

TOSHIBA

ADJUSTABLE SPEED DRIVES



AS1 Drive

Reliability in motion™



Toshiba's New ASD Product Line



The AS1 drive builds on Toshiba's history of supplying powerful, reliable and versatile drives. We have combined our best drive features with the latest technologies making the AS1 the new contender in the PWM control drive market.

Advanced Design

The modular construction of the AS1 allows the unit to be installed into nearly any application quickly and easily. The laminated bus plane technology used in the AS1 means a reduced component count, better reliability and easier service.

Simple Programming

Toshiba's unified programming philosophy means that you can operate the AS1 drive with little or no programming. At the same time, the AS1 maintains one of the most expansive parameter sets in the industry, allowing you to fine tune the drive for your specific application.

Tough Environment

The AS1 drive is designed to operate in extreme environments. It can operate in temperatures up to 122°F without de-rate and can also be configured for use in temperatures of up to 140°F. The AS1 is also designed to be used in a sealed cabinet design. This allows integrators to mount the AS1 heat-sink external to the drive cabinet for simple and efficient cooling of the unit.

Improved Control

The AS1's new PID algorithm makes it easier than ever to dial in your process control application. New parameters, such as a delay filter and a process control lower limit, and new functions, such as the AS1's new Speed PID and easy positioning algorithms, give the drive expanded capabilities to take on difficult applications.



Quick Snap Option Cards

Rugged Design, Advanced Operations

Powerful Performance

The AS1 offers both sensorless and feedback vector control providing heavy duty performance. Using its new Motor-Over-Flux-Braking-Technology, the AS1 can provide as much as 30% of its rated power for use in stopping a heavy or high inertia load without the use of a dynamic brake resistor.

Smart Operation

Toshiba's "My Function" programming set allows the AS1 to operate as a simple PLC. Basic logic function programming can now be done directly on the ASD.

Fault Tracing

Issues with your application will no longer be a mystery with AS1's fault tracing algorithm. By accessing the fault tracing parameters, you can isolate exactly where the trouble is located.

Easy Communications

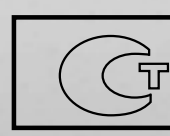
The AS1 is designed to accommodate multiple, stackable option cards that mount underneath the unit's keypad quickly and easily. In addition, the drive can accept two inputs from external communication units via the two onboard RS 485 communication ports.

Broad Compliance

The AS1 is certified by a broad range of governing and regulatory bodies making it a truly global product.

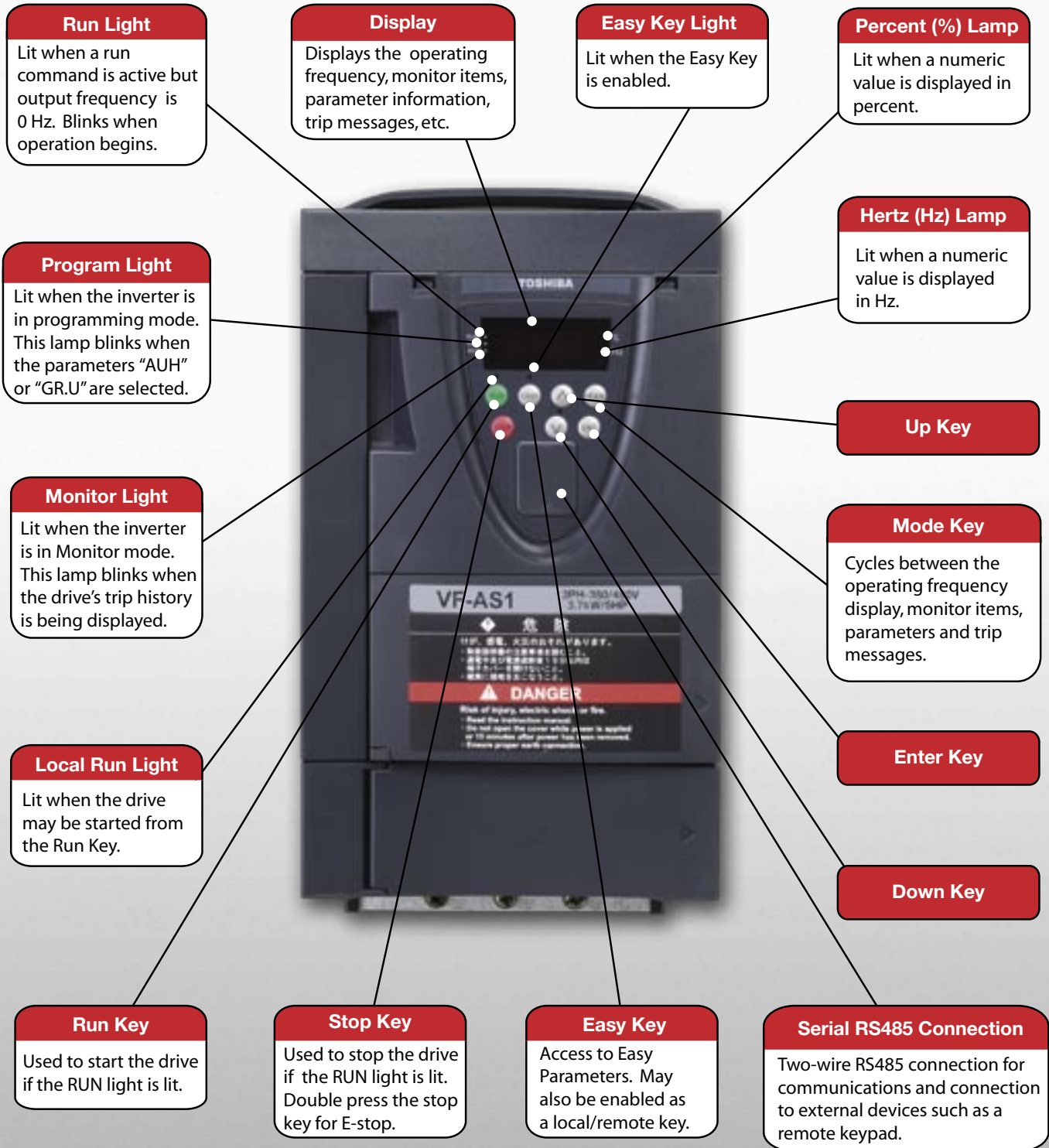


Large Horsepower AS1



Easy-to-Use Operation Panel

Names and Functions



AS1 Drive

AS1 Standard Specifications

Power Supply	Voltage/Frequency	230 V Class: 3-phase 200-240 V, 50/60 Hz, 460 V Class: 3-phase 380 to 480 V, 50/60 Hz
	Tolerance	Voltage +10%, -15% ($\pm 10\%$ during continuous 100% load) Frequency $\pm 5\%$
Rated Output Voltage		230 V Class: 3-phase 200-240 V, 460 V Class: 3-phase 380 to 480 V (Maximum output voltage is limited by maximum input voltage.)
Output Frequency Range		0.01-500 Hz (default setting 0.01-80 Hz)
Overload Current Rating		150% for 60 seconds, 165% for 2 seconds
Dynamic Braking Circuit		1/2-250 HP: Built-in IGBT 7, 300 HP and up: External Option
Dynamic Braking Resistor		External Option
Main Functions		Easy-Mode Parameter Setup, Learning Function, Programmable I/O Terminal Block, Multi-pid Control, Hoisting Function, Brake Sequence Function, My Functions
Ambient Temperature/Relative Humidity		-10-60°C (derate above 50°C), 0-95% relative humidity, non-condensing
Protection		230 V Class 0.5 to 60 HP, 460 V Class 1-100 HP: NEMA 1(IP20), 230 V Class 75 HP and above, 460 V Class 125 HP & Above: Open Chassis Unit (IP00)
Cooling Method		Forced Air Cooling
Built-in Filter		230 V, 0.5-2 HP, 460 V 1-5 HP: Built-in EMI noise filter (EN55011 Class A, EN61800-3 category 2 compliant)
		230 V, 3-10 HP, 460 V 7.5-350 HP: Built-in EMI noise filter (EN5501 Class A, EN61800-3 category 3 compliant)
		230 V, 15-60 HP Basic Noise Filter
Built-in DC Link Reactor		230 V, 11-45 kW, 460 V 18.5-75 KW: Built-in DC Reactor
		230 V, 55-75 kW, 460 V 90-220 KW: Attached DC Reactor

AS1 Dimensions

Voltage	HP	Model Number	Amps (A)	H"	W"	D"	Weight (Approx) Lbs
230V	0.5	VFAS1-2004PL	3	9.1	5.1	5.9	6.6
	1	VFAS1-2007PL	4.8	9.1	5.1	5.9	6.6
	2	VFAS1-2015PL	8	9.1	5.1	5.9	6.6
	3	VFAS1-2022PL	11	10.2	6.1	6.3	8.8
	5	VFAS1-2037PL	17.5	10.2	6.1	6.3	8.8
	7.5	VFAS1-2055PL	27.5	11.6	8.3	7.4	12.1
	10	VFAS1-2075PL	33	15.7	9.1	7.4	15.4
	15	VFAS1-2110PL	54	16.5	9.4	8.3	19.8
	20	VFAS1-2150PL	66	16.5	9.4	8.3	19.8
	25	VFAS1-2185PL	75	21.7	12.6	9.4	66.1
	30	VFAS1-2220PL	88	21.7	12.6	9.4	66.1
	40	VFAS1-2300PL	120	26.8	12.2	14.8	81.6
	50	VFAS1-2370PL	144	26.8	12.2	14.8	81.6
	60	VFAS1-2450PL	176	26.8	12.2	14.8	81.6
460V	1	VFAS1-4007PL	2.3	9.1	5.1	5.9	6.6
	2	VFAS1-4015PL	4.1	9.1	5.1	5.9	6.6
	3	VFAS1-4022PL	5.8	9.1	5.1	5.9	6.6
	5	VFAS1-4037PL	10.5	10.2	6.1	6.3	8.8
	7.5	VFAS1-4055PL	14.3	11.6	6.9	6.3	12.1
	10	VFAS1-4075PL	17.6	11.6	6.9	6.3	12.1
	15	VFAS1-4110PL	27.7	11.6	8.3	7.4	15.4
	20	VFAS1-4150PL	33	15.7	9.1	7.4	19.8
	25	VFAS1-4185PL	41	15.7	9.1	7.4	19.8
	30	VFAS1-4220PL	48	16.5	9.4	8.3	66.1
	40	VFAS1-4300PL	66	21.7	9.4	9.4	81.6
	50	VFAS1-4370PL	79	21.7	9.4	9.4	81.6
	60	VFAS1-4450PL	94	24.8	12.6	11.4	99.2
	75	VFAS1-4550PL	116	24.8	12.6	11.4	132.3
100	VFAS1-4750PL	160	24.8	12.6	11.4	163.1	
125	VFAS1-4900PL	179	26.8	12.2	14.8		
150	VFAS1-410KPL	215	30.8	13.8	14.8		
200	VFAS1-413KPC	259	37.4	13.0	14.8		
250	VFAS1-416KPC	314	37.4	16.9	14.8		
300	VFAS1-420KPC	387	37.4	23.0	14.8		
350	VFAS1-422KPC	427	45.3	34.6	14.8		

TOSHIBA INTERNATIONAL CORPORATION



North America Headquarters & Manufacturing Facilities (Houston, TX)

TOSHIBA - Quality by Design

Our company culture and history is strongly rooted on quality. Our designs are technologically innovative and our products are manufactured from start to end using only the highest quality foreign & domestic parts.

Product Warranty

Toshiba offers a comprehensive warranty program on its full line of industrial products. Consult your salesperson or the factory for specific information.

Need to Know More?

Be sure to visit our web site located at www.tic.toshiba.com for the latest information on Toshiba products.

Customer Support Services

Toshiba offers 24 hour service nationwide. For assistance of any type, call: 1-800-231-1412



ADJUSTABLE SPEED DRIVES MOTORS CONTROLS UPS INSTRUMENTATION PLC

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