

General Automation

Q-5000 SERIES Hi-Performance Low-noise Mini Vector Inverter



Q-5000 SERIES



Q-5000 is a new-type mini-vector inverter but packed with high performance features for induction motors available from 0.4-7.5kw which is the ideal solution to variable speed.

Q-5000 is featured for SPWM design which provides low noise and high start torque. The inverter is independent and used in 50/60Hz ($\pm 5\%$ fluctuation is allowable). The current overload rating is 150% for 60 seconds sensorless vector control and V/F control make this inverter more brilliant for most general applications.

Q-5000 is feature-packed, low cost and compact. The high-speed current limiting function minimizes over current trips. Inrush current suppression plus grounding protection are built in for safe and trip free operation.

Q-5000 is innovative design features, the digital operator includes a 3-digit LCD status display. The multi speed step function (7 per-set speeds) and 4 acceleration/deceleration time make it ideal for food processing and its smooth speed variation can bring energy saving in fan and pump operation.

Q-5000 also has multi-function I/O terminals, 0-10V, 4-20mA inputs and analog output, plus lift compensation, over torque detection and high speed search which all make this highly specified inverter a particular versatile inverter.

RS-485 Modbus serial communication port supports net work which is convenient for variety of host line allowing 32 nodes on a single net work.

Q-5000 is proficient for conveyors, grinders, centrifuges, pumps, fans, and blowers used in material handling, packaging, food processing, and commercial laundry ect...

Q-5000 is a perfect choice for high performance and low cost. Trust it for your success.

Performance Features

- ▶ Ratings: 0.4-2.2kw 180-264V
0.4-7.5kw 342-528V
0.4-1.5kw single phase/3phase;
1.5-2.2kw 3phase
- ▶ Control mode: adjustable V/F;
sensorless vector;
- ▶ Overload capacity: nominal
150% for 60 seconds
- ▶ Starting torque: 150%/0.5Hz
- ▶ Energy saving control
- ▶ DC injection braking function
- ▶ Adjustable accel/decel:
0.1-600 seconds
- ▶ Output frequency: 0.1-400Hz
- ▶ Power loss ride thru: 2sec
- ▶ Remote speed command: 0-10v DC
or 4-20mA, direct or reverse-acting
- ▶ Auto-running slide compensation
- ▶ Sleep function
- ▶ Speed research
- ▶ Auto restart after power loss
- ▶ Built-in PID control function
- ▶ Motor auto-tuning function
- ▶ Communication: RS-485
- ▶ S-curve function
- ▶ High reliability

Protective Features

- ▶ Stall prevention
- ▶ Protection for over-voltage
- ▶ Protection for over-current
- ▶ Motor and inverter overload
- ▶ Short circuit
- ▶ Under voltage
- ▶ Fan overheat protection
- ▶ Ground fault protection

- ▶ Current limit
- ▶ Accel, decel and run self-testing for
overheat
- ▶ Limitation of overload, over torque

Environmental Features

- ▶ Ambient Temperature: -10°C.+50°C
- ▶ Humidity: Below 90%RH (non-
condensing)
- ▶ Vibration: Below 20HZ: 1G (Above
20HZ: 0.2G)
- ▶ Altitude: 1000 meters below
- ▶ Indoor (without corrosive gas,
inflammability)
- ▶ Storage temperature: -20°C.+65°C
Phase sequence insensitive

Design Features

- ▶ LCD keypad Display:
16*2 characters
- ▶ English and other languages
- ▶ Copy keyboard function
- ▶ Carrier frequency:
Selectable to 15k
- ▶ Multi-step speed settings: 7steps
available
- ▶ Cooling fan controlled by inverter
run/stop

Standards & Reliability

- ▶ CE approved
- ▶ IS9001:2000

Options

- ▶ Braking resistors (externally)
- ▶ Input/output reactors
- ▶ Input fuses
- ▶ Keyboard

Related Product



Q-7000
Inverter Special Elevator
and Escalator (1.5-110KW)



Q-8000
Inverter Special for Blower
and Water Pump (2.2-315KW)



Q-9000
Hi-Performance Vector
Inverter for General
Purpose (2.2-315KW)



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