

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM2558T-4

150HP, 1780RPM, 3PH, 60HZ, 444T, 1868M, OPEN

Class - None

Division - Not Applicable

**Specifications**

|                                      |                         |
|--------------------------------------|-------------------------|
| <b>Enclosure</b>                     | DP                      |
| <b>Frame</b>                         | 444T                    |
| <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>            | 150.000 HP @ 60 HZ      |
| <b>Phase</b>                         | 3                       |
| <b>Synchronous Speed @ Frequency</b> | 1800 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>             | 170.000 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>        | 96.2 %                  |
| <b>Feedback Device</b>               | NO FEEDBACK             |
| <b>Heater Indicator</b>              | No Heater               |
| <b>High Voltage Full Load Amps</b>   | 170.0 a                 |
| <b>Insulation Class</b>              | F                       |
| <b>Inverter Code</b>                 | Inverter Ready          |
| <b>KVA Code</b>                      | G                       |
| <b>Lifting Lugs</b>                  | No Lifting Lugs         |
| <b>Motor Lead Quantity/Wire Size</b> | 6 @ 2 AWG               |
| <b>Motor Standards</b>               | NEMA                    |
| <b>Motor Type</b>                    | A44062M                 |
| <b>Mounting Arrangement</b>          | F1                      |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | D          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A44WG2176  |
| <b>Layout</b>       | 617428-042 |
| <b>Eff. date</b>    | 12-10-2025 |
| <b>CD Diagram</b>   | 416820-008 |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 6#2        |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-08-2015 |

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Number of Poles</b>          | 4                     |
| <b>Overall Length</b>           | 39.71 IN              |
| <b>Power Factor</b>             | 86                    |
| <b>Pulley End Bearing Type</b>  | Ball                  |
| <b>Pulley Face Code</b>         | C-Face                |
| <b>Service Factor</b>           | 1.15                  |
| <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>  | No Slinger            |
| <b>Speed</b>                    | 1785 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**

| NP2377L           |            |      |       |    |              |               |                         |                     |                       |      |  |  |
|-------------------|------------|------|-------|----|--------------|---------------|-------------------------|---------------------|-----------------------|------|--|--|
| CAT.NO.           | EM2558T-4  |      |       |    | SPEC NO.     | A44-0003-2176 |                         |                     |                       |      |  |  |
| HP                | 150        | AMPS | 170   |    | VOLTS        | 460           |                         | DESIGN              | B                     |      |  |  |
| FRAME             | 444T       | RPM  | 1785  | HZ | 60           | AMB           | 40                      | SF                  | 1.15                  |      |  |  |
| DRIVE END BEARING | 90BC03J30X |      | PHASE | 3  | DUTY         | CONT          |                         | INSUL.CLASS         | F                     |      |  |  |
| OPP D.E. BEARING  | 90BC03J30X |      | TYPE  | P  | ENCL         | DP            | CODE                    | G                   |                       |      |  |  |
| SER.NO.           |            |      |       |    | POWER FACTOR | 86            |                         | NEMA-NOM-EFFICIENCY | 96.2                  |      |  |  |
|                   |            |      |       |    |              |               | MAX CORR KVAR           | 30                  | GUARANTEED EFFICIENCY | 95.4 |  |  |
|                   |            |      |       |    |              |               | NEMA NOM/CSA QUOTED EFF |                     |                       |      |  |  |
|                   |            |      |       |    |              |               | MOTOR WEIGHT            |                     |                       |      |  |  |

**Parts List**

| Part number | Description                           | Quantity |
|-------------|---------------------------------------|----------|
| SA306877    | SA A44-0003-2176                      | 1.000 ea |
| RA294151    | RA A44-0003-2176                      | 1.000 ea |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 ea |
| 000692000VD | LABEL WARNING                         | 1.000 ea |
| NP2377L     | SS SUPER-E, CC, CURUS ENERGY (LASER)  | 1.000 ea |
| 004824015A  | GREASE POLYREX EM                     | 1.156 lb |
| 032018005AK | HHCS 1/4-20X5/8 PLATED                | 4.000 ea |
| 032018008AK | HHCS 1/4-20X1 PLATED                  | 4.000 ea |
| 032018028EK | HHCS 5/8-11X3-1/2L PLTD               | 4.000 ea |
| 032018036DK | HHCS 1/2-13X4-1/2 PLTD.               | 3.000 ea |
| 034000012AB | WSHR 1/4 STD. PLATED                  | 4.000 ea |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF      | 4.000 ea |
| 034600001AA | BUSH 1/4TO1/8 BLACK                   | 1.000 ea |
| 035000001G  | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 089439051A  | BRKT 440 089439051WCB                 | 1.000 ea |
| 405851012AC | SPACE                                 | 4.000 ea |
| 410700004A  | WSHR                                  | 1.000 ea |
| 702611001A  | BAFFL 440 SUB PAINT                   | 1.000 ea |
| 032018005AK | HHCS 1/4-20X5/8 PLATED                | 4.000 ea |
| 032018008AK | HHCS 1/4-20X1 PLATED                  | 4.000 ea |
| 032018028EK | HHCS 5/8-11X3-1/2L PLTD               | 4.000 ea |
| 032018036DK | HHCS 1/2-13X4-1/2 PLTD.               | 3.000 ea |
| 034000012AB | WSHR 1/4 STD. PLATED                  | 4.000 ea |
| 034017012AB | LCKW 1/4 STD. PLATED 034017012AF      | 4.000 ea |
| 034600001AA | BUSH 1/4TO1/8 BLACK                   | 1.000 ea |
| 035000001G  | GREASE RELIEF FITTING, ALEMITE 317400 | 1.000 ea |
| 089439051A  | BRKT 440 089439051WCB                 | 1.000 ea |
| 405851012AC | SPACE                                 | 4.000 ea |
| 415045002A  | SLGR                                  | 1.000 ea |
| 702611001A  | BAFFL 440 SUB PAINT                   | 1.000 ea |
| 032018008BK | HHCS 5/16-18X1L PLATED                | 4.000 ea |

|             |                                       |          |
|-------------|---------------------------------------|----------|
| 032018008DK | HHCS 1/2-13X1 PLATED                  | 4.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                    | 1.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                    | 1.000 ea |
| 048897010DJ | BUSH - 445                            | 1.000 ea |
| 067053001C  | GASK 440                              | 1.000 ea |
| 076863000C  | +CBCST BLKT - 440                     | 1.000 ea |
| 076864000A  | *MFC MOVE* CBCST BLKT - 440           | 1.000 ea |
| 406056007A  | GASKET, 440                           | 1.000 ea |
| 418150003A  | GREASE FITTING CAP                    | 1.000 ea |
| MG1025Y17   | WILKOFAS, 789.701, SUPER E PEARL GOLD | 0.250 ga |
| 418150003A  | GREASE FITTING CAP                    | 1.000 ea |
| 033775004EA | DRSCR #6-1/4 304 S.S.                 | 2.000 ea |
| 034180054KA | 7/8 SQ X 6.75 KEY                     | 1.000 ea |
| 421948044   | LABEL, MYLAR                          | 1.000 ea |
| 415000115H  | T/LUG #2AWG-4/0AWG                    | 1.000 ea |
| 032018005DL | 1/2-13 X 5/8 SILICON BRONZE HHCS      | 1.000 ea |
| 604797045   | STD. 400 FRAME SKID                   | 1.000 ea |

|                                                                                                                                               |               |                                                                                  |                   |                                                                     |                 |       |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------|-----------------|-------|--|--|--|
| REL.<br>S.O.                                                                                                                                  | FRAME         | HP                                                                               | TYPE              | PHASE/<br>HERTZ                                                     | RPM             | VOLTS |  |  |  |
|                                                                                                                                               | 444T          | 150                                                                              | P                 | 3/60                                                                | 1785            | 460   |  |  |  |
| AMPS                                                                                                                                          | DUTY          | AMB °C/<br>INSUL.                                                                | S.F.              | NEMA<br>DESIGN                                                      | CODE<br>LETTER  | ENCL. |  |  |  |
| 170                                                                                                                                           | CONT          | 40/B                                                                             | 1.15              | B                                                                   | G               | PRXE  |  |  |  |
| E/S                                                                                                                                           | ROTOR         | TEST<br>S.O.                                                                     | TEST<br>DATE      | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES)                          |                 |       |  |  |  |
| 497213                                                                                                                                        | 418143-040-PE | ---                                                                              | ---               | .0318                                                               |                 |       |  |  |  |
| PERFORMANCE                                                                                                                                   |               |                                                                                  |                   |                                                                     |                 |       |  |  |  |
| LOAD                                                                                                                                          | HP            | AMPERES                                                                          | RPM               | %<br>POWER FACTOR                                                   | %<br>EFFICIENCY |       |  |  |  |
| NO LOAD                                                                                                                                       | 0             | 59.9                                                                             | 1800              | 3.40                                                                | 0               |       |  |  |  |
| 1/4                                                                                                                                           | 37.5          | 72.2                                                                             | 1797              | 51.8                                                                | 94.0            |       |  |  |  |
| 2/4                                                                                                                                           | 75.0          | 99.1                                                                             | 1793              | 73.7                                                                | 96.1            |       |  |  |  |
| 3/4                                                                                                                                           | 112           | 133                                                                              | 1790              | 82.3                                                                | 96.4            |       |  |  |  |
| 4/4                                                                                                                                           | 150           | 170                                                                              | 1786              | 85.9                                                                | 96.2            |       |  |  |  |
| 5/4                                                                                                                                           | 187           | 210                                                                              | 1782              | 87.1                                                                | 95.9            |       |  |  |  |
| SPEED TORQUE                                                                                                                                  |               |                                                                                  |                   |                                                                     |                 |       |  |  |  |
|                                                                                                                                               | RPM           | TORQUE<br>% FULL LOAD                                                            | TORQUE<br>LB.-FT. | AMPERES                                                             |                 |       |  |  |  |
| LOCKED ROTOR                                                                                                                                  | 0             | 148                                                                              | 655               | 1085                                                                |                 |       |  |  |  |
| PULL UP                                                                                                                                       | 720           | 139                                                                              | 615               | 1025                                                                |                 |       |  |  |  |
| BREAKDOWN                                                                                                                                     | 1725          | 252                                                                              | 1110              | 630                                                                 |                 |       |  |  |  |
| FULL LOAD                                                                                                                                     | 1786          | 100                                                                              | 441               | 170                                                                 |                 |       |  |  |  |
| AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE<br>AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE |               |                                                                                  |                   |                                                                     |                 |       |  |  |  |
| REMARKS: XE MOTOR CALCULATED DATA. NEMA NOM EFF 96.2 PCT.<br>GUAR MIN EFF 95.8 PCT.                                                           |               |                                                                                  |                   |                                                                     |                 |       |  |  |  |
|                                                            |               | DR. BY C.R. THOMPSON<br>CK. BY C.P. WILBY<br>APP. BY C.P. WILBY<br>DATE 04/25/95 |                   | A-C MOTOR<br>PERFORMANCE A44WG2176-R001<br>DATA ISSUE DATE 04/25/95 |                 |       |  |  |  |

FRAME 444T

RPM 1785 VOLTS 460

NEMA DESIGN B

TEST S.O. ---

HP 150

AMPS 170

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE PRXE

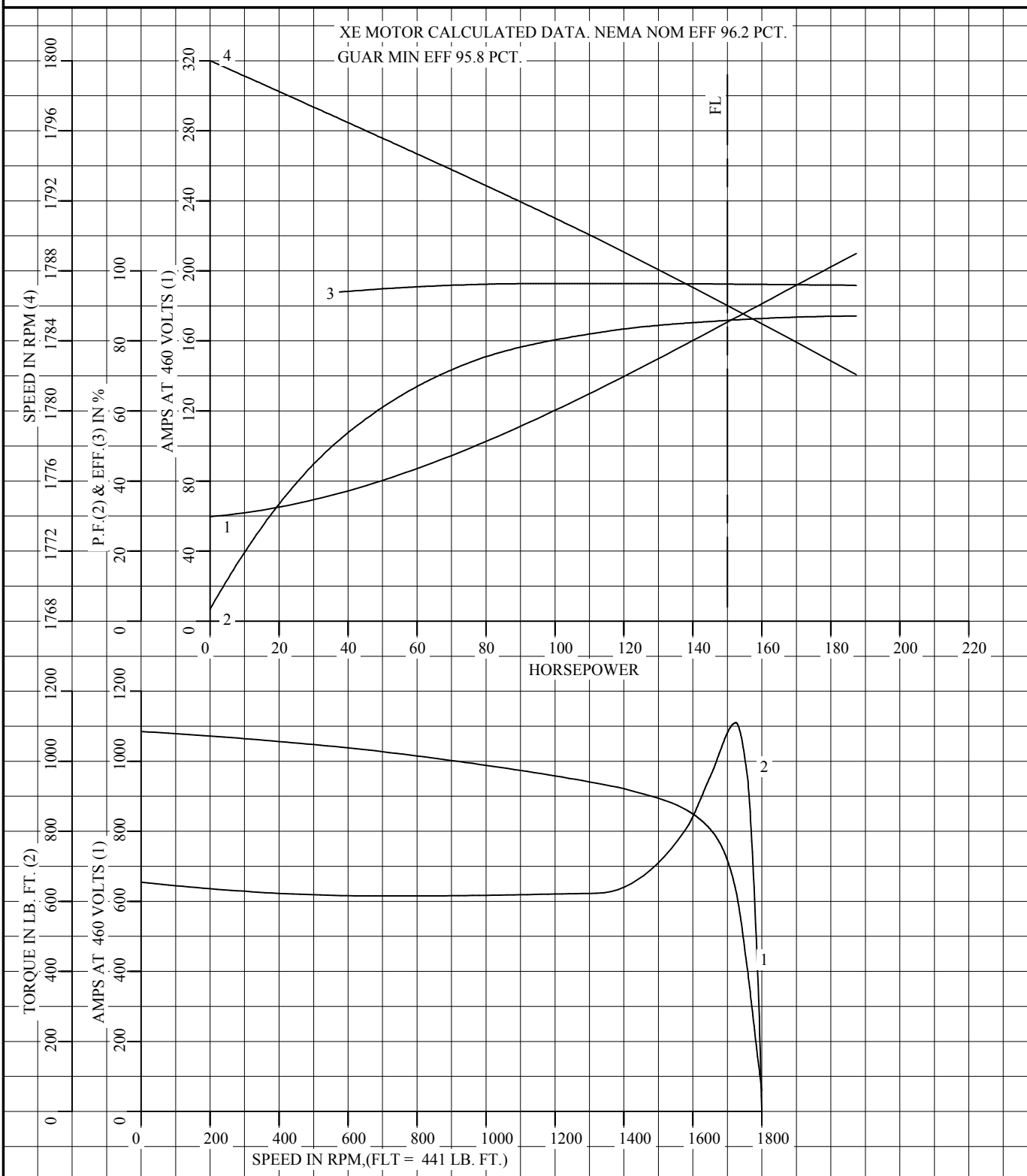
STATOR RES. @ 25 °C .0318

PHASE/HERTZ 3/60

AMB °C/INSUL 40/B

E/S 497213

OHMS (BETWEEN LINES)

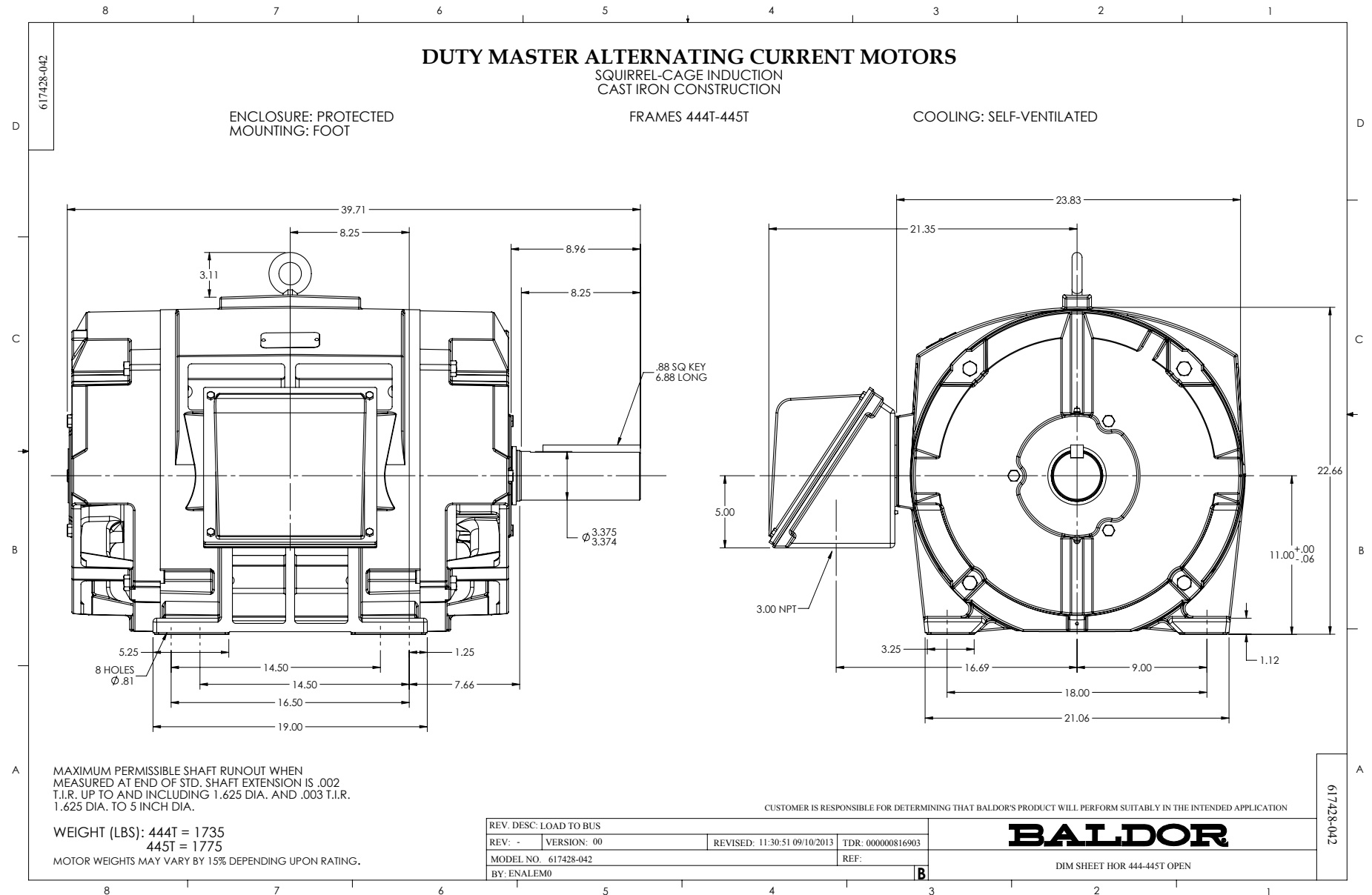


AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

**BALDOR**

DR. BY C.R. THOMPSON  
CK. BY C.P. WILLBY  
APP. BY C.P. WILLBY  
DATE 04/25/95

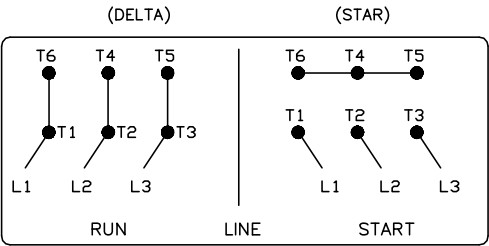
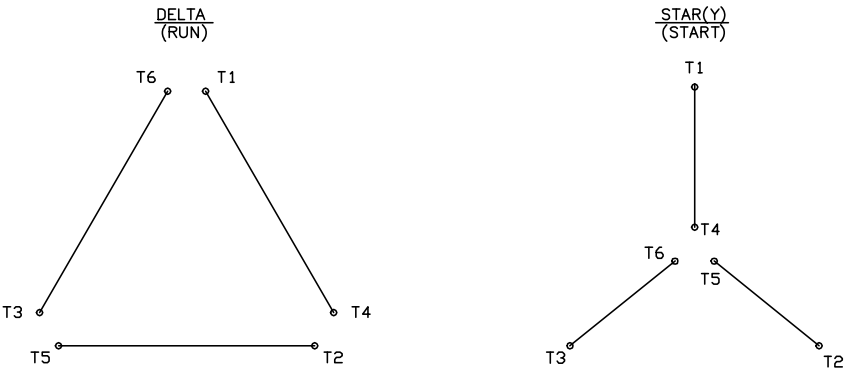
**A-C MOTOR  
PERFORMANCE CURVES** A44WG2176-R001  
ISSUE DATE 04/25/95



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