

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM251352T-4

350HP, 3560RPM, 3PH, 60HZ, 447TSS, A44084M, DP

Class - None

Division - Not Applicable

**Specifications**

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | DP                      |
| Frame                         | 447TSSTS                |
| 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            | 350.000 HP @ 60 HZ      |
| Phase                         | 3                       |
| Synchronous Speed @ Frequency | 3600 RPM @ 60 HZ        |
| Voltage @ Frequency           | 460.0 V @ 60 HZ         |
| Agency Approvals              | CURUSEEV                |
| Ambient Temperature           | 40 °C                   |
| Auxiliary Box                 | NO AUXILLARY BOX        |
| Base Indicator                | Rigid                   |
| Bearing Grease Type           | Polyrex EM (-20F +300F) |
| Current @ Voltage             | 381.000 A @ 460.0 V     |
| Design Code                   | B                       |
| Drip Cover                    | No Drip Cover           |
| Duty Rating                   | CONT                    |
| Efficiency @ 100% Load        | 95.4 %                  |
| Feedback Device               | NO FEEDBACK             |
| Heater Indicator              | No Heater               |
| High Voltage Full Load Amps   | 381.0 a                 |
| Insulation Class              | F                       |
| Inverter Code                 | Inverter Ready          |
| IP Rating                     | NONE                    |
| KVA Code                      | F                       |
| Lifting Lugs                  | Standard Lifting Lugs   |
| Motor Lead Quantity/Wire Size | 12 @ 2 AWG              |
| Motor Standards               | NEMA                    |
| Motor Type                    | A44084M                 |

**Part Detail**

|              |                    |
|--------------|--------------------|
| Revision     | J                  |
| Type         | AC                 |
| Mech. spec.  |                    |
| Base         |                    |
| Status       | PRD/A              |
| Elec. spec.  | A44WG2772          |
| Layout       | 604989-483         |
| Eff. date    | 09-25-2025         |
| CD Diagram   | 416820-008         |
| Poles        | 02                 |
| Leads        | 6#2 (02 per group) |
| Proprietary  | False              |
| Created date | 02-12-2015         |

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Mounting Arrangement</b>     | F1                    |
| <b>Number of Poles</b>          | 2                     |
| <b>Overall Length</b>           | 39.37 IN              |
| <b>Power Factor</b>             | 90                    |
| <b>Product Family</b>           | General Industrial    |
| <b>Pulley End Bearing Type</b>  | Ball                  |
| <b>Pulley Face Code</b>         | Standard              |
| <b>Service Factor</b>           | 1.15                  |
| <b>Shaft Diameter</b>           | 2.375 IN              |
| <b>Shaft Ground Indicator</b>   | No Shaft Grounding    |
| <b>Shaft Rotation</b>           | Reversible            |
| <b>Shaft Slinger Indicator</b>  | No Slinger            |
| <b>Speed</b>                    | 3560 rpm              |
| <b>Speed Code</b>               | Single Speed          |
| <b>Starting Method</b>          | Wye Start - Delta Run |
| <b>Thermal Device - Bearing</b> | None                  |

**Nameplate**

|                  |  |
|------------------|--|
| NP2496L          |  |
| MOBIL POLYREX EM |  |

| NP2349L           |               |       |     |              |             |                         |             |                     |       |                       |              |      |  |
|-------------------|---------------|-------|-----|--------------|-------------|-------------------------|-------------|---------------------|-------|-----------------------|--------------|------|--|
| SPEC NO.          | A44-6795-2772 |       |     | CAT.NO.      | EM251352T-4 |                         |             |                     | FRAME | 447TSS/T              |              |      |  |
| HP                | 350           | VOLTS | 460 |              | PHASE       | 3                       | DESIGN      | B                   | TYPE  | P                     |              |      |  |
| RPM               | 3560          | AMPS  | 381 |              | HZ          | 60                      | AMB         | 40                  | SF    | 1.15                  |              |      |  |
| DRIVE END BEARING | 65BC03J30X    |       |     | DUTY         | CONT        |                         | INSUL.CLASS |                     | F     |                       |              |      |  |
| OPP D.E. BEARING  | 65BC03J30X    |       |     | ENCL         | DP          | CODE                    | F           |                     |       |                       |              |      |  |
| SER.NO.           |               |       |     | POWER FACTOR |             | 90                      |             | NEMA-NOM-EFFICIENCY |       |                       | 95.4         |      |  |
|                   |               |       |     |              |             | MAX CORR KVAR           |             | 45                  |       | GUARANTEED EFFICIENCY |              | 94.5 |  |
|                   |               |       |     |              |             | NEMA NOM/CSA QUOTED EFF |             |                     |       |                       |              |      |  |
|                   |               |       |     |              |             |                         |             |                     |       |                       | MOTOR WEIGHT |      |  |

**Parts List**

| Part number | Description                           | Quantity |
|-------------|---------------------------------------|----------|
| SA293704    | SA A44-6795-2772                      | 1.000 ea |
| RA279796    | RA A44-6795-2772                      | 1.000 ea |
| 421948044   | LABEL, MYLAR                          | 1.000 ea |
| NP2496L     | MOTOR LUBE NAMEPLATE                  | 1.000 ea |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 ea |
| 000692000FF | N/P                                   | 1.000 ea |
| 000692000VD | LABEL WARNING                         | 1.000 ea |
| NP2349L     | SUPER-E ,SS, CURUS EEV, CC, LASER     | 1.000 ea |
| 702611001A  | BAFFL 440 SUB PAINT                   | 1.000 ea |
| 089438082A  | BRKT 440 089438081WCB                 | 1.000 ea |
| 004824015A  | GREASE POLYREX EM                     | 0.540 lb |
| 032018028EK | HHCS 5/8-11X3-1/2L PLTD               | 4.000 ea |
| 032018028CK | HHCS 3/8-16X3-1/2 PLTD.               | 3.000 ea |
| 410700004F  | WSHR                                  | 1.000 ea |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF      | 4.000 ea |
| 405851012AC | SPACE                                 | 4.000 ea |
| 032018012AK | HHCS 1/4-20X1-1/2 PLTD.               | 4.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                       | 1.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                       | 1.000 ea |
| 034000012AB | WSHR 1/4 STD. PLATED                  | 4.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                    | 1.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                    | 1.000 ea |
| 405851012AC | SPACE                                 | 4.000 ea |
| 047174001Z  | EXT SNAP RING                         | 1.000 ea |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF      | 4.000 ea |
| 034000012AB | WSHR 1/4 STD. PLATED                  | 4.000 ea |
| 032018012AK | HHCS 1/4-20X1-1/2 PLTD.               | 4.000 ea |
| 089438082A  | BRKT 440 089438081WCB                 | 1.000 ea |
| 702611001A  | BAFFL 440 SUB PAINT                   | 1.000 ea |
| 032018028EK | HHCS 5/8-11X3-1/2L PLTD               | 4.000 ea |
| 032018028CK | HHCS 3/8-16X3-1/2 PLTD.               | 3.000 ea |

|             |                                       |          |
|-------------|---------------------------------------|----------|
| 702658001B  | +C/BOX, PAINTED 440                   | 1.000 ea |
| 702658002A  | +C/BOX CVR, PAINTED 440               | 1.000 ea |
| 406056008A  | GASKET, TERBD 440                     | 1.000 ea |
| 418153001A  | GASK 440                              | 1.000 ea |
| 032018008DK | HHCS 1/2-13X1 PLATED                  | 4.000 ea |
| 033512006LB | HHTTS 1/4-20X3/4 PLTD.                | 8.000 ea |
| MG1025Y17   | WILKOFAS, 789.701, SUPER E PEARL GOLD | 0.500 ga |
| 033775004EA | DRSCR #6-1/4 304 S.S.                 | 2.000 ea |
| 034180024HA | KEY 5/8X5/8X3 L                       | 1.000 ea |
| 604797045   | STD. 400 FRAME SKID                   | 1.000 ea |
| 032510026D  | CARRIAGE BOLT - 440                   | 2.000 ea |
| 415000115H  | T/LUG #2AWG-4/0AWG                    | 1.000 ea |
| 032018005DL | 1/2-13 X 5/8 SILICON BRONZE HHCS      | 1.000 ea |
| 034001016AB | WSHR .562ID 1.375OD .109              | 2.000 ea |
| 034001014AB | FLAT WASHER 3/8"PLATED                | 2.000 ea |
| 033300014AC | HEX NUT, SHIPPING - 400               | 2.000 ea |
| 604799003C  | PLASTIC BAG 42X32X46                  | 1.000 ea |
| 048897010DG | PLUG,ODE BRKT - 360                   | 1.000 ea |

REL. S.O.

 RPM **3560**

 S.F. **1.15**

 ROTOR **418143014ZE**

 FRAME **447TS**

 VOLTS **460**

 NEMA DESIGN **B**

 TEST S.O. **TYPICAL DATA**

 HP **350**

 AMPS **381**

 CODE LETTER **F**

 TEST DATE **---**

 TYPE **P**

 DUTY **CONT**

 ENCLOSURE **ODP**

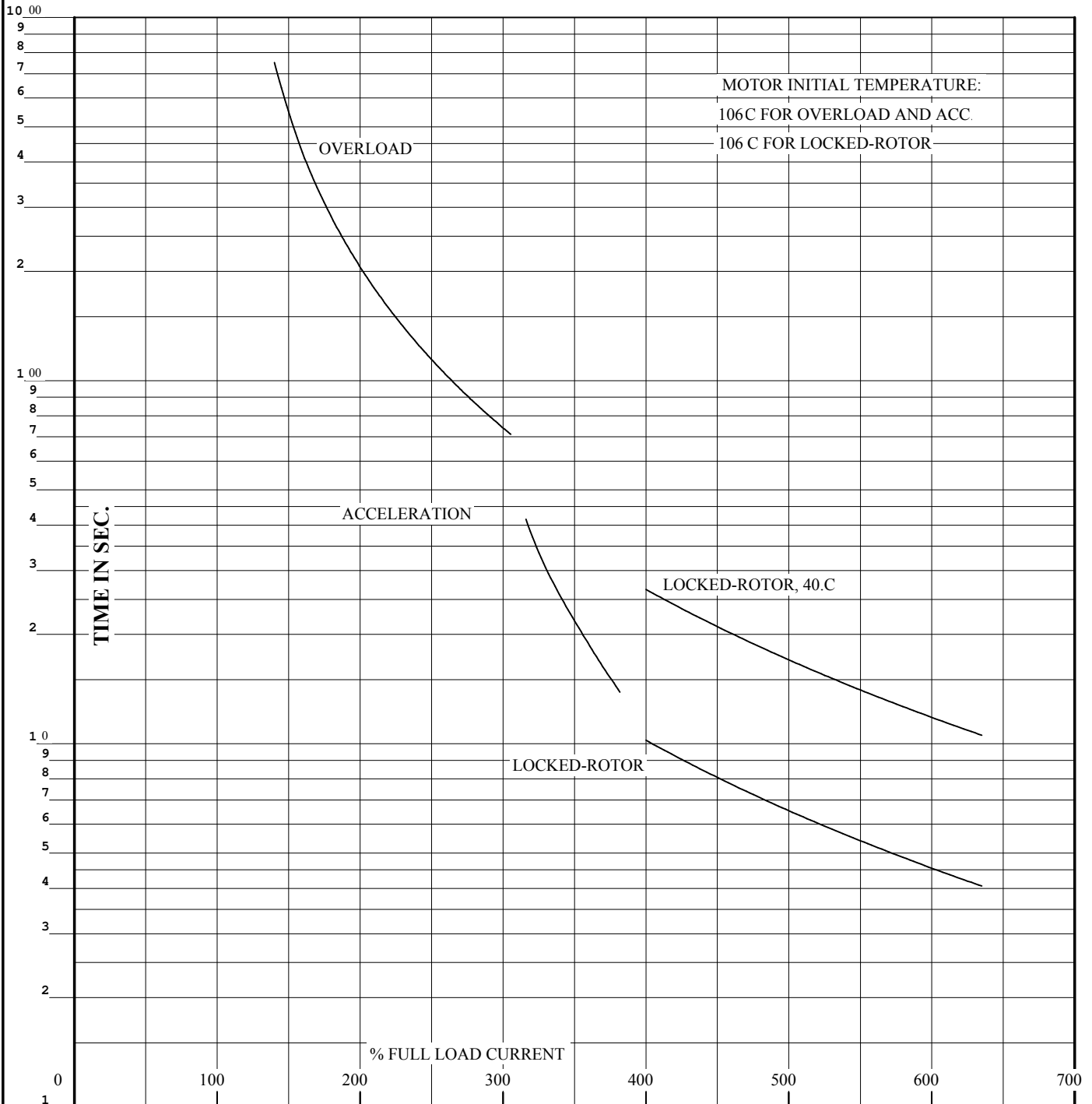
 STATOR RES. @ 25 °C **.0127**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/B**

 E/S **433582**

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

NEMA NOM. EFF. 95.4 PCT

CALCULATED

 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

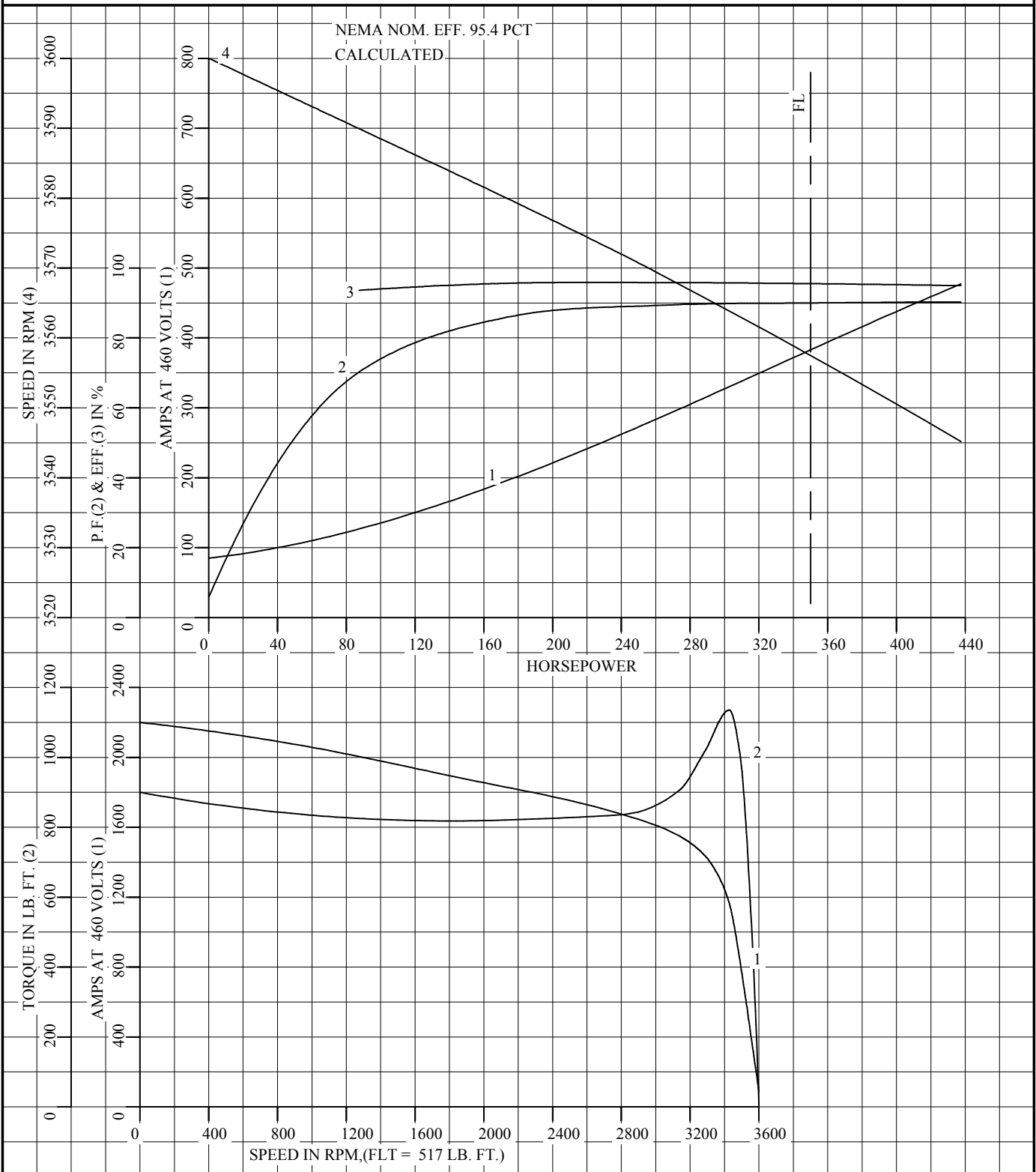
 DR. BY E.J. CHRISTIAN  
 CK. BY E.J. CHRISTIAN  
 APP. BY T.G. KELATI  
 DATE 08/12/15
**A-C MOTOR  
PERFORMANCE  
CURVES**
**A44WG2772-R004**

 ISSUE DATE 08/12/15 Page 8 of 12



|                                                                                                                                                                                                                     |             |                   |                       |                                              |                 |       |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------|-----------------------|----------------------------------------------|-----------------|-------|--|--|
| REL.<br>S.O.                                                                                                                                                                                                        | FRAME       | HP                | TYPE                  | PHASE/<br>HERTZ                              | RPM             | VOLTS |  |  |
|                                                                                                                                                                                                                     | 447TS       | 350               | P                     | 3/60                                         | 3560            | 460   |  |  |
| AMPS                                                                                                                                                                                                                | DUTY        | AMB °C/<br>INSUL. | S.F.                  | NEMA<br>DESIGN                               | CODE<br>LETTER  | ENCL. |  |  |
| 381                                                                                                                                                                                                                 | CONT        | 40/B              | 1.15                  | B                                            | F               | ODP   |  |  |
| E/S                                                                                                                                                                                                                 | ROTOR       | TEST<br>S.O.      | TEST<br>DATE          | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES)   |                 |       |  |  |
| 433582                                                                                                                                                                                                              | 418143014ZE | ---               | ---                   | .0127                                        |                 |       |  |  |
| PERFORMANCE                                                                                                                                                                                                         |             |                   |                       |                                              |                 |       |  |  |
| LOAD                                                                                                                                                                                                                | HP          | AMPERES           | RPM                   | %<br>POWER FACTOR                            | %<br>EFFICIENCY |       |  |  |
| NO LOAD                                                                                                                                                                                                             | 0           | 85.7              | 3600                  | 5.80                                         | 0               |       |  |  |
| 1/4                                                                                                                                                                                                                 | 87.6        | 125               | 3590                  | 70.3                                         | 93.6            |       |  |  |
| 2/4                                                                                                                                                                                                                 | 175         | 199               | 3580                  | 86.1                                         | 95.6            |       |  |  |
| 3/4                                                                                                                                                                                                                 | 262         | 287               | 3569                  | 89.3                                         | 95.8            |       |  |  |
| 4/4                                                                                                                                                                                                                 | 350         | 381               | 3558                  | 90.0                                         | 95.5            |       |  |  |
| 5/4                                                                                                                                                                                                                 | 438         | 478               | 3545                  | 90.3                                         | 95.0            |       |  |  |
|                                                                                                                                                                                                                     |             |                   |                       |                                              |                 |       |  |  |
| SPEED TORQUE                                                                                                                                                                                                        |             |                   |                       |                                              |                 |       |  |  |
|                                                                                                                                                                                                                     |             | RPM               | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                            | AMPERES         |       |  |  |
| LOCKED ROTOR                                                                                                                                                                                                        |             | 0                 | 174                   | 900                                          | 2200            |       |  |  |
| PULL UP                                                                                                                                                                                                             |             | 1800              | 158                   | 818                                          | 1895            |       |  |  |
| BREAKDOWN                                                                                                                                                                                                           |             | 3428              | 220                   | 1136                                         | 1164            |       |  |  |
| FULL LOAD                                                                                                                                                                                                           |             | 3558              | 100                   | 517                                          | 381             |       |  |  |
| 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: TYPICAL DATA<br>NEMA NOM. EFF. 95.4 PCT<br>CALCULATED |             |                   |                       |                                              |                 |       |  |  |
|                                                                                                                                  |             | DR. BY            | E. J. CHRISTIAN       | <b>A-C MOTOR<br/>PERFORMANCE DATA</b>        |                 |       |  |  |
|                                                                                                                                                                                                                     |             | CK. BY            | E. J. CHRISTIAN       |                                              |                 |       |  |  |
|                                                                                                                                                                                                                     |             | APP. BY           | T. G. KELATI          |                                              |                 |       |  |  |
|                                                                                                                                                                                                                     |             | DATE              | 08/12/15              |                                              |                 |       |  |  |
|                                                                                                                                                                                                                     |             |                   |                       | <b>A44WG2772-R004</b><br>ISSUE DATE 08/12/15 |                 |       |  |  |

|                         |                          |                      |                                  |
|-------------------------|--------------------------|----------------------|----------------------------------|
| REL S.O.                | RPM <b>3560</b>          | S.F. <b>1.15</b>     | ROTOR <b>418143014ZE</b>         |
| FRAME <b>447TS</b>      | VOLTS <b>460</b>         | NEMA DESIGN <b>B</b> | TEST S.O. <b>TYPICAL DATA</b>    |
| HP <b>350</b>           | AMPS <b>381</b>          | CODE LETTER <b>F</b> | TEST DATE <b>---</b>             |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>ODP</b> | STATOR RES. @ 25 °C <b>.0127</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/B</b> | E/S <b>433582</b>    | OHMS (BETWEEN LINES)             |



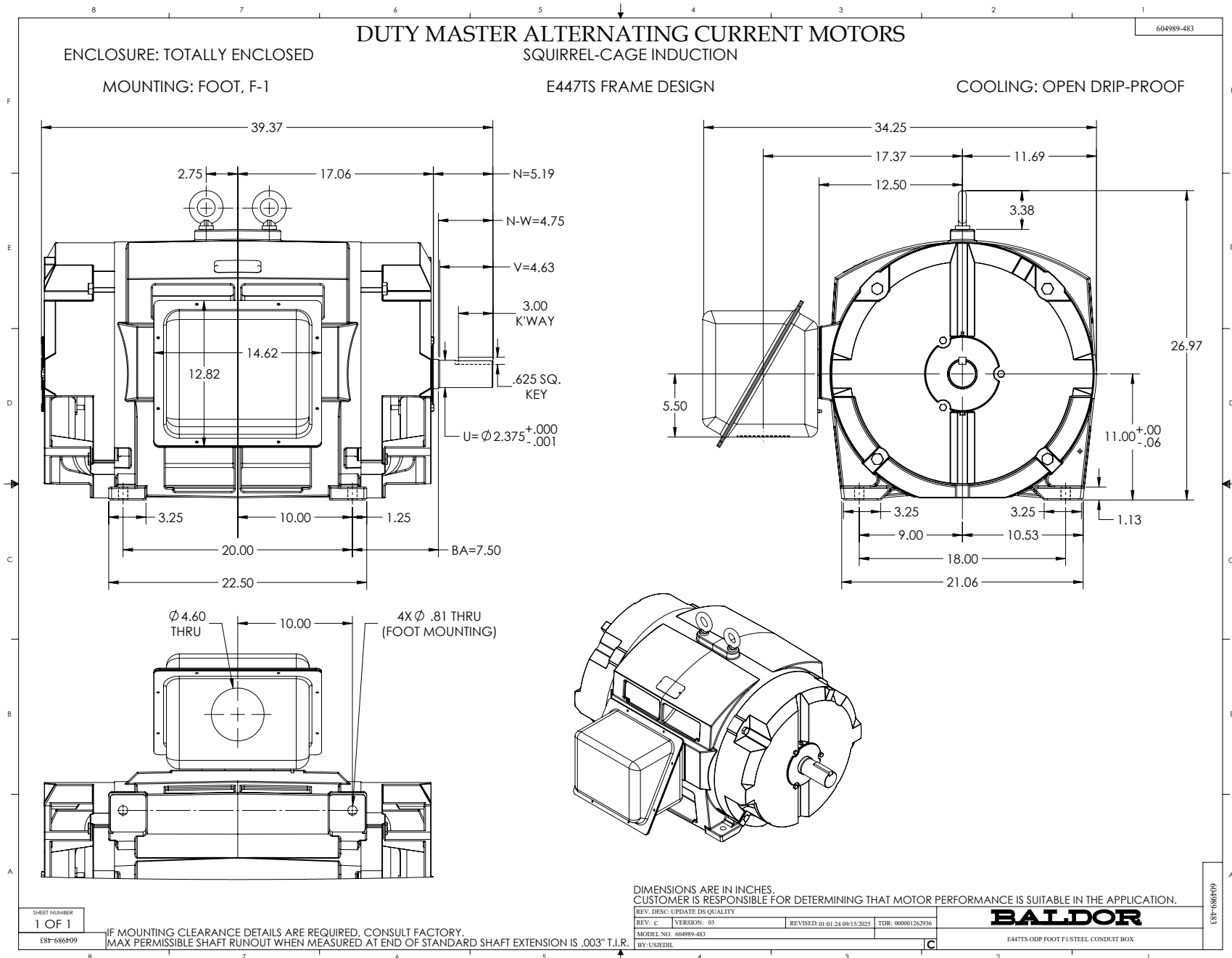
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DR. BY E.J. CHRISTIAN  
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 DATE 08/12/15

**A-C MOTOR  
PERFORMANCE  
CURVES**

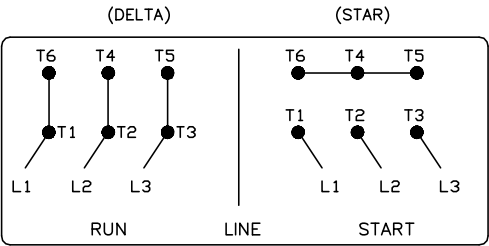
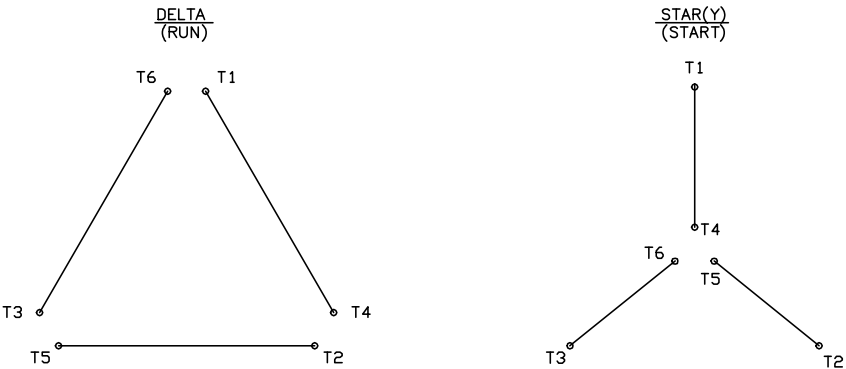
A44WG2772-R004  
 ISSUE DATE 08/12/15



416820-008

A-C MOTOR  
CONNECTION DIAGRAM

STANDARD 6 LEAD      Y START – DELTA RUN



(N. P. 1767-DC)

REV. DESC: ADDED T4 TO Y CONNECT DIAGRAM

REV. LTR: D

VERSION: 04

TDR: 000000847713

FILE: \RAG\00001\808

REVISED: 10: 41: 26 04/08/2014

BY: RAGJSS1

MTL: -

**BALDOR**

CONNECT DIAGRAM STD 6 LEAD Y START DELTA RUN

SH 1 of 1

416820-008