

NEMA

Model **GRA0156F-TC-01**
MFG PN: T284T15U6B

Model **GRA0156F-TC-01**

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRA0156F-TC-01	15	1180	575	3	60	284TC	Rigid/C-Flange	TEFC

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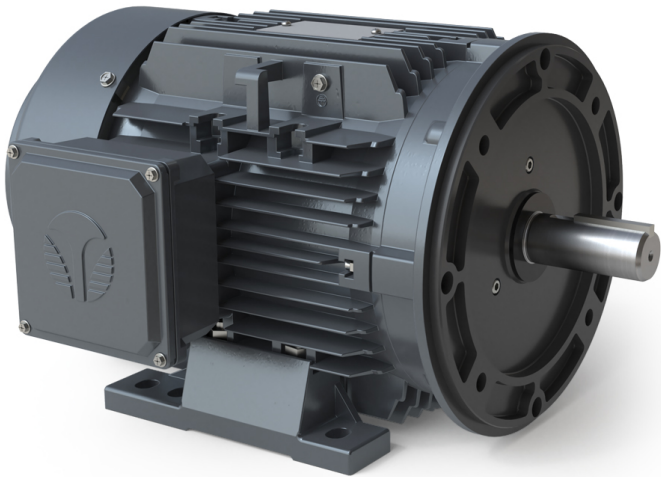
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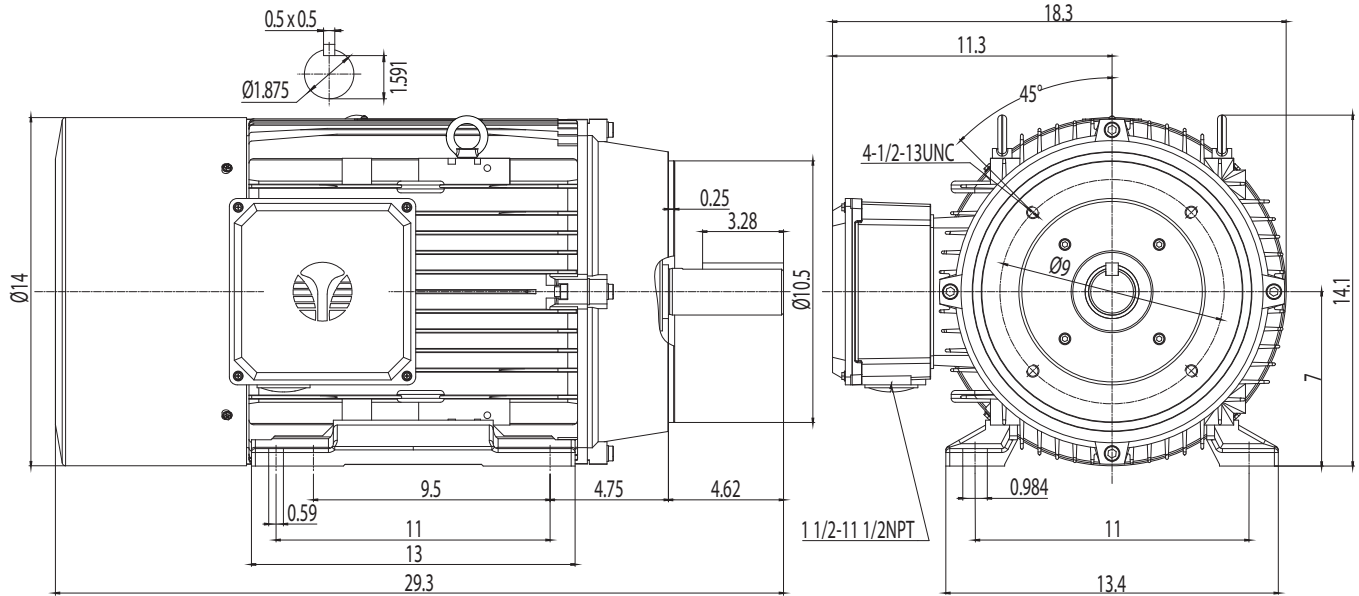
ELECTRICAL DATA		
Rated Motor Output Power	15	HP
	-	kW
Rated Motor Speed	1180	r/min 60Hz
	-	r/min 50Hz
Rated Motor Voltage (+/-10%)	575	V/60Hz
	-	V/50Hz
Rated Motor Current	15.30	A (I _n) @ 60Hz
	-	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	163.11	A (I _n) @ 60Hz
FI Current @ 208V	-	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	-	@ 50Hz
KVA Code	K	60Hz
	-	50Hz
Nominal Efficiency	91.7	% @ 60Hz
Nominal Power Factor	0.79	cosΦ @ 60Hz
Leads (Qty, Size)	6	12
Connection	D	-
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	-	°C @ 60Hz
	-	°C @ 50Hz

GENERAL DATA		
Frame Size	284TC	
Enclosure	TEFC	
Mounting	Rigid/C-Flange	
Approximate Weight (lbs.)	260 lbs.	
Casing Material / Fan Cover	Cast Aluminum	Steel
Shaft Material	1045	
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	YES
Paintwork	7024	
	Graphite Gray	
MECHANICAL DATA		
Bearing DE Side	6311 ZZ	
Bearing ODE Side	6211 ZZ	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	NDE	
Moment of Inertia (lb-ft²)	-	
Sound Pressure @ 3 FT dBA	71.2	
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	15	15
RPM	1180	-
Voltage	575	-
Full Load Amps	15.30	-
Service Factor	1.25	-
KVA Code	K	-
Full Load Amps (208V)	-	-
Nominal Efficiency	91.7	-
Nominal Power Factor	0.79	-
Design	A	
Frame	284TC	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6311 ZZ	
Opposite Drive End Bearing	6211 ZZ	
Weight (lbs)	260	

NAMEPLATE LAYOUT

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

MODEL MFG PN
 60Hz 50Hz MFG DATE
 HP SER #
 RPM DESIGN
 VOLT FRAME
 FLA ENCL / IP 55
 SF DUTY
 KVA CODE INS CL
 NOM.EFF AMB
 EFF 75% DE
 PF ODE
 USABLE AT 208V WEIGHT lbs
NEMA Premium
 CLASS 1, DIV 2, GROUPS A, B, C AND D MADE IN CHINA

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

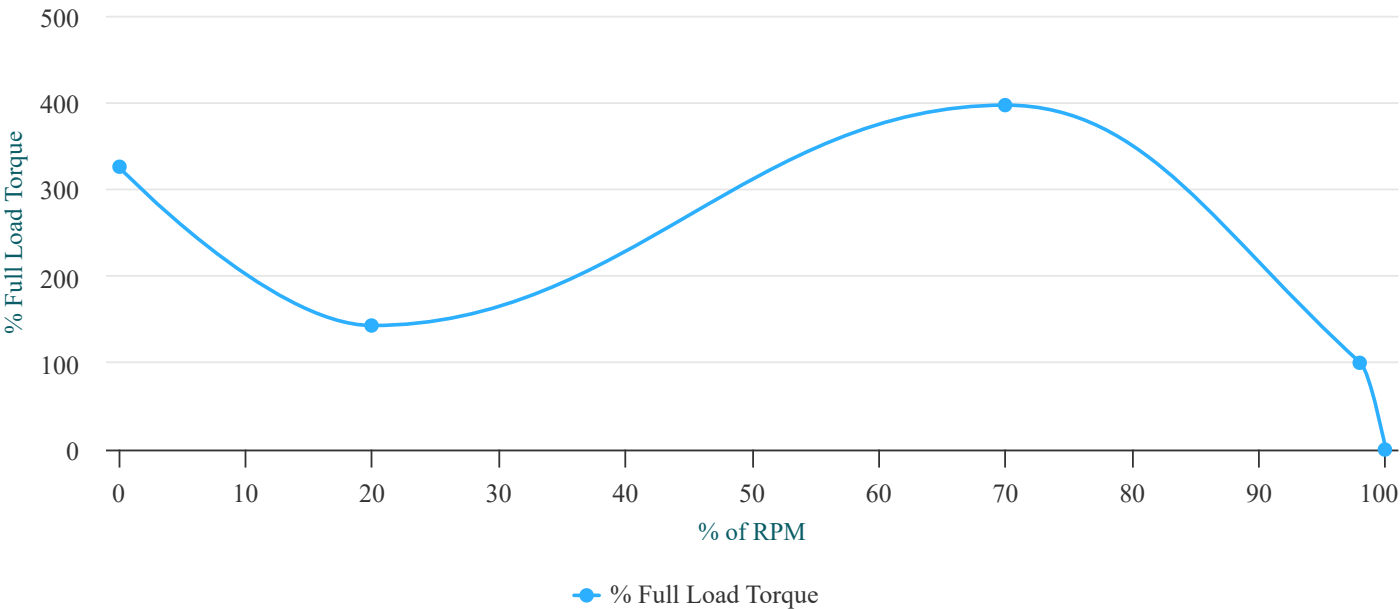
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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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	217.6	326	Start Configuration	DOL
Pull-Up Torque	95.5	143	Starting Current (A)	163.11
Breakdown Torque	265	397	No-Load Current (A)	8.7
Full Load Torque	66.8	100	No-Load Power Factor	-

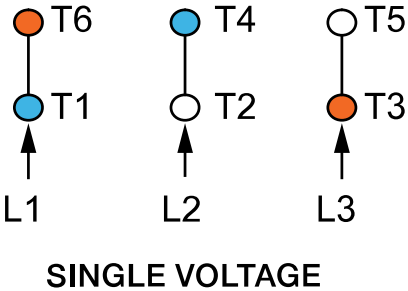
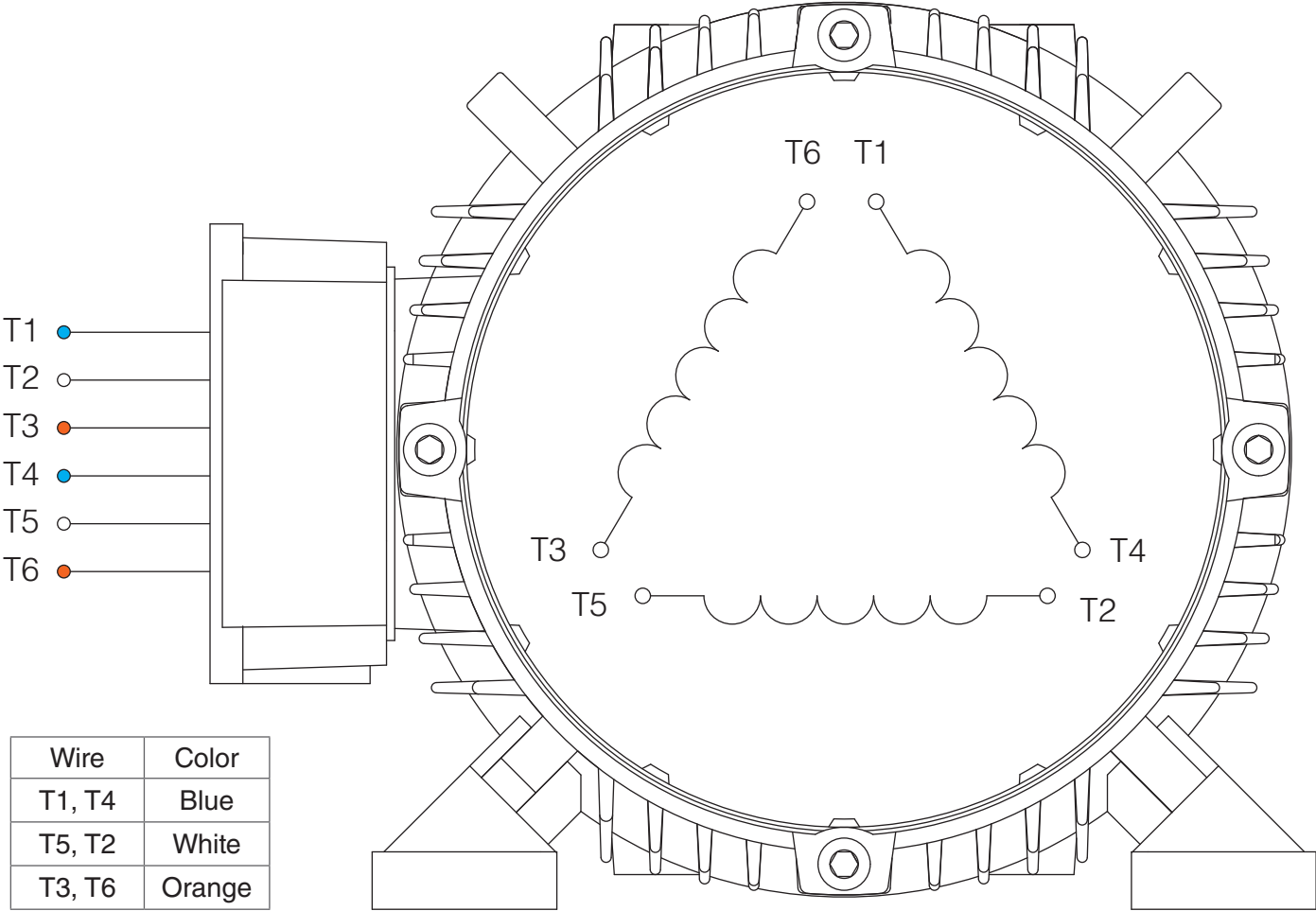
TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.25
Line Amperes (A)	9.3	11	13.2	16	19.1	19.1
Efficiency (%)	83.4	89.6	91.2	91.5	91.2	91.2
Speed (r/min)	1197	1193	1190	1186	1182	1182
Power Factor (cosΦ)	0.36	0.58	0.71	0.78	0.81	0.81
Input Power (kW)	3.39	6.3	9.29	12.35	15.49	15.49

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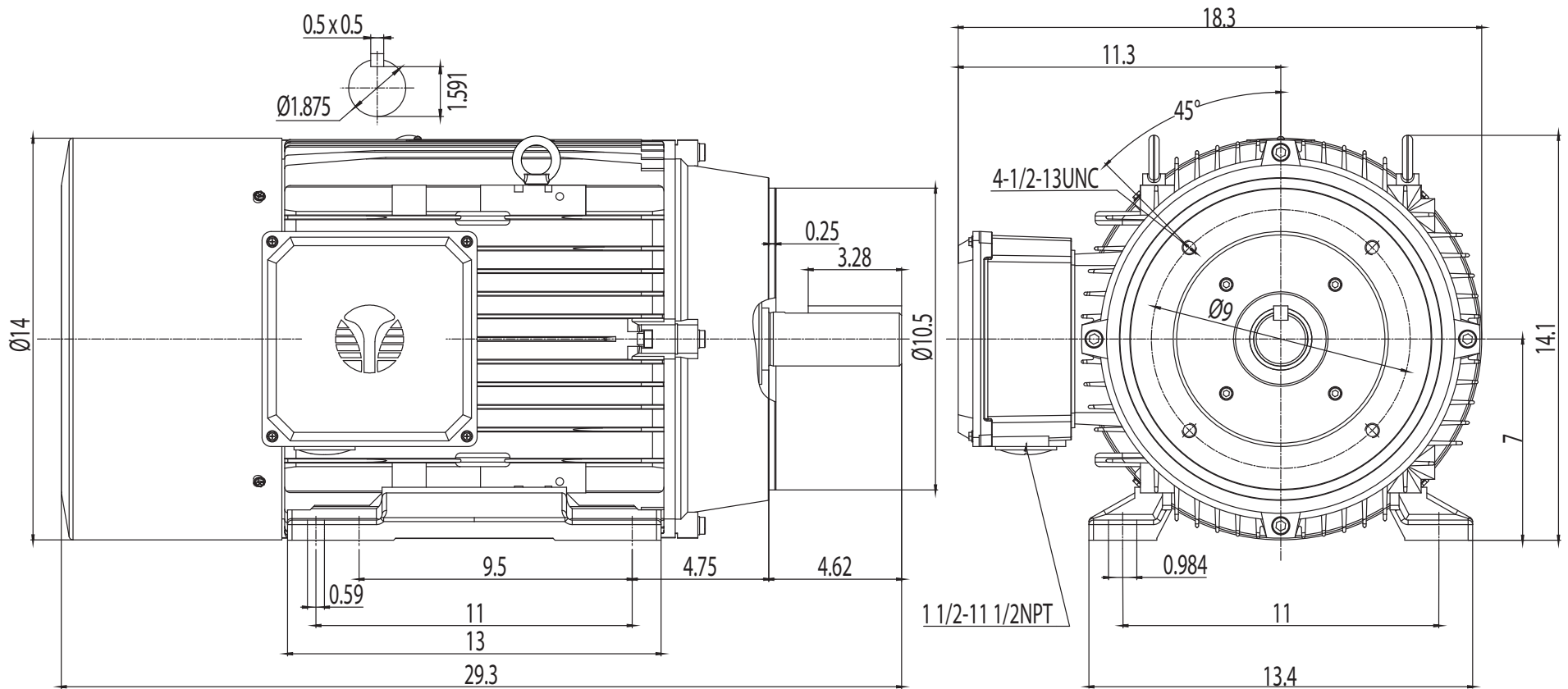
- NOTES:
- CCW ROTATION FACING ODE FOR CONNECTIONS SHOWN
 - TO REVERSE ROTATION, SWAP ANY TWO INPUT LINES
 - WHEN MOTOR IS IN F1 POSITION, LEADS INDICATED WITH “*” EXIT THE CASING ABOVE THE CENTER LINE OF THE MOTOR, THE REMAINING LEADS EXIT BELOW THE CENTER LINE
 - LEADS MUST BE NUMBERED AND COLORED AS SHOWN
 - 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	13/02/25
PREMIUM T-FRAME ALUMINUM MOTORS	



NEMA Premium TEFC 284TC

DRAWING NUMBER:

GR3-AL-TF-280TC-01

DIMENSIONS:

Inches

MOUNTING:

Rigid/C-Flange

CASING MATERIAL:

Cast Aluminum

ISSUED DATE

13/02/25

PREMIUM T-FRAME ALUMINUM MOTORS