



**Ordering Key**

G D H 200 48 Z D1  
1 2 3 4 5 6 7

- 1: Greengo brand;
- 2: Switch type: S - small size (1-5A), D - single phase, T - three phase;
- 3: Output method, blank - triac output, H - SCR output;
- 4: Rated working current (A);
- 5: Rated working voltage (V) (24:240 V,44:440V,48:480V);
- 6: Control method Z - Zero, R - Random;
- 7: Control voltage D: 3-8V, D1 - 4-16VDC, D3 - 3-32VDC, A2 - 90-250VAC.

**GDH 10 to 120 Amps AC SSR**

Series GDH are power line relays allowing 10 to 120 Amps. switching power, with Voltage ratings from 280 to 480 Volts A.C. GDH 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.

**Type Selection**

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

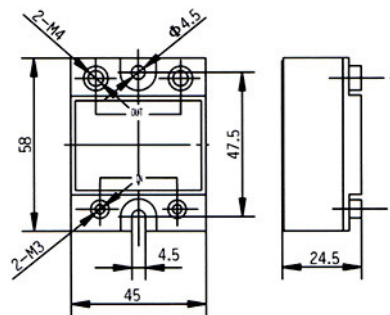
**Selection guide**

Voltage	Control voltage	Rated operational current			
		10 Amp	15 Amp	25 Amp	10 Amp
280 V <sub>AC</sub> "Zero Voltage"	4 to16 Vdc	GDH1028ZD1	GDH1528ZD1	GDH2528ZD1	GDH4028ZD1
	3 to32 Vdc	GDH1028ZD3	GDH1528ZD3	GDH2528ZD3	GDH4028ZD3
	90 to250Vac	GDH1028ZA2	GDH1528ZA2	GDH2528ZA2	GDH4028ZA2
480 V <sub>AC</sub> "Zero Voltage"	4 to16 Vdc	GDH1048ZD1	GDH1548ZD1	GDH2548ZD1	GDH4048ZD1
	3 to32 Vdc	GDH1048ZD3	GDH1548ZD3	GDH2548ZD3	GDH4048ZD3
	90 to250Vac	GDH1048ZA2	GDH1548ZA2	GDH2548ZA2	GDH4048ZA2

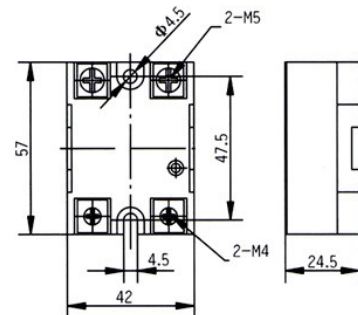
Voltage	Control voltage	Rated operational current			
		60 Amp	80 Amp	100 Amp	120 Amp
280 V <sub>AC</sub> "Random Switching"	4 to 16 Vdc	GDH6028RD1	GDH8028RD1	GDH10028RD1	GDH12028RD1
	3 to 32 Vdc	GDH6028RD3	GDH8028RD3	GDH10028RD3	GDH12028RD3
	90 to 250Vac	GDH6028RA2	GDH8028RA2	GDH10028RA2	GDH12028RA2
480 V <sub>AC</sub> "Random Switching"	4 to 16 Vdc	GDH6048RD1	GDH8048RD1	GDH10048RD1	GDH12048RD1
	3 to 32 Vdc	GDH6048RD3	GDH8048RD3	GDH10048RD3	GDH12048RD3
	90 to 250Vac	GDH6048RA2	GDH8048RA2	GDH10048RA2	GDH12048RA2

**Dimension**

GDH 10 to 120 Case A



GDH 10 to 120 Case B



**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. <b>GDH</b>		10A	25A	40A	60A
Load Current Range	Arms	0.05 to 10	0.05 to 25	0.05 to 40	0.05 to 60
Surge Current, 20 mSec (Max.)	Arms	200	300	400	600
Load Voltage Range (280V)	Vrms	24 to 280			
SCR interdiction voltage (280V)	Vpk	≥800			
Load Voltage Range (480V)	Vrms	44 to 480			
SCR interdiction 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	1.3	0.65
Turn On Time (Max.) "Z"	Cycle	1/2			
Turn On Time (Max.) "R"	mSec	1			
Turn Off Time (Max.)	Cycle	1/2			

Model No. <b>GDH</b>		80A	100A	120A
Load Current Range	Arms	0.05 to 80	0.05 to 100	0.05 to 120
Surge Current, 20 mSec (Max.)	Arms	1000	1200	1500
Thermal Resistance (Rthjc)	°C/W	0.5	0.3	0.3
Load Voltage Range (280V)	Vrms	24 to 280		
SCR interdiction voltage (280V)	Vpk	≥800		
Load Voltage Range (480V)	Vrms	44 to 480		
SCR interdiction 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
Dielectric (Input-Output/Base)	Vrms	2500
Capacitance(Max.)	pf	10
Ambient Operating Temperature Range		-30°C to +80°C
Ambient Storage Temperature Range		-30°C 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	