

**NEMA**

**Model GRC0102F-TD**  
MFG PN: T215T10U2B

# Model GRC0102F-TD

## Product Data Package



| MODEL       | HP | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|-------------|----|------|---------|-------|----|-------|----------------|-----------|
| GRC0102F-TD | 10 | 3520 | 575     | 3     | 60 | 215TD | Rigid/D-Flange | TEFC      |

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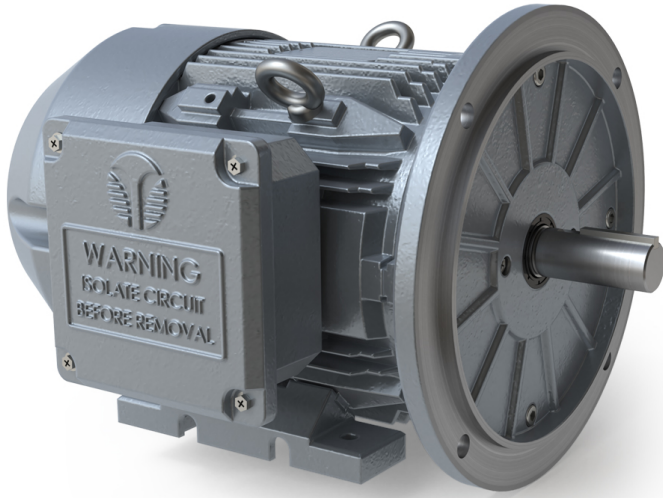
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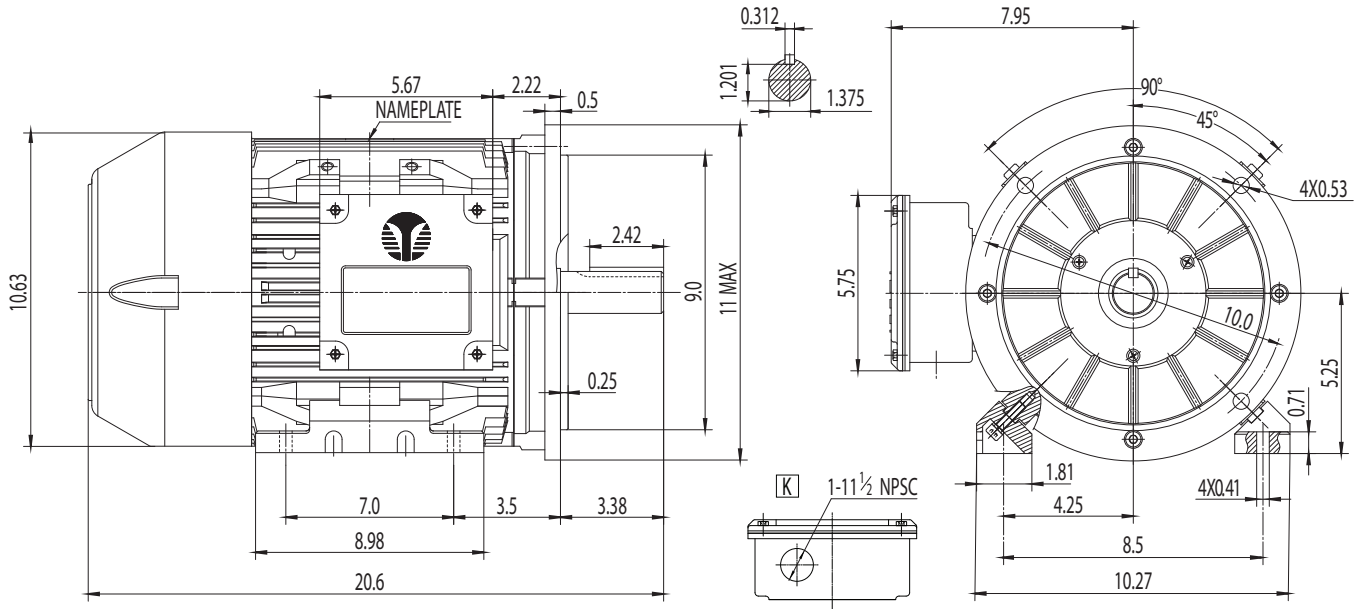
| ELECTRICAL DATA                     |       |                            |
|-------------------------------------|-------|----------------------------|
| Rated Motor Output Power            | 10    | HP                         |
|                                     | -     | kW                         |
| Rated Motor Speed                   | 3520  | r/min 60Hz                 |
|                                     | -     | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 575   | V/60Hz                     |
|                                     | -     | V/50Hz                     |
| Rated Motor Current                 | 9.03  | A (I <sub>n</sub> ) @ 60Hz |
|                                     | -     | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3     | Ø                          |
| Locked Rotor Current @ High Voltage | 85.04 | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | -     | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25  | @ 60Hz                     |
|                                     | 1     | @ 50Hz                     |
| KVA Code                            | K     | 60Hz                       |
|                                     | -     | 50Hz                       |
| Nominal Efficiency                  | 90.2  | % @ 60Hz                   |
| Nominal Power Factor                | 0.92  | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 3     | 14                         |
| Connection                          | Y     | -                          |
| Coil Resistance                     | 1.056 | 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          | 49.3  | °C @ 60Hz                  |
|                                     | 73.1  | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 215TD            |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid/D-Flange   |           |
| Approximate Weight (lbs.)           | 175.2 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                     | 6308 ZZ          |           |
| Bearing ODE Side                    | 6308 ZZ          |           |
| Grease Type                         | Mobil Polyrex EM |           |
| Compensation Ring (wavy washer)     | NDE              |           |
| Moment of Inertia (lb-ft²)          | 0.42             |           |
| Sound Pressure @ 3 FT dBA           | -                |           |
| 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**

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| NAMEPLATE DATA             | 60Hz       | 50Hz |
|----------------------------|------------|------|
| Horse Power                | 10         | 10   |
| RPM                        | 3520       | -    |
| Voltage                    | 575        | -    |
| Full Load Amps             | 9.03       | -    |
| Service Factor             | 1.25       | 1    |
| KVA Code                   | K          | -    |
| Full Load Amps (208V)      | -          | -    |
| Nominal Efficiency         | 90.2       | -    |
| Nominal Power Factor       | 0.92       | -    |
| Design                     | A          |      |
| Frame                      | 215TD      |      |
| Enclosure Type             | TEFC       |      |
| IP Rating                  | 55         |      |
| Duty                       | Cont. / S1 |      |
| Insulation Class           | F          |      |
| Ambient Rating             | 40         |      |
| Drive End Bearing          | 6308 ZZ    |      |
| Opposite Drive End Bearing | 6308 ZZ    |      |
| Weight (lbs)               | 175.2      |      |

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 |
| HP                                                 |     | MFG PN                                                                 |      |
| RPM                                                |     | MFG DATE                                                               |      |
| VOLT                                               |     | SER #                                                                  |      |
| FLA                                                |     | DESIGN                                                                 |      |
| SF                                                 |     | FRAME                                                                  |      |
| KVA CODE                                           |     | ENCL                                                                   |      |
| NOM.EFF                                            |     | IP                                                                     |      |
| BEARING SIZE                                       |     | DUTY                                                                   |      |
| DE                                                 | ODE | INS CL                                                                 |      |
| GREASE: MOBIL POLYREX EM                           |     | AMB                                                                    |      |
| MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D |     | WEIGHT                                                                 |      |
|                                                    |     | lbs                                                                    |      |
|                                                    |     | Energy Verified                                                        |      |
|                                                    |     | 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

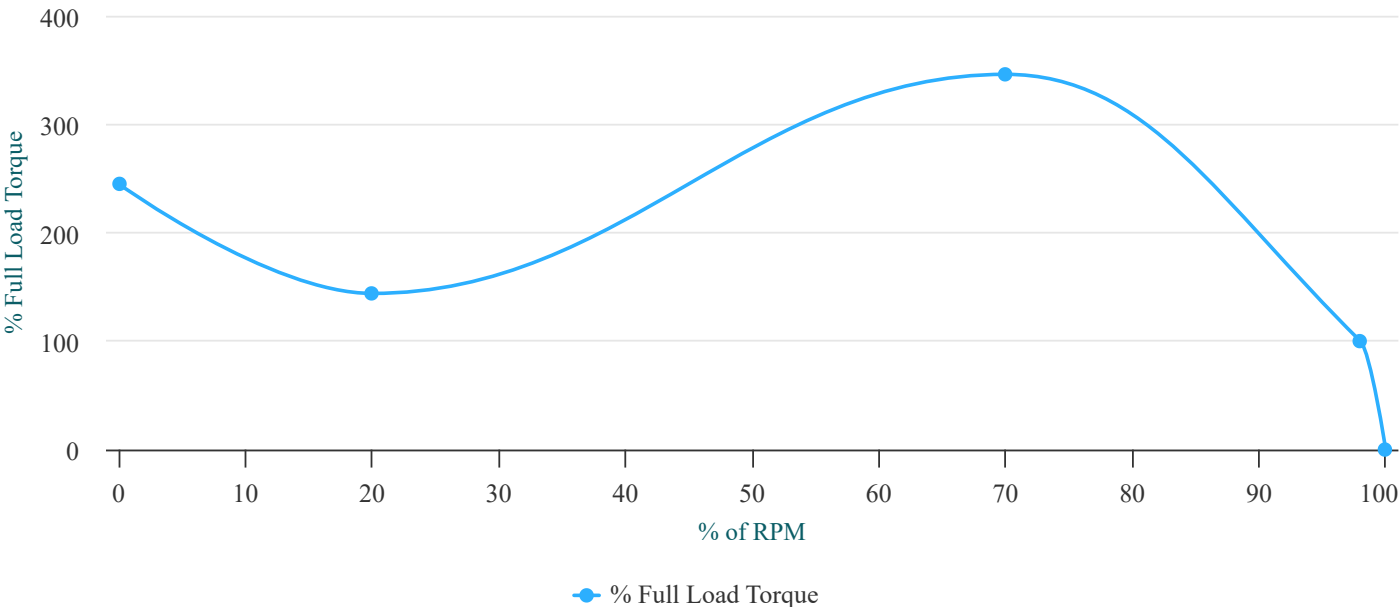
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

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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 | 36.6           | 245                  | Start Configuration  | DOL   |
| Pull-Up Torque      | 21.5           | 144                  | Starting Current (A) | 85.04 |
| Breakdown Torque    | 51.6           | 346                  | No-Load Current (A)  | 2.4   |
| Full Load Torque    | 14.9           | 100                  | No-Load Power Factor | 0.12  |

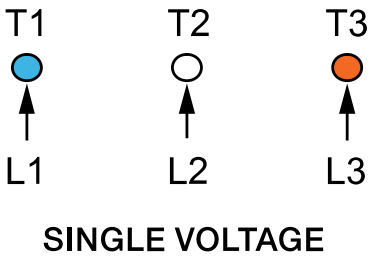
**TYPICAL PERFORMANCE - NOT GUARANTEED VALUES**

| % OF RATED LOAD     | 25   | 50   | 75   | 100  | 125   | S.F. 1.25 |
|---------------------|------|------|------|------|-------|-----------|
| Line Amperes (A)    | 3.2  | 4.9  | 6.9  | 9    | 11.2  | 11.2      |
| Efficiency (%)      | 85.8 | 90.5 | 91.4 | 91.2 | 90.4  | 90.4      |
| Speed (r/min)       | 3581 | 3565 | 3548 | 3530 | 3509  | 3509      |
| Power Factor (cosΦ) | 0.69 | 0.85 | 0.9  | 0.92 | 0.93  | 0.93      |
| Input Power (kW)    | 2.18 | 4.14 | 6.15 | 8.23 | 10.37 | 10.37     |

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- 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-3-3-Y |
| CONNECTION:         | Y          |
| NUMBER OF LEADS:    | 3          |
| THERMAL PROTECTION: | -          |

NEMA 3Ø Y 3-Lead Single Voltage

|                                  |          |
|----------------------------------|----------|
| ISSUED DATE                      | 05/05/25 |
| PREMIUM T-FRAME CAST IRON MOTORS |          |



## NEMA Premium TEFC 215TD

|                  |                     |                                  |          |
|------------------|---------------------|----------------------------------|----------|
| DRAWING NUMBER:  | GR3-CI-TF-215TD-CFC | ISSUED DATE                      | 05/05/25 |
| DIMENSIONS:      | Inches              |                                  |          |
| MOUNTING:        | Rigid/D-Flange      | PREMIUM T-FRAME CAST IRON MOTORS |          |
| CASING MATERIAL: | Cast Iron           |                                  |          |