



SSR 60 to 150 Amps AC SSR

SOLID STATE RELAYS is series SSR are power line relays allowing 10 to 150 Amps. switching power, with Voltage ratings from 28 to 480 Volts A.C.

SSR series is Dual SSR Power Hybrid technology provides highly efficient thermal management for greatly increased cyclic life.

- High power and high current.
- High performance/low cost circuit design.
- Logic compatible current regulated input.
- 4000 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 or 3 to 32 Vdc
- Industry standard "SCR Modules" package.

Ordering Key

S S R 200 48 Z D1
1 2 3 4 5

- 1: Semiconductor type;
- 2: Rated working current (A);
- 3: Rated working voltage (V) (24:240 V,44:440V,48:480V);
- 4: Control method Z - Zero, R - Random;
- 5: Control voltage D: 3-8V, D1 - 4-16VDC, D3 - 3-32VDC, A2 - 90-250VAC.

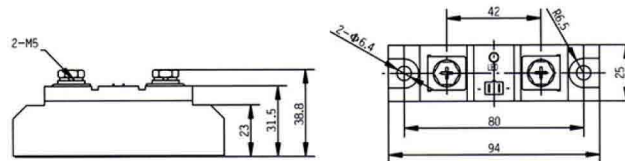
Type Selection

- Mounting type DH: AC Single phase, SCR Output.
- Rated operational current 60: 60Amp, 80: 80Amp, 100:100Amp, 120: 120Amp, 150: 150Amp.
- Rated operational voltage 28: 280VAC, 48: 480VAC.
- Switched mode Z: Zero Voltage, R: Random Switching.
- Input Control voltage D1: DC 4~16V, D3: DC 3~32V.
- Case type B: bar, Industry standard "SCles" package.

Selection guide

Voltage	Control voltage	Rated operational current				
		60 Amp	80 Amp	100 Amp	120 Amp	150 Amp
280 V _{AC} "Zero Voltage"	4to16 Vdc	SSR-6028ZD1B	SSR-8028ZD1B	SSR-10028ZD1B	SSR-12028ZD1B	SSR-15028ZD1B
	3to32 Vdc	SSR-6028ZD3B	SSR-8028ZD3B	SSR-10028ZD3B	SSR-12028ZD3B	SSR-15028ZD3B
280 V _{AC} "Random Switching"	4to16 Vdc	SSR-6028RD1B	SSR-8028RD1B	SSR-10028RD1B	SSR-12028RD1B	SSR-15028RD1B
	3to32 Vdc	SSR-6028RD3B	SSR-8028RD3B	SSR-10028RD3B	SSR-12028RD3B	SSR-15028RD3B
480 V _{AC} "Zero Voltage"	4to16 Vdc	SSR-6048ZD1B	SSR-8048ZD1B	SSR-10048ZD1B	SSR-12048ZD1B	SSR-15048ZD1B
	3to32 Vdc	SSR-6048ZD3B	SSR-8048ZD3B	SSR-10048ZD3B	SSR-12048ZD3B	SSR-15048ZD3B
480 V _{AC} "Random Switching"	4to16 Vdc	SSR-6048RD1B	SSR-8048RD1B	SSR-10048RD1B	SSR-12048RD1B	SSR-15048RD1B
	3to32 Vdc	SSR-6048RD3B	SSR-8048RD3B	SSR-10048RD3B	SSR-12048RD3B	SSR-15048RD3B

Dimension



Specifications

Input Parameter ①	D1	D3
Control Voltage Range	4 to 16Vdc	3 to 32Vdc
Input Current (Max.)	13/42 mAdc @=5V/12V	13/16 mAdc @=5V/24V
Must Turn On Voltage	4Vdc	3Vdc
Must Turn Off Voltage	1Vdc	1Vdc
Reverse Voltage (Max.)	32Vdc	32Vdc
Display LED	Yes	Yes

Output Parameter ②	Units	Specification Limits		
Model No. SSR		60A	80A	
Load Current Range	Arms	0.05 to 60	0.05 to 80	
Surge Current, 20 mSec (Max.)	Arms	600	1000	
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	500		
Off State Leakage Current (Max.)	mArms	≤8		
On-State Voltage Drop (Max.)	Vrms	1.6		
Thermal Resistance, (Rthjc)	°C/w	0.65	0.5	
Turn On Time (Max.) "Z"	Cycle	1/2		
Turn On Time (Max.) "R"	mSec	1		
Turn Off Time (Max.)	Cycle	1/2		

Model No. SSR		100A	120A	150A
Load Current Range	Arms	0.05 to 100	0.05 to 120	0.05 to 150
Surge Current, 20 mSec (Max.)	Arms	1200	1500	2000
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	500		
Off State Leakage Current (Max.)	mArms	≤8		
On-State Voltage Drop (Max.)	Vrms	1.6		
Thermal Resistance, (Rthjc)	°C/w	0.3	0.3	0.3
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)	Arms	2500
Dielectric (Input-Output/Base)	Arms	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)		125 g.
Base plate: Aluminum or Copper, nickel-plated		
Case Color: Black		
Mounting Dimensions:	LxWxH	94x25x38mm, with LED

SSR 200 to 400 Amps AC SSR

Series SSR Solid State Relays are AC relays, Triac Output. The triac version of the zero switching relay is an inexpensive solution for resistive loads. The zero switching relay switches on when the AC sine voltage just crosses zero, and switches off when the current crosses zero.

- Rated operational current 200A to 400Amps.
- Rated operational voltage 280V or 480 V
- Input Voltage Range 4 to 16 Vdc, 3 to 32 Vdc or 90 to 250 Vac.
- 4000 Vrms Optical Isolation.(input/output)
- Both "Zero Voltage" & phase controllable "Random Switching" versions.
- LED-indication for control input.

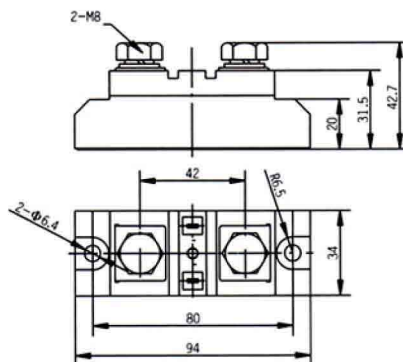
Type Selection

- Mounting type D:AC Single phase Solid State Relay
- Rated operational current 200:200Amp,250:250Amp,300:300Amp,350:350Amp,400:400Amp
- Rated operational voltage 28:280VAC,48:480VAC.
- Switched mode Z:Zero Voltage,R:Random Switching.
- Input Control voltage D1:DC 4to16V,D3:DC 3to32V,A2:AC 90to250V.
- Case type Blank:Case A,1:Case B,with LED.

Selection guide

Voltage	Control voltage	Rated operational current				
		200 Amp	250 Amp	300 Amp	350 Amp	400 Amp
280 V _{AC} "Zero Voltage"	4 to 16 Vdc	SSR-20028ZD1	SSR-25028ZD1	SSR-30028ZD1	SSR-35028ZD1	SSR-40028ZD1
	3 to 32 Vdc	SSR-20028ZD3	SSR-25028ZD3	SSR-30028ZD3	SSR-35028ZD3	SSR-40028ZD3
	90 to 250Vac	SSR-20028ZA2	SSR-25028ZA2	SSR-30028ZA2	SSR-35028ZA2	SSR-40028ZA2
280 V _{AC} "Random Switching"	4 to 16 Vdc	SSR-20028ZD1	SSR-25028ZD1	SSR-30028ZD1	SSR-35028ZD1	SSR-40028ZD1
	3 to 32 Vdc	SSR-20028ZD3	SSR-25028ZD3	SSR-30028ZD3	SSR-35028ZD3	SSR-40028ZD3
	90 to 250Vac	SSR-20028ZA2	SSR-25028ZA2	SSR-30028ZA2	SSR-35028ZA2	SSR-40028ZA2
480 V _{AC} "Zero Voltage"	4 to 16 Vdc	SSR-20048ZD1	SSR-25048ZD1	SSR-30048ZD1	SSR-35048ZD1	SSR-40048ZD1
	3 to 32 Vdc	SSR-20048ZD3	SSR-25048ZD3	SSR-30048ZD3	SSR-35048ZD3	SSR-40048ZD3
	90 to 250Vac	SSR-20048ZA2	SSR-25048ZA2	SSR-30048ZA2	SSR-35048ZA2	SSR-40048ZA2
480 V _{AC} "Random Switching"	4 to 16 Vdc	SSR-20048RD1	SSR-25048RD1	SSR-30048RD1	SSR-35048RD1	SSR-40048RD1
	3 to 32 Vdc	SSR-20048RD3	SSR-25048RD3	SSR-30048RD3	SSR-35048RD3	SSR-40048RD3
	90 to 250Vac	SSR-20048RA2	SSR-25048RA2	SSR-30048RA2	SSR-35048RA2	SSR-40048RA2

Dimension



Ordering Key

S S R 200 48 Z D1
1 2 3 4 5

- 1: Semiconductor type;
- 2: Rated working current (A);
- 3: Rated working voltage (V) (24:240 V,44:440V,48:480V);
- 4: Control method Z - Zero, R - Random;
- 5: Control voltage D: 3-8V, D1 - 4-16VDC, D3 - 3-32VDC, A2 - 90-250VAC.

Specifications

Parameter-list	Units	Specification Limits	
Input Parameter ① D1	D1	D3	A2
Control Voltage Range	4 to 16Vdc	3 to 32 Vdc	90 to 250Vac
Input Current (Max.) @=5V/12V	13/42 @=5x/12v	13/16 @=5V/24V	
Must Turn On Voltage	4 Vdc	3 Vdc	90Vac
Must Turn Off Voltage	1 Vdc	1 Vdc	1Vav
Reverse Voltage (Max.)	32 Vdc	32 Vdc	
Display LED	yes	yes	yes

Output Parameter ②	Units	Specification Limits				
Model No. SSR		200	250	300	350	400
Load Current Range	Arms	0.05 to 200	0.05 to 250	0.05 to 300	0.05 to 350	0.05 to 400
Surge Current, 20 mSec (Max.)	Arms	2500	3400	4500	5000	6000
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				
Off State dv/dt (Min)	V/μsec	500				
Off State Leakage Current (Max.)	mArms	≤10				
On State Voltage Drop (Max.)	Vrms	1.8				
Thermal Resistance, (Rthjc)	°C/w	0.22	0.15	0.14	0.13	0.12
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				

Coupling Specifications

Dielectric (Input/Output)	Arms	2500
Dielectric (Input-Output/Base)	Arms	2500
Capacitance	pf	10

General Specifications

Ambient temperature range:	operating or Storage	-30°C to +80°C
Weight: (typico)	g	280
Base plate: Aluminum or Copper, nickel-plated		
Case Color: Black		
Mounting Dimensions	LxWxH	Case: 94x34x42.7mm