

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.

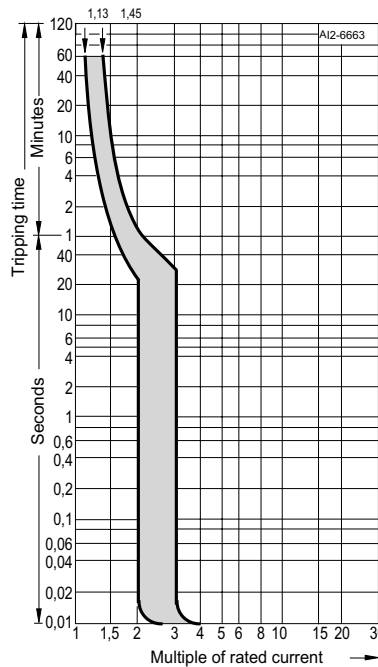
Tripping characteristic: C, -7

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.

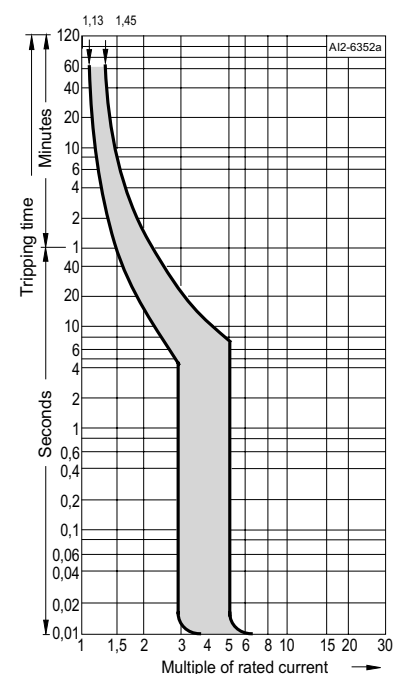
Tripping characteristic: D, -8

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.

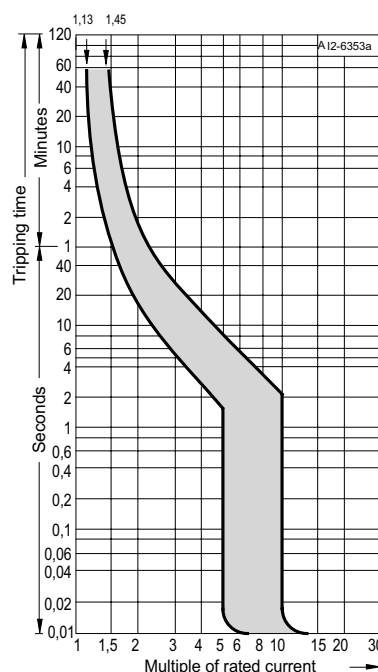
Tripping characteristic: A



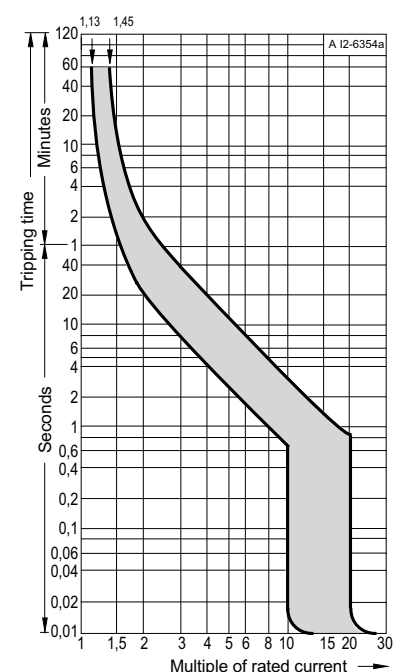
Tripping characteristic: B



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: —Load Side	(1) 14–5 AWG/16 mm ²	16 mm ²	Max. (1) 1/0 AWG/50 mm ²	
—Line Side	(1) 14–4 AWG/25 mm ²	25 mm ²	Max. (1) 1/0 AWG/50 mm ²	
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	60V	
	1 Pole	—	220V	
	2 Pole	—	440V	
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 —UL 1077		6kA	4.5kA	6kA
	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 [Ⓞ] —half-sine shock load 6 ms		30 g—half-sine shock load 6 ms	
Vibration Resistance	≥6g [Ⓞ]		≥6g	



Ⓞg = 9.81 m/s²

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.