Catalog | March 2021



Harmony Solid State Relays

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







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



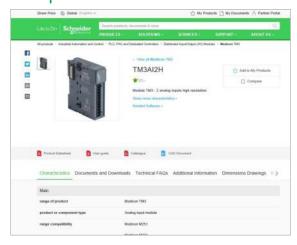


Get technical information about your product



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



Find your catalog



- With just 3 clicks, you can access the Industrial Automation and Control catalogs, in both English and French
- > Consult digital automation catalogs at Digi-Cat Online



- Up-to-date catalogs
- Embedded product selectors,360° pictures
- · Optimized search by commercial references

Select your training



- > Find the right Training for your needs on our Global website
- > Locate the training center with the selector tool, using this link





General contents

Harmony Solid State Relays

	General presentation	
	Choose slim interfacing solution with SSL relays	page 2
	Choose reliability and flexibility with the innovative DIN rail mount SSD relays	page 3
	Choose modularity with DIN rail mount SSM relays	page 4
	Choose complete panel mount solution with SSP relays	page 5
Se	election guide	page 6
		pago o
	SSL solid state slim relays	
	Presentation of the range	
	Relay and socket description	, ,
	References	
	- Pre-assembled solid state slim relays	
	- Relays and sockets for customer assembly	page 10
	- Accessories	page 11
	SSD solid state DIN rail relays	
	Presentation of the range	page 12
	Relay description	
	References	page 13
	- SSD1 single-phase solid state relays (22.5 and 45 mm)	page 13
	- Accessories	
	SSM solid state modular DIN rail relays	
	Presentation of the range	, ,
	Relay description	
	References	, ,
	- SSM1 single-phase solid state relays (12 and 18 mm)	
	- SSM1 single-phase solid state relays (22.5 and 45 mm)	
	- SSM2 single-phase solid state relays, dual channel	
	- SSM3 three-phase solid state relays	page 17
	- Accessories	page 17
	SSP solid state panel mount relays	
	Presentation of the range	page 18
	Relay description	
	References	, ,
	- SSP1 single-phase solid state relays	, ,
	- SSP3 three-phase solid state relays	
	- Heat sinks and accessories	
_	Product reference index	
	FIOUUCLIEIEIICE IIIUEX	paye 22

SSL solid state slim interface relays

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

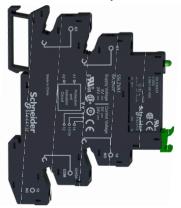
Sustainablility in harsh environment

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 S Control input voltage	SSL relays* Load output voltage			
412 V	124 V 148 V ∼ 24250 V			
1630 V	124 V 148 V ∼ 24250 V			
* 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

Harmony Solid State Relays SSD solid state DIN rail mount relays

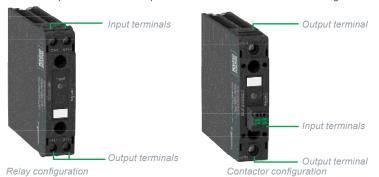
Choose reliability and flexibility with innovative DIN rail mount SSD relays

Performance

- High I²T (up to 8320 A²S) 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



Pluggable Spring input connectors

Pluggable Screw input connectors

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



SSD1: 45 and 60 A single-phase SSR

SSD relays Control input voltage	Load output voltage
432V	1150 V ∼48600 V
≂90280V	∼48600 V

Note: The SSD1 range references will be substituting the SSM1 range references for 22.5 mm/0.886 in. width (20 A, 30 A) and 45 mm/1.771 in. width (45 A, 55 A).

Harmony SSR → The new generation solid state relays

SSM solid state modular 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
- > 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
- > Optimized modular design available in various sizes (11, 18, 22.5, 45 and 90 mm width) with load output current of 6, 12, 20, 30, 45, and 55 A

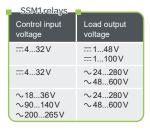




SSM1: 6 A single-phase SSR



SSM2: 6 A dual channel, single-phase SSR



_SSM2,relays	
Control input voltage	Load output voltage
432V	∼24280 V ∼48600 V





SSM1: 20 and 30 A single-phase SSR



SSM1: 45 and 55 A single-phase SSR

į	SSM1.relays				
	Control input voltage	Load output voltage			
	432V	∼ 24280 V ∼48660 V			
ı	332V	∼24280 V			
	∼90140 V ∼90280 V	∼24280 V ∼48660 V			





SSM3: 25 A three-phase SSR

SSM3.relays	
Control input voltage	Load output voltage
432V	∼48600 V
∼90140 V	∼48600 V
∼180280 V	∼48600 V

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

SSP solid state panel mount relays

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
3.532V	1150 V
332V	\sim 24300 V
432V	∼48660 V
∼90280V	∼24300 V ∼48660 V

SSP1: Single-phase panel mount SSR



SSP1.S.relays			
Control input voltage	Load output voltage		
332V	∼24300 V		
432V	∼48660 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

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

Type of product	Slim interface SSR		Modular DIN rail SSR	
	Customer assembly (Relay and socket)	Pre-assembled (Relay with socket)		
	©CC Specific			
Number of phases	1		1	1
Type of mounting	Plug-in PCB pins w mounted socket	rith DIN rail	DIN rail mounted	DIN rail mounted
Control input voltage \sim	-	-	90280 V	1836 V 90140 V 200265 V

		mounted socke	·L		
Control input voltage	~	-	-	90280 V	1836 V 90140 V 200265 V
	=	312 V 1530 V 1630 V	412 V 1630 V	432 V 90280 V	432 V
Output load voltage	~	24280 V	24250 V	48600 V	24280 V 48600 V
	=	124 V 148 V	124 V 148 V	1150 V	160 V 1100 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.	6 A for 12 mm/0.472 in. 12 A for 18 mm/0.709 in.
	=	0.1, 3.5 A		20,30 A for 22.5 mm/0.886 in.	6 A for 12 mm/0.472 in. 12 A for 18 mm/0.709 in.
Type of switching	Zero voltage	Yes		Yes	Yes
	Random	Yes		Yes	Yes
	DC	Yes		Yes	Yes
Cooling		-		Built-in heat sink	Built-in heat sink
Degree of protection		IP 67 (encapsu IP 20 (socket)	lation)	IP 20	IP 20
LED indication		Yes (on socket)		Yes	Yes
Solid state relay type		SSL (1) (2)		SSD1 (3)	SSM1
Pages		9		13	16 and 17

⁽¹⁾ SSL slim relays and SSLZ sockets.

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	Panel mounted
90140 V 90280 V	-	90140 V 90280 V	90280 V	1836 V 90140 V 180280 V
332 V 432 V	432 V	432 V	332 V 432 V	432 V
24280 V 48660 V	24280 V 48600 V	48600 V	24300 V 48660 V	48530 V
-	-	-	1150 V	-
20, 30 A for 22.5 mm/ <i>0.886 in.</i> 45, 55 A for 45 mm/ <i>1.772 in.</i>	6 A	25 A	10, 25, 50, 75, 90, 125 A	25, 50 A
-	-	-	12, 25, 40 A	-
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	Option with thermal pad
IP 20	IP 20	IP 20	IP 20	IP 20
Yes	Yes	Yes	Yes	Yes
SSM1 (3)	SSM2	SSM3	SSP1	SSP3
16 and 17	17	17	19	20

Schneider Electric



⁽²⁾ Pre-assembled SSL slim relays (relay + socket).

⁽³⁾ The SSD1 range references will be substituting the SSM1 range references for 22.5 mm/0.886 in. width (20 A, 30 A) and 45 mm/1.771 in. width (45 A, 55 A).

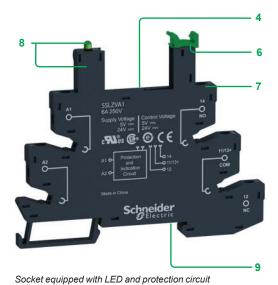
SSL solid state slim relays



Pre-assembled solid state relay



SSL relay



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
- \square 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

Harmony Solid State Relays SSL solid state slim relays



Pre-assembled s	solid state sli	m relays			
Relays mounted on	screw sockets (s	sold in lots of 30)		
1 NO contact					
Switching	Voltage range		Load current	Reference	Weight
	Control input	Load output	range		
	V	V	Α		kg/ <i>lb</i>
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	\sim 24 to 250	2	SSL1A12JDPV (SSL1A12JD+SSLZVA1)	0.033/0.073
Random switching	4 to 12	\sim 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	\sim 24 to 250	2	SSL1A12BDPV (SSL1A12BD+SSLZVA1)	0.033/0.073
Random switching	16 to 30	\sim 24 to 250	2	SSL1A12BDRPV (SSL1A12BDR+SSLZVA1)	0.033/0.073
Relays mounted on	sprina 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	\sim 24 to 250	2	SSL1A12JDPR (SSL1A12JD+SSLZRA1)	0.033/0.073
Random switching	4 to 12	\sim 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	\sim 24 to 250	2	SSL1A12BDPR (SSL1A12BD+SSLZRA1)	0.033/0.073
Random switching	16 to 30	\sim 24 to 250	2	SSL1A12BDRPR (SSL1A12BDR+SSLZRA1)	0.033/0.073

Harmony Solid State Relays SSL solid state slim relays





Relays and sock					
SSL single-phase sol	id state relays (so	old in lots of 12)			
Switching	Voltage range		Load current	Reference	Weight
	Control input	Load output	range		
	V	V	Α		kg/ <i>lb</i>
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
Zero voltage switching	3 to 12	\sim 24 to 280	2	SSL1A12JD	0.004/0.009
	15 to 30	∼ 24 to 280	2	SSL1A12BD	0.004/0.009
Random switching	3 to 12	∼ 24 to 280	2	SSL1A12JDR	0.004/0.009
	15 to 30	\sim 24 to 280	2	SSL1A12BDR	0.004/0.009

Sockets equipped with LED and protection circuit (sold in lots of 10)							
		Socket type					
		Screw connector		Spring terminals			
Control voltage	e (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		

Harmony Solid State Relays SSL solid state slim relays



RSLZ2



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					

SSD solid state DIN rail relays

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

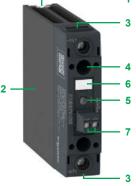
- 1 Locating slot for mounting on DIN rail
- 2 Built-in heat sink for heat dissipation
- 3 Control input connection terminals
- 4 Fixing hole for attaching relay to heat sink
- 5 LED input status indicator
- 6 Clip-in legend for easy identification
- 7 Load output connection terminals



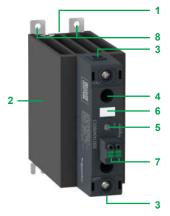
SSD1 single-phase solid state DIN rail relay, 22.5 mm

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









SSD1A335BDC2



SSD1A335M7C3

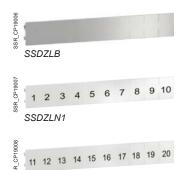


SSD1A345BDRC3



SSD1A360M7RC2

SSDZLN2



	Voltage range		current			
	Control input	Load output	range			
	v .	٧ .	Α	 		kg/ <i>lk</i>
DC	 432	 1150	20	Relay	SSD1D520BDC1	0.298/0.65
switching			30	Relay	SSD1D530BDC1	0.298/0.65
Zero	 432	~48600	20	Relay	SSD1A320BDC1	0.298/0.65
voltage switching			20	Contactor, Screw input connector	SSD1A320BDC2	0.301/0.66
			20	Contactor, Spring input connector	SSD1A320BDC3	0.301/0.66
			35	Relay	SSD1A335BDC1	0.298/0.65
			35	Contactor, Screw input connector	SSD1A335BDC2	0.301/0.66
			35	Contactor, Spring input connector	SSD1A335BDC3	0.301/0.66
			45	Contactor, Screw input connector	SSD1A345BDC2	0.507/1.11
			45	Contactor, Spring input connector	SSD1A345BDC3	0.507/1.11
			60	Contactor, Screw input connector	SSD1A360BDC2	0.507/1.11
			60	Contactor, Spring input connector	SSD1A360BDC3	0.507/1.11
	≂90280	∼48600	20	Relay	SSD1A320M7C1	0.298/0.65
			20	Contactor, Screw input connector	SSD1A320M7C2	0.301/0.66
			20	Contactor, Spring input connector	SSD1A320M7C3	0.301/0.66
			35	Relay	SSD1A335M7C1	0.298/0.65
			35	Contactor, Screw input connector	SSD1A335M7C2	0.301/0.66
			35	Contactor, Spring input connector	SSD1A335M7C3	0.301/0.66
			45	Contactor, Screw input connector	SSD1A345M7C2	0.507/1.11
			45	Contactor, Spring input connector	SSD1A345M7C3	0.507/1.11
			60	Contactor, Screw input connector	SSD1A360M7C2	0.507/1.11
			60	Contactor, Spring input connector	SSD1A360M7C3	0.507/1.11
Random switching	 432	∼48600		Relay	SSD1A320BDRC1	0.298/0.65
g			20	Contactor, Screw input connector	SSD1A320BDRC2	0.301/0.66
			20	Contactor, Spring input connector	SSD1A320BDRC3	0.301/0.66
			35	Relay	SSD1A335BDRC1	0.298/0.65
			35	Contactor, Screw input connector	SSD1A335BDRC2	0.301/0.66
			35	Contactor, Spring input connector	SSD1A335BDRC3	0.301/0.66
			45	Contactor, Screw input connector	SSD1A345BDRC2	0.507/1.11
			45	Contactor, Spring input connector	SSD1A345BDRC3	
			60	Contactor, Screw input connector	SSD1A360BDRC2	
			60	Contactor, Spring input connector	SSD1A360BDRC3	
	≂90280	∼48600		Relay	SSD1A320M7RC1	
			20	Contactor, Screw input connector	SSD1A320M7RC2	
			20	Contactor, Spring input connector	SSD1A320M7RC3	0.301/0.66
			35	Relay	SSD1A335M7RC1	0.298/0.65
			35	Contactor, Screw input connector	SSD1A335M7RC2	
			35	Contactor, Spring input connector	SSD1A335M7RC3	0.301/0.66
			45	Contactor, Screw input connector	SSD1A345M7RC2	0.507/1.11
			45	Contactor, Spring input connector	SSD1A345M7RC3	
			60	Contactor, Screw input connector	SSD1A360M7RC2	0.507/1.11
			60	Contactor, Spring input connector	SSD1A360M7RC3	0.507/1.11

	60	Contactor, Spring input connector	SSD1A360M7RC3	0.507/1.117
Accessories				
Description	For use with	Sold in lots of	Unit reference	Weight kg/lb
Clip-in Legends, Blank strip	All SSD1 solid state re	lays 10	SSDZLB	0.002/0.004
Clip-in Legends, Numbered strip (1 to 10)	All SSD1 solid state re	lays 10	SSDZLN1	0.002/0.004
Clip-in Legends, Numbered strip (11 to 20)	All SSD1 solid state re	lays 10	SSDZLN2	0.002/0.004

⁽¹⁾ The SSD1 range references will be substituting the SSM1 range references for 22.5 mm/0.886 in. width (20 A, 30 A) and 45 mm/1.771 in. width (45 A, 55 A).

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. 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



SSM1 single-phase modular relays, 22.5 mm

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



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





SSM1 single-phase solid state relays (6 A,			, 12 mm and 12	A, 18 mm)	
Switching	Voltage range Control input		Load current range	Reference	Weight
	٧	V	A		kg/ <i>lb</i>
DC switching	 432	 160	6	SSM1D26BD	0.050/0.110
			12	SSM1D212BD	0.090/0.198
		 1100	6	SSM1D36BD	0.050/0.110
			12	SSM1D312BD	0.090/0.198
Zero voltage switching	 432	~24280	6	SSM1A16BD	0.050/0.110
			12	SSM1A112BD	0.090/0.198
		~48600	6	SSM1A36BD	0.050/0.110
			12	SSM1A312BD	0.090/0.198
	∼ 1836	~24280	6	SSM1A16B7	0.050/0.110
			12	SSM1A112B7	0.090/0.198
		~48600	12	SSM1A312B7	0.090/0.198
	~90140	~24280	6	SSM1A16F7	0.050/0.110
			12	SSM1A112F7	0.090/0.198
		~48600	12	SSM1A312F7	0.090/0.198
	~ 200265	~24280	6	SSM1A16P7	0.050/0.110
			12	SSM1A112P7	0.090/0.198
Random switching	 432	~24280	6	SSM1A16BDR	0.050/0.110
			12	SSM1A112BDR	0.090/0.198
		~48600	6	SSM1A36BDR	0.050/0.110
			12	SSM1A312BDR	0.090/0.198
	~ 1836	~24280	6	SSM1A16B7R	0.050/0.110
			12	SSM1A112B7R	0.090/0.198
		~48600	12	SSM1A312B7R	0.090/0.198
	~90140	~24280	12	SSM1A112F7R	0.090/0.198
		∼48600	12	SSM1A312F7R	0.090/0.198
	~200265	~24280	12	SSM1A112P7R	0.090/0.198
		∼48600	12	SSM1A312P7R	0.090/0.198





SSM1 single-phase solid state relays (22.5 and 45 mm) (1)						
Switching	Voltage rang	je	Load	Reference	Weight	
	Control input	Load output	current range			
	V	V	Α		kg/lb	
Zero voltage switching	 432	~24280	20	SSM1A120BD	0.280/0.617	
			30	SSM1A130BD	0.280/0.617	
	332	~24280	45	SSM1A145BD	0.476/1.049	
	 432	∼48660	30	SSM1A430BD	0.280/0.617	
			45	SSM1A445BD	0.476/1.049	
			55	SSM1A455BD	0.476/1.049	
	~90280	~24280	20	SSM1A120M7	0.280/0.617	
			30	SSM1A130M7	0.280/0.617	
		~48660	30	SSM1A430M7	0.280/0.617	
	~90140	∼48660	45	SSM1A445F7	0.476/1.049	
			55	SSM1A455F7	0.476/1.049	







SSM3A325F7

SSM2 sing	gle-phase	solid state	relays, o	dual channel (6	6 A, 18 mm)
Switching	Voltage rai	Voltage range		Reference	Weight
	Control input	Load output	— current range		
	V	V	Α		kg/lb
Zero voltage switching	 432	~24280	6	SSM2A16BD	0.090/0.198
Random switching	 432	~24280	6	SSM2A16BDR	0.090/0.198
		~48600	6	SSM2A36BDR	0.090/0.198

Switching	Voltage rang	ge	Load	Reference	Weight
	Control input	Load output	current range		
	V	V	Α		kg/ <i>lb</i>
Zero voltage switching	 432	∼48600	25	SSM3A325BD	0.740/1.631
	~90140	∼48600	25	SSM3A325F7	0.740/1.631
	~180280	~48600	25	SSM3A325P7	0.740/1.631
Random switching	432	~48600	25	SSM3A325BDR	0.740/1.631

Accessories			
Description	Types of relay supported	Unit reference	Weight kg/ <i>lb</i>
4 Pin connector cable for SSM2 relay	SSM2A16BD, SSM2A16BDR, SSM2A36BDR	SSRAC200	0.055/0.121

⁽¹⁾ The SSD1 range references will be substituting the SSM1 range references for 22.5 mm/0.886 in. width (20 A, 30 A) and 45 mm/1.771 in. width (45 A, 55 A).



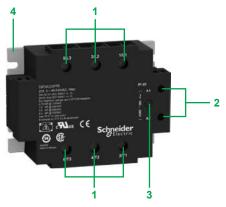
SSP solid state panel mount relays



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 $660 \text{ V} \sim$ 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

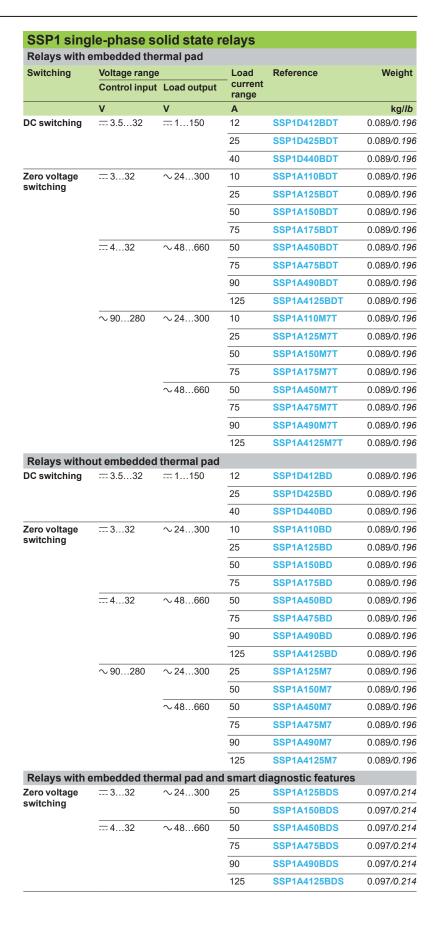
SSP3 three-phase panel mount relays

- 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

SSP solid state panel mount relays



SSP1D425BD





SSP1A125BDS

Harmony Solid State Relays SSP solid state panel mount relays



SSP3A225P7

SSP3 thre	e-phase so	lid state re	lays		
	embedded the				
Switching	Voltage range Control Input		Load current range	Reference	Weight
	V	V	A		kg/lb
Zero voltage	 432	∼48530	25	SSP3A225BDT	0.240/0.529
switching			50	SSP3A250BDT	0.240/0.529
	~ 1836	∼48530	50	SSP3A250B7T	0.240/0.529
	~90140	∼48530	25	SSP3A225F7T	0.240/0.529
			50	SSP3A250F7T	0.240/0.529
	~ 180280	∼48530	25	SSP3A225P7T	0.240/0.529
			50	SSP3A250P7T	0.240/0.529
Random	 432	∼48530	25	SSP3A225BDRT	0.240/0.529
switching			50	SSP3A250BDRT	0.240/0.529
	~ 1836	∼48530	50	SSP3A250B7RT	0.240/0.529
	~ 90140	∼48530	50	SSP3A250F7RT	0.240/0.529
	~ 180280	∼48530	50	SSP3A250P7RT	0.240/0.529
Relays with	out embedded	thermal pad			
Zero voltage switching	 432	∼48530	25	SSP3A225BD	0.240/0.529
Switching			50	SSP3A250BD	0.240/0.529
	~ 1836	∼48530	25	SSP3A225B7	0.240/0.529
			50	SSP3A250B7	0.240/0.529
	~ 90140	∼48530	25	SSP3A225F7	0.240/0.529
			50	SSP3A250F7	0.240/0.529
	~ 180280	∼48530	25	SSP3A225P7	0.240/0.529
			50	SSP3A250P7	0.240/0.529
Random switching	 432	∼48530	25	SSP3A225BDR	0.240/0.529
Switching			50	SSP3A250BDR	0.240/0.529
	~ 1836	∼48530	25	SSP3A225B7R	0.240/0.529
			50	SSP3A250B7R	0.240/0.529
	~90140	∼48530	50	SSP3A250F7R	0.240/0.529
	~ 180280	∼48530	25	SSP3A225P7R	0.240/0.529
			50	SSP3A250P7R	0.240/0.529

Harmony Solid State Relays SSP solid state panel mount relays



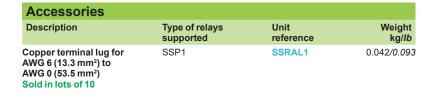






Heat sink	s for customer as	ssembly			
Mounting	Number and type of relays supported	Surface area	Thermal resistance	Reference	Weight
		cm²/in²	°C/W		kg/lb
Panel mount	Up to 3 SSP1 units 1 SSP3 unit	6,823/1,058	0.2	SSRHP02	2.592/5.714
	Up to 3 SSP1 units 1 SSP3 unit	4,406/683	0.5	SSRHP05	1.440/3.174
	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
	1 SSP1 unit	336/52.10	2.5	SSRHP25	0.100/0.220
DIN rail mount	t Up to 3 SSP1 units 1 SSP3 unit	1,425/221	1	SSRHD10	0.630/1.389







SSRAL1

Harmony Solid State Relays Product reference index

R	
RSLZ2	11
RSLZ3	11
RSLZ5	11

RSLZ5	11
S	
SSD1A320BDC1	13
SSD1A320BDC2	13
SSD1A320BDC3	13
SSD1A320BDRC1	13
SSD1A320BDRC2	13
SSD1A320BDRC3	13
SSD1A320M7C1	13
SSD1A320M7C2	13
SSD1A320M7C3	13
SSD1A320M7RC1	13
SSD1A320M7RC2	13
SSD1A320M7RC3	13
SSD1A335BDC1	13
SSD1A335BDC2	13
SSD1A335BDC3	13
SSD1A335BDRC1	13
SSD1A335BDRC2	13
SSD1A335BDRC3	13
SSD1A335M7C1	13
SSD1A335M7C2	13
SSD1A335M7C3 SSD1A335M7RC1	13
	13 13
SSD1A335M7RC2 SSD1A335M7RC3	13
SSD1A335W7RC3	13
SSD1A345BDC3	13
SSD1A345BDRC2	13
SSD1A345BDRC3	13
SSD1A345M7C2	13
SSD1A345M7C3	13
SSD1A345M7RC2	13
SSD1A345M7RC3	13
SSD1A360BDC2	13
SSD1A360BDC3	13
SSD1A360BDRC2	13
SSD1A360BDRC3	13
SSD1A360M7C2	13
SSD1A360M7C3	13
SSD1A360M7RC2	13
SSD1A360M7RC3	13
SSD1D520BDC1	13
SSD1D530BDC1	13
SSDZLB	13
SSDZLN1	13
SSDZLN2	13
SSL1A12BD	10
SSL1A12BDPR	9
SSL1A12BDPV	9
SSL1A12BDR	
SSL1A12BDRPR SSL1A12BDRPV	9
	10
SSL1A12JD SSL1A12JDPR	9
SSL1A12JDPV	9
SSL1A12JDR	10
SSL1A12JDRPR	9
SSL1A12JDRPV	9

SSL1D03BD	10	SSP1A125BDS
SSL1D03BDPR	9	SSP1A125BDT
SSL1D03BDPV	9	SSP1A125M7
SSL1D03JD	10	SSP1A125M7T SSP1A150BD
SSL1D03JDPR SSL1D03JDPV	9	SSP1A150BDS
SSL1D033DPV SSL1D101BD	10	SSP1A150BDT
SSL1D101BDPR	9	SSP1A150M7
SSL1D101BDPV	9	SSP1A150M7T
SSL1D101JD	10	SSP1A175BD
SSL1D101JDPR	9	SSP1A175BDT
SSL1D101JDPV	9	SSP1A175M7T
SSLZRA1	10	SSP1A450BD
SSLZVA1	10	SSP1A450BDS
SSM1A16B7	16	SSP1A450BDT
SSM1A16B7R	16	SSP1A450M7
SSM1A16BD	16	SSP1A450M7T
SSM1A16BDR	16	SSP1A475BD
SSM1A16F7	16	SSP1A475BDS
SSM1A16P7	16	SSP1A475BDT
SSM1A36BD	16	SSP1A475M7
SSM1A36BDR	16	SSP1A475M7T
SSM1A112B7	16	SSP1A490BD
SSM1A112B7R	16	SSP1A490BDS
SSM1A112BD	16	SSP1A490BDT
SSM1A112BDR	16	SSP1A490M7
SSM1A112F7	16	SSP1A490M7T SSP1A4125BD
SSM1A112F7R	16	SSP1A4125BDS
SSM1A112P7	16	SSP1A4125BDT
SSM1A112P7R	16	SSP1A4125M7
SSM1A120BD	17	SSP1A4125M7T
SSM1A120M7	17	SSP1D412BD
SSM1A130BD	17	SSP1D412BDT
SSM1A130M7	17	SSP1D425BD
SSM1A145BD SSM1A312B7	17	SSP1D425BDT
SSM1A312B7R	16 16	SSP1D440BD
SSM1A312BD	16	SSP1D440BDT
SSM1A312BDR	16	SSP3A225B7
SSM1A312F7	16	SSP3A225B7R
SSM1A312F7R	16	SSP3A225BD
SSM1A312P7R	16	SSP3A225BDR
SSM1A430BD	17	SSP3A225BDR1
SSM1A430M7	17	SSP3A225BDT
SSM1A445BD	17	SSP3A225F7
SSM1A445F7	17	SSP3A225F7T
SSM1A455BD	17	SSP3A225P7
SSM1A455F7	17	SSP3A225P7R SSP3A225P7T
SSM1D26BD	16	SSP3A250B7
SSM1D36BD	16	SSP3A250B7R
SSM1D212BD	16	SSP3A250B7RT
SSM1D312BD	16	SSP3A250B7T
SSM2A16BD	17	SSP3A250BD
SSM2A16BDR	17	SSP3A250BDR
SSM2A36BDR	17	SSP3A250BDR1
SSM3A325BD	17	SSP3A250BDT
SSM3A325BDR	17	SSP3A250F7
SSM3A325F7	17	SSP3A250F7R
SSM3A325P7	17	SSP3A250F7RT
SSP1A110BD	19	SSP3A250F7T
SSP1A110BDT	19	SSP3A250P7
SSP1A110M7T	19	SSP3A250P7R
SSP1A125BD	19	SSP3A250P7RT

SSP1A125BDS	19
SSP1A125BDT	19
SSP1A125M7	19
SSP1A125M7T	19
SSP1A150BD	19
SSP1A150BDS	19
SSP1A150BDT	19
SSP1A150M7	19
SSP1A150M7T	19
SSP1A175BD	19
SSP1A175BDT	19
SSP1A175M7T	19
SSP1A450BD	19
SSP1A450BDS	19
SSP1A450BDT	19
SSP1A450M7	19
SSP1A450M7T	19
SSP1A475BD	19
SSP1A475BDS	19
SSP1A475BDT	19
SSP1A475M7	19
SSP1A475M7T	19
SSP1A490BD	19
SSP1A490BDS	19
SSP1A490BDT	19
SSP1A490M7	19
SSP1A490M7T	19
SSP1A4125BD	19
SSP1A4125BDS	19
SSP1A4125BDT	19
SSP1A4125M7	19
SSP1A4125M7T	19
SSP1D412BD	19
SSP1D412BDT	19
SSP1D425BD	19
SSP1D425BDT	19
SSP1D440BD	19
SSP1D440BDT	19
SSP3A225B7	20
SSP3A225B7R	20
SSP3A225BD	20
SSP3A225BDR	20
SSP3A225BDRT	20
SSP3A225BDT	20
SSP3A225F7	20
SSP3A225F7T	20
SSP3A225P7	20
SSP3A225P7R	20
SSP3A225P7T	20
SSP3A250B7	20
SSP3A250B7R	20
SSP3A250B7RT	20
SSP3A250B7T	20
SSP3A250BD	20
SSP3A250BDR	20
SSP3A250BDRT	20
SSP3A250BDT	20
SSP3A250F7	20
SSP3A250F7R	20
SSP3A250F7RT	20
SSP3A250F7T	20

SSP3A250P7T	20
SSRAC200	17
SSRAL1	21
SSRHD10	21
SSRHP02	21
SSRHP05	21
SSRHP07	21
SSRHP10	21
SSRHP25	21

19 SSP3A250P7RT

20

20





Learn more about our products at www.se.com/relays

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

Schneider Electric Industries SAS

Head Office 35, rue Joseph Monier - CS 30323 F-92500 Rueil-Malmaison Cedex France

DIA5ED2130302EN March 2021 - V6.0