

BALDOR® • RELIANCE 

Product Information Packet

EM4115T-58

50HP,1470RPM,3PH,50HZ,326T,1272M,TEFC,F1

| Part Detail | | | | | | | |
|-------------|-------|-------------|------------|-------------|--------|---------------|------------|
| Revision: | C | Status: | PRD/A | Change #: | | Proprietary: | No |
| Type: | AC | Elec. Spec: | 12WGZ201 | CD Diagram: | CD0382 | Mfg Plant: | |
| Mech. Spec: | 12C51 | Layout: | 12LYC051 | Poles: | 04 | Created Date: | 10-24-2017 |
| Base: | RG | Eff. Date: | 09-11-2019 | Leads: | 6#6 | | |

| Specs | | | |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number: | EM4115T-58 | Inverter Code: | Inverter Ready |
| Enclosure: | TEFC | KVA Code: | G |
| Frame: | 326T | Lifting Lugs: | Standard Lifting Lugs |
| Frame Material: | Iron | Locked Bearing Indicator: | Locked Bearing |
| Output @ Frequency: | 50.000 HP @ 50 HZ | Motor Lead Quantity/Wire Size: | 6 @ 6 AWG |
| Synchronous Speed @ Frequency: | 1500 RPM @ 50 HZ | Motor Lead Exit: | Ko Box |
| Voltage @ Frequency: | 400.0 V @ 50 HZ | Motor Lead Termination: | Flying Leads |
| XP Class and Group: | None | Motor Type: | 1272M |
| XP Division: | Not Applicable | Mounting Arrangement: | F1 |
| Agency Approvals: | CE | Power Factor: | 85 |
| | CSA | Product Family: | General Purpose |
| | UR | Pulley End Bearing Type: | Ball |
| Auxillary Box: | No Auxillary Box | Pulley Face Code: | Standard |
| Auxillary Box Lead Termination: | None | Pulley Shaft Indicator: | Standard |
| Base Indicator: | Rigid | Rodent Screen: | None |
| Bearing Grease Type: | Polyrex EM (-20F +300F) | RoHS Status: | ROHS COMPLIANT |
| Blower: | None | Shaft Extension Location: | Pulley End |
| Current @ Voltage: | 67.000 A @ 400.0 V | Shaft Ground Indicator: | No Shaft Grounding |

| | | | |
|---------------------------------------|---------------------------|------------------------------------|-----------------------|
| Design Code: | B | Shaft Rotation: | Reversible |
| Drip Cover: | No Drip Cover | Shaft Slinger Indicator: | Shaft Slinger |
| Duty Rating: | CONT | Speed Code: | Single Speed |
| Electrically Isolated Bearing: | Not Electrically Isolated | Motor Standards: | NEMA |
| Feedback Device: | NO FEEDBACK | Starting Method: | Wye Start - Delta Run |
| Front Face Code: | Standard | Thermal Device - Bearing: | None |
| Front Shaft Indicator: | None | Thermal Device - Winding: | None |
| Heater Indicator: | No Heater | Vibration Sensor Indicator: | No Vibration Sensor |
| Insulation Class: | F | Winding Thermal 1: | None |
| | | Winding Thermal 2: | None |

| | | | | | | | | | | | |
|----------------------------------|------------------------|--|-------------|-----------------------|------------|------------|---|-----------|-------------|----|--|
| Nameplate NP3444L | | | | | | | | | | | |
| CAT NO | EM4115T-58 | | | | | | | | | | |
| SPEC. | 12C051Z201G1 | | | | | | | | | | |
| HP | 50 | | | | | | | PH | 3 | | |
| VOLTS | 400 | | | | | | | | | | |
| AMP | 67 | | | | | | | | | | |
| RPM | 1470 | | | | | | | | | | |
| FRAME | 326T | | | | HZ | 50 | | | I.P. | 54 | |
| SER.F. | 1.15 | | CODE | G | | DES | B | | CL | F | |
| NOM.EFF. | 93.9 | | | | | | | | | | |
| PF | 85 | | | USABLE AT 208V | | | | | | | |
| RATING | 40C AMB-CONT | | | | | | | CC | | | |
| DE BRG | 6312 | | | | ODE | 6311 | | | | | |
| ENCL | TEFC | | | SN | | | | | | | |
| VPWM INVERTER READY | | | | | | | | | | | |
| CT5-50(10:1)VT2.5-50(20:1 | | | | | | | | | | | |
| BLANK | IE3-94.6(75%)94.4(50%) | | | | | | | | | | |

| Parts List | | |
|---------------|---|----------|
| Part Number | Description | Quantity |
| SA346783 | SA 12C051Z201G1 | 1.000 EA |
| RA335325 | RA 12C051Z201G1 | 1.000 EA |
| 09FN3001B03SP | EXTERNAL FAN, PLASTIC | 1.000 EA |
| 10CB3001 | CONDUIT BOX CAST W/2.500 LEAD HOLE | 1.000 EA |
| 09GS1000SP | GASKET-CONDUIT BOX, 1/16 THICK LEXIDE | 1.000 EA |
| 10XN3118K12 | 5/16-18 X .75 GRADE 5, ZINC PLATED | 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 |
| HA3400A13 | STUD, 1/2-13 X 7" WELKER | 4.000 EA |
| HW1001A50 | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| HW5100A13 | W4627-047 WVY WSHER | 1.000 EA |
| 10XN3118K36 | 5/16-18 X 2.25" HEX HD, GRADE 5 | 2.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 2.000 EA |
| 12EP1106A01 | PU ENDPLATE, MACH | 1.000 EA |
| HW4600B41 | V-RING SLINGER 2.125 X 2.880 X 0.280 | 1.000 EA |
| 10XN5013K28 | 1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD | 4.000 EA |
| HW1001A50 | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| 10XN3118K40 | 5/16-18 X 2.50" HEX HD, GRADE 5 | 4.000 EA |
| HW1001A31 | LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I | 4.000 EA |
| 12FH1002SP | FAN COVER, CAST | 1.000 EA |
| HW1001A50 | LOCKWASHER 1/2, ZINC PLT.,.879 OD, .509 I | 4.000 EA |
| XY5013A12 | NUT,1/2-13,HEX,STEEL,ZINCPLATED | 4.000 EA |
| 10CB3500SP | CONDUIT BOX LID, CAST | 1.000 EA |

| Parts List (continued) | | |
|------------------------|--|----------|
| Part Number | Description | Quantity |
| 10GS1000SP | GASKET, CONDUIT BOX LID | 1.000 EA |
| 51XW2520A12 | .25-20 X .75, TAPTITE II, HEX WSHR SLTD | 4.000 EA |
| HW2501H33 | KEY, 1/2 SQ X 3.875 | 1.000 EA |
| LB1115N | LABEL,LIFTING DEVICE (ON ROLLS) | 1.000 EA |
| 12EP1107A05 | FR ENDPLATE, MACH 324-6T | 1.000 EA |
| HW4500A21 | 1618BALEMITE FITTING 825 UNIVERSAL | 1.000 EA |
| HA4017A01 | 1/8 X 4 GREASE EXT (F/S) | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| MJ1000A02 | GREASE, MOBIL POLYREX EM - 124047 | 0.200 LB |
| HW4500A03 | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17 | 317400 ALEMITE GREASE RELIEF | 1.000 EA |
| HA4054 | SHORT T-DRAIN FITTING, .125" N.P.T. | 1.000 EA |
| HA4051A00 | PLASTIC CAP FOR GREASE FITTING | 1.000 EA |
| HW2500A25 | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| 51XB1214A20 | 12-14X1.25 HXWSSLD SERTYB | 1.000 EA |
| MG1000Y03 | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20, | 0.080 GA |
| 85XU0407S04 | 4X1/4 U DRIVE PIN STAINLESS | 2.000 EA |
| LB1119N | WARNING LABEL | 1.000 EA |
| LC0382 | CONNECTION LABEL | 1.000 EA |
| NP3444L | ALUM SUPER-E VPWM INV READY NEMA IE3 UL | 1.000 EA |
| 12PA1000 | PACKAGING GROUP PRINT PK1024A06 | 1.000 EA |
| MN416A01 | TAG-INSTAL-MAINT no wire (1200/bx) 3/19 | 1.000 EA |

| | | |
|------------|--|----------|
| LB1594 | MYLAR WEEE WHEELIE BIN SYMBOL FOR CE MOT | 1.000 EA |
| PE-0000013 | ZRTG PE ASSEMBLY | 1.000 EA |

AC Induction Motor Performance Data

Record # 68342 - Typical performance - not guaranteed values

| | | |
|-------------------------------|--------------------|------------------------|
| Winding: 12WGZ201-R001 | Type: 1272M | Enclosure: TEFC |
|-------------------------------|--------------------|------------------------|

| Nameplate Data | | | | 400 V, 50 Hz: Single Voltage Motor | |
|-----------------------|--------------|--------------|----|---------------------------------------|----------------|
| Rated Output (HP) | 50 | | | Full Load Torque | 178.5 LB-FT |
| Volts | 400 | | | Start Configuration | direct on line |
| Full Load Amps | 67 | | | Breakdown Torque | 534 LB-FT |
| R.P.M. | 1470 | | | Pull-up Torque | 269 LB-FT |
| Hz | 50 | Phase | 3 | Locked-rotor Torque | 283 LB-FT |
| NEMA Design Code | B | KVA Code | G | Starting Current | 440 A |
| Service Factor (S.F.) | 1.15 | | | No-load Current | 23 A |
| NEMA Nom. Eff. | 93.9 | Power Factor | 85 | Line-line Res. @ 25°C | 0.1064 Ω |
| Rating - Duty | 40C AMB-CONT | | | Temp. Rise @ Rated Load | 77°C |
| S.F. Amps | | | | Temp. Rise @ S.F. Load | 88°C |
| | | | | Locked-rotor Power Factor | 29.4 |

Load Characteristics 400 V, 50 Hz, 50 HP

| % of Rated Load | 25 | 50 | 75 | 100 | 125 | 150 | S.F. |
|-----------------|--------|--------|--------|--------|------|--------|------|
| Power Factor | 52 | 74 | 82 | 85 | 86 | 87 | 86 |
| Efficiency | 92 | 94.4 | 94.6 | 94.1 | 93.6 | 93.2 | 93.8 |
| Speed | 1493.6 | 1487.3 | 1480.7 | 1473.6 | 1469 | 1465.6 | 1471 |
| Line amperes | 28.2 | 38.7 | 52 | 67 | 76.7 | 83.4 | 72.8 |

Performance Graph at 400V, 50Hz, 50.0HP Typical performance - Not guaranteed values

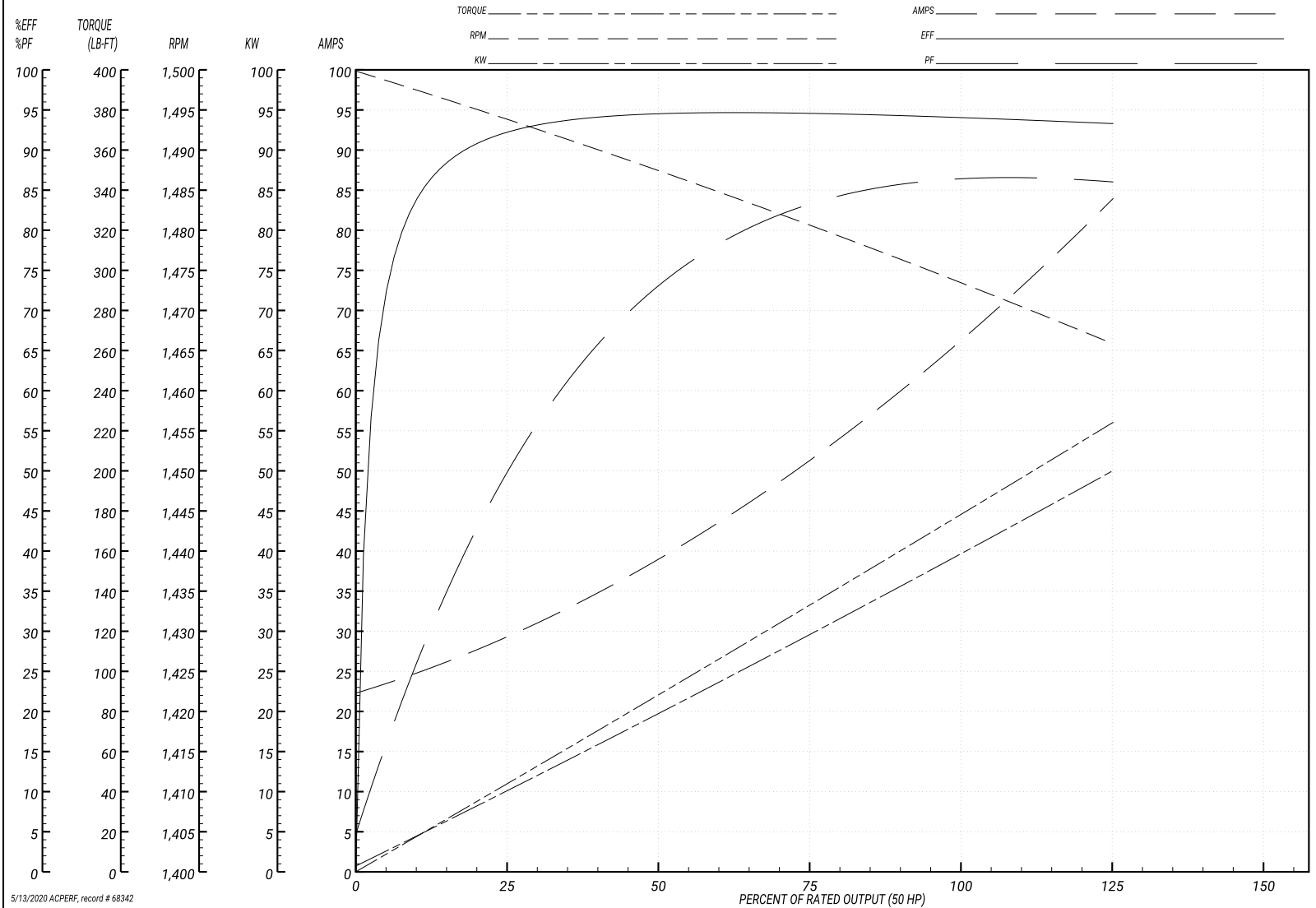
ABB Motors and Mechanical Inc.

WINDING # 12WGZ201

Typical performance - not guaranteed values.

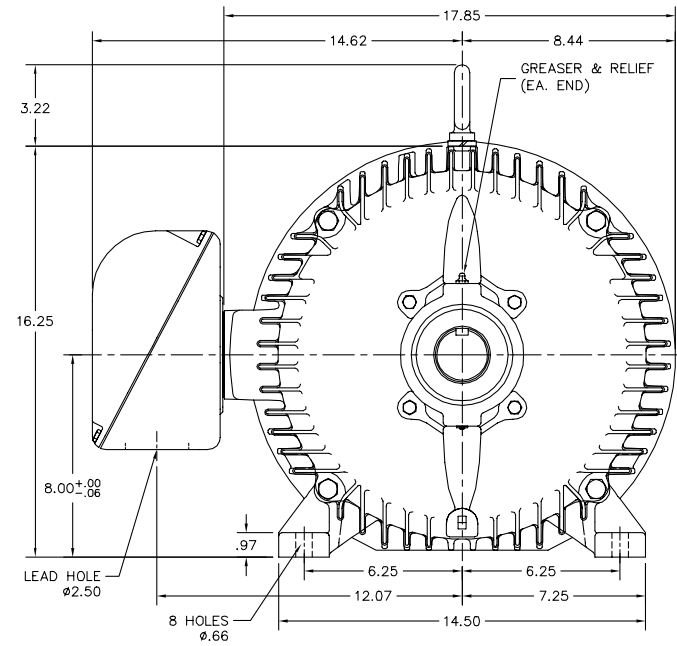
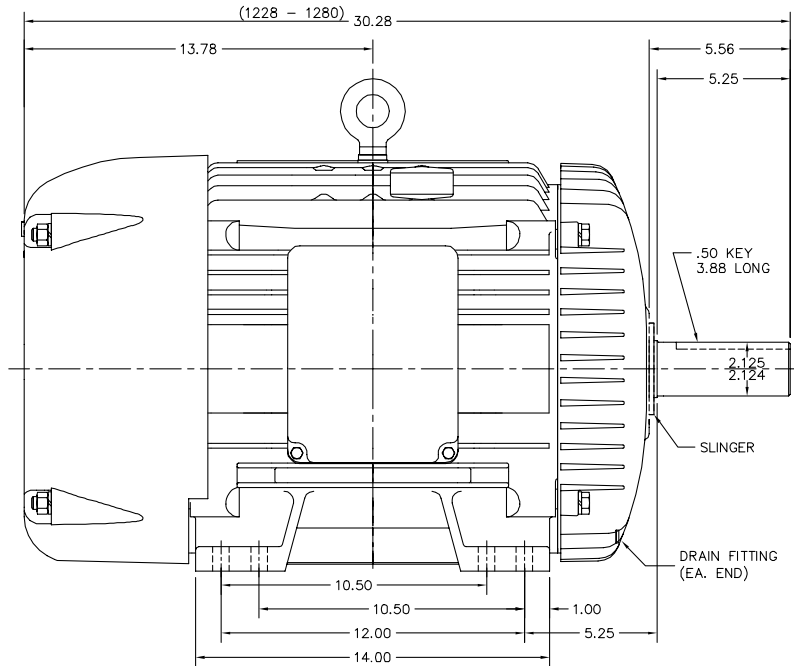
50 HP 3 PH 50 HZ 1470 RPM 400 V 1272M

TORQUES(LB-FT): PO=534 PU=269 LR=283 LRA=440



5/13/2020 ACPERF, record # 68342

12LYC051



12LYC051

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

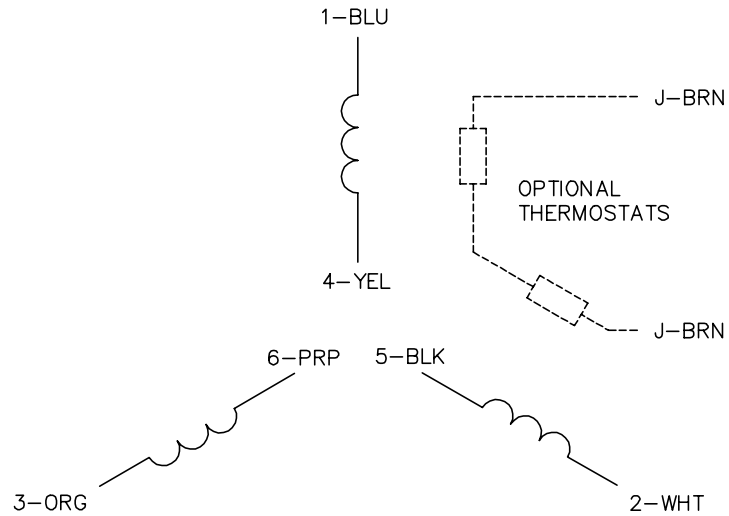
| | | |
|--------------------------------------|------------------------------|-------------------|
| REV. DESC: ADDED FOOT THICKNESS DIM. | | |
| REV. LTR: Y | VERSION: 08 | TDR: 000000957396 |
| FILE: \AAA\00001\609 | REVISED: 11:12:13 12/17/2015 | BY: ENNINDO |
| MTL: - | | |

BALDOR

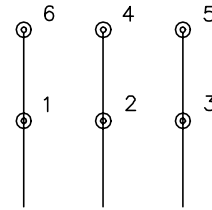
HORZ TEFC 324-6T

SH 1 of 1

CD0382

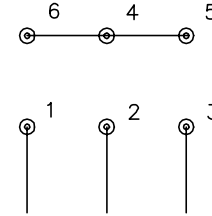


RUN CONNECTION
(1D)



LINE

START CONNECTION
(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.
5. FOR ACROSS-THE-LINE STARTING, USE 'RUN' CONNECTION.

CD0382

| | | |
|-----------------------------------|------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 | | |
| REV. LTR: F | VERSION: 01 | TDR: 000001099922 |
| FILE: \AAA\00005\243 | REVISED: 09:05:32 02/19/2019 | BY: ENBRIRO |
| MTL: - | ⊙ □ | |

BALDOR - RELIANCE®

3PH, SV, 6 LEADS, Y START/D RUN

SH 1 of 1

Marketing maintained PDF of MN416:

[MN416?ManNumber=MN416](#)