

**NEMA**

**Model GRC0604D**  
MFG PN: T364T60U4B

# Model GRC0604D

## Product Data Package



| MODEL    | HP | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT | ENCLOSURE |
|----------|----|------|---------|-------|----|-------|-------|-----------|
| GRC0604D | 60 | 1780 | 230/460 | 3     | 60 | 364T  | Rigid | TEFC      |

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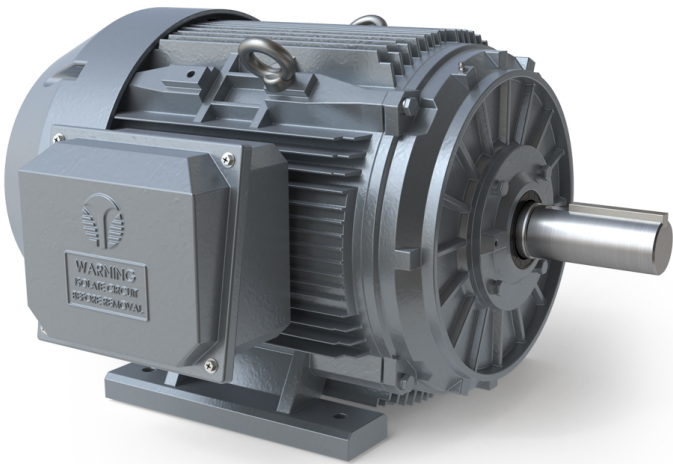
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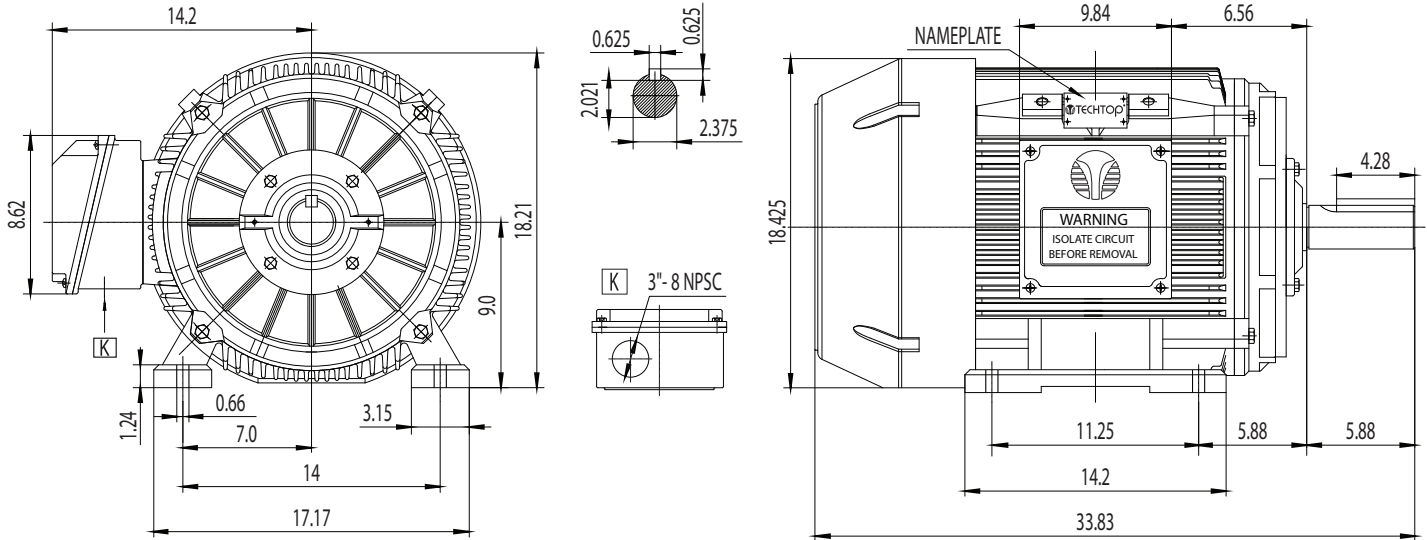
| ELECTRICAL DATA                     |         |                            |
|-------------------------------------|---------|----------------------------|
| Rated Motor Output Power            | 60      | HP                         |
|                                     | -       | kW                         |
| Rated Motor Speed                   | 1780    | r/min 60Hz                 |
|                                     | 1470    | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 230/460 | V/60Hz                     |
|                                     | 190/380 | V/50Hz                     |
| Rated Motor Current                 | 136/68  | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 164/82  | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3       | Ø                          |
| Locked Rotor Current @ High Voltage | 660.7   | 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                       |
|                                     | H       | 50Hz                       |
| Nominal Efficiency                  | 95      | % @ 60Hz                   |
| Nominal Power Factor                | 0.87    | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 12      | 8                          |
| Connection                          | DD/D    | -                          |
| Coil Resistance                     | 0.07    | 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          | 54.9    | °C @ 60Hz                  |
|                                     | 75.9    | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 364T             |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid            |           |
| Approximate Weight (lbs.)           | 815.9 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               | NO        |
| Paintwork                           | 7024             |           |
|                                     | Graphite Gray    |           |
| MECHANICAL DATA                     |                  |           |
| Bearing DE Side                     | 6313 C3          |           |
| Bearing ODE Side                    | 6313 C3          |           |
| Grease Type                         | Mobil Polyrex EM |           |
| Compensation Ring (wavy washer)     | NDE              |           |
| Moment of Inertia (lb-ft²)          | 16.19            |           |
| Sound Pressure @ 3 FT dBA           | 85.8             |           |
| 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                | 60         | 60      |
| RPM                        | 1780       | 1470    |
| Voltage                    | 230/460    | 190/380 |
| Full Load Amps             | 136/68     | 164/82  |
| Service Factor             | 1.15       | 1       |
| KVA Code                   | K          | H       |
| Full Load Amps (208V)      | -          | -       |
| Nominal Efficiency         | 95         | 93.7    |
| Nominal Power Factor       | 0.87       | -       |
| Design                     | A          |         |
| Frame                      | 364T       |         |
| Enclosure Type             | TEFC       |         |
| IP Rating                  | 55         |         |
| Duty                       | Cont. / S1 |         |
| Insulation Class           | F          |         |
| Ambient Rating             | 40         |         |
| Drive End Bearing          | 6313 C3    |         |
| Opposite Drive End Bearing | 6313 C3    |         |
| Weight (lbs)               | 815.9      |         |

#### NAMEPLATE LAYOUT

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

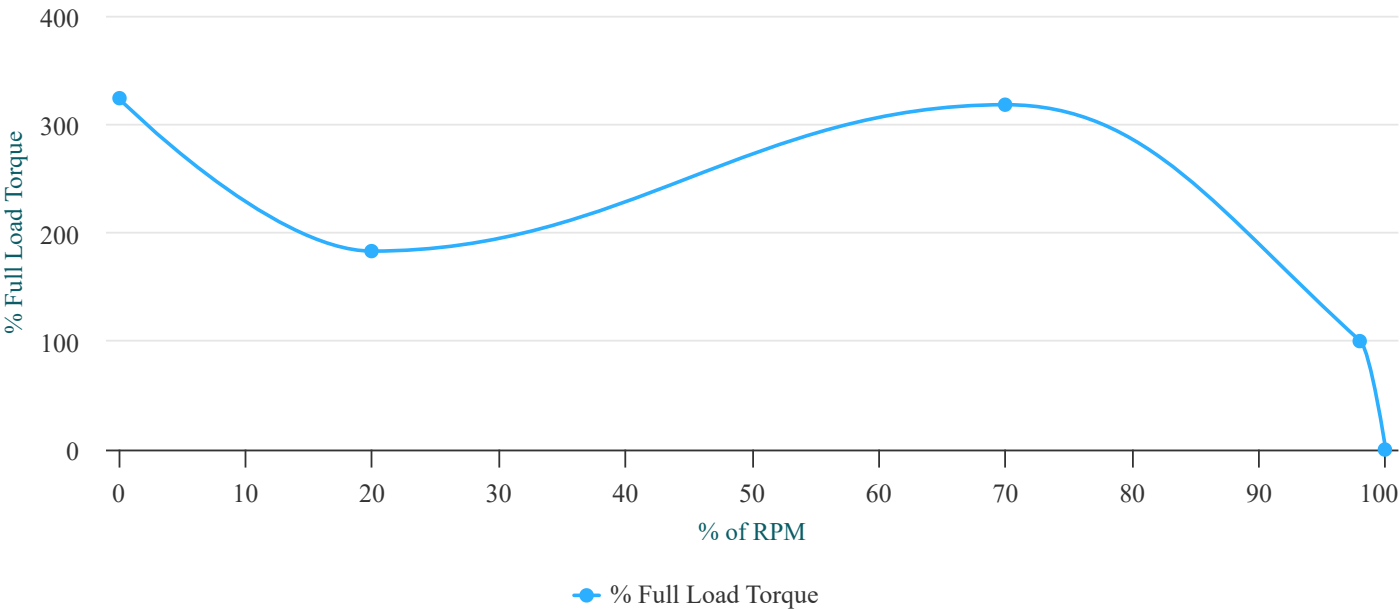
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

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Torque Speed (T-n) Curve



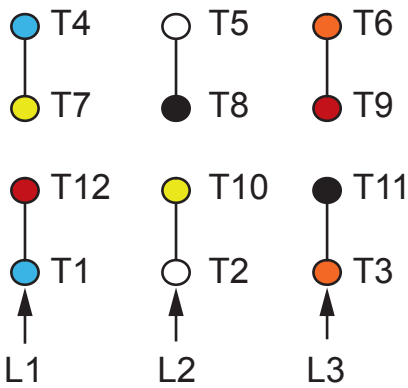
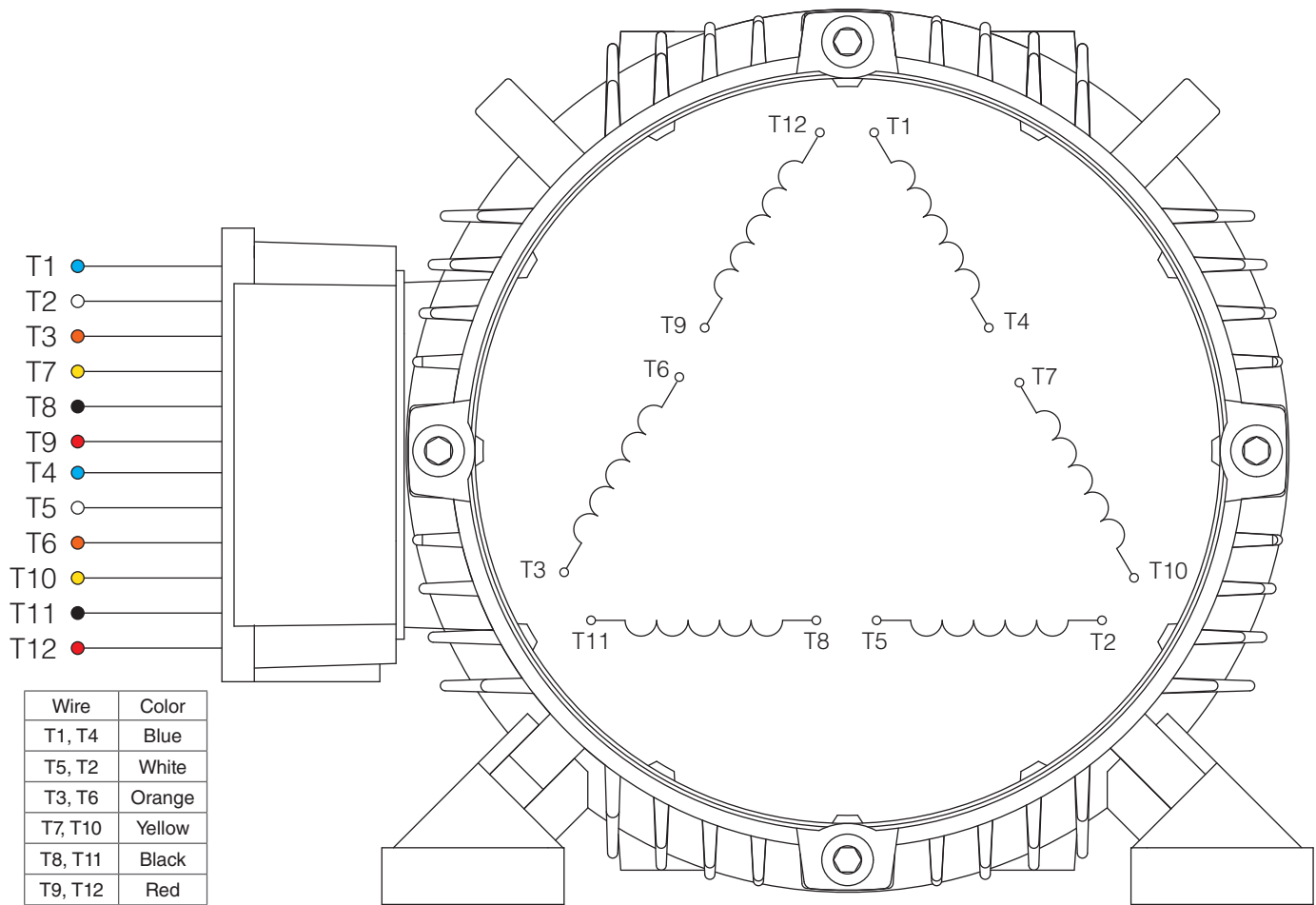
PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

| TORQUE VALUES       | TORQUE (lb-ft) | TORQUE (% FULL LOAD) | PERFORMANCE VALUES   |       |
|---------------------|----------------|----------------------|----------------------|-------|
| Locked Rotor Torque | 573.6          | 324                  | Start Configuration  | DOL   |
| Pull-Up Torque      | 324            | 183                  | Starting Current (A) | 660.7 |
| Breakdown Torque    | 563            | 318                  | No-Load Current (A)  | 23.9  |
| Full Load Torque    | 177            | 100                  | No-Load Power Factor | -     |

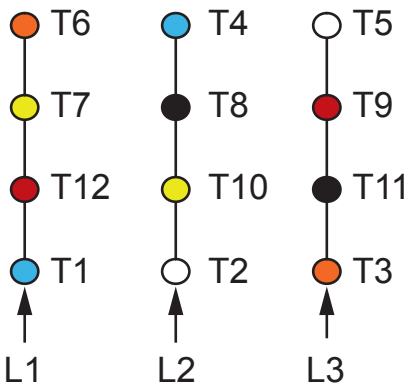
TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

| % OF RATED LOAD     | 25    | 50    | 75    | 100   | 125   | S.F. 1.15 |
|---------------------|-------|-------|-------|-------|-------|-----------|
| Line Amperes (A)    | 29    | 39.9  | 53.2  | 68.3  | 84.4  | 84.4      |
| Efficiency (%)      | 91.9  | 94.6  | 95    | 94.8  | 94.3  | 94.3      |
| Speed (r/min)       | 1796  | 1793  | 1789  | 1785  | 1781  | 1781      |
| Power Factor (cosΦ) | 0.53  | 0.75  | 0.84  | 0.87  | 0.89  | 0.89      |
| Input Power (kW)    | 12.25 | 23.78 | 35.51 | 47.45 | 59.63 | 59.63     |

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HIGH VOLTAGE  
(Δ)



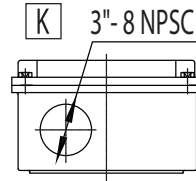
LOW VOLTAGE  
(ΔΔ)

- 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 DD/D 12-Lead Dual Voltage

|                     |                |                                  |          |
|---------------------|----------------|----------------------------------|----------|
| DRAWING NUMBER:     | NEMA-3-12-DD-D | ISSUED DATE                      | 30/05/25 |
| CONNECTION:         | DD/D           | PREMIUM T-FRAME CAST IRON MOTORS |          |
| NUMBER OF LEADS:    | 12             |                                  |          |
| THERMAL PROTECTION: | -              |                                  |          |



## NEMA Premium TEFC 364T

|                  |                    |                                  |          |
|------------------|--------------------|----------------------------------|----------|
| DRAWING NUMBER:  | GR3-CI-TF-364T-CFC | ISSUED DATE                      | 30/05/25 |
| DIMENSIONS:      | Inches             |                                  |          |
| MOUNTING:        | Rigid              | PREMIUM T-FRAME CAST IRON MOTORS |          |
| CASING MATERIAL: | Cast Iron          |                                  |          |