

RCBO DSH202C M

Data sheet



The 2P DSH202C M RCBO is the perfect solution for a complete protection against overcurrent and earth fault currents. In two modules width the series ensure, at any time and under any condition, the safety of people, facilities and related equipment.

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01 DSH202C M: residual current circuit breaker with overcurrent protection

DSH202C M is a 2P RCBO compliant to product standard IEC/EN 61009 and with the following main technical features:

- Breaking capacity 10 kA
- Type A
- Sensitivity 30 mA
- Tripping characteristics Bk - Ck
- Rated current from 10 to 32 A

Application benefits

- Supply possible both from top and bottom and in parallel with cables and busbars thanks to terminals composed by two different seats: a front seat for 25 mm² cables and a back seat for 10 mm² busbars.
- Easy troubleshooting and reduced downtime for maintenance operations thanks to the earth fault indicator (blue flag on the toggle) and contact position indicator (CPI).
- Product Made in Italy, with RFid tag on the product side to authenticate the device.
- Family feeling in the System pro M compact® range.

RCBO DSH202C M

Technical data



DSH202C M			
Electrical features	Standards		IEC/EN 61009-1; IEC/EN 61009-2-1
	Type (wave form of the earth leakage sensed)		A
	Number of poles		2P
	Rated current I_n	A	$6 \leq I_n \leq 32$
	Rated sensitivity $I_{\Delta n}$	A	0.03
	Rated voltage U_e	V	230-
	Insulation voltage U_i	V	500 V AC
	Overvoltage category		III
	Pollution degree		2
	Operating voltage of circuit test U_t	V	110 (170 for 30mA) - 254
	Rated frequency	Hz	50/60
	Rated breaking capacity acc. to IEC/EN 61009-1	I_{cn} A	10000
	Rated breaking capacity acc. to IEC/EN 60947-2 (only referring to short circuit test)	ultimate I_{cu}	kA 10
		service I_{cs}	kA 7.5
	Rated residual breaking capacity $I_{\Delta m}$ according to EN 61009-1	$I_{\Delta m}$ A	4500
	Rated residual breaking capacity $I_{\Delta m}$ according to IEC 61009-1	$I_{\Delta m}$ A	4500
	Rated impulse withstand voltage (1.2/50) U_{imp}		kV 4 kV
	Dielectric test voltage at ind. freq. for 1 min.		kV 2.5 kV (50 / 60Hz, 1 min.)
	Thermomagnetic release - characteristic	Bk: $3 I_n \leq I_n \leq 5 I_n$	■
		Ck: $5 I_n \leq I_n \leq 10 I_n$	■
Mechanical features	Energy limiting class acc. to EN 61009-1		
	Surge current resistance (wave 8/20)		A NA for A
	Housing		Insulation group I - II, RAL 7035
	Toggle		Insulation group II, Black RAL 9005, sealable in ON-OFF positions
	Contact position indication		Green/Red Window
	Earth fault trip indication		Blue flag on toggle
	Electrical life	operations	10000
	Mechanical life	operations	20000
	Protection degree acc. to EN 60529	housing	IP4X
		terminals	IP2X
	Shock resistance acc. to IEC/EN 60068-2-27		25g - 2 shocks - 13ms
	Vibration resistance acc. to IEC/EN 60068-2-6		0.1 mm or 1 g - 20 cycles at 5...150...5 Hz
	Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30	°C/RH	28 cycles with 55°C/90-96% and 25°C/95-100%
	Reference temperature for setting of thermal element		°C 30
	Ambient temperature (with daily average $\leq +35$ °C)		°C -25...+55
	Storage temperature		°C -40...+70

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Installation	Terminal type	top / bottom		failsafe bi-directional cylinder-lift terminal (shock protected)
	Terminal size for cables	top / bottom	mm ²	25/25
	Terminal size for busbars	top / bottom	mm ²	10/10
	Solid /stranded wiring			1 x 0,75-25 mm ² for front terminal and 1 x 1-10 mm ² for rear terminal; 2 x 0,75-10 mm ² for front terminal
	Flexible wires with or without ferrules			1 x 0,75-16 mm ² for front terminal and 1 x 1-4 mm ² for rear terminal; 2 x 0,75-6 mm ² for front terminal
	Solid /stranded and flexible wiring with or without ferrules			2 x 0,75-4 mm ² for front terminal and 2 x 1,5 mm ² or 1 x 2,5-4 mm ² for rear terminal
	Tightening torque	top / bottom	Nm	2.8
	Stripping length of the cable		mm	12
	Mounting			on DIN rail EN 60715 (35mm) by means of mounting clip
	Mounting position			Any
	Supply from			Top/Bottom terminals
Dimensions and weight	Dimensions (H x D x W)		mm	85 x 69 x 35
	Weight		g	200
Combination with auxiliary elements	Not Combinable with accessories and auxiliaries	Auxiliary contact		no
		Signal contact / auxiliary contact		no
		Shunt trip		no
		Auxiliary contact for bottom fitting		no
		Undervoltage release		no
		Overvoltage release		no
		Motor operating device		no

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Power loss

RCBOs DSH202C M series		
Rated current In [A]	Power loss ①	Internal resistance
	[W]	[mΩ]
10	4,1	40,6
13	3,5	21
16	5,4	21
20	6,6	16,6
25	5,5	8,8
32	8,2	8

Derating in temperature

Max operating current depending on the ambient temperature (daily average $\leq +35\text{ °C}$) of characteristics type B and C.

Bk, C In (A)	Temperature (°C)									
	-25	-20	-10	0	10	20	30	40	50	55
10	11.8	11.6	11.3	11.0	10.7	10.3	10	9.7	9.3	9.15
13	15.65	15.4	14.9	14.4	14.0	13.5	13	12.5	12.0	11.8
16	18.65	18.4	17.9	17.4	17.0	16.5	16	15.5	15.0	14.8
20	23.1	22.8	22.2	21.7	21.1	20.6	20	19.4	18.9	18.6
25	30.8	30.3	29.2	28.2	27.1	26.1	25	23.9	22.9	22.35
32	39.3	38.6	37.3	36.0	34.7	33.3	32	30.7	29.3	28.65

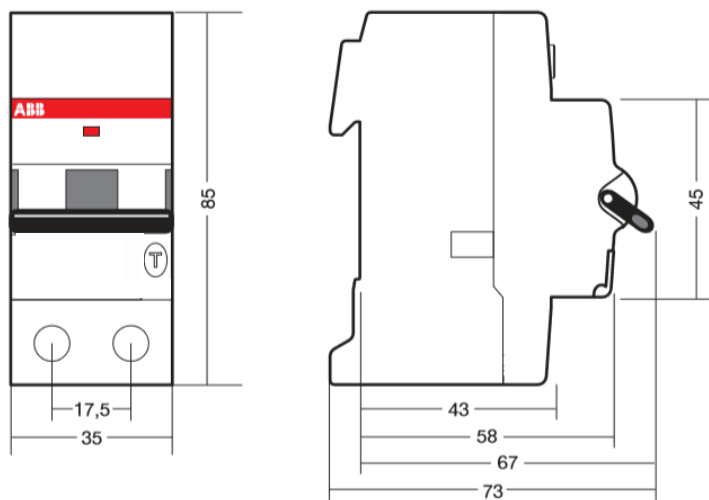
Max operating current depending on the ambient temperature (daily average $\leq +35\text{ °C}$) of characteristics type K.

RCBOs DSH202C M

Dimensions and connections

Overall dimensions DSH202C M

All measurements in mm



Main connection

