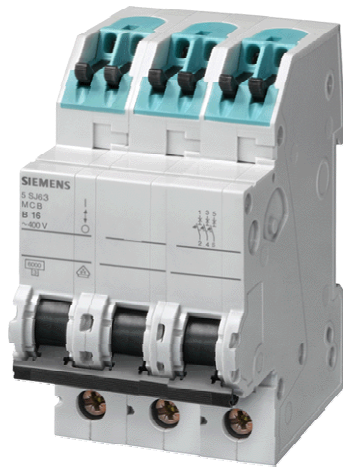


Miniature Circuit-Breaker with Quick-Connect Terminal

Save time with quick-connect



These miniature circuit-breakers are primarily used to protect socket outlet and lighting circuits with the most common rated currents from 10 to 20 A.

Available in characteristics B and C, the devices are fitted with an innovative quick-connect outgoing terminal. Simply insert the conductor in the terminal opening - done! The clamping force is generated automatically. The conductors are released by simply pressing down briefly on the black clamping lever.

Implemented here in slightly modified form, this type of connection terminal is already well-known from switches and socket outlets.

Already field-tested on the 5SY and 5SJ6 miniature circuit-breakers from Siemens, the incoming busbar mounting uses standard pin busbars and is located behind the feeder cable.

Miniature circuit-breaker for socket outlets and lighting circuits

- The quick-connect terminal with inclined, easily accessible cable entry saves assembly time and can be operated manually.
- Standard pin busbars are used for the incoming terminal, which ensure quick, clear and convenient access to all connections.
- Double screwless outgoing terminal for fast connection and disconnection of conductors.

BETA Low-Voltage Circuit Protection

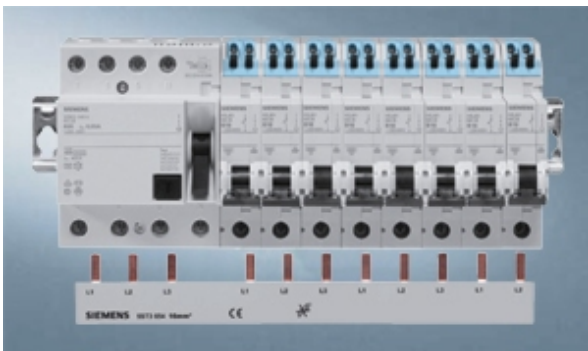
www.siemens.com/beta

Miniature Circuit-Breaker

5SJ6 Miniature Circuit-Breaker with Quick-Connect Terminal



Double screwless outgoing terminal for fast connection and disconnection of conductors



The incoming terminal is connected using standard pin busbars



Plenty of space for wiring
Clear overview and easy access to all lines

Application

Miniature circuit-breakers primarily serve to protect cables and lines against overload and short-circuit. Thus, they also serve to protect electrical equipment against excessive overheating according to DIN VDE 0100 Part 430.

Under certain conditions, miniature circuit-breakers also offer protection against dangerous leakage currents caused by excessive touch voltage due to insulation faults according to DIN VDE 0100 Part 410.

Various tripping characteristics are available, depending on the respective application. These are explained in detail in the catalog ET B1 T ("Technical Information on the ET B1 Catalog"). The EN 60898, DIN VDE 0641 Part 11 and IEC 60898 standards form the basis for the miniature circuit-breakers' design and approval.

Design

Miniature circuit-breakers are equipped with a delayed overload/time-dependent thermal release (thermal bi-metal) for low overcurrents and with an instantaneous electromagnetic release for higher overload and short-circuit currents.

The special contact materials used guarantee a long service life and offer a high degree of protection against contact welding.

Terminals offer protection against contact with fingers or the back of the hand according to the German accident prevention regulations VBG 4/BGV A2. An optional handle locking device effectively prevents any unauthorized operation of the handle.

Function

Thanks to their extremely fast contact separation in the event of a fault, and the rapid quenching of the arc this produces in the arcing chamber, the miniature circuit-breakers ensure safe and current-limiting disconnection.

The permissible limit I_2t values of the energy limitation class 3 specified in DIN VDE 0641 Part 11 are generally undercut by 50 %. This guarantees an excellent selectivity towards upstream overcurrent protection devices.





Technical specifications

			5SJ6
Tripping characteristic			B and C
Number of poles	1, 2, 3, 1+N		•
Rated voltage		V AC	230/400
Operational voltage	min.	V AC/DC	24
	max.	V DC/pole	60
	max.	V AC	250
Rated short-circuit capacity			
• according to EN 60898		kA AC	6
Insulation coordination			
• Rated insulation voltage		V AC	250
• Degree of pollution for overvoltage category			2/III
Touch protection according to DIN VDE 106 Part 100			•
Sealable in handle end position			•
Device depth according to DIN 43880		mm	70
Degree of protection			IP20 according to DIN EN 60529 for 5SP3, IP40 when mounted in distribution boards
CFC and silicone-free			yes
Mounting technique			can be snapped onto 35 mm standard mounting rails (DIN EN 60715)
Terminals			screwless terminals on the outgoing terminal for 1.5 ... 4 mm ²
Conductor cross-sections			
solid and stranded			
• Lower terminal		mm ²	0.75 ... 25
finely stranded with end sleeve			
• Lower terminal		mm ²	0.75 ... 25
Feeder connection			any
Mounting position			any
Service life			on average: 20 000 operations at the rated load
Ambient temperature		°C	-25 ... +45, occasionally +55, max. 95 % humidity, storage temperature: -40 ... +75
Resistance to climate			6 cycles according to IEC 60068-2-30
Resistance to vibrations		m/s ²	60 at 10 Hz ... 150 Hz according to IEC 60068-2-6

Miniature Circuit-Breaker

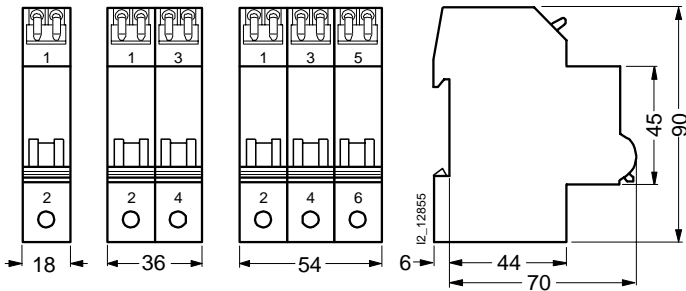
5SJ6 Miniature Circuit-Breaker with Quick-Connect Terminal

Selection and ordering data

	I_n	MW	Characteristic B Order No.	PG	Characteristic C Order No.	PG	Weight 1 unit approx. kg	PS ¹⁾ / P. unit Unit(s)
	A							
 <p>1-pole</p> <p>*1 2</p>	10	1	5SJ6 110-6KS	002	5SJ6 110-7KS	003	0.111	1
	13		5SJ6 113-6KS	002	5SJ6 113-7KS	003	0.111	1
	16		5SJ6 116-6KS	002	5SJ6 116-7KS	003	0.111	1
	20		5SJ6 120-6KS	002	5SJ6 120-7KS	003	0.111	1
 <p>1-pole + N</p> <p>*1 *N 2 N</p>	10	2	5SJ6 510-6KS	002	5SJ6 510-7KS	003	0.185	1
	13		5SJ6 513-6KS	002	5SJ6 513-7KS	003	0.185	1
	16		5SJ6 516-6KS	002	5SJ6 516-7KS	003	0.185	1
	20		5SJ6 520-6KS	002	5SJ6 520-7KS	003	0.185	1
 <p>2-pole</p> <p>*1 *3 2 4</p>	10	2	5SJ6 210-6KS	002	5SJ6 210-7KS	003	0.225	1
	13		5SJ6 213-6KS	002	5SJ6 213-7KS	003	0.225	1
	16		5SJ6 216-6KS	002	5SJ6 216-7KS	003	0.225	1
	20		5SJ6 220-6KS	002	5SJ6 220-7KS	003	0.225	1
 <p>3-pole</p> <p>*1 *3 *5 2 4 6</p>	10	3	5SJ6 310-6KS	002	5SJ6 310-7KS	003	0.345	1
	13		5SJ6 313-6KS	002	5SJ6 313-7KS	003	0.345	1
	16		5SJ6 316-6KS	002	5SJ6 316-7KS	003	0.345	1
	20		5SJ6 320-6KS	002	5SJ6 320-7KS	003	0.345	1

¹⁾ You can order this quantity or a multiple thereof.

Dimensional drawings



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