

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECR91008TR-4

100HP, 890RPM, 3PH, 60HZ, 445T, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                               |                             |
|-------------------------------|-----------------------------|
| Enclosure                     | TEFC                        |
| Frame                         | 445T                        |
| Frame Material                | Iron                        |
| Frequency                     | 60.00 Hz                    |
| Haz Area Class and Group      | None                        |
| Haz Area Division             | Not Applicable              |
| Motor Letter Type             | Three Phase                 |
| Output @ Frequency            | 100.000 HP @ 60 HZ          |
| Phase                         | 3                           |
| Synchronous Speed @ Frequency | 900 RPM @ 60 HZ             |
| Voltage @ Frequency           | 460.0 V @ 60 HZ             |
| Agency Approvals              | CCSAUSEEV                   |
| Ambient Temperature           | 40 °C                       |
| Auxiliary Box                 | NO AUXILLARY BOX            |
| Base Indicator                | Rigid                       |
| Bearing Grease Type           | Mobil SHC 220 (Athens Only) |
| Constant Torque Speed Range   | 15-60                       |
| Current @ Voltage             | 133.000 A @ 460.0 V         |
| Design Code                   | A                           |
| Drip Cover                    | No Drip Cover               |
| Duty Rating                   | CONT                        |
| Efficiency @ 100% Load        | 93.6 %                      |
| Feedback Device               | NO FEEDBACK                 |
| Heater Indicator              | No Heater                   |
| High Voltage Full Load Amps   | 133.0 a                     |
| Insulation Class              | F                           |
| Inverter Code                 | Inverter Ready              |
| KVA Code                      | H                           |
| Lifting Lugs                  | No Lifting Lugs             |
| Max Speed                     | 3000 rpm                    |
| Motor Lead Quantity/Wire Size | 3 @ 1/0 AWG                 |
| Motor Standards               | NEMA                        |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | F          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | A44WG5226  |
| Layout       | 617427-315 |
| Eff. date    | 12-10-2025 |
| CD Diagram   | 416820-036 |
| Poles        | 08         |
| Leads        | 3#1/0      |
| Proprietary  | False      |
| Created date | 05-07-2015 |

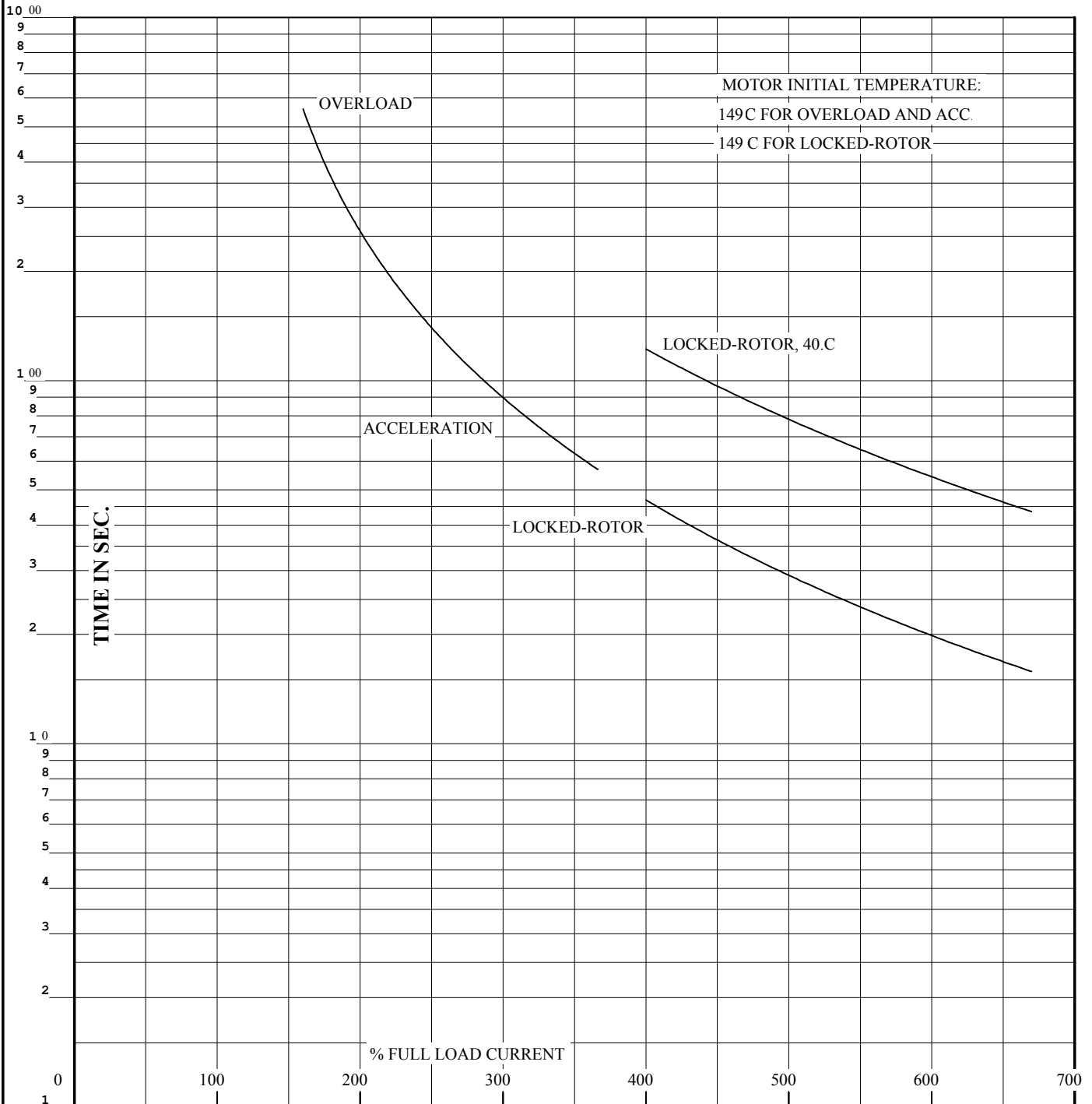
|                                 |                    |
|---------------------------------|--------------------|
| <b>Motor Type</b>               | A4490M             |
| <b>Mounting Arrangement</b>     | F1                 |
| <b>Number of Poles</b>          | 8                  |
| <b>Overall Length</b>           | 44.75 IN           |
| <b>Power Factor</b>             | 75                 |
| <b>Product Family</b>           | Crusher / Chipper  |
| <b>Pulley End Bearing Type</b>  | Roller             |
| <b>Pulley Face Code</b>         | Standard           |
| <b>Service Factor</b>           | 1.25               |
| <b>Shaft Diameter</b>           | 3.375 IN           |
| <b>Shaft Ground Indicator</b>   | No Shaft Grounding |
| <b>Shaft Rotation</b>           | Reversible         |
| <b>Shaft Slinger Indicator</b>  | Shaft Slinger      |
| <b>Speed</b>                    | 890 rpm            |
| <b>Speed Code</b>               | Single Speed       |
| <b>Starting Method</b>          | Direct on line     |
| <b>Thermal Device - Bearing</b> | None               |
| <b>Thermal Device - Winding</b> | None               |

**Nameplate**

| 000613007PV   |                   |         |                 |      |              |       |          |     |                     |        |      |      |      |      |             |   |
|---------------|-------------------|---------|-----------------|------|--------------|-------|----------|-----|---------------------|--------|------|------|------|------|-------------|---|
| CAT NO        | ECR91008TR-4      |         |                 |      | SPEC NO.     |       | P44G1825 |     |                     |        |      |      |      |      |             |   |
| HP            | 100               | AMPS    |                 | 133  |              | VOLTS |          | 460 |                     | DESIGN |      | A    |      |      |             |   |
| RPM           | 890               | RPM MAX |                 | 3000 |              | HZ    |          | 60  | AMB                 |        | 40   | SF   |      | 1.25 |             |   |
| D.E. BRG.DATA | NU222             |         | O.D.E. BRG.DATA |      |              |       | 6318     |     | PH                  |        | 3    | DUTY |      | CONT | INSUL.CLASS | F |
| FRAME         | 445T              |         | I.P.            |      | 55           | TYPE  |          | P   | ENCL                |        | TEFC | CODE |      | H    |             |   |
| POWER FACTOR  | 75                |         | 3/4 LOAD EFF.   |      |              |       | 93.7     |     | NEMA NOM EFFICIENCY |        |      |      | 93.6 |      |             |   |
|               | SFA 164           |         |                 |      |              |       |          |     |                     |        |      |      |      |      |             |   |
| CHP HZ        | 60-90             |         | CT HZ           |      | 15-60        |       | VT HZ    |     | 6-60                |        |      |      |      |      |             |   |
| SER.NO.       |                   |         |                 |      | MOTOR WEIGHT |       |          |     | 2150                |        |      |      |      |      |             |   |
|               | 1.25 SF AMPS =164 |         |                 |      |              |       |          |     |                     |        |      |      |      |      |             |   |

| NP2496L               |  |
|-----------------------|--|
| MOBIL SHC -220 GREASE |  |
|                       |  |

|                         |                          |                       |                                  |
|-------------------------|--------------------------|-----------------------|----------------------------------|
| REL. S.O.               | RPM <b>890</b>           | S.F. <b>1.25</b>      | ROTOR <b>4181430103BE</b>        |
| FRAME <b>445T</b>       | VOLTS <b>460</b>         | NEMA DESIGN <b>A</b>  | TEST S.O. <b>CALCULATED DATA</b> |
| HP <b>100</b>           | AMPS <b>133</b>          | CODE LETTER <b>H</b>  | TEST DATE <b>---</b>             |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>TEFC</b> | STATOR RES. @ 25 °C <b>.0395</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/F</b> | E/S <b>-</b>          | OHMS (BETWEEN LINES)             |



THERMAL LIMIT CURVE

REMARKS: XE MOTOR - NEMA NOM EFF 93.6 PCT.

AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

**BALDOR**  
A MEMBER OF THE ABB GROUP

|         |            |
|---------|------------|
| DR. BY  | CD         |
| CK. BY  | T. KELATI  |
| APP. BY | T. KELATI  |
| DATE    | 07/15/2015 |

**A-C MOTOR  
PERFORMANCE  
CURVES**
**A44WG5226-R001**

ISSUE DATE 07/15/2015 Page 6 of 11

|                                                                                                                                                                                                                    |              |                                                                       |                   |                                                                     |                 |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------|-------------------|---------------------------------------------------------------------|-----------------|-------|
| REL.<br>S.O.                                                                                                                                                                                                       | FRAME        | HP                                                                    | TYPE              | PHASE/<br>HERTZ                                                     | RPM             | VOLTS |
|                                                                                                                                                                                                                    | 445T         | 100                                                                   | P                 | 3/60                                                                | 890             | 460   |
| AMPS                                                                                                                                                                                                               | DUTY         | AMB °C/<br>INSUL.                                                     | S.F.              | NEMA<br>DESIGN                                                      | CODE<br>LETTER  | ENCL. |
| 133                                                                                                                                                                                                                | CONT         | 40/F                                                                  | 1.25              | A                                                                   | H               | TEFC  |
| E/S                                                                                                                                                                                                                | ROTOR        | TEST<br>S.O.                                                          | TEST<br>DATE      | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES)                          |                 |       |
| -                                                                                                                                                                                                                  | 4181430103BE | ---                                                                   | ---               | .0395                                                               |                 |       |
| PERFORMANCE                                                                                                                                                                                                        |              |                                                                       |                   |                                                                     |                 |       |
| LOAD                                                                                                                                                                                                               | HP           | AMPERES                                                               | RPM               | %<br>POWER FACTOR                                                   | %<br>EFFICIENCY |       |
| NO LOAD                                                                                                                                                                                                            | 0            | 63.5                                                                  | 900               | 4.82                                                                | 0               |       |
| 1/4                                                                                                                                                                                                                | 25.0         | 72.1                                                                  | 897               | 37.0                                                                | 87.8            |       |
| 2/4                                                                                                                                                                                                                | 50.1         | 87.9                                                                  | 895               | 57.6                                                                | 92.5            |       |
| 3/4                                                                                                                                                                                                                | 74.9         | 109                                                                   | 892               | 68.8                                                                | 93.7            |       |
| 4/4                                                                                                                                                                                                                | 100          | 133                                                                   | 889               | 75.0                                                                | 93.8            |       |
| 5/4                                                                                                                                                                                                                | 125          | 159                                                                   | 886               | 78.6                                                                | 93.6            |       |
| SPEED TORQUE                                                                                                                                                                                                       |              |                                                                       |                   |                                                                     |                 |       |
|                                                                                                                                                                                                                    | RPM          | TORQUE<br>% FULL LOAD                                                 | TORQUE<br>LB.-FT. | AMPERES                                                             |                 |       |
| LOCKED ROTOR                                                                                                                                                                                                       | 0            | 250                                                                   | 1478              | 810                                                                 |                 |       |
| PULL UP                                                                                                                                                                                                            | 435          | 187                                                                   | 1105              | 640                                                                 |                 |       |
| BREAKDOWN                                                                                                                                                                                                          | 847          | 251                                                                   | 1485              | 408                                                                 |                 |       |
| FULL LOAD                                                                                                                                                                                                          | 889          | 100                                                                   | 591               | 133                                                                 |                 |       |
| AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE<br>AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE<br><br>REMARKS: CALCULATED DATA<br>XE MOTOR - NEMA NOM EFF 93.6 PCT. |              |                                                                       |                   |                                                                     |                 |       |
|                                                                                                                                 |              | DR. BY CD<br>CK. BY T. KELATI<br>APP. BY T. KELATI<br>DATE 07/15/2015 |                   | A-C MOTOR<br>PERFORMANCE DATA A44WG5226-R001<br>ISSUE DATE 07/15/20 |                 |       |

REL S.O.

RPM 890

S.F. 1.25

ROTOR 4181430103BE

FRAME 445T

VOLTS 460

NEMA DESIGN A

TEST S.O. CALCULATED DATA

HP 100

AMPS 133

CODE LETTER H

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

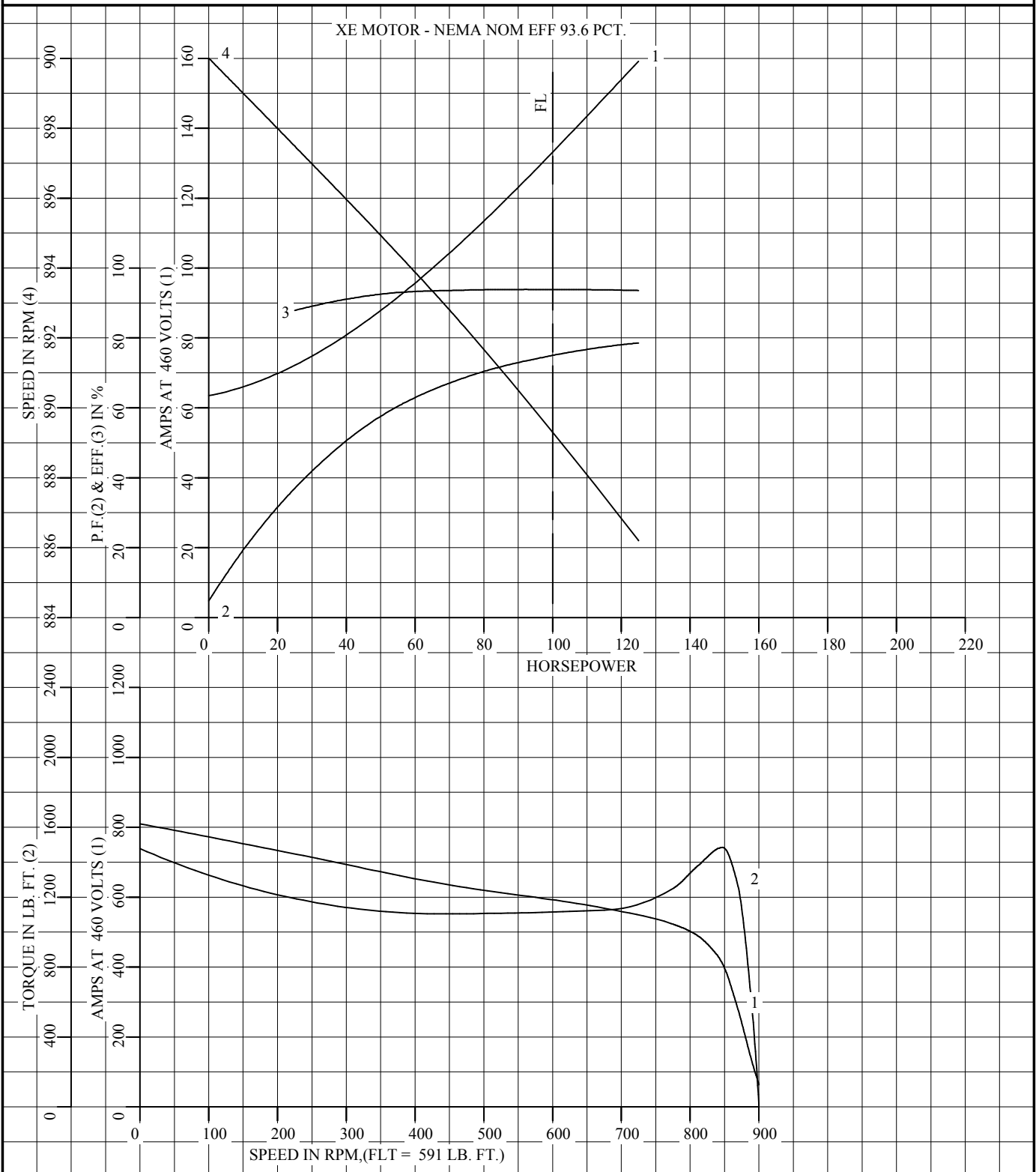
STATOR RES. @ 25 °C .0395

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S -

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

**BALDOR**  
A MEMBER OF THE ABB GROUP

DR. BY CD  
CK. BY T. KELATI  
APP. BY T. KELATI  
DATE 07/15/2015

**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG5226-R001  
ISSUE DATE 07/15/2015



# DUTY MASTER ALTERNATING CURRENT MOTORS

## SQUIRREL-CAGE INDUCTION

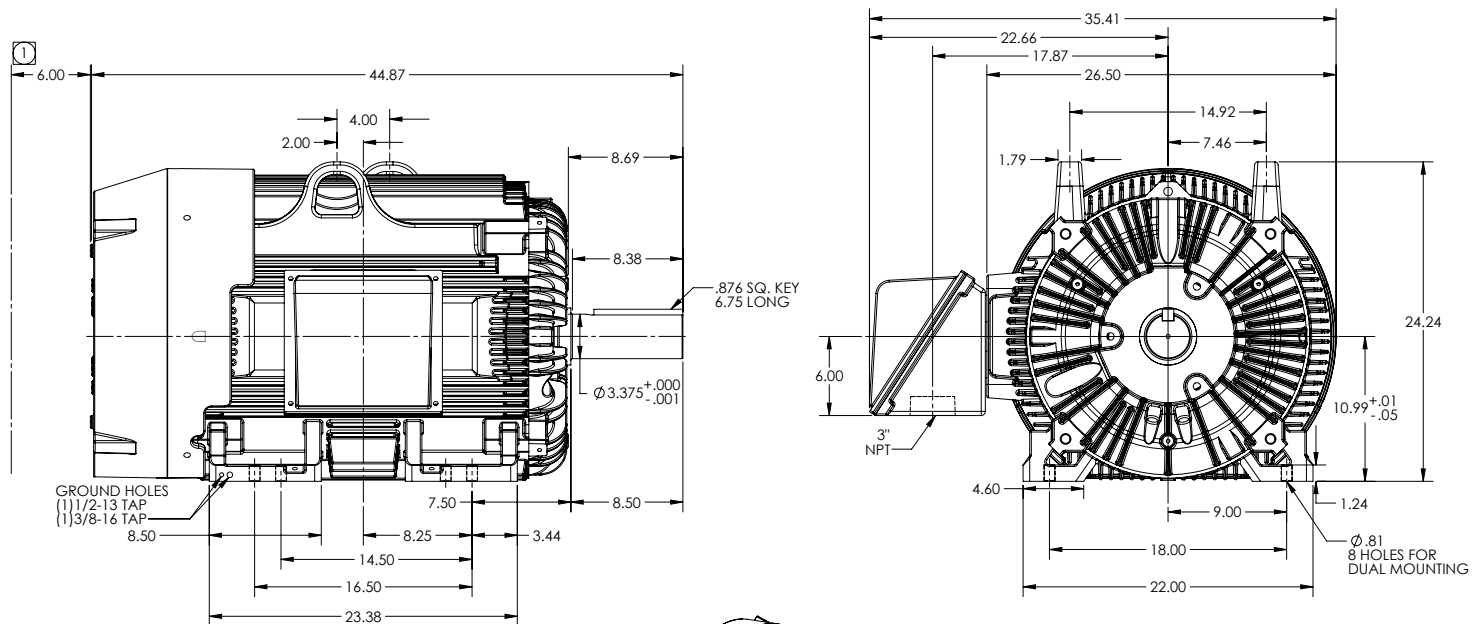
617427-315

ENCLOSURE: TOTALLY ENCLOSED

MOUNTING: FOOT

FRAMES G445T/444T

COOLING: FAN COOLED



① OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R.

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED

DIMENSIONS ARE IN INCHES FOR MILLIMETERS SEE SHEET (2)

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER  
1 OF 2

51E-27-119

REV. DESC: NEW  
REV: - VERSION: 00  
MODEL NO. 617427-315  
BY: RAGAHJ

REVISED: 09/06/36 12/05/2014

TDR: 000000881952

**BALDOR**

G445T/444T STD - FOOTED - SIDE/CENTER C.1 C/B ROLLER BRG

617427-315

# DUTY MASTER ALTERNATING CURRENT MOTORS

## SQUIRREL-CAGE INDUCTION

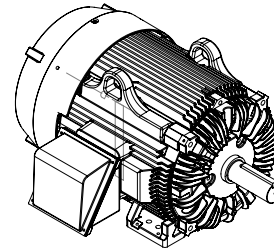
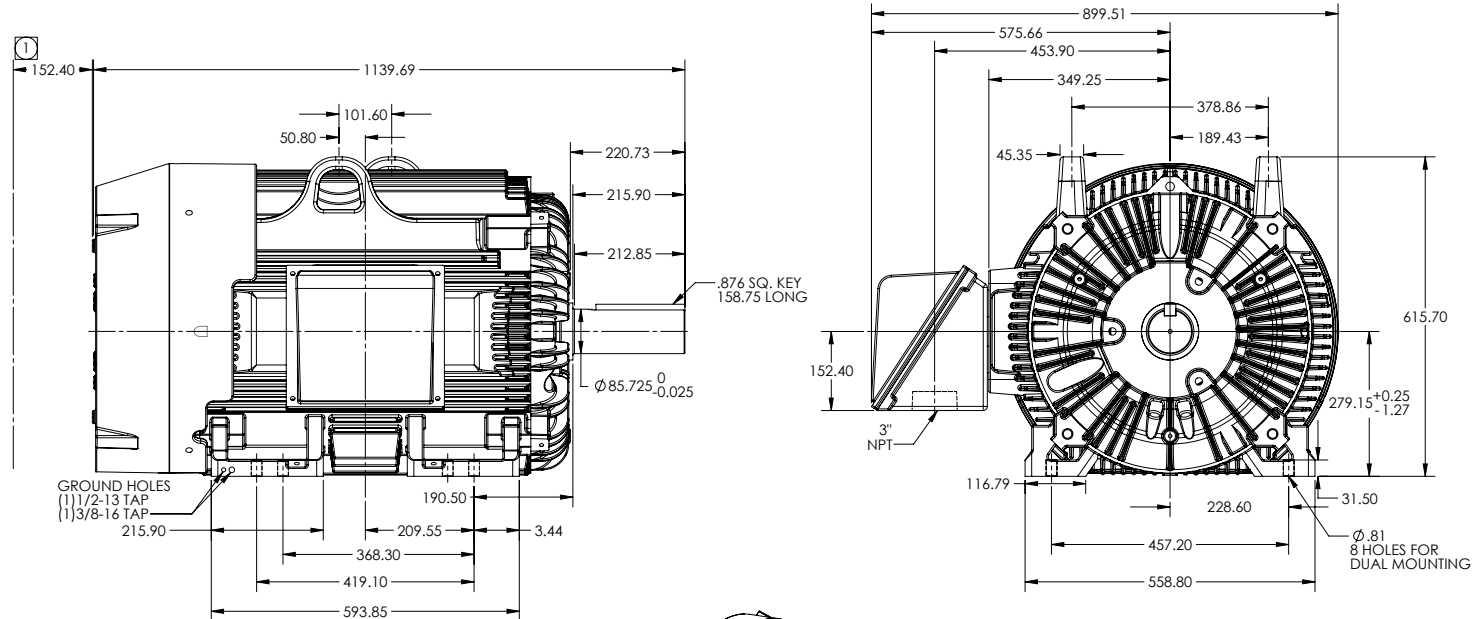
617427-315

ENCLOSURE: TOTALLY ENCLOSED

MOUNTING: FOOT

FRAMES G445T/444T

COOLING: FAN COOLED



① OBSTRUCTION MUST NOT ENCROACH ON AIR INLET.

IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .08 T.I.R.

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-7, OR C-1 MOUNTING IS SPECIFIED

DIMENSIONS ARE IN MILLIMETERS FOR INCHES SEE SHEET 1

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER  
2 OF 2

51E-27-119

REV. DESC: NEW  
REV: - VERSION: 00  
MODEL NO. 617427-315  
BY: RAGAHJ

REVISED: 09/06/36 12/05/2014

TDR: 000000881952

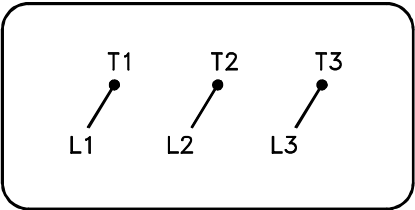
**BALDOR**

G445T/444T STD - FOOTED - SIDE/CENTER C.I. C/B ROLLER BRG

617427-315

416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD                      CONNECTED



(N.P. 1575-BA)

416820-036

|                                      |             |                                |
|--------------------------------------|-------------|--------------------------------|
| REV. DESC: LOADED TO BUS, C/R 335225 |             |                                |
| REV. LTR: -                          | VERSION: 00 | TDR: 000000538207              |
| FILE: \MGA\00000\682                 |             | REVISED: 11: 54: 06 04/30/2010 |
| MTL: -                               |             | BY: RAGRA                      |

**BALDOR**

CONN DIAG - STANDARD 3 LEAD  
SH 1 of 1