

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM2565T-4

250HP, 3565RPM, 3PH, 60HZ, 445TS, DP, F1

Class - None

Division - Not Applicable

**Specifications**

|                                      |                         |
|--------------------------------------|-------------------------|
| <b>Enclosure</b>                     | DP                      |
| <b>Frame</b>                         | 445TS                   |
| <b>Frame Material</b>                | Iron                    |
| <b>Frequency</b>                     | 60.00 Hz                |
| <b>Haz Area Class and Group</b>      | None                    |
| <b>Haz Area Division</b>             | Not Applicable          |
| <b>Motor Letter Type</b>             | Three Phase             |
| <b>Output @ Frequency</b>            | 250.000 HP @ 60 HZ      |
| <b>Phase</b>                         | 3                       |
| <b>Synchronous Speed @ Frequency</b> | 3600 RPM @ 60 HZ        |
| <b>Voltage @ Frequency</b>           | 460.0 V @ 60 HZ         |
| <b>Agency Approvals</b>              | CURUSEEV                |
| <b>Ambient Temperature</b>           | 40 °C                   |
| <b>Auxiliary Box</b>                 | NO AUXILLARY BOX        |
| <b>Base Indicator</b>                | Rigid                   |
| <b>Bearing Grease Type</b>           | Polyrex EM (-20F +300F) |
| <b>Current @ Voltage</b>             | 274.000 A @ 460.0 V     |
| <b>Design Code</b>                   | B                       |
| <b>Drip Cover</b>                    | No Drip Cover           |
| <b>Duty Rating</b>                   | CONT                    |
| <b>Efficiency @ 100% Load</b>        | 95.4 %                  |
| <b>Feedback Device</b>               | NO FEEDBACK             |
| <b>Heater Indicator</b>              | No Heater               |
| <b>High Voltage Full Load Amps</b>   | 274.0 a                 |
| <b>Insulation Class</b>              | F                       |
| <b>Inverter Code</b>                 | Inverter Ready          |
| <b>IP Rating</b>                     | NONE                    |
| <b>KVA Code</b>                      | F                       |
| <b>Lifting Lugs</b>                  | Standard Lifting Lugs   |
| <b>Motor Lead Quantity/Wire Size</b> | 6 @ 1/0 AWG             |
| <b>Motor Standards</b>               | NEMA                    |
| <b>Motor Type</b>                    | A44068M                 |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | C          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A44WG1392  |
| <b>Layout</b>       | 617428-044 |
| <b>Eff. date</b>    | 09-25-2025 |
| <b>CD Diagram</b>   | 416820-008 |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 6#1/0      |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-24-2015 |

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Mounting Arrangement</b>     | F1                    |
| <b>Number of Poles</b>          | 2                     |
| <b>Overall Length</b>           | 35.88 IN              |
| <b>Power Factor</b>             | 89                    |
| <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>                    | 3565 rpm              |
| <b>Speed Code</b>               | Single Speed          |
| <b>Starting Method</b>          | Wye Start - Delta Run |
| <b>Thermal Device - Bearing</b> | None                  |
| <b>Thermal Device - Winding</b> | None                  |

**Nameplate**

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

**NP2349L**

|                   |               |       |      |                         |             |                       |    |      |              |       |  |
|-------------------|---------------|-------|------|-------------------------|-------------|-----------------------|----|------|--------------|-------|--|
| SPEC NO.          | A44-7177-1392 |       |      | CAT.NO.                 | EM2565T-4   |                       |    |      | FRAME        | 445TS |  |
| HP                | 250           | VOLTS | 460  | PHASE                   | 3           | DESIGN                | B  | TYPE | P            |       |  |
| RPM               | 3565          | AMPS  | 274  | 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            | 89          | NEMA-NOM-EFFICIENCY   |    |      |              | 95.4  |  |
|                   |               |       |      | MAX CORR KVAR           | 30          | GUARANTEED EFFICIENCY |    | 94.5 |              |       |  |
|                   |               |       |      | NEMA NOM/CSA QUOTED EFF |             |                       |    |      |              |       |  |
|                   |               |       |      |                         |             |                       |    |      |              |       |  |
|                   |               |       |      |                         |             |                       |    |      | MOTOR WEIGHT |       |  |

**Parts List**

| Part number | Description                           | Quantity |
|-------------|---------------------------------------|----------|
| SA299617    | SA A44-7177-1392                      | 1.000 ea |
| RA286646    | RA A44-7177-1392                      | 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 |
| 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 |
| 035000001G  | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF      | 4.000 ea |
| 405851012AB | SPACE                                 | 4.000 ea |
| 032018006AK | HHCS 1/4-20X3/4L PLATED               | 4.000 ea |
| 034000012AB | WSHR 1/4 STD. PLATED                  | 4.000 ea |
| 034600001AA | BUSH 1/4TO1/8 BLACK                   | 1.000 ea |
| 405851012AB | SPACE                                 | 4.000 ea |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF      | 4.000 ea |
| 034600001AA | BUSH 1/4TO1/8 BLACK                   | 1.000 ea |
| 034000012AB | WSHR 1/4 STD. PLATED                  | 4.000 ea |
| 032018006AK | HHCS 1/4-20X3/4L PLATED               | 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 |
| 035000001G  | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 702658001A  | CONDUIT BOX, E440                     | 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 |
| 418150003A  | GREASE FITTING CAP                     | 1.000 ea |
| MG1025Y17   | WILKOFAST, 789.701, SUPER E PEARL GOLD | 0.438 ga |
| 032018008DK | HHCS 1/2-13X1 PLATED                   | 4.000 ea |
| 048897010DG | PLUG,ODE BRKT - 360                    | 1.000 ea |
| 406055001E  | GRFTG - 440                            | 1.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                     | 1.000 ea |
| 415000115H  | T/LUG #2AWG-4/OAWG                     | 1.000 ea |
| 032018005DL | 1/2-13 X 5/8 SILICON BRONZE HHCS       | 1.000 ea |
| 033512006LB | HHTTS 1/4-20X3/4 PLTD.                 | 8.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                     | 1.000 ea |
| 418150003A  | GREASE FITTING CAP                     | 1.000 ea |
| 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 |
| 032510024D  | CARRIAGE BOLT - 444                    | 2.000 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 |

|                                                                                                                                               |              |                                                                               |                                                                     |                                            |                 |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------|-----------------|-------|
| REL.<br>S.O.                                                                                                                                  | FRAME        | HP                                                                            | TYPE                                                                | PHASE/<br>HERTZ                            | RPM             | VOLTS |
|                                                                                                                                               | 445TSC       | 250                                                                           | P                                                                   | 3/60                                       | 3565            | 460   |
| AMPS                                                                                                                                          | DUTY         | AMB °C/<br>INSUL.                                                             | S.F.                                                                | NEMA<br>DESIGN                             | CODE<br>LETTER  | ENCL. |
| 274                                                                                                                                           | CONT         | 40/F                                                                          | 1.15                                                                | B                                          | F               | PROT  |
| E/S                                                                                                                                           | ROTOR        | TEST<br>S.O.                                                                  | TEST<br>DATE                                                        | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES) |                 |       |
| 498702                                                                                                                                        | 418143-14-ME | ---                                                                           | ---                                                                 | .0218                                      |                 |       |
| PERFORMANCE                                                                                                                                   |              |                                                                               |                                                                     |                                            |                 |       |
| LOAD                                                                                                                                          | HP           | AMPERES                                                                       | RPM                                                                 | %<br>POWER FACTOR                          | %<br>EFFICIENCY |       |
| NO LOAD                                                                                                                                       | 0            | 70.1                                                                          | 3600                                                                | 4.36                                       | 0               |       |
| 1/4                                                                                                                                           | 62.6         | 95.0                                                                          | 3592                                                                | 65.4                                       | 94.4            |       |
| 2/4                                                                                                                                           | 125          | 145                                                                           | 3584                                                                | 83.8                                       | 96.0            |       |
| 3/4                                                                                                                                           | 187          | 207                                                                           | 3576                                                                | 88.2                                       | 96.1            |       |
| 4/4                                                                                                                                           | 250          | 274                                                                           | 3567                                                                | 89.3                                       | 95.7            |       |
| 5/4                                                                                                                                           | 312          | 342                                                                           | 3558                                                                | 89.8                                       | 95.1            |       |
|                                                                                                                                               |              |                                                                               |                                                                     |                                            |                 |       |
| SPEED TORQUE                                                                                                                                  |              |                                                                               |                                                                     |                                            |                 |       |
|                                                                                                                                               |              | RPM                                                                           | TORQUE<br>% FULL LOAD                                               | TORQUE<br>LB.-FT.                          | AMPERES         |       |
| LOCKED ROTOR                                                                                                                                  |              | 0                                                                             | 204                                                                 | 751                                        | 1752            |       |
| PULL UP                                                                                                                                       |              | 1800                                                                          | 181                                                                 | 668                                        | 1560            |       |
| BREAKDOWN                                                                                                                                     |              | 3427                                                                          | 246                                                                 | 906                                        | 1106            |       |
| FULL LOAD                                                                                                                                     |              | 3567                                                                          | 100                                                                 | 368                                        | 274             |       |
| AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE<br>AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE |              |                                                                               |                                                                     |                                            |                 |       |
| REMARKS: TYPICAL DATA                                                                                                                         |              |                                                                               |                                                                     |                                            |                 |       |
|                                                            |              | DR. BY J.J.HARRISON<br>CK. BY W.L.SMITH<br>APP. BY W.L.SMITH<br>DATE 09/24/10 | A-C MOTOR<br>PERFORMANCE A44WG1392-R001<br>DATA ISSUE DATE 12/18/10 |                                            |                 |       |

FRAME 445TSC

RPM 3565

VOLTS 460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 250

AMPS 274

CODE LETTER F

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE PROT

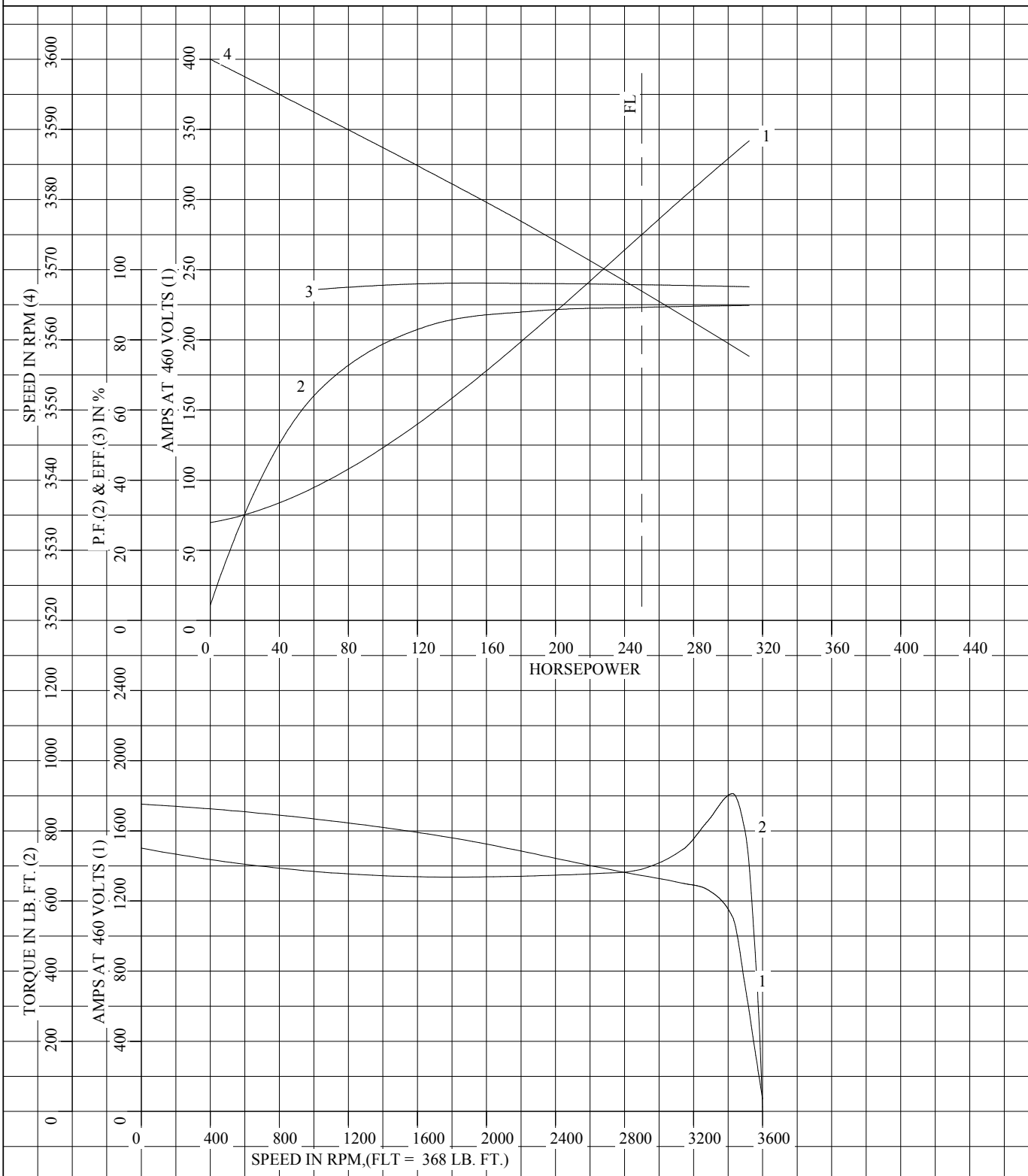
STATOR RES. @ 25 °C .0218

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 498702

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**

DR. BY J.J.HARRISON  
CK. BY W.L.SMITH  
APP. BY W.L.SMITH  
DATE 09/24/10

**A-C MOTOR  
PERFORMANCE  
CURVES** A44WG1392-R001  
ISSUE DATE 12/18/10

REL. S.O.

RPM 3565

S.F. 1.15

ROTOR 418143-14-ME

FRAME 445TSC

VOLTS 460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 250

AMPS 274

CODE LETTER F

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE PROT

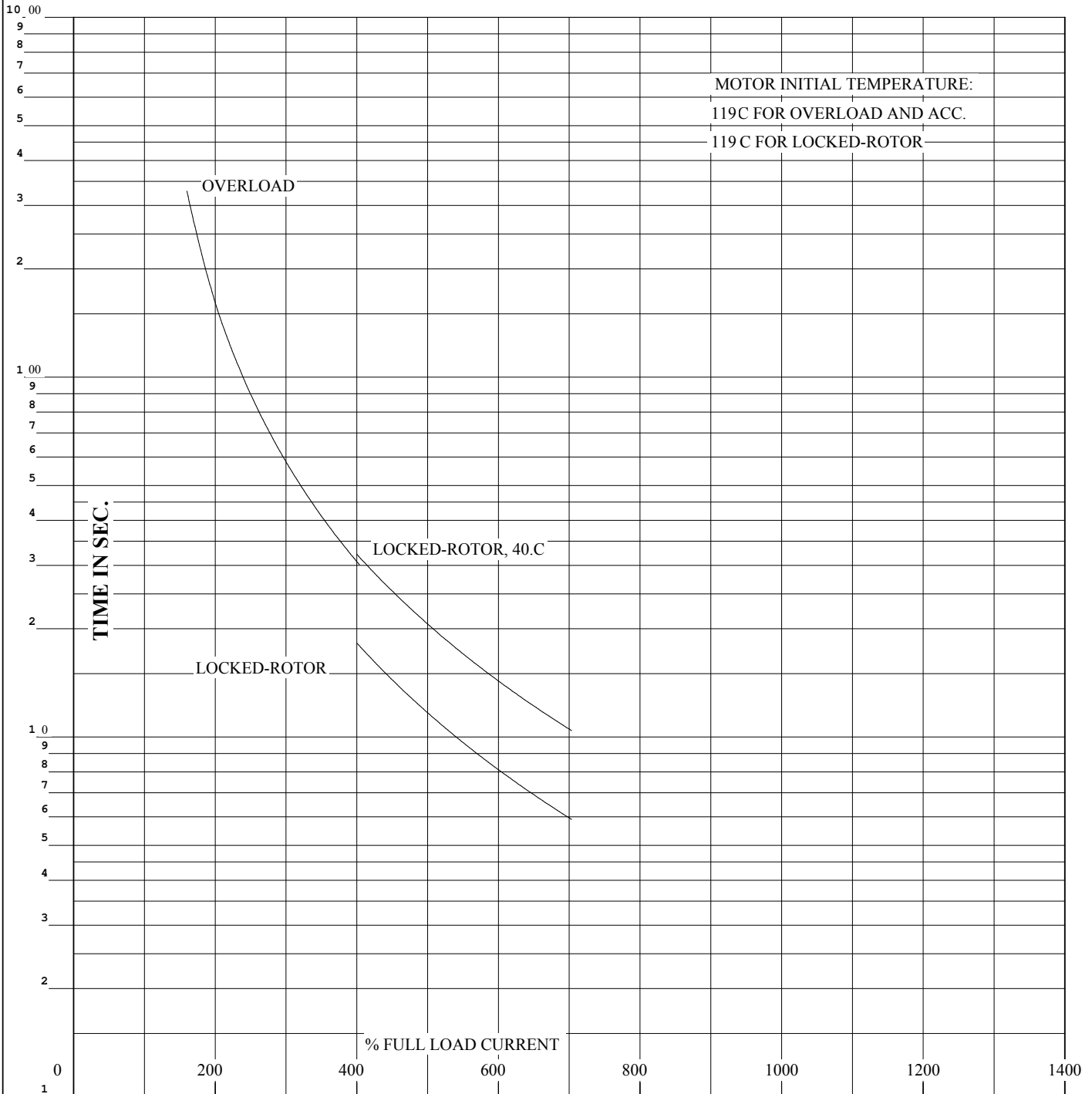
STATOR RES. @ 25 °C .0218

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 498702

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

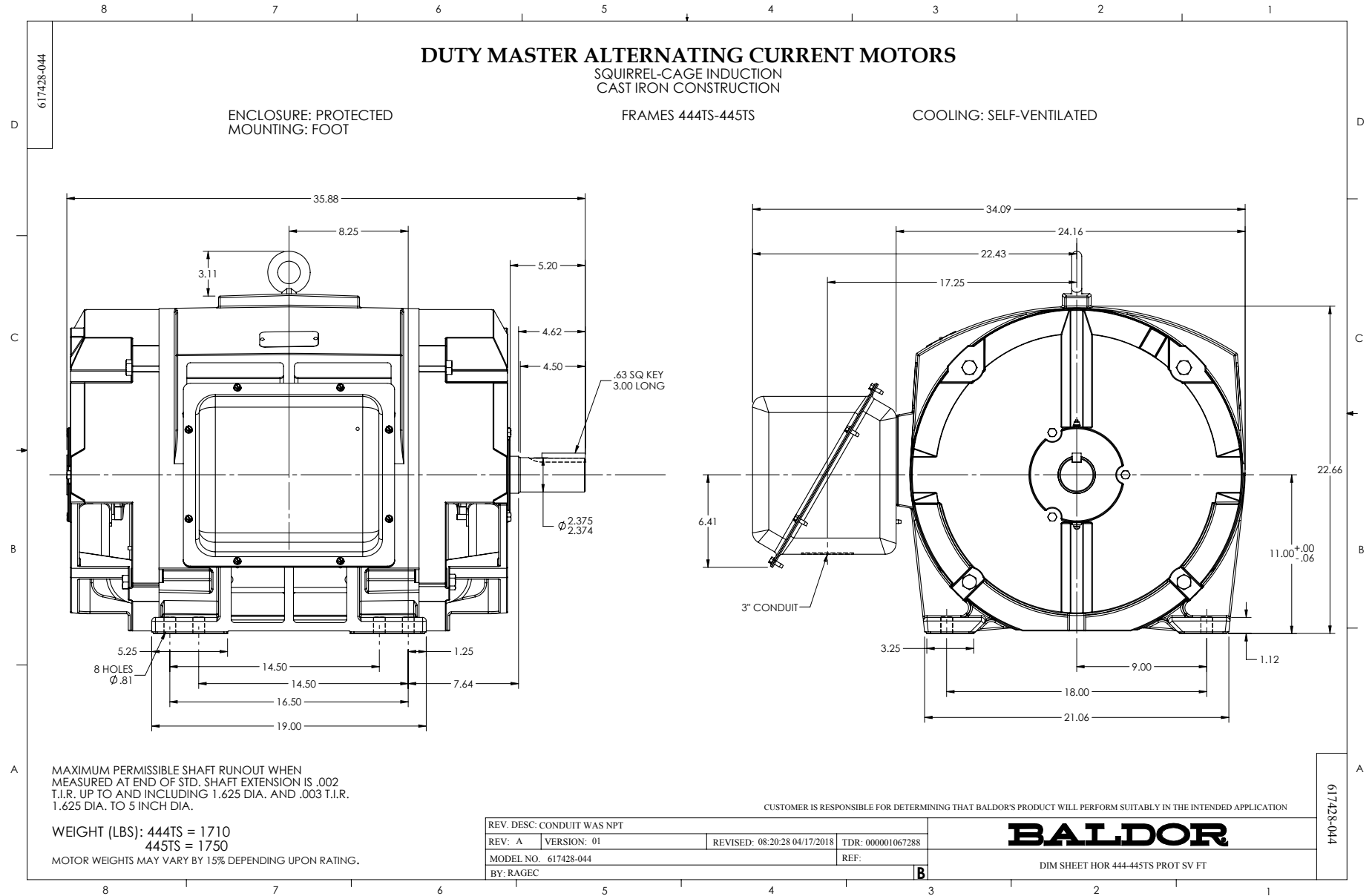
REMARKS:

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

**BALDOR**

DR. BY J.J.HARRISON  
CK. BY W.L.SMITH  
APP. BY W.L.SMITH  
DATE 09/24/10

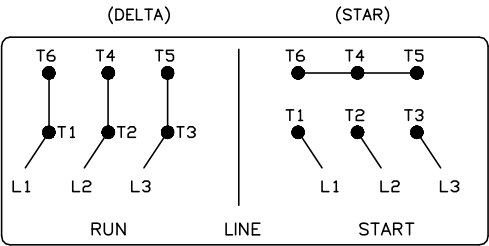
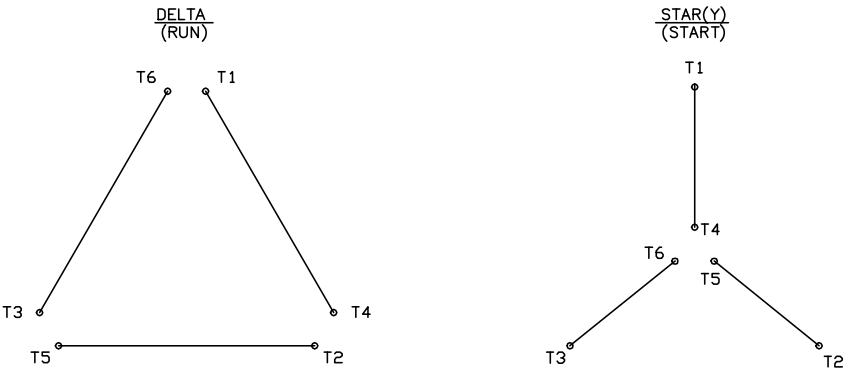
**A-C MOTOR  
PERFORMANCE A44WG1392-R001  
CURVES** ISSUE DATE 12/18/10



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