

BALDOR® • RELIANCE 

Product Information Packet

VBM3538-S

.5HP, 1740RPM, 3PH, 60HZ, 56C, 3512M, TEFC, F3

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | P | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 35WGP864 | CD Diagram: | CD0005 | Mfg Plant: | |
| Mech. Spec: | 35X055 | Layout: | 35LYX055 | Poles: | 04 | Created Date: | 06-01-2011 |
| Base: | N | Eff. Date: | 04-09-2019 | Leads: | 9#18 | | |

| Specs | | | |
|---------------------------------|------------------|--------------------------------|-----------------|
| Catalog Number: | VBM3538-S | Heater Indicator: | No Heater |
| Enclosure: | TEFC | Insulation Class: | F |
| Frame: | 56C | Inverter Code: | Not Inverter |
| Frame Material: | Steel | KVA Code: | M |
| Output @ Frequency: | .500 HP @ 60 HZ | Lifting Lugs: | No Lifting Lugs |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Locked Bearing Indicator: | Locked Bearing |
| Voltage @ Frequency: | 230.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 18 AWG |
| | 208.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| | 460.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| XP Class and Group: | None | Motor Type: | 3512M |
| XP Division: | Not Applicable | Mounting Arrangement: | F3 |
| Agency Approvals: | UR | Power Factor: | 58 |
| | WEEE | Product Family: | General Purpose |
| | CSA | Pulley End Bearing Type: | Ball |
| | CE | Pulley Face Code: | C-Face |
| Auxillary Box: | No Auxillary Box | Pulley Shaft Indicator: | Standard |
| Auxillary Box Lead Termination: | None | Rodent Screen: | None |
| Base Indicator: | No Mounting | RoHS Status: | ROHS COMPLIANT |

| | | | |
|---------------------------------------|--------------------------------|------------------------------------|---------------------|
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Shaft Extension Location: | Pulley End |
| Blower: | None | Shaft Ground Indicator: | No Shaft Grounding |
| Current @ Voltage: | 2.240 A @ 230.0 V | Shaft Rotation: | Reversible |
| | 2.420 A @ 208.0 V | Shaft Slinger Indicator: | No Slinger |
| | 1.120 A @ 460.0 V | Speed Code: | Single Speed |
| Design Code: | B | Motor Standards: | NEMA |
| Drip Cover: | No Drip Cover | Starting Method: | Direct on line |
| Duty Rating: | CONT | Thermal Device - Bearing: | None |
| Electrically Isolated Bearing: | Not Electrically Isolated | Thermal Device - Winding: | None |
| Feedback Device: | NO FEEDBACK | Vibration Sensor Indicator: | No Vibration Sensor |
| Front Face Code: | Special Combinations Not Liste | Winding Thermal 1: | None |
| Front Shaft Indicator: | None | Winding Thermal 2: | None |

| Nameplate NP1372L | | | | | | | | | | | | |
|-------------------|-------------------|--|--|--|--|------|------|--|-----|----|----|----------------|
| CAT.NO. | VBM3538-S | | | | | | | | | | | |
| SPEC. | 35X055P864G1 | | | | | | | | | | | |
| HP | .5 | | | | | | | | | | | |
| VOLTS | 208-230/460 | | | | | | | | | | | |
| AMP | 2.42-2.24/1.12 | | | | | | | | | | | |
| RPM | 1740 | | | | | | | | | | | |
| FRAME | 56C | | | | | HZ | 60 | | | PH | 3 | |
| SER.F. | 1.15 | | | | | CODE | M | | DES | B | CL | F |
| NEMA-NOM-EFF | 72 | | | | | PF | 58 | | | | | |
| RATING | 40C AMB-CONT | | | | | | | | | | | |
| CC | | | | | | | | | | | | USABLE AT 208V |
| DE | 6205 | | | | | ODE | 6205 | | | | | |
| ENCL | TEFC | | | | | SN | | | | | | |
| | IP22, BRK 3 FT-LB | | | | | | | | | | | |

| Parts List | | |
|----------------|--|----------|
| Part Number | Description | Quantity |
| SA224448 | SA 35X055P864G1 | 1.000 EA |
| RA211559 | RA 35X055P864G1 | 1.000 EA |
| S/P111-000-002 | CORONA TEST, SUPER E MOTORS - FT. SMITH | 1.000 EA |
| NS2512A01 | INSULATOR, CONDUIT BOX X | 1.000 EA |
| 35CB4007 | KOBX,W/PRIMER (REL# 79097-49-C) | 1.000 EA |
| 35GS3009 | GASKET, KOBX 35CB4006 (411881-15A) | 1.000 EA |
| 51XB1016A05 | 10-16X5/16HX WA SL SR TYB (F/S) | 2.000 EA |
| WD4101A13 | STEEL CAPLUG,BP-1 1/8, PLUG D3561S | 1.000 EA |
| 11XW1032G06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD U | 1.000 EA |
| HW3001B02 | BRASS CUP WASHER W/GROUND SYMBOL TAB, | 1.000 EA |
| HW5100A05 | WVY WSHR F/205 & 304 BRGS | 1.000 EA |
| 35EP3307F00 | MASTER DE,205 BRG,.998SH,#26 DRN | 1.000 EA |
| 51XN1032A20 | 10-32 X 1 1/4 HX WS SL SR | 2.000 EA |
| HW1001A10 | WASHER, #10 SPLT LK, ZN X | 4.000 EA |
| HW2501D13 | KEY, 3/16 SQ X 1.375 | 1.000 EA |
| HW2501D13 | KEY, 3/16 SQ X 1.375 | 1.000 EA |
| BR2003D01 | SPLINED HUB 7/8 W/O KEY | 1.000 EA |
| 35FN3003A02 | EXFN, PLASTIC, 5.88 OD, .876 ID (REL) | 1.000 EA |
| 35FH4007A01 | FAN COVER FOR SHORT SERIES BRAKE, PRIMER | 1.000 EA |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 4.000 EA |
| 35CB4519 | CB LID W/BLACK PRIMER | 1.000 EA |
| 35GS3019A01 | LEXIDE GASKET, FOR KOBX LID 35CB4519 | 1.000 EA |
| 51XW0832A07 | 8-32 X .44, TAPTITE II, HEX WSHR SLTD SE | 4.000 EA |
| WD4006A01 | WIRE JOINT,T&B RB-4 OR RB-44 | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| HA7000A04 | KEY RETAINER 0.625 DIA SHAFTS | 1.000 EA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| LB1418 | INTEGRAL BRK ADJ LABEL (REL# 41171617A) | 1.000 EA |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.050 LB |
| MG1025N19 | MUNSELL 8.5BG 3.57/2.0, GLOSS 30, B/G, | 0.017 GA |
| LB1419 | CONNECTION LABEL | 1.000 EA |
| HA3100A13 | THRUBOLT 10-32 X 7.750 | 4.000 EA |
| 43BK0100B02 | SSB-3-230/460 (205) L HUB | 1.000 EA |
| LB1424A02 | BRAKE VOLT LABEL 230/460V SSB | 1.000 EA |
| LC0005E01 | CONN.DIA./WARNING LABEL (LC0005/LB1119N) | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 3/19 | 1.000 EA |
| NP1372L | ALUM UL CSA CE CC | 1.000 EA |
| 36PA1000 | PKG GRP, PRINT PK1016A06 | 1.000 EA |
| PK3082 | STYROFOAM CRADLE | 1.000 EA |
| PE-0000001 | ZRTG PE ASSEMBLY | 1.000 EA |

AC Induction Motor Performance Data

Record # 36576 - Typical performance - not guaranteed values

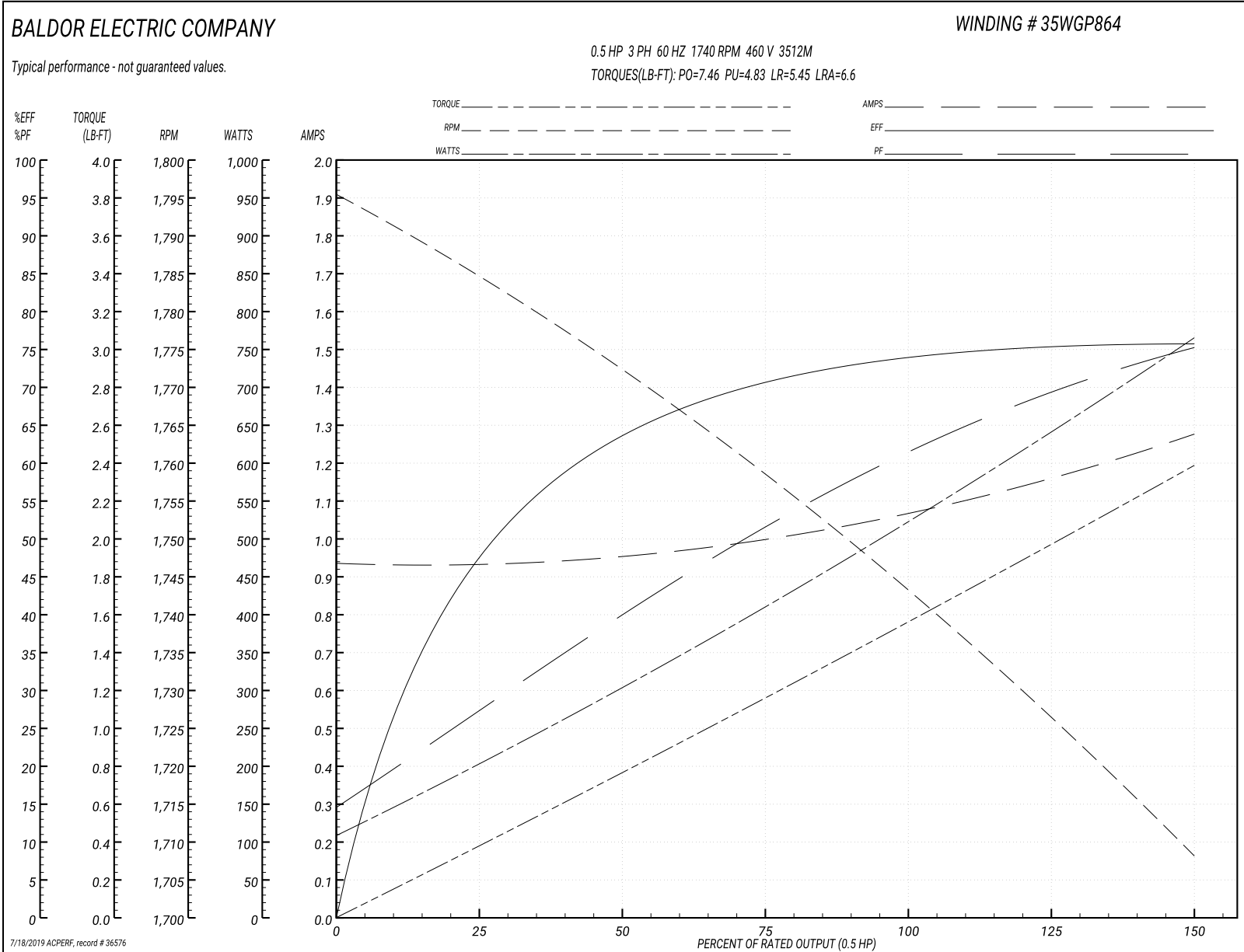
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 35WGP864-R003 | Type: 3512M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

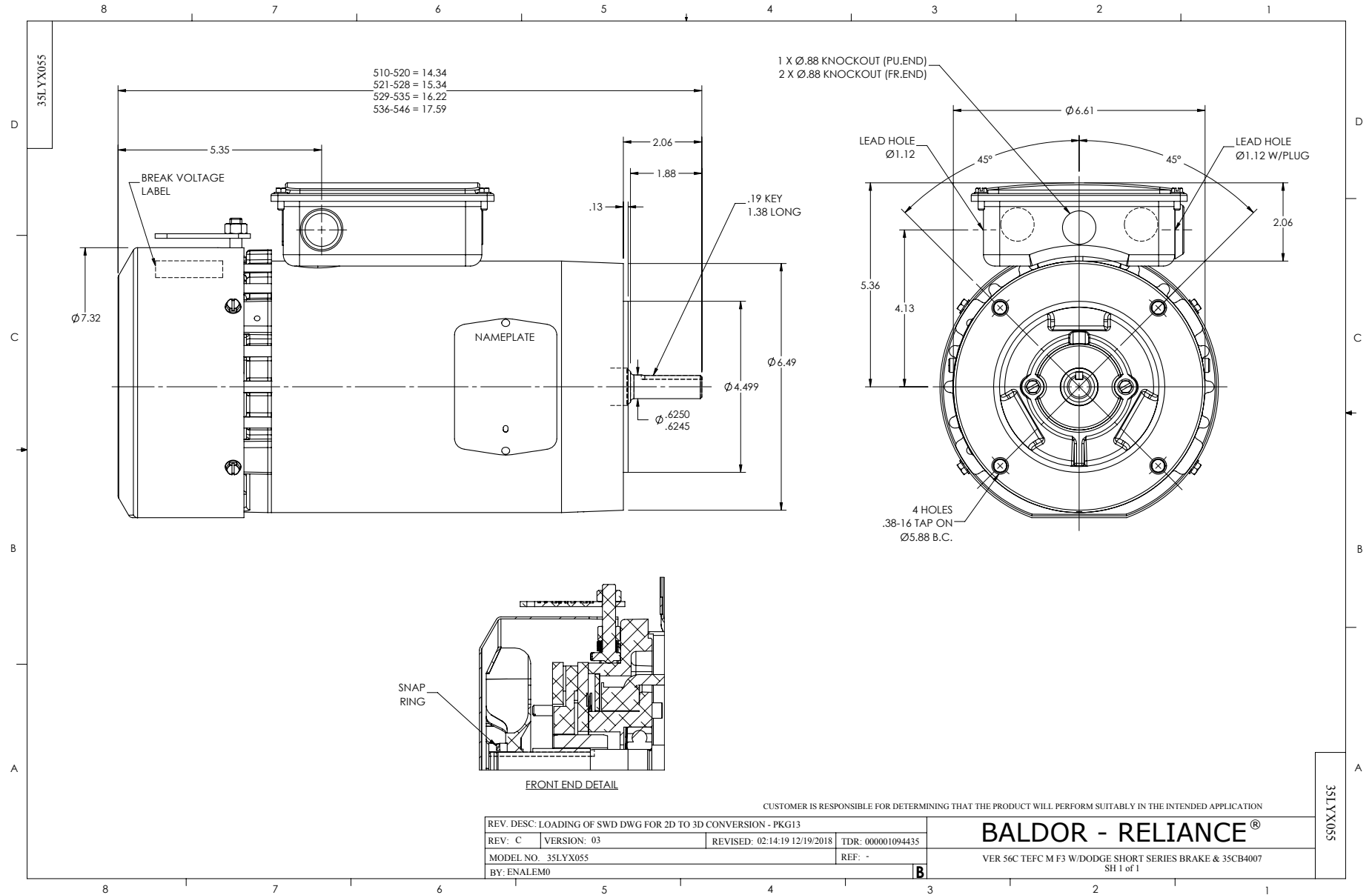
| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|----------------|--------------|----|--|---------------------------|
| Rated Output (HP) | .5 | | | Full Load Torque | 1.52 LB-FT |
| Volts | 208-230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 2.42-2.24/1.12 | | | Breakdown Torque | 7.46 LB-FT |
| R.P.M. | 1740 | | | Pull-up Torque | 4.83 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 5.45 LB-FT |
| NEMA Design Code | B | KVA Code | M | Starting Current | 6.6 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 0.938 A |
| NEMA Nom. Eff. | 72 | Power Factor | 58 | Line-line Res. @ 25°C | 36.2 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 41°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 45°C |
| | | | | Locked-rotor Power Factor | 80.2 |
| | | | | Rotor inertia | 0.0709 LB-FT ² |

Load Characteristics 460 V, 60 Hz, 0.5 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|-------|-------|------|------|------|------|------|
| Power Factor | 27 | 39 | 50 | 61 | 69 | 75 | 63 |
| Efficiency | 47.1 | 62.6 | 70.3 | 73.8 | 75.6 | 75.6 | 73.2 |
| Speed | 1786 | 1773 | 1759 | 1745 | 1729 | 1708 | 1732 |
| Line amperes | 0.926 | 0.953 | 1 | 1.06 | 1.14 | 1.28 | 1.17 |

Performance Graph at 460V, 60Hz, 0.5HP Typical performance - Not guaranteed values





CD0005

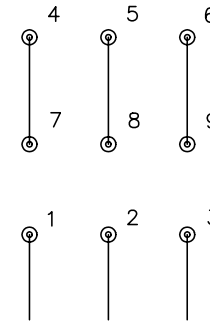


LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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.

| | | | |
|---|---------|-------------------------|--------------|
| REV. DESC: REVISE TO SHOW OPTIONAL COLORS | | | |
| REV. LTR: E | BY: JLP | REVISED: 01/19/99 10:15 | TDR: 0171435 |
| 90000 | | FILE: AAA00005140 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS

CD0005