

**NEMA**

**Model GRC0074D**  
MFG PN: T213T7.5U4B

# Model GRC0074D

## Product Data Package



| MODEL    | HP  | RPM  | VOLTAGE | PHASE | Hz | FRAME | MOUNT | ENCLOSURE |
|----------|-----|------|---------|-------|----|-------|-------|-----------|
| GRC0074D | 7.5 | 1750 | 230/460 | 3     | 60 | 213T  | Rigid | TEFC      |

### Toronto

**TOLL FREE** 1.888.286.1820  
**PHONE** 905.829.1001  
**EMAIL** info@techttopcanada.com

### Montreal

**TOLL FREE** 1.844.354.5111  
**PHONE** 514.354.1002  
**EMAIL** infoQC@techttopcanada.com

### Moncton

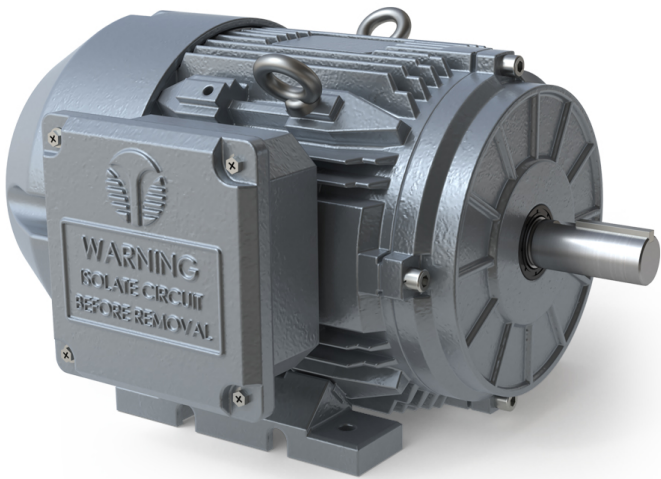
**PHONE** 506.386.5794  
**EMAIL** infoNB@techttopcanada.com

### Winnipeg

**PHONE** 204.633.2779  
**EMAIL** infoMB@techttopcanada.com

### Vancouver

**PHONE** 604.525.1551  
**EMAIL** infoBC@techttopcanada.com



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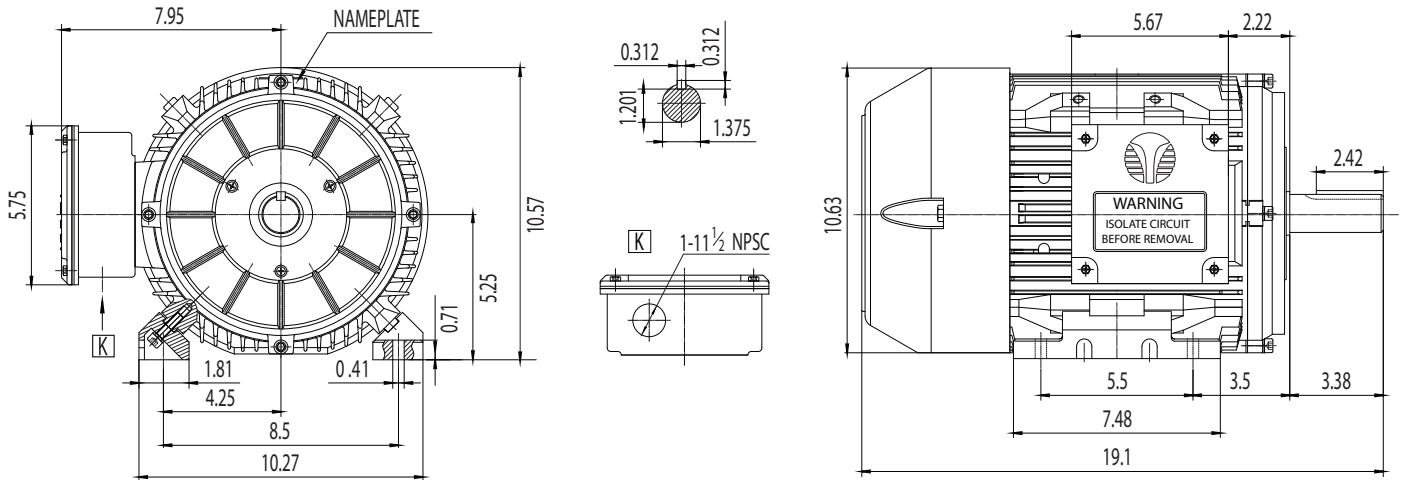
| ELECTRICAL DATA                     |          |                            |
|-------------------------------------|----------|----------------------------|
| Rated Motor Output Power            | 7.5      | HP                         |
|                                     | -        | kW                         |
| Rated Motor Speed                   | 1750     | r/min 60Hz                 |
|                                     | 1440     | r/min 50Hz                 |
| Rated Motor Voltage (+/-10%)        | 230/460  | V/60Hz                     |
|                                     | 190/380  | V/50Hz                     |
| Rated Motor Current                 | 17.8/8.9 | A (I <sub>n</sub> ) @ 60Hz |
|                                     | 22/11    | A (I <sub>n</sub> ) @ 50Hz |
| Phase                               | 3        | Ø                          |
| Locked Rotor Current @ High Voltage | 76.01    | A (I <sub>n</sub> ) @ 60Hz |
| FI Current @ 208V                   | 19.7     | A (I <sub>n</sub> ) @ 60Hz |
| Service Factor                      | 1.25     | @ 60Hz                     |
|                                     | 1        | @ 50Hz                     |
| KVA Code                            | J        | 60Hz                       |
|                                     | G        | 50Hz                       |
| Nominal Efficiency                  | 91.7     | % @ 60Hz                   |
| Nominal Power Factor                | 0.86     | cosΦ @ 60Hz                |
| Leads (Qty, Size)                   | 9        | 14                         |
| Connection                          | YY/Y     | -                          |
| Coil Resistance                     | 1.239    | 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          | 37.3     | °C @ 60Hz                  |
|                                     | 53.4     | °C @ 50Hz                  |

| GENERAL DATA                        |                  |           |
|-------------------------------------|------------------|-----------|
| Frame Size                          | 213T             |           |
| Enclosure                           | TEFC             |           |
| Mounting                            | Rigid            |           |
| Approximate Weight (lbs.)           | 168.6 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)          | 0.98             |           |
| Sound Pressure @ 3 FT dBA           | 70.8             |           |
| 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                | 7.5        | 7.5     |
| RPM                        | 1750       | 1440    |
| Voltage                    | 230/460    | 190/380 |
| Full Load Amps             | 17.8/8.9   | 22/11   |
| Service Factor             | 1.25       | 1       |
| KVA Code                   | J          | G       |
| Full Load Amps (208V)      | 19.7       | -       |
| Nominal Efficiency         | 91.7       | 89.5    |
| Nominal Power Factor       | 0.86       | -       |
| Design                     | A          |         |
| Frame                      | 213T       |         |
| 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)               | 168.6      |         |

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

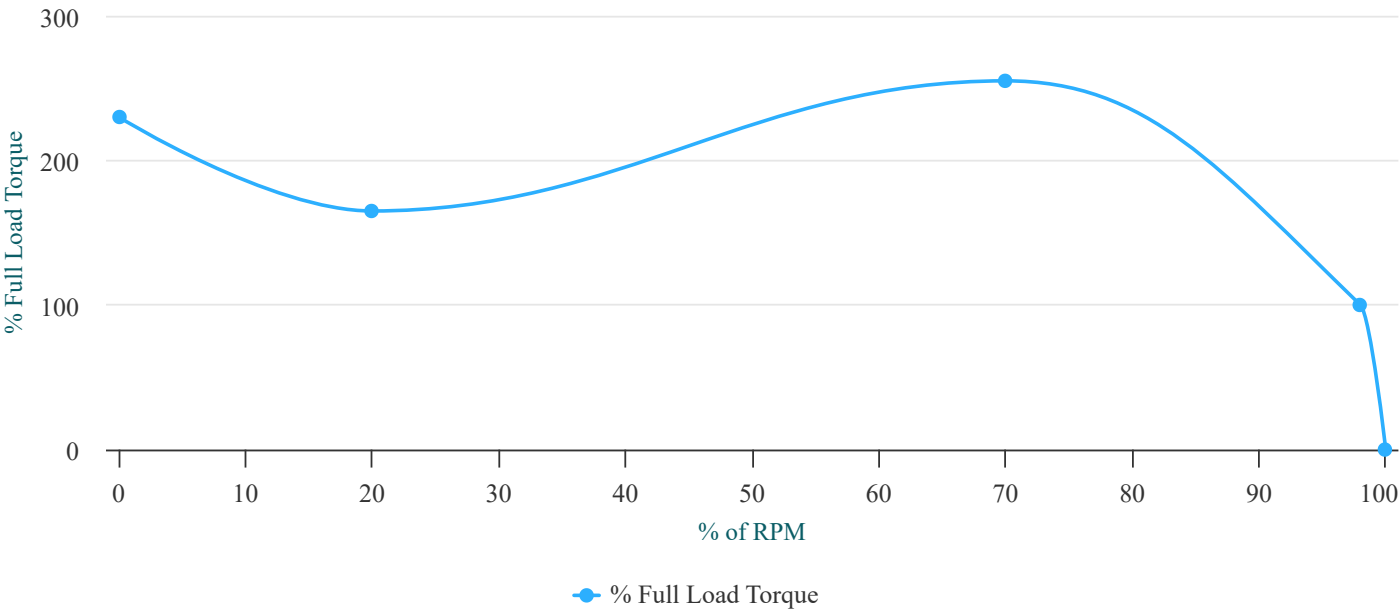
| HAZARDOUS LOCATIONS | CSA CERTIFIED   |
|---------------------|-----------------|
| Class / Division    | Class I, Div. 2 |
| Groups              | A, B, C & D     |

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



PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

| TORQUE VALUES       | TORQUE (lb-ft) | TORQUE (% FULL LOAD) | PERFORMANCE VALUES   |       |
|---------------------|----------------|----------------------|----------------------|-------|
| Locked Rotor Torque | 51.8           | 230                  | Start Configuration  | DOL   |
| Pull-Up Torque      | 108.9          | 165                  | Starting Current (A) | 76.01 |
| Breakdown Torque    | 72.9           | 255                  | No-Load Current (A)  | 3.2   |
| Full Load Torque    | 22.5           | 100                  | No-Load Power Factor | 0.07  |

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

| % OF RATED LOAD     | 25   | 50   | 75   | 100  | 125  | S.F. 1.25 |
|---------------------|------|------|------|------|------|-----------|
| Line Amperes (A)    | 3.8  | 5.1  | 6.8  | 8.8  | 10.9 | 10.9      |
| Efficiency (%)      | 86.6 | 90.9 | 91.5 | 91   | 90   | 90        |
| Speed (r/min)       | 1791 | 1783 | 1773 | 1763 | 1752 | 1752      |
| Power Factor (cosΦ) | 0.53 | 0.74 | 0.83 | 0.87 | 0.88 | 0.88      |
| Input Power (kW)    | 1.59 | 3.02 | 4.51 | 6.05 | 7.64 | 7.64      |

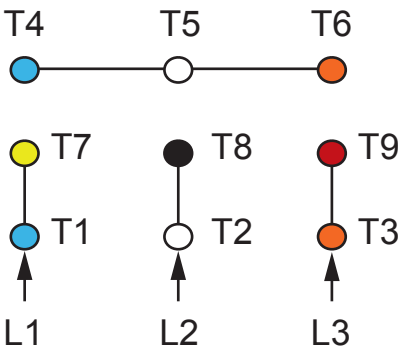
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HIGH VOLTAGE  
(Y)



LOW VOLTAGE  
(YY)

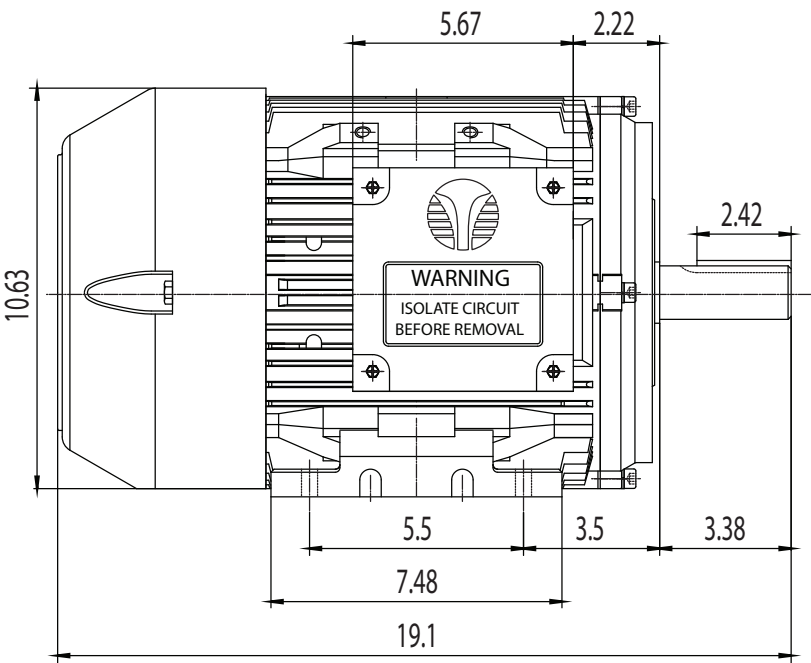
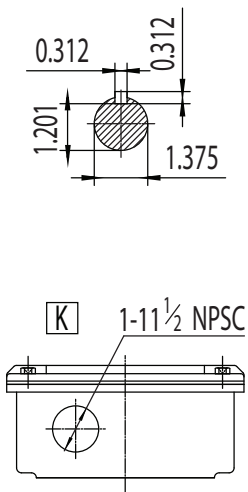
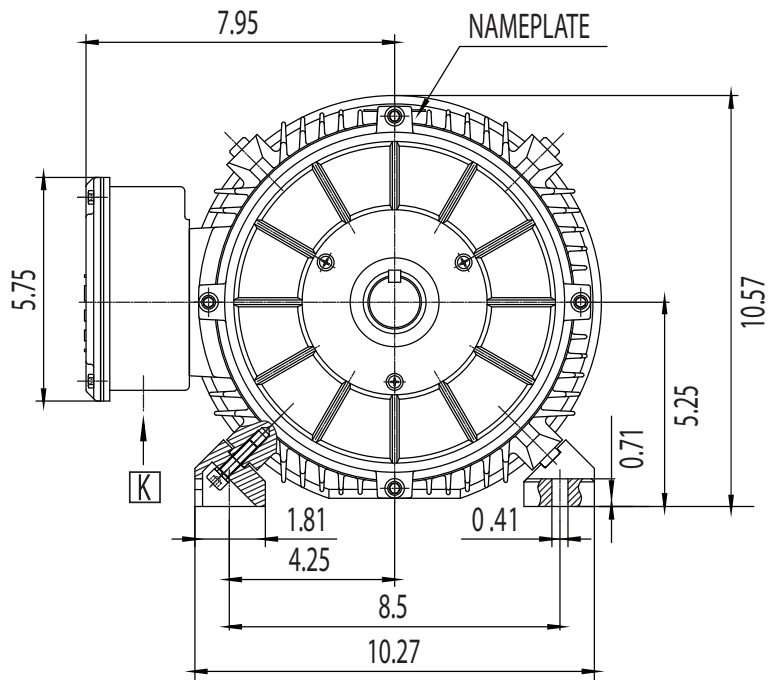
- NOTES:
- 1. CCW ROTATION FACING ODE FOR CONNECTIONS SHOWN
  - 2. TO REVERSE ROTATION, SWAP ANY TWO INPUT LINES
  - 3. WHEN MOTOR IS IN F1 POSITION, LEADS INDICATED WITH “\*” EXIT THE CASING ABOVE THE CENTER LINE OF THE MOTOR, THE REMAINING LEADS EXIT BELOW THE CENTER LINE
  - 4. LEADS MUST BE NUMBERED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



|                     |               |
|---------------------|---------------|
| DRAWING NUMBER:     | NEMA-3-9-YY-Y |
| CONNECTION:         | YY/Y          |
| NUMBER OF LEADS:    | 9             |
| THERMAL PROTECTION: | -             |

NEMA 3Ø YY/Y 9-Lead Dual Voltage

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



NEMA Premium TEFC 213T

DRAWING NUMBER:

GR3-CI-TF-213T-CFC

DIMENSIONS:

Inches

MOUNTING:

Rigid

CASING MATERIAL:

Cast Iron

ISSUED DATE

05/05/25

PREMIUM T-FRAME CAST IRON MOTORS