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# Customer information packet

## EFM4400T

100HP, 1785RPM, 3PH, 60HZ, 405T, A40064M, TEFC

Class - None

Division - Not Applicable

## Specifications

|                               |                                            |
|-------------------------------|--------------------------------------------|
| Enclosure                     | TEFC                                       |
| Frame                         | 405T                                       |
| 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 | 1800 RPM @ 60 HZ                           |
| Voltage @ Frequency           | 230.0 V @ 60 HZ<br>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             | 112.000 A @ 460.0 V<br>224.000 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   | 112.0 a                                    |
| Insulation Class              | F                                          |
| Inverter Code                 | Inverter Ready                             |
| KVA Code                      | G                                          |
| Lifting Lugs                  | Standard Lifting Lugs                      |
| Motor Lead Quantity/Wire Size | 3 @ 2 AWG                                  |
| Motor Standards               | NEMA                                       |

## Part detail

|              |            |
|--------------|------------|
| Revision     | J          |
| Type         | AC         |
| Mech. spec.  |            |
| Base         |            |
| Status       | PRD/A      |
| Elec. spec.  | A40WG0251  |
| Layout       | 617429-011 |
| Eff. date    | 09-04-2024 |
| CD Diagram   | 416820-002 |
| Poles        | 04         |
| Leads        | 3#2,6#4    |
| Proprietary  | False      |
| Created date | 07-16-2013 |

|                                 |                    |
|---------------------------------|--------------------|
| <b>Motor Type</b>               | A40064M            |
| <b>Mounting Arrangement</b>     | F2                 |
| <b>Number of Poles</b>          | 4                  |
| <b>Overall Length</b>           | 38.18 IN           |
| <b>Power Factor</b>             | 87                 |
| <b>Pulley End Bearing Type</b>  | Ball               |
| <b>Pulley Face Code</b>         | Standard           |
| <b>Service Factor</b>           | 1.15               |
| <b>Shaft Diameter</b>           | 2.875 IN           |
| <b>Shaft Ground Indicator</b>   | No Shaft Grounding |
| <b>Shaft Rotation</b>           | Reversible         |
| <b>Shaft Slinger Indicator</b>  | No Slinger         |
| <b>Speed</b>                    | 1785 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

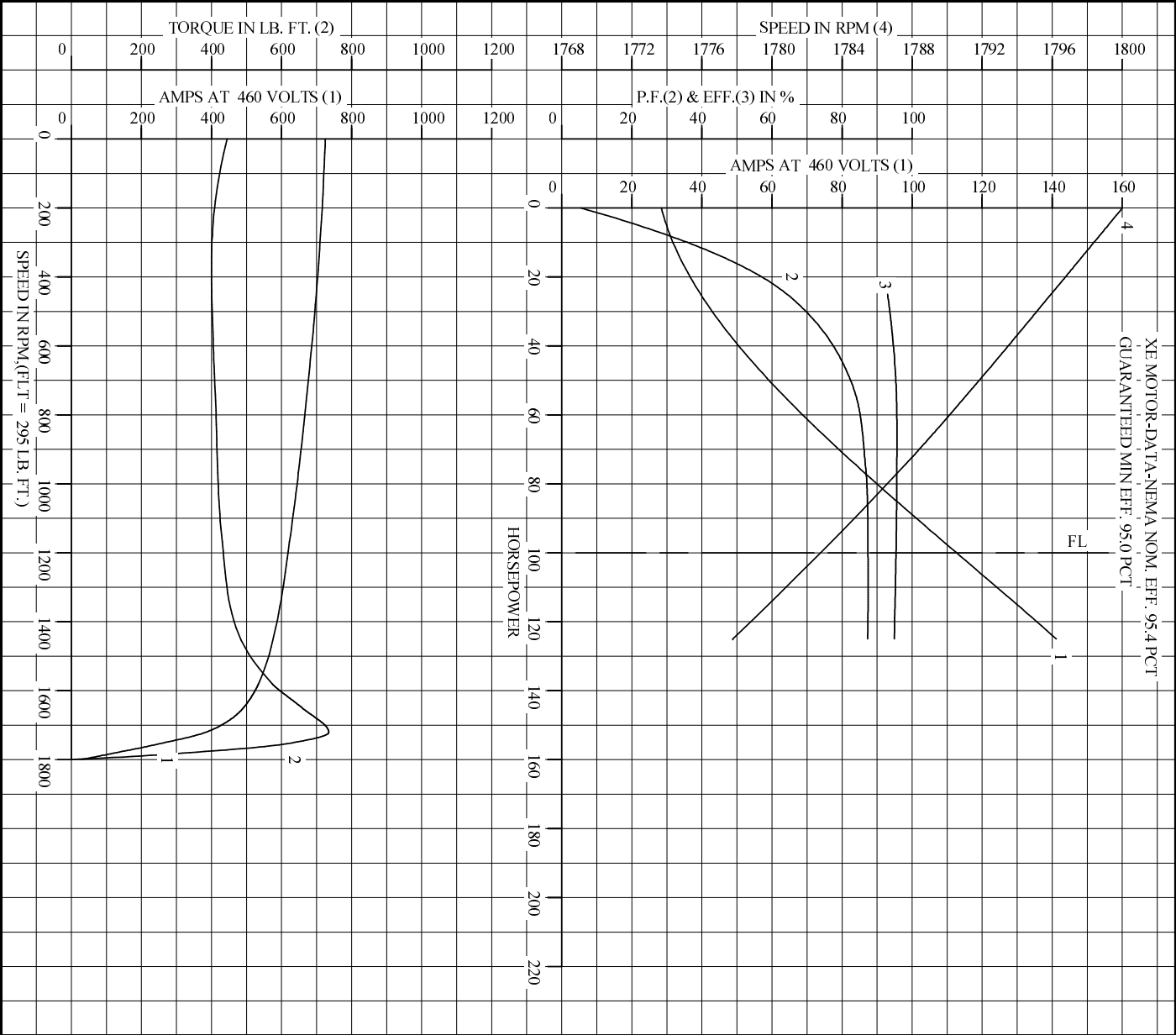
## NP2349L

|                   |            |       |              |          |             |                         |                     |       |                       |      |      |
|-------------------|------------|-------|--------------|----------|-------------|-------------------------|---------------------|-------|-----------------------|------|------|
| SPEC NO.          | P40G3924   |       | CAT.NO.      | EFM4400T |             |                         |                     | FRAME | 405T                  |      |      |
| HP                | 100        | VOLTS | 230/460      |          | PHASE       | 3                       | DESIGN              | B     | TYPE                  | P    |      |
| RPM               | 1785       | AMPS  | 224/112      |          | HZ          | 60                      | AMB                 | 40    | SF                    | 1.15 |      |
| DRIVE END BEARING | 80BC03J30X |       | DUTY         | CONT     | INSUL.CLASS |                         |                     | F     |                       |      |      |
| OPP D.E. BEARING  | 80BC03J30X |       | ENCL         | TEFC     | CODE        | G                       |                     |       |                       |      |      |
| SER.NO.           |            |       | POWER FACTOR |          |             | 87                      | NEMA-NOM-EFFICIENCY |       |                       | 95.4 |      |
|                   |            |       |              |          |             | MAX CORR KVAR           |                     | 18    | GUARANTEED EFFICIENCY |      | 94.5 |
|                   |            |       |              |          |             | NEMA NOM/CSA QUOTED EFF |                     |       |                       |      |      |
|                   |            |       |              |          |             | MOTOR WEIGHT            |                     |       |                       |      |      |

|                  |  |
|------------------|--|
| NP2496L          |  |
| MOBIL POLYREX EM |  |
|                  |  |

|                                                                                                                                               |              |                       |                                                                                  |                                            |                 |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------|----------------------------------------------------------------------------------|--------------------------------------------|-----------------|---------|
| REL.<br>S.O.                                                                                                                                  | FRAME        | HP                    | TYPE                                                                             | PHASE/<br>HERTZ                            | RPM             | VOLTS   |
|                                                                                                                                               | 405T         | 100                   | P                                                                                | 3/60                                       | 1785            | 230/460 |
|                                                                                                                                               |              |                       |                                                                                  |                                            |                 |         |
| AMPS                                                                                                                                          | DUTY         | AMB °C/<br>INSUL.     | S.F.                                                                             | NEMA<br>DESIGN                             | CODE<br>LETTER  | ENCL.   |
| 224/112                                                                                                                                       | 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) |                 |         |
| 596956                                                                                                                                        | 418142-33-RE | ---                   | ---                                                                              | .0123/.0492                                |                 |         |
| PERFORMANCE                                                                                                                                   |              |                       |                                                                                  |                                            |                 |         |
| LOAD                                                                                                                                          | HP           | AMPERES               | RPM                                                                              | %<br>POWER FACTOR                          | %<br>EFFICIENCY |         |
| NO LOAD                                                                                                                                       | 0            | 28.6                  | 1800                                                                             | 5.49                                       | 0               |         |
| 1/4                                                                                                                                           | 25.0         | 39.2                  | 1796                                                                             | 64.3                                       | 93.0            |         |
| 2/4                                                                                                                                           | 50.0         | 59.5                  | 1792                                                                             | 82.5                                       | 95.4            |         |
| 3/4                                                                                                                                           | 75.0         | 84.6                  | 1788                                                                             | 86.7                                       | 95.7            |         |
| 4/4                                                                                                                                           | 100          | 112                   | 1783                                                                             | 87.4                                       | 95.4            |         |
| 5/4                                                                                                                                           | 125          | 141                   | 1778                                                                             | 87.3                                       | 94.9            |         |
|                                                                                                                                               |              |                       |                                                                                  |                                            |                 |         |
| SPEED TORQUE                                                                                                                                  |              |                       |                                                                                  |                                            |                 |         |
|                                                                                                                                               |              |                       |                                                                                  |                                            |                 |         |
|                                                                                                                                               | RPM          | % TORQUE<br>FULL LOAD | TORQUE<br>LB.-FT.                                                                | AMPERES                                    |                 |         |
| LOCKED ROTOR                                                                                                                                  | 0            | 151                   | 445                                                                              | 725                                        |                 |         |
| PULL UP                                                                                                                                       | 360          | 136                   | 400                                                                              | 706                                        |                 |         |
| BREAKDOWN                                                                                                                                     | 1721         | 250                   | 735                                                                              | 382                                        |                 |         |
| FULL LOAD                                                                                                                                     | 1783         | 100                   | 295                                                                              | 112                                        |                 |         |
| 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>XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT<br>GUARANTEED MIN EFF. 95.0 PCT                                                |              |                       |                                                                                  |                                            |                 |         |
|                                                              |              |                       | DR. BY J.J. HARRISON<br>CK. BY W.L. SMITH<br>APP. BY W.L. SMITH<br>DATE 07/26/04 |                                            |                 |         |
|                                                                                                                                               |              |                       | A-C MOTOR<br>PERFORMANCE DATA<br>A40WG0251-R001<br>ISSUE DATE 12/15/10           |                                            |                 |         |

|                  |      |                   |                |                                 |
|------------------|------|-------------------|----------------|---------------------------------|
| REL S.O.         | 405T | RPM 1785          | S.F. 1.15      | ROTOR 418142-33-RE              |
| FRAME            | 405T | VOLTS 230/460     | NEMA DESIGN B  | TEST S.O. TYPICAL DATA          |
| HP 100           |      | AMPS 224/112      | CODE LETTER G  | TEST DATE ---                   |
| TYPE P           |      | DUTY CONT         | ENCLOSURE TEFC | STATOR RES. @ 25 °C .0123/.0492 |
| PHASE/HERTZ 3/60 |      | AMB °C/INSUL 40/F | E/S 596956     | OHMS (BETWEEN LINES)            |



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

|         |            |                     |
|---------|------------|---------------------|
| DR. BY  | J.HARRISON | A-C MOTOR           |
| CK. BY  | W.L. SMITH | PERFORMANCE         |
| APP. BY | W.L. SMITH | A40WG0251-R001      |
| DATE    | 07/26/04   | CURVES              |
|         |            | ISSUE DATE 12/15/10 |

REL. S.O.  
FRAME 405T  
HP 100  
TYPE P  
PHASE/HERTZ 3/60

RPM 1785  
VOLTS 230/460  
AMPS 224/112  
DUTY CONT  
AMB °C/INSUL 40/F

S.F. 1.15  
NEMA DESIGN B  
CODE LETTER G  
ENCLOSURE TEFC  
E/S 596956

ROTOR 418142-33-RE  
TEST S.O. TYPICAL DATA  
TEST DATE ---  
STATOR RES. @ 25 °C .0123/.0492  
OHMS (BETWEEN LINES)

10.00  
9  
8  
7  
6  
5  
4  
3  
2

OVERLOAD

MOTOR INITIAL TEMPERATURE:  
119C FOR OVERLOAD AND ACC.  
119C FOR LOCKED-ROTOR

1.00  
9  
8  
7  
6  
5  
4  
3  
2

ACCELERATION

LOCKED-ROTOR, 40.C

1.0  
9  
8  
7  
6  
5  
4  
3  
2

LOCKED-ROTOR

1.0  
9  
8  
7  
6  
5  
4  
3  
2

TIME IN SEC.

1.0  
9  
8  
7  
6  
5  
4  
3  
2  
1

0

200

400

600

800

1000

1200

1400

% FULL LOAD CURRENT

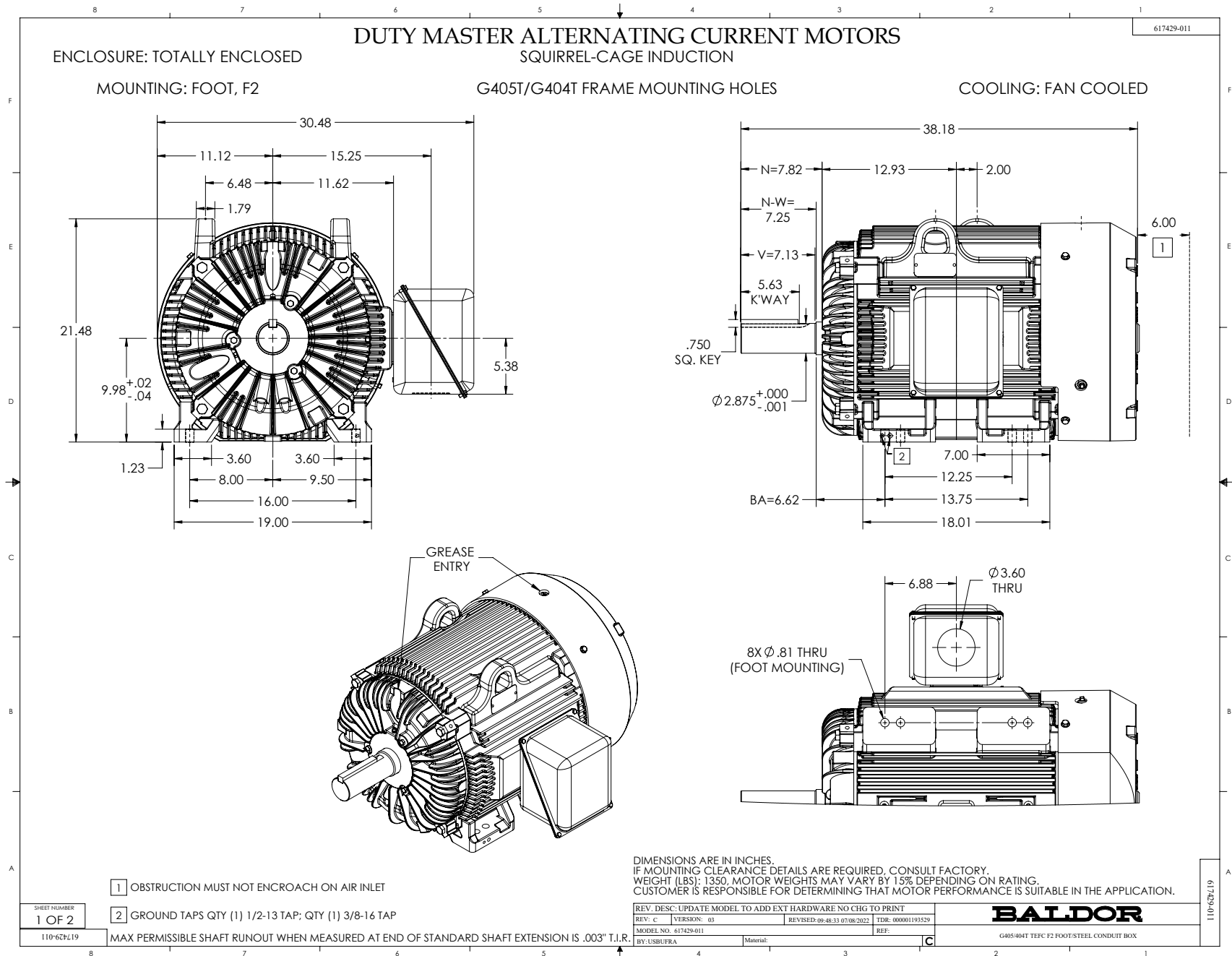
AMPERES SHOWN FOR 460  
AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

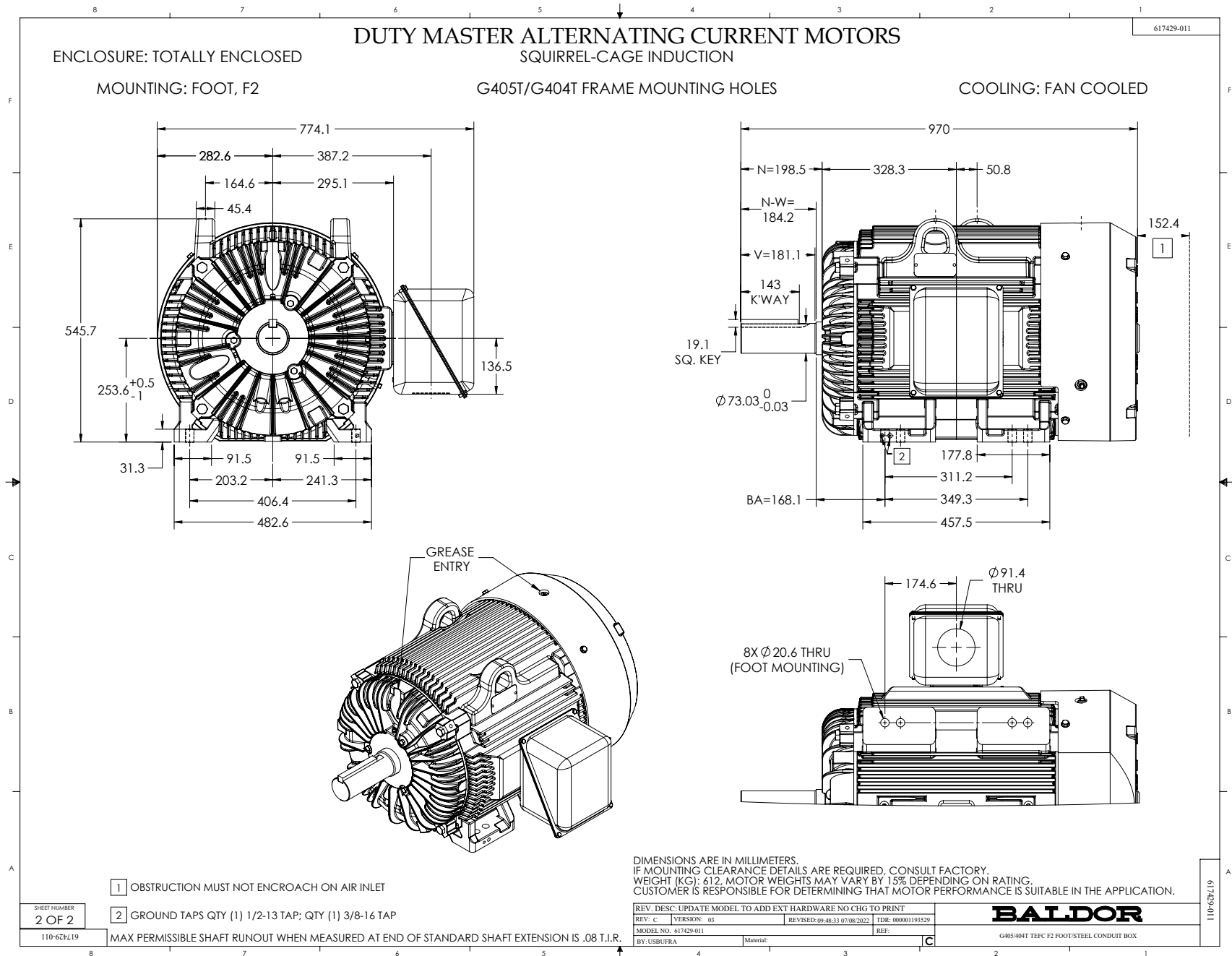
VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE

REMARKS:  
THERMAL LIMIT CURVE  
XE MOTOR-DATA-NEMA NOM. EFF. 95.4 PCT  
GUARANTEED MIN EFF. 95.0 PCT

DR. BY J.HARRISON  
CK. BY W.L. SMITH  
APP. BY W.L. SMITH  
DATE 07/26/04

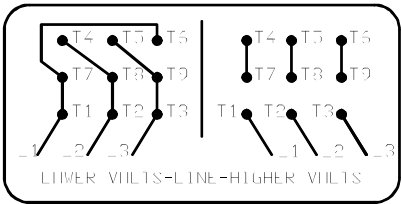
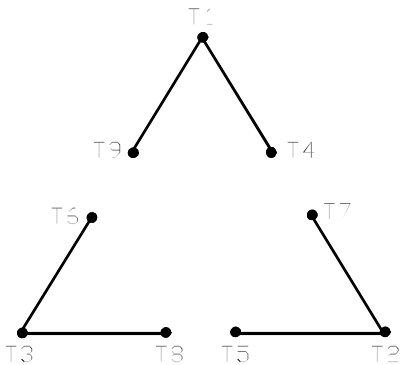
A-C MOTOR  
PERFORMANCE A40WG0251-R001  
CURVES  
ISSUE DATE 12/15/10





416820-002

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



(N.P. 1575-B)

|                                           |                              |                   |
|-------------------------------------------|------------------------------|-------------------|
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| 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