

**NEMA**

**Model GRC1252E**  
MFG PN: T444TS125U2B

# Model GRC1252E

## Product Data Package



| MODEL    | HP  | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT | ENCLOSURE |
|----------|-----|------|---------|-------|----|-------|-------|-----------|
| GRC1252E | 125 | 3570 | 460     | 3     | 60 | 444TS | Rigid | TEFC      |

### Toronto

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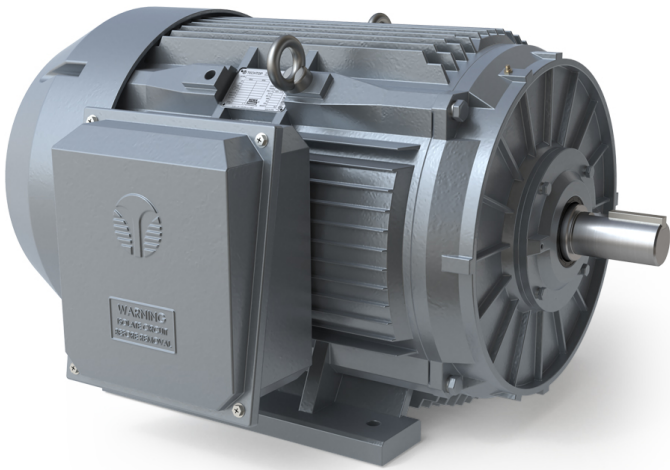
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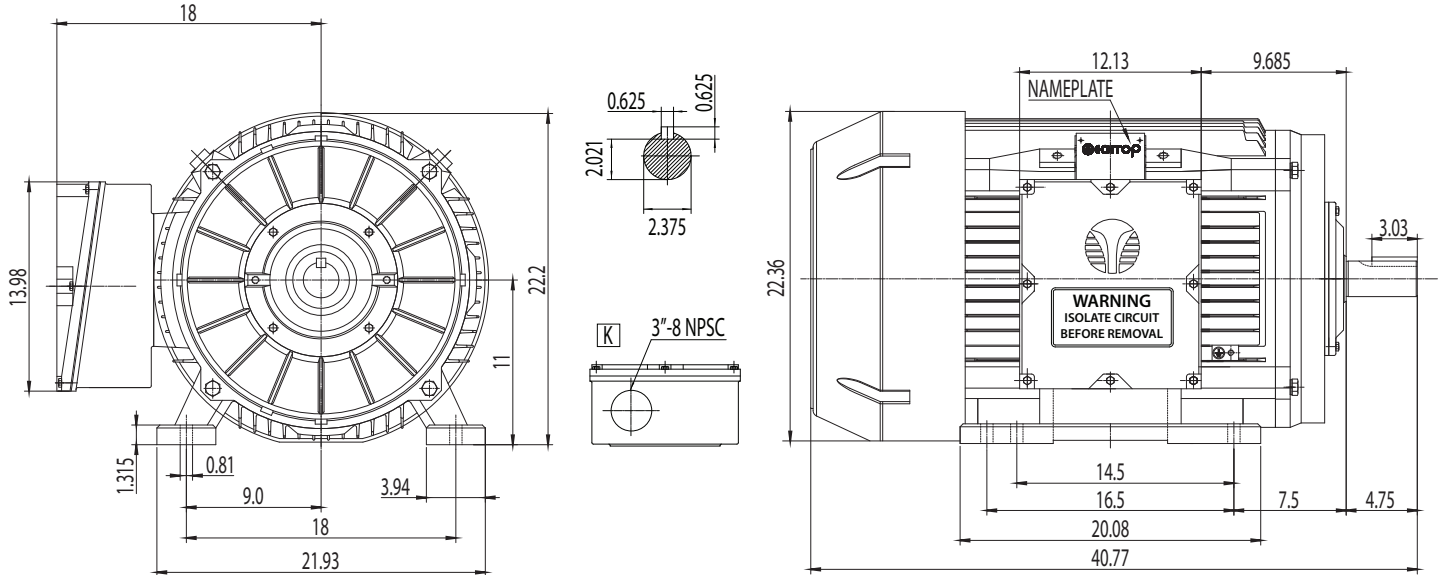
| ELECTRICAL DATA                     |        |                            |
|-------------------------------------|--------|----------------------------|
| Rated Motor Output Power            | 125    | HP                         |
|                                     | -      | kW                         |
| Rated Motor Speed                   | 3570   | r/min 60Hz                 |
|                                     | 2955   | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 460    | V/60Hz                     |
|                                     | 380    | V/50Hz                     |
| Rated Motor Current                 | 134.00 | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 161.00 | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3      | Ø                          |
| Locked Rotor Current @ High Voltage | 1244   | 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     | % @ 60Hz                   |
| Nominal Power Factor                | 0.92   | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 6      | 2                          |
| Connection                          | D      | -                          |
| Coil Resistance                     | 0.032  | 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          | 69.3   | °C @ 60Hz                  |
|                                     | 99.3   | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 444TS            |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid            |           |
| Approximate Weight (lbs.)           | 1491.1 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                     | 6316 C3          |           |
| Bearing ODE Side                    | 6316 C3          |           |
| Grease Type                         | Mobil Polyrex EM |           |
| Compensation Ring (wavy washer)     | NDE              |           |
| Moment of Inertia (lb-ft²)          | 22.4             |           |
| Sound Pressure @ 3 FT dBA           | 93.1             |           |
| 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**

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| NAMEPLATE DATA             | 60Hz       | 50Hz   |
|----------------------------|------------|--------|
| Horse Power                | 125        | 125    |
| RPM                        | 3570       | 2955   |
| Voltage                    | 460        | 380    |
| Full Load Amps             | 134.00     | 161.00 |
| Service Factor             | 1.15       | 1      |
| KVA Code                   | K          | G      |
| Full Load Amps (208V)      | -          | -      |
| Nominal Efficiency         | 95         | 94.3   |
| Nominal Power Factor       | 0.92       | -      |
| Design                     | A          |        |
| Frame                      | 444TS      |        |
| Enclosure Type             | TEFC       |        |
| IP Rating                  | 55         |        |
| Duty                       | Cont. / S1 |        |
| Insulation Class           | F          |        |
| Ambient Rating             | 40         |        |
| Drive End Bearing          | 6316 C3    |        |
| Opposite Drive End Bearing | 6316 C3    |        |
| Weight (lbs)               | 1491.1     |        |

#### 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                                                                     |  |
| USABLE AT 208V 60Hz                                |     | DUTY                                                                   |  |
| FLA                                                |     | INS CL                                                                 |  |
| BEARING SIZE                                       |     | AMB                                                                    |  |
| DE                                                 | ODE | WEIGHT                                                                 |  |
| GREASE: MOBIL POLYREX EM                           |     | lbs                                                                    |  |
| MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D |     | 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

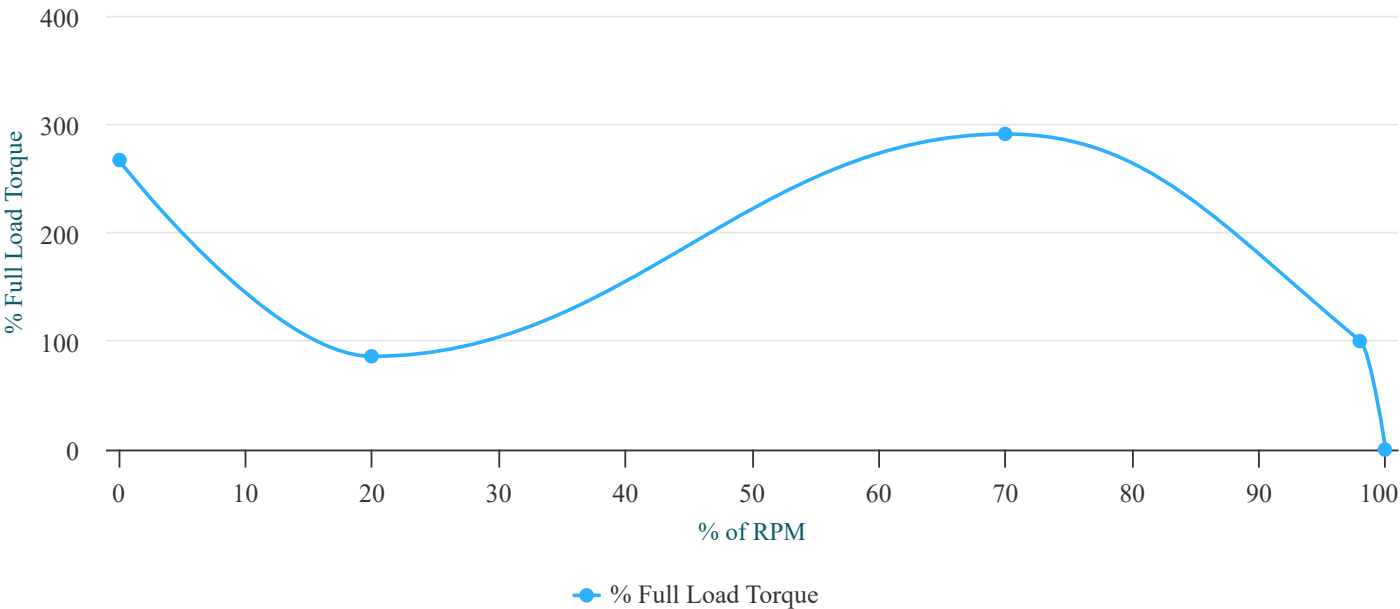
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

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Torque Speed (T-n) Curve



PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

| TORQUE VALUES       | TORQUE (lb-ft) | TORQUE (% FULL LOAD) |
|---------------------|----------------|----------------------|
| Locked Rotor Torque | 491            | 267                  |
| Pull-Up Torque      | 158.1          | 86                   |
| Breakdown Torque    | 535.1          | 291                  |
| Full Load Torque    | 183.9          | 100                  |

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

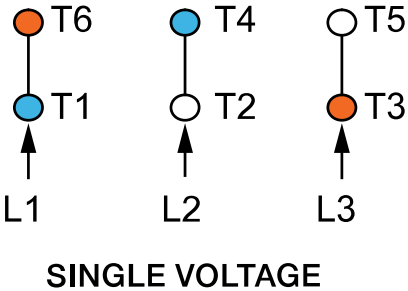
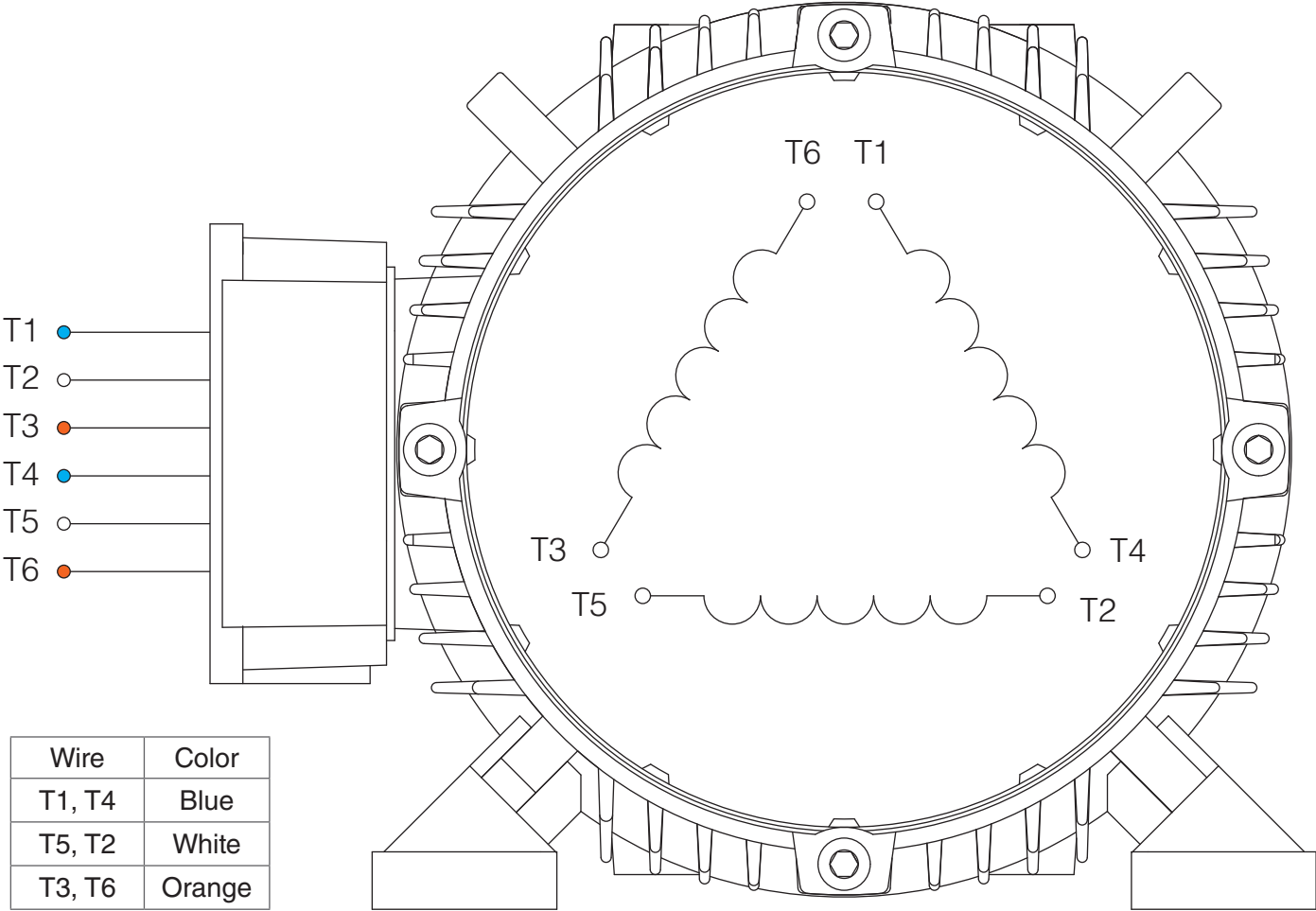
| PERFORMANCE VALUES   |      |
|----------------------|------|
| Start Configuration  | DOL  |
| Starting Current (A) | 1244 |
| No-Load Current (A)  | 28.3 |
| No-Load Power Factor | 0.1  |

| % OF RATED LOAD     | 25    | 50    | 75    | 100   | 125   | S.F. 1.15 |
|---------------------|-------|-------|-------|-------|-------|-----------|
| Line Amperes (A)    | 43.9  | 70.9  | 100.7 | 132.7 | 166.2 | 152.5     |
| Efficiency (%)      | 90.2  | 93.8  | 94.7  | 94.7  | 94.4  | 94.6      |
| Speed (r/min)       | 3594  | 3588  | 3581  | 3574  | 3567  | 3568      |
| Power Factor (cosΦ) | 0.74  | 0.88  | 0.92  | 0.93  | 0.93  | 0.93      |
| Input Power (kW)    | 25.79 | 49.56 | 73.68 | 98.19 | 123.1 | 113.13    |

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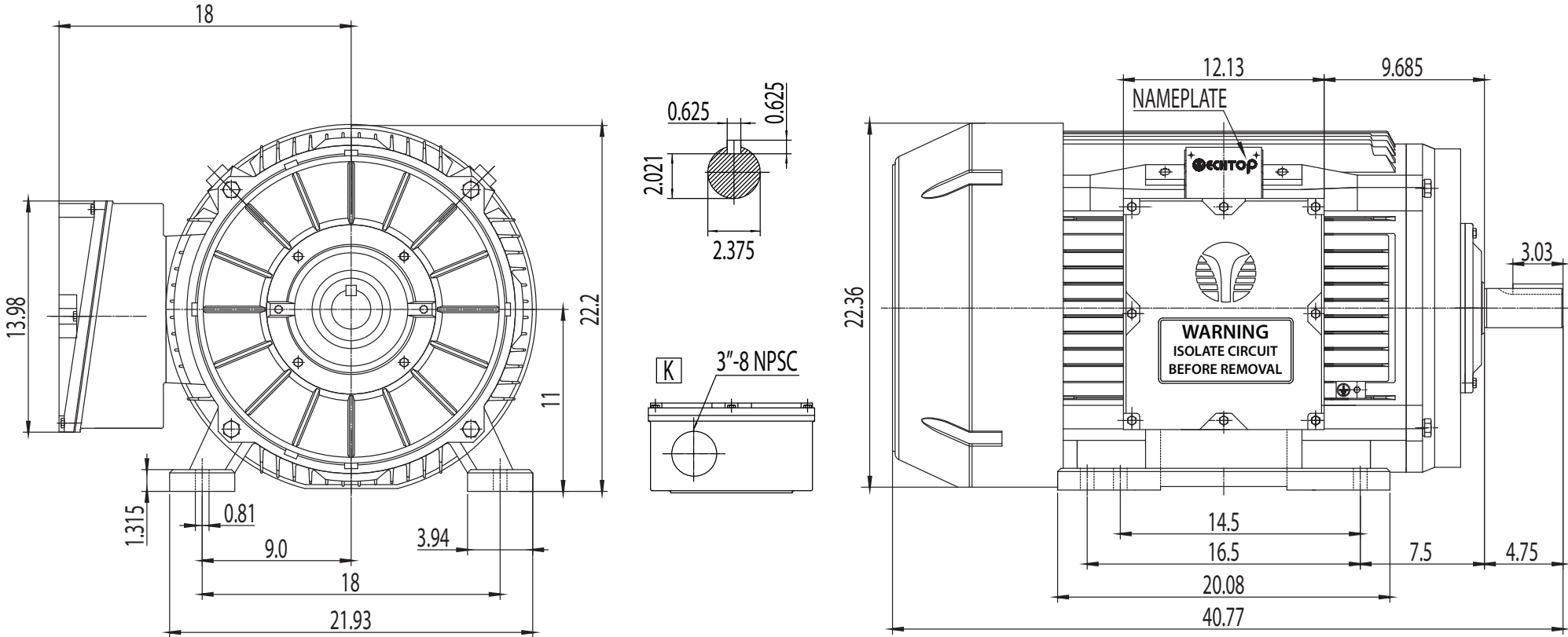
- NOTES:
- CCW ROTATION FACING ODE FOR CONNECTIONS SHOWN
  - TO REVERSE ROTATION, SWAP ANY TWO INPUT LINES
  - WHEN MOTOR IS IN F1 POSITION, LEADS INDICATED WITH “\*” EXIT THE CASING ABOVE THE CENTER LINE OF THE MOTOR, THE REMAINING LEADS EXIT BELOW THE CENTER LINE
  - LEADS MUST BE NUMBERED AND COLORED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



NEMA Premium TEFC 444TS

|                  |                        |                                  |          |
|------------------|------------------------|----------------------------------|----------|
| DRAWING NUMBER:  | GR3-CI-TF-444(5)TS-CFC | ISSUED DATE                      | 02/06/25 |
| DIMENSIONS:      | Inches                 | PREMIUM T-FRAME CAST IRON MOTORS |          |
| MOUNTING:        | Rigid                  |                                  |          |
| CASING MATERIAL: | Cast Iron              |                                  |          |