

**NEMA**

Model **GRA0052D-TD-01**  
MFG PN: T184T5U2B

# Model **GRA0052D-TD-01**

## Product Data Package



| MODEL          | HP | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|----------------|----|------|---------|-------|----|-------|----------------|-----------|
| GRA0052D-TD-01 | 5  | 3510 | 230/460 | 3     | 60 | 184TD | Rigid/D-Flange | TEFC      |

### Toronto

TOLL FREE 1.888.286.1820  
PHONE 905.829.1001  
EMAIL [info@techtopcanada.com](mailto:info@techtopcanada.com)

### Montreal

TOLL FREE 1.844.354.5111  
PHONE 514.354.1002  
EMAIL [infoQC@techtopcanada.com](mailto:infoQC@techtopcanada.com)

### Moncton

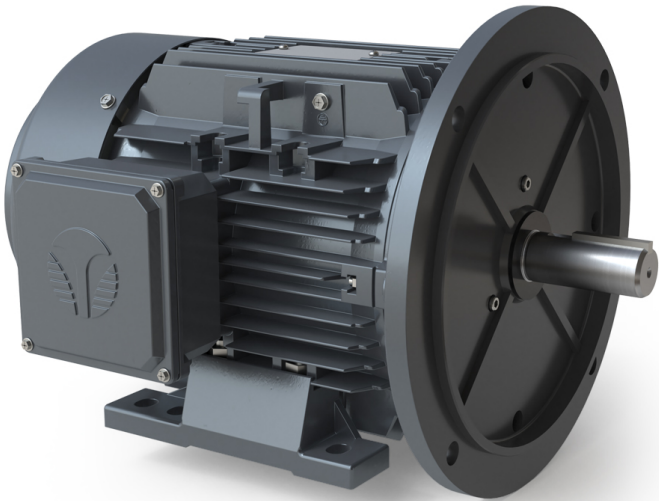
PHONE 506.386.5794  
EMAIL [infoNB@techtopcanada.com](mailto:infoNB@techtopcanada.com)

### Winnipeg

PHONE 204.633.2779  
EMAIL [infoMB@techtopcanada.com](mailto:infoMB@techtopcanada.com)

### Vancouver

PHONE 604.525.1551  
EMAIL [infoBC@techtopcanada.com](mailto:infoBC@techtopcanada.com)



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# NEMA

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| ELECTRICAL DATA                     |              |                            |
|-------------------------------------|--------------|----------------------------|
| Rated Motor Output Power            | 5            | HP                         |
|                                     | -            | kW                         |
| Rated Motor Speed                   | 3510         | r/min 60Hz                 |
|                                     | 2900         | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 230/460      | V/60Hz                     |
|                                     | 190/380      | V/50Hz                     |
| Rated Motor Current                 | 11.5/5.77    | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 13.5/6.75    | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3            | Ø                          |
| Locked Rotor Current @ High Voltage | 59           | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | 12.7         | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25         | @ 60Hz                     |
|                                     | 1            | @ 50Hz                     |
| KVA Code                            | L            | 60Hz                       |
|                                     | J            | 50Hz                       |
| Nominal Efficiency                  | 88.5         | % @ 60Hz                   |
| Nominal Power Factor                | 0.91         | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 9            | 16                         |
| Connection                          | YY/Y         | -                          |
| 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          | 44           | °C @ 60Hz                  |
|                                     | 64           | °C @ 50Hz                  |

| GENERAL DATA                        |                  |       |
|-------------------------------------|------------------|-------|
| Frame Size                          | 184TD            |       |
| Enclosure                           | TEFC             |       |
| Mounting                            | Rigid/D-Flange   |       |
| Approximate Weight (lbs.)           | 62 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                     | 6306 ZZ          |       |
| Bearing ODE Side                    | 6206 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                    | T3               | -     |

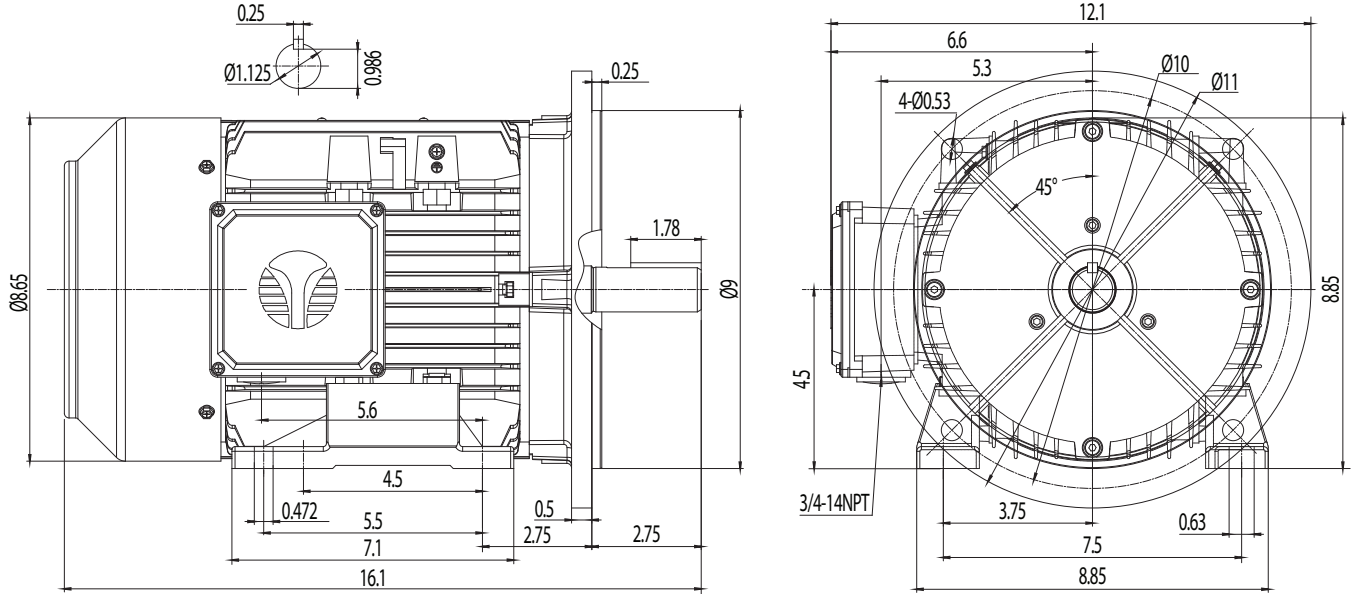
**Questions? Call 1.888.286.1820**

**DATA SHEET: THREE-PHASE SQUIRREL CAGE MOTOR**  
**PREMIUM T-FRAME ALUMINUM MOTORS**



**NEMA**

**Model GRA0052D-TD-01**  
**MFG PN: T184T5U2B**



| NAMEPLATE DATA             | 60Hz       | 50Hz      |
|----------------------------|------------|-----------|
| Horse Power                | 5          | 5         |
| RPM                        | 3510       | 2900      |
| Voltage                    | 230/460    | 190/380   |
| Full Load Amps             | 11.5/5.77  | 13.5/6.75 |
| Service Factor             | 1.25       | 1         |
| KVA Code                   | L          | J         |
| Full Load Amps (208V)      | 12.7       | -         |
| Nominal Efficiency         | 88.5       | 87.1      |
| Nominal Power Factor       | 0.91       | -         |
| Design                     | A          |           |
| Frame                      | 184TD      |           |
| Enclosure Type             | TEFC       |           |
| IP Rating                  | 55         |           |
| Duty                       | Cont. / S1 |           |
| Insulation Class           | F          |           |
| Ambient Rating             | 40         |           |
| Drive End Bearing          | 6306 ZZ    |           |
| Opposite Drive End Bearing | 6206 ZZ    |           |
| Weight (lbs)               | 62         |           |

**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

TECHTOPCANADA.COM

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

MADE IN CHINA

CC088A  
E323353  
C224653  
SP  
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

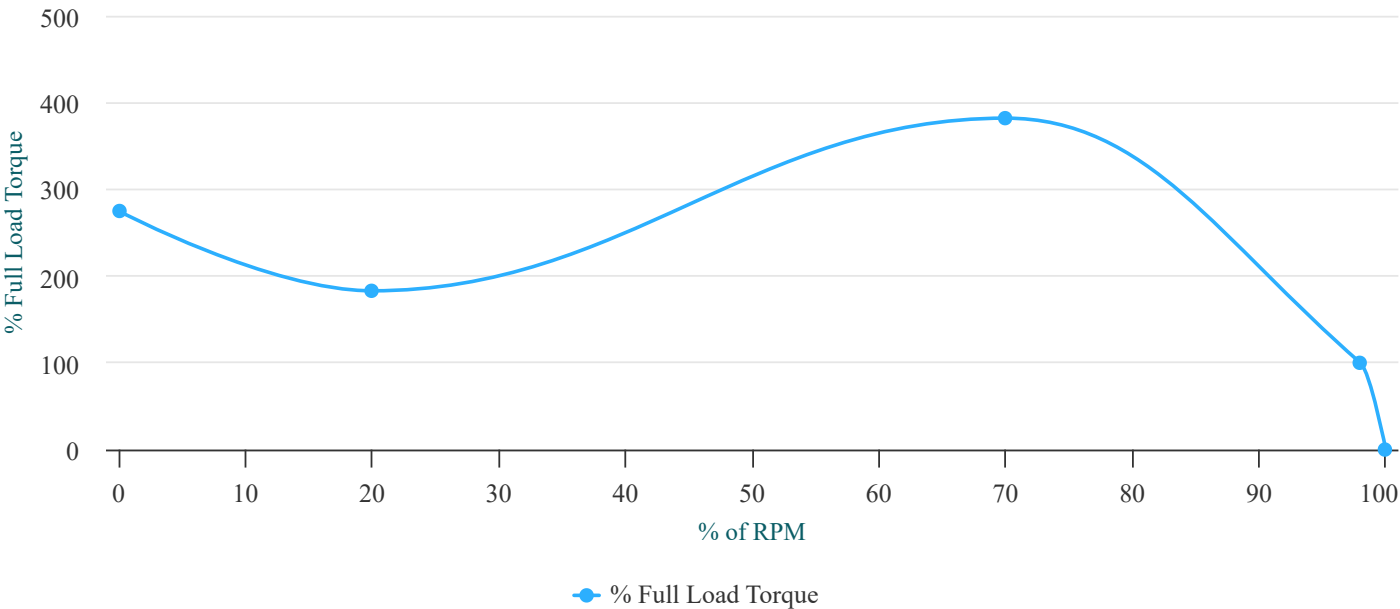
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

**Questions? Call 1.888.286.1820**

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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 | 20.6           | 275                  | Start Configuration  | DOL  |
| Pull-Up Torque      | 13.7           | 183                  | Starting Current (A) | 59   |
| Breakdown Torque    | 28.6           | 382                  | No-Load Current (A)  | 2    |
| Full Load Torque    | 7.5            | 100                  | No-Load Power Factor | 0.11 |

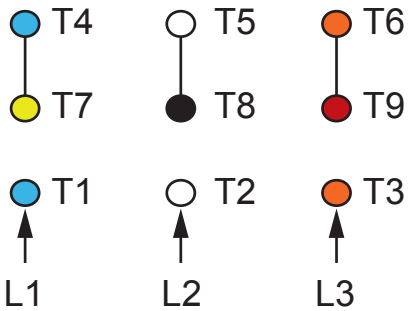
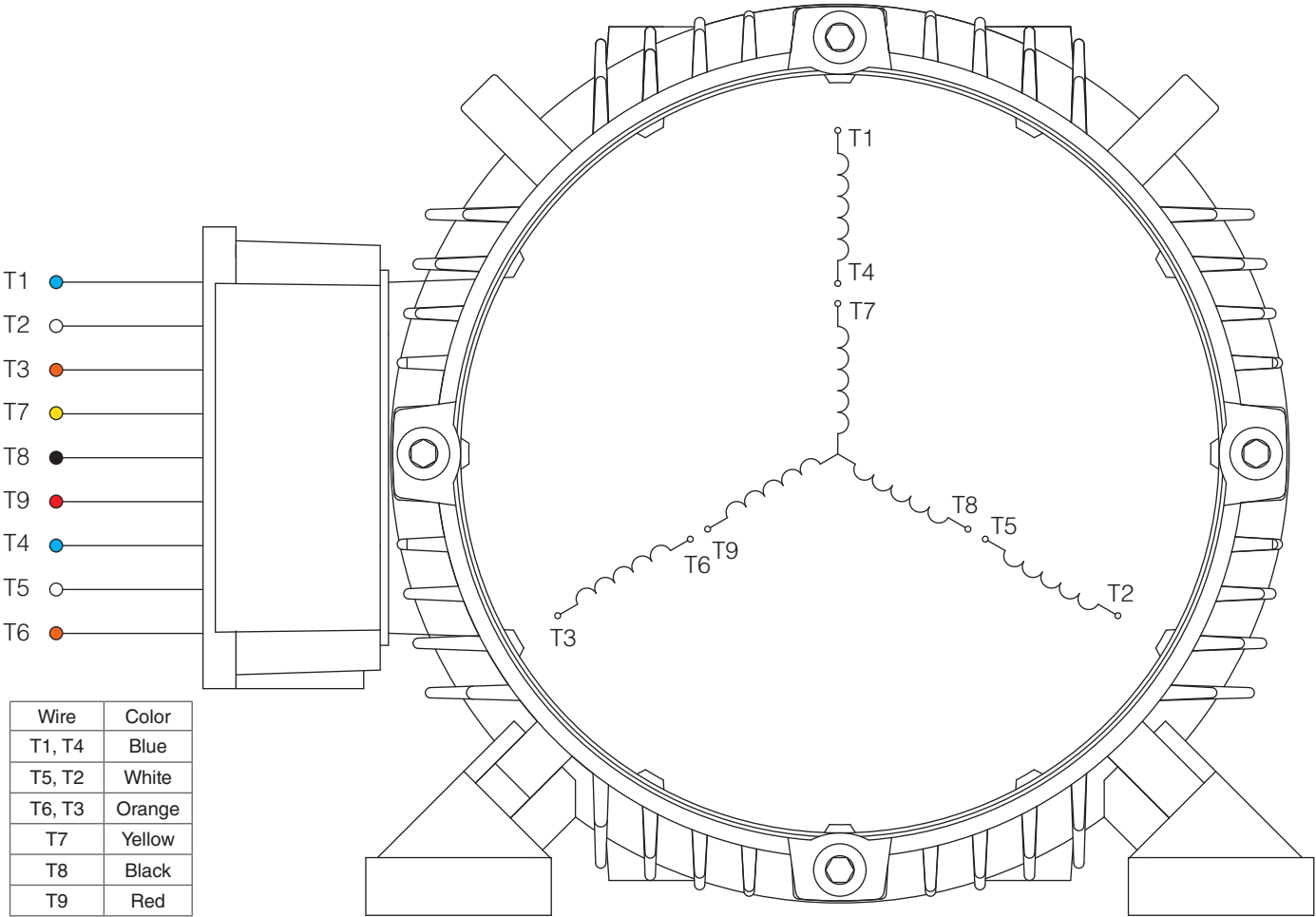
**TYPICAL PERFORMANCE - NOT GUARANTEED VALUES**

| % OF RATED LOAD     | 25   | 50   | 75   | 100  | 125  | S.F. 1.25 |
|---------------------|------|------|------|------|------|-----------|
| Line Amperes (A)    | 2.4  | 3.4  | 4.5  | 5.8  | 7.1  | 7.1       |
| Efficiency (%)      | 82.4 | 88.3 | 89.5 | 89.3 | 88.5 | 88.5      |
| Speed (r/min)       | 3582 | 3565 | 3547 | 3527 | 3506 | 3506      |
| Power Factor (cosΦ) | 0.58 | 0.79 | 0.87 | 0.9  | 0.92 | 0.92      |
| Input Power (kW)    | 1.12 | 2.1  | 3.1  | 4.14 | 5.23 | 5.23      |

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HIGH VOLTAGE  
(Y)



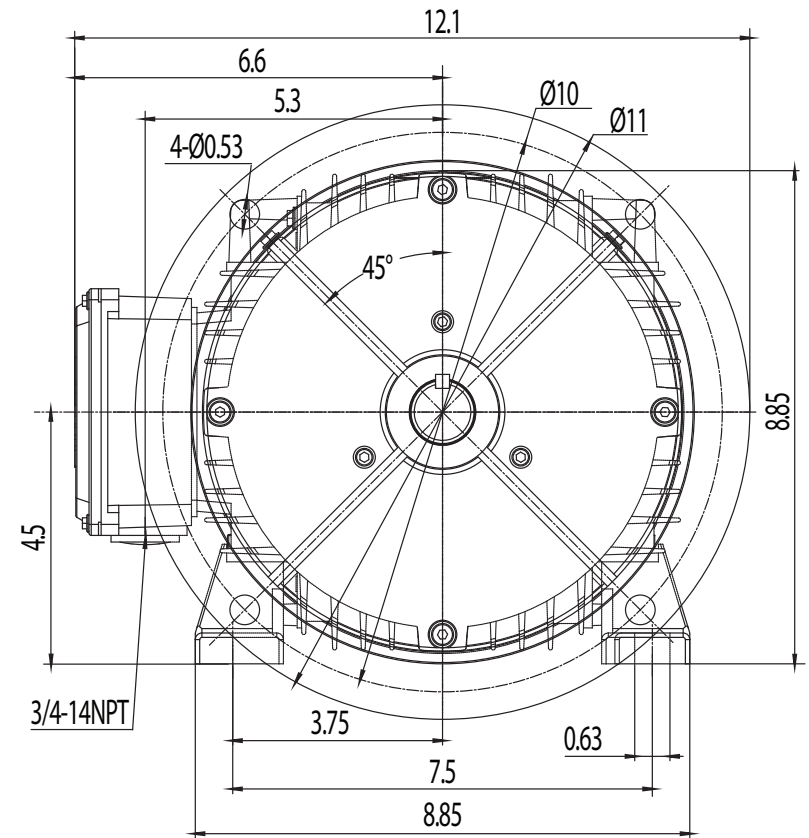
LOW VOLTAGE  
(YY)

- 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 YY/Y 9-Lead Dual Voltage

|                     |               |                                 |          |
|---------------------|---------------|---------------------------------|----------|
| DRAWING NUMBER:     | NEMA-3-9-YY-Y | ISSUED DATE                     | 22/01/25 |
| CONNECTION:         | YY/Y          | PREMIUM T-FRAME ALUMINUM MOTORS |          |
| NUMBER OF LEADS:    | 9             |                                 |          |
| THERMAL PROTECTION: | -             |                                 |          |



|                  |                    |                                 |          |
|------------------|--------------------|---------------------------------|----------|
| DRAWING NUMBER:  | GR3-AL-TF-180TD-01 | ISSUED DATE                     | 22/01/25 |
| DIMENSIONS:      | Inches             |                                 |          |
| MOUNTING:        | Rigid/D-Flange     | PREMIUM T-FRAME ALUMINUM MOTORS |          |
| CASING MATERIAL: | Cast Aluminum      |                                 |          |