

# ABB BALDOR RELIANCE III

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## Customer information packet

### EM4407T-4

200HP, 1785RPM, 3PH, 60HZ, 447T, TEFC

Class - None

Division - Not Applicable

**Specifications**

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | TEFC                    |
| Frame                         | 447T                    |
| 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            | 200.000 HP @ 60 HZ      |
| Phase                         | 3                       |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ        |
| Voltage @ Frequency           | 460.0 V @ 60 HZ         |
| Agency Approvals              | CCSAUSEEV<br>CURUSEEV   |
| Ambient Temperature           | 40 °C                   |
| Auxiliary Box                 | NO AUXILLARY BOX        |
| Base Indicator                | Rigid                   |
| Bearing Grease Type           | Polyrex EM (-20F +300F) |
| Current @ Voltage             | 222.000 A @ 460.0 V     |
| Design Code                   | B                       |
| Drip Cover                    | No Drip Cover           |
| Duty Rating                   | CONT                    |
| Efficiency @ 100% Load        | 96.2 %                  |
| Enclosure Modification        | Severe Duty Features    |
| Feedback Device               | NO FEEDBACK             |
| Heater Indicator              | No Heater               |
| High Voltage Full Load Amps   | 222.0 a                 |
| Insulation Class              | F                       |
| Inverter Code                 | Inverter Ready          |
| KVA Code                      | G                       |
| Lifting Lugs                  | Standard Lifting Lugs   |
| Motor Lead Quantity/Wire Size | 6 @ 1/0 AWG             |
| Motor Standards               | NEMA                    |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | Q          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | A44WG1462  |
| Layout       | 617435-137 |
| Eff. date    | 12-06-2024 |
| CD Diagram   | 416820-008 |
| Poles        | 04         |
| Leads        | 6#1/0      |
| Proprietary  | False      |
| Created date | 09-08-2015 |

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Motor Type</b>               | A44120M               |
| <b>Mounting Arrangement</b>     | F1                    |
| <b>Number of Poles</b>          | 4                     |
| <b>Overall Length</b>           | 48.24 IN              |
| <b>Power Factor</b>             | 87                    |
| <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>  | 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**

| NP2349L           |               |       |  |              |       |                         |    |                     |  |                       |      |      |      |  |  |
|-------------------|---------------|-------|--|--------------|-------|-------------------------|----|---------------------|--|-----------------------|------|------|------|--|--|
| SPEC NO.          | A44-0002-4969 |       |  | CAT.NO.      |       | EM4407T-4               |    |                     |  | FRAME                 |      | 447T |      |  |  |
| HP                | 200           | VOLTS |  | 460          | PHASE |                         | 3  | DESIGN              |  | B                     | TYPE |      | P    |  |  |
| RPM               | 1785          | AMPS  |  | 222          | HZ    |                         | 60 | AMB                 |  | 40                    | SF   |      | 1.15 |  |  |
| DRIVE END BEARING | 90BC03J30X    |       |  | DUTY         |       | CONT                    |    | INSUL.CLASS         |  | F                     |      |      |      |  |  |
| OPP D.E. BEARING  | 90BC03J30X    |       |  | ENCL         |       | TEFC                    |    | CODE                |  | G                     |      |      |      |  |  |
| SER.NO.           |               |       |  | POWER FACTOR |       | 87                      |    | NEMA-NOM-EFFICIENCY |  |                       |      | 96.2 |      |  |  |
|                   |               |       |  |              |       | MAX CORR KVAR           |    | 34                  |  | GUARANTEED EFFICIENCY |      | 95.4 |      |  |  |
|                   |               |       |  |              |       | NEMA NOM/CSA QUOTED EFF |    |                     |  |                       |      |      |      |  |  |
|                   |               |       |  |              |       | MOTOR WEIGHT            |    |                     |  |                       |      |      |      |  |  |

**Parts List**

| Part number | Description                            | Quantity |
|-------------|----------------------------------------|----------|
| SA306876    | SA A44-0002-4969                       | 1.000 ea |
| RA294150    | RA A44-0002-4969                       | 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 |
| 421948044   | LABEL, MYLAR                           | 1.000 ea |
| 412118006A  | DRAIN                                  | 2.000 ea |
| 004824015A  | GREASE POLYREX EM                      | 1.160 lb |
| 032018008CK | HHCS 3/8-16X1L PLATED                  | 4.000 ea |
| 032018020FK | HHCS 3/4-10X2-1/2 PLTD.                | 4.000 ea |
| 032018030DK | HHCS 1/2-13X3-3/4 PLTD.                | 1.000 ea |
| 032620016LA | SOCKET SET SCREW-449                   | 3.000 ea |
| 034017014AB | LCKW 3/8 STD. PLATED                   | 4.000 ea |
| 034180014DA | KEY 1/4X1/4X1-3/4 L                    | 1.000 ea |
| 034530064AB | P/NIP 1/8 X 8" L Pipe Nipple           | 1.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                     | 1.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                        | 1.000 ea |
| 034690005AB | PPLG 3/4 PLATED                        | 2.000 ea |
| 078548001R  | FAN KB 234/150 (84) 400                | 1.000 ea |
| 083199126RA | G28 MOLDED FAN COVER W/BAFFLE ASSEMBLY | 1.000 ea |
| 089490099A  | G28 BRKT 089490098WCA KB               | 1.000 ea |
| 410700004A  | WSHR                                   | 1.000 ea |
| 415072001B  | CLAMP                                  | 1.000 ea |
| 415096002A  | CPLG 1/8 HEX TYPE                      | 1.000 ea |
| 032018004BK | HHCS 5/16-18X1/2 PLATED                | 3.000 ea |
| 032018020FK | HHCS 3/4-10X2-1/2 PLTD.                | 4.000 ea |
| 032018030DK | HHCS 1/2-13X3-3/4 PLTD.                | 3.000 ea |
| 034017013AB | LCKW 5/16 STD. PLATED                  | 3.000 ea |
| 034530044AB | P/NIP 1/8X5-1/2L GALV.                 | 1.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                     | 1.000 ea |
| 034690002AB | PPLG 1/4" PLTD.                        | 1.000 ea |

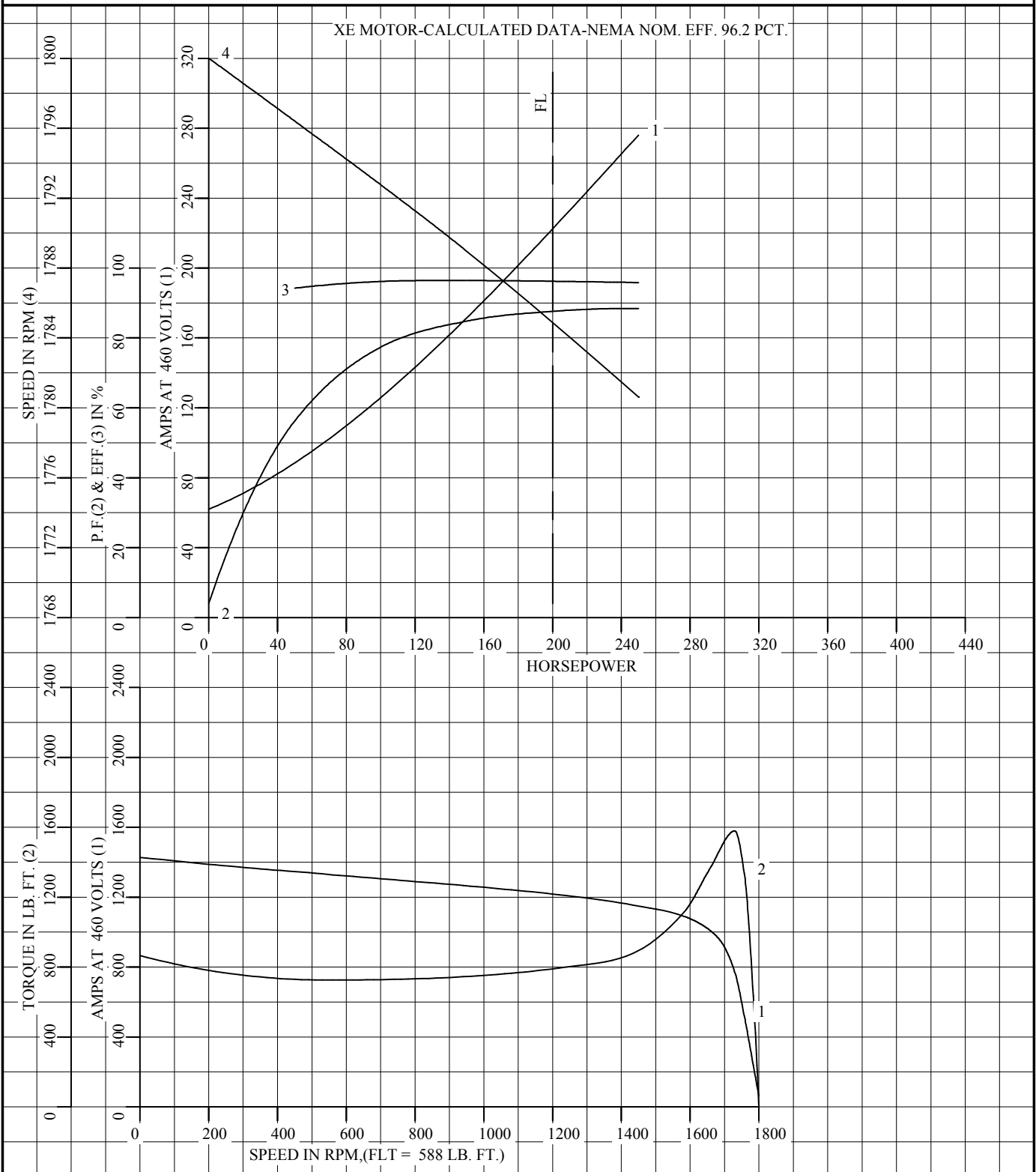
|             |                                       |          |
|-------------|---------------------------------------|----------|
| 089490099A  | G28 BRKT 089490098WCA KB              | 1.000 ea |
| 415096002A  | CPLG 1/8 HEX TYPE                     | 1.000 ea |
| 418151014G  | RETAIN RING                           | 1.000 ea |
| 702623013A  | THERMAL BARRIER -- G28 -- BRACKET MTD | 1.000 ea |
| 032018008DK | HHCS 1/2-13X1 PLATED                  | 4.000 ea |
| 415915007G  | GASK, LAC                             | 1.000 ft |
| 033512006LB | HHTTS 1/4-20X3/4 PLTD.                | 8.000 ea |
| 406056008A  | GASKET, TERBD 440                     | 1.000 ea |
| 406099000A  | PLUG - FAN COVER 320-440              | 1.000 ea |
| 415000115H  | T/LUG #2AWG-4/0AWG                    | 1.000 ea |
| 418153001A  | GASK 440                              | 1.000 ea |
| 702658001B  | +C/BOX, PAINTED 440                   | 1.000 ea |
| 702658002A  | +C/BOX CVR, PAINTED 440               | 1.000 ea |
| MG1025Y17   | WILKOFAS, 789.701, SUPER E PEARL GOLD | 0.375 ga |
| 033775004EA | DRSCR #6-1/4 304 S.S.                 | 2.000 ea |
| 034180054KA | 7/8 SQ X 6.75 KEY                     | 1.000 ea |
| 604797056   | 400-447 FRAME 60 X 42                 | 1.000 ea |
| 000613006PU | N/P (RELEASE QTY 10,000) UL CSA LABEL | 1.000 ea |
| 032018005DL | 1/2-13 X 5/8 SILICON BRONZE HHCS      | 1.000 ea |

**Accessories**

| Part number | Description                            | Multiplier |
|-------------|----------------------------------------|------------|
| 089490106A  | G28 C-FACE BRKT MACH-6318 089490105WCA | P1         |
| 089490110A  | D-FLANGE BRKT, G28 089490109WCA        | P1         |

|                                                                                                                                               |             |                        |                       |                                                                     |                                            |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------|-----------------------|---------------------------------------------------------------------|--------------------------------------------|-------|
| REL.<br>S.O.                                                                                                                                  | FRAME       | HP                     | TYPE                  | PHASE/<br>HERTZ                                                     | RPM                                        | VOLTS |
|                                                                                                                                               | 447T        | 200                    | P                     | 3/60                                                                | 1785                                       | 460   |
|                                                                                                                                               |             |                        |                       |                                                                     |                                            |       |
| AMPS                                                                                                                                          | DUTY        | AMB °C/<br>INSUL.      | S.F.                  | NEMA<br>DESIGN                                                      | CODE<br>LETTER                             | ENCL. |
| 222                                                                                                                                           | CONT        | 40/F                   | 1.15                  | B                                                                   | G                                          | TEFC  |
|                                                                                                                                               |             |                        |                       |                                                                     |                                            |       |
| E/S                                                                                                                                           | ROTOR       | TEST<br>S.O.           |                       | TEST<br>DATE                                                        | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES) |       |
| ---                                                                                                                                           | 418143052CE | ---                    |                       | ---                                                                 | .0169                                      |       |
| PERFORMANCE                                                                                                                                   |             |                        |                       |                                                                     |                                            |       |
| LOAD                                                                                                                                          | HP          | AMPERES                | RPM                   | %<br>POWER FACTOR                                                   | %<br>EFFICIENCY                            |       |
| NO LOAD                                                                                                                                       | 0           | 62.0                   | 1800                  | 4.07                                                                | 0                                          |       |
| 1/4                                                                                                                                           | 50.0        | 88.3                   | 1796                  | 56.3                                                                | 94.3                                       |       |
| 2/4                                                                                                                                           | 100         | 126                    | 1793                  | 77.4                                                                | 96.2                                       |       |
| 3/4                                                                                                                                           | 150         | 172                    | 1789                  | 84.8                                                                | 96.4                                       |       |
| 4/4                                                                                                                                           | 200         | 222                    | 1785                  | 87.6                                                                | 96.2                                       |       |
| 5/4                                                                                                                                           | 250         | 276                    | 1781                  | 88.4                                                                | 95.8                                       |       |
|                                                                                                                                               |             |                        |                       |                                                                     |                                            |       |
| SPEED TORQUE                                                                                                                                  |             |                        |                       |                                                                     |                                            |       |
|                                                                                                                                               |             | RPM                    | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                                                   | AMPERES                                    |       |
| LOCKED ROTOR                                                                                                                                  |             | 0                      | 147                   | 865                                                                 | 1428                                       |       |
| PULL UP                                                                                                                                       |             | 540                    | 123                   | 726                                                                 | 1332                                       |       |
| BREAKDOWN                                                                                                                                     |             | 1730                   | 268                   | 1579                                                                | 770                                        |       |
| FULL LOAD                                                                                                                                     |             | 1785                   | 100                   | 588                                                                 | 222                                        |       |
| 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<br>XE MOTOR-CALCULATED DATA-NEMA NOM. EFF. 96.2 PCT.                                                                    |             |                        |                       |                                                                     |                                            |       |
|                                                            |             | DR. BY C.D.            |                       | A-C MOTOR<br>PERFORMANCE A44WG1462-R001<br>DATA ISSUE DATE 01/16/20 |                                            |       |
|                                                                                                                                               |             | CK. BY E.J. CHRISTIAN  |                       |                                                                     |                                            |       |
|                                                                                                                                               |             | APP. BY E.J. CHRISTIAN |                       |                                                                     |                                            |       |
|                                                                                                                                               |             | DATE 07/06/17          |                       |                                                                     |                                            |       |
|                                                                                                                                               |             |                        |                       | Page 2 of 1                                                         |                                            |       |

|                         |                          |                       |                                  |
|-------------------------|--------------------------|-----------------------|----------------------------------|
| REL S.O.                | RPM <b>1785</b>          | S.F. <b>1.15</b>      | ROTOR <b>418143052CE</b>         |
| FRAME <b>447T</b>       | VOLTS <b>460</b>         | NEMA DESIGN <b>B</b>  | TEST S.O. <b>TYPICAL DATA</b>    |
| HP <b>200</b>           | AMPS <b>222</b>          | CODE LETTER <b>G</b>  | TEST DATE <b>---</b>             |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>TEFC</b> | STATOR RES. @ 25 °C <b>.0169</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/F</b> | E/S <b>---</b>        | 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.D.  
CK. BY E.J. CHRISTIAN  
APP. BY E.J. CHRISTIAN  
DATE 07/06/17

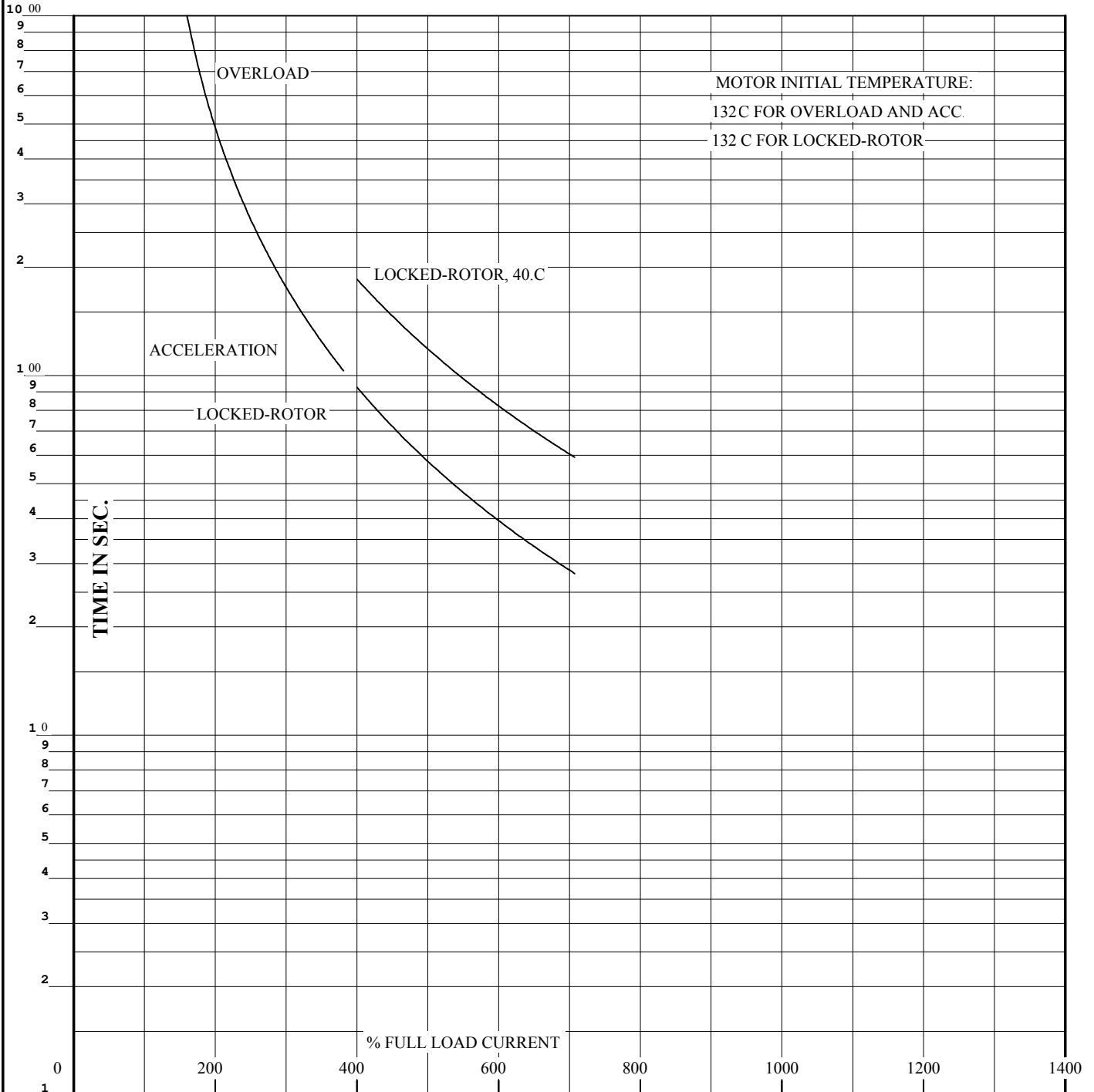
**A-C MOTOR  
PERFORMANCE  
CURVES**

A44WG1462-R001

ISSUE DATE 01/16/20

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|                         |                          |                       |                                  |
|-------------------------|--------------------------|-----------------------|----------------------------------|
| REL. S.O.               | RPM <b>1785</b>          | S.F. <b>1.15</b>      | ROTOR <b>418143052CE</b>         |
| FRAME <b>447T</b>       | VOLTS <b>460</b>         | NEMA DESIGN <b>B</b>  | TEST S.O. <b>TYPICAL DATA</b>    |
| HP <b>200</b>           | AMPS <b>222</b>          | CODE LETTER <b>G</b>  | TEST DATE <b>---</b>             |
| TYPE <b>P</b>           | DUTY <b>CONT</b>         | ENCLOSURE <b>TEFC</b> | STATOR RES. @ 25 °C <b>.0169</b> |
| PHASE/HERTZ <b>3/60</b> | AMB °C/INSUL <b>40/F</b> | E/S <b>---</b>        | OHMS (BETWEEN LINES)             |



**THERMAL LIMIT CURVE**

REMARKS: XE MOTOR-CALCULATED DATA-NEMA NOM. EFF. 96.2 PCT.

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



|         |                |
|---------|----------------|
| DR. BY  | C.D.           |
| CK. BY  | E.J. CHRISTIAN |
| APP. BY | E.J. CHRISTIAN |
| DATE    | 07/06/17       |

**A-C MOTOR  
PERFORMANCE  
CURVES**

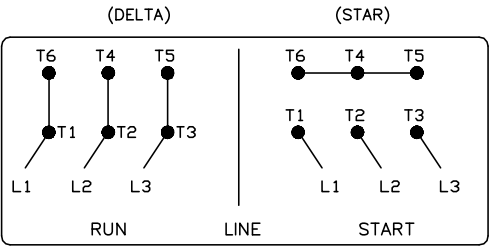
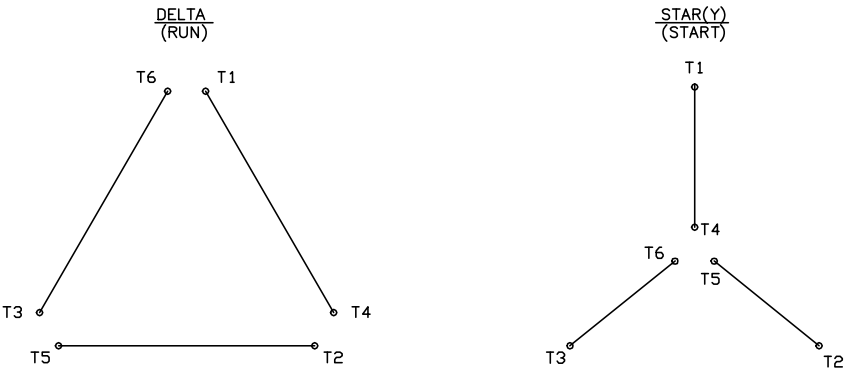
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416820-008

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