ABB BALDOR RELIANCE

# Customer information packet

## VECP3583T-4

1.5HP, 3450RPM, 3PH, 60HZ, 143TC, 0524M, TEFC
Class - CLI GP A,B,C,D
Division - Division II

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 143TC |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | CLI GP A,B,C,D |
| **Haz Area Division** | Division II |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 1.500 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 3600 RPM @ 60 HZ |
| **Voltage @ Frequency** | 460.0 V @ 60 HZ |
| **Agency Approvals** | CSA EEV |
| | NEMA PREMIUM |
| | NEMA_PREMIUM |
| | UR |
| | CCSA US |
| **Ambient Temperature** | 40 °C |
| **Auxiliary Box** | NO AUXILLARY BOX |
| **Auxiliary Box Lead Termination** | None |
| **Base Indicator** | No Mounting |
| **Bearing Grease Type** | Polyrex EM (-20F +300F) |
| **Blower** | None |
| **Constant Torque Speed Range** | 6 |
| **Current @ Voltage** | 2.000 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 85.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Face Code** | Standard |
| **Front Shaft Indicator** | None |

## Part Detail

| | |
|---|---|
| **Revision** | AA |
| **Type** | AC |
| **Mech. spec.** | 05F006 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 05WGW176 |
| **Layout** | 05LYF006 |
| **Eff. date** | 04-15-2026 |
| **CD Diagram** | CD0006 |
| **Poles** | 02 |
| **Leads** | 3#18 |
| **Proprietary** | False |
| **Created date** | 02-20-2011 |

| | |
|---|---|
| **Haz Area Temp Code** | T4 |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 2.0 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | M |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 5400 rpm |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 3 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 0524M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 14.57 IN |
| **Power Factor** | 83 |
| **Product Family** | Chemical Processing (Not DC) |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **RoHS Status** | ROHS COMPLIANT |
| **Service Factor** | 1.15 |
| **Shaft Diameter** | 0.875 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**

| NP3258 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | VECP3583T-4 | | | | | | | | |
| **SPEC.** | 05F006W176G1 | | | | | | | | |
| **HP** | 1.5 TE | | | | | | | | |
| **VOLTS** | 460 | | | | | | | | |
| **AMP** | 2 | | | | | | | | |
| **RPM** | 3450 | | | | | | | | |
| **FRAME** | 143TC | **HZ** | 60 | | **PH** | 3 | | | |
| **SER.F.** | 1.15 | **CODE** | M | **DES** | B | | **CL** | F | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **SN** | | | | | | | | | |
| **DE** | 6205 | **ODE** | 6205 | | | | | | |
| **NEMA-NOM-EFF** | 85.5 | **PF** | 83 | | | | | | |
| **G.MIN.EFF** | 82.5 | **CC** | 010A | | | | | | |
| **T. CODE** | T4 | **T=** | 135 | | | | | | |

| NP3261 | | | | | |
|---|---|---|---|---|---|
| **SPEC.** | 05F006W176G1 | | | | |
| **D.E. BRG.** | 25BC02XP30X | | | | |
| **O.D.E. BRG.** | 25BC02XP30X | | | | |
| **GREASE** | POLYREX EM | | | | |
| **RPM MAX** | 5400 | **MAX. KVAR** | 0.25 | | |
| | | | | | |
| **BLANK** | | | | | |
| **INV.TYPE** | PWM | | | | |
| **T=** | 135 | | | | |
| **C HP FR** | 60 | **C HP TO** | 90 | | |
| **CT HZ FROM** | 6 | **CT HZ TO** | 60 | | |
| **VT HZ FROM** | 3 | **VT HZ TO** | 60 | | |
| **HTR-VOLTS** | | **HTR-AMPS** | | | |
| **HTR-WATTS** | | **MAX. SPACE HEATER TEMP.** | | | |

**AC Induction Motor Performance Data**
Record # 47131
Typical performance - not guaranteed values

| **Winding:** 05WGW176-R028 | **Type:** 0524M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1.5 | **Full Load Torque** | 2.3 LB-FT |
| **Volts** | | | 460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 2 | **Breakdown Torque** | 10.8 LB-FT |
| **R.P.M.** | | | 3450 | **Pull-up Torque** | 8.1 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 10.2 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | M | **Starting Current** | 20.1 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 0.88 A |
| **NEMA Nom. Eff.** | 85.5 | **Power Factor** | 83 | **Line-line Res. @ 25ºC** | 8.38 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 32°C |
| **S.F. Amps** | | | | **Temp. Rise @ S.F. Load** | 37°C |
| | | | | **Locked-rotor Power Factor** | 50.3 |
| | | | | **Rotor inertia** | 0.0664 LB-FT2 |

**Load Characteristics 460 V, 60 Hz, 1.5 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 49 | 69 | 80 | 84 | 87 | 90 | 85 |
| **Efficiency** | 71.9 | 81.3 | 84.5 | 85.5 | 85.1 | 84 | 85.2 |
| **Speed** | 3569 | 3545 | 3521 | 3496 | 3468 | 3439 | 3479 |
| **Line amperes** | 1.03 | 1.29 | 1.6 | 2 | 2.4 | 2.8 | 2.25 |

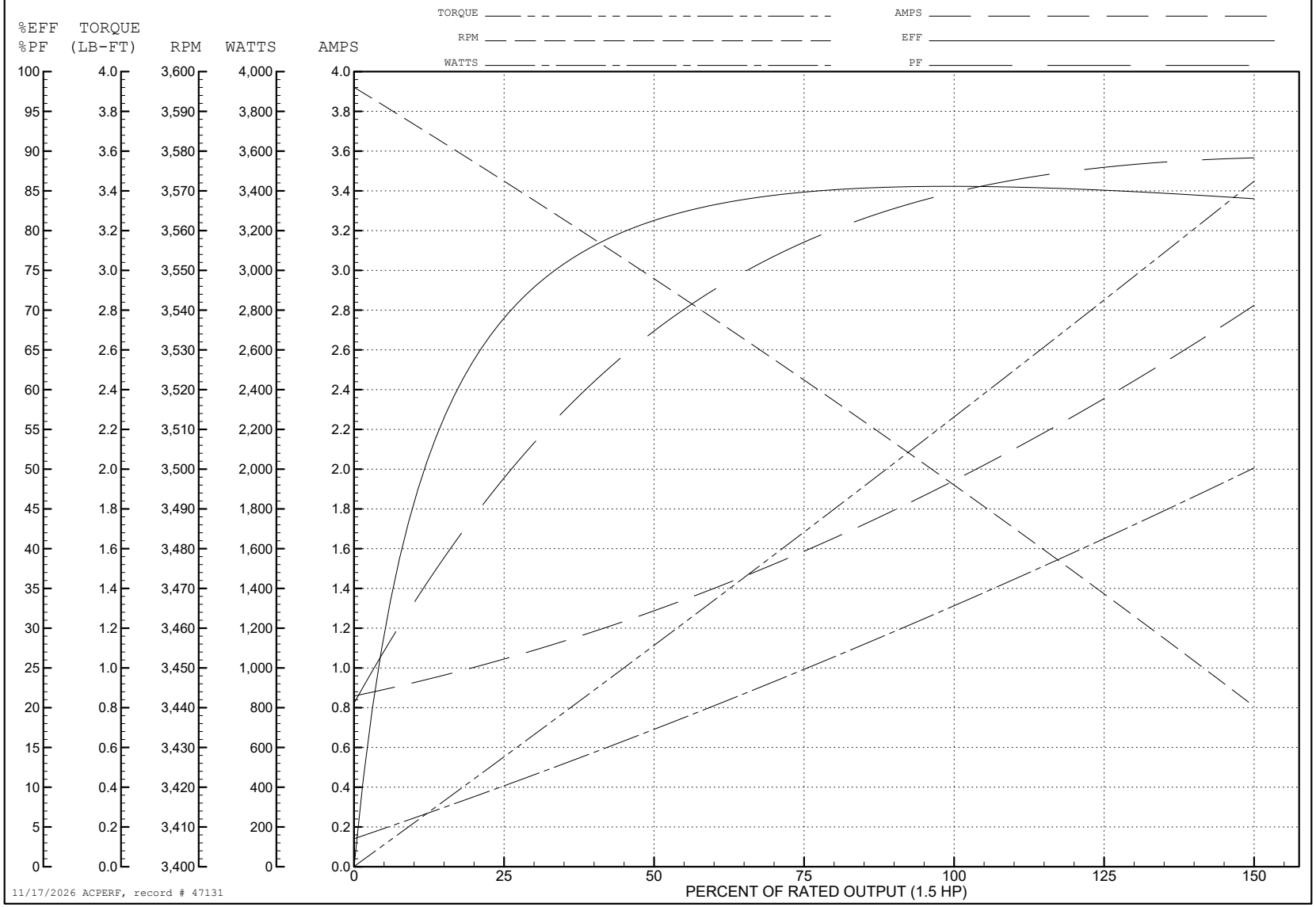
ABB Motors and Mechanical Inc.

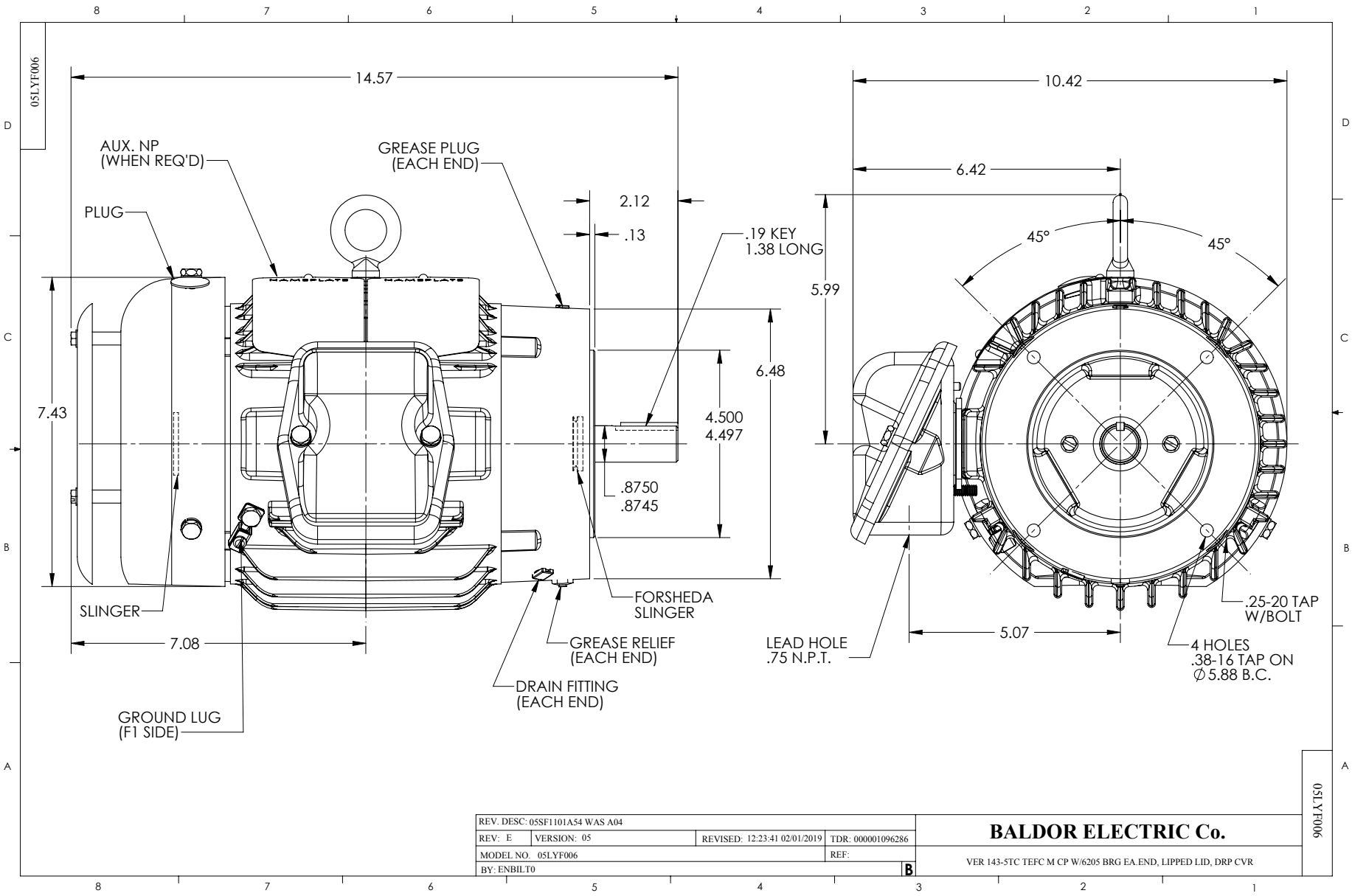
WINDING # 05WGW176

1.5 HP 3 PH 60 HZ 3450 RPM 460 V 0524M

Typical performance - not guaranteed values.

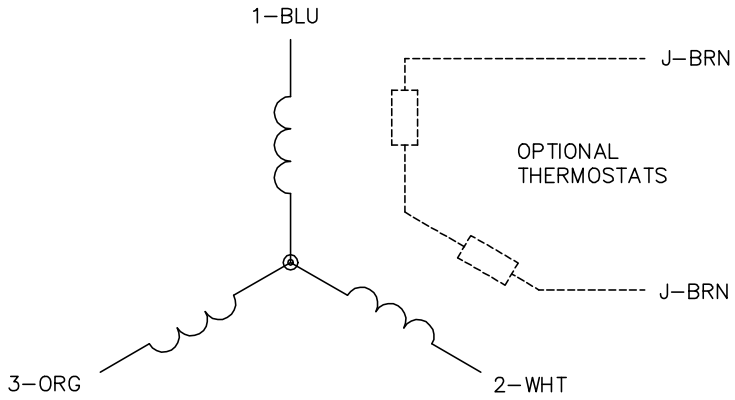
TORQUES(LB-FT): PO=10.8 PU=8.1 LR=10.2 LRA=20.1

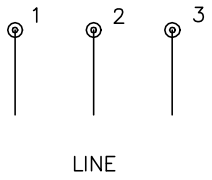



05LYF006
14.57
AUX. NP
(WHEN REQ'D)
GREASE PLUG
(EACH END)
PLUG
2.12
.13
.19 KEY
1.38 LONG
6.48
4.500
4.497
7.43
.8750
.8745
SLINGER
FORSHEDA
SLINGER
7.08
GREASE RELIEF
(EACH END)
DRAIN FITTING
(EACH END)
GROUND LUG
(F1 SIDE)
10.42
6.42
45°
45°
5.99
LEAD HOLE
.75 N.P.T.
5.07
.25-20 TAP
W/BOLT
4 HOLES
.38-16 TAP ON
∅5.88 B.C.
REV. DESC: 05SF1101A54 WAS A04
REV: E
VERSION: 05
REVISED: 12:23:41 02/01/2019
TDR: 000001096286
MODEL NO. 05LYF006
REF:
BY: ENBILT0
B
BALDOR ELECTRIC Co.
VER 143-5TC TEFC M CP W/6205 BRG EA.END, LIPPED LID, DRP CVR
05LYF006

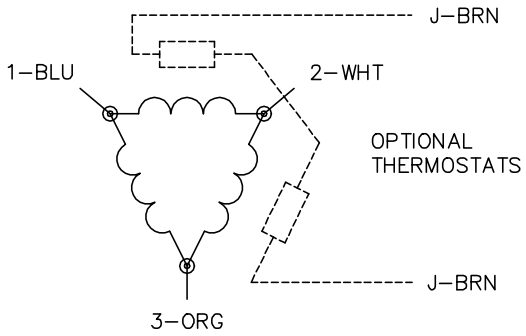
CD0006

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

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