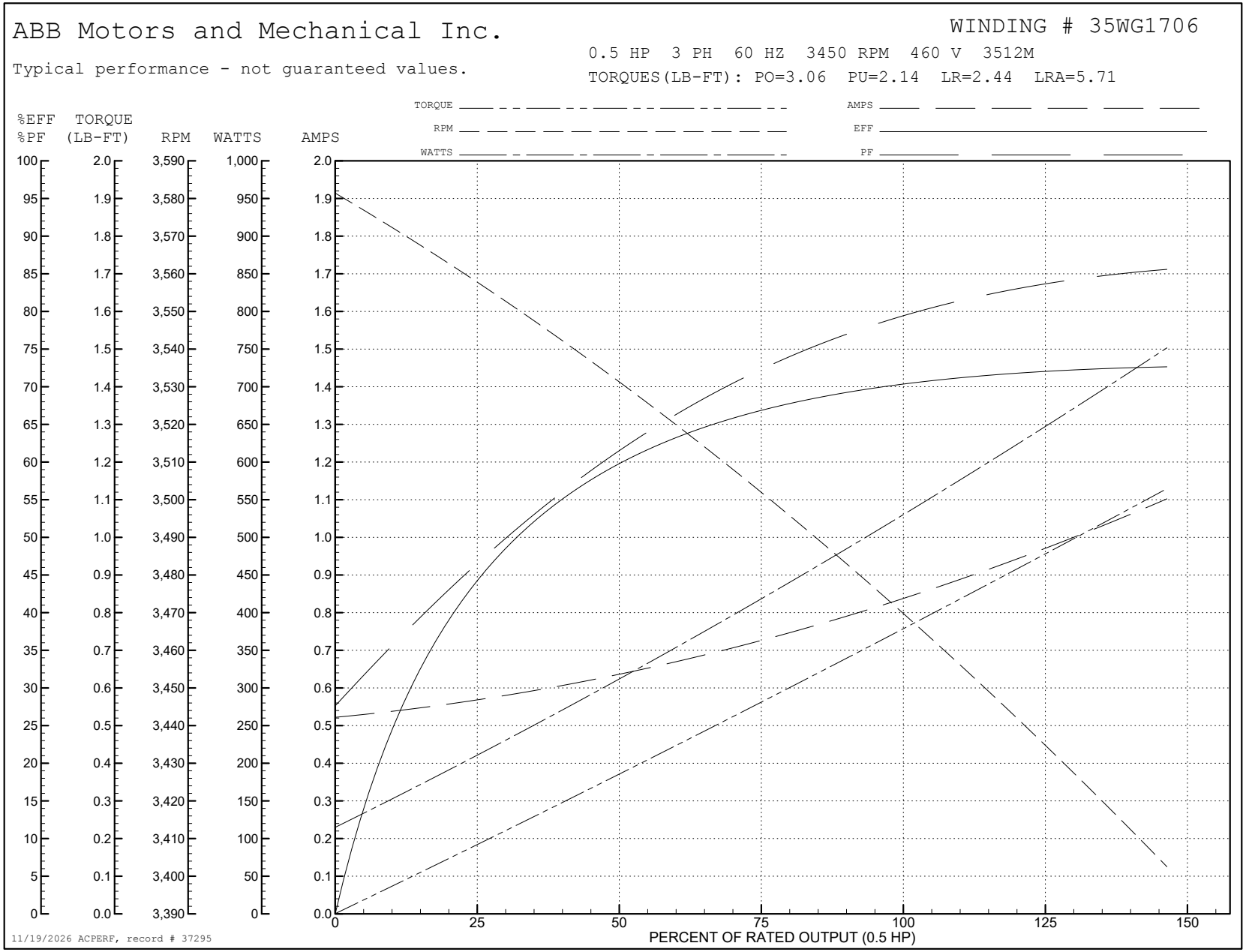
**AC Induction Motor Performance Data**
Record # 37295
Typical performance - not guaranteed values

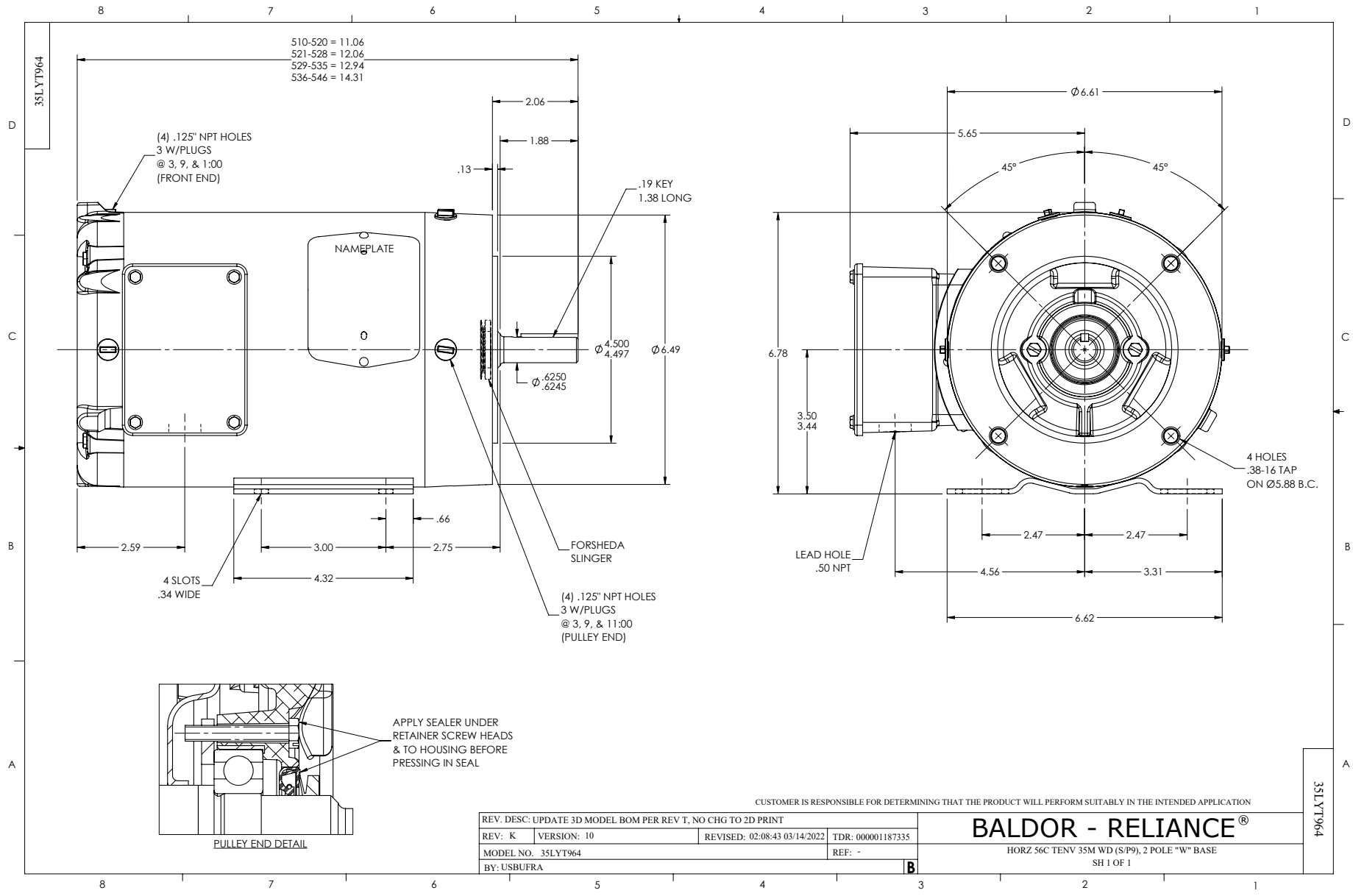
| **Winding:** 35WG1706-R003 | **Type:** 3512M | **Enclosure:** TENV |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | .5 | **Full Load Torque** | 0.752 LB-FT |
| **Volts** | | | 208-230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 1.9-1.8/.9 | **Breakdown Torque** | 3.06 LB-FT |
| **R.P.M.** | | | 3450 | **Pull-up Torque** | 2.14 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 2.44 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 5.71 A |
| **Service Factor (S.F.)** | | | 1.25 | **No-load Current** | 0.525 A |
| **NEMA Nom. Eff.** | 70 | **Power Factor** | 76 | **Line-line Res. @ 25ºC** | 37.8 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 63°C |
| **S.F. Amps** | | | 2.1-2/1 | **Temp. Rise @ S.F. Load** | 74°C |
| | | | | **Locked-rotor Power Factor** | 72.9 |
| | | | | **Rotor inertia** | 0.0332 LB-FT2 |

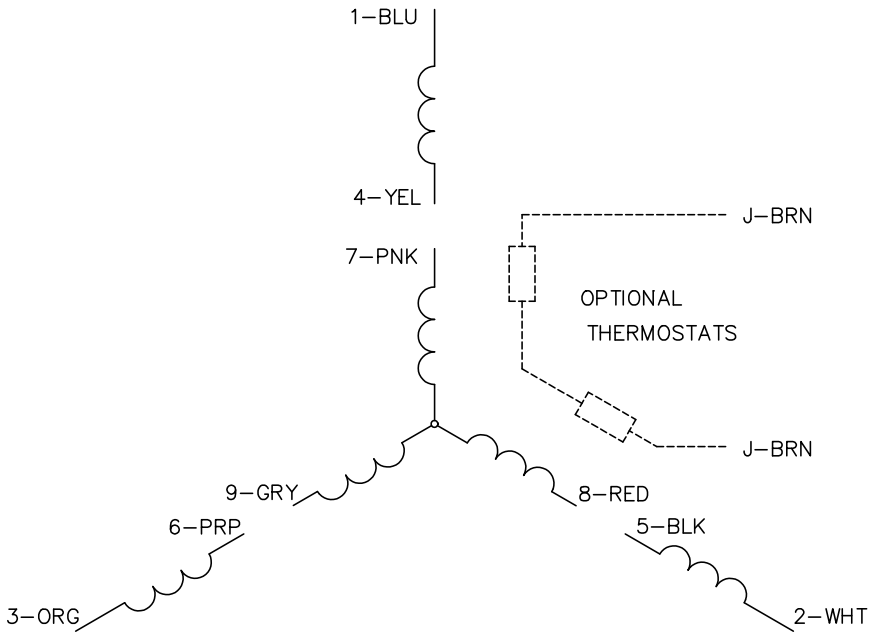
**Load Characteristics 460 V, 60 Hz, 0.5 HP**

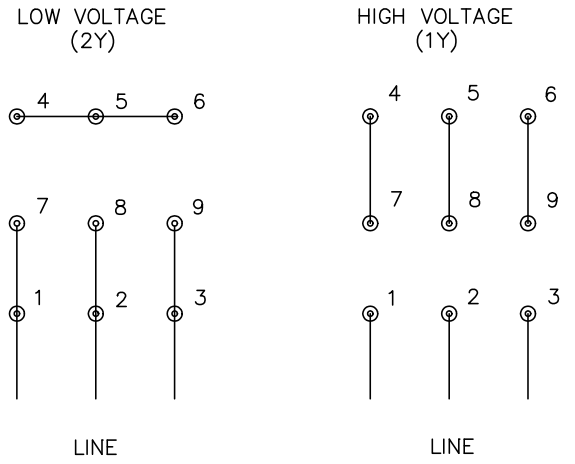
| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 48 | 62 | 72 | 79 | 83 | 86 | 83 |
| **Efficiency** | 43.9 | 59.7 | 67.1 | 70.5 | 72.1 | 72.5 | 72.4 |
| **Speed** | 3557 | 3530 | 3502 | 3471 | 3438 | 3402 | 3450 |
| **Line amperes** | 0.565 | 0.636 | 0.727 | 0.839 | 0.961 | 1.1 | 0.96 |


ABB Motors and Mechanical Inc.
WINDING # 35WG1706
Typical performance - not guaranteed values.
0.5 HP 3 PH 60 HZ 3450 RPM 460 V 3512M
TORQUES(LB-FT): PO=3.06 PU=2.14 LR=2.44 LRA=5.71
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (0.5 HP)
11/19/2026 ACPERF, record # 37295


35LYT964
510-520 = 11.06
521-528 = 12.06
529-535 = 12.94
536-546 = 14.31
2.06
1.88
.13
(4) .125" NPT HOLES
3 W/PLUGS
@ 3, 9, & 1:00
(FRONT END)
.19 KEY
1.38 LONG
NAMEPLATE
Ø 4.500
4.497
Ø 6.49
Ø .6250
.6245
.66
2.59
3.00
2.75
4.32
4 SLOTS
.34 WIDE
FORSHEDA
SLINGER
(4) .125" NPT HOLES
3 W/PLUGS
@ 3, 9, & 11:00
(PULLEY END)
Ø 6.61
5.65
45°
45°
6.78
3.50
3.44
4 HOLES
.38-16 TAP
ON Ø5.88 B.C.
LEAD HOLE
.50 NPT
2.47
2.47
4.56
3.31
6.62
APPLY SEALER UNDER
RETAINER SCREW HEADS
& TO HOUSING BEFORE
PRESSING IN SEAL
PULLEY 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 T, NO CHG TO 2D PRINT
REV: K
VERSION: 10
REVISED: 02:08:43 03/14/2022
TDR: 000001187335
MODEL NO. 35LYT964
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HORZ 56C TENV 35M WD (S/P9), 2 POLE "W" BASE
SH 1 OF 1
35LYT964

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 |