ABB BALDOR RELIANCE

# Customer information packet

## CEM3550T

1.5HP, 3500RPM, 3PH, 60HZ, 143TC, 3520M, TEFC
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TEFC |
| **Frame** | 143TC |
| **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** | 3600 RPM @ 60 HZ |
| **Voltage @ Frequency** | 230.0 V @ 60 HZ |
| | 460.0 V @ 60 HZ |
| **Agency Approvals** | NEMA PREMIUM |
| | CURUSEEV |
| **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** | 1.900 A @ 460.0 V |
| | 3.800 A @ 230.0 V |
| | 4.000 A @ 208.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 84.0 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Face Code** | Standard |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |

## Part Detail

| | |
|---|---|
| **Revision** | Y |
| **Type** | AC |
| **Mech. spec.** | 35TT856 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGM760 |
| **Layout** | 35LYTT856 |
| **Eff. date** | 01-08-2026 |
| **CD Diagram** | CD0005 |
| **Poles** | 02 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 08-03-2010 |

| | |
|---|---|
| **High Voltage Full Load Amps** | 1.9 a |
| **Insulation Class** | F |
| **Inverter Code** | Inverter Ready |
| **KVA Code** | L |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3520M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 2 |
| **Overall Length** | 13.29 IN |
| **Power Factor** | 85 |
| **Product Family** | General Purpose |
| **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** | No Slinger |
| **Speed** | 3500 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.** | CEM3550T | | | | | | | | |
| **SPEC** | 35TT856M760G1 | | | | | | | | |
| **HP** | 1.5 | | | | | | | | |
| **VOLTS** | 230/460 | | | | | | | | |
| **AMPS** | 3.8/1.9 | | | | | | | | |
| **RPM** | 3500 | | | | | | | | |
| **FRAME** | 143TC | **HZ** | 60 | | | **PH** | 3 | | |
| **SF** | 1.15 | **CODE** | L | **DES** | B | **CLASS** | F | | |
| **NEMA NOM. EFF** | 84 | **PF** | 85 | | | | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **CC** | 010A | | | | | | | | |
| **ENCL** | TEFC | **SER** | | | | | | | |
| **DE** | 6205 | **ODE** | 6203 | | | | | | |
| **VPWM INVERTER READY** | | | | | | | | | |
| **CT6-60H(10:1)VT3-60H(20:1** | | | | | | | | | |
| | 50Hz 1.5HP 190/380V 4.6/2.3A | | | | | | | | SF1.0 |

**AC Induction Motor Performance Data**
Record # 61761
Typical performance - not guaranteed values

| **Winding:** 35WGM760-R069 | **Type:** 3520M | **Enclosure:** TEFC |
|---|---|---|

| **Nameplate Data** | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|
| **Rated Output (HP)** | | 1.5 | **Full Load Torque** | 2.22 LB-FT |
| **Volts** | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | 3.8/1.9 | **Breakdown Torque** | 9.49 LB-FT |
| **R.P.M.** | | 3500 | **Pull-up Torque** | 3.61 LB-FT |
| **Hz** | 60 **Phase** | 3 | **Locked-rotor Torque** | 7.35 LB-FT |
| **NEMA Design Code** | B **KVA Code** | L | **Starting Current** | 17.9 A |
| **Service Factor (S.F.)** | | 1.15 | **No-load Current** | 0.932 A |
| **NEMA Nom. Eff.** | 84 **Power Factor** | 85 | **Line-line Res. @ 25ºC** | 12.2 Ω |
| **Rating - Duty** | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 43°C |
| **S.F. Amps** | | | **Temp. Rise @ S.F. Load** | 50°C |
| | | | **Locked-rotor Power Factor** | 60.1 |
| | | | **Rotor inertia** | 0.0553 LB-FT2 |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** | **S.F.** |
|---|---|---|---|---|---|---|---|
| **Power Factor** | 45 | 67 | 79 | 85 | 89 | 90 | 87 |
| **Efficiency** | 72.3 | 82.2 | 84.4 | 84.8 | 84.3 | 82.8 | 84.5 |
| **Speed** | 3575 | 3551 | 3526 | 3498 | 3466 | 3433 | 3479 |
| **Line amperes** | 1.03 | 1.25 | 1.55 | 1.91 | 2.31 | 2.79 | 2.15 |

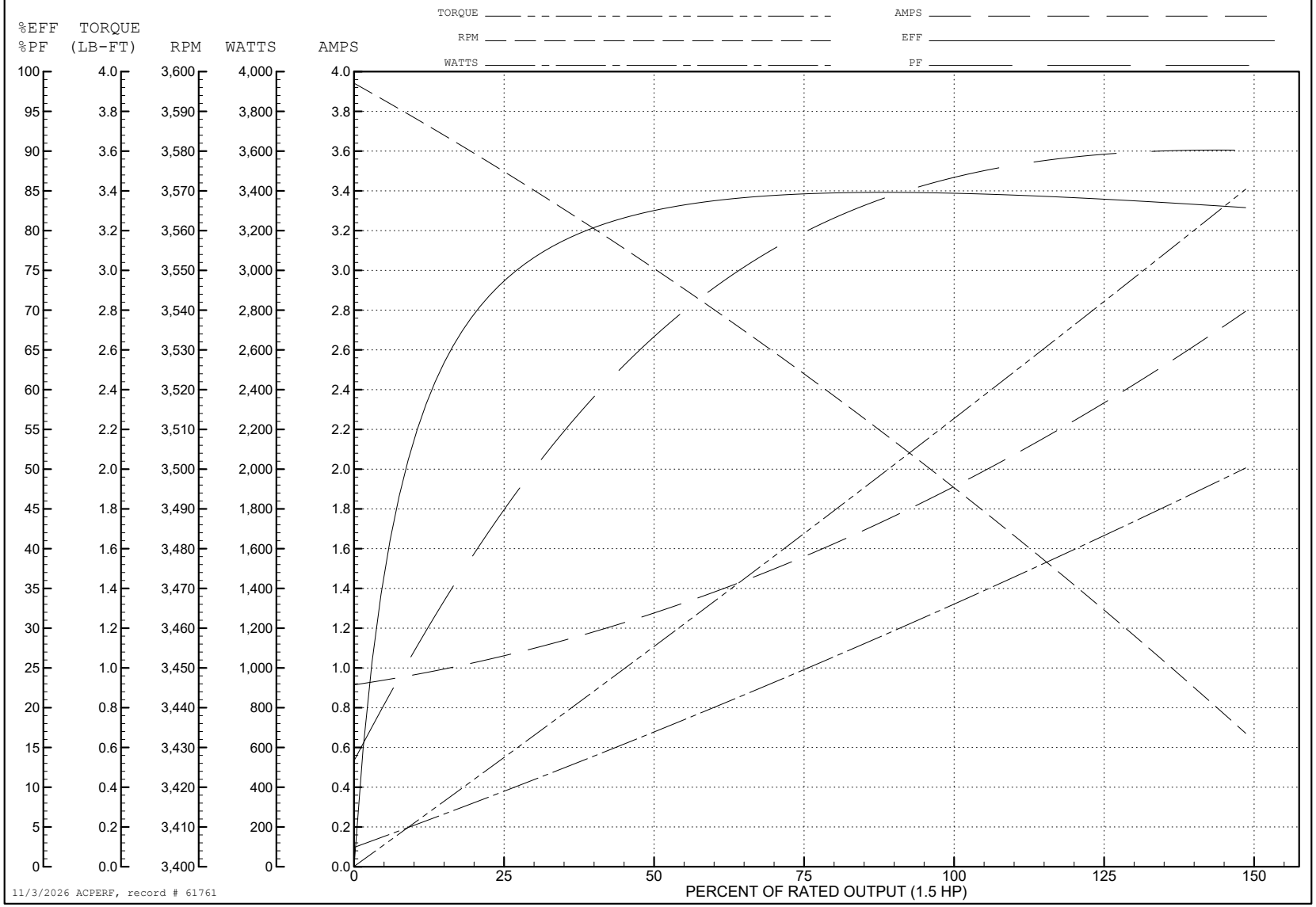
ABB Motors and Mechanical Inc.

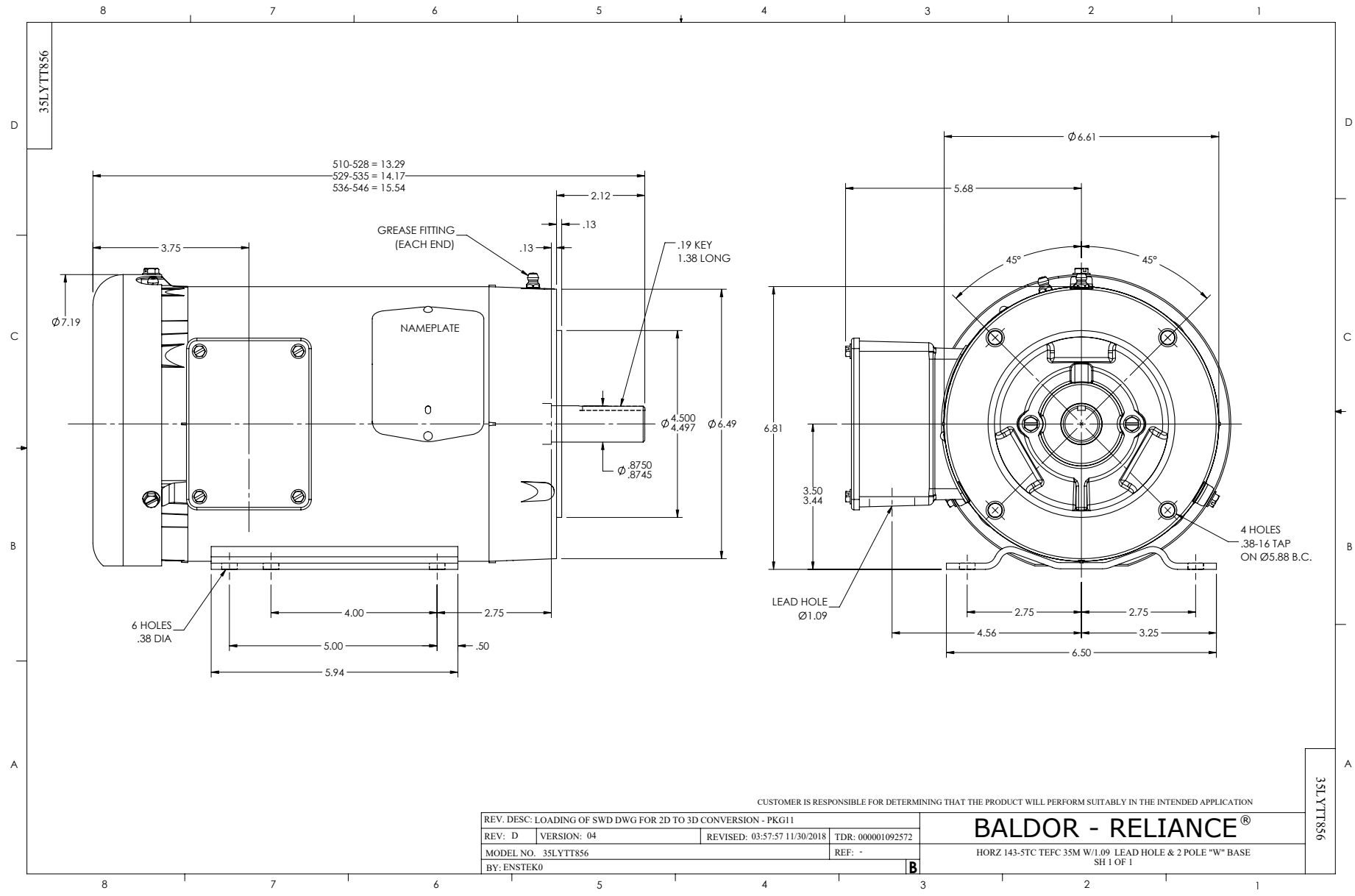
WINDING # 35WGM760

1.5 HP 3 PH 60 HZ 3500 RPM 460 V 3520M

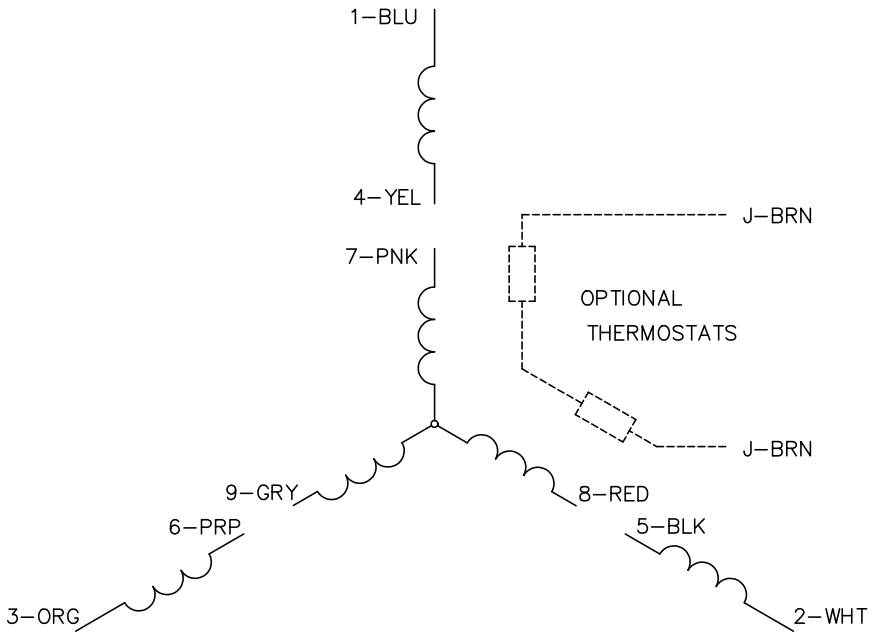
Typical performance - not guaranteed values.

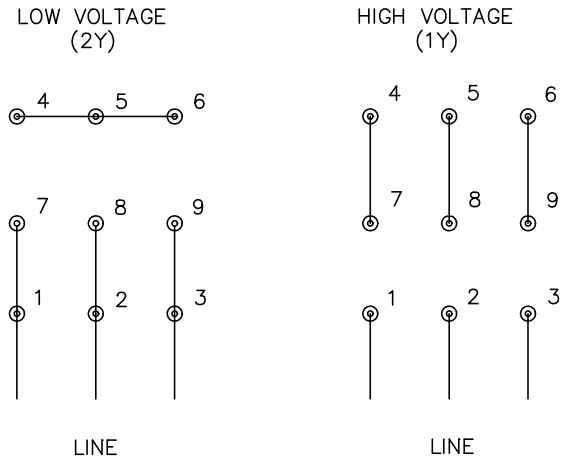
TORQUES(LB-FT): PO=9.49 PU=3.61 LR=7.35 LRA=17.9




35LYTT856
510-528 = 13.29
529-535 = 14.17
536-546 = 15.54
2.12
.13
.13
GREASE FITTING
(EACH END)
.19 KEY
1.38 LONG
3.75
Ø7.19
NAMEPLATE
Ø 4.500
4.497
Ø6.49
Ø .8750
.8745
6 HOLES
.38 DIA
4.00
2.75
5.00
.50
5.94
Ø6.61
5.68
45°
45°
6.81
3.50
3.44
4 HOLES
.38-16 TAP
ON Ø5.88 B.C.
LEAD HOLE
Ø1.09
2.75
2.75
4.56
3.25
6.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE 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: 03:57:57 11/30/2018
TDR: 000001092572
MODEL NO. 35LYTT856
REF: -
BY: ENSTEK0
B
BALDOR - RELIANCE®
HORZ 143-5TC TEFC 35M W/1.09 LEAD HOLE & 2 POLE "W" BASE
SH 1 OF 1
35LYTT856

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 |