

**Choose modularity with DIN rail mount SSM relays**

**Ready to use “Plug and play”**

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

**Compact design**

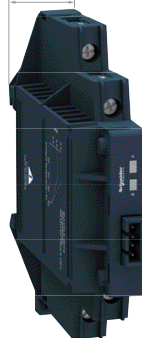
- > Requires less panel space due to slim width and thus reduces the size of your enclosures
- > Optimized modular design available in various sizes (11, 18, 22.5, 45 and 90 mm width) with load output current of 6, 12, 20, 30, 45, and 55 A

11 mm/0.433 in.



SSM1: 6 A single-phase SSR

18 mm/0.709 in.



SSM2: 6 A dual channel, single-phase SSR

| SSM1 relays                               |                             |
|---|-----------------------------|
| Control input voltage                     | Load output voltage         |
| ---4...32 V                               | ---1...48 V<br>---1...100 V |
| ---4...32 V                               | ~24...280 V<br>~48...600 V  |
| ~18...36 V<br>~90...140 V<br>~200...265 V | ~24...280 V<br>~48...600 V  |

| SSM2 relays           |                            |
|-----------------------|----------------------------|
| Control input voltage | Load output voltage        |
| ---4...32 V           | ~24...280 V<br>~48...600 V |

22.5 mm/0.886 in.



SSM1: 20 and 30 A single-phase SSR

45 mm/1.772 in.



SSM1: 45 and 55 A single-phase SSR

| SSM1 relays                |                            |
|----------------------------|----------------------------|
| Control input voltage      | Load output voltage        |
| ---4...32 V                | ~24...280 V<br>~48...660 V |
| ---3...32 V                | ~24...280 V                |
| ~90...140 V<br>~90...280 V | ~24...280 V<br>~48...660 V |

90 mm/3.543 in.



SSM3: 25 A three-phase SSR

| SSM3 relays           |                     |
|-----------------------|---------------------|
| Control input voltage | Load output voltage |
| ---4...32 V           | ~48...600 V         |
| ~90...140 V           | ~48...600 V         |
| ~180...280 V          | ~48...600 V         |

**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

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

## 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.

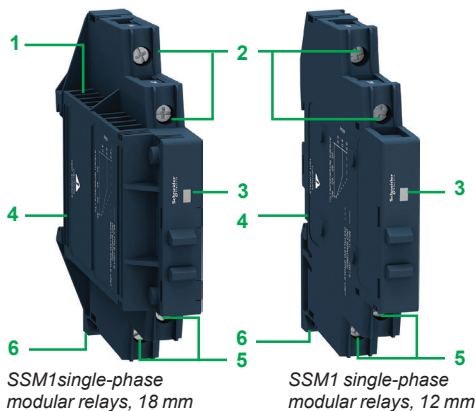
The SSM relay range comprises:

- **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

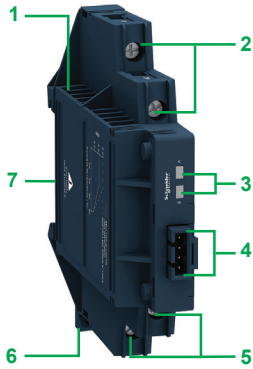
- 1 Built-in heat sink for heat dissipation
- 2 Control input connection terminals
- 3 Control input voltage LED indicator in green
- 4 Bracket for mounting on 35 mm/1.378 in. DIN rail
- 5 Load output connection terminals
- 6 Mounting latch



### SSM1 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

# Harmony Solid State Relays

## SSM solid state modular DIN rail relays



SSM1A36BD



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                 |             |
|                        |               |                             | <a href="#">SSM1D312BD</a>  | 0.090/0.198                 |             |
|                        |               | 12                          | <a href="#">SSM1A16BD</a>   | 0.050/0.110                 |             |
|                        |               |                             | <a href="#">SSM1A112BD</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                 |             |
|                        |               |                             | <a href="#">SSM1A312BD</a>  | 0.090/0.198                 |             |
|                        |               | 12                          | <a href="#">SSM1A16B7</a>   | 0.050/0.110                 |             |
|                        |               |                             | <a href="#">SSM1A112B7</a>  | 0.090/0.198                 |             |
|                        | ~ 18...36     | ~ 24...280                  | 6                           | <a href="#">SSM1A16B7</a>   | 0.050/0.110 |
|                        |               |                             | 12                          | <a href="#">SSM1A112B7</a>  | 0.090/0.198 |
|                        |               | 12                          | <a href="#">SSM1A312B7</a>  | 0.090/0.198                 |             |
|                        |               |                             | <a href="#">SSM1A312F7</a>  | 0.090/0.198                 |             |
|                        | ~ 90...140    | ~ 24...280                  | 6                           | <a href="#">SSM1A16F7</a>   | 0.050/0.110 |
|                        |               |                             | 12                          | <a href="#">SSM1A112F7</a>  | 0.090/0.198 |
| 12                     |               | <a href="#">SSM1A312F7</a>  | 0.090/0.198                 |                             |             |
|                        |               | <a href="#">SSM1A312P7</a>  | 0.090/0.198                 |                             |             |
| ~ 200...265            | ~ 24...280    | 6                           | <a href="#">SSM1A16P7</a>   | 0.050/0.110                 |             |
|                        |               | 12                          | <a href="#">SSM1A112P7</a>  | 0.090/0.198                 |             |
|                        | 12            | <a href="#">SSM1A16BDR</a>  | 0.050/0.110                 |                             |             |
|                        |               | <a href="#">SSM1A112BDR</a> | 0.090/0.198                 |                             |             |
| Random switching       | ≡ 4...32      | ~ 24...280                  | 6                           | <a href="#">SSM1A16BDR</a>  | 0.050/0.110 |
|                        |               |                             | 12                          | <a href="#">SSM1A112BDR</a> | 0.090/0.198 |
|                        | ~ 48...600    | 6                           | <a href="#">SSM1A36BDR</a>  | 0.050/0.110                 |             |
|                        |               |                             | <a href="#">SSM1A312BDR</a> | 0.090/0.198                 |             |
|                        |               | 12                          | <a href="#">SSM1A16B7R</a>  | 0.050/0.110                 |             |
|                        |               |                             | <a href="#">SSM1A112B7R</a> | 0.090/0.198                 |             |
|                        | ~ 18...36     | ~ 24...280                  | 6                           | <a href="#">SSM1A16B7R</a>  | 0.050/0.110 |
|                        |               |                             | 12                          | <a href="#">SSM1A112B7R</a> | 0.090/0.198 |
|                        |               | 12                          | <a href="#">SSM1A312B7R</a> | 0.090/0.198                 |             |
|                        |               |                             | <a href="#">SSM1A312F7R</a> | 0.090/0.198                 |             |
|                        | ~ 90...140    | ~ 24...280                  | 12                          | <a href="#">SSM1A112F7R</a> | 0.090/0.198 |
|                        |               |                             | 12                          | <a href="#">SSM1A312F7R</a> | 0.090/0.198 |
| 12                     |               | <a href="#">SSM1A112P7R</a> | 0.090/0.198                 |                             |             |
|                        |               | <a href="#">SSM1A312P7R</a> | 0.090/0.198                 |                             |             |
| ~ 200...265            | ~ 24...280    | 12                          | <a href="#">SSM1A112P7R</a> | 0.090/0.198                 |             |
|                        |               | 12                          | <a href="#">SSM1A312P7R</a> | 0.090/0.198                 |             |

PF152200



SSM1A120M7

PF152206



SSM1A445BD

PF123428B



SSM2A36BDR

PF152212



SSM3A325F7

RS\_CP20737



SSRAC200

### SSM1 single-phase solid state relays (22.5 and 45 mm) (1)

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

### 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 |
|                        |               | ~ 48...600  | 6                  | SSM2A36BDR | 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, 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).