ABB BALDOR RELIANCE

# Customer information packet

## EM3116T-8

1HP, 1775RPM, 3PH, 60HZ, 143T, 3520M, OPSB, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | OPSB |
| **Frame** | 143T |
| **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** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 200.0 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** | 3.600 A @ 200.0 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 |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 3.6 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | N |

## Part Detail

| | |
|---|---|
| **Revision** | C |
| **Type** | AC |
| **Mech. spec.** | 35BB101 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGG118 |
| **Layout** | 35LYBB101 |
| **Eff. date** | 06-11-2024 |
| **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** | 3520M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 11.12 IN |
| **Power Factor** | 67 |
| **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** | 1775 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.** | EM3116T-8 | | | | | | | | | | |
| **SPEC** | 35BB101G118G1 | | | | | | | | | | |
| **HP** | 1 | | | | | | | | | | |
| **VOLTS** | 200 | | | | | | | | | | |
| **AMPS** | 3.6 | | | | | | | | | | |
| **RPM** | 1775 | | | | | | | | | | |
| **FRAME** | 143T | | **HZ** | 60 | | | **PH** | 3 | | | |
| **SF** | 1.15 | **CODE** | N | **DES** | B | **CLASS** | F | | | | |
| **NEMA NOM. EFF** | 85.5 | **PF** | 67 | | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | | |
| **CC** | 010A | | | | | | | | | | |
| **ENCL** | OPSB | **SER** | | | | | | | | | |
| **DE** | 6205 | | **ODE** | 6203 | | | | | | | |
| **VPWM INVERTER READY** | | SFA 3.9 | | | | | | | | | |
| **CT30-60(2:1) VT3-60(20:1)** | | | | | | | | | | | |

**Accessories**

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

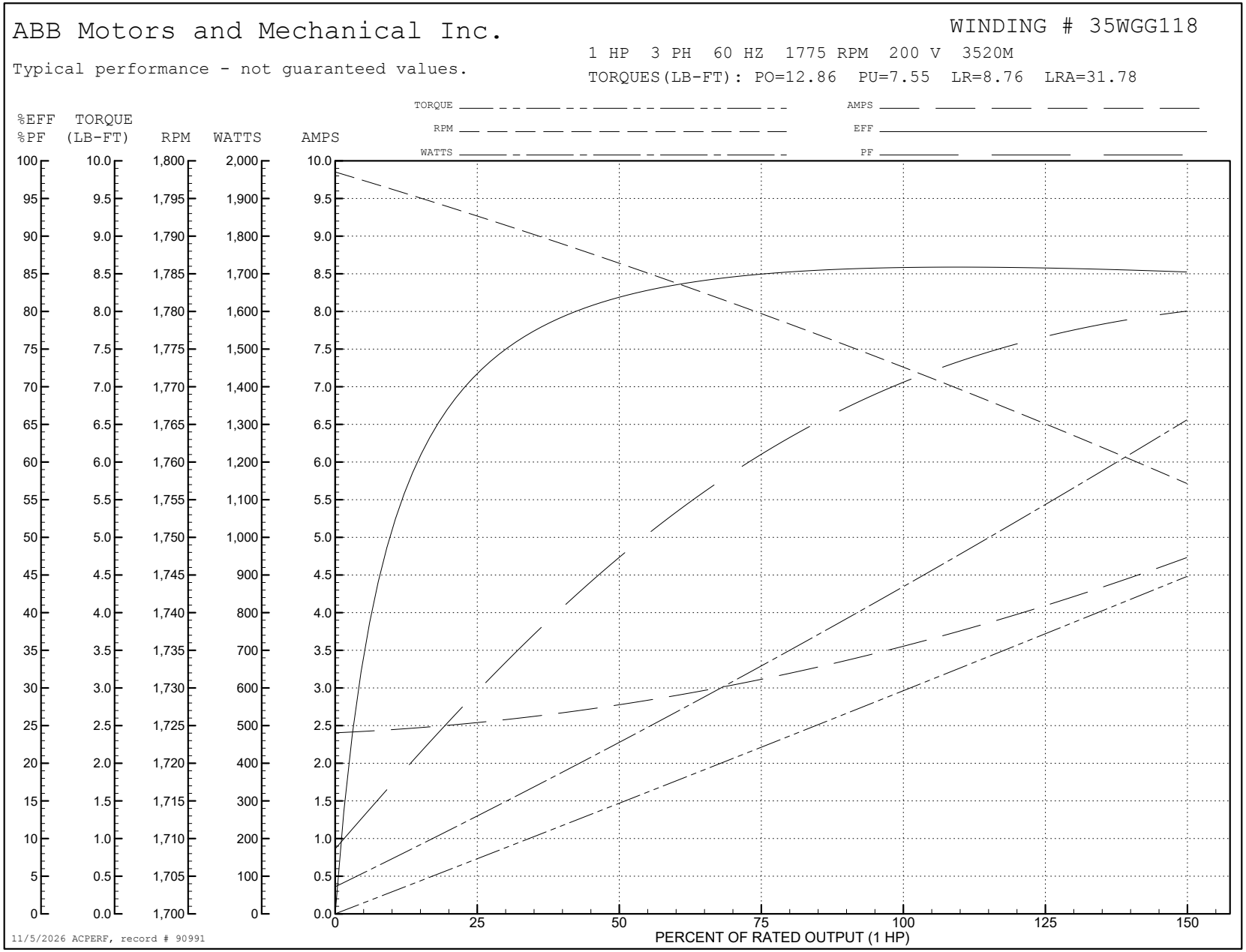
**AC Induction Motor Performance Data**
Record # 90991
Typical performance - not guaranteed values

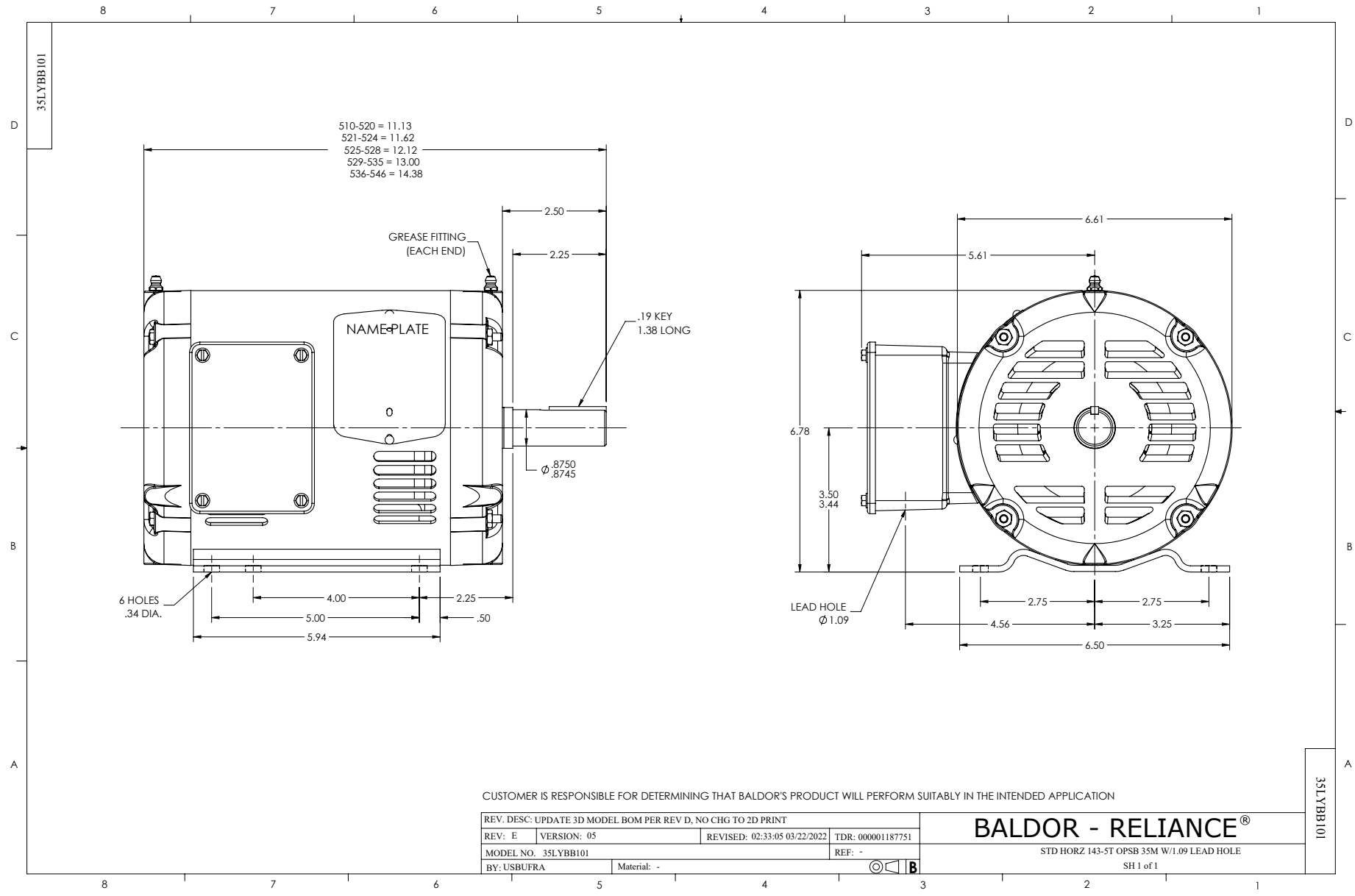
| **Winding:** 35WGG118-R002 | **Type:** 3520M | **Enclosure:** OPEN |
|---|---|---|

| **Nameplate Data** | | | | **200 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1 | **Full Load Torque** | 2.96 LB-FT |
| **Volts** | | | 200 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 3.6 | **Breakdown Torque** | 12.86 LB-FT |
| **R.P.M.** | | | 1775 | **Pull-up Torque** | 7.55 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 8.76 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | N | **Starting Current** | 31.78 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 2.43 A |
| **NEMA Nom. Eff.** | 85.5 | **Power Factor** | 67 | **Line-line Res. @ 25ºC** | 3.43 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 21°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 25°C |
| | | | | **Locked-rotor Power Factor** | 60.7991 |
| | | | | **Rotor inertia** | 0.144 lb-ft² |

**Load Characteristics 200 V, 60 Hz, 1 HP**

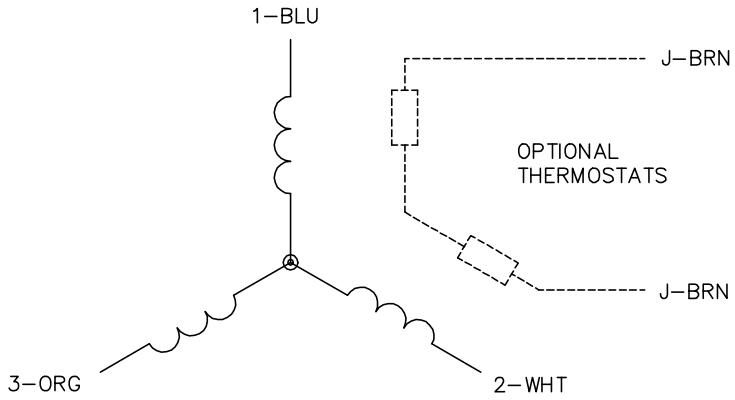
| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 30 | 48 | 61 | 70 | 76 | 80 | 74 |
| **Efficiency** | 71.5 | 81.9 | 84.9 | 85.8 | 85.8 | 85.2 | 85.8 |
| **Speed** | 1792 | 1786 | 1780 | 1773 | 1765 | 1757 | 1768 |
| **Line amperes** | 2.51 | 2.76 | 3.12 | 3.58 | 4.11 | 4.71 | 3.9 |

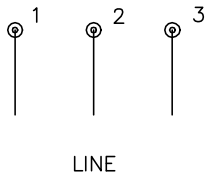

ABB Motors and Mechanical Inc.
WINDING # 35WGG118
1 HP 3 PH 60 HZ 1775 RPM 200 V 3520M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=12.86 PU=7.55 LR=8.76 LRA=31.78
TORQUE
RPM
WATTS
AMPS
EFF
PF
%EFF %PF
TORQUE (LB-FT)
RPM
WATTS
AMPS
PERCENT OF RATED OUTPUT (1 HP)
11/5/2026 ACPERF, record # 90991


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

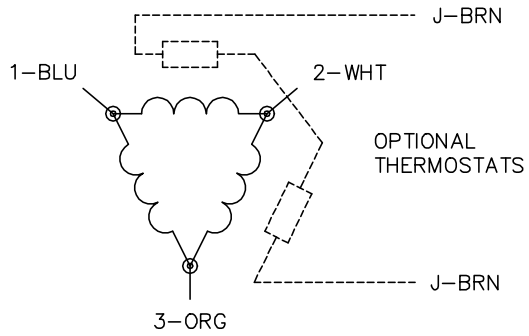
CD0006

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