

# 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**

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | DP                      |
| Frame                         | 445TS                   |
| 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            | 250.000 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             | 274.000 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   | 274.0 a                 |
| Insulation Class              | F                       |
| Inverter Code                 | Inverter Ready          |
| IP Rating                     | NONE                    |
| KVA Code                      | F                       |
| Lifting Lugs                  | Standard Lifting Lugs   |
| Motor Lead Quantity/Wire Size | 6 @ 1/0 AWG             |
| Motor Standards               | NEMA                    |
| Motor Type                    | A44068M                 |

**Part Detail**

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

|                                                                                                                                               |              |                                                                               |                                                                     |                                            |                 |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------|-----------------|-------|
| 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

HP 250

AMPS 274

CODE LETTER F

TEST S.O. TYPICAL DATA

TYPE P

DUTY CONT

ENCLOSURE PROT

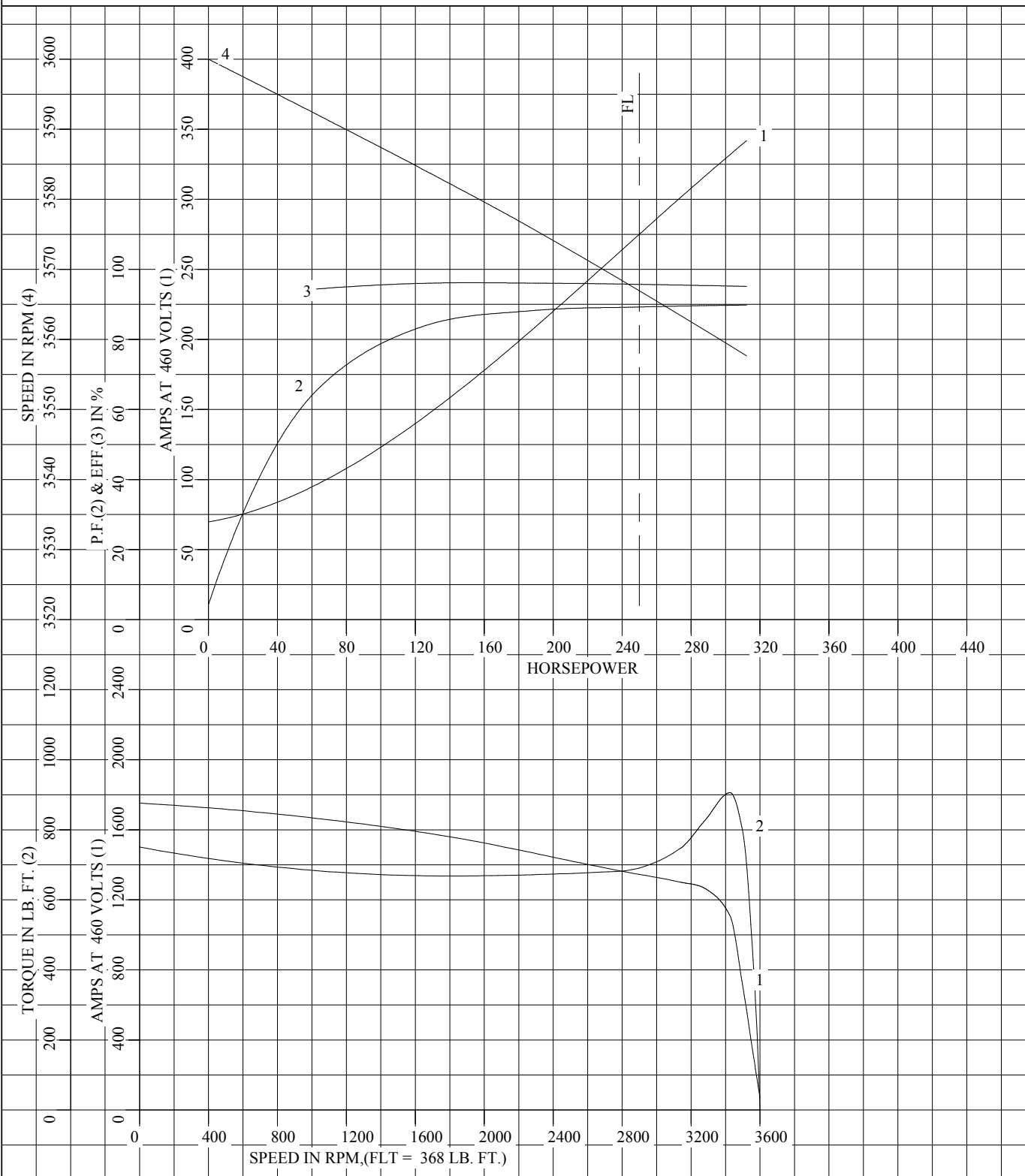
TEST DATE ---

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 498702

STATOR RES. @ 25 °C .0218  
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

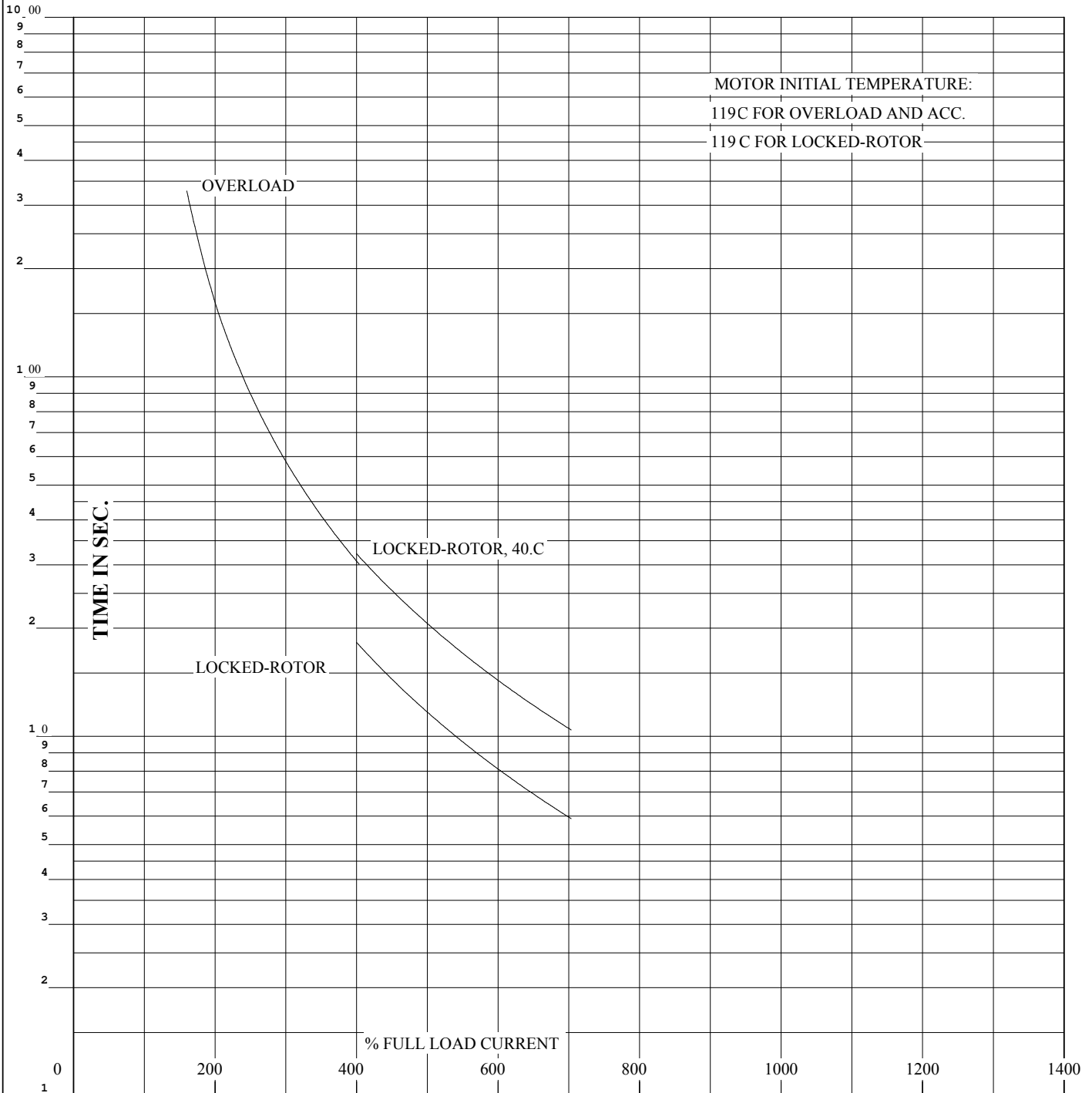
STATOR RES. @ 25 °C .0218

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 498702

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

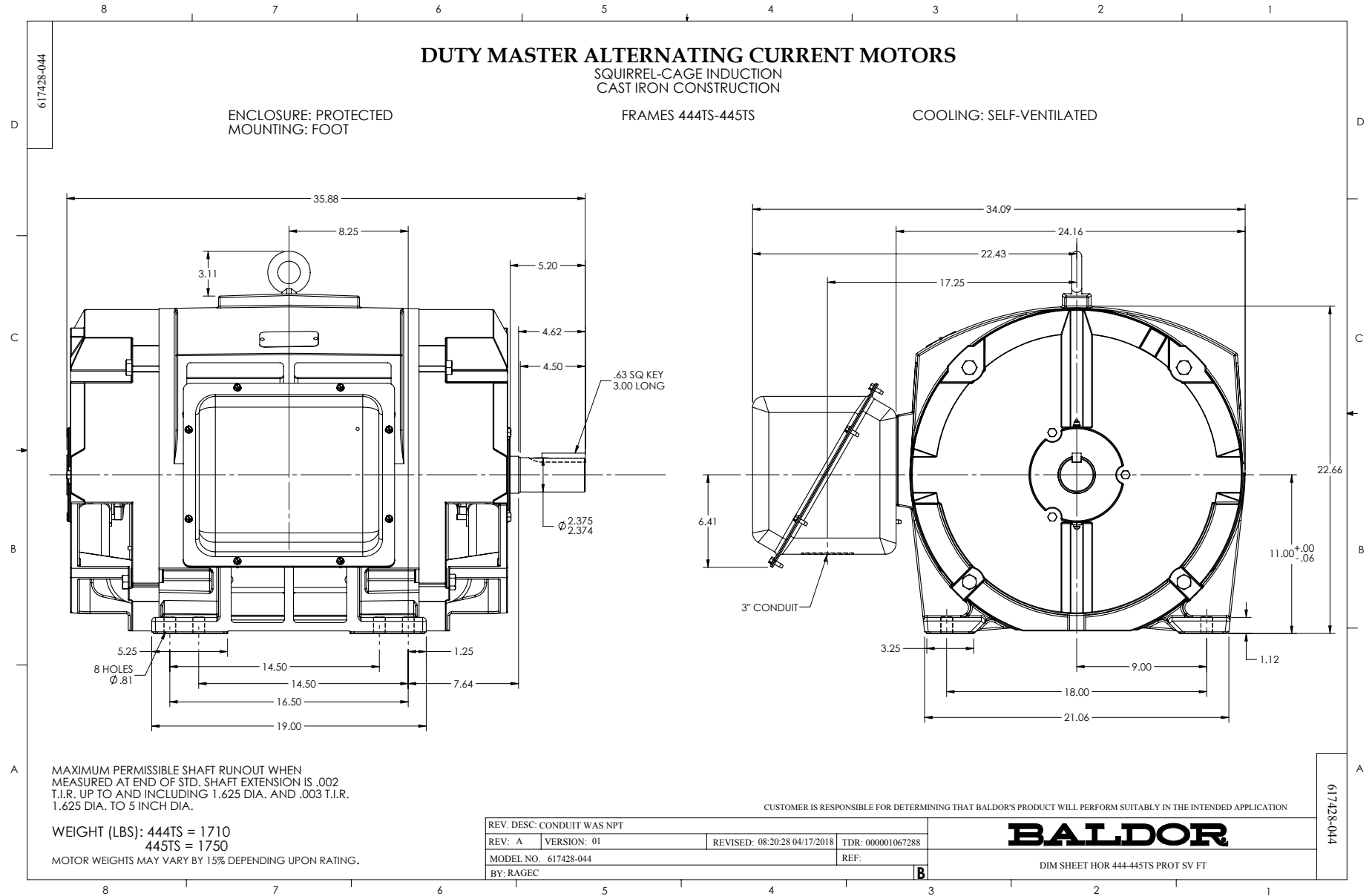
REMARKS:

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  
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DATE 09/24/10

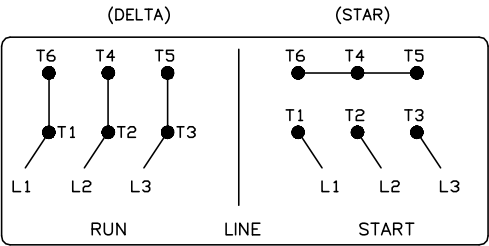
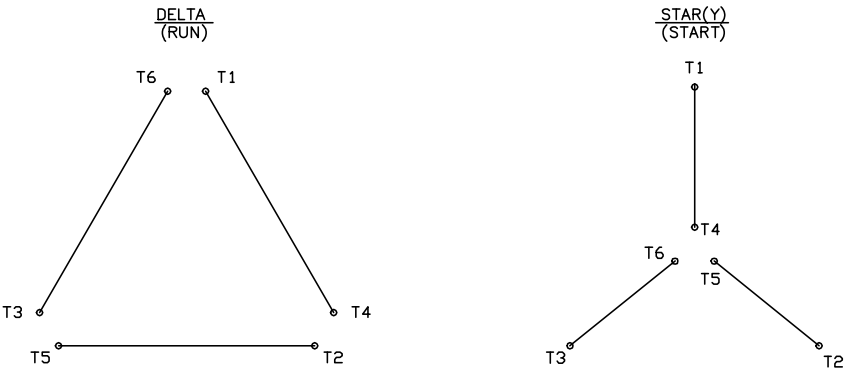
**A-C MOTOR  
PERFORMANCE A44WG1392-R001  
CURVES** ISSUE DATE 12/18/10



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