

NEMA

Model GRC0052D-TD
MFG PN: T184T5U2B

Model GRC0052D-TD

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC0052D-TD	5	3510	230/460	3	60	184TD	Rigid/D-Flange	TEFC

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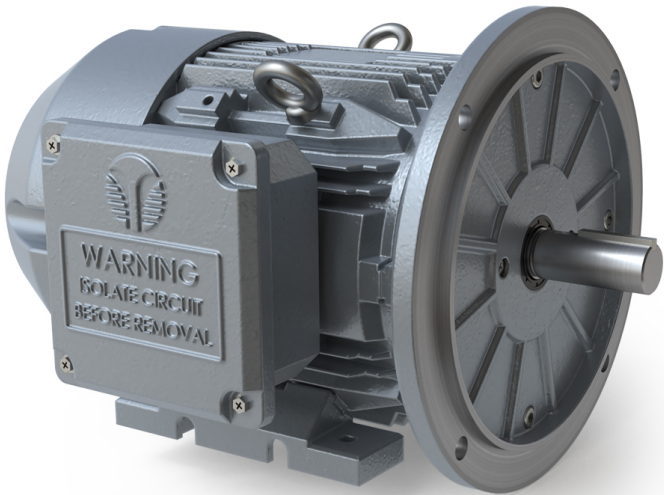
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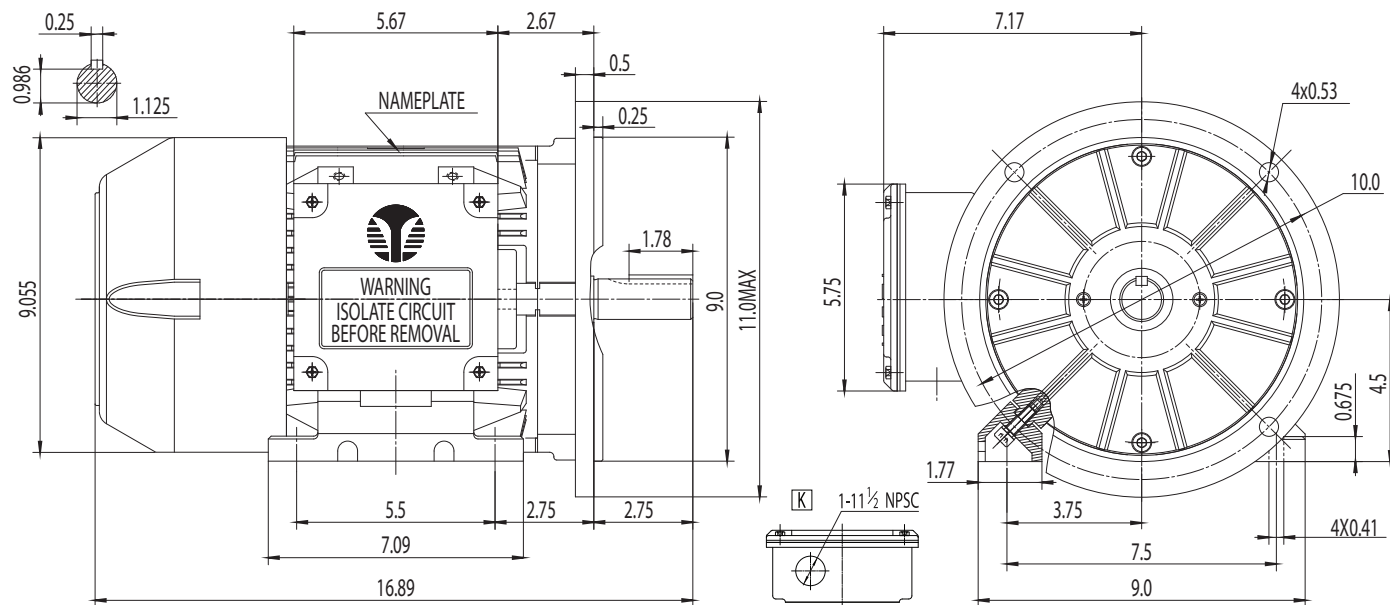
ELECTRICAL DATA		
Rated Motor Output Power	5	HP
	-	kW
Rated Motor Speed	3510	r/min 60Hz
	2865	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	11.4/5.7	A (I _n) @ 60Hz
	14.2/7.1	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	52.11	A (I _n) @ 60Hz
FI Current @ 208V	12.72	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	1	@ 50Hz
KVA Code	K	60Hz
	G	50Hz
Nominal Efficiency	88.5	% @ 60Hz
Nominal Power Factor	0.92	cosΦ @ 60Hz
Leads (Qty, Size)	9	16
Connection	YY/Y	-
Coil Resistance	2.869	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	35.6	°C @ 60Hz
	55.6	°C @ 50Hz

GENERAL DATA		
Frame Size	184TD	
Enclosure	TEFC	
Mounting	Rigid/D-Flange	
Approximate Weight (lbs.)	106 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	6306 ZZ	
Bearing ODE Side	6306 ZZ	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	NDE	
Moment of Inertia (lb-ft²)	0.16	
Sound Pressure @ 3 FT dBA	80	
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	5	5
RPM	3510	2865
Voltage	230/460	190/380
Full Load Amps	11.4/5.7	14.2/7.1
Service Factor	1.25	1
KVA Code	K	G
Full Load Amps (208V)	12.72	-
Nominal Efficiency	88.5	85.9
Nominal Power Factor	0.92	-
Design	A	
Frame	184TD	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6306 ZZ	
Opposite Drive End Bearing	6306 ZZ	
Weight (lbs)	106	

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		MFG PN	
RPM		MFG DATE	
VOLT		SER #	
FLA		DESIGN	
SF		FRAME	
KVA CODE		ENCL	
NOM.EFF		IP	
USABLE AT 208V 60Hz		DUTY	
FLA		INS CL	
		AMB	
		WEIGHT	
BEARING SIZE		CE	
DE	ODE	CC098A	
GREASE: MOBIL POLYREX EM		UL E323353	
MADE IN CHINA CLASS 1, DIV 2, GROUPS A, B, C AND D		C-UL E324693	
		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

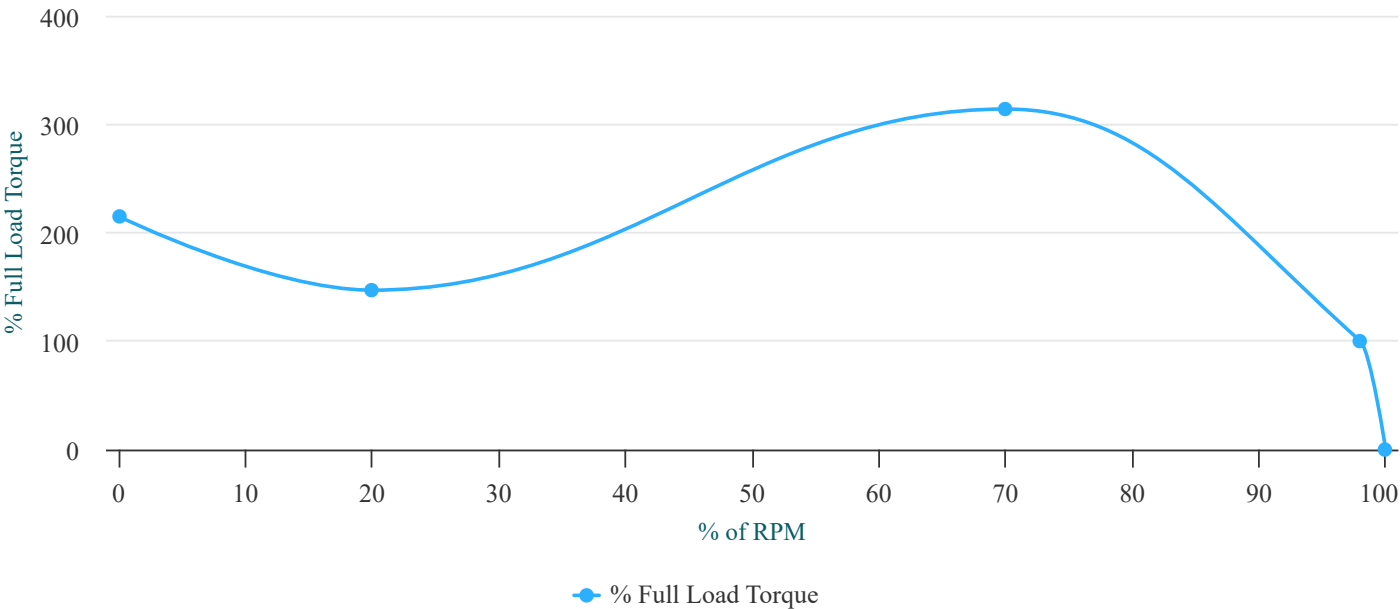
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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Torque Speed (T-n) Curve



PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

TORQUE VALUES	TORQUE (lb-ft)	TORQUE (% FULL LOAD)
Locked Rotor Torque	16.1	215
Pull-Up Torque	11	147
Breakdown Torque	23.5	314
Full Load Torque	7.5	100

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

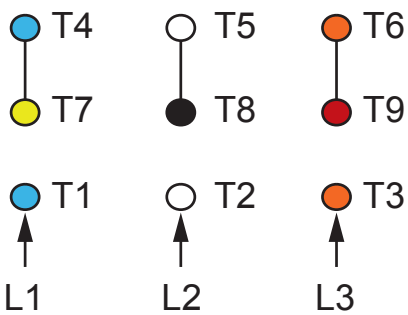
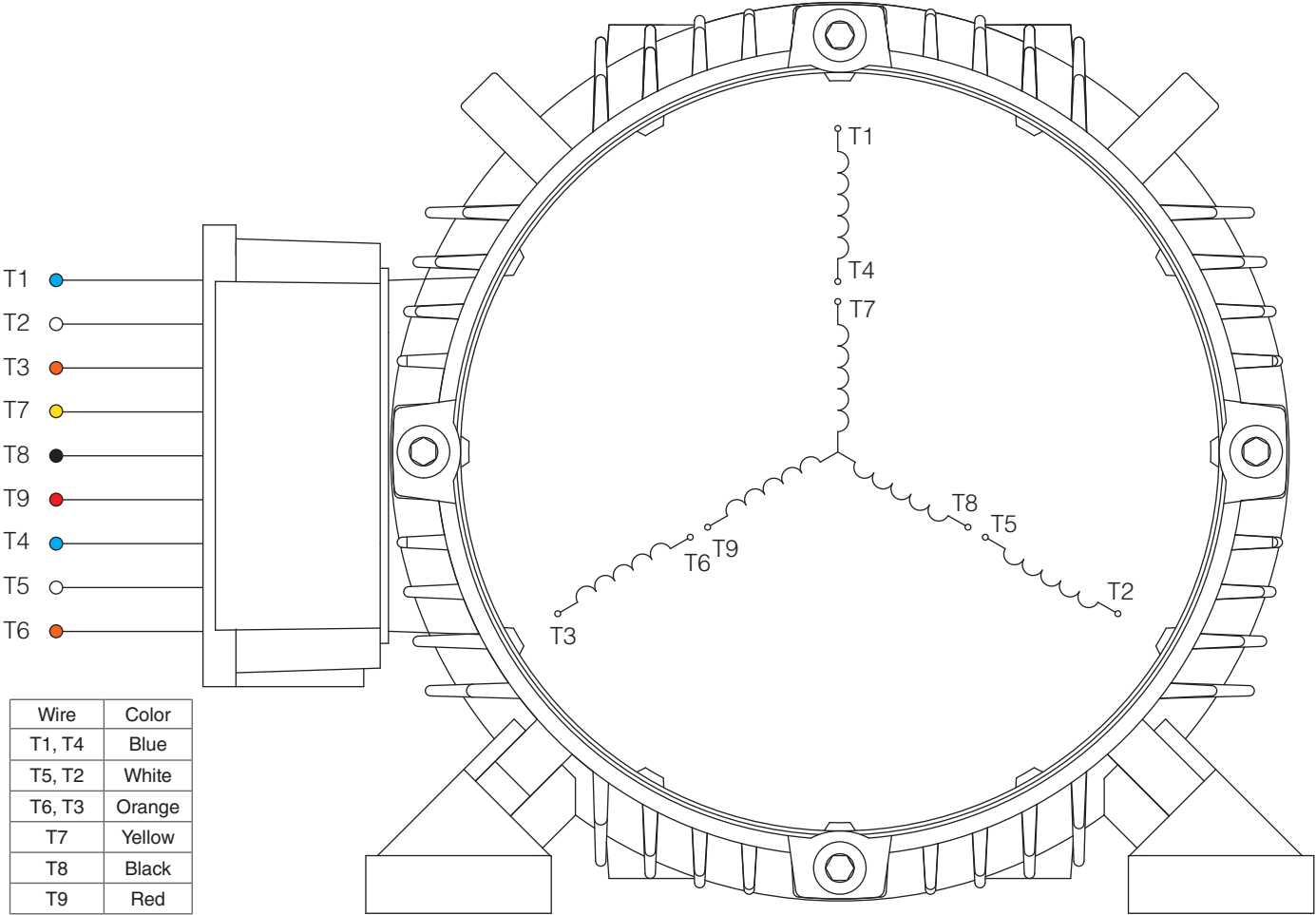
PERFORMANCE VALUES	
Start Configuration	DOL
Starting Current (A)	52.11
No-Load Current (A)	1.6
No-Load Power Factor	0.11

% OF RATED LOAD	25	50	75	100	125	S.F. 1.25
Line Amperes (A)	2.1	3.1	4.3	5.6	7.1	7.1
Efficiency (%)	85.9	90.1	90.5	89.7	88.3	88.3
Speed (r/min)	3578	3557	3535	3510	3482	3482
Power Factor (cosΦ)	0.65	0.83	0.9	0.92	0.93	0.93
Input Power (kW)	1.08	2.05	3.07	4.13	5.24	5.24

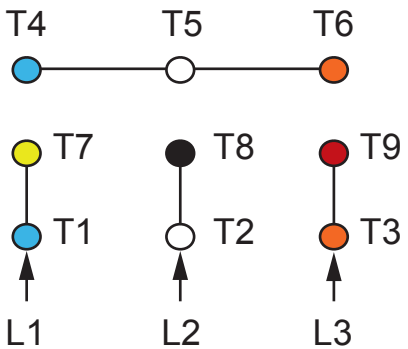
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HIGH VOLTAGE
(Y)



LOW VOLTAGE
(YY)

- 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 YY/Y 9-Lead Dual Voltage

DRAWING NUMBER:	NEMA-3-9-YY-Y	ISSUED DATE	02/04/25
CONNECTION:	YY/Y	PREMIUM T-FRAME CAST IRON MOTORS	
NUMBER OF LEADS:	9		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 184TD

DRAWING NUMBER:	GR3-CI-TF-184TD-CFC	ISSUED DATE	02/04/25
DIMENSIONS:	Inches		
MOUNTING:	Rigid/D-Flange	PREMIUM T-FRAME CAST IRON MOTORS	
CASING MATERIAL:	Cast Iron		