ABB BALDOR RELIANCE

# Customer information packet

## IDNM3581T

1HP, 1770RPM, 3PH, 60HZ, 143TC, 0522M, TENV, F1
Class - None
Division - Not Applicable

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## Specifications

| | |
|---|---|
| **Enclosure** | TENV |
| **Frame** | 143TC |
| **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** | 1.000 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** | 3.200 A @ 230.0 V |
| | 1.600 A @ 460.0 V |
| **Design Code** | B |
| **Drip Cover** | No Drip Cover |
| **Duty Rating** | CONT |
| **Efficiency @ 100% Load** | 85.5 % |
| **Electrically Isolated Bearing** | Not Electrically Isolated |
| **Feedback Device** | NO FEEDBACK |
| **Front Shaft Indicator** | None |
| **Heater Indicator** | No Heater |
| **High Voltage Full Load Amps** | 1.6 a |
| **Insulation Class** | H |

## Part Detail

| | |
|---|---|
| **Revision** | G |
| **Type** | AC |
| **Mech. spec.** | 05E534 |
| **Base** | |
| **Status** | PRD/A |
| **Elec. spec.** | 05WGX545 |
| **Layout** | 05LYE534 |
| **Eff. date** | 08-19-2026 |
| **CD Diagram** | CD0005 |
| **Poles** | 04 |
| **Leads** | 9#18 |
| **Proprietary** | False |
| **Created date** | 03-11-2022 |

| | |
|---|---|
| **Inverter Code** | Inverter Ready |
| **KVA Code** | N |
| **Lifting Lugs** | Standard Lifting Lugs |
| **Locked Bearing Indicator** | Locked Bearing |
| **Max Speed** | 6000 rpm |
| **Motor Lead Quantity/Wire Size** | 9 @ 18 AWG |
| **Motor Lead Termination** | Flying Leads |
| **Motor Standards** | NEMA |
| **Motor Type** | 0522M |
| **Mounting Arrangement** | F1 |
| **Number of Poles** | 4 |
| **Overall Length** | 14.65 IN |
| **Power Factor** | 68 |
| **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** | No 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**

| NP4544L | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **CAT.NO.** | IDNM3581T | | | | | | | | |
| **SPEC.** | 05E534X545G1 | | | | | | | | |
| **FRAME** | 143TC | | **H.P.** | 1 | | | | | |
| **VOLTS** | 230/460 | | | | | | | | |
| **MAG. CUR.** | 2.14/1.07 | | | | **F.L. AMPS** | 3.2/1.6 | | | |
| **R.P.M.** | 1770 | | | **R.P.M. MAX** | 6000 | | | | |
| **HZ.** | 60 | **PH.** | 3 | **CLASS** | H | | | | |
| **SER.F.** | 1.00 | **DES.** | B | **SL HZ** | 0.77 | | | | |
| **NEMA NOM. EFF.** | 85.5 | **WK2** | 0.159 | | | | | | |
| **BLOWER** | | **V** | | **PH** | | **HZ** | | **AMPS** | |
| **RATING** | 40C AMB-CONT | | | **ENCL** | TENV | | | | |
| **DE** | 6205 | **ODE** | 6203 | | | | | | |
| **CC** | 010A | **SN** | | | | | | | |
| | 1000:1 CT/VT | | | | | | | | |

**AC Induction Motor Performance Data**
Record # 87236
Preliminary Data Sheet

**Winding:** 05WGX545-R005 **Type:** 0522M **Enclosure:** TENV

| Nameplate Data | | | |
|---|---|---|---|
| **Rated Output (HP)** | | | 1 |
| **Volts** | | | 230/460 |
| **Full Load Amps** | | | 3.2/1.6 |
| **R.P.M.** | | | 1770 |
| **Hz** | 60 | **Phase** | 3 |
| **NEMA Design Code** | B | **KVA Code** | N |
| **Service Factor (S.F.)** | | | 1 |
| **NEMA Nom. Eff.** | 85.5 | **Power Factor** | 68 |
| **Rating - Duty** | | | 40C AMB-CONT |

| 460 V, 60 Hz: High Voltage Connection | |
|---|---|
| **Full Load Torque** | 2.97 LB-FT |
| **Start Configuration** | direct on line |
| **Breakdown Torque** | 13.7 LB-FT |
| **Pull-up Torque** | 6.77 LB-FT |
| **Locked-rotor Torque** | 8.13 LB-FT |
| **Starting Current** | 12.1 A |
| **No-load Current** | 1.07 A |
| **Line-line Res. @ 25ºC** | 16.4 Ω |
| **Temp. Rise @ Rated Load** | |
| **Locked-rotor Power Factor** | 61.4 |
| **Rotor inertia** | 0.159 lb-ft² |

**Load Characteristics 460 V, 60 Hz, 1 HP**

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 |
|---|---|---|---|---|---|---|
| **Power Factor** | 31 | 49 | 62 | 72 | 78 | 82 |
| **Efficiency** | 68.5 | 79.7 | 83.6 | 85.1 | 85.6 | 85.5 |
| **Speed** | 1794 | 1789 | 1783 | 1777 | 1771 | 1765 |
| **Line amperes** | 1.11 | 1.2 | 1.35 | 1.54 | 1.76 | 2 |

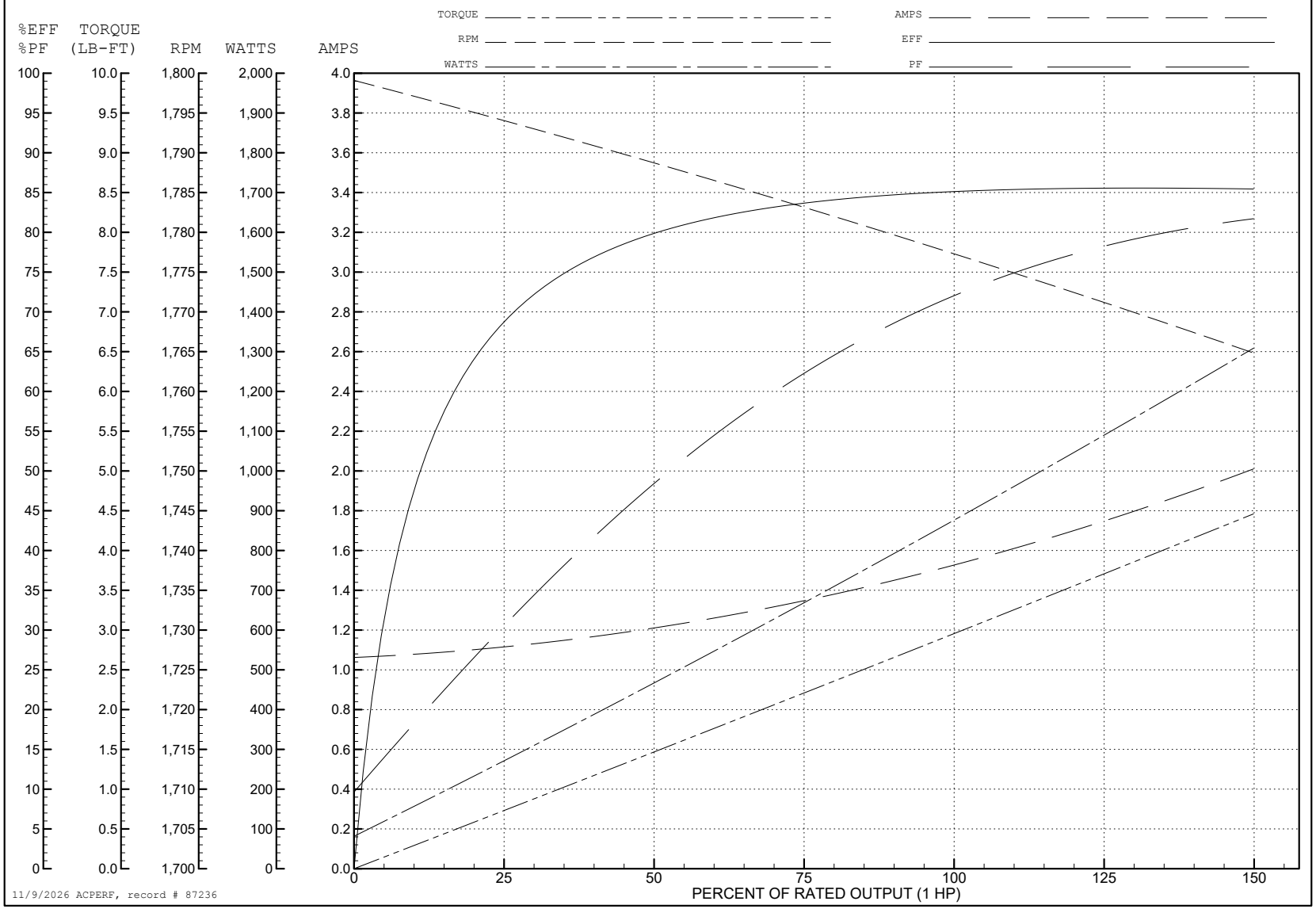
ABB Motors and Mechanical Inc.

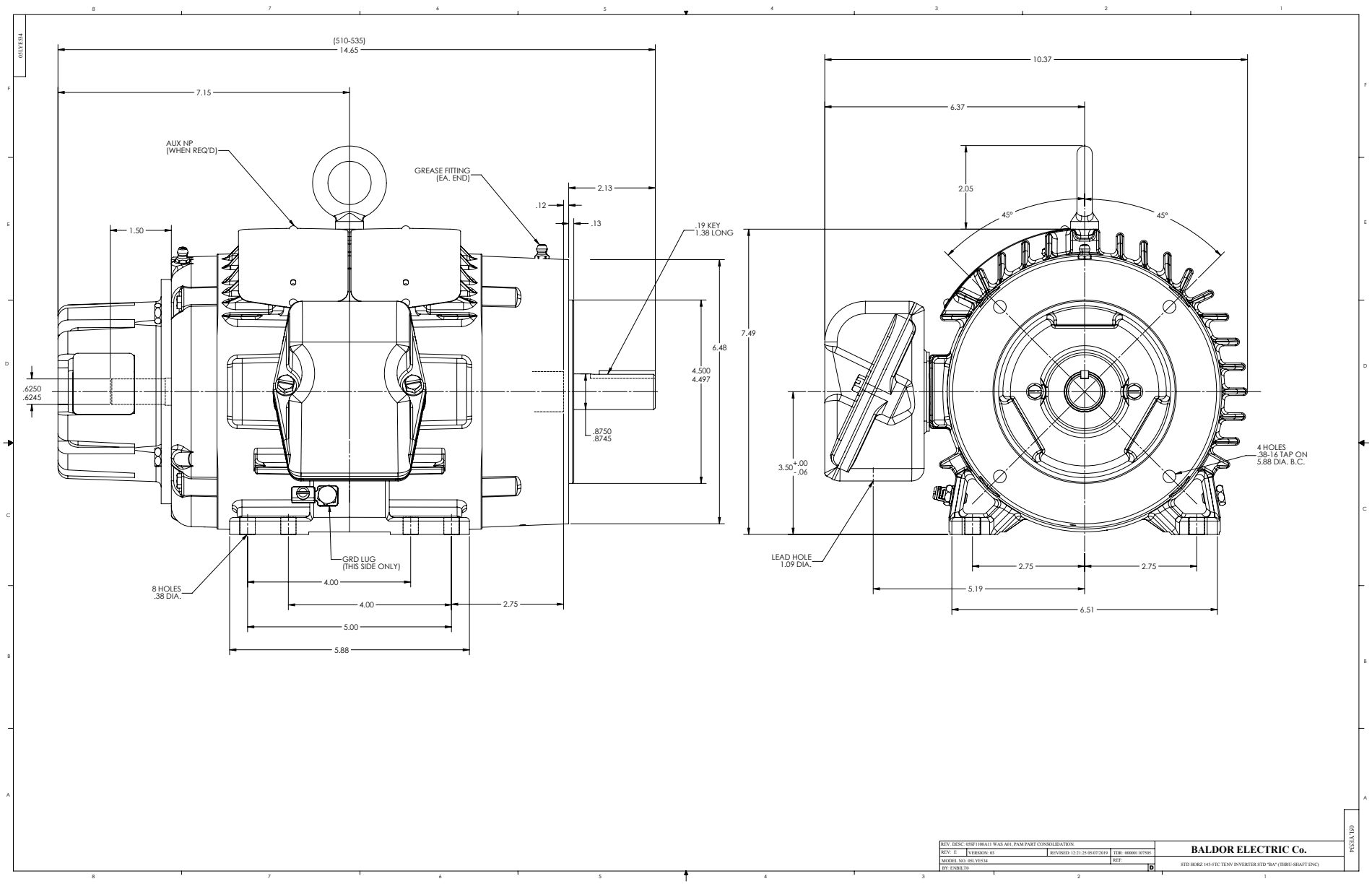
WINDING # 05WGX545

1 HP 3 PH 60 HZ 1770 RPM 460 V 0522M

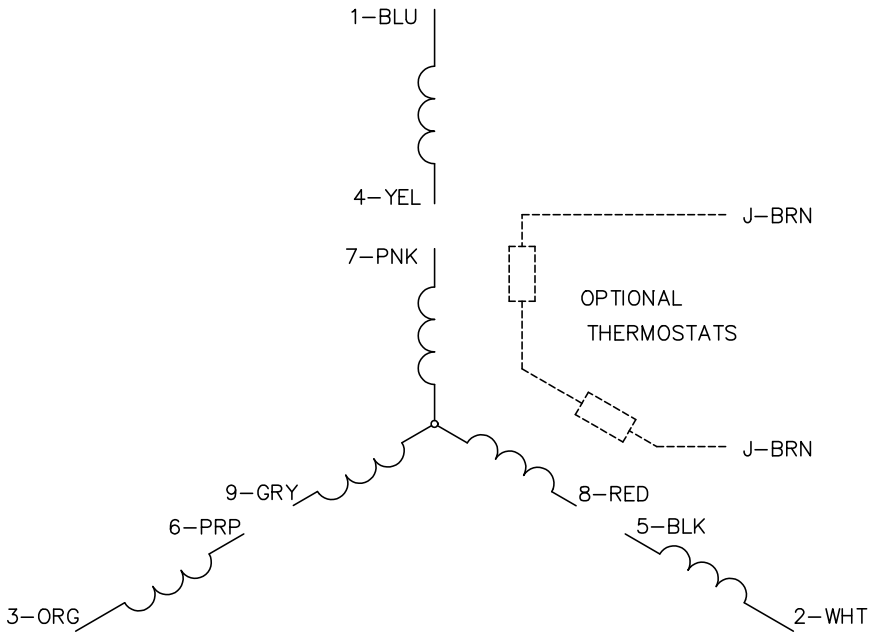
Typical performance - not guaranteed values.

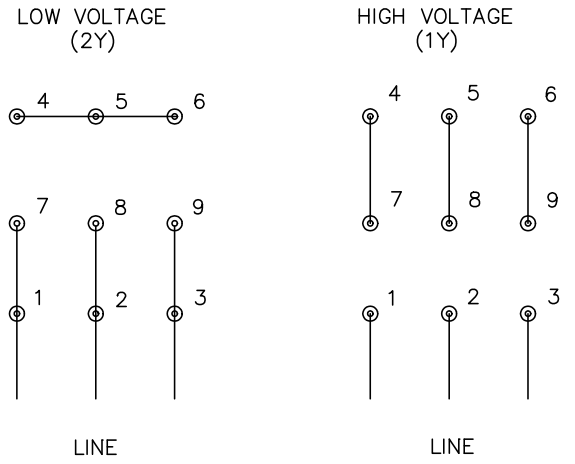
TORQUES(LB-FT): PO=13.7 PU=6.77 LR=8.13 LRA=12.1




(510-535)
14.65
7.15
AUX NP
(WHEN REQ'D)
GREASE FITTING
(EA. END)
2.13
.12
.13
.19 KEY
1.38 LONG
1.50
6.48
4.500
4.497
.6250
.6245
.8750
.8745
GRD LUG
(THIS SIDE 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.
LEAD HOLE
1.09 DIA.
2.75
2.75
5.19
6.51
05E534
REV. DESC: 05SF1100A13 WAS A01, PAM PART CONSOLIDATION
REV: E
VERSION: 05
REVISED: 12:21:25 05/07/2019
TDR: 0000001107505
MODEL NO: 05LYE534
REF:
BY: ENBLTH
BALDOR ELECTRIC Co.
STD HORZ 143-5TC TENV INVERTER STD "BA" (THRU-SHAFT ENC)

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 |