

GDH 40 to 120Amps AC SSR



Single phase Solid State Relay (SCR output)

Series GDH are power line relays allowing 40 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.

Features

- 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 90~250Vac

Symbol

Meaning

- G Greegoo
- D Single phase
- H SCR output
- * 40-40A, 60-60A, 80-80A, 100-100A, 120-120A
- * 28-280V, 48-480V
- * Z-zero control, R-random control
- * D1-4-16Vdc, D3-3-32Vdc, A2-90-250Vac

For example: GDH4048ZD3, single phase, SCR output, 40A, 480Vac, 3-32Vdc control

Selection Guide

Rated Voltage	Control voltage	Rated operational current		
		40 Amp	60Amp	80Amp
280 VAC "Z"	4 to 16 Vdc	GDH4028ZD1	GDH6028ZD1	GDH8028ZD1
280 VAC "R"	4 to 16 Vdc	GDH4028RD1	GDH6028RD1	GDH8028RD1
280 VAC "Z"	3 to 32 Vdc	GDH4028ZD3	GDH6028ZD3	GDH8028ZD3
280 VAC "R"	3 to 32 Vdc	GDH4028RD3	GDH6028RD3	GDH8028RD3
280 VAC "Z"	90 to 250Vac	GDH4028ZA2	GDH6028ZA2	GDH8028ZA2
280 VAC "R"	90 to 250Vac	GDH4028RA2	GDH6028RA2	GDH8028RA2
480 VAC "Z"	4 to 16 Vdc	GDH4048ZD1	GDH6048ZD1	GDH8048ZD1
480 VAC "R"	4 to 16 Vdc	GDH4048RD1	GDH6048RD1	GDH8048RD1
480 VAC "Z"	3 to 32 Vdc	GDH4048ZD3	GDH6048ZD3	GDH8048ZD3
480 VAC "R"	3 to 32 Vdc	GDH4048RD3	GDH6048RD3	GDH8048RD3
480 VAC "Z"	90 to 250Vac	GDH4048ZA2	GDH6048ZA2	GDH8048ZA2
480 VAC "R"	90 to 250Vac	GDH4048RA2	GDH6048RA2	GDH8048RA2
		100 Amp	120Amp	
280 VAC "Z"	4 to 16 Vdc	GDH10028ZD1	GDH12028ZD1	
280 VAC "R"	4 to 16 Vdc	GDH10028RD1	GDH12028RD1	
280 VAC "Z"	3 to 32 Vdc	GDH10028ZD3	GDH12028ZD3	
280 VAC "R"	3 to 32 Vdc	GDH10028RD3	GDH12028RD3	
280 VAC "Z"	90 to 250Vac	GDH10028ZA2	GDH12028ZA2	
280 VAC "R"	90 to 250Vac	GDH10028RA2	GDH12028RA2	
480 VAC "Z"	4 to 16 Vdc	GDH10048ZD1	GDH12048ZD1	
480 VAC "R"	4 to 16 Vdc	GDH10048RD1	GDH12048RD1	
480 VAC "Z"	3 to 32 Vdc	GDH10048ZD3	GDH12048ZD3	
480 VAC "R"	3 to 32 Vdc	GDH10048RD3	GDH12048RD3	
480 VAC "Z"	90 to 250Vac	GDH10048ZA2	GDH12048ZA2	
480 VAC "R"	90 to 250Vac	GDH10048RA2	GDH12048RA2	

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Specifications

Parameter-list	Specification Limits		
Input Parameter	D1	D3	A2
Control Voltage Range	4 to 16Vdc	3 to 32Vdc	90 to 250Vac
Input Current(Max.)	7/20mA @=5V/12V	13/16mA @=5V/12V	30mA @=220V
Must Turn On Voltage	4Vdc	3Vdc	90Vac
Must Turn Off Voltage	1Vdc	1Vdc	10Vac
Reverse Voltage (Max.)	32Vdc	32Vdc	/

Output Parameter	Units	Specification Limits				
Model No.:GDH	Amp	40	60	80	100	120
Load Current Range	Arms	0.05 to 40	0.05 to 60	0.05 to 80	0.05 to 100	0.05 to 120
Surge Current 20mSec(Max.)	Arms	400	600	1000	1200	1500
Load Voltage Range(280V)	Vrms	24 to 280				
SCR Over voltage(280V)	Vpk	≥800				
Load Voltage Range(480V)	Vrms	44 to 480				
SCR Over voltage(480V)	Vpk	≥1200				
Thermal Resistance,(Rthjc)	°C/w	1.3	0.65	0.5	0.3	0.3
Frequency Range	Hz	47 to 63				
Off State dv/dt (Min.)	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				
Turn Off Time (Max.)"A2"	mSec	40				
Dielectric (Input/Output)	Vrms	2500				
Dielectric (Input-Output/Base)	Vrms	2500				
Capacitance	pf	10				
Ambient Temperature Range	Operating or Storage -30°C to +80°C					
Weight (Typical)	145g					
Base Plate	Copper, nikel-plated					
Case Color	Black					
Led Display	Yes					

Dimension

