

**NEMA**

Model **GRA0076F-TC-01**  
MFG PN: T254T7.5U6B

# Model **GRA0076F-TC-01**

## Product Data Package



| MODEL          | HP  | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|----------------|-----|------|---------|-------|----|-------|----------------|-----------|
| GRA0076F-TC-01 | 7.5 | 1180 | 575     | 3     | 60 | 254TC | Rigid/C-Flange | TEFC      |

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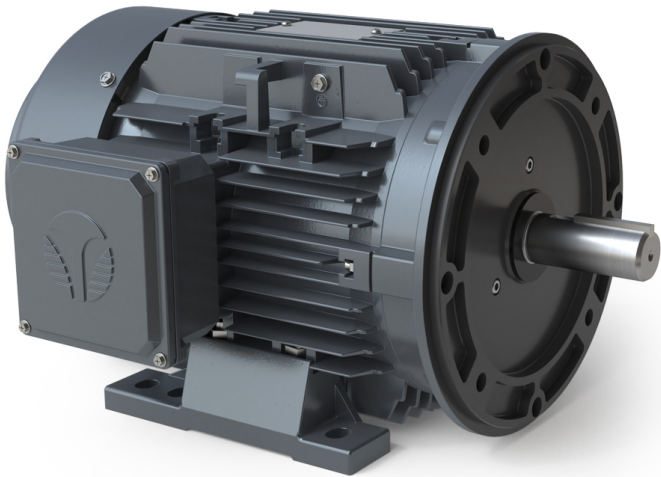
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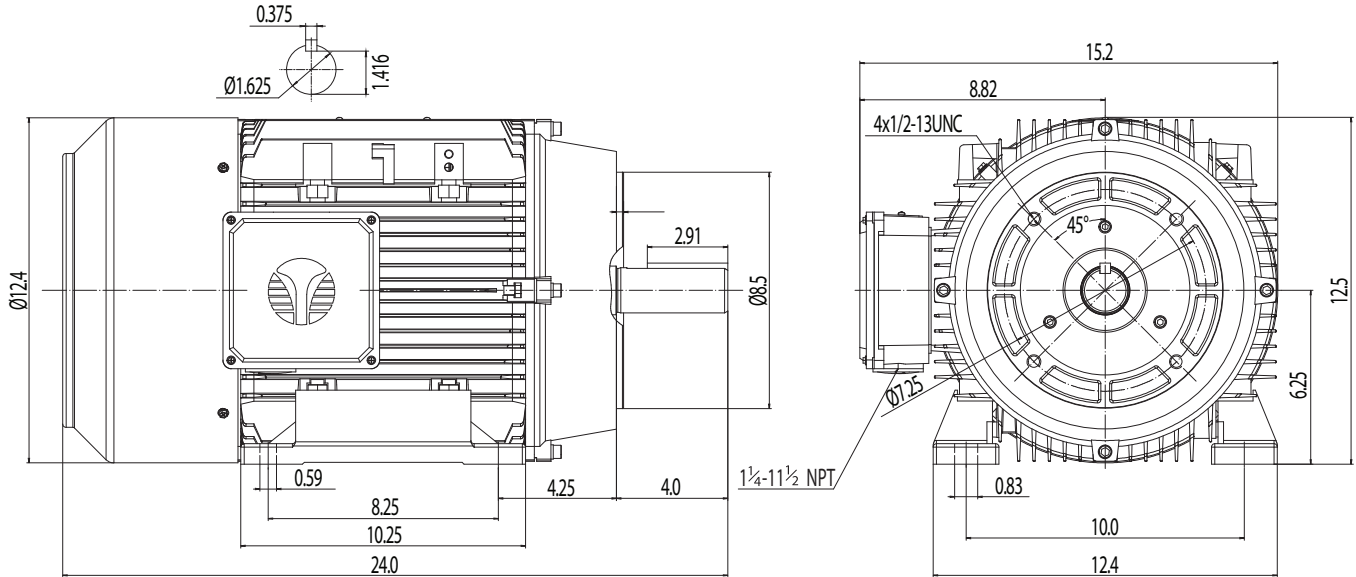
| ELECTRICAL DATA                     |              |                            |
|-------------------------------------|--------------|----------------------------|
| Rated Motor Output Power            | 7.5          | HP                         |
|                                     | -            | kW                         |
| Rated Motor Speed                   | 1180         | r/min 60Hz                 |
|                                     | -            | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 575          | V/60Hz                     |
|                                     | -            | V/50Hz                     |
| Rated Motor Current                 | 8.70         | A (I <sub>n</sub> ) @ 60Hz |
|                                     | -            | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3            | Ø                          |
| Locked Rotor Current @ High Voltage | 64           | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | -            | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25         | @ 60Hz                     |
|                                     | -            | @ 50Hz                     |
| KVA Code                            | N            | 60Hz                       |
|                                     | -            | 50Hz                       |
| Nominal Efficiency                  | 91           | % @ 60Hz                   |
| Nominal Power Factor                | 0.7          | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 6            | 14                         |
| Connection                          | D            | -                          |
| Coil Resistance                     | -            | 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          | -            | °C @ 60Hz                  |
|                                     | -            | °C @ 50Hz                  |

| GENERAL DATA                        |                  |       |
|-------------------------------------|------------------|-------|
| Frame Size                          | 254TC            |       |
| Enclosure                           | TEFC             |       |
| Mounting                            | Rigid/C-Flange   |       |
| Approximate Weight (lbs.)           | 184.2 lbs.       |       |
| Casing Material / Fan Cover         | Cast Aluminum    | Steel |
| Shaft Material                      | 1045             |       |
| 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                     | 6309 ZZ          |       |
| Bearing ODE Side                    | 6209 ZZ          |       |
| Grease Type                         | Mobil Polyrex EM |       |
| Compensation Ring (wavy washer)     | NDE              |       |
| Moment of Inertia (lb-ft²)          | -                |       |
| Sound Pressure @ 3 FT dBA           | 66.6             |       |
| 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**

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| NAMEPLATE DATA             | 60Hz       | 50Hz |
|----------------------------|------------|------|
| Horse Power                | 7.5        | 7.5  |
| RPM                        | 1180       | -    |
| Voltage                    | 575        | -    |
| Full Load Amps             | 8.70       | -    |
| Service Factor             | 1.25       | -    |
| KVA Code                   | N          | -    |
| Full Load Amps (208V)      | -          | -    |
| Nominal Efficiency         | 91         | -    |
| Nominal Power Factor       | 0.7        | -    |
| Design                     | A          |      |
| Frame                      | 254TC      |      |
| Enclosure Type             | TEFC       |      |
| IP Rating                  | 55         |      |
| Duty                       | Cont. / S1 |      |
| Insulation Class           | F          |      |
| Ambient Rating             | 40         |      |
| Drive End Bearing          | 6309 ZZ    |      |
| Opposite Drive End Bearing | 6209 ZZ    |      |
| Weight (lbs)               | 184.2      |      |

**NAMEPLATE LAYOUT**

**TECHTOP** INDUSTRIAL THREE PHASE MOTOR  
 INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF

MODEL  MFG PN   
 60Hz 50Hz MFG DATE   
 HP  SER #   
 RPM  DESIGN   
 VOLT  FRAME   
 FLA  ENCL / IP TEFC 55  
 SF  DUTY   
 KVA CODE  INS CL   
 NOM.EFF  AMB   
 EFF 75%  DE   
 PF  ODE   
 USABLE AT 208V  WEIGHT  lbs  
**NEMA Premium**  
 TECHTOPCANADA.COM  
 CLASS 1, DIV 2, GROUPS A, B, C AND D  
 MADE IN CHINA  
 CC088A  
 E323353  
 C224653  
 SP  
 Energy Verified Only

| 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

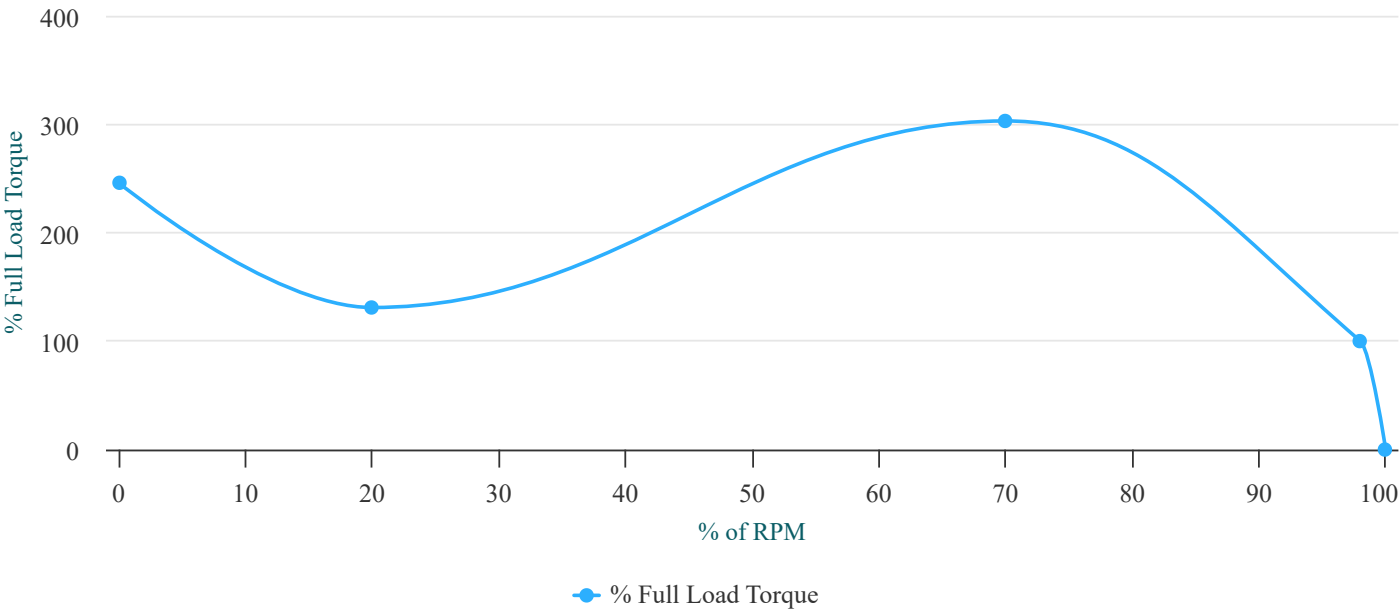
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

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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 | 82.1           | 246                  | Start Configuration  | DOL |
| Pull-Up Torque      | 43.7           | 131                  | Starting Current (A) | 64  |
| Breakdown Torque    | 101.1          | 303                  | No-Load Current (A)  | 4.5 |
| Full Load Torque    | 33.4           | 100                  | No-Load Power Factor | -   |

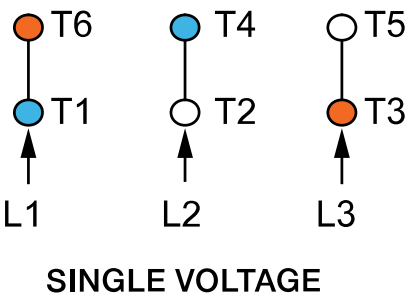
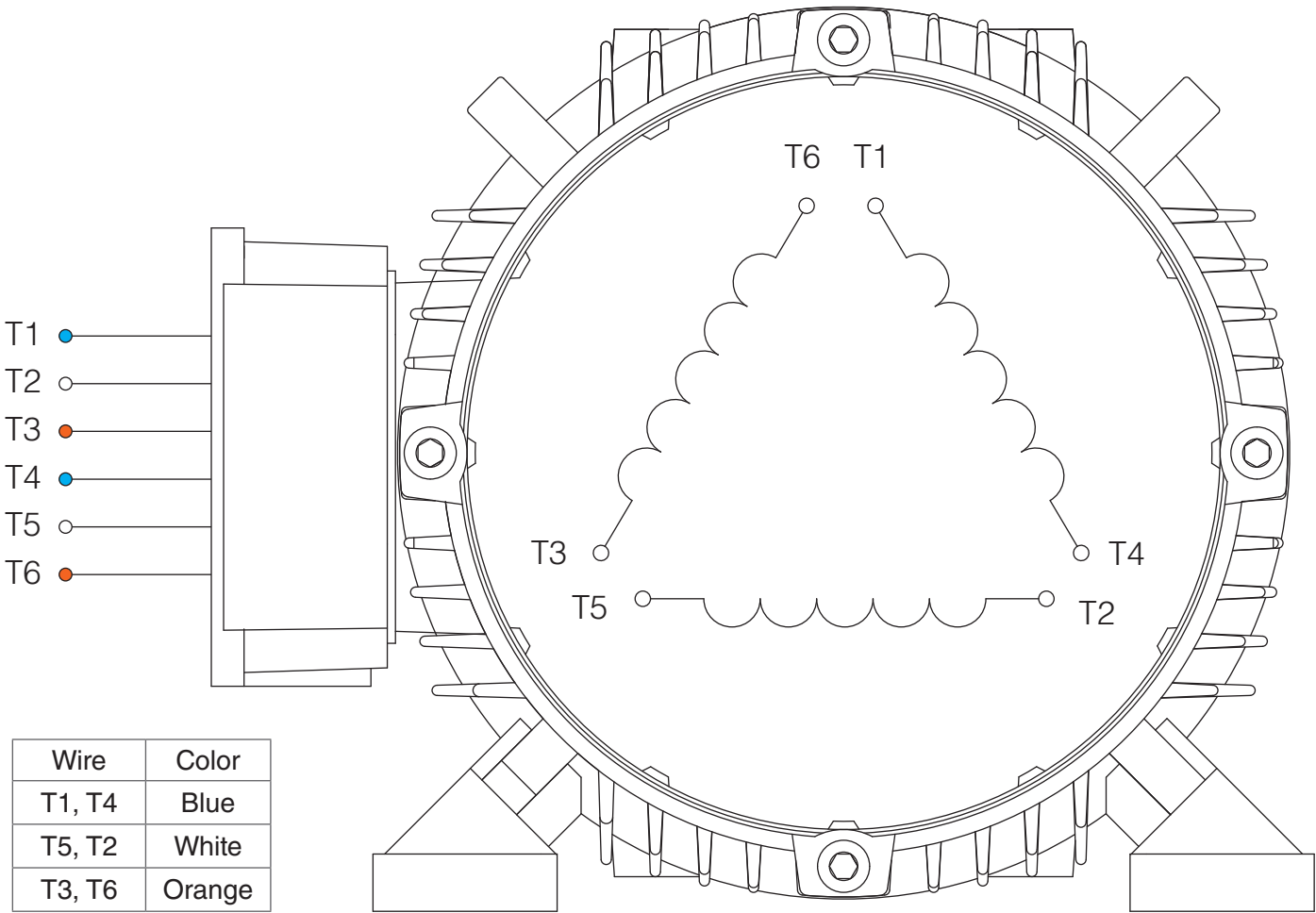
TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

| % OF RATED LOAD     | 25   | 50   | 75   | 100  | 125  | S.F. 1.25 |
|---------------------|------|------|------|------|------|-----------|
| Line Amperes (A)    | 4.6  | 5.6  | 6.8  | 8.2  | 9.9  | 9.9       |
| Efficiency (%)      | 85.2 | 90.3 | 91.4 | 91.3 | 90.6 | 90.6      |
| Speed (r/min)       | 1194 | 1190 | 1184 | 1178 | 1172 | 1172      |
| Power Factor (cosΦ) | 0.36 | 0.56 | 0.68 | 0.75 | 0.78 | 0.78      |
| Input Power (kW)    | 1.64 | 3.1  | 4.59 | 6.13 | 7.72 | 7.72      |

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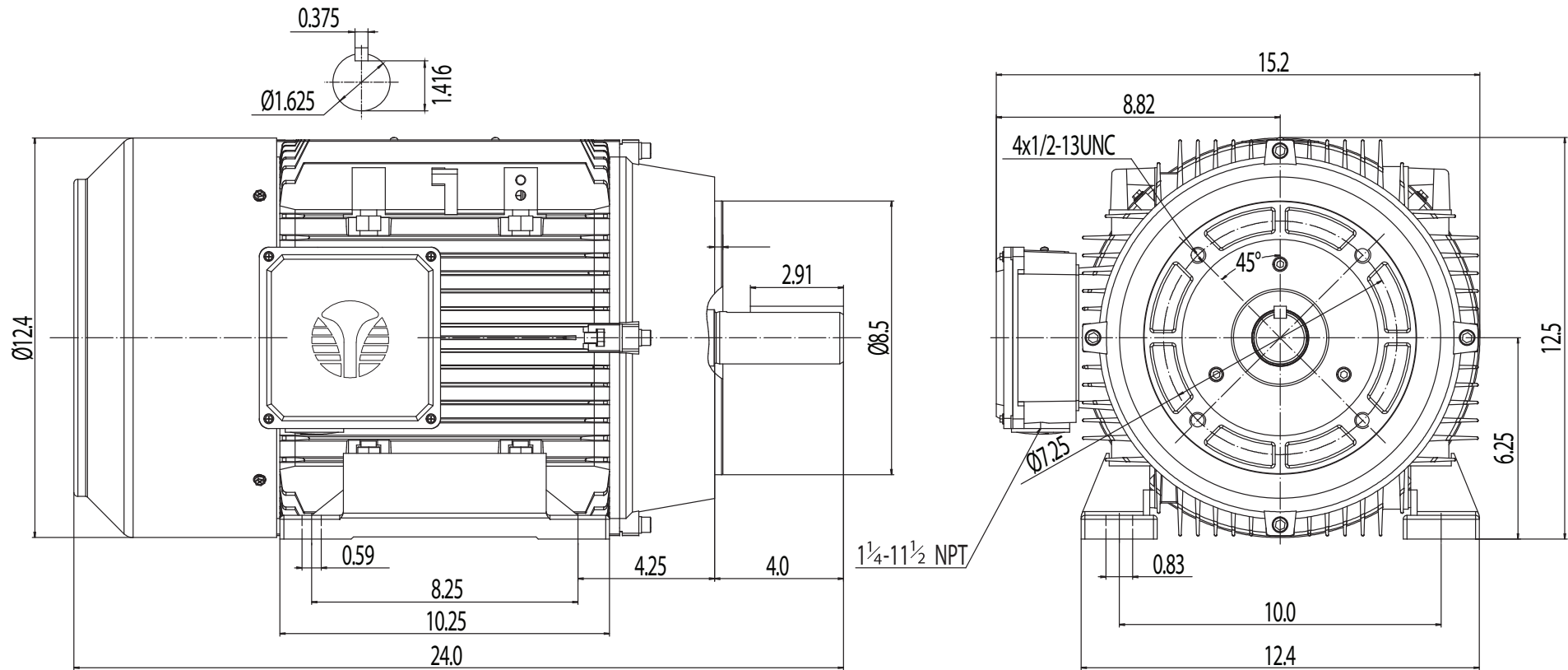
- NOTES:
- 1. CCW ROTATION FACING ODE FOR CONNECTIONS SHOWN
  - 2. TO REVERSE ROTATION, SWAP ANY TWO INPUT LINES
  - 3. WHEN MOTOR IS IN F1 POSITION, LEADS INDICATED WITH “\*” EXIT THE CASING ABOVE THE CENTER LINE OF THE MOTOR, THE REMAINING LEADS EXIT BELOW THE CENTER LINE
  - 4. LEADS MUST BE NUMBERED AND COLORED AS SHOWN
  - 5. DIAGRAMS FOR REFERENCE ONLY



**NEMA 3Ø D 6-Lead Single Voltage**

|                     |            |
|---------------------|------------|
| DRAWING NUMBER:     | NEMA-3-6-D |
| CONNECTION:         | D          |
| NUMBER OF LEADS:    | 6          |
| THERMAL PROTECTION: | -          |

|                                 |          |
|---------------------------------|----------|
| ISSUED DATE                     | 14/03/25 |
| PREMIUM T-FRAME ALUMINUM MOTORS |          |



NEMA Premium TEFC 254TC

|                  |                    |                                 |          |
|------------------|--------------------|---------------------------------|----------|
| DRAWING NUMBER:  | GR3-AL-TF-254TC-01 | ISSUED DATE                     | 14/03/25 |
| DIMENSIONS:      | Inches             | PREMIUM T-FRAME ALUMINUM MOTORS |          |
| MOUNTING:        | Rigid/C-Flange     |                                 |          |
| CASING MATERIAL: | Cast Aluminum      |                                 |          |