

**NEMA**

**Model GRC0404D-TC**  
MFG PN: T324T40U4B

# Model GRC0404D-TC

## Product Data Package



| MODEL       | HP | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|-------------|----|------|---------|-------|----|-------|----------------|-----------|
| GRC0404D-TC | 40 | 1780 | 230/460 | 3     | 60 | 324TC | Rigid/C-Flange | TEFC      |

### Toronto

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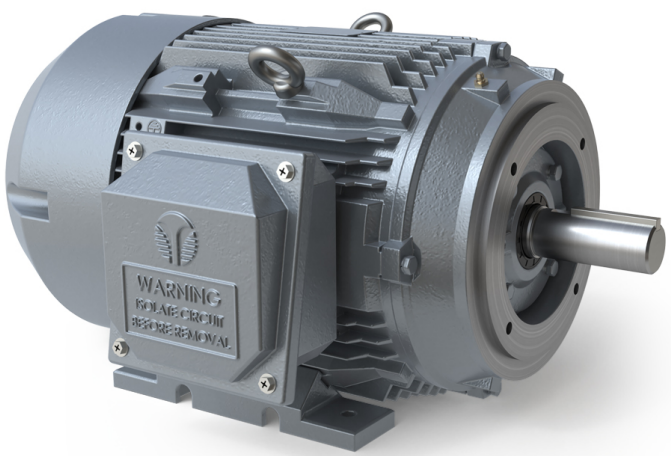
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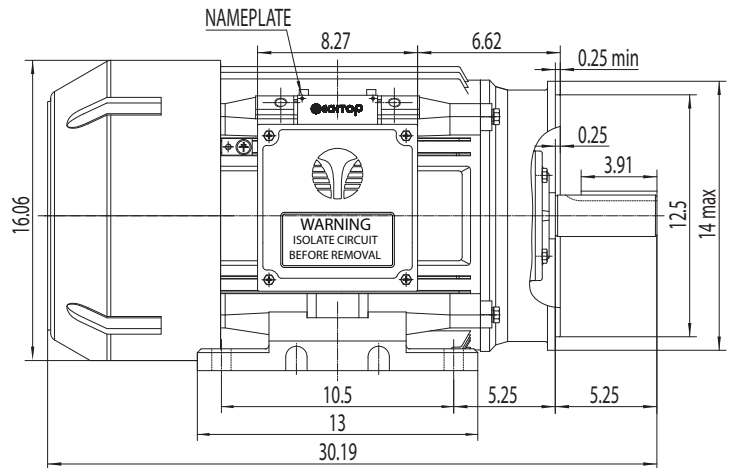
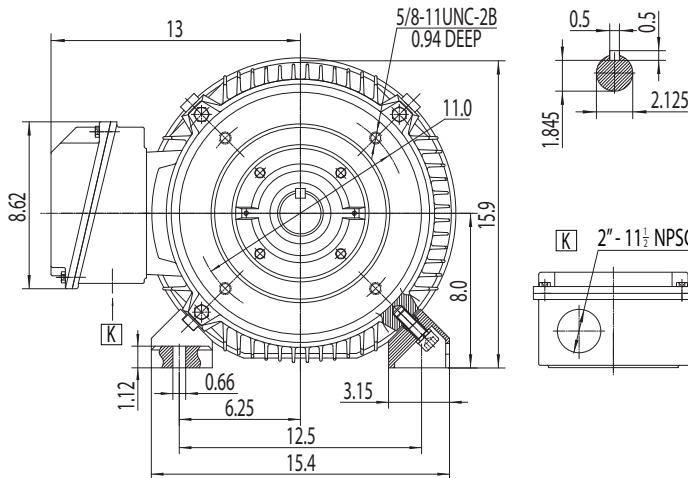
| ELECTRICAL DATA                     |           |                            |
|-------------------------------------|-----------|----------------------------|
| Rated Motor Output Power            | 40        | HP                         |
|                                     | -         | kW                         |
| Rated Motor Speed                   | 1780      | r/min 60Hz                 |
|                                     | 1470      | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 230/460   | V/60Hz                     |
|                                     | 190/380   | V/50Hz                     |
| Rated Motor Current                 | 93.6/46.8 | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 114/57    | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3         | Ø                          |
| Locked Rotor Current @ High Voltage | 402.3     | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | 103.56    | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25      | @ 60Hz                     |
|                                     | 1         | @ 50Hz                     |
| KVA Code                            | H         | 60Hz                       |
|                                     | G         | 50Hz                       |
| Nominal Efficiency                  | 94.1      | % @ 60Hz                   |
| Nominal Power Factor                | 0.85      | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 12        | 10                         |
| Connection                          | DD/D      | -                          |
| Coil Resistance                     | 0.17      | 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          | 57.7      | °C @ 60Hz                  |
|                                     | 79.2      | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 324TC            |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid/C-Flange   |           |
| Approximate Weight (lbs.)           | 571 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                     | 6312 C3          |           |
| Bearing ODE Side                    | 6312 C3          |           |
| Grease Type                         | Mobil Polyrex EM |           |
| Compensation Ring (wavy washer)     | NDE              |           |
| Moment of Inertia (lb-ft²)          | 7.14             |           |
| 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                | 40         | 40      |
| RPM                        | 1780       | 1470    |
| Voltage                    | 230/460    | 190/380 |
| Full Load Amps             | 93.6/46.8  | 114/57  |
| Service Factor             | 1.25       | 1       |
| KVA Code                   | H          | G       |
| Full Load Amps (208V)      | 103.56     | -       |
| Nominal Efficiency         | 94.1       | 92.1    |
| Nominal Power Factor       | 0.85       | -       |
| Design                     | A          |         |
| Frame                      | 324TC      |         |
| Enclosure Type             | TEFC       |         |
| IP Rating                  | 55         |         |
| Duty                       | Cont. / S1 |         |
| Insulation Class           | F          |         |
| Ambient Rating             | 40         |         |
| Drive End Bearing          | 6312 C3    |         |
| Opposite Drive End Bearing | 6312 C3    |         |
| Weight (lbs)               | 571        |         |

#### NAMEPLATE LAYOUT

|                                                    |                          |                                                                        |          |
|----------------------------------------------------|--------------------------|------------------------------------------------------------------------|----------|
| <b>TECHTOP</b>                                     |                          | INDUSTRIAL THREE PHASE MOTOR<br>INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF |          |
| MODEL                                              | TECHTOPCANADA.COM        |                                                                        |          |
| NEMA Premium                                       | 60Hz                     | 50Hz                                                                   | MFG PN   |
| 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)

Variable Torque  
Constant Torque

#### RATIO

30:1  
15:1

#### Hz\*

2 - 60  
4 - 60

\*For max speed please contact Techtop Canada

#### HAZARDOUS LOCATIONS

Class / Division  
Groups

#### CSA CERTIFIED

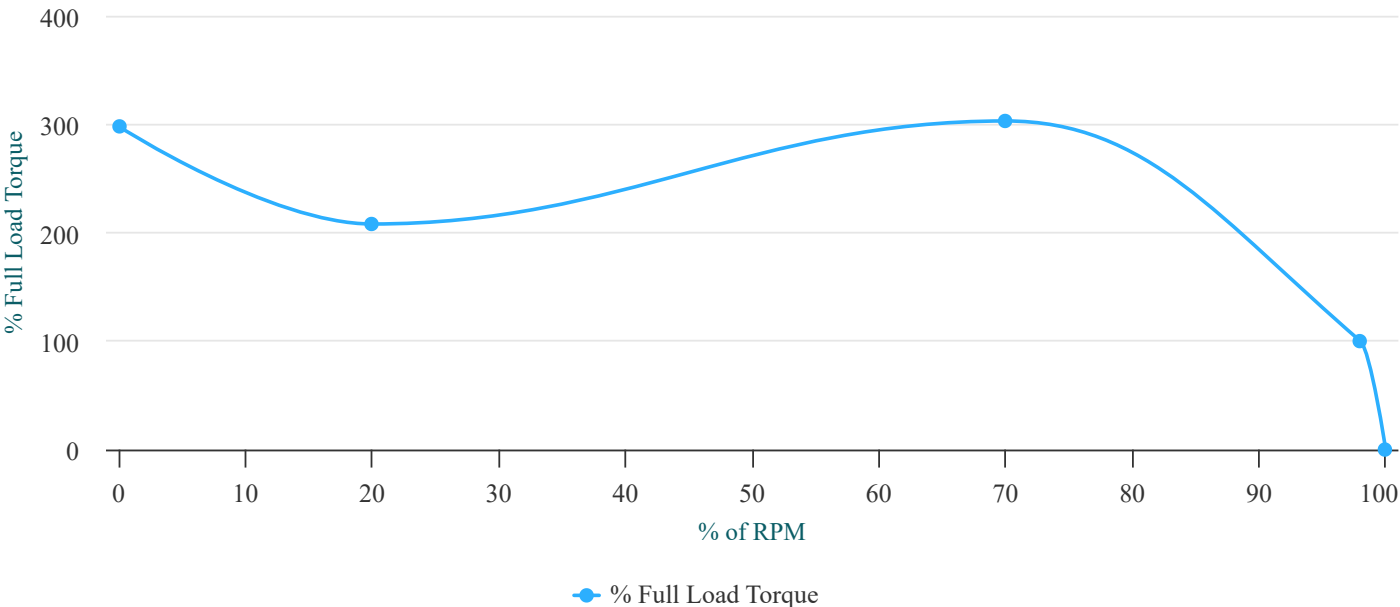
Class I, Div. 2  
A, B, C & D

Questions? Call 1.888.286.1820



**Model GRC0404D-TC**  
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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 | 351.7          | 298                  | Start Configuration  | DOL   |
| Pull-Up Torque      | 245.5          | 208                  | Starting Current (A) | 402.3 |
| Breakdown Torque    | 357.6          | 303                  | No-Load Current (A)  | 19.4  |
| Full Load Torque    | 118            | 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)    | 22.1 | 28.8  | 37.4  | 47.3  | 58.2  | 58.2      |
| Efficiency (%)      | 90.9 | 93.9  | 94.3  | 93.9  | 93.2  | 93.2      |
| Speed (r/min)       | 1795 | 1790  | 1785  | 1780  | 1774  | 1774      |
| Power Factor (cosΦ) | 0.47 | 0.7   | 0.8   | 0.85  | 0.87  | 0.87      |
| Input Power (kW)    | 8.25 | 15.98 | 23.87 | 31.95 | 40.24 | 40.24     |

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Model **GRC0404D-TC**  
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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

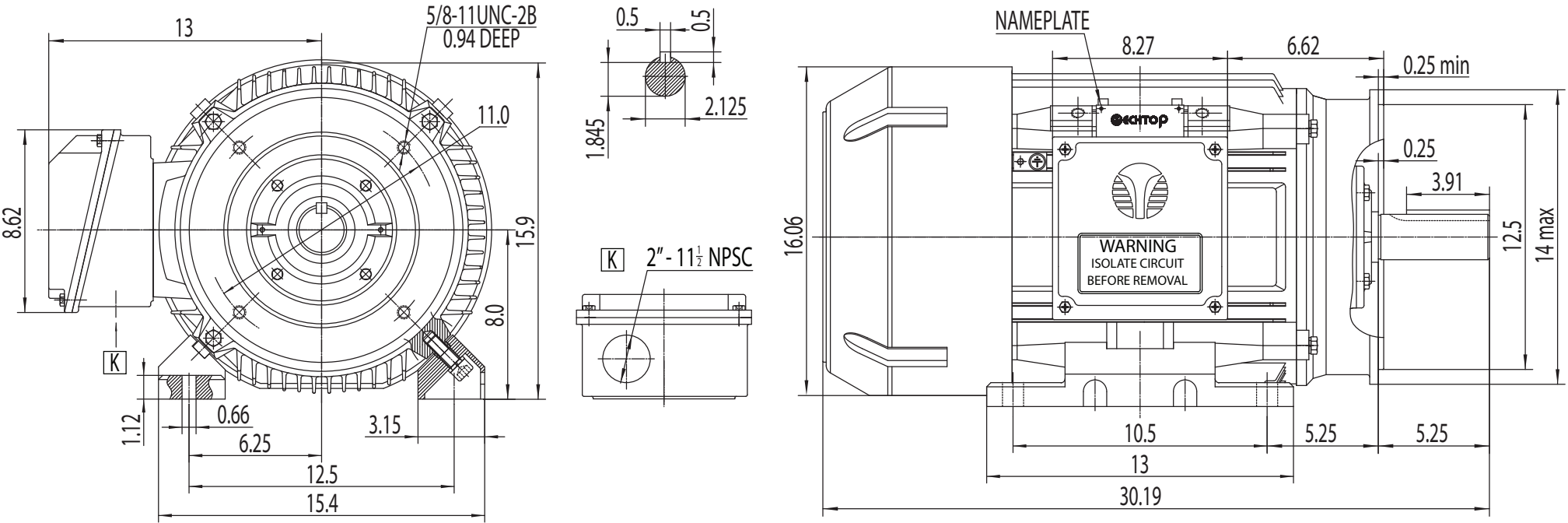


NEMA 3Ø DD/D 12-Lead Dual Voltage

|                     |                |                                  |          |
|---------------------|----------------|----------------------------------|----------|
| DRAWING NUMBER:     | NEMA-3-12-DD-D | ISSUED DATE                      | 28/05/25 |
| CONNECTION:         | DD/D           | PREMIUM T-FRAME CAST IRON MOTORS |          |
| NUMBER OF LEADS:    | 12             |                                  |          |
| THERMAL PROTECTION: | -              |                                  |          |



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**NEMA Premium TEFC 324TC**

|                  |                     |                                  |          |
|------------------|---------------------|----------------------------------|----------|
| DRAWING NUMBER:  | GR3-CI-TF-324TC-CFC | ISSUED DATE                      | 28/05/25 |
| DIMENSIONS:      | Inches              | PREMIUM T-FRAME CAST IRON MOTORS |          |
| MOUNTING:        | Rigid/C-Flange      |                                  |          |
| CASING MATERIAL: | Cast Iron           |                                  |          |