Zelio Relays
Solid state relays

Catalog

December 2018



Schneider Electric

Quick access to Product information

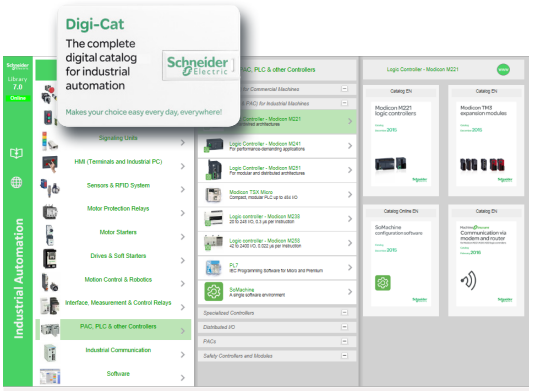
Select your Catalog, your Training



With just 3 clicks, you can reach the 7,000 pages of the Industrial Automation & Control catalog, in both English and French.

- Digi-Cat is available on a USB key (for PC). To get your Digi-Cat, please contact your local center
- Download Digi-Cat from this address:

http://digi-cat.schneider-electric.com/download.html

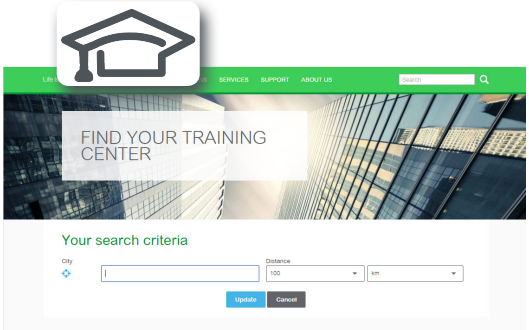


Find your training

- Find the right training for your needs
- Locate the training center with the selector tool, using this address:

http://www.schneider-electric.com/b2b/en/services/training/technical-training.jsp

then click on Find your training center



Life Is On Schneider Electric

General contents

Zelio Relays - Solid state relays

■ **General presentation**

□ Choose slim interfacing solution with SSL relays ..... *page 2*

□ Choose modularity with DIN rail mount SSM relays ..... *page 3*

□ Choose complete panel mount solution with SSP relays ..... *page 5*

Selection guide . . . . . *page 6*

■ **SSL solid state slim relays**

□ Presentation of the range..... *page 8*

□ Relay and socket description ..... *page 8*

□ References ..... *page 9*

- Pre-assembled solid state slim relays..... *page 9*
- Relays and sockets for customer assembly ..... *page 10*
- Accessories .....*page 11*

■ **SSM solid state modular DIN rail relays**

□ Presentation of the range..... *page 12*

□ Relay description ..... *page 12*

□ References ..... *page 13*

- SSM1 single-phase solid state relays (12 and 18 mm)..... *page 13*
- SSM2 single-phase solid state relays, dual channel ..... *page 14*
- SSM1 single-phase solid state relays (22.5 and 45 mm)..... *page 14*
- SSM3 three-phase solid state relays ..... *page 15*

■ **SSP solid state panel mount relays**

□ Presentation of the range..... *page 16*

□ Relay description ..... *page 16*

□ References ..... *page 17*

- SSP1 single-phase solid state relays..... *page 17*
- SSP3 three-phase solid state relays ..... *page 18*
- Heat sinks and accessories ..... *page 19*

■ **Product reference index** ..... *page 20*

Zelio Relays - Solid state relays
Solid state slim interface relays

Zelio Relays - Solid state relays
Choose long life and silent operation with Zelio SSRs

Maintenance free
fully electronic, unlimited life span

High switching frequency
allows precise and quick control

Silent and reliable switching
no moving parts, noiseless switching

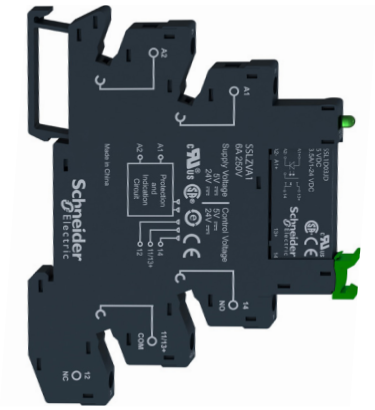
Sustainablility in harsh environment
resistance to shock, vibration, and contamination

The Zelio SSR series offers slim interface (SSL), modular DIN rail (SSM), and panel mount (SSP) solid state relays that provide complete, compact, and innovative solutions for a wide variety of applications with interfacing control and load switching. They are the ideal solution for packaging, plastic molding, textile, and heating furnace applications.

Choose a slim interfacing solution with SSL relays

Slim relay-socket solution

- **Complete range of control input and load output configurations for both AC and DC switching applications**
- **Compact solution with 6 mm/0.236 in. width, allows customers to choose the combination of relays and associated sockets from the wide range available**



SSL slim interface relay mounted on SSLZ socket

SSL relays + SSLZ sockets

Control input voltage	Load output voltage
⎓ 5...230 V	⎓ 1...48 V
⎓ 5...230 V	∿ 24...250 V
∿ 110...230 V	⎓ 1...48 V
∿ 110...230 V	∿ 24...250 V

Enhanced performance in any situation

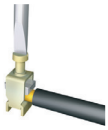
- **Socket with integrated reverse polarity protection circuit and control input/ relay status LED indicator**
- **IP 67 protection and fully encapsulated**



LED indicator for relay status

Simplified installation and mounting

- **Locking/unlocking lever for replacing relay from the socket**
- **Simple mounting on DIN rail**
- **Choice of screw connector and spring terminal connection for sockets**



Screw connector



Spring terminal

SSL/RSL relays + SSLZ/RSLZ sockets → Slim plug-in interface solution

Zelio Relays - Solid state relays
Solid state DIN rail mount relays

Choose modularity with DIN rail mount SSM relays

Ready to use "Plug and play"

- Modular design of IP 20 housing and built-in heat sink for optimized operating conditions
- Easy mounting on standard 35 mm/1.378 in. DIN rail with a secure mounting latch

Compact design

- Requires less panel space due to slim width and thus reduces the size of your enclosures
- Optimized modular design available in various sizes (11, 18, 22.5 and 45 mm width) with load output current of 6, 12, 20, 30, 45, and 55 A

11 mm/*0.433 in.*



SSM1: 6 A single-phase SSR

18 mm/*0.709 in.*



SSM2: 6 A dual channel, single-phase SSR

SSM1 relays

Control input voltage	Load output voltage
⎓ 4...32 V	⎓ 1...48 V ⎓ 1...100 V
⎓ 4...32 V	∿ 24...280 V ∿ 48...600 V
∿ 18...36 V ∿ 90...140 V ∿ 200...265 V	∿ 24...280 V ∿ 48...600 V

SSM2 relays

Control input voltage	Load output voltage
⎓ 4...32 V	∿ 24...280 V ∿ 48...600 V

22.5 mm/*0.886 in.*



SSM1: 20 and 30 A single-phase SSR

45 mm/*1.772 in.*



SSM1: 45 and 55 A single-phase SSR

SSM1 relays

Control input voltage	Load output voltage
⎓ 4...32 V	∿ 24...280 V ∿ 48...660 V
⎓ 3...32 V	∿ 24...280 V
∿ 90...140 V ∿ 90...280 V	∿ 24...280 V ∿ 48...660 V

90 mm/*3.543 in.*



SSM3: 25 A three-phase SSR

SSM3 relays

Control input voltage	Load output voltage
⎓ 4...32 V	∿ 48...600 V
∿ 90...140 V	∿ 48...600 V
∿ 180...280 V	∿ 48...600 V

SSM1 (1-phase)/**SSM2** (1-phase dual channel)/**SSM3** (3-phase) → **Plug & Play solution**

Zelio Relays - Solid state relays
Solid state DIN rail and panel mount relays

Choose modularity with DIN rail mount SSM relays (continued)

Enhanced modular solution

- Wide choice of relays with single-phase and three-phase options and current ratings from 6 A to 55 A
- Zero voltage switching for resistive loads and random switching for inductive loads
- UL and cUL approved including the general purpose and motor controller rating standards

Choose a complete panel mount solution with SSP relays

Complete solution

- Single-phase and three-phase panel mount solid state relays with a range of heat sinks and accessories to meet application needs from 10 A to 125 A
- Easy product selection with simplified product nomenclature and direct heat sink selection available in product data sheets
- Wide choice of heat sinks with thermal resistance ratings of 0.2 °C/W to 2.5 °C/W



SSP1 relays

Control input voltage	Load output voltage
⎓ 3.5...32 V	⎓ 1...150 V
⎓ 3...32 V	∿ 24...300 V
⎓ 4...32 V	∿ 48...660 V
∿ 90...280 V	∿ 24...300 V ∿ 48...660 V

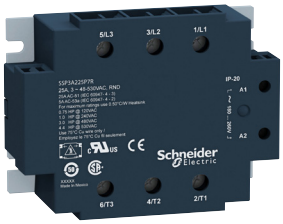
SSP1: Single-phase panel mount SSR



SSP1.S relays

Control input voltage	Load output voltage
⎓ 3...32 V	∿ 24...300 V
⎓ 4...32 V	∿ 48...660 V

SSP1.S: Single-phase panel mount SSR with smart diagnostic features



SSP3 relays

Control input voltage	Load output voltage
⎓ 4-32 V	∿ 48-530 V
∿ 18-36 V ∿ 90-140 V ∿ 180-280 V	∿ 48-530 V

SSP3: Three-phase panel mount SSR

Choose a complete panel mount solution with SSP relays (continued)

Simple, safe, and robust screw terminals

- Simple and easy wiring; accepts wires with different kinds of terminations (cable ends, fork lug, ring lug)
- Safe and fool-proof design with IP 20 protection and integrated enclosure
- Robust self-aligned screw terminals with proven effectiveness in helping to prevent screw jams

Innovative SSP1.S with smart diagnostics and test button

- Smart diagnostic features with built-in visual indicator and alarm output enables quick response to unexpected results and correct monitoring of SSR operation
- A test button for easy debugging, testing, and commissioning

Simplified installation and mounting

- Product option with readily available factory-fit thermal pad
- Heat sink offers panel and DIN rail mounting options

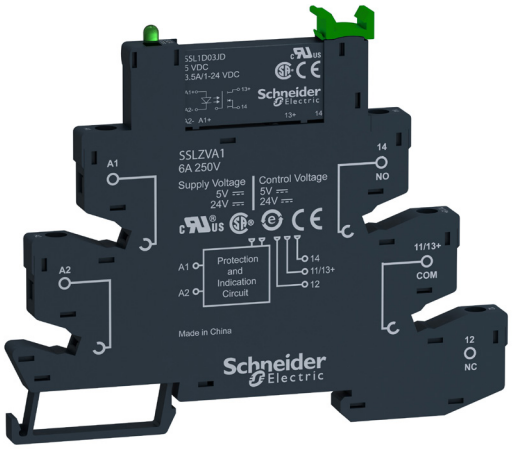
Zelio Relays - Solid state relays

Type of product		Slim interface SSR	Modular DIN rail SSR	
				
Number of phases		1	1	1 (dual SSR)
Type of mounting		Plug-in PCB pins with DIN rail mounted socket	DIN rail mounted	
Control input voltage	∼	110…230 V	18…36 V 90…140 V 200…265 V	–
	⎓	5…230 V	4…32 V	
Output load voltage	∼	24…250 V	24…280 V 48…600 V	
	⎓	1…24 V 1…48 V	1…60 V 1…100 V	–
Output load current	∼	2 A	6 A for SSM1 (12 mm/*0.472 in.*) 12 A for SSM1 (18 mm/*0.708 in.*)	6 A
	⎓	0.1, 3.5 A	6 A for SSM1 (12 mm/*0.472 in.*) 12 A for SSM1 (18 mm/*0.708 in.*)	–
Type of switching	Zero voltage	Yes	Yes	Yes
	Random	Yes	Yes	Yes
	DC	Yes	Yes	–
Cooling		–	Built-in heat sink	
Degree of protection		IP 67 (encapsulation) IP 20 (socket)	IP 20	
LED indication		Yes (on socket)	Yes	
Solid state relay type		**SSL** *(1) (2)*	**SSM1**	**SSM2**
Pages		9	13	14

(1) SSL relay with SSLZ socket.
(2) Pre-assembled SSL slim relays (relay + socket) are also available.

Type of product		Modular DIN rail SSR		Panel mount SSR	
					
Number of phases		1	3	1	3
Type of mounting		DIN rail mounted	DIN rail mounted	Panel mounted	Panel mounted
Control input voltage	∼	90…140 V 90…280 V	90…140 V 90…280 V	90…280 V	18…36 V 90…140 V 180…280 V
	⎓	3…32 V 4…32 V	4…32 V	3…32 V 4…32 V	4…32 V
Output load voltage	∼	24…280 V 48…660 V	48…600 V	24…300 V 48…660 V	48…530 V
	⎓	–		1…150 V	–
Output load current	∼	20, 30 A for SSM1 (22.5 mm/*0.886 in.*) 45, 55 A for SSM1 (45 mm/*1.772 in.*)	25 A	10, 25, 50, 75, 90, 125 A	25, 50 A
	⎓	–		12, 25, 40 A	–
Type of switching	Zero voltage	Yes	Yes	Yes	Yes
	Random	–	Yes	–	Yes
	DC	–	–	Yes	–
Cooling		Built-in heat sink		Option with thermal pad	Option with thermal pad
Degree of protection		IP 20			
LED indication		Yes		Yes	Yes
Solid state relay type		**SSM1**	**SSM3**	**SSP1**	**SSP3**
Pages		13	15	17	18

Zelio Relays - Solid state relays
SSL solid state slim relays



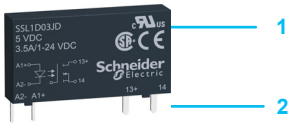
Presentation of the range

SSL solid state relays offer the advantages of several input and output configurations for both AC and DC switching applications. Their compact size and modular design reduces space and allows easy mounting on the socket.

The plug-in type relays can be mounted directly on a PCB or with a socket on a standard 35 mm/*1.378 in.* DIN rail. The sockets are available in screw connector and spring terminal types.

SSL relays offer:
- A choice of relays and sockets to suit a range of operating voltages
- Zero voltage switching for resistive load and random switching for inductive load applications
- Simple maintenance as the relays can be held in place/released by locking/unlocking the lever without disconnecting the socket wiring
- Socket with reverse polarity protection circuit and LED indicator for easy identification of control status

These relays are available in both pre-assembled (single reference) and customer assembled offers.



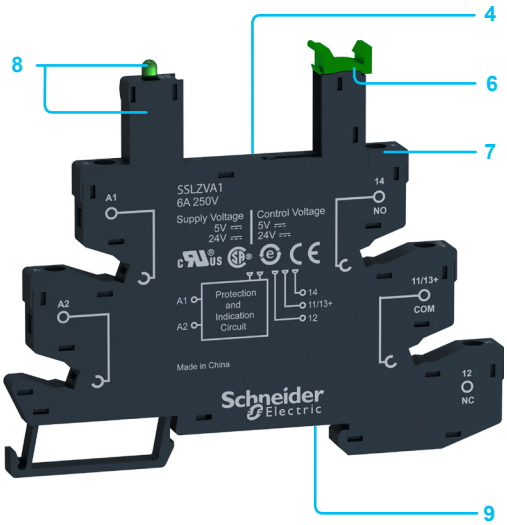
Relay description

SSL slim solid state relays

1 Relay with 1 N/O contact and any one of the following ratings:
- 24 V ⎓, 3.5 A
- 48 V ⎓, 100 mA
- 280 V ∿, 2 A

2 4 flat, reinforced pins (PCB type)

3 5 mm/*0.197 in.* relay width for up to 3.5 A of load current



Socket description

Sockets for SSL slim solid state relays

4 5 female contacts for the relay pins

5 6.2 mm/*0.244 in.* socket width

6 Lever for locking or releasing the relay from its socket with clip-in marker legend

7 Wire connection by screw connectors or spring terminals

8 Built-in reverse polarity protection circuit and LED indicator

9 Locating slot for mounting on DIN rail

Zelio Relays - Solid state relays
SSL solid state slim relays



SSL1A12JDRPR

Pre-assembled solid state slim relays

Relays mounted on screw sockets (sold in lots of 30)

1 NO contact

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/*lb*
DC Switching	⎓ 4 to 12	⎓ 1 to 24	3.5	**SSL1D03JDPV** (SSL1D03JD + SSLZVA1)	0.033/*0.073*
	⎓ 4 to 12	⎓ 1 to 48	0.1	**SSL1D101JDPV** (SSL1D101JD+SSLZVA1)	0.033/*0.073*
Zero voltage switching	⎓ 4 to 12	∿ 24 to 250	2	**SSL1A12JDPV** (SSL1A12JD+SSLZVA1)	0.033/*0.073*
Random switching	⎓ 4 to 12	∿ 24 to 250	2	**SSL1A12JDRPV** (SSL1A12JDR+SSLZVA1)	0.033/*0.073*
DC Switching	⎓ 16 to 30	⎓ 1 to 24	3.5	**SSL1D03BDPV** (SSL1D03BD+SSLZVA1)	0.033/*0.073*
	⎓ 16 to 30	⎓ 1 to 48	0.1	**SSL1D101BDPV** (SSL1D101BD+SSLZVA1)	0.033/*0.073*
Zero voltage switching	⎓ 16 to 30	∿ 24 to 250	2	**SSL1A12BDPV** (SSL1A12BD+SSLZVA1)	0.033/*0.073*
Random switching	⎓ 16 to 30	∿ 24 to 250	2	**SSL1A12BDRPV** (SSL1A12BDR+SSLZVA1)	0.033/*0.073*

Relays mounted on spring sockets (sold in lots of 30)

DC Switching	⎓ 4 to 12	⎓ 1 to 24	3.5	**SSL1D03JDPR** (SSL1D03JD+SSLZRA1)	0.033/*0.073*
	⎓ 4 to 12	⎓ 1 to 48	0.1	**SSL1D101JDPR** (SSL1D101JD+SSLZRA1)	0.033/*0.073*
Zero voltage switching	⎓ 4 to 12	∿ 24 to 250	2	**SSL1A12JDPR** (SSL1A12JD+SSLZRA1)	0.033/*0.073*
Random switching	⎓ 4 to 12	∿ 24 to 250	2	**SSL1A12JDRPR** (SSL1A12JDR+SSLZRA1)	0.033/*0.073*
DC Switching	⎓ 16 to 30	⎓ 1 to 24	3.5	**SSL1D03BDPR** (SSL1D03BD+SSLZRA1)	0.033/*0.073*
	⎓ 16 to 30	⎓ 1 to 48	0.1	**SSL1D101BDPR** (SSL1D101BD+SSLZRA1)	0.033/*0.073*
Zero voltage switching	⎓ 16 to 30	∿ 24 to 250	2	**SSL1A12BDPR** (SSL1A12BD+SSLZRA1)	0.033/*0.073*
Random switching	⎓ 16 to 30	∿ 24 to 250	2	**SSL1A12BDRPR** (SSL1A12BDR+SSLZRA1)	0.033/*0.073*

Zelio Relays - Solid state relays
SSL solid state slim relays

PF123409A



SSL1A12JD

PF123420B



SSLZVA1 + SSL1D03JD

Relays and sockets for customer assembly

SSL single-phase solid state relays (sold in lots of 12)

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/*lb*
DC switching	⎓ 3 to 12	⎓ 1 to 24	3.5	**SSL1D03JD**	0.004/*0.009*
		⎓ 1 to 48	0.1	**SSL1D101JD**	0.004/*0.009*
	⎓ 15 to 30	⎓ 1 to 24	3.5	**SSL1D03BD**	0.004/*0.009*
	⎓ 16 to 30	⎓ 1 to 48	0.1	**SSL1D101BD**	0.004/*0.009*
	⎓ 38 to 72	⎓ 1 to 24	3.5	**SSL1D03ND**	0.004/*0.009*
		⎓ 1 to 48	0.1	**SSL1D101ND**	0.004/*0.009*
Zero voltage switching	⎓ 3 to 12	∿ 24 to 280	2	**SSL1A12JD**	0.004/*0.009*
	⎓ 15 to 30	∿ 24 to 280	2	**SSL1A12BD**	0.004/*0.009*
	⎓ 38 to 72	∿ 24 to 280	2	**SSL1A12ND**	0.004/*0.009*
Random switching	⎓ 3 to 12	∿ 24 to 280	2	**SSL1A12JDR**	0.004/*0.009*
	⎓ 15 to 30	∿ 24 to 280	2	**SSL1A12BDR**	0.004/*0.009*
	⎓ 38 to 72	∿ 24 to 280	2	**SSL1A12NDR**	0.004/*0.009*

Sockets equipped with LED and protection circuit (sold in lots of 10)

		Socket type			
		Screw connector		Spring terminals	
Control voltage (Nominal)	For use with relays	Unit reference	Weight	Unit reference	Weight
V			kg/*lb*		kg/*lb*
⎓ 5	SSL1D03JD SSL1D101JD SSL1A12JD SSL1A12JDR	**SSLZVA1**	0.029/*0.063*	**SSLZRA1**	0.029/*0.063*
⎓ 24	SSL1D03BD SSL1D101BD SSL1A12BD SSL1A12BDR	**SSLZVA1**	0.029/*0.063*	**SSLZRA1**	0.029/*0.063*
⎓ 60	SSL1D03ND SSL1D101ND SSL1A12ND SSL1A12NDR	**SSLZVA2**	0.029/*0.063*	**SSLZRA2**	0.029/*0.063*
⎓/∿ 110	SSL1D03ND SSL1D101ND SSL1A12ND SSL1A12NDR	**SSLZVA3**	0.029/*0.063*	**SSLZRA3**	0.029/*0.063*
⎓/∿ 230	SSL1D03ND SSL1D101ND SSL1A12ND SSL1A12NDR	**SSLZVA4**	0.029/*0.063*	**SSLZRA4**	0.029/*0.063*

PF526466



RSLZ2

PF526467



RSLZ3

Accessories for sockets

Description	Compatibility	Reference	Weight kg/*lb*
Clip-in legends (2 sheets of 64 legends)	SSL sockets	**RSLZ5**	0.001/*0.002*
Bus jumper (10 x 20-pole jumper)	SSL sockets	**RSLZ2**	0.003/*0.007*
Partition plate (10 partition plates)	SSL sockets	**RSLZ3**	0.001/*0.002*

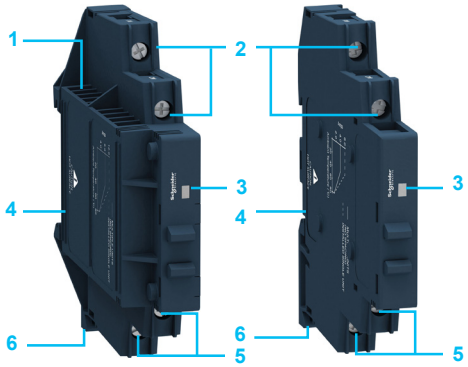
Zelio Relays - Solid state relays
SSM solid state modular relays

Presentation of the range

SSM solid state relays are compact relays offering greater power density. The modular IP 20 housing design and built-in heat sink offer optimized operating solutions.

The SSM relay range comprises:
- **SSM1**: Single-phase SSR relays with 6, 12, 20, 30, 45, and 55 A ratings
- **SSM2**: Single-phase dual SSR relays with 6 A rating
- **SSM3**: Three-phase SSR relays with 25 A rating

Relay description



SSM1 relays, 12 mm/*0.472 in.* (6 A) width and 18 mm/*0.709 in.* (12 A) width

1 Built-in heat sink for heat dissipation
2 Control input connection terminals
3 Control input voltage LED indicator in green
4 Bracket for mounting on 35 mm/*1.378 in.* DIN rail
5 Load output connection terminals
6 Mounting latch



SSM2 relays, 18 mm/*0.709 in.* (6 A) width

1 Built-in heat sink for heat dissipation
2 Load output connection terminals for Channel A
3 Separate input voltage LED indicator in green
4 Separate control input connection terminals
5 Load output connection terminals for Channel B
6 Mounting latch
7 Bracket for mounting on 35 mm/*1.378 in.* DIN rail



SSM1 relays, 22.5 mm/*0.886 in.* (20 A, 30 A) width and 45 mm/*1.771 in.* (45 A, 55 A) width

1 Lugs for panel mounting
2 Built-in heat sink for heat dissipation
3 Control input connection terminals
4 Control input voltage LED indicator in green
5 Bracket for mounting on 35 mm/*1.378 in.* DIN rail
6 Load output connection terminals



SSM3 relays, 90 mm/*0.3543in.* (25 A) width

1 Lugs for panel mounting
2 Built-in heat sink for heat dissipation
3 Control input connection terminals
4 Control input voltage LED indicator in green
5 Bracket for mounting on 35 mm/*1.378 in.* DIN rail
6 Load output connection terminals

Zelio Relays - Solid state relays

SSM solid state modular relays

PF123426B



SSM1A36BD

PF123427B



SSM1A312BD

SSM1 single-phase solid state relays (12 and 18 mm)

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/*lb*
DC switching	⎓ 4…32	⎓ 1…60	6	**SSM1D26BD**	0.050/*0.110*
			12	**SSM1D212BD**	0.090/*0.198*
		⎓ 1…100	6	**SSM1D36BD**	0.050/*0.110*
			12	**SSM1D312BD**	0.090/*0.198*
Zero voltage switching	⎓ 4…32	∿ 24…280	6	**SSM1A16BD**	0.050/*0.110*
			12	**SSM1A112BD**	0.090/*0.198*
		∿ 48…600	6	**SSM1A36BD**	0.050/*0.110*
			12	**SSM1A312BD**	0.090/*0.198*
	∿ 18…36	∿ 24…280	6	**SSM1A16B7**	0.050/*0.110*
			12	**SSM1A112B7**	0.090/*0.198*
		∿ 48…600	12	**SSM1A312B7**	0.090/*0.198*
	∿ 90…140	∿ 24…280	6	**SSM1A16F7**	0.050/*0.110*
			12	**SSM1A112F7**	0.090/*0.198*
		∿ 48…600	12	**SSM1A312F7**	0.090/*0.198*
	∿ 200…265	∿ 24…280	6	**SSM1A16P7**	0.050/*0.110*
			12	**SSM1A112P7**	0.090/*0.198*
		∿ 48…600	12	**SSM1A312P7**	0.090/*0.198*
Random switching	⎓ 4…32	∿ 24…280	6	**SSM1A16BDR**	0.050/*0.110*
			12	**SSM1A112BDR**	0.090/*0.198*
		∿ 48…600	6	**SSM1A36BDR**	0.050/*0.110*
			12	**SSM1A312BDR**	0.090/*0.198*
	∿ 18…36	∿ 24…280	6	**SSM1A16B7R**	0.050/*0.110*
			12	**SSM1A112B7R**	0.090/*0.198*
		∿ 48…600	12	**SSM1A312B7R**	0.090/*0.198*
	∿ 90…140	∿ 24…280	6	**SSM1A16F7R**	0.050/*0.110*
			12	**SSM1A112F7R**	0.090/*0.198*
		∿ 48…600	12	**SSM1A312F7R**	0.090/*0.198*
	∿ 200…265	∿ 24…280	6	**SSM1A16P7R**	0.050/*0.110*
			12	**SSM1A112P7R**	0.090/*0.198*
		∿ 48…600	12	**SSM1A312P7R**	0.090/*0.198*

Zelio Relays - Solid state relays
SSM solid state modular relays

PF123428B



SSM2A36BD

SSM2 single-phase solid state relays, dual channel

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/*lb*
Zero voltage switching	⎓ 4…32	∿ 24…280	6	**SSM2A16BD**	0.090/*0.198*
		∿ 48…600	6	**SSM2A36BD**	0.090/*0.198*
Random switching	⎓ 4…32	∿ 24…280	6	**SSM2A16BDR**	0.090/*0.198*
		∿ 48…600	6	**SSM2A36BDR**	0.090/*0.198*

PF152200



SSM1A120M7

PF152206



SSM1A445BD

SSM1 single-phase solid state relays (22.5 and 45 mm)

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/*lb*
Zero voltage switching	⎓ 4…32	∿ 24…280	20	**SSM1A120BD**	0.280/*0.617*
			30	**SSM1A130BD**	0.280/ *0.617*
	⎓ 3…32	∿ 24…280	45	**SSM1A145BD**	0.476/*1.049*
	⎓ 4…32	∿ 48…660	30	**SSM1A430BD**	0.280/ *0.617*
			45	**SSM1A445BD**	0.476/*1.049*
			55	**SSM1A455BD**	0.476/*1.049*
	∿ 90…280	∿ 24…280	20	**SSM1A120M7**	0.280/ *0.617*
			30	**SSM1A130M7**	0.280/ *0.617*
		∿ 48…660	30	**SSM1A430M7**	0.280/ *0.617*
	∿ 90…140	∿ 24…280	45	**SSM1A145F7**	0.476/*1.049*
		∿ 48…660	45	**SSM1A445F7**	0.476/ *1.049*
			55	**SSM1A455F7**	0.476/*1.049*

Zelio Relays - Solid state relays

SSM solid state modular relays

PF152212



SSM3A325F7

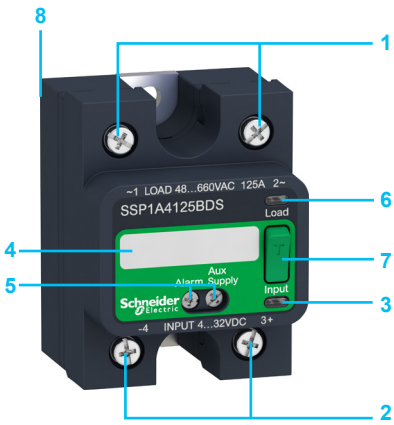
SSM3 three-phase solid state relays

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/*lb*
Zero voltage switching	⎓ 4…32	∿ 48…600	25	**SSM3A325BD**	0.740/*1.631*
	∿ 90…140	∿ 48…600	25	**SSM3A325F7**	0.740/*1.631*
	∿ 180…280	∿ 48…600	25	**SSM3A325P7**	0.740/*1.631*
Random switching	⎓ 4…32	∿ 48…600	25	**SSM3A325BDR**	0.740/*1.631*

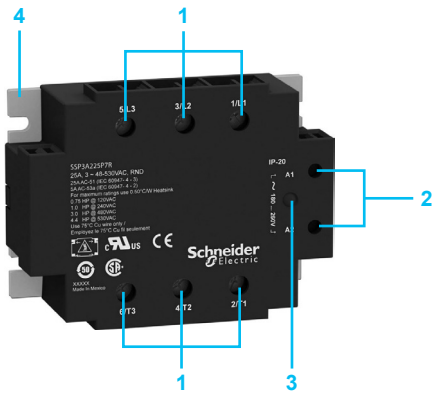
Zelio Relays - Solid state relays
SSP solid state panel mount relays



SSP1 single-phase panel mount relays



SSP1 single-phase panel mount relays with smart diagnostic feature



SSP3 three-phase panel mount relays

Presentation of the range

SSP solid state relays are single-phase and three-phase panel mount relays that offer complete solid state control and switching solutions.

- Easy product selection with simplified product nomenclature and direct heat sink selection available in product data sheets.
- Wide choice of heat sinks with thermal resistance ratings of 2.5 °C/W to 0.2 °C/W.

The SSP relay range comprises:

- **SSP1**: Single-phase panel mount solid state relays available with/without embedded thermal pad and smart diagnostic features, extended load output voltage of up to 660 V ∼ and load current rating of 10 A to 125 A.
- **SSP3**: Three-phase panel mount solid state relays integrated with R-C snubber circuit, TVS (Transient Voltage Suppression), and load current ratings of 25 A and 50 A.

Relay description

SSP1 single-phase panel mount relays

1 Load output connection screw terminals

2 Control input connection screw terminals

3 Control input voltage LED indicator

4 Indication area for product label or markings

5 Smart diagnostic auxiliary input and alarm output

6 Load output LED indicator

7 Test button

8 Optional factory-fit thermal pad that is glued on the rear of the product

SSP3 three-phase panel mount relays

1 Load output connection screw terminals

2 Control input connection screw terminals

3 Control input voltage LED indicator

4 Optional factory-fit thermal pad that is glued on the rear of the product

Zelio Relays - Solid state relays
SSP solid state panel mount relays

PF150901D



SSP1D425BD

PF150938D



SSP1A125BDS

SSP1 single-phase solid state relays

Relays with embedded thermal pad

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/*lb*
DC switching	⎓ 3.5…32	⎓ 1…150	12	**SSP1D412BDT**	0.089/*0.196*
			25	**SSP1D425BDT**	0.089/*0.196*
			40	**SSP1D440BDT**	0.089/*0.196*
Zero voltage switching	⎓ 3…32	∿ 24…300	10	**SSP1A110BDT**	0.089/*0.196*
			25	**SSP1A125BDT**	0.089/*0.196*
			50	**SSP1A150BDT**	0.089/*0.196*
			75	**SSP1A175BDT**	0.089/*0.196*
	⎓ 4…32	∿ 48…660	50	**SSP1A450BDT**	0.089/*0.196*
			75	**SSP1A475BDT**	0.089/*0.196*
			90	**SSP1A490BDT**	0.089/*0.196*
			125	**SSP1A4125BDT**	0.089/*0.196*
	∿ 90…280	∿ 24…300	10	**SSP1A110M7T**	0.089/*0.196*
			25	**SSP1A125M7T**	0.089/*0.196*
			50	**SSP1A150M7T**	0.089/*0.196*
			75	**SSP1A175M7T**	0.089/*0.196*
		∿ 48…660	50	**SSP1A450M7T**	0.089/*0.196*
			75	**SSP1A475M7T**	0.089/*0.196*
			90	**SSP1A490M7T**	0.089/*0.196*
			125	**SSP1A4125M7T**	0.089/*0.196*

Relays without embedded thermal pad

DC switching	⎓ 3.5…32	⎓ 1…150	12	**SSP1D412BD**	0.089/*0.196*
			25	**SSP1D425BD**	0.089/*0.196*
			40	**SSP1D440BD**	0.089/*0.196*
Zero voltage switching	⎓ 3…32	∿ 24…300	10	**SSP1A110BD**	0.089/*0.196*
			25	**SSP1A125BD**	0.089/*0.196*
			50	**SSP1A150BD**	0.089/*0.196*
			75	**SSP1A175BD**	0.089/*0.196*
	⎓ 4…32	∿ 48…660	50	**SSP1A450BD**	0.089/*0.196*
			75	**SSP1A475BD**	0.089/*0.196*
			90	**SSP1A490BD**	0.089/*0.196*
			125	**SSP1A4125BD**	0.089/*0.196*
	∿ 90…280	∿ 24…300	10	**SSP1A110M7**	0.089/*0.196*
			25	**SSP1A125M7**	0.089/*0.196*
			50	**SSP1A150M7**	0.089/*0.196*
			75	**SSP1A175M7**	0.089/*0.196*
		∿ 48…660	50	**SSP1A450M7**	0.089/*0.196*
			75	**SSP1A475M7**	0.089/*0.196*
			90	**SSP1A490M7**	0.089/*0.196*
			125	**SSP1A4125M7**	0.089/*0.196*

Relays with embedded thermal pad and smart diagnostic features

Zero voltage switching	⎓ 3…32	∿ 24…300	25	**SSP1A125BDS**	0.097/*0.214*
			50	**SSP1A150BDS**	0.097/*0.214*
	⎓ 4…32	∿ 48…660	50	**SSP1A450BDS**	0.097/*0.214*
			75	**SSP1A475BDS**	0.097/*0.214*
			90	**SSP1A490BDS**	0.097/*0.214*
			125	**SSP1A4125BDS**	0.097/*0.214*

Zelio Relays - Solid state relays

SSP solid state panel mount relays

PF123437B



SSP3A225P7

SSP3 three-phase solid state relays

Relays with embedded thermal pad

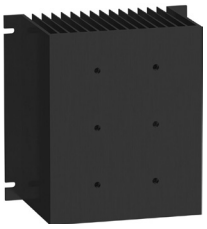
Switching	Voltage range		Load current range	Reference	Weight
	Control Input	Load Output			
	V	V	A		kg/*lb*
Zero voltage switching	⎓ 4…32	∿ 48…530	25	**SSP3A225BDT**	0.240/*0.529*
			50	**SSP3A250BDT**	0.240/*0.529*
	∿ 18…36	∿ 48…530	25	**SSP3A225B7T**	0.240/*0.529*
			50	**SSP3A250B7T**	0.240/*0.529*
	∿ 90…140	∿ 48…530	25	**SSP3A225F7T**	0.240/*0.529*
			50	**SSP3A250F7T**	0.240/*0.529*
	∿ 180…280	∿ 48…530	25	**SSP3A225P7T**	0.240/*0.529*
			50	**SSP3A250P7T**	0.240/*0.529*
Random switching	⎓ 4…32	∿ 48…530	25	**SSP3A225BDRT**	0.240/*0.529*
			50	**SSP3A250BDRT**	0.240/*0.529*
	∿ 18…36	∿ 48…530	25	**SSP3A225B7RT**	0.240/*0.529*
			50	**SSP3A250B7RT**	0.240/*0.529*
	∿ 90…140	∿ 48…530	25	**SSP3A225F7RT**	0.240/*0.529*
			50	**SSP3A250F7RT**	0.240/*0.529*
	∿ 180…280	∿ 48…530	25	**SSP3A225P7RT**	0.240/*0.529*
			50	**SSP3A250P7RT**	0.240/*0.529*

Relays without embedded thermal pad

Zero voltage switching	⎓ 4…32	∿ 48…530	25	**SSP3A225BD**	0.240/*0.529*
			50	**SSP3A250BD**	0.240/*0.529*
	∿ 18…36	∿ 48…530	25	**SSP3A225B7**	0.240/*0.529*
			50	**SSP3A250B7**	0.240/*0.529*
	∿ 90…140	∿ 48…530	25	**SSP3A225F7**	0.240/*0.529*
			50	**SSP3A250F7**	0.240/*0.529*
	∿ 180…280	∿ 48…530	25	**SSP3A225P7**	0.240/*0.529*
			50	**SSP3A250P7**	0.240/*0.529*
Random switching	⎓ 4…32	∿ 48…530	25	**SSP3A225BDR**	0.240/*0.529*
			50	**SSP3A250BDR**	0.240/*0.529*
	∿ 18…36	∿ 48…530	25	**SSP3A225B7R**	0.240/*0.529*
			50	**SSP3A250B7R**	0.240/*0.529*
	∿ 90…140	∿ 48…530	25	**SSP3A225F7R**	0.240/*0.529*
			50	**SSP3A250F7R**	0.240/*0.529*
	∿ 180…280	∿ 48…530	25	**SSP3A225P7R**	0.240/*0.529*
			50	**SSP3A250P7R**	0.240/*0.529*

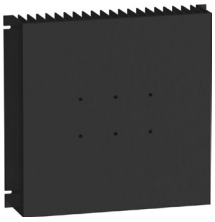
Zelio Relays - Solid state relays
SSP heat sinks and accessories

PF123462D



SSRHP05

PF123461C



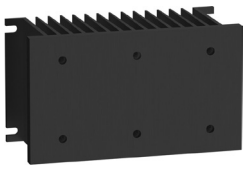
SSRHP02

PF150944D



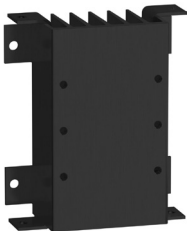
SSRHP07

PF123463B



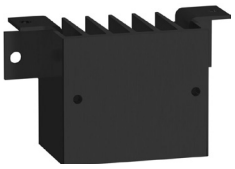
SSRHP10

PF123464D



SSRHP17

PF123465C



SSRHP25

PF150947



SSRAL1

PF150946



SSRAL2

Heat sinks for customer assembly

Mounting	Number and type of relays supported	Surface area	Thermal resistance	Reference	Weight
		cm^2/in^2	°C/W		kg/*lb*
Panel mount	Up to 3 SSP1 units 1 SSP3 unit	6,823/1,058	0.2	**SSRHP02**	2.592/*5.714*
	Up to 3 SSP1 units 1 SSP3 unit	4,406/683	0.5	**SSRHP05**	1.440/*3.174*
	1 SSP1 unit	1,640/254	0.7	**SSRHP07**	0.526/*1.159*
	Up to 3 SSP1 units 1 SSP3 unit	1,425/221	1	**SSRHP10**	0.620/*1.367*
	Up to 2 SSP1 units	659/102	1.7	**SSRHP17**	0.195/*0.430*
	1 SSP1 unit	336/52.10	2.5	**SSRHP25**	0.100/*0.220*
DIN rail mount	Up to 3 SSP1 units 1 SSP3 unit	1,425/221	1	**SSRHD10**	0.630/*1.389*

Accessories

Description	Type of relays supported	Unit reference	Weight kg/*lb*
Copper terminal lug for AWG 6 (13.3 mm^2) to AWG 0 (53.5 mm^2) Sold in lots of 10	SSP1	**SSRAL1**	0.042/*0.093*
Copper terminal lug for AWG 14 (2.1 mm^2) to AWG 6 (13.3 mm^2) Sold in lots of 10	SSP1	**SSRAL2**	0.009/*0.002*

Zelio Relays - Solid state relays
Product reference index

R

RSLZ2 9
RSLZ3 9
RSLZ5 9

S

SSL1A12BD 10
SSL1A12BDPR 9
SSL1A12BDPV 9
SSL1A12BDR 10
SSL1A12BDRPR 9
SSL1A12BDRPV 9
SSL1A12JD 10
SSL1A12JDPR 9
SSL1A12JDPV 9
SSL1A12JDR 10
SSL1A12JDRPR 9
SSL1A12JDRPV 9
SSL1A12ND 10
SSL1A12NDR 10
SSL1D03BD 10
SSL1D03BDPR 9
SSL1D03BDPV 9
SSL1D03JD 10
SSL1D03JDPR 9
SSL1D03JDPV 9
SSL1D03ND 10
SSL1D101BD 10
SSL1D101BDPR 9
SSL1D101BDPV 9
SSL1D101JD 10
SSL1D101JDPR 9
SSL1D101JDPV 9
SSL1D101ND 10
SSLZRA1 10
SSLZRA2 10
SSLZRA3 10
SSLZRA4 10
SSLZVA1 10
SSLZVA2 10
SSLZVA3 10
SSLZVA4 10
SSM1A16B7 13
SSM1A16B7R 13
SSM1A16BD 13
SSM1A16BDR 13
SSM1A16F7 13
SSM1A16F7R 13
SSM1A16P7 13
SSM1A16P7R 13
SSM1A36BD 13
SSM1A36BDR 13
SSM1A112B7 13
SSM1A112B7R 13
SSM1A112BD 13
SSM1A112BDR 13
SSM1A112F7 13
SSM1A112F7R 13
SSM1A112P7 13
SSM1A112P7R 13
SSM1A120BD 14
SSM1A120M7 14
SSM1A130BD 14
SSM1A130M7 14
SSM1A145BD 14
SSM1A145F7 14
SSM1A312B7 13
SSM1A312B7R 13
SSM1A312BD 13
SSM1A312BDR 13
SSM1A312F7 13
SSM1A312F7R 13
SSM1A312P7 13
SSM1A312P7R 13
SSM1A430BD 14
SSM1A430M7 14
SSM1A445BD 14
SSM1A445F7 14
SSM1A455BD 14
SSM1A455F7 14
SSM1D26BD 13
SSM1D36BD 13
SSM1D212BD 13
SSM1D312BD 13
SSM2A16BD 14
SSM2A16BDR 14
SSM2A36BD 14
SSM2A36BDR 14
SSM3A325BD 15
SSM3A325BDR 15
SSM3A325F7 15
SSM3A325P7 15
SSP1A110BD 17
SSP1A110BDT 17
SSP1A110M7 17
SSP1A110M7T 17
SSP1A125BD 17
SSP1A125BDS 17
SSP1A125BDT 17
SSP1A125M7 17
SSP1A125M7T 17
SSP1A150BD 17
SSP1A150BDS 17
SSP1A150BDT 17
SSP1A150M7 17
SSP1A150M7T 17
SSP1A175BD 17
SSP1A175BDT 17
SSP1A175M7 17
SSP1A175M7T 17
SSP1A450BD 17
SSP1A450BDS 17
SSP1A450BDT 17
SSP1A450M7 17
SSP1A450M7T 17
SSP1A475BD 17
SSP1A475BDS 17
SSP1A475BDT 17
SSP1A475M7 17
SSP1A475M7T 17
SSP1A490BD 17
SSP1A490BDS 17
SSP1A490BDT 17
SSP1A490M7 17
SSP1A490M7T 17
SSP1A4125BD 17
SSP1A4125BDS 17
SSP1A4125BDT 17
SSP1A4125M7 17
SSP1A4125M7T 17
SSP1D412BD 17
SSP1D412BDT 17
SSP1D425BD 17
SSP1D425BDT 17
SSP1D440BD 17
SSP1D440BDT 17
SSP3A225B7 18
SSP3A225B7R 18
SSP3A225B7RT 18
SSP3A225B7T 18
SSP3A225BD 18
SSP3A225BDR 18
SSP3A225BDRT 18
SSP3A225BDT 18
SSP3A225F7 18
SSP3A225F7R 18
SSP3A225F7RT 18
SSP3A225F7T 18
SSP3A225P7 18
SSP3A225P7R 18
SSP3A225P7RT 18
SSP3A225P7T 18
SSP3A250B7 18
SSP3A250B7R 18
SSP3A250B7RT 18
SSP3A250B7T 18
SSP3A250BD 18
SSP3A250BDR 18
SSP3A250BDRT 18
SSP3A250BDT 18
SSP3A250F7 18
SSP3A250F7R 18
SSP3A250F7RT 18
SSP3A250F7T 18
SSP3A250P7 18
SSP3A250P7R 18
SSP3A250P7RT 18
SSP3A250P7T 18
SSRAL1 19
SSRAL2 19
SSRHD10 19
SSRHP02 19
SSRHP05 19
SSRHP07 19
SSRHP10 19
SSRHP17 19
SSRHP25 19



www.schneider-electric.com/relays

Schneider Electric Industries SAS

Head Office
35, rue Joseph Monier
F-92500 Rueil-Malmaison
France

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Design: Schneider Electric
Photos: Schneider Electric

December 2018 - V4.0

DIA5ED2130302EN