

BALDOR® • RELIANCE 

Product Information Packet

EM2515T-CI

20HP, 1765RPM, 3PH, 60HZ, 256T, 0946M, OPEN, F1

| Part Detail | | | | | | | |
|-------------|-------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | S | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 09WGY363 | CD Diagram: | CD0005 | Mfg Plant: | |
| Mech. Spec: | 09D01 | Layout: | 09LYD001 | Poles: | 04 | Created Date: | 03-08-2010 |
| Base: | RG | Eff. Date: | 03-09-2020 | Leads: | 9#12 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM2515T-CI | Heater Indicator: | No Heater |
| Enclosure: | OPEN | Insulation Class: | F |
| Frame: | 256T | Inverter Code: | Inverter Ready |
| Frame Material: | Iron | KVA Code: | H |
| Output @ Frequency: | 20.000 HP @ 60 HZ | Lifting Lugs: | Standard Lifting Lugs |
| Synchronous Speed @ Frequency: | 1800 RPM @ 60 HZ | Locked Bearing Indicator: | No Locked Bearing |
| Voltage @ Frequency: | 460.0 V @ 60 HZ | Motor Lead Quantity/Wire Size: | 9 @ 12 AWG |
| | 230.0 V @ 60 HZ | Motor Lead Exit: | Ko Box |
| XP Class and Group: | None | Motor Lead Termination: | Flying Leads |
| XP Division: | Not Applicable | Motor Type: | 0946M |
| Agency Approvals: | UR | Mounting Arrangement: | F1 |
| | CSA EEV | Power Factor: | 84 |
| | CSA | Product Family: | General Purpose |
| Auxillary Box: | No Auxillary Box | Pulley End Bearing Type: | Ball |
| Auxillary Box Lead Termination: | None | Pulley Face Code: | Standard |
| Base Indicator: | Rigid | Pulley Shaft Indicator: | Standard |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | Rodent Screen: | None |
| Blower: | None | Shaft Extension Location: | Pulley End |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| Current @ Voltage: | 24.000 A @ 460.0 V | Shaft Ground Indicator: | No Shaft Grounding |
| | 48.000 A @ 230.0 V | Shaft Rotation: | Reversible |
| | 49.000 A @ 208.0 V | Shaft Slinger Indicator: | No Slinger |
| Design Code: | A | Speed Code: | Single Speed |
| Drip Cover: | No Drip Cover | Motor Standards: | NEMA |
| Duty Rating: | CONT | Starting Method: | Direct on line |
| Electrically Isolated Bearing: | Not Electrically Isolated | Thermal Device - Bearing: | None |
| Feedback Device: | NO FEEDBACK | Thermal Device - Winding: | None |
| Front Face Code: | Standard | Vibration Sensor Indicator: | No Vibration Sensor |
| Front Shaft Indicator: | None | Winding Thermal 1: | None |
| | | Winding Thermal 2: | None |

| Nameplate NP3554LUA | | | | | | | | | | | |
|---------------------|---------------------------|--|----------|----------------|--------|-------------------------|---------|--------------|---------|--------|------|
| CAT.NO. | EM2515T-CI | | | P/N | | | | ENCL | OPEN | | |
| SPEC. | 09D001Y363G2 | | CC | 010A | | FRAME | 256T | | SER.NO. | | |
| HP | 20 | | CLASS | F | | HZ | 60 | | | | |
| RPM | 1765 | | PH | 3 | | DES | A | | | | |
| VOLTS | 230/460 | | | CODE | H | | ODE BRG | 6208 | | DE BRG | 6309 |
| AMPS | 48/24 | | | USABLE AT 208V | 49 | | | | | | |
| RATING | 40C AMB-CONT | | | NEMA-NOM-EFF | 93 | | GREASE | POLYREX EM | | | |
| PF | 84 | | SER.F. | 1.15 | | CT30-60(2:1) | | VT3-60(20:1) | | | |
| USABLE AT | 50HZ 20HP 190/380V 54/27A | | | | SF 1.0 | | | | | | |
| HTR-VOLTS | | | HTR-AMPS | | | MAX. SPACE HEATER TEMP. | | | | | |

| Parts List | | |
|-------------|--|----------|
| Part Number | Description | Quantity |
| SA191855 | SA 09D001Y363G2 | 1.000 EA |
| RA179511 | RA 09D001Y363G2 | 1.000 EA |
| 09CB3000SP | CONDUIT BOX CAST | 1.000 EA |
| 10XN2520K12 | 1/4-20 X.75 GRD 5 | 2.000 EA |
| HW1001A25 | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| WD1000B16 | T&B CX70TN OR L70P TERMINAL LUG | 1.000 EA |
| 59XW2520G07 | .25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN | 1.000 EA |
| HW1001A10 | WASHER, #10 SPLT LK, ZN X | 3.000 EA |
| 09EP1200A01 | FR ENDPLATE, MACH | 1.000 EA |
| 10XN3816K52 | 3/8-16 X 3-1/4 HEX HEAD CAP SCREW GRD 5 | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW5100A08 | W3118-035 WVY WSHR (WB) | 1.000 EA |
| HW1001A10 | WASHER, #10 SPLT LK, ZN X | 3.000 EA |
| 09EP1201A01 | PU ENDPLATE, MACH | 1.000 EA |
| 10XN3816K52 | 3/8-16 X 3-1/4 HEX HEAD CAP SCREW GRD 5 | 4.000 EA |
| HW1001A38 | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| 09CB3500SP | CONDUIT BOX LID, CAST | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 2.000 EA |
| HW2501G25 | KEY, 3/8 SQ X 2.875 | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 3/19 | 1.000 EA |
| 09AD2000A01 | 45R DEFLECTOR, 309 OPEN | 1.000 EA |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |
| 51XW1032A06 | 10-32 X .38, TAPTITE II, HEX WSHR SLTD S | 3.000 EA |

| Parts List (continued) | | |
|-------------------------------|--|-----------------|
| Part Number | Description | Quantity |
| 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 |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.080 LB |
| 09AD2000A01 | 45R DEFLECTOR, 309 OPEN | 1.000 EA |
| 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 |
| LC0005E02 | SPL CONN.DIA./WARN.LABEL(LC0005/LB1119) | 1.000 EA |
| NP3554LUA | SS SUPER-E VPWM INV READY UL CSA-EEV PRE | 1.000 EA |
| 09PA1000 | PACKAGING GROUP COMBINED PRINT | 1.000 EA |

AC Induction Motor Performance Data

Record # 32255 - Typical performance - not guaranteed values

| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 09WGY363-R003 | Type: 0946M | Enclosure: OPEN |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 460 V, 60 Hz: High Voltage Connection | |
|-----------------------|--------------|--------------|----|--|-------------------------|
| Rated Output (HP) | 20 | | | Full Load Torque | 60 LB-FT |
| Volts | 230/460 | | | Start Configuration | direct on line |
| Full Load Amps | 48/24 | | | Breakdown Torque | 190 LB-FT |
| R.P.M. | 1765 | | | Pull-up Torque | 100 LB-FT |
| Hz | 60 | Phase | 3 | Locked-rotor Torque | 110 LB-FT |
| NEMA Design Code | A | KVA Code | H | Starting Current | 164 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 8.5 A |
| NEMA Nom. Eff. | 93 | Power Factor | 84 | Line-line Res. @ 25°C | 0.433 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 46°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 56°C |
| | | | | Locked-rotor Power Factor | 33.6 |
| | | | | Rotor inertia | 2.01 LB-FT ² |

Load Characteristics 460 V, 60 Hz, 20 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|------|------|------|------|------|------|------|
| Power Factor | 52 | 74 | 83 | 87 | 89 | 89 | 88 |
| Efficiency | 87.4 | 91.9 | 92.8 | 93 | 92.2 | 91.4 | 92.4 |
| Speed | 1792 | 1784 | 1775 | 1767 | 1757 | 1748 | 1761 |
| Line amperes | 10.2 | 13.7 | 18.2 | 23.1 | 28.5 | 34.2 | 26.2 |

Performance Graph at 460V, 60Hz, 20.0HP Typical performance - Not guaranteed values

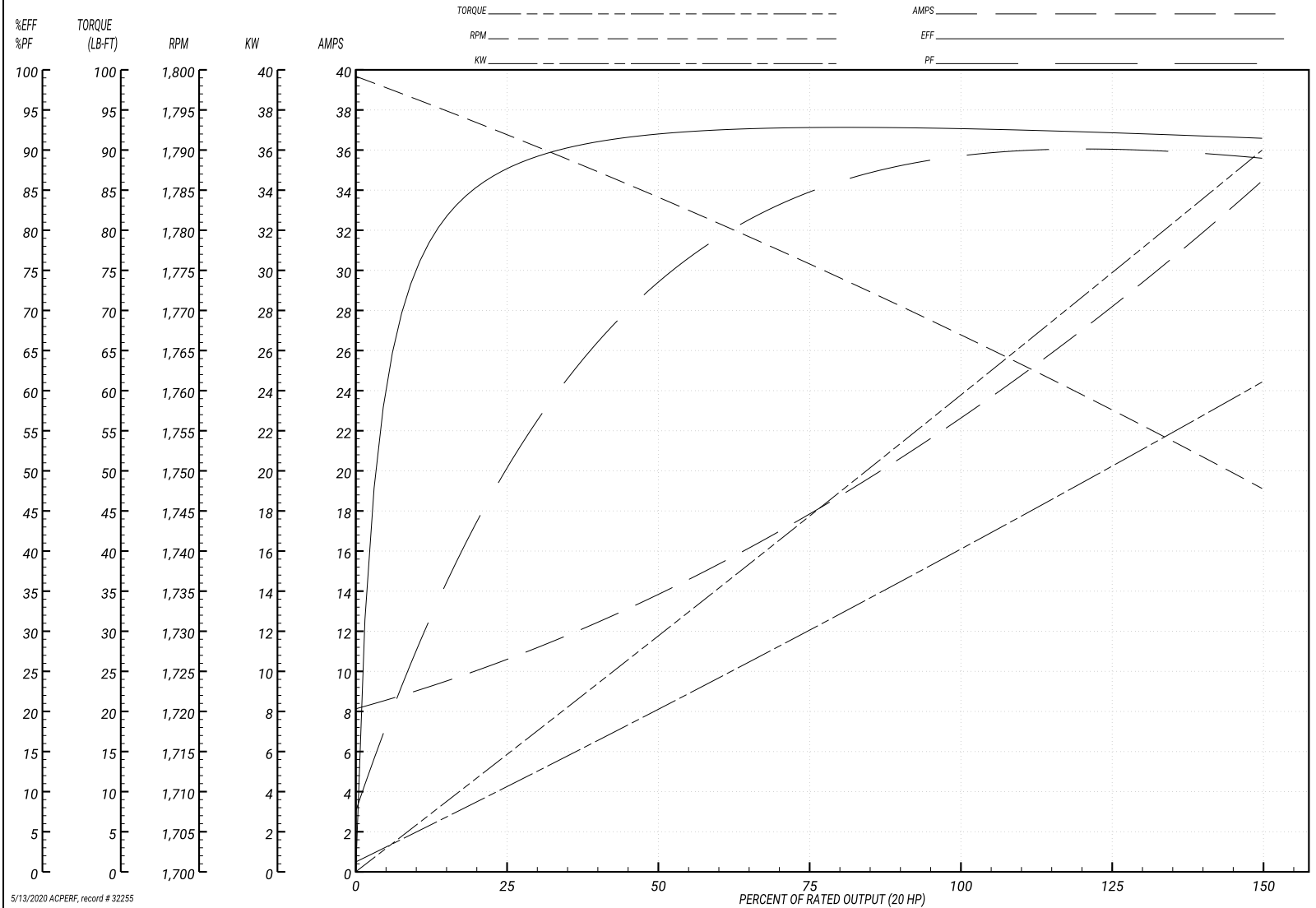
ABB Motors and Mechanical Inc.

WINDING # 09WGY363

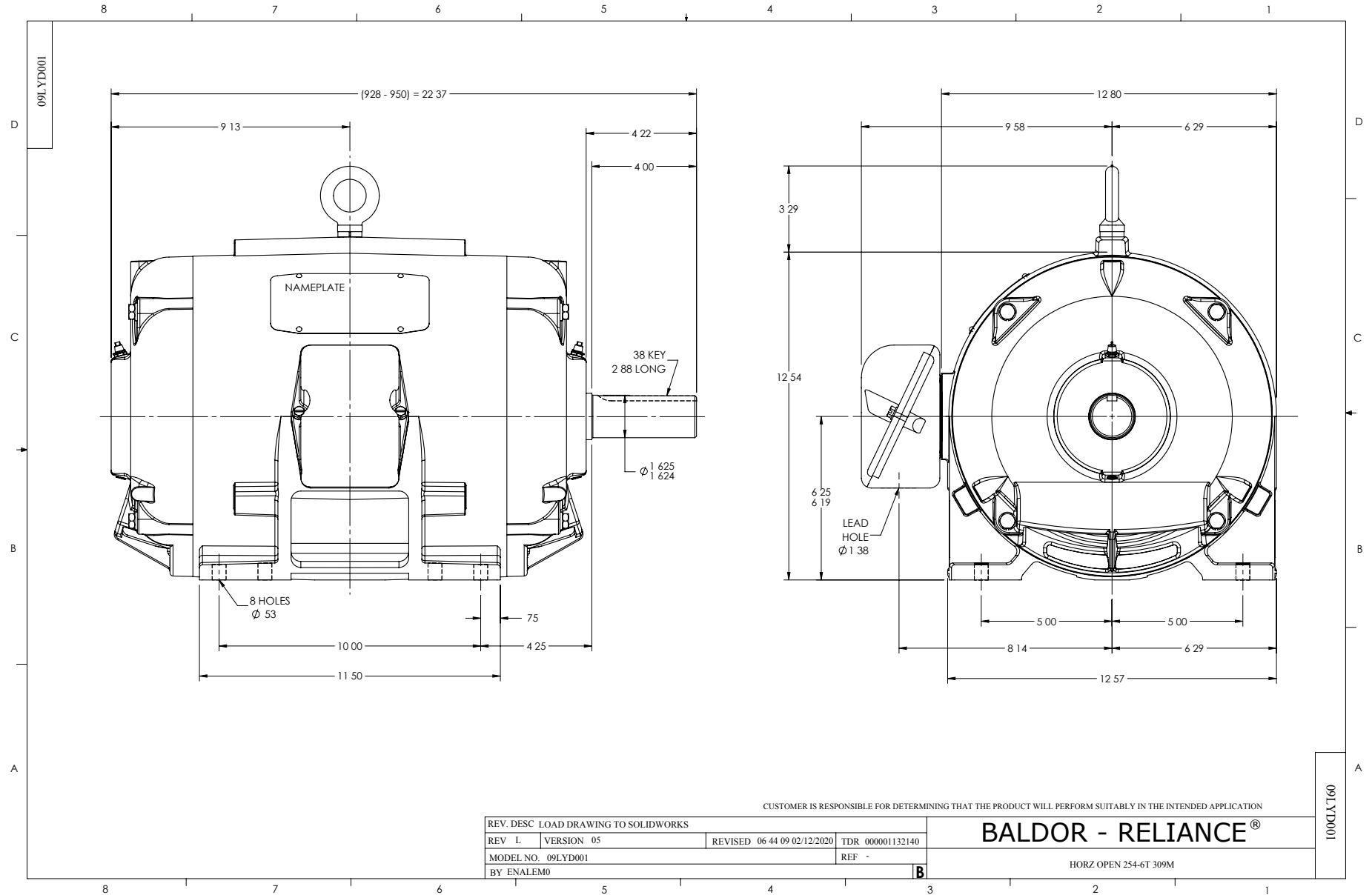
Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1765 RPM 460 V 0946M

TORQUES(LB-FT): PO=190 PU=100 LR=110 LRA=164



5/13/2020 ACPERF, record # 32255



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

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