

NEMA

Model **GRC1256E-TD**
MFG PN: T445T125U6B

Model **GRC1256E-TD**

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC1256E-TD	125	1190	460	3	60	445TD	Rigid/D-Flange	TEFC

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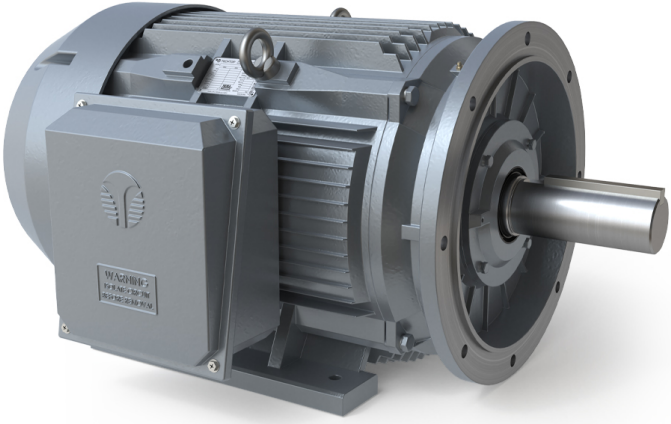
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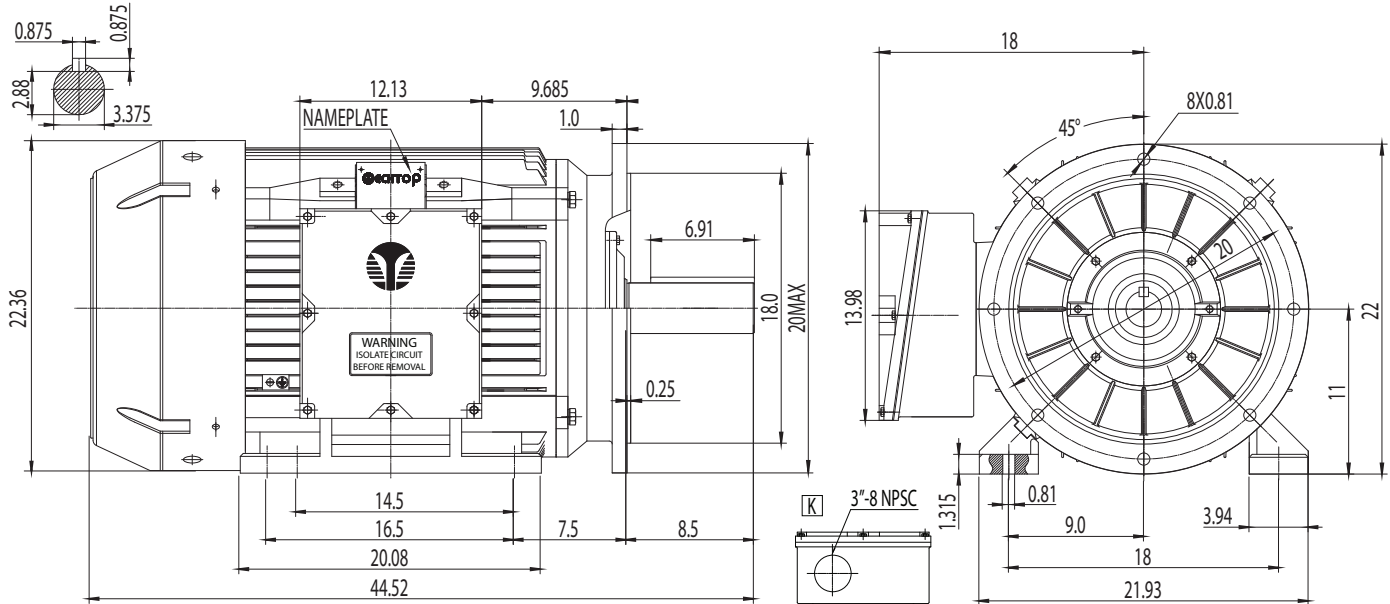
ELECTRICAL DATA		
Rated Motor Output Power	125	HP
	-	kW
Rated Motor Speed	1190	r/min 60Hz
	985	r/min 50Hz
Rated Motor Voltage (+/-10%)	460	V/60Hz
	380	V/50Hz
Rated Motor Current	147.00	A (I _n) @ 60Hz
	174.00	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	1151	A (I _n) @ 60Hz
FI Current @ 208V	-	A (I _n) @ 60Hz
Service Factor	1.15	@ 60Hz
	1	@ 50Hz
KVA Code	J	60Hz
	G	50Hz
Nominal Efficiency	95	% @ 60Hz
Nominal Power Factor	0.84	cosΦ @ 60Hz
Leads (Qty, Size)	6	2
Connection	D	-
Coil Resistance	0.028	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	60.3	°C @ 60Hz
	77.9	°C @ 50Hz

GENERAL DATA		
Frame Size	445TD	
Enclosure	TEFC	
Mounting	Rigid/D-Flange	
Approximate Weight (lbs.)	1784.4 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	NU 319	
Bearing ODE Side	6319 C3	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	None	
Moment of Inertia (lb-ft²)	89.79	
Sound Pressure @ 3 FT dBA	83.1	
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	125	125
RPM	1190	985
Voltage	460	380
Full Load Amps	147.00	174.00
Service Factor	1.15	1
KVA Code	J	G
Full Load Amps (208V)	-	-
Nominal Efficiency	95	94.6
Nominal Power Factor	0.84	-
Design	A	
Frame	445TD	
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)	1784.4	

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	
MFG PN		MFG DATE	
SER #		DESIGN	
FRAME		ENCL	
IP		DUTY	
INS CL		AMB	
WEIGHT		lbs	
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

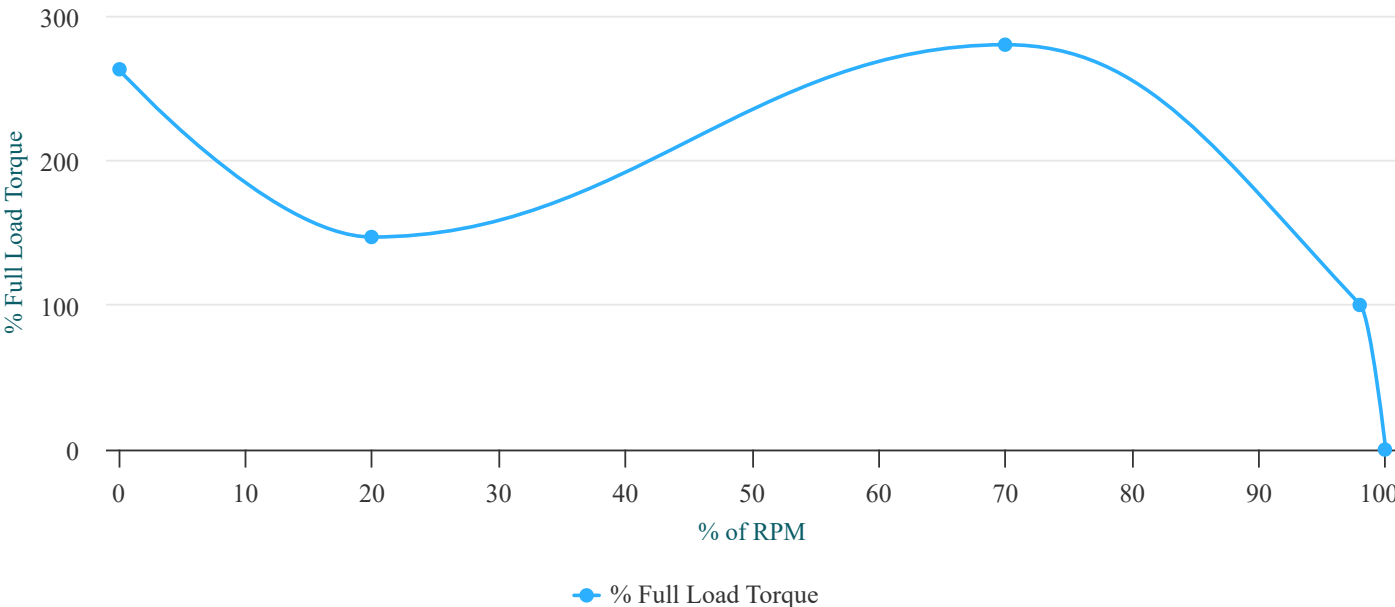
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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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	1450.9	263	Start Configuration	DOL
Pull-Up Torque	811	147	Starting Current (A)	1151
Breakdown Torque	1544.7	280	No-Load Current (A)	54.2
Full Load Torque	551.7	100	No-Load Power Factor	0.05

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.15
Line Amperes (A)	65.1	87.1	114.4	145.7	179.8	166
Efficiency (%)	90.8	94.3	95.1	95.1	94.9	94.8
Speed (r/min)	1198	1196	1194	1192	1190	1190
Power Factor (cosΦ)	0.49	0.71	0.81	0.84	0.86	0.86
Input Power (kW)	25.6	49.32	73.35	97.76	122.55	113.11

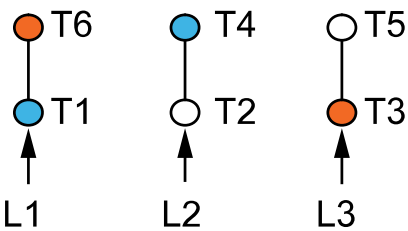
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Wire	Color
T1, T4	Blue
T5, T2	White
T3, T6	Orange



SINGLE VOLTAGE

- 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	02/06/25
PREMIUM T-FRAME CAST IRON MOTORS	



NEMA Premium TEFC 445TD

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