

**BALDOR® • RELIANCE** 

**Product Information Packet**

**EM4103T-BG**

**25HP,1775RPM,3PH,60HZ,284T,1054M,TEFC,F1**

| Part Detail |        |             |            |             |        |               |            |
|-------------|--------|-------------|------------|-------------|--------|---------------|------------|
| Revision:   | J      | Status:     | PRD/A      | Change #:   |        | Proprietary:  | No         |
| Type:       | AC     | Elec. Spec: | 10WGZ651   | CD Diagram: | CD0180 | Mfg Plant:    |            |
| Mech. Spec: | 10J470 | Layout:     | 10LYJ470   | Poles:      | 04     | Created Date: | 10-19-2017 |
| Base:       | RG     | Eff. Date:  | 12-28-2021 | Leads:      | 9#10   |               |            |

| Specs                           |                         |                                |                       |
|---------------------------------|-------------------------|--------------------------------|-----------------------|
| Catalog Number:                 | EM4103T-BG              | Heater Indicator:              | No Heater             |
| Enclosure:                      | TEFC                    | Insulation Class:              | H                     |
| Frame:                          | 284T                    | Inverter Code:                 | Inverter Ready        |
| Frame Material:                 | Iron                    | KVA Code:                      | J                     |
| Output @ Frequency:             | 25.000 HP @ 60 HZ       | Lifting Lugs:                  | Standard Lifting Lugs |
| Synchronous Speed @ Frequency:  | 1800 RPM @ 60 HZ        | Locked Bearing Indicator:      | Locked Bearing        |
| Voltage @ Frequency:            | 460.0 V @ 60 HZ         | Motor Lead Quantity/Wire Size: | 9 @ 10 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:                    | 1054M                 |
| Agency Approvals:               | UR                      | Mounting Arrangement:          | F1                    |
|                                 | CSA EEV                 | Power Factor:                  | 81                    |
|                                 | 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            |

|                                       |                           |                                    |                     |
|---------------------------------------|---------------------------|------------------------------------|---------------------|
| <b>Current @ Voltage:</b>             | 31.000 A @ 460.0 V        | <b>Shaft Ground Indicator:</b>     | Shaft Grounding     |
|                                       | 62.000 A @ 230.0 V        | <b>Shaft Rotation:</b>             | Reversible          |
|                                       | 64.000 A @ 208.0 V        | <b>Shaft Slinger Indicator:</b>    | Shaft Slinger       |
| <b>Design Code:</b>                   | A                         | <b>Speed Code:</b>                 | Single Speed        |
| <b>Drip Cover:</b>                    | No Drip Cover             | <b>Motor Standards:</b>            | NEMA                |
| <b>Duty Rating:</b>                   | CONT                      | <b>Starting Method:</b>            | Direct on line      |
| <b>Electrically Isolated Bearing:</b> | Not Electrically Isolated | <b>Thermal Device - Bearing:</b>   | None                |
| <b>Feedback Device:</b>               | NO FEEDBACK               | <b>Thermal Device - Winding:</b>   | None                |
| <b>Front Face Code:</b>               | Standard                  | <b>Vibration Sensor Indicator:</b> | No Vibration Sensor |
| <b>Front Shaft Indicator:</b>         | None                      | <b>Winding Thermal 1:</b>          | None                |
|                                       |                           | <b>Winding Thermal 2:</b>          | None                |

|                            |                           |        |       |                         |                            |         |        |            |      |      |
|----------------------------|---------------------------|--------|-------|-------------------------|----------------------------|---------|--------|------------|------|------|
| <b>Nameplate NP3443LUA</b> |                           |        |       |                         |                            |         |        |            |      |      |
| CAT.NO.                    | EM4103T-BG                |        |       |                         | CUST. P/N                  |         |        |            | ENCL | TEFC |
| SPEC.                      | 10J470Z651G1              |        | CC    | 010A                    | FRAME                      | 284T    |        | SER.NO.    |      |      |
| HP                         | 25                        |        | CLASS | H                       | HZ                         | 60      |        |            |      |      |
| R.P.M.                     | 1775                      |        | PH.   | 3                       | DES.                       | A       |        |            |      |      |
| VOLTS                      | 230/460                   |        |       | CODE                    | J                          | ODE BRG | 6309   | DE BRG     | 6311 |      |
| AMPS                       | 62/31                     |        |       | USABLE AT 208V          | 64                         |         |        |            |      |      |
| RATING                     | 40C AMB-CONT              |        |       | NEMA NOM. EFF.          | 93.6                       |         | GREASE | POLYREX EM |      |      |
| P.F.                       | 81                        | SER.F. | 1.15  |                         | CT6-60H(10:1)VT3-60H(20:1) |         |        |            |      |      |
| USABLE AT                  | 50HZ 25HP 190/380V 72/36A |        |       |                         | SF1.0                      |         |        |            |      |      |
| VOLTS                      |                           | AMPS   |       | MAX. SPACE HEATER TEMP. |                            |         |        |            |      |      |

| Parts List   |  |          |
|--------------|--|----------|
| Part Number  | Description                              | Quantity |
| SA346616     | SA 10J470Z651G1                          | 1.000 EA |
| RA335151     | RA 10J470Z651G1                          | 1.000 EA |
| 09FN3001C02  | EXTERNAL FAN, PLASTIC (COMES W/SCREW FRO | 1.000 EA |
| 10CB3000SP   | KOBX, CAST W/2.00 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 |
| 10EP1106A53  | FR ENDPLATE, MACH                        | 1.000 EA |
| 10XN3816K32  | BOLT, 3/8-16X2 HH YZ(5)                  | 4.000 EA |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I | 4.000 EA |
| HW4600B40    | V-RING SLINGER 2.000 X 2.680 X .28 VITON | 1.000 EA |
| HA4017A01    | 1/8 X 4 GREASE EXT (F/S)                 | 1.000 EA |
| HW5100A11    | W3917-042 WVY WSHR (WB)                  | 1.000 EA |
| 10XN2520K32  | 1/4-20 X 2.00 HX HD SCRW GRADE 5, ZINC P | 2.000 EA |
| HW1001A25    | LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I | 2.000 EA |
| 10EP1105A113 | PU ENDPLATE, MACH                        | 1.000 EA |
| 10XN3816K28  | 3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5  | 4.000 EA |
| HW1001A38    | LOCKWASHER 3/8, ZINC PLT .688 OD, .382 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 |
| 10FH4000     | 310 FAN HOUSING STAMPED                  | 1.000 EA |
| 51XF2520A08  | SCREW, HEX SER SLT HD, ZN 1/4-20 X .50 L | 4.000 EA |

| Parts List (continued) |  |          |
|------------------------|--|----------|
| Part Number            | Description                              | Quantity |
| 10CB3500SP             | CONDUIT BOX LID, CAST                    | 1.000 EA |
| 10GS1000SP             | GASKET, CONDUIT BOX LID                  | 1.000 EA |
| 51XW2520A12            | .25-20 X .75, TAPTITE II, HEX WSHR SLTD  | 4.000 EA |
| HW2501H28              | KEY, 1/2 SQ X 3.250                      | 1.000 EA |
| LB1115N                | LABEL,LIFTING DEVICE (ON ROLLS)          | 1.000 EA |
| LB1508                 | LABEL "SHAFT GROUNDING BRUSH" 1.50 X .81 | 1.000 EA |
| HW4500A21              | 1618BALEMITE FITTING 825 UNIVERSAL       | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4066A01              | PUSH IN T-DRAIN FITTING (BLACK)          | 1.000 EA |
| MJ1000A02              | GREASE, MOBIL POLYREX EM - 124047        | 0.130 LB |
| HW4500A03              | GREASE FITTING, .125 NPT 1610(ALEMITE) 8 | 1.000 EA |
| HW4500A17              | 317400 ALEMITE GREASE RELIEF             | 1.000 EA |
| HA4066A01              | PUSH IN T-DRAIN FITTING (BLACK)          | 1.000 EA |
| HW2500A25              | WOODRUFF KEY USA #1008 #BLOW CARBON STEE | 1.000 EA |
| MG1000Y03              | MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,      | 0.070 GA |
| 85XU0407S04            | 4X1/4 U DRIVE PIN STAINLESS              | 4.000 EA |
| LB1119N                | WARNING LABEL                            | 1.000 EA |
| LC0181                 | CONNECTION LABEL                         | 1.000 EA |
| NP3443LUA              | SS SUPER-E UL CSA-EEV PREM CC            | 1.000 EA |
| 10PA1000               | PACKAGING GROUP COMBINED PRINT PK1023A06 | 1.000 EA |
| MN416A01               | TAG-INSTAL-MAINT no wire (2100/bx) 4/22  | 1.000 EA |

**AC Induction Motor Performance Data**

Record # 67463

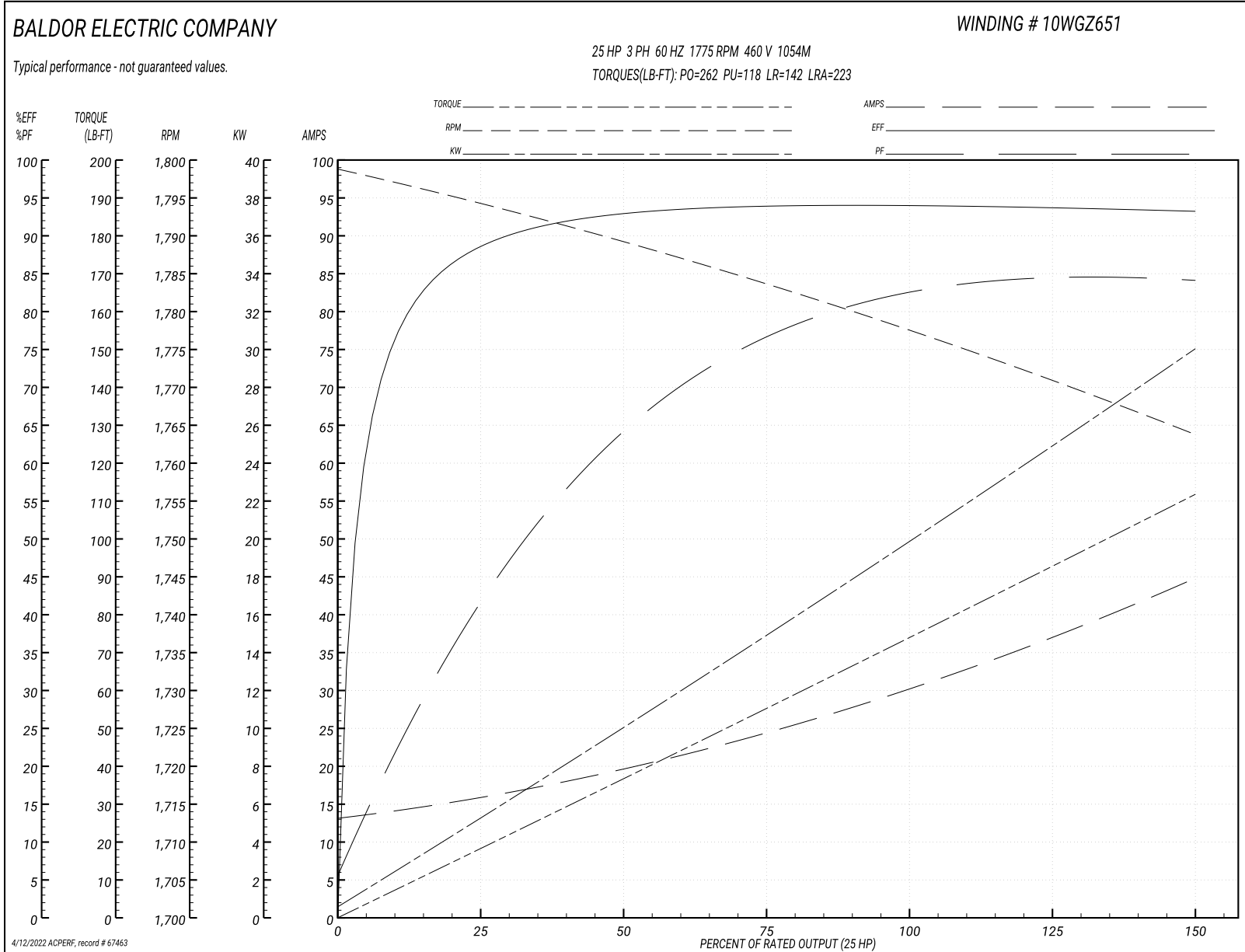
Typical performance - not guaranteed values

| Winding: 10WGZ651-R005 |                   | Type: 1054M               | Enclosure: TEFC                                  |  |
|------------------------|-------------------|---------------------------|--|--|
| <b>Nameplate Data</b>  |                   |                           | <b>460 V, 60 Hz:<br/>High Voltage Connection</b> |  |
| Rated Output (HP)      | 25                | Full Load Torque          | 74.02 LB-FT                                      |  |
| Volts                  | 230/460           | Start Configuration       | direct on line                                   |  |
| Full Load Amps         | 62/31             | Breakdown Torque          | 262 LB-FT  |  |
| R.P.M.                 | 1775              | Pull-up Torque            | 118 LB-FT  |  |
| Hz                     | 60 Phase          | Locked-rotor Torque       | 142 LB-FT  |  |
| NEMA Design Code       | A KVA Code        | Starting Current          | 223 A  |  |
| Service Factor (S.F.)  | 1.15              | No-load Current           | 13.6 A   |  |
| NEMA Nom. Eff.         | 93.6 Power Factor | Line-line Res. @ 25°C     | 0.2345 Ω   |  |
| Rating - Duty          | 40C AMB-CONT      | Temp. Rise @ Rated Load   | 51°C   |  |
| S.F. Amps              |                   | Temp. Rise @ S.F. Load    | 61°C   |  |
|                        |                   | Locked-rotor Power Factor | 30.6   |  |

**Load Characteristics 460 V, 60 Hz, 25 HP**

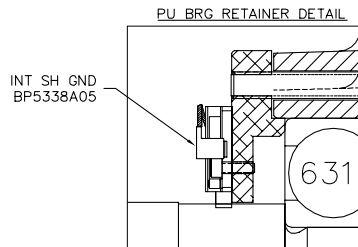
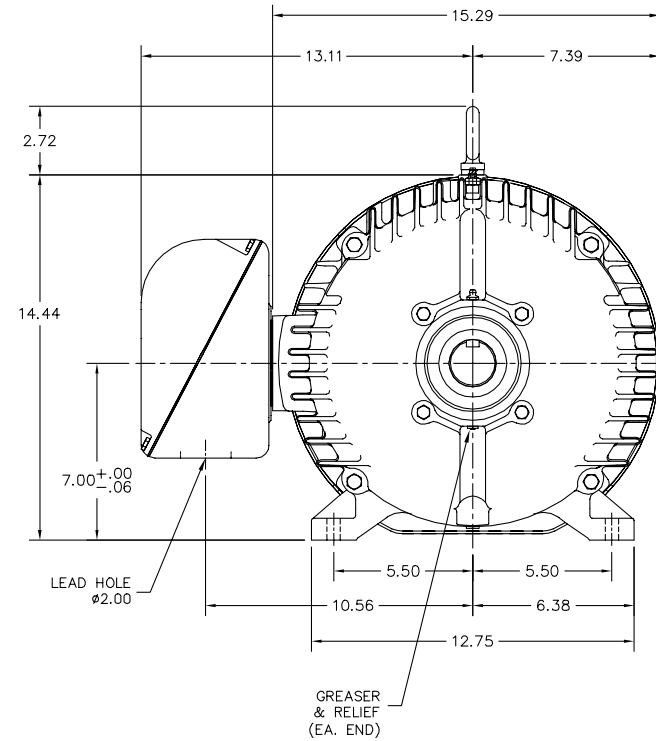
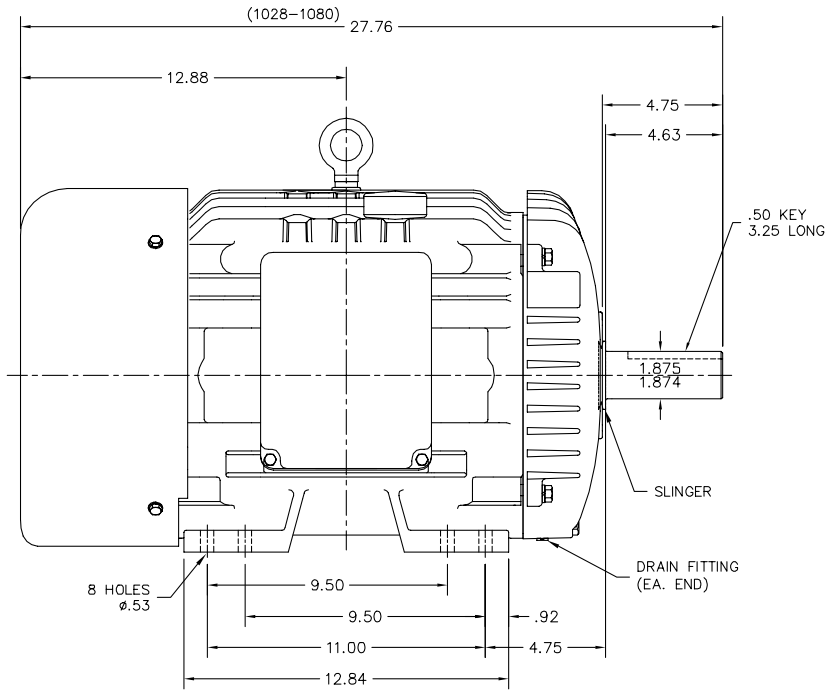
| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 43     | 65     | 76     | 81     | 84     | 85     | 83   |
| Efficiency      | 88.3   | 92.8   | 93.9   | 94     | 93.7   | 93.1   | 93.8 |
| Speed           | 1794.1 | 1789.3 | 1783.5 | 1777.8 | 1770.8 | 1763.8 | 1774 |
| Line amperes    | 15.3   | 19.3   | 24.6   | 30.6   | 37.2   | 44.5   | 34.6 |

Performance Graph at 460V, 60Hz, 25.0HP Typical performance - Not guaranteed values





10LYJ470



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

|                           |                              |                   |
|---------------------------|------------------------------|-------------------|
| REV. DESC: REMOVE LOCKNUT | VERSION: 02                  | TDR: 000000952817 |
| REV. LTR: B               | REVISED: 03:48:10 11/10/2015 | BY: ENMARSO       |
| FILE: \AAA\00203\999      |                              |                   |
| MTL: -                    |                              |                   |

**BALDOR**  
 HORZ TEFC 284-6T W/INT SH GND  
 SH 1 of 1

10LYJ470

CD0180



LOW VOLTAGE  
(2D)



HIGH VOLTAGE  
(1D)



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.

CD0180

|                                   |                              |                   |
|-----------------------------------|------------------------------|-------------------|
| REV. DESC: ADD CLASS CONN00000007 |                              |                   |
| REV. LTR: D                       | VERSION: 01                  | TDR: 000001099922 |
| FILE: \AAA\00005\148              | REVISED: 10:25:29 02/19/2019 | BY: ENBRIRO       |
| MTL: -                            | © □                          |                   |

**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

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<http://www.baldor.com/support/Literature/Load.ashx/MN416?ManNumber=MN416>