

NEMA

Model GRC2004F
MFG PN: T447T 200U4B

Model GRC2004F

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC2004F	200	1785	575	3	60	447T	Rigid	TEFC

Toronto

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Moncton

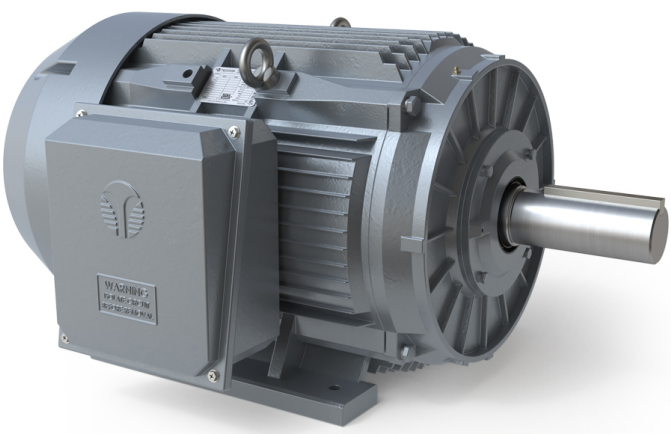
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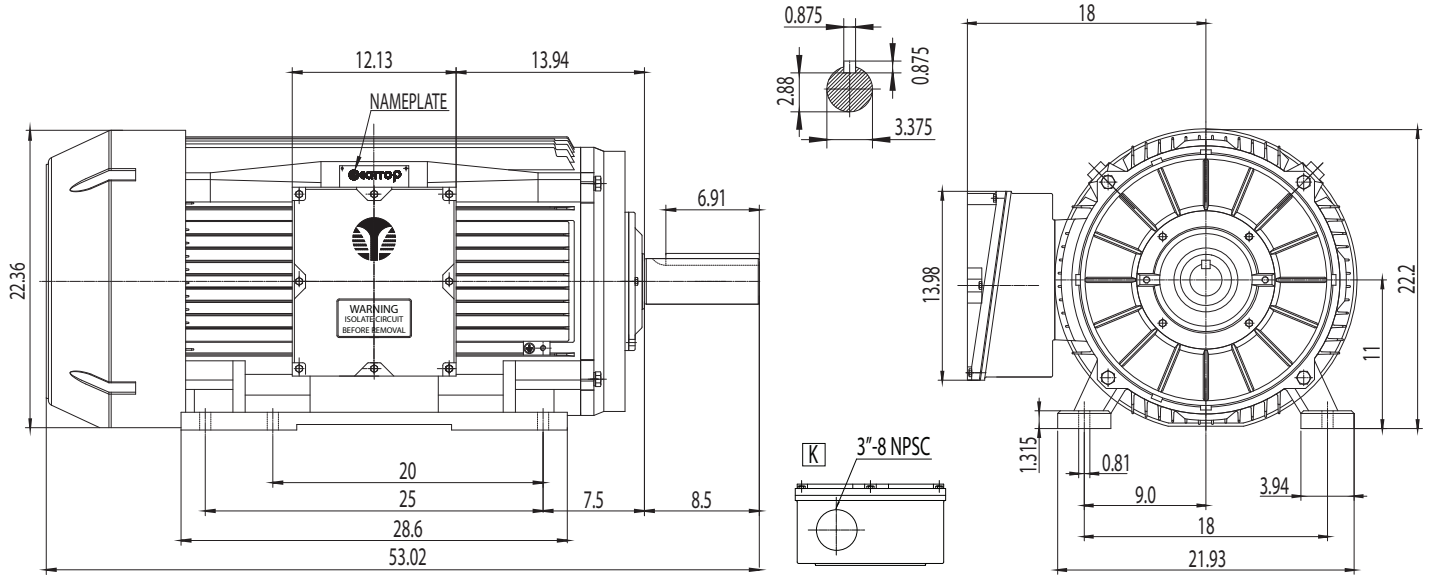
ELECTRICAL DATA		
Rated Motor Output Power	200	HP
	-	kW
Rated Motor Speed	1785	r/min 60Hz
	-	r/min 50Hz
Rated Motor Voltage (+/-10%)	575	V/60Hz
	-	V/50Hz
Rated Motor Current	173.60	A (I _n) @ 60Hz
	-	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	1566.4	A (I _n) @ 60Hz
FI Current @ 208V	-	A (I _n) @ 60Hz
Service Factor	1.15	@ 60Hz
	1	@ 50Hz
KVA Code	H	60Hz
	-	50Hz
Nominal Efficiency	96.2	% @ 60Hz
Nominal Power Factor	0.9	cosΦ @ 60Hz
Leads (Qty, Size)	6	1
Connection	D	-
Coil Resistance	11.1	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	83.5	°C @ 60Hz
	94	°C @ 50Hz

GENERAL DATA		
Frame Size	447T	
Enclosure	TEFC	
Mounting	Rigid	
Approximate Weight (lbs.)	2108.5 lbs.	
Casing Material / Fan Cover	Cast Iron	Cast Iron
Shaft Material	4140	
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)	71.6	
Sound Pressure @ 3 FT dBA	92.1	
SITE CONDITIONS		
Ambient Temperature (°C)	40	
Meters Above Sea Level (MASL)	1000	
HAZARDOUS LOCATIONS		
CSA Certified	A, B, C & D	
Temperature Code	T3A	-

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NAMEPLATE DATA	60Hz	50Hz
Horse Power	200	200
RPM	1785	-
Voltage	575	-
Full Load Amps	173.60	-
Service Factor	1.15	1
KVA Code	H	-
Full Load Amps (208V)	-	-
Nominal Efficiency	96.2	-
Nominal Power Factor	0.9	-
Design	A	
Frame	447T	
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)	2108.5	

NAMEPLATE LAYOUT

TECHTOP INDUSTRIAL THREE PHASE MOTOR 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
			INS CL
			AMB
			WEIGHT
			lbs
			Energy Verified
			Only
			IEEE 45 MARINE DUTY
MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D			

VFD DUTY (S.F. 1.0)

Variable Torque
Constant Torque

RATIO

30:1
15:1

Hz*

2 - 60
4 - 60

*For max speed please contact Techtop Canada

HAZARDOUS LOCATIONS

Class / Division
Groups

CSA CERTIFIED

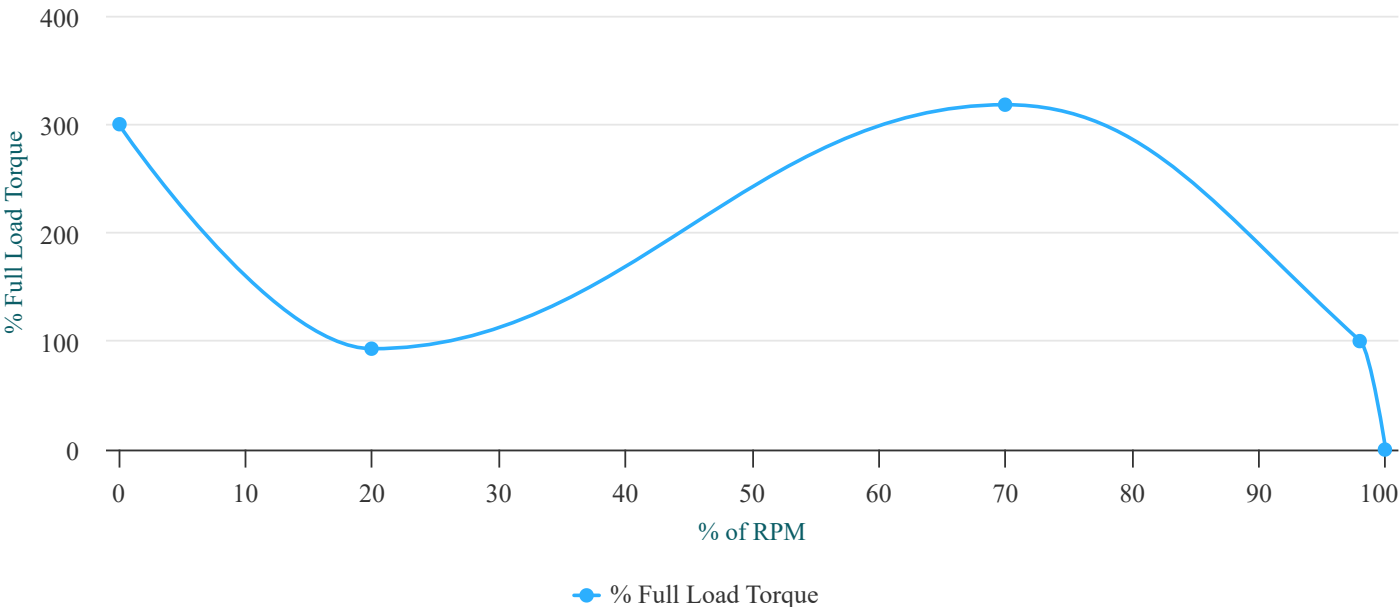
Class I, Div. 2
A, B, C & D

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Torque Speed (T-n) Curve



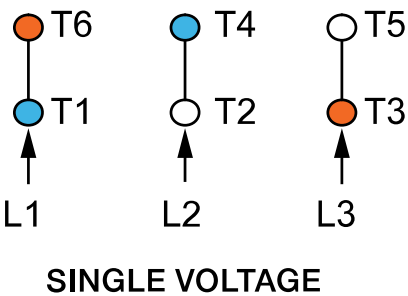
PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

TORQUE VALUES	TORQUE (lb-ft)	TORQUE (% FULL LOAD)	PERFORMANCE VALUES	
Locked Rotor Torque	1765.4	300	Start Configuration	DOL
Pull-Up Torque	547.3	93	Starting Current (A)	1566.4
Breakdown Torque	1871.3	318	No-Load Current (A)	48.8
Full Load Torque	588.5	100	No-Load Power Factor	0.04

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.15
Line Amperes (A)	63.5	95.5	132.3	172.9	216	198.5
Efficiency (%)	94	96	96.3	96.1	95.7	95.7
Speed (r/min)	1797	1794	1790	1787	1783	1783
Power Factor (cosΦ)	0.63	0.82	0.89	0.91	0.91	0.91
Input Power (kW)	39.91	78.13	116.83	156.09	195.95	180.28

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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



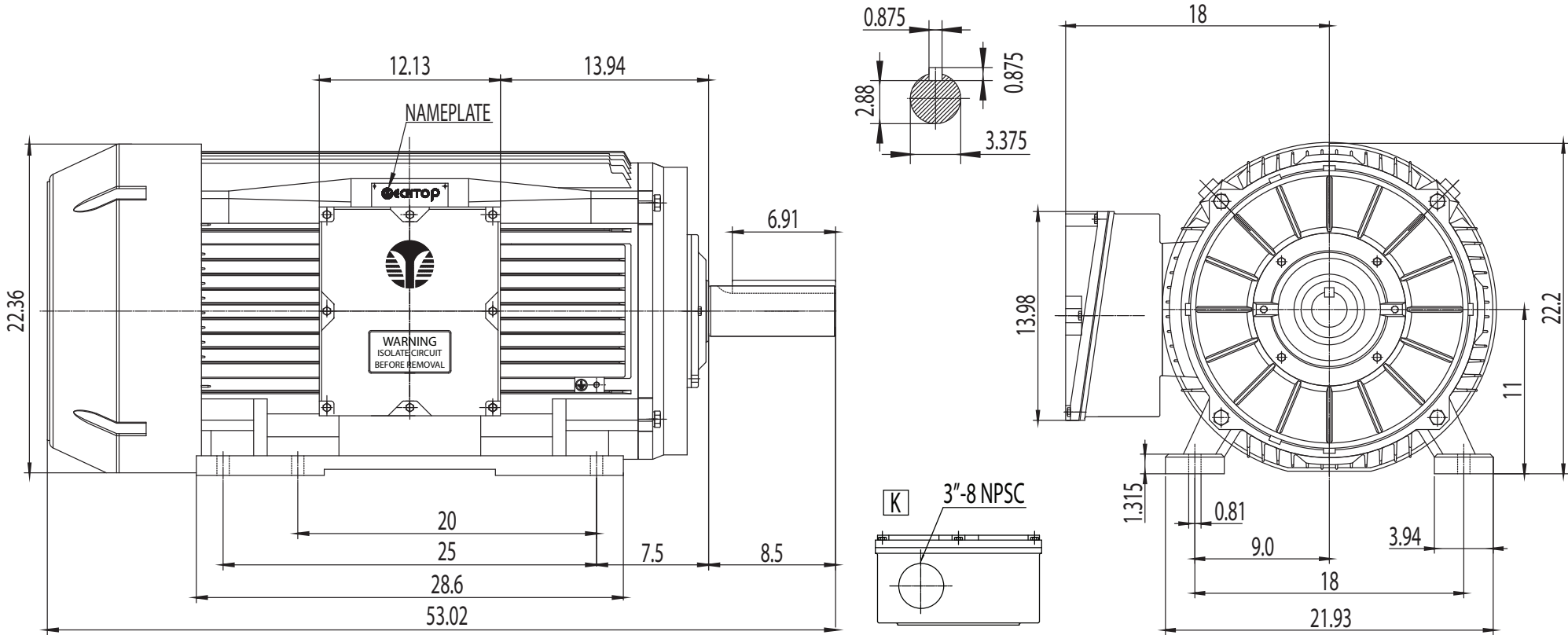
DRAWING NUMBER:	NEMA-3-6-D
CONNECTION:	D
NUMBER OF LEADS:	6
THERMAL PROTECTION:	-

NEMA 3Ø D 6-Lead Single Voltage

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



Model **GRC2004F**
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NEMA Premium TEFC 447T

DRAWING NUMBER:	GR3-CI-TF-447(9)T-CFC	ISSUED DATE	06/06/25
DIMENSIONS:	Inches	PREMIUM T-FRAME CAST IRON MOTORS	
MOUNTING:	Rigid		
CASING MATERIAL:	Cast Iron		