

**NEMA**

**Model GRC0052D-TC**  
MFG PN: T184T5U2B

# Model GRC0052D-TC

## Product Data Package



| MODEL       | HP | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|-------------|----|------|---------|-------|----|-------|----------------|-----------|
| GRC0052D-TC | 5  | 3510 | 230/460 | 3     | 60 | 184TC | Rigid/C-Flange | TEFC      |

### Toronto

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### Moncton

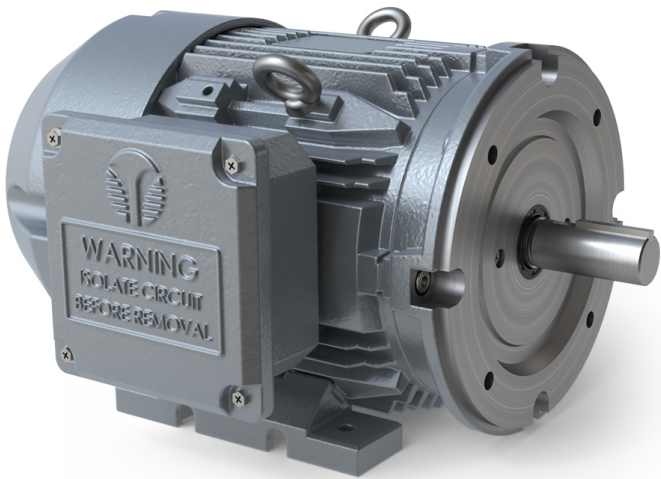
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**Model GRC0052D-TC**  
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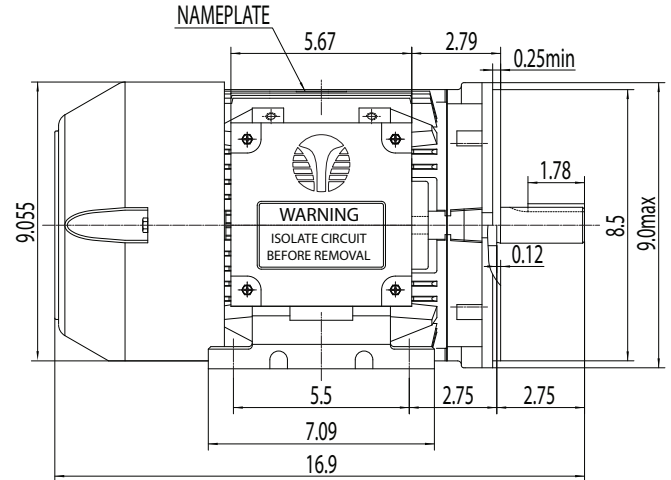
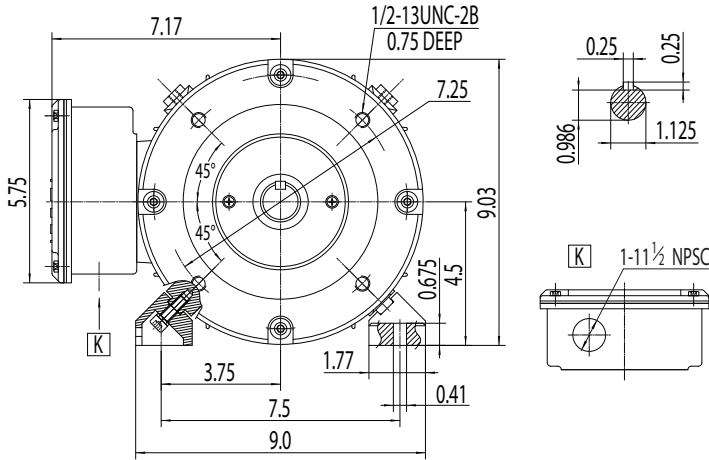
| ELECTRICAL DATA                     |          |                            |
|-------------------------------------|----------|----------------------------|
| Rated Motor Output Power            | 5        | HP                         |
|                                     | -        | kW                         |
| Rated Motor Speed                   | 3510     | r/min 60Hz                 |
|                                     | 2865     | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 230/460  | V/60Hz                     |
|                                     | 190/380  | V/50Hz                     |
| Rated Motor Current                 | 11.4/5.7 | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 14.2/7.1 | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3        | Ø                          |
| Locked Rotor Current @ High Voltage | 52.11    | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | 12.72    | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25     | @ 60Hz                     |
|                                     | 1        | @ 50Hz                     |
| KVA Code                            | K        | 60Hz                       |
|                                     | G        | 50Hz                       |
| Nominal Efficiency                  | 88.5     | % @ 60Hz                   |
| Nominal Power Factor                | 0.92     | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 9        | 16                         |
| Connection                          | YY/Y     | -                          |
| Coil Resistance                     | 2.869    | Ω                          |
| Start Capacitor                     | -        | µF/V                       |
| Run Capacitor                       | -        | µF/V                       |
| VFD DUTY (S.F. 1.0)                 | RATIO    | Hz                         |
| Variable Torque                     | 30:1     | 2 - 60                     |
| Constant Torque                     | 15:1     | 4 - 60                     |
| FULL LOAD TEMPERATURE RISE          |          |                            |
| Full Load Temperature Rise          | 35.6     | °C @ 60Hz                  |
|                                     | 55.6     | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 184TC            |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid/C-Flange   |           |
| Approximate Weight (lbs.)           | 106 lbs.         |           |
| Casing Material / Fan Cover         | Cast Iron        | Cast Iron |
| Shaft Material                      | -                |           |
| 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              | NO        |
| Paintwork                           | 7024             |           |
|                                     | Graphite Gray    |           |
| MECHANICAL DATA                     |                  |           |
| Bearing DE Side                     | 6306 ZZ          |           |
| Bearing ODE Side                    | 6306 ZZ          |           |
| Grease Type                         | Mobil Polyrex EM |           |
| Compensation Ring (wavy washer)     | NDE              |           |
| Moment of Inertia (lb-ft²)          | 0.16             |           |
| 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**

**NEMA**

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MFG PN: T184T5U2B



| NAMEPLATE DATA             | 60Hz       | 50Hz     |
|----------------------------|------------|----------|
| Horse Power                | 5          | 5        |
| RPM                        | 3510       | 2865     |
| Voltage                    | 230/460    | 190/380  |
| Full Load Amps             | 11.4/5.7   | 14.2/7.1 |
| Service Factor             | 1.25       | 1        |
| KVA Code                   | K          | G        |
| Full Load Amps (208V)      | 12.72      | -        |
| Nominal Efficiency         | 88.5       | 85.9     |
| Nominal Power Factor       | 0.92       | -        |
| Design                     | A          |          |
| Frame                      | 184TC      |          |
| Enclosure Type             | TEFC       |          |
| IP Rating                  | 55         |          |
| Duty                       | Cont. / S1 |          |
| Insulation Class           | F          |          |
| Ambient Rating             | 40         |          |
| Drive End Bearing          | 6306 ZZ    |          |
| Opposite Drive End Bearing | 6306 ZZ    |          |
| Weight (lbs)               | 106        |          |

NAMEPLATE LAYOUT

|                                                                                       |                          |                     |          |
|---------------------------------------------------------------------------------------|--------------------------|---------------------|----------|
| <b>TECHTOP</b> INDUSTRIAL THREE PHASE MOTOR<br>INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF |                          | TECHTOPCANADA.COM   |          |
| MODEL                                                                                 | 60Hz                     | 50Hz                | MFG PN   |
| NEMA Premium                                                                          | HP                       |                     | MFG DATE |
|                                                                                       | RPM                      |                     | SER #    |
|                                                                                       | VOLT                     |                     | DESIGN   |
|                                                                                       | FLA                      |                     | FRAME    |
|                                                                                       | SF                       |                     | ENCL     |
|                                                                                       | KVA CODE                 |                     | IP       |
|                                                                                       | NOM.EFF                  |                     | DUTY     |
| USABLE AT 208V 60Hz                                                                   | BEARING SIZE             |                     | INS CL   |
| FLA                                                                                   | DE                       | ODE                 | AMB      |
|                                                                                       | GREASE: MOBIL POLYREX EM |                     | WEIGHT   |
| MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D                                    |                          | IEEE 45 MARINE DUTY |          |

| 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

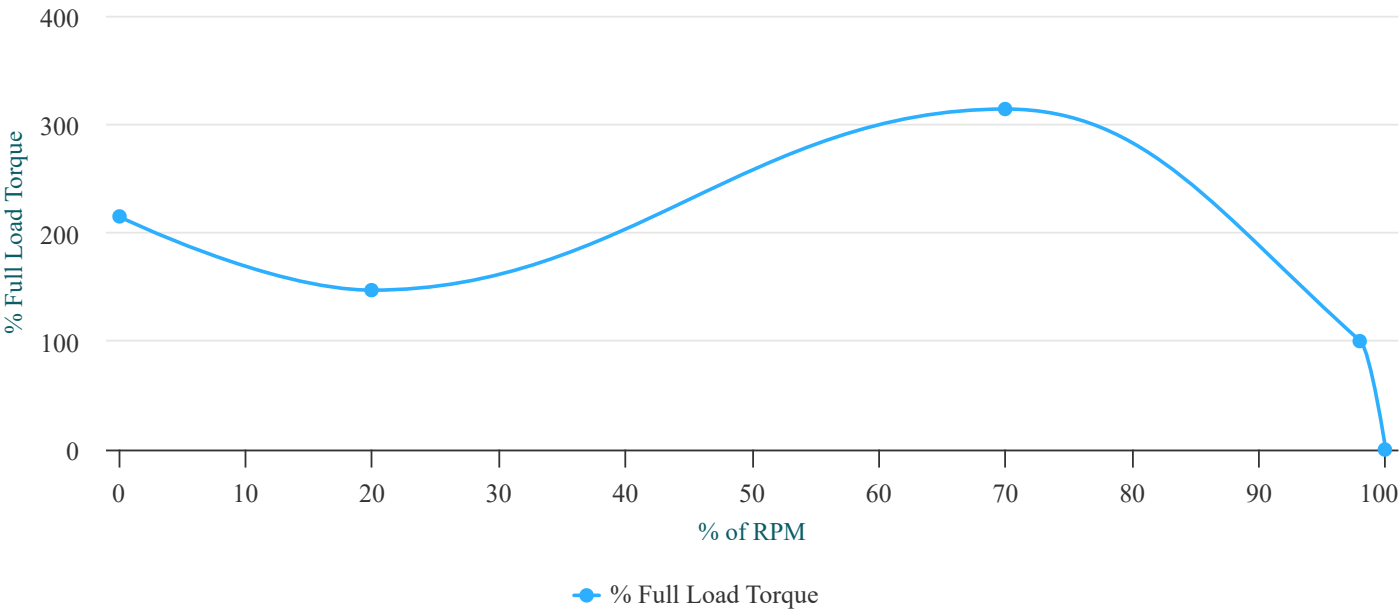
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

Questions? Call 1.888.286.1820

**NEMA**

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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 | 16.1           | 215                  | Start Configuration  | DOL   |
| Pull-Up Torque      | 11             | 147                  | Starting Current (A) | 52.11 |
| Breakdown Torque    | 23.5           | 314                  | No-Load Current (A)  | 1.6   |
| 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)    | 2.1  | 3.1  | 4.3  | 5.6  | 7.1  | 7.1       |
| Efficiency (%)      | 85.9 | 90.1 | 90.5 | 89.7 | 88.3 | 88.3      |
| Speed (r/min)       | 3578 | 3557 | 3535 | 3510 | 3482 | 3482      |
| Power Factor (cosΦ) | 0.65 | 0.83 | 0.9  | 0.92 | 0.93 | 0.93      |
| Input Power (kW)    | 1.08 | 2.05 | 3.07 | 4.13 | 5.24 | 5.24      |

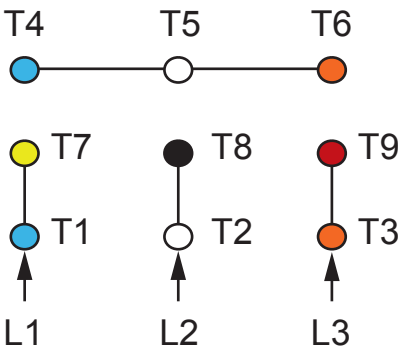
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Model **GRC0052D-TC**  
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HIGH VOLTAGE  
(Y)



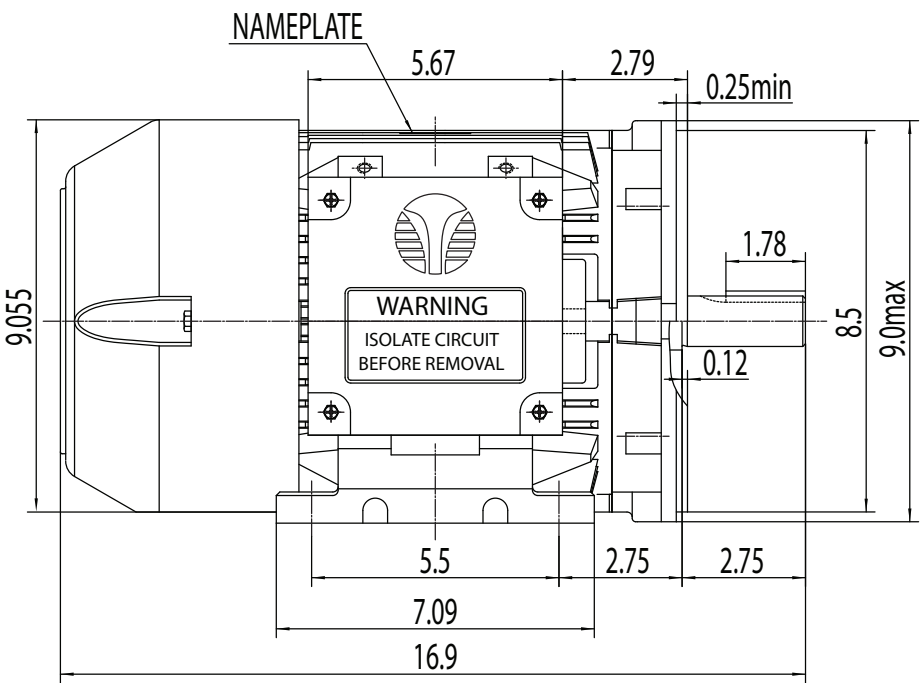
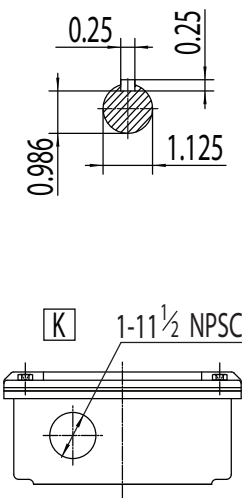
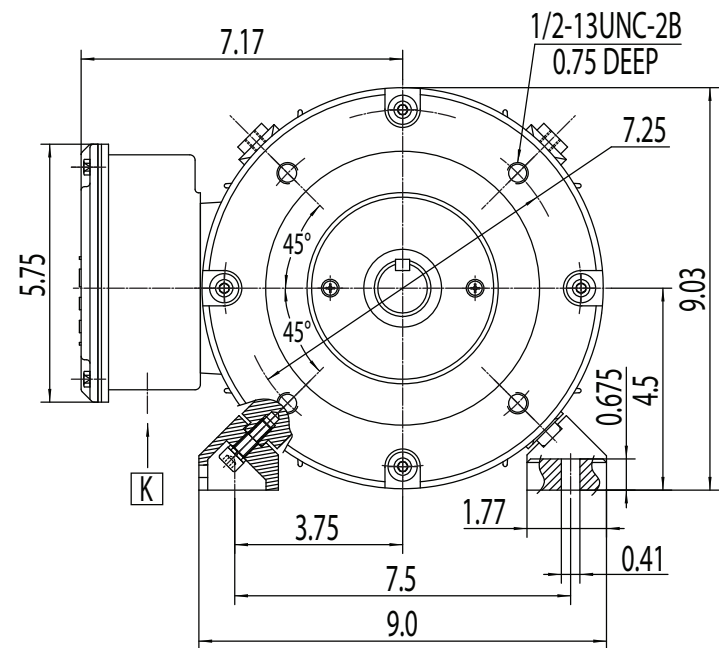
LOW VOLTAGE  
(YY)

- 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                      | 02/04/25 |
| CONNECTION:         | YY/Y          | PREMIUM T-FRAME CAST IRON MOTORS |          |
| NUMBER OF LEADS:    | 9             |                                  |          |
| THERMAL PROTECTION: | -             |                                  |          |



NEMA Premium TEFC 184TC

|                  |                     |                                  |          |
|------------------|---------------------|----------------------------------|----------|
| DRAWING NUMBER:  | GR3-CI-TF-184TC-CFC | ISSUED DATE                      | 02/04/25 |
| DIMENSIONS:      | Inches              | PREMIUM T-FRAME CAST IRON MOTORS |          |
| MOUNTING:        | Rigid/C-Flange      |                                  |          |
| CASING MATERIAL: | Cast Iron           |                                  |          |