

NEMA

Model **GRA0024D-TC-01**
MFG PN: T145T2U4B

Model **GRA0024D-TC-01**

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRA0024D-TC-01	2	1740	230/460	3	60	145TC	Rigid/C-Flange	TEFC

Toronto

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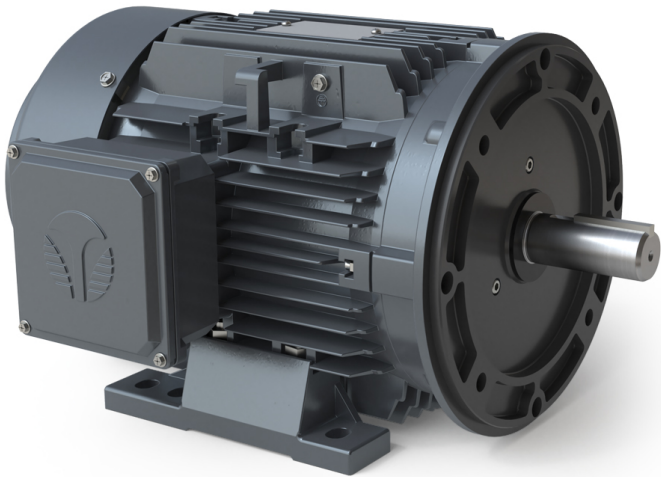
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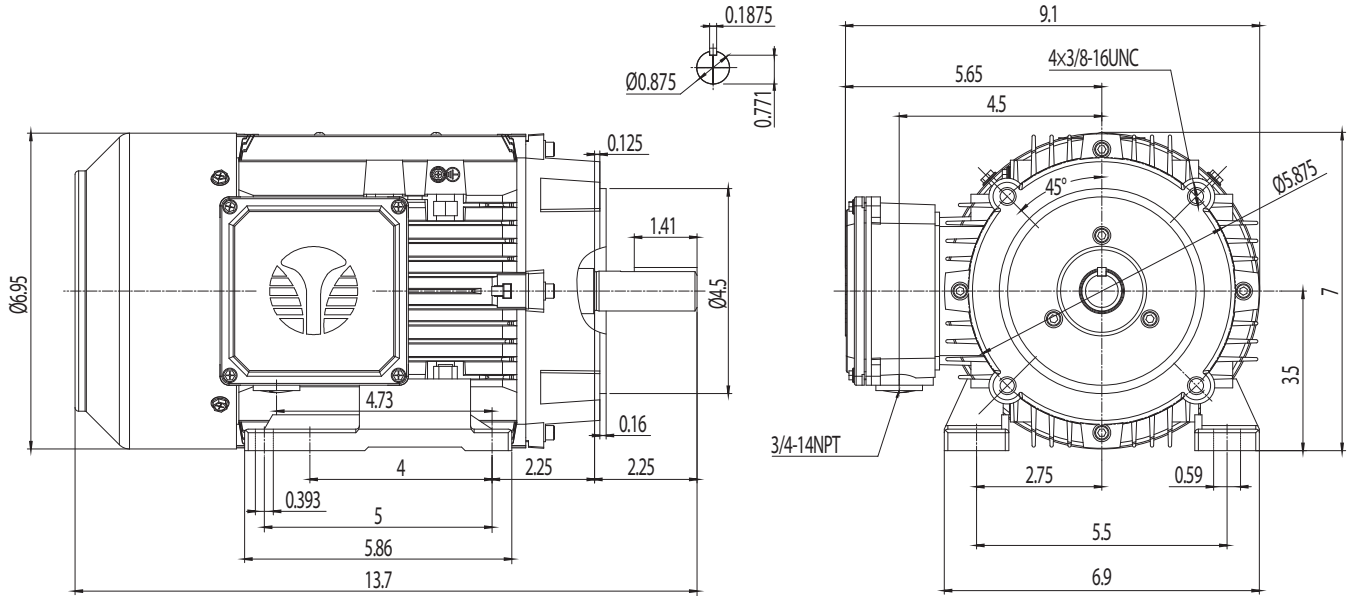
ELECTRICAL DATA		
Rated Motor Output Power	2	HP
	-	kW
Rated Motor Speed	1740	r/min 60Hz
	1425	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	5.58/2.79	A (I _n) @ 60Hz
	6.64/3.32	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	20.72	A (I _n) @ 60Hz
FI Current @ 208V	5.95	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	1	@ 50Hz
KVA Code	K	60Hz
	G	50Hz
Nominal Efficiency	86.5	% @ 60Hz
Nominal Power Factor	0.78	cosΦ @ 60Hz
Leads (Qty, Size)	9	18
Connection	YY/Y	-
Coil Resistance	-	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	50	°C @ 60Hz
	72	°C @ 50Hz

GENERAL DATA		
Frame Size	145TC	
Enclosure	TEFC	
Mounting	Rigid/C-Flange	
Approximate Weight (lbs.)	39.5 lbs.	
Casing Material / Fan Cover	Cast Aluminum	Steel
Shaft Material	1045	
NEMA Design	B	
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	YES
Paintwork	7024	
	Graphite Gray	
MECHANICAL DATA		
Bearing DE Side	6205 ZZ	
Bearing ODE Side	6205 ZZ	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	NDE	
Moment of Inertia (lb-ft²)	-	
Sound Pressure @ 3 FT dBA	62.2	
SITE CONDITIONS		
Ambient Temperature (°C)	40	
Meters Above Sea Level (MASL)	1000	
HAZARDOUS LOCATIONS		
CSA Certified	A, B, C & D	
Temperature Code	T2D	-

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NAMEPLATE DATA	60Hz	50Hz
Horse Power	2	2
RPM	1740	1425
Voltage	230/460	190/380
Full Load Amps	5.58/2.79	6.64/3.32
Service Factor	1.25	1
KVA Code	K	G
Full Load Amps (208V)	5.95	-
Nominal Efficiency	86.5	83.5
Nominal Power Factor	0.78	-
Design	B	
Frame	145TC	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6205 ZZ	
Opposite Drive End Bearing	6205 ZZ	
Weight (lbs)	39.5	

NAMEPLATE LAYOUT

TECHTOP INDUSTRIAL THREE PHASE MOTOR
INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF

MODEL MFG PN

60Hz 50Hz

HP MFG DATE

RPM SER #

VOLT DESIGN

FLA FRAME

SF ENCL / IP 55

KVA CODE DUTY

NOM.EFF INS CL

EFF 75% AMB

PF DE

USABLE AT 208V ODE

NEMA Premium WEIGHT lbs

TECHTOPCANADA.COM

CLASS 1, DIV 2, GROUPS A, B, C AND D

MADE IN CHINA

CC0088A
E323353
SP
C 224653
Energy Verified Only

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

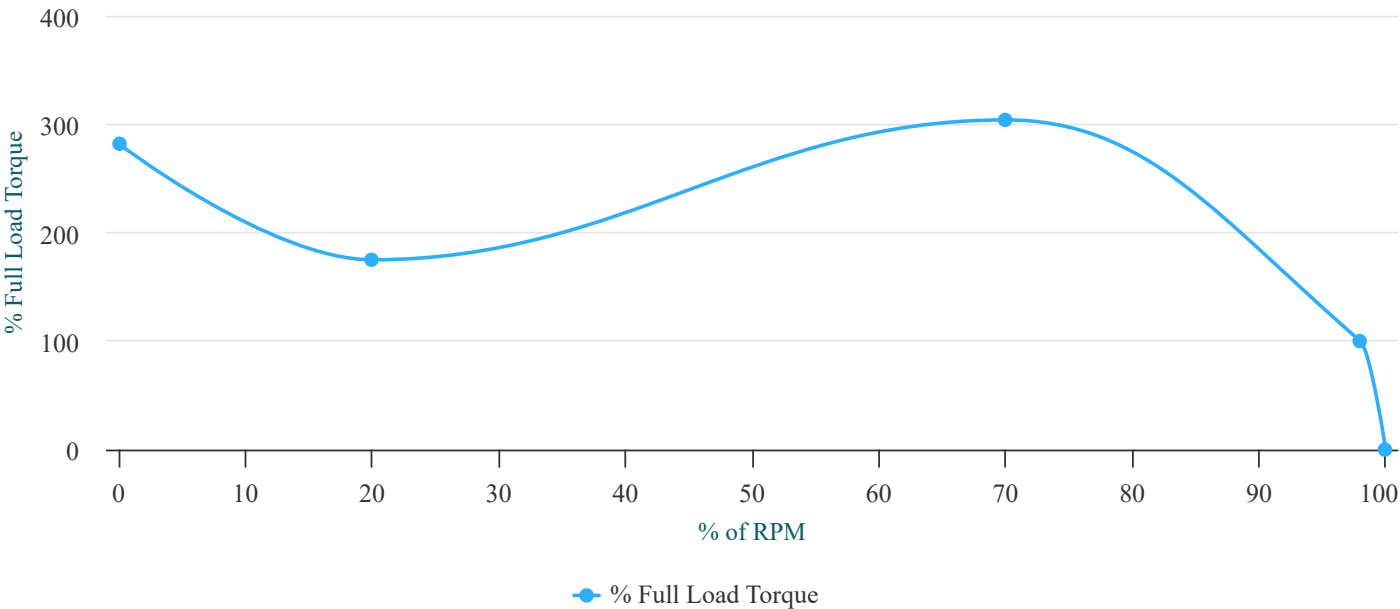
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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Model GRA0024D-TC-01
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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	17	282	Start Configuration	DOL
Pull-Up Torque	10.6	175	Starting Current (A)	20.72
Breakdown Torque	18.4	304	No-Load Current (A)	1.5
Full Load Torque	6	100	No-Load Power Factor	0.07

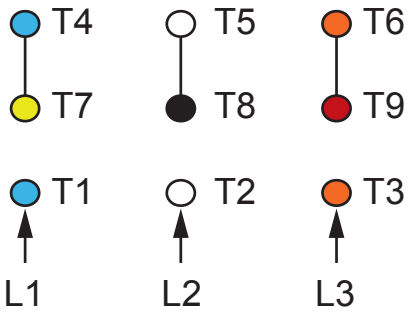
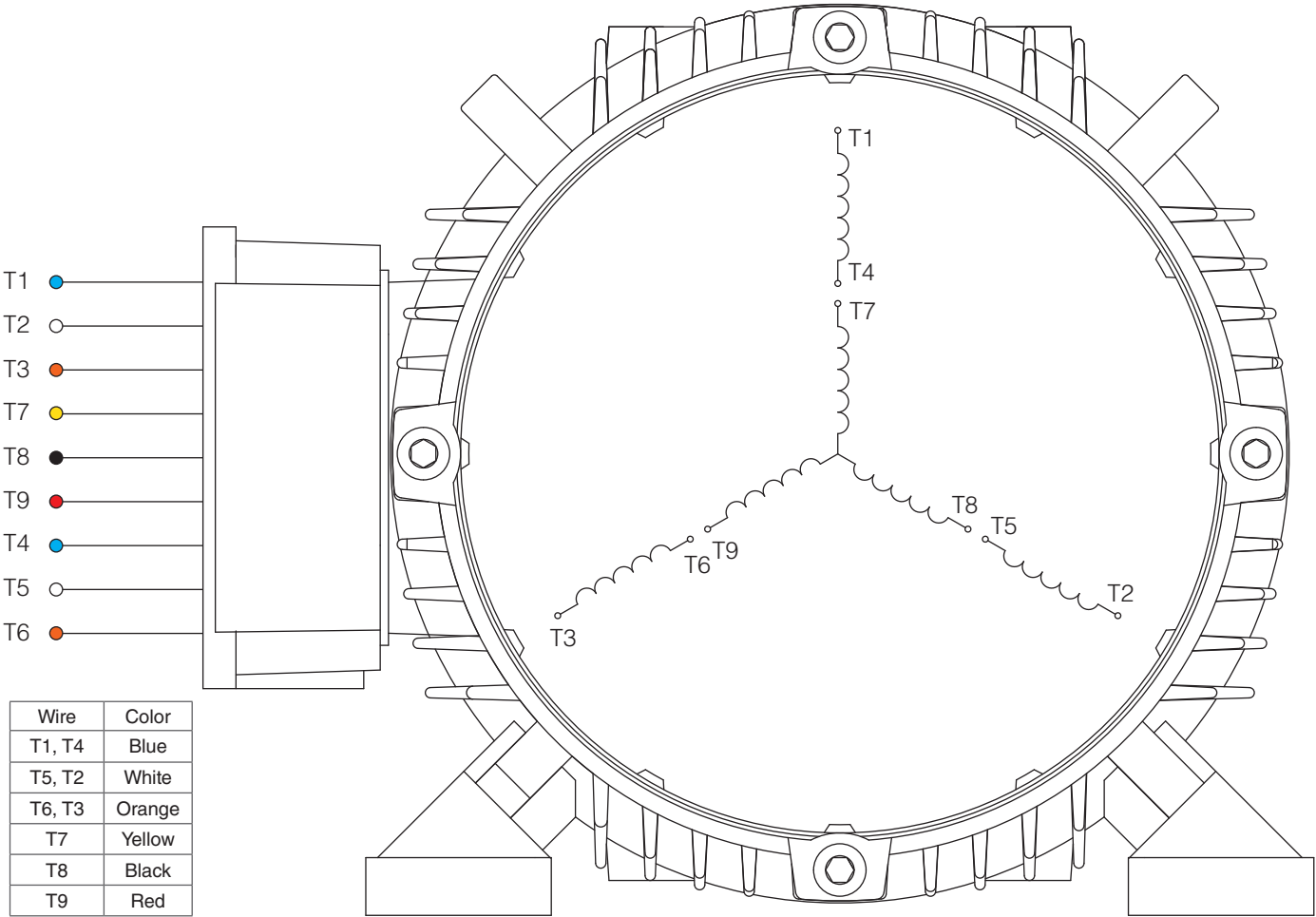
TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.25
Line Amperes (A)	1.6	1.9	2.3	2.8	3.4	3.4
Efficiency (%)	79.7	86.3	87.6	87.2	86	86
Speed (r/min)	1785	1772	1758	1730	1722	1722
Power Factor (cosΦ)	0.38	0.59	0.71	0.78	0.81	0.81
Input Power (kW)	0.47	0.87	1.28	1.72	2.18	2.18

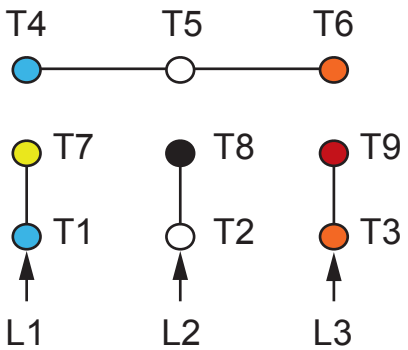
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HIGH VOLTAGE
(Y)



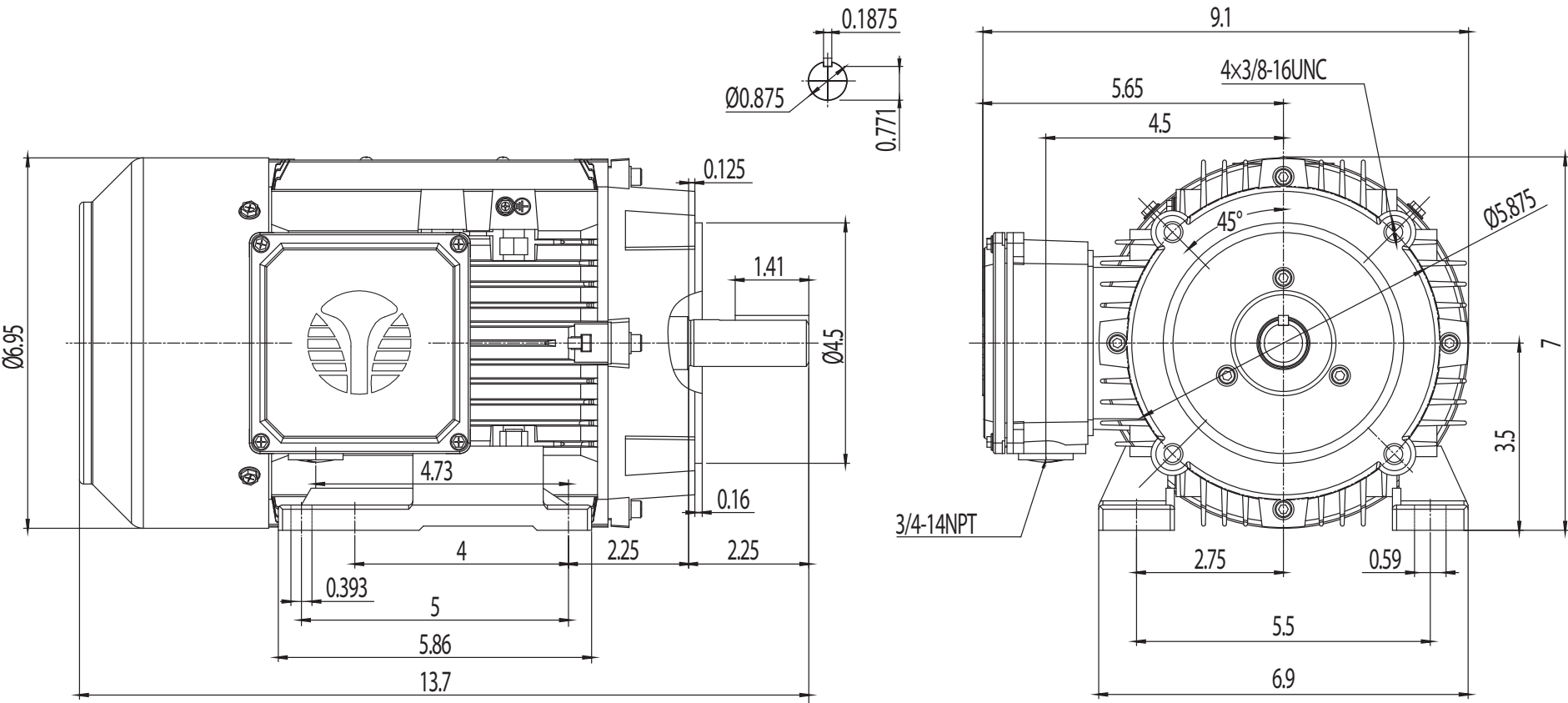
LOW VOLTAGE
(YY)

- 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	16/01/25
CONNECTION:	YY/Y	PREMIUM T-FRAME ALUMINUM MOTORS	
NUMBER OF LEADS:	9		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 145TC

DRAWING NUMBER:	GR3-AL-TF-140TC-01	ISSUED DATE	16/01/25
DIMENSIONS:	Inches	PREMIUM T-FRAME ALUMINUM MOTORS	
MOUNTING:	Rigid/C-Flange		
CASING MATERIAL:	Cast Aluminum		