

NEMA

Model GRC2004E-RR
MFG PN: T447T 200U4B

Model GRC2004E-RR

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC2004E-RR	200	1785	460	3	60	447T	Rigid	TEFC

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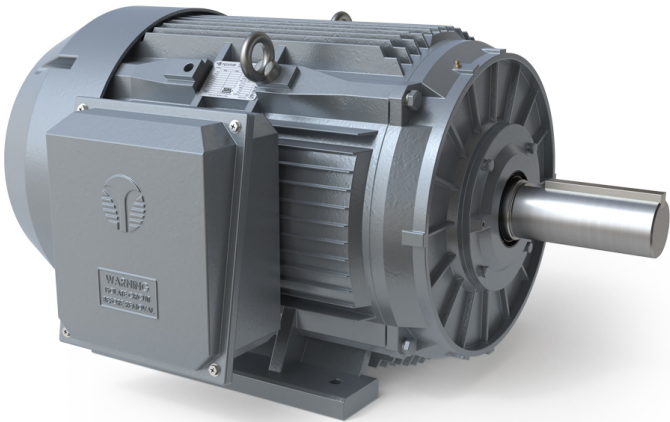
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Index

Motor General Data Sheet	P 2
Nameplate Information	P 3
Technical Performance Data	P 4
Motor General Wiring Diagram	P 5
Motor General Outline Drawing	P 6

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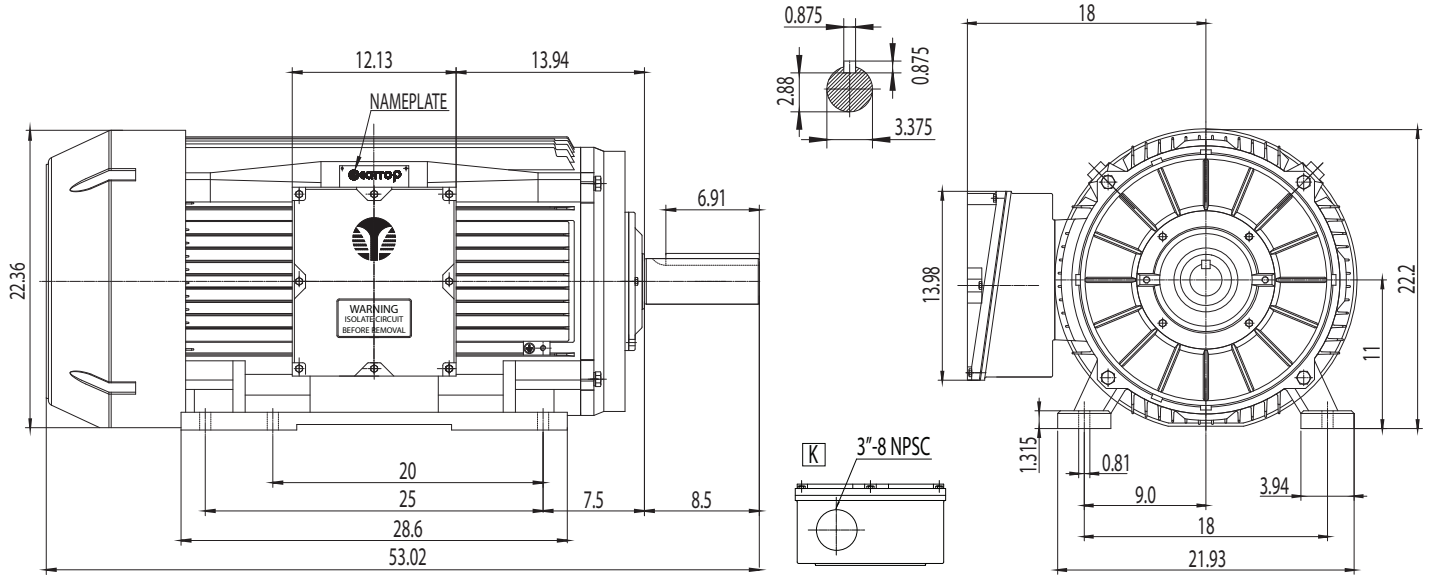
ELECTRICAL DATA		
Rated Motor Output Power	200	HP
	-	kW
Rated Motor Speed	1785	r/min 60Hz
	1480	r/min 50Hz
Rated Motor Voltage (+/-10%)	460	V/60Hz
	380	V/50Hz
Rated Motor Current	217.00	A (I _n) @ 60Hz
	263.00	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	1958	A (I _n) @ 60Hz
FI Current @ 208V	-	A (I _n) @ 60Hz
Service Factor	1.15	@ 60Hz
	1	@ 50Hz
KVA Code	H	60Hz
	G	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	NU 319	
Bearing ODE Side	6319 C3	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	None	
Moment of Inertia (lb-ft²)	71.6	
Sound Pressure @ 3 FT dBA	-	
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	1480
Voltage	460	380
Full Load Amps	217.00	263.00
Service Factor	1.15	1
KVA Code	H	G
Full Load Amps (208V)	-	-
Nominal Efficiency	96.2	95
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	NU 319	
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	
MODEL		TECHTOPCANADA.COM	
NEMA Premium		60Hz	50Hz
HP			
RPM			
VOLT			
FLA			
SF			
KVA CODE			
NOM.EFF			
USABLE AT 208V 60Hz		BEARING SIZE	
FLA		DE	ODE
		GREASE: MOBIL POLYREX EM	
MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D		IEEE 45 MARINE DUTY	
MFG PN		MFG DATE	
SER #		DESIGN	
FRAME		ENCL	
IP		DUTY	
INS CL		AMB	
WEIGHT		lbs	
		Energy Verified	

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

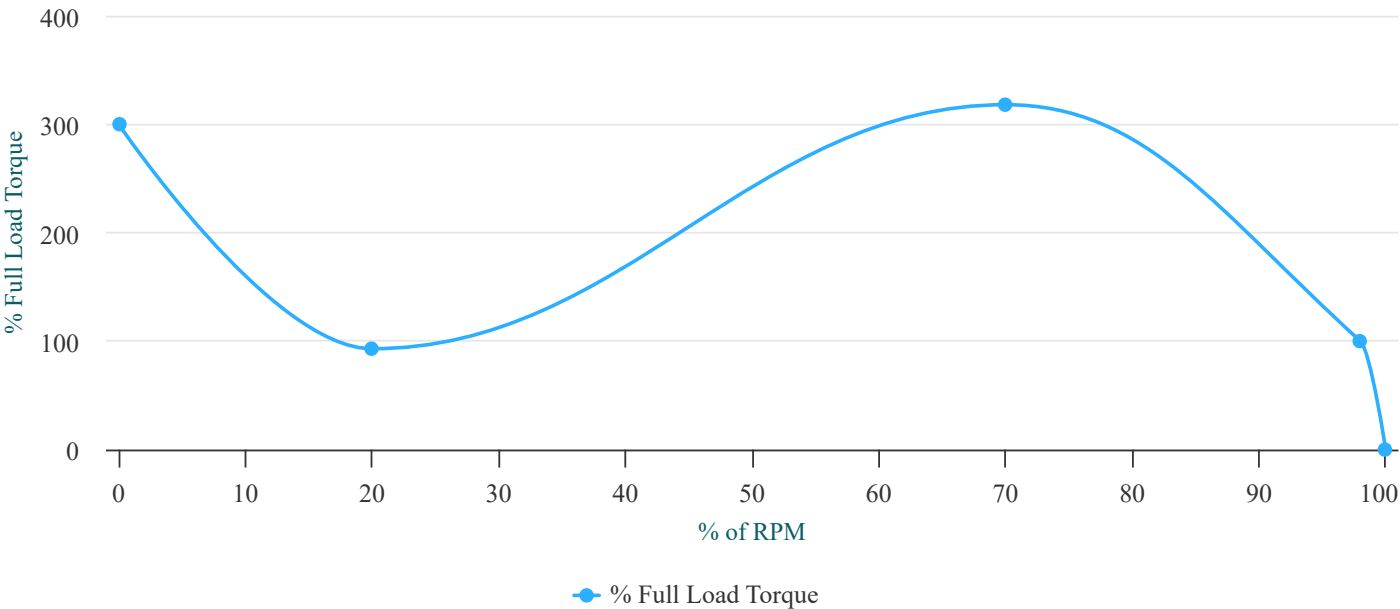
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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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	1765.4	300	Start Configuration	DOL
Pull-Up Torque	547.3	93	Starting Current (A)	1958
Breakdown Torque	1871.3	318	No-Load Current (A)	61
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)	79.3	119.4	165.4	216.1	270	248.1
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

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



NEMA Premium TEFC 447T

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