ABB BALDOR RELIANCE

# Customer information packet

## EM3704T-BG

3HP, 1160RPM, 3PH, 60HZ, 213T, 3738M, TEFC, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 213T |
| **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** | 3.000 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 |
| | CSA |
| | 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** | 4.600 A @ 460.0 V |
| | 9.200 A @ 230.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 89.5 % |
| **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** | P |
| **Type** | AC |
| **Mech. spec.** | 37N339 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 37WGS519 |
| **Layout** | 37LYN339 |
| **Eff. date** | 01-06-2026 |
| **CD Diagram** | CD0005 |
| **Poles** | 06 |
| **Leads** | 9#14 |
| **Proprietary** | False |
| **Created date** | 10-04-2013 |

| | |
|---|---|
| **High Voltage Full Load Amps** | 4.6 a |
| **Insulation Class** | H |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | L |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 9 @ 14 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3738M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 6 |
| **Overall Length** | 19.01 IN |
| **Power Factor** | 68 |
| **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** | 1.15 |
| **Shaft Diameter** | 1.375 IN |
| **Shaft Extension Location** | Pulley End |
| **Shaft Ground Indicator** | Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 1160 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**

| NP3441L | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | EM3704T-BG | | | | | | | | | |
| **SPEC.** | 37N339S519G1 | | | | | | | | | |
| **HP** | 3 | | | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | | | |
| **AMP** | 9.2/4.6 | | | | | | | | | |
| **RPM** | 1160 | | | | | | | | | |
| **FRAME** | 213T | **HZ** | 60 | | | **PH** | 3 | | | |
| **SER.F.** | 1.15 | **CODE** | L | **DES** | B | **CL** | H | | | |
| **NEMA-NOM-EFF** | 89.5 | **PF** | 68 | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | |
| **CC** | 010A | | | | | | | | | |
| **DE** | 6307 | **ODE** | 6206 | | | | | | | |
| **ENCL** | TEFC | **SN** | | | | | | | | |
| **VPWM INVERTER READY** | | | | | | | | | | |
| **CT6-60H(10:1)VT3-60H(20:1** | | | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 37131
Typical performance - not guaranteed values

| **Winding:** 37WGS519-R005 | **Type:** 3738M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 3 | **Full Load Torque** | 13.4 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 9.2/4.6 | **Breakdown Torque** | 50.4 LB-FT |
| **R.P.M.** | | | 1160 | **Pull-up Torque** | 31.8 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 33.9 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 34 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 2.56 A |
| **NEMA Nom. Eff.** | 89.5 | **Power Factor** | 68 | **Line-line Res. @ 25ºC** | 2.67 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 38°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 45°C |
| | | | | **Locked-rotor Power Factor** | 22.9 |
| | | | | **Rotor inertia** | 0.945 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 3 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 30 | 50 | 62 | 69 | 73 | 75 | 70 |
| **Efficiency** | 82.1 | 88.6 | 89.5 | 89.8 | 89.1 | 87.6 | 89.1 |
| **Speed** | 1193 | 1186 | 1178 | 1170 | 1160 | 1149 | 1166 |
| **Line amperes** | 2.74 | 3.19 | 3.82 | 4.53 | 5.44 | 6.41 | 5.14 |

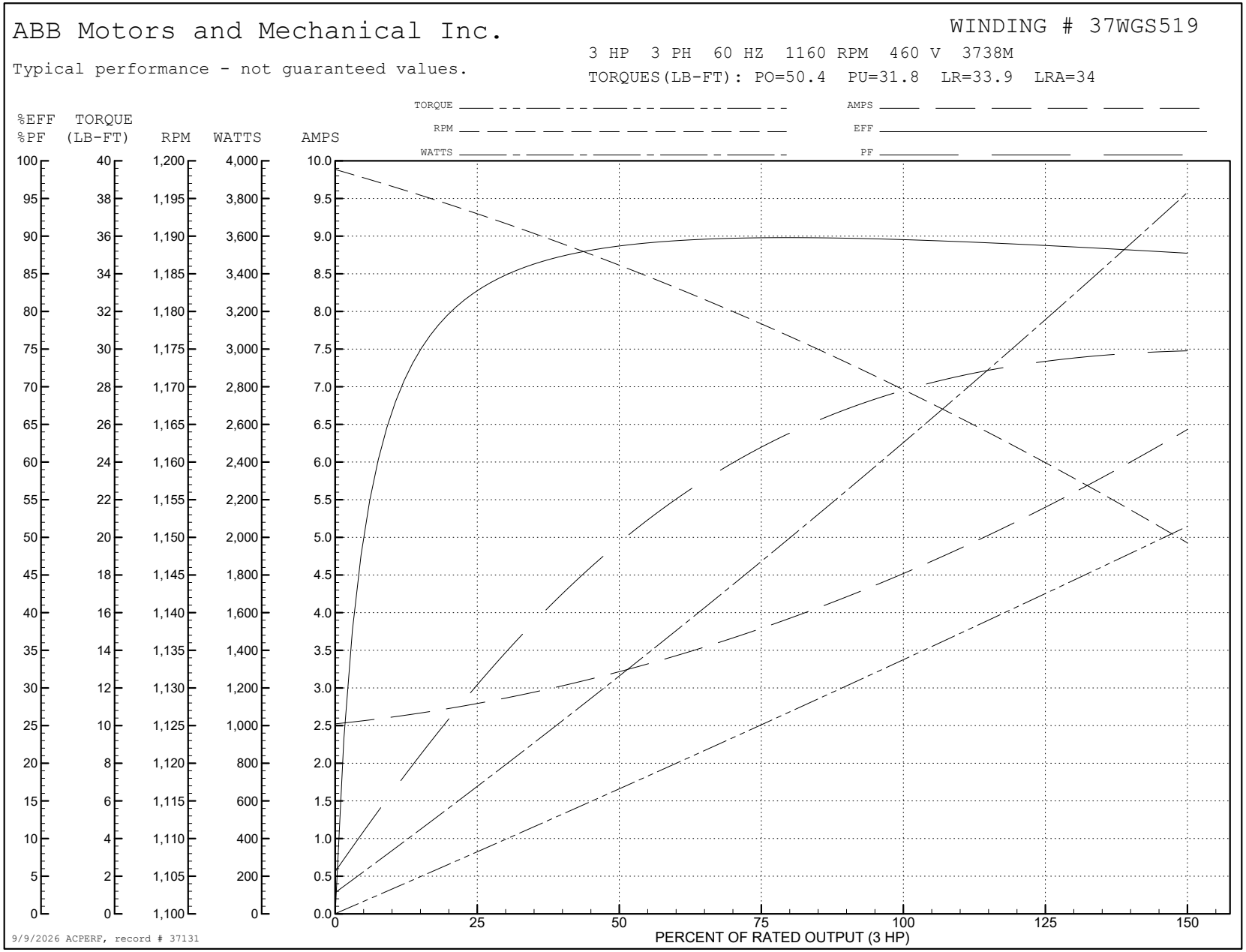
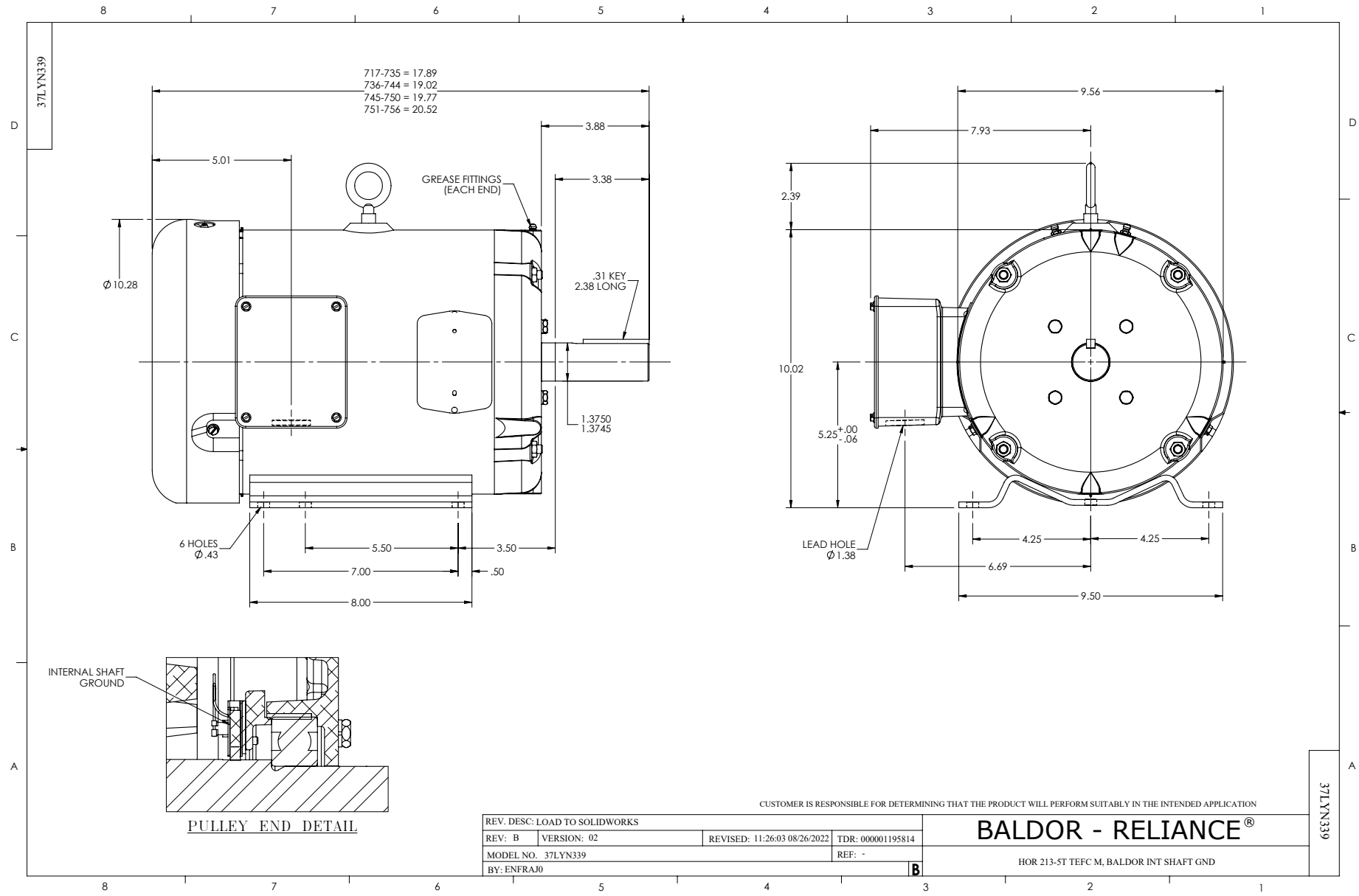
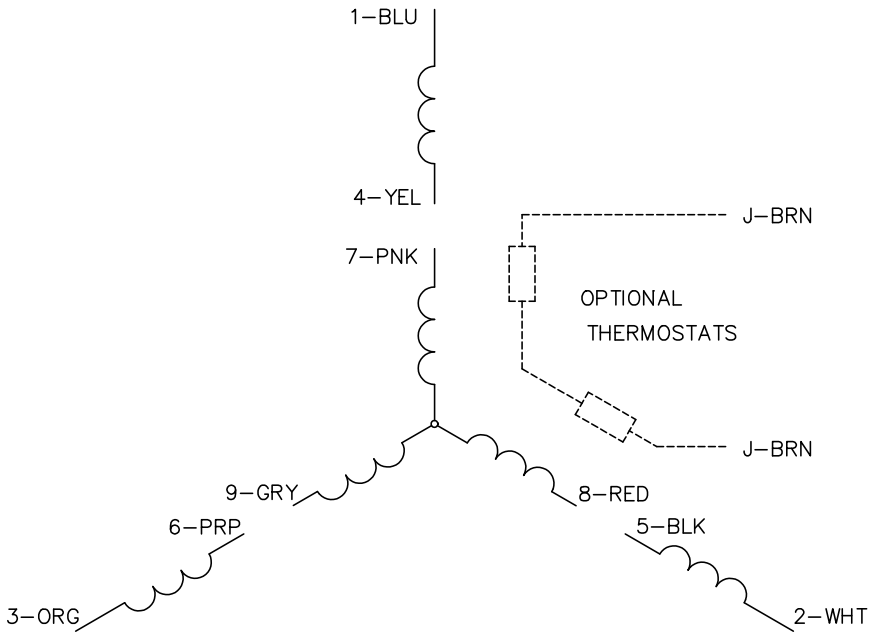
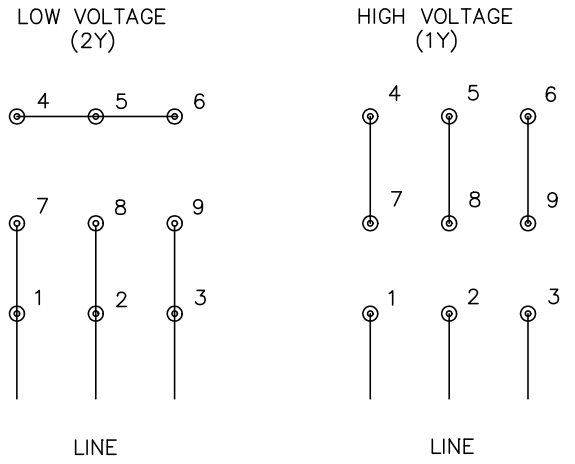


ABB Motors and Mechanical Inc.
WINDING # 37WGS519
Typical performance - not guaranteed values.
3 HP 3 PH 60 HZ 1160 RPM 460 V 3738M
TORQUES(LB-FT): PO=50.4 PU=31.8 LR=33.9 LRA=34
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (3 HP)
9/9/2026 ACPERF, record # 37131


37LYN339
717-735 = 17.89
736-744 = 19.02
745-750 = 19.77
751-756 = 20.52
3.88
5.01
GREASE FITTINGS (EACH END)
3.38
Ø 10.28
.31 KEY 2.38 LONG
1.3750 1.3745
6 HOLES Ø .43
5.50
3.50
7.00
.50
8.00
9.56
7.93
2.39
10.02
5.25 +.00 -.06
LEAD HOLE Ø 1.38
4.25
4.25
6.69
9.50
INTERNAL SHAFT GROUND
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD TO SOLIDWORKS
REV: B
VERSION: 02
REVISED: 11:26:03 08/26/2022
TDR: 000001195814
MODEL NO. 37LYN339
REF: -
BY: ENFRAJ0
B
BALDOR - RELIANCE®
HOR 213-5T TEFC M, BALDOR INT SHAFT GND
37LYN339

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 |