

Small General-Purpose AC Inverter *EI-500 Series*

220V Class (1-Phase Input) 1HP~ 3 HP

220V Class (3-Phase Input) 1HP~7.5 HP

440V Class (3-Phase Input) 1HP~10 HP



FEATURE 1

Multiple Functions



- 8 multi-speed settings, 8-step acceleration/ deceleration time, 3 jump frequencies...etc.
- PID control, energy savings control, speed search, auto restarting
- Manual/Auto torque boost, DC injection braking, 150% torque at 1Hz, stall prevention
- Remote speed reference: 0~10VDC, 4~20MA • 0~20MA, analog input, multifunctional input and output terminal, analog output monitor, NPN and PNP input signal switch.
- Removable keypad (Able to read and write parameter)
- RS485 serial communication port, MODBUS message format

FEATURE 2

Broad Application

Transporting Machine

- Conveyer
- Lifting
- Elevator



• Manual/ Auto Torque Boost Function
To output larger torque at low speed has its optimal performance.

Food Processing Machine

- Grinder
- Mixer
- Stirrer



Public Equipment

- Industrial Laundry
- Car Washing Machine
- Running Machine



Stall Prevention

Printing · Textile Machine

- Printing Machine
- Textile Machine
- Dyer



Slip Compensation

Flow Machine

- Fan
- Pump
- Blower



PID Control

Air Conditioning

- Freezer
- Air Conditioner
- Air Compressor

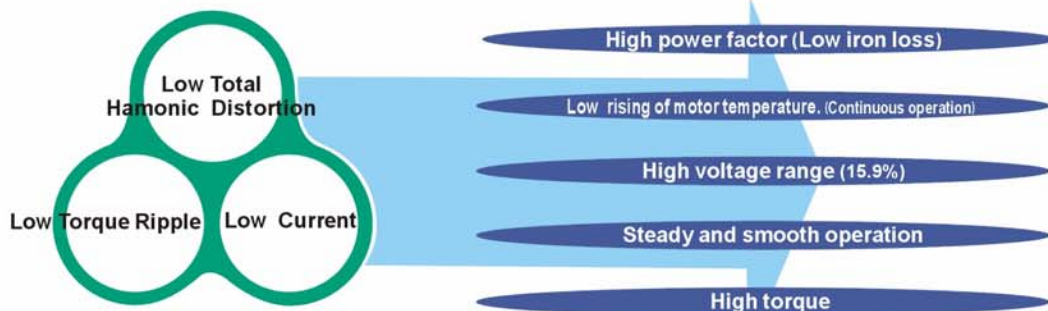


Energy Savings Control







FEATURE 3

Space Vector Technology (SVPWM)

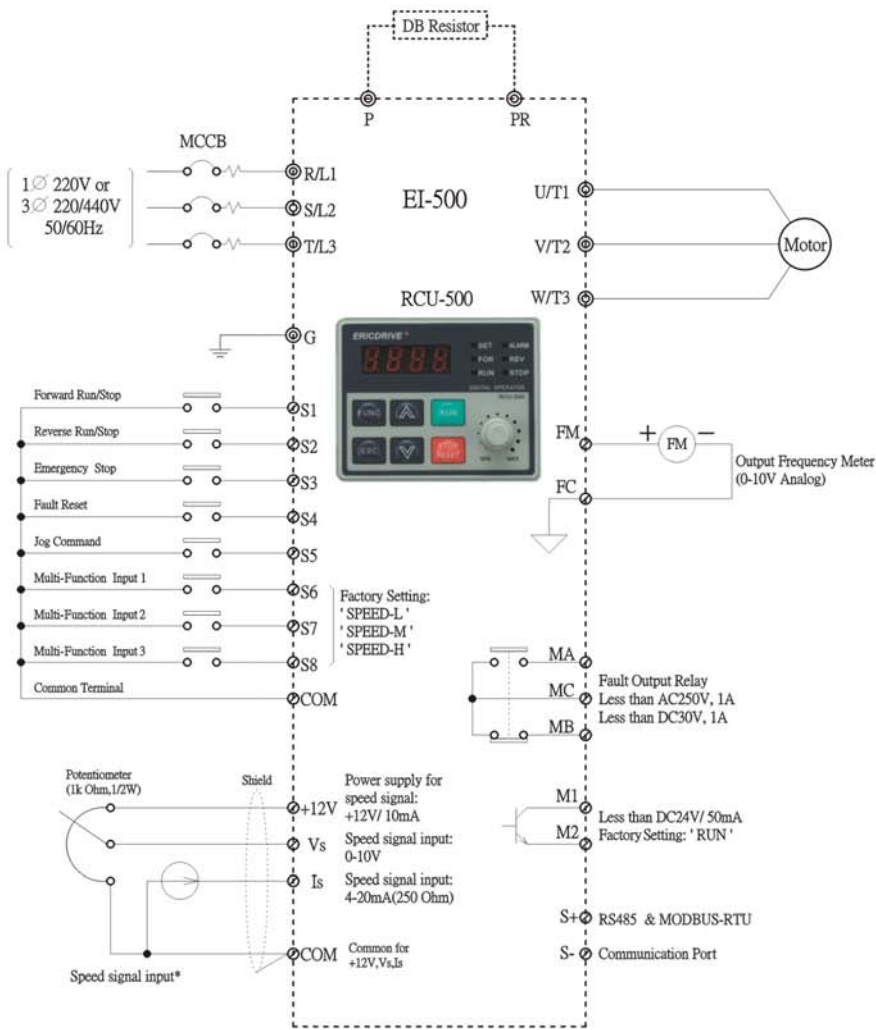


Standard Specification

Voltage Class		220V Class single-phase			220V Class 3-phase					440V Class 3-phase						
Model EI-500-		S1L	S2L	S3L	01L	02L	03L	05L	07L	01H	02H	03H	05H	07H	10H	
Max. Application Motor Output (HP)		1	2	3	1	2	3	5	7.5	1	2	3	5	7.5	10	
Max. Application Motor Output (KW)		0.75	1.5	2.2	0.75	1.5	2.2	3.7	5.5	0.75	1.5	2.2	3.7	5.5	7.5	
Output Features	Rated Output Current (A)	5	8	12	5	8	12	16	25	2.5	4	6	8	15	18	
	Max. Output Voltage (V)	3-phase 200~230V (Proportional to input voltage)			3-phase 200~230V (Proportional to input voltage)					3-phase 380~460V (Proportional to input voltage)						
	Max. Output Frequency (Hz)	400Hz (Programmable)														
Power Supply	Rated Input Voltage and Frequency	Single-phase 200~230V 50/60Hz			3-phase 200~230V 50/60Hz					3-phase 380~460V 50/60Hz						
	Allowable Voltage Fluctuation	-15 ~ +10%														
	Allowable Frequency Fluctuation	± 5%														
Control Features	Control Method	V/F Space Vector Control (SVPWM)														
	Frequency Setting Resolution	Digital reference : 0.01Hz (less than 100Hz), 0.1Hz (100Hz or more) Analog reference : 0.03Hz/50Hz														
	Frequency Accuracy (Temperature Change)	Digital reference : 0.01% of Max. Output Frequency (-10°C ~ +50°C) Analog reference : 0.1% of Max. Output Frequency (-25°C ~ ± 10°C)														
	V/F Ratio	Linear, Square Pattern, User V/F														
	Overload Capacity	150% rated output current for one minute 200% rated output current for 0.5 sec. (Characteristic is inversely proportional to time)														
Dynamic Braking	Torque Boost	Manual torque boost (0~15%) : Auto torque boost														
	Average Braking Torque	Continuous regenerative torque : Approx. 20% (150% with optional braking resistor, IGBT braking transistor built-in)														
Operation Features	Max. Continuous Braking Time	15 seconds														
	Input Signal	Operation Method	  keys of digital operator/ External terminal S1, S2/ Communication port													
		Frequency Setting	Digital reference :   keys of RCU-500/ Communication port Analog reference : 0~10V/ 4~20mA (External terminal)/Digital operator potentiometer													
		Start Signal	Forward/ Reverse													
		Multi-Step Speed	Up to 8 speeds can be set (Use Multi-Function Terminal)													
		Multi-Step Accel/ Decel Time	0 ~ 999.9 sec, Up to 4 types can be set and selected for each setting (Use Multi-Function Terminal) Accel/ Decel Pattern : Linear Pattern, U Pattern, S Pattern													
		Emergency Stop	Interrupts the output of inverter													
		S5	Jog Operation													
	Fault Reset	Reset faults when protective function S4 is active														
	Output Signal	Operating Status	Frequency level detection, overload alarm, stalling, over current, over voltage, under voltage, inverter overheating, running, stop, constant speed, speed searching													
Fault Output		Output contact (MA, MC, MB) - AC250V 1A/ DC 30V 1A														
Status Indicator		Output frequency, output current, output voltage, DC voltage indicator selection (Output pulse : 500Hz, Output Voltage : 0~10V)														
Operation Function		DC braking, frequency limit, frequency jump, second function, slip compensation, reverse rotation prevention, auto restart, PID control														
Protective Features	Inverter Trip	Over voltage, under voltage, over current, inverter overheating, motor overheating, input/ output phase loss, overload protection, communication error, loss of speed command, hardware fault														
	Inverter Alarm	Stall prevention, overload alarm														
	Momentary Power Loss	Less than 15 msec. : Continuous operation More than 15 msec. : Auto restart (programmable)														
Display	RCU-500	Operation Information	Output frequency, output current, output voltage, frequency value setting, operation speed, DC voltage													
		Fault History	Indicates fault when protection function is activated, memorizes up to 5 faults													
Environment	Ambient Temperature	-10°C ~ +50°C (Atmospheric Pressure : 70-106kPa)														
	Storage Temperature	-20°C ~ +60°C														
	Humidity	90% RH or less														
	Altitude/ Vibration	1,000M or less, 5.9m/ sec ² (=0.6g) or less														
	Application Site	No corrosive gas, combustible gas, oil mist, or dust														
Cooling Method		Forced air cooling														

FEATURE 5

Standard Wiring

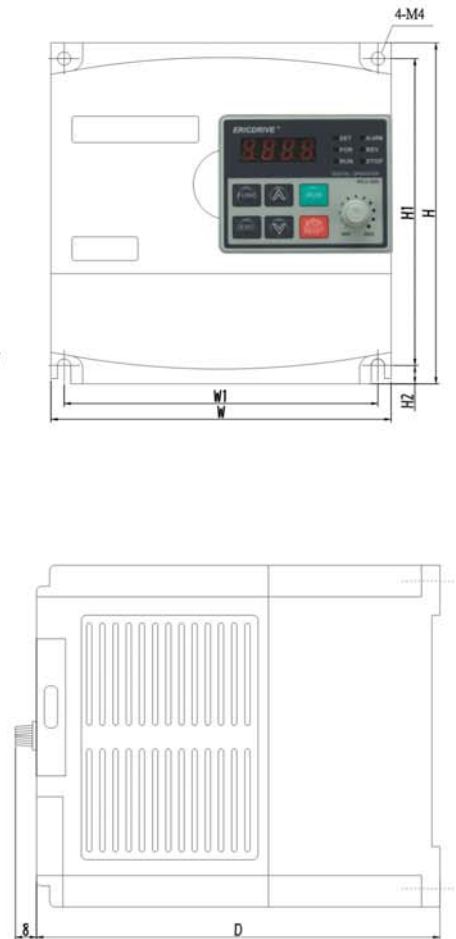


*Analog speed command can be set by voltage, current and both them

FEATURE 7

Dimension

Unit:mm



FEATURE 6

Digital Operator (RCU-500) User Instruction



Voltage Class	Capacity (HP)	W	H	D	W1	H1	H2	Mass
220V single-phase	1HP	98	130	131	88	117	7	0.9
	2HP	129	130	153	117	118	6	1.5
	3HP	150	130	155	137	117	7	1.8
220V 3-phase	1HP	98	130	131	88	117	7	0.9
	2HP	129	130	153	117	118	6	1.5
	3HP	150	130	155	137	117	7	1.8
	5HP	150	130	155	137	117	7	1.8
440V 3-phase	7.5HP	187	198	186	175	186	5	5.0
	1HP	98	130	131	88	117	7	0.9
	2HP	129	130	153	117	118	6	1.5
	3HP	150	130	155	137	117	7	1.8
	5HP	150	130	155	137	117	7	1.8
440V 3-phase	7.5HP	187	198	186	175	186	5	5.0
	10HP	187	198	186	175	186	5	5.0

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