

**NEMA**

**Model GRC0024D**  
MFG PN: T145T2U4B

# Model GRC0024D

## Product Data Package



| MODEL    | HP | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT | ENCLOSURE |
|----------|----|------|---------|-------|----|-------|-------|-----------|
| GRC0024D | 2  | 1740 | 230/460 | 3     | 60 | 145T  | Rigid | TEFC      |

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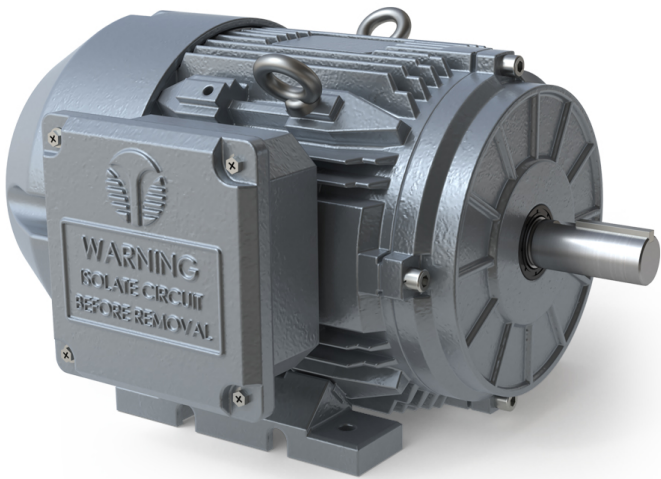
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**Model GRC0024D**  
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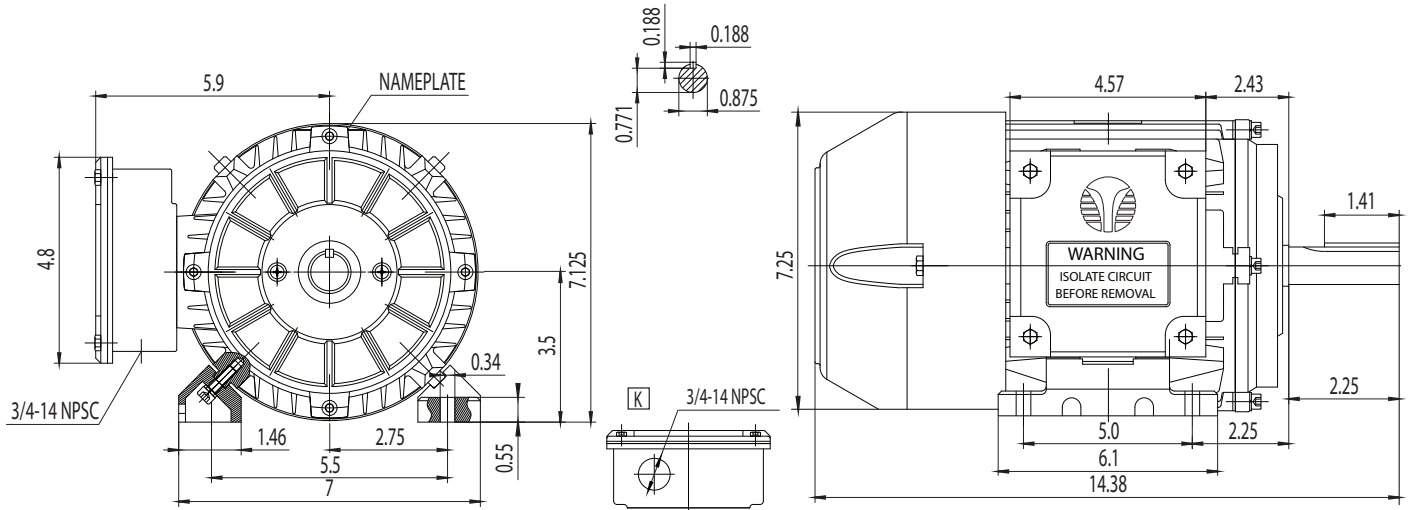
| ELECTRICAL DATA                     |              |                            |
|-------------------------------------|--------------|----------------------------|
| Rated Motor Output Power            | 2            | HP                         |
|                                     | -            | 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                 | 5.6/2.8      | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 6.8/3.4      | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3            | Ø                          |
| Locked Rotor Current @ High Voltage | 20.71        | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | 6.14         | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25         | @ 60Hz                     |
|                                     | 1            | @ 50Hz                     |
| KVA Code                            | K            | 60Hz                       |
|                                     | G            | 50Hz                       |
| Nominal Efficiency                  | 86.5         | % @ 60Hz                   |
| Nominal Power Factor                | 0.78         | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 9            | 18                         |
| Connection                          | YY/Y         | -                          |
| Coil Resistance                     | 7.063        | 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          | 50           | °C @ 60Hz                  |
|                                     | 72.8         | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 145T             |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid            |           |
| Approximate Weight (lbs.)           | 63.5 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)          | 0.1              |           |
| 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**

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| NAMEPLATE DATA             | 60Hz       | 50Hz    |
|----------------------------|------------|---------|
| Horse Power                | 2          | 2       |
| RPM                        | 1740       | 1410    |
| Voltage                    | 230/460    | 190/380 |
| Full Load Amps             | 5.6/2.8    | 6.8/3.4 |
| Service Factor             | 1.25       | 1       |
| KVA Code                   | K          | G       |
| Full Load Amps (208V)      | 6.14       | -       |
| Nominal Efficiency         | 86.5       | 83.1    |
| Nominal Power Factor       | 0.78       | -       |
| Design                     | B          |         |
| Frame                      | 145T       |         |
| 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)               | 63.5       |         |

#### 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                                       |     | MFG PN                                                                 |  |
| 60Hz                                               |     | 50Hz                                                                   |  |
| 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                                                                    |  |
| BEARING SIZE                                       |     | WEIGHT                                                                 |  |
| DE                                                 | ODE | lbs                                                                    |  |
| GREASE: MOBIL POLYREX EM                           |     | IEEE 45 MARINE DUTY                                                    |  |
| MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D |     |                                                                        |  |

| 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

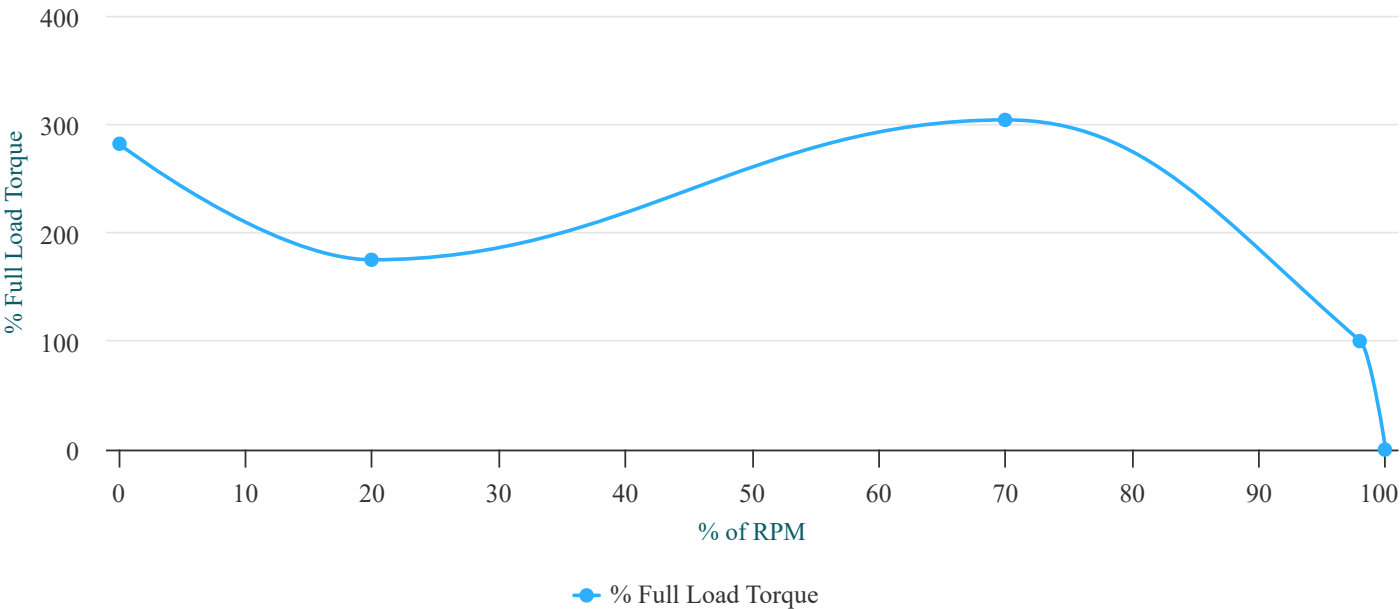
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

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



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

| TORQUE VALUES       | TORQUE (lb-ft) | TORQUE (% FULL LOAD) | PERFORMANCE VALUES   |       |
|---------------------|----------------|----------------------|----------------------|-------|
| Locked Rotor Torque | 17             | 282                  | Start Configuration  | DOL   |
| Pull-Up Torque      | 10.6           | 175                  | Starting Current (A) | 20.71 |
| Breakdown Torque    | 18.4           | 304                  | No-Load Current (A)  | 1.5   |
| Full Load Torque    | 6              | 100                  | No-Load Power Factor | 0.07  |

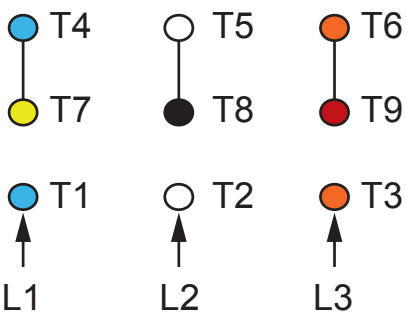
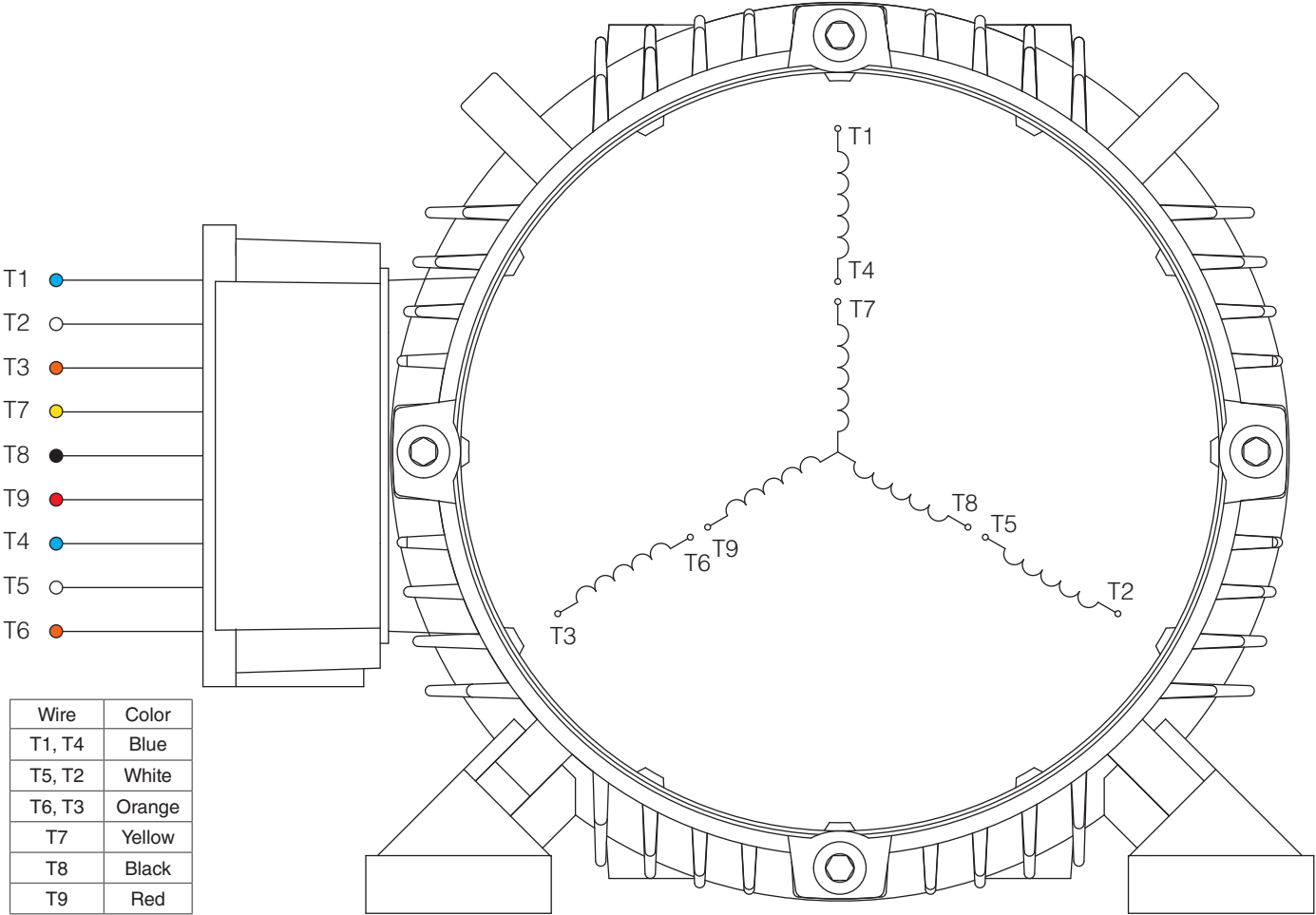
**TYPICAL PERFORMANCE - NOT GUARANTEED VALUES**

| % OF RATED LOAD     | 25   | 50   | 75   | 100  | 125  | S.F. 1.25 |
|---------------------|------|------|------|------|------|-----------|
| Line Amperes (A)    | 1.6  | 1.9  | 2.3  | 2.8  | 3.4  | 3.4       |
| Efficiency (%)      | 79.7 | 86.3 | 87.6 | 87.2 | 86   | 86        |
| Speed (r/min)       | 1785 | 1772 | 1758 | 1741 | 1722 | 1722      |
| Power Factor (cosΦ) | 0.38 | 0.59 | 0.71 | 0.78 | 0.81 | 0.81      |
| Input Power (kW)    | 0.47 | 0.87 | 1.28 | 1.72 | 2.18 | 2.18      |

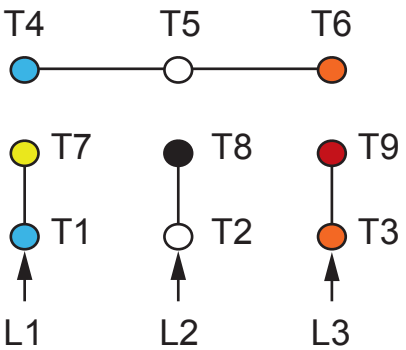
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HIGH VOLTAGE  
(Y)



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



|                     |               |
|---------------------|---------------|
| DRAWING NUMBER:     | NEMA-3-9-YY-Y |
| CONNECTION:         | YY/Y          |
| NUMBER OF LEADS:    | 9             |
| THERMAL PROTECTION: | -             |

NEMA 3Ø YY/Y 9-Lead Dual Voltage

ISSUED DATE 11/03/25

PREMIUM T-FRAME CAST IRON MOTORS



## NEMA Premium TEFC 145T

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