ABB BALDOR RELIANCE

# Customer information packet

## CEM3554T

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 3524M, TEFC
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 145TC |
| **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** | 1.500 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** | 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** | 2.300 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** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 2.3 a |

## Part Detail

| | |
|---|---|
| **Revision** | D |
| **Type** | AC |
| **Mech. spec.** | 35AA002 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGL955 |
| **Layout** | 35LYAA002 |
| **Eff. date** | 01-12-2026 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 01-10-2022 |

| | |
|---|---|
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | M |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3524M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 13.29 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** | 1.15 |
| **Shaft Diameter** | 0.875 IN |
| **Shaft Ground Indicator** | No Shaft Grounding |
| **Shaft Rotation** | Reversible |
| **Shaft Slinger Indicator** | No Slinger |
| **Speed** | 1770 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**

| NP3441LUA | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | CEM3554T | | | | | | | | | | |
| **SPEC** | 35AA002L955G1 | | | | | | | | | | |
| **HP** | 1.5 | | | | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | | | | |
| **AMPS** | 4.6/2.3 | | | | | | | | | | |
| **RPM** | 1770 | | | | | | | | | | |
| **FRAME** | 145TC | **HZ** | 60 | **PH** | 3 | | | | | | |
| **SF** | 1.15 | **CODE** | M | **DES** | B | **CLASS** | F | | | | |
| **NEMA NOM. EFF** | 86.5 | **PF** | 72 | | | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | | | |
| **CC** | 010A | | | | | | | | | | |
| **ENCL** | TEFC | **SER** | | | | | | | | | |
| **DE** | 6205 | **ODE** | 6203 | | | | | | | | |
| **VPWM INVERTER READY** | SFA 4.72/2.36 | | | | | | | | | | |
| **CT6-60H(10:1)VT3-60H(20:1** | | | | | | | | | | | |
| | 1.5HP 190/380V 50HZ 5.2/2.6A | | | | | | | | | | SF1.0 |

**AC Induction Motor Performance Data**
Record # 95387
Typical performance - not guaranteed values

| **Winding:** 35WGL955-R001 | **Type:** 3524M | **Enclosure:** TEFC |
|---|---|---|

| **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.)** | | | 1.15 | **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 |
| **S.F. Amps** | | | 5/2.5 | **Temp. Rise @ S.F. Load** | 57°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** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 31 | 49 | 63 | 72 | 78 | 81 | 76 |
| **Efficiency** | 75.1 | 83.5 | 86 | 86.5 | 85.8 | 84.8 | 86.1 |
| **Speed** | 1792 | 1785 | 1777 | 1769 | 1760 | 1750 | 1764 |
| **Line amperes** | 1.56 | 1.72 | 1.97 | 2.28 | 2.65 | 3.06 | 2.5 |

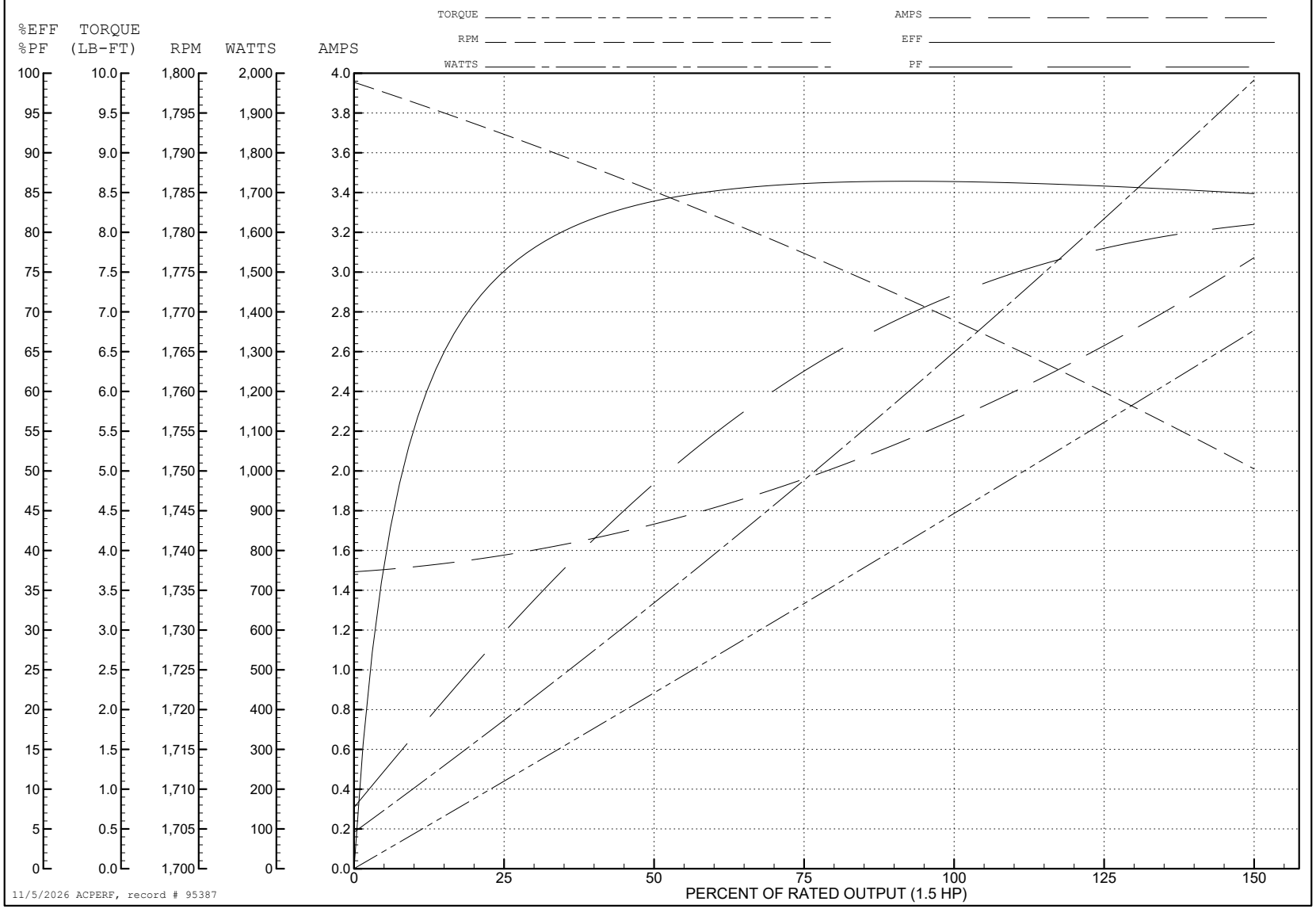
ABB Motors and Mechanical Inc.

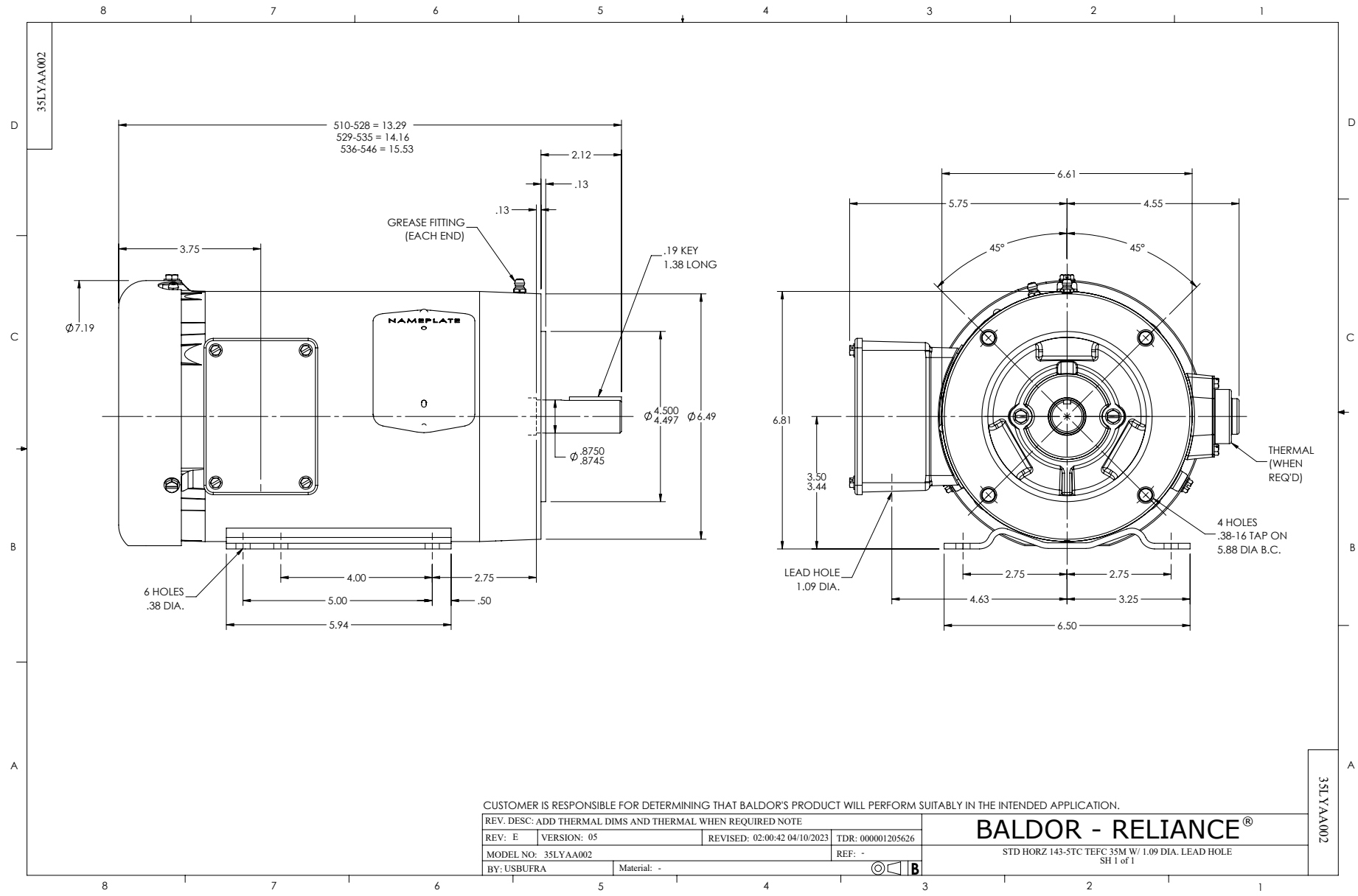
WINDING # 35WGL955

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3524M

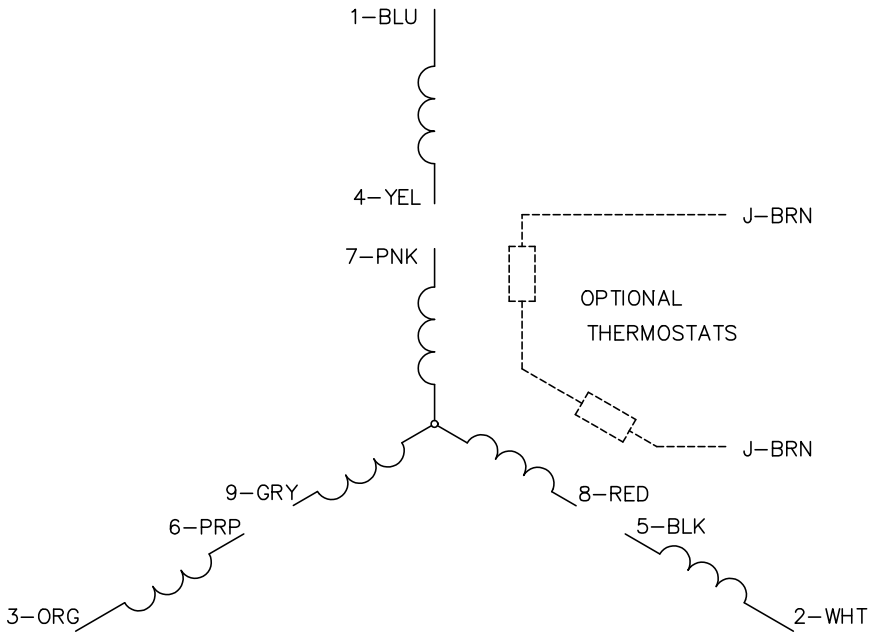
Typical performance - not guaranteed values.

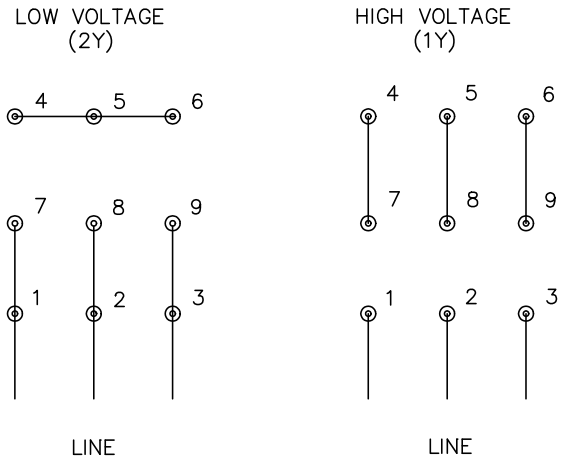
TORQUES(LB-FT): PO=18.8 PU=9.6 LR=12.6 LRA=19.7




35LYAA002
510-528 = 13.29
529-535 = 14.16
536-546 = 15.53
2.12
.13
.13
GREASE FITTING
(EACH END)
.19 KEY
1.38 LONG
3.75
Ø7.19
NAMEPLATE
Ø4.500
4.497
Ø6.49
Ø.8750
.8745
6 HOLES
.38 DIA.
4.00
2.75
5.00
.50
5.94
6.61
5.75
4.55
45°
45°
6.81
3.50
3.44
THERMAL
(WHEN
REQ'D)
4 HOLES
.38-16 TAP ON
5.88 DIA B.C.
LEAD HOLE
1.09 DIA.
2.75
2.75
4.63
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: ADD THERMAL DIMS AND THERMAL WHEN REQUIRED NOTE
REV: E
VERSION: 05
REVISED: 02:00:42 04/10/2023
TDR: 000001205626
MODEL NO: 35LYAA002
REF: -
BY: USBUFRA
Material: -
B
BALDOR - RELIANCE®
STD HORZ 143-5TC TEFC 35M W/ 1.09 DIA. LEAD HOLE
SH 1 of 1
35LYAA002

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 |