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# Customer information packet

## EM4402T-4

100HP, 3565RPM, 3PH, 60HZ, 405TS, A40060M, TEF

Class - None

Division - Not Applicable

## Specifications

|                               |                         |
|-------------------------------|-------------------------|
| Enclosure                     | TEFC                    |
| Frame                         | 405TS                   |
| 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            | 100.000 HP @ 60 HZ      |
| Phase                         | 3                       |
| Synchronous Speed @ Frequency | 3600 RPM @ 60 HZ        |
| Voltage @ Frequency           | 460.0 V @ 60 HZ         |
| Agency Approvals              | CCSAUSEEV               |
| Ambient Temperature           | 40 °C                   |
| Auxiliary Box                 | NO AUXILLARY BOX        |
| Base Indicator                | Rigid                   |
| Bearing Grease Type           | Polyrex EM (-20F +300F) |
| Current @ Voltage             | 110.000 A @ 460.0 V     |
| Design Code                   | B                       |
| Drip Cover                    | No Drip Cover           |
| Duty Rating                   | CONT                    |
| Efficiency @ 100% Load        | 95.0 %                  |
| Feedback Device               | NO FEEDBACK             |
| Heater Indicator              | No Heater               |
| High Voltage Full Load Amps   | 110.0 a                 |
| Insulation Class              | F                       |
| Inverter Code                 | Inverter Ready          |
| IP Rating                     | NONE                    |
| KVA Code                      | F                       |
| Lifting Lugs                  | Standard Lifting Lugs   |
| Motor Lead Quantity/Wire Size | 6 @ 4 AWG               |
| Motor Standards               | NEMA                    |
| Motor Type                    | A40060M                 |

## Part detail

|              |            |
|--------------|------------|
| Revision     | R          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | A40WG1270  |
| Layout       | 617429-002 |
| Eff. date    | 09-04-2024 |
| CD Diagram   | 416820-008 |
| Poles        | 02         |
| Leads        | 6#4        |
| Proprietary  | False      |
| Created date | 07-17-2013 |

|                                 |                       |
|---------------------------------|-----------------------|
| <b>Mounting Arrangement</b>     | F1                    |
| <b>Number of Poles</b>          | 2                     |
| <b>Overall Length</b>           | 35.04 IN              |
| <b>Power Factor</b>             | 90                    |
| <b>Product Family</b>           | General Industrial    |
| <b>Pulley End Bearing Type</b>  | Ball                  |
| <b>Pulley Face Code</b>         | Standard              |
| <b>Service Factor</b>           | 1.15                  |
| <b>Shaft Diameter</b>           | 2.125 IN              |
| <b>Shaft Ground Indicator</b>   | No Shaft Grounding    |
| <b>Shaft Rotation</b>           | Reversible            |
| <b>Shaft Slinger Indicator</b>  | No Slinger            |
| <b>Speed</b>                    | 3565 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.          | P40G3929   |       |      | CAT.NO.      | EM4402T-4   |                         |                     |                       | FRAME | 405TS |      |
| HP                | 100        | VOLTS | 460  |              | PHASE       | 3                       | DESIGN              | B                     | TYPE  | P     |      |
| RPM               | 3565       | AMPS  | 110  |              | HZ          | 60                      | AMB                 | 40                    | SF    | 1.15  |      |
| DRIVE END BEARING | 65BC03J30X |       | DUTY | CONT         | INSUL.CLASS |                         |                     | F                     |       |       |      |
| OPP D.E. BEARING  | 65BC03J30X |       | ENCL | TEFC         | CODE        | F                       |                     |                       |       |       |      |
| SER.NO.           |            |       |      | POWER FACTOR | 90          |                         | NEMA-NOM-EFFICIENCY |                       |       |       | 95   |
|                   |            |       |      |              |             | MAX CORR KVAR           | 10                  | GUARANTEED EFFICIENCY |       |       | 94.1 |
|                   |            |       |      |              |             | NEMA NOM/CSA QUOTED EFF |                     |                       |       |       |      |
|                   |            |       |      |              |             | MOTOR WEIGHT            |                     |                       |       |       |      |

**Accessories**

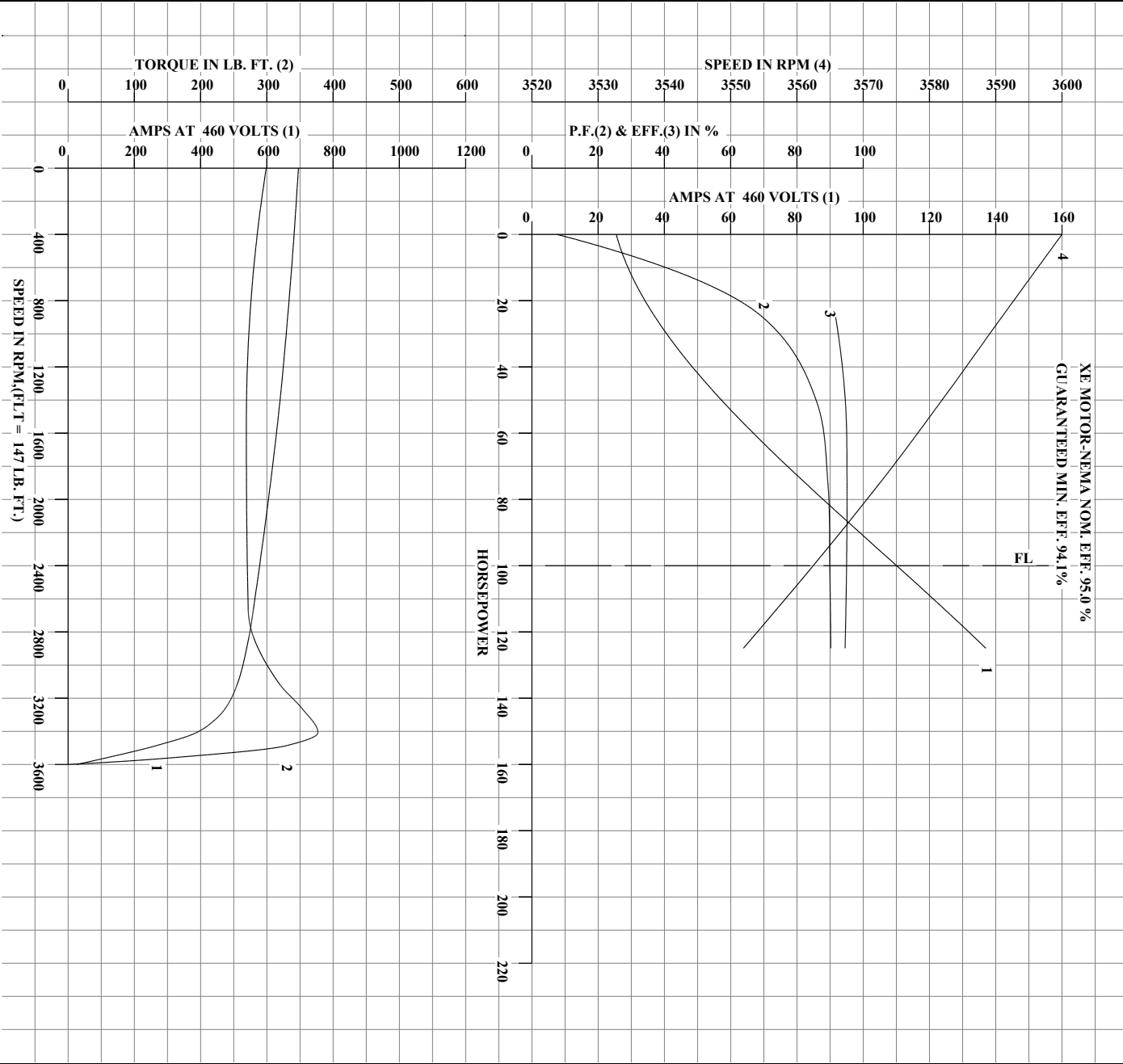
| Part number | Description                            | Multiplier |
|-------------|----------------------------------------|------------|
| 089413502A  | G400 STD C-FACE BRKT 6313 089416511WCA | P1         |
| 089412075B  | D-FLANGE BRKT 400 089416085WCA         | P1         |

|                                                                                                                                       |             |                                                                                             |                       |                                            |                |                                        |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------|-----------------------|--------------------------------------------|----------------|----------------------------------------|
| S/O                                                                                                                                   | FRAME       | HP                                                                                          | TYPE                  | PHASE/<br>HERTZ                            | RPM            | VOLTS                                  |
|                                                                                                                                       | 405TS       | 100                                                                                         | P                     | 3/60                                       | 3565           | 460                                    |
|                                                                                                                                       |             |                                                                                             |                       |                                            |                |                                        |
| AMPS                                                                                                                                  | DUTY        | AMB °C/<br>INSUL                                                                            | S.F.                  | NEMA<br>DESIGN                             | CODE<br>LETTER | ENCLOSURE                              |
| I10                                                                                                                                   | CONT        | 40/F                                                                                        | 1.15                  | B                                          | F              | TEFC                                   |
|                                                                                                                                       |             |                                                                                             |                       |                                            |                |                                        |
| E/S                                                                                                                                   | ROTOR       | TEST<br>S.O.                                                                                | TEST<br>DATE          | STATOR RES. @25 °C<br>OHMS (BETWEEN LINES) |                |                                        |
| 596954                                                                                                                                | 418142005PE | ---                                                                                         | ---                   | .0526                                      |                |                                        |
| PERFORMANCE                                                                                                                           |             |                                                                                             |                       |                                            |                |                                        |
| LOAD                                                                                                                                  | HP          | AMPERES                                                                                     | RPM                   | % POWER FACTOR                             | % EFFICIENCY   |                                        |
| NO LOAD                                                                                                                               | 0           | 25.6                                                                                        | 3600                  | 7.58                                       | 0              |                                        |
| 1/4                                                                                                                                   | 25.0        | 36.7                                                                                        | 3591                  | 69.7                                       | 91.7           |                                        |
| 2/4                                                                                                                                   | 50.0        | 57.7                                                                                        | 3582                  | 85.8                                       | 94.6           |                                        |
| 3/4                                                                                                                                   | 75.1        | 82.7                                                                                        | 3572                  | 89.3                                       | 95.1           |                                        |
| 4/4                                                                                                                                   | 100         | 110                                                                                         | 3563                  | 89.9                                       | 95.0           |                                        |
| 5/4                                                                                                                                   | 125         | 137                                                                                         | 3552                  | 90.2                                       | 94.5           |                                        |
|                                                                                                                                       |             |                                                                                             |                       |                                            |                |                                        |
| SPEED TORQUE                                                                                                                          |             |                                                                                             |                       |                                            |                |                                        |
|                                                                                                                                       |             | RPM                                                                                         | TORQUE<br>% FULL LOAD | TORQUE<br>LB.-FT.                          | AMPERES        |                                        |
| LOCKED ROTOR                                                                                                                          | 0           | 203                                                                                         |                       | 299                                        | 695            |                                        |
| PULL UP                                                                                                                               | 1545        | 182                                                                                         |                       | 269                                        | 632            |                                        |
| BREAKDOWN                                                                                                                             | 3408        | 256                                                                                         |                       | 377                                        | 387            |                                        |
| FULL LOAD                                                                                                                             | 3563        | 100                                                                                         |                       | 147                                        | 110            |                                        |
| AMPERES SHOWN FOR 460 VOLT CONNECTION. IF OTHER CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY<br>INVERSELY WITH THE RATED VOLTAGE. |             |                                                                                             |                       |                                            |                |                                        |
| TYPICAL DATA<br>NEMA MOTOR-NEMA NOM. EFF. 95.0 %<br>GUARANTEED MIN. EFF. 94.1%                                                        |             |                                                                                             |                       |                                            |                |                                        |
|                                                      |             | DRAWN BY: J.L.HARRISON<br>CHECKED BY: W.L.SMITH<br>APPROVED BY: W.L.SMITH<br>DATE: 06/13/07 |                       | AC MOTOR<br>PERFORMANCE<br>DATA            |                | A40WG1270-R001<br>DATE ISSUED 08/01/18 |

US10TSA

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|               |       |                      |                 |                          |
|---------------|-------|----------------------|-----------------|--------------------------|
| REL.S.O.      | 405TS | RPM 3565             | S.F. 1.15       | ROTOR 418142005PE        |
| FRAME         | 100   | VOLTS 460            | NEMA DESIGN B   | TEST S.O. TYPICAL DATA   |
| HP            | 100   | AMPS 110             | CODE LETTER F   | TEST DATE ---            |
| TYPE          | P     | DUTY CONT            | ENCLOSURE TEF C | STATOR RES. @ 25°C .0526 |
| PHASE / HERTZ | 3/60  | AMB °C / INSUL. 40/F | E/S 596954      | OHMS (BETWEEN LINES)     |



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



DRAWN BY: J.J.HARRISON  
CHECKED BY: W.L.SMITH  
APPROVED BY: W.L.SMITH  
DATE: 06/13/07

AC MOTOR  
PERFORMANCE  
DATA

A40W G1270-R001

ISSUE DATE 08/01/18

US10TSA

Printed on 08/01/2018 9:25 AM

## DUTY MASTER ALTERNATING CURRENT MOTORS

## SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

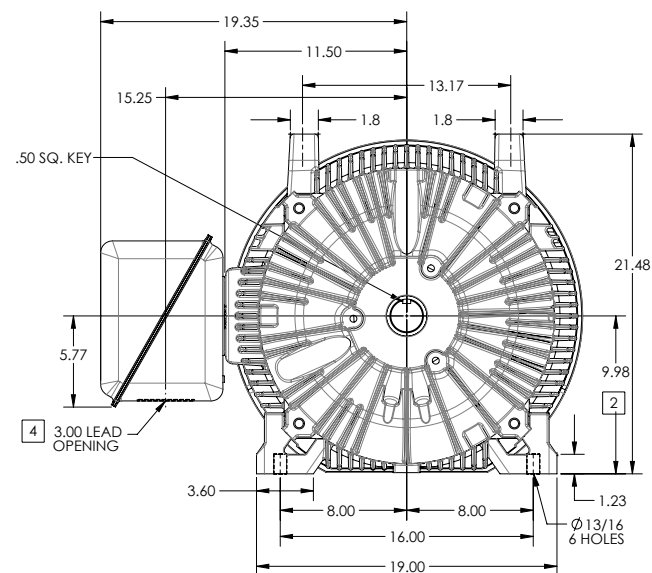
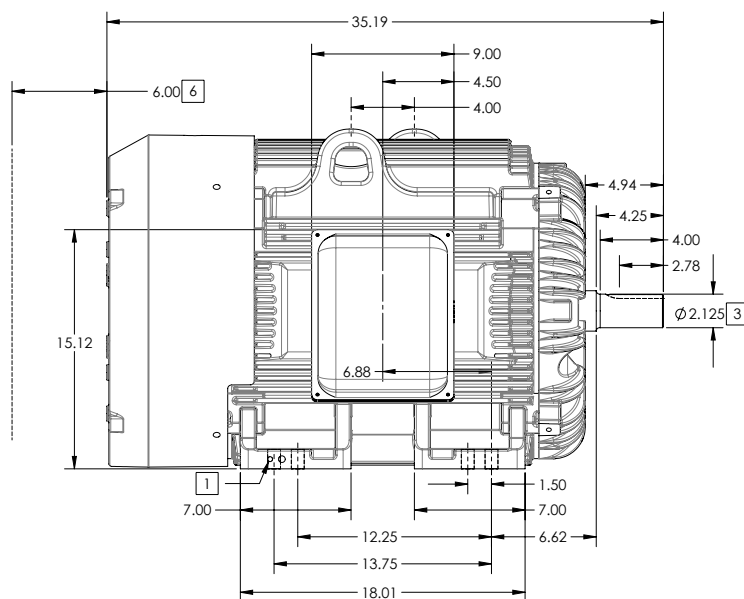
FRAME G405TS ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404TS FRAME MOUNTING HOLES

STANDARD INDUSTRIAL ENCLOSURE



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.000,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NOT ENCRATCH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.  
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.  
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF  
STANDARD SHAFT EXTENSION IS .003" T.I.R. TO 5 INCH DIA.

5 WEIGHT (LBS): 1160

DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

|                                        |             |                              |                   |
|----------------------------------------|-------------|------------------------------|-------------------|
| REV. DESC: CHANGE BA FROM 6.76 TO 6.62 |             |                              |                   |
| REV: B                                 | VERSION: 02 | REVISED: 04:37:41 04/14/2014 | TDR: 000000848770 |
| MODEL NO. 617429-002                   |             |                              | REF:              |
| BY: MGHJMZ2                            | Material:   |                              |                   |

**BALDOR**

G405TS/404TS STD – FOOTED – STANDARD ENCLOSURE

## DUTY MASTER ALTERNATING CURRENT MOTORS

## SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

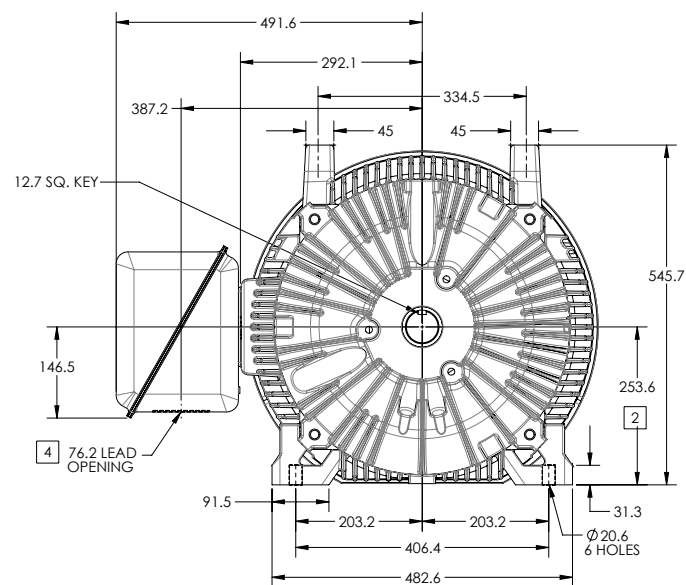
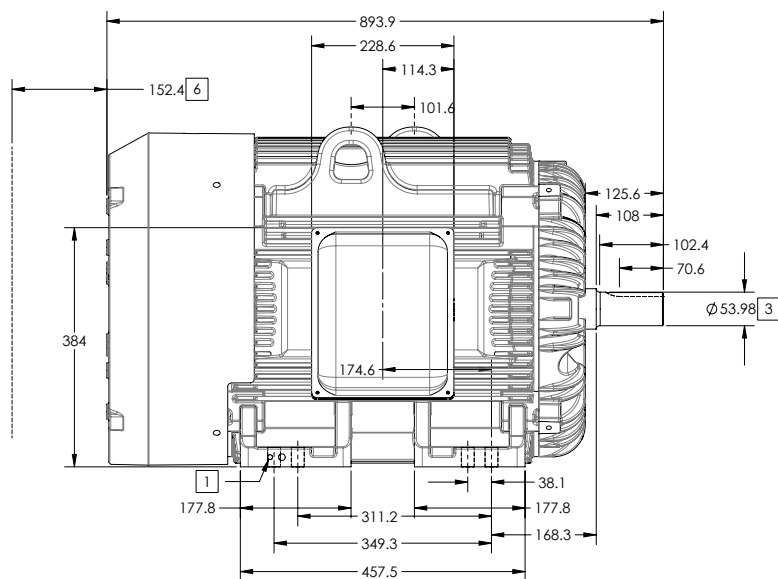
FRAME G405TS ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404TS FRAME MOUNTING HOLES

STANDARD INDUSTRIAL ENCLOSURE



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +0,-1.5
3. VARIES +00,-.03
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NOT ENCR OACH ON AIR INLET

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.  
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.  
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF  
STANDARD SHAFT EXTENSION IS .08 MM T.I.R. TO 127 MM DIA.

[5] WEIGHT (KGS): 530

DIMENSIONS ARE IN MILLIMETERS; SEE SHEET 1 FOR DIMENSIONS IN INCHES

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER  
2 OF 2

000-672119

REV. DESC: CHANGE BA FROM 6.76 TO 6.62

REV: B VERSION: 02

REVISED: 04/37:41 04/14/2014

TDR: 000000848770

MODEL NO. 617429-002

REF:

BY: MGHUMZ2

Material:

**BALDOR**

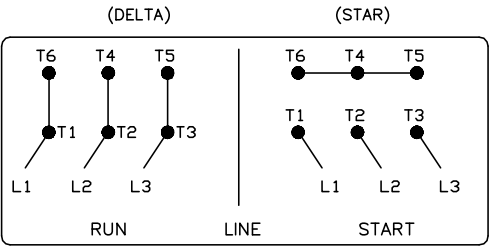
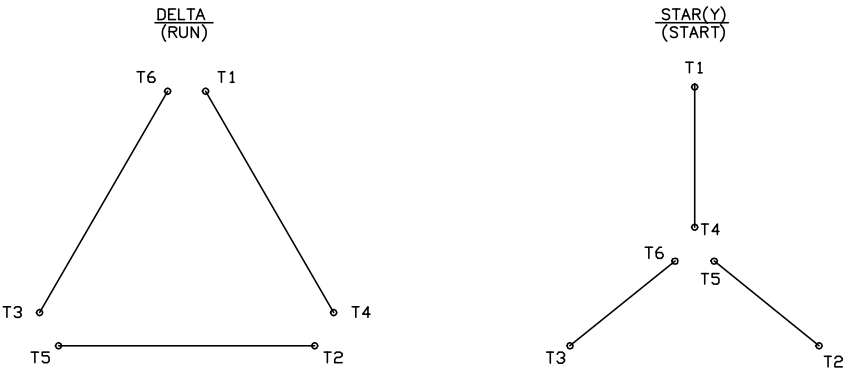
G405TS/404TS STD - FOOTED - STANDARD ENCLOSURE

617429-002

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