

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP4308T

40HP, 1190RPM, 3PH, 60HZ, 364T, A36062M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

**Specifications**

|                               |                                                                 |
|-------------------------------|-----------------------------------------------------------------|
| Enclosure                     | TEFC                                                            |
| Frame                         | 364T                                                            |
| Frame Material                | Iron                                                            |
| Frequency                     | 60.00 Hz                                                        |
| Haz Area Class and Group      | CLI GP A,B,C,D                                                  |
| Haz Area Division             | Division II                                                     |
| Motor Letter Type             | Three Phase                                                     |
| Output @ Frequency            | 40.000 HP @ 60 HZ                                               |
| Phase                         | 3                                                               |
| Synchronous Speed @ Frequency | 1200 RPM @ 60 HZ                                                |
| Voltage @ Frequency           | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                              |
| Agency Approvals              | CCSAUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR                 |
| Ambient Temperature           | 40 °C                                                           |
| Auxiliary Box                 | NO AUXILLARY BOX                                                |
| Base Indicator                | Rigid                                                           |
| Bearing Grease Type           | Polyrex EM (-20F +300F)                                         |
| Constant Torque Speed Range   | 6-60                                                            |
| Current @ Voltage             | 98.800 A @ 230.0 V<br>49.400 A @ 460.0 V<br>109.000 A @ 208.0 V |
| Design Code                   | B                                                               |
| Drip Cover                    | No Drip Cover                                                   |
| Duty Rating                   | CONT                                                            |
| Efficiency @ 100% Load        | 94.1 %                                                          |
| Feedback Device               | NO FEEDBACK                                                     |
| Haz Area Temp Code            | T3A                                                             |
| Heater Indicator              | No Heater                                                       |
| High Voltage Full Load Amps   | 49.4 a                                                          |

**Part Detail**

|              |            |
|--------------|------------|
| Revision     | V          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | A36WG0747  |
| Layout       | 617428-034 |
| Eff. date    | 08-26-2024 |
| CD Diagram   | 416820-002 |
| Poles        | 06         |
| Leads        | 3#4,6#6    |
| Proprietary  | False      |
| Created date | 10-19-2010 |

|                                      |                              |
|--------------------------------------|------------------------------|
| <b>Insulation Class</b>              | <b>F</b>                     |
| <b>Inverter Code</b>                 | <b>Inverter Duty</b>         |
| <b>KVA Code</b>                      | <b>G</b>                     |
| <b>Lifting Lugs</b>                  | <b>Standard Lifting Lugs</b> |
| <b>Max Speed</b>                     | <b>2700 rpm</b>              |
| <b>Motor Lead Quantity/Wire Size</b> | <b>3 @ 4 AWG</b>             |
| <b>Motor Standards</b>               | <b>NEMA</b>                  |
| <b>Motor Type</b>                    | <b>A36062M</b>               |
| <b>Mounting Arrangement</b>          | <b>F1</b>                    |
| <b>Number of Poles</b>               | <b>6</b>                     |
| <b>Overall Length</b>                | <b>33.49 IN</b>              |
| <b>Power Factor</b>                  | <b>80</b>                    |
| <b>Pulley End Bearing Type</b>       | <b>Ball</b>                  |
| <b>Pulley Face Code</b>              | <b>Standard</b>              |
| <b>Service Factor</b>                | <b>1.15</b>                  |
| <b>Shaft Diameter</b>                | <b>2.375 IN</b>              |
| <b>Shaft Ground Indicator</b>        | <b>No Shaft Grounding</b>    |
| <b>Shaft Rotation</b>                | <b>Reversible</b>            |
| <b>Shaft Slinger Indicator</b>       | <b>Shaft Slinger</b>         |
| <b>Speed</b>                         | <b>1190 rpm</b>              |
| <b>Speed Code</b>                    | <b>Single Speed</b>          |
| <b>Starting Method</b>               | <b>Direct on line</b>        |
| <b>Thermal Device - Bearing</b>      | <b>None</b>                  |
| <b>Thermal Device - Winding</b>      | <b>None</b>                  |

**Nameplate**

| NP4033LUA               |   |            |      |         |                  |      |                           |               |              |             |        |      |      |      |        |     |       |    |    |               |      |  |   |  |
|-------------------------|---|------------|------|---------|------------------|------|---------------------------|---------------|--------------|-------------|--------|------|------|------|--------|-----|-------|----|----|---------------|------|--|---|--|
| CAT #                   |   | ECP4308T   |      |         |                  |      | SER                       |               |              |             |        | CC   |      | 010A |        |     |       |    |    |               |      |  |   |  |
| SPEC                    |   | P36G3314   |      |         |                  |      | RATING                    |               | 40C AMB-CONT |             |        |      |      |      |        |     |       |    |    |               |      |  |   |  |
| HZ                      |   | VOLTS      |      |         | AMPS             |      |                           | RPM           |              | HP          |        | CODE |      | -    | SF     |     | DES   | PF |    | NEMA NOM. EFF |      |  |   |  |
| 60                      |   | 230/460    |      |         | 98.8/49.4        |      |                           | 1190          |              | 40          |        | G    |      |      | 1.15   |     | B     | 80 |    | %             | 94.1 |  | % |  |
|                         |   |            |      |         |                  |      |                           |               |              |             |        |      |      |      |        |     |       |    |    | %             |      |  | % |  |
| PH                      | 3 | CL         | F    | MAX RPM |                  | 2700 |                           | MAX CORR KVAR |              |             | 12     |      |      |      |        |     |       |    |    |               |      |  |   |  |
| BRG                     |   | DE         | 6313 |         | ODE              |      | 6313                      |               | ENCL         | TEFC        |        | FR   | 364T |      | IP     |     | 55    |    |    |               |      |  |   |  |
| GREASE                  |   | POLYREX EM |      |         |                  |      |                           |               |              |             | MTR WT |      |      | 903  |        | LBS |       |    |    |               |      |  |   |  |
| CL I DIV 2 GRPS A,B,C,D |   |            |      |         | CL I ZONE 2 GRPS |      |                           |               |              | IIA,IIB,IIC |        |      |      |      | TEMP T |     | 200   |    | C  |               |      |  |   |  |
| INV READY               |   |            | CT   | 15-60   |                  | HZ   | 4:1                       |               | VT           | 3-60        |        | HZ   | 20:1 |      | CHP    |     | 60-90 |    | HZ | 1.5:1         |      |  |   |  |
| INV TEMP CL             |   |            | 200  | C       | USABLE AT        |      | 50HZ 30HP 190/380V 98/49A |               |              |             |        |      |      |      | SF1.0  |     |       |    |    |               |      |  |   |  |
|                         |   |            |      |         |                  |      |                           |               |              |             |        |      |      |      |        |     |       |    |    |               |      |  |   |  |

**Parts List**

| Part number | Description                             | Quantity |
|-------------|-----------------------------------------|----------|
| SA208278    | SA P36G3314                             | 1.000 ea |
| RA195543    | RA P36G3314                             | 1.000 ea |
| NP4033LUA   | SS SUPER-E SD XEX, CLI DIV2, CURUS-EEV, | 1.000 ea |
| 000692000VD | LABEL WARNING                           | 1.000 ea |
| 421948032   | LABEL, MYLAR                            | 1.000 ea |
| 004824015A  | GREASE POLYREX EM                       | 0.544 lb |
| 032018008AK | HHCS 1/4-20X1 PLATED                    | 4.000 ea |
| 032018012DK | HHCS 1/2-13X1-1/2 PLTD. 032018012DR     | 4.000 ea |
| 032018024CK | HHCS 3/8-16X3 PLTD.                     | 3.000 ea |
| 034180012DA | KEY 1X4X1/4X1-1/2 L                     | 1.000 ea |
| 034530052AB | P/NIP 1/8X6-1/2 Zinc                    | 1.000 ea |
| 078550001M  | FAN KB 60/30 (30) 360                   | 1.000 ea |
| 078559034A  | +F/C A 078559001A - 360                 | 1.000 ea |
| 085922073B  | BRKT 360 085922072WCC KB                | 1.000 ea |
| 410700004F  | WSHR                                    | 1.000 ea |
| 415045002E  | SLGR                                    | 1.000 ea |
| 415072001B  | CLAMP                                   | 1.000 ea |
| 415096002A  | CPLG 1/8 HEX TYPE                       | 1.000 ea |
| 412118006A  | DRAIN                                   | 1.000 ea |
| 032018012DK | HHCS 1/2-13X1-1/2 PLTD. 032018012DR     | 4.000 ea |
| 032018024CK | HHCS 3/8-16X3 PLTD.                     | 3.000 ea |
| 034530020AB | P/NIP 1/8X2-1/2 PLTD                    | 1.000 ea |
| 085922073B  | BRKT 360 085922072WCC KB                | 1.000 ea |
| 415045002E  | SLGR                                    | 1.000 ea |
| 415096002A  | CPLG 1/8 HEX TYPE                       | 1.000 ea |
| 412118006A  | DRAIN                                   | 1.000 ea |
| 032018010CK | HHCS 3/8-16X1-1/4 PLTD. 032018010CR     | 4.000 ea |
| 033512008LB | HHTTS 1/4-20X1 PLATED                   | 4.000 ea |
| 034000014AB | WSH ID.406 OD.812 TH.065                | 4.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                      | 1.000 ea |
| 035000001A  | ALFTG 1/8" 1610-BL                      | 1.000 ea |

|              |                                        |          |
|--------------|----------------------------------------|----------|
| 065776000C   | GASKET,MAIN CBOX, 320-400              | 1.000 ea |
| 067053000B   | GASK 320-400                           | 1.000 ea |
| 076708000BB  | CONDUIT BOX-360                        | 1.000 ea |
| 076709000A   | C/B Cover - 360                        | 1.000 ea |
| 406099000A   | PLUG - FAN COVER 320-440               | 1.000 ea |
| 415000115H   | T/LUG #2AWG-4/0AWG                     | 1.000 ea |
| 418150003A   | GREASE FITTING CAP                     | 1.000 ea |
| 033775004EA  | DRSCR #6-1/4 304 S.S.                  | 4.000 ea |
| 418150003A   | GREASE FITTING CAP                     | 1.000 ea |
| 034180034HA  | KEY 5/8X5/8X4-1/4 L                    | 1.000 ea |
| MG1025N19    | WILKO 778.50 BLUE GREEN - 55 GAL DRUMS | 0.250 ga |
| 004824003CBY | WILKO PAINT 060.02 - ACTIVATOR         | 0.063 ga |
| 14PA1000     | PACKAGING 314 GROUP COMBINED PRINT     | 1.000 ea |
| 034530032BB  | P/NIP 1/4X4" SCHED 40                  | 1.000 ea |
| 034631002AB  | BUSH 1/4 TO 1/8 PLTD.                  | 1.000 ea |
| 035000001G   | GREASE RELIEF FITTING, ALEMITE 317400  | 1.000 ea |
| 034631002AB  | BUSH 1/4 TO 1/8 PLTD.                  | 1.000 ea |
| 034530020BB  | P/NIP 1/4X2-1/2 PLATED                 | 1.000 ea |
| 035000001G   | GREASE RELIEF FITTING, ALEMITE 317400  | 1.000 ea |
| 032018005DL  | 1/2-13 X 5/8 SILICON BRONZE HHCS       | 1.000 ea |

**Accessories**

| Part number | Description | Multiplier |
|-------------|-------------|------------|
| 14-1704     | C FACE KIT  |            |

|                                                                                                                                    |             |                                                                                                                             |                       |                                            |                |                                            |
|------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------|----------------|--------------------------------------------|
| ABB BALDOR<br>RELIANCE III<br>S/O                                                                                                  |             | CUSTOMER INFORMATION PACKET                                                                                                 |                       |                                            |                |                                            |
| FRAME                                                                                                                              |             | HP                                                                                                                          | TYPE                  | PHASE/<br>HERTZ                            | RPM            | VOLTS                                      |
| 364TC                                                                                                                              |             | 40                                                                                                                          | P                     | 3/60                                       | 1190           | 230/460                                    |
|                                                                                                                                    |             |                                                                                                                             |                       |                                            |                |                                            |
| AMPS                                                                                                                               | DUTY        | AMB °C/<br>INSUL                                                                                                            | S.F.                  | NEMA<br>DESIGN                             | CODE<br>LETTER | ENCLOSURE                                  |
| 98.8/49.4                                                                                                                          | 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) |                |                                            |
| 491378                                                                                                                             | 418141-74EE | ---                                                                                                                         | ---                   | .0380/.152                                 |                |                                            |
| PERFORMANCE                                                                                                                        |             |                                                                                                                             |                       |                                            |                |                                            |
| LOAD                                                                                                                               | HP          | AMPERES                                                                                                                     | RPM                   | % POWER FACTOR                             | % EFFICIENCY   |                                            |
| NO LOAD                                                                                                                            | 0           | 17.7                                                                                                                        | 1200                  | 5.41                                       | 0              |                                            |
| 1/4                                                                                                                                | 10.0        | 21.6                                                                                                                        | 1197                  | 48.3                                       | 90.0           |                                            |
| 2/4                                                                                                                                | 20.0        | 29.0                                                                                                                        | 1194                  | 69.0                                       | 93.6           |                                            |
| 3/4                                                                                                                                | 30.0        | 38.6                                                                                                                        | 1191                  | 77.2                                       | 94.3           |                                            |
| 4/4                                                                                                                                | 40.0        | 49.4                                                                                                                        | 1188                  | 80.5                                       | 94.2           |                                            |
| 5/4                                                                                                                                | 50.0        | 61.0                                                                                                                        | 1184                  | 81.9                                       | 93.7           |                                            |
|                                                                                                                                    |             |                                                                                                                             |                       |                                            |                |                                            |
| SPEED TORQUE                                                                                                                       |             |                                                                                                                             |                       |                                            |                |                                            |
|                                                                                                                                    |             | RPM                                                                                                                         | TORQUE<br>% FULL LOAD | TORQUE LB.-FT.                             | AMPERES        |                                            |
| LOCKED ROTOR                                                                                                                       |             | 0                                                                                                                           | 158                   | 280                                        | 290            |                                            |
| PULL UP                                                                                                                            |             | 480                                                                                                                         | 136                   | 241                                        | 270            |                                            |
| BREAKDOWN                                                                                                                          |             | 1135                                                                                                                        | 243                   | 430                                        | 167            |                                            |
| FULL LOAD                                                                                                                          |             | 1188                                                                                                                        | 100                   | 177                                        | 49.4           |                                            |
| AMPERES SHOWN FOR 460 VOLT CONNECTION. IF OTHER CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE. |             |                                                                                                                             |                       |                                            |                |                                            |
| TYPICAL DATA                                                                                                                       |             |                                                                                                                             |                       |                                            |                |                                            |
|                                                 |             | DRAWN BY: <u>W. L. SMITH</u><br>CHECKED BY: <u>J.J.HARRISON</u><br>APPROVED BY: <u>W. L. SMITH</u><br>DATE: <u>12/07/05</u> |                       | AC MOTOR<br>PERFORMANCE<br>DATA            |                | A36WG0747-R004<br><br>DATE ISSUED 02/25/14 |

FRAME 364TC

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 40

AMPS 98.8/49.4

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

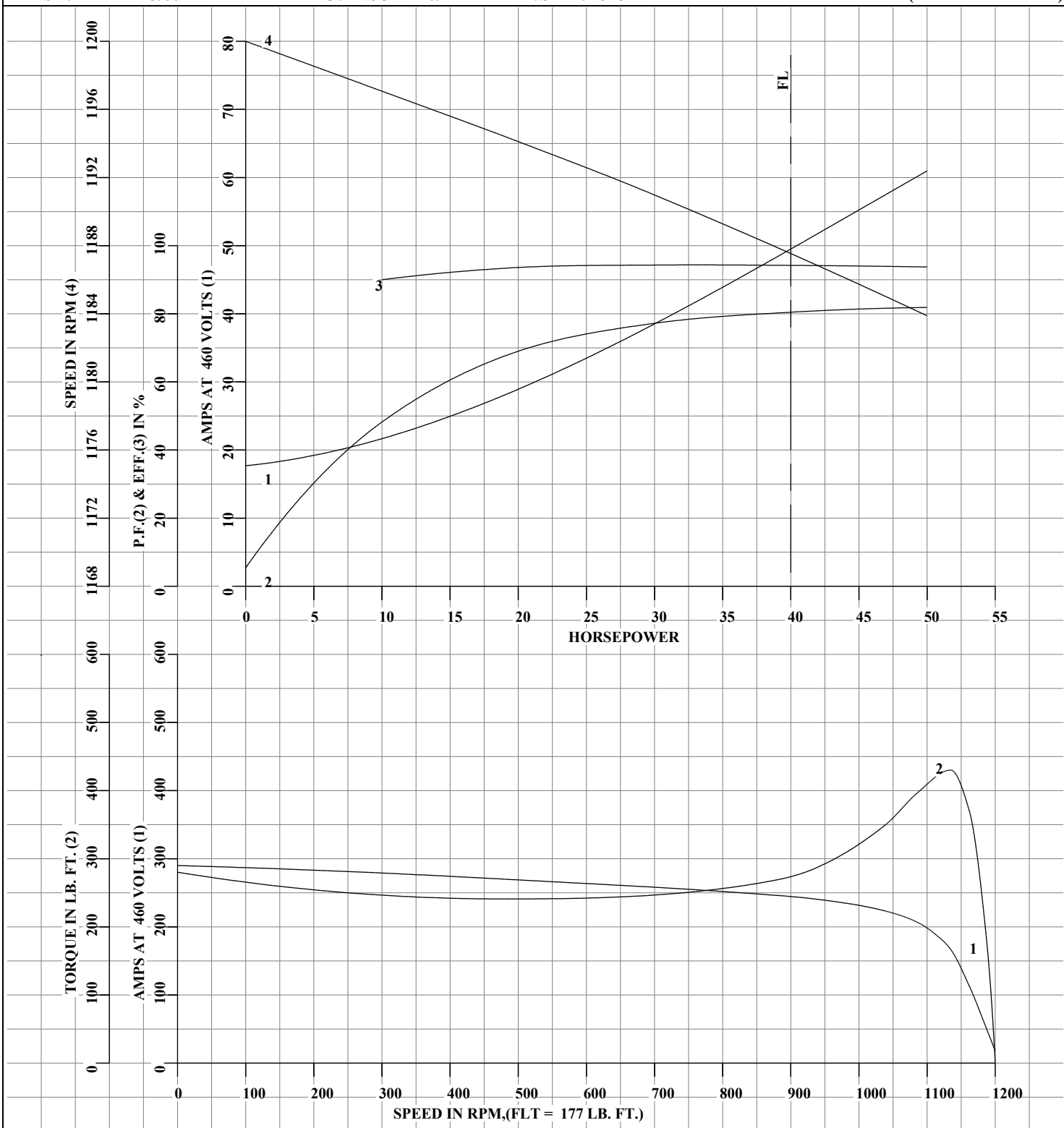
STATOR RES. @ 25°C .0380/.152

PHASE / HERTZ 3/60

AMB °C / INSUL 40/F

E/S 491378

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 230/460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



DRAWN BY: W. L. SMITH  
 CHECKED BY: J.J.HARRISON  
 APPROVED BY: W. L. SMITH  
 DATE: 12/07/05

AC MOTOR  
 PERFORMANCE  
 DATA

**A36WG0747-R004**

ISSUE DATE 02/25/14

FRAME 364TC

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 40

AMPS 98.8/49.4

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

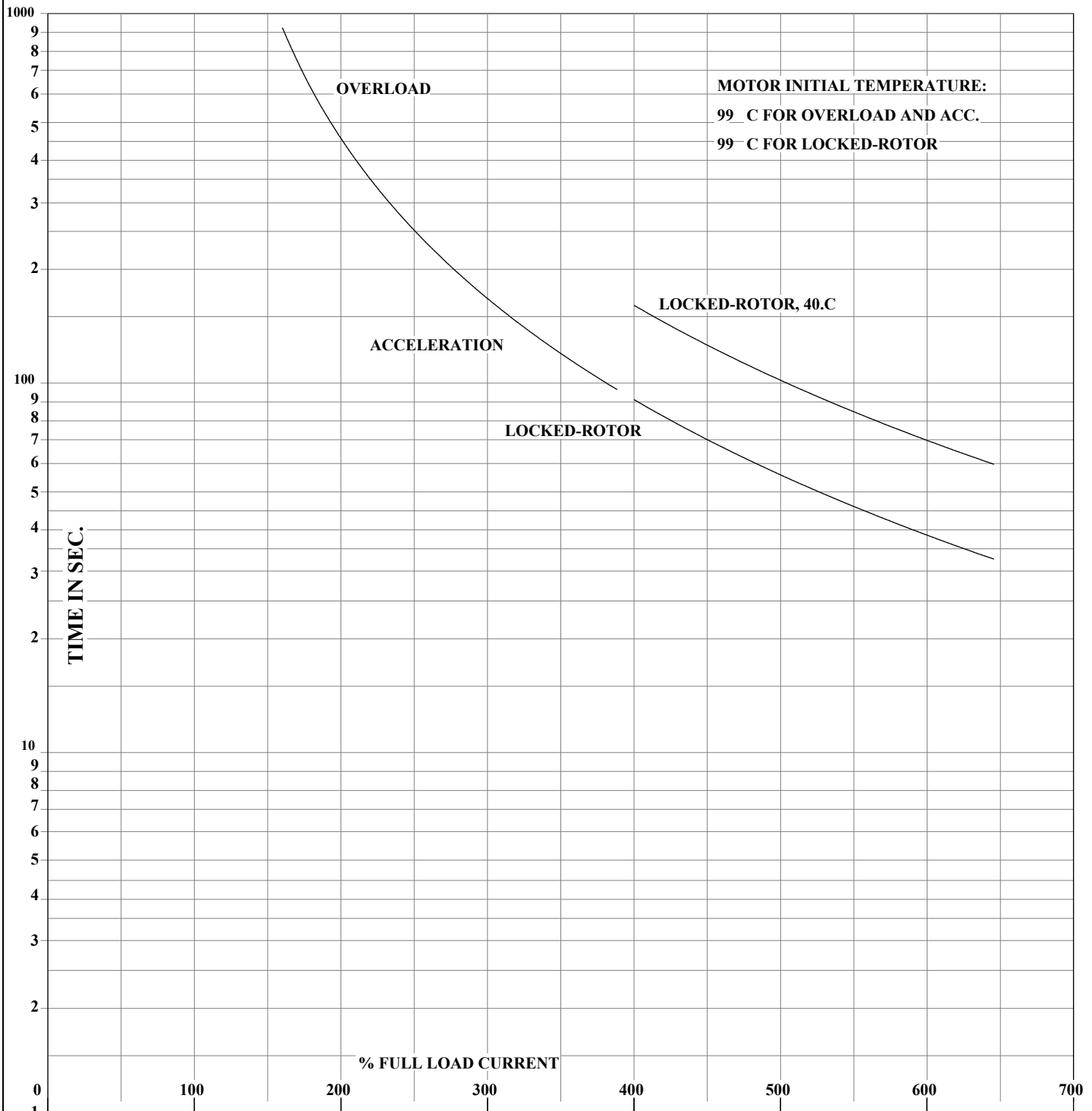
STATOR RES. @ 25°C .0380/.152

PHASE / HERTZ 3/60

AMB °C / INSUL 40/F

E/S 491378

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

AMPERES SHOWN FOR 230/460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

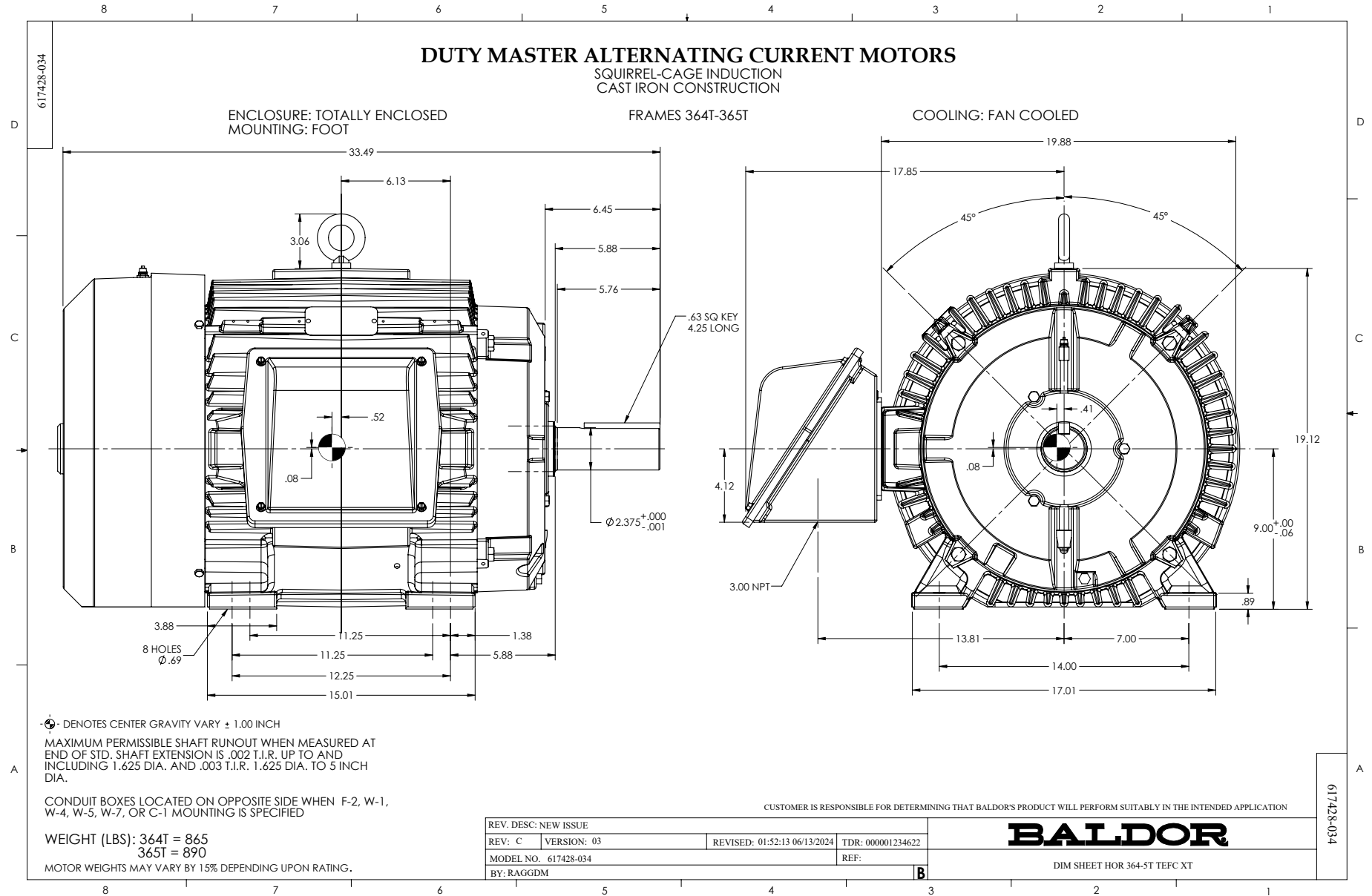


DRAWN BY: W. L. SMITH  
 CHECKED BY: J.J.HARRISON  
 APPROVED BY: W. L. SMITH  
 DATE: 12/07/05

AC MOTOR  
PERFORMANCE  
DATA

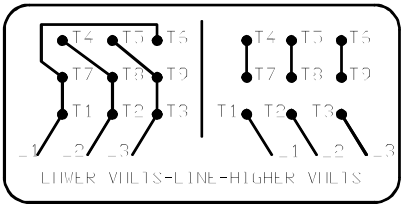
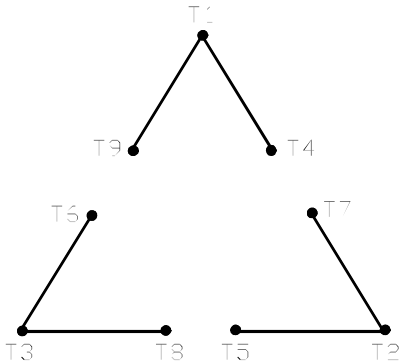
**A36WG0747-R004**

ISSUE DATE 02/25/14



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