

NEMA

Model **GRA0206D-TD-01**
MFG PN: T286T20U6B

Model **GRA0206D-TD-01**

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRA0206D-TD-01	20	1180	230/460	3	60	286TD	Rigid/D-Flange	TEFC

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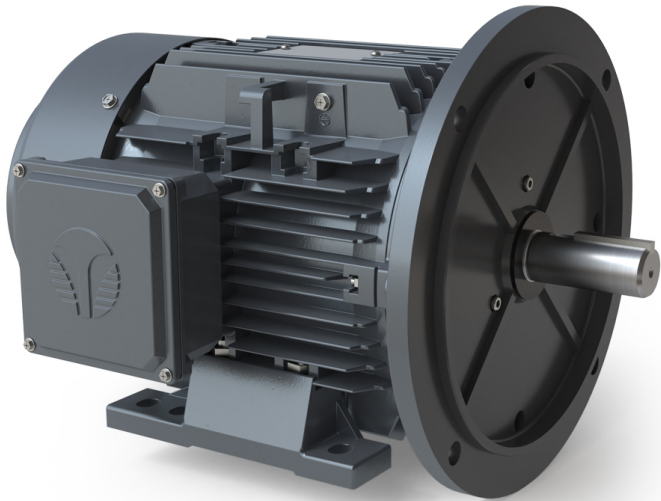
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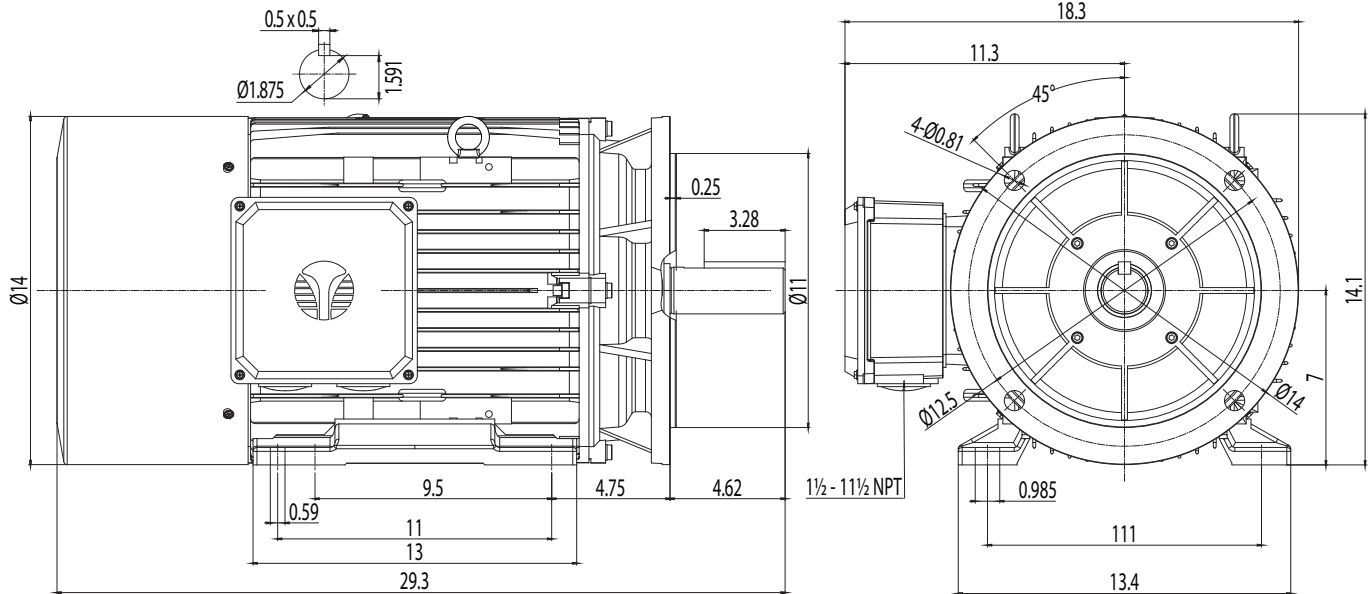
ELECTRICAL DATA		
Rated Motor Output Power	20	HP
	-	kW
Rated Motor Speed	1180	r/min 60Hz
	975	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	52.0/26.0	A (I _n) @ 60Hz
	62.2/31.1	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	236.82	A (I _n) @ 60Hz
FI Current @ 208V	56.2	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	1	@ 50Hz
KVA Code	L	60Hz
	H	50Hz
Nominal Efficiency	91.7	% @ 60Hz
Nominal Power Factor	0.79	cosΦ @ 60Hz
Leads (Qty, Size)	12	12
Connection	DD/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	286TD	
Enclosure	TEFC	
Mounting	Rigid/D-Flange	
Approximate Weight (lbs.)	308.9 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	20	20
RPM	1180	975
Voltage	230/460	190/380
Full Load Amps	52.0/26.0	62.2/31.1
Service Factor	1.25	1
KVA Code	L	H
Full Load Amps (208V)	56.2	-
Nominal Efficiency	91.7	90.5
Nominal Power Factor	0.79	0.81
Design	A	
Frame	286TD	
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)	308.9	

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 TEFC 55

KVA CODE DUTY

NOM.EFF INS CL

EFF 75% AMB

PF DE

USABLE AT 208V ODE

NEMA Premium WEIGHT lbs

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

MADE IN CHINA

CC088A
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

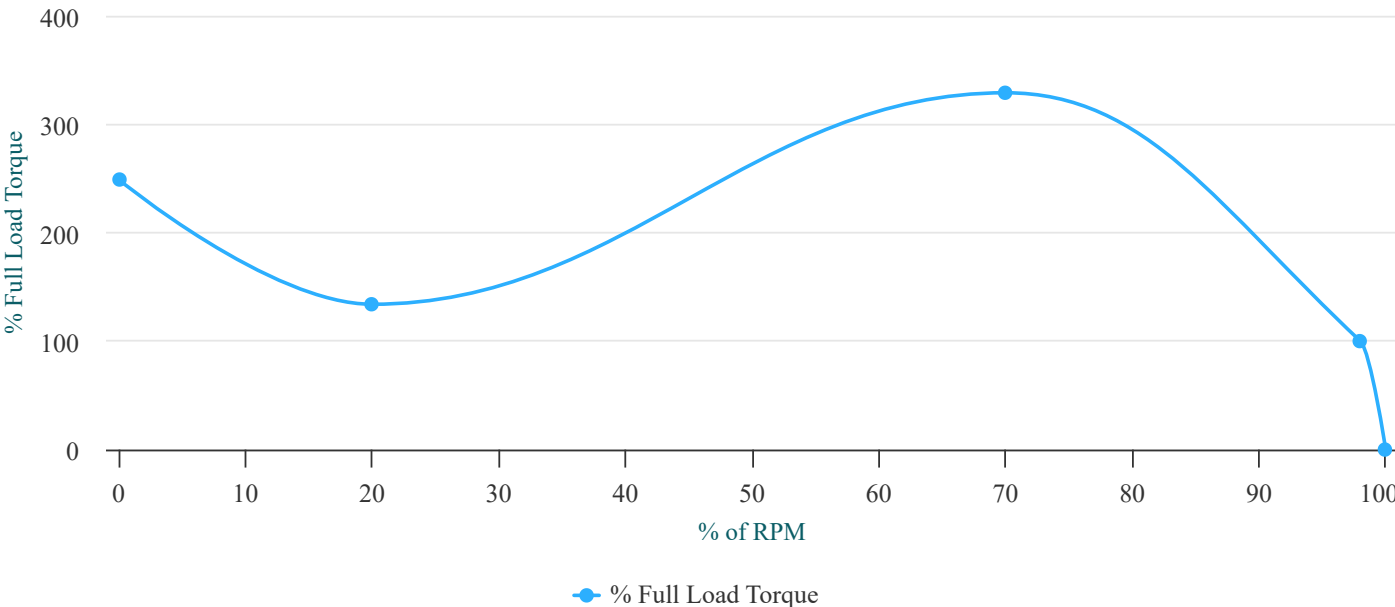
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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Torque Speed (T-n) Curve



PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

TORQUE VALUES	TORQUE (lb-ft)	TORQUE (% FULL LOAD)	PERFORMANCE VALUES	
Locked Rotor Torque	221.7	249	Start Configuration	DOL
Pull-Up Torque	119.3	134	Starting Current (A)	236.82
Breakdown Torque	292.9	329	No-Load Current (A)	11.9
Full Load Torque	89	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)	13.2	16.2	20.2	25.1	30.6	30.6
Efficiency (%)	86.3	91.2	92.2	92.2	91.6	91.6
Speed (r/min)	1196	1192	1188	1183	1178	1178
Power Factor (cosΦ)	0.41	0.64	0.76	0.81	0.84	0.84
Input Power (kW)	4.35	8.23	12.2	16.28	20.48	20.48

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HIGH VOLTAGE
(Δ)



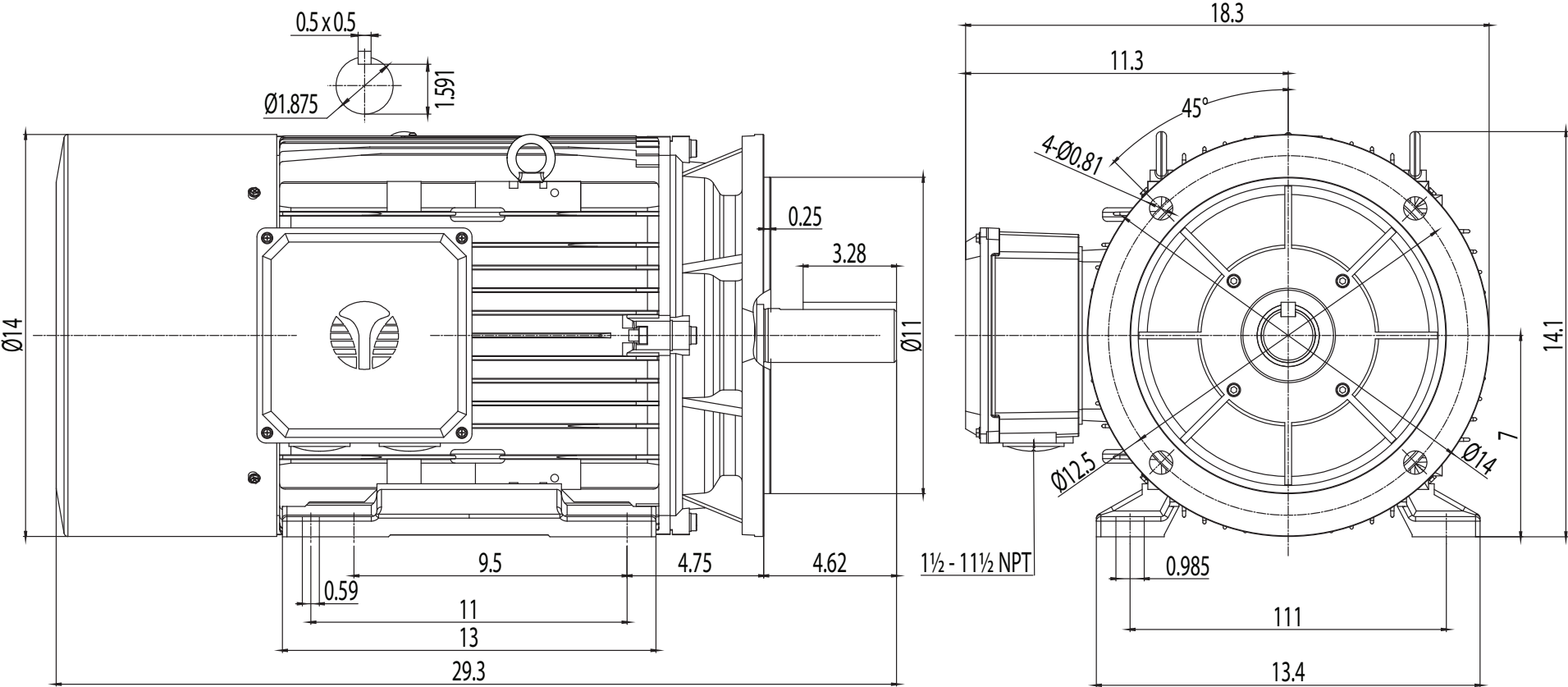
LOW VOLTAGE
(ΔΔ)

- 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	19/02/25
CONNECTION:	DD/D	PREMIUM T-FRAME ALUMINUM MOTORS	
NUMBER OF LEADS:	12		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 286TD

DRAWING NUMBER:	GR3-AL-TF-280TD-01	ISSUED DATE	19/02/25
DIMENSIONS:	Inches	PREMIUM T-FRAME ALUMINUM MOTORS	
MOUNTING:	Rigid/D-Flange		
CASING MATERIAL:	Cast Aluminum		