ABB BALDOR RELIANCE

# Customer information packet

## VENCP83581T-4

1HP, 1775RPM, 3PH, 60HZ, 143TC, 0524M, TENV, F1
Class - CLI GP A,B,C,D
Division - Division II

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11/18/2026 5:07:47 PM

## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **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** | 1.000 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 460.0 V @ 60 HZ |
| **Agency Approvals** | CCSA US |
| | CSA EEV |
| | NEMA PREMIUM |
| | NEMA_PREMIUM |
| | UR |
| **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** | 1.2 |
| **Current @ Voltage** | 1.500 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 87.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Haz Area Temp Code** | T4 |

## Part Detail

| | |
|---|---|
| **Revision** | B |
| **Type** | AC |
| **Mech. spec.** | 05F158 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 05WGX611 |
| **Layout** | 05LYF158 |
| **Eff. date** | 11-03-2026 |
| **CD Diagram** | CD0006 |
| **Poles** | 04 |
| **Leads** | 3#18 |
| **Proprietary** | False |
| **Created date** | 03-11-2022 |

| | |
|---|---|
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 1.5 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | N |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 2700 rpm |
| **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** | 4 |
| **Overall Length** | 12.00 IN |
| **Power Factor** | 72 |
| **Product Family** | Chem Process S/P 32-8 IEEE 841 |
| **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** | Shaft 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**

| NP4328 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | VENCP83581T-4 | | | | | | | | |
| **SPEC.** | 05F158X611G1 | | | | | | | | |
| **HP** | 1 TE | | | **IP** | 56 | | | | |
| **VOLTS** | 460 | | | | | | | | |
| **AMPS** | 1.5 | | | | | | | | |
| **R.P.M.** | 1775 | | | | | | | | |
| **FRAME** | 143TC | **HZ** | 60 | | | **PH** | 3 | | |
| **SER.F.** | 1.15 | **CODE** | N | **DES.** | B | | **CLASS** | F | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **SN** | | | | | | | | | |
| **DE** | 6205 | **ODE** | 6205 | | | | | | |
| **NEMA NOM. EFF.** | 87.5 | **P.F.** | 72 | | | | | | |
| **GUAR. MIN. EFF.** | 85.5 | **CC** | 010A | | | | | | |
| **T. CODE** | T4 | **TEMP=** | 135 | | | | | | |

| NP3186 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SPEC.** | 05F158X611G1 | | | | | | |
| **ABMA DE BRG** | 25BC02X30X | | | | | | |
| **ABMA ODE BRG** | 25BC02XP30X | | | | | | |
| **GREASE** | POLYREX EM | | | | | | |
| **MOTOR WEIGHT** | 63 | **ROTOR BARS** | 27 | **STATOR BARS** | 36 | | |
| **MAX. R.P.M.** | 2700 | **MAX. KVAR** | 0.4 | | | | |
| | SFA 1.6 | | | | | | |
| **INV.TYPE** | PWM | | | | | | |
| **T=** | 135 | | | | | | |
| **CHP** | 60 | **TO** | 90 | | | | |
| **CT** | 1.2 | **TO** | 60 | | | | |
| **VT** | -0 | **TO** | 60 | | | | |
| **HTR-VOLTS** | | **HTR-AMPS** | | | | | |
| **HTR-WATTS** | | **MAX. SPACE HEATER TEMP.** | | | | | |

**AC Induction Motor Performance Data**
Record # 87017
Preliminary Data Sheet

| **Winding:** 05WGX611-R001 | **Type:** 0524M | **Enclosure:** TENV |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: Single Voltage Motor** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1 | **Full Load Torque** | 2.96 LB-FT |
| **Volts** | | | 460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 1.5 | **Breakdown Torque** | 14.24 LB-FT |
| **R.P.M.** | | | 1775 | **Pull-up Torque** | 8.16 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 9.46 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | N | **Starting Current** | 14.67 A |
| **Service Factor (S.F.)** | | | 1.15 | **No-load Current** | 0.97 A |
| **NEMA Nom. Eff.** | 87.5 | **Power Factor** | 72 | **Line-line Res. @ 25ºC** | 15 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 50°C |
| **S.F. Amps** | | | 1.6 | **Temp. Rise @ S.F. Load** | 54°C |
| | | | | **Locked-rotor Power Factor** | 57.3 |
| | | | | **Rotor inertia** | 0.173 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 33 | 50 | 63 | 72 | 78 | 82 | 76 |
| **Efficiency** | 73.6 | 83.3 | 86.3 | 87 | 87.1 | 86.5 | 87.1 |
| **Speed** | 1793 | 1787 | 1781 | 1774 | 1767 | 1760 | 1770 |
| **Line amperes** | 1.01 | 1.12 | 1.28 | 1.49 | 1.72 | 1.98 | 1.63 |

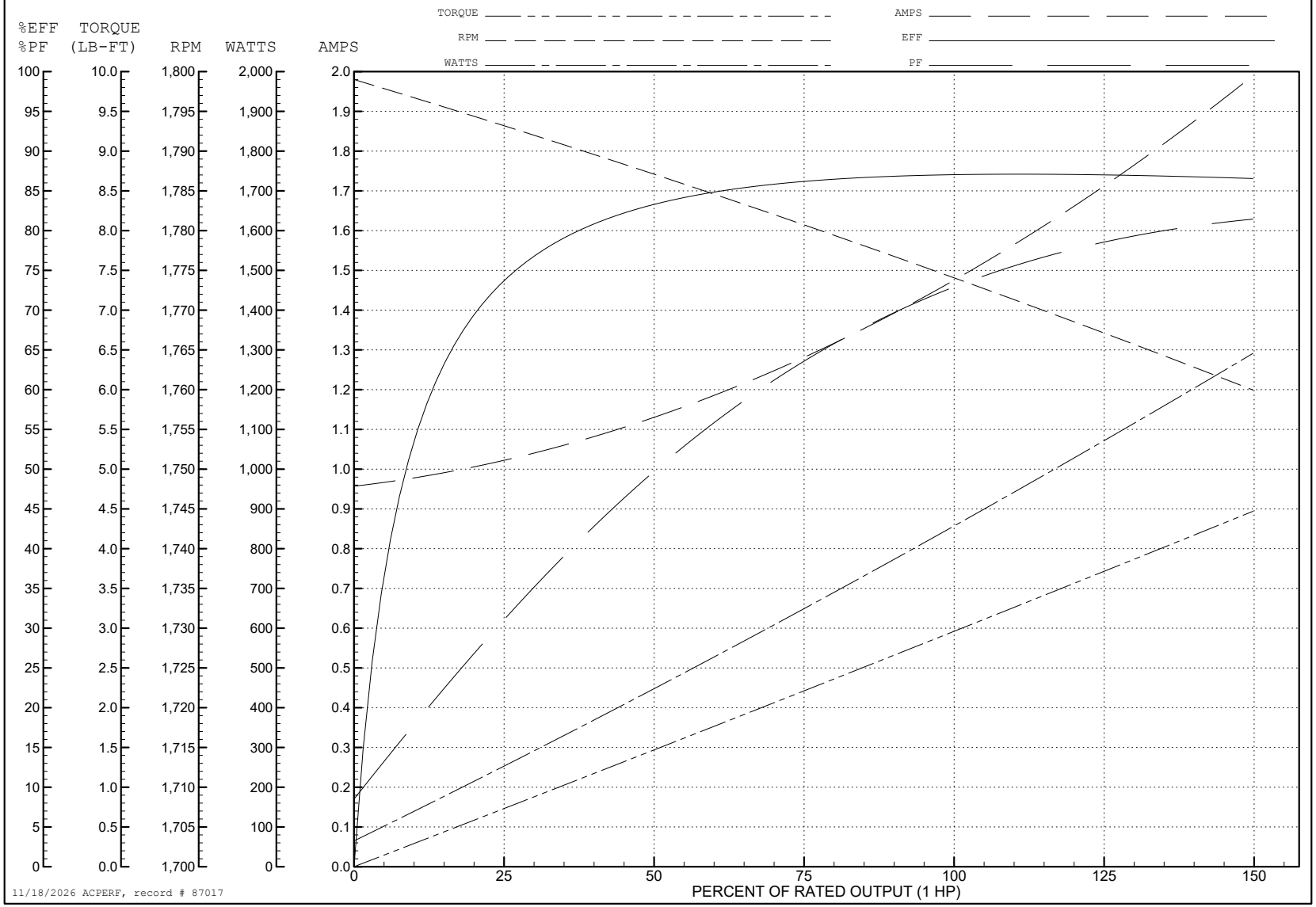
ABB Motors and Mechanical Inc.

WINDING # 05WGX611

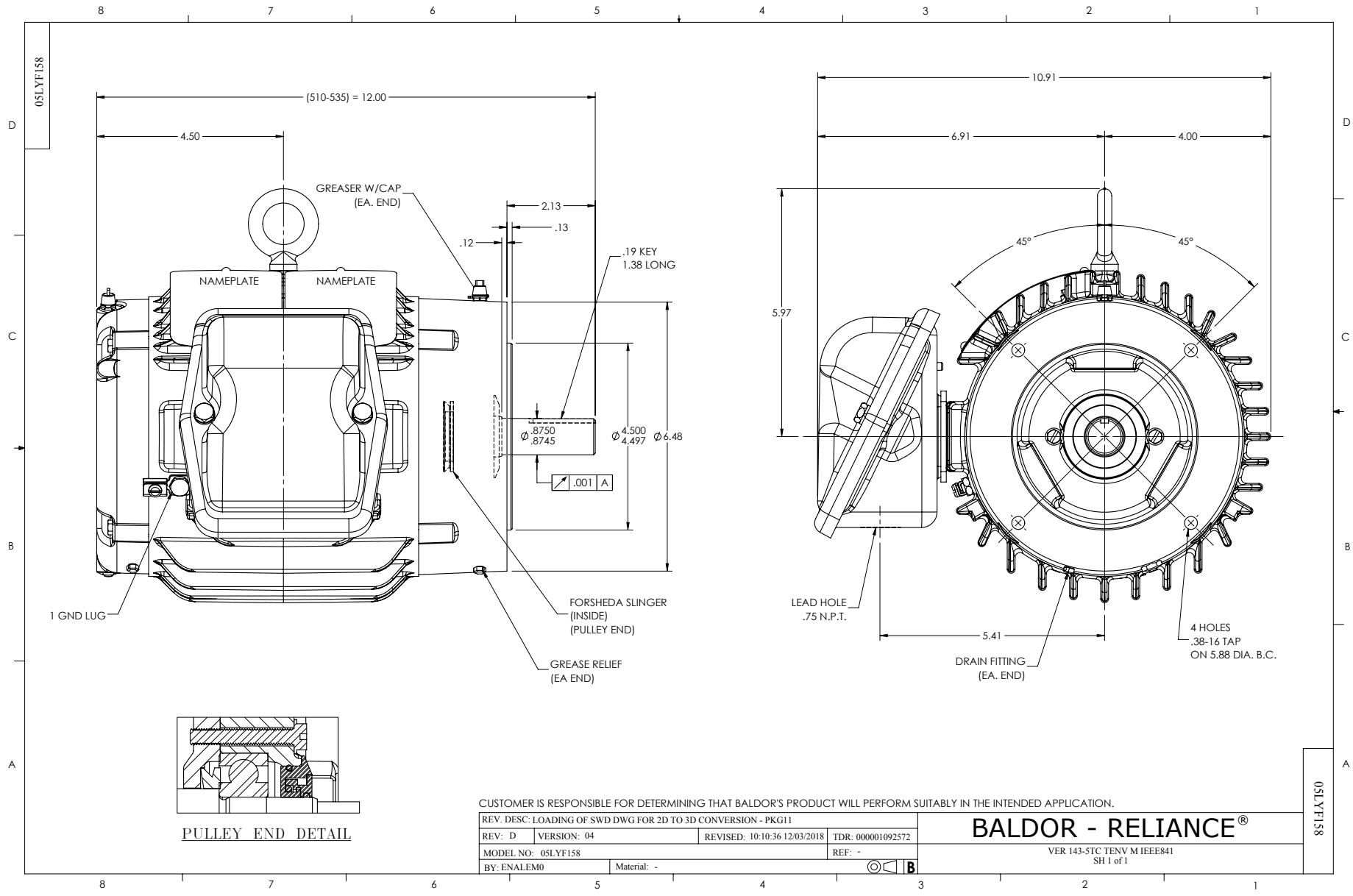
1 HP 3 PH 60 HZ 1775 RPM 460 V 0524M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=14.24 PU=8.16 LR=9.46 LRA=14.67

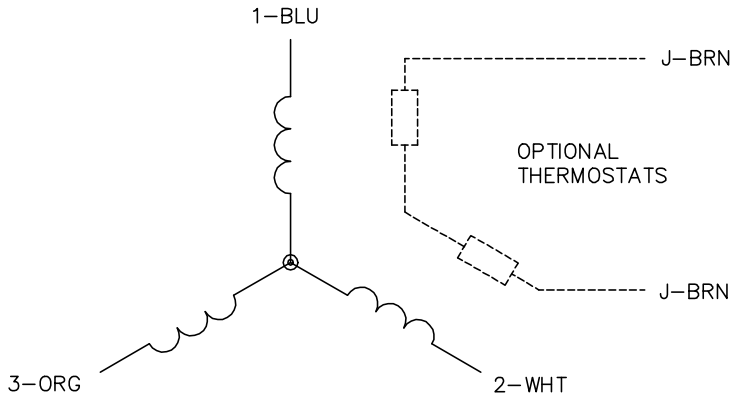


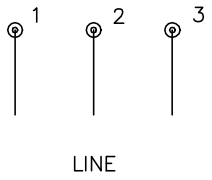

11/18/2026 ACPERF, record # 87017


05LYF158
(510-535) = 12.00
4.50
GREASER W/CAP
(EA. END)
2.13
.13
.12
.19 KEY
1.38 LONG
NAMEPLATE
NAMEPLATE
.8750
.8745
4.500
4.497
6.48
.001 A
1 GND LUG
FORSHEDA SLINGER
(INSIDE)
(PULLEY END)
GREASE RELIEF
(EA END)
10.91
6.91
4.00
45°
45°
5.97
LEAD HOLE
.75 N.P.T.
5.41
DRAIN FITTING
(EA. END)
4 HOLES
.38-16 TAP
ON 5.88 DIA. B.C.
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: LOADING OF SWD DWG FOR 2D TO 3D CONVERSION - PKG11
REV: D
VERSION: 04
REVISED: 10:10:36 12/03/2018
TDR: 000001092572
MODEL NO: 05LYF158
REF: -
BY: ENALEM0
Material: -
B
BALDOR - RELIANCE®
VER 143-5TC TENV M IEEE841
SH 1 of 1
05LYF158

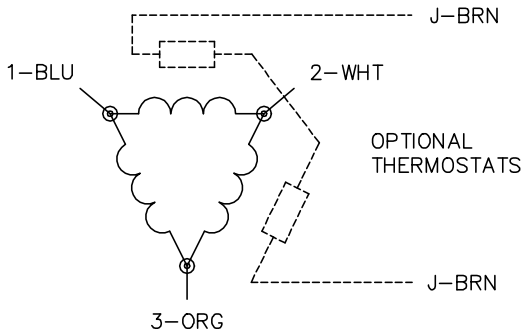
CD0006

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 | | | BALDOR - RELIANCE® |
| REV. LTR: E | VERSION: 01 | TDR: 000001099922 | |
| FILE: \AAA\00005\141 | REVISED: 10:24:49 02/19/2019 | BY: ENBRIR0 | 3PH, SV, 3 LEADS, WYE OR DELTA CONNECTED |
| MTL: – | | | SH 1 of 1 |