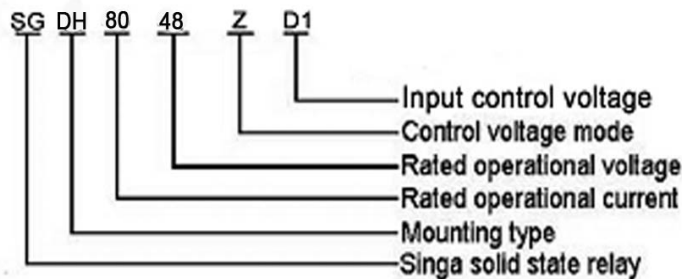


Series SGDH are power line relays allowing 10 to 120 Amps. switching power, with Voltage ratings from 280 to 480 Volts A.C.SGDH series is Dual SCR Power Hybrid technology provides highly efficient thermal management for greatly increased cyclic life.

- ▲ High performance/low cost circuit design.
- ▲ Logic compatible current regulated input.
- ▲ 2500 Vrms optical isolation.
- ▲ Both "Zero Voltage" & phase controllable "Random Switching" versions.
- ▲ High voltage (1200 Vpk) versions for 480 Vrms service.
- ▲ LED-indication for control input.
- ▲ Control voltage range: 4~16 Vdc ,3 to 32 Vdc or 90~280Vac.
- ▲ Control voltage range: 4~16 Vdc ,3 to 32 Vdc or 90~280Vac.trol input.

ORDERING KEY



TYPE SELECTION

- | | |
|---------------------------|--|
| Mounting type | D: AC Single phase Solid State Relay |
| Rated operational current | 10: 10Amp, 15: 15Amp, 25: 25Amp, 40: 40Amp, 60: 60Amp, |
| Rated operational voltage | 80: 80Amp, 100: 100Amp, 120: 120Amp |
| Switched mode | 28: 280V_{AC}, 48: 480V_{AC}. |
| Input Control voltage | Z: Zero Voltage,R: Random Switching. |
| Case typ | D1: DC 4to16V, D3: DC 3to32V, A2: 90to250V.
Blank: Case A, 1: Case B, with LED. |

MODEL NUMBER

Voltage	Control voltage	Rated operational current			
		10 Amp	15 Amp	25 Amp	40 Amp
280 V _{AC} "Zero Voltage"	4to16 Vdc	SGDH1028ZD1	SGDH1528ZD1	SGDH2528ZD1	SGDH4028ZD1
	3to32 Vdc	SGDH1028ZD3	SGDH1528ZD3	SGDH2528ZD3	SGDH4028ZD3
	90to250Vac	SGDH1028ZA2	SGDH1528ZA2	SGDH2528ZA2	SGDH4028ZA2
480 V _{AC} "Zero Voltage"	4to16 Vdc	SGDH1048ZD1	SGDH1548ZD1	SGDH2548ZD1	SGDH4048ZD1
	3to32 Vdc	SGDH1048ZD3	SGDH1548ZD3	SGDH2548ZD3	SGDH4048ZD3
	90to250Vac	SGDH1048ZA2	SGDH1548ZA2	SGDH2548ZA2	SGDH4048ZA2

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Voltage	Control voltage	Rated operational current			
		60 Amp	80 Amp	100 Amp	120 Amp
280 V _{AC}	4to16 Vdc	SGDH6028RD1	SGDH8028RD1	SGDH10028RD1	SGDH12028RD1
“Random Switching”	3to32 Vdc	SGDH6028RD3	SGDH8028RD3	SDDH10028RD3	SDDH12028RD3
	90to250Vac	SGDH6028RA2	SGDH8028RA2	SGDH10028RA2	SGDH12028RA2
480 V _{AC}	4to16 Vdc	SGDH6048RD1	SGDH8048RD1	SGDH10048RD1	SGDH12048RD1
“Random Switching”	3to32 Vdc	SGDH6048RD3	SGDH8048RD3	SDDH10048RD3	SDDH12048RD3
	90to250Vac	SGDH6048RA2	SGDH8048RA2	SGDH10048RA2	SGDH12048RA2

SPECIFICATIONS

Electrical Specification

Input Parameter ①	D1	D3	A2
Control Voltage Range	4 to 16Vdc	3 to 32Vdc	90 to 250Vac
Input Current (Max.)	7/20 mAdc @=5V/12V	13/16 mAdc @=5V/24V	29 mAac @=220V
Must Turn On Voltage	4Vdc	3Vdc	90Vac
Must Turn Off Voltage	1Vdc	1Vdc	10Vdc
Reverse Voltage (Max.)	32Vdc	32Vdc	/
Display LED	Yes	Yes	Yes

Output Parameter	Units	Specification Limits			
Model No. SGDH		10A	15A	25A	40A
Load Current Range	Arms	0.05 to 10	0.05 to 15	0.05 to 25	0.05 to 40
Surge Current, 20 mSec (Max.)	Arms	200		300	400
Load Voltage Range (280V)	Vrms		24 to 280		
TRIAC Over voltage (280V)	Vpk				
Load Voltage Range (480V)	Vrms		44 to 480		
TRIAC Over voltage (480V)	Vpk		≥1200		
Frequency Range	Hz		47 to 63		
Min. Off-state dv/dt	V/μsec		200		
Off State Leakage Current (Max.)	mArms		≤8		
On-State Voltage Drop (Max.)	Vrms		1.6		
Thermal Resistance, (Rthjc)	°C/W	2.5	2.5	2.5	1.3
Turn On Time (Max.) “Z”	Cycle		1/2		
Turn On Time (Max.) “R”	mSec		1		
Turn Off Time (Max.)	Cycle		1/2		

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Series **SGDH**

10 to 120 Amps AC SSR

Model No. SGDH		60A	80A	100A	120A
Load Current Range	Arms	0.05 to 60	0.05 to 80	0.05 to 100	0.05 to 120
Surge Current, 20 mSec (Max.)	Arms	200		300	400
Thermal Resistance, (Rthjc)	°C/W	0.65	0.5	0.3	0.3
Load Voltage Range (280V)	Vrms		24 to 280		
TRIAC Over voltage (280V)	Vpk				
Load Voltage Range (480V)	Vrms		44 to 480		
TRIAC Over voltage (480V)	Vpk		≥1200		
Frequency Range	Hz		47 to 63		
Min. Off-state dv/dt	V/μsec		200		
Off State Leakage Current (Max.)	mArms		≤8		
On-State Voltage Drop (Max.)	Vrms		1.6		
Turn On Time (Max.) "Z"	Cycle		1/2		
Turn On Time (Max.) "R"	mSec		1		
Turn Off Time (Max.)	Cycle		1/2		

General Specifications

Dielectric (Input/Output)	Vrms	2500	2500	2500	2500
Dielectric (Input-Output/Base)	Vrms	2500	2500	2500	2500
Capacitance(Max.)	pf	10	10	10	10
Ambient Operating Temperature Range			-30 to +80 °C		
Ambient Storage Temperature Range			-30 to +80 °C		

Weight: (typical) **Case A:** Aluminum Base plate 99g, Copper Base plate 145g.
Case B: Aluminum Base plate 81g, Copper Base plate 120g.

Base plate: Aluminum or Copper, nickel-plated

Case Color: Black

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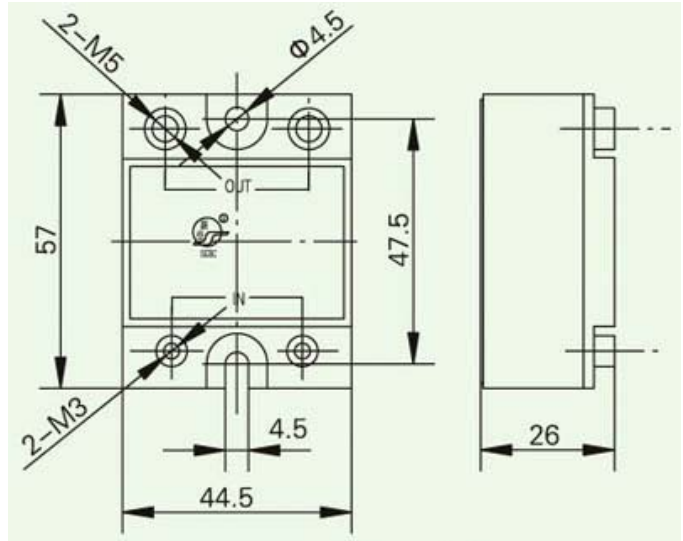
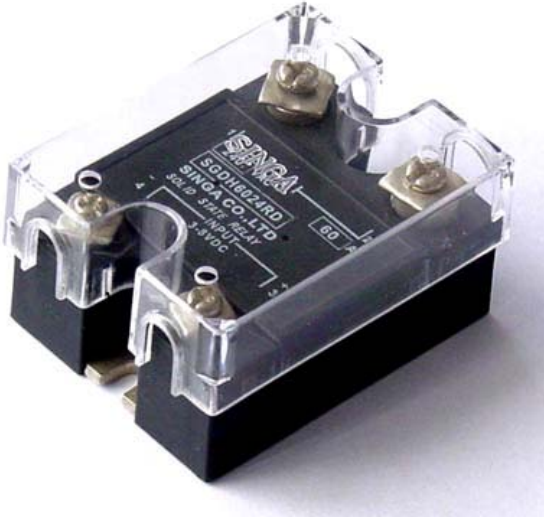
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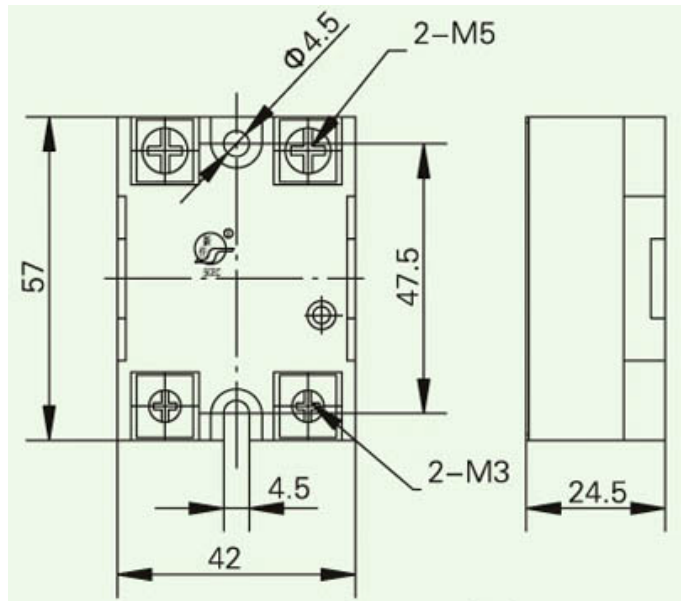
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Case A Defense Covering (Optional)



Case B Defense Covering (Optional)



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