

NEMA

Model GRC1006D-TD
MFG PN: T444T100U6B

Model GRC1006D-TD

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC1006D-TD	100	1190	230/460	3	60	444TD	Rigid/D-Flange	TEFC

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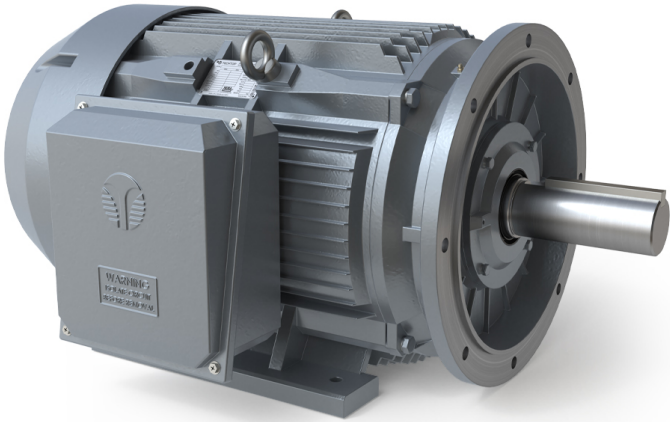
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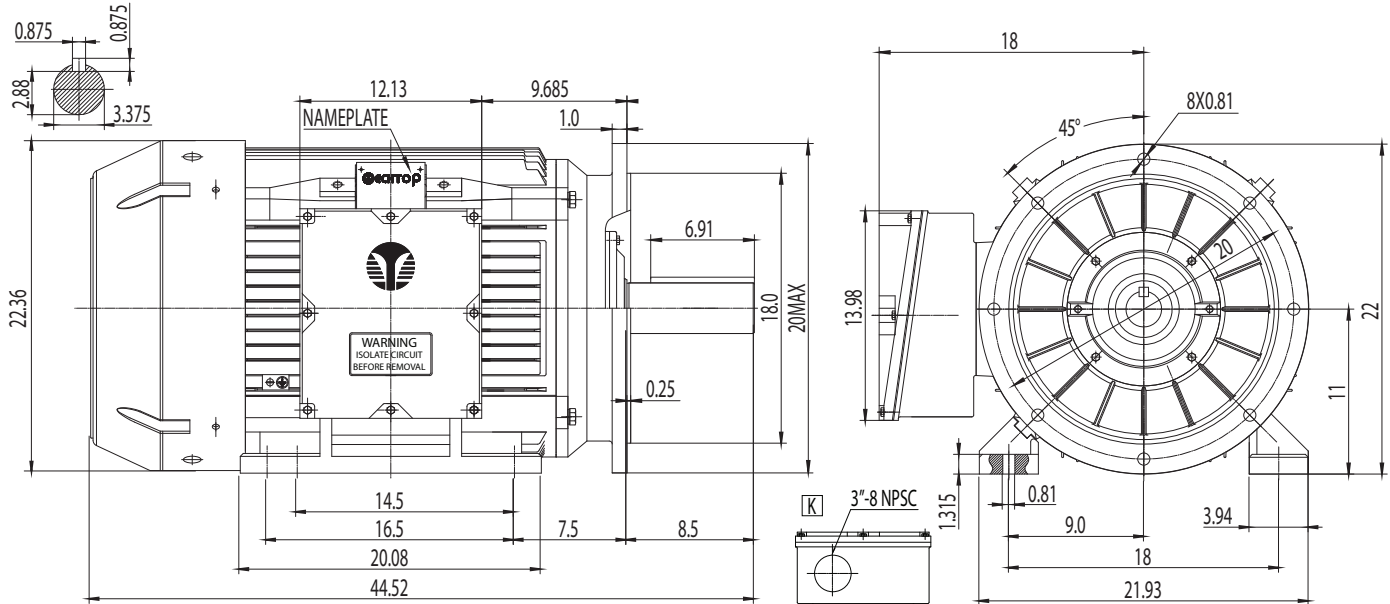
ELECTRICAL DATA		
Rated Motor Output Power	100	HP
	-	kW
Rated Motor Speed	1190	r/min 60Hz
	985	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	230/115	A (I _n) @ 60Hz
	282/141	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	851.2	A (I _n) @ 60Hz
FI Current @ 208V	-	A (I _n) @ 60Hz
Service Factor	1.15	@ 60Hz
	1	@ 50Hz
KVA Code	H	60Hz
	G	50Hz
Nominal Efficiency	95	% @ 60Hz
Nominal Power Factor	0.86	cosΦ @ 60Hz
Leads (Qty, Size)	12	4
Connection	DD/D	-
Coil Resistance	0.044	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	76	°C @ 60Hz
	90	°C @ 50Hz

GENERAL DATA		
Frame Size	444TD	
Enclosure	TEFC	
Mounting	Rigid/D-Flange	
Approximate Weight (lbs.)	1643.3 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)	76.17	
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	100	100
RPM	1190	985
Voltage	230/460	190/380
Full Load Amps	230/115	282/141
Service Factor	1.15	1
KVA Code	H	G
Full Load Amps (208V)	-	-
Nominal Efficiency	95	94
Nominal Power Factor	0.86	-
Design	A	
Frame	444TD	
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)	1643.3	

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		

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

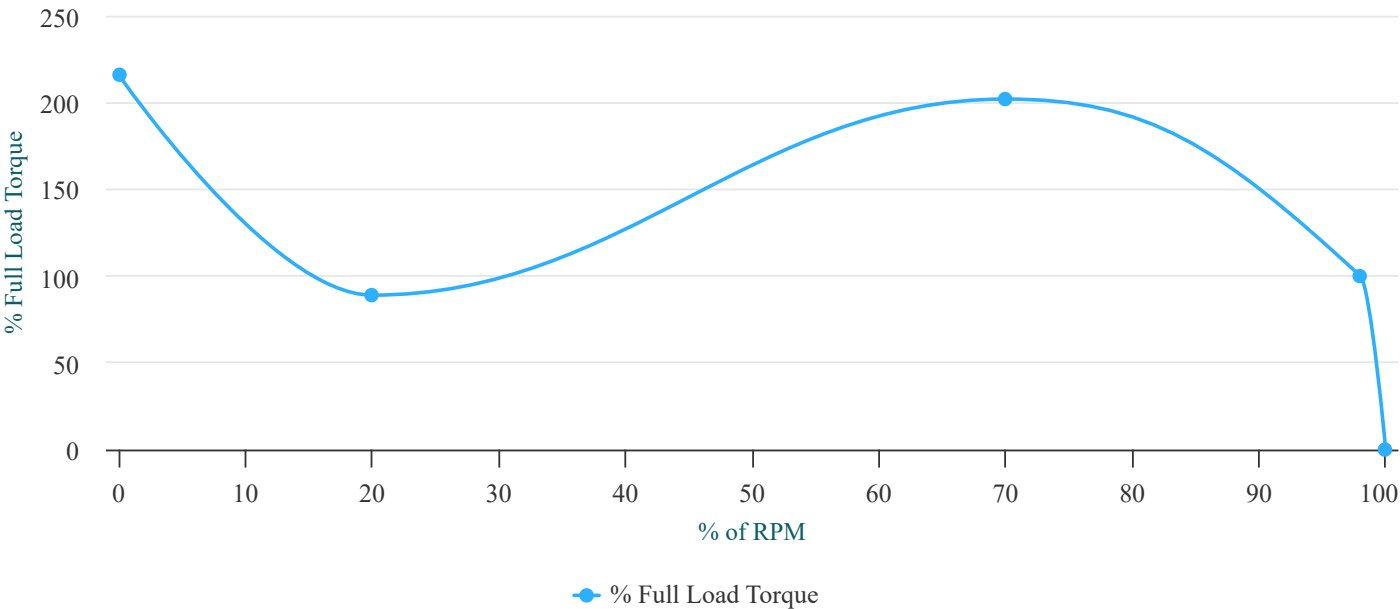
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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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	953.3	216	Start Configuration	DOL
Pull-Up Torque	392.8	89	Starting Current (A)	851.2
Breakdown Torque	891.5	202	No-Load Current (A)	33.7
Full Load Torque	441.3	100	No-Load Power Factor	0.06

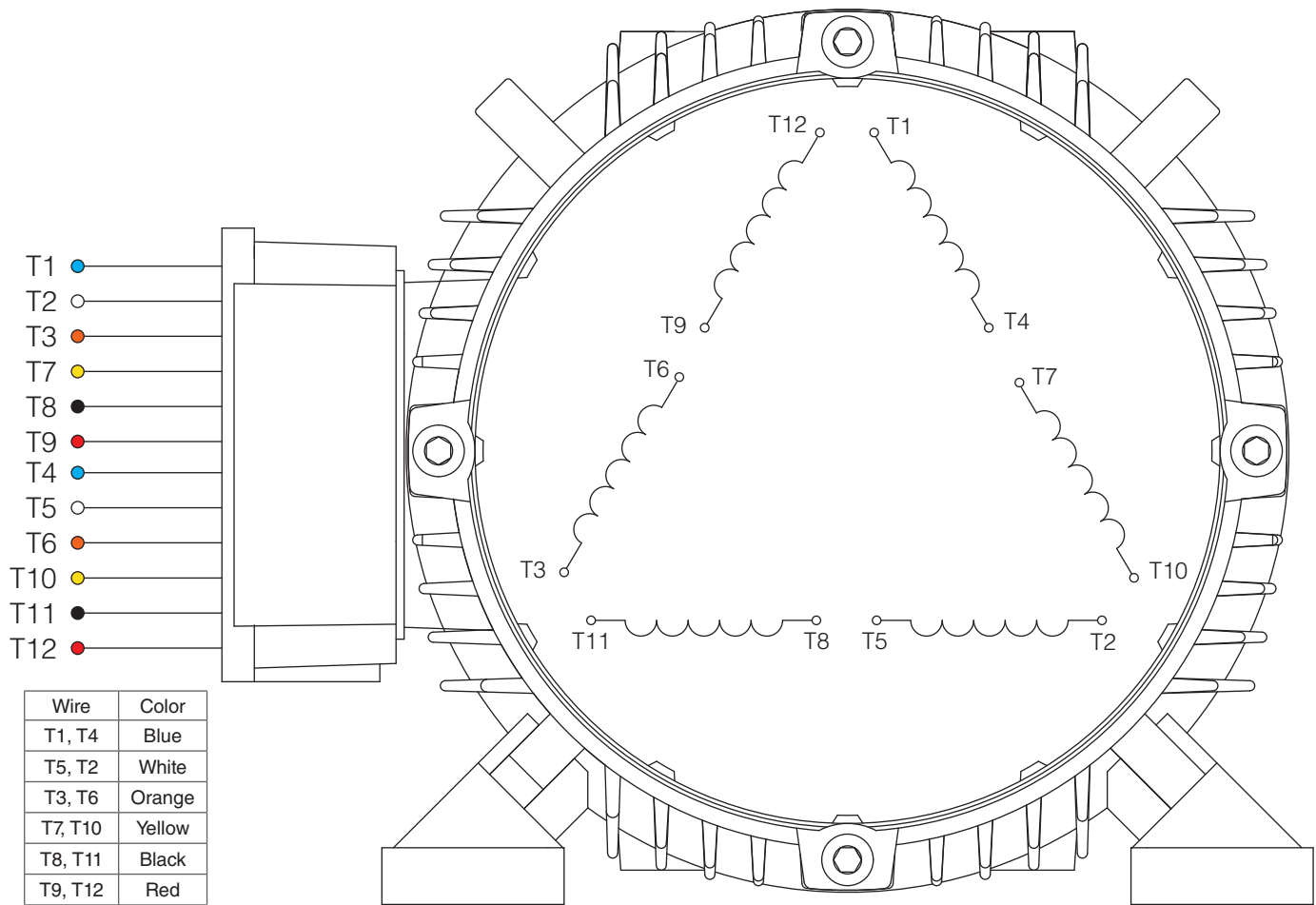
TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.15
Line Amperes (A)	42.2	63.1	87	113.4	141.7	-
Efficiency (%)	91.8	94.8	95.5	95.5	95.1	-
Speed (r/min)	1198	1196	1194	1191	1189	-
Power Factor (cosΦ)	0.61	0.79	0.85	0.87	0.87	-
Input Power (kW)	20.43	39.55	58.91	78.57	98.54	-

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HIGH VOLTAGE
(Δ)



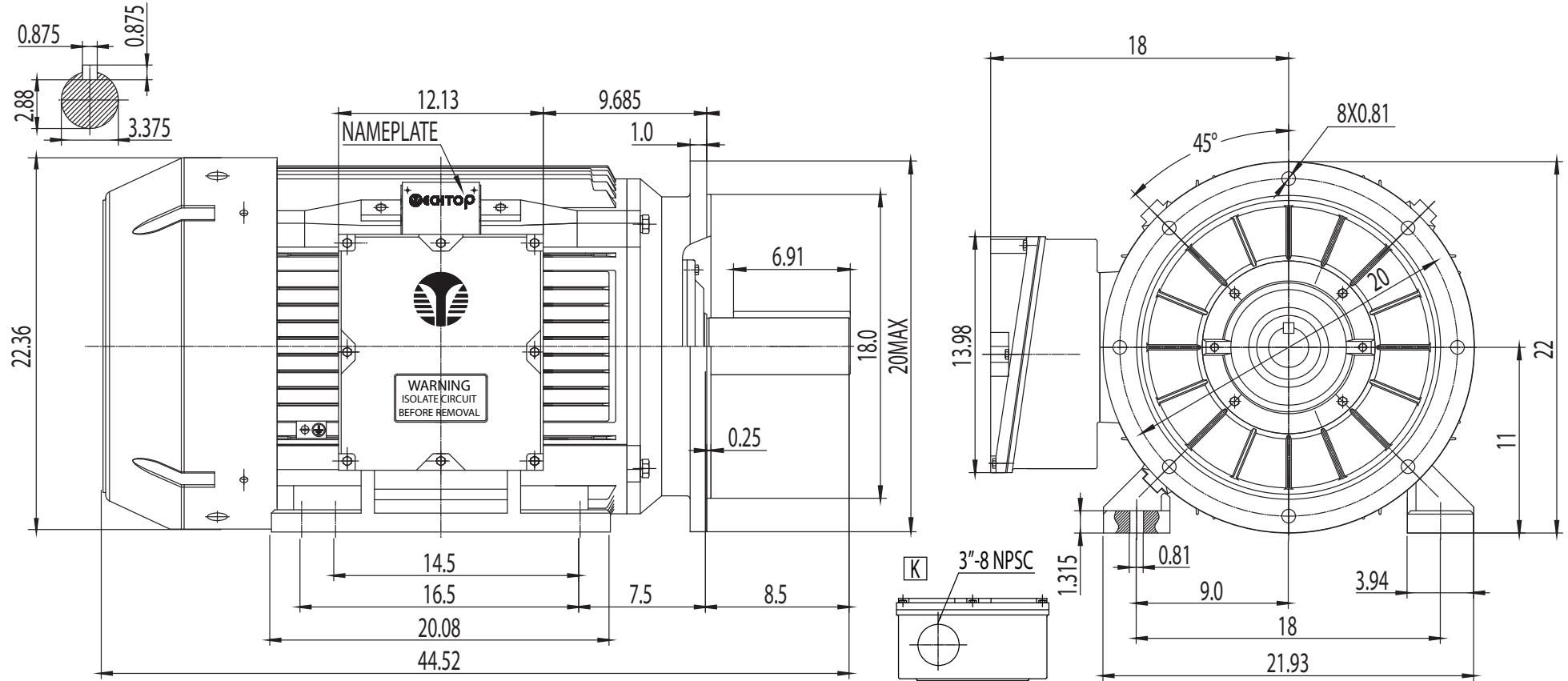
LOW VOLTAGE
(ΔΔ)

- 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	02/06/25
CONNECTION:	DD/D	PREMIUM T-FRAME CAST IRON MOTORS	
NUMBER OF LEADS:	12		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 444TD

DRAWING NUMBER:

GR3-CI-TF-444(5)TD-CFC

DIMENSIONS:

Inches

MOUNTING:

Rigid/D-Flange

CASING MATERIAL:

Cast Iron

ISSUED DATE

02/06/25

PREMIUM T-FRAME CAST IRON MOTORS