

# ABB BALDOR RELIANCE III

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## Customer information packet

### EWDM4419T

75HP, 890RPM, 3PH, 60HZ, 444T, TEFC, F1

Class - None

Division - Not Applicable

**Specifications**

|                                      |                                           |
|--------------------------------------|-------------------------------------------|
| <b>Enclosure</b>                     | TEFC                                      |
| <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>            | 75.000 HP @ 60 HZ                         |
| <b>Phase</b>                         | 3                                         |
| <b>Synchronous Speed @ Frequency</b> | 900 RPM @ 60 HZ                           |
| <b>Voltage @ Frequency</b>           | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ        |
| <b>Agency Approvals</b>              | CSA EEV<br>CCSA US                        |
| <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>             | 179.000 A @ 230.0 V<br>89.300 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>        | 93.6 %                                    |
| <b>Enclosure Modification</b>        | Severe Duty Features                      |
| <b>Feedback Device</b>               | NO FEEDBACK                               |
| <b>Heater Indicator</b>              | No Heater                                 |
| <b>High Voltage Full Load Amps</b>   | 89.3 a                                    |
| <b>Insulation Class</b>              | F                                         |
| <b>Inverter Code</b>                 | Not Inverter                              |
| <b>IP Rating</b>                     | IP55                                      |
| <b>KVA Code</b>                      | F                                         |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | -          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A44WG4750  |
| <b>Layout</b>       | 617427-507 |
| <b>Eff. date</b>    | 09-26-2019 |
| <b>CD Diagram</b>   | 416820-002 |
| <b>Poles</b>        | 08         |
| <b>Leads</b>        | 3#2,6#4    |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 09-12-2019 |

|                                      |                    |
|--------------------------------------|--------------------|
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 2 AWG          |
| <b>Motor Standards</b>               | NEMA               |
| <b>Motor Type</b>                    | A44072M            |
| <b>Mounting Arrangement</b>          | F1                 |
| <b>Number of Poles</b>               | 8                  |
| <b>Overall Length</b>                | 44.97 IN           |
| <b>Power Factor</b>                  | 83                 |
| <b>Product Family</b>                | Washdown Features  |
| <b>Pulley End Bearing Type</b>       | Ball               |
| <b>Pulley Face Code</b>              | Standard           |
| <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>       | 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**

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

**NP2428L**

|                                |               |       |          |              |             |                         |                     |    |                       |       |      |      |
|--------------------------------|---------------|-------|----------|--------------|-------------|-------------------------|---------------------|----|-----------------------|-------|------|------|
| SPEC NO.                       | A44-8400-4750 |       |          | CAT.NO.      | EWDM4419T   |                         |                     |    |                       | FRAME | 444T |      |
| HP                             | 75            | VOLTS | 230/460  |              | PHASE       | 3                       | DESIGN              | B  | TYPE                  | P     |      |      |
| RPM                            | 890           | AMPS  | 179/89.3 |              | HZ          | 60                      | AMB                 | 40 | SF                    | 1.15  |      |      |
| DRIVE END BEARING              | 90BC03JPP30A  |       | DUTY     | CONT         | INSUL.CLASS |                         | F                   |    |                       |       |      |      |
| OPP D.E. BEARING               | 90BC03JPP30A  |       | ENCL     | TEFC         | CODE        | F                       |                     |    |                       |       |      |      |
| SER.NO.                        |               |       |          | POWER FACTOR |             | 83                      | NEMA-NOM-EFFICIENCY |    |                       |       |      | 93.6 |
|                                |               |       |          |              |             | MAX CORR KVAR           |                     | 19 | GUARANTEED EFFICIENCY |       |      | 92.4 |
| IP55                           |               |       |          |              |             | NEMA NOM/CSA QUOTED EFF |                     |    |                       |       |      |      |
| 2:1CT AND 2:1VT ON VPWM INVERT |               |       |          |              |             | ER, 1.00SF              |                     |    | MOTOR WEIGHT          |       |      |      |

**Parts List**

| Part number | Description                           | Quantity |
|-------------|---------------------------------------|----------|
| SA374268    | SA A44-8400-4750                      | 1.000 ea |
| RA364114    | RA A44-8400-4750                      | 1.000 ea |
| 421948032   | 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 |
| 000692000CY | N/P                                   | 2.000 ea |
| 000692000FF | N/P                                   | 1.000 ea |
| 000692000VD | LABEL WARNING                         | 1.000 ea |
| NP2428L     | WASHDOWN DUTY MOTOR, SS, CC, CSA-C    | 1.000 ea |
| 412118006A  | DRAIN                                 | 2.000 ea |
| 034690005AB | PPLG 3/4 PLATED                       | 1.000 ea |
| 089490099A  | G28 BRKT 089490098WCA KB              | 1.000 ea |
| 083199082P  | G28 FAN COVER MACHINING SHORT VERSION | 1.000 ea |
| 034180014DA | KEY 1/4X1/4X1-3/4 L                   | 1.000 ea |
| 702618004T  | FAN KB 182/70 (112) 440               | 1.000 ea |
| 004824015A  | GREASE POLYREX EM                     | 1.160 lb |
| 032018020FN | HHCS 3/4-10X2-1/2304S.S., NAVY        | 4.000 ea |
| 032018008CN | HHCS 3/8-16X1 304 SS-360              | 4.000 ea |
| 032018030DN | HHCS1/2-13X3-3/4304S.S449, NAVY       | 3.000 ea |
| 415045002A  | SLGR                                  | 1.000 ea |
| 410700004A  | WSHR                                  | 1.000 ea |
| 423709011C  | WASHER                                | 3.000 ea |
| 034017014AE | LCKW 3/8 304S.S.                      | 4.000 ea |
| 034690001AB | 1/8" NPT SQHDPLG                      | 1.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                       | 1.000 ea |
| 032620016LD | HEX SOCKET SET SCREW (COARSE THREAD)  | 3.000 ea |
| 034690001AB | 1/8" NPT SQHDPLG                      | 1.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                       | 1.000 ea |
| 702623013A  | THERMAL BARRIER -- G28 -- BRACKET MTD | 1.000 ea |
| 032018004BK | HHCS 5/16-18X1/2 PLATED               | 3.000 ea |
| 034017013AB | LCKW 5/16 STD. PLATED                 | 3.000 ea |

|              |                                          |          |
|--------------|------------------------------------------|----------|
| 089490099P   | G28 BRKT FT MNT 6318 & INNER LIP SL BORE | 1.000 ea |
| 032018020FN  | HHCS 3/4-10X2-1/2304S.S., NAVY           | 4.000 ea |
| 032018030DN  | HHCS1/2-13X3-3/4304S.S449, NAVY          | 3.000 ea |
| 415045002A   | SLGR                                     | 1.000 ea |
| 415028001Z   | SEAL - 400/440                           | 1.000 ea |
| 423709011C   | WASHER                                   | 3.000 ea |
| 415915007K   | GASK, 26" LAC                            | 1.000 ea |
| 076863000C   | +CBCST BLKT - 440                        | 1.000 ea |
| 406056007A   | GASKET, 440                              | 1.000 ea |
| 076864000A   | *MFC MOVE* CBCST BLKT - 440              | 1.000 ea |
| 067053001C   | GASK 440                                 | 1.000 ea |
| 032018008BN  | HHCS 5/16-18X1 304S.S., NAVY             | 4.000 ea |
| 032018008DN  | HHCS 1/2-13X1L 304 S.S., NAVY            | 4.000 ea |
| 415000115H   | T/LUG #2AWG-4/0AWG                       | 1.000 ea |
| 406099000A   | PLUG - FAN COVER 320-440                 | 1.000 ea |
| 032018005DL  | 1/2-13 X 5/8 SILICON BRONZE HHCS         | 1.000 ea |
| 004824003AJF | WILKO781.01 WHITE2 COATS - MG1025W01     | 0.438 ga |
| 033775004EA  | DRSCR #6-1/4 304 S.S.                    | 2.000 ea |
| 033775004EA  | DRSCR #6-1/4 304 S.S.                    | 4.000 ea |
| 034180054KA  | 7/8 SQ X 6.75 KEY                        | 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   |
|                                                                                                                                                                                                             | 444T          | 75                | P                     | 3/60                                       | 890             | 230/460 |
| AMPS                                                                                                                                                                                                        | DUTY          | AMB °C/<br>INSUL. | S.F.                  | NEMA<br>DESIGN                             | CODE<br>LETTER  | ENCL.   |
| 179/89.3                                                                                                                                                                                                    | CONT          | 40/F              | 1.15                  | B                                          | F               | TEFC    |
| E/S                                                                                                                                                                                                         | ROTOR         | TEST<br>S.O.      | TEST<br>DATE          | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES) |                 |         |
| 497436                                                                                                                                                                                                      | 418143-083-PE | ---               | ---                   | .0181/.0724                                |                 |         |
| PERFORMANCE                                                                                                                                                                                                 |               |                   |                       |                                            |                 |         |
| LOAD                                                                                                                                                                                                        | HP            | AMPERES           | RPM                   | %<br>POWER FACTOR                          | %<br>EFFICIENCY |         |
| NO LOAD                                                                                                                                                                                                     | 0             | 28.9              | 900                   | 6.23                                       | 0               |         |
| 1/4                                                                                                                                                                                                         | 18.8          | 35.5              | 897                   | 55.0                                       | 89.9            |         |
| 2/4                                                                                                                                                                                                         | 37.5          | 49.3              | 895                   | 76.2                                       | 93.4            |         |
| 3/4                                                                                                                                                                                                         | 56.2          | 67.5              | 892                   | 82.9                                       | 94.1            |         |
| 4/4                                                                                                                                                                                                         | 75.0          | 89.3              | 889                   | 83.7                                       | 93.9            |         |
| 5/4                                                                                                                                                                                                         | 93.8          | 115               | 885                   | 82.0                                       | 93.3            |         |
|                                                                                                                                                                                                             |               |                   |                       |                                            |                 |         |
| SPEED TORQUE                                                                                                                                                                                                |               |                   |                       |                                            |                 |         |
|                                                                                                                                                                                                             |               | RPM               | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                          | AMPERES         |         |
| LOCKED ROTOR                                                                                                                                                                                                |               | 0                 | 148                   | 658                                        | 510             |         |
| PULL UP                                                                                                                                                                                                     |               | 250               | 139                   | 616                                        | 466             |         |
| BREAKDOWN                                                                                                                                                                                                   |               | 843               | 241                   | 1068                                       | 299             |         |
| FULL LOAD                                                                                                                                                                                                   |               | 889               | 100                   | 443                                        | 89.3            |         |
| 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>XE MOTOR - NEMA NOM EFF 93.6% |               |                   |                       |                                            |                 |         |
|                                                                                                                          |               | DR. BY            | C.E. JAMISON          | <b>A-C MOTOR<br/>PERFORMANCE DATA</b>      |                 |         |
|                                                                                                                                                                                                             |               | CK. BY            | W.L. SMITH            |                                            |                 |         |
|                                                                                                                                                                                                             |               | APP. BY           | C.E. JAMISON          |                                            |                 |         |
|                                                                                                                                                                                                             |               | DATE              | 10/26/17              |                                            |                 |         |
|                                                                                                                                                                                                             |               |                   |                       | A44WG4750-R002<br>ISSUE DATE 08/25/20      |                 |         |



REL S.O.

RPM 890

S.F. 1.15

ROTOR 418143-083-PE

FRAME 444T

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 75

AMPS 179/89.3

CODE LETTER F

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

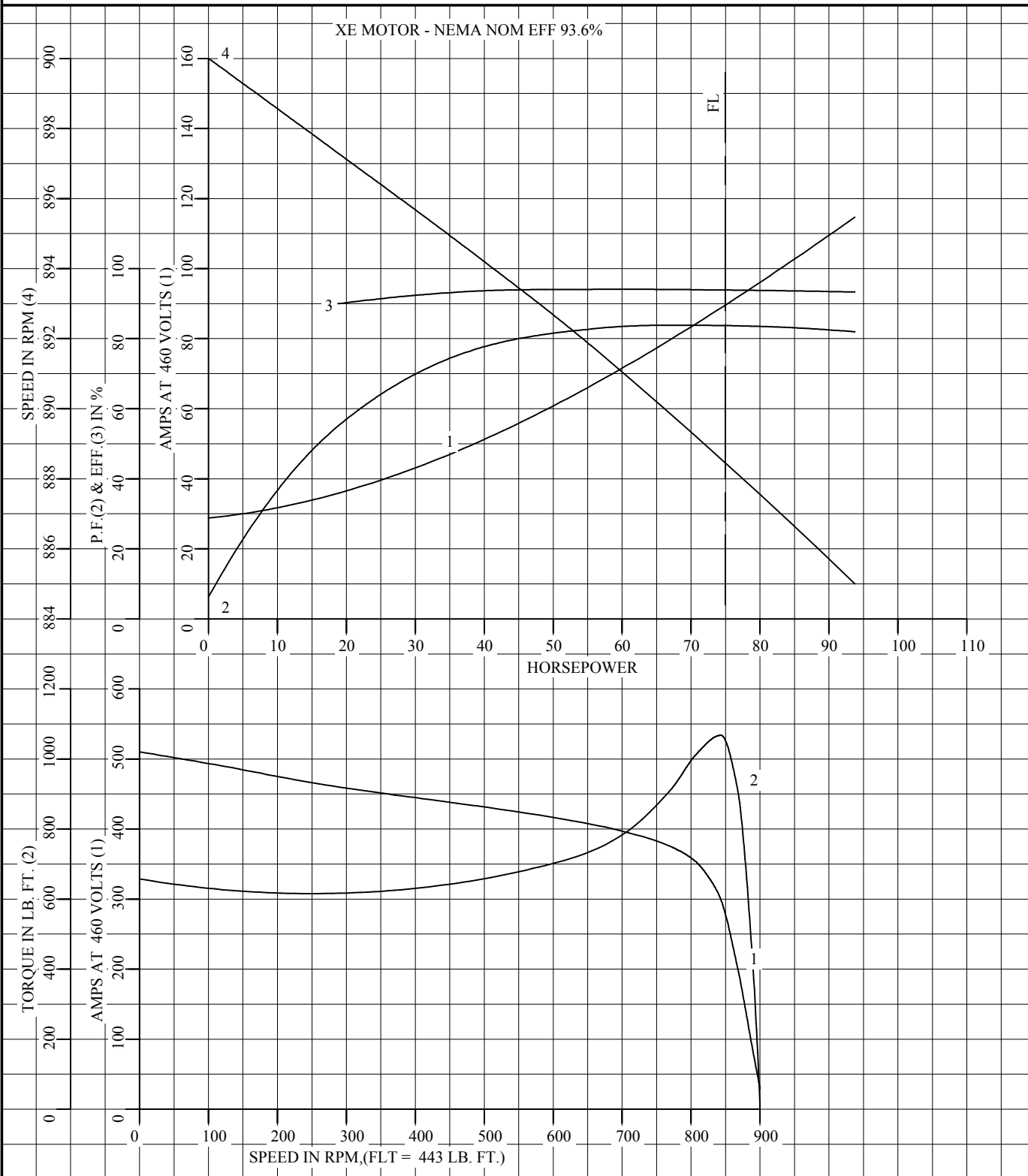
STATOR RES. @ 25 °C .0181/.0724

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 497436

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 C.E. JAMISON  
CK. BY W.L. SMITH  
APP. BY C.E. JAMISON  
DATE 10/26/17

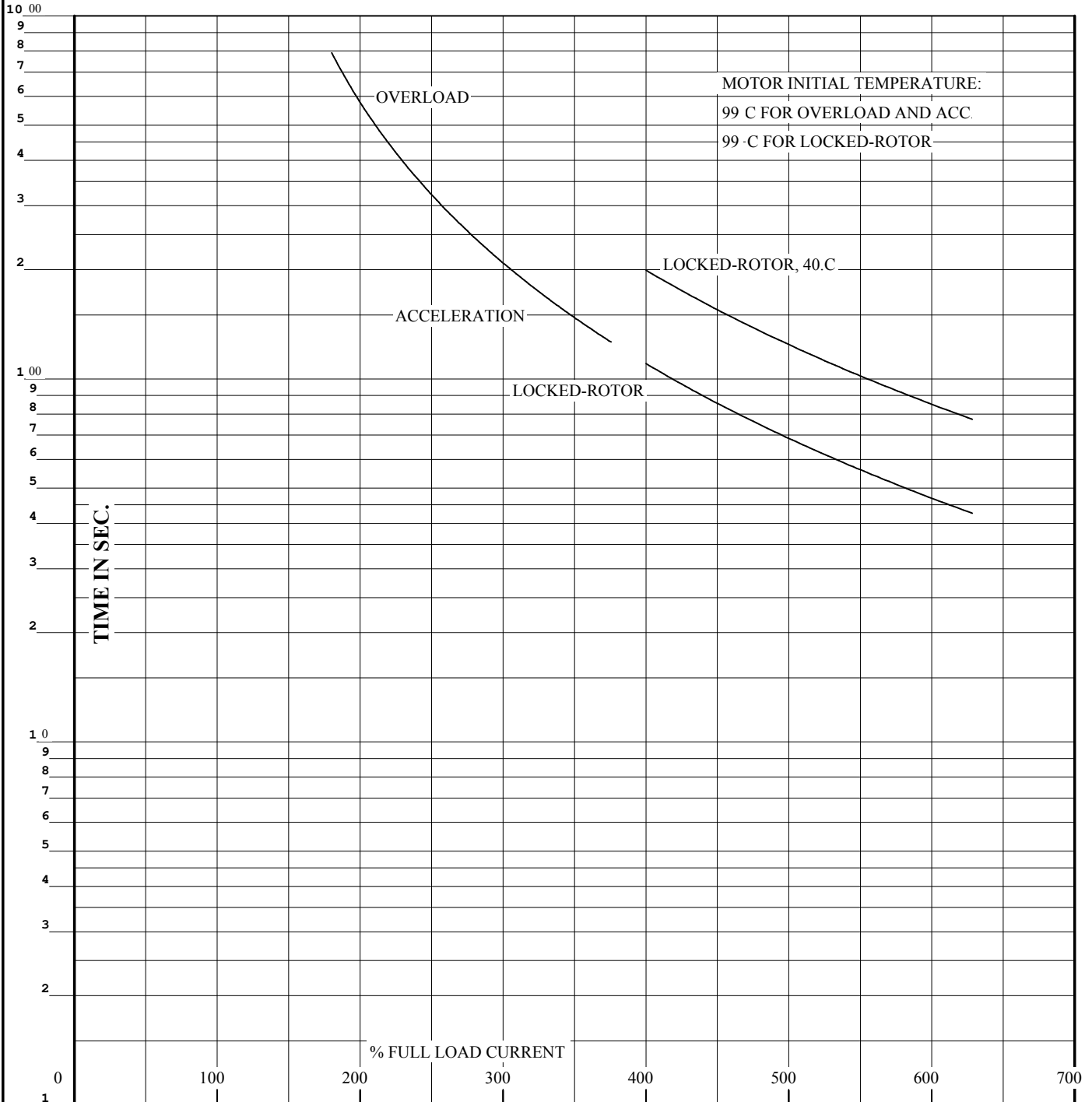
**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG4750-R002

ISSUE DATE 08/25/20

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|                         |                          |                       |                                        |
|-------------------------|--------------------------|-----------------------|----------------------------------------|
| REL. S.O.               | RPM <b>890</b>           | S.F. <b>1.15</b>      | ROTOR <b>418143-083-PE</b>             |
| FRAME <b>444T</b>       | VOLTS <b>230/460</b>     | NEMA DESIGN <b>B</b>  | TEST S.O. <b>TYPICAL DATA</b>          |
| HP <b>75</b>            | AMPS <b>179/89.3</b>     | CODE LETTER <b>F</b>  | TEST DATE <b>---</b>                   |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>TEFC</b> | STATOR RES. @ 25 °C <b>.0181/.0724</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/F</b> | E/S <b>497436</b>     | OHMS (BETWEEN LINES)                   |



THERMAL LIMIT CURVE

REMARKS: XE MOTOR - NEMA NOM EFF 93.6%

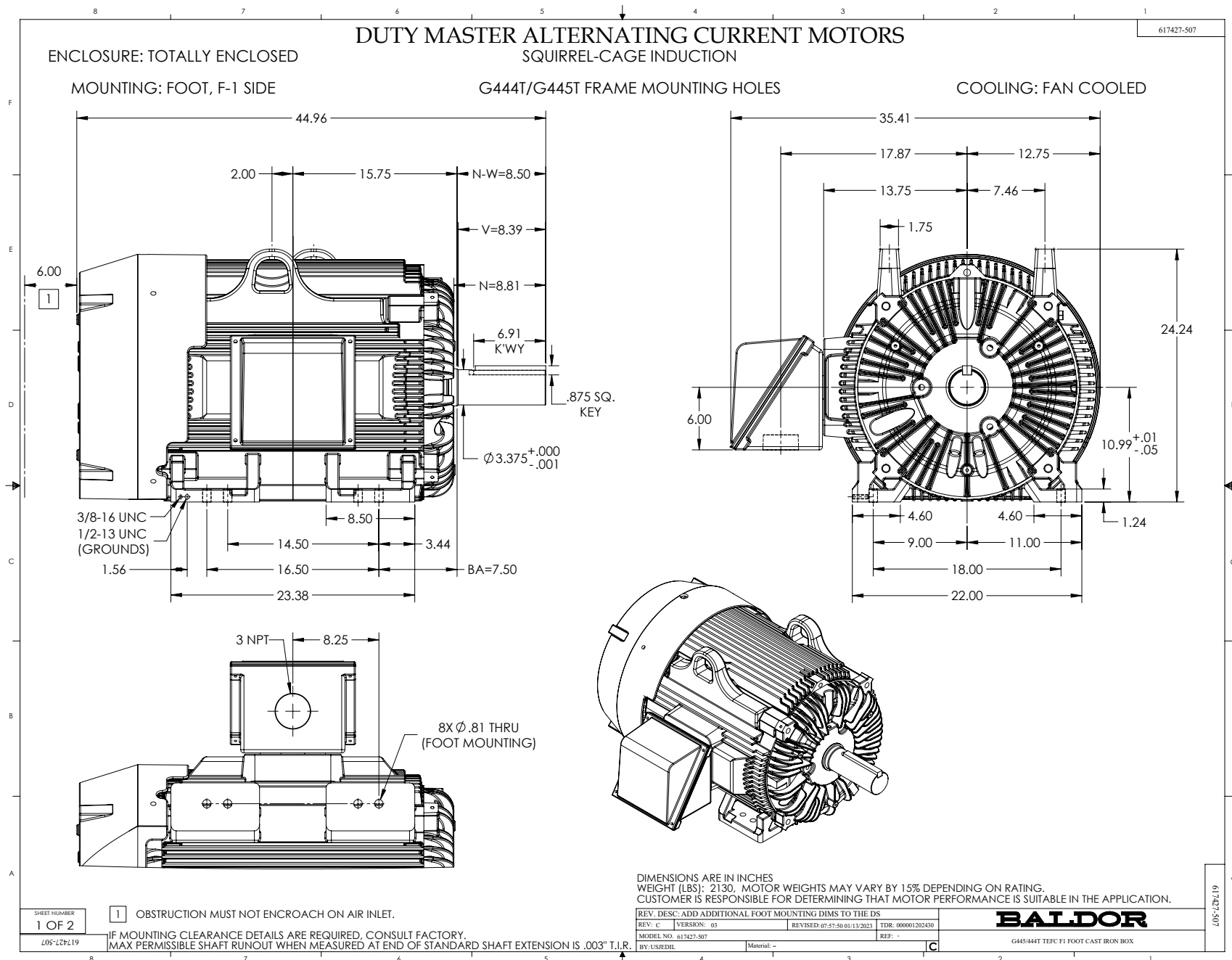
AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



|         |              |
|---------|--------------|
| DR. BY  | C.E. JAMISON |
| CK. BY  | W.L. SMITH   |
| APP. BY | C.E. JAMISON |
| DATE    | 10/26/17     |

**A-C MOTOR  
PERFORMANCE  
CURVES**

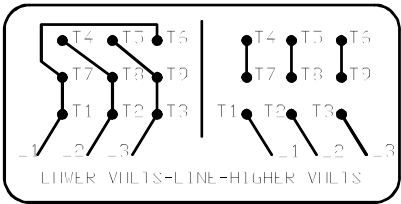
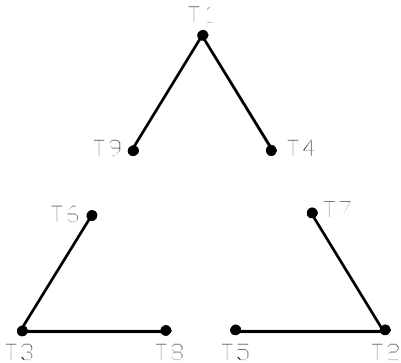
**A44WG4750-R002**  
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416820-002

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 9 LEAD      DELTA-CONNECTED



(N.P. 1575-B)

|                                           |                              |                   |
|-------------------------------------------|------------------------------|-------------------|
| REV. DESC: FONT CHANGE FOR PDF SEARCHABLE |                              |                   |
| REV. LTR: A                               | VERSION: 01                  | TDR: 000001009382 |
| FILE: \MGA\00000\661                      | REVISED: 02:46:19 02/13/2020 | BY: MGHMTT        |
| MTL: —                                    |                              |                   |

**BALDOR - RELIANCE®**

CONN DIAG — STANDARD 9 LEAD, DELTA-CONNECTED  
SH 1 of 1

416820-002