

Solid State Relay

SH Series Single Phase AC Output



- Zero-crossing or Random-on Switching
- Rated Load Current: 25A @ 24-660VAC
- DC Input
- SCR Output
- Built-in RC Snubber Circuit and TVS Optional
- RoHS Compliant

Product Description

ASR-SH series industrial single phase relay with SCR output is widely used in industry applications, PCB mounted. The relay can be used for resistive, inductive or capacitive load. The control voltage is 4-32VDC, the load voltage is 240VAC, 480VAC, or 600VAC, output current is rated at 25A.

Product Selection

| | | | | | | | |
|------------|--|-----------|--|--|--|--|-------------------------------|
| ASR | — | SH | 240 | D | 25 | R | W |
| | Packing: - : Bulk Packing A-Z | SH Series | Load Voltage 240:240VAC 380:380VAC 480:480VAC 600:600VAC | Control Voltage Type D:DC Control A: AC Control | Load Current 10:10Amps 25:25Amps | Switching Mode Z:Zero Crossing R:Random-on | Control Voltage 4-32VDC |

NOTE: Alternate control voltages: 18-36VAC, 4-15VDC, 15-32VDC are available as well as options for RC circuit and TVS. Consult with engineering to determine which combinations are available.

| INPUT CIRCUIT | | |
|-----------------------|---------------|------------|
| Control Voltage Range | W | 4-32VDC |
| Must Turn-on Voltage | | 4VDC |
| Must Turn-off Voltage | 5/12/24 | 1.0VDC |
| Maximum Input Current | Random-on | 25mA@32VDC |
| | Zero Crossing | 18mA@32VDC |

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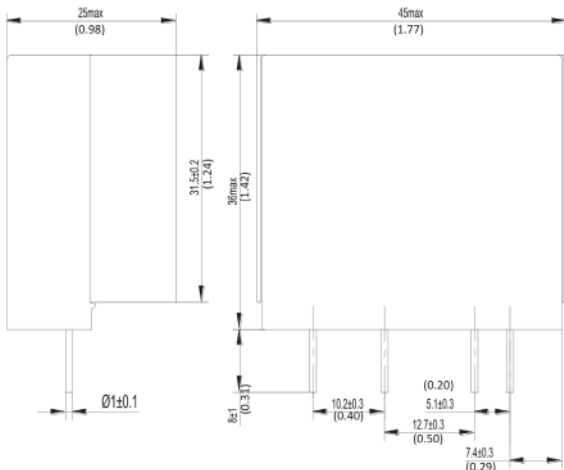
| OUTPUT CIRCUIT | | |
|---|-------------------|---------------|
| Load Voltage Range | 240VAC | 24~280VAC |
| | 380VAC | 24~440VAC |
| | 480VAC | 24~530VAC |
| | 600VAC | 24~660VAC |
| Maximum Turn-on Time | Random-On | 1ms |
| | Zero Crossing | 10ms |
| Maximum Turn-off Time | | 10ms |
| Maximum Surge Current [@10 ms] | | 250A |
| Transient Overvoltage | 240VAC | 600Vpk |
| | 380VAC | 800Vpk |
| | 480VAC/600VAC | 1200Vpk |
| Maximum Off-state Leakage Current [@ Rated Voltage] | With RC | 5mA |
| Maximum On-state Voltage Drop [@ Rated Current] | | 1.5Vrms |
| Minimum Off-state dv/dt [@ Maximum Rated Voltage] | | 500V/ μ s |
| GENERAL INFORMATION | | |
| Dielectric Strength, [50/60Hz] | Input/Output | 4000Vrms |
| | Input,Output/Base | 2500Vrms |
| Power Factor | | >0.5 |
| Ambient Operating Temperature Range | | -30°C +100°C |
| Ambient Stotage Temperature Range | | -30°C +100°C |
| Weight [Typical] | | 50g |

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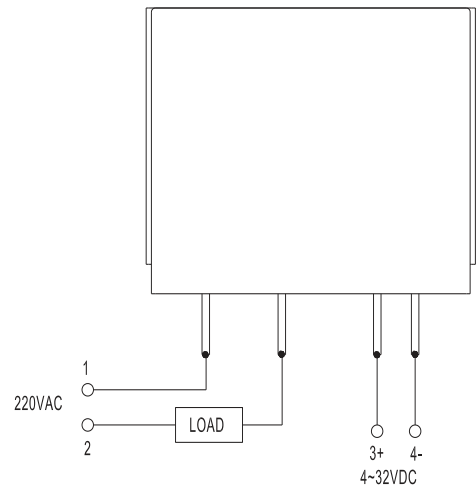
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Application Note:

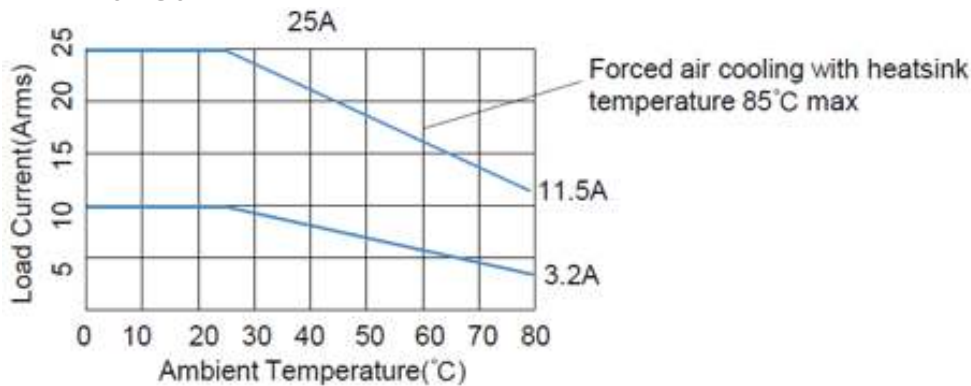
Lighting control, Medical equipment, Elevator, Electric control door.



Wiring Diagram



Thermal Curve



Important Notice

1. Soldering must be finished within 10 seconds at 260°C, or finished within 5 seconds at 350°C. Otherwise it may cause damage to the relay.
2. Terminal polarity must be observed. Otherwise it may cause damage to the relay.
3. When ambient temperature is above 25°C, the maximum load current decreases. See thermal derating curve.

Product Certification



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