LE5107E 12 /8 2 /2 CPU

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CPU					
IO	12 24VDC /8 2 /2				100~240VAC
					85 264VAC 50/60Hz
Max.	4			Max.	300mA
	1				
	LD/ST/CFC/SFC				
	128K		Max.	+24VDC	190mA
	10496			+5VDC	550mA
	2K				10ms
	USB				
	2 5KHz			2 RS485	
	1 20KHz			RS485	
	2		bps	1200 2400 4800 9600 19200 38400 57600 115200	
	2				
				Modbus	
	12			8	
	/				
	24VDC			24VDC 24 230VAC	
	0 30VDC			5 30VDC 5 250VAC	
1	15 30VDC 4mA			2A	
0	0 5VDC 1mA			8A	
	5ms 10ms 20ms 50ms 100ms				
				1Hz	
				10,000,000	
	1			2A 100,000	
	500VAC 1min <5mA				
				2	
	2			1500VAC 1min <5mA	
	0 10V			2	
	0 20mA/4 20mA			0 10V	
	0 65535			0 20mA/4 20mA	
	1%			0 65535	
AD	10			1%	
			DA	12	
/	±30V/±32mA				
	+ <12V			300us R 750us 1uF	
	1.5ms 95%		95%	600us 1mH 2ms 10mH	
× ×	117mm×97mm×90mm			575g	
	0 60			-40 70	
	5% 95%			5% 95%	

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PWR			
			(1)
Ix.y,Qm.n			ON
			OFF (2)
RUN/STOP			PLC RUN
			PLC STOP (3)
		1Hz	PLC
		1Hz	PLC
		4Hz	PLC
ERR			PLC
			PLC
		1Hz	

ERR

➢

LE5107E 220VAC 11×2 9×2 DI AI DO AO

LE5107E 12DI / 8DO, 2AI / 2AO CPU Module

➢ **Technical Specifications**

CPU Specifications		**Power Supply Specifications**		
On-board I/O	12 DI / 8DO/ 2AI/ 2AO	Input	Rated voltage	100~240VAC
I/O expansion module (max.)	4 (total module power)		Permissible range	85-264VAC (50/60Hz)
			Current consumption (max.)	300mA
Number of expansion board	1	External output voltage	Rated voltage	Not supported
Programming language	LD/ST/CFC/SFC		Permissible range	Not supported
Program memory	128K bytes	External output current (max.)	+24VDC (supply for expansion bus)	190mA
Data memory	10496 bytes		+5VDC (supply for expansion bus)	550mA
Power-loss retentive memory	2K bytes	Hold up time (loss of power)		10ms
Memory card	Memory card with USB interface	**Communication Specifications**		
HSC	2 HSC at 5 KHz for single phase	Communication interface	2 RS485	
	1 HSC at 20 KHz for A/B phase	Interface type	PS/2	
Pulse catch (max.)	2	Baud rates (bps)	1,200, 2,400, 4,800, 9,600, 19,200, 38,400, 57,600, 115,200	
Fast external interruption	2			
Frequency measurement	Not supported	Communication protocol	Proprietary protocol, Modbus master-slave, free port protocol, multi-PLC interconnection (only for terminal interface)	
Basic instruction processing time	0.1			

Digital Input Specifications		**Digital Output Specifications**	
Number of inputs	12	Number of outputs	8
Input type	Sink/source	Output type	Relay
Rated voltage	24VDC	Rated voltage	24VDC or 24 to 230VAC
Permissible range	0~30VDC	Permissible range	5 to 30VDC or 5 to 250VAC
Logic 1 signal	15~30VDC, permissible min. current 4mA	Output current	2A (resistance load)
Logic 0 signal	0~5VDC, permissible max. current 1mA	Current per common	<8A

➢ **Definition of Indicators**

Type	Color	Status		Description
Power supply PWR	Green	ON		Power supply works in normal mode.
		OFF		Power is defective or not supplied.
Channel status indicator Ix.y Qm.n	Green	ON		The channel is ON.
		OFF		The channel is OFF.
Operation status indicator RUN/STOP	Green/ Yellow	ON green		PLC is in RUN mode and user program is running.
		ON yellow		PLC is in STOP mode and user program is not running.
		Flashing yellow(1Hz)		PLC firmware is upgrading.
		Flashing alternately	1Hz	Waiting for transferring user program from memory card.
			4Hz	Transferring user program from memory card.
Failure status indicator ERR	Red	ON		The CPU is in failed mode.
		OFF		PLC is in normal operating mode.

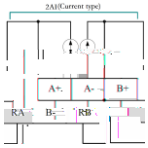
Instruction: Possibility and solutions if ERR indicator is on:
(1) System configuration of programming software is inconsistent with actual hardware configuration.
Solutions: Check system configuration in programming software.
(2) Communication with expansion module failed.
Solutions: Check whether the expansion module is connected correctly.
(3) Report faults occurring to each expansion module.

		Flashing (1Hz)	Upgrading firmware failed.

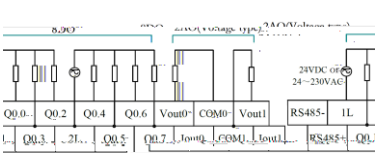
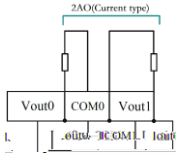
Solutions: Replace faulty expansion module.

➢ **Terminal Definition and Connection**

LE5107E is connected with an external 220VAC power and has two pluggable terminals (11x2 and 9x2), the upper terminal offers digital input channel (DI, AI), the lower terminals offers digital output channel (DO, AO), and connection is easy and convenient and is secured with screw, which is a typical field connection case.

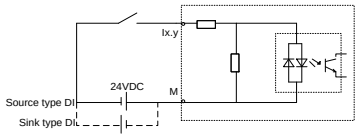
LE5107E Upper Terminal Definition and Wring Diagram

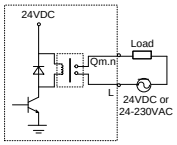
LE5107E Lower Terminal Definition and Wring Diagram

Terminal Identification	Description	Terminal Identification	Description	Terminal Identification	Description	Terminal Identification	Description
⏚	Grounding	L	Fire wire	RS485-	RS485 communication negative	RS485+	RS-485 communication positive
M	Common of input	N	Null wire	1L	Output common (Q0.0~Q0.3)	Q0.1	Ordinary output
I0.0	Fast external interruption 1/Pulse catch 1/Single-phase counter 1/ A/B phase counter phase A/Ordinary input	I0.1	Fast external interruption 2/Pulse catch 2/Single-phase counter 2/Ordinary input	Q0.0	Ordinary output	Q0.3	Ordinary output
I0.2	Single-phase counter 1 reset / A/B phase counter reset /Ordinary input	I0.3	Single-phase counter 2 reset /Ordinary input	Q0.2	Ordinary output	2L	Output common (Q0.4~Q0.7)
I0.4	A/B phase counter phase B / Single-phase counter 1 direction control /Ordinary input	I0.5	Single-phase counter 2 direction control /Ordinary input	Q0.4	Ordinary output	Q0.5	Ordinary output
I0.6	Ordinary input	I0.7	Ordinary input	Q0.6	Ordinary output	Q0.7	Ordinary output
I1.0	Ordinary input	I1.1	Ordinary input	Vout 0	Analog voltage output	Iout0	Analog current output
I1.2	Ordinary input	I1.3	Ordinary input	COM0	Analog output common	COM1	Analog output common
A+	Channel A voltage input	RA	Channel A current input	Vout1	Analog voltage output	Iout1	Analog current output
A-	Analog input common	B-	Analog input common	--	--	--	--
B+	Channel B voltage input	RB	Channel B current input	--	--	--	--

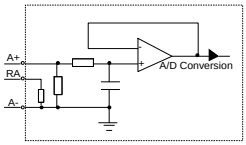
➢ **Electrical Schematic Diagram**



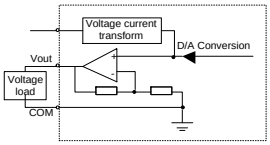
Output Channel (DO)



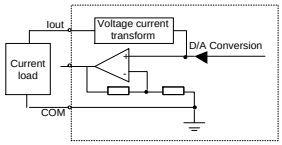
Input Channel (DI)



Input Channel (AI)



Output Channel (AO)



Output Channel (AO)

➢ **Communication Interface**

RS485 communication interface can establish connection to personal computer (PC) through programming cable, realize download of user program and on-line debugging and be applied to communication with field devices. Junction and communication between LE5107E CPU module and upper computer are achieved through PS/2 of LE5107E (at in the figure), junction and communication between LE5107E CPU module and extension module are achieved through connector (at in the figure).

Definition of PS/2

Pin No.	Definition	Pin No.	Definition	Pin No.	Definition	Pin No.	Definition
1	__	3	__	5	RS485+	7	System GND
2	__	4	__	6	RS485 -	8	System GND

➢ **Software Configuration**

he software and hardware are constrained each other.

RUN/STOP selective switch position	Status of programming software	Module status
Run (switch to upper position)	RUN	RUN; automatically changed into STOP if users download program in this status.
	STOP	STOP
Stop (switch to lower position)	RUN/STOP	STOP(user's program stops, unable to run)

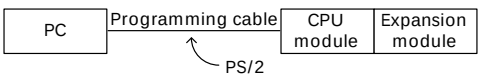
➢ **Communication Connection**

■ Before downloading, please confirm that PLC is connected as the schematic diagram; please use HollySys PLC programming cable to download the program.

■ Before downloading, please confirm that AutoThink V3.1.0 or above version has been installed;

■

instructions for downloading.



Caution:

(1) Cover of the terminal should be fastened properly prior to power on of the PLC system to avoid unnecessary personal injury or device damage.
(2) When connecting or removing PLC power supply, severe personal injury or device damage may be caused if power supply is not removed. Therefore, before module installation or removal, all power supply must be turned off and please pay attention to this at any time.
(3) Before connecting power to PLC, please confirm programming cable is connected properly and please do not remove from or insert into communication port during power on to avoid device damage.
(4) If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
(5) Warning symbol for high voltage, please do not touch equipment with the warning symbol, operation in electricity is strictly prohibited.