

NEMA

Model **GRA0202D-TD-01**
MFG PN: T256T20U2B

Model **GRA0202D-TD-01**

Product Data Package



MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
GRA0202D-TD-01	20	3550	230/460	3	60	256TD	Rigid/D-Flange	TEFC

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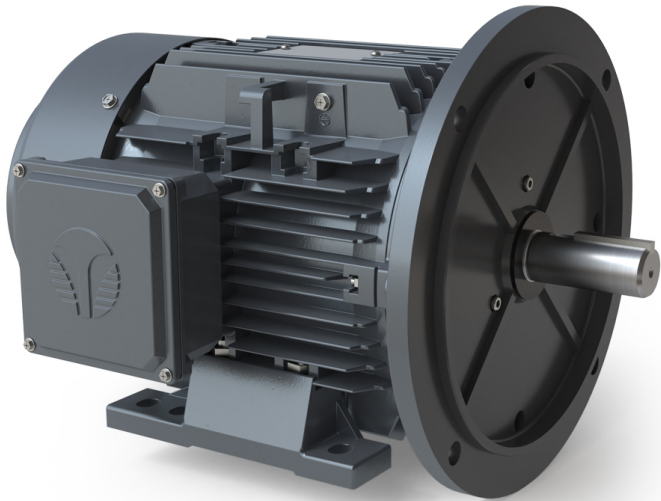
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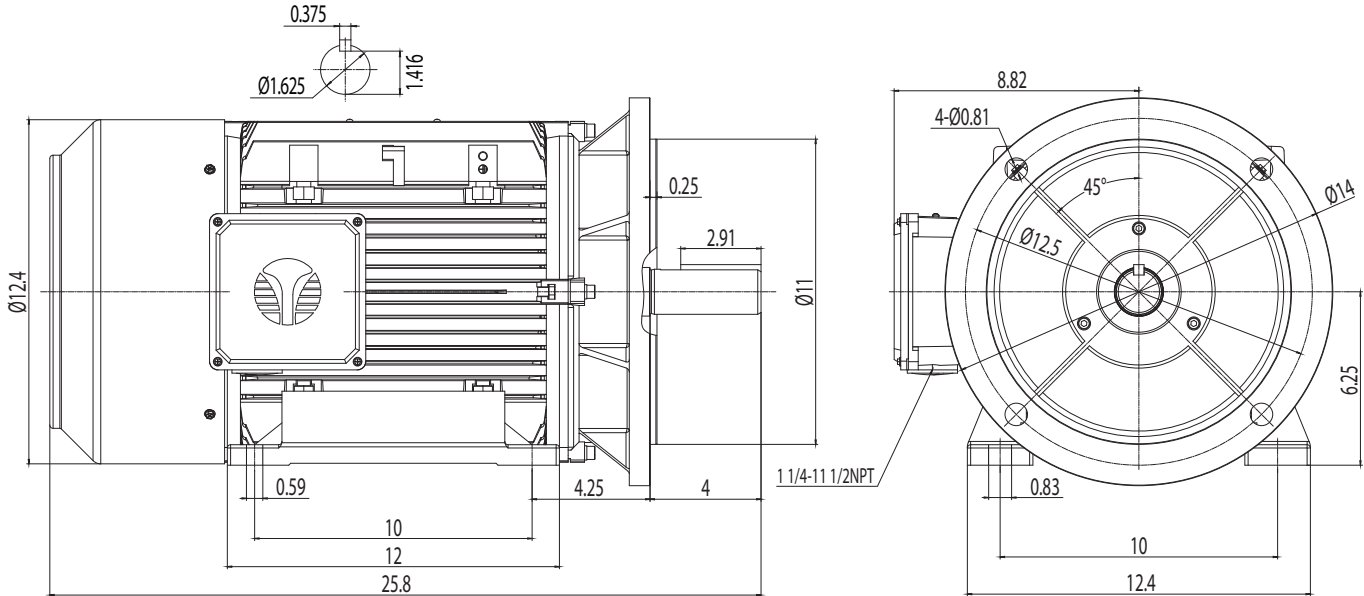
ELECTRICAL DATA		
Rated Motor Output Power	20	HP
	-	kW
Rated Motor Speed	3550	r/min 60Hz
	2940	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	45.5/22.7	A (I _n) @ 60Hz
	54.7/27.4	A (I _n) @ 50Hz
Phase	3	Ø
Locked Rotor Current @ High Voltage	288.48	A (I _n) @ 60Hz
FI Current @ 208V	49.7	A (I _n) @ 60Hz
Service Factor	1.25	@ 60Hz
	1	@ 50Hz
KVA Code	K	60Hz
	H	50Hz
Nominal Efficiency	91	% @ 60Hz
Nominal Power Factor	0.91	cosΦ @ 60Hz
Leads (Qty, Size)	12	14
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	256TD	
Enclosure	TEFC	
Mounting	Rigid/D-Flange	
Approximate Weight (lbs.)	205.2 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	NO
Paintwork	7024	
	Graphite Gray	
MECHANICAL DATA		
Bearing DE Side	6309 ZZ	
Bearing ODE Side	6209 ZZ	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	NDE	
Moment of Inertia (lb-ft²)	-	
Sound Pressure @ 3 FT dBA	85.6	
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	20	20
RPM	3550	2940
Voltage	230/460	190/380
Full Load Amps	45.5/22.7	54.7/27.4
Service Factor	1.25	1
KVA Code	K	H
Full Load Amps (208V)	49.7	-
Nominal Efficiency	91	90.5
Nominal Power Factor	0.91	0.92
Design	A	
Frame	256TD	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6309 ZZ	
Opposite Drive End Bearing	6209 ZZ	
Weight (lbs)	205.2	

NAMEPLATE LAYOUT

TECHTOP		INDUSTRIAL THREE PHASE MOTOR INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF	
MODEL	60Hz	50Hz	MFG PN
HP			MFG DATE
RPM			SER #
VOLT			DESIGN
FLA			FRAME
SF			ENCL / IP
KVA CODE			DUTY
NOM.EFF			INS CL
EFF 75%			AMB
PF			DE
USABLE AT 208V			ODE
			WEIGHT

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

MADE IN CHINA

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

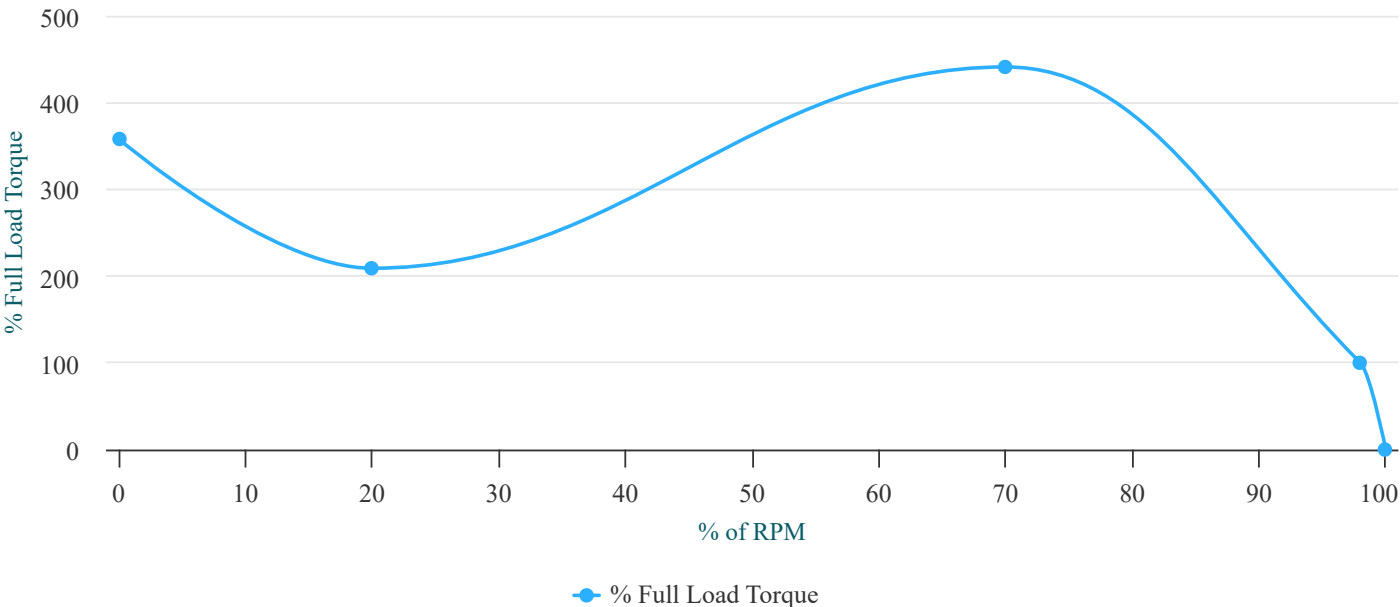
HAZARDOUS LOCATIONS	CSA CERTIFIED
Class / Division	Class I, Div. 2
Groups	A, B, C & D

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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	105.9	358	Start Configuration	DOL
Pull-Up Torque	61.8	209	Starting Current (A)	288.48
Breakdown Torque	130.5	441	No-Load Current (A)	10.6
Full Load Torque	29.6	100	No-Load Power Factor	-

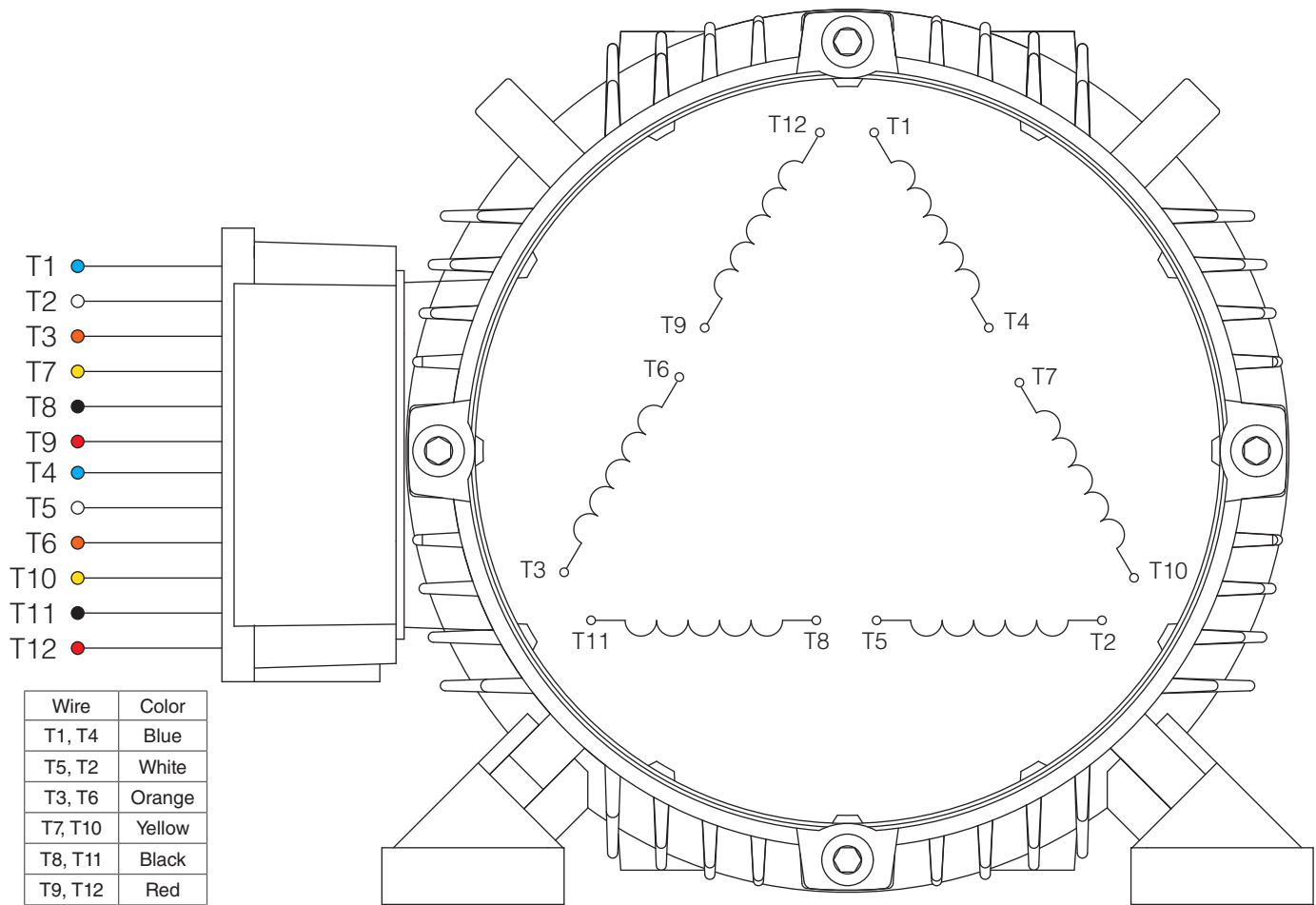
TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

% OF RATED LOAD	25	50	75	100	125	S.F. 1.25
Line Amperes (A)	11.9	15.3	19.4	24.1	29.2	29.2
Efficiency (%)	80.7	88.3	90.6	91.4	91.5	91.5
Speed (r/min)	3592	3585	3577	3569	3561	3561
Power Factor (cosΦ)	0.49	0.7	0.8	0.86	0.88	0.88
Input Power (kW)	4.64	8.5	12.42	16.42	20.5	20.5

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HIGH VOLTAGE
(Δ)



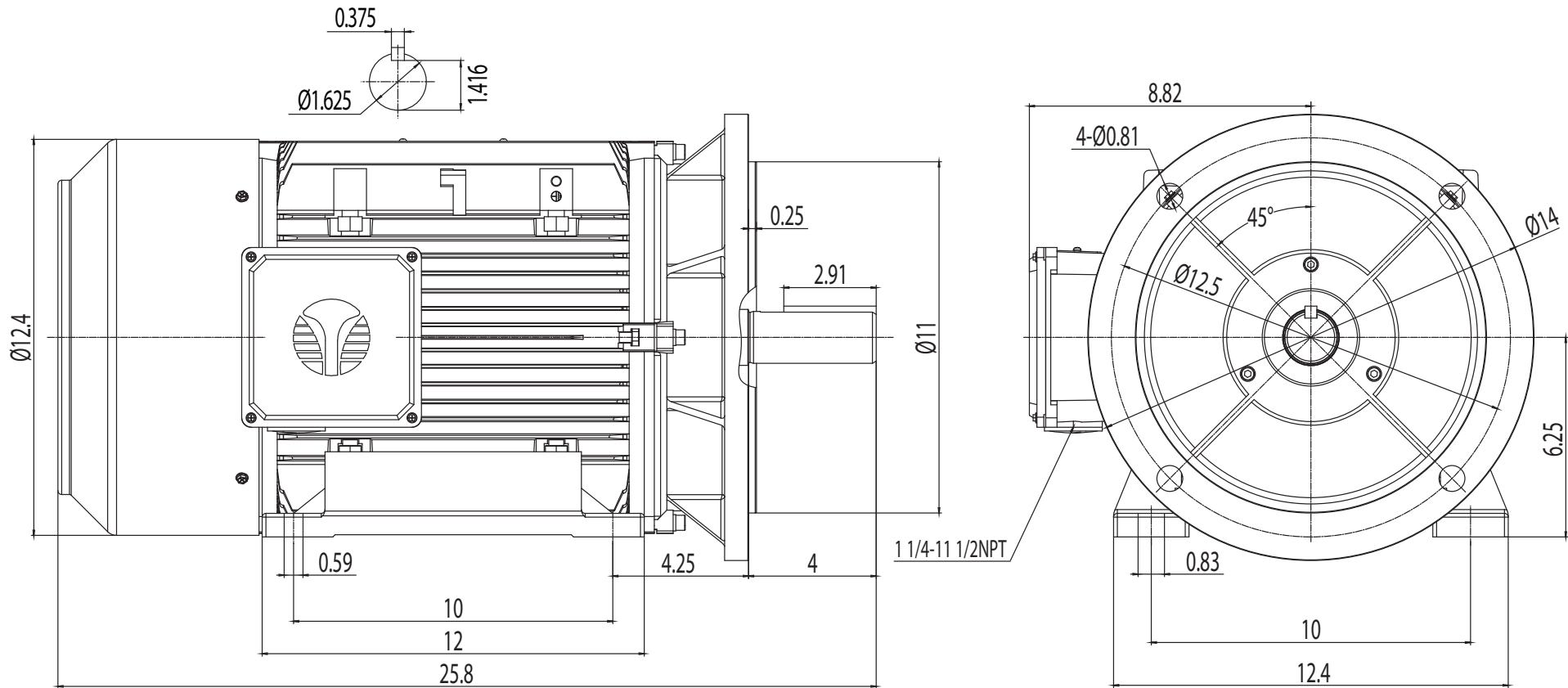
LOW VOLTAGE
(ΔΔ)

- 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	18/02/25
CONNECTION:	DD/D	PREMIUM T-FRAME ALUMINUM MOTORS	
NUMBER OF LEADS:	12		
THERMAL PROTECTION:	-		



NEMA Premium TEFC 256TD

DRAWING NUMBER:	GR3-AL-TF-256TD-01	ISSUED DATE	18/02/25
DIMENSIONS:	Inches	PREMIUM T-FRAME ALUMINUM MOTORS	
MOUNTING:	Rigid/D-Flange		
CASING MATERIAL:	Cast Aluminum		