

**NEMA**

Model **GRA0504D-TC-01**  
MFG PN: T326T50U4B

# Model **GRA0504D-TC-01**

## Product Data Package



| MODEL          | HP | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|----------------|----|------|---------|-------|----|-------|----------------|-----------|
| GRA0504D-TC-01 | 50 | 1770 | 230/460 | 3     | 60 | 326TC | Rigid/C-Flange | TEFC      |

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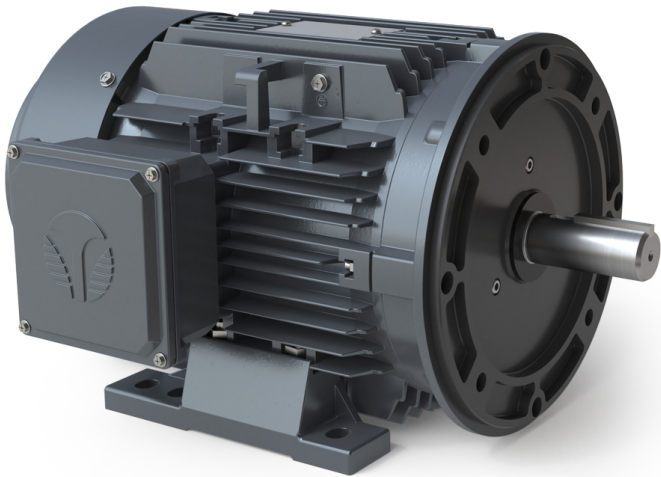
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# NEMA

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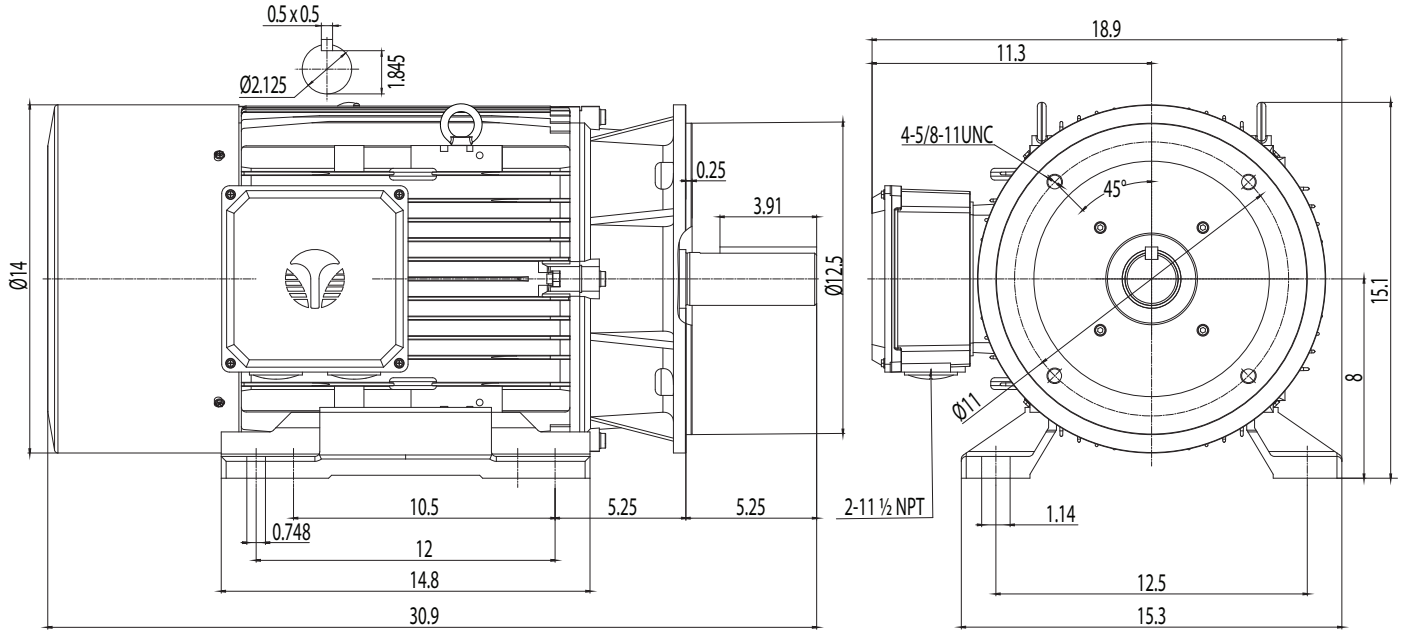
| ELECTRICAL DATA                     |              |                            |
|-------------------------------------|--------------|----------------------------|
| Rated Motor Output Power            | 50           | HP                         |
|                                     | -            | kW                         |
| Rated Motor Speed                   | 1770         | r/min 60Hz                 |
|                                     | 1460         | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 230/460      | V/60Hz                     |
|                                     | 190/380      | V/50Hz                     |
| Rated Motor Current                 | 111.6/55.8   | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 136.6/68.3   | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3            | Ø                          |
| Locked Rotor Current @ High Voltage | 613.81       | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | 123.4        | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25         | @ 60Hz                     |
|                                     | 1            | @ 50Hz                     |
| KVA Code                            | L            | 60Hz                       |
|                                     | J            | 50Hz                       |
| Nominal Efficiency                  | 94.5         | % @ 60Hz                   |
| Nominal Power Factor                | 0.88         | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 12           | 8                          |
| Connection                          | DD/D         | -                          |
| Coil Resistance                     | -            | Ω                          |
| Start Capacitor                     | -            | µF/V                       |
| Run Capacitor                       | -            | µF/V                       |
| <b>VFD DUTY (S.F. 1.0)</b>          | <b>RATIO</b> | <b>Hz</b>                  |
| Variable Torque                     | 30:1         | 2 - 60                     |
| Constant Torque                     | 15:1         | 4 - 60                     |
| FULL LOAD TEMPERATURE RISE          |              |                            |
| Full Load Temperature Rise          | -            | °C @ 60Hz                  |
|                                     | -            | °C @ 50Hz                  |

| GENERAL DATA                        |                  |       |
|-------------------------------------|------------------|-------|
| Frame Size                          | 326TC            |       |
| Enclosure                           | TEFC             |       |
| Mounting                            | Rigid/C-Flange   |       |
| Approximate Weight (lbs.)           | 454.5 lbs.       |       |
| Casing Material / Fan Cover         | Cast Aluminum    | Steel |
| Shaft Material                      | 1045             |       |
| NEMA Design                         | A                |       |
| Degree of Protection (IP)           | 55               |       |
| Insulation Class / Temp Rise (60Hz) | F                | B     |
| Tropicalization                     | YES              |       |
| Duty                                | Cont. / S1       |       |
| Conduit Box Location                | F1               |       |
| Feet Removable / Double Drilled     | YES              | YES   |
| Paintwork                           | 7024             |       |
|                                     | Graphite Gray    |       |
| MECHANICAL DATA                     |                  |       |
| Bearing DE Side                     | 6312 ZZ          |       |
| Bearing ODE Side                    | 6212 ZZ          |       |
| Grease Type                         | Mobil Polyrex EM |       |
| Compensation Ring (wavy washer)     | NDE              |       |
| Moment of Inertia (lb-ft²)          | -                |       |
| Sound Pressure @ 3 FT dBA           | 80               |       |
| SITE CONDITIONS                     |                  |       |
| Ambient Temperature (°C)            | 40               |       |
| Meters Above Sea Level (MASL)       | 1000             |       |
| HAZARDOUS LOCATIONS                 |                  |       |
| CSA Certified                       | A, B, C & D      |       |
| Temperature Code                    | T3A              | -     |

**Questions? Call 1.888.286.1820**

**NEMA**

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| NAMEPLATE DATA             | 60Hz       | 50Hz       |
|----------------------------|------------|------------|
| Horse Power                | 50         | 50         |
| RPM                        | 1770       | 1460       |
| Voltage                    | 230/460    | 190/380    |
| Full Load Amps             | 111.6/55.8 | 136.6/68.3 |
| Service Factor             | 1.25       | 1          |
| KVA Code                   | L          | J          |
| Full Load Amps (208V)      | 123.4      | -          |
| Nominal Efficiency         | 94.5       | 92.5       |
| Nominal Power Factor       | 0.88       | 0.89       |
| Design                     | A          |            |
| Frame                      | 326TC      |            |
| Enclosure Type             | TEFC       |            |
| IP Rating                  | 55         |            |
| Duty                       | Cont. / S1 |            |
| Insulation Class           | F          |            |
| Ambient Rating             | 40         |            |
| Drive End Bearing          | 6312 ZZ    |            |
| Opposite Drive End Bearing | 6212 ZZ    |            |
| Weight (lbs)               | 454.5      |            |

NAMEPLATE LAYOUT

**TECHTOP** INDUSTRIAL THREE PHASE MOTOR  
INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF

MODEL  MFG PN

60Hz 50Hz

HP  MFG DATE

RPM  SER #

VOLT  DESIGN

FLA  FRAME

SF  ENCL / IP  TEFC 55

KVA CODE  DUTY

NOM.EFF  INS CL

EFF 75%  AMB

PF  DE

USABLE AT 208V  ODE

**NEMA Premium**  WEIGHT  lbs

CLASS 1, DIV 2, GROUPS A, B, C AND D

MADE IN CHINA

CC088A  
E323353  
SP  
224653  
Energy Verified Only

| VFD DUTY (S.F. 1.0) | RATIO | Hz*    |
|---------------------|-------|--------|
| Variable Torque     | 30:1  | 2 - 60 |
| Constant Torque     | 15:1  | 4 - 60 |

\*For max speed please contact Techtop Canada

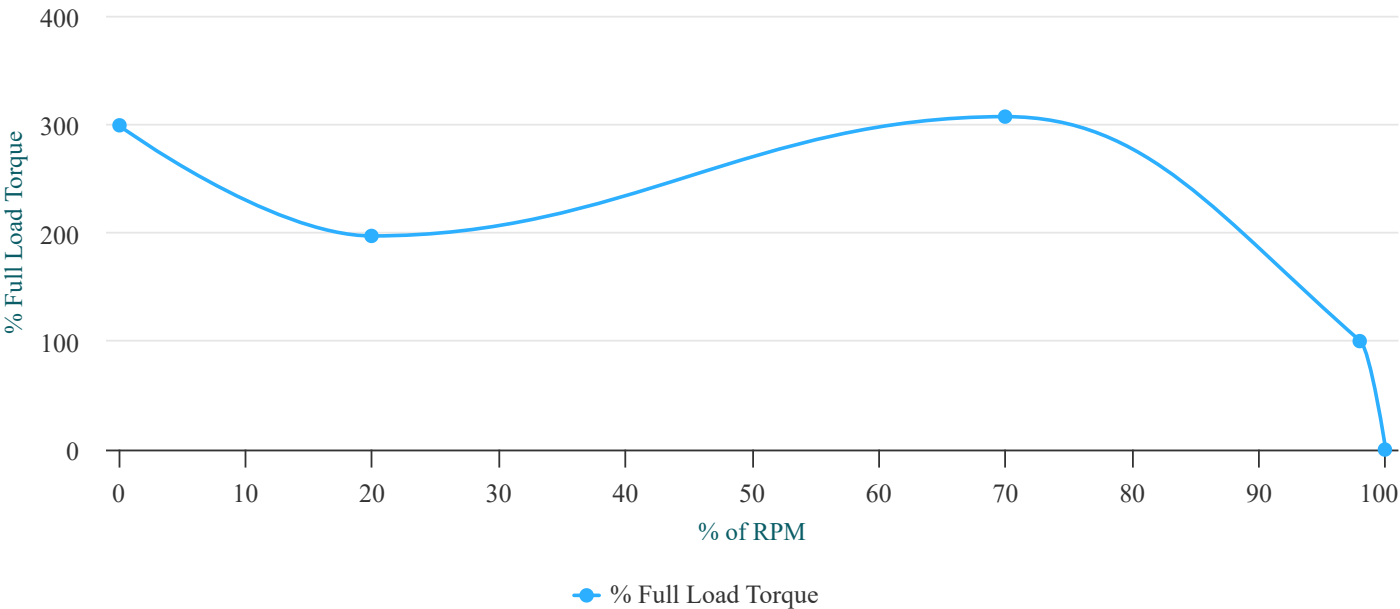
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

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**Model GRA0504D-TC-01**  
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**Torque Speed (T-n) Curve**



**PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz**

| TORQUE VALUES       | TORQUE (lb-ft) | TORQUE (% FULL LOAD) | PERFORMANCE VALUES   |        |
|---------------------|----------------|----------------------|----------------------|--------|
| Locked Rotor Torque | 443.6          | 299                  | Start Configuration  | DOL    |
| Pull-Up Torque      | 292.3          | 197                  | Starting Current (A) | 613.81 |
| Breakdown Torque    | 455.5          | 307                  | No-Load Current (A)  | 26.5   |
| Full Load Torque    | 148.4          | 100                  | No-Load Power Factor | -      |

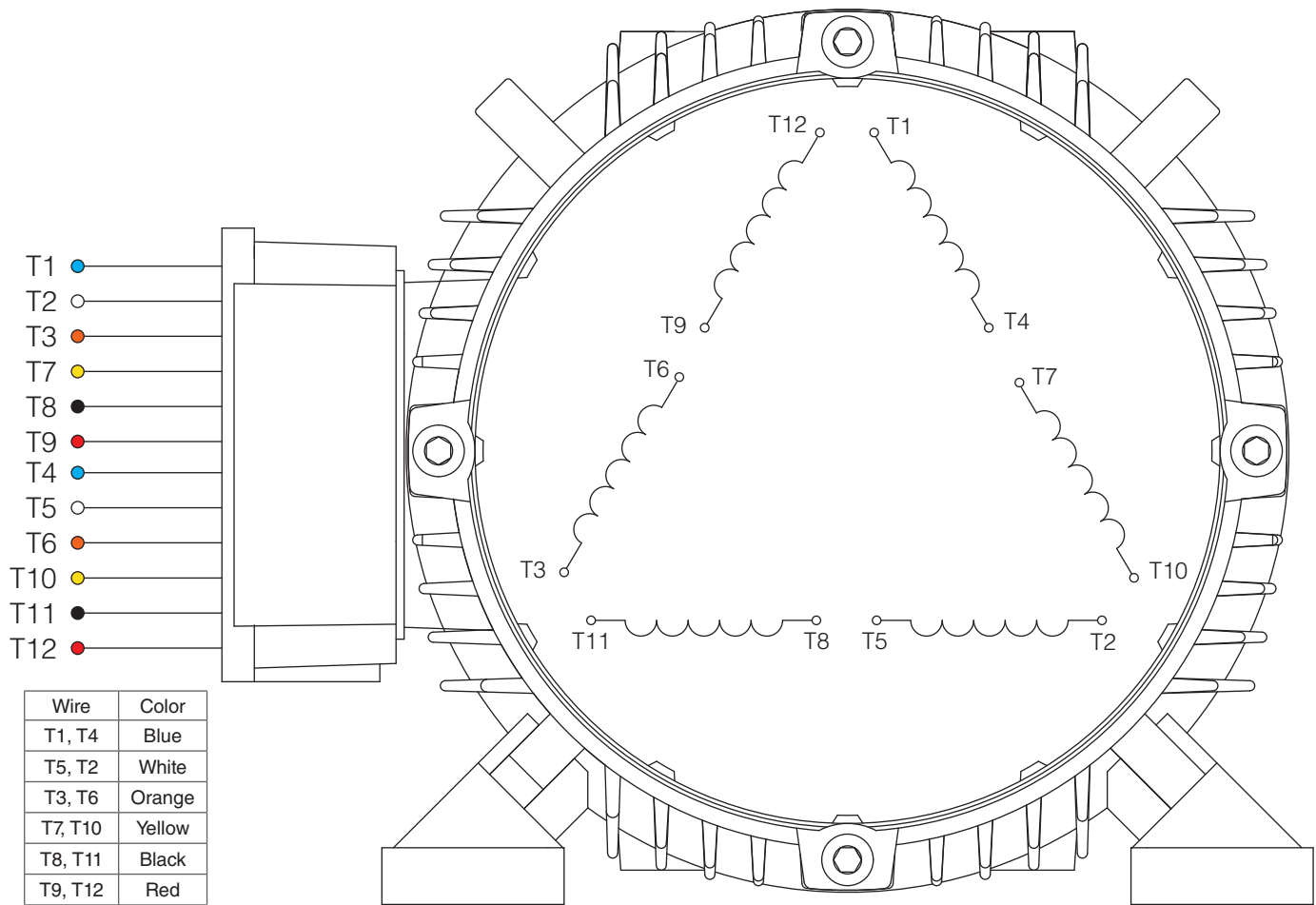
**TYPICAL PERFORMANCE - NOT GUARANTEED VALUES**

| % OF RATED LOAD     | 25    | 50    | 75    | 100   | 125   | S.F. 1.25 |
|---------------------|-------|-------|-------|-------|-------|-----------|
| Line Amperes (A)    | 30.3  | 40.2  | 52.6  | 67    | 82.8  | 82.8      |
| Efficiency (%)      | 90.6  | 93.8  | 94.3  | 94    | 93.4  | 93.4      |
| Speed (r/min)       | 1795  | 1791  | 1786  | 1780  | 1774  | 1774      |
| Power Factor (cosΦ) | 0.49  | 0.71  | 0.81  | 0.85  | 0.87  | 0.87      |
| Input Power (kW)    | 11.84 | 22.87 | 34.12 | 45.63 | 57.41 | 57.41     |

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Model **GRA0504D-TC-01**  
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HIGH VOLTAGE  
(Δ)



LOW VOLTAGE  
(ΔΔ)

- NOTES:
- 1. CCW ROTATION FACING ODE FOR CONNECTIONS SHOWN
  - 2. TO REVERSE ROTATION, SWAP ANY TWO INPUT LINES
  - 3. WHEN MOTOR IS IN F1 POSITION, LEADS INDICATED WITH “\*” EXIT THE CASING ABOVE THE CENTER LINE OF THE MOTOR, THE REMAINING LEADS EXIT BELOW THE CENTER LINE
  - 4. LEADS MUST BE NUMBERED AND COLORED AS SHOWN
  - 5. DIAGRAMS FOR REFERENCE ONLY



NEMA 3Ø DD/D 12-Lead Dual Voltage

|                     |                |                                 |          |
|---------------------|----------------|---------------------------------|----------|
| DRAWING NUMBER:     | NEMA-3-12-DD-D | ISSUED DATE                     | 06/03/25 |
| CONNECTION:         | DD/D           | PREMIUM T-FRAME ALUMINUM MOTORS |          |
| NUMBER OF LEADS:    | 12             |                                 |          |
| THERMAL PROTECTION: | -              |                                 |          |



## NEMA Premium TEFC 326TC

|                  |                    |                                 |          |
|------------------|--------------------|---------------------------------|----------|
| DRAWING NUMBER:  | GR3-AL-TF-320TC-01 | ISSUED DATE                     | 06/03/25 |
| DIMENSIONS:      | Inches             |                                 |          |
| MOUNTING:        | Rigid/C-Flange     | PREMIUM T-FRAME ALUMINUM MOTORS |          |
| CASING MATERIAL: | Cast Aluminum      |                                 |          |