Transistor Inverter

For further information, please contact your nearest Toshiba Representative or International Operations-Producer Goods.

The information in this brochure is subject to change without notice.

Precautions

For users of our inverters: Our inverters are designed to control the speeds of three-phase induction motors for general industry.

Variable torque Inverter TOSVERT™
VF-PS1

3-phase 200V class 0.4kW to 90kW
3-phase 400V class 0.75kW to 630kW

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1. When using our inverters for equipment such as building power control, ventilation and space height control, safety and quality are important, and there is a risk that if the failure or malfunction of the inverter results in an accident, the risks of fire or other accidents may also increase. Special precautions must be taken and such applications must be studied carefully.

2. When using our inverters for critical equipment, even though the inverters are manufactured under strict quality control, always fit your equipment with safety devices to prevent serious accident or loss should the inverter fail (such as issuing an inverter failure signal).

3. Do not use our inverters for any load other than three-phase induction motors.

4. None of Toshiba, its subsidiaries, affiliated or agents, shall be liable for any physical damages, including, without limitation, malfunction, anomaly, breakdown or any other problem that may occur to any apparatus in which the Toshiba inverter is incorporated or in any equipment that is used in combination with the Toshiba inverter. No shall Toshiba, its subsidiaries, affiliated or agents, be liable for any physical damages, including, without limitation, malfunction, anomaly, breakdown or any other problem that may occur to any apparatus in which the Toshiba inverter is incorporated or in any equipment that is used in combination with the Toshiba inverter. Nor shall Toshiba, its subsidiaries, affiliated or agents, be liable for any physical damages, including, without limitation, malfunction, anomaly, breakdown or any other problem that may occur to any apparatus in which the Toshiba inverter is incorporated or in any equipment that is used in combination with the Toshiba inverter.

4. None of Toshiba, its subsidiaries, affiliated or agents, shall be liable for any physical damages, including, without limitation, malfunction, anomaly, breakdown or any other problem that may occur to any apparatus in which the Toshiba inverter is incorporated or in any equipment that is used in combination with the Toshiba inverter. Nor shall Toshiba, its subsidiaries, affiliated or agents, be liable for any physical damages, including, without limitation, malfunction, anomaly, breakdown or any other problem that may occur to any apparatus in which the Toshiba inverter is incorporated or in any equipment that is used in combination with the Toshiba inverter.

5. Toshiba or Toshiba Authorized Distributors shall not be liable for any physical damages, including, without limitation, malfunction, anomaly, breakdown or any other problem that may occur to any apparatus in which the Toshiba inverter is incorporated or in any equipment that is used in combination with the Toshiba inverter. Nor shall Toshiba, its subsidiaries, affiliated or agents, be liable for any physical damages, including, without limitation, malfunction, anomaly, breakdown or any other problem that may occur to any apparatus in which the Toshiba inverter is incorporated or in any equipment that is used in combination with the Toshiba inverter.

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SAVE POWER AND SAVE MONEY

For the requirements of improving energy saving or reducing the high frequency noise and harmonics to the peripheral device, the "VF-PS1" which is specialized for the industrial fan and pump application is just arrived.

The optimized design by Toshiba’s excellent motor control and circuit design technology support your correspondence for energy saving and environment.

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“Power Removal” safety function

Built-in Power Removal safety function which complies with EN954-1 category 3 and IEC/EN61800-1 3L-2. It saves the installation of a line side or motor side contactor.

More energy saving

The advanced energy-saving mode optimizes fan and pump efficiency even if low speeds.
The effect can be monitored by operation panel or through serial communication data. This makes it ideals for exhaust fan, primary pump, boiler and feed water pump that require energy saving.

High-frequency noise reduction and harmonics reduction

The integrated noise filter™ and reactor™ drastically reduce high-frequency noise and harmonics which are generated from an inverter, and the power factor also improved.

This reactor limits the input current within 110% of the rated output current. It saves power and reduces running cost of power supply system. This makes it ideals for HVAC fan and pump.

Ideal functions are built-in for fan and pump application.

- Bumpless function realizes seamless operation between local and remote
- Fire control enables forced operation in emergency
- Speed reference can be managed on/off operation (sleep function)
- Multi-PID control with direct and reverse operation
- Low torque detection can notice a broken belt
- PTC Thermistor input
- The MT function allows you to program logic and internal data operations

RS485/TOShiba/Modbus protocol/communications is equipped as standard. DeviceNet™, PROFIBUS, CC-Link™, LonWorks™, BACnet™, Matisys™/N2™, and APOGEE™/FLN™ fieldbuses are supported as options.

Simple Setup by EASY Key

In the Quick mode, pressing the EASY key on the panel allows you to operate the inverter by eight basic parameters.

You can customize the Quick mode display, maximum of 32 target parameters are displayed to suit your specific setup requirements.

An alarm warns when the main circuit capacitors, circuit boards capacitors, or cooling fan needs to be replaced. This makes it ideals for exhaust fan, dust collector, drier machine and water pump.

Up to 5.5kW, 3-phase 200V class can be applied to 1-phase input power supply by using 1 size-up rating.