

**NEMA**

Model **GRC1254E-TC**  
MFG PN: T444T125U4B

# Model **GRC1254E-TC**

## Product Data Package



| MODEL       | HP  | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT          | ENCLOSURE |
|-------------|-----|------|---------|-------|----|-------|----------------|-----------|
| GRC1254E-TC | 125 | 1785 | 460     | 3     | 60 | 444TC | Rigid/C-Flange | TEFC      |

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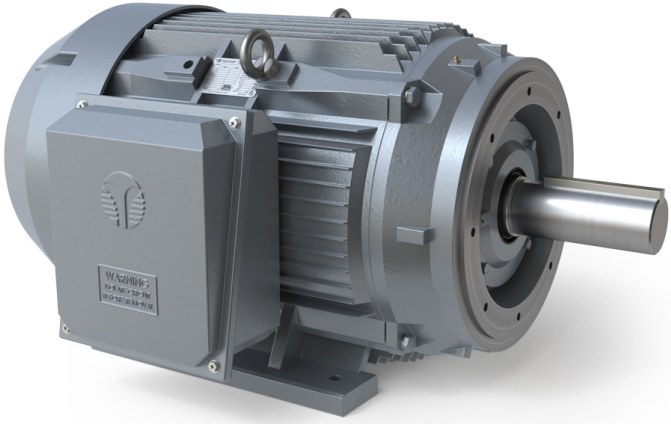
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# NEMA

**Model GRC1254E-TC**  
**MFG PN: T444T125U4B**

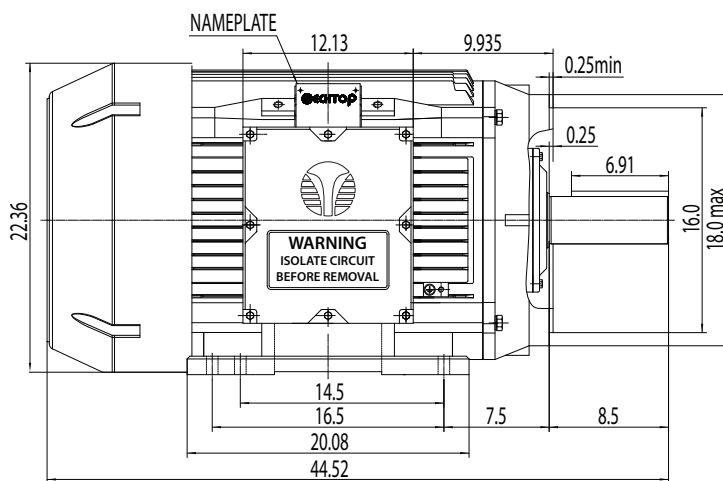
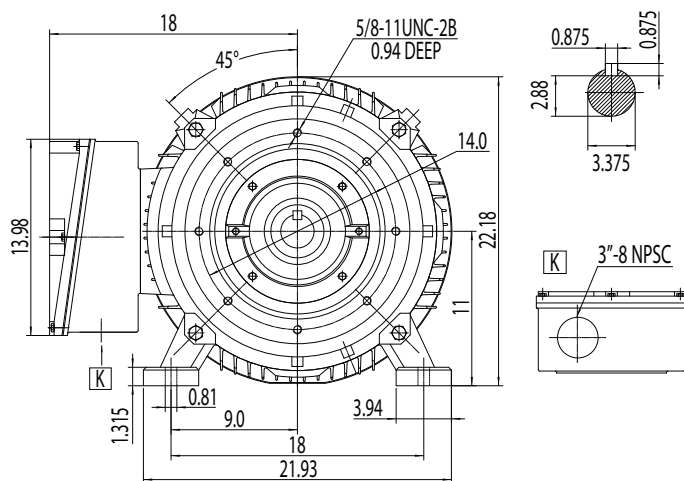
| ELECTRICAL DATA                     |        |                            |
|-------------------------------------|--------|----------------------------|
| Rated Motor Output Power            | 125    | HP                         |
|                                     | -      | kW                         |
| Rated Motor Speed                   | 1785   | r/min 60Hz                 |
|                                     | 1480   | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 460    | V/60Hz                     |
|                                     | 380    | V/50Hz                     |
| Rated Motor Current                 | 138.00 | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 165.00 | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3      | Ø                          |
| Locked Rotor Current @ High Voltage | 1260   | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | -      | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.15   | @ 60Hz                     |
|                                     | 1      | @ 50Hz                     |
| KVA Code                            | K      | 60Hz                       |
|                                     | G      | 50Hz                       |
| Nominal Efficiency                  | 95.4   | % @ 60Hz                   |
| Nominal Power Factor                | 0.89   | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 6      | 4                          |
| Connection                          | D      | -                          |
| Coil Resistance                     | 0.038  | 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          | 67.5   | °C @ 60Hz                  |
|                                     | 94.2   | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 444TC            |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid/C-Flange   |           |
| Approximate Weight (lbs.)           | 1533 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     | NO               | YES       |
| Paintwork                           | 7024             |           |
|                                     | Graphite Gray    |           |
| MECHANICAL DATA                     |                  |           |
| Bearing DE Side                     | 6319 C3          |           |
| Bearing ODE Side                    | 6319 C3          |           |
| Grease Type                         | Mobil Polyrex EM |           |
| Compensation Ring (wavy washer)     | NDE              |           |
| Moment of Inertia (lb-ft²)          | 45.16            |           |
| Sound Pressure @ 3 FT dBA           | 89.1             |           |
| 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**

**Model GRC1254E-TC**  
MFG PN: T444T125U4B



| NAMEPLATE DATA             | 60Hz       | 50Hz   |
|----------------------------|------------|--------|
| Horse Power                | 125        | 125    |
| RPM                        | 1785       | 1480   |
| Voltage                    | 460        | 380    |
| Full Load Amps             | 138.00     | 165.00 |
| Service Factor             | 1.15       | 1      |
| KVA Code                   | K          | G      |
| Full Load Amps (208V)      | -          | -      |
| Nominal Efficiency         | 95.4       | 94.9   |
| Nominal Power Factor       | 0.89       | -      |
| Design                     | A          |        |
| Frame                      | 444TC      |        |
| Enclosure Type             | TEFC       |        |
| IP Rating                  | 55         |        |
| Duty                       | Cont. / S1 |        |
| Insulation Class           | F          |        |
| Ambient Rating             | 40         |        |
| Drive End Bearing          | 6319 C3    |        |
| Opposite Drive End Bearing | 6319 C3    |        |
| Weight (lbs)               | 1533       |        |

#### NAMEPLATE LAYOUT

|                                                                                       |           |                     |  |
|---------------------------------------------------------------------------------------|-----------|---------------------|--|
| <b>TECHTOP</b> INDUSTRIAL THREE PHASE MOTOR<br>INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF |           | TECHTOPCANADA.COM   |  |
| MODEL                                                                                 |           | MFG PN              |  |
| NEMA Premium                                                                          | 60Hz 50Hz | MFG DATE            |  |
| HP                                                                                    |           | SER #               |  |
| RPM                                                                                   |           | DESIGN              |  |
| VOLT                                                                                  |           | FRAME               |  |
| FLA                                                                                   |           | ENCL                |  |
| SF                                                                                    |           | IP                  |  |
| KVA CODE                                                                              |           | DUTY                |  |
| NOM.EFF                                                                               |           | INS CL              |  |
| USABLE AT 208V 60Hz                                                                   |           | AMB                 |  |
| FLA                                                                                   |           | WEIGHT              |  |
| BEARING SIZE                                                                          |           | lbs                 |  |
| DE                                                                                    | ODE       |                     |  |
| 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

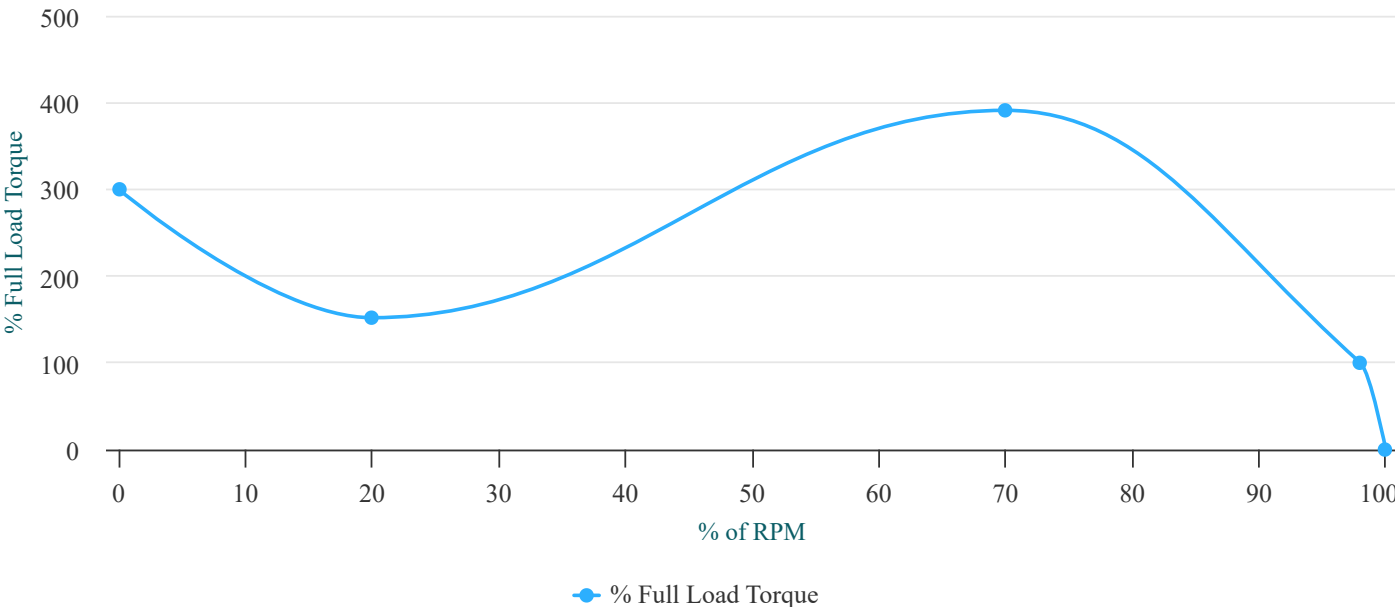
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

Questions? Call 1.888.286.1820



**Model GRC1254E-TC**  
MFG PN: T444T125U4B

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



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

| TORQUE VALUES       | TORQUE (lb-ft) | TORQUE (% FULL LOAD) |
|---------------------|----------------|----------------------|
| Locked Rotor Torque | 1103.4         | 300                  |
| Pull-Up Torque      | 559            | 152                  |
| Breakdown Torque    | 1438           | 391                  |
| Full Load Torque    | 367.8          | 100                  |

**TYPICAL PERFORMANCE - NOT GUARANTEED VALUES**

| PERFORMANCE VALUES   |      |
|----------------------|------|
| Start Configuration  | DOL  |
| Starting Current (A) | 1260 |
| No-Load Current (A)  | 44.2 |
| No-Load Power Factor | 0.05 |

| % OF RATED LOAD     | 25    | 50    | 75    | 100   | 125    | S.F. 1.15 |
|---------------------|-------|-------|-------|-------|--------|-----------|
| Line Amperes (A)    | 56.5  | 77.9  | 105.4 | 136.9 | 170.5  | 156.2     |
| Efficiency (%)      | 92.9  | 95.5  | 96    | 95.9  | 95.5   | 95.6      |
| Speed (r/min)       | 1797  | 1794  | 1791  | 1787  | 1784   | 1784      |
| Power Factor (cosΦ) | 0.56  | 0.78  | 0.87  | 0.89  | 0.9    | 0.9       |
| Input Power (kW)    | 25.04 | 48.71 | 72.69 | 97.02 | 121.72 | 111.92    |

Questions? Call 1.888.286.1820



- 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

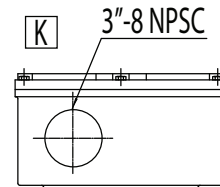


|                     |            |
|---------------------|------------|
| DRAWING NUMBER:     | NEMA-3-6-D |
| CONNECTION:         | D          |
| NUMBER OF LEADS:    | 6          |
| THERMAL PROTECTION: | -          |

NEMA 3Ø D 6-Lead Single Voltage

|                                  |          |
|----------------------------------|----------|
| ISSUED DATE                      | 02/06/25 |
| PREMIUM T-FRAME CAST IRON MOTORS |          |

MFG PN: T444T125U4B



## PREMIUM T-FRAME CAST IRON MOTORS

|                                                                                                                                         |                        |                                  |          |
|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------------------|----------|
|  <b>TECHTOP</b><br><i>You can't top a Techtop.</i> |                        | <b>NEMA Premium TEFC 444TC</b>   |          |
| <b>DRAWING NUMBER:</b>                                                                                                                  | GR3-CI-TF-444(5)TC-CFC | <b>ISSUED DATE</b>               | 02/06/25 |
| <b>DIMENSIONS:</b>                                                                                                                      | Inches                 |                                  |          |
| <b>MOUNTING:</b>                                                                                                                        | Rigid/C-Frame          |                                  |          |
| <b>CASING MATERIAL:</b>                                                                                                                 | Cast Iron              |                                  |          |
|                                                                                                                                         |                        | PREMIUM T-FRAME CAST IRON MOTORS |          |