

BALDOR® • RELIANCE 

Product Information Packet

EM2544T

50HP, 1185RPM, 3PH, 60HZ, 365T, 4466M, OPSB, F1

| Part Detail | | | | | | | |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | M | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 44WGW235 | CD Diagram: | CD0180 | Mfg Plant: | |
| Mech. Spec: | 44E196 | Layout: | 44LYE196 | Poles: | 06 | Created Date: | 05-10-2010 |
| Base: | RG | Eff. Date: | 08-21-2018 | Leads: | 9#6 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM2544T | Insulation Class: | F |
| Enclosure: | OPSB | Inverter Code: | Inverter Ready |
| Frame: | 365T | KVA Code: | G |
| Frame Material: | Steel | Lifting Lugs: | Standard Lifting Lugs |
| Output @ Frequency: | 50.000 HP @ 60 HZ | Locked Bearing Indicator: | Locked Bearing |
| Synchronous Speed @ Frequency: | 1200 RPM @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 6 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: | 4466M |
| | CSA EEV | Mounting Arrangement: | F1 |
| | UR | Power Factor: | 80 |
| 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: | 62.000 A @ 460.0 V | Shaft Extension Location: | Pulley End |
| | 132.000 A @ 208.0 V | Shaft Ground Indicator: | No Shaft Grounding |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| | 124.000 A @ 230.0 V | Shaft Rotation: | Reversible |
| Design Code: | B | 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. | EM2544T | | | P/N | | | | ENCLOSURE | OPSB | | |
| SPEC. | 44E196W235G1 | | CC | 010A | | FRAME | 365T | | S/N | | |
| HP | 50 | | | CLASS | F | | HZ | 60 | | | |
| RPM | 1185 | | | PH | 3 | | DES | B | | | |
| VOLT | 230/460 | | | KVA-CODE | G | | ODE BRG | 6312 | | DE BRG | 6313 |
| AMP | 124/62 | | | USABLE AT 208V | 132 | | | | | | |
| RATING | 40C AMB-CONT | | | GREASE | POLYREX EM | | | | | | |
| NEMA-NOM-EFF | 94.1 | PF | 80 | SER.F. | 1.15 | | | | | | |
| HTR-VOLTS | 50Hz 50Hp 190/380V 148/74A | | | | | SF 1.0 | | | | | |
| | HTR-AMPS | | | | | | | | | | |

| Parts List | | |
|-------------|--|----------|
| Part Number | Description | Quantity |
| SA194636 | SA 44E196W235G1 | 1.000 EA |
| RA182222 | RA 44E196W235G1 | 1.000 EA |
| HA6731 | LIFTING LUG FOR 44 FRAME MOTORS. | 2.000 EA |
| HA6616A01 | CAST ADAPTOR, 44 FRAME - NEMA 364-5 - MA | 1.000 EA |
| 19XW3816A16 | .38-16 X 1.00 HEX WASHER HEAD TAPTITE II | 2.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 2.000 EA |
| 10CB3002A02 | CB 309 3.62 LD HOLE, .38 MTG HOLE & 3.50 | 1.000 EA |
| 19XW3118A16 | .31-18 HEX WASHER HEAD TAPTITE II 1.00 L | 4.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 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 |
| 44EP1203A02 | FREP, MACH | 1.000 EA |
| HW5100A15 | W4997-050 WVY WSHR (WB) | 1.000 EA |
| 10XN3816K48 | 3/8-16 X 3 HEX HD CAP SCREW,Z/P | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 44EP1203A01 | PU ENDPLATE, MACH | 1.000 EA |
| XY5013A12 | NUT,1/2-13,HEX,STEEL,ZINCPLATED | 8.000 EA |
| 10CB3500SP | CONDUIT BOX LID, CAST | 1.000 EA |
| 51XW2520A12 | SCREW, HEX SER SLT HD, ZN, 1/4-20 X .75 | 4.000 EA |
| HW2501J36 | KEY, 5/8 SQ X 4.250 | 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, | 0.080 GA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 4.000 EA |
| 44AD2001A01 | BAFFLE 44 OPEN,"X"=1.00, SLOTTED BAND MT | 1.000 EA |
| 44AD2001A01 | BAFFLE 44 OPEN,"X"=1.00, SLOTTED BAND MT | 1.000 EA |
| HA3175A02 | THRUBOLT STUD 1/2-13 X 24.500 - GRADE 2 | 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 |
| 44PA1000 | PK GP COMB PRINT 39-3/8X31X23-7/8 | 1.000 EA |

AC Induction Motor Performance Data

Record # 22264 - Typical performance - not guaranteed values

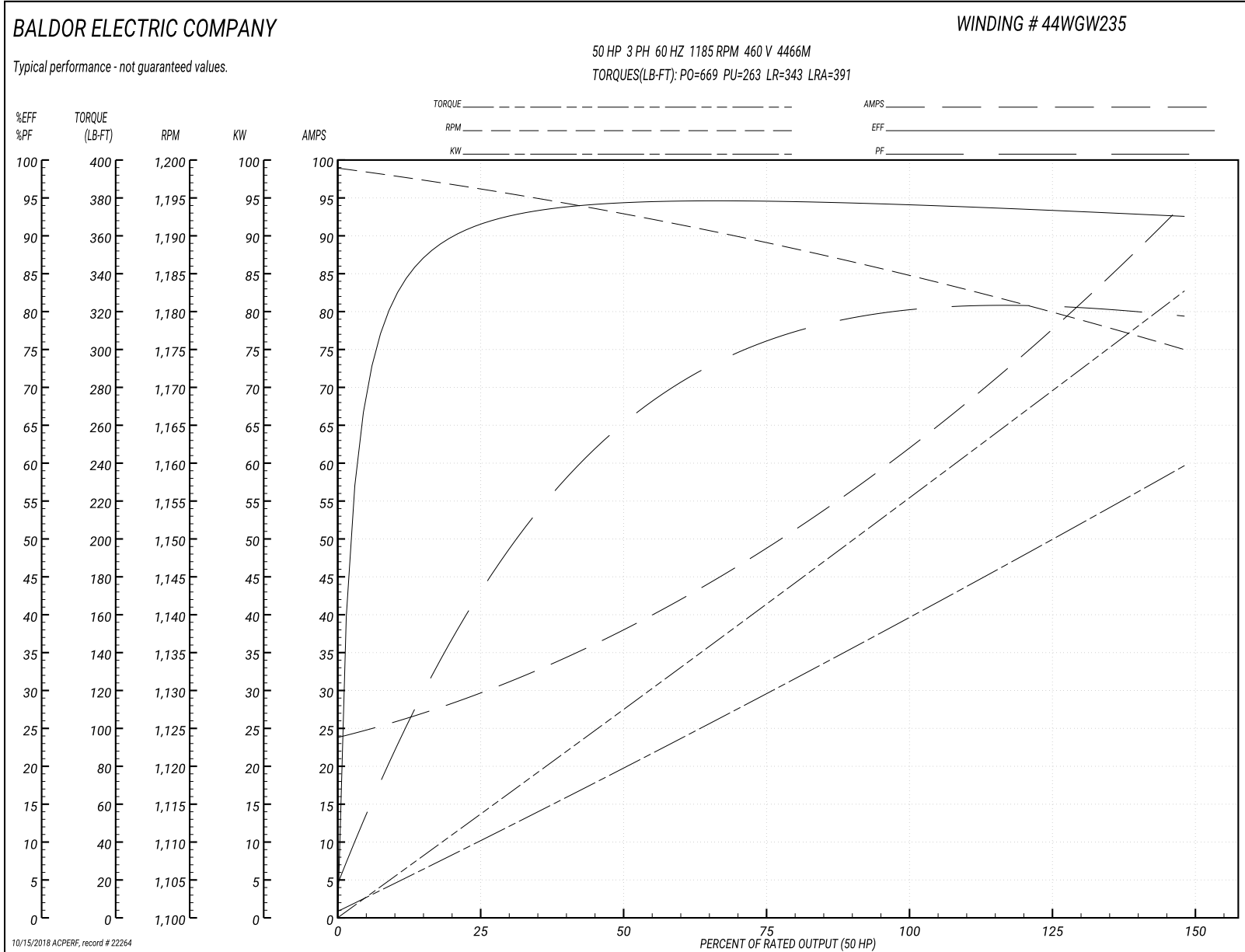
| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 44WGW235-R001 | Type: 4466M | Enclosure: OPSB |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|-------------------------|
| Rated Output (HP) | 50 | | | Full Load Torque | 221 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 124/62 | | | Breakdown Torque | 669 LB-FT |
| R.P.M. | 1185 | | | Pull-up Torque | 263 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 343 LB-FT |
| NEMA Design Code | B | KVA Code | G | Starting Current | 391 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 24.6 A |
| NEMA Nom. Eff. | 94.1 | Power Factor | 80 | Line-line Res. @ 25°C | 0.119 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 31°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 37°C |
| | | | | Locked-rotor Power Factor | 29 |
| | | | | Rotor inertia | 18.8 LB-FT ² |

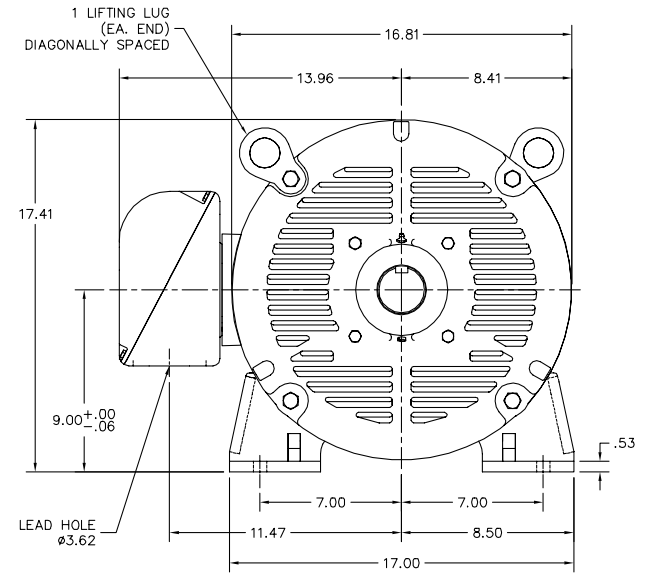
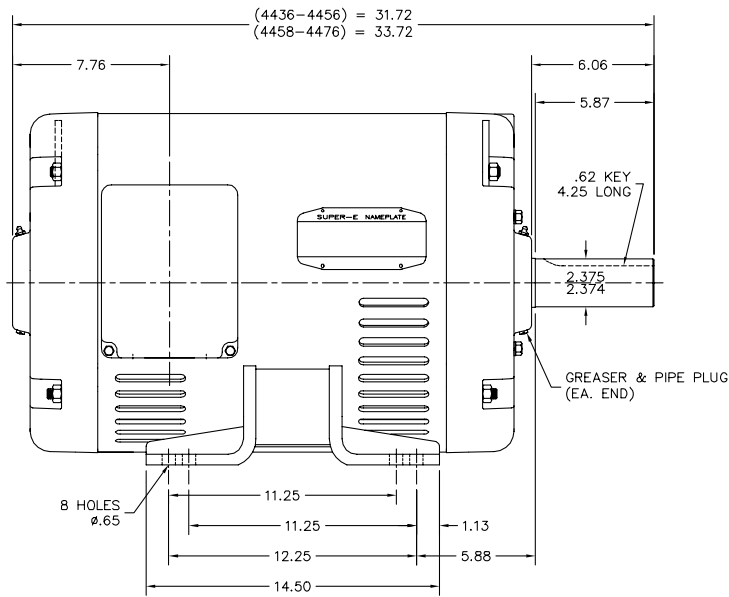
Load Characteristics 460 V, 60 Hz, 50 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 45 | 67 | 76 | 79 | 80 | 80 | 80 |
| Efficiency | 91.1 | 93.7 | 94.7 | 94.2 | 93.5 | 92.4 | 93.8 |
| Speed | 1196 | 1193 | 1189 | 1185 | 1180 | 1175 | 1182 |
| Line amperes | 28.7 | 37.5 | 49.1 | 62.5 | 77.4 | 93.8 | 71.4 |

Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values



44LYE196



CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

| | | |
|--------------------------------|------------------------------|-------------------|
| REV. DESC: UPDATED DESCRIPTION | | |
| REV. LTR: A | VERSION: 01 | TDR: 000000B55727 |
| FILE: \AAA\00164\097 | REVISED: 09:47:39 05/29/2014 | BY: ENNINDO |
| MTL: - | | |

BALDOR
 HORZ OPSB 364-5T, SUPER-E
 SH 1 of 1

44LYE196

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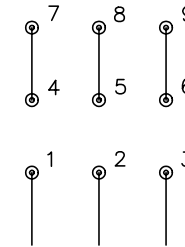


LOW VOLTAGE
(2D)



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 |
| 0810D0 | | FILE: AAA00005148 | MDL: - |
| | | MTL: - | |

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS, DELTA CONNECTION

CD0180

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