ABB BALDOR RELIANCE

# Customer information packet

## ZDM3584T

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 0524M, TEBC
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEBC |
| **Frame** | 145TC |
| **Frame Material** | Iron |
| **Frequency** | 60.00 Hz |
| **Haz Area Class and Group** | None |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 1.500 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | 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** | BLOWER |
| **Current @ Voltage** | 2.300 A @ 460.0 V |
| | 4.600 A @ 230.0 V |
| | 4.640 A @ 208.0 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** | ENCODER |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 2.3 a |

## Part Detail

| | |
|---|---|
| **Revision** | E |
| **Type** | AC |
| **Mech. spec.** | 05E535 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 05WGX510 |
| **Layout** | 05LYE535 |
| **Eff. date** | 09-30-2025 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#18 Y |
| **Proprietary** | False |
| **Created date** | 07-21-2022 |

| | |
|---|---|
| **Insulation Class** | H |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | M |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 2700 rpm |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 0524M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 19.02 IN |
| **Power Factor** | 72 |
| **Product Family** | General Purpose |
| **Pulley End Bearing Type** | Ball |
| **Pulley Face Code** | C-Face |
| **Pulley Shaft Indicator** | Standard |
| **Rodent Screen** | None |
| **Service Factor** | 1.00 |
| **Shaft Diameter** | 0.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | Shaft Slinger |
| **Speed** | 1770 rpm |
| **Speed Code** | Single Speed |
| **Starting Method** | Direct on line |
| **Thermal Device - Bearing** | None |
| **Thermal Device - Winding** | Normally Closed Thermostat |
| **Vibration Sensor Indicator** | No Vibration Sensor |
| **Winding Thermal 1** | None |
| **Winding Thermal 2** | None |

**Nameplate**

| NP4539L | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | ZDM3584T | | | | | | | | |
| **SPEC.** | 05E535X510G2 | | | | | | | | |
| **FRAME** | 145TC | | **H.P.** | 1.5 TE | | | | | |
| **VOLTS** | 230/460 | | | | | | | | |
| **MAG. CUR.** | 3/1.5 | | | | **F.L. AMPS** | 4.6/2.3 | | | |
| **R.P.M.** | 1770 | | **R.P.M. MAX** | 2700 | | | | | |
| **HZ.** | 60 | **PH.** | 3 | **CLASS** | H | | | | |
| **SER.F.** | 1.00 | **DES.** | B | **SL HZ** | 1 | | | | |
| **NEMA NOM. EFF.** | 86.5 | **WK2** | 0.174 | | | | | | |
| **BLWR V** | 115 | **PH** | 1 | **HZ** | 60 | **AMPS** | .5 | | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **DE** | 6205 | **ODE** | 6203 | | | | | | |
| **CC** | 010A | **SN** | | | | | | | |
| | 1000:1 CT/VT | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 95409
Typical performance - not guaranteed values

| **Winding:** 05WGX510-R004 | **Type:** 0524M | **Enclosure:** TEBC |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 1.5 | **Full Load Torque** | 4.48 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 4.6/2.3 | **Breakdown Torque** | 18.8 LB-FT |
| **R.P.M.** | | | 1770 | **Pull-up Torque** | 9.6 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 12.6 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | M | **Starting Current** | 19.7 A |
| **Service Factor (S.F.)** | | | 1 | **No-load Current** | 1.51 A |
| **NEMA Nom. Eff.** | 86.5 | **Power Factor** | 72 | **Line-line Res. @ 25ºC** | 11.8 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 48°C |
| | | | | **Locked-rotor Power Factor** | 58.4 |
| | | | | **Rotor inertia** | 0.173 lb-ft² |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** |
|---|---|---|---|---|---|---|
| **Power Factor** | 31 | 49 | 63 | 72 | 78 | 81 |
| **Efficiency** | 75.1 | 83.5 | 86 | 86.5 | 85.8 | 84.8 |
| **Speed** | 1792 | 1785 | 1777 | 1769 | 1760 | 1750 |
| **Line amperes** | 1.56 | 1.72 | 1.97 | 2.28 | 2.65 | 3.06 |

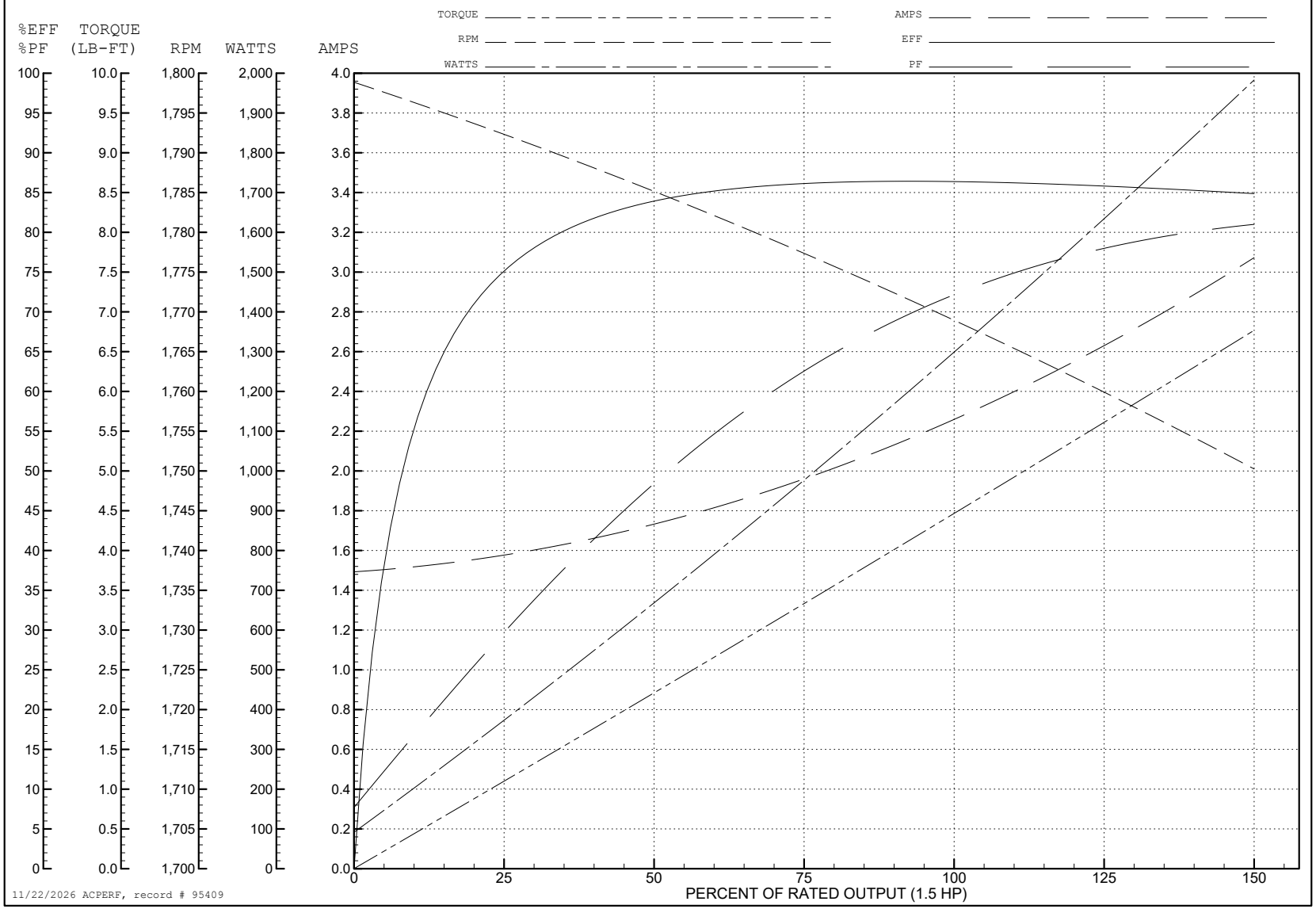
ABB Motors and Mechanical Inc.

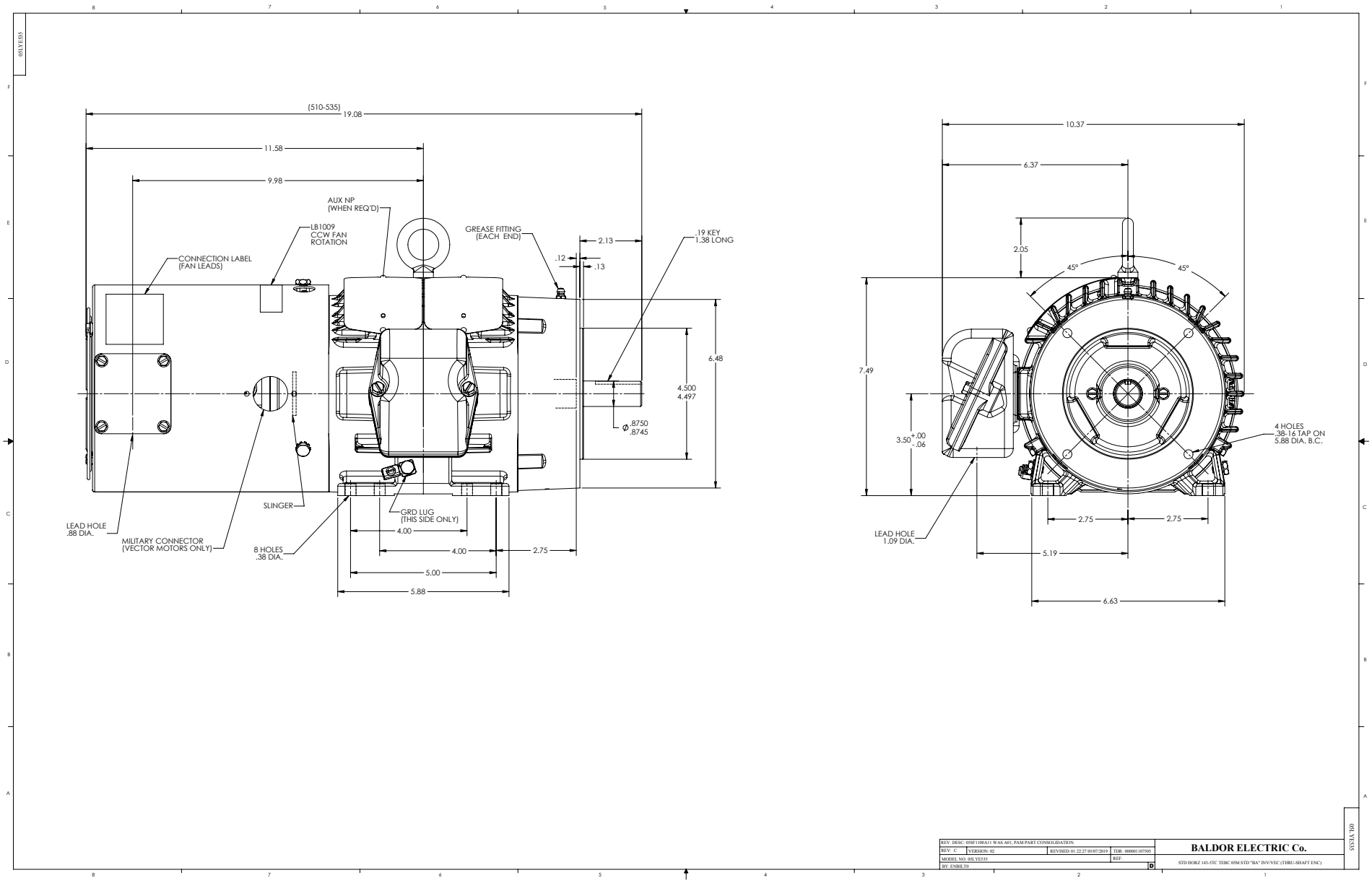
WINDING # 05WGX510

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 0524M

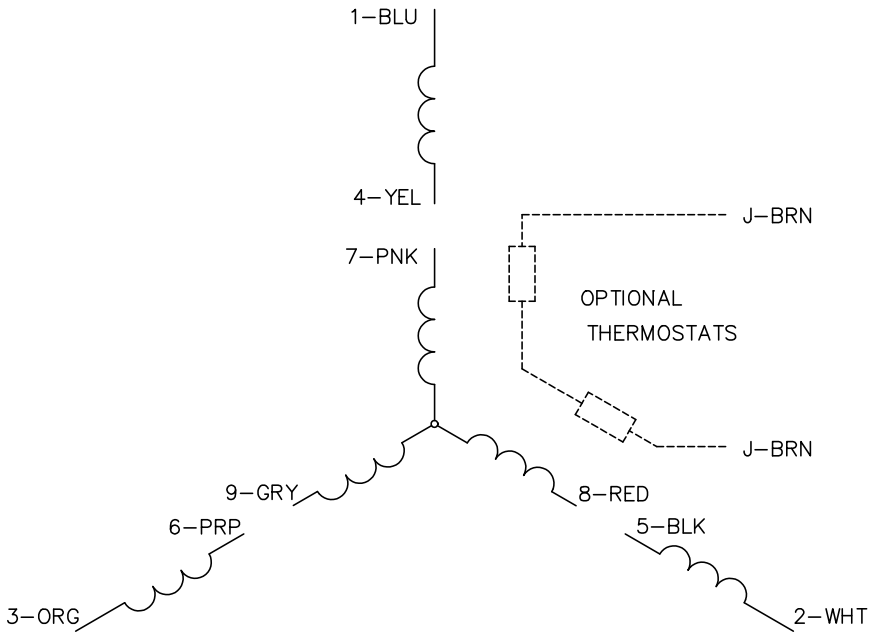
Typical performance - not guaranteed values.

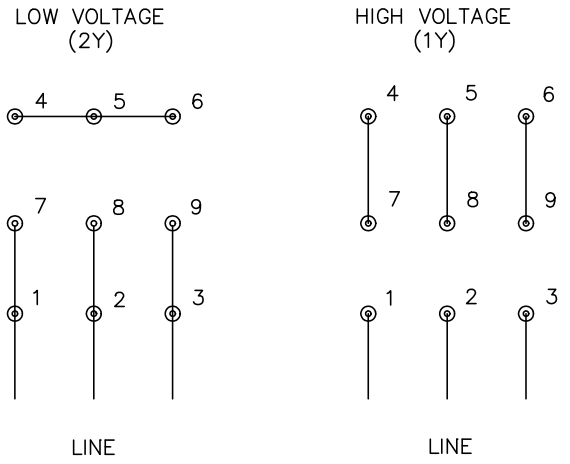
TORQUES(LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7




05LYE535
(510-535)
19.08
11.58
9.98
AUX NP
(WHEN REQ'D)
LB1009
CCW FAN
ROTATION
GREASE FITTING
(EACH END)
2.13
.19 KEY
1.38 LONG
.12
.13
CONNECTION LABEL
(FAN LEADS)
6.48
4.500
4.497
Ø .8750
.8745
SLINGER
GRD LUG
(THIS SIDE ONLY)
LEAD HOLE
.88 DIA.
MILITARY CONNECTOR
(VECTOR MOTORS ONLY)
8 HOLES
.38 DIA.
4.00
4.00
2.75
5.00
5.88
10.37
6.37
2.05
45°
45°
7.49
3.50 +.00 -.06
4 HOLES
.38-16 TAP ON
5.88 DIA. B.C.
2.75
2.75
LEAD HOLE
1.09 DIA.
5.19
6.63
REV DESC 05SF1100A13 WAS A01, PAM PART CONSOLIDATION
REV: C VERSION: 02 REVISED: 01.22.27 05/07/2019 TDR: 0000001107505
MODEL NO: 05LYE535 REF:
BY: ENBLTH
BALDOR ELECTRIC Co.
STD HORZ 143-5TC TEBC 05M STD "BA" INV/VEC (THRU-SHAFT ENC)
05LYE535

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 |