

NEMA

Model GRC0076D-TC
MFG PN: T254T7.5U6B

Model GRC0076D-TC

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC0076D-TC	7.5	1175	230/460	3	60	254TC	Rigid/C-Flange	TEFC

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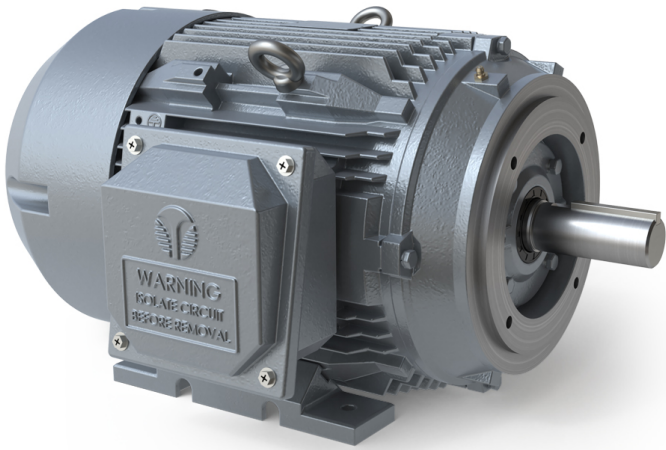
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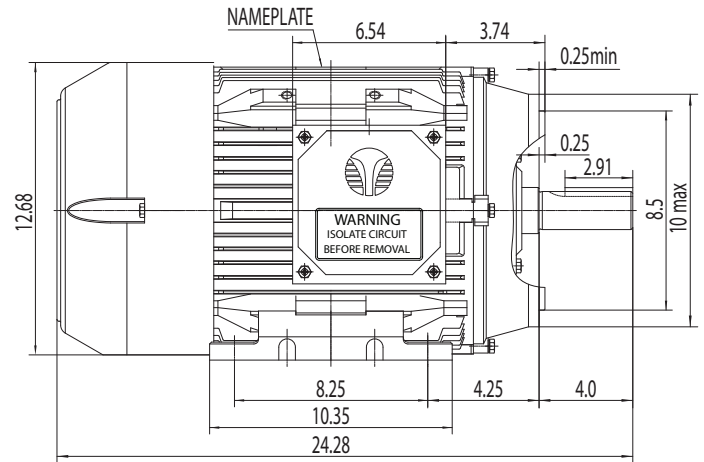
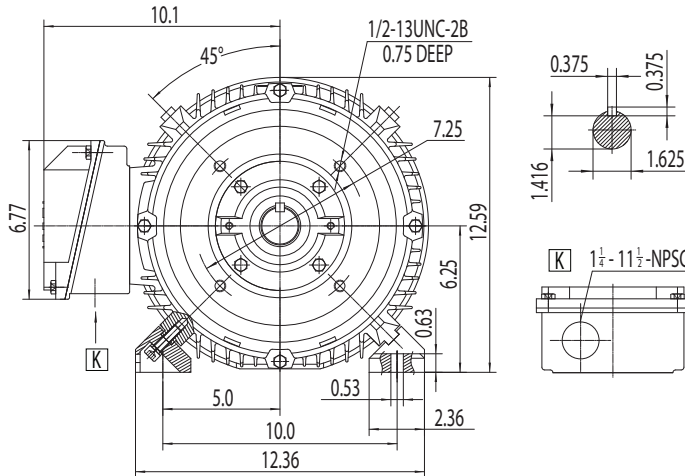
ELECTRICAL DATA		
Rated Motor Output Power	7.5	HP
	-	kW
Rated Motor Speed	1175	r/min 60Hz
	970	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	20.8/10.4	A (I _n) @ 60Hz
	25/12.5	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	67.71	A (I _n) @ 60Hz
FI Current @ 208V	23.07	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	1	@ 50Hz
KVA Code	K	60Hz
	H	50Hz
Nominal Efficiency	91	% @ 60Hz
Nominal Power Factor	0.74	cosΦ @ 60Hz
Leads (Qty, Size)	12	14
Connection	DD/D	-
Coil Resistance	1.132	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	37.7	°C @ 60Hz
	47.8	°C @ 50Hz

GENERAL DATA		
Frame Size	254TC	
Enclosure	TEFC	
Mounting	Rigid/C-Flange	
Approximate Weight (lbs.)	263.9 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	6309 C3	
Bearing ODE Side	6309 C3	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	NDE	
Moment of Inertia (lb-ft²)	2.51	
Sound Pressure @ 3 FT dBA	66.6	
SITE CONDITIONS		
Ambient Temperature (°C)	40	
Meters Above Sea Level (MASL)	1000	
HAZARDOUS LOCATIONS		
CSA Certified	A, B, C & D	
Temperature Code	T3	-

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NAMEPLATE DATA	60Hz	50Hz
Horse Power	7.5	7.5
RPM	1175	970
Voltage	230/460	190/380
Full Load Amps	20.8/10.4	25/12.5
Service Factor	1.25	1
KVA Code	K	H
Full Load Amps (208V)	23.07	-
Nominal Efficiency	91	88.8
Nominal Power Factor	0.74	-
Design	A	
Frame	254TC	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6309 C3	
Opposite Drive End Bearing	6309 C3	
Weight (lbs)	263.9	

NAMEPLATE LAYOUT

TECHTOP INDUSTRIAL THREE PHASE MOTOR INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF		TECHTOPCANADA.COM	
MODEL		MFG PN	
NEMA Premium	60Hz 50Hz	MFG DATE	
HP		SER #	
RPM		DESIGN	
VOLT		FRAME	
FLA		ENCL	
SF		IP	
KVA CODE		DUTY	
NOM.EFF		INS CL	
USABLE AT 208V 60Hz		AMB	
FLA		WEIGHT	
BEARING SIZE		lbs	
DE	ODE		
GREASE: MOBIL POLYREX EM		Energy Verified Only	
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

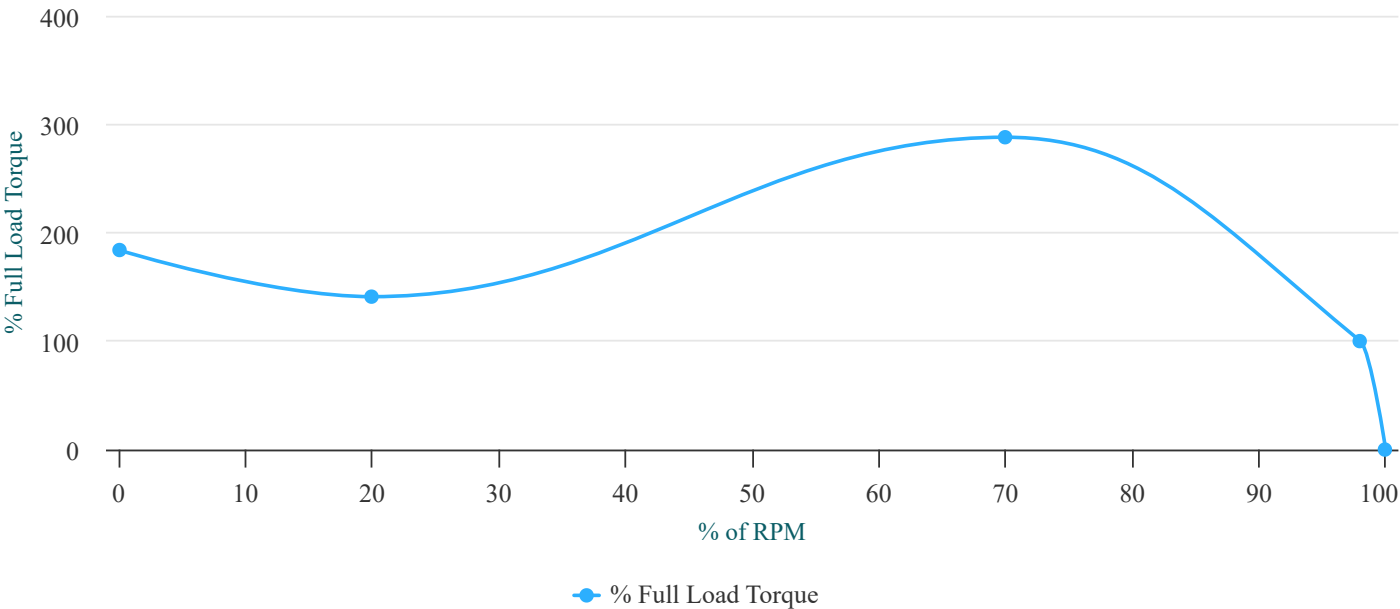
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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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	61.7	184	Start Configuration	DOL
Pull-Up Torque	47.3	141	Starting Current (A)	67.71
Breakdown Torque	96.5	288	No-Load Current (A)	5.2
Full Load Torque	33.5	100	No-Load Power Factor	0.05

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.25
Line Amperes (A)	5.6	6.7	8.2	10.1	12.3	12.3
Efficiency (%)	86.3	90.8	91.5	91.1	90.1	90.1
Speed (r/min)	1195	1190	1184	1177	1169	1169
Power Factor (cosΦ)	0.36	0.57	0.69	0.75	0.78	0.78
Input Power (kW)	1.59	3.03	4.51	6.04	7.63	7.63

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HIGH VOLTAGE
(Δ)



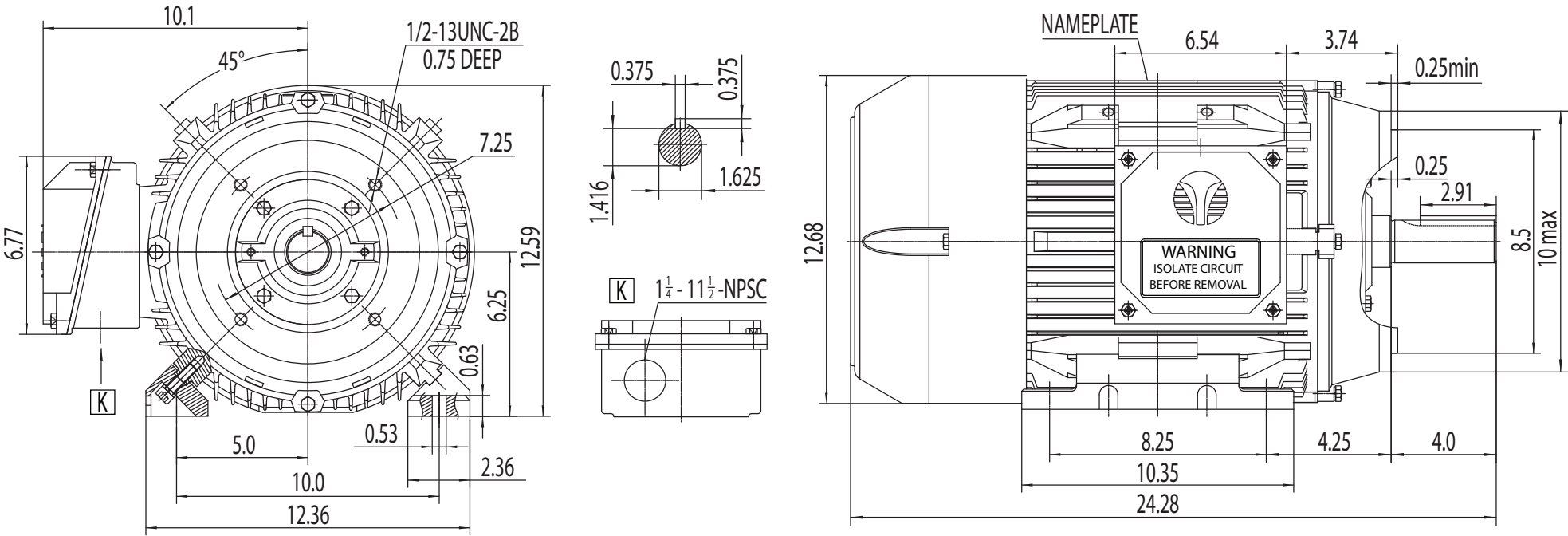
LOW VOLTAGE
(ΔΔ)

- 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	05/05/25
CONNECTION:	DD/D	PREMIUM T-FRAME CAST IRON MOTORS	
NUMBER OF LEADS:	12		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 254TC

DRAWING NUMBER:	GR3-CI-TF-254TC-CFC	ISSUED DATE	05/05/25
DIMENSIONS:	Inches	PREMIUM T-FRAME CAST IRON MOTORS	
MOUNTING:	Rigid/C-Flange		
CASING MATERIAL:	Cast Iron		