

CATALOG

DSN201E

Introduction of the series



- Compact eRCBO 1P+N in 1M for DIN rail applications
- Easy installation with supply possible from top and bottom side
- Rated current up to 32 A with B and C tripping characteristics
- 10 kA breaking capacity available up to 20 A

DSN201E

Product at a glance

High performance clips

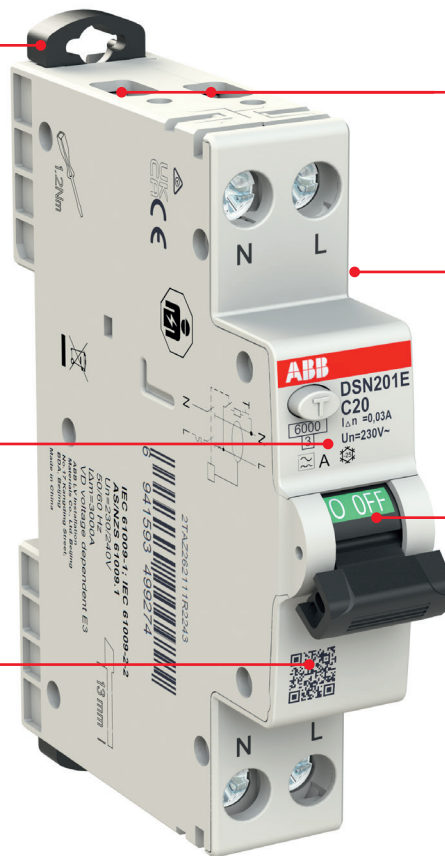
To facilitate the mounting and dismounting operation, guaranteeing an easy removal from a battery of device supplied with busbars.

Technical information

Main technical information are printed on the front side, visible also when the device is installed.

QR code on the front side

Redirecting to ABB product page for a quick access to all product information.



Easy supply

Supply possible from top and bottom side, either with cables or busbars. The neutral is switched

Combination with accessories

Possibility to mount signal and auxiliary contacts of DSCC series on right side.

Guaranteed security

Indication of the contacts status with I-ON/O-OFF indication in green/red on the toggle.

DSN201E

Technical features

DSN201E / DSN201E M		
Standards		
IEC 61009-1; IEC 61009-2-2; AS/NZS 61009.1		
Electrical features		
Type (wave form of the earth leakage sensed)		AC, A
Number of poles		1P+N
Rated sensitivity I _{Δn}	mA	10, 30
Rated current I _n	A	6 ≤ I _n ≤ 32 (up to 20A for M version)
Rated operational voltage U _e	V	230/240
Rated Insulation voltage U _i acc. to IEC/EN 60664-1	V	500 V AC/DC
Overvoltage category		III
Pollution degree		2
Rated frequency f	Hz	50/60
Min. operating voltage for protection against I _{Δn} residual sinusoidal alternating currents	V	85
Max operating voltage	V	264
Operating voltage of circuit test	V	160–264
Rated short circuit breaking capacity acc. to IEC/EN 61009-1	I _{cn}	A 6 000 / 10 000
Rated residual breaking capacity I _{Δm} to IEC 61009-1	I _{Δm}	A 3 000
Rated short circuit breaking capacity acc. to IEC/EN 60947-2 (only referring to short circuit test)	Ultimate I _{cu}	kA 6; 10
	Service I _{cs}	kA 6
Grid distance	mm	45
Rated impulse withstand voltage U _{imp} , (1.2/50μs)	kV	4
Dielectric test voltage at ind. freq. for 1 min.	kV	2.5 kV (50 / 60Hz)
Tripping characteristic	B: 3 I _n ≤ I _m ≤ 5 I _n	■
	C: 5 I _n ≤ I _m ≤ 10 I _n	■
Energy limiting class		3
Mechanical features		
Hosing type		Insulation group I
Toggle type		Insulation group II
Contact position indication (CPI)		Green/red indication on toggle
Electrical endurance	Cycles (OFF-ON-OFF)	10000
Mechanical endurance	Cycles (OFF-ON-OFF)	20000
Protection degree acc. to EN 60529	housing	IP40
	terminals	IP20
Resistance to Shock acc. to IEC 60068-2-27		40g (x,y,z) - 18 shocks - 5ms half sinusoidal
Resistance to Vibrations acc. to IEC 60068-2-6		1.5 g, 30 min, 0...80 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 tripping characteristics	°C	30
Ambient temperature (with daily average ≤ +35 °C)	°C	-25....+55
Storage temperature	°C	-25...+70
Installation		
Terminal type	top / bottom	Fail-safe cage terminals
Cross-section of conductors	top / bottom	mm ² 16/16 flexible; 25/25 rigid
Cross-section of busbars	top / bottom	mm ² 10/10
Tightening torque	top / bottom	Nm 1.2/1.2
Wire Stripping Length	mm	13
Screwdriver		No. 2 Pozidrive
Mounting Type		on DIN rail EN 60715 (35 mm) by means of mounting clip
Mounting position		Vertical & Horizontal
Supply from		Top and Botom terminals
Dimensions and weight		
Dimensions (H×D×W)	mm	86×70×17.8
Weight	g	119
Combinationwithauxiliary elements		
Combinable with accessories and auxiliaries		YES, DSCC series

DSN201E

Ordering data



DSN201E: 1P+N eRCBO

Function: protection and control of the circuits against overloads and short-circuits; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$). The neutral is switched. Voltage dependent RCBO.

Applications: residential, commercial, industrial

Standard: IEC 61009-1; IEC 61009-2-2; AS/NZS 61009.1

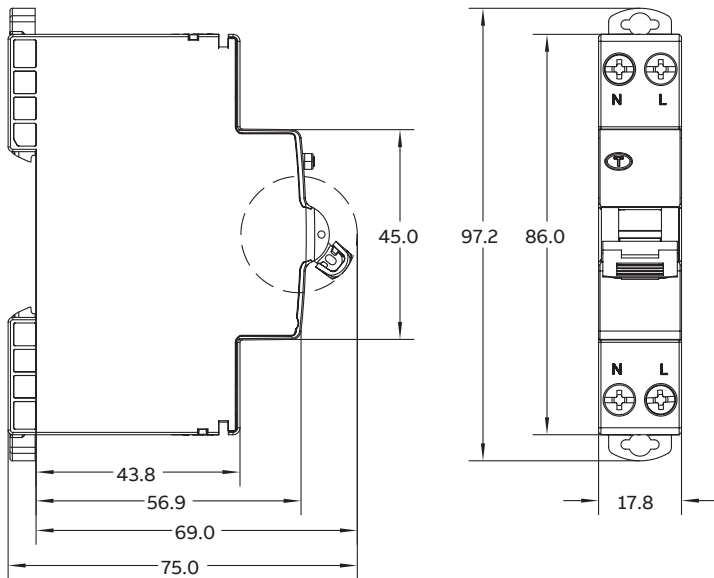
N. poles	Breaking capacity	Type	Sensitivity $I_{\Delta n}$ mA	Tripping Char.	Rated Current I_n		Order details		Weight 1 piece kg	Pack unit pc.
					A	EAN	Type code	Order code		
1P+N	6 kA	AC	30 mA	C	6	6941593498123	DSN201E C6 AC30	2TAZ264111R2064	0.119	1
					10	6941593498130	DSN201E C10 AC30	2TAZ264111R2104	0.119	1
					13	6941593498147	DSN201E C13 AC30	2TAZ264111R2134	0.119	1
					16	6941593498154	DSN201E C16 AC30	2TAZ264111R2164	0.119	1
					20	6941593498161	DSN201E C20 AC30	2TAZ264111R2204	0.119	1
					25	6941593498178	DSN201E C25 AC30	2TAZ264111R2254	0.119	1
					32	6941593498185	DSN201E C32 AC30	2TAZ264111R2324	0.119	1
				B	6	6941593498192	DSN201E B6 AC30	2TAZ264111R2061	0.119	1
					10	6941593498208	DSN201E B10 AC30	2TAZ264111R2101	0.119	1
					13	6941593498215	DSN201E B13 AC30	2TAZ264111R2131	0.119	1
					16	6941593498222	DSN201E B16 AC30	2TAZ264111R2161	0.119	1
					20	6941593498239	DSN201E B20 AC30	2TAZ264111R2201	0.119	1
					25	6941593498246	DSN201E B25 AC30	2TAZ264111R2251	0.119	1
			10 mA	C	32	6941593498253	DSN201E B32 AC30	2TAZ264111R2321	0.119	1
					6	6941593498260	DSN201E C6 A10	2TAZ264114R1064	0.119	1
					10	6941593498277	DSN201E C10 A10	2TAZ264114R1104	0.119	1
					13	6941593498284	DSN201E C13 A10	2TAZ264114R1134	0.119	1
					16	6941593498291	DSN201E C16 A10	2TAZ264114R1164	0.119	1
					20	6941593498307	DSN201E C20 A10	2TAZ264114R1204	0.119	1
					25	6941593498314	DSN201E C25 A10	2TAZ264114R1254	0.119	1
				B	32	6941593498321	DSN201E C32 A10	2TAZ264114R1324	0.119	1
					6	6941593498338	DSN201E B6 A10	2TAZ264114R1061	0.119	1
					10	6941593498345	DSN201E B10 A10	2TAZ264114R1101	0.119	1
					13	6941593498352	DSN201E B13 A10	2TAZ264114R1131	0.119	1
					16	6941593498369	DSN201E B16 A10	2TAZ264114R1161	0.119	1
					20	6941593498376	DSN201E B20 A10	2TAZ264114R1201	0.119	1
			30 mA	C	25	6941593498383	DSN201E B25 A10	2TAZ264114R1251	0.119	1
					32	6941593498390	DSN201E B32 A10	2TAZ264114R1321	0.119	1
					6	6941593498406	DSN201E C6 A30	2TAZ264114R2064	0.119	1
					10	6941593498413	DSN201E C10 A30	2TAZ264114R2104	0.119	1
					13	6941593498420	DSN201E C13 A30	2TAZ264114R2134	0.119	1
					16	6941593498437	DSN201E C16 A30	2TAZ264114R2164	0.119	1
				B	20	6941593498444	DSN201E C20 A30	2TAZ264114R2204	0.119	1
					25	6941593498451	DSN201E C25 A30	2TAZ264114R2254	0.119	1
					32	6941593498468	DSN201E C32 A30	2TAZ264114R2324	0.119	1
					6	6941593498475	DSN201E B6 A30	2TAZ264114R2061	0.119	1
					10	6941593498482	DSN201E B10 A30	2TAZ264114R2101	0.119	1
					13	6941593498499	DSN201E B13 A30	2TAZ264114R2131	0.119	1
					16	6941593498505	DSN201E B16 A30	2TAZ264114R2161	0.119	1
					20	6941593498512	DSN201E B20 A30	2TAZ264114R2201	0.119	1
					25	6941593498529	DSN201E B25 A30	2TAZ264114R2251	0.119	1
					32	6941593498536	DSN201E B32 A30	2TAZ264114R2321	0.119	1

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Ordering data

N. poles	Breaking capacity	Type	Sensitivity $I_{\Delta n}$ mA	Tripping Char.	Rated Current I_n A	EAN	Order details		Weight 1 piece kg	Pack unit pc.
							Type code	Order code		
1P+N	10 kA	A	10 mA	C	6	6941593498543	DSN201E M C6 A10	2TAZ265114R1064	0.119	1
					10	6941593498550	DSN201E M C10 A10	2TAZ265114R1104	0.119	1
					13	6941593498567	DSN201E M C13 A10	2TAZ265114R1134	0.119	1
					16	6941593498574	DSN201E M C16 A10	2TAZ265114R1164	0.119	1
					20	6941593498581	DSN201E M C20 A10	2TAZ265114R1204	0.119	1
					6	6941593498598	DSN201E M B6 A10	2TAZ265114R1061	0.119	1
			30 mA	B	10	6941593498604	DSN201E M B10 A10	2TAZ265114R1101	0.119	1
					13	6941593498611	DSN201E M B13 A10	2TAZ265114R1131	0.119	1
					16	6941593498628	DSN201E M B16 A10	2TAZ265114R1161	0.119	1
					20	6941593498635	DSN201E M B20 A10	2TAZ265114R1201	0.119	1
					6	6941593498642	DSN201E M C6 A30	2TAZ265114R2064	0.119	1
				C	10	6941593498659	DSN201E M C10 A30	2TAZ265114R2104	0.119	1
					13	6941593498666	DSN201E M C13 A30	2TAZ265114R2134	0.119	1
					16	6941593498673	DSN201E M C16 A30	2TAZ265114R2164	0.119	1
					20	6941593498680	DSN201E M C20 A30	2TAZ265114R2204	0.119	1
				B	6	6941593498697	DSN201E M B6 A30	2TAZ265114R2061	0.119	1
					10	6941593498703	DSN201E M B10 A30	2TAZ265114R2101	0.119	1
					13	6941593498710	DSN201E M B13 A30	2TAZ265114R2131	0.119	1
					16	6941593498727	DSN201E M B16 A30	2TAZ265114R2161	0.119	1
					20	6941593498734	DSN201E M B20 A30	2TAZ265114R2201	0.119	1

Drawings



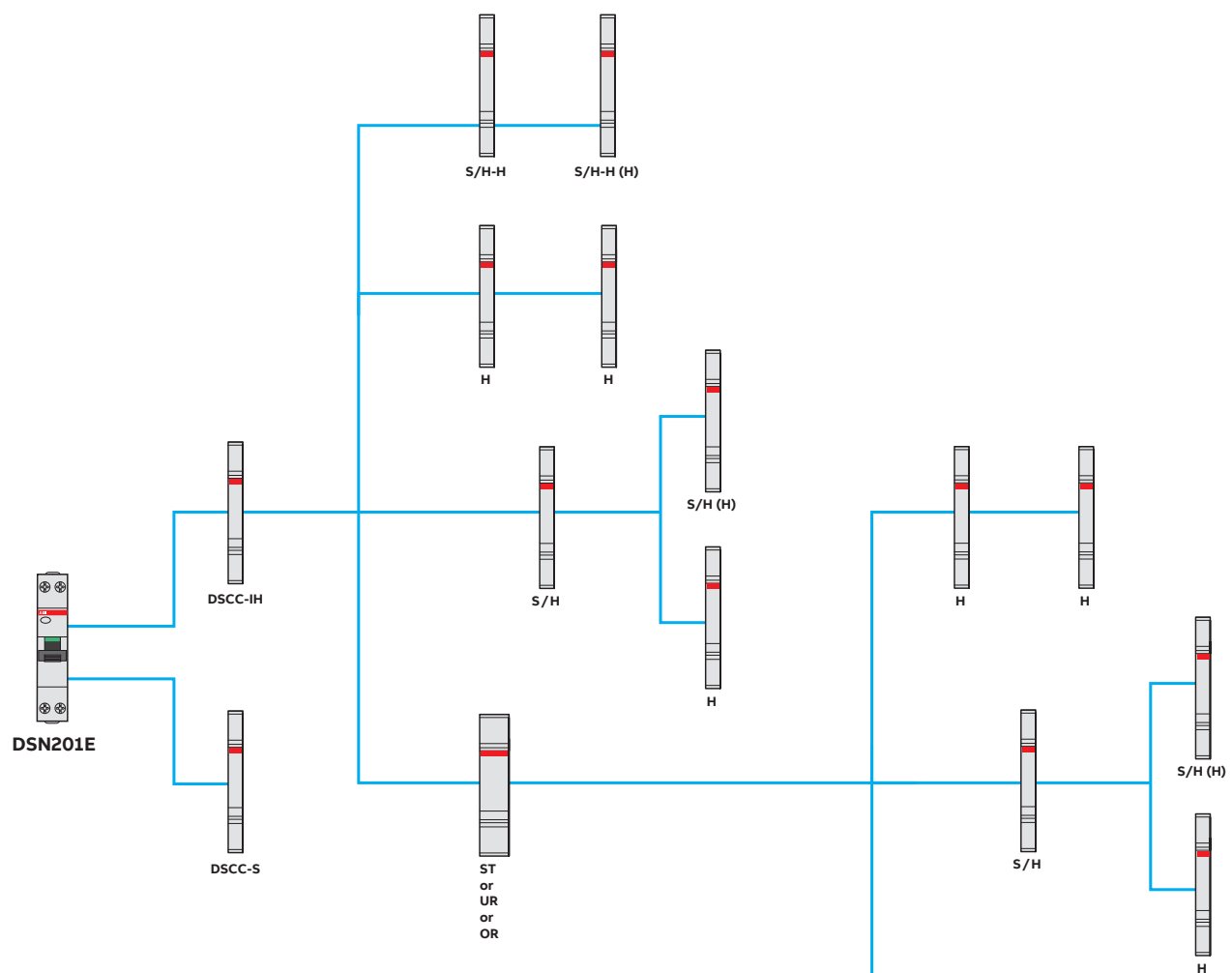
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Accessories

Ordering code

Type	EAN	Order details		Weight 1 piece kg	Pack unit pc.
		Type code	Order code		
Auxiliary Contact/Interface	4053546160611	DSCC-IH6R	2CDS200933R0012	0,051	1
Signaling Contact	4053546160734	DSCC-S6R	2CDS200933R0013	0,051	1

Combination of auxiliary elements with DSN201E



DSCC-IH	Auxiliary contact/interface	DSCC-IH.... *
DSCC-S	Signaling contact	DSCC-S.... *
H	Auxiliary contact	S2C-H6R
S/H	Signal/auxiliary contact	S2C-S/H6R
ST	Shunt trip	S3C-A...
S/H (H)	Signal/Auxiliary contact used as auxiliary contact	S2C-S/H6R
UR	Undervoltage release	S2C-UA **
OR	Overvoltage release	S2C-OVP
S/H-H	Auxiliary contact-Signal contact/ Auxiliary contact 2CO	S3C-H-S/H6R ***
S/H-H (H)	Auxiliary contact-Signal contact/ Auxiliary contact 2CO (used as auxiliary contact)	S3C-H-S/H6R

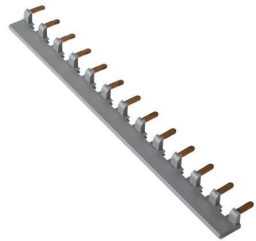
* DSCC available from January 2025

** S2C-UA can accept only one auxiliary or signal contact mounted after it

*** S3C-H-S/H6R available from January 2025

Busbars and busbars' accessories for DSN201E

Busbars BB



BB-SU 1/13/10 GREY

Busbars available for the connection with DSN201E							
No. pins	Phases	Supply	mm ²	Bbn 4053546 EAN	Order details	Weight 1 piece	Pack unit
					Type code	Order code	kg pc.
13	1P	10	046830	BB-SU 1/13/10 GREY ⁽¹⁾	2CDL801141R1013	0.044	15
13	1P	10	046847	BB-SU 1/13/10 BLUE ⁽²⁾	2CDL801145R1013	0.044	15
36	2P	10	046755	BB-SU 2/36/10	2CDL802141R1018	0.112	20
112	2P	10	046816	BB-SU 2/112/10	2CDL802141R1055	0.336	20
24	3P	10	046762	BB-SU 3/24/10	2CDL803141R1024	0.125	15
112	3P	10	046779	BB-SU 3/112/10	2CDL803141R1111	0.579	15
108	3P+N	10	046809	BB-SU 4/108/10 N	2CDL804142R1110	0.752	10
112	3P+N	10	046786	BB-SU 4/112/10 Kit*	2CDL804141R1055	0.640	5

* incl. 4 end caps and 4 connection clamps

(1) Phase connection

(2) Neutral connection

Accessories



BB-FS 25/27 Q

Feeder Terminal					
mm ²	Bbn 4053546 EAN	Order details	Weight 1 piece	Pack unit	
		Type code	kg	pc.	
25	046748	BB-FS 25/27 Q	2CDL800001R2527	0.015	30



BB-END

End Caps					
mm ²	Bbn 4053546 EAN	Order details	Weight 1 piece	Pack unit	
		Type code	kg	pc.	
10/16	046717	BB-END 2.1	2CDL800001R0021	0.001	10
16	046731	BB-END 3.2	2CDL800001R0030	0.001	10
10/16	046823	BB-END 4.1	2CDL800001R0040	0.001	10

DSN201E

Technical data

Power loss

In [A]	Power Loss [W]
6	1,8
10	2,3
13	2,4
16	3,1
20	3,8
25	4,1
32	5,5

Derating in temperature

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B and C.

Daily average ambient temperature is intended to be $\leq +35^{\circ}\text{C}$.

In [A]	Temperature [$^{\circ}\text{C}$]																
	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55
6	6.9	6.8	6.7	6.6	6.6	6.5	6.4	6.3	6.2	6.2	6.1	6.0	5.9	5.8	5.8	5.7	5.6
10	11.4	11.3	11.1	11.0	10.9	10.8	10.6	10.5	10.4	10.3	10.1	10.0	9.9	9.7	9.6	9.5	9.4
13	14.9	14.7	14.6	14.4	14.2	14.0	13.9	13.7	13.5	13.3	13.2	13.0	12.8	12.7	12.5	12.3	12.1
16	18.3	18.1	17.9	17.7	17.5	17.3	17.1	16.8	16.6	16.4	16.2	16.0	15.8	15.6	15.4	15.2	14.9
20	23.3	23.0	22.7	22.4	22.1	21.8	21.5	21.2	20.9	20.6	20.3	20.0	19.7	19.4	19.1	18.8	18.5
25	29.7	29.2	28.8	28.4	28.0	27.5	27.1	26.7	26.3	25.8	25.4	25.0	24.6	24.2	23.7	23.3	22.9
32	38.6	38.0	37.4	36.8	36.2	35.6	35.0	34.4	33.8	33.2	32.6	32.0	31.4	30.8	30.2	29.6	29.0

Influent of adjacent devices

Number of devices	Correction factor K
2 or 3	0.9
4 or 5	0.8
From 6	0.75



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ABB Ltd.

Electrification Business

Smart Buildings

Energy Distribution

abb.com/lowvoltage

Additional information

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