

Useful function for wide range applications

VF-S15 for machinery and facilities in various industrial sector and application



Machinery and Facilities												
Material handling (Horizontal)	Material handling (Vertical)		Fans & Pumps	Food processing machinery	Packaging machinery	Daily-life-related machinery	Medical equipment	Textile line	Chemical machinery	Printing machinery	Machine tools Processing machinery	Semiconductor facility equipment
Conveyor	Crane											
	Hoist											
✓: ideal ✓✓: applicable	• Automatic vertical storage units			• Food machines • Food slicers • Bakery equipment • Tea-making machines • Driers	• Wrapping machines • Trimming machines • Packing machines	• Raw garbage disposal • Shredder • Shutter	• Nursing beds • Water beds • Massage machines	• Weaving machines • Knitting machines • Dyeing/finishing machines • Sewing machines	• Painting machines	• Binding machines	• Cutters • Welding machines • Grinding machines • Woodworking machinery	• Semiconductor production equipment • LCD production equipment

Function & Advantage												
Easy setting Simple operation	External parameter writer	Parameter can be set without power supply.	✓			✓✓	✓✓	✓✓	✓✓	✓	✓	✓
	Easy setting mode	Show most frequently used parameters in EASY mode.	✓			✓✓	✓			✓	✓	✓
	Application easy setting	6 parameters for particular usages are available.	✓✓	✓✓		✓✓						
	Password lock	A four-digit password is required to change the parameters if necessary.	✓	✓			✓✓	✓✓	✓✓	✓	✓	✓
	Side-by-side installation	Two or more inverter units can be installed in close proximity next to each other	✓				✓✓	✓	✓✓		✓	✓✓
	Ambient temperature: 60°C	Maximum ambient temperature: 60°C				✓	✓✓	✓✓	✓	✓		
Eco Design	Long lifetime	Designed for 10 years lifetime design	✓			✓✓			✓			
	Built-in noise filter	Built-in EMC noise filter comply with European EMC Directive				✓	✓	✓	✓✓	✓✓		✓✓
	Random mode	Improves hearing impression by changing the pattern of the low carrier frequency					✓		✓✓	✓✓		
Energy savings & Powerful operation	PM motor	PM motor can drive for high efficiency, downsizing and lightening.(For variable torque)				✓✓						
	Energy saving mode	Energy can be saved in all speed areas by detecting load current and following the optimum current that fits the load				✓✓	✓	✓	✓	✓		
	High torque drive	VF-S15 supports sensorless vector control mode to generate stable, high-torque power from motor startup to a predefined, desired motor operating speed.	✓✓	✓✓			✓	✓	✓	✓	✓✓	✓
Applicability	Auto-tuning	This auto-tuning function allows you to set the motor constant easily, which needs to be set when operating in vector control or PM motor drive	✓✓	✓✓		✓✓	✓	✓	✓	✓	✓✓	✓✓
	Learning function	Setting and storing to memory required parameter while performing actual operation is also provided to facilitate adjustments	✓	✓✓								
	Override function	Preventing loads from concentrating at a specific motor because of a load imbalance when multiple inverters are used to operate one machine	✓				✓		✓	✓		✓
	ACC/DEC pattern (S-pattern) function	To minimize the shocks caused in starting and stopping and change the ACC/DEC rate according to the machine characteristics and its applications.	✓✓				✓		✓	✓		
	DC brake function	A large braking torque can be obtained by applying a direct current to the motor	✓✓	✓			✓		✓	✓		
	Dwell function	Suspends acceleration and deceleration to match the timing of brake	✓				✓	✓	✓	✓		✓✓
	Auto-restart control	Detects the rotating speed rotational direction of the motor during coasting at the event of momentary power failure, and then after power has been restored, restarts the motor smoothly	✓✓				✓✓			✓		
	PID control	To use temperature, pressure, flow and motion control					✓✓	✓		✓		
	Sleep function	Additional energy saving can be realized by stopping at lower limit setting					✓✓	✓		✓		
	Bumpless function	When switching from Remote mode to Local mode, the status of start and stop, and operating frequency at Remote mode move to Local mode.					✓✓		✓	✓		
Expandability of the system	Network communication	Built-in RS485. Can be connected to the common industrial communication	✓	✓		✓✓	✓✓	✓✓	✓✓	✓✓	✓	✓
	Panel display control (Using the communication)	Contents of your requests, such as condition, can be viewed on the inverter's panel	✓			✓	✓✓	✓✓	✓	✓✓		
	Parameter adjustment by Analog input	Parameters adjustable from external analog input	✓✓				✓		✓	✓✓	✓	
	Control power supply can supplied from another input	Control power supply is supplied from the inverter's main circuit and also supplied by another input. It can maintain the output signal and trip indication, when the inverter become trip.	✓✓	✓✓			✓✓			✓✓	✓✓	✓✓
Other	For more details of each functions, please confirm with Toshiba representative offices or Toshiba authorized distributors in your country.			Torque limit	Low voltage operation function, Shock monitoring function		Fire control enables forced operation					Traverse function Synchronized deceleration