



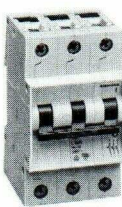
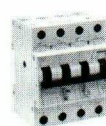
# 5SX Miniature Circuit Breakers

Selection

IEC/UL1077 Versions 5SX2

Description	Ordering Information
UL1077 maximum AC ratings One-Pole: 277V AC Two- and Three-Pole: 480V AC IEC maximum DC ratings 55V DC per pole	<ul style="list-style-type: none"> <li>▶ Select Circuit Breaker based on number of poles, rated current and desired trip curve characteristics see page 772.</li> <li>▶ Accessories see page 771.</li> <li>▶ Technical Data see pages 772-773.</li> <li>▶ Dimensions see page 774.</li> </ul>

## 5SX2 Miniature Circuit Breakers

Illustration	Description	Amp Rating	Standard C Curve Catalog No	High Inrush D Curve Catalog No	Semiconductors A Curve Catalog No	Residential B Curve Catalog No	Price \$
	One Pole	0.3	5SX2114-7	—	—	—	54.
		0.5	5SX2105-7	5SX2105-8	—	—	54.
		1	5SX2101-7	5SX2101-8	5SX2101-5	—	54.
		1.6	5SX2115-7	5SX2115-8	5SX2115-5	—	54.
		2	5SX2102-7	5SX2102-8	5SX2102-5	—	54.
		3	5SX2103-7	5SX2103-8	5SX2103-5	—	54.
		4	5SX2104-7	5SX2104-8	5SX2104-5	—	54.
		5	5SX2111-7	—	—	—	54.
		6	5SX2106-7	5SX2106-8	5SX2106-5	5SX2106-6	54.
		8	5SX2108-7	5SX2108-8	—	—	54.
		10	5SX2110-7	5SX2110-8	5SX2110-5	5SX2110-6	54.
		13	5SX2113-7	5SX2113-8	—	5SX2113-6	54.
		15	5SX2118-7	—	—	—	54.
		16	5SX2116-7	5SX2116-8	5SX2116-5	5SX2116-6	54.
		20	5SX2120-7	5SX2120-8	5SX2120-5	5SX2120-6	54.
		25	5SX2125-7	5SX2125-8	5SX2125-5	5SX2125-6	54.
30	5SX2130-7	—	—	—	54.		
32	5SX2132-7	5SX2132-8	5SX2132-5	5SX2132-6	54.		
40	5SX2140-7	5SX2140-8	5SX2140-5	5SX2140-6	54.		
50	5SX2150-7	5SX2150-8	—	5SX2150-6	54.		
63 <sup>ⓐ</sup>	5SX2163-7	—	—	5SX2163-6	54.		
	Two Pole	0.5	5SX2205-7	5SX2205-8	—	—	108.
		1	5SX2201-7	5SX2201-8	5SX2201-5	—	108.
		1.6	5SX2215-7	5SX2215-8	5SX2215-5	—	108.
		2	5SX2202-7	5SX2202-8	5SX2202-5	—	108.
		3	5SX2203-7	5SX2203-8	5SX2203-5	—	108.
		4	5SX2204-7	5SX2204-8	5SX2204-5	—	108.
		5	5SX2211-7	—	—	—	108.
		6	5SX2206-7	5SX2206-8	5SX2206-5	5SX2206-6	108.
		8	5SX2208-7	5SX2208-8	—	—	108.
		10	5SX2210-7	5SX2210-8	5SX2210-5	5SX2210-6	108.
		13	5SX2213-7	5SX2213-8	—	5SX2213-6	108.
		15	5SX2218-7	—	—	—	108.
		16	5SX2216-7	5SX2216-8	5SX2216-5	5SX2216-6	108.
		20	5SX2220-7	5SX2220-8	5SX2220-5	5SX2220-6	108.
		25	5SX2225-7	5SX2225-8	5SX2225-5	5SX2225-6	108.
		30	5SX2230-7	—	—	—	108.
32	5SX2232-7	5SX2232-8	5SX2232-5	5SX2232-6	108.		
40	5SX2240-7	5SX2240-8	5SX2240-5	5SX2240-6	108.		
50	5SX2250-7	5SX2250-8	—	5SX2250-6	108.		
63 <sup>ⓐ</sup>	5SX2263-7	—	—	5SX2263-6	108.		
	Three Pole	0.5	5SX2305-7	5SX2305-8	—	—	162.
		1	5SX2301-7	5SX2301-8	5SX2301-5	—	162.
		1.6	5SX2315-7	5SX2315-8	5SX2315-5	—	162.
		2	5SX2302-7	5SX2302-8	5SX2302-5	—	162.
		3	5SX2303-7	5SX2303-8	5SX2303-5	—	162.
		4	5SX2304-7	5SX2304-8	5SX2304-5	—	162.
		5	5SX2311-7	—	—	—	162.
		6	5SX2306-7	5SX2306-8	5SX2306-5	5SX2306-6	162.
		8	5SX2308-7	5SX2308-8	—	—	162.
		10	5SX2310-7	5SX2310-8	5SX2310-5	5SX2310-6	162.
		13	5SX2313-7	5SX2313-8	—	5SX2313-6	162.
		15	5SX2315-7	—	—	—	162.
		16	5SX2316-7	5SX2316-8	5SX2316-5	5SX2316-6	162.
		20	5SX2320-7	5SX2320-8	5SX2320-5	5SX2320-6	162.
		25	5SX2325-7	5SX2325-8	5SX2325-5	5SX2325-6	162.
		30	5SX2330-7	—	—	—	162.
32	5SX2332-7	5SX2332-8	5SX2332-5	5SX2332-6	162.		
40	5SX2340-7	5SX2340-8	5SX2340-5	5SX2340-6	162.		
50	5SX2350-7	5SX2350-8	—	5SX2350-6	162.		
	Three Pole plus Switched Neutral	10	5SX2610-7	—	—	—	216.
		16	5SX2616-7	—	—	—	216.
		20	5SX2620-7	—	—	—	216.
		25	5SX2625-7	—	—	—	216.
		32	5SX2632-7	—	—	—	216.
		50	5SX2650-7	—	—	—	216.

<sup>ⓐ</sup>Not UL recognized or VDE approved.

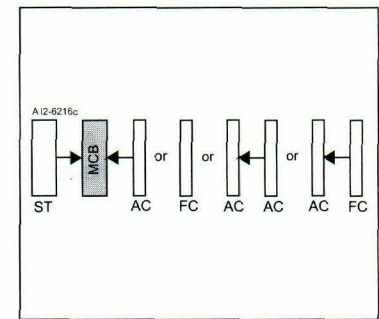
13 Industrial Components

## Accessories

### Signalling Accessories for 5SX2 & 5SX5 Circuit Breakers

Illustration	Description	Version	Catalog No	Price \$
	Auxiliary Contact (AC)	1 NO & 1 NC 2 NO 2 NC	5SX9100 5SX9101 5SX9102	54. 54. 54.
	Short Circuit Alarm Contact (FC)	1 NO & 1 NC 2 NO 2 NC	5SX9200 5SX9201 5SX9202	54. 54. 54.
	Shunt Trip (ST)	110V-415V 50/60Hz	5SX9300	108.

### Schematic for 5SX2 & 5SX5 Circuit Breakers



### Busbar Accessories for 5SX2 & 5SX5 Miniature Circuit Breakers

Illustration	Number of Pole Spaces	Description	Catalog No	Price \$
	<b>Line Side Feeder Bus Bars—Requires Bus Feeder Lug</b>			
	<b>One Pole</b>			
	12	210 mm length with end cap	5ST2142	18.00
	56	1000 mm length without end cap <sup>①</sup>	5ST2151	65.00
	28	1000 mm length without end cap with space for accessory <sup>①</sup>	5ST2163	65.00
	<b>Two Pole</b>			
	12	210 mm length with end cap	5ST2143	21.50
	56	1000 mm length without end cap <sup>①</sup>	5ST2152	90.00
	28	1000 mm length without end cap with space for accessory <sup>①</sup>	5ST2164	182.00
	<b>Three Pole</b>			
	12	210 mm length with end cap	5ST2144	29.00
	56	1000 mm length without end cap <sup>①</sup>	5ST2153	123.00
	28	1000 mm length without end cap with space for accessory <sup>①</sup>	5ST2165	123.00
	<b>End Caps for Line Side Feeder Bus</b>			
		One pole and Two pole end caps	5ST2155	1.20
	Three pole and Four pole end caps	5ST2156	1.80	
<b>Feeder Lug for Line Side Feeder Bus</b>				
	One pole and Two pole feeder lug	per lug/phase: 5ST2166	12.00	
	Three pole and Four pole feeder lug	per lug/phase: 5ST2167	12.00	

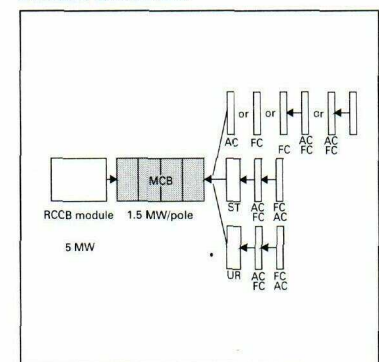
### Mounting Accessory for 5SX2 & 5SX5 Circuit Breakers

Description	Catalog No	Price \$
Front mounting bracket kit for 5SX2 & 5SX5 one, two and three pole circuit breakers. Allows circuit breaker to be mounted to the door of an enclosure.	5STFM5	12.00

### Signalling Accessories for 5SX6 Circuit Breakers

Illustration	Description	Version	Catalog No	Price \$
	Auxiliary Contact (AC)	1 NO & 1 NC	5SX9160	54.00
	Short Circuit Alarm Contact (FC)	1 NO & 1 NC	5SX9260	54.00
	Shunt Trip (ST)	24-48V DC 110V-415V 50/60Hz	5SX9361 5SX9360	105.00 <sup>②</sup> 105.00 <sup>②</sup>

### Schematic for 5SX6 Circuit Breakers



① These feeder bus bars are designed to be cut to required length. Order (2) end caps for each bus bar section.

② Discount Code: Siemens AG.

13 Industrial Components

## Miniature Circuit Breaker Applications Time Current Curve Characteristics

### Tripping characteristics

According to EN 60 898, DIN VDE 0641 Part 11

#### Tripping characteristic: A, -5

Type A circuit breaker characteristic is designed to protect very sensitive branch circuits such as semiconductors. Magnetic Trip Point—2 to 3 times circuit breaker rating. Thermal Trip Point—1.13 to 1.45 circuit breaker rating.

#### Tripping characteristic: B, -6

Type B characteristic designed for European residential circuit protection. This characteristic can also be used for protection of computers and electronic equipment. Magnetic Trip Point—3 to 5 times circuit breaker rating. Thermal Trip Point—1.13 to 1.45 circuit breaker rating.

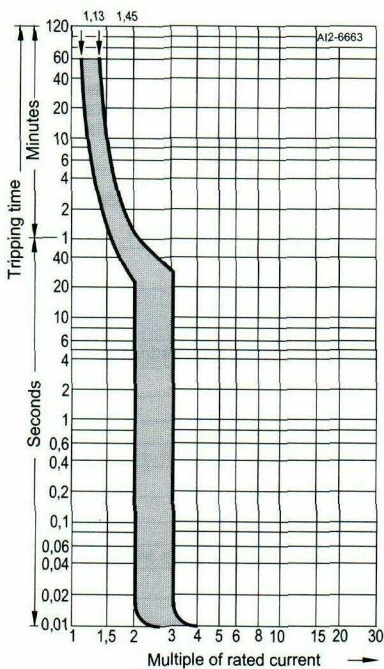
#### Tripping characteristic: C, -7

Type C characteristic is for general device protection in control circuits and all other supplementary circuit protection systems. Magnetic Trip Point—5 to 10 times circuit breaker rating. Thermal Trip Point—1.13 to 1.45 circuit breaker rating.

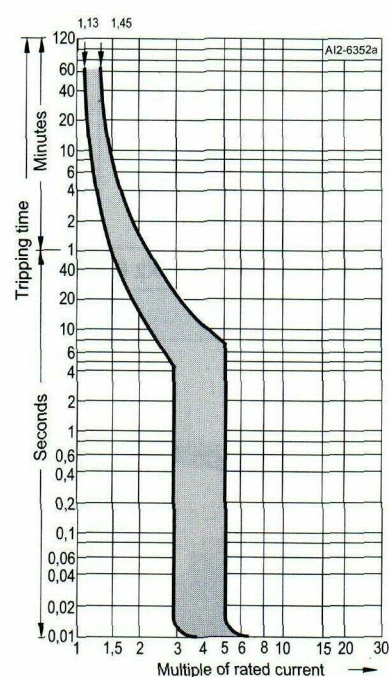
#### Tripping characteristic: D, -8

Type D characteristic is designed as a supplementary protector of high inrush loads such as transformers and motors. Magnetic Trip Point—10 to 20 times circuit breaker rating. Thermal Trip Point—1.13 to 1.45 circuit breaker rating.

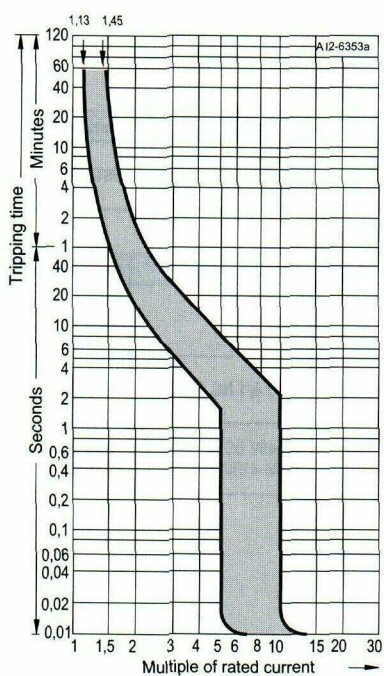
Tripping characteristic: A



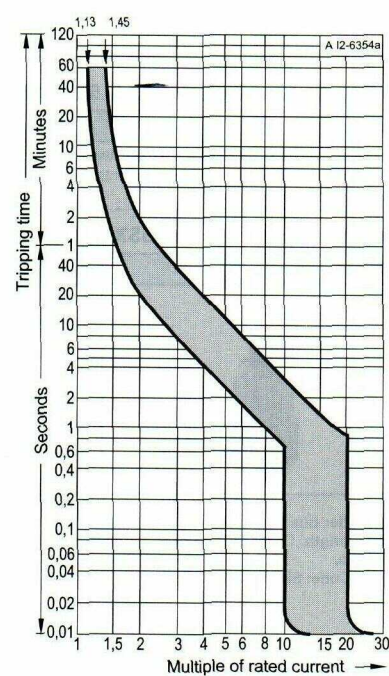
Tripping characteristic: B



Tripping characteristic: C



Tripping characteristic: D



## Technical Data

	5SX2..	5SX5..	5SX6..
Approvals	UL 1077 Recognized File E116386 CSA File LR93659 EN 60 898, DIN VDE 0641 TEIL 11, IEC B98	—	—
Housing	Grey Molded plastic, RAL 7035, Black Handle		
Terminals:	(1) 14–5 AWG/16 mm <sup>2</sup>	16 mm <sup>2</sup>	Max. (1) 1/0 AWG/50 mm <sup>2</sup>
—Load Side			
—Line Side	(1) 14–4 AWG/25 mm <sup>2</sup>	25 mm <sup>2</sup>	Max. (1) 1/0 AWG/50 mm <sup>2</sup>
Mounting	Snap-on to 35 mm DIN Mounting Rail		
Mechanical Endurance	20,000 Operations		
Rated AC Voltage 50/60Hz: IEC	250/440V	250/415V	250/440V
—UL 1077	1 Pole 120/227 Volt AC 50/60Hz 2 Pole 120/240/480 Volt AC 50/60Hz 3 Pole 120/240/480 Volt AC 50/60Hz	— — —	— — —
Rated DC Voltage IEC	Per Pole 55V 1 Pole — 2 Pole — 3 Pole —	— 220V 440V —	60V — — —
UL1077	1 Pole 65VDC 2 Pole 125VDC	— —	— —
Auxiliary Contacts Rating for 5SX9	UL IEC 360VA Steady State, 3600VA Inrush, 480V AC, Maximum AC15: 6A, 230V AC; DC14: 1A, 220V DC		
Rated Interrupting Capacity	6kA	4.5kA	6kA
—UL 1077	120/240 Volt AC 14kA 240 Volt AC 7.5kA 277 Volt AC 5kA 480 Volt AC 5kA	— — — —	— — — —
Permitted Ambient Temp. Range	–25°C to +45°C	–25°C to +45°C	–25°C to +45°C
Shock Resistance	30g <sup>Ⓛ</sup> —half-sine shock load 6 ms	30 g—half-sine shock load 6 ms	
Vibration Resistance	≥6g <sup>Ⓛ</sup>	≥6g	



Ⓛg = 9.81 m/s<sup>2</sup>

**Note:** Circuit Protection device catalog numbers are not directly referenced on the product.

Identification of the proper device can be determined as follows:

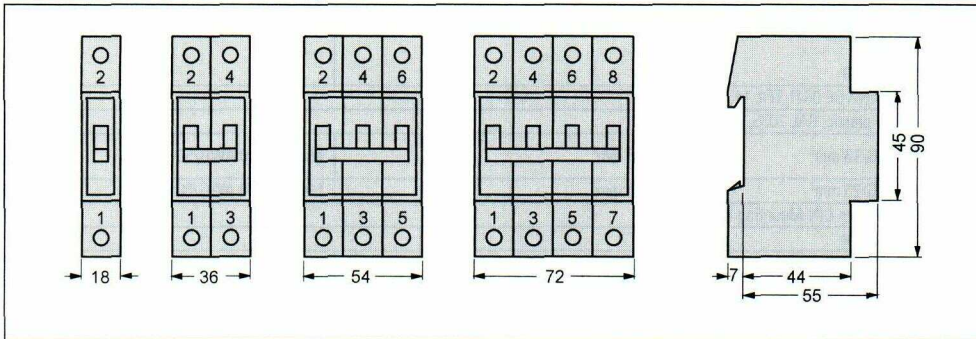
- 1) Note the number of poles 1, 2 or 3.
- 2) Note the breaker type, characteristic and amp rating.

**Example:** Device on left is a 1-pole breaker with a marking of C32. C indicates trip curve characteristic C. The 32 indicates an amp rating of 32; therefore, this device is a 5SX2132-7.

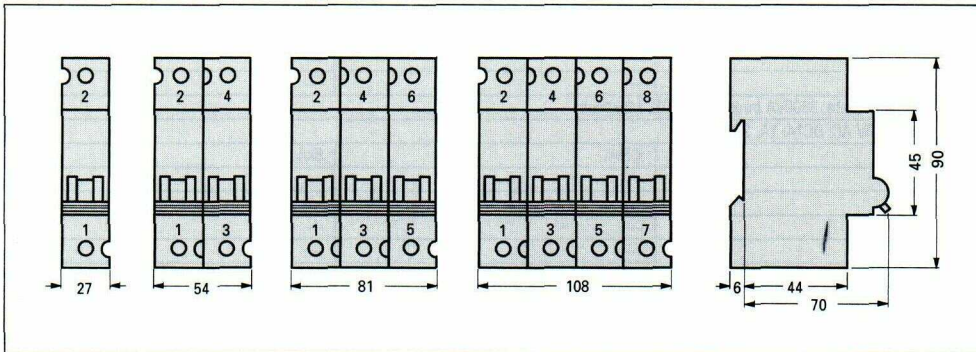
13 Industrial Components

### 5S Breakers and Accessories

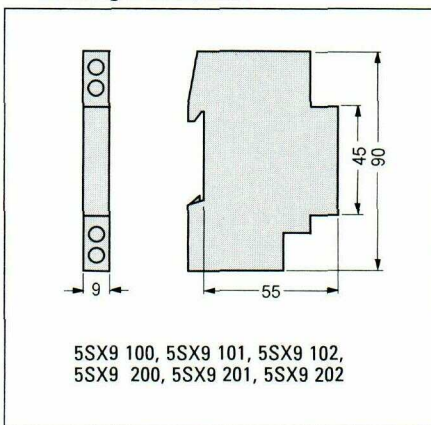
#### 5SX2 and 5SX5 Circuit Breakers (1, 2, 3 and 4 pole)



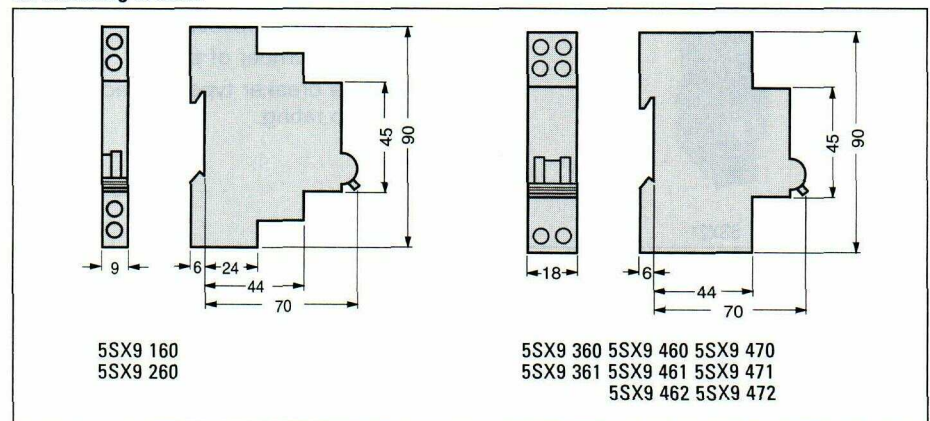
#### 5SX6 Circuit Breakers (1, 2, 3 and 4 pole)



#### 5SX9 auxiliary contact 5SX9 short circuit alarm contact for mounting to 5SX2, 5SX5



#### 5SX9 auxiliary contact 5SX9 short circuit alarm contact 5SX9 shunt strip for mounting to 5SX6



**Note:** All Dimensions shown in millimeters. For reference purposes only. Not to be used for design or construction purposes.