

**BALDOR • RELIANCE**

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# Customer information packet

## EFM4316T

75HP, 1780RPM, 3PH, 60HZ, 365T, 1482M, TEFC, F2

Class - None

Division - Not Applicable

## Specifications

|                               |  |
|-------------------------------|--|
| Enclosure                     | TEFC   |
| Frame                         | 365T   |
| Frame Material                | Iron   |
| Frequency                     | 60.00 Hz   |
| Motor Letter Type             | Three Phase  |
| Output @ Frequency            | 75.000 HP @ 60 HZ  |
| Phase                         | 3  |
| Synchronous Speed @ Frequency | 1800 RPM @ 60 HZ   |
| Voltage @ Frequency           | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                               |
| XP Class and Group            | None   |
| XP Division                   | Not Applicable   |
| Agency Approvals              | CCSAUSEEV<br>NEMA PREMIUM<br>NEMA_PREMIUM<br>UR                  |
| Ambient Temperature           | 40 °C  |
| Auxillary Box                 | No Auxillary Box   |
| Base Indicator                | Rigid  |
| Bearing Grease Type           | Polyrex EM (-20F +300F)  |
| Current @ Voltage             | 87.000 A @ 460.0 V<br>189.000 A @ 208.0 V<br>174.000 A @ 230.0 V |
| Design Code                   | B  |
| Drip Cover                    | No Drip Cover  |
| Duty Rating                   | CONT   |
| Efficiency @ 100% Load        | 95.4 %   |
| Feedback Device               | NO FEEDBACK  |
| Heater Indicator              | No Heater  |
| High Voltage Full Load Amps   | 87.0 a   |
| Insulation Class              | F  |
| Inverter Code                 | Inverter Ready   |

## Part detail

|              |            |
|--------------|------------|
| Revision     | A          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | A36WG4148  |
| Layout       | 617428-078 |
| Eff. date    | 07-01-2022 |
| CD Diagram   | 416820-002 |
| Poles        | 04         |
| Leads        | 3#4,6#6    |
| Proprietary  | False      |
| Created date | 11-08-2021 |

|                                      |                    |
|--------------------------------------|--------------------|
| <b>KVA Code</b>                      | G                  |
| <b>Lifting Lugs</b>                  | No Lifting Lugs    |
| <b>Max Speed</b>                     | 2700 rpm           |
| <b>Motor Lead Quantity/Wire Size</b> | 3 @ 4 AWG          |
| <b>Motor Standards</b>               | NEMA               |
| <b>Motor Type</b>                    | A36070M            |
| <b>Mounting Arrangement</b>          | F2                 |
| <b>Number of Poles</b>               | 4                  |
| <b>Overall Length</b>                | 33.44 IN           |
| <b>Power Factor</b>                  | 86                 |
| <b>Pulley End Bearing Type</b>       | Ball               |
| <b>Pulley Face Code</b>              | Standard           |
| <b>Service Factor</b>                | 1.15               |
| <b>Shaft Diameter</b>                | 2.375 IN           |
| <b>Shaft Ground Indicator</b>        | No Shaft Grounding |
| <b>Shaft Rotation</b>                | Reversible         |
| <b>Shaft Slinger Indicator</b>       | Shaft Slinger      |
| <b>Speed</b>                         | 1780 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>         | EFM4316T                   |            | <b>SER</b>    |                      |               | <b>CC</b>             | 010A      |            |             |                      |           |       |                    |
| <b>SPEC</b>          | A36-0007-4148              |            | <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                    |            | 174/87        | 1780                 | 75            | G                     | 1.15      | B          | 86 %        | 95.4 %               |           |       |                    |
|                      | -                          |            |               |                      |               |                       |           |            | %           |                      | %         |       |                    |
| <b>PH</b>            | 3                          | <b>CL</b>  | F             | <b>MAX CORR KVAR</b> | 16            | <b>USABLE AT 208V</b> | N/A       | <b>A</b>   |             |                      |           |       |                    |
| <b>BRG</b>           | <b>DE</b>                  | 6313       | <b>ODE</b>    | 6313                 | <b>ENCL</b>   | TEFC                  | <b>FR</b> | 365T       | <b>IP54</b> |                      |           |       |                    |
| <b>GREASE</b>        | POLYREX EM                 |            |               |                      | <b>MTR WT</b> |                       |           | <b>LBS</b> |             |                      |           |       |                    |
| <b>USABLE AT</b>     | 50HZ 60HP 190/380V 168/84A |            |               |                      | <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>  | 60-90                | <b>HZ</b> | 1.5:1 | <b>1.0 SF VPWM</b> |
| <b>MAX RPM</b>       | 2700                       | SFA 198/99 |               |                      |               |                       |           |            |             |                      |           |       |                    |

## AC induction motor performance data

Record #83645 - Typical performance - not guaranteed values

|           |           |
|-----------|-----------|
| Winding   | A36WG4148 |
| Type      | A36070M   |
| Enclosure | TEFC      |

## Nameplate data

|                |      |              |         |
|----------------|------|--------------|---------|
| Rated Output   |      |              | 75      |
| Volts          |      |              | 230/460 |
| Full Load Amps |      |              | 174/87  |
| R.P.M.         |      |              | 1780    |
| Hz             | 60   | Phase        | 3       |
| KVA Code       |      |              | G       |
| S.F.           |      |              | 1.15    |
| NEMA Nom. Eff. | 95.4 | Power Factor | 86      |
| Duty           |      |              | CONT    |
| S.F. Amps      |      |              |         |

## 460 V, 60 Hz:

## High Voltage Connection

|                           |                         |
|---------------------------|-------------------------|
| Full Load Torque          | 220 LB-FT               |
| Start Configuration       | direct on line          |
| Breakdown Torque          | 487 LB-FT               |
| Pull-up Torque            | 350 LB-FT               |
| Locked-rotor Torque       | 420 LB-FT               |
| Starting Current          | 542 A                   |
| No-load Current           | 28.17                   |
| Line-line Res. @ 25°C     | 0.0948 $\Omega$         |
| Temp. Rise @ Rated Load   | 56°C                    |
| Temp. Rise @ S.F. Load    | 71°C                    |
| Locked-rotor Power Factor | 35.7                    |
| Rotor inertia             | 16.2 lb-ft <sup>2</sup> |

## Load Characteristics 460 V, 60 Hz, 75 HP

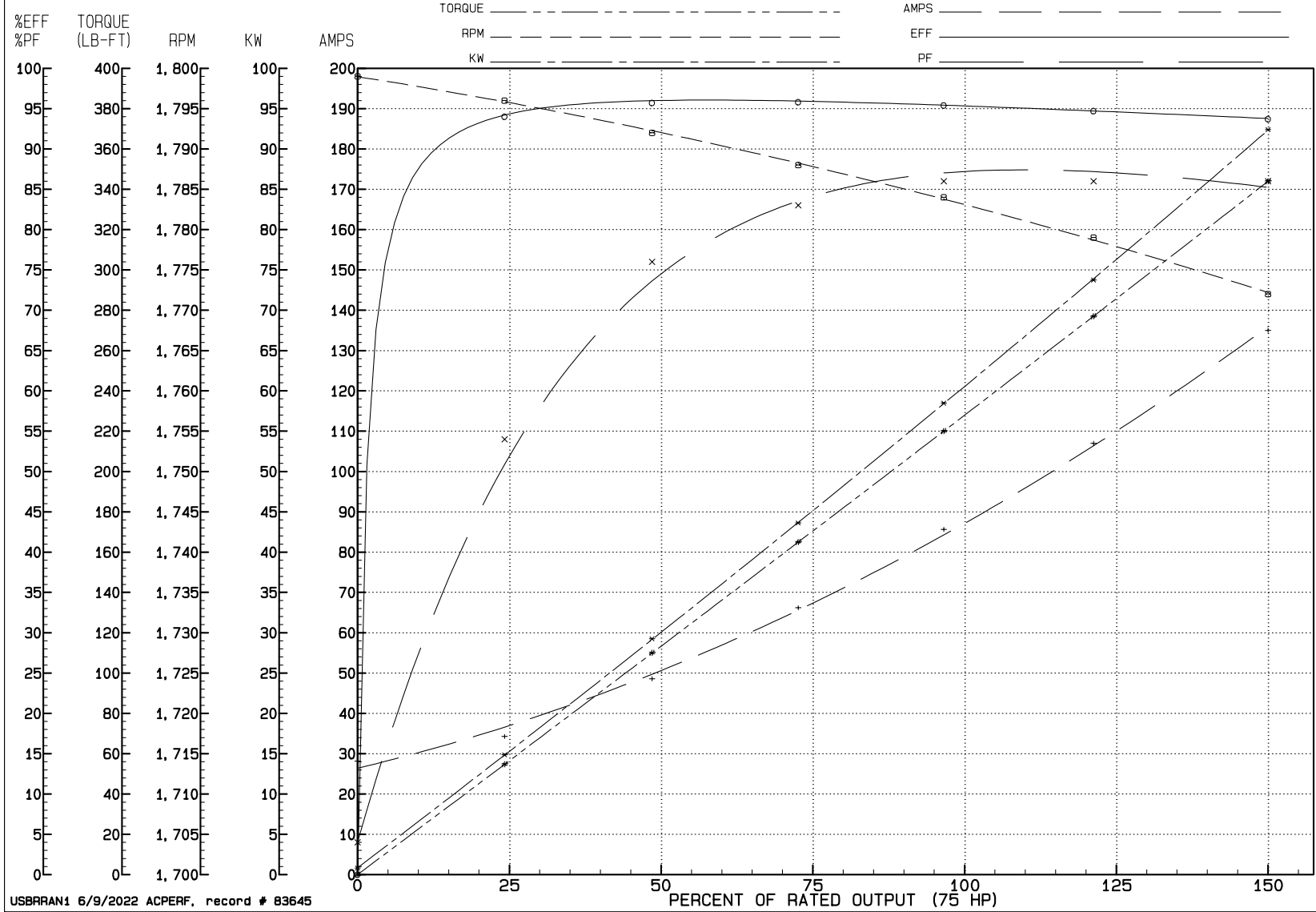
| % of Rated Load | NL    | 25   | 50    | 75    | 100   | 125  | 150  | SF   |
|-----------------|-------|------|-------|-------|-------|------|------|------|
| Power Factor    | 4     | 54   | 76    | 83    | 86    | 86   | 86   | 86   |
| Efficiency      | 0     | 94   | 95.7  | 95.8  | 95.4  | 94.7 | 93.7 | 94.8 |
| Speed           | 1799  | 1796 | 1792  | 1788  | 1784  | 1779 | 1772 | 1779 |
| Line amperes    | 28.17 | 34.3 | 48.59 | 66.19 | 85.65 | 107  | 135  | 99.2 |

# REVIEW

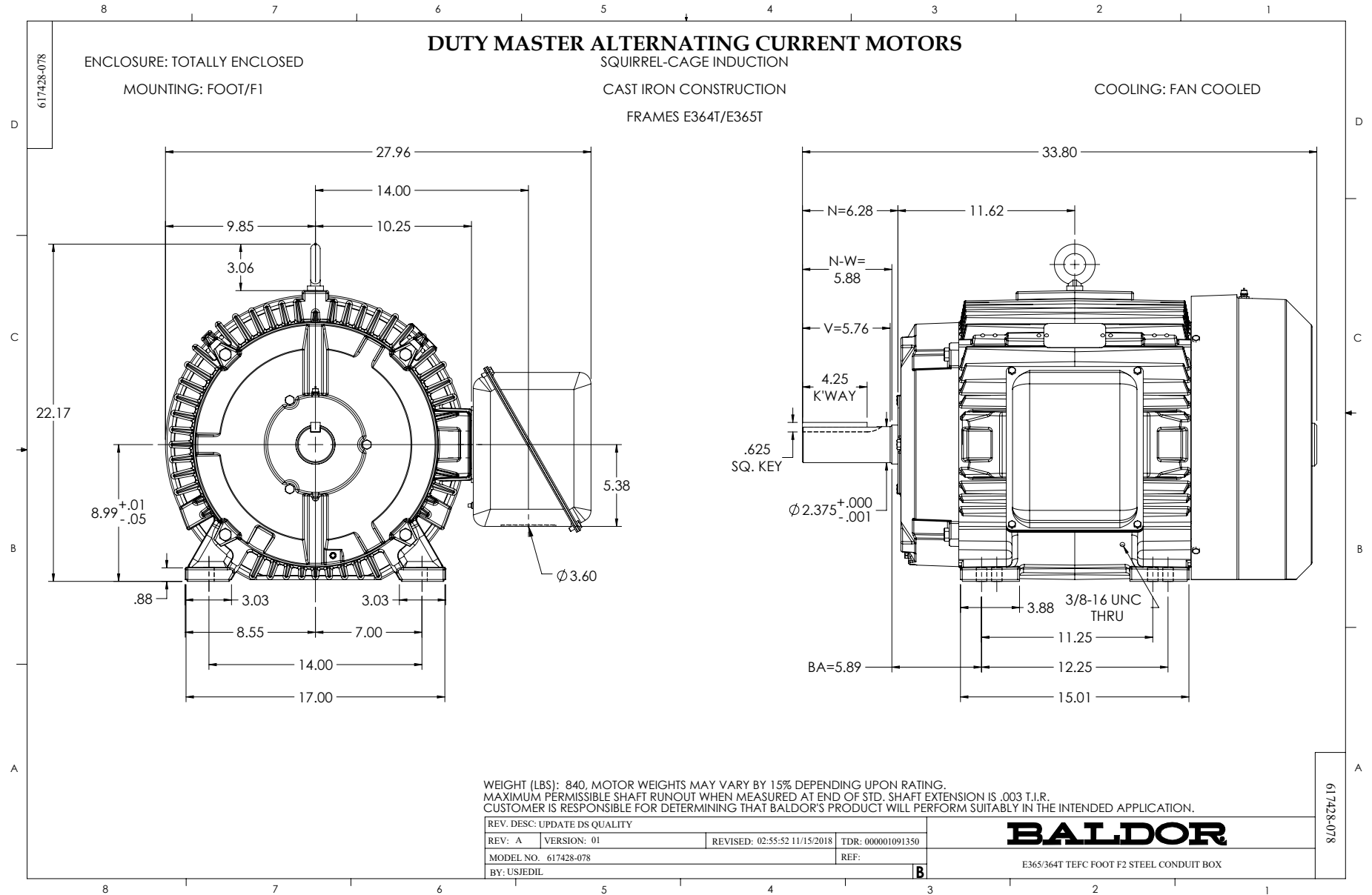
WINDING # A36WG4148

75 HP 3 PH 60 HZ 1780 RPM 460 V A36070M

TORQUES (LB-FT): PO=487.00 PU=350.00 LR=420.00 LRA=542.00

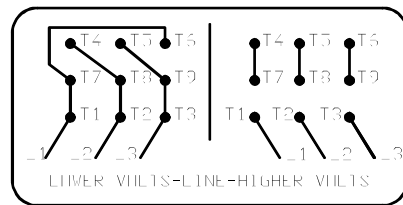
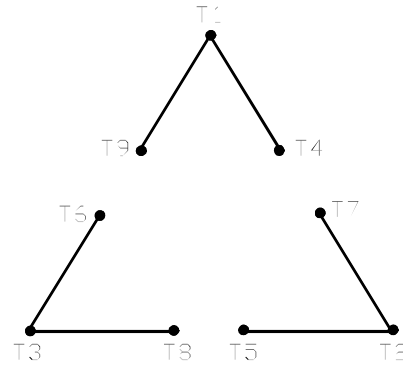


USBRRAN1 6/9/2022 ACPERF, record # 83645



416820-002

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



(N.P. 1575-B)

416820-002

|   |                              |                   |
|---|------------------------------|-------------------|
| 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: -                                    |                              | © □               |

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CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

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