

NEMA

Model GRC0304D-TC
MFG PN: T286T30U4B

Model GRC0304D-TC

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRC0304D-TC	30	1775	230/460	3	60	286TC	Rigid/C-Flange	TEFC

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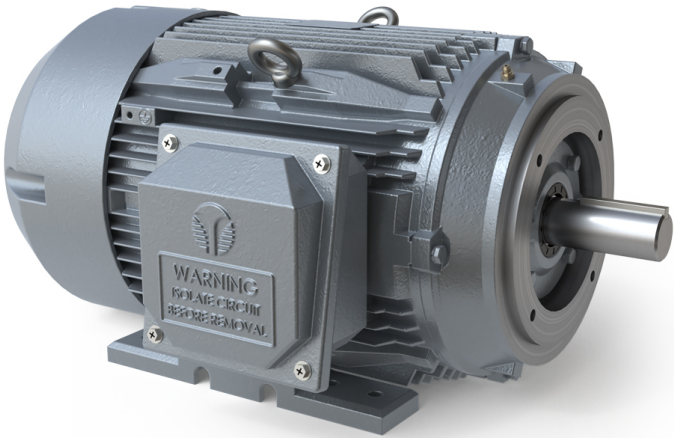
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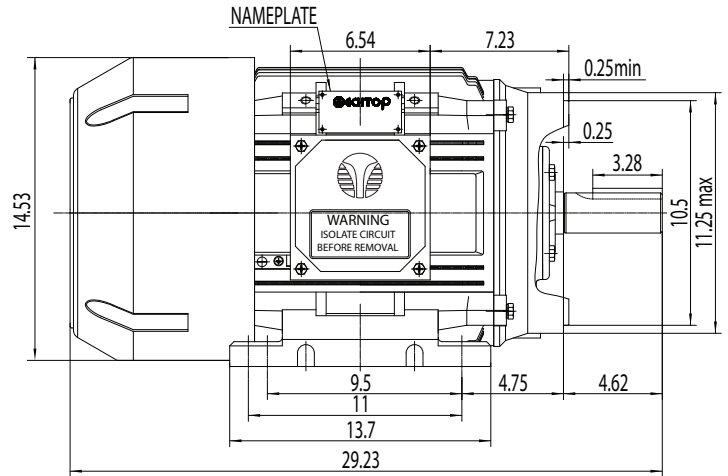
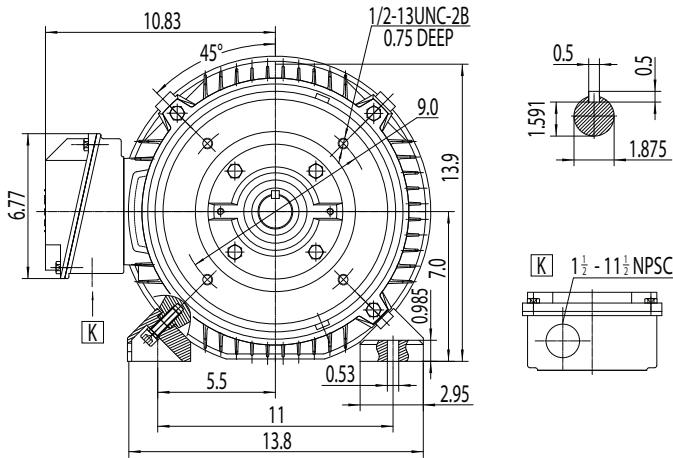
ELECTRICAL DATA		
Rated Motor Output Power	30	HP
	-	kW
Rated Motor Speed	1775	r/min 60Hz
	1460	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	69.8/34.9	A (I _n) @ 60Hz
	82.8/41.4	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	351.3	A (I _n) @ 60Hz
FI Current @ 208V	77.18	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	1	@ 50Hz
KVA Code	K	60Hz
	J	50Hz
Nominal Efficiency	93.6	% @ 60Hz
Nominal Power Factor	0.86	cosΦ @ 60Hz
Leads (Qty, Size)	12	10
Connection	DD/D	-
Coil Resistance	0.232	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	59.6	°C @ 60Hz
	82.2	°C @ 50Hz

GENERAL DATA		
Frame Size	286TC	
Enclosure	TEFC	
Mounting	Rigid/C-Flange	
Approximate Weight (lbs.)	426 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	YES
Paintwork	7024	
	Graphite Gray	
MECHANICAL DATA		
Bearing DE Side	6311 C3	
Bearing ODE Side	6311 C3	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	NDE	
Moment of Inertia (lb-ft²)	4.04	
Sound Pressure @ 3 FT dBA	79.2	
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	30	30
RPM	1775	1460
Voltage	230/460	190/380
Full Load Amps	69.8/34.9	82.8/41.4
Service Factor	1.25	1
KVA Code	K	J
Full Load Amps (208V)	77.18	-
Nominal Efficiency	93.6	92.3
Nominal Power Factor	0.86	-
Design	A	
Frame	286TC	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6311 C3	
Opposite Drive End Bearing	6311 C3	
Weight (lbs)	426	

NAMEPLATE LAYOUT

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

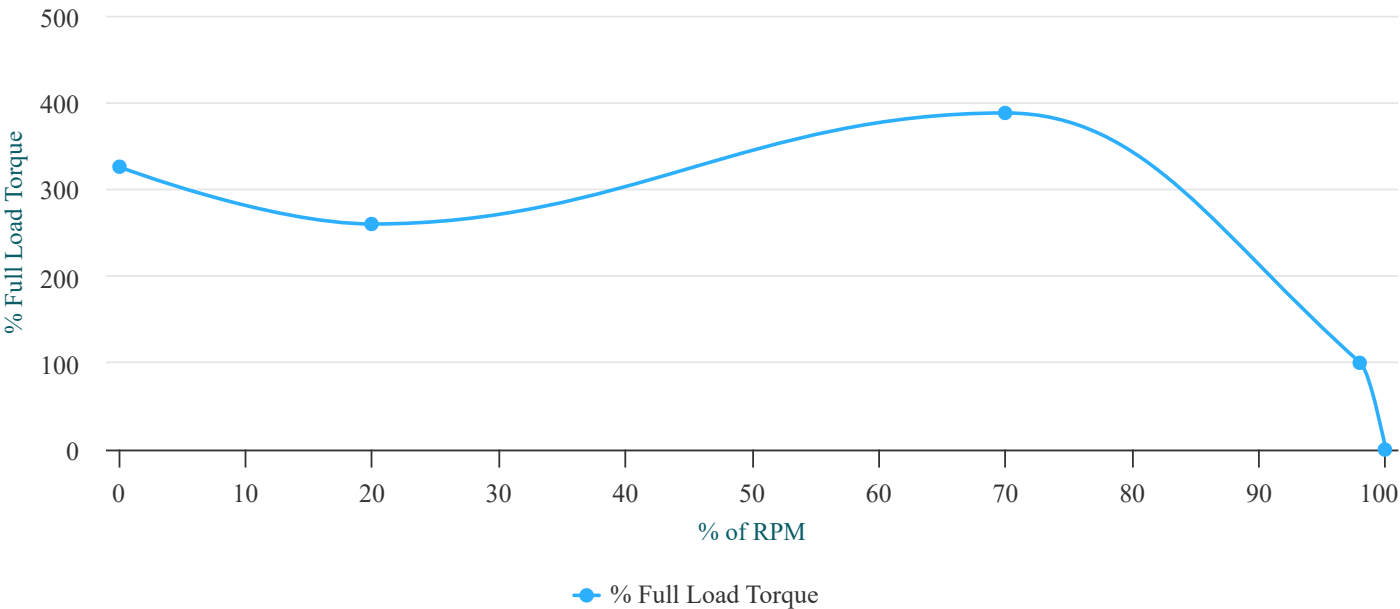
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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NEMA

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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	289.4	326	Start Configuration	DOL
Pull-Up Torque	230.8	260	Starting Current (A)	351.3
Breakdown Torque	344.4	388	No-Load Current (A)	17.3
Full Load Torque	88.8	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)	18.7	23.1	28.8	35.6	43.1	43.1
Efficiency (%)	88.5	92.6	93.5	93.4	92.9	92.9
Speed (r/min)	1795	1789	1784	1778	1772	1772
Power Factor (cosΦ)	0.42	0.65	0.77	0.83	0.86	0.86
Input Power (kW)	6.21	11.88	17.65	23.55	29.59	29.59

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HIGH VOLTAGE
(Δ)



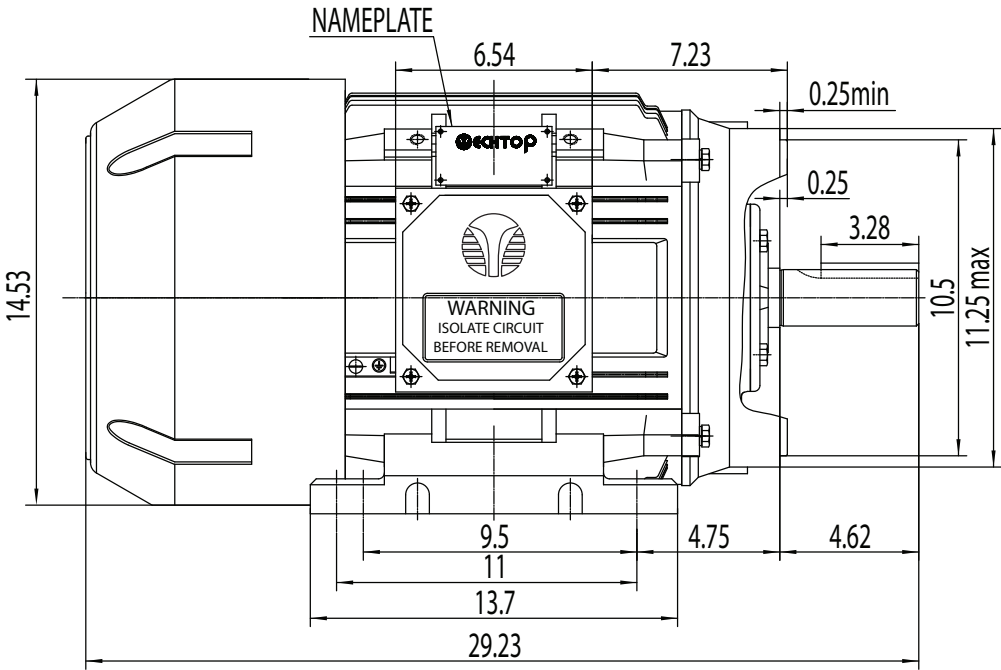
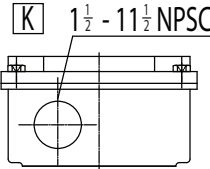
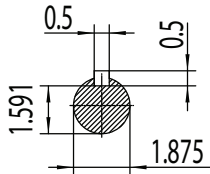
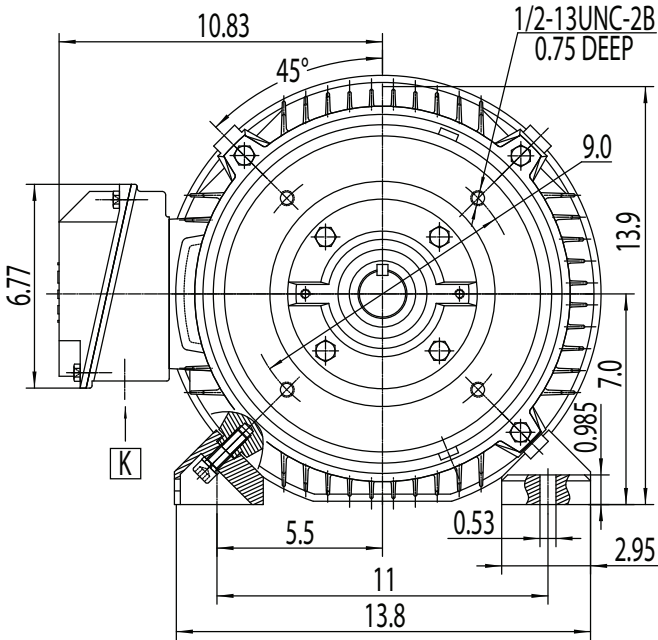
LOW VOLTAGE
(ΔΔ)

- 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	26/05/25
CONNECTION:	DD/D	PREMIUM T-FRAME CAST IRON MOTORS	
NUMBER OF LEADS:	12		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 286TC

DRAWING NUMBER:

GR3-CI-TF-286TC-CFC

DIMENSIONS:

Inches

MOUNTING:

Rigid/C-Flange

CASING MATERIAL:

Cast Iron

ISSUED DATE

26/05/25

PREMIUM T-FRAME CAST IRON MOTORS