

 EXCEL CELL ELECTRONIC CO., <small>An ISO 9001 Company</small>	NO.	A30969	PAGE
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		Edition	1

ESR 50/51 SOLID STATE RELAY

1. FEATURE:

- 1-1. Optically Isolated.
- 1-2. Input LED Indicator.
- 1-3. High dv/dt and High Blocking Voltage.
- 1-4. Low Input Power Consumption.
- 1-5. TTL and CMOS Compatible.
- 1-6. Zero Voltage Turn-on, Zero Current Turn-off (minizes EMI/RFI).
- 1-7. High Surge Rating Allows Lamp and Motor Load Switching.
- 1-8. Output Snubber Circuit Included.

2. SPECIFICATIONS:

2-1 ELECTRICAL

DESCRIPTION	TYPES	ESR500				ESR510			
		DATAS	1204000	2404000	1204001	2404001	1204000	2404000	1404001

2-1-1 INPUT CIRCUIT.

	YES	NO
LED Indicate	YES	NO
Control Voltage Range	4—32 VDC	3—32 VDC
Control Current	16 mA Max.	16 mA Max.
Min. Turn-off Voltage	1.5 VDC	1 VDC
Input Impedance	2.0 K Ω min	2.0 k Ω min

2-2 OUTPUT CIRCUIT.

	40 A				40 A			
	120	240	120	240	120	240	120	240
Max. Load Current								
Nominal load Voltage (VAC)	120	240	120	240	120	240	120	240
Load Voltage Range (VAC)	24 -140	24 -280	24 -140	24 -280	24 -140	24 -280	24 -140	24 -280
Non-Repetitive Max. Voltage (VAC)	400	600	400	600	400	600	400	600
Non-Repetitive Max. Peak Current	315 A							
Max. Off-state Leakage Current	7 mA							
Max. On-state Voltage Drop	1.8 V.							
Min. Load Current	100 mA							
Max. Off-state Slew Rated (dv/dt)	250V/ μ s							
Operating Frequency Range	47 Hz ~ 63 Hz							

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2-3 GENERAL CHARACTERISTICS

Zero-on or Random-on	Z	R	Z	R
Max. Turn -on Time (60 Hz)	8.3 ms	100 μ s	8.3 ms	100 μ s
Max. Turn-off Time (60 Hz)	8.3 ms			
Insulation Resistance	DC 500V $10^9 \Omega$ min (Between Input & Output, Input/Output & Case)			
Dielectric Strength	3.5KVAC(Between Input & Output)			
Capacitance	15 pF Max. (Between Input&Output)			
Operating Temperature	-20°C ~ +75°C			
Storage Temperature	-40°C ~ +100°C			
Heatsink	0.8 °C/W (Max. Load Current)			

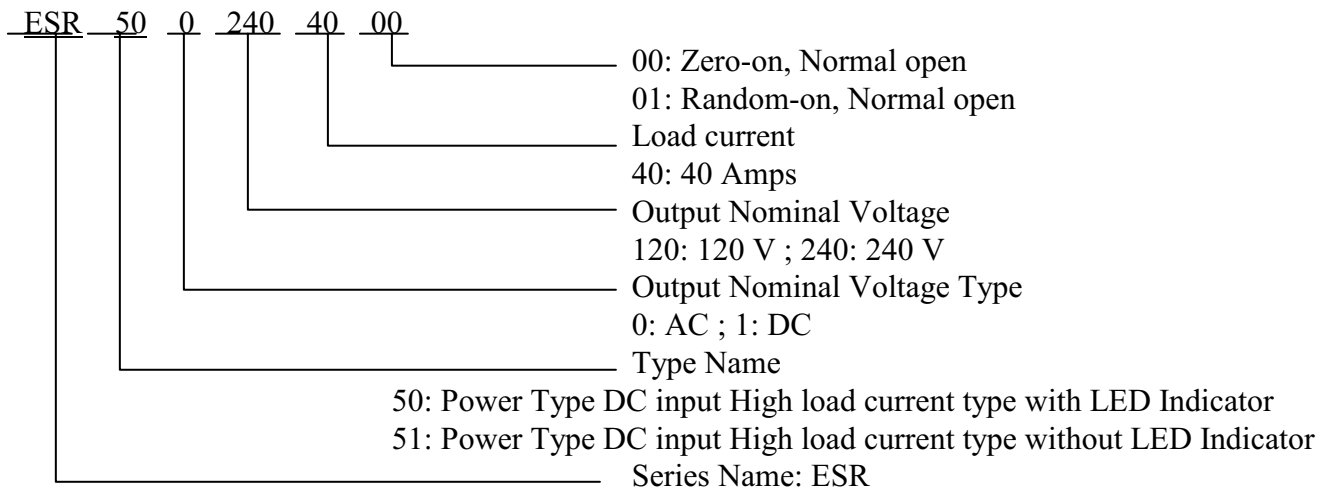
3. MATERIALS


- 3-1 Screw : Tin-Plated Steel.
- 3-2 Case : Polyamide 66 Resin.
- 3-3 Terminals : Tin Plated Copper.
- 3-4 Base Plate : Aluminum.
- 3-5 Potting : High Thermal Conductive Epoxy.

4. APPLICATION

AC Solid State Relays are designed to switch AC loads. They have excellent characteristics of faster switching response, low input power consumption and high reliability, etc. As we know, SSRs have been widely used in OA, FA and many other industrial control fields. A great effect can be achieved in applications of Lamps ON/OFF control, Motor control, switching of Solenoid valves and Relays, etc. An ECE solid state relay can help to improve your products reliability.

5. PART NUMBER SYSTEM



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6. PACKING

6-1 PACKING METHOD

15 relays on one plastic tray . 3 plastic trays per box

6-2 INFORMATION ON LABEL (On each tray)

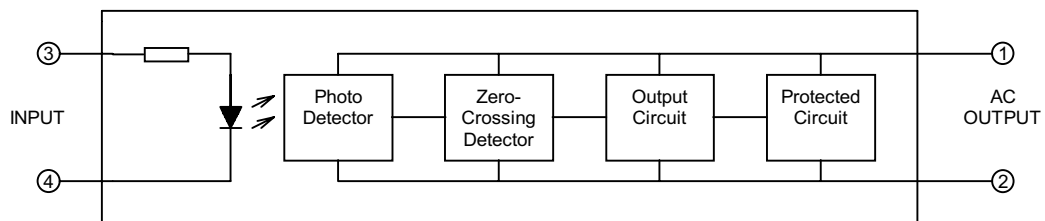
- | | |
|-----------------------|----------------------------|
| (1) DESCRIPTIONS. | (6) ECE TRADE MARK. |
| (2) LOT NUMBER. | (7) QUALITY CONTROL STAMP. |
| (3) REPROCESS NUMBER. | (8) PRODUCTION DATE. |
| (4) QUANTITY. | (9) MANUFACTURER ' S NAME. |
| (5) TESTER NUMBER. | |

7. DRAWING

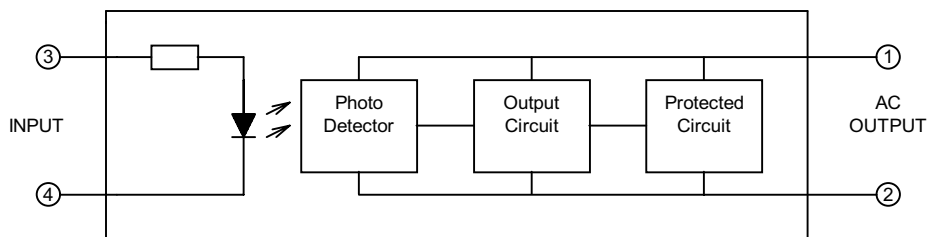
Dimensions: see attached drawing.

8.EQUIVALENT CIRCUIT DIAGRAM

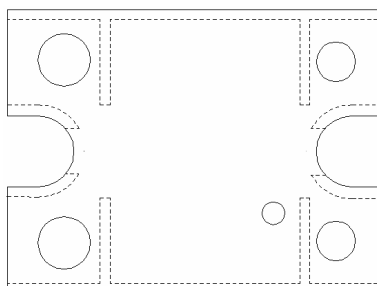
DC INPUT CONTROL VOLTAGE, ZERO-CROSSING TYPE



DC INPUT CONTROL VOLTAGE, RANDOM-ON TYPE



9.Protective Covers(436-41100)



SPECIFICATION

