

# **ABB BALDOR RELIANCE III**

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## **Customer information packet** CEM4310T

60HP, 3560RPM, 3PH, 60HZ, 364TSC, A36056M, TEF

Class - None

Division - Not Applicable

**Specifications**

|                                      |  |
|--------------------------------------|--|
| <b>Enclosure</b>                     | TEFC   |
| <b>Frame</b>                         | 364TSC   |
| <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>            | 60.000 HP @ 60 HZ  |
| <b>Phase</b>                         | 3  |
| <b>Synchronous Speed @ Frequency</b> | 3600 RPM @ 60 HZ   |
| <b>Voltage @ Frequency</b>           | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                               |
| <b>Agency Approvals</b>              | CURUSEEV<br>NEMA PREMIUM<br>NEMA PREMIUM (OLD LOGO)              |
| <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>             | 65.400 A @ 460.0 V<br>145.000 A @ 208.0 V<br>131.000 A @ 230.0 V |
| <b>Design Code</b>                   | B  |
| <b>Drip Cover</b>                    | No Drip Cover  |
| <b>Duty Rating</b>                   | CONT   |
| <b>Efficiency @ 100% Load</b>        | 94.5 %   |
| <b>Feedback Device</b>               | NO FEEDBACK  |
| <b>Heater Indicator</b>              | No Heater  |
| <b>High Voltage Full Load Amps</b>   | 65.4 a   |
| <b>Insulation Class</b>              | F  |
| <b>Inverter Code</b>                 | Inverter Duty  |
| <b>KVA Code</b>                      | G  |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | AA         |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  |            |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | A36WG0224  |
| <b>Layout</b>       | 617428-017 |
| <b>Eff. date</b>    | 10-28-2025 |
| <b>CD Diagram</b>   | 416820-002 |
| <b>Poles</b>        | 02         |
| <b>Leads</b>        | 3#4,6#6    |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 01-13-2011 |

| <b>Lifting Lugs</b>                  | <b>Standard Lifting Lugs</b> |
|--------------------------------------|------------------------------|
| <b>Max Speed</b>                     | 4500 rpm                     |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 4 AWG                    |
| <b>Motor Standards</b>               | NEMA                         |
| <b>Motor Type</b>                    | A36056M                      |
| <b>Mounting Arrangement</b>          | F1                           |
| <b>Number of Poles</b>               | 2                            |
| <b>Overall Length</b>                | 31.31 IN                     |
| <b>Power Factor</b>                  | 91                           |
| <b>Product Family</b>                | Other                        |
| <b>Pulley End Bearing Type</b>       | Ball                         |
| <b>Pulley Face Code</b>              | C-Face                       |
| <b>Service Factor</b>                | 1.15                         |
| <b>Shaft Diameter</b>                | 1.875 IN                     |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding           |
| <b>Shaft Rotation</b>                | Reversible                   |
| <b>Speed</b>                         | 3555 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**

**NP3979LUA**

|                      |                            |             |               |                      |              |             |            |           |                      |       |           |        |                    |
|----------------------|----------------------------|-------------|---------------|----------------------|--------------|-------------|------------|-----------|----------------------|-------|-----------|--------|--------------------|
| <b>CAT #</b>         | CEM4310T                   |             | <b>SER</b>    |                      |              | <b>CC</b>   | 010A       |           |                      |       |           |        |                    |
| <b>SPEC</b>          | P36G4676                   |             | <b>RATING</b> | 40C AMB-CONT         |              |             |            |           |                      |       |           |        |                    |
| <b>HZ</b>            | <b>VOLTS</b>               | <b>AMPS</b> | <b>RPM</b>    | <b>HP</b>            | <b>CODE</b>  | <b>- SF</b> | <b>DES</b> | <b>PF</b> | <b>NEMA NOM. EFF</b> |       |           |        |                    |
| 60                   | 230/460                    | 131/65.4    | 3555          | 60                   | G            | 1.15        | B          | 91 %      | 94.5 %               |       |           |        |                    |
|                      | -                          |             |               |                      |              |             |            | %         | %                    |       |           |        |                    |
| <b>PH</b>            | 3                          | <b>CL</b>   | F             | <b>MAX CORR KVAR</b> | 5            |             |            |           |                      |       |           |        |                    |
| <b>BRG</b>           | <b>DE</b>                  | 6313        | <b>ODE</b>    | 6313                 | <b>ENCL</b>  | TEFC        | <b>FR</b>  | 364TSC    | 54                   |       |           |        |                    |
| <b>GREASE</b>        | POLYREX EM                 |             |               | <b>MTR WT</b>        | 870          | <b>LBS</b>  |            |           |                      |       |           |        |                    |
| <b>USABLE AT</b>     | 50HZ 50HP 190/380V 132/66A |             |               |                      | <b>SF1.0</b> |             |            |           |                      |       |           |        |                    |
| <b>INVERTER DUTY</b> | <b>CT</b>                  | 15-60       | <b>HZ</b>     | 4:1                  | <b>VT</b>    | 3-60        | <b>HZ</b>  | 20:1      | <b>CHP</b>           | 60-75 | <b>HZ</b> | 1.25:1 | <b>1.0 SF VPWM</b> |
| <b>MAX RPM</b>       | 4500                       | <b>SFA</b>  | 151/75.5      |                      |              |             |            |           |                      |       |           |        |                    |

|                                    |           |  |                         |            |              |  |
|------------------------------------|-----------|--|-------------------------|------------|--------------|--|
| <b>CUSTOMER INFORMATION PACKET</b> |           | CEM4310T - 60HP, 3560RPM, 3PH, 60HZ, 364TSC, A36056M, TEFC |                         |            |              |  |
| <b>FRAME</b>                       | <b>HP</b> | <b>TYPE</b>  | <b>PHASE/<br/>HERTZ</b> | <b>RPM</b> | <b>VOLTS</b> |  |
| 364                                | 60        | P  | 3/60                    | 3555       | 230/460      |  |

|             |             |                          |             |                        |                        |                  |
|-------------|-------------|--------------------------|-------------|------------------------|------------------------|------------------|
| <b>AMPS</b> | <b>DUTY</b> | <b>AMB °C/<br/>INSUL</b> | <b>S.F.</b> | <b>NEMA<br/>DESIGN</b> | <b>CODE<br/>LETTER</b> | <b>ENCLOSURE</b> |
| 131/65.4    | CONT        | 40/F                     | 1.15        | B                      | G                      | TEFC             |

|            |              |                      |                      |  |  |  |
|------------|--------------|----------------------|----------------------|--|--|--|
| <b>E/S</b> | <b>ROTOR</b> | <b>TEST<br/>S.O.</b> | <b>TEST<br/>DATE</b> | <b>STATOR RES. @25 °C<br/>OHMS (BETWEEN LINES)</b> |  |  |
| 491281     | 418141005XE  | ---                  | ---                  | .0254/.101   |  |  |

**PERFORMANCE**


| <b>LOAD</b> | <b>HP</b> | <b>AMPERES</b> | <b>RPM</b> | <b>% POWER FACTOR</b> | <b>% EFFICIENCY</b> |
|-------------|-----------|----------------|------------|-----------------------|---------------------|
| NO LOAD     | 0         | 14.1           | 3600       | 7.60                  | 0                   |
| 1/4         | 15.0      | 20.9           | 3589       | 73.2                  | 92.1                |
| 2/4         | 30.0      | 33.6           | 3579       | 88.4                  | 94.7                |
| 3/4         | 45.0      | 48.8           | 3567       | 90.8                  | 95.0                |
| 4/4         | 60.0      | 65.4           | 3555       | 90.7                  | 94.6                |
| 5/4         | 75.0      | 82.7           | 3542       | 90.4                  | 94.0                |
|             |           |                |            |                       |                     |

**SPEED TORQUE**

|                     | <b>RPM</b> | <b>TORQUE<br/>% FULL LOAD</b> | <b>TORQUE LB.-FT.</b> | <b>AMPERES</b> |
|---------------------|------------|-------------------------------|-----------------------|----------------|
| <b>LOCKED ROTOR</b> | 0          | 205                           | 182                   | 431            |
| <b>PULL UP</b>      | 1565       | 178                           | 157                   | 352            |
| <b>BREAKDOWN</b>    | 3386       | 232                           | 205                   | 212            |
| <b>FULL LOAD</b>    | 3555       | 100                           | 88.6                  | 65.4           |

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

TYPICAL DATA  
XE MOTOR-NEMA NOM. EFF. 94.5 %  
GUARANTEED MIN. EFF. 93.6%

|   |                                    |  |                             |
|---|------------------------------------|--|-----------------------------|
|  | <b>DRAWN BY: W.L. SMITH</b>        | <b>AC MOTOR<br/>PERFORMANCE<br/>DATA</b> | <b>A36WG0224-R004</b>       |
|   | <b>CHECKED BY: G.R. WEBB</b>       |  |                             |
|   | <b>APPROVED BY: E.J. CHRISTIAN</b> |  |                             |
|   | <b>DATE: 03/11/02</b>              |  | <b>DATE ISSUED 01/11/22</b> |

FRAME 364

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 60

AMPS 131/65.4

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

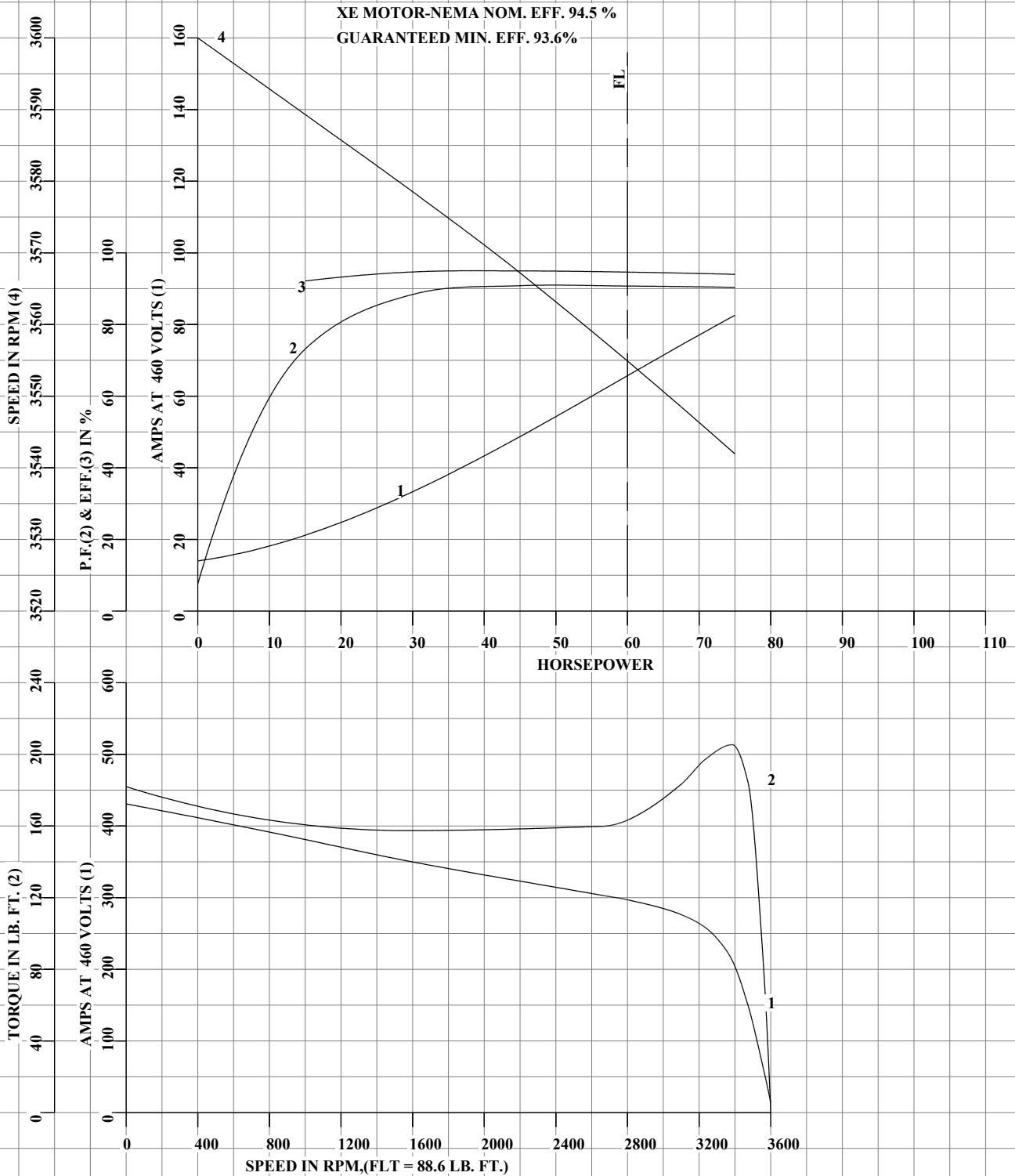
STATOR RES. @ 25°C .0254/.101

PHASE / HERTZ 3/60

AMB °C / INSUL 40/F

E/S 491281

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: G. R. WEBB  
 APPROVED BY: E.J. CHRISTIAN  
 DATE: 03/11/02

**AC MOTOR  
PERFORMANCE  
DATA**

**A36WG0224-R004**

ISSUE DATE 01/11/22

FRAME 364

RPM 3555

S.F. 1.15

ROTOR 4814005XE

HP 60

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

TYPE P

AMPS 131/65.4

CODE LETTER G

TEST DATE ---

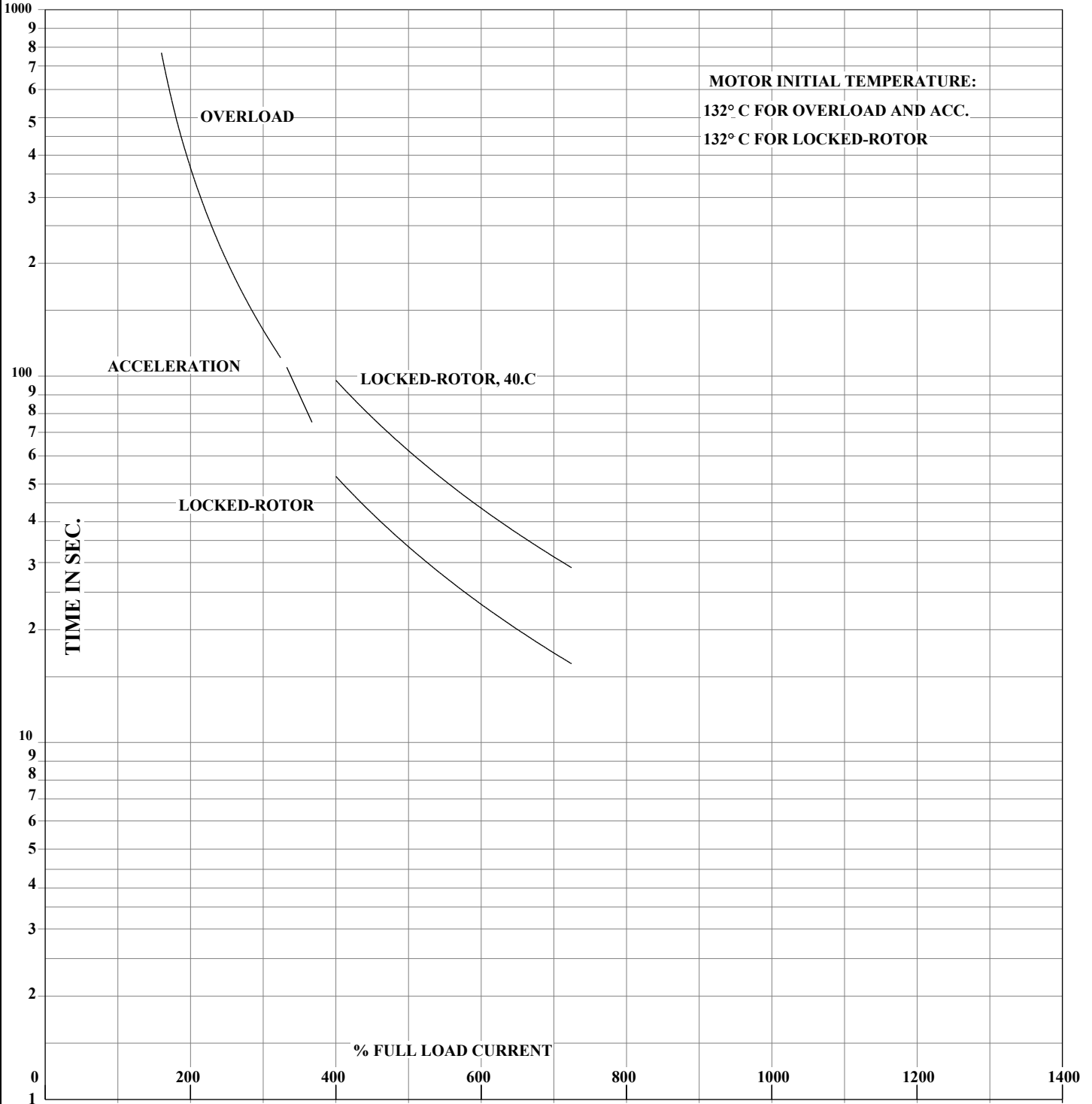
PHASE / HERTZ 3/60

DUTY CONT

ENCLOSURE TEFC

STATOR RES. @ 25°C .0254/.101

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE  
XE MOTOR-NEMA NOM. EFF. 94.5 %

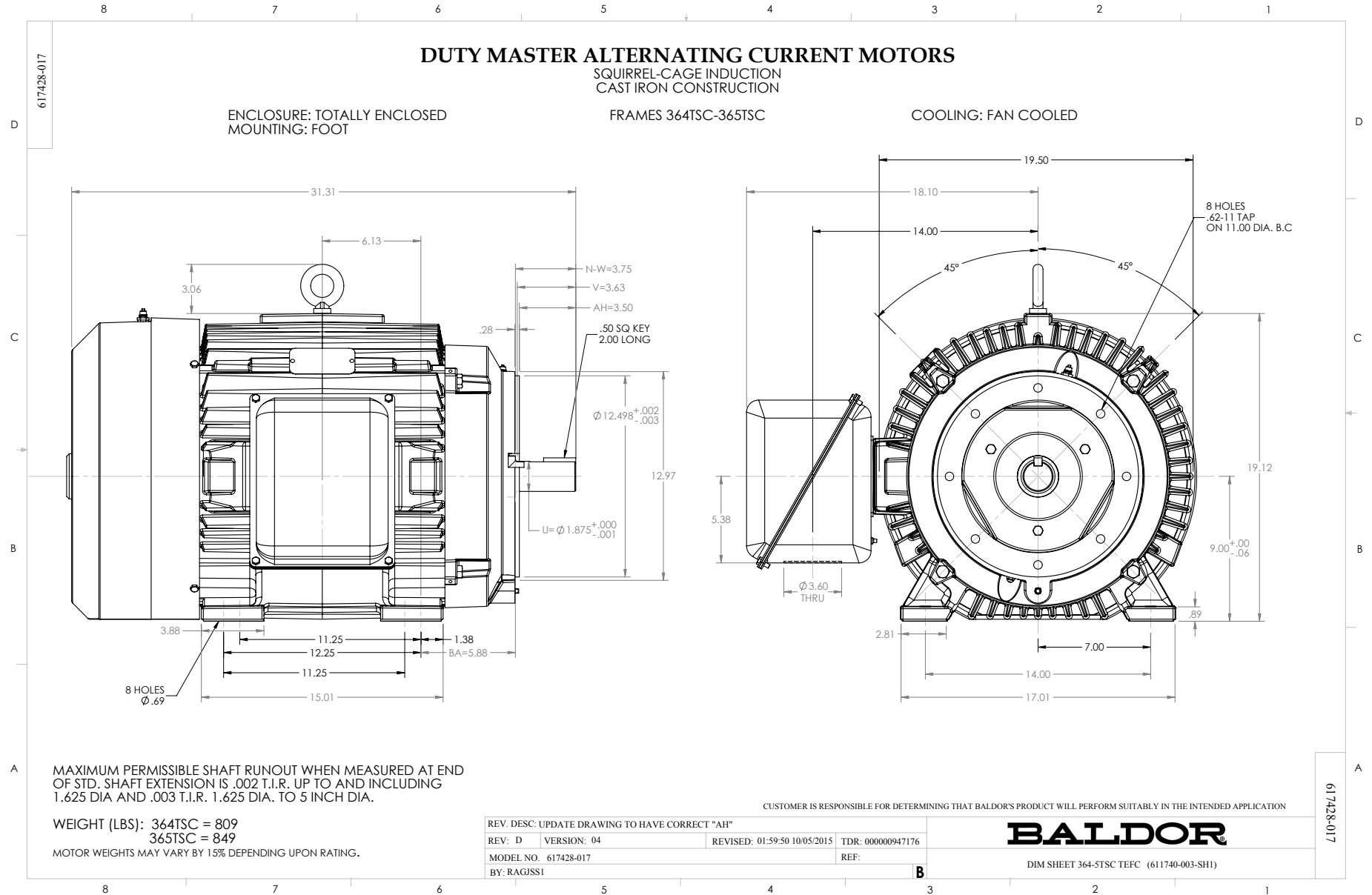
AMPERES SHOWN FOR 230/460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



DRAWN BY: W. L. SMITH  
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 DATE: 03/11/02

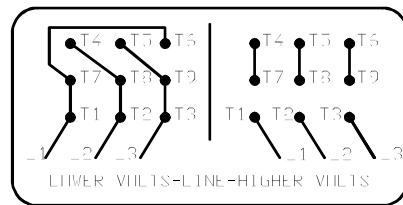
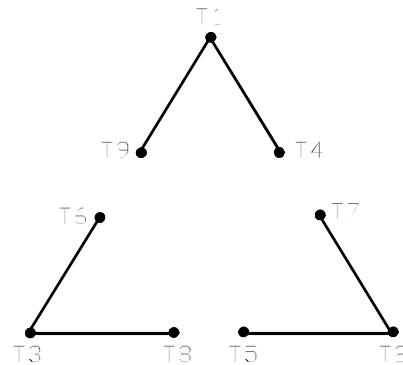
AC MOTOR  
PERFORMANCE  
DATA

**A36WG0224-R004**  
 ISSUE DATE 01/11/22



416820-002

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



(N.P. 1575-B)

416820-002

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**BALDOR - RELIANCE®**

CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH 1 of 1