

TOSHIBA
Leading Innovation >>>



PRODUCT OFFERING >>>
ADJUSTABLE SPEED DRIVES >>>

ONE CALL. ONE SOLUTION.

Toshiba International Corporation is proud to be a single-source solution for our customers, offering a complete product lineup of electric motors, adjustable speed drives, and motor starters for a variety of applications. Many of these products are manufactured at our one million square foot manufacturing facility located in Houston, Texas. Our Houston facility has extensive knowledge and experience, offering the following services in-house:

- Research & Development
- Design & Engineering
- Manufacturing
- Sales & Marketing
- Applications Support
- Field Service
- Customer Service & Project Management
- Logistics & Warehousing
- Product Application & Field Service Training

> ONE STOP FOR ALL YOUR ADJUSTABLE SPEED DRIVE NEEDS

Toshiba is a leading manufacturer of low and medium voltage adjustable speed drives ranging from 1/2 to 11,000 HP and 230 to 6,600 V. Our extensive adjustable speed drive product offering and large installed base in numerous industries demonstrates our customers' confidence in choosing Toshiba drives. Since our products are manufactured under one roof, we offer customized solutions to meet your application needs. We also have the capability to test our products together, as a complete system, before it goes out into the field—ensuring the highest level of quality, performance, and reliability.

> APPLICATIONS



Oil & Gas



Mining & Minerals



Aggregate



Assembly



Food & Beverage



Utilities



Textiles



Agribusiness

LOW VOLTAGE DRIVES



AS3



AS1



AS3 Type 12/IP55

	AS3		AS1	AS3 Type 12/IP55	
Classification	Heavy Duty	Standard Duty	Heavy Duty	Heavy Duty	Standard Duty
Pulse Input	Standard 6-Pulse Input		Standard 6-Pulse Input	Standard 6-Pulse Input	
240 V Single Phase	N/A		N/A	N/A	
240 V Three-Phase	0.5 to 75 HP	1 to 100 HP	1 to 100 HP	N/A	
480 V Three-Phase	0.5 to 450 HP	1 to 500 HP	1 to 700 HP	0.5 to 100 HP	1 to 125 HP
Ratings 600 to 690 V	N/A		2 to 700 HP	N/A	
Ratings 2300 to 6600 V	N/A		N/A	N/A	
Neutral-Point Clamp	N/A		N/A	N/A	
Available Enclosures	NEMA 1 Built-in (0.5 to 100 HP), Optional NEMA 1 Conduit Box 125 HP & Up	NEMA 1 Built-in (1 to 125 HP), Optional NEMA 1 Conduit Box 150 HP & Up	NEMA 1 with Optional Conduit Box	UL Type 12/IP55 Built-in	
Operational Variables/ Operation Control	V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, & Closed-Loop Vector, Permanent Magnet Motor Control		V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, & Closed-Loop Vector	V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, & Closed-Loop Vector, Pump Control, Permanent Magnet Motor Control	
Overload Protection	150% for One Minute, 180% for Two Seconds	120% for One Minute, 135% for Two Seconds	150% for 60 Seconds; 100% Continuous	150% for One Minute, 180% for Two Seconds	120% for One Minute, 135% for Two Seconds
Ambient Rating	-10 to 50°C (60°C with Derate)		-10 to 50°C (60°C with Derate)	-15 to 50°C	
IEEE 519 Compliant	System Dependent		System Dependent	System Dependent	
Features	SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 590Hz, PID Control, Encoder Feedback, My Function Logic Feature & Advanced Pump Control		SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 500 Hz, PID Control, Encoder Feedback, & My Function Logic Feature	SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 590Hz, PID Control, Encoder Feedback, My Function Logic Feature & Advanced Pump Control	
Communications	Embedded Dual Port Ethernet IP, DeviceNet, Profibus DP, PROFINET, EtherCAT Modbus RTU, Modbus TCP/IP, & CAN Open		DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, Modbus TCP/IP, & Netpac	Embedded Dual Port Ethernet IP, DeviceNet, Profibus DP, PROFINET, EtherCAT Modbus RTU, Modbus TCP/IP, & CAN Open	
Dynamic Braking	Built-In in 0.5 to 100 HP and 250 HP (External Option in 125 to 200 HP and 300 HP & Up)	Built-In in 1 to 125 HP and 350 HP (External Option in 150 to 250 HP and 400 HP & Up)	Built-In in 0.5 to 250 HP (External Option in 300 HP & Up)	Built-In in 0.5 to 100 HP (Standard Option in 125 to 150 HP)	Built-In in 1 to 125 HP (Standard Option in 150 to 200 HP)
Software (Available on Website)	ASD Pro		ASD Pro	ASD Pro	



G9



P9



S15



S11

Severe Duty	Standard Duty	Heavy Duty	Heavy Duty
Standard 6-Pulse Input	Standard 6-Pulse Input	Standard 6-Pulse Input	Standard 6-Pulse Input
N/A	N/A	0.5 to 3 HP	1 to 3 HP (IP54)
0.75 to 100 HP	0.75 to 125 HP	0.5 to 20 HP	1 to 5 HP (IP54)
1 to 350 HP	1 to 400 HP	0.5 to 20 HP	2 to 5 HP (IP54)
N/A	N/A	2 to 20 HP	2 to 20 HP
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
NEMA 1	NEMA 1	NEMA 1 with Optional Conduit Box	IP54 with Disconnect (240 V & 480 V), NEMA 1 with Optional Conduit Box (600 V)
V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, & Closed-Loop Vector	VLP™ Technology, V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Pressure, Depth, Temperature, & Mass Flow Rate	V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Automatic Energy Savings for Fans/Pumps, & Five-Point V/Hz Custom Curves	V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Automatic Energy Savings for Fans/Pumps, & Five-Point V/Hz Custom Curves
150% for 120 Seconds; 115% Continuous	120% for 60 Seconds; 100% Continuous	150% for 60 Seconds; 110% Continuous	150% for 60 Seconds; 100% Continuous
-10 to 40°C	-10 to 40°C	-10 to 50°C (60°C with Derate)	-10 to 50°C (60°C with Derate)
System Dependent	System Dependent	System Dependent	System Dependent
SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 299 Hz, PID Control, Encoder Feedback, & My Function Logic Feature	VLP Technology, Automatic Sleep Function, No Flow/Low NPSH Cut-Off, Time-Based Alternation, SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 299 Hz, PID Control, & My Function Logic Feature	SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, PID Control, Output Frequency 0.5 to 500 Hz, Password Protection for Parameters, Bidirectional PID Control, Logical Operations	SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, PID Control, Output Frequency 0.5 to 500 Hz, Password Protection for Parameters, Bidirectional PID Control, Logical Operations
DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Modbus TCP/IP, Metasys N2, Siemens FLN, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Modbus TCP/IP, Metasys N2, Siemens FLN, RS485, RS232, & Netpac
Standard	Standard Up to 350 HP	Standard	Standard
ASD Pro	ASD Pro	ASD Pro	ASD Pro



NC3



GX9



GX7R Regen

Heavy Duty	Severe Duty	Heavy Duty
Standard 6-Pulse Input	18-Pulse Option from 100 to 400 HP	Active Front End (Harmonic Mitigation & Regeneration)
0.5 to 3 HP	N/A	N/A
0.5 to 5 HP	N/A	N/A
N/A	5 to 60 HP	30 to 150 HP
N/A	5 to 1200 HP	N/A
N/A	N/A	N/A
N/A	N/A	N/A
NEMA 1	NEMA 1	NEMA 3R
V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Automatic Energy Savings for Fans/Pumps, & Five-Point V/Hz Custom Curves	V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Automatic Energy Savings for Fans/Pumps, & Five-Point V/Hz Custom Curves	V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Automatic Energy Savings for Fans/Pumps, & Five-Point V/Hz Custom Curves
150% for 60 Seconds; 100% Continuous	110% Continuous Overload Rating, 150% for 60 Seconds up to 125 HP, 130% for 120 Seconds 150 HP and Above	150% for 60 Seconds
-10 to 50°C (60°C with Derate)	-10 to 40°C	-10 to 40°C
System Dependent	System Dependent	System Dependent
SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, PID Control, Output Frequency 0.5 to 500 Hz, Password Protection for Parameters, Bidirectional PID Control, Logical Operations	VLP Technology, Automatic Sleep Function, No Flow/Low NPSH Cut-Off, Time-Based Alternation, SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 299 Hz, PID Control, & My Function Logic Feature	SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run
DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Modbus TCP/IP, Metasys N2, Siemens FLN, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Modbus TCP/IP, Metasys N2, Siemens FLN, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Metasys N2, RS485, RS232, & Netpac
N/A	Standard up to 100 HP, Optional 500 HP and above	N/A
ASD Pro	ASD Pro	ASD Pro

MEDIUM VOLTAGE DRIVES



T300MV2® (2400 V)



T300MV2® (4160 V)



T300MV2® (6600 V)

Classification	Standard Duty	Standard Duty	Standard Duty
Pulse Input	Standard 24-Pulse Input	Standard 24-Pulse Input	Standard >24-Pulse Input
240 V Single Phase	N/A	N/A	N/A
240 V Three-Phase	N/A	N/A	N/A
480 V	N/A	N/A	N/A
Ratings 600 to 690 V	N/A	N/A	N/A
Ratings 2300 to 6600 V	300 to 3,000 HP	300 to 11,000HP	300 to 9,000HP
Neutral-Point Clamp	Three-Level	Five-Level	Seven-Level
Available Enclosures	NEMA 1 Ventilated	NEMA 1 Ventilated	NEMA 1G
Operational Variables/ Operation Control	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy savings, & Synchronous Transfer	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy savings, & Synchronous Transfer	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy savings, & Synchronous Transfer
Overload Protection	115% for 60 Seconds Every 10 Minutes; 100% Continuous	115% (1000, 2000, 6000, 8000 HP 110%) for 60 Seconds Every 10 Minutes; 100% Continuous	115% for 60 Seconds Every 10 Minutes; 100% Continuous
Ambient Rating	0 to 40°C (50°C with Derate)	0 to 40°C (50°C with Derate)	0 to 40°C (50°C with Derate)
IEEE 519 Compliant	Yes	Yes	Yes
Features	Overload Protection, Adjustable Acceleration/Deceleration, Flying Restart, Power Ride-Through 30% for 5 Cycles, Pattern Run, Output Frequency 0 to 120Hz, Ground Fault Protection & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Restart, Power Ride-Through 30% for 5 Cycles, Pattern Run, Output Frequency 0 to 120Hz, Ground Fault Protection & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Restart, Power Ride-Through 30% for 5 Cycles, Pattern Run, Output Frequency 0 to 120Hz, Ground Fault Protection & Internal Input Disconnect
Communications	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, Tosline, TCNET & EGD	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, Tosline, TCNET & EGD	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, Tosline, TCNET & EGD
Dynamic Braking	N/A	N/A	N/A
Software (Available on Website)	Navigator	Navigator	Navigator



GX7M Modular



W7B



WX9



Plus Pack

Heavy Duty	Standard Duty	Standard Duty	Standard Duty
Standard 6-Pulse Input	Standard 18-Pulse Input	Standard 18-Pulse Input	Optional 18-Pulse (60 to 800 HP)
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
125 to 1500 HP	20 to 500 HP	500 to 800 HP	60 to 1500 HP
150 to 1750 HP	75 to 400 HP	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
NEMA 1	NEMA 1 & NEMA 12	NEMA 1	NEMA 1 & 3R
V/Hz, Slip Compensation, Torque Boost, & Open-Loop	V/Hz, Slip Compensation, Constant Torque, Variable Torque, Open-Loop Vector, Auto/Manual Torque Boost, & Five-Point V/Hz Custom Curves	VLP™ Technology, V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Constant Torque, & Variable Torque	VLP™ Technology, V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, Constant Torque, & Variable Torque
<ul style="list-style-type: none"> • 115% Continuous Overload Rating, 150% for 60 Seconds from 125 to 1000 HP at 480 V; 105% Continuous Overload Rating, 120% for 60 Seconds from 1200 to 1500 HP at 480 V • 115% Continuous Overload Rating, 150% for 60 Seconds from 150 to 1200 HP at 600 V; 105% Continuous Overload Rating, 120% for 60 Seconds from 1400 to 1750 HP at 600 V 	120% for 60 Seconds; 100% Continuous	120% for 60 Seconds; 100% Continuous	120% for 60 Seconds; 100% Continuous
-10 to 40°C	-10 to 40°C	-10 to 40°C	-10 to 50°C
System Dependent	System Dependent	System Dependent	System Dependent
SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 299 Hz, PID Control, Encoder Feedback, & My Function Logic Feature	Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 400 Hz, PID Control, Real-Time Clock, & Internal Input Disconnect	VLP Technology, Automatic Sleep Function, No Flow/Low NPSH Cut-Off, Time-Based Alternation, SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 299 Hz, PID Control, & My Function Logic Feature	VLP Technology, Automatic Sleep Function, No Flow/Low NPSH Cut-Off, Time-Based Alternation, SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Preset Speeds, Pattern Run, Output Frequency 0.01 to 299 Hz, PID Control, & My Function Logic Feature
DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Metasys N2, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Metasys N2, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Metasys N2, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, RS232, & Netpac
N/A	N/A	N/A	Optional
ASD Pro	ASD Pro	ASD Pro	ASD Pro

MEDIUM VOLTAGE DRIVES



MTX® Outdoor

MTX2-15® Outdoor

T300BMV2® (6600 V)

Regen Drive

Standard Duty	Standard Duty	Standard Duty	Standard Duty
Standard 36-Pulse Input	Standard 36-Pulse Input	Standard 24-Pulse Input	Standard 24-Pulse Input
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
500 to 3,000HP	500 to 1,500HP	700 to 2,000HP	300 to 6,000HP
Five-Level	Five-Level	Five-Level	Five-Level
NEMA 3R	NEMA 4 Design	NEMA 1 Ventilated	NEMA 1 G
V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy savings, & Synchronous Transfer	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy savings, & Synchronous Transfer	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector & Energy savings	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy savings, & Synchronous Transfer
115% for 60 Seconds Every 10 Minutes; 100% Continuous	115% for 60 Seconds Every 10 Minutes; 100% Continuous	115% (1000, 2000HP 110%) for 60 Seconds Every 10 Minutes; 100% Continuous	115% (1000, 2000, 6000 HP 110%) for 60 Seconds Every 10 Minutes; 100% Continuous
-25 to 50° (-45°C Option)	-45°C to 50°C	0 to 40°C	0 to 40°C (50°C with Derate)
Yes	Yes	Yes	Yes
Overload Protection, Adjustable Acceleration/Deceleration, Flying Restart, Power Ride-Through 30% for 5 Cycles, Pattern Run, Output Frequency 0 to 120Hz, Ground Fault Protection & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Restart, Power Ride-Through 30% for 5 Cycles, Pattern Run, Output Frequency 0 to 120Hz, Ground Fault Protection & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Restart, Power Ride-Through 30% for 5 Cycles, Pattern Run, Output Frequency 0 to 120Hz & Ground Fault Protection	Overload Protection, Adjustable Acceleration/Deceleration, Flying Restart, Power Ride-Through 30% for 5 Cycles, Pattern Run, Output Frequency 0 to 120Hz, Ground Fault Protection & Internal Input Disconnect
DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, & Tosline, TCNET & EDG	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, Tosline, TCNET & EGD	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, Tosline, TCNET & EGD	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, & Tosline
N/A	N/A	N/A	N/A
Navigator	Navigator	Navigator	WiTool

TOSHIBA MOTORS & DRIVES DIVISION

- Adjustable Speed Drives
- Motors
- Motor Controls



TOSHIBA
Leading Innovation >>>

www.toshiba.com/tic