



# Harmony Solid State Relays

Slim interfaces, Modular DIN rail and  
Panel mount solid state relays



# Harmony

## Discover **Harmony**

Advanced operator interface and industrial relays

**Harmony** operator interface and industrial relays enhance operational efficiency and equipment availability across industrial and building applications. **Harmony** includes intelligent connected products and edge terminals that visualize, gather and process data, enabling informed operator decisions

## Explore our offer

- **Harmony** Push Buttons and Switches
- **Harmony** HMI Operator Terminals, IPC and EdgeBox
- **Harmony** Signaling Devices
- **Harmony** Electrical Relays
- **Harmony** Safety

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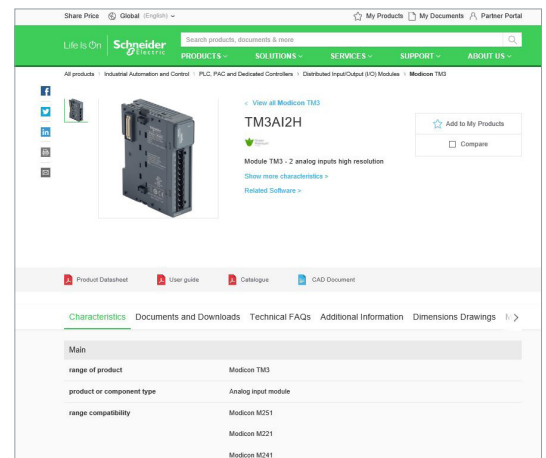
# Quick access to product information

## Get technical information about your product

**References**

**Modicon TM3 I/O expansion modules for Modicon controllers**  
Analog I/O modules

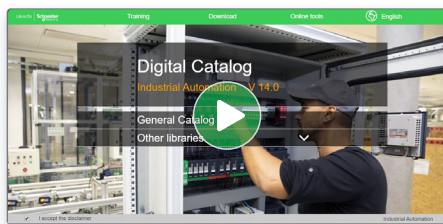
References	Modicon TM3 analog input modules	Input range	Resolution	Input terminal block (T)	Reference	Weight (kg)
2 voltage/current inputs	TM3A2V	-10...+10 VDC	10 000 cr	0 000	TM3A2V1	0,150
		-10...+10 VDC 0...20 mA / -20 mA	10 000 cr 11 000 cr	0 000 0 000	TM3A2V2	0,200
4 voltage/current inputs	TM3A4	-10...+10 VDC	12 000 cr	0 000	TM3A41	0,200
		-10...+10 VDC 0...20 mA / -20 mA	11 000 cr 12 000 cr	0 000 0 000	TM3A42	0,250
4 voltage/current or temperature inputs (I, K, R, S, E, T, N, E, C)	TM3A4T	Thermopile (I)	10 000 cr	0 000	TM3A4T1	0,200
		Temperature (I, K, R, S, E, T, N, E, C)	10 000 cr 11 000 cr	0 000 0 000	TM3A4T2	0,250
4 differential temperature inputs (I, K, R, S, E, T, N, E, C)	TM3A4D	Thermopile (I)	10 000 cr	0 000	TM3A4D1	0,100
		Temperature (I, K, R, S, E, T, N, E, C)	10 000 cr 11 000 cr	0 000 0 000	TM3A4D2	0,200
4 voltage/current	TM3A4S	-10...+10 VDC	10 000 cr	0 000	TM3A4S1	0,150
		-10...+10 VDC 0...20 mA / -20 mA	10 000 cr 11 000 cr	0 000 0 000	TM3A4S2	0,200



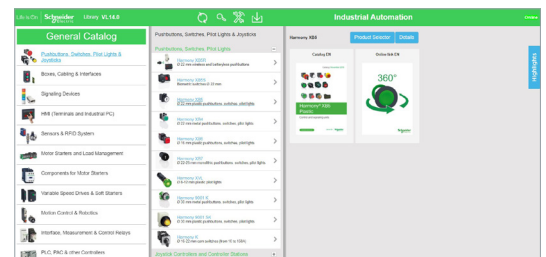
Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

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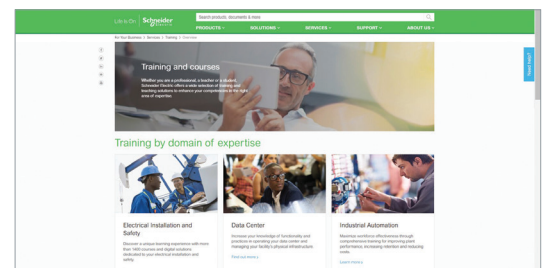


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Life Is On

Schneider Electric



Make precise

# IMPACT

with Harmony Solid State Relays.



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**Schneider**  
Electric



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## Harmony Solid State Relays

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### Harmony Relays - Solid State Relays

Choose long life and silent operation with Harmony 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

#### Sustainability in harsh environment

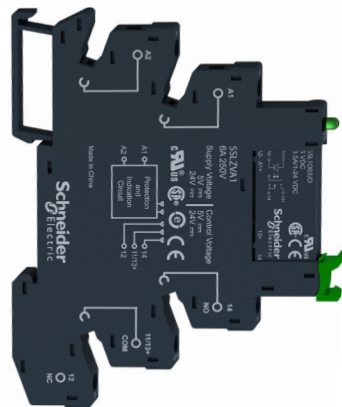
resistance to shock,  
vibration, and  
contamination

The Harmony SSR series offers slim interface (SSL), modular DIN rail (SSD, 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



#### Pre-assembled SSL relays\*

Control input voltage	Load output voltage
~ 4...12 V	~ 3...30V ~ 1...48V ~ 24...250V
~ 16...30V	~ 3...30V ~ 1...48V ~ 24...250V

\* SSL relays + SSLZ sockets

SSL slim interface relay mounted on SSLZ socket

#### 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 (1-phase) + SSLZ (socket) → Slim plug-in interface solution

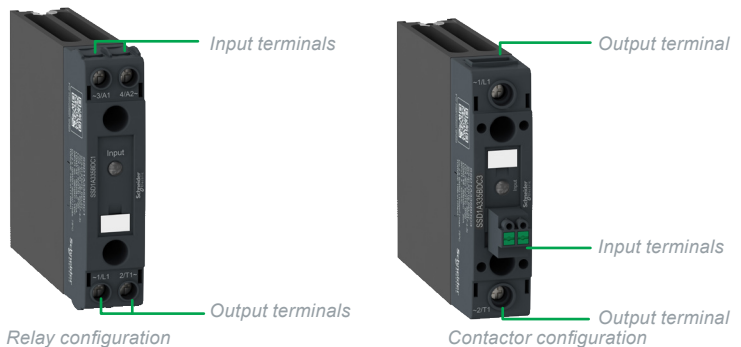
Choose reliability and flexibility with innovative DIN rail mount SSD relays

### Performance

- > High I<sup>2</sup>T (up to 8320 A<sup>2</sup>S) to facilitate the use of circuit breakers instead of fuses, allowing Type 1 coordination protection (as per IEC 60947-4-3)
- > High current rating (up to 35 A for 22.5 mm models, and up to 60 A for 45 mm models) at a compact size, optimizing the size of your enclosure
- > Surge protection from applications with built-in transient overvoltage protection

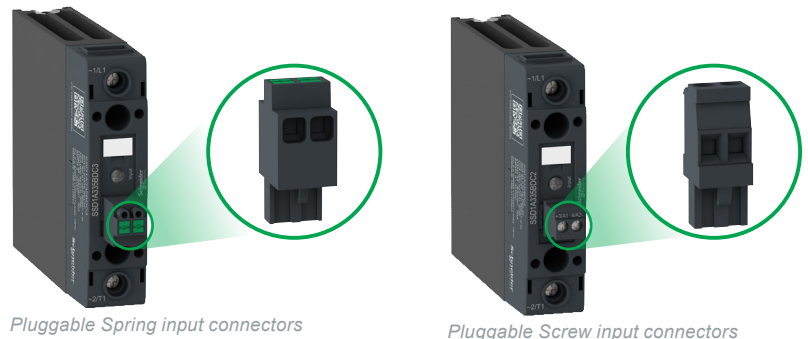
### Flexibility

- > Relay and Contactor configuration to suit your wiring preferences
- > Telescopic screw terminal options available to facilitate the use of lug terminals



### Simplified selection and installation

- > Integrated heat sink to eliminate the need for thermal calculation
- > Spring and screw input connectors option is available for simplified wiring



### Wide range of standards and certifications

- > Complies with IEC 61373 for railway and rolling stock application
- > Electromagnetic compatibility complying to IEC 60947-4-3 standard
- > Conforms to a wide range of internationally recognized standards and certification

22.5mm/0.886 in.



SSD1: 20, 30 and 35 A single-phase SSR

45mm/1.772 in.



SSD1: 45 and 60 A single-phase SSR

SSD relays	
Control input voltage	Load output voltage
⎓ 4...32 V	⎓ 1...150 V ~ 48...600 V
~ 90...280 V	~ 48...600 V



**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 (12, 18, and 90 mm width) with load output current of 6, 12, and 25 A

12 mm/0.472 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...60 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

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

**Enhanced modular solution**

- > Wide choice of relays with single-phase and three-phase options and current ratings from 6 A to 25 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: Single-phase panel mount SSR

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

SSP1.S.relays	
Control input voltage	Load output voltage
⋯ 3...32 V	~ 24...300 V
⋯ 4...32 V	~ 48...660 V



SSP3: Three-phase panel mount SSR

SSP3.relays	
Control input voltage	Load output voltage
⋯ 4-32 V	~ 42-660 V
~ 18-36 V	~ 42-660 V
~ 90-280 V	

#### Simple, and robust screw terminals

- > Simple and easy wiring; accepts wires with different kinds of terminations
- > 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

- > Readily available factory-fit thermal pad
- > Heat sink offers panel and DIN rail mounting options

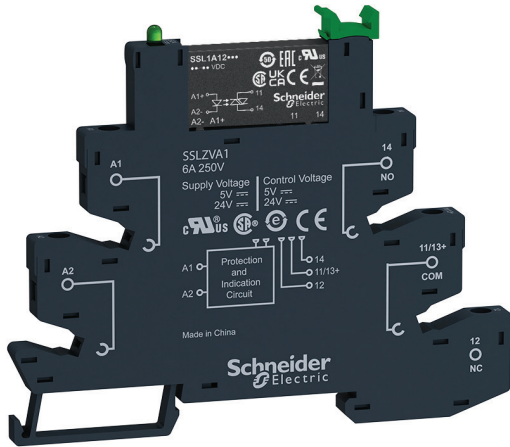
**SSP1 (1-phase)/SSP3 (3-phase) + SSRH (Heat sinks) → Complete solution**

Type of product	Slim interface SSR		Modular DIN rail SSR
	Customer assembly (Relay and socket)	Pre-assembled (Relay with socket)	
Number of phases	1		1
Type of mounting	Plug-in pins with DIN rail mounted socket		DIN rail mounted
Control input voltage	-		90...280 V
	3...12 V 15...30 V 16...30 V	4...12 V 16...30 V	4...32 V 90...280 V
Output load voltage	24...280 V		48...600 V
	3...30 V 1...48 V	3...30 V 1...48 V	1...150 V
Output load current	2 A		20,35 A for 22.5 mm/0.886 in. 40, 60 A for 45 mm/1.772 in.
	0.1, 3.5 A		20,30 A for 22.5 mm/0.886 in.
Type of switching	Zero voltage		Yes
	Random		Yes
	DC		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	<b>SSL (1) (2)</b>		<b>SSD1</b>
Pages	9		13

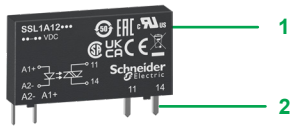
(1) SSL slim relays and SSLZ sockets.  
(2) Pre-assembled SSL slim relays (relay + socket).

Modular DIN rail SSR (continued)			Panel mount SSR	
1	1 (dual SSR)	3	1	3
DIN rail mounted	DIN rail mounted	DIN rail mounted	Panel mounted	Wall mounted
18...36 V 90...140 V 200...265 V	-	90...140 V 90...280 V	90...280 V	18...36 V 90...280 V
4...32 V	4...32 V	4...32 V	3...32 V 4...32 V	4...32 V
24...280 V 48...600 V	24...280 V	48...600 V	24...300 V 48...660 V	42...660 V
1...60 V 1...100 V	-	-	1...150 V	-
6 A for 12 mm/0.472 in. 12 A for 18 mm/0.709 in.	6 A	25 A	10, 25, 50, 75, 90, 125 A	25, 50 A
6 A for 12 mm/0.472 in. 12 A for 18 mm/0.709 in.	-	-	12, 25, 40 A	-
Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	-	Yes
Yes	-	-	Yes	-
Built-in heat sink	Built-in heat sink	Built-in heat sink	Option with thermal pad	With thermal pad
IP 20	IP 20	IP 20	IP 20	IP 20
Yes	Yes	Yes	Yes	Yes
<b>SSM1</b>	<b>SSM2</b>	<b>SSM3</b>	<b>SSP1</b>	<b>SSP3</b>
16	17	17	19	20

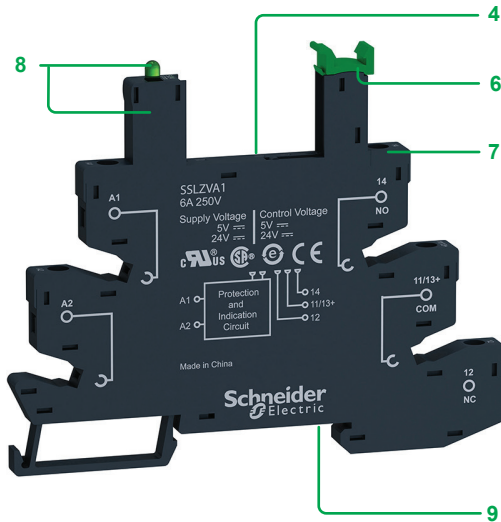




Pre-assembled solid state relay



SSL relay



Socket equipped with LED and protection circuit

### 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 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  $\bar{\bar{=}}$ , 3.5 A
  - 48 V  $\bar{\bar{=}}$ , 100 mA
  - 280 V  $\sim$ , 2 A
- 2 4 flat, reinforced pins (Plug-in 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



### 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	≡ 3 to 30	3.5	<a href="#">SSL1D03JDPV</a> (SSL1D03JD + SSLZVA1)	0.033/0.073
Zero voltage switching	≡ 4 to 12	~ 24 to 250	2	<a href="#">SSL1A12JDPV</a> (SSL1A12JD+SSLZVA1)	0.033/0.073
DC Switching	≡ 16 to 30	≡ 3 to 30	3.5	<a href="#">SSL1D03BDPV</a> (SSL1D03BD+SSLZVA1)	0.033/0.073
	≡ 16 to 30	≡ 1 to 48	0.1	<a href="#">SSL1D101BDPV</a> (SSL1D101BD+SSLZVA1)	0.033/0.073
Zero voltage switching	≡ 16 to 30	~ 24 to 250	2	<a href="#">SSL1A12BDPV</a> (SSL1A12BD+SSLZVA1)	0.033/0.073
Random switching	≡ 16 to 30	~ 24 to 250	2	<a href="#">SSL1A12BDRPV</a> (SSL1A12BDR+SSLZVA1)	0.033/0.073

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

DC Switching	≡ 4 to 12	≡ 3 to 30	3.5	<a href="#">SSL1D03JDPR</a> (SSL1D03JD+SSLZRA1)	0.033/0.073
DC Switching	≡ 16 to 30	≡ 3 to 30	3.5	<a href="#">SSL1D03BDPR</a> (SSL1D03BD+SSLZRA1)	0.033/0.073
Zero voltage switching	≡ 16 to 30	~ 24 to 250	2	<a href="#">SSL1A12BDPR</a> (SSL1A12BD+SSLZRA1)	0.033/0.073

PF123409A



SSL1A12JD

PF123420B



SSLZVA1 + SSL1D03JD

### Relays and sockets for customer assembly

#### SSL single-phase solid state relays (sold in lots of 10)

Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/lb
DC switching	~ 3 to 12	~ 3 to 30	3.5	<a href="#">SSL1D03JD</a>	0.004/0.009
		~ 1 to 48	0.1	<a href="#">SSL1D101JD</a>	0.004/0.009
	~ 15 to 30	~ 3 to 30	3.5	<a href="#">SSL1D03BD</a>	0.004/0.009
		~ 1 to 48	0.1	<a href="#">SSL1D101BD</a>	0.004/0.009
Zero voltage switching	~ 3 to 12	~ 24 to 280	2	<a href="#">SSL1A12JD</a>	0.004/0.009
	~ 15 to 30	~ 24 to 280	2	<a href="#">SSL1A12BD</a>	0.004/0.009
Random switching	~ 3 to 12	~ 24 to 280	2	<a href="#">SSL1A12JDR</a>	0.004/0.009
	~ 15 to 30	~ 24 to 280	2	<a href="#">SSL1A12BDR</a>	0.004/0.009

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

Control voltage (Nominal)	For use with relays	Socket type		Unit reference	Weight
		Screw connector	Spring terminals		
V		Unit reference	Weight	Unit reference	Weight
			kg/lb		kg/lb
~ 5	SSL1D03JD SSL1D101JD SSL1A12JD SSL1A12JDR	<a href="#">SSLZVA1</a>	0.029/0.063	<a href="#">SSLZRA1</a>	0.029/0.063
~ 24	SSL1D03BD SSL1D101BD SSL1A12BD SSL1A12BDR	<a href="#">SSLZVA1</a>	0.029/0.063	<a href="#">SSLZRA1</a>	0.029/0.063





RSLZ2



RSLZ3

### Accessories for sockets

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

### Presentation of the range

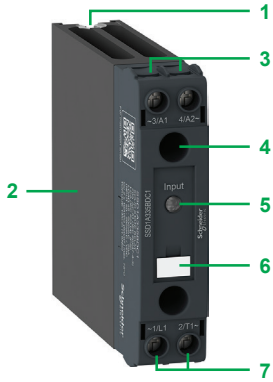
**SSD1** solid state relays are single-phase DIN rail mounted relays with high-power density of up to 60 A and built-in heat sink. They are available in two configurations, namely the relay and contactor types.

The **SSD1** family offers a unique range of terminal connections (input connectors: spring or screw plug-in, output terminals: telescopic, clamp cage or standard screw) providing options as per the wiring preference.

### Relay description

#### SSD1 relay, 22.5 mm/0.886 in. – Relay configuration

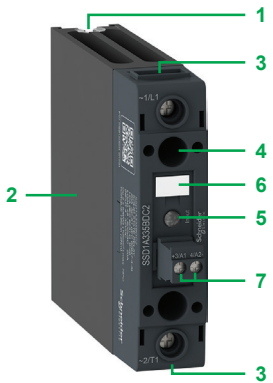
- 1 Locating slot for mounting on DIN rail
- 2 Built-in heat sink for heat dissipation
- 3 Control input connection terminals
- 4 Fixing hole for attaching relay to heat sink
- 5 LED input status indicator
- 6 Clip-in legend for easy identification
- 7 Load output connection terminals



SSD1 single-phase solid state DIN rail relay, 22.5 mm

#### SSD1 relay, 22.5 mm/0.886 in. – Contactor configuration with pluggable (screw or spring) input connector

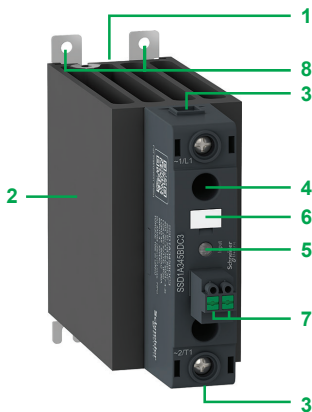
- 1 Locating slot for mounting on DIN rail
- 2 Built-in heat sink for heat dissipation
- 3 Load output connection terminals
- 4 Fixing hole for attaching relay to heat sink
- 5 LED input status indicator
- 6 Clip-in legend for easy identification
- 7 Pluggable input connector (spring or screw options available)



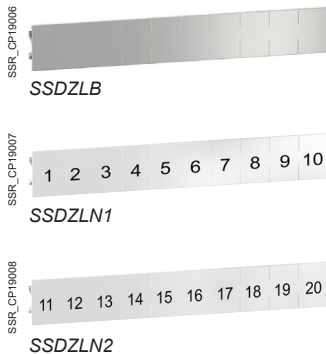
SSD1 single-phase solid state DIN rail contactor with pluggable screw input, 22.5 mm

#### SSD1 relay, 45 mm/1.771 in. – Contactor configuration with pluggable (screw or spring) input connector

- 1 Locating slot for mounting on DIN rail
- 2 Built-in heat sink for heat dissipation
- 3 Load output connection terminals
- 4 Fixing hole for attaching relay to heat sink
- 5 LED input status indicator
- 6 Clip-in legend for easy identification
- 7 Pluggable input connector (spring or screw options available)
- 8 Lugs for panel mounting



SSD1 single-phase solid state DIN rail contactor with pluggable spring input, 45 mm



SSD1 single-phase solid state relays (22.5 and 45 mm)						
Switching	Voltage range		Load current range	Configuration	Reference	Weight
	Control input	Load output				
	V	V	A			kg/lb
DC switching	= 4...32	= 1...150	20	Relay	<a href="#">SSD1D520BDC1</a>	0.298/0.657
			30	Relay	<a href="#">SSD1D530BDC1</a>	0.298/0.657
Zero voltage switching	= 4...32	~ 48...600	20	Relay	<a href="#">SSD1A320BDC1</a>	0.298/0.657
			20	Contactor, Screw input connector	<a href="#">SSD1A320BDC2</a>	0.301/0.664
			20	Contactor, Spring input connector	<a href="#">SSD1A320BDC3</a>	0.301/0.664
			35	Relay	<a href="#">SSD1A335BDC1</a>	0.298/0.657
			35	Contactor, Screw input connector	<a href="#">SSD1A335BDC2</a>	0.301/0.664
			35	Contactor, Spring input connector	<a href="#">SSD1A335BDC3</a>	0.301/0.664
			45	Contactor, Screw input connector	<a href="#">SSD1A345BDC2</a>	0.507/1.117
			45	Contactor, Spring input connector	<a href="#">SSD1A345BDC3</a>	0.507/1.117
			60	Contactor, Screw input connector	<a href="#">SSD1A360BDC2</a>	0.507/1.117
			60	Contactor, Spring input connector	<a href="#">SSD1A360BDC3</a>	0.507/1.117
Random switching	= 4...32	~ 48...600	20	Relay	<a href="#">SSD1A320M7C1</a>	0.298/0.657
			35	Relay	<a href="#">SSD1A335M7C1</a>	0.298/0.657
			35	Contactor, Spring input connector	<a href="#">SSD1A335M7C3</a>	0.301/0.664
			45	Contactor, Screw input connector	<a href="#">SSD1A345M7C2</a>	0.507/1.117
			20	Relay	<a href="#">SSD1A320BDC1</a>	0.298/0.657
			20	Relay	<a href="#">SSD1A320BDC1</a>	0.298/0.657

Accessories				
Description	For use with	Sold in lots of	Unit reference	Weight kg/lb
Clip-in Legends, Blank strip	All SSD1 solid state relays	10	<a href="#">SSDZLB</a>	0.002/0.004
Clip-in Legends, Numbered strip (1 to 10)	All SSD1 solid state relays	10	<a href="#">SSDZLN1</a>	0.002/0.004
Clip-in Legends, Numbered strip (11 to 20)	All SSD1 solid state relays	10	<a href="#">SSDZLN2</a>	0.002/0.004



## 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.

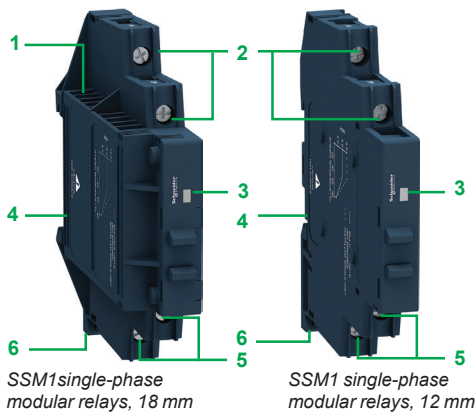
The SSM relay range comprises:

- **SSM1:** Single-phase SSR relays with 6, 12 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. width and 18 mm/0.709 in. 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 single-phase dual channel modular relays, 18 mm

### Relay description

#### SSM2 relays, 18 mm/0.709 in. 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



SSM3 single-phase modular relays, 90 mm

#### SSM3 relays, 90 mm/0.354 in. 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

# Harmony Solid State Relays

## SSM solid state modular DIN rail relays

PF123428B



SSM1A36BD

PF123427B



SSM1A312BD

### SSM1 single-phase solid state relays (6 A, 12 mm and 12 A, 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	<a href="#">SSM1D26BD</a>	0.050/0.110	
			12	<a href="#">SSM1D212BD</a>	0.090/0.198	
			≡ 1...100	6	<a href="#">SSM1D36BD</a>	0.050/0.110
			12	<a href="#">SSM1D312BD</a>	0.090/0.198	
	Zero voltage switching	≡ 4...32	~ 24...280	6	<a href="#">SSM1A16BD</a>	0.050/0.110
				12	<a href="#">SSM1A112BD</a>	0.090/0.198
			~ 48...600	6	<a href="#">SSM1A36BD</a>	0.050/0.110
			12	<a href="#">SSM1A312BD</a>	0.090/0.198	
			~ 18...36	6	<a href="#">SSM1A16B7</a>	0.050/0.110
			12	<a href="#">SSM1A112B7</a>	0.090/0.198	
			~ 90...140	6	<a href="#">SSM1A16F7</a>	0.050/0.110
			12	<a href="#">SSM1A312F7</a>	0.090/0.198	
			~ 200...265	12	<a href="#">SSM1A112P7</a>	0.090/0.198
			Random switching		~ 24...280	12
~ 48...600		6			<a href="#">SSM1A36BDR</a>	0.050/0.110
				12	<a href="#">SSM1A312BDR</a>	0.090/0.198
	~ 18...36			12	<a href="#">SSM1A312B7R</a>	0.090/0.198
		~ 90...140		12	<a href="#">SSM1A112F7R</a>	0.090/0.198
		~ 48...600		12	<a href="#">SSM1A312F7R</a>	0.090/0.198
		~ 200...265	12	<a href="#">SSM1A112P7R</a>	0.090/0.198	
		~ 48...600	12	<a href="#">SSM1A312P7R</a>	0.090/0.198	

PF124428B



SSM2A16BDR

### SSM2 single-phase solid state relays, dual channel (6 A, 18 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	6	<a href="#">SSM2A16BD</a>	0.090/0.198
Random switching	≡ 4...32	~ 24...280	6	<a href="#">SSM2A16BDR</a>	0.090/0.198

PF152212



SSM3A325F7

### SSM3 three-phase solid state relays (25 A, 90 mm)

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	<a href="#">SSM3A325BD</a>	0.740/1.631
		~ 90...140	25	<a href="#">SSM3A325F7</a>	0.740/1.631
		~ 180...280	25	<a href="#">SSM3A325P7</a>	0.740/1.631
Random switching	≡ 4...32	~ 48...600	25	<a href="#">SSM3A325BDR</a>	0.740/1.631

RS\_CP20737

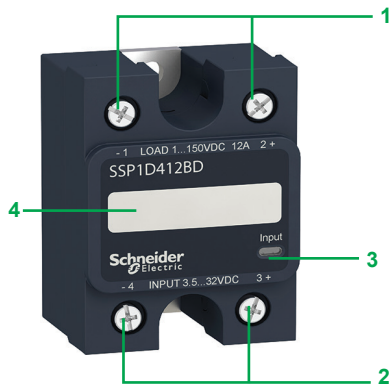


SSRAC200

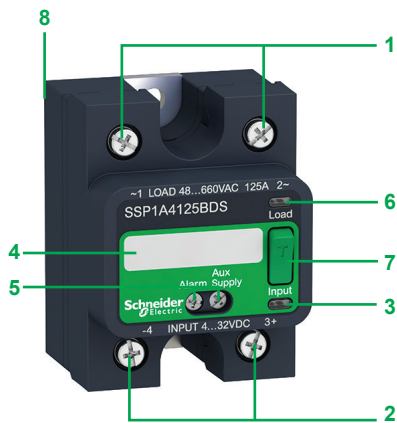
### Accessories

Description	Types of relay supported	Unit reference	Weight
4 Pin connector cable for SSM2 relay	SSM2A16BD, SSM2A16BDR	<a href="#">SSRAC200</a>	0.055/0.121

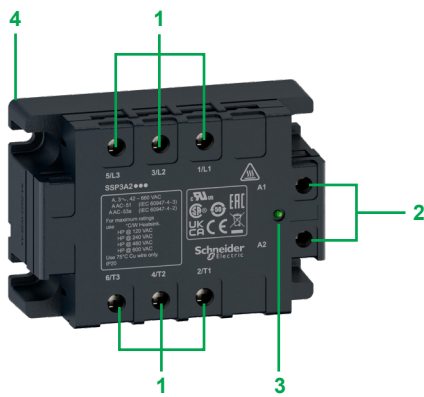




SSP1 single-phase panel mount relays



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), extended load output voltage of up to 660 V ~ 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 Factory-fit thermal pad that is glued on the rear of the product



SSP1D425BD



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
	≡ 4...32	~ 48...660	75	SSP1A175BDT	0.089/0.196
			50	SSP1A450BDT	0.089/0.196
			75	SSP1A475BDT	0.089/0.196
	~ 90...280	~ 24...300	90	SSP1A490BDT	0.089/0.196
			125	SSP1A4125BDT	0.089/0.196
			10	SSP1A110M7T	0.089/0.196
	~ 48...660	~ 24...300	25	SSP1A125M7T	0.089/0.196
			50	SSP1A150M7T	0.089/0.196
			75	SSP1A175M7T	0.089/0.196
	~ 48...660	~ 48...660	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
	≡ 4...32	~ 48...660	75	SSP1A175BD	0.089/0.196
			50	SSP1A450BD	0.089/0.196
			75	SSP1A475BD	0.089/0.196
	~ 90...280	~ 24...300	90	SSP1A490BD	0.089/0.196
			125	SSP1A4125BD	0.089/0.196
			25	SSP1A125M7	0.089/0.196
	~ 48...660	~ 24...300	50	SSP1A150M7	0.089/0.196
			50	SSP1A450M7	0.089/0.196
			75	SSP1A475M7	0.089/0.196
	~ 48...660	~ 48...660	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
			75	SSP1A475BDS	0.097/0.214
			125	SSP1A4125BDS	0.097/0.214

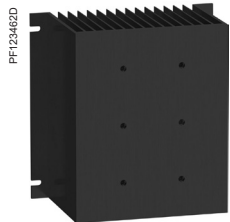


SSP3A225P7T

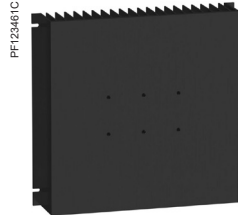
### SSP3 three-phase solid state relays

#### 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	~ 42...660	25	<a href="#">SSP3A225BDT</a>	0.370/0.816
			50	<a href="#">SSP3A250BDT</a>	0.370/0.816
	~ 18...36	~ 42...660	50	<a href="#">SSP3A250B7T</a>	0.370/0.816
			25	<a href="#">SSP3A225P7T</a>	0.370/0.816
	~ 90...280	~ 42...660	50	<a href="#">SSP3A250P7T</a>	0.370/0.816
			25	<a href="#">SSP3A225BDRT</a>	0.370/0.816
Random switching	≡ 4...32	~ 42...660	50	<a href="#">SSP3A250BDRT</a>	0.370/0.816
			25	<a href="#">SSP3A225BDRT</a>	0.370/0.816
			50	<a href="#">SSP3A250P7RT</a>	0.370/0.816



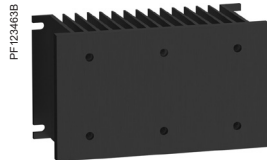
SSRHP05



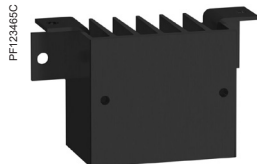
SSRHP02



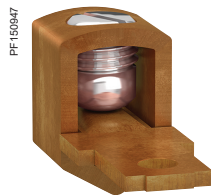
SSRHP07



SSRHP10



SSRHP25



SSRAL1

### Heat sinks for customer assembly

Mounting	Number and type of relays supported	Surface area	Thermal resistance	Reference	Weight
		cm <sup>2</sup> /in <sup>2</sup>	°C/W		
Panel mount	Up to 3 SSP1 units 1 SSP3 unit	6,823/1,058	0.2	<a href="#">SSRHP02</a>	2.592/5.714
	Up to 3 SSP1 units 1 SSP3 unit	4,406/683	0.5	<a href="#">SSRHP05</a>	1.440/3.174
	1 SSP1 unit	1,640/254	0.7	<a href="#">SSRHP07</a>	0.526/1.159
	Up to 3 SSP1 units 1 SSP3 unit	1,425/221	1	<a href="#">SSRHP10</a>	0.620/1.367
	1 SSP1 unit	336/52.10	2.5	<a href="#">SSRHP25</a>	0.100/0.220
DIN rail mount	Up to 3 SSP1 units 1 SSP3 unit	1,425/221	1	<a href="#">SSRHD10</a>	0.630/1.389

### Accessories

Description	Type of relays supported	Unit reference	Weight kg/lb
Copper terminal lug for AWG 6 (13.3 mm <sup>2</sup> ) to AWG 0 (53.5 mm <sup>2</sup> ) <b>Sold in lots of 10</b>	SSP1	<a href="#">SSRAL1</a>	0.042/0.093

<b>R</b>		
RSLZ2	11	
RSLZ3	11	
RSLZ5	11	
<b>S</b>		
SSD1A320BDC1	13	SSM1D312BD 16
SSD1A320BDC2	13	SSM1D36BD 16
SSD1A320BDC3	13	SSM2A16BD 17
SSD1A320BDRC1	13	SSM2A16BDR 17
SSD1A320M7C1	13	SSM3A325BD 17
SSD1A335BDC1	13	SSM3A325BDR 17
SSD1A335BDC2	13	SSM3A325F7 17
SSD1A335BDC3	13	SSM3A325P7 17
SSD1A335M7C1	13	SSP1A110BD 19
SSD1A335M7C3	13	SSP1A110BDT 19
SSD1A345BDC2	13	SSP1A110M7T 19
SSD1A345BDC3	13	SSP1A125BD 19
SSD1A345M7C2	13	SSP1A125BDS 19
SSD1A360BDC2	13	SSP1A125BDT 19
SSD1A360BDC3	13	SSP1A125M7 19
SSD1D520BDC1	13	SSP1A125M7T 19
SSD1D530BDC1	13	SSP1A150BD 19
SSDZLB	13	SSP1A150BDT 19
SSDZLN1	13	SSP1A150M7 19
SSDZLN2	13	SSP1A150M7T 19
SSL1A12BD	10	SSP1A175BD 19
SSL1A12BDPR	9	SSP1A175BDT 19
SSL1A12BDPV	9	SSP1A175M7T 19
SSL1A12BDR	10	SSP1A4125BD 19
SSL1A12BDRPV	9	SSP1A4125BDS 19
SSL1A12JD	10	SSP1A4125BDT 19
SSL1A12JDPV	9	SSP1A4125M7 19
SSL1A12JDR	10	SSP1A4125M7T 19
SSL1D03BD	10	SSP1A450BD 19
SSL1D03BDPR	9	SSP1A450BDT 19
SSL1D03BDPV	9	SSP1A450M7 19
SSL1D03JD	10	SSP1A475BD 19
SSL1D03JDPR	9	SSP1A475BDS 19
SSL1D03JDPV	9	SSP1A475BDT 19
SSL1D101BD	10	SSP1A475M7 19
SSL1D101BDPV	9	SSP1A475M7T 19
SSL1D101JD	10	SSP1A490BD 19
SSLZRA1	10	SSP1A490BDT 19
SSLZVA1	10	SSP1A490M7 19
SSM1A112B7	16	SSP1A490M7T 19
SSM1A112BD	16	SSP1D412BD 19
SSM1A112BDR	16	SSP1D412BDT 19
SSM1A112F7R	16	SSP1D425BD 19
SSM1A112P7	16	SSP1D425BDT 19
SSM1A112P7R	16	SSP1D440BD 19
SSM1A16B7	16	SSP1D440BDT 19
SSM1A16BD	16	SSP3A225BDRT 20
SSM1A16BDR	16	SSP3A225BDT 20
SSM1A16F7	16	SSP3A225P7T 20
SSM1A312B7R	16	SSP3A225P7T 20
SSM1A312BD	16	SSP3A250B7T 20
SSM1A312BDR	16	SSP3A250BDRT 20
SSM1A312F7	16	SSP3A250BDT 20
SSM1A312F7R	16	SSP3A250P7RT 20
SSM1A312P7R	16	SSP3A250P7T 20
SSM1A36BD	16	SSRAC200 17
SSM1A36BDR	16	SSRAL1 21
SSM1D212BD	16	SSRHD10 21
SSM1D26BD	16	SSRHP02 21
		SSRHP05 21
		SSRHP07 21
		SSRHP10 21
		SSRHP25 21

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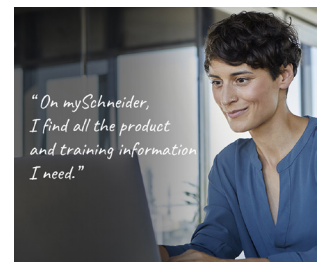
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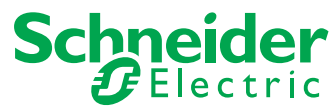
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DIA5ED2130302EN  
March 2025 - V8.0