ABB BALDOR RELIANCE

# Customer information packet

## EM3157T-5

2HP, 1765RPM, 3PH, 60HZ, 145T, 3528M, OPSB, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | OPSB |
| **Frame** | 145T |
| **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** | 2.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 575.0 V @ 60 HZ |
| **Agency Approvals** | CURUSEEV |
| | NEMA PREMIUM |
| **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** | 2.200 A @ 575.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 86.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 2.2 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Duty |
| **KVA Code** | L |

## Part Detail

| | |
|---|---|
| **Revision** | G |
| **Type** | AC |
| **Mech. spec.** | 35BB101 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGG113 |
| **Layout** | 35LYBB101 |
| **Eff. date** | 12-29-2025 |
| **CD Diagram** | CD0006 |
| **Poles** | 04 |
| **Leads** | 3#18 |
| **Proprietary** | False |
| **Created date** | 03-11-2022 |

| | |
|---|---|
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | No Locked Bearing |
| **Motor Lead Quantity/Wire Size** | 3 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3528M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 12.12 IN |
| **Power Factor** | 80 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | Standard |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 0.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 1765 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**

| NP3553L | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | EM3157T-5 | | | | | | | | | | |
| **SPEC** | 35BB101G113G1 | | | | | | | | | | |
| **HP** | 2 | | | | | | | | | | |
| **VOLTS** | 575 | | | | | | | | | | |
| **AMPS** | 2.2 | | | | | | | | | | |
| **RPM** | 1765 | | | | | | | | | | |
| **FRAME** | 145T | | **HZ** | 60 | | | **PH** | 3 | | | |
| **SF** | 1.15 | **CODE** | L | **DES** | B | **CLASS** | F | | | | |
| **NEMA NOM. EFF** | 86.5 | **PF** | 80 | | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | | |
| **CC** | 010A | | | | | | | | | | |
| **ENCL** | OPSB | **SER** | | | | | | | | | |
| **DE** | 6205 | | **ODE** | 6203 | | | | | | | |
| **VPWM INVERTER READY** | | SFA 2.56 | | | | | | | | | |
| **CT30-60(2:1) VT3-60(20:1)** | | | | | | | | | | | |

**Parts List**

| Part number | Description | Quantity |
|---|---|---|
| SA409187 | SA 35BB101G113G1 | 1.000 ea |
| RA400732 | RA 35BB101G113G1 | 1.000 ea |
| NS2512A01 | INSULATOR, CONDUIT BOX X | 1.000 ea |
| 35CB3009 | 35 CB W/1.09 DIA. LEAD HOLE @ 6: | 1.000 ea |
| 51XB1016A06 | 10-16X3/8 HXWSSLD SERTYB | 2.000 ea |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 ea |
| 35EP3209A00 | MASTER ODE,203 BRG,GRSR | 1.000 ea |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 ea |
| HW5100A03 | WAVY WASHER (W1543-017) | 1.000 ea |
| 35EP3210A00 | MASTER DE,205 BRG,1.000SH,GRSR | 1.000 ea |
| HW4500A01 | 1641B(ALEMITE)400 UNIV, GREASE FITT | 1.000 ea |
| XY1032A02 | 10-32 HEX NUT DIRECTIONAL SERRATION | 4.000 ea |
| 35CB4521 | 35 LIPPED CB LID (GALV & PHOSPH) | 1.000 ea |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 ea |
| HW2501D13 | KEY, 3/16 SQ X 1.375 | 1.000 ea |
| HA7000A01 | KEY RETAINER 7/8" DIA SHAFT | 1.000 ea |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 ea |
| MJ1000A02 | GREASE, POLYREX EM EXXON | 0.050 lb |
| MG1050Y01 | CELEROL BALDOR GOLD *5 GALLON BUCKET* | 0.017 ga |
| 35AD2005A01 | BAFFLE PLATE,MOD 35-SLTD BAND MTRS TDR | 2.000 ea |
| HA3100A38 | THRUBOLT 10-32 X 9.375 | 4.000 ea |
| LB1624 | COMBINED WARNING LABEL, ISO/ANSI PICTOGR | 1.000 ea |
| LC0006 | CONNECTION LABEL | 1.000 ea |
| NP3553L | ALUM SUPER-E,VPWM INV READY,UL EV,CC,NEM | 1.000 ea |
| 35PA1066 | PKG GRP, PRINT PK1008A07 | 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 |

**Accessories**

| Part number | Description | Multiplier |
|---|---|---|
| 35-8764 | C FACE KIT | A8 |
| 35EP1604A01SP | D-FLANGE KIT | |

**AC Induction Motor Performance Data**
Record # 87424
Typical performance - not guaranteed values

| **Winding:** 35WGG113-R003 | **Type:** 3528M | **Enclosure:** OPEN |
|---|---|---|

| **Nameplate Data** | | | | **575 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 2 | **Full Load Torque** | 5.95 LB-FT |
| **Volts** | | | 575 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 2.2 | **Breakdown Torque** | 23.7 LB-FT |
| **R.P.M.** | | | 1765 | **Pull-up Torque** | 14.43 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 17.45 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | L | **Starting Current** | 19.89 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 1.39 A |
| **NEMA Nom. Eff.** | 86.5 | **Power Factor** | 80 | **Line-line Res. @ 25ºC** | 15 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 58°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 70°C |
| | | | | **Locked-rotor Power Factor** | 57 |
| | | | | **Rotor inertia** | 0.188 lb-ft² |

**Load Characteristics 575 V, 60 Hz, 2 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 34 | 54 | 68 | 76 | 81 | 84 | 79 |
| **Efficiency** | 77 | 84.7 | 86.6 | 86.3 | 85.3 | 83.7 | 85.7 |
| **Speed** | 1791 | 1783 | 1775 | 1766 | 1757 | 1745 | 1761 |
| **Line amperes** | 1.45 | 1.64 | 1.93 | 2.29 | 2.74 | 3.19 | 2.56 |

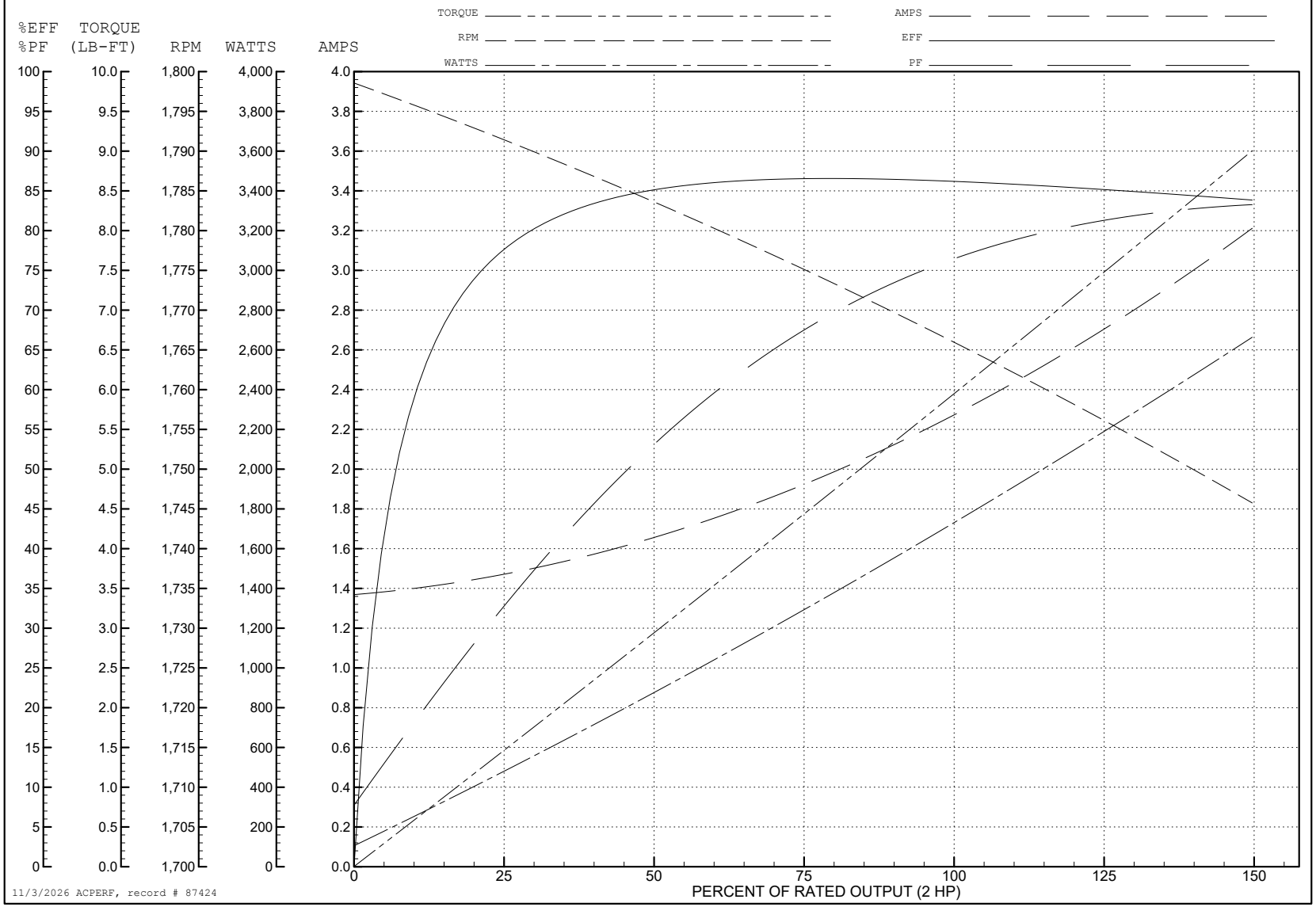
ABB Motors and Mechanical Inc.

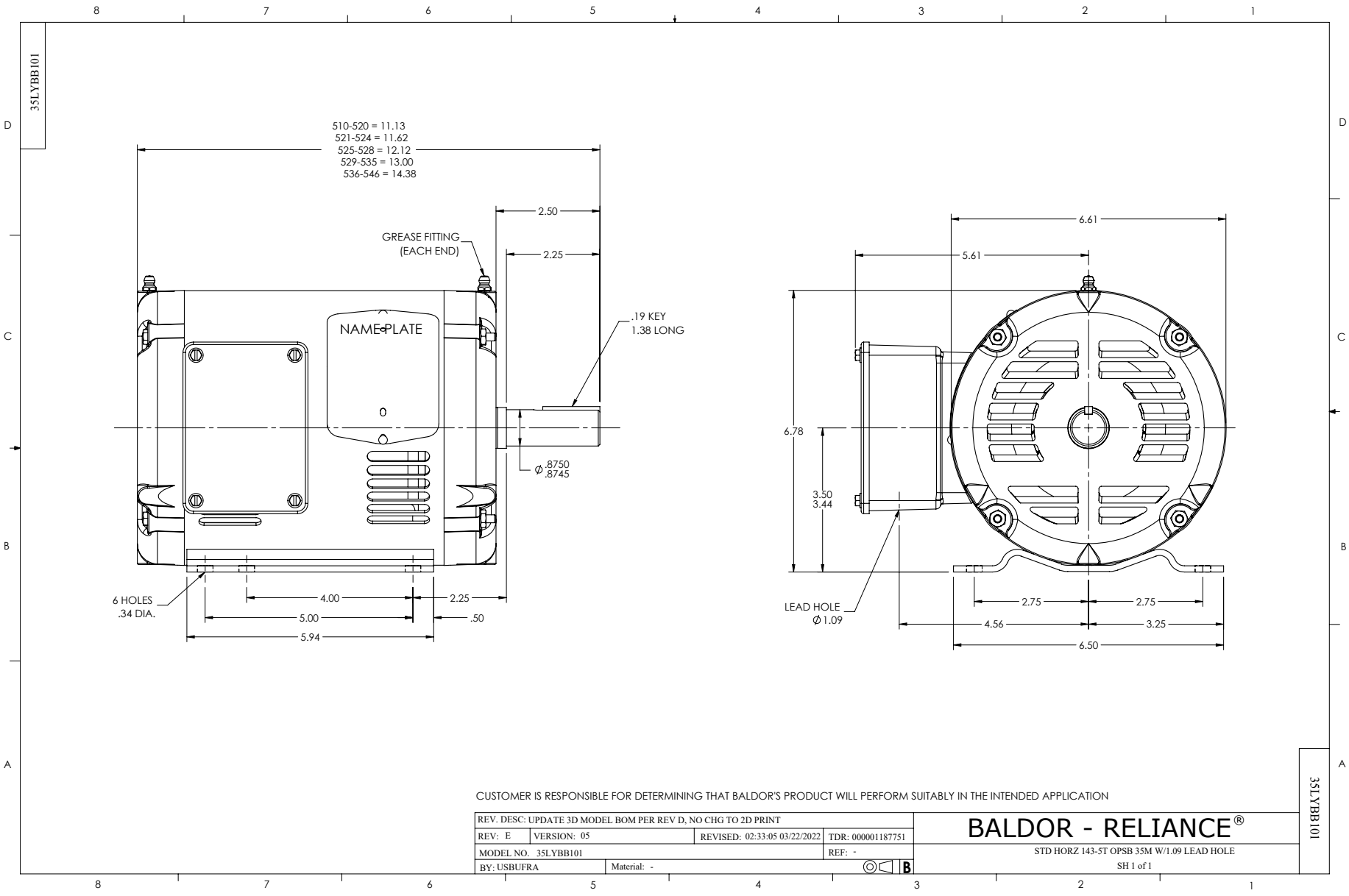
WINDING # 35WGG113

2 HP 3 PH 60 HZ 1765 RPM 575 V 3528M

Typical performance - not guaranteed values.

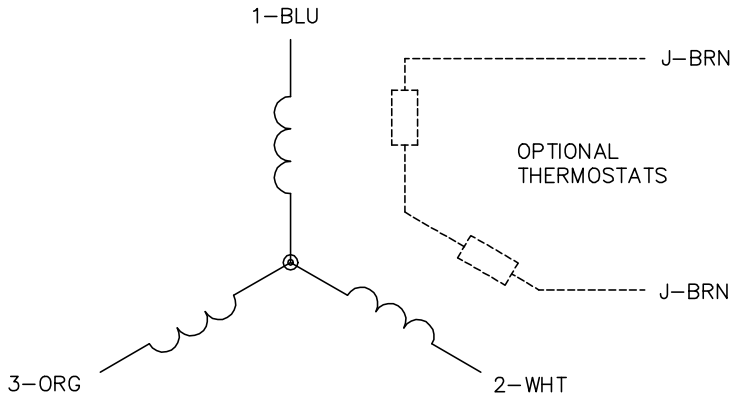
TORQUES(LB-FT): PO=23.7 PU=14.43 LR=17.45 LRA=19.89

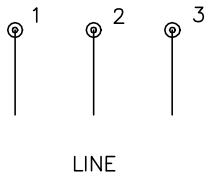



35LYBB101
510-520 = 11.13
521-524 = 11.62
525-528 = 12.12
529-535 = 13.00
536-546 = 14.38
2.50
2.25
GREASE FITTING
(EACH END)
NAMEPLATE
.19 KEY
1.38 LONG
Ø.8750
.8745
6 HOLES
.34 DIA.
4.00
2.25
5.00
.50
5.94
6.61
5.61
6.78
3.50
3.44
LEAD HOLE
Ø1.09
2.75
2.75
4.56
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE 3D MODEL BOM PER REV D, NO CHG TO 2D PRINT
REV: E
VERSION: 05
REVISED: 02:33:05 03/22/2022
TDR: 000001187751
MODEL NO. 35LYBB101
REF: -
BY: USBUFRA
Material: -
B
BALDOR - RELIANCE®
STD HORZ 143-5T OPSB 35M W/1.09 LEAD HOLE
SH 1 of 1
35LYBB101

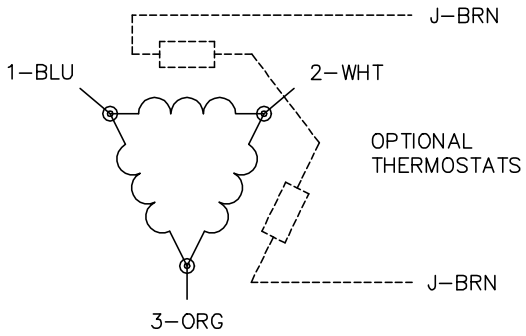
CD0006

TYPICAL WYE–CONNECTED MOTOR




TYPICAL DELTA–CONNECTED MOTOR




NOTES:

1. THREE LEAD MOTOR MAY BE EITHER WYE CONNECTED OR DELTA CONNECTED.
2. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
3. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
4. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY VARY.
5. LEAD COLORS ARE OPTIONAL. LEADS MUST BE NUMBERED AS SHOWN.

CD0006

| | | |
|---|---|---|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: E | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\141 | REVISED: 10:24:49 02/19/2019 | BY: ENBRIR0 |
| MTL: – | | |

BALDOR - RELIANCE®

3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED

SH 1 of 1