

# ABB BALDOR RELIANCE III

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## Customer information packet

### ECP844256TR-4

250HP, 1189RPM, 3PH, 60HZ, 449T, TEFC, F1

Class - None

Division - Division II

**Specifications**

|                               |                                            |
|-------------------------------|--------------------------------------------|
| Enclosure                     | TEFC                                       |
| Frame                         | 449T                                       |
| Frame Material                | Iron                                       |
| Frequency                     | 60.00 Hz                                   |
| Haz Area Class and Group      | None                                       |
| Haz Area Division             | Division II                                |
| Motor Letter Type             | Three Phase                                |
| Output @ Frequency            | 250.000 HP @ 60 HZ                         |
| Phase                         | 3                                          |
| Synchronous Speed @ Frequency | 1200 RPM @ 60 HZ                           |
| Voltage @ Frequency           | 460.0 V @ 60 HZ                            |
| Agency Approvals              | CCSA US<br>CCSAUSEEV<br>NEMA_PREMIUM<br>UR |
| Ambient Temperature           | 40 °C                                      |
| Auxiliary Box                 | NO AUXILLARY BOX                           |
| Base Indicator                | Rigid                                      |
| Bearing Grease Type           | Mobil SHC 220 (Athens Only)                |
| Constant Torque Speed Range   | 30-60                                      |
| Current @ Voltage             | 286.000 A @ 460.0 V                        |
| Design Code                   | B                                          |
| Drip Cover                    | No Drip Cover                              |
| Duty Rating                   | CONT                                       |
| Efficiency @ 100% Load        | 95.8 %                                     |
| Enclosure Modification        | 661                                        |
| Feedback Device               | NO FEEDBACK                                |
| Haz Area Temp Code            | T3                                         |
| Heater Indicator              | No Heater                                  |
| High Voltage Full Load Amps   | 286.0 a                                    |
| Insulation Class              | F                                          |
| Inverter Code                 | Inverter Ready                             |

**Part Detail**

|              |                      |
|--------------|----------------------|
| Revision     | E                    |
| Type         | AC                   |
| Mech. spec.  |                      |
| Base         |                      |
| Status       | PRD/A                |
| Elec. spec.  | A44WG2257            |
| Layout       | 617434-845           |
| Eff. date    | 12-11-2023           |
| CD Diagram   | 416820-036           |
| Poles        | 06                   |
| Leads        | 3#1/0 (02 per group) |
| Proprietary  | False                |
| Created date | 10-01-2019           |

|                                      |                           |
|--------------------------------------|---------------------------|
| <b>KVA Code</b>                      | <b>G</b>                  |
| <b>Motor Lead Quantity/Wire Size</b> | <b>6 @ 1/0 AWG</b>        |
| <b>Motor Standards</b>               | <b>NEMA</b>               |
| <b>Motor Type</b>                    | <b>A44160M</b>            |
| <b>Mounting Arrangement</b>          | <b>F1</b>                 |
| <b>Number of Poles</b>               | <b>6</b>                  |
| <b>Overall Length</b>                | <b>53.47 IN</b>           |
| <b>Power Factor</b>                  | <b>86</b>                 |
| <b>Product Family</b>                | <b>General Industrial</b> |
| <b>Pulley End Bearing Type</b>       | <b>Roller</b>             |
| <b>Pulley Face Code</b>              | <b>Standard</b>           |
| <b>Service Factor</b>                | <b>1.15</b>               |
| <b>Shaft Diameter</b>                | <b>3.375 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>No Slinger</b>         |
| <b>Speed</b>                         | <b>1189 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**

| 000613007EY     |               |                          |               |      |
|-----------------|---------------|--------------------------|---------------|------|
| CAT NO          | ECP844256TR-4 | SPEC NO.                 | A44-9119-2257 |      |
| NO. ROTOR BARS  | 71            | GREASE TYPE              | MOBIL SHC 220 |      |
| NO. SLOTS       | 90            | NL AMPS AT RATED VOLTAGE |               | 86.8 |
| 5 YEAR WARRANTY |               | WINDING RES AT 25 C      | .0162         | OHMS |
| MFG. DATE       |               | SER.NO                   |               |      |
|                 |               |                          |               |      |

| 000901002AAA                  |  |
|-------------------------------|--|
| AIR COOLED HEAT EXCHANGER MTR |  |
| IP56 CONSTRUCTION             |  |
|                               |  |
|                               |  |
|                               |  |

**NP4565**

|                    |               |        |                 |              |               |       |               |      |                     |                       |      |             |    |
|--------------------|---------------|--------|-----------------|--------------|---------------|-------|---------------|------|---------------------|-----------------------|------|-------------|----|
| CAT NO             | ECP844256TR-4 |        |                 |              | SPEC NO.      |       | A44-9119-2257 |      |                     |                       |      |             |    |
| HP                 | 250           |        | AMPS            | 286          |               | VOLTS |               | 460  |                     | DESIGN                | B    |             |    |
| FRAME SIZE         | 449T          | RPM    | 1189            |              | HZ            | 60    | AMB           | 40   | SF                  | 1.15                  |      |             |    |
| D.E. BRG.DATA      | NU222         |        | O.D.E. BRG.DATA |              |               | 6318  |               | PH   | 3                   | DUTY                  | CONT | INSUL.CLASS | F  |
| D.E. BRG.          | 110RU02M30X   |        |                 | TYPE P       | P             | ENCL  | TEFC          | CODE | G                   |                       |      |             |    |
| O.D.E. BRG.        | 90BC03J30X    |        |                 | POWER FACTOR |               |       | 86            |      | NEMA-NOM-EFFICIENCY |                       |      | 95.8        |    |
| 3/4 LOAD EFF.      | 96.1          |        | IP              | 56           | MAX CORR KVAR |       |               | 53   |                     | GUARANTEED EFFICIENCY |      |             | 95 |
| TEMP CODE          | T3            | TEMP = |                 | 200          |               |       |               |      |                     |                       |      |             |    |
| CHP HZ             | 60-90         |        | CT HZ           | 30-60        |               | VT HZ | 0-60          |      |                     |                       |      |             |    |
| INVERTER-TEMP-CODE | T3            |        |                 |              |               |       |               |      |                     |                       |      |             |    |
| SER.NO.            |               |        |                 |              | MOTOR WEIGHT  |       |               |      |                     |                       |      |             |    |

|                                                                                                                                               |             |                      |                       |                                                                     |                 |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|-----------------------|---------------------------------------------------------------------|-----------------|-------|
| REL.<br>S.O.                                                                                                                                  | FRAME       | HP                   | TYPE                  | PHASE/<br>HERTZ                                                     | RPM             | VOLTS |
|                                                                                                                                               | 449LP       | 250                  | P                     | 3/60                                                                | 1189            | 460   |
| AMPS                                                                                                                                          | DUTY        | AMB °C/<br>INSUL.    | S.F.                  | NEMA<br>DESIGN                                                      | CODE<br>LETTER  | ENCL. |
| 286                                                                                                                                           | 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)                          |                 |       |
| -                                                                                                                                             | 418143090SE | ---                  | ---                   | .0162                                                               |                 |       |
| PERFORMANCE                                                                                                                                   |             |                      |                       |                                                                     |                 |       |
| LOAD                                                                                                                                          | HP          | AMPERES              | RPM                   | %<br>POWER FACTOR                                                   | %<br>EFFICIENCY |       |
| NO LOAD                                                                                                                                       | 0           | 87.8                 | 1200                  | 3.93                                                                | 0               |       |
| 1/4                                                                                                                                           | 62.6        | 112                  | 1197                  | 55.7                                                                | 93.8            |       |
| 2/4                                                                                                                                           | 125         | 160                  | 1195                  | 76.3                                                                | 95.8            |       |
| 3/4                                                                                                                                           | 187         | 220                  | 1192                  | 83.0                                                                | 96.0            |       |
| 4/4                                                                                                                                           | 250         | 286                  | 1189                  | 85.3                                                                | 95.8            |       |
| 5/4                                                                                                                                           | 312         | 355                  | 1186                  | 86.5                                                                | 95.3            |       |
| SPEED TORQUE                                                                                                                                  |             |                      |                       |                                                                     |                 |       |
|                                                                                                                                               |             | RPM                  | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                                                   | AMPERES         |       |
| LOCKED ROTOR                                                                                                                                  |             | 0                    | 162                   | 1786                                                                | 1847            |       |
| PULL UP                                                                                                                                       |             | 240                  | 142                   | 1566                                                                | 1791            |       |
| BREAKDOWN                                                                                                                                     |             | 1148                 | 252                   | 2788                                                                | 1052            |       |
| FULL LOAD                                                                                                                                     |             | 1189                 | 100                   | 1104                                                                | 286             |       |
| 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>NEMA NOM. EFF. 95.8 PCT.                                                                                             |             |                      |                       |                                                                     |                 |       |
|                                                            |             | DR. BY W. L. SMITH   |                       | A-C MOTOR<br>PERFORMANCE DATA A44WG2257-R026<br>ISSUE DATE 03/19/21 |                 |       |
|                                                                                                                                               |             | CK. BY C. E. JAMISON |                       |                                                                     |                 |       |
|                                                                                                                                               |             | APP. BY W. L. SMITH  |                       |                                                                     |                 |       |
|                                                                                                                                               |             | DATE 01/26/18        |                       |                                                                     |                 |       |
| Page 7 of 7                                                                                                                                   |             |                      |                       |                                                                     |                 |       |

REL S.O.

 RPM **1189**

 S.F. **1.15**

 ROTOR **418143090SE**

 FRAME **449LP**

 VOLTS **460**

 NEMA DESIGN **B**

 TEST S.O. **TYPICAL DATA**

 HP **250**

 AMPS **286**

 CODE LETTER **G**

TEST DATE ---

 TYPE **P**

 DUTY **CONT**

 ENCLOSURE **TEFC**

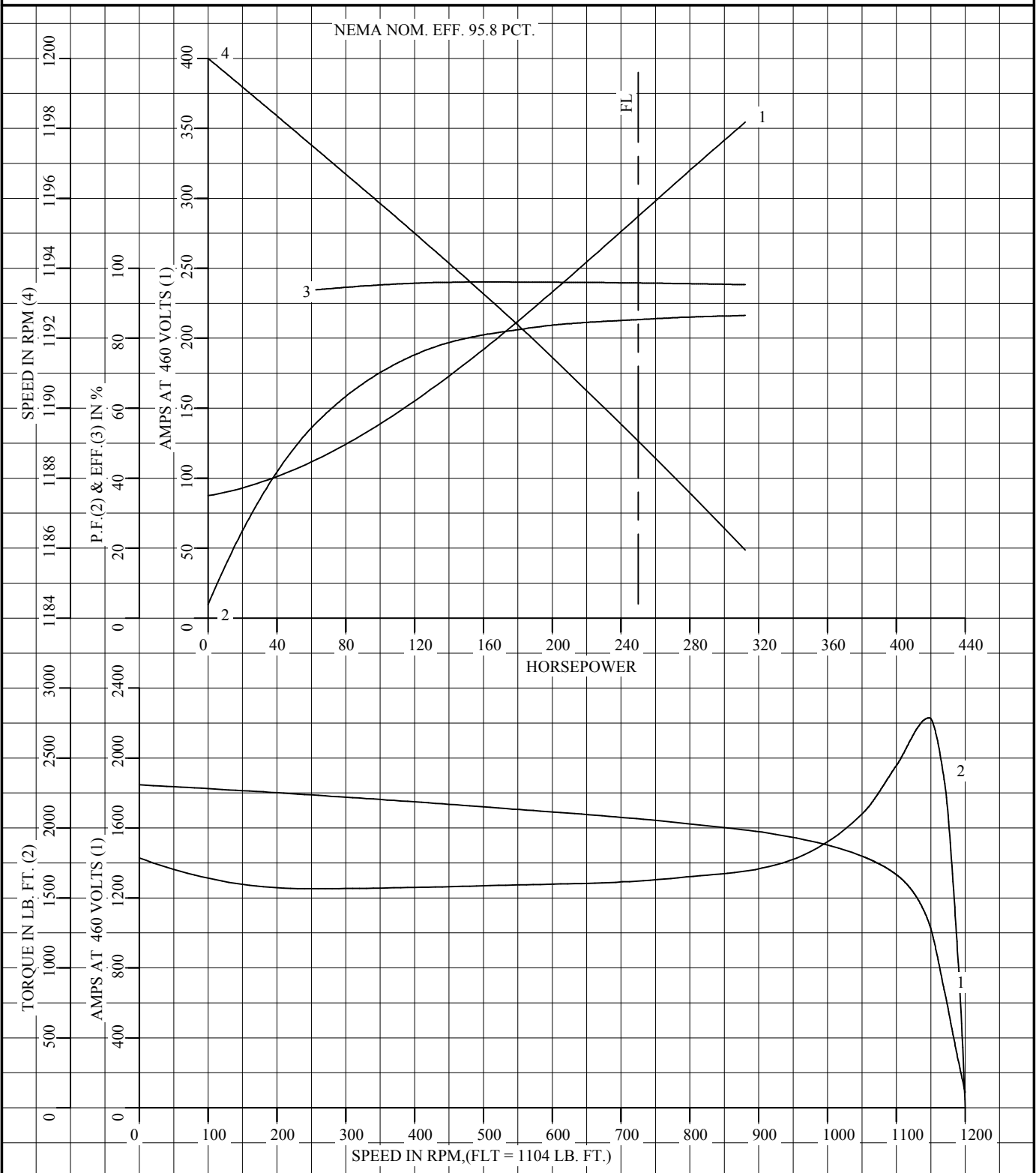
 STATOR RES. @ 25 °C **.0162**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

E/S ---

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 W. L. SMITH  
CK. BY C. E. JAMISON  
APP. BY W. L. SMITH  
DATE 01/26/18

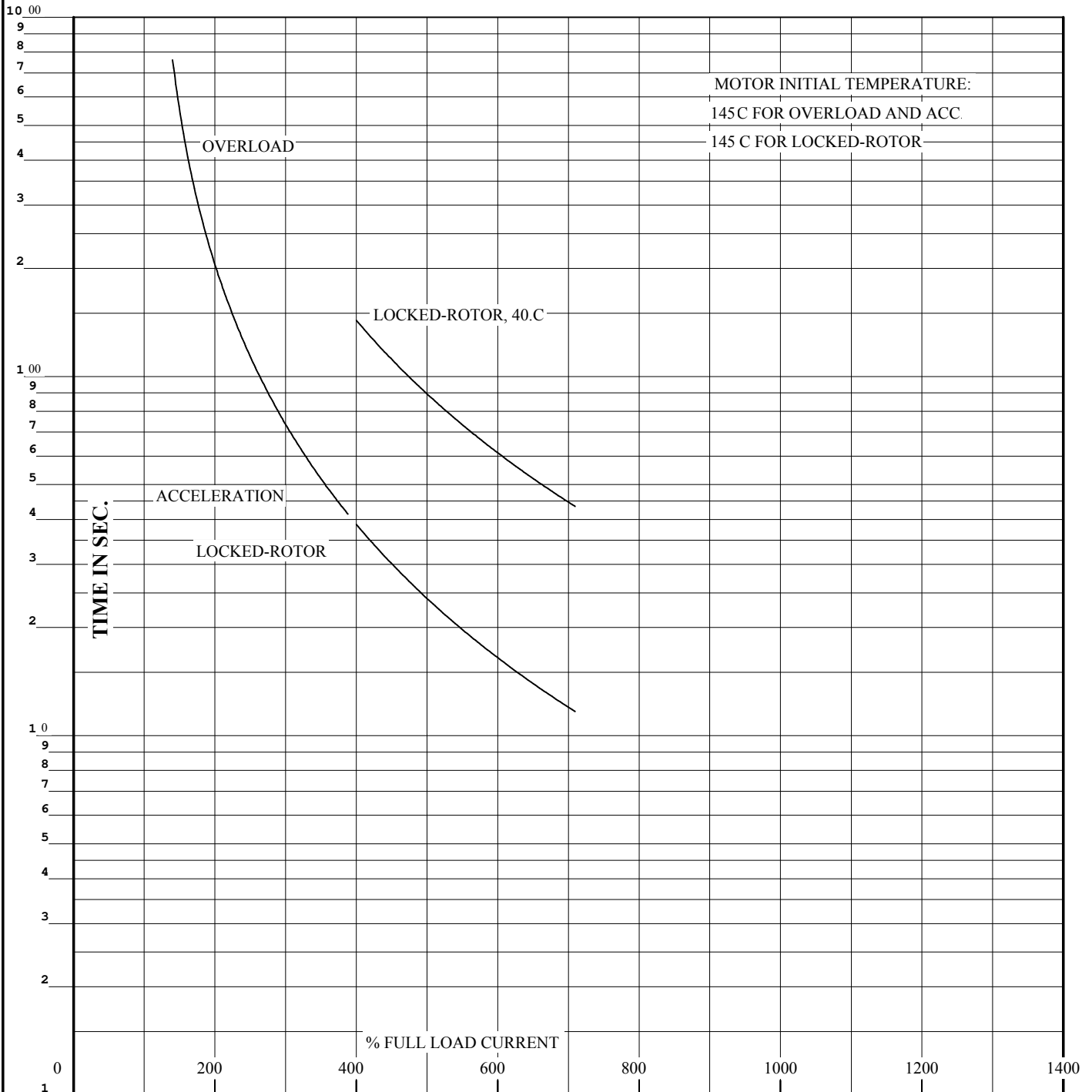
**A-C MOTOR  
PERFORMANCE  
CURVES**

**A44WG2257-R026**

ISSUE DATE **03/19/21**

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|                         |                          |                       |                                  |
|-------------------------|--------------------------|-----------------------|----------------------------------|
| REL. S.O.               | RPM <b>1189</b>          | S.F. <b>1.15</b>      | ROTOR <b>418143090SE</b>         |
| FRAME <b>449LP</b>      | VOLTS <b>460</b>         | NEMA DESIGN <b>B</b>  | TEST S.O. <b>TYPICAL DATA</b>    |
| HP <b>250</b>           | AMPS <b>286</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>.0162</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: NEMA NOM. EFF. 95.8 PCT.

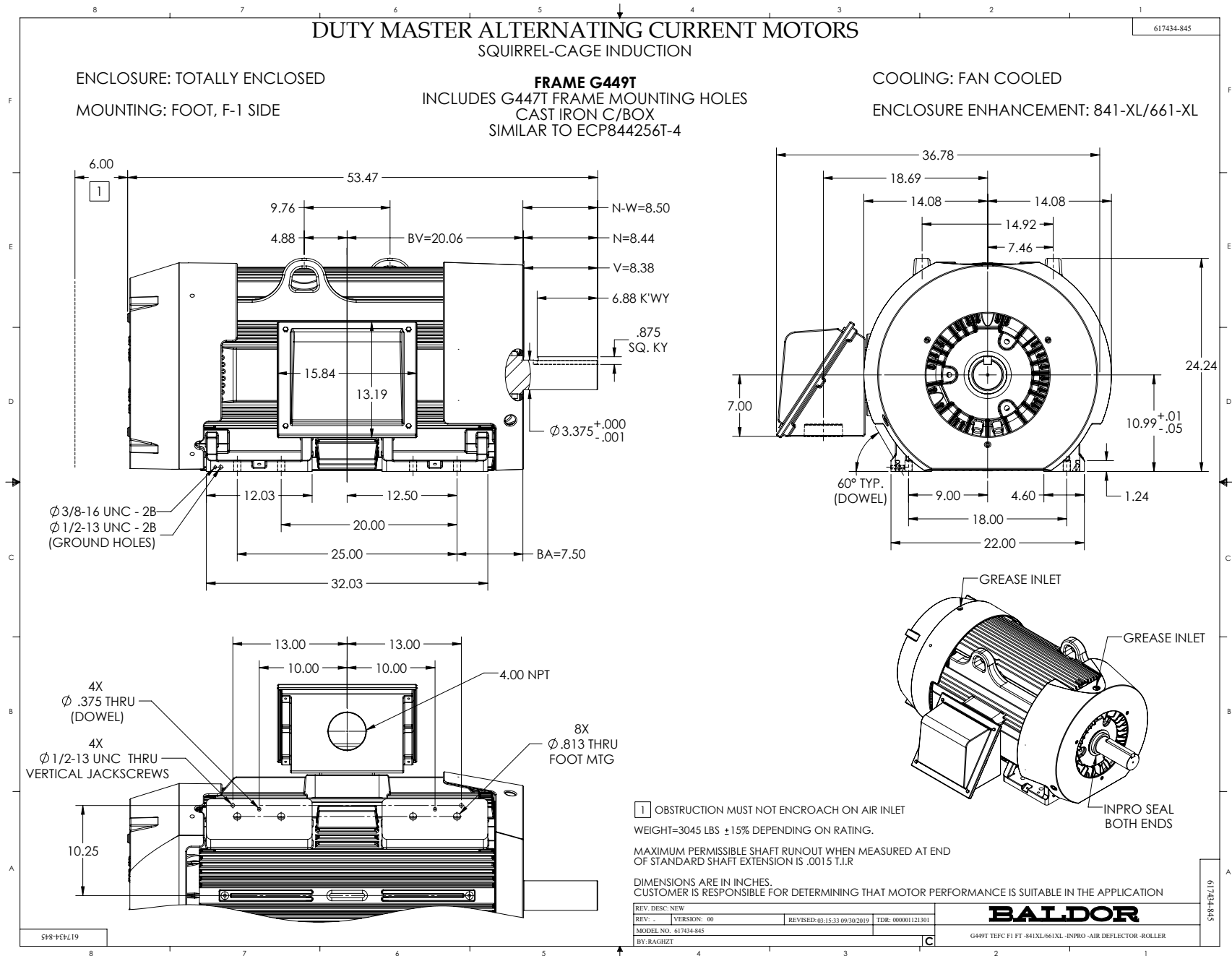
AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.



|         |               |
|---------|---------------|
| DR. BY  | W. L. SMITH   |
| CK. BY  | C. E. JAMISON |
| APP. BY | W. L. SMITH   |
| DATE    | 01/26/18      |

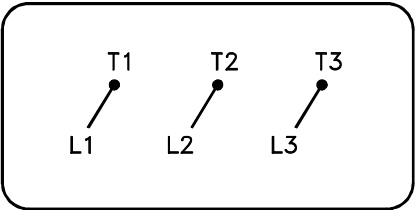
**A-C MOTOR  
PERFORMANCE  
CURVES**

|                                  |
|----------------------------------|
| A44WG2257-R026                   |
| ISSUE DATE 03/19/21 Page 9 of 11 |



416820-036

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD                      CONNECTED



(N.P. 1575-BA)

416820-036

|                                      |             |                                |
|--------------------------------------|-------------|--------------------------------|
| REV. DESC: LOADED TO BUS, C/R 335225 |             |                                |
| REV. LTR: -                          | VERSION: 00 | TDR: 000000538207              |
| FILE: \MGA\00000\682                 |             | REVISED: 11: 54: 06 04/30/2010 |
| MTL: -                               |             | BY: RAGRA                      |

**BALDOR**

CONN DIAG - STANDARD 3 LEAD  
SH 1 of 1