

ST 200 M data sheet

System pro M compact® miniature circuit breakers for supplementary protection acc. to UL 1077



The ST 200 M miniature circuit breaker provides supplementary protection acc. to UL 1077 up to 480 Y/277 V AC and 125 V DC. With a broad range of options and approvals acc. to the international standards UL, CSA and IEC, the ST 200 M is ideal for multiple applications and markets. It is also fully compatible with System pro M compact® accessories.

Features

- High performance MCB with interrupt rating up to 10 kA
- Certified for AC and DC use acc. to UL 1077 and CSA 22.2 No. 235
- Suitable for many applications due to a wide range of product types and available accessories
- High calibration temperature of 40 °C for reduced derating in ICP applications
- Short-circuit current rating (SC) U2 enables continuous high level short circuit protection
- Laser printing provides clear product information on device
- Clear contact position indication in red/green (“real CPI”)
- Unique, patented twin terminal for wiring up to 35 mm² with captive screws
- Field wiring available for most types
- Robust thermoplastic housing material for better protection against external influences

Standards and approvals

Standards

UL 1077
 CSA 22.2 No. 235
 IEC/EN 60947-2

Approvals

UL 1077	US
CSA 22.2 No. 235	CA
VDE	DE
CCC	CN
EAC	RU

Miniature Circuit Breaker ST 200 M

Technical data

1) 2P/3P/4P single pole load: TC2

2) for 1P, 1P+N, 2P, 3P

General Data	
Standards	IEC/EN 60947-2, UL 1077, CSA 22.2 No. 235
Poles	1P, 2P, 3P, 4P, 1P+N, 3P+N
Tripping characteristics	B, C, D, K, Z
Rated current I_n	0.5...63 A
Rated frequency f	50 / 60 Hz
Rated insulation voltage U_i acc. to IEC/EN 60664-1	440 V AC
Overvoltage category	III
Pollution degree	3
Data acc. to IEC/EN 60947-2	
Rated operational voltage U_e	1P, 1P+N: 230 V AC 2P, 3P, 3P+N, 4P: 400 V AC
Highest supply or utilization voltage acc. to IEC 60038 (U_{max})	1P, 1P+N: 253 V AC 2P, 3P, 3P+N, 4P: 440 V AC 1P: 60 V DC; 2P: 125 V DC
Min. operating voltage	12 V AC, 12 V DC
Rated ultimate short-circuit breaking capacity I_{cu}	15 kA
Rated service short-circuit breaking capacity I_{cs}	≤ 40 A: 11.25 kA > 40 A: 7.5 kA
Rated impulse withstand voltage U_{imp} . (1.2/50 μs)	4 kV (test voltage 6.2 kV at sea level, 5 kV at 2,000 m)
Dielectric test voltage	2 kV (50 / 60Hz, 1 min.)
Reference temperature for tripping characteristics	30°C
Electrical endurance	$I_n < 30$ A: 20,000 ops (AC), $I_n ≥ 30$ A: 10,000 ops. (AC); 1,000 ops. (DC); 1 cycle (2s - ON, 28s - OFF)
Data acc. to UL / CSA	
Rated voltage	1P, 1P+N: 277 V AC; 240 V AC 2P, 3P, 3P+N, 4P: 480Y / 277 V AC; 240 V AC 1P: 60 V DC; 2P (in series): 125 V DC
Rated interrupting capacity acc. to UL 1077	480Y / 277 V AC: ≤ 32A: 10 kA; > 32A: 5 kA; 240 V AC: 10 kA 60 / 125 V DC: 0.5...63A: 10 kA
Short-circuit current rating acc. to UL 489	-
Application	Suppl. Protector for general use; application codes: TC1 ¹⁾ , OLO, SC: U2 (AC), SC: U2 (DC), FW3 ²⁾
Reference temperature for tripping characteristics	40 °C
Electrical endurance	6,000 ops (AC), 6,000 ops. (DC); 1 cycle (1s - ON, 9s - OFF)
Mechanical Data	
Housing	Insulation group II, RAL 7035
Toggle	Insulation group II, black, sealable
Contact position indication	CPI (red ON / green OFF)
Protection degree acc. to EN 60529	IP20, IP40 in enclosure with cover
Mechanical endurance	20,000 ops.
Shock resistance acc. to IEC/EN 60068-2-27	25 g - 2 shocks - 13 ms
Vibration resistance acc. to IEC/EN 60068-2-6	5g - 20 cycles at 5...150...5 Hz with load 0.8 I_n
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	28 cycles with 55°C/90-96% and 25°C/95-100%
Ambient temperature	-25 ... +55 °C
Storage temperature	-40 ... +70 °C
Installation	
Terminal	Failsafe bi-directional cylinder-lift terminal
Cross-section of conductors (top / bottom)	Solid, Stranded 35 mm ² / 35 mm ²
Flexible	25 mm ² / 25 mm ² 18 - 4 AWG
Cross-section of busbars (top / bottom)	10 mm ² / 10 mm ² 14 - 8 AWG
Tightening Torque	2.8 Nm AWG 18-16: 8.85 in-lbs. AWG 14-10: 17.7 in-lbs. AWG 8-4: 39.8 in-lbs.
Screwdriver	No. 2 Pozidrive
Mounting	On DIN rail 35 mm acc. to EN 60715 by fast clip
Mounting position	any
Supply	optional
Dimensions and weight	
Mounting dimensions acc. to DIN 43880	Mounting dimension 1
Pole dimensions (H x D x W)	88 x 69 x 17.5 mm
Pole weight	approx. 115 g
Combination with aux. elements	
Auxiliary contact	Yes
Signal contact	Yes
Shunt trip	Yes

Miniature Circuit Breaker ST 200 M

Ordering data characteristic B



Number of poles	Rated current I _n [A]	Type code	Order code	Weight per PCE [kg]	Packing unit [PCE]
3	0.5	ST203M-B0,5	2CDS273334R0985	0.345	1
	1.6	ST203M-B1,6	2CDS273334R0975	0.345	1
	1	ST203M-B1	2CDS273334R0015	0.345	1
	2	ST203M-B2	2CDS273334R0025	0.345	1
	3	ST203M-B3	2CDS273334R0035	0.345	1
	4	ST203M-B4	2CDS273334R0045	0.345	1
	5	ST203M-B5	2CDS273334R0055	0.345	1
	6	ST203M-B6	2CDS273334R0065	0.345	1
	7	ST203M-B7	2CDS273334R0075	0.345	1
	8	ST203M-B8	2CDS273334R0085	0.345	1
	10	ST203M-B10	2CDS273334R0105	0.345	1
	13	ST203M-B13	2CDS273334R0135	0.345	1
	15	ST203M-B15	2CDS273334R0155	0.345	1
	16	ST203M-B16	2CDS273334R0165	0.345	1
	20	ST203M-B20	2CDS273334R0205	0.345	1
	25	ST203M-B25	2CDS273334R0255	0.345	1
	30	ST203M-B30	2CDS273334R0305	0.345	1
	32	ST203M-B32	2CDS273334R0325	0.345	1
	35	ST203M-B35	2CDS273334R0355	0.345	1
	40	ST203M-B40	2CDS273334R0405	0.345	1
50	ST203M-B50	2CDS273334R0505	0.345	1	
60	ST203M-B60	2CDS273334R0605	0.345	1	
63	ST203M-B63	2CDS273334R0635	0.345	1	
3+N	0.5	ST203M-B1,6NA	2CDS273335R0975	0.460	1
	1.6	ST203M-B0,5NA	2CDS273335R0985	0.460	1
	1	ST203M-B1NA	2CDS273335R0015	0.460	1
	2	ST203M-B2NA	2CDS273335R0025	0.460	1
	3	ST203M-B3NA	2CDS273335R0035	0.460	1
	4	ST203M-B4NA	2CDS273335R0045	0.460	1
	5	ST203M-B5NA	2CDS273335R0055	0.460	1
	6	ST203M-B6NA	2CDS273335R0065	0.460	1
	7	ST203M-B7NA	2CDS273335R0075	0.460	1
	8	ST203M-B8NA	2CDS273335R0085	0.460	1
	10	ST203M-B10NA	2CDS273335R0105	0.460	1
	13	ST203M-B13NA	2CDS273335R0135	0.460	1
	15	ST203M-B15NA	2CDS273335R0155	0.460	1
	16	ST203M-B16NA	2CDS273335R0165	0.460	1
	20	ST203M-B20NA	2CDS273335R0205	0.460	1
	25	ST203M-B25NA	2CDS273335R0255	0.460	1
	30	ST203M-B30NA	2CDS273335R0305	0.460	1
	32	ST203M-B32NA	2CDS273335R0325	0.460	1
	35	ST203M-B35NA	2CDS273335R0355	0.460	1
	40	ST203M-B40NA	2CDS273335R0405	0.460	1
50	ST203M-B50NA	2CDS273335R0505	0.460	1	
60	ST203M-B60NA	2CDS273335R0605	0.460	1	
63	ST203M-B63NA	2CDS273335R0635	0.460	1	
4	0.5	ST204M-B0,5	2CDS274334R0985	0.460	1
	1.6	ST204M-B1,6	2CDS274334R0975	0.460	1
	1	ST204M-B1	2CDS274334R0015	0.460	1
	2	ST204M-B2	2CDS274334R0025	0.460	1
	3	ST204M-B3	2CDS274334R0035	0.460	1
	4	ST204M-B4	2CDS274334R0045	0.460	1
	5	ST204M-B5	2CDS274334R0055	0.460	1
	6	ST204M-B6	2CDS274334R0065	0.460	1
	7	ST204M-B7	2CDS274334R0075	0.460	1
	8	ST204M-B8	2CDS274334R0085	0.460	1
	10	ST204M-B10	2CDS274334R0105	0.460	1
	13	ST204M-B13	2CDS274334R0135	0.460	1
	15	ST204M-B15	2CDS274334R0155	0.460	1
	16	ST204M-B16	2CDS274334R0165	0.460	1
	20	ST204M-B20	2CDS274334R0205	0.460	1
	25	ST204M-B25	2CDS274334R0255	0.460	1
	30	ST204M-B30	2CDS274334R0305	0.460	1
	32	ST204M-B32	2CDS274334R0325	0.460	1
	35	ST204M-B35	2CDS274334R0355	0.460	1
	40	ST204M-B40	2CDS274334R0405	0.460	1
50	ST204M-B50	2CDS274334R0505	0.460	1	
60	ST204M-B60	2CDS274334R0605	0.460	1	
63	ST204M-B63	2CDS274334R0635	0.460	1	