

IEC | **Model MTP160MA2D**
 MFG PN: TCX160M1-2

Model **MTP160MA2D**

Product Data Package

MODEL	HP	RPM	VOLTAGE	PHASE	Hz	FRAME	MOUNT	ENCLOSURE
MTP160MA2D	15.00	3540	230/460	3	60	160M	B3	TEFC

Toronto

TOLL FREE 1.888.286.1820
PHONE 905.829.1001
FAX 905.829.6600
EMAIL info@techttopcanada.com



Montreal

TOLL FREE 1.844.354.5111
PHONE 514.354.1002
FAX 514.354.1102
EMAIL infoQC@techttopcanada.com



Moncton

PHONE 506.386.5794
FAX 506.386.6643
EMAIL infoNB@techttopcanada.com

Winnipeg

PHONE 204.633.2779
FAX 204.633.3612
EMAIL infoMB@techttopcanada.com

Vancouver

PHONE 604.525.1551
FAX 604.525.7800
EMAIL infoBC@techttopcanada.com

Index

Motor General Data Sheet	P 2
Nameplate Information	P 3
Technical Performance Data	P 4
Motor General Wiring Diagram	P 5
Motor General Outline Drawing	P 6



Model MTP160MA2D
MFG PN: TCX160M1-2

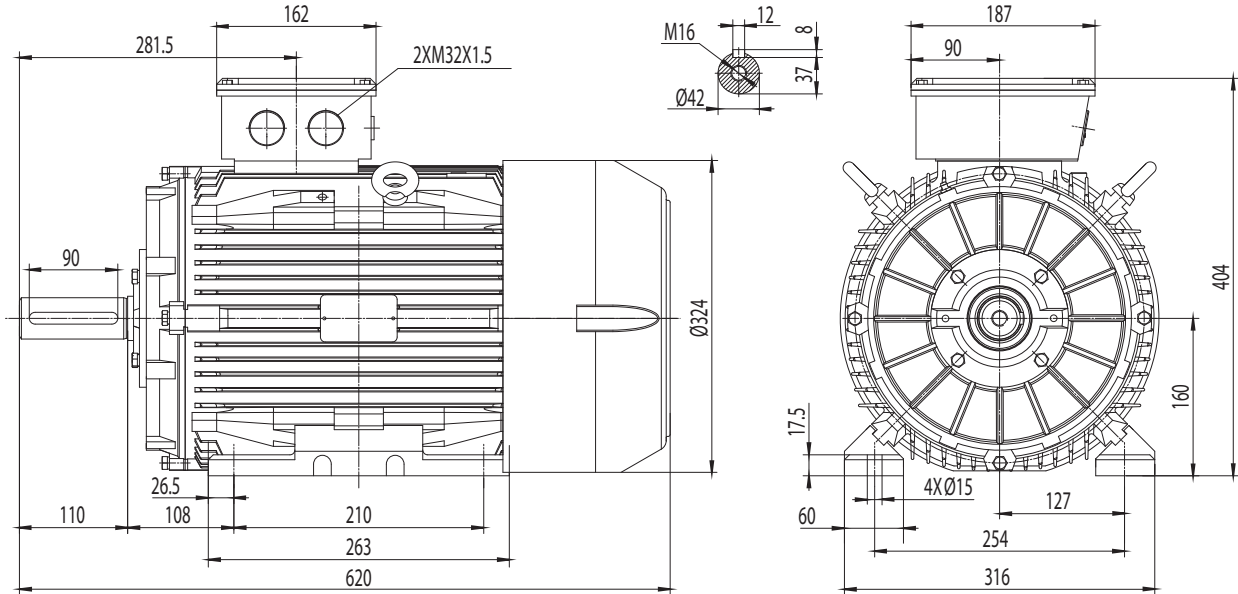
ELECTRICAL DATA		
Rated Motor Output Power	15	HP
	11	kW
Rated Motor Speed	3540	r/min 60Hz
	2920	r/min 50Hz
Rated Motor Voltage (+/-10%)	230/460	V/60Hz
	190/380	V/50Hz
Rated Motor Current	35.2/17.6	A (I _n) @ 60Hz
	45.2/22.6	A (I _n) @ 50Hz
Phase	3	∅
Locked Rotor Current @ High Voltage	168.5	A (I _n) @ 60Hz
FI Current @ 208V	38.92	A (I _n) @ 60Hz
Service Factor	1.15	@ 60Hz
	1	@ 50Hz
KVA Code	K	60Hz
	F	50Hz
Nominal Efficiency	91	% @ 60Hz
Nominal Power Factor	0.88	cosΦ @ 60Hz
Leads (Qty, Size)	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	48	°C @ 60Hz
	66	°C @ 50Hz

GENERAL DATA		
Frame Size	160M	
Enclosure	TEFC	
Mounting	B3	
Approximate Weight (lbs.)	278 lbs.	
Casing Material / Fan Cover	Cast Iron	Cast Iron
Shaft Material	-	
NEMA Design	-	
Degree of Protection (IP)	55	
Insulation Class / Temp Rise (60Hz)	F	B
Tropicalization	YES	
Duty	Cont. / S1	
Conduit Box Location	2-M32X1.5	
Feet Removable / Double Drilled	YES	NO
Paintwork	7024	
	Graphite Gray	
MECHANICAL DATA		
Bearing DE Side	6309C3	
Bearing ODE Side	6309C3	
Grease Type	Mobil Polyrex EM	
Compensation Ring (wavy washer)	DE	
Moment of Inertia (lb-ft ²)	-	
Sound Pressure @ 3 FT dBA	-	
SITE CONDITIONS		
Ambient Temperature (°C)	40	
Meters Above Sea Level (MASL)	1000	
HAZARDOUS LOCATIONS		
CSA Certified	Compliant Only	
Temperature Code	-	-

Questions? Call 1.888.286.1820



Model MTP160MA2D
MFG PN: TCX160M1-2



NAMEPLATE DATA	60Hz	50Hz
HP/kW	15/11	15/11
RPM	3540	2920
Voltage	230/460	190/380
Full Load Amps	35.2/17.6	45.2/22.6
Service Factor	1.15	1
KVA Code	K	F
Full Load Amps (208V)	38.92	-
Nominal Efficiency	91	-
Nominal Power Factor	0.88	-
Design	-	
Frame	160M	
Enclosure Type	TEFC	
IP Rating	55	
Duty	Cont. / S1	
Insulation Class	F	
Ambient Rating	40	
Drive End Bearing	6309C3	
Opposite Drive End Bearing	6309C3	
Weight (lbs)	278	

NAMEPLATE LAYOUT			
		INDUSTRIAL THREE PHASE IE3 MOTOR INVERTER DUTY 15:1 CT 30:1 VT - 1.0 SF	
MODEL			TECHTOPCANADA.COM
	60Hz	50Hz	MFG PN
HP/KW			MFG DATE
NEMA Premium 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
			CE
			CC098A
			UL E323353
			UL 224693
			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

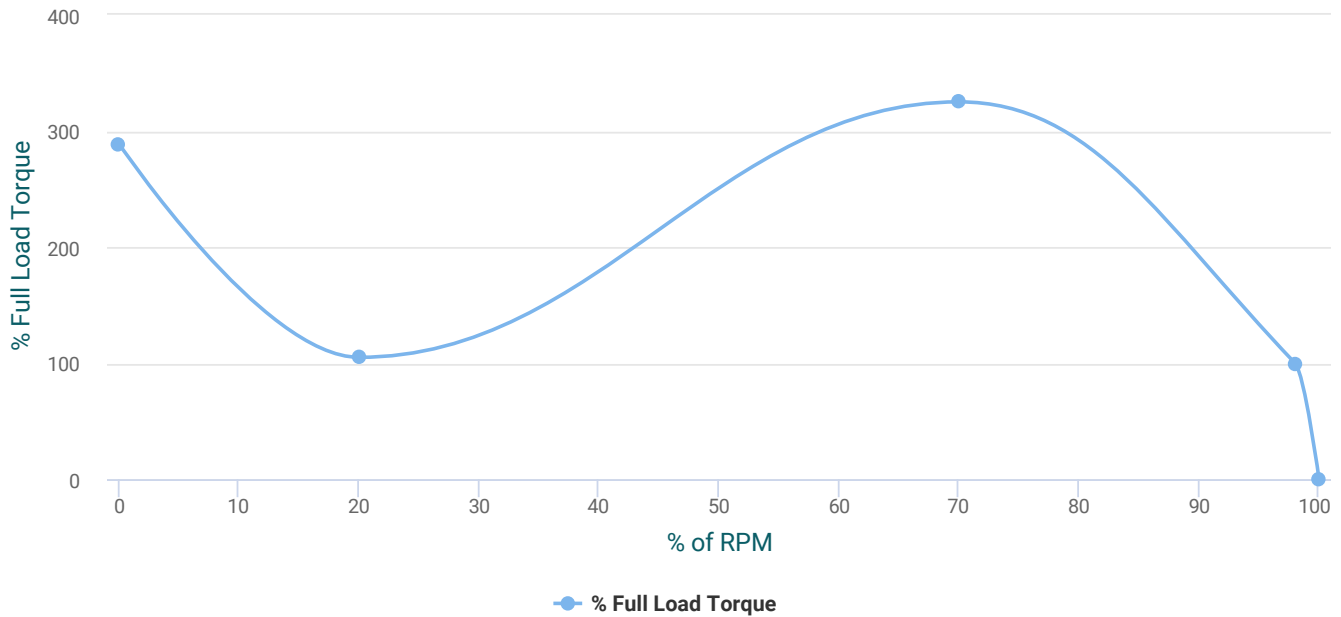
HAZARDOUS LOCATIONS	COMPLIANT ONLY	
Class / Division	I	II
Groups	A, B, C and D	

Questions? Call 1.888.286.1820



Model MTP160MA2D
 MFG PN: TCX160M1-2

Torque Speed (T-n) Curve



PERFORMANCE LOAD VALUES, HIGH VOLTAGE, 60Hz

TYPICAL PERFORMANCE - NOT GUARANTEED VALUES

TORQUE VALUES	TORQUE (lb-ft)	TORQUE (% FULL LOAD)	PERFORMANCE VALUES	
Locked Rotor Torque	64.447	289	Start Configuration	D0L
Pull-Up Torque	23.415	105	Starting Current (A)	168.5
Breakdown Torque	72.475	325	No-Load Current (A)	5.269
Full Load Torque	22.3	100	No-Load Power Factor	0.108

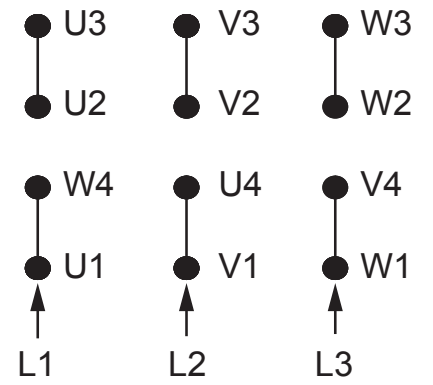
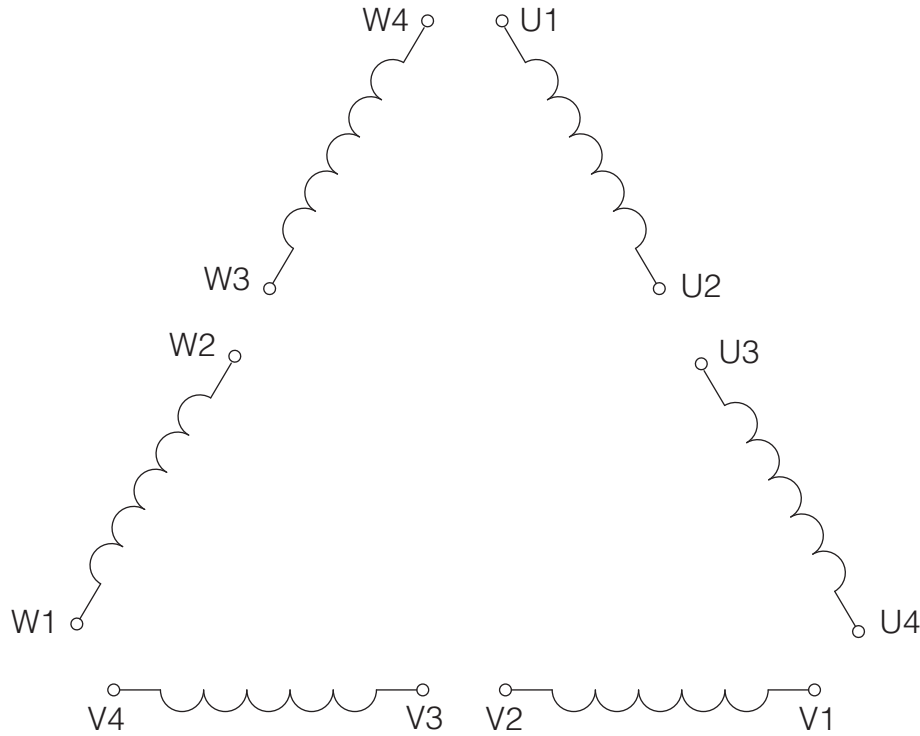
% OF RATED LOAD	25	50	75	100	125	S.F. 1.25
Line Amperes (A)	6.704	9.658	13.12	16.98	21.1	19.343
Efficiency (%)	-	90.4	91.7	91.8	91.4	91.559
Speed (r/min)	3590.6	3581.3	3571.2	3560.4	3549	3553.555
Power Factor (cosΦ)	0.616	0.805	0.876	0.902	0.911	0.907
Input Power (kW)	3.292	6.191	9.157	12.199	15.322	13.986

Questions? Call 1.888.286.1820

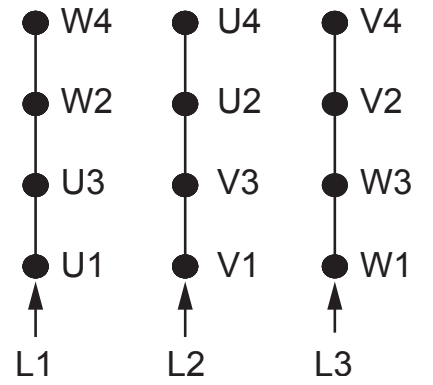


Model MTP160MA2D

MFG PN: TCX160M1-2



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



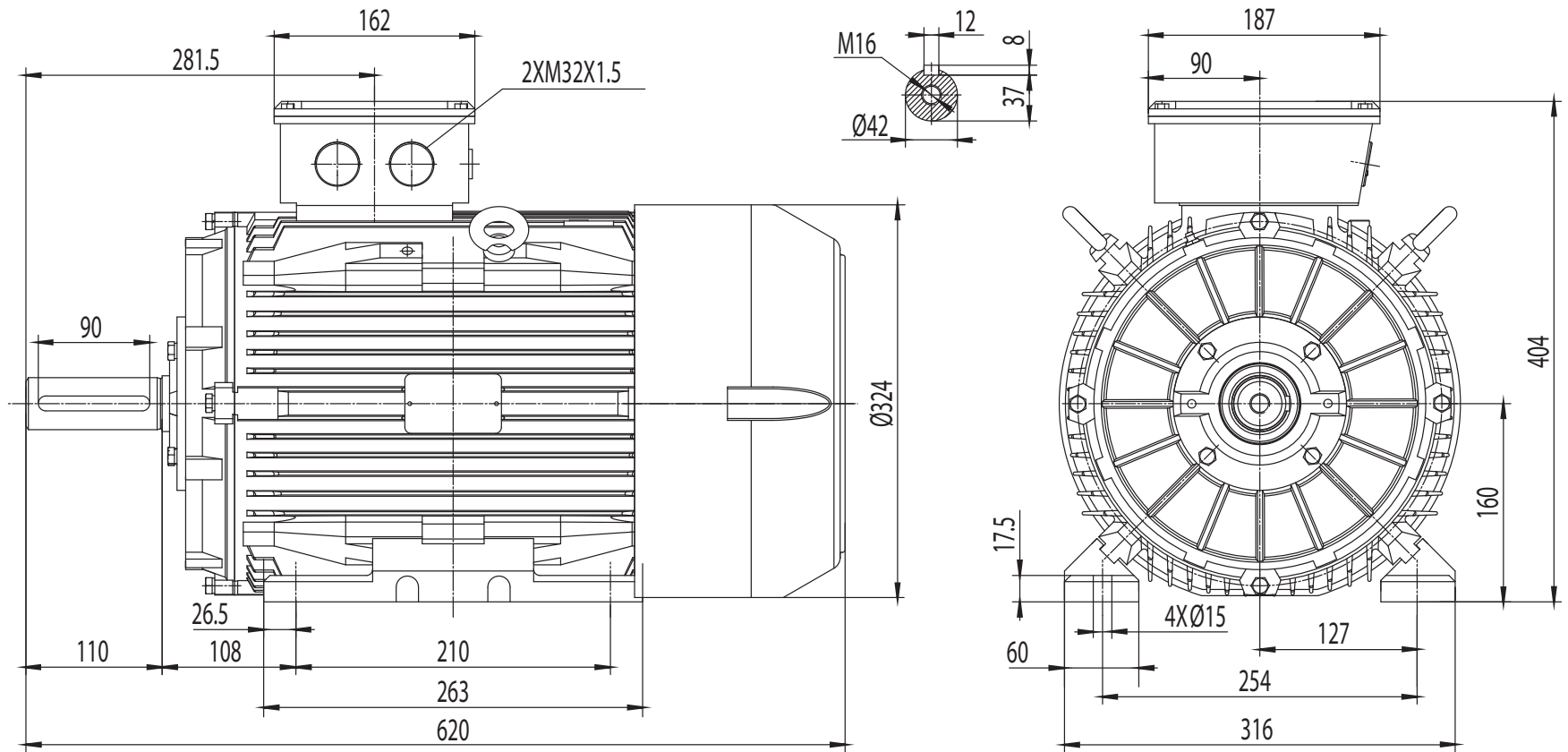
IEC 30 DD/D 12-Lead/9-Post Dual

DRAWING NUMBER:	IEC-3-12-DD-D	ISSUED DATE	17/20/20
CONNECTION:	DD/D	METRIC IE3 PREMIUM MOTORS	
NUMBER OF LEADS:	12		
THERMAL PROTECTION:	Optional		



Model MTP160MA2D

MFG PN: TCX160M1-2



IE3 TEFC 160M

DRAWING NUMBER:

GR3-CI-TF-160MB3-CFC

DIMENSIONS:

mm

MOUNTING:

B3

CASING MATERIAL:

Cast Iron

ISSUED DATE

17/20/20

METRIC IE3 PREMIUM MOTORS