



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

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- **Harmony** HMI Operator Terminals, *iPC* and EdgeBox
- **Harmony** Signaling Devices
- **Harmony** Electrical Relays
- **Harmony** Safety

Life Is On

Schneider
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References		Modicon TM3 I/O expansion modules for Modicon controllers Analog I/O modules					
References		Modicon TM3 analog input modules					
Image	Reference	Number and type of channels	Input range	Output range	Resolution	Input terminal (internal pin)	Reference
	TM3AI4M	2 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI8M	4 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	12 500 or 11 500	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI16M	8 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI32M	16 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI64M	32 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI128M	64 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI256M	128 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI512M	256 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI1024M	512 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI2048M	1024 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI4096M	2048 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI8192M	4096 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI16384M	8192 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI32768M	16384 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI65536M	32768 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI131072M	65536 voltage/current inputs	+10...+15 VDC +1...15 VDC	--	15 350 or 10 000	1 000/2	1 110 1 120
			+20...24 V, 0...20 mA	--			1 234
	TM3AI262144M	131072 voltage/current inputs	+10...+15 V				

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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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

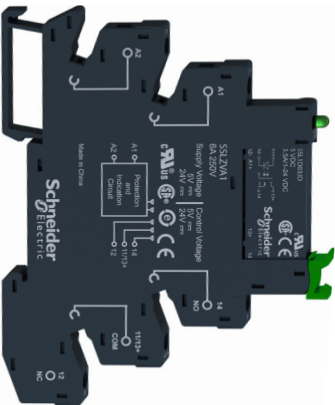
resistance to shock,
vibration, and
contamination

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*

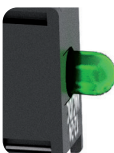
Control input voltage	Load output voltage
~ 4...12 V	~ 1...24 V ~ 1...48 V ~ 24...250 V
~ 16...30 V	~ 1...24 V ~ 1...48 V ~ 24...250 V

* 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

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

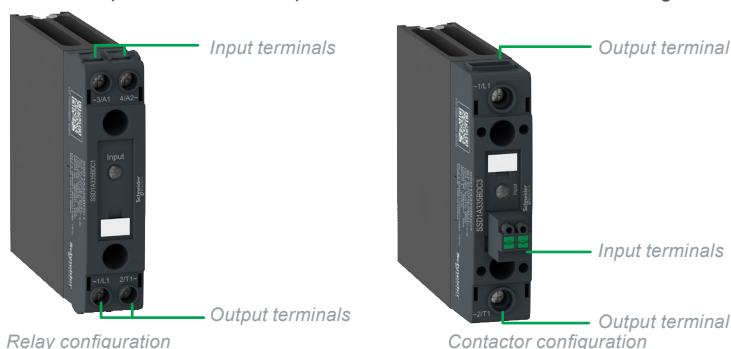
Choose reliability and flexibility with innovative DIN rail mount SSD relays

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

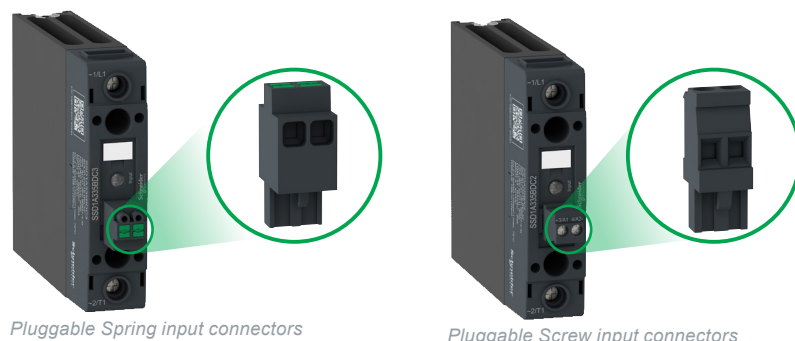
Flexibility

- > 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



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, safe, and robust screw terminals

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

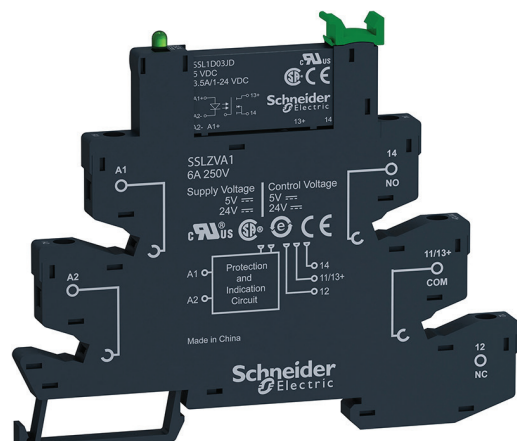
- > Readily available factory-fit thermal pad
- > Heat sink offers panel and DIN rail mounting options

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 PCB 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...32 V 90...280 V
Output load voltage	~	24...280 V	48...600 V
	---	1...24 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	Yes
	Random	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)		SSD1
Pages	8		13

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

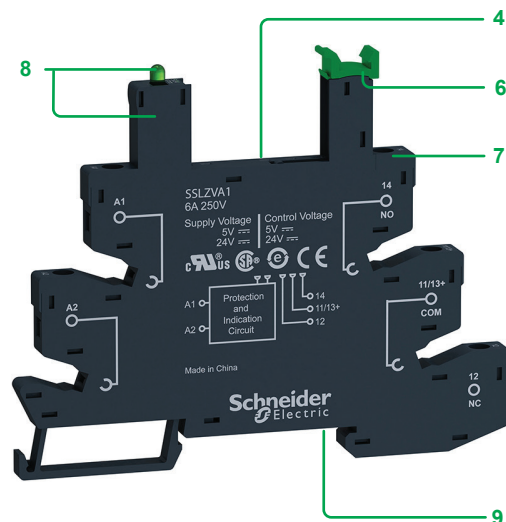
Modular DIN rail SSR (continued)			Panel mount SSR	
				
1	1 (dual SSR)	3	1	3
DIN rail mounted	DIN rail mounted	DIN rail mounted	Panel mounted	Wall mounted
18...36 V 90...140 V 200...265 V	–	90...140 V 90...280 V	90...280 V	18...36 V 90...280 V
4...32 V	4...32 V	4...32 V	3...32 V 4...32 V	4...32 V
24...280 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
SSM1	SSM2	SSM3	SSP1	SSP3
16 and 17	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 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 $\overline{\text{---}}$, 3.5 A
 - 48 V $\overline{\text{---}}$, 100 mA
 - 280 V $\sim$, 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



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
Zero voltage switching	— 4 to 12	~ 24 to 250	2	SSL1A12JDPV (SSL1A12JD+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
DC Switching	— 16 to 30	— 1 to 24	3.5	SSL1D03BDPR (SSL1D03BD+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

PF 123409A



SSL1A12JD

PF 123420B



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
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
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

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

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



RSLZ2



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

Presentation of the range

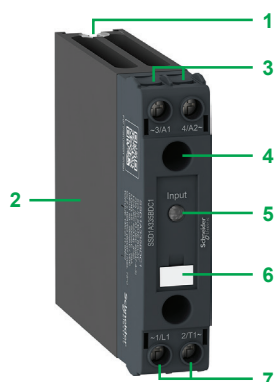
SSD1 solid state relays are single-phase DIN rail mounted relays with high-power density of up to 60 A and built-in heat sink. They are available in two configurations, namely the relay and contactor types.

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

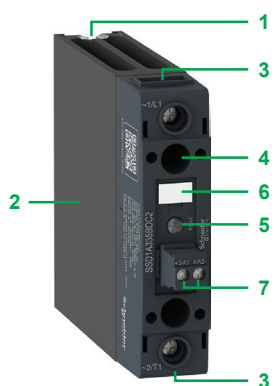
- 1 Locating slot for mounting on DIN rail
- 2 Built-in heat sink for heat dissipation
- 3 Control input connection terminals
- 4 Fixing hole for attaching relay to heat sink
- 5 LED input status indicator
- 6 Clip-in legend for easy identification
- 7 Load output connection terminals



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

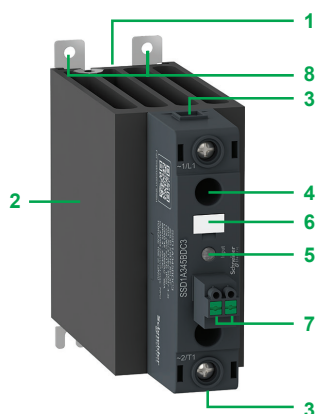
- 1 Locating slot for mounting on DIN rail
- 2 Built-in heat sink for heat dissipation
- 3 Load output connection terminals
- 4 Fixing hole for attaching relay to heat sink
- 5 LED input status indicator
- 6 Clip-in legend for easy identification
- 7 Pluggable input connector (spring or screw options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



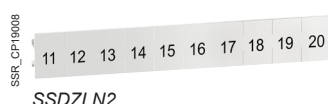
SSD1 single-phase solid state DIN rail contactor with pluggable screw input, 22.5 mm

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	SSD1D520BDC1	0.298/0.657	
			30	Relay	SSD1D530BDC1	0.298/0.657	
Zero voltage switching	≡ 4...32	∼ 48...600	20	Relay	SSD1A320BDC1	0.298/0.657	
			20	Contactor, Screw input connector	SSD1A320BDC2	0.301/0.664	
			20	Contactor, Spring input connector	SSD1A320BDC3	0.301/0.664	
			35	Relay	SSD1A335BDC1	0.298/0.657	
			35	Contactor, Screw input connector	SSD1A335BDC2	0.301/0.664	
			35	Contactor, Spring input connector	SSD1A335BDC3	0.301/0.664	
			45	Contactor, Screw input connector	SSD1A345BDC2	0.507/1.117	
			45	Contactor, Spring input connector	SSD1A345BDC3	0.507/1.117	
			60	Contactor, Screw input connector	SSD1A360BDC2	0.507/1.117	
			60	Contactor, Spring input connector	SSD1A360BDC3	0.507/1.117	
			20	Relay	SSD1A320M7C1	0.298/0.657	
			20	Contactor, Screw input connector	SSD1A320M7C2	0.301/0.664	
			20	Contactor, Spring input connector	SSD1A320M7C3	0.301/0.664	
			35	Relay	SSD1A335M7C1	0.298/0.657	
			35	Contactor, Screw input connector	SSD1A335M7C2	0.301/0.664	
			35	Contactor, Spring input connector	SSD1A335M7C3	0.301/0.664	
			45	Contactor, Screw input connector	SSD1A345M7C2	0.507/1.117	
			45	Contactor, Spring input connector	SSD1A345M7C3	0.507/1.117	
	60	Contactor, Screw input connector	SSD1A360M7C2	0.507/1.117			
	60	Contactor, Spring input connector	SSD1A360M7C3	0.507/1.117			
	Random switching	≡ 4...32	∼ 48...600	20	Relay	SSD1A320BDRC1	0.298/0.657
				20	Contactor, Screw input connector	SSD1A320BDRC2	0.301/0.664
				20	Contactor, Spring input connector	SSD1A320BDRC3	0.301/0.664
				35	Relay	SSD1A335BDRC1	0.298/0.657
				35	Contactor, Screw input connector	SSD1A335BDRC2	0.301/0.664
				35	Contactor, Spring input connector	SSD1A335BDRC3	0.301/0.664
45				Contactor, Screw input connector	SSD1A345BDRC2	0.507/1.117	
45				Contactor, Spring input connector	SSD1A345BDRC3	0.507/1.117	
60				Contactor, Screw input connector	SSD1A360BDRC2	0.507/1.117	
60				Contactor, Spring input connector	SSD1A360BDRC3	0.507/1.117	
	≡ 90...280	∼ 48...600	20	Relay	SSD1A320M7RC1	0.298/0.657	
			20	Contactor, Screw input connector	SSD1A320M7RC2	0.301/0.664	
			20	Contactor, Spring input connector	SSD1A320M7RC3	0.301/0.664	
			35	Relay	SSD1A335M7RC1	0.298/0.657	
			35	Contactor, Screw input connector	SSD1A335M7RC2	0.301/0.664	
			35	Contactor, Spring input connector	SSD1A335M7RC3	0.301/0.664	
			45	Contactor, Screw input connector	SSD1A345M7RC2	0.507/1.117	
			45	Contactor, Spring input connector	SSD1A345M7RC3	0.507/1.117	
				60	Contactor, Screw input connector	SSD1A360M7RC2	0.507/1.117
				60	Contactor, Spring input connector	SSD1A360M7RC3	0.507/1.117
				20	Relay	SSD1A320M7RC1	0.298/0.657
				20	Contactor, Screw input connector	SSD1A320M7RC2	0.301/0.664
				20	Contactor, Spring input connector	SSD1A320M7RC3	0.301/0.664
				35	Relay	SSD1A335M7RC1	0.298/0.657
				35	Contactor, Screw input connector	SSD1A335M7RC2	0.301/0.664
				35	Contactor, Spring input connector	SSD1A335M7RC3	0.301/0.664
45	Contactor, Screw input connector	SSD1A345M7RC2	0.507/1.117				
45	Contactor, Spring input connector	SSD1A345M7RC3	0.507/1.117				
60	Contactor, Screw input connector	SSD1A360M7RC2	0.507/1.117				
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 relays	10	SSDZLB	0.002/0.004
Clip-in Legends, Numbered strip (1 to 10)	All SSD1 solid state relays	10	SSDZLN1	0.002/0.004
Clip-in Legends, Numbered strip (11 to 20)	All SSD1 solid state relays	10	SSDZLN2	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.

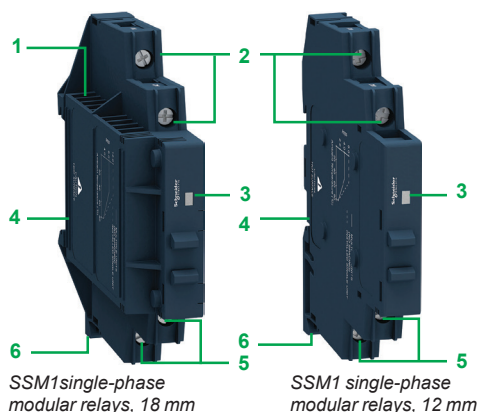
The SSM relay range comprises:

- **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



I

I



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

PF 123428B



SSM1A36BD

PF 123427B



SSM1A312BD

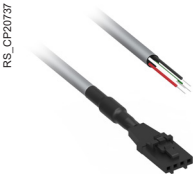
SSM1 single-phase solid state relays (6 A, 12 mm and 12 A, 18 mm)					
Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/lb
DC switching	— 4...32	— 1...60	6	SSM1D26BD	0.050/0.110
			12	SSM1D212BD	0.090/0.198
		— 1...100	6	SSM1D36BD	0.050/0.110
			12	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	6	SSM1A16B7	0.050/0.110
			12	SSM1A112B7	0.090/0.198
		~ 48...600	12	SSM1A312B7	0.090/0.198
			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
			12	SSM1A312F7	0.090/0.198
		~ 200...265	6	SSM1A16P7	0.050/0.110
			12	SSM1A112P7	0.090/0.198
		~ 24...280	6	SSM1A16BDR	0.050/0.110
			12	SSM1A112BDR	0.090/0.198
Random switching	— 4...32	~ 48...600	6	SSM1A36BDR	0.050/0.110
			12	SSM1A312BDR	0.090/0.198
		~ 18...36	12	SSM1A112B7R	0.090/0.198
			12	SSM1A312B7R	0.090/0.198
		~ 48...600	12	SSM1A312B7R	0.090/0.198
			12	SSM1A312B7R	0.090/0.198
		~ 90...140	12	SSM1A112F7R	0.090/0.198
			12	SSM1A312F7R	0.090/0.198
	~ 200...265	~ 24...280	12	SSM1A112P7R	0.090/0.198
			12	SSM1A112P7R	0.090/0.198
		~ 48...600	12	SSM1A312P7R	0.090/0.198
			12	SSM1A312P7R	0.090/0.198



SSM2A16BDR



SSM3A325F7

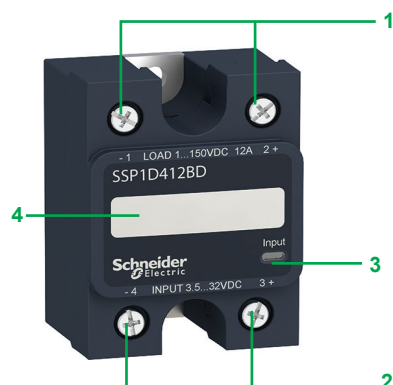


SSRAC200

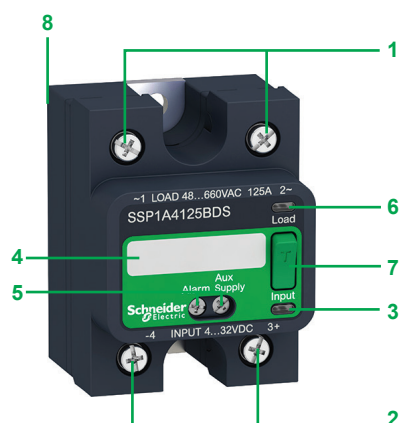
SSM2 single-phase solid state relays, dual channel (6 A, 18 mm)					
Switching	Voltage range		Load current range	Reference	Weight
	Control input	Load output			
	V	V	A		kg/lb
Zero voltage switching	4...32	24...280	6	SSM2A16BD	0.090/0.198
Random switching	4...32	24...280	6	SSM2A16BDR	0.090/0.198

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	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

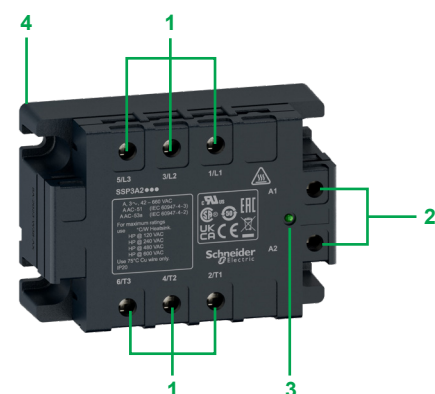
Accessories			
Description	Types of relay supported	Unit reference	Weight
4 Pin connector cable for SSM2 relay	SSM2A16BD, SSM2A16BDR	SSRAC200	0.055/0.121



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

Harmony Solid State Relays

SSP solid state panel mount relays



SSP1D425BD

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

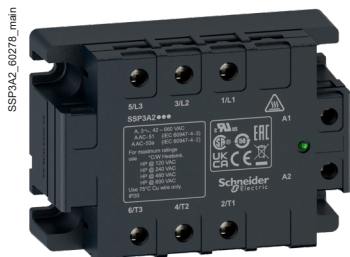
DC switching	3.5...32	1...150	12	SSP1D412BD	0.089/0.196
			25	SSP1D425BD	0.089/0.196
			40	SSP1D440BD	0.089/0.196
Zero voltage switching	3...32	24...300	10	SSP1A110BD	0.089/0.196
			25	SSP1A125BD	0.089/0.196
			50	SSP1A150BD	0.089/0.196
			75	SSP1A175BD	0.089/0.196
	4...32	48...660	50	SSP1A450BD	0.089/0.196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



SSP1A125BDS



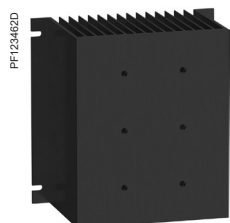
SSP3A225P7T

Relays with embedded thermal pad

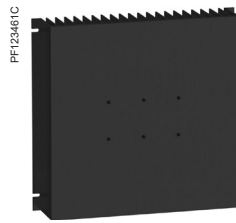
Switching	Voltage range		Load current range	Reference	Weight
	Control Input	Load Output			
	V	V	A		kg/lb
Zero voltage switching	☐ 4...32	~ 42...660	25	SSP3A225BDT	0.370/0.816
			50	SSP3A250BDT	0.370/0.816
	~ 18...36	~ 42...660	50	SSP3A250B7T	0.370/0.816
	~ 90...280	~ 42...660	25	SSP3A225P7T	0.370/0.816
			50	SSP3A250P7T	0.370/0.816
Random switching	☐ 4...32	~ 42...660	25	SSP3A225BDRT	0.370/0.816
			50	SSP3A250BDRT	0.370/0.816
	~ 90...280	~ 42...660	50	SSP3A250P7RT	0.370/0.816

Harmony Solid State Relays

SSP solid state panel mount relays



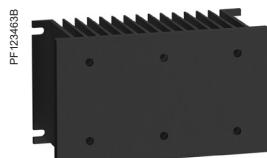
SSRHP05



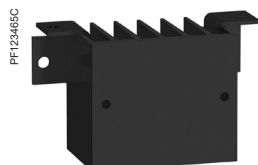
SSRHP02



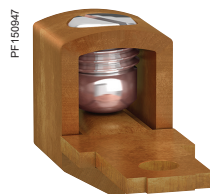
SSRHP07



SSRHP10



SSRHP25



SSRAL1

Heat sinks for customer assembly

Mounting	Number and type of relays supported	Surface area cm ² /in ²	Thermal resistance °C/W	Reference	Weight 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	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

R			
RSLZ2	11	SSL1D03JDPV	9
RSLZ3	11	SSL1D101BD	10
RSLZ5	11	SSL1D101BDPV	9
		SSL1D101JD	10
S		SSLZRA1	10
SSD1A320BDC1	13	SSLZVA1	10
SSD1A320BDC2	13	SSM1A112B7	16
SSD1A320BDC3	13	SSM1A112B7R	16
SSD1A320BDRC1	13	SSM1A112BD	16
SSD1A320BDRC2	13	SSM1A112BDR	16
SSD1A320BDRC3	13	SSM1A112F7	16
SSD1A320M7C1	13	SSM1A112F7R	16
SSD1A320M7C2	13	SSM1A112P7	16
SSD1A320M7C3	13	SSM1A112P7R	16
SSD1A320M7RC1	13	SSM1A16B7	16
SSD1A320M7RC2	13	SSM1A16BD	16
SSD1A320M7RC3	13	SSM1A16BDR	16
SSD1A335BDC1	13	SSM1A16F7	16
SSD1A335BDC2	13	SSM1A16P7	16
SSD1A335BDC3	13	SSM1A312B7	16
SSD1A335BDRC1	13	SSM1A312B7R	16
SSD1A335BDRC2	13	SSM1A312BD	16
SSD1A335BDRC3	13	SSM1A312BDR	16
SSD1A335M7C1	13	SSM1A312F7	16
SSD1A335M7C2	13	SSM1A312F7R	16
SSD1A335M7C3	13	SSM1A312P7R	16
SSD1A335M7RC1	13	SSM1A36BD	16
SSD1A335M7RC2	13	SSM1A36BDR	16
SSD1A335M7RC3	13	SSM1D212BD	16
SSD1A345BDC2	13	SSM1D26BD	16
SSD1A345BDC3	13	SSM1D312BD	16
SSD1A345BDRC2	13	SSM1D36BD	16
SSD1A345BDRC3	13	SSM2A16BD	17
SSD1A345M7C2	13	SSM2A16BDR	17
SSD1A345M7C3	13	SSM3A325BD	17
SSD1A345M7RC2	13	SSM3A325BDR	17
SSD1A345M7RC3	13	SSM3A325F7	17
SSD1A360BDC2	13	SSM3A325P7	17
SSD1A360BDC3	13	SSP1A110BD	19
SSD1A360BDRC2	13	SSP1A110BDT	19
SSD1A360BDRC3	13	SSP1A110M7T	19
SSD1A360M7C2	13	SSP1A125BD	19
SSD1A360M7C3	13	SSP1A125BDS	19
SSD1A360M7RC2	13	SSP1A125BDT	19
SSD1A360M7RC3	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
SSL1A12BDRPR	9	SSP1A4125BDS	19
SSL1A12BDRPV	9	SSP1A4125BDT	19
SSL1A12JD	10	SSP1A4125M7	19
SSL1A12JDPV	9	SSP1A4125M7T	19
SSL1A12JDR	10	SSP1A450BD	19
SSL1D03BD	10	SSP1A450BDT	19
SSL1D03BDPR	9	SSP1A450M7	19
SSL1D03BDPV	9	SSP1A450M7T	19
SSL1D03JD	10	SSP1A475BD	19
SSL1D03JDPR	9	SSP1A475BDS	19
		SSP1A475BDT	19
		SSP1A475M7	19
		SSP1A475M7T	19
		SSP1A490BD	19
		SSP1A490BDT	19
		SSP1A490M7	19
		SSP1A490M7T	19
		SSP1D412BD	19
		SSP1D412BDT	19
		SSP1D425BD	19
		SSP1D425BDT	19
		SSP1D440BD	19
		SSP1D440BDT	19
		SSP3A225BDRT	20
		SSP3A225BDT	20
		SSP3A225P7T	20
		SSP3A250B7T	20
		SSP3A250BDRT	20
		SSP3A250BDT	20
		SSP3A250P7RT	20
		SSP3A250P7T	20
		SSRAC200	17
		SSRAL1	21
		SSRHD10	21
		SSRHP02	21
		SSRHP05	21
		SSRHP07	21
		SSRHP10	21
		SSRHP25	21

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