

BALDOR® • RELIANCE 

Product Information Packet

EM2550T

100HP,3540RPM,3PH,60HZ,365TS,4266M,OPSB

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | N | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 42WG937 | CD Diagram: | CD0180 | Mfg Plant: | |
| Mech. Spec: | 42E212 | Layout: | 42LYE212 | Poles: | 02 | Created Date: | 05-14-2012 |
| Base: | RG | Eff. Date: | 08-21-2018 | Leads: | 9#4 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM2550T | Insulation Class: | F |
| Enclosure: | OPSB | Inverter Code: | Inverter Ready |
| Frame: | 365TS | KVA Code: | G |
| Frame Material: | Steel | Lifting Lugs: | Standard Lifting Lugs |
| Output @ Frequency: | 100.000 HP @ 60 HZ | Locked Bearing Indicator: | Locked Bearing |
| Synchronous Speed @ Frequency: | 3600 RPM @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 4 AWG |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| | 230.0 V @ 60 HZ | Motor Lead Termination: | Flying Leads |
| Agency Approvals: | CSA | Motor Type: | 4266M |
| | CSA EEV | Mounting Arrangement: | F1 |
| | UR | Power Factor: | 91 |
| Auxillary Box: | No Auxillary Box | Product Family: | General Purpose |
| Auxillary Box Lead Termination: | None | Pulley End Bearing Type: | Ball |
| Base Indicator: | Rigid | Pulley Face Code: | Standard |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Pulley Shaft Indicator: | Standard |
| Blower: | None | Rodent Screen: | None |
| Current @ Voltage: | 244.000 A @ 208.0 V | Shaft Extension Location: | Pulley End |
| | 220.000 A @ 230.0 V | Shaft Ground Indicator: | No Shaft Grounding |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| | 110.000 A @ 460.0 V | Shaft Rotation: | Reversible |
| Design Code: | A | Shaft Slinger Indicator: | No Slinger |
| Drip Cover: | No Drip Cover | Speed Code: | Single Speed |
| Duty Rating: | CONT | Motor Standards: | NEMA |
| Electrically Isolated Bearing: | Not Electrically Isolated | Starting Method: | Direct on line |
| Feedback Device: | NO FEEDBACK | Thermal Device - Bearing: | NONE (OLD) |
| Front Face Code: | Standard | Thermal Device - Winding: | None |
| Front Shaft Indicator: | None | Vibration Sensor Indicator: | No Vibration Sensor |
| Heater Indicator: | No Heater | Winding Thermal 1: | None |
| | | Winding Thermal 2: | None |

| Nameplate NP2138LUA | | | | | | | | | | | | |
|---------------------|------------------------------|--|----|----------------|------------|--------|---------|-----------|------|--------|------|--|
| CAT.NO. | EM2550T | | | P/N | | | | ENCLOSURE | OPSB | | | |
| SPEC. | 42E212W937 | | CC | 010A | | FRAME | 365TS | | S/N | | | |
| HP | 100 | | | CLASS | F | | HZ | 60 | | | | |
| RPM | 3540 | | | PH | 3 | | DES | A | | | | |
| VOLT | 230/460 | | | KVA-CODE | G | | ODE BRG | 6311 | | DE BRG | 6313 | |
| AMP | 220/110 | | | USABLE AT 208V | 244 | | | | | | | |
| RATING | 40C AMB-CONT | | | GREASE | POLYREX EM | | | | | | | |
| NEMA-NOM-EFF | 93.6 | | PF | 91 | | SER.F. | 1.15 | | | | | |
| HTR-VOLTS | 50Hz 100Hp 190/380V 270/135A | | | | | SF 1.0 | | | | | | |
| | HTR-AMPS | | | | | | | | | | | |

| Parts List | | |
|-------------|--|----------|
| Part Number | Description | Quantity |
| SA244595 | SA 42E212W937 | 1.000 EA |
| RA231478 | RA 42E212W937 | 1.000 EA |
| HA6360 | LIFTING LUG FOR 42 FRAME MOTORS. | 2.000 EA |
| HA6017 | CAST ADAPTER, 40,42 KOBX | 1.000 EA |
| 19XW3118A12 | .31-18 X .75 HEX WASHER HEAD TAPTITE II | 2.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 EA |
| WD1000B25 | GND LUG, BURNDY L125HP OR T&B L125HP-BB | 1.000 EA |
| 19XW3118G08 | .31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN | 1.000 EA |
| 10CB3002 | CONDUIT BOX CAST W/3.625 LEAD HOLE | 1.000 EA |
| 19XW3118A12 | .31-18 X .75 HEX WASHER HEAD TAPTITE II | 4.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| 42EP3200A01 | FR ENDPLATE, MACH | 1.000 EA |
| HW5100A13 | W4627-047 WVY WSHER | 1.000 EA |
| 42EP1202A01 | STD PU ENDPLATE MODEL 42 313 BRG. | 1.000 EA |
| 10XN3816K44 | 3/8-16 X 2.75 HEX HD CAP SCREW, GRADE 5 | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| XY5013A12 | NUT,1/2-13,HEX,STEEL,ZINCPLATED | 8.000 EA |
| 10CB3500SP | CONDUIT BOX LID, CAST | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 4.000 EA |
| HW2501H18 | KEY, 1/2 SQ X 2.000 | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 5/18 | 1.000 EA |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| MJ1000A02 | GREASE, POLYREX EM EXXON (USe 4824-15A) | 0.030 LB |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A20 | 1/8NPT SL PIPE PLUG | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.050 GA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 4.000 EA |
| 42AD2001B01 | BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS | 1.000 EA |
| 42AD2001B01 | BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS | 1.000 EA |
| HA3151A09 | THRUBOLT STUD 1/2-13 X 22.000 | 4.000 EA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0181 | CONNECTION LABEL | 1.000 EA |
| NP2138LUA | ALUM SUPER-E UL CSA-EEV PREM CC (300SER) | 1.000 EA |
| 40PA1000 | PACKAGING GROUP | 1.000 EA |
| PE-0000013 | ZRTG PE ASSEMBLY | 1.000 EA |

| Accessories | | |
|--------------------|--------------------|-------------------|
| Part Number | Description | Multiplier |
| 42-1400 | C FACE KIT | A8 |

AC Induction Motor Performance Data

Record # 38382 - Typical performance - not guaranteed values

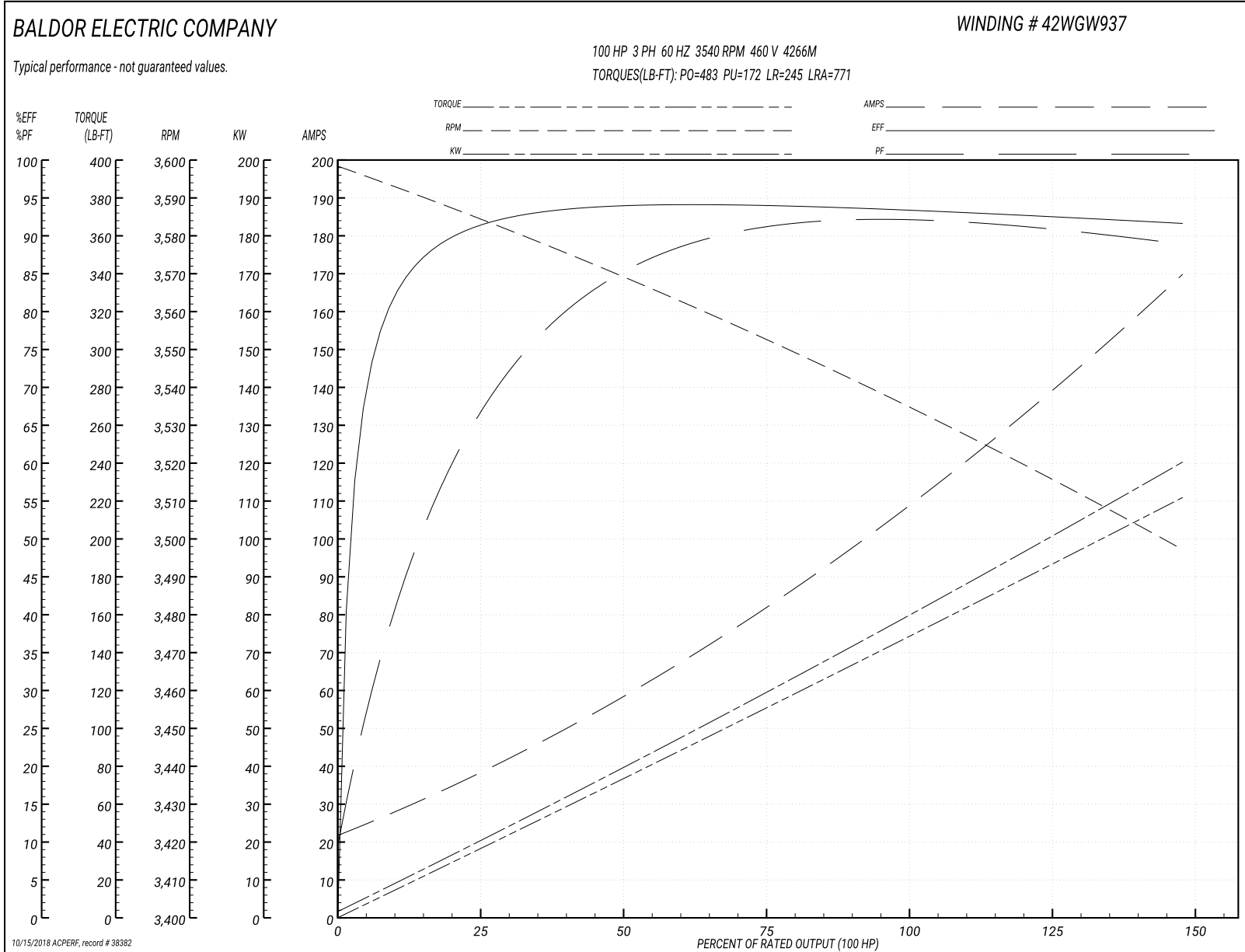
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 42WGW937-R001 | Type: 4266M | Enclosure: OPSB |
|-------------------------------|--------------------|------------------------|

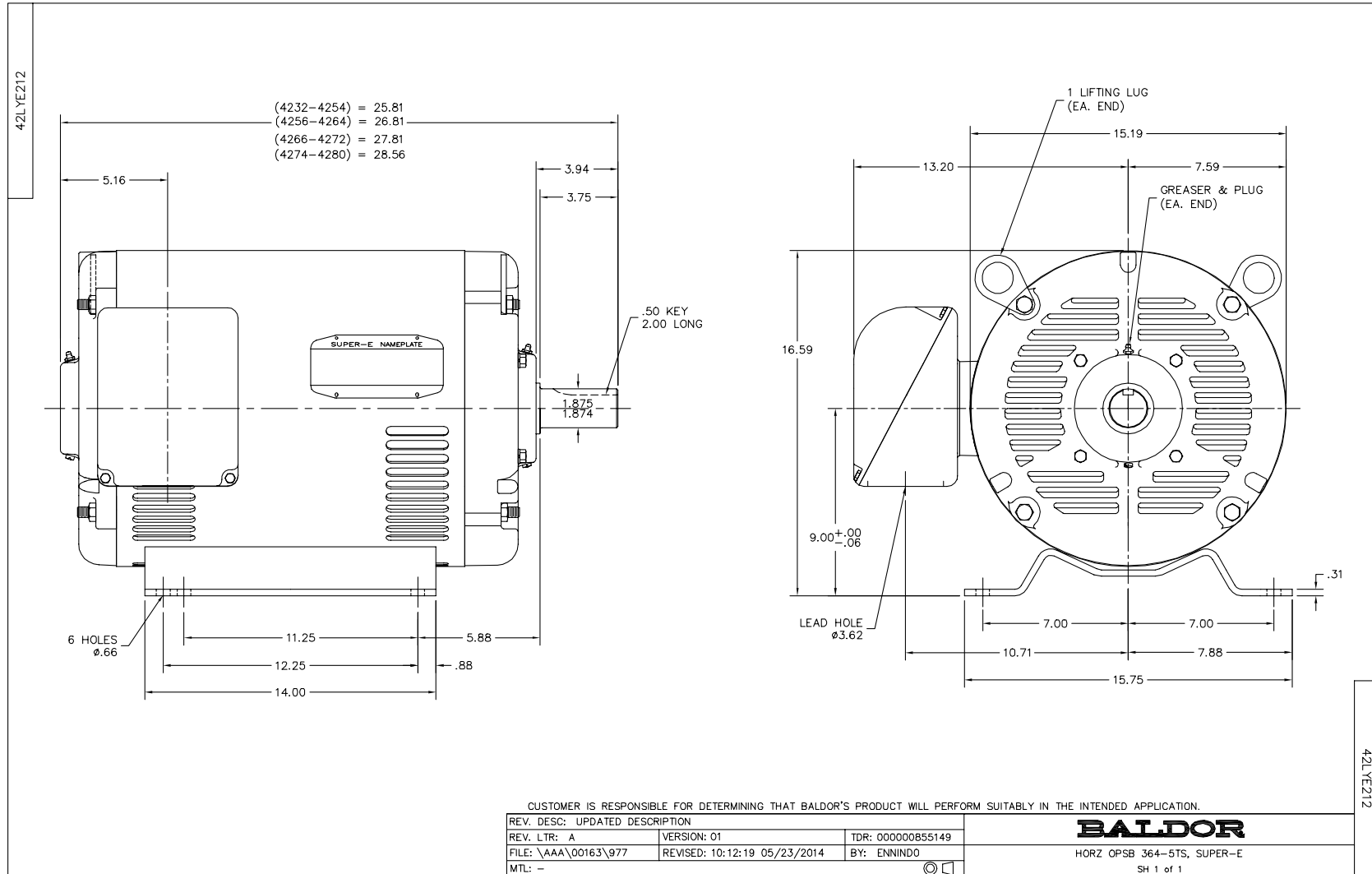
| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|-------------------------|
| Rated Output (HP) | 100 | | | Full Load Torque | 148 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 220/110 | | | Breakdown Torque | 483 LB-FT |
| R.P.M. | 3540 | | | Pull-up Torque | 172 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 245 LB-FT |
| NEMA Design Code | B | KVA Code | G | Starting Current | 771 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 23.5 A |
| NEMA Nom. Eff. | 93.6 | Power Factor | 91 | Line-line Res. @ 25°C | 0.0539 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 45°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 55°C |
| | | | | Locked-rotor Power Factor | 21 |
| | | | | Rotor inertia | 5.16 LB-FT ² |

Load Characteristics 460 V, 60 Hz, 100 HP

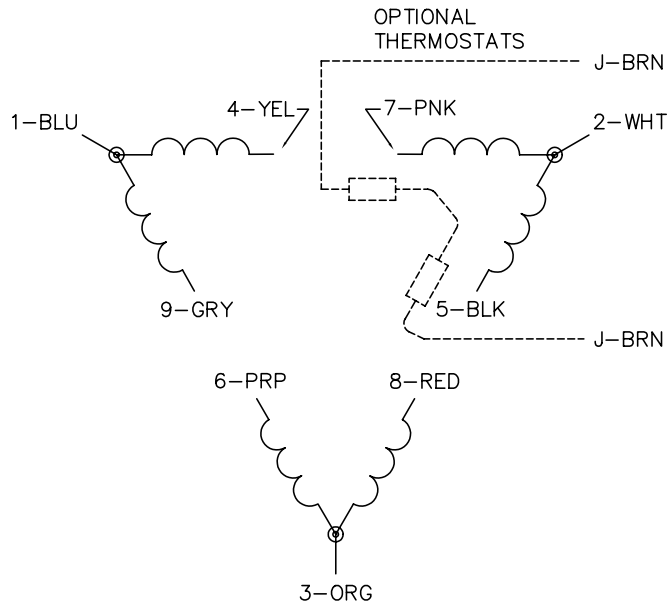
| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 72 | 87 | 90 | 91 | 91 | 89 | 91 |
| Efficiency | 91.3 | 93.9 | 94 | 93.6 | 92.7 | 91.6 | 93 |
| Speed | 3584 | 3568 | 3552 | 3536 | 3518 | 3496 | 3525 |
| Line amperes | 36.1 | 57.7 | 82.8 | 110 | 138 | 169 | 127 |

Performance Graph at 460V, 60Hz, 100.0HP Typical performance - Not guaranteed values

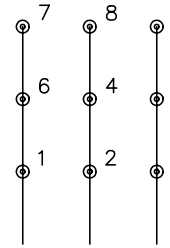




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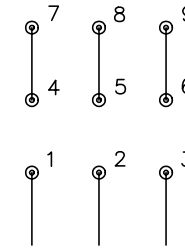


LOW VOLTAGE
(2D)



LINE

HIGH VOLTAGE
(1D)



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: C BY: JLP

REVISED: 01/21/99 2:28

TDR: 0171435

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FILE: AAA00005148

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180

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