ABB BALDOR RELIANCE

# Customer information packet

## ZDWNM3554T

1.5HP, 1770RPM, 3PH, 60HZ, 145TC, 3530M, TENV
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **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** | 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** | None |
| **Current @ Voltage** | 4.600 A @ 230.0 V |
| | 2.300 A @ 460.0 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 |
| **Insulation Class** | H |

## Part Detail

| | |
|---|---|
| **Revision** | C |
| **Type** | AC |
| **Mech. spec.** | 35RR179 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 35WGG178 |
| **Layout** | 35LYRR179 |
| **Eff. date** | 06-22-2023 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 01-10-2022 |

| | |
|---|---|
| **Inverter Code** | Not Inverter |
| **KVA Code** | M |
| **Lifting Lugs** | No Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 4500 rpm |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3530M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 14.90 IN |
| **Power Factor** | 72 |
| **Product Family** | Wash Down |
| **Pulley End Bearing Type** | Sealed Bearing |
| **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**

| NP1609L | | | | | | | |
|---|---|---|---|---|---|---|---|
| **CAT NO** | ZDWNM3554T | | | | | | |
| **SPEC.** | 35RR179G178G1 | | | | | | |
| **FRAME** | 145TC | | **HP** | 1.5 TE | | | |
| **VOLTS** | 230/460 | | | | | | |
| **MAG CUR** | 2.6/1.3 | | | **FLA** | 4.6/2.3 | | |
| **RPM** | 1770 | | **RPM MAX** | 4500 | | | |
| **HZ** | 60 | **PH** | 3 | **CLASS** | H | | |
| **SER.F.** | 1.00 | **DES** | B | **SL HZ** | 1 | | |
| **NEMA-NOM-EFF** | 86.5 | **WK2** | 0.217 | | | | |
| **BLWR V** | | **PH** | | **HZ** | | **A** | |
| **RATING** | 40C AMB-CONT | | | | | | |
| **DE BRG** | 6205 | | **ODE BRG** | 6203 | | | |
| **CC** | 010A | **SER.NO** | | | | | |

**AC Induction Motor Performance Data**
Record # 87056
Typical performance - not guaranteed values

| **Winding:** 35WGG178-R003 | **Type:** 3530M | **Enclosure:** TENV |
|---|---|---|

| **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** | 21.02 LB-FT |
| **R.P.M.** | | | 1770 | **Pull-up Torque** | 12.29 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 14.9 LB-FT |
| **NEMA Design Code** | B | **KVA Code** | M | **Starting Current** | 21.32 A |
| **Service Factor (S.F.)** | | | 1 | **No-load Current** | 1.29 A |
| **NEMA Nom. Eff.** | 86.5 | **Power Factor** | 72 | **Line-line Res. @ 25ºC** | 10.1 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 80°C |
| | | | | **Locked-rotor Power Factor** | 55.5 |
| | | | | **Rotor inertia** | 0.217 lb-ft² |

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

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** |
|---|---|---|---|---|---|---|
| **Power Factor** | 33 | 54 | 68 | 76 | 81 | 84 |
| **Efficiency** | 79.1 | 86.3 | 88.1 | 88.3 | 87.6 | 86.6 |
| **Speed** | 1790 | 1783 | 1776 | 1769 | 1761 | 1752 |
| **Line amperes** | 1.35 | 1.52 | 1.78 | 2.11 | 2.47 | 2.89 |

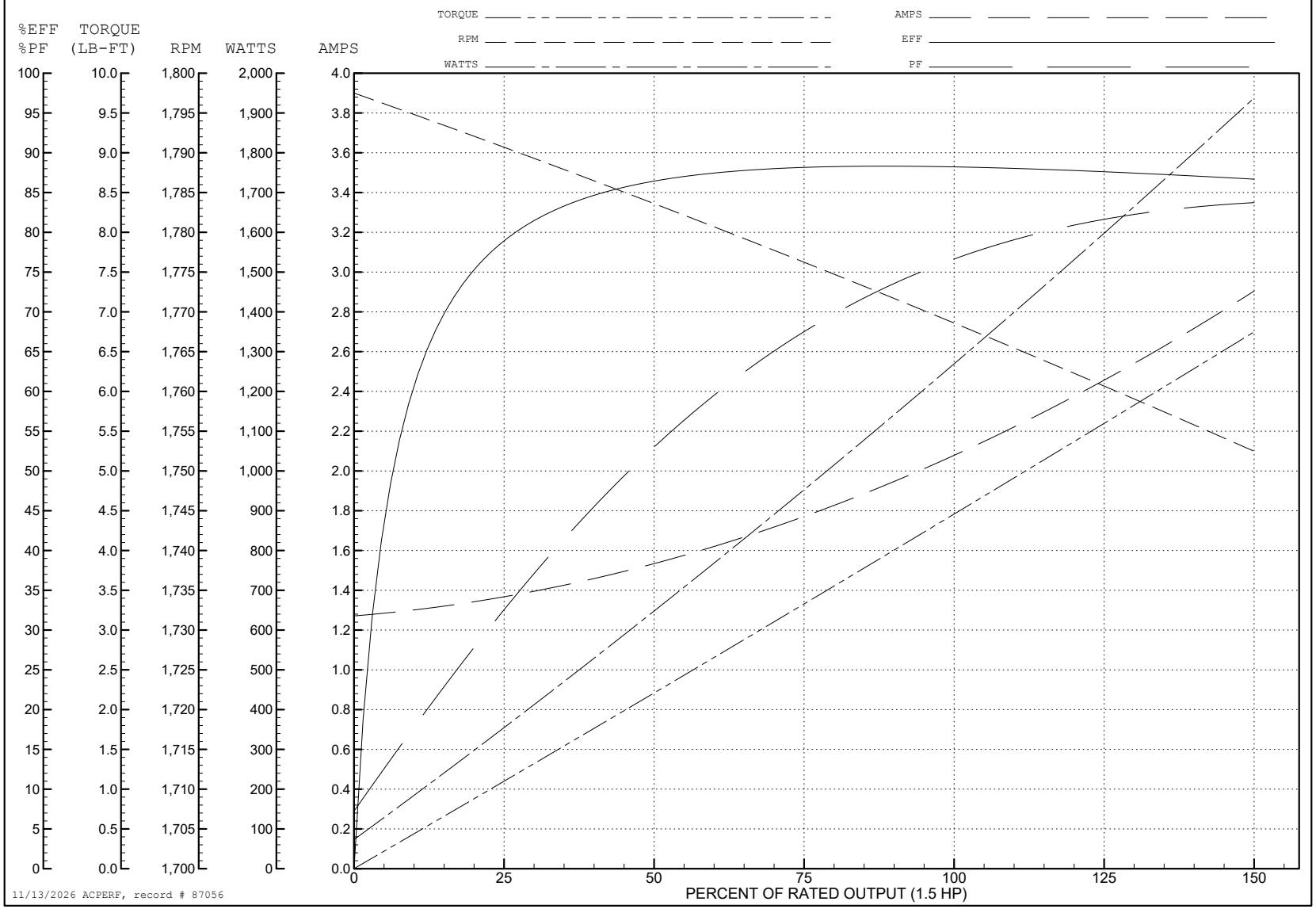
ABB Motors and Mechanical Inc.

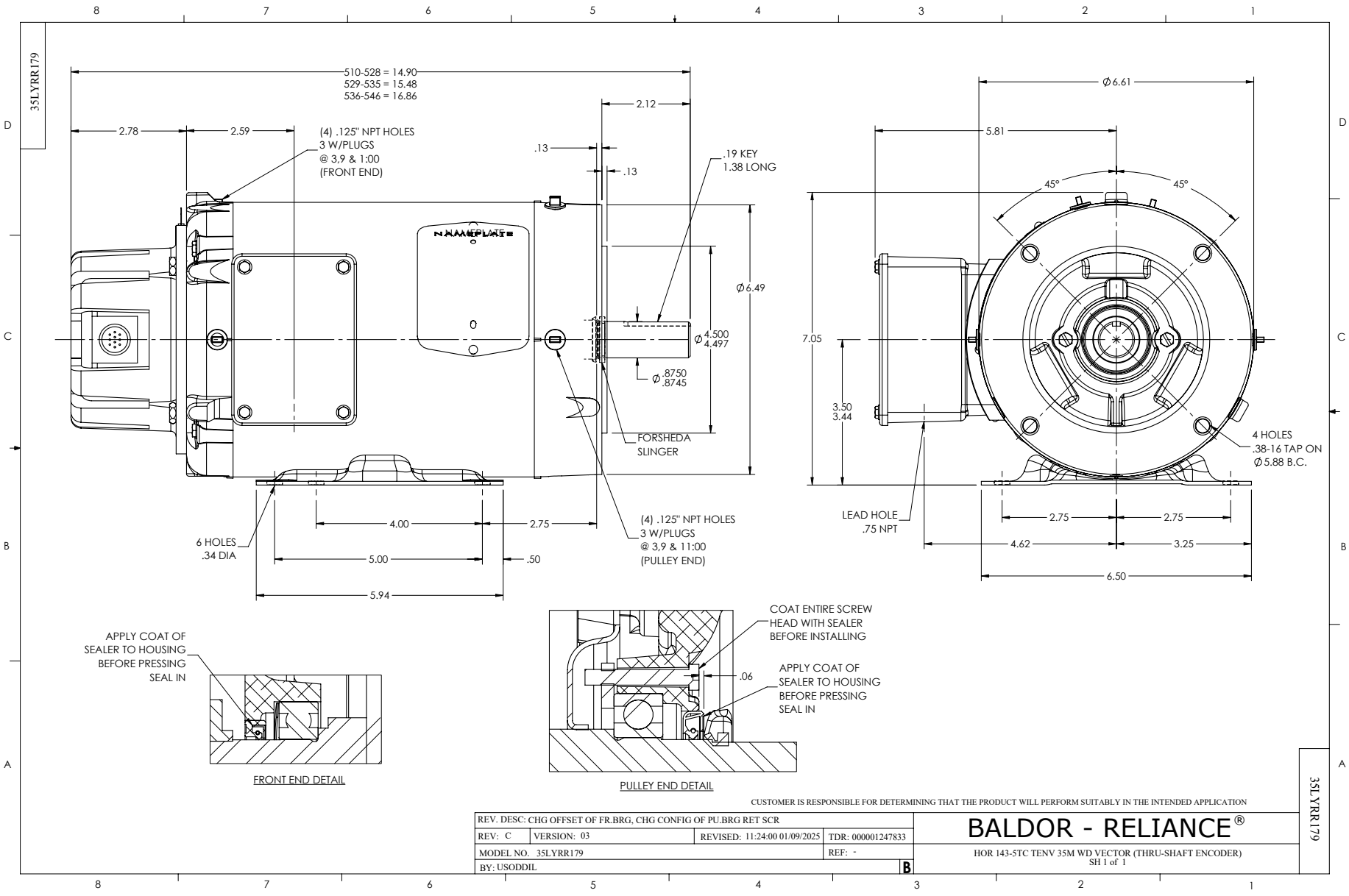
WINDING # 35WGG178

1.5 HP 3 PH 60 HZ 1770 RPM 460 V 3530M

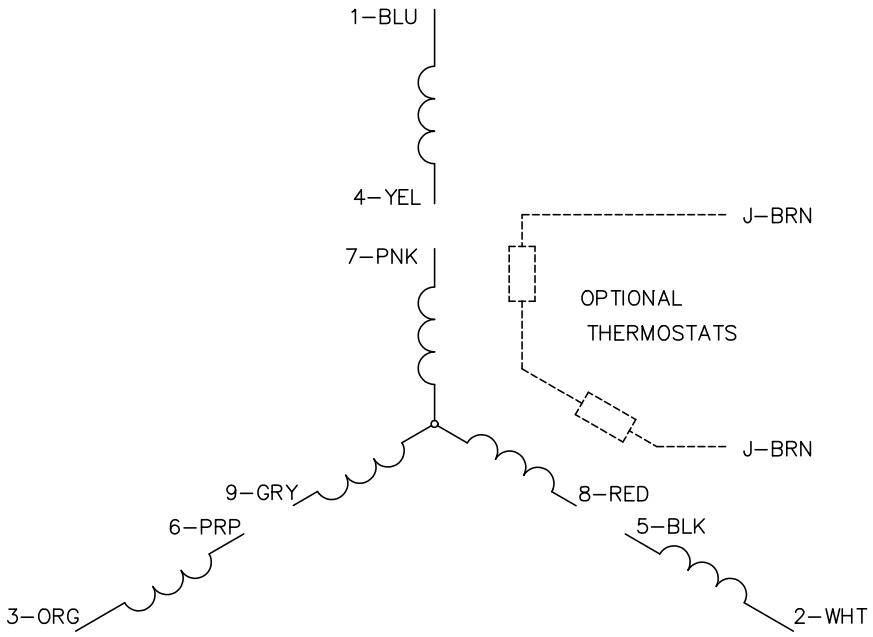
Typical performance - not guaranteed values.

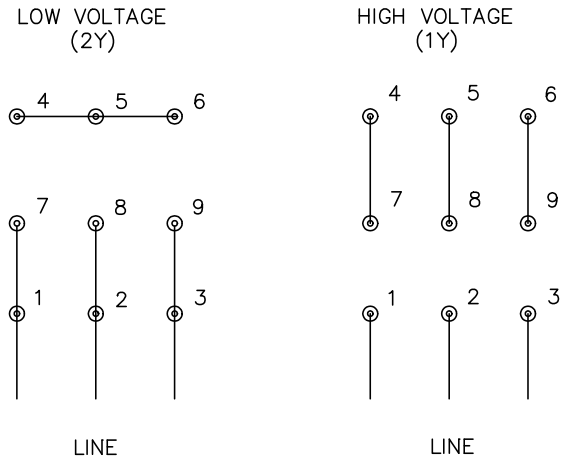
TORQUES(LB-FT): PO=21.02 PU=12.29 LR=14.9 LRA=21.32




35LYRR179
510-528 = 14.90
529-535 = 15.48
536-546 = 16.86
2.12
2.78
2.59
(4) .125" NPT HOLES
3 W/PLUGS
@ 3,9 & 1:00
(FRONT END)
.13
.13
.19 KEY
1.38 LONG
NAMEPLATE
Ø6.49
Ø 4.500
4.497
Ø .8750
.8745
FORSHEDA
SLINGER
6 HOLES
.34 DIA
4.00
2.75
5.00
.50
5.94
(4) .125" NPT HOLES
3 W/PLUGS
@ 3,9 & 11:00
(PULLEY END)
Ø6.61
5.81
45°
45°
7.05
3.50
3.44
4 HOLES
.38-16 TAP ON
Ø5.88 B.C.
LEAD HOLE
.75 NPT
2.75
2.75
4.62
3.25
6.50
APPLY COAT OF
SEALER TO HOUSING
BEFORE PRESSING
SEAL IN
FRONT END DETAIL
COAT ENTIRE SCREW
HEAD WITH SEALER
BEFORE INSTALLING
.06
APPLY COAT OF
SEALER TO HOUSING
BEFORE PRESSING
SEAL IN
PULLEY END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CHG OFFSET OF FR.BRG, CHG CONFIG OF PU.BRG RET SCR
REV: C
VERSION: 03
REVISED: 11:24:00 01/09/2025
TDR: 000001247833
MODEL NO. 35LYRR179
REF: -
BY: USODDIL
B
BALDOR - RELIANCE®
HOR 143-5TC TENV 35M WD VECTOR (THRU-SHAFT ENCODER)
SH 1 of 1
35LYRR179

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 |