

**NEMA**

**Model GRC0014D-TC**  
MFG PN: T145T1.5U4B

# Model GRC0014D-TC

## Product Data Package



| MODEL       | HP  | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|-------------|-----|------|---------|-------|----|-------|----------------|-----------|
| GRC0014D-TC | 1.5 | 1740 | 230/460 | 3     | 60 | 145TC | Rigid/C-Flange | TEFC      |

### Toronto

**TOLL FREE** 1.888.286.1820  
**PHONE** 905.829.1001  
**EMAIL** info@techtopcanada.com

### Montreal

**TOLL FREE** 1.844.354.5111  
**PHONE** 514.354.1002  
**EMAIL** infoQC@techtopcanada.com

### Moncton

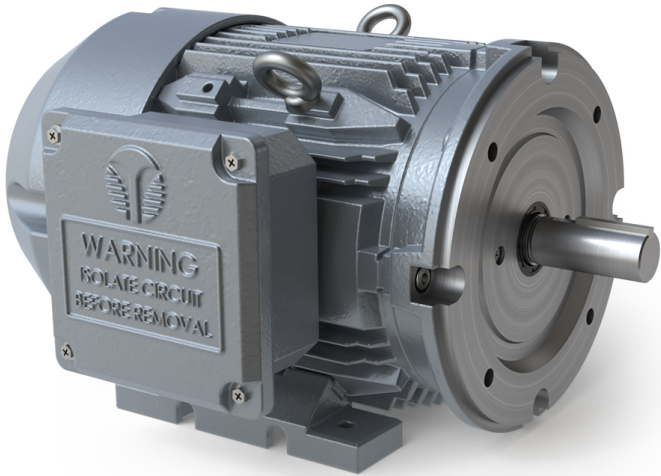
**PHONE** 506.386.5794  
**EMAIL** infoNB@techtopcanada.com

### Winnipeg

**PHONE** 204.633.2779  
**EMAIL** infoMB@techtopcanada.com

### Vancouver

**PHONE** 604.525.1551  
**EMAIL** infoBC@techtopcanada.com



### Index

|                               |     |
|-------------------------------|-----|
| Motor General Data Sheet      | P 2 |
| Nameplate Information         | P 3 |
| Technical Performance Data    | P 4 |
| Motor General Wiring Diagram  | P 5 |
| Motor General Outline Drawing | P 6 |

# NEMA

**Model GRC0014D-TC**  
**MFG PN: T145T1.5U4B**

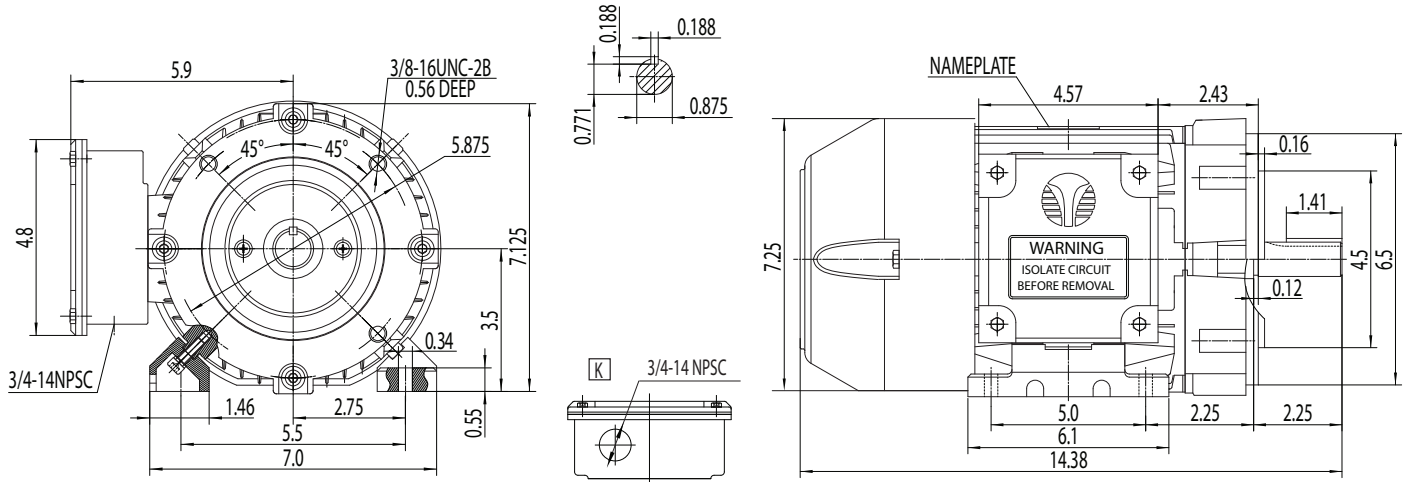
| ELECTRICAL DATA                     |         |                            |
|-------------------------------------|---------|----------------------------|
| Rated Motor Output Power            | 1.5     | HP                         |
|                                     | -       | kW                         |
| Rated Motor Speed                   | 1740    | r/min 60Hz                 |
|                                     | 1410    | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 230/460 | V/60Hz                     |
|                                     | 190/380 | V/50Hz                     |
| Rated Motor Current                 | 4.4/2.2 | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 5/2.5   | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3       | Ø                          |
| Locked Rotor Current @ High Voltage | 16.74   | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | 4.79    | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25    | @ 60Hz                     |
|                                     | 1       | @ 50Hz                     |
| KVA Code                            | L       | 60Hz                       |
|                                     | H       | 50Hz                       |
| Nominal Efficiency                  | 86.5    | % @ 60Hz                   |
| Nominal Power Factor                | 0.75    | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 9       | 18                         |
| Connection                          | YY/Y    | -                          |
| Coil Resistance                     | 9.069   | 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          | 36.8    | °C @ 60Hz                  |
|                                     | 51      | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 145TC            |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid/C-Flange   |           |
| Approximate Weight (lbs.)           | 58 lbs.          |           |
| Casing Material / Fan Cover         | Cast Iron        | Cast Iron |
| Shaft Material                      | -                |           |
| NEMA Design                         | B                |           |
| 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                     | 6205 ZZ          |           |
| Bearing ODE Side                    | 6205 ZZ          |           |
| Grease Type                         | Mobil Polyrex EM |           |
| Compensation Ring (wavy washer)     | NDE              |           |
| Moment of Inertia (lb-ft²)          | 0.09             |           |
| Sound Pressure @ 3 FT dBA           | 62.2             |           |
| SITE CONDITIONS                     |                  |           |
| Ambient Temperature (°C)            | 40               |           |
| Meters Above Sea Level (MASL)       | 1000             |           |
| HAZARDOUS LOCATIONS                 |                  |           |
| CSA Certified                       | A, B, C & D      |           |
| Temperature Code                    | T2D              | -         |

**Questions? Call 1.888.286.1820**

**NEMA**

**Model GRC0014D-TC**  
MFG PN: T145T1.5U4B



| NAMEPLATE DATA             | 60Hz       | 50Hz    |
|----------------------------|------------|---------|
| Horse Power                | 1.5        | 1.5     |
| RPM                        | 1740       | 1410    |
| Voltage                    | 230/460    | 190/380 |
| Full Load Amps             | 4.4/2.2    | 5/2.5   |
| Service Factor             | 1.25       | 1       |
| KVA Code                   | L          | H       |
| Full Load Amps (208V)      | 4.79       | -       |
| Nominal Efficiency         | 86.5       | 83.5    |
| Nominal Power Factor       | 0.75       | -       |
| Design                     | B          |         |
| Frame                      | 145TC      |         |
| Enclosure Type             | TEFC       |         |
| IP Rating                  | 55         |         |
| Duty                       | Cont. / S1 |         |
| Insulation Class           | F          |         |
| Ambient Rating             | 40         |         |
| Drive End Bearing          | 6205 ZZ    |         |
| Opposite Drive End Bearing | 6205 ZZ    |         |
| Weight (lbs)               | 58         |         |

#### NAMEPLATE LAYOUT

|                     |      |                                        |                 |
|---------------------|------|----------------------------------------|-----------------|
| <b>TECHTOP</b>      |      | INDUSTRIAL THREE PHASE MOTOR           |                 |
|                     |      | 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 |      |                                        | INS CL          |
| FLA                 |      |                                        | AMB             |
|                     |      |                                        | WEIGHT          |
|                     |      |                                        | lbs             |
|                     |      |                                        | Energy Verified |
| MADE IN CHINA       |      | 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

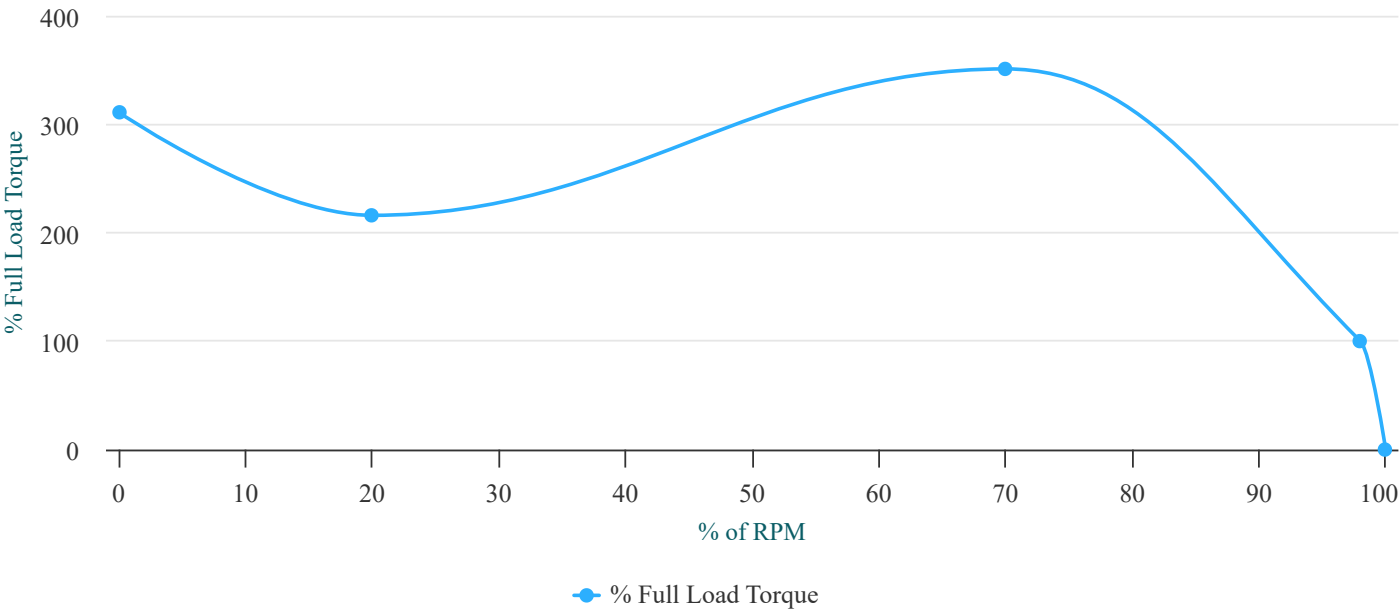
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

Questions? Call 1.888.286.1820

**NEMA**

**Model GRC0014D-TC**  
MFG PN: T145T1.5U4B

**Torque Speed (T-n) Curve**



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

| TORQUE VALUES       | TORQUE (lb-ft) | TORQUE (% FULL LOAD) | PERFORMANCE VALUES   |       |
|---------------------|----------------|----------------------|----------------------|-------|
| Locked Rotor Torque | 14.1           | 311                  | Start Configuration  | DOL   |
| Pull-Up Torque      | 9.8            | 216                  | Starting Current (A) | 16.74 |
| Breakdown Torque    | 15.9           | 351                  | No-Load Current (A)  | 1.2   |
| Full Load Torque    | 4.5            | 100                  | No-Load Power Factor | 0.08  |

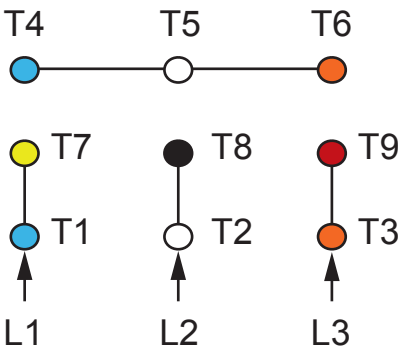
**TYPICAL PERFORMANCE - NOT GUARANTEED VALUES**

| % OF RATED LOAD     | 25   | 50   | 75   | 100  | 125  | S.F. 1.25 |
|---------------------|------|------|------|------|------|-----------|
| Line Amperes (A)    | 1.3  | 1.5  | 1.8  | 2.1  | 2.5  | 2.5       |
| Efficiency (%)      | 76.4 | 84.2 | 86.1 | 86   | 85.1 | 85.1      |
| Speed (r/min)       | 1787 | 1775 | 1762 | 1748 | 1732 | 1732      |
| Power Factor (cosΦ) | 0.36 | 0.56 | 0.68 | 0.76 | 0.8  | 0.8       |
| Input Power (kW)    | 0.36 | 0.65 | 0.96 | 1.28 | 1.62 | 1.62      |

Questions? **Call 1.888.286.1820**



HIGH VOLTAGE  
(Y)



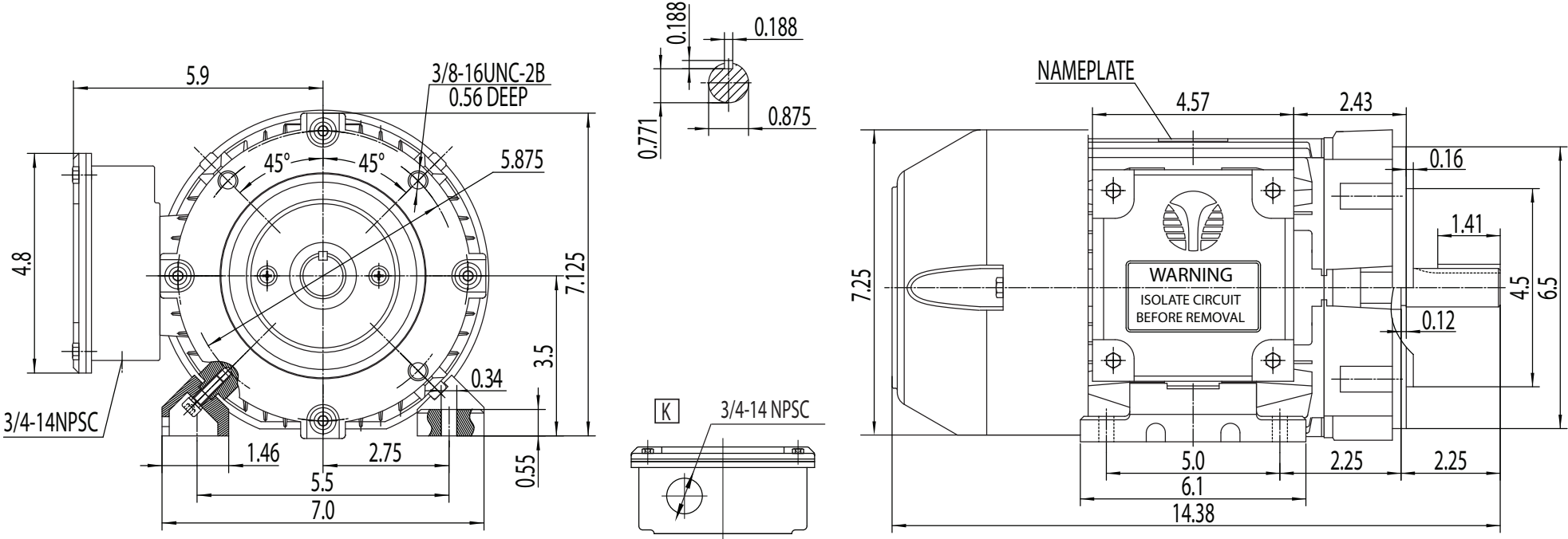
LOW VOLTAGE  
(YY)

- 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                      | 11/03/25 |
| CONNECTION:         | YY/Y          | PREMIUM T-FRAME CAST IRON MOTORS |          |
| NUMBER OF LEADS:    | 9             |                                  |          |
| THERMAL PROTECTION: | -             |                                  |          |



NEMA Premium TEFC 145TC

|                  |                     |                                  |          |
|------------------|---------------------|----------------------------------|----------|
| DRAWING NUMBER:  | GR3-CI-TF-145TC-CFC | ISSUED DATE                      | 11/03/25 |
| DIMENSIONS:      | Inches              | PREMIUM T-FRAME CAST IRON MOTORS |          |
| MOUNTING:        | Rigid/C-Flange      |                                  |          |
| CASING MATERIAL: | Cast Iron           |                                  |          |