

LITEON

光寶科技

Intelligent Integration with Innovation

LITE-ON Technology

The Best Partner for Smart Manufacturing

Industrial Automation

AC Drive

Servo Drive

HMI

فروشگاه اینترنتی انوماسیون ۲۴

Automation24.it

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About LITE-ON

LITE-ON Group

Founded in 1975, LITE-ON embraces being “Best Partner in Opto-Electronic, Eco-Friendly and Intelligent Technologies” as its vision to focus on the development of optoelectronics and key electronic components, and strives to build up competitive edge through resource integration and optimized management. LITE-ON produces products that are used in a broad range of applications, such as computers, communications, consumer electronics, automotive electronics, LED lighting, cloud computing, industrial automation as well as biotech and healthcare. LITE-ON is a worldwide leading provider of optoelectronics, information technology, storage devices, and mobile devices components.

For more than 40 years, LITE-ON has concentrated on establishing a competitive advantage in mass production. Through resource integration and management, we maximize the returns from a diverse product portfolio to realize excellent revenue growth and profits. In 2014, LITE-ON successfully completed its "One LITE-ON" program by integrating nine of its main subsidiaries under one management, while the main business strategy remains focusing on improving resource utilization, automation, production optimization, and streamlined processes for better productivity and efficiency. In the long-term, the focus is on profitability, sound governance and improving shareholder returns to lay down the foundation for a sustainable century enterprise.

In recent years, LITE-ON has been shifting its production focus from IT and communication towards IoT (Internet of Things) applications such as cloud computing, LED lighting, automotive, biotech, and industrial automation. The global technology industry is now set to welcome a new wave of changes, LITE-ON aims to leverage its existing advantage as a world-class enterprise in this age of changes and challenges to become the partner of choice for global customers developing innovations and applications for photonics, energy-saving and smart technologies.

IN 4C INDUSTRY

Computer - Magnesium aluminum alloy casing period punctuation. The largest transformer manufacturer in Taiwan and one of the major providers of power supplies used in notebook computers, desktops and LCD TVs.

Global market share of notebook adapters is over 60% period punctuation.

Consumer Electronics - World's 2nd largest mobile phone casing supplier.

Communication - Semiconductor components applied on communications, information, consumer electronics products' switching power supply & system power supply, photo couplers, LED, switching hubs and WLAN.

Car - As the first automotive electronics manufacturer to acquire global certification TS16949, LITE-ON Automotive concentrates on engine control system, rear parking assistance system, Body Control System, LED automotive lamp module and Cruise Control System in the automotive industry. LITE-ON Automotive is the only company in the world which is capable of providing the integrated design service in LED automotive lamp module. LITE-ON is also the world's top three supplier for assemblies of diode rectifiers for car generators.



World-Class Quality

50 factories in America, Europe, Asia.
Low DPPM capable manufacturing to service.
High quality requirement industry.

Global Network

30 branch offices and 250 hubs.
40 years of experience in ODM/OEM.



LITE-ON Industrial Automation

With 50 factories, 30 branches, and over 250 hubs, we are capable of serving our customers globally in a timely manner.

With 40 years of success in technology and outstanding quality for highest customer satisfaction period. LITE-ON is taking AC drives as a first step in industrial automation. We are aiming to provide servo systems, motion control and HMI to become a total solution provider in industrial automation over the next 10 years.

Factory Equipment Automation Benefits

- Improve overall factory productivity
- Effectively reduce operating costs
- Improve working environment
- Maintain consistent production quality
- Improve competitiveness

Market Positioning & Application

VFD

Premium Current Vector AC Drive EVO 8000 Series

0.75kW~110kW

1HP~150HP

Lathes
Hoists
Extruders
Extractors
Presses

Drawing Machines
Printing Machines
Wire Drawing Machines
Injecting Machine
Dyeing & Finishing Machines



VFD

Compact Vector Drive EVO 6800 Series

0.4kW~132kW

0.5HP~150HP

Presses
Ceramic Machines
Plastic Machines
Textile Machinery
Fans & Pumps

Disc Coal Feeders
Feeders
Belts Conveyors
Pulverized Coal Feeders



VFD

Ultra Compact Vector AC Drive EVO 6000 Series

0.2kW~3.7kW

0.25HP~5HP

Feeders
Winding Machines
Conveyors
Woodworking machinery
Food Processing Machines

Fans & Pumps
Labeling Machines
Knitting Machines
Packaging Machines
Industrial Sewing Machines



Market Positioning & Application

SERVO

MicroType High Performance Servo Drives ISA-7 Series

100W~2kW

Cutting Machines
Sawing Machines
Industrial Machinery
Conveyor Machines
Electric Discharge Machines



Human Machine Interface HMI EasyLynk

Industrial Automation Application
Smart Home Automation Application
Processing tools
CAD/CAM Manufacturing
Conveyor Application
Others Interface Application



Inverter

Ultra Compact Vector AC Drive / EVO 6000 Series

Economic, Reliable, Use-Friendly and small size design

Applicable for various machines and industries.

- CE 、UL Certificate



Features



Outstanding Control

- V/F control
- Unique Sensorless Voltage Vector
- Accurate speed control 1:40 (V/F), 1:100 (SVVC)
- Excellent starting torque at low speed
3Hz 150% (V/F), 1Hz 150% (SVVC)



User-friendly Design

- Ultra compact design to save room and facilitate easy replacement.
- Quick-release fan. Easy to maintain quick-release fan.
- Nonslip setting dial for convenient adjustment.
- Arrow key for speedy parameter setting.
- Supports Din Rail and side-by-side installation.
- Common DC bus to save cost for installation.



Customized machine

- Support industry-specific machine



Reliable Partner

- Guarantee best-quality key components from top European and Japanese suppliers for longer operation life span.



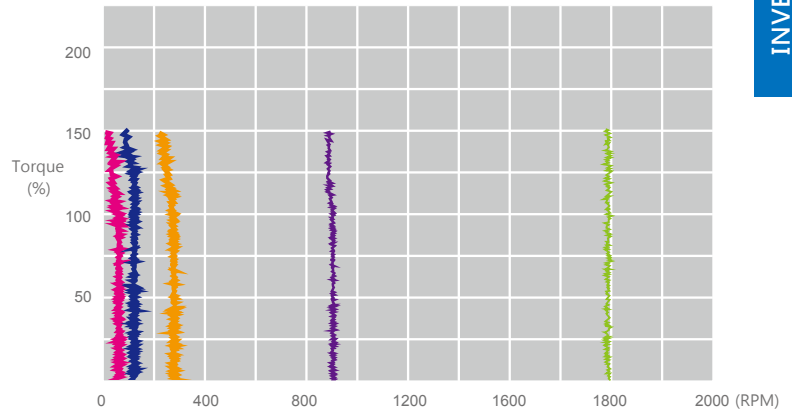
Flexible Expansion

- Remote keypad(Max. 50 meters).
- Copy unit



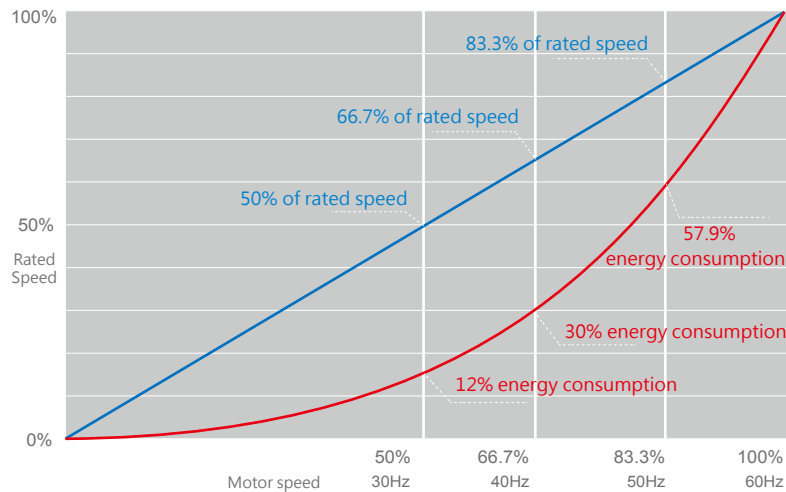
Global Certifications

- All models comply with EU RoHS standards.
- Conformity to CE / UL / CUL.



Increase Efficiency With Even Less Cost

- Derated torque significantly reduces your energy bills for applications such as fans and pumps. This saves as much as 88% of energy when running at half of the rated speed.
- Adjust your conveyor speed and start smoothly to improve productivity, lower failure rate, abrasion and life span. Reduce your energy cost by running in energy saving mode.



Application

- Winding Machines
- Food Processing Machines
- Feeders
- Woodworking machinery
- Conveyors
- Fans & Pumps
- Knitting Machines
- Packaging Machines
- Labeling Machines
- Industrial Sewing Machines



Ratings

- 200V Class

200V Class							
Model	EVO600021S	0D2	0D4	D75	1D5	2D2	--
Frame		1			2		--
Model	EVO600023S	0D2	0D4	D75	1D5	2D2	3D7
Frame		1			2		
Max. Motor Capacitor	HP	0.25	0.5	1	2	3	5
	kW	0.2	0.4	0.75	1.5	2.2	3.7
Input Voltage(V)/Frequency(Hz)		Single phase, 3 phases, 200~240 V,-15%~+10%, 50/60Hz					
Rated Output	Current (Amp)	1.6	2.5	4.2	7.5	11	17
	Frequency (Hz)	0 ~ 400 Hz					
	Carrier Frequency (kHz)	2 ~ 12 kHz					
Cooling Method		Fanless			Fan		

- 400V Class

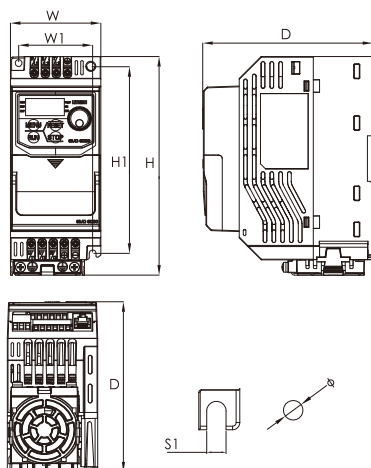
400V Class						
Model	EVO600043S	0D4	D75	1D5	2D2	3D7
Frame		1			2	
Max. Motor Capacitor	HP	0.5	1	2	3	5
	kW	0.4	0.75	1.5	2.2	3.7
Input Voltage(V)/Frequency(Hz)		3 phases, 380~480 V,-15%~+10%, 50/60Hz				
Rated Output	Current (Amp)	1.5	2.5	4.2	5.5	8.2
	Frequency (Hz)	0 ~ 400 Hz				
	Carrier Frequency (kHz)	2 ~ 12 kHz				
Cooling Method		Fanless			Fan	

Dimensions

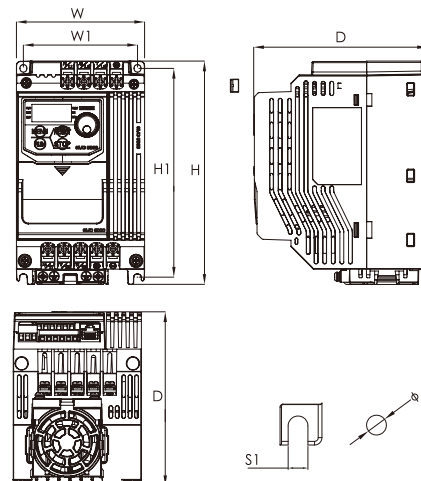
Unit : mm / inch

FRAME	W	W1	H	H1	D	S1	Ø
1	72 (2.83)	59 (2.32)	174.2 (6.86)	151.6 (5.97)	135.6 (5.34)	5.4 (0.21)	5.4 (0.21)
2	100 (3.94)	89 (3.50)	174.2 (6.86)	162.9 (6.41)	135.6 (5.34)	5.4 (0.23)	5.8 (0.23)

Frame 1



Frame 2



General Specification

Item		Specification
Control Characteristic	Control Method	V/F, Sensorless Voltage Vector Control (SVVC)
	Output Frequency	0~400 Hz
	Frequency Accuracy	Digital reference: within $\pm 0.01\%$ of the Max. output frequency
		Analog reference: within $\pm 0.1\%$ of max. output frequency
	Frequency Setting Resolution	Digital input: 0.01Hz
		Analog Output: 1/1000 of max. frequency
	Starting Torque	150% / 3Hz (V/F) 150% / 1Hz (SVVC)
	Speed Control Range	1: 40 (V/F) 1:100 (SVVC)
	Acc./Dec. Time	0.0 ~ 3600.0 sec
	Braking Torque	approx. 20%
	V/F Pattern	15 fixed and 1 programmable
Overload Capacity	150% for 1 min. every 10 min.	
Parameter Function	Overtorque / Undertorque Detection, Multi-Speed Operation, Acc. / Dec. Switch, S-Curve Acc. / Dec., 3-Wire Sequence Control, Auto-tuning · Cooling Fan ON / OFF Switch, Slip Compensation, Torque Compensation, Frequency Jump, Upper / lower Limits for Frequency Command, DC Draking at Run / Stop, PID Control including Pause Fuction, Energy Saving Mode, Fault Restart, Traverse, etc.	
Operating Environment	Area of Use	Indoor without corrosive gas/liquid or flammable gas/liquid/oil mist/dust
	Ambient Temperature	-10 °C ~ + 50 °C , below 90% RH without froze or condensation
	Storage Temperature	-20°C ~ +60°C
	Altitude	Under 1000 meters
	Vibration	Below 9.8 m/s ² (10 ~ 20Hz), below 5.9 m/s ² (20 ~ 55Hz)
	Enclosure	IP20
Number of I/O	Analog Input (AI)	1 point AI : 0 ~ 5V / 0 ~ 10V / 0 or 4 ~20mA
	Digital Input (DI)	6 points
	Analog Output (AO)	1 point FM: 0 ~10V
	Relay Output (RO)	1 point
Build-In	Modbus (RS-485 port)	
Option (under development)	Profibus-DP · CANopen · DeviceNet	

Terminal Block Description

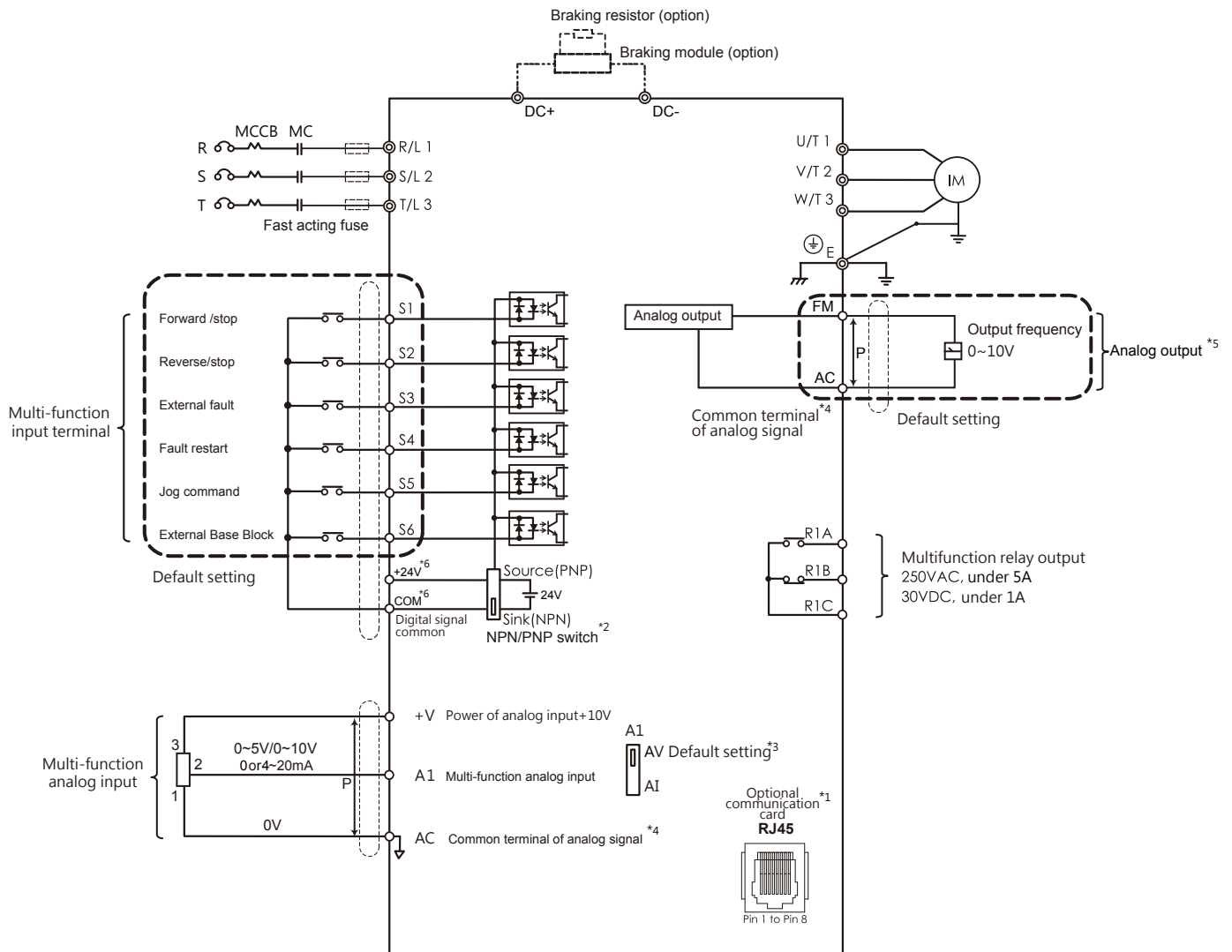
Type	Terminal Name	Code	Terminal Discription	
Main Circuit	AC power input	R/L1	Input power terminal	
		S/L2		
		T/L3		
	Braking module	DC+	Please purchase optional braking module to connect	
		DC-		
	AC drive output	U/T1	Please connect to AC motor	
		V/T2		
W/T3				
Ground terminal	E	Ground terminal for AC drive. Please ensure grounding is properly wired.		
Control Circuit	Digital input terminal 1	S1	Photo coupler: input voltage 24V/ 8mA Default setting on sink mode. Use Sink/Source DIP switch on the control board to set sink/source mode for multi-function digital inputs.	ON : Forward / OFF : Stop
	Digital input terminal 2	S2		ON : Reverse / OFF : Stop
	Digital input terminal 3	S3		External fault (normal open)
	Digital input terminal 4	S4		Fault reset
	Digital input terminal 5	S5		Jog command
	Digital input terminal 6	S6		ON: External baseblock
	Digital input common	COM	Common terminal of digital input	
	Digital input signal power	+24V	Digital control signal common +24V/50mA	
	Auxiliary power	+V	Auxiliary power terminal for analog input +10V/5mA	
	Analog input terminal 1	A1	Programmable analog input 0 ~ 5V / 0 ~ 10V / 0 or 4 ~ 20mA	Main frequency command
	Analog input	FM	Programmable analog output 0 ~ 10V	Output frequency
	Analog signal common	AC	Common terminal of analog signal	
	Relay	R1A	Normal open terminal	Relay output DC30V 1A AC250V 3A
		R1B	Normal closed terminal	
R1C		Common terminal		
Com.	RS-485 port	RJ45	To connect RS-485 communication at max. speed 38400 bps	

Notes :

*1. This catalog includes the blueprint of our products in the future. For more precise specifications, please refer to the quick start that alongside with our products.

If you have any question, please contact our authorized distributors or LITE-ON.

Wiring Diagram



- ⊙ indicates main circuit
- indicates control circuit
- ⋯ indicates isolation cable
- ⋈P indicates twisted-pair isolation cable

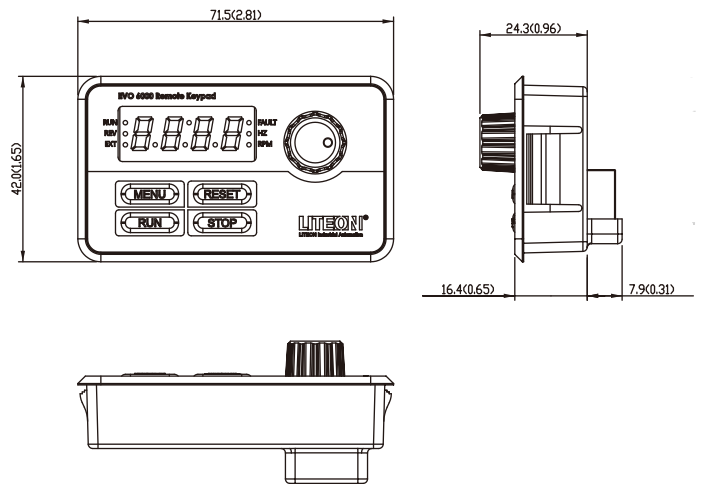
Notes :

- *1. RJ45 is port of optional communication card. Please refer to user manual when installing it.
- *2. Multi-function analog input S1~S6 can be switched between Sink(NPN) or Source(PNP) mode. Default: NPN mode.
- *3. A1 is used to set analog input as voltage input or current input.
- *4. AC is common terminal of analog signal (Analog Common).
- *5. Analog output is used to connect frequency meter, current meter, voltage meter and power meter.
- *6. This catalog includes the blueprint of our products in the future. For more precise specifications, please refer to the quick start that alongside with our products. If you have any question, please contact our authorized distributors or LITE-ON.

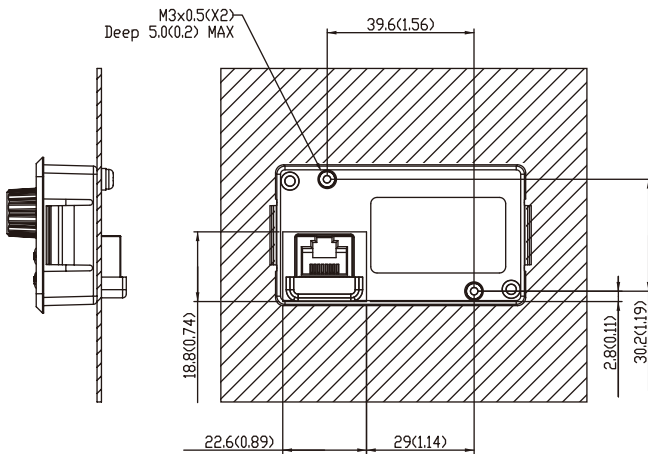
Remote keypad EVO6-KIT-RK □

- Monitors and edits parameter settings.
- Supports installation on the cabinet without any extra kit.
- Maximim 50 meter cable length.
- Same keys as the built-in LED keypad.
- Connected via RJ45.
- Supports 2 installation types.

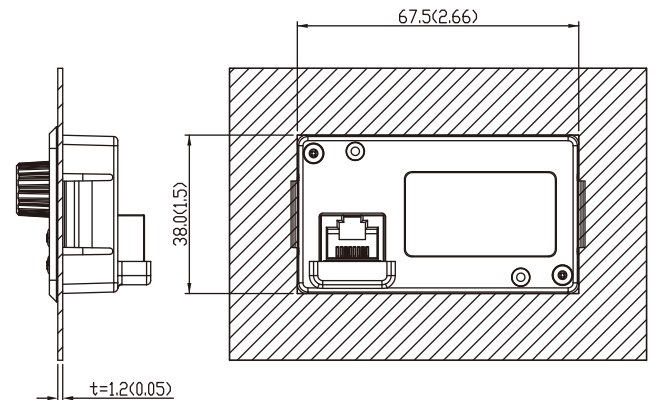
- Remote keypad size



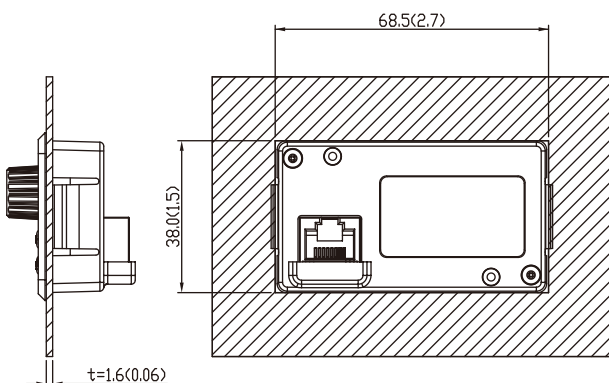
- Screw Installation



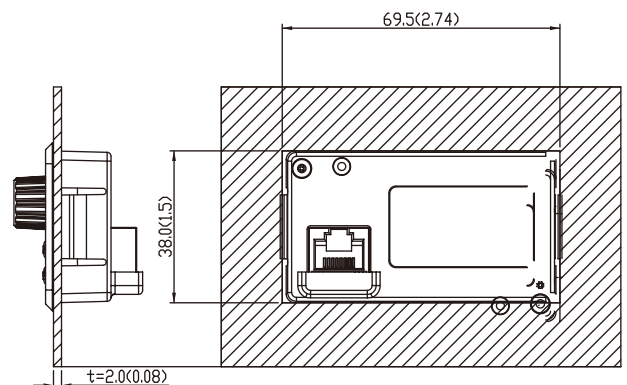
- Embedded Installation
- Board thickness=1.2mm (0.05inches)



- Embedded Installation
- Board thickness=1.6mm (0.06inches)



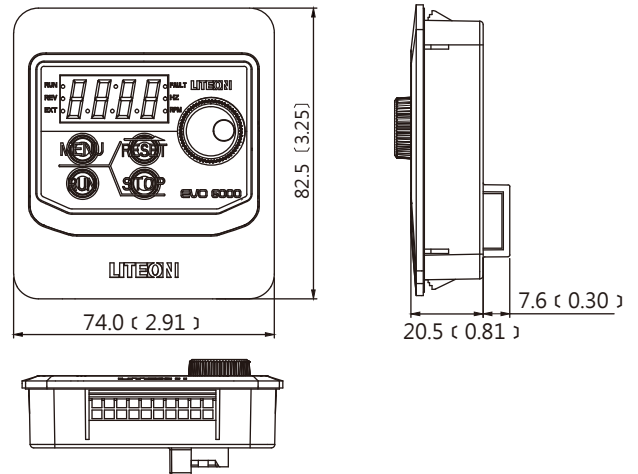
- Embedded Installation
- Board thickness=2.0mm (0.08inches)



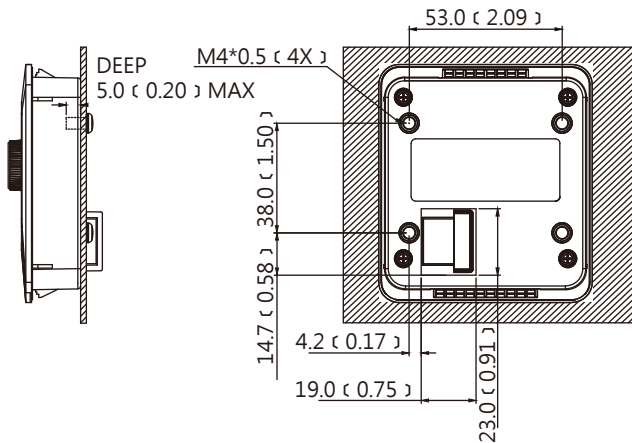
Copy unit

- The Copy Unit provides user convenience to manage a large number of EVO series AC motor drive parameters. This unit can set parameter of inverter quickly and saved up to 8 sets of parameter in this device. Please use RJ45 cable(less than 10m) for connecting to AC motor drive.
- Quickly copy all parameter settings at once.
- Saves up to 8 sets of inverter setting.
- Reads and loads parameter settings.
- Setting comparison function built-in.
- Connected via RJ45.

• Copy unite size

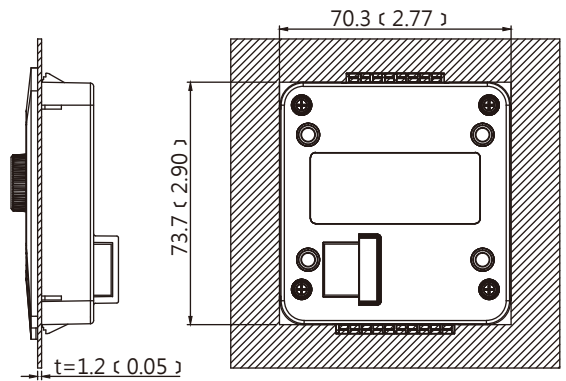


• Screw Installation



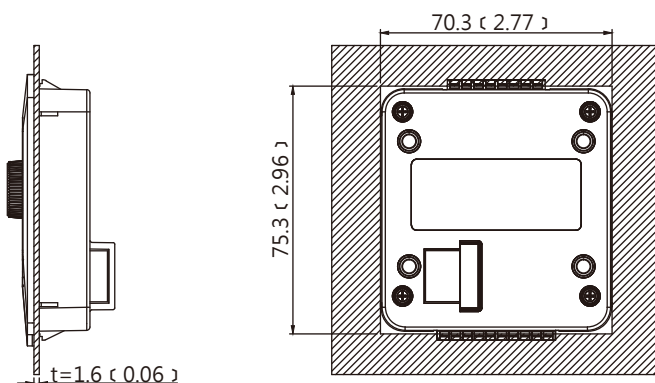
• Embedded Installation

- Board thickness=1.2mm (0.05inches)



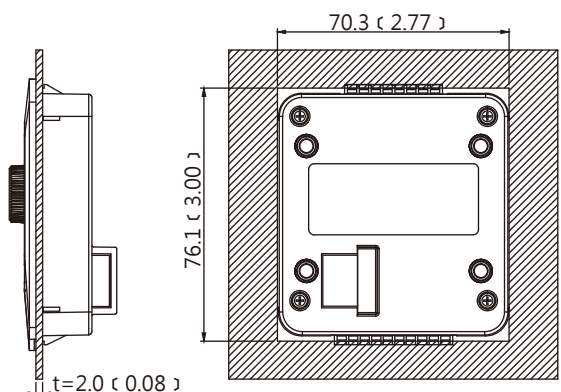
• Embedded Installation

- Board thickness=1.6mm (0.06inches)



• Embedded Installation

- Board thickness=2.0mm (0.08inches)

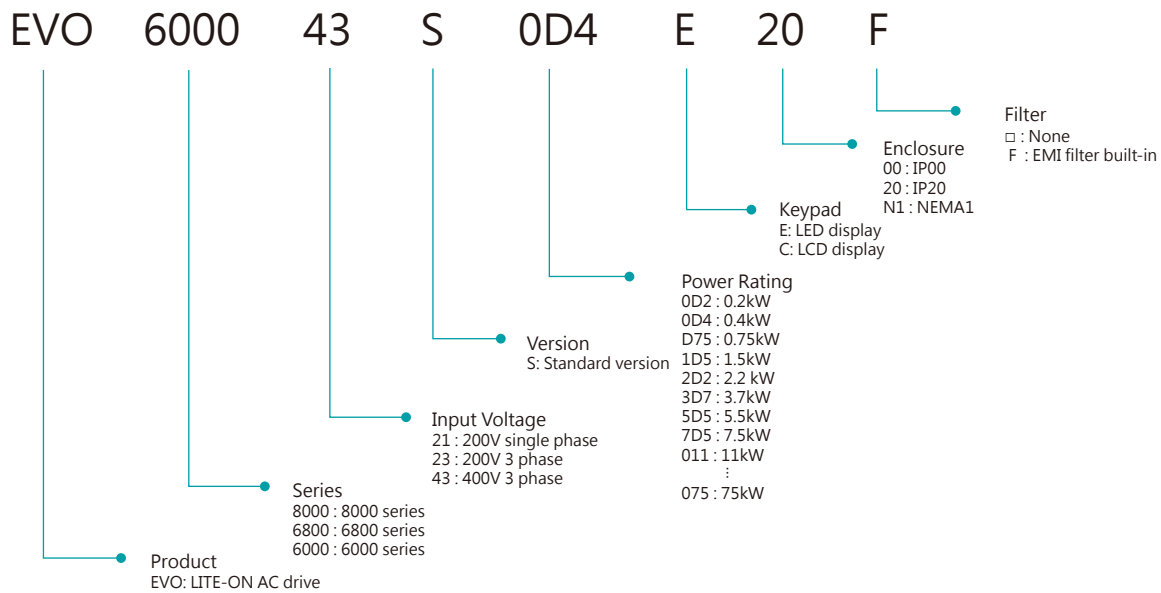


Accessories

EVO Series Common Accessories		
Name	Model Number	Description
Copy unit	EVO-KIT-CU	Allows parameter uploads / downloads and comparison
Communication converter	EVO-KIT-DON	USB converter RS485
RJ45 cable	EVO-CBL-□MRJ	Connects AC drive to PC or remote keypad use cable (□ indicates 1, 3, 5, 10, 20 meters)
USB cable	EVO-CBL-□MUSB	Connects AC drive to PC use cable (□ indicates 1, 3, 5 meters)
EVO 8000 Series		
Name	Model Number	Description
CANopen communication card*	EVO8-Comm-CO	Connects AC drive with CANopen for remote setting and monitoring
EtherCAT communication card*	EVO8-Comm-EO	Connects AC drive with EtherCAT for remote setting and monitoring
EtherNet / IP communication card*	EVO8-Comm-EI	Connects AC drive with EtherNet / IP for remote setting and monitoring
Open collector PG feedback card	EVO8-PG-O	PG card for open collector signal
Line Driver PG feedback card	EVO8-PG-L	PG card for line driver signal
Resolver Card*	EVO8-PG-RSV	Resolver signal dedicated card
NEMA 1 kit	EVO8-KIT-N1	Upgrade AC drive enclosure to NEMA 1
Remote keypad	EVO8-KIT-RK	Connects remote keypad for remote setting and monitoring
LCM remote keypad	EVO8-KIT-LCM	LCD display
EVO 6800 Series		
Name	Model Number	Description
CANopen communication card*	EVO68-Comm-CO	Connects AC drive with CANopen for remote setting and monitoring
Remote keypad	EVO68-KIT-RK□	Connects remote keypad for remote setting and monitoring (□ indicates S: frame1-2, L: frame3-7)
Plastic keypad tray	EVO68-KIT-PT□	Plastic tray for keypad cabinet installation (□ indicates S: frame1-2, L: frame3-7)
NEMA 1 kit	EVO68-KIT-N1	Upgrade AC drive enclosure to NEMA 1
EVO 6000 Series		
Name	Model Number	Description
CANopen communication card*	EVO6-Comm-CO	Connects AC drive with CANopen for remote setting and monitoring
Braking unit	EVO6-DBU-2□□□*	Connects AC drive terminal DC+, DC- to significantly improve braking. Please ensure braking resistor is properly installed. (□□□ indicates 1D5, 3D7 model)
	EVO6-DBU-4□□□	
Braking resistor	Please refer to manual when selecting resistor type	Connects braking module to dissipate regenerative power
DIN rail	EVO6-Kit-DR□	Accessory for DIN rail installation (□ indicates frame 1 or 2)
Remote keypad	EVO6-KIT-RK□*	Connects remote keypad for remote setting and monitoring (□ indicates Blank: Square, D:Horizontal, S:Vertical)

* : Under development.

Model Definition



Simple Selection Chart

Series	EVO6000	EVO6800	EVO8000
Power range	200V: 0.2-3.7 kW 400V: 0.4-3.7 kW	200V: 0.4-15 kW 400V: 0.4-110 kW	200V: 0.75-18.5 kW 400V: 0.75-110 kW
Voltage range	200V: 1-phase 200-240V / 3-phases 200-220V 400V: 3-phases 380-480V	200V: 1-phase / 3-phases 200-240V 400V: 3-phases 380-480V	3-phases 200-240V 3-phases 380-480 V
Certification	UL / cUL / CE	UL / cUL / CE	UL / cUL / CE
IP level	IP20	IP20 & IP21 with NEMA1 kit	IP20 & IP21 with NEMA1 kit
Control mode	a. V/F b. SVVC (Sensorless Voltage Vector Control)	a. V/F b. SVVC (Sensorless Voltage Vector Control) c. FOC*	a. V/F b. V/F+PG c. closed-loop/open-loop current vector control for asynchronous/synchronous motor
Communication options	CANopen* / Option card	CANopen* / EtherNet / IP* option card	CANopen / EtherNet* / IP option card*
LED Keypad	standard built-in 7-seg.*4	standard built-in 7-seg.*5	standard built-in 7-seg.*5
Other design	1. Remote keypad 2. Copy unit 3. Din rail	1. Copy unit	1. LCD unit 2. Copy unit
Applications	Fan/Pump Food process machine Feeder Plastic Machines Conveyors Textile machines etc.	FAN/Pump Machine-tools Compressors Feeder Presses Plastic Machines Conveyors Ceramic Machines Packing Machines Bagging Machines Labeling Machines Textile machines etc.	Printing Machines FAN/Pump Machine-tools Cutters Winders Packaging Machinery Plastics Machines Lifting Machines Material handling Labeling Machines Compressors Mixers Kneaders Textile machines etc.

* : Under development.