

TOSHIBA
Leading Innovation >>>



PRODUCT OFFERING
ADJUSTABLE SPEED DRIVES



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. 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 10,000 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



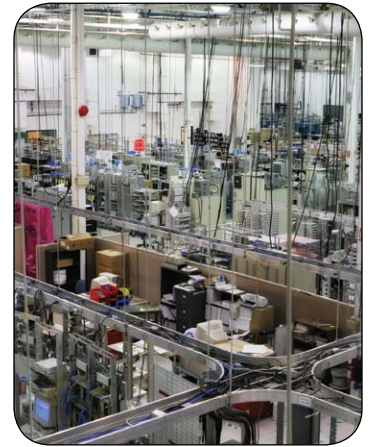
Oil & Gas



Mining & Minerals



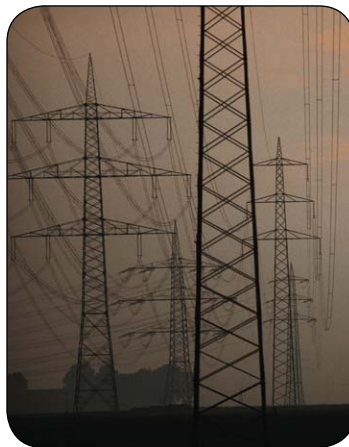
Aggregate



Assembly



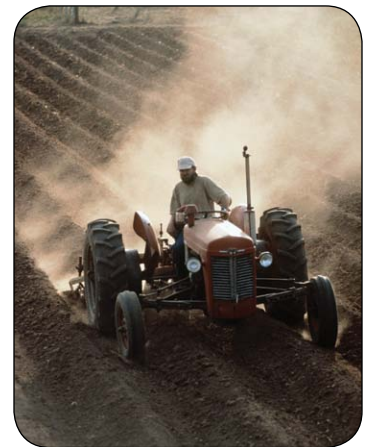
Food & Beverage



Utilities
















Textiles



Agribusiness

LOW VOLTAGE DRIVES

MEDIUM VOLTAGE DRIVES

													
	S15	AS1	P9	H9	G9	W7	GX7/HX7	Plus Pack	T300MVi® (2300 V)	T300MVi® (4160 V)	T300MVi® (6600 V)	Regen Drive	MTX® Outdoor
Classification	Heavy Duty	Heavy Duty	Standard Duty	Standard Duty	Severe Duty	Standard Duty	Heavy Duty	Standard Duty	Heavy Duty	Standard Duty	Standard Duty	Standard Duty	Standard Duty
Ratings 200 to 240 V Single-Phase	0.5 to 3 HP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ratings 200 to 240 V Three-Phase	0.5 to 20 HP	0.5 to 100 HP	0.75 to 125 HP	0.75 to 125 HP	0.75 to 100 HP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ratings 380 to 480 V	1 to 20 HP	1 to 800 HP	1 to 400 HP	1 to 400 HP	1 to 350 HP	20 to 800 HP	N/A	60 to 1500 HP	N/A	N/A	N/A	N/A	N/A
Ratings 500 to 600 V	Coming Soon	2 to 10 HP	N/A	N/A	N/A	75 to 400 HP	500 to 1200 HP	N/A	N/A	N/A	N/A	N/A	N/A
Ratings 690 V	N/A	2 to 700 HP	N/A	N/A	N/A	75 to 400 HP	500 to 1200 HP	500 to 1500 HP	N/A	N/A	N/A	N/A	N/A
Ratings 2300 to 6600 V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	300 to 3000 HP	300 to 10000 HP	300 to 7000 HP	300 to 6000 HP	500 to 3000 HP
Pulse Input	Standard 6-Pulse Input	Standard 6-Pulse Input	Standard 6-Pulse Input	Standard 6-Pulse Input	Standard 6-Pulse Input	Standard 18-Pulse Input	Standard 6-Pulse Input	Optional 18-Pulse (60 to 800 HP)	Standard 24-Pulse Input	Standard 24-Pulse Input	Standard 24-Pulse Input	Standard 24-Pulse Input	Standard 36-Pulse Input
Neutral-Point Clamp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Three-Level	Five-Level	Seven-Level	Five-Level	Five-Level
Available Enclosures	IP20 & NEMA 1 with Optional Conduit Box	IP20 & NEMA 1 with Optional Conduit Box	NEMA 1	NEMA 1	NEMA 1	NEMA 1 & NEMA 12 (Up to 500 HP)	NEMA 1	NEMA 1 & 3R	NEMA 1 Ventilated	NEMA 1 Ventilated	NEMA 1 Ventilated	NEMA 1G	NEMA 3R
Operational Variables/Operation Control	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, & 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	V/Hz, Slip Compensation, Auto-Torque Boost, Open-Loop Vector, & Closed-Loop Vector	V/Hz, Slip Compensation, Constant Torque, Variable Torque, Open-Loop Vector, Auto/Manual Torque Boost, & Five-Point V/Hz Custom Curves	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, Constant Torque, & Variable Torque	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy Savings, & Synchronous Transfer & Capture	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy Savings, & Synchronous Transfer & Capture	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy Savings, & Synchronous Transfer & Capture	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy Savings, & Synchronous Transfer & Capture	V/Hz, Slip Compensation, Auto-Torque Boost, Sensorless Vector Control, Closed-Loop Vector, Energy Savings, & Synchronous Transfer & Capture
Overload Protection	150% for 60 Seconds; 100% Continuous	150% for 60 Seconds; 100% Continuous	120% for 60 Seconds; 100% Continuous	120% for 60 Seconds; 100% Continuous	150% for 120 Seconds; 115% Continuous	120% for 60 Seconds; 100% Continuous	130% for 120 Seconds; 110% Continuous	120% for 60 Seconds; 100% Continuous	115% (1000, 2000, 6000 HP 110%) for 60 Seconds Every 10 Minutes; 100% Continuous	115% (1000, 2000, 6000 HP 110%) for 60 Seconds Every 10 Minutes; 100% Continuous	115% (1000, 2000, 6000 HP 110%) for 60 Seconds Every 10 Minutes; 100% Continuous	115% (1000, 2000, 6000 HP 110%) for 60 Seconds Every 10 Minutes; 100% Continuous	115% for 60 Seconds Every 10 Minutes; 100% Continuous
Dynamic Braking	Standard	Built-In IGBT 7 in 0.5 to 250 HP (External Option in 300 HP & Up)	Standard Up to 350 HP	Standard Up to 350 HP	Standard	N/A	Standard	Standard	N/A	N/A	N/A	N/A	N/A
Ambient Rating	-10 to 50°C (60°C with Derate)	-10 to 50°C (60°C with Derate)	-10 to 40°C	-10 to 40°C	-10 to 40°C	-10 to 40°C	-10 to 40°C (50°C with Derate)	-10 to 50°C	0 to 40°C (50°C with Derate)	0 to 40°C (50°C with Derate)	0 to 40°C (50°C with Derate)	0 to 40°C (50°C with Derate)	-25 to 50°C (-45°C Option)
IEEE 519 Compliant	System Dependent	System Dependent	System Dependent	System Dependent	System Dependent	System Dependent	System Dependent	System Dependent	Yes	Yes	Yes	Yes	Yes
Features	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, & Sleep Function	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	VLP™ Technology, Automatic Sleep Function, No Flow/Low NPSH Cut-Off, Time-Based 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	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	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	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	SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Pattern Run, PID Control, & Output Frequency 0.01 to 299 Hz	VLP™ Technology, Automatic Sleep Function, No Flow/Low NPSH Cut-Off, SS Overload Protection, Adjustable Acceleration/Deceleration, Adjustable Carrier Frequency, Flying Start, Power Ride-Through, Pattern Run, PID Control, & Output Frequency 0.01 to 299 Hz	Overload Protection, Adjustable Acceleration/Deceleration, Flying Start, Power Ride-Through 30% for Five Cycles, Pattern Run, PID Control, Output Frequency, 0 to 120 Hz, Ground Fault Protection, & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Start, Power Ride-Through 30% for Five Cycles, Pattern Run, PID Control, Output Frequency, 0 to 120 Hz, Ground Fault Protection, & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Start, Power Ride-Through 30% for Five Cycles, Pattern Run, PID Control, Output Frequency, 0 to 120 Hz, Ground Fault Protection, & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Start, Power Ride-Through 30% for Five Cycles, Pattern Run, PID Control, Output Frequency, 0 to 120 Hz, Ground Fault Protection, & Internal Input Disconnect	Overload Protection, Adjustable Acceleration/Deceleration, Flying Start, Power Ride-Through 30% for Five Cycles, Pattern Run, PID Control, Output Frequency, 0 to 120 Hz, Ground Fault Protection, & Internal Input Disconnect
Software (Available on Website)	ASD Pro	ASD Pro	ASD Pro	ASD Pro	ASD Pro	ASD Pro	ASD Pro	ASD Pro	N/A	N/A	N/A	N/A	N/A
Communications	DeviceNet, Profibus DP, Ethernet IP, Modbus+, Modbus RTU, Modbus TCP/IP, Metasys N2, Siemens FLN, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, Modbus TCP/IP, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus TCP/IP, Profinet IO, BACnet/IP, Modbus+, RS485, & Netpac	DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, & 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	DeviceNet, Profibus DP, Ethernet IP, Modbus RTU, Modbus+, RS485, RS232, & Netpac	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, & Tosline	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, & Tosline	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, & Tosline	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, & Tosline	DeviceNet, Profibus DP, Modbus RTU, Modbus TCP/IP, & Tosline

* Soon to be released. Contact drives department.

TOSHIBA INDUSTRIAL PRODUCTS:

- Adjustable Speed Drives
- Motors
- Motor Controls
- Instrumentation & PLCs
- Uninterruptible Power Systems

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