ABB BALDOR RELIANCE

# Customer information packet

ZDWNM22937T

7.5HP, 1770RPM, 3PH, 60HZ, 254TC, 3948M, TENV
Class -
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **Frame** | 254TC |
| **Frame Material** | Steel |
| **Frequency** | 60.00 Hz |
| **Haz Area Division** | Not Applicable |
| **Motor Letter Type** | Three Phase |
| **Output @ Frequency** | 7.500 HP @ 60 HZ |
| **Phase** | 3 |
| **Synchronous Speed @ Frequency** | 1800 RPM @ 60 HZ |
| **Voltage @ Frequency** | 460.0 V @ 60 HZ |
| | 230.0 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** | 17.800 A @ 230.0 V |
| | 8.900 A @ 460.0 V |
| **Design Code** | A |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 91.7 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | ENCODER |
| **Front Face Code** | Encoder/Feedback Device |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 8.9 a |
| **Insulation Class** | H |

## Part Detail

| | |
|---|---|
| **Revision** | G |
| **Type** | AC |
| **Mech. spec.** | 39S001 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 39WGX950 |
| **Layout** | 39LYS001 |
| **Eff. date** | 11-14-2023 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#12 |
| **Proprietary** | False |
| **Created date** | 06-30-2016 |

| | |
|---|---|
| **Inverter Code** | Inverter Duty |
| **KVA Code** | J |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 5000 rpm |
| **Motor Lead Exit** | Ko Box |
| **Motor Lead Quantity/Wire Size** | 9 @ 12 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 3948M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 23.92 IN |
| **Power Factor** | 84 |
| **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** | 1.625 IN |
| **Shaft Extension Location** | Pulley End |
| **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 |

**Nameplate**

| NP1167L | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT NO** | ZDWNM22937T | | | | | | | | |
| **SPEC.** | 39S001X950Z1 | | | | | | | | |
| **FRAME** | 254TC | | | **HP** | 7.5 TE | | | | |
| **VOLTS** | 230/460 | | | | | | | | |
| **MAG CUR** | 7.4/3.7 | | | | **FLA** | 17.8/8.9 | | | |
| **RPM** | 1770 | | | **RPM MAX** | 5000 | | | | |
| **HZ** | 60 | **PH** | 3 | | **CLASS** | H | | | |
| **SER.F.** | 1.00 | **DES** | A | | **SL HZ** | 1 | | | |
| **NEMA-NOM-EFF** | 91.7 | | **WK2** | 2.1 | | | | | |
| **BLWR V** | | **PH** | | **HZ** | | **A** | | | |
| **RATING** | 40C AMB-CONT | | | | | | | | |
| **DE BRG** | 6309 | | | **ODE BRG** | 6208 | | | | |
| **CC** | 010A | **SN** | | | | | | | |

**AC Induction Motor Performance Data**
Record # 57991
Typical performance - not guaranteed values

| **Winding:** 39WGX950-R001 | **Type:** 3948M | **Enclosure:** TENV |
|---|---|---|

| **Nameplate Data** | | | | **460 V, 60 Hz: High Voltage Connection** | |
|---|---|---|---|---|---|
| **Rated Output (HP)** | | | 7.5 | **Full Load Torque** | 22.1 LB-FT |
| **Volts** | | | 230/460 | **Start Configuration** | direct on line |
| **Full Load Amps** | | | 17.8/8.9 | **Breakdown Torque** | 86.6 LB-FT |
| **R.P.M.** | | | 1770 | **Pull-up Torque** | 32.9 LB-FT |
| **Hz** | 60 | **Phase** | 3 | **Locked-rotor Torque** | 44.4 LB-FT |
| **NEMA Design Code** | A | **KVA Code** | J | **Starting Current** | 68.7 A |
| **Service Factor (S.F.)** | | | 1 | **No-load Current** | 3.67 A |
| **NEMA Nom. Eff.** | 91.7 | **Power Factor** | 84 | **Line-line Res. @ 25ºC** | 1.05 Ω |
| **Rating - Duty** | | | 40C AMB-CONT | **Temp. Rise @ Rated Load** | 51°C |
| | | | | **Locked-rotor Power Factor** | 32.9 |

**Load Characteristics 460 V, 60 Hz, 7.5 HP**

| **% of Rated Load** | **25** | **50** | **75** | **100** | **125** | **150** |
|---|---|---|---|---|---|---|
| **Power Factor** | 46 | 69 | 79 | 84 | 86 | 87 |
| **Efficiency** | 88.3 | 92.4 | 93.1 | 93 | 92.4 | 91.5 |
| **Speed** | 1792.6 | 1786.1 | 1779.3 | 1772.7 | 1765.1 | 1756.1 |
| **Line amperes** | 4.27 | 5.55 | 7.17 | 8.94 | 11 | 13.2 |

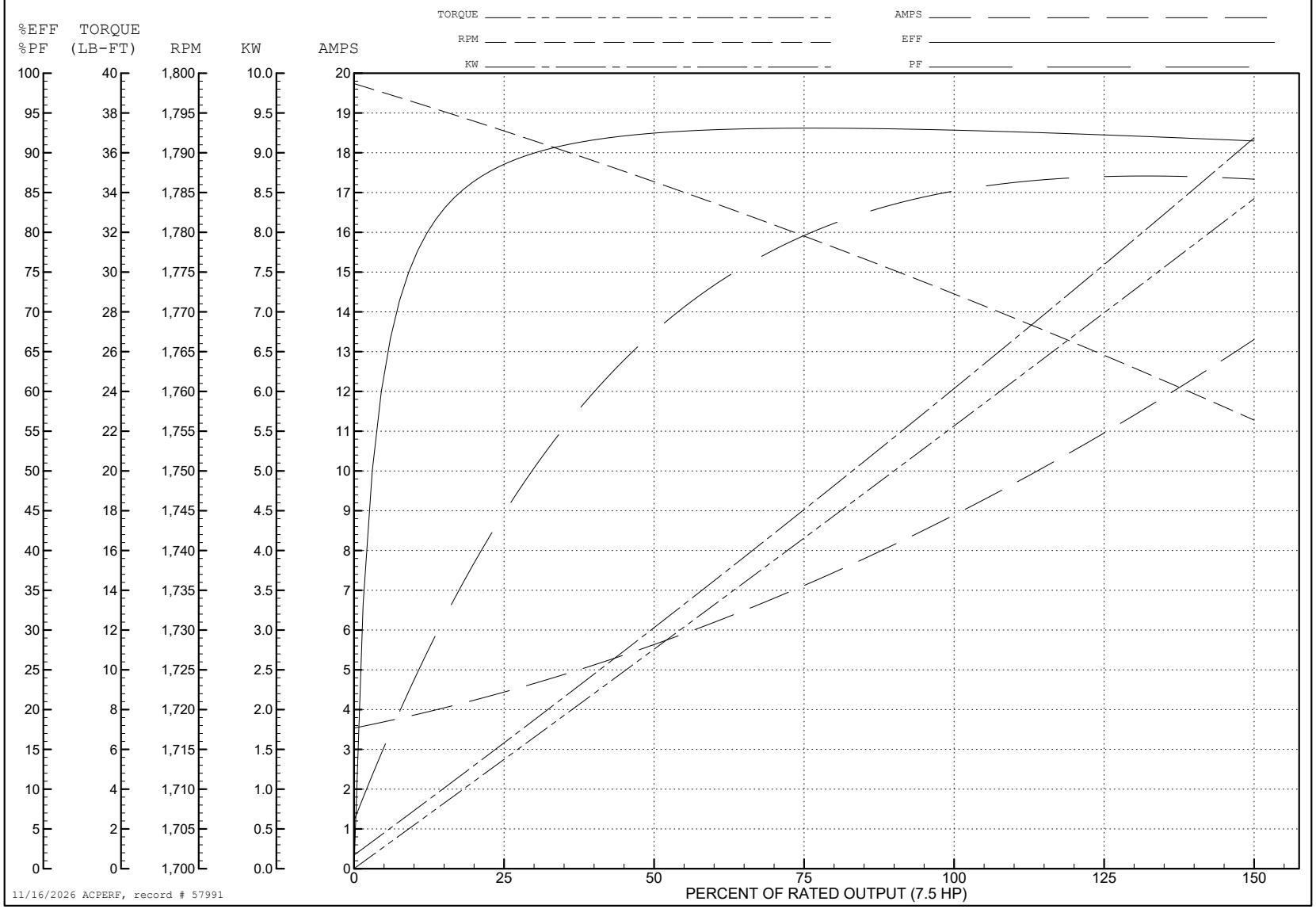
ABB Motors and Mechanical Inc.

WINDING # 39WGX950

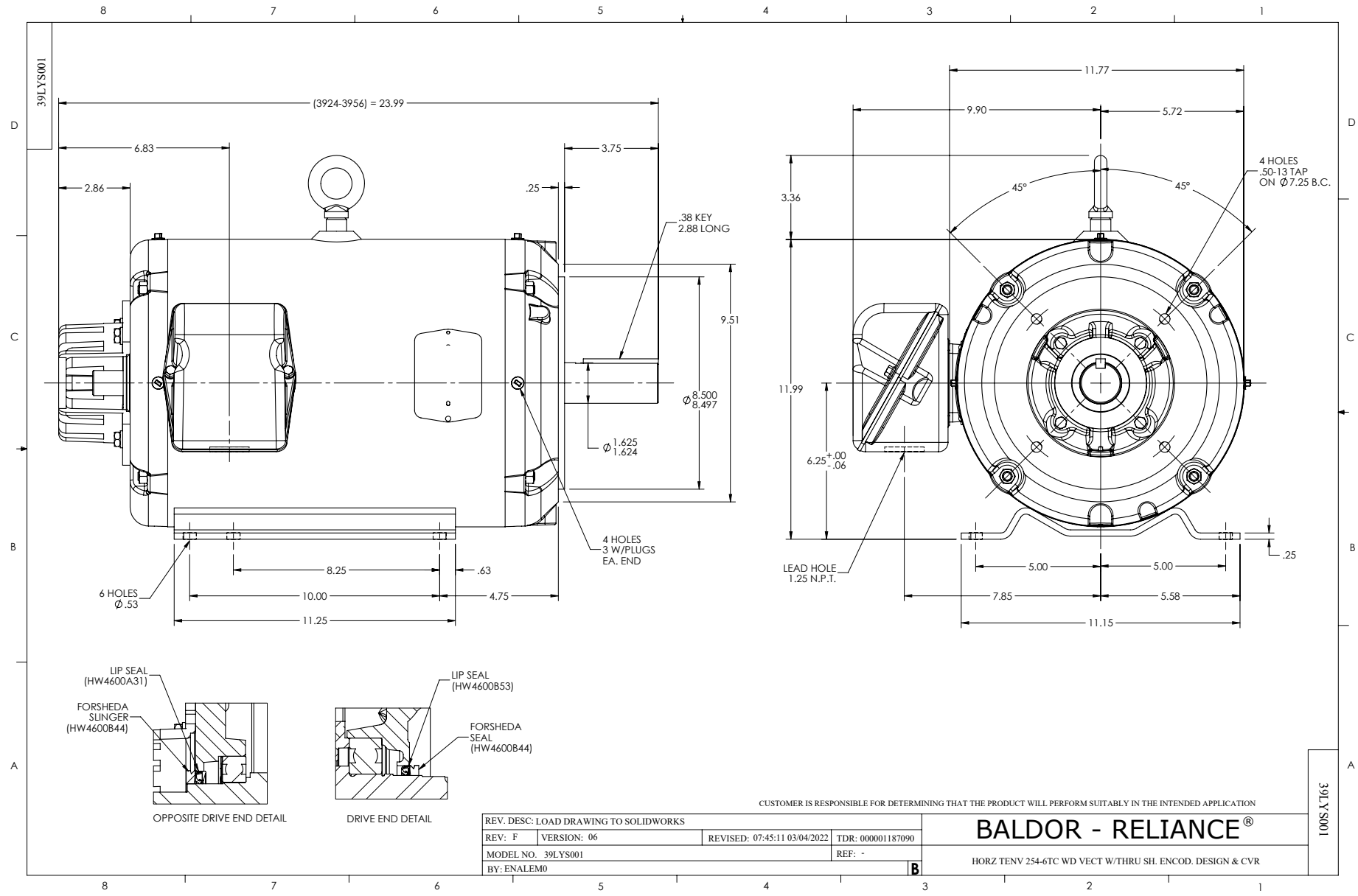
7.5 HP 3 PH 60 HZ 1770 RPM 460 V 3948M

Typical performance - not guaranteed values.

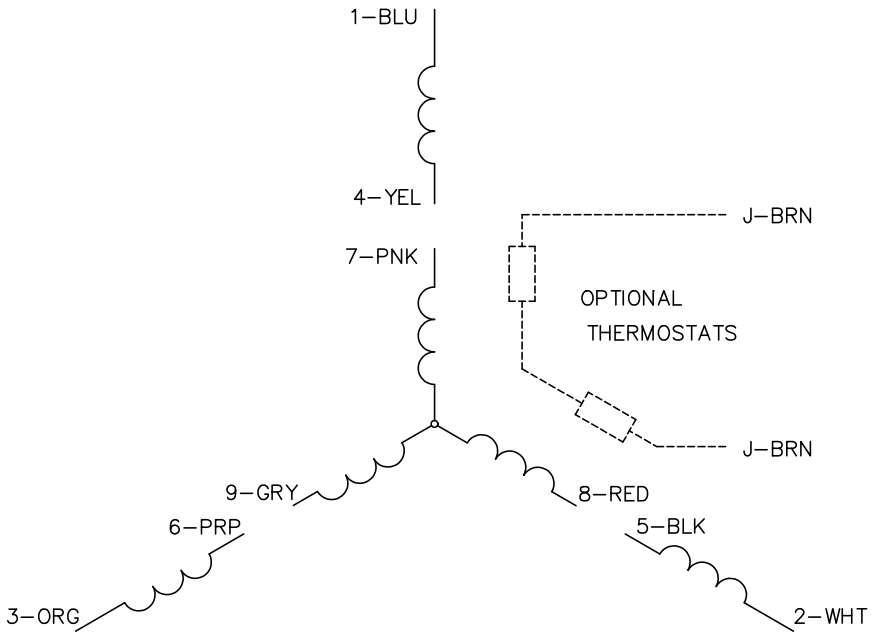
TORQUES(LB-FT): PO=86.6 PU=32.9 LR=44.4 LRA=68.7

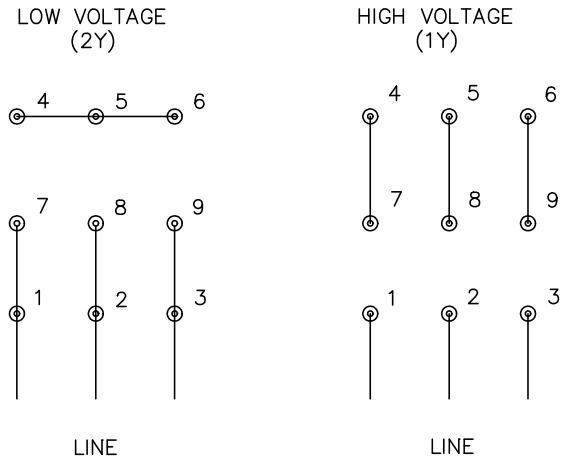



11/16/2026 ACPERF, record # 57991


39LYS001
(3924-3956) = 23.99
6.83
2.86
3.75
.25
.38 KEY
2.88 LONG
9.51
Ø 8.500
Ø 8.497
Ø 1.625
1.624
4 HOLES
3 W/PLUGS
EA. END
6 HOLES
Ø .53
8.25
.63
10.00
4.75
11.25
11.77
9.90
5.72
4 HOLES
.50-13 TAP
ON Ø 7.25 B.C.
45°
45°
3.36
11.99
6.25 +.00 -.06
LEAD HOLE
1.25 N.P.T.
.25
5.00
5.00
7.85
5.58
11.15
LIP SEAL
(HW4600A31)
FORSHEDA
SLINGER
(HW4600B44)
OPPOSITE DRIVE END DETAIL
LIP SEAL
(HW4600B53)
FORSHEDA
SEAL
(HW4600B44)
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: LOAD DRAWING TO SOLIDWORKS
REV: F
VERSION: 06
REVISED: 07:45:11 03/04/2022
TDR: 000001187090
MODEL NO. 39LYS001
REF: -
BY: ENALEM0
B
BALDOR - RELIANCE®
HORZ TENV 254-6TC WD VECT W/THRU SH. ENCOD. DESIGN & CVR
39LYS001

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 |