

CATALOG

Electrical installation solutions for buildings

Product news 2020



- Residual current devices
- Arc Fault Detection Devices
- Accessories for MCBs and RCDs
- Protection and safety
- Command and signaling
- Control and automation
- and more ...

This special supplement to the catalog “Electrical installation solutions for buildings” brings you information about new products which are coming in 2020: that will complement the ABB product portfolio and our offering of installation solutions for buildings. The catalog contains product descriptions and important technical and ordering information.

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RCBO DS201

Compact solutions for a complete protection

Easy to install

Bi-directional cylindrical terminal ensure higher safety of connecting operations, making them easier.

Test pushbutton

Test pushbutton to verify the correct functioning of the device.

Earth fault indicator

Blue flag on the toggle to identify earth fault trips. I ON – 0 OFF indication molded on the toggle.

Contact position indicator (CPI)

To indicate the status of the contacts independently from the toggle position: green (open), red (closed).

Anti counterfeiting

DS201 is equipped with a tag RFid in order to authenticate the product.

Laser printed information

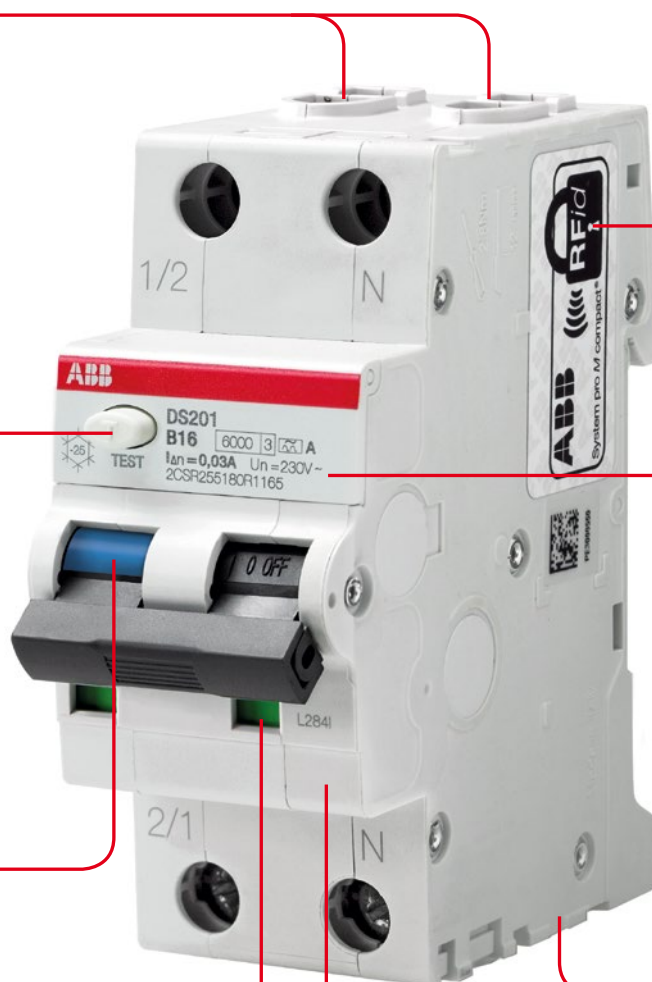
Information on the device are laser printed to ensure readability over time.

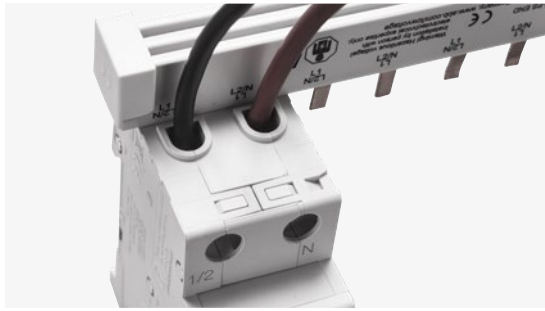
Combination with accessories

Improved combination with System pro M compact® accessories, including also the auxiliary contact for bottom fitting and motor operating device.

Dedicated space for label

Dedicated space to insert labels in order to clearly identify the protected lines.





Easy installation

The terminals available on DS201 make easier the supply operation in parallel with cables and busbars as they are composed by two different seats: a front seat for 25 mm² cables and a back seat for 10 mm² busbars. Supply is possible either from top or bottom side.



Mounting clip

Stable fixing on DIN rail, easy and fast mounting and dismounting operations thanks to the standard mounting clip.



Display the operational status

Easy troubleshooting and reduced downtime for maintenance operations thanks to both the blue indicator, that signals the differential tripping to immediately identify any earth fault (it cannot be activated in case of manual operation on the toggle) and the contact position indicator (CPI) that helps to always know the status of the contacts (red: closed contacts; green: open contacts).



Reliable in extreme conditions

RCBO DS201 can be used in ambient conditions where the temperature of the surrounding atmosphere has values between -25 °C (snowflake laser printed on the front of the device) and +55°C.



Additional laser printing

Additional information are laser printed on the lateral side of the device, including also the wiring diagram and the EAN code respectively for an easier installation and for an easier stock management.



RFid

Product Made in Italy, with Rfid tag on the product side containing a unique serial number assigned to ABB according to the standard ISO/IEC FCD 15693-3 in order to authenticate the product.

RCBOs

DS201

Technical features



				DS201 L	DS201		
Standards				IEC/EN 61009-1; IEC/EN 61009-2-1	IEC/EN 61009-1; IEC/EN 61009-2-1		
Electrical features	Type (wave form of the earth leakage sensed)			A - AC - APR	A - AC - APR		
	Number of poles			1P + N	1P + N		
	Rated current I _n			A	6 ≤ I _n ≤ 32	1 ≤ I _n ≤ 40	
	Rated sensitivity IΔ _n			A	0.01 - 0.03 - 0.3	0.01 - 0.03 - 0.1 - 0.3	
	Rated voltage U _e			V	230-240	230-240	
	Insulation voltage U _i			V	500 V AC	500 V AC	
	Overvoltage category				III	III	
	Pollution degree				2	2	
	Operating voltage of circuit test U _t			V	110 (170 for 30mA) - 264	110 (170 for 30mA) - 264	
	Rated frequency			Hz	50/60	50/60	
	Rated breaking capacity acc. to IEC/EN 61009-1			I _{cn}	A	4500	6000
	Rated breaking capacity acc. to IEC/EN 60947-2 (only referring to short circuit test)			ultimate I _{cu}	kA	6	10
				service I _{cs}	kA	4.5	7.5
	Rated residual breaking capacity IΔ _m according to EN 61009-1			IΔ _m	A	4500	6000
	Rated residual breaking capacity IΔ _m according to IEC 61009-1			IΔ _m	A	4500	6000 up to 25 A; 4500 for 32A and 40A
	Rated impulse withstand voltage (1.2/50) U _{imp}			kV	4 kV	4 kV	
	Dielectric test voltage at ind. freq. for 1 min.			kV	2.5 kV (50 / 60Hz, 1 min.)	2.5 kV (50 / 60Hz, 1 min.)	
	Thermomagnetic release - characteristic			B: 3 I _n ≤ I _n ≤ 5 I _n		■	
				C: 5 I _n ≤ I _n ≤ 10 I _n		■	
K: 10 I _n ≤ I _n ≤ 14 I _n				■			
Energy limiting class acc. to EN 61009-1				3	3		
Surge current resistance (wave 8/20)			A	NA for A, AC versions; 3000 for APR version	NA for A, AC versions; 3000 for APR version		
Mechanical features	Housing			Insulation group I - II, RAL 7035		Insulation group I - II, RAL 7035	
	Toggle			Insulation group II, Black RAL 9005, sealable in ON-OFF positions		Insulation group II, Black RAL 9005, sealable in ON-OFF positions	
	Contact position indication			Green/Red Window		Green/Red Window	
	Earth fault trip indication			Blue flag on toggle		Blue flag on toggle	
	Electrical life			operations	10000	10000	
	Mechanical life			operations	20000	20000	
	Protection degree acc. to EN 60529			housing	IP4X	IP4X	
				terminals	IP2X	IP2X	
	Shock resistance acc. to IEC/EN 60068-2-27			25g - 2 shocks - 13ms		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		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%	28 cycles with 55°C/90-96% and 25°C/95-100%	
	Reference temperature for setting of thermal element			°C	30	30 (20 for K tripping char)	
	Ambient temperature (with daily average ≤ +35 °C)			°C	-25...+55	-25...+55	
	Storage temperature			°C	-40...+70	-40...+70	

RCBOs

DS201



DS201 M	DS201 M 110V	DS201 T
IEC/EN 61009-1; IEC/EN 61009-2-1	IEC 61009-1; IEC 61009-2-1	IEC/EN 61009-1; IEC/EN 61009-2-1
A - AC - APR - F	A	A - APR
1P + N	1P + N	1P + N
$4 \leq I_n \leq 40$	$6 \leq I_n \leq 40$	$6 \leq I_n \leq 40$
0.01 - 0.03 - 0.1 - 0.3	0.03	0.03
230-240	230-240	230-240
500 V AC	500 V AC	500 V AC
III	III	III
2	2	2
110 (170 for 30mA) - 264	110 - 264	170 - 264
50/60	50/60	50/60
10000	10000	6000
15	15	10
11.2	11.2	7.5
6000	6000	6000
6000 up to 25 A; 4500 for 32A and 40A	6000 up to 25 A; 4500 for 32A and 40A	6000 up to 25 A; 4500 for 32A and 40A
4 kV	4 kV	4 kV
2.5 kV (50 / 60Hz, 1 min.)	2.5 kV (50 / 60Hz, 1 min.)	2.5 kV (50 / 60Hz, 1 min.)
■	■	■
■	■	■
■		
3	NA	3
NA for A, AC versions; 3000 for APR and F version	NA	NA for A; 3000 for APR version
Insulation group I - II, RAL 7035	Insulation group I - II, RAL 7035	Insulation group I - II, RAL 7035
Insulation group II, Black RAL 9005, sealable in ON-OFF positions	Insulation group II, Black RAL 9005, sealable in ON-OFF positions	Insulation group II, Black RAL 9005, sealable in ON-OFF positions
Green/Red Window	Green/Red Window	Green/Red Window
Blue flag on toggle	Blue flag on toggle	Blue flag on toggle
10000	10000	10000
20000	20000	20000
IP4X	IP4X	IP4X
IP2X	IP2X	IP2X
25g - 2 shocks - 13ms	25g - 2 shocks - 13ms	25g - 2 shocks - 13ms
0.1 mm or 1 g - 20 cycles at 5...150...5 Hz	0.1 mm or 1 g - 20 cycles at 5...150...5 Hz	0.1 mm or 1 g - 20 cycles at 5...150...5 Hz
28 cycles with 55°C/90-96% and 25°C/95-100%	28 cycles with 55°C/90-96% and 25°C/95-100%	28 cycles with 55°C/90-96% and 25°C/95-100%
30 (20 for K tripping char)	30	30
-25...+55	-25...+55	-25...+55
-40...+70	-40...+70	-40...+70

RCBOs

DS201

Technical features



				DS201 L	DS201
Installation	Terminal type	top / bottom		failsafe bi-directional cylinder-lift terminal (shock protected)	failsafe bi-directional cylinder-lift terminal (shock protected)
	Terminal size for cables	top / bottom	mm²	25/25	25/25
	Terminal size for busbars	top / bottom	mm²	10/10	10/10
	Tightening torque	top / bottom	Nm	2.8	2.8
	Stripping length of the cable		mm	12	12
	Mounting			on DIN rail EN 60715 (35mm) by means of mounting clip	on DIN rail EN 60715 (35mm) by means of mounting clip
	Mounting position			Any	Any
	Supply from			Top/Bottom terminals	Top/Bottom terminals
Dimensions and weight	Dimensions (H x D x W)		mm	85 x 69 x 35	85 x 69 x 35
	Weight		g	200	200
Combination with auxiliary elements	Combinable with accessories and auxiliaries	Auxiliary contact		yes	yes
		Signal contact / auxiliary contact		yes	yes
		Shunt trip		yes	yes
		Auxiliary contact for bottom fitting		yes	yes
		Undervoltage release		yes	yes
		Overvoltage release		yes	yes
		Motor operating device		yes	yes

DS201



DS201 M	DS201 M 110V	DS201 T
failsafe bi-directional cylinder-lift terminal (shock protected)	failsafe bi-directional cylinder-lift terminal (shock protected)	failsafe bi-directional cylinder-lift terminal (shock protected)
25/25	25/25	25/25
10/10	10/10	10.X
2.8	2.8	02.VIII
12	12	12
on DIN rail EN 60715 (35mm) by means of mounting clip	on DIN rail EN 60715 (35mm) by means of mounting clip	on DIN rail EN 60715 (35mm) * by means of mounting clip
Any	Any	Any
Top/Bottom terminals	Top/Bottom terminals	Top/Bottom terminals
85 x 69 x 35	85 x 69 x 35	85 x 69 x 35
200	200	200
yes	yes	yes
yes	yes	yes
yes	yes	yes
yes	yes	yes
yes	yes	yes
yes	yes	yes
yes	yes	yes

RCBOs

DS201

DS201 L 4500 A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4500$ A



DS201 L

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	10	6	637318	DS201 L C6 A10	2CSR245180R0064	0.2	1	
		10	637011	DS201 L C10 A10	2CSR245180R0104	0.2	1	
		16	637110	DS201 L C16 A10	2CSR245180R0164	0.2	1	
	30	6	636717	DS201 L C6 A30	2CSR245180R1064	0.2	1	
		10	636816	DS201 L C10 A30	2CSR245180R1104	0.2	1	
		16	636915	DS201 L C16 A30	2CSR245180R1164	0.2	1	
		20	638216	DS201 L C20 A30	2CSR245180R1204	0.2	1	
		25	638315	DS201 L C25 A30	2CSR245180R1254	0.2	1	
		32	638018	DS201 L C32 A30	2CSR245180R1324	0.2	1	
	300	6	638117	DS201 L C6 A300	2CSR245180R3064	0.2	1	
		10	638919	DS201 L C10 A300	2CSR245180R3104	0.2	1	
		16	639114	DS201 L C16 A300	2CSR245180R3164	0.2	1	
		20	638810	DS201 L C20 A300	2CSR245180R3204	0.2	1	
		25	638612	DS201 L C25 A300	2CSR245180R3254	0.2	1	
		32	639312	DS201 L C32 A300	2CSR245180R3324	0.2	1	

RCBOs

DS201



DS201 L

DS201 L 4500 AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4500$ A

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	043515	DS201 L C6 AC30	2CSR245080R1064	0.2	1	
		10	043416	DS201 L C10 AC30	2CSR245080R1104	0.2	1	
		16	030218	DS201 L C16 AC30	2CSR245080R1164	0.2	1	
		20	030010	DS201 L C20 AC30	2CSR245080R1204	0.2	1	
		25	030119	DS201 L C25 AC30	2CSR245080R1254	0.2	1	
		32	637615	DS201 L C32 AC30	2CSR245080R1324	0.2	1	
	300	6	637714	DS201 L C6 AC300	2CSR245080R3064	0.2	1	
		10	637417	DS201 L C10 AC300	2CSR245080R3104	0.2	1	
		16	637516	DS201 L C16 AC300	2CSR245080R3164	0.2	1	
		20	637813	DS201 L C20 AC300	2CSR245080R3204	0.2	1	
		25	637912	DS201 L C25 AC300	2CSR245080R3254	0.2	1	
		32	637219	DS201 L C32 AC300	2CSR245080R3324	0.2	1	

DS201 L 4500 APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal trade-off between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA); protection and isolation of resistive and inductive loads.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 4500$ A



DS201 L

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	639411	DS201 L C6 APR30	2CSR245480R1064	0.2	1	
		10	638711	DS201 L C10 APR30	2CSR245480R1104	0.2	1	
		16	639619	DS201 L C16 APR30	2CSR245480R1164	0.2	1	
		20	639213	DS201 L C20 APR30	2CSR245480R1204	0.2	1	
		25	639510	DS201 L C25 APR30	2CSR245480R1254	0.2	1	
		32	639015	DS201 L C32 APR30	2CSR245480R1324	0.2	1	

RCBOs

DS201

DS201 6000 A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000$ A



DS201

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	10	10	065913	DS201 B10 A10	2CSR255180R0105	0.2	1	
		13	065814	DS201 B13 A10	2CSR255180R0135	0.2	1	
		16	066316	DS201 B16 A10	2CSR255180R0165	0.2	1	
	30	6	066217	DS201 B6 A30	2CSR255180R1065	0.2	1	
		10	066118	DS201 B10 A30	2CSR255180R1105	0.2	1	
		13	058113	DS201 B13 A30	2CSR255180R1135	0.2	1	
		16	058519	DS201 B16 A30	2CSR255180R1165	0.2	1	
		20	969815	DS201 B20 A30	2CSR255180R1205	0.2	1	
		25	969716	DS201 B25 A30	2CSR255180R1255	0.2	1	
		32	970019	DS201 B32 A30	2CSR255180R1325	0.2	1	
		40	969914	DS201 B40 A30	2CSR255180R1405	0.2	1	
	100	6	779414	DS201 B6 A100	2CSR255180R2065	0.2	1	
		10	790211	DS201 B10 A100	2CSR255180R2105	0.2	1	
		13	779810	DS201 B13 A100	2CSR255180R2135	0.2	1	
		16	779711	DS201 B16 A100	2CSR255180R2165	0.2	1	
		20	779612	DS201 B20 A100	2CSR255180R2205	0.2	1	
		25	779513	DS201 B25 A100	2CSR255180R2255	0.2	1	
		32	372011	DS201 B32 A100	2CSR255180R2325	0.2	1	
	300	40	023913	DS201 B40 A100	2CSR255180R2405	0.2	1	
		6	070313	DS201 B6 A300	2CSR255180R3065	0.2	1	
		10	643616	DS201 B10 A300	2CSR255180R3105	0.2	1	
		13	643418	DS201 B13 A300	2CSR255180R3135	0.2	1	
		16	643517	DS201 B16 A300	2CSR255180R3165	0.2	1	
		20	643814	DS201 B20 A300	2CSR255180R3205	0.2	1	
		25	643715	DS201 B25 A300	2CSR255180R3255	0.2	1	
		32	643319	DS201 B32 A300	2CSR255180R3325	0.2	1	
		40	965312	DS201 B40 A300	2CSR255180R3405	0.2	1	

RCBOs

DS201

DS201 T $\boxed{6000}$ A $\boxed{A}$ type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: railway, rolling stock, traction.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 6000 A



DS201 T

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1P+N	30	6	578116	DS201T B6 A30	2CSR255188R1065	0.2	1	
		10	566311	DS201T B10 A30	2CSR255188R1105	0.2	1	
		13	591214	DS201T B13 A30	2CSR255188R1135	0.2	1	
		16	579410	DS201T B16 A30	2CSR255188R1165	0.2	1	
		20	567615	DS201T B20 A30	2CSR255188R1205	0.2	1	
		25	588719	DS201T B25 A30	2CSR255188R1255	0.2	1	
		32	576914	DS201T B32 A30	2CSR255188R1325	0.2	1	
		40	565116	DS201T B40 A30	2CSR255188R1405	0.2	1	

RCBOs

DS201

DS201 6000 A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000$ A



DS201

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	10	10	738817	DS201 C10 A10	2CSR255180R0104	0.2	1	
		13	738015	DS201 C13 A10	2CSR255180R0134	0.2	1	
		16	739418	DS201 C16 A10	2CSR255180R0164	0.2	1	
	30	2	738718	DS201 C2 A30	2CSR255180R1024	0.2	1	
		4	737919	DS201 C4 A30	2CSR255180R1044	0.2	1	
		6	737117	DS201 C6 A30	2CSR255180R1064	0.2	1	
		8	738619	DS201 C8 A30	2CSR255180R1084	0.2	1	
		10	737810	DS201 C10 A30	2CSR255180R1104	0.2	1	
		13	737018	DS201 C13 A30	2CSR255180R1134	0.2	1	
		16	739319	DS201 C16 A30	2CSR255180R1164	0.2	1	
		20	738510	DS201 C20 A30	2CSR255180R1204	0.2	1	
		25	737711	DS201 C25 A30	2CSR255180R1254	0.2	1	
		32	737612	DS201 C32 A30	2CSR255180R1324	0.2	1	
		40	738411	DS201 C40 A30	2CSR255180R1404	0.2	1	
	100	6	739012	DS201 C6 A100	2CSR255180R2064	0.2	1	
		10	738213	DS201 C10 A100	2CSR255180R2104	0.2	1	
		13	737315	DS201 C13 A100	2CSR255180R2134	0.2	1	
		16	738916	DS201 C16 A100	2CSR255180R2164	0.2	1	
		20	738114	DS201 C20 A100	2CSR255180R2204	0.2	1	
		25	737216	DS201 C25 A100	2CSR255180R2254	0.2	1	
		32	747215	DS201 C32 A100	2CSR255180R2324	0.2	1	
	300	40	747116	DS201 C40 A100	2CSR255180R2404	0.2	1	
		2	739210	DS201 C2 A300	2CSR255180R3024	0.2	1	
		4	062714	DS201 C4 A300	2CSR255180R3044	0.2	1	
		6	007814	DS201 C6 A300	2CSR255180R3064	0.2	1	
		8	007715	DS201 C8 A300	2CSR255180R3084	0.2	1	
		10	062615	DS201 C10 A300	2CSR255180R3104	0.2	1	
		13	886716	DS201 C13 A300	2CSR255180R3134	0.2	1	
		16	886815	DS201 C16 A300	2CSR255180R3164	0.2	1	
		20	886617	DS201 C20 A300	2CSR255180R3204	0.2	1	
		25	886310	DS201 C25 A300	2CSR255180R3254	0.2	1	
		32	886211	DS201 C32 A300	2CSR255180R3324	0.2	1	
		40	326311	DS201 C40 A300	2CSR255180R3404	0.2	1	

RCBOs

DS201

DS201 T $\boxed{6000}$ A $\boxed{A}$ type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: railway, rolling stock, traction.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 6000 A



DS201 T

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1P+N	30	6	565215	DS201T C6 A30	2CSR255188R1064		0.2	1
		10	590019	DS201T C10 A30	2CSR255188R1104		0.2	1
		13	578215	DS201T C13 A30	2CSR255188R1134		0.2	1
		16	566410	DS201T C16 A30	2CSR255188R1164		0.2	1
		20	591313	DS201T C20 A30	2CSR255188R1204		0.2	1
		25	579519	DS201T C25 A30	2CSR255188R1254		0.2	1
		32	567714	DS201T C32 A30	2CSR255188R1324		0.2	1
		40	589914	DS201T C40 A30	2CSR255188R1404		0.2	1

RCBOs

DS201

DS201 6000 A type, K characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 6000 A



DS201

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	10	10	647515	DS201 K10 A10	2CSR255180R0107	0.2	1	
		13	061717	DS201 K13 A10	2CSR255180R0137	0.2	1	
		16	295419	DS201 K16 A10	2CSR255180R0167	0.2	1	
	30	1	295310	DS201 K1 A30	2CSR255180R1017	0.2	1	
		2	498513	DS201 K2 A30	2CSR255180R1027	0.2	1	
		4	305415	DS201 K4 A30	2CSR255180R1047	0.2	1	
		6	647614	DS201 K6 A30	2CSR255180R1067	0.2	1	
		8	643913	DS201 K8 A30	2CSR255180R1087	0.2	1	
		10	587712	DS201 K10 A30	2CSR255180R1107	0.2	1	
		13	575917	DS201 K13 A30	2CSR255180R1137	0.2	1	
		16	564119	DS201 K16 A30	2CSR255180R1167	0.2	1	
		20	586814	DS201 K20 A30	2CSR255180R1207	0.2	1	
		25	575016	DS201 K25 A30	2CSR255180R1257	0.2	1	
		32	563211	DS201 K32 A30	2CSR255180R1327	0.2	1	
		40	775911	DS201 K40 A30	2CSR255180R1407	0.2	1	
	300	1	773719	DS201 K1 A300	2CSR255180R3017	0.2	1	
		2	771517	DS201 K2 A300	2CSR255180R3027	0.2	1	
		4	587613	DS201 K4 A300	2CSR255180R3047	0.2	1	
		6	575818	DS201 K6 A300	2CSR255180R3067	0.2	1	
		8	564010	DS201 K8 A300	2CSR255180R3087	0.2	1	
		10	586715	DS201 K10 A300	2CSR255180R3107	0.2	1	
		13	574910	DS201 K13 A300	2CSR255180R3137	0.2	1	
		16	563112	DS201 K16 A300	2CSR255180R3167	0.2	1	
		20	775812	DS201 K20 A300	2CSR255180R3207	0.2	1	
		25	773610	DS201 K25 A300	2CSR255180R3257	0.2	1	
		32	771418	DS201 K32 A300	2CSR255180R3327	0.2	1	
		40	587514	DS201 K40 A300	2CSR255180R3407	0.2	1	

RCBOs

DS201

DS201 T 6000 A type, K characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: railway, rolling stock, traction.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000$ A



DS201 T

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1P+N	30	6	589815	DS201T K6 A30	2CSR255188R1067	0.2	1	
		10	578017	DS201T K10 A30	2CSR255188R1107	0.2	1	
		13	566212	DS201T K13 A30	2CSR255188R1137	0.2	1	
		16	587910	DS201T K16 A30	2CSR255188R1167	0.2	1	
		20	576112	DS201T K20 A30	2CSR255188R1207	0.2	1	
		25	564317	DS201T K25 A30	2CSR255188R1257	0.2	1	
		32	591115	DS201T K32 A30	2CSR255188R1327	0.2	1	
		40	579311	DS201T K40 A30	2CSR255188R1407	0.2	1	

RCBOs

DS201

DS201 6000 AC type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000$ A



DS201

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	274315	DS201 B6 AC30	2CSR255080R1065	0.2	1	
		10	333913	DS201 B10 AC30	2CSR255080R1105	0.2	1	
		13	508014	DS201 B13 AC30	2CSR255080R1135	0.2	1	
		16	295815	DS201 B16 AC30	2CSR255080R1165	0.2	1	
		20	295617	DS201 B20 AC30	2CSR255080R1205	0.2	1	
		25	965213	DS201 B25 AC30	2CSR255080R1255	0.2	1	
		32	963011	DS201 B32 AC30	2CSR255080R1325	0.2	1	
		40	964919	DS201 B40 AC30	2CSR255080R1405	0.2	1	
	100	6	965114	DS201 B6 AC100	2CSR255080R2065	0.2	1	
		10	295716	DS201 B10 AC100	2CSR255080R2105	0.2	1	
		13	649410	DS201 B13 AC100	2CSR255080R2135	0.2	1	
		16	649311	DS201 B16 AC100	2CSR255080R2165	0.2	1	
		20	649212	DS201 B20 AC100	2CSR255080R2205	0.2	1	
		25	649113	DS201 B25 AC100	2CSR255080R2255	0.2	1	
		32	649519	DS201 B32 AC100	2CSR255080R2325	0.2	1	
		40	027911	DS201 B40 AC100	2CSR255080R2405	0.2	1	
	300	6	027812	DS201 B6 AC300	2CSR255080R3065	0.2	1	
		10	007210	DS201 B10 AC300	2CSR255080R3105	0.2	1	
		13	007111	DS201 B13 AC300	2CSR255080R3135	0.2	1	
		16	644118	DS201 B16 AC300	2CSR255080R3165	0.2	1	
		20	644019	DS201 B20 AC300	2CSR255080R3205	0.2	1	
		25	644316	DS201 B25 AC300	2CSR255080R3255	0.2	1	
		32	644217	DS201 B32 AC300	2CSR255080R3325	0.2	1	
		40	066019	DS201 B40 AC300	2CSR255080R3405	0.2	1	

RCBOs

DS201



DS201

DS201 6000 AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000$ A

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	896319	DS201 C6 AC30	2CSR255080R1064	0.2	1	
		10	049418	DS201 C10 AC30	2CSR255080R1104	0.2	1	
		13	049319	DS201 C13 AC30	2CSR255080R1134	0.2	1	
		16	049210	DS201 C16 AC30	2CSR255080R1164	0.2	1	
		20	049111	DS201 C20 AC30	2CSR255080R1204	0.2	1	
		25	049012	DS201 C25 AC30	2CSR255080R1254	0.2	1	
		32	048916	DS201 C32 AC30	2CSR255080R1324	0.2	1	
		40	048817	DS201 C40 AC30	2CSR255080R1404	0.2	1	
	100	6	048718	DS201 C6 AC100	2CSR255080R2064	0.2	1	
		10	048619	DS201 C10 AC100	2CSR255080R2104	0.2	1	
		13	048510	DS201 C13 AC100	2CSR255080R2134	0.2	1	
		16	048411	DS201 C16 AC100	2CSR255080R2164	0.2	1	
		20	048312	DS201 C20 AC100	2CSR255080R2204	0.2	1	
		25	048213	DS201 C25 AC100	2CSR255080R2254	0.2	1	
		32	048114	DS201 C32 AC100	2CSR255080R2324	0.2	1	
		40	048015	DS201 C40 AC100	2CSR255080R2404	0.2	1	
	300	6	047919	DS201 C6 AC300	2CSR255080R3064	0.2	1	
		10	047810	DS201 C10 AC300	2CSR255080R3104	0.2	1	
		13	047711	DS201 C13 AC300	2CSR255080R3134	0.2	1	
		16	047612	DS201 C16 AC300	2CSR255080R3164	0.2	1	
		20	049814	DS201 C20 AC300	2CSR255080R3204	0.2	1	
		25	049715	DS201 C25 AC300	2CSR255080R3254	0.2	1	
		32	049616	DS201 C32 AC300	2CSR255080R3324	0.2	1	
		40	049517	DS201 C40 AC300	2CSR255080R3404	0.2	1	

RCBOs

DS201

DS201 6000 APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal trade-off between safety and continuity of service thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA); protection and isolation of resistive and inductive loads.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000$ A



DS201

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	326212	DS201 C6 APR30	2CSR255480R1064	0.2	1	
		10	399612	DS201 C10 APR30	2CSR255480R1104	0.2	1	
		13	399711	DS201 C13 APR30	2CSR255480R1134	0.2	1	
		16	658917	DS201 C16 APR30	2CSR255480R1164	0.2	1	
		20	658412	DS201 C20 APR30	2CSR255480R1204	0.2	1	
		25	659914	DS201 C25 APR30	2CSR255480R1254	0.2	1	
		32	659419	DS201 C32 APR30	2CSR255480R1324	0.2	1	
		40	658610	DS201 C40 APR30	2CSR255480R1404	0.2	1	
	100	6	658115	DS201 C6 APR100	2CSR255480R2064	0.2	1	
		10	659617	DS201 C10 APR100	2CSR255480R2104	0.2	1	
		13	910916	DS201 C13 APR100	2CSR255480R2134	0.2	1	
		16	659112	DS201 C16 APR100	2CSR255480R2164	0.2	1	
		20	658719	DS201 C20 APR100	2CSR255480R2204	0.2	1	
		25	658214	DS201 C25 APR100	2CSR255480R2254	0.2	1	
		32	659716	DS201 C32 APR100	2CSR255480R2324	0.2	1	
		40	659211	DS201 C40 APR100	2CSR255480R2404	0.2	1	
	300	6	658818	DS201 C6 APR300	2CSR255480R3064	0.2	1	
		10	658313	DS201 C10 APR300	2CSR255480R3104	0.2	1	
		13	659815	DS201 C13 APR300	2CSR255480R3134	0.2	1	
		16	659310	DS201 C16 APR300	2CSR255480R3164	0.2	1	
		20	658511	DS201 C20 APR300	2CSR255480R3204	0.2	1	
		25	658016	DS201 C25 APR300	2CSR255480R3254	0.2	1	
		32	659518	DS201 C32 APR300	2CSR255480R3324	0.2	1	
		40	910817	DS201 C40 APR300	2CSR255480R3404	0.2	1	

RCBOs

DS201

DS201 T $\boxed{6000}$ APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal trade-off between safety and continuity of service thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA); protection and isolation of resistive and inductive loads.

Application: railway, rolling stock, traction.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 6000$ A



DS201 T

No. of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1P+N	30	6	567516	DS201T C6 APR30	2CSR255488R1064	0.2	1	
		10	588610	DS201T C10 APR30	2CSR255488R1104	0.2	1	
		13	576815	DS201T C13 APR30	2CSR255488R1134	0.2	1	
		16	565017	DS201T C16 APR30	2CSR255488R1164	0.2	1	
		20	589716	DS201T C20 APR30	2CSR255488R1204	0.2	1	
		25	577911	DS201T C25 APR30	2CSR255488R1254	0.2	1	
		32	566113	DS201T C32 APR30	2CSR255488R1324	0.2	1	
		40	591016	DS201T C40 APR30	2CSR255488R1404	0.2	1	

RCBOs

DS201

DS201 M 10000 A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10000$ A



DS201 M

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	10	10	574613	DS201 M B10 A10	2CSR275180R0105	0.2	1	
		16	562818	DS201 M B16 A10	2CSR275180R0165	0.2	1	
	30	6	775515	DS201 M B6 A30	2CSR275180R1065	0.2	1	
		10	773313	DS201 M B10 A30	2CSR275180R1105	0.2	1	
		13	771111	DS201 M B13 A30	2CSR275180R1135	0.2	1	
		16	587217	DS201 M B16 A30	2CSR275180R1165	0.2	1	
		20	575412	DS201 M B20 A30	2CSR275180R1205	0.2	1	
		25	563617	DS201 M B25 A30	2CSR275180R1255	0.2	1	
		32	586319	DS201 M B32 A30	2CSR275180R1325	0.2	1	
		40	574514	DS201 M B40 A30	2CSR275180R1405	0.2	1	
	100	6	562719	DS201 M B6 A100	2CSR275180R2065	0.2	1	
		10	775416	DS201 M B10 A100	2CSR275180R2105	0.2	1	
		13	773214	DS201 M B13 A100	2CSR275180R2135	0.2	1	
		16	771012	DS201 M B16 A100	2CSR275180R2165	0.2	1	
		20	587118	DS201 M B20 A100	2CSR275180R2205	0.2	1	
		25	575313	DS201 M B25 A100	2CSR275180R2255	0.2	1	
		32	563518	DS201 M B32 A100	2CSR275180R2325	0.2	1	
		40	586210	DS201 M B40 A100	2CSR275180R2405	0.2	1	
	300	6	574415	DS201 M B6 A300	2CSR275180R3065	0.2	1	
		10	562610	DS201 M B10 A300	2CSR275180R3105	0.2	1	
		13	775317	DS201 M B13 A300	2CSR275180R3135	0.2	1	
		16	773115	DS201 M B16 A300	2CSR275180R3165	0.2	1	
		20	770916	DS201 M B20 A300	2CSR275180R3205	0.2	1	
		25	587019	DS201 M B25 A300	2CSR275180R3255	0.2	1	
		32	575214	DS201 M B32 A300	2CSR275180R3325	0.2	1	
		40	563419	DS201 M B40 A300	2CSR275180R3405	0.2	1	

RCBOs

DS201



DS201 M

DS201 M 10000 A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10000$ A

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542	Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg pc.
1+N	10	10	594116	DS201 M C10 A10	2CSR275180R0104	0.2 1
		16	582311	DS201 M C16 A10	2CSR275180R0164	0.2 1
	30	4	570516	DS201 M C4 A30	2CSR275180R1044	0.2 1
		6	595410	DS201 M C6 A30	2CSR275180R1064	0.2 1
		10	583615	DS201 M C10 A30	2CSR275180R1104	0.2 1
		13	571810	DS201 M C13 A30	2CSR275180R1134	0.2 1
		16	592815	DS201 M C16 A30	2CSR275180R1164	0.2 1
		20	581017	DS201 M C20 A30	2CSR275180R1204	0.2 1
		25	569213	DS201 M C25 A30	2CSR275180R1254	0.2 1
		32	594017	DS201 M C32 A30	2CSR275180R1324	0.2 1
		40	582212	DS201 M C40 A30	2CSR275180R1404	0.2 1
	100	6	570417	DS201 M C6 A100	2CSR275180R2064	0.2 1
		10	595311	DS201 M C10 A100	2CSR275180R2104	0.2 1
		16	583516	DS201 M C16 A100	2CSR275180R2164	0.2 1
		20	571711	DS201 M C20 A100	2CSR275180R2204	0.2 1
		25	593911	DS201 M C25 A100	2CSR275180R2254	0.2 1
		32	582113	DS201 M C32 A100	2CSR275180R2324	0.2 1
	300	40	570318	DS201 M C40 A100	2CSR275180R2404	0.2 1
		6	595212	DS201 M C6 A300	2CSR275180R3064	0.2 1
		10	583417	DS201 M C10 A300	2CSR275180R3104	0.2 1
		13	571612	DS201 M C13 A300	2CSR275180R3134	0.2 1
		16	592716	DS201 M C16 A300	2CSR275180R3164	0.2 1
		20	580911	DS201 M C20 A300	2CSR275180R3204	0.2 1
		25	569114	DS201 M C25 A300	2CSR275180R3254	0.2 1
		32	593812	DS201 M C32 A300	2CSR275180R3324	0.2 1
		40	582014	DS201 M C40 A300	2CSR275180R3404	0.2 1

RCBOs

DS201

DS201 M 10000 A type, K characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents.

Application: residential, commercial, industrial.
Standard: IEC/EN 61009-1; IEC/EN 61009-2-1
Icn = 10000 A



DS201 M

No. of poles	Rated residual current IΔn mA	Rated current In A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	100	6	568919	DS201 M K6 A100	2CSR275180R2067		0.2	1
		10	593515	DS201 M K10 A100	2CSR275180R2107		0.2	1
		13	581710	DS201 M K13 A100	2CSR275180R2137		0.2	1
		16	569916	DS201 M K16 A100	2CSR275180R2167		0.2	1
		20	594819	DS201 M K20 A100	2CSR275180R2207		0.2	1
		25	583011	DS201 M K25 A100	2CSR275180R2257		0.2	1
		32	571216	DS201 M K32 A100	2CSR275180R2327		0.2	1
		40	593416	DS201 M K40 A100	2CSR275180R2407		0.2	1

RCBOs

DS201

DS201 M 10000 AC type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10000$ A



DS201 M

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	575719	DS201 M B6 AC30	2CSR275080R1065	0.2	1	
		10	563914	DS201 M B10 AC30	2CSR275080R1105	0.2	1	
		13	586616	DS201 M B13 AC30	2CSR275080R1135	0.2	1	
		16	574811	DS201 M B16 AC30	2CSR275080R1165	0.2	1	
		20	563013	DS201 M B20 AC30	2CSR275080R1205	0.2	1	
		25	775713	DS201 M B25 AC30	2CSR275080R1255	0.2	1	
		32	773511	DS201 M B32 AC30	2CSR275080R1325	0.2	1	
		40	771319	DS201 M B40 AC30	2CSR275080R1405	0.2	1	
	100	6	775010	DS201 M B6 AC100	2CSR275080R2065	0.2	1	
		10	772811	DS201 M B10 AC100	2CSR275080R2105	0.2	1	
		13	770619	DS201 M B13 AC100	2CSR275080R2135	0.2	1	
		16	587415	DS201 M B16 AC100	2CSR275080R2165	0.2	1	
		20	575610	DS201 M B20 AC100	2CSR275080R2205	0.2	1	
		25	563815	DS201 M B25 AC100	2CSR275080R2255	0.2	1	
		32	586517	DS201 M B32 AC100	2CSR275080R2325	0.2	1	
		40	574712	DS201 M B40 AC100	2CSR275080R2405	0.2	1	
	300	6	562917	DS201 M B6 AC300	2CSR275080R3065	0.2	1	
		10	775614	DS201 M B10 AC300	2CSR275080R3105	0.2	1	
		13	773412	DS201 M B13 AC300	2CSR275080R3135	0.2	1	
		16	771210	DS201 M B16 AC300	2CSR275080R3165	0.2	1	
		20	587316	DS201 M B20 AC300	2CSR275080R3205	0.2	1	
		25	575511	DS201 M B25 AC300	2CSR275080R3255	0.2	1	
		32	563716	DS201 M B32 AC300	2CSR275080R3325	0.2	1	
		40	586418	DS201 M B40 AC300	2CSR275080R3405	0.2	1	

RCBOs

DS201

DS201 M 10000 AC type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I\Delta n=30$ mA).

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10000$ A



DS201 M

No. of poles	Rated residual current $I\Delta n$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	586111	DS201 M C6 AC30	2CSR275080R1064	0.2	1	
		10	574316	DS201 M C10 AC30	2CSR275080R1104	0.2	1	
		13	562511	DS201 M C13 AC30	2CSR275080R1134	0.2	1	
		16	775218	DS201 M C16 AC30	2CSR275080R1164	0.2	1	
		20	773016	DS201 M C20 AC30	2CSR275080R1204	0.2	1	
		25	770817	DS201 M C25 AC30	2CSR275080R1254	0.2	1	
		32	910015	DS201 M C32 AC30	2CSR275080R1324	0.2	1	
		40	909811	DS201 M C40 AC30	2CSR275080R1404	0.2	1	
	100	6	909613	DS201 M C6 AC100	2CSR275080R2064	0.2	1	
		10	587811	DS201 M C10 AC100	2CSR275080R2104	0.2	1	
		13	576013	DS201 M C13 AC100	2CSR275080R2134	0.2	1	
		16	564218	DS201 M C16 AC100	2CSR275080R2164	0.2	1	
		20	586913	DS201 M C20 AC100	2CSR275080R2204	0.2	1	
		25	575115	DS201 M C25 AC100	2CSR275080R2254	0.2	1	
		32	563310	DS201 M C32 AC100	2CSR275080R2324	0.2	1	
		40	586012	DS201 M C40 AC100	2CSR275080R2404	0.2	1	
	300	6	574217	DS201 M C6 AC300	2CSR275080R3064	0.2	1	
		10	562412	DS201 M C10 AC300	2CSR275080R3104	0.2	1	
		13	775119	DS201 M C13 AC300	2CSR275080R3134	0.2	1	
		16	772910	DS201 M C16 AC300	2CSR275080R3164	0.2	1	
		20	770718	DS201 M C20 AC300	2CSR275080R3204	0.2	1	
		25	774914	DS201 M C25 AC300	2CSR275080R3254	0.2	1	
		32	772712	DS201 M C32 AC300	2CSR275080R3324	0.2	1	
		40	770510	DS201 M C40 AC300	2CSR275080R3404	0.2	1	

RCBOs

DS201

DS201 M 10000 APR type, C characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA); protection and isolation of resistive and inductive loads.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

$I_{cn} = 10000$ A



DS201 M

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1+N	30	6	570219	DS201 M C6 APR30	2CSR275480R1064	0.2	1	
		10	591917	DS201 M C10 APR30	2CSR275480R1104	0.2	1	
		13	580119	DS201 M C13 APR30	2CSR275480R1134	0.2	1	
		16	568315	DS201 M C16 APR30	2CSR275480R1164	0.2	1	
		20	595113	DS201 M C20 APR30	2CSR275480R1204	0.2	1	
		25	583318	DS201 M C25 APR30	2CSR275480R1254	0.2	1	
		32	571513	DS201 M C32 APR30	2CSR275480R1324	0.2	1	
	100	40	592617	DS201 M C40 APR30	2CSR275480R1404	0.2	1	
		6	580812	DS201 M C6 APR100	2CSR275480R2064	0.2	1	
		10	569015	DS201 M C10 APR100	2CSR275480R2104	0.2	1	
		13	593713	DS201 M C13 APR100	2CSR275480R2134	0.2	1	
		16	581918	DS201 M C16 APR100	2CSR275480R2164	0.2	1	
		20	570110	DS201 M C20 APR100	2CSR275480R2204	0.2	1	
		25	595014	DS201 M C25 APR100	2CSR275480R2254	0.2	1	
	300	32	583219	DS201 M C32 APR100	2CSR275480R2324	0.2	1	
		40	571414	DS201 M C40 APR100	2CSR275480R2404	0.2	1	
		6	593614	DS201 M C6 APR300	2CSR275480R3064	0.2	1	
		10	581819	DS201 M C10 APR300	2CSR275480R3104	0.2	1	
		13	570011	DS201 M C13 APR300	2CSR275480R3134	0.2	1	
		16	594918	DS201 M C16 APR300	2CSR275480R3164	0.2	1	
		20	583110	DS201 M C20 APR300	2CSR275480R3204	0.2	1	
		25	571315	DS201 M C25 APR300	2CSR275480R3254	0.2	1	
		32	592518	DS201 M C32 APR300	2CSR275480R3324	0.2	1	
		40	580713	DS201 M C40 APR300	2CSR275480R3404	0.2	1	

RCBOs

DS201

DS201 T $\boxed{6000}$ APR type, B characteristic

Function: protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, providing an optimal compromise between safety and continuity of service, thanks to the resistance to unwanted tripping; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA); protection and isolation of resistive and inductive loads.

Application: railway, rolling stock, traction.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1

I_{cn} = 6000 A



DS201 T

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current I_n A	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.
1P+N	30	6	579212	DS201T B6 APR30	2CSR255488R1065		0.2	1
		10	567417	DS201T B10 APR30	2CSR255488R1105		0.2	1
		13	589617	DS201T B13 APR30	2CSR255488R1135		0.2	1
		16	577812	DS201T B16 APR30	2CSR255488R1165		0.2	1
		20	566014	DS201T B20 APR30	2CSR255488R1205		0.2	1
		25	590910	DS201T B25 APR30	2CSR255488R1255		0.2	1
		32	579113	DS201T B32 APR30	2CSR255488R1325		0.2	1
		40	567318	DS201T B40 APR30	2CSR255488R1405		0.2	1

RCBOs

DS201



DS201 M

DS201 M 10000 F type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Specifically suitable for the protection of lines supplying single phase inverters.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1; IEC/EN 62423

$I_{cn} = 10000$ A

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542	Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg pc.
1+N	10	10	569411	DS201 M B10 F10	2CSR275580R0105	0.2 1
		13	594314	DS201 M B13 F10	2CSR275580R0135	0.2 1
		16	582519	DS201 M B16 F10	2CSR275580R0165	0.2 1
	300	6	594413	DS201 M B6 F30	2CSR275580R1065	0.2 1
		10	582618	DS201 M B10 F30	2CSR275580R1105	0.2 1
		13	570813	DS201 M B13 F30	2CSR275580R1135	0.2 1
		16	595717	DS201 M B16 F30	2CSR275580R1165	0.2 1
		20	583912	DS201 M B20 F30	2CSR275580R1205	0.2 1
		25	572114	DS201 M B25 F30	2CSR275580R1255	0.2 1
		32	592112	DS201 M B32 F30	2CSR275580R1325	0.2 1
		40	580317	DS201 M B40 F30	2CSR275580R1405	0.2 1

DS201 M 10000 F type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n}=30$ mA).

Specifically suitable for the protection of lines supplying single phase inverters.

Application: residential, commercial, industrial.

Standard: IEC/EN 61009-1; IEC/EN 61009-2-1; IEC/EN 62423

$I_{cn} = 10000$ A



DS201 M

No. of poles	Rated residual current $I_{\Delta n}$ mA	Rated current In A	Bbn 8012542	Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg pc.
1+N	10	10	568513	DS201 M C10 F10	2CSR275580R0104	0.2 1
		13	593010	DS201 M C13 F10	2CSR275580R0134	0.2 1
		16	581215	DS201 M C16 F10	2CSR275580R0164	0.2 1
	300	6	580416	DS201 M C6 F30	2CSR275580R1064	0.2 1
		10	568612	DS201 M C10 F30	2CSR275580R1104	0.2 1
		13	595816	DS201 M C13 F30	2CSR275580R1134	0.2 1
		16	584018	DS201 M C16 F30	2CSR275580R1164	0.2 1
		20	572213	DS201 M C20 F30	2CSR275580R1204	0.2 1
		25	593119	DS201 M C25 F30	2CSR275580R1254	0.2 1
		32	581314	DS201 M C32 F30	2CSR275580R1324	0.2 1
		40	569510	DS201 M C40 F30	2CSR275580R1404	0.2 1

RCBOs

DS201



DS201 M 110V

DS201 M 110V 10000 A type, B characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

This particular series of devices has the minimum operating voltage of test button of 110 V and it is suitable for 230 V applications.

Application: residential, commercial, industrial.

Standard: IEC 61009-1; IEC 61009-2-1

$I_{cn} = 10000 \text{ A}$

No. of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542	Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg pc.
1+N	30	6	582410	DS201 M B6 A30 110V	2CSR275189R1065	0.2 1
		10	570615	DS201 M B10 A30 110V	2CSR275189R1105	0.2 1
		13	592013	DS201 M B13 A30 110V	2CSR275189R1135	0.2 1
		16	580218	DS201 M B16 A30 110V	2CSR275189R1165	0.2 1
		20	568414	DS201 M B20 A30 110V	2CSR275189R1205	0.2 1
		25	595519	DS201 M B25 A30 110V	2CSR275189R1255	0.2 1
		32	583714	DS201 M B32 A30 110V	2CSR275189R1325	0.2 1
		40	571919	DS201 M B40 A30 110V	2CSR275189R1405	0.2 1

DS201 M 110V 10000 A type, C characteristic

Function: protection of end user single-phase circuits against overload and short-circuit currents; protection against the effects of sinusoidal alternating and direct pulsating earth fault currents; protection against indirect contact and additional protection against direct contact ($I_{\Delta n} = 30 \text{ mA}$).

This particular series of devices has the minimum operating voltage of test button of 110 V and it is suitable for 230 V applications.

Application: residential, commercial, industrial.

Standard: IEC 61009-1; IEC 61009-2-1

$I_{cn} = 10000 \text{ A}$



DS201 M 110V

No. of poles	Rated residual current $I_{\Delta n} \text{ mA}$	Rated current $I_n \text{ A}$	Bbn 8012542	Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg pc.
1+N	30	6	570714	DS201 M C6 A30 110V	2CSR275189R1064	0.2 1
		10	595618	DS201 M C10 A30 110V	2CSR275189R1104	0.2 1
		13	583813	DS201 M C13 A30 110V	2CSR275189R1134	0.2 1
		16	572015	DS201 M C16 A30 110V	2CSR275189R1164	0.2 1
		20	592914	DS201 M C20 A30 110V	2CSR275189R1204	0.2 1
		25	581116	DS201 M C25 A30 110V	2CSR275189R1254	0.2 1
		32	569312	DS201 M C32 A30 110V	2CSR275189R1324	0.2 1
		40	594215	DS201 M C40 A30 110V	2CSR275189R1404	0.2 1

RCBOs

DS201

Accessories

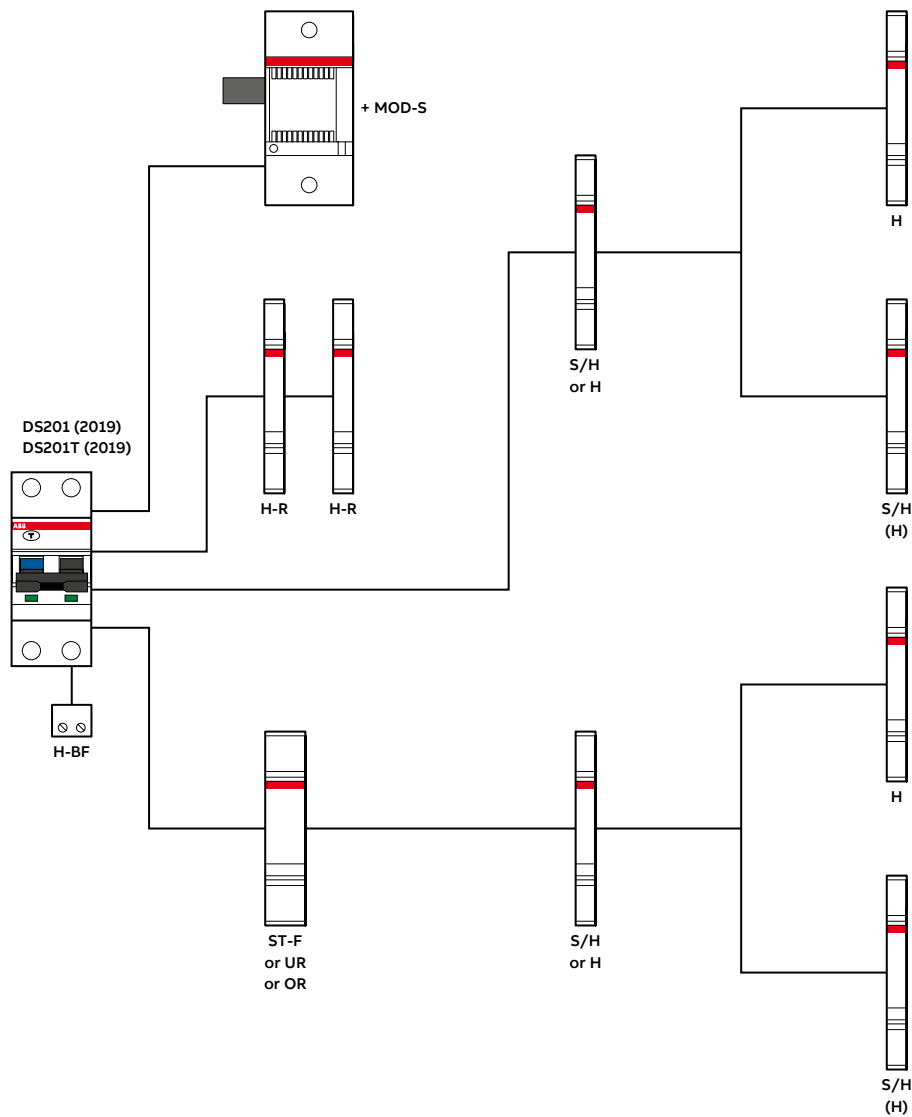
Combination of auxiliary elements with DS201

System pro M compact® accessories can be mounted directly in few steps.

Combination possible with the same motor operating device suitable for S200.

Combination possible also with auxiliary contact for bottom fitting, making DS201 particular suitable also for retrofitting and space constraint applications.

H	Auxiliary contact	S2C-H6R
H-R	Auxiliary contact	S2C-H6-xxR
S/H	Signal / auxiliary contact	S2C-S/H6R
S/H (H)	Signal / auxiliary contact used as auxiliary contact	S2C-S/H6R
ST-F	Shunt Trip	F2C-A
UR	Undervoltage release	S2C-UA
OR	Overvoltage release	S2C-OVP
H-BF	Auxiliary contact for bottom fitting	S2C-H01 / S2C-H10
MOD-S	Motor operating device	S2C-CM2/3



RCBOs

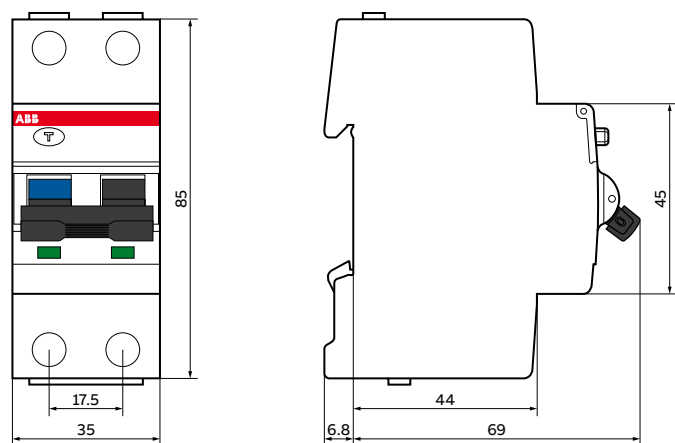
DS201

Dimensions

Overall dimensions

All measurements in mm

DS201 (2019)
DS201T (2019)



AFDD

S-ARC1, B and C characteristic

S-ARC1, B and C characteristics

Function: protection of end user single-phase circuits against short-circuit currents, overload, earth arc faults, parallel arc faults and series arc faults.

Application: residential, commercial

Standard: IEC 62606; EN 62606; IEC 60898-1; EN 60898-1

Icn = 6 000 A

S-ARC1 - B-Characteristic



No. of poles	Rated current	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
1+N	6	750130	S-ARC1 B6	2CSA255901R9065		0.18	1
	10	178132	S-ARC1 B10	2CSA255901R9105		0.18	1
	13	750031	S-ARC1 B13	2CSA255901R9135		0.18	1
	16	178033	S-ARC1 B16	2CSA255901R9165		0.18	1
	20	749936	S-ARC1 B20	2CSA255901R9205		0.18	1
	NEW 25	341116	S-ARC1 B25	2CSA255901R9255		0.18	1
	NEW 32	341017	S-ARC1 B32	2CSA255901R9325		0.18	1
	NEW 40	340812	S-ARC1 B40	2CSA255901R9405		0.18	1

S-ARC1 - C-Characteristic



No. of poles	Rated current	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
1+N	6	177937	S-ARC1 C6	2CSA255901R9064		0.18	1
	10	749837	S-ARC1 C10	2CSA255901R9104		0.18	1
	13	500735	S-ARC1 C13	2CSA255901R9134		0.18	1
	16	886136	S-ARC1 C16	2CSA255901R9164		0.18	1
	20	175438	S-ARC1 C20	2CSA255901R9204		0.18	1
	NEW 25	374114	S-ARC1 C25	2CSA255901R9254		0.18	1
	NEW 32	374015	S-ARC1 C32	2CSA255901R9324		0.18	1
	NEW 40	373919	S-ARC1 C40	2CSA255901R9404		0.18	1

AFDD

S-ARC1 M, B and C characteristic

S-ARC1 M, B and C characteristics

Function: protection of end user single-phase circuits against short-circuit currents, overload, earth arc faults, parallel arc faults and series arc faults.

Application: residential, commercial

Standard: IEC 62606; EN 62606; IEC 60898-1; EN 60898-1

Icn = 10 000 A

S-ARC1 M - B characteristics



No. of poles	Rated current	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
1+N	6	374312	S-ARC1 M B6	2CSA275901R9065		0.18	1
	10	342113	S-ARC1 M B10	2CSA275901R9105		0.18	1
	13	342014	S-ARC1 M B13	2CSA275901R9135		0.18	1
	16	342212	S-ARC1 M B16	2CSA275901R9165		0.18	1
	20	341215	S-ARC1 M B20	2CSA275901R9205		0.18	1
	NEW 25	341413	S-ARC1 M B25	2CSA275901R9255		0.18	1
	NEW 32	341314	S-ARC1 M B32	2CSA275901R9325		0.18	1
	NEW 40	339915	S-ARC1 M B40	2CSA275901R9405		0.18	1

S-ARC1 M - C characteristics



No. of poles	Rated current	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
	In A	EAN	Type code	Order code		kg	pc.
1+N	6	339816	S-ARC1 M C6	2CSA275901R9064		0.18	1
	10	339717	S-ARC1 M C10	2CSA275901R9104		0.18	1
	13	339618	S-ARC1 M C13	2CSA275901R9134		0.18	1
	16	340416	S-ARC1 M C16	2CSA275901R9164		0.18	1
	20	340317	S-ARC1 M C20	2CSA275901R9204		0.18	1
	NEW 25	340218	S-ARC1 M C25	2CSA275901R9254		0.18	1
	NEW 32	340119	S-ARC1 M C32	2CSA275901R9324		0.18	1
	NEW 40	340010	S-ARC1 M C40	2CSA275901R9404		0.18	1

For MCBs S200, S200M, S200P,
S200MUC, S200MTUC, ST200M
and fuse disconnectors E90

Busbars type PS...CB are used for quick and easy line side wiring of miniature circuit breakers acc. to UL1077 as well as fuse disconnectors E90. The entire product line, including the accessories, is approved according to UL508 (cULus) and can be used for applications in supplementary protection circuits in UL and CSA markets

- cULus listing according to UL 508
- For UL and CSA applications
- For use with MCB types acc. UL1077, ranges S200, S200M, S200P, S200MUC, S200MTUC, ST200M and fuse disconnectors E90
- Quick and easy installation
- Can be cut off to the required length
- Suitable for AC and DC applications
- Global use in UL , CSA , and IEC markets

- 1-, 2-, 3-pole types
- 18 mm² and 25 mm² cross section
- For MCBs with or without auxiliary contact
- Touch safe thanks to end caps and electric shock-protection caps installed over unused busbar pins
- Rated current max. 200 A
- Rated voltage acc. to UL
 - 1-phase: 1,000 V AC/DC
 - 2-/3-phase: 600 V AC/DC
- End caps, electric shock-protection caps and feeder terminals as accessories



Accessories for MCBs and RCDs

Busbars PS...CB and accessories acc. to UL 508

Technical data

Technical data

			Busbars PS...CB		
Standards			UL508 IEC EN 60947-1		
Electrical data	Rated voltage U_n	V	1-phase 1,000 V AC/DC	2- / 3-phase UL: 600 V AC/DC IEC: 690 V AC/DC	
	Current carrying capacity / phase (35 °C ambient temperature)	A	End feeding ¹⁾ Non-end feeding ¹⁾	18 mm²	25 mm²
				80 A	100 A
				160 A	200 A
Mechanical Data	Short-circuit rating	kA	10 kA 3 cycles @ 480V / 100 kA Fuse Class J 175 A / 18 mm ² - 200 A / 25 mm ²		
	Housing		Light gray, RAL 7035		
	Overvoltage category		III		
Installation	Pollution degree		2		
	Busbar cross section	mm ²	18 mm ² / 25 mm ²		
	Mounting position		Optional		
	Supply		Feed to the device's terminal (supply side optional) or use feeder terminal AST 35/15-1 CB; AST 35/15-2 CB; AST 35/38-1 CB; AST 35/38-2 CB; SZ-ESK SP		
Accessories	Electric shock-protection caps		BSK CB		
	Feeder terminals		AST 35/15-1 CB; AST 35/15-2 CB AST 35/38-1 CB; AST 35/38-2 CB SZ-ESK SP		
	End caps		PS-END 1 CB PS-END 3 CB		
Approvals			UL 508: cULus listed		
			CE and RoHS compliant		
			In addition to the approval of the busbar, the approval of the switching device used must also be considered.		
Installation instructions			When cutting the busbar, ensure that the insulation profile protrudes beyond the end of the copper bar by approx. 10 mm at each end. Electric shock-protection only ensured with end caps mounted.		

¹⁾ Irrespective of the current carrying capacity of the busbar, the max. rated current of the devices terminal must not be exceeded.

Accessories for MCBs and RCDs

Busbars PS...CB and accessories acc. to UL 508

Ordering data

Busbars suitable for cutting

Bbn 40 16779						Weight 1 piece	Pack unit
Phases	mm ²	No. of pins	EAN	Type code	Order code	kg	pc.
1-phase busbars, pin distance 17.6 mm, end caps PS-END 1 CB							
1	18	57	906760	PS 1/57/18 CB	2CDL210508R5718	0.289	10
1	25	57	906913	PS 1/57/25 CB	2CDL210508R5725	0.360	10
1-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END 1 CB							
1	18	37	906784	PS 1/37/18 H CB	2CDL210508R3718	0.254	10
1	25	37	906937	PS 1/37/25 H CB	2CDL210508R3725	0.310	10
2-phase busbars, pin distance 17.6 mm, end caps PS-END 3 CB							
2	18	56	906807	PS 2/56/18 CB	2CDL220508R5618	0.639	10
2	25	56	906951	PS 2/56/25 CB	2CDL220508R5625	0.795	10
2-phase busbars, connection of 2-pole devices with auxiliary, end caps PS-END 3 CB							
2	18	46	906821	PS 2/46/18 H CB	2CDL220508R4618	0.672	10
2	25	46	906975	PS 2/46/25 H CB	2CDL220508R4625	0.782	10
3-phase busbars, pin distance 17.6 mm, end caps PS-END 3							
3	18	57	906852	PS 3/57/18 CB	2CDL230508R5718	0.929	10
3	25	57	906999	PS 3/57/25 CB	2CDL230508R5725	1.026	10
3-phase busbars, connection of 3-pole devices with auxiliary, end caps PS-END 3 CB							
3	18	48	906876	PS 3/48/18 H CB	2CDL230508R4818	0.788	10
3	25	48	907019	PS 3/48/25 H CB	2CDL230508R4825	0.974	10
3-phase busbars, connection of 1-pole devices with auxiliary, end caps PS-END 3 CB							
3	18	39	906890	PS 3/39/18 H CB	2CDL230508R3918	0.794	10
3	25	39	907033	PS 3/39/25 H CB	2CDL230508R3925	0.974	10

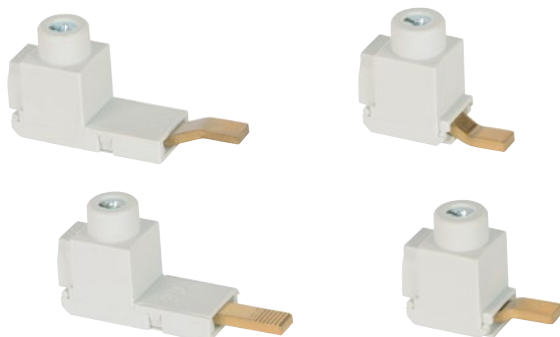
Accessories

Bbn 40 16779						Weight 1 piece	Pack unit
	EAN	Type code	Order code	kg	pc.		
Electric shock-protection cap							
	907095	BSK CB	2CDL200508R0011	0.008	10		
Feeder terminals with pin contact							
for use with MCB and 1-phase busbar	907156	AST 35/15-2 CB	2CDL202508R3515	0.025	25		
for use with MCB and 2-/3-phase busbar	067904	AST 35/38-2 CB	2CDL202508R3538	0.032	10		
for use with E90 and 2-/3-phase busbar	907132	AST 35/38-1 CB	2CDL201508R3538	0.032	10		
for use with E90 and 1-phase busbar	907118	AST 35/15-1 CB	2CDL201508R3515	0.025	25		
Single-pole terminal, can be mounted side by side, feed to the busbar pin							
	710381	SZ ESK SP	2CDL200111R5001	0.032	50		
End caps							
for use with PS 1...CB	907057	PS-END 1 CB	2CDL200508R0001	0.001	50		
for use with PS 2...CB and PS3...CB	907071	PS-END 3 CB	2CDL200508R0003	0.002	50		

Accessories for MCBs and RCDs

Busbars PS...CB and accessories acc. to UL 508

Technical data feeder terminals



Feeder terminals AST..CB to connect copper wires up to a cross section of 50 mm² to DIN rail devices in pro M compact® system.

The terminals are cULus listed acc. to UL508 and can be used for applications in supplementary protection circuits in combination with UL/CSA approved miniature circuit breakers and E90 fuse disconnectors.

Technical data

		Feeder terminal AST..CB
	Standards	UL508 / UL486A / CSA C22.2 / IEC 60999
Electrical data	Rated voltage U _e	UL: 1,000 V AC/DC IEC: 1,000 V AC / 1,500 V DC
	Rated current I _e	UL: 115 A IEC: 160 A
Mechanical Data	Housing	PA66, gray RAL 7035
	Chassis	Brass
	Terminal screw	Steel, zinc-plated
	Protection degree	IP20
Installation	Cross section	Solid / stranded: 6..50 mm ² ; 10 AWG..1/0 AWG Flexible with ferrules: 6..35 mm ² ; 10 AWG..2 AWG
	Tightening torque	6 mm ² / 10 AWG: 4.0 Nm / 35 lbf-in
		8 mm ² / 8 AWG: 4.5 Nm / 40 lbf-in
		10..16 mm ² / 6..4 AWG: 5.1 Nm / 45 lbf-in
		25..50 mm ² / 3..1/0 AWG: 5.5 Nm / 50 lbf-in*
		* Tightening torque acc. to UL486A, Table 21, Clauses 9.1.9.4 and 9.1.9.6
	Stripping length	~ 14 mm; 9/16"
	Conductor material	Copper
Approvals		UL508 CE, RoHS and REACH compliant
		In addition to the approval of the feeder terminal, the approval of the switching device used must also be considered.
Instruction of installation		The feeder terminals are single-phase. In case of a combination of multiple terminals with installation side by side, e.g. for multipole- or DC-applications, the required creepage and air leakage distances must be considered and observed.
		To ensure protection against electrical electric shock the pin length of the feeder terminal must not exceed the depth of the contact area of the connected device.
		Irrespective of the current carrying capacity of the feeder terminal the max. rated current of the devices terminal must not be exceeded.

Accessories for MCBs and RCDs

Busbars PS...CB and accessories acc. to UL 508

Ordering data feeder terminals

Order codes

	Bbn 40 16779			Weight 1 piece	Pack unit
Feeder terminals with pin contact	EAN	Type code	Order code	kg	pc.
for use with MCB and 1-phase busbar	907156	AST 35/15-2 CB	2CDL202508R3515	0.025	25
for use with MCB and 2-/3-phase busbar	067904	AST 35/38-2 CB	2CDL202508R3538	0.032	10
for use with E90 and 2-/3-phase busbar	907132	AST 35/38-1 CB	2CDL201508R3538	0.032	10
for use with E90 and 1-phase busbar	907118	AST 35/15-1 CB	2CDL201508R3515	0.025	25

Accessories for MCBs and RCDs

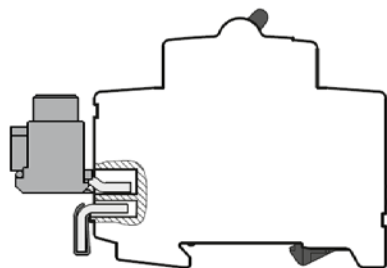
Busbars PS...CB and accessories acc. to UL 508

Installation of busbars and use of feeder terminals/cables for feed

Installation of busbars and use of feeder terminals/cables for feed

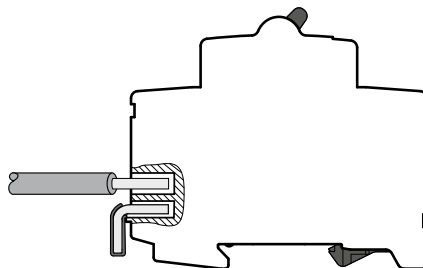
MCB with 1-phase busbar

Feeder terminal AST 35/15-2 CB



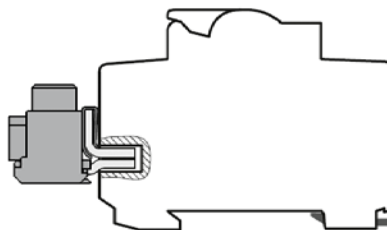
MCB with 1-phase busbar

Feed using cable



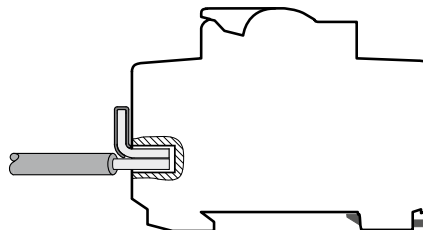
E90 with 1-phase busbar

Feeder terminal AST 35/15-1 CB



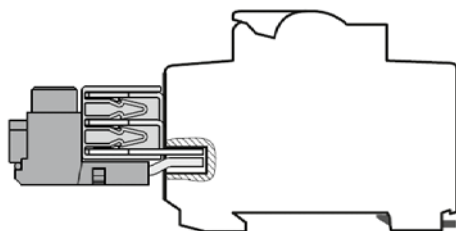
E90 with 1-phase busbar

Feed using cable



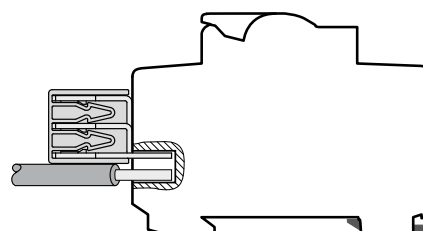
E90 with 2-/3-phase busbar

Feeder terminal AST 35/38-1 CB



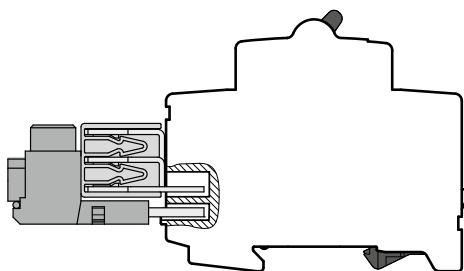
E90 with 2-/3-phase busbar

Feed using cable



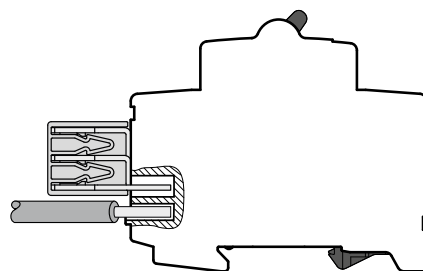
MCB with 2-/3-phase busbar

Feeder terminal AST 35/38-2 CB



MCB with 2-/3-phase busbar

Feed using cable

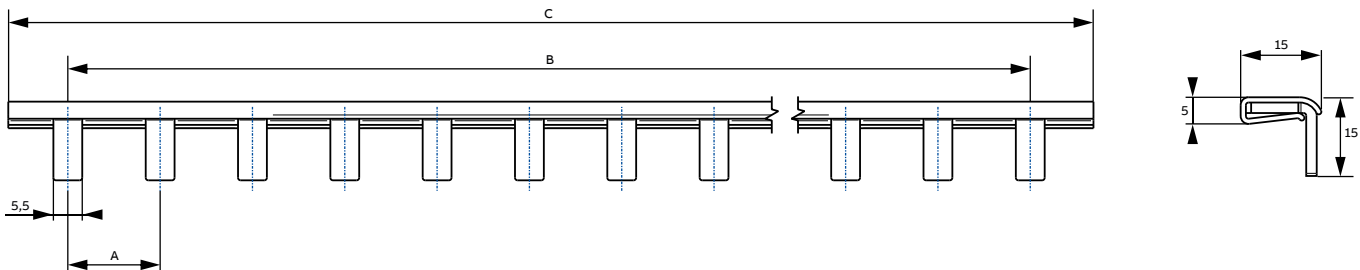


Accessories for MCBs and RCDs

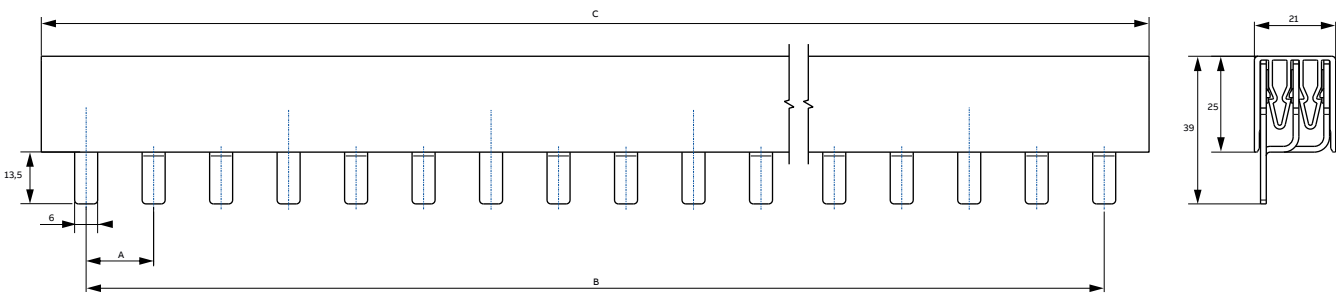
Busbars PS...CB and accessories acc. to UL 508

Overall dimensions

1-phase busbars



2-/3-phase busbars



Overall dimensions

Busbar	A mm	B mm	C mm
1-phase busbars			
PS 1/57/18 CB	17.6	986	1010
PS 1/57/25 CB	17.6	986	1010
PS 1/37/18 H CB	26.4	950	985
PS 1/37/25 H CB	26.4	950	985
2-phase busbars			
PS 2/56/18 CB	17.6	968	990
PS 2/56/25 CB	17.6	968	990
PS 2/46/18 H CB	17.6 / 26.4 *	968	1010
PS 2/46/25 H CB	17.6 / 26.4 *	968	990
3-phase busbars			
PS 3/57/18 CB	17.6	986	1010
PS 3/57/25 CB	17.6	986	1010
PS 3/48/18 H CB	17.6 / 26.4 *	924	982
PS 3/48/25 H CB	17.6 / 26.4 *	924	982
PS 3/39/18 H CB	26.4	1003	1040
PS 3/39/25 H CB	26.4	1003	1040

* pin gap for auxiliary

Protection and safety

Coordination

Type of Surge Protective Devices	Circuit breaker maximum ratings * curve B or C				Fuses maximum ratings* (gL - gG)			Moulded case circuit breakers
	Prospective short circuit current at SPD location (IP)							
	IP ≤ 6 kA	IP ≤ 10 kA	IP ≤ 15 kA	IP ≤ 50 kA	IP ≤ 7 kA	IP ≤ 50 kA	IP ≤ 100 kA	IP ≤ 50 kA
Type 1								
OVR T1 25 kA non-pluggable Iimp 25 kA/ifi=7kA, Uc 255 V	-	-	-	-	125 A	-	-	-
Type 1+2								
OVR T1-T2 25kA QS pluggable Iimp 25 kA; Uc 255, 440 V					315 A	315 A	315 A	
OVR T1-T2 pluggable Safety Reserve QuickSafe® Iimp 12.5 kA; Uc 275, 440 V	-	-	-	-	160 A	160 A	160 A	-
Type 2								
OVR T2 pluggable Imax 15 kA; Uc 75 V	S 200 M - 16	S 200 M - 16	-	-	16 A	16 A	-	-
Type 2 pluggable Imax 120 kA; Uc 440 V	S 200 M - 50	S 200 M - 50	S 200 P - 50	S 800 S - 50	50 A	50 A	-	-
OVR T2 pluggable Safety Reserve QuickSafe® Ima x 80 kA; Uc 275, 440 V	S 200 M - 63	S 200 M - 63	S 200 P - 63	S 800 S - 125	160 A	160 A	160 A	-
Type 2 QuickSafe® pluggable Imax 40 kA; Uc 275, 350, 440, 600 V	S 200 M - 63	S 200 M - 63	S 200 P - 63	S 800 S - 125	125 A	125 A	125 A	@ Uc=275V, Tmax XT4S 250, Ekip LSI, I<3 In
OVR T2 non-pluggable Imax 20 and 40 kA Uc 275 V	S 200 M - 63	S 200 M - 63	S 200 P - 63	S 800 S - 50	125 A	125 A	-	-
Type 2+3								
OVR T2-T3 Safety QuickSafe® Imax 20 kA; Uc 275, 440 V	S 200 M - 63	S 200 M - 63	S 200 P - 63	S 800 S -125	125 A	125 A	125 A	@ Uc=275V, Tmax XT4S 250, Ekip LSI, I<3 In

* Maximum ratings, must be in accordance with the installation to follow coordination rules with main or upstream short circuit protection(s).

Service entrance SPDs	PE connection cable size
Type 1 - 7	16 mm ²
Type 1+2 QS	25 mm ²
Type 2	4 mm ²
Type 2+3	4 mm ²

Backup disconnection

Type 2 QuickSafe® Characteristics	Prospective short circuit current at SPD location (Ip)	Circuit breaker* (curve B or C)	Fuses* (gL - gG)
Maximum rating			
In: 5, 20, 30 kA Uc: 275, 350, 440, 600 V	0.625 kA < Ip < 100k A	S800S B or C - 125 A**	E90/125 125 A fuse (without Safety Reserve System) 160 A fuse (with Safety Reserve System)

*: The backup disconnection of the SPD shall always be coordinated with the circuit breakers used in the installation.

** : up to Ip ≤ 50kA

Protection and safety

OVR surge protective devices selection tables

Protected lines	Impulse current	Max. discharge current	Nominal current	Follow current interrupting rating	Voltage protection level	Nominal voltage	Max. cont. operating voltage		
	I_{imp} 10/350 kA	I_{max} 8/20 kA	I_n kA	I_{fi} kA	U_p kV	U_n V	U_c V	Type	Order code
Type T1-T2 OVR pluggable									
Uc 255 V									
1	25	70	25	100	≤ 1.5	230	255	OVR T1-T2 25-255 P QS	2CTB825101R0100
1	25	70	25	100	≤ 1.5	230	255	OVR T1-T2 25-255 P TS QS	2CTB825101R0200
3	25	70	25	100	≤ 1.5	230/400	255	OVR T1-T2 3L 25-255 P QS	2CTB825101R1300
3	25	70	25	100	≤ 1.5	230/400	255	OVR T1-T2 3L 25-255 P TS QS	2CTB825101R0600
1+1	25	70	25	100	≤ 1.5	230	255	OVR T1-T2 1N 25-255 P QS	2CTB825101R1000
1+1	25	70	25	100	≤ 1.5	230	255	OVR T1-T2 1N 25-255 P TS QS	2CTB825101R1500
4	25	70	25	100	≤ 1.5	230/400	255	OVR T1-T2 4L 25-255 P QS	2CTB825101R1400
4	25	70	25	100	≤ 1.5	230/400	255	OVR T1-T2 4L 25-255 P TS QS	2CTB825101R0800
3+1	25	70	25	100	≤ 1.5	230/400	255	OVR T1-T2 3N 25-255 P QS	2CTB825101R1600
3+1	25	70	25	100	≤ 1.5	230/400	255	OVR T1-T2 3N 25-255 P TS QS	2CTB825101R0700
Uc 440									
1	25	70	25	15	≤ 2.5	400	440	OVR T1-T2 25-440 P QS	2CTB825101R5000
1	25	70	25	15	≤ 2.5	400	440	OVR T1-T2 25-440 P TS QS	2CTB825101R5100
3	25	70	25	15	≤ 2.5	400/690	440	OVR T1-T2 3L 25-440 P QS	2CTB825101R5300
3	25	70	25	15	≤ 2.5	400/690	440	OVR T1-T2 3L 25-440 P TS QS	2CTB825101R5400
Neutral									
1	100	100	100	0.1	≤ 1.5	230	255	OVR T1-T2 N 100-255 P QS	2CTB825101R0500
1	100	100	100	0.1	≤ 2.5	400	440	OVR T1-T2 N 100-440 P QS	2CTB825101R5200
Cartridge									
1	25	70	25	-	≤ 1.5	230	255	OVR T1-T2 25-250 C QS	2CTB825101R8000
1	25	70	25	-	≤ 2.5	400	440	OVR T1-T2 25-440 C QS	2CTB825101R8100
1	100	100	100	-	≤ 1.5	230	255	OVR T1-T2 N 100-255C QS	2CTB825101R8200
1	100	100	100	-	≤ 2.5	400	440	OVR T1-T2 N 100-440C QS	2CTB825101R8300

Protection and safety

OVR Type T1-T2 surge protective devices Single pole

Technical features



OVR T1-T2 25-255 P TS QS

Types		OVR T1-T2 25-255 P QS	OVR T1-T2 25-440 P QS
with auxiliary contact (TS)		OVR T1-T2 25-255 P TS QS	OVR T1-T2 25-440 P TS QS
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Electrical features			
Type / test class		T1-T2/I - II	T1-T2/I - II
Protected lines		1	1
Types of networks		TNC / TNS / TT	IT(230) / TNC / TNS / TT
Voltage regulation of the system network		± 10 %	± 10 %
Type of current		AC 47-63Hz	AC 47-63Hz
Nominal voltage Un	[V]	230	400
Maximum continuous operating voltage Uc	[V]	255	440
Maximum impulse current Iimp (10/350)	[kA]	25	25
Nominal discharge current In (8/20)	[kA]	25	25
Maximum Discharge Current Imax (8/20)	[kA]	70	70
Follow current interrupting rating Ifi	[kA]	100	15
Voltage protection level Up at In	[kA]	≤ 1.5	≤ 2.5
	(L-N: 5 s /N-PE: 200 ms)	[V] 337 / -	581 / -
Response time	[ns]	≤ 100	≤ 100
Short-circuit withstand capability Iscsr	[kA]	100	15
Maximum Prospective Short-Circuit current	[kA]	100	100
Backup protection Fuse (gG - gL)	[A]	≤ 315	≤ 315
Pluggable cartridge		Yes	Yes
Reversible socket		Yes	Yes
Integrated thermal disconnection		Yes	Yes
Safety reserve		No	No
State indicator		Yes	Yes
Auxiliary contact		Yes (TS option)	Yes (TS option)
Installation			
Wire range (L, N, PE)	Solid wire	[mm²] 25...50	25...50
	Stranded wire	[mm²] 25...35	25...35
Stripping length (L, N, PE)	[mm]	15	15
Tightening torque (L, N, PE)	[Nm]	2.5	2.5
Auxiliary contact (TS)			
Contact complement		1 NO - 1 NC	1 NO - 1 NC
Minimum load		12 V DC - 10 mA	12 V DC - 10 mA
Maximum load		250 V AC - 1 A	250 V AC - 1 A
Connection cross-section	[mm²]	0.5 ...1.5	0.5 ...1.5
Miscellaneous characteristics			
Stocking and operating temperature	[°C]	-40 to +80	-40 to +80
Degree of protection		IP20	IP20
Fire resistance according to UL 94		V0	V0
Dimensions height x width x depth	[mm]	108.1 × 36 × 86.3	108.1 × 36 × 86.3
Dimensions with auxiliary contact (TS) height x width x depth	[mm]	109.2 × 36 × 86.3	109.2 × 36 × 86.3
Replacement Cartridges			
Phase Product ID		OVR T1-T2 25-255 C QS 2CTB825101R8000	OVR T1-T2 25-440 C QS 2CTB825101R8100

Protection and safety

OVR Type T1-T2 surge protective devices Single pole

Poles	Impulse current	Follow current interrupt- ing rating I _{fi}	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Bbn 3660308			Price 1 piece	Weight 1 piece
	I _{imp} 10/350 kA	kA	U _p kV	U _n V	U _c V	EAN	Type code	Order code		kg
1	25	100	≤ 1.5	230/400	255	526250	OVR T1-T2 25-255 P QS	2CTB825101R0100		0.356
1	25	100	≤ 1.5	230/400	255	526267	OVR T1-T2 25-255 P TS QS	2CTB825101R0200		0.36
1	25	15	≤ 2.5	400/690	440	526403	OVR T1-T2 25-440 P QS	2CTB825101R5000		0.356
1	25	15	≤ 2.5	400/690	440	526410	OVR T1-T2 25-440 P TS QS	2CTB825101R5100		0.36

Protection and safety

OVR Type T1-T2 surge protective devices TNC- IT(230) 3Ph

Technical features



OVR T1-T2 3L 25-255 P TS QS

Types		OVR T1-T2 3L 25-255 P QS	OVR T1-T2 3L 25-440 P QS
with auxiliary contact (TS)		OVR T1-T2 3L 25-255 P TS QS	OVR T1-T2 3L 25-440 P TS QS
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Electrical features			
Type / test class		T1-T2/I - II	T1-T2/I - II
Protected lines		3	3
Types of networks		TNC	TNC/IT (230)
Type of current		AC 47-63 Hz	AC 47-63 Hz
Nominal voltage Un	[V]	230 / 400	400/690 TNC, 230/400 (IT)
Maximum continuous operating voltage Uc	[V]	255	440
Maximum impulse current Iimp (10/350)	[kA]	25	25
Nominal discharge current In (8/20)	[kA]	25	25
Maximum Discharge Current Imax (8/20)	[kA]	70	70
Follow current interrupting rating Ifi	[kA]	100	15
Voltage protection level Up at In	[kA]	≤ 1.5	≤ 2.5
	(L-N: 5 s /N-PE: 200 ms)	[V] 337 / -	581 / -
Response time	[ns]	≤ 100	≤ 100
Short-circuit withstand capability Iscsr	[kA]	100	15
Maximum Prospective Short-Circuit current	[kA]	100	100
Backup protection Fuse (gG - gL)	[A]	≤ 315	≤ 315
Pluggable cartridge		Yes	Yes
Reversible socket		Yes	Yes
Integrated thermal disconnection		Yes	Yes
Safety reserve		No	No
State indicator		Yes	Yes
Auxiliary contact		Yes (TS option)	Yes (TS option)
Installation			
Wire range (L, N, PE)	Solid wire	[mm²] 25...50	25...50
	Stranded wire	[mm²] 25...35	25...35
Stripping length (L, N, PE)		[mm] 15	15
Tightening torque (L, N, PE)		[Nm] 2.5	2.5
Auxiliary contact (TS)			
Contact complement		1 NO - 1 NC	1 NO - 1 NC
Minimum load		12 V DC - 10 mA	12 V DC - 10 mA
Maximum load		250 V AC - 1 A	250 V AC - 1 A
Connection cross-section	[mm²]	0.5 ...1.5	0.5 ...1.5
Miscellaneous characteristics			
Stocking and operating temperature	[°C]	-40 to +80	-40 to +80
Degree of protection		IP20	IP20
Fire resistance according to UL 94		V0	V0
Dimensions height x width x depth	[mm]	108.1 × 108 × 86.3	108.1 × 108 × 86.3
Dimensions with auxiliary contact (TS)	[mm]	109.2 × 108 × 86.3	109.2 × 108 × 86.3
Replacement Cartridges			
Phase Product ID		OVR T1-T2 25-255 C QS 2CTB825101R8000	OVR T1-T2 25-440 C QS 2CTB825101R8100

Protection and safety

OVR Type T1-T2 surge protective devices TNC- IT(230) 3Ph

Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Poles	Impulse current	Follow current interrupting rating I _{fi}	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Bbn 3660308		Price 1 piece	Weight 1 piece
	I _{imp} 10/350 kA	kA	U _p kV	U _n V	U _c V	EAN	Type code	Order code	kg
3	25	100	≤ 1.5	230/400	255	526298	OVR T1-T2 3L 25-255 P QS	2CTB825101R1300	1.065
3	25	100	≤ 1.5	230/400	255	526281	OVR T1-T2 3L 25-255 P TS QS	2CTB825101R0600	1.070
3	25	15	≤ 2.5	400/690	440	527639	OVR T1-T2 3L 25-440 P QS	2CTB825101R5300	1.065
3	25	15	≤ 2.5	400/690	440	527653	OVR T1-T2 3L 25-440 P TS QS	2CTB825101R5400	1.070

Protection and safety

OVR Type T1-T2 surge protective devices TNS/TT 230 1Ph+N

Technical features



OVR T1-T2 1N 25-255 P TS QS

Types			OVR T1-T2 1N 25-255 P QS
	with auxiliary contact (TS)	OVR T1-T2 1N 25-255 P TS QS	
Standard			IEC 61643-11/EN 61643-11
Electrical features			
Type / test class			T1-T2/I - II
Protected lines			1+1
Types of networks			TNS / TT
Type of current			AC 47-63 Hz
Nominal voltage Un	[V]	230 / 400	
Maximum continuous operating voltage Uc	[V]	255	
Maximum impulse current Iimp (10/350)	[kA]	25	
Nominal discharge current In (8/20)	[kA]	25	
Maximum Discharge Current Imax (8/20)	[kA]	70	
Follow current interrupting rating Ifi	[kA]	100	
Voltage protection level Up at In	[kA]	≤ 1.5	
	(L-N: 5 s / N-PE: 200 ms)	[V]	337 / 1200
Response time		[ns]	≤ 100
Short-circuit withstand capability Isccr		[kA]	100
Maximum Prospective Short-Circuit current		[kA]	100
Backup protection Fuse (gG - gL)		[A]	≤ 315
Pluggable cartridge			Yes
Reversible socket			Yes
Integrated thermal disconnection			Yes
Safety reserve			No
State indicator			Yes
Auxiliary contact			Yes (TS option)
Installation			
Wire range (L, N, PE)	Solid wire	[mm²]	25...50
	Stranded wire	[mm²]	25...35
Stripping length (L, N, PE)		[mm]	15
Tightening torque (L, N, PE)		[Nm]	2.5
Auxiliary contact (TS)			
Contact complement			1 NO - 1 NC
Minimum load			12 V DC - 10 mA
Maximum load			250 V AC - 1 A
Connection cross-section		[mm²]	0.5 ...1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C]	-40 to +80
Degree of protection			IP20
Fire resistance according to UL 94			V0
Dimensions height x width x depth		[mm]	108.1 × 72 × 86.3
Dimensions with auxiliary contact (TS) height x width x depth		[mm]	109.2 × 72 × 86.3
Replacement Cartridges			
Phase Product ID			OVR T1-T2 25-255 C QS 2CTB825101R8000 OVR T1-T2 N 100-255 C QS 2CTB825101R8200

Protection and safety

OVR Type T1-T2 surge protective devices TNS/TT 230 1Ph+N

Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Poles	Impulse current	Follow current interrupting rating I _{fi}	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Bbn 3660308		Price 1 piece	Weight 1 piece
	I _{imp} 10/350 kA	kA	U _p kV	U _n V	U _c V	EAN	Type code	Order code	kg
1+1	25	100	≤ 1.5	230/400	255	526342	OVR T1-T2 1N 25-255 P QS	2CTB825101R1500	0.64
1+1	25	100	≤ 1.5	230/400	255	526359	OVR T1-T2 1N 25-255 P TS QS	2CTB825101R1000	0.645

Protection and safety

OVR Type T1-T2 surge protective devices TNS/TT 230 3Ph+N

Technical features



OVR T1-T2 3N 25-255 P TS QS

Types		OVR T1-T2 4L 25-255 P QS	OVR T1-T2 3N 25-255 P QS
with auxiliary contact (TS)		OVR T1-T2 4L 25-255 P TS QS	OVR T1-T2 3N 25-255 P TS QS
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Electrical features			
Type / test class		T1-T2/I - II	T1-T2/I - II
Protected lines		4	3+1
Types of networks		TNS	TNS / TT
Type of current		AC 47-63 Hz	AC 47-63 Hz
Nominal voltage Un	[V]	230 / 400	230 / 400
Maximum continuous operating voltage Uc	[V]	255	255
Maximum impulse current Iimp (10/350)	[kA]	25	25
Nominal discharge current In (8/20)	[kA]	25	25
Maximum Discharge Current Imax (8/20)	[kA]	70	70
Follow current interrupting rating Ifi	[kA]	100	100
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kA]	≤ 1.5	≤ 1.5
TOV (Temporary overvoltage) withstand Ut	(L-N: 5 s / N-PE: 200 ms) [V]	337 / -	337 / 1200
Response time	[ns]	≤ 100	≤ 100
Short-circuit withstand capability Iscrr	[kA]	100	100
Maximum Prospective Short-Circuit current	[kA]	100	100
Backup protection Fuse (gG - gL)	[A]	≤ 315	≤ 315
Pluggable cartridge		Yes	Yes
Reversible socket		Yes	Yes
Integrated thermal disconnection		Yes	Yes
Mechanical End of Life Indication		Yes	Yes
Safety reserve		No	No
State indicator		Yes (TS option)	Yes (TS option)
Installation			
Wire range (L, N, PE)	Solid wire	[mm²] 25...50	25...50
	Stranded wire	[mm²] 25...35	25...35
Stripping length (L, N, PE)	[mm]	15	15
Tightening torque (L, N, PE)	[Nm]	2.5	2.5
Auxiliary contact (TS)			
Contacts information		1 NO - 1 NC	1 NO - 1 NC
Min. load		12 V DC - 10 mA	12 V DC - 10 mA
Max. load		250 V AC - 1 A	250 V AC - 1 A
Connection cross-section	[mm²]	0.5 ...1.5	0.5 ...1.5
Miscellaneous characteristics			
Stocking and operating temperature	[°C]	-40 to +80	-40 to +80
Degree of protection		IP20	IP20
Fire resistance according to UL 94		V0	V0
Dimensions height x width x depth	[mm]	108.1 × 144 × 86.3	108.1 × 144 × 86.3
	[inches]		
Dimensions with auxiliary contact (TS)	height x width x depth [mm]	109.2 × 144 × 86.3	109.2 × 144 × 86.3
Replacement Cartridges			
Phase Product ID		OVR T1-T2 25-255 C QS 2CTB825101R8000	OVR T1-T2 25-440 C QS 2CTB825101R8100
		OVR T1-T2 N 100-255 C QS 2CTB825101R8200	OVR T1-T2 N 100-400 C QS 2CTB825101R8300

Protection and safety

OVR Type T1-T2 surge protective devices TNS/TT 230 3Ph+N

Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

Poles	Impulse current	Follow current interrupting rating I _{fi}	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Bbn 3660308			Price 1 piece	Weight 1 piece
	I _{imp} 10/350 kA	kA	U _p kV	U _n V	U _c V	EAN	Type code	Order code		kg
4	25	100	≤ 1.5	230/400	255	526335	OVR T1-T2 4L 25-255 P QS	2CTB825101R1400		1.425
4	25	100	≤ 1.5	230/400	255	526328	OVR T1-T2 4L 25-255 P TS QS	2CTB825101R0800		1.430
3+1	25	100	≤ 1.5	230/400	255	526311	OVR T1-T2 3N 25-255 P QS	2CTB825101R1600		1.355
3+1	25	100	≤ 1.5	230/400	255	526304	OVR T1-T2 3N 25-255 P TS QS	2CTB825101R0700		1.400

Protection and safety

OVR Type T1-T2 surge protective devices Single pole neutral

Technical features



OVR T1-T2 N 100-255 P QS

Types		OVR T1-T2 N 100-255 P QS	OVR T1-T2 N 100-440 P QS
with auxiliary contact (TS)		–	–
Standard		IEC 61643-11/EN 61643-11	IEC 61643-11/EN 61643-11
Electrical features			
Type / test class		T1-T2/I - II	T1-T2/I - II
Protected lines		1	1
Types of networks		TT/TNS	TT/TNS
Type of current		AC 47-63 Hz	AC 47-63 Hz
Nominal voltage Un	[V]	230 / 400	400/690
Maximum continuous operating voltage Uc	[V]	255	440
Maximum impulse current Iimp (10/350)	[kA]	100	100
Nominal discharge current In (8/20)	[kA]	100	100
Maximum Discharge Current Imax (8/20)	[kA]	100	100
Follow current interrupting rating Ifi	[kA]	0.1	0.1
Voltage protection level Up at In	[kV]	≤ 1.5	≤ 2.5
TOV (Temporary overvoltage) withstand Ut	(L-N: 5 s / N-PE: 200 ms) [V]	~1200	~1200
Response time	[ns]	≤ 100	≤ 100
Short-circuit withstand capability Iscrr	[kA]	0.1	0.1
Backup protection Fuse (gG - gL)	[A]	–	–
Pluggable cartridge		Yes	Yes
Reversible socket		Yes	Yes
Integrated thermal disconnecter		Yes	Yes
Safety reserve		No	No
State indicator		No	No
Auxiliary contact		No	No
Installation			
Wire range (L, N, PE)	Solid wire	[mm²] 25...50	25...50
	Stranded wire	[mm²] 25...35	25...35
Stripping length (L, N, PE)	[mm]	15	15
Tightening torque (L, N, PE)	[Nm]	2.5	2.5
Auxiliary contact (TS)			
Contact complement		–	–
Minimum load		–	–
Maximum load		–	–
Connection cross-section	[mm²]	–	–
Miscellaneous characteristics			
Stocking and operating temperature		[°C] -40 to +80	-40 to +80
Degree of protection		IP20	IP20
Fire resistance according to UL 94		V0	V0
Dimensions height x width x depth	[mm]	108.1 × 36 × 86.3	108.1 × 36 × 86.3
	with auxiliary contact (TS) height x width x depth	[mm] –	–
		[inches] –	–
Replacement Cartridges			
Phase Product ID		OVR T1-T2 N 100-255 C QS 2CTB825101R8200	OVR T1-T2 N 100-400 C QS 2CTB825101R8300

Protection and safety

OVR Type T1-T2 surge protective devices Single pole neutral

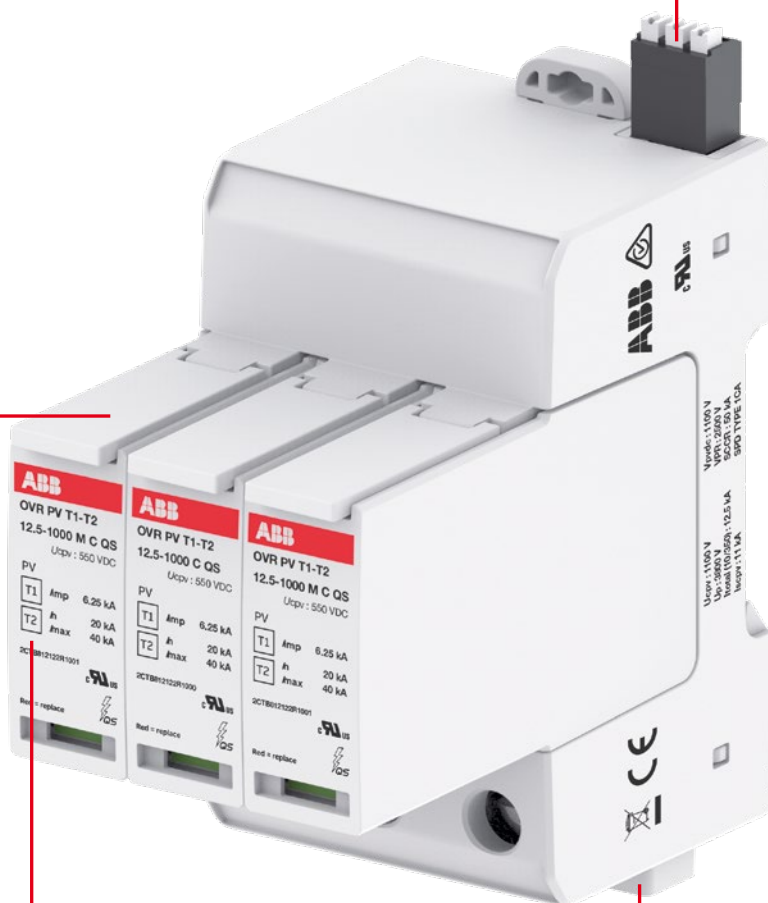
Type 1+2 surge protective devices are designed to discharge high current surges without any destruction of the installation. These surge protective devices are characterized by their capacity to withstand impulse current with 10/350 μ s wave form which simulate natural lightning current.

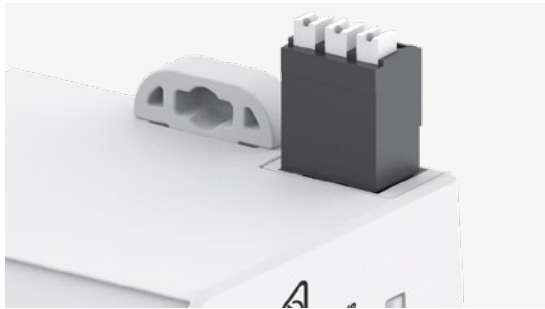
Type 1+2 ABB surge protective devices have a high impulse current withstand capacity with ensuring a low protection level (Up).

Type 1+2 SPDs can be installed at the entrance in the main switch board for a global protection of the electrical installation.

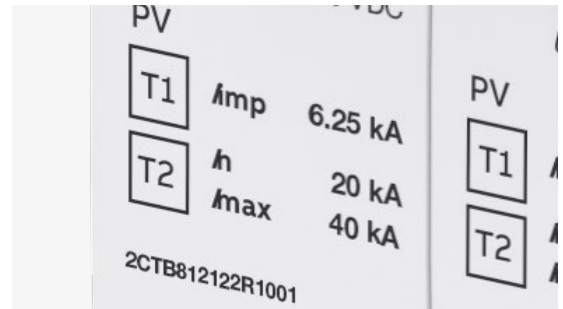
Type 1 Neutral

Poles	Impulse current limp 10/350 kA	Follow current interrupting Ifi kA	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Bbn 3660308		Price 1 piece	Weight 1 piece kg
						EAN	Type code	Order code	
1	100	0.1	≤ 1.5	230/400	255	526274	OVR T1-T2 N 100-255 P QS	2CTB825101R0500	0.29
1	100	0.1	≤ 2.5	400/690	440	526427	OVR T1-T2 N 100-440 P QS	2CTB825101R5200	0.29





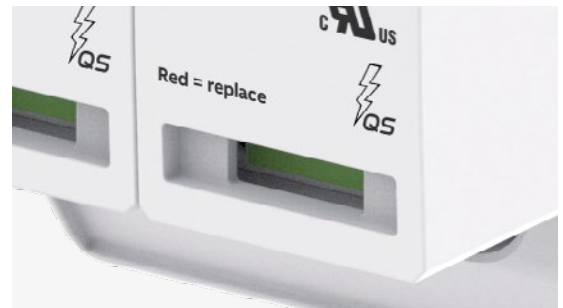
Pluggable cartridge allows to monitor the end of life status of the SPD by integration 1 Normally Open (NO) and 1 Normally Closed contact to be wired to monitoring system.



SPD Tested and classifies as Type 1 to deals with Surge 10/350 μ s wave form from direct lightning impact (Associated to external lightning protection) and also as Type 2 to limit the transient overvoltage at good enough values to protect end equipment.



The pluggable feature of ABB OVR PV T1-T2 and T2 surge protective devices (SPDs) facilitates maintenance. Should one or more worn cartridges need to be replaced, the electrical circuit does not have to be isolated nor do the wires have to be removed.



The end-of-life indicator of the SPD signals the status of the devices. A mechanical indicator turns from green to red when the SPD reaches the end of its life.



Terminal are located to the bottom of the SPD to avoid any condensation issue in the enclosure that could bring water stagnation and initiate arc ignition. Chimney enhance the dielectric distance for safer protection.



MOV varistors Y system specially designed to fit D.C photovoltaic application, bringing self-protected feature (no back-up needed) up to 11 kA PV short circuit current.

Protection and safety

Ranges for PV application

Technical features

Types			OVR PV T2 40-600 P QS	OVR PV T2 40-1000 P QS	OVR PV T2 40-1500 P QS
with auxiliary contact (TS)			OVR PV T2 40-600 P TS QS	OVR PV T2 40-1000 P TS QS	OVR PV T2 40-1500 P TS QS
Technology			Varistor	Varistor	Varistor
Electrical features					
Standard			IEC 61643-11/ EN 61643-11/ UL 1449 4 th Ed	IEC 61643-11/ EN 61643-11/ UL 1449 4 th Ed	IEC 61643-11/ EN 61643-11/ UL 1449 4 th Ed
Type/test class			T2/II	T2/II	T2/II
Protected lines			2	2	2
Types of networks			Photovoltaic	Photovoltaic	Photovoltaic
Type of current			DC	DC	DC
Nominal voltage Un (L-N/L-L)	[V]	600	1000	1000	1500
Max. cont. operating voltage Ucpv	[V]	600	1100	1100	1500
Max.cont.operating voltage according UL (MCOV)	[V]	600	1100	1100	1500
Impulse current Iimp (10/350)			2	-	2
Maximum discharge current Imax (8/20)	[kA]	40	40	40	40
Nominal discharge current In (8/20)	[kA]	20	20	20	10
Voltage protection level Up at In (L-L/L-PE)	[kV]	2.8/1.4	3.8/3.8	3.8/3.8	4.5/4.5
Voltage protection rating according UL (VPR (L+/G, L-/G, L+/L-))	[kV]	1.2/1.2/1.8	2.5/2.5/2.5	2.5/2.5/2.5	4/4/4
Response time	[ns]	≤ 25	≤ 25	≤ 25	≤ 25
Residual current IPE	[μA]	≤10	≤1000	≤1000	≤1000
Short-circuit DC current Iscpv	[A]	300	10,000	10,000	10,000
Short circuit withstand according UL (S _{CCR})	[kA]	10	10	10	10
Disconnecter	Fuse	no need up to 0.3 kA		no need up to 10 kA	no need up to 10 kA
	Circuit breaker	no need up to 0.3 kA		no need up to 10 kA	no need up to 10 kA
Pluggable cartridge			Yes	Yes	Yes
Integrated specific thermal disconnector			Yes	Yes	Yes
State indicator			Yes	Yes	Yes
Safety reserve			No	No	No
Auxiliary contact			Yes (TS option)	Yes (TS option)	Yes (TS option)
Installation					
Wire range (L, N, PE)	Solid wire	[mm²]	2.5...35	2.5...35	2.5...35
	Stranded wire	[mm²]	2.5...25	2.5...25	2.5...25
Stripping length (L, N, PE)			12.2	12.2	12.2
Tightening torque (L, N, PE)			2.5	2.5	2.5
Auxiliary contact (TS)					
Contact complement			1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Minimum load			12 V DC - 10 mA	12 V DC - 10 mA	12 DC - 10 mA
Maximum load			250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1A
Connection cross-section			1.5	1.5	1.5
Miscellaneous characteristics					
Stocking and operating temperature			[°C]	-40 to +80	-40 to +80
Maximal Altitude			[m]	5000	5000
Humidity Rate HR				95%	95%
Degree of protection				IP20	IP20
Fire resistance according to UL 94				V0	V0
Dimensions	height x width x depth	[mm]	88 x 53.4 x 65	88 x 53.4 x 65	88 x 88,33 x 65
		[inches]	3.46 x 2.10 x 2.56	3.46 x 2.10 x 2.56	3.46 x 3,5 x 2.56
with auxiliary contact (TS)	height x width x depth	[mm]	95 x 53.4 x 65	95 x 53.4 x 65	95 x 88,33 x 65
		[inches]	3.46 x 2.10 x 2.56	3.77 x 2.1 x 2.55	3.46 x 3,5 x 2.56
Replacement Cartridges					
Phase Product ID			OVR PV T2 40-600 C QS 2CTB804153R3100	OVR PV T2 40-1000 C QS 2CTB804153R3200	OVR PV T2 40-1000 C QS 2CTB804153R3200
			OVR PV MC C QS 2CTB804153R3500		OVR PV T2 40-1500 C QS 2CTB804153R3300

Protection and safety

Ranges for PV application

Technical features

Types		OVR PV T1-T2 5-1000 P QS	OVR PV T1-T2 12.5-1000 P QS	OVR PV T1-T2 5-1500 P QS	OVR PV T1-T2 10-1500 P QS
With auxiliary contact (TS)		OVR PV T1-T2 5-1000 P TS QS	OVR PV T1-T2 12.5-1000 P TS QS	OVR PV T1-T2 5-1500 P TS QS	OVR PV T1-T2 10-1500 P TS QS
Technology		Varistor	Varistor	Varistor	Varistor
Electrical features					
Standard		IEC61643-11/ IEC 61643-31/	IEC61643-11/ IEC 61643-31/ UL 1449 4 th Ed.	IEC61643-11/ IEC 61643-31/	IEC61643-11/ IEC 61643-31/ UL 1449 4 th Ed.
Type/test class		T1-T2/I-II	T1-T2/I-II	T1-T2/I-II	T1-T2/I-II
Protected lines		2	2	2	2
Types of networks		Photovoltaic	Photovoltaic	Photovoltaic	Photovoltaic
Type of current		DC	DC	DC	DC
Nominal Voltage Un (L-N)/L-L	[V]	1000	1000	1500	1500
Max. cont. Operating voltage Ucpv	[V]	1100	1100	1500	1500
Max.cont.operating voltage accroding UL (MCOV)		1100	1100	1500	1500
Impulse current Iimp (10/350)	[kA]	5	6.26	5	5
Total discharge current Itotal (10/350)	[kA]	5	12.5	5	10
Maximum discharge current Imax (8/20)	[kA]	40	40	30	30
Nominal discharge current In (8/20)	[kA]	20	20	20	20
Voltage protection level Up at In (L-L/L-N)	[kV]	3,8	3.8	5	5
Voltage protection rating according UL (VPR (L+/G, L-/G, L+/L-))	[kV]	3,8	2.5/2.5/2.5	-	4/4/4
Response time	[ns]	<25	<25	<25	<25
Short circuit DC current Iscpv	[A]	11	11	11	11
Short circuit withstand according (Logo UL) (Sccr)	[kA]	-	50	-	65
Disconnector Fuse		no need up to 11 kA	no need up to 11 kA	no need up to 11 kA	no need up to 11 kA
Circuit breaker		no need up to 11 kA	no need up to 11 kA	no need up to 11 kA	no need up to 11 kA
Pluggable cartridge		Yes	Yes	Yes	Yes
Integrated specific thermal disconnector		Yes	Yes	Yes	Yes
State indicator		Yes	Yes	Yes	Yes
Safety Reserve		No	No	No	No
Auxiliary contact		Yes (TS option)	Yes (TS option)	Yes (TS option)	Yes (TS option)
Installation					
Wire range Solid wire	[mm ²]	2.5....35	2.5....35	2.5....35	2.5....35
(L, N, PE) Stranded wire	[mm ²]	2.5....25	2.5....25	2.5....25	2.5....25
Stripping length (L,N,PE)	[mm ²]	12.5	12.5	12.5	12.5
Tightening torque (L, N, PE)	[N.m]	4.5	4.5	4.5	4.5
Auxiliary contact (TS)					
Contact complement		1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Minimum load		12 V DC - 0,5 mA	12 V DC - 0,5 mA	12 V DC - 0,5 mA	12 V DC - 0,5 mA
Maximum load		250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A
Connection cross-section		1.5	1.5	1.5	1.5
Miscellaneous characteristics					
Stocking and operating temperature	[°C]	-40 to +85	-40 to +85	-40 to +85	-40 to +85
Maximal Altitude	[m]	4000	4000	4000	4000
Humidity Rate HR		95%	95%	95%	95%
Degree of protection		IP 20	IP 20	IP 20	IP 20
Fire resistance according to UL 94		V0	V0	V0	V0
Dimensions height x width	[mm]	95 x 54 x 86	95 x 54 x 86	95 x 54 x 86	95 x 54 x 86
depth	[inches]	3.74 x 2.12 x 3.38	3.74 x 2.12 x 3.38	3.74 x 2.12 x 3.38	3.74 x 2.12 x 3.38
With auxiliary contact (TS) height x width	[mm]	110 x 54 x 86	110 x 54 x 86	110 x 54 x 86	110 x 54 x 86
depth	[inches]	4.33 x 2.12 x 3.38	4.33 x 2.12 x 3.38	4.33 x 2.12 x 3.38	4.33 x 2.12 x 3.38
Replacement cartridges					
Phase Product ID		OVR PV T1-T2 5-1000 C QS 2CTB812052R1000	OVR PV T1-T2 12.5-1000 C QS 2CTB812122R1000	OVR PV T1-T2 5-1500 C QS 2CTB812052R1500	OVR PV T1-T2 10-1500 C QS 2CTB812102R1500
		-	OVR PV T1-T2 12.5-1000 M C QS 2CTB812122R1001	-	OVR PV T1-T2 10-1500 M C QS 2CTB812102R1501

Protection and safety

Ranges for PV application

Specifically designed for photovoltaic DC installations, the OVR PV family provide a safe and reliable surge and lightning protection of solar panels and converters.

The OVR PV QS surge protective devices comply with EN 50539-11 and UL 1449 4th Edition.

Type T1+T2 PV

Protected lines	Impulse current limp 10/350	Total disch. current Itotal 10/350	Max. disch. current Imax 8/20	Nominal current In	Voltage protec. level Up	Max. Bbn cont. 3660308 operat. voltage Ucpv			Weight 1 piece	
	kA	kA	kA	kA	kV	V EAN	Type code	Order code	kg	
1+1 DC	2	-	40	20	2.8/1.4	600	526502	OVR PV T2 40-600 P QS	2CTB804153R2800	0.38
1+1 DC	2	-	40	20	2.8/1.4	600	526519	OVR PV T2 40-600 P TS QS	2CTB804153R2900	0.39
1+1 DC	2	-	40	20	2.8/1.4	600	527318	OVR PV T2 40-600 P QS BULK (30)	2CTB804153Z2800	0.38
1+1 DC	2	-	40	20	2.8/1.4	600	527325	OVR PV T2 40-600 P TS QS BULK (30)	2CTB804153Z2900	0.39
1+1 DC	-	-	40	20	3.8	1100	526243	OVR PV T2 40-1000 P QS	2CTB804153R2400	0.38
1+1 DC	2	-	40	20	3.8	1100	526434	OVR PV T2 40-1000 P TS QS	2CTB804153R2500	0.39
1+1 DC	2	-	40	20	3.8	1100	526748	OVR PV T2 40-1000 P QS BULK (30)	2CTB804153Z2400	0.36
1+1 DC	2	-	40	20	3.8	1100	526755	OVR PV T2 40-1000 P TS QS BULK (30)	2CTB804153Z2500	0.39
2+2 DC	2	-	40	20	3.8	1100	526199	OVR PV T2 40-1000 P TS TWIN QS	2CTB804153R2300	0.65
2+2 DC	2	-	40	20	3.8	1100	527295	OVR PV T2 40-1000 P TS TWIN QS BULK (4)	2CTB804153Z2300	0.65
1+1 DC	5	5	40	20	3.8/3.8	1100	4,05355E+12	OVR PV T1-T2 5-1000 P QS	2CTB812050R1000	0.397
1+1 DC	5	5	40	20	3.8/3.8	1100	4,05355E+12	OVR PV T1-T2 5-1000 P TS QS	2CTB812051R1000	0.406
1+1 DC	6,25	12.5	40	20	3.8/3.8	1100	4,05355E+12	OVR PV T1-T2 12.5-1000 P QS	2CTB812120R1000	0.453
1+1 DC	6,25	12.5	40	20	3.8/3.8	1100	4,05355E+12	OVR PV T1-T2 12.5-1000 P TS QS	2CTB812121R1000	0.462
1+1 DC	5	5	30	20	5/5	1500	4,05355E+12	OVR PV T1-T2 5-1500 P QS	2CTB812050R1500	0.488
1+1 DC	5	5	30	20	5/5	1500	4,05355E+12	OVR PV T1-T2 5-1500 P TS QS	2CTB812051R1500	0.497
1+1 DC	5	10	30	20	5/5	1500	4,05355E+12	OVR PV T1-T2 10-1500 P QS	2CTB812100R1500	0.488
1+1 DC	5	10	30	20	5/5	1500	4,05355E+12	OVR PV T1-T2 10-1500 P TS QS	2CTB812101R1500	0.497
1+1 DC	2	-	40	10	4.5	1500	526465	OVR PV T2 40-1500 P QS	2CTB804153R2600	0.47
1+1 DC	2	-	40	10	4.5	1100	526472	OVR PV T2 40-1500 P TS QS	2CTB804153R2700	0.48
1+1 DC	2	-	40	10	4.5	1500	527332	OVR PV T2 40-1500 P QS BULK (30)	2CTB804153Z2600	0.47
1+1 DC	2	-	40	10	4.5	1500	527301	OVR PV T2 40-1500 P TS QS BULK (30)	2CTB804153Z2700	0.48



OVR PV T1-T2-5-1000 P TS QS



OVR PV T1-T2-10-1500 P TS QS

Protection and safety

Ranges for PV application – Comparing the two versions

OVR PV T1-T2 QS , OVR PV T2 QS

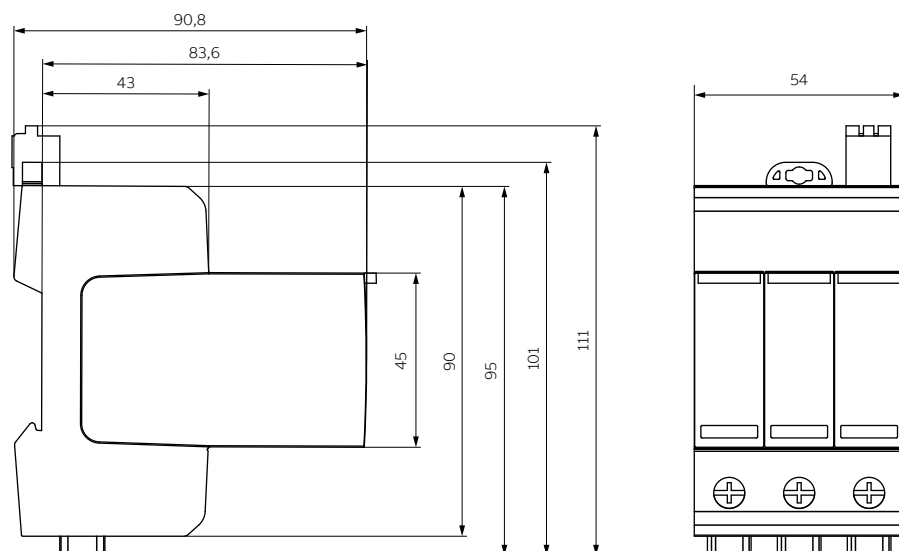
- 3 TE
- Pluggable cartridge
- Bottom wiring
- Self protected up to ISCPV 11 kA
- L+, L-protection
- Auxiliary contact (option)
- EN50539
- UL 1449 4th
- MOV technology

Type	OVR PV T2 40-1000 P TS QS	OVR PV T1-T2 5-1000 P TS QS
 		
Class I (Type 1) SPD	No	Yes
Class II (Type 2) SPD	Yes	Yes
EN 50539 conformity	Yes	Yes
UL 1449 4ed approval (Type 1CA)	Yes	No
Dimensions (H x W x D)	95 x 53.4 x 58 mm	110 x 54 x 86 mm
Wires coming from	Bottom	Bottom
Auxiliary location	Top	Top
I _{max}	40kA	40kA
I _{imp}	2kA	5kA
I _{total} (10/350μs)	-	5kA
U _p	3.8kV	3.8kV
V _{PR}	4kV	-
ISCPV	10kA	11kA

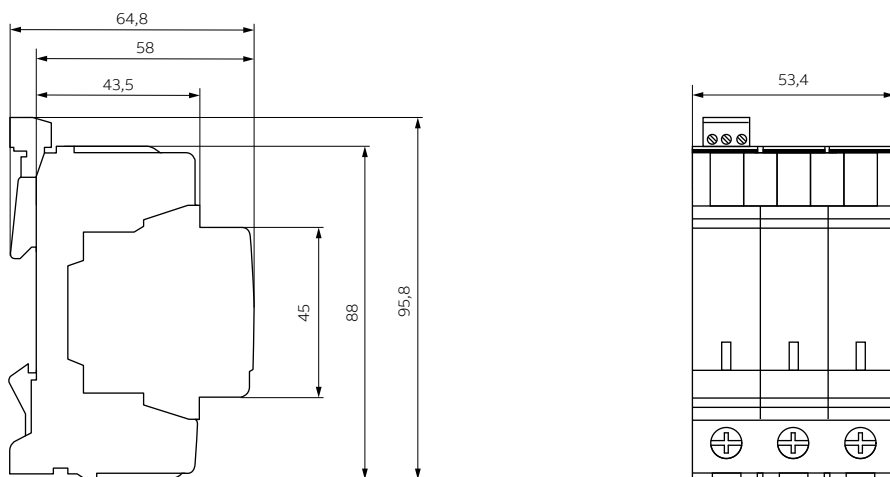
Protection and safety

Ranges for PV application – Overall dimensions

OVR PV T1-T2 QS Series



OVR PV T2 QS Series



All measurements in mm

Protection and safety

E 90 PV 1500 fuse holder

Technical features



E 90 PV 1500

Type		E90/32 PV 1500
Reference standards	-	IEC 60269-1,-2,-6 UL 4248-19
Rated current	[A]	32 (acc. IEC) / 30 (acc. UL)
Rated operational voltage	[V]	1500 V DC
Fuse size	[mm]	10x85 and 10/14x85
Max. power dissipation accepted	[W]	6
Tightening torque	[Nm]	PZ2 2-2.5 Nm (PZ2 18-22 lb-in)
Protection degree	-	IP20
Cross section rigid copper conductors (1 wire)	[mm²]	16-10 AWG
Cross section stranded copper conductors (1 wire)	[mm²]	0.75 – 25 (18-4 AWG)
Cable temperature	[°C]	max 90 (acc. UL)
Operating temperature	[°C]	> -5
Storage temperature	[°C]	> -25
Approvals	-	UL , CCC

E 90 PV fuse holder

The E 90 PV 1500 series of fuse holders has been designed for applications up to 1500 V DC. Thanks to their rated voltage up to 1500 V DC they are the ideal solution for protecting cells and inverters. In case of maintenance, they ensure isolation of circuits and strings up to 1500 V in direct current, in total safety. The main features of E 90 PV 1500 fuse holders include venting grooves and cooling chambers which improved heat dissipation.

E 90 PV fuse holder for 10 x 85 mm and 10/14 x 85 mm fuses

Poles	Rated current	Width	Bbn 8012542	Price 1 piece	Weight 1 piece	Pack unit
	In		EAN	Type code	Order code	kg pc.
1	32	22.5	020417	E91/32 PV1500e	2CSM202041R1801	0.080 5
1	32	22.5	743613	E91/32 PV1500e	2CSM274361U1801	0.080 60

Command and signaling

RI, BR, TSM, TSR bells and buzzers

Technical characteristics

Type		RI12, BR12	RI230, BR230	TSM, TSR
	Rated voltage Un	[Vac]	12	230
	Rated frequency	[Hz]	50/60	50
	Power consumption	[VA]	4	5,5
	Sound level	Bell [dB]	80 ⁽¹⁾	80 ⁽²⁾
		Buzzer [dB]	70 ⁽¹⁾	70 ⁽²⁾
		Three-tones [dB]		84 ⁽²⁾
Max permanent working time		max 15 sec., after a rest time last 60 sec.		TSM: 1 min TSR: 5 min
Type of sound signal		D	D	
Duration of operation		discontinuous	discontinuous	discontinuous
Max cable cross-section		[mm²]	4	10
Mounting position		flexible	flexible	vertical only
Protection degree		IP20	IP20	IP20-IP40
Modules (18mm)		[No.]	1	2
Standard		EN 62080	EN 62080	EN 62080

⁽¹⁾ at 0.6 meter distance

⁽²⁾ at 1 meter distance

Bells and buzzers

The range of bell and buzzer includes modular versions as 12V or 230V types for acoustic signaling in residential and commercial sectors as well as industry application such as alarms notification, supervision and intensive use (schools, factories etc...). TSM and TSR versions also include a transformer: the input is 230V a.c. and the bell is supplied in 12 or 24 V.

RI electro-mechanical modular bells

Rated voltage	Bbn		Price	Weight	Pack
	8012542		1 piece	1 piece	unit
V AC	EAN	Type code	Order code	kg	pc.
12	258810	RI12	2CSM232345R0821	0.081	10
230	258919	RI230	2CSM232335R0821	0.083	10

BR electro-mechanical modular buzzers

Rated voltage	Bbn		Price	Weight	Pack
	8012542		1 piece	1 piece	unit
V AC	EAN	Type code	Order code	kg	pc.
12	273813	BR12	2CSM232365R0821	0.075	10
230	258711	BR230	2CSM232355R0821	0.077	10

Command and signaling

E290 60Hz Mechanical Latching Relay

Technical data

E290 Latching Relay



General

Overall depth	68 mm
Overall width	1 module (18 mm)
Color	grey, RAL 7035
Climate resistance in accordance with	IEC 60068-2-2 (dry heat) IEC 60068-2-30 (humid heat) IEC 60068-2-1 (low temperature)
Ambient temperature	-25 °C to +55 °C
Storage temperature	-40 °C to +70 °C
Contact system	Double interruption
Tightening torque	1.2 - 1.5 Nm
Weight	0.122 kg
Standards	50 Hz IEC/EN 60669-1; IEC/EN 60669-2-2 60 Hz IEC 60669-1; IEC 60669-2-2
Approvals	50 Hz VDE; EAC 60 Hz RINA

Power Circuit

Rated Current I_n			
E290-16-.../...	16 A		–
E290-32-.../...	–		32 A
Rated voltage U_n	250 VAC		250 VAC
Frequency	50/60 Hz		50/60 Hz
Short circuit withstand capacity I_{nc}	3 kA		3 kA
Back-up fuses (gL)	max. 16 A		max. 32 A
Latching Relay contact configurations for 16 A and 32 A Additional power contacts for 16 A (attachable) (not for 32 A version)		1NO; 2NO; 1NO + 1NC 1CO; 2NO; 1NO + 1NC	
Max. DC current per contact with 24 VDC	5 A		8 A
Bounce time	50 Hz	< 3 ms	
	60 Hz	< 6 ms	
Power loss in W per contact	0.32 W		1.2 W
Rated impulse withstand voltage U_{imp}		4 kV	

Max. lamp load

Glow lamps (20 W - 200 W)	3 000 W		4 000 W
Flourescent lamps, uncorrected power factor (cos. 0.5)	1 800 W		2 200 W
Flourescent lamps, corrected power factor (cos. 0.9)			
serial	3 000 W		4 000 W
parallel	2 500 W		3 200 W
single	1 800 W		2 200 W
double	2 500 W		3 200 W

Command and signaling

E290 60Hz Mechanical Latching Relay

Technical data

Lifetime (switching cycles)								
Electrical (AC1 rated current load)			150 000					
Mechanical			250 000					
Connector cross-sections								
Connecting terminals			solid from 1x1 mm² to 1x10 mm² or 2x2.5 mm² flexible from 1x0.75 mm² to 1x16 mm² (Cu) with end ferrule or pin cable lug					
Control Circuit								
Rated control voltages U _n								
AC:			8 V;	12 V;	24 V;	48 V;	115 V;	230 V
DC:			–;	–;	12 V*;	24 V;	60 V*;	110 V*
			* for 50 Hz devices only					
AC/DC ratio ¹⁾			1: 0.5 (not available for 8 VAC and 12 VAC coils)					
Operation limits			+/- 10% = 0.9 - 1.1 x U _n					
Minimum command duration			50 ms					
Max. switching operations			15 x per min. at I _n 16 A; 8 x per min. at I _n 32 A					
switching noise			60 dB (A) (distance 1 m)					
Max. glow lamp current parallel to the 230 V control buttons			5 mA					

Coil Consumption – E290 Latching Relay

Product type	Control voltage	Coil consumption average pull-in current	Control voltage	Coil consumption average pull-in current
	V AC	A	V DC	A
E290	230	0.062	110*	0.057*
	115	0.070	60*	0.105*
	48	0.212	24	0.207
	24	0.434	12*	0.558*
	12	1.263	–	–
	8	2.048	–	–
E291S*	230	0.051	110	0.047
	24	0.378	12	0.355
	12	0.803	–	–
	8	1.088	–	–
E294	230	0.120	–	–
	24	0.684	–	–

1) Coil supply voltage: All E290 50Hz devices can be supplied with AC or DC control voltage.
The ratio of 1 : 0.5 applies, i.e. a 230 VAC coil can also be used for 110 VDC. (See Ordering data.)

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

* for 50 Hz devices only

Command and signaling

E290 60Hz Mechanical Latching Relay

Technical data

Switching components for E290

E292-16-... Contact Module (attachable only to 16 A I_n version)	
Rated current I _n per E292 contact	16 A
Rated voltage U _n	250 VAC
Frequency	50/60 Hz
Max. no. attachable (additional main contacts)	1 unit (attachable on the right side of the main module)
Contact configurations	1CO; 2NO; 1NO+1NC
Max. DC current per contact with 24 VDC	8 A
Min. switching load (for 50 Hz devices only)	24 V; 10 mA
E299-... Auxiliary Contacts	
Max. no. attachable (signaling or control contacts)	1 unit (attachable on the right side of the main module)
Number of contacts	1 NO + 1 NC; 2 NO
Min. switching load	24 V, 10 mA
Max. current per contact with AC	5.0 A
Max. current per contact with 24 VDC	5.0 A

Control components for E290

E294 Central On-Off Control Module (different control voltage potential)	
Max. no. attachable	1 unit (attachable on the left side of the main module)
Rated current I _n max.	1 A
Rated voltage U _n	250 VAC
E295-PS Permanent Signal Module	
Max. no. attachable	1 unit (attachable on the left side of the main module)
Rated current I _n max.	1 A
Rated voltage U _n	250 VAC
E295-GM Group Module	
Use of group switching modules	1 unit per defined group
Rated current I _n max.	1 A
Rated voltage U _n	250 VAC
E296-CP Compensator	
Compensation when using illuminated buttons	Wiring parallel to the main module
Compensation	2.2 µF
Rated voltage U _n	50 Hz 250 VAC
	60 Hz 310 VAC

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

Command and signaling

E290 60Hz Mechanical Latching Relay

Ordering data

Standard devices – E290 60 Hz Latching Relay

Cont. config.	Rated Voltage	Power loss 	Width mm	Coil control voltage VAC/VDC	Bbn 7612271 EAN	Type code	Order code	Weight per unit kg	Pack. unit units
Rated current = 16 A									
1NO	250	0.32	18	230VAC	503901	E290-16-10/230-60	2TAZ352000R2011	0.111	10
1NO	250	0.32	18	115VAC	504328	E290-16-10/115-60	2TAZ352000R2021	0.111	10
1NO	250	0.32	18	48VAC	504359	E290-16-10/48-60	2TAZ352000R2031	0.111	10
1NO	250	0.32	18	24VAC	504380	E290-16-10/24-60	2TAZ352000R2041	0.111	10
1NO	250	0.32	18	24VDC	504472	E290-16-10/24DC	2TAZ352000R2071	0.111	10
1NO	250	0.32	18	12VAC	504410	E290-16-10/12-60	2TAZ352000R2051	0.111	10
1NO	250	0.32	18	8VAC	504441	E290-16-10/8-60	2TAZ352000R2061	0.111	10
2NO	250	0.64	18	230VAC	503918	E290-16-20/230-60	2TAZ352000R2012	0.122	10
2NO	250	0.64	18	115VAC	504335	E290-16-20/115-60	2TAZ352000R2022	0.122	10
2NO	250	0.64	18	48VAC	504366	E290-16-20/48-60	2TAZ352000R2032	0.122	10
2NO	250	0.64	18	24VAC	504397	E290-16-20/24-60	2TAZ352000R2042	0.122	10
2NO	250	0.64	18	24VDC	504489	E290-16-20/24DC	2TAZ352000R2072	0.122	10
2NO	250	0.64	18	12VAC	504427	E290-16-20/12-60	2TAZ352000R2052	0.122	10
2NO	250	0.64	18	8VAC	504458	E290-16-20/8-60	2TAZ352000R2062	0.122	10
1NO+1NC	250	0.50	18	230VAC	504311	E290-16-11/230-60	2TAZ352000R2013	0.121	10
1NO+1NC	250	0.50	18	115VAC	504342	E290-16-11/115-60	2TAZ352000R2023	0.121	10
1NO+1NC	250	0.50	18	48VAC	504373	E290-16-11/48-60	2TAZ352000R2033	0.121	10
1NO+1NC	250	0.50	18	24VAC	504403	E290-16-11/24-60	2TAZ352000R2043	0.121	10
1NO+1NC	250	0.50	18	24VDC	504496	E290-16-11/24DC	2TAZ352000R2073	0.121	10
1NO+1NC	250	0.50	18	12VAC	504434	E290-16-11/12-60	2TAZ352000R2053	0.121	10
1NO+1NC	250	0.50	18	8VAC	504465	E290-16-11/8-60	2TAZ352000R2063	0.121	10
Rated current = 32 A									
1NO	250	1.20	18	230VAC	504502	E290-32-10/230-60	2TAZ362000R2011	0.111	10
1NO	250	1.20	18	115VAC	504533	E290-32-10/115-60	2TAZ362000R2021	0.111	10
1NO	250	1.20	18	48VAC	504564	E290-32-10/48-60	2TAZ362000R2031	0.111	10
1NO	250	1.20	18	24VAC	504595	E290-32-10/24-60	2TAZ362000R2041	0.111	10
1NO	250	1.20	18	12VAC	504625	E290-32-10/12-60	2TAZ362000R2051	0.111	10
1NO	250	1.20	18	8VAC	504656	E290-32-10/8-60	2TAZ362000R2061	0.111	10
2NO	250	2.40	18	230VAC	504519	E290-32-20/230-60	2TAZ362000R2012	0.123	10
2NO	250	2.40	18	115VAC	504540	E290-32-20/115-60	2TAZ362000R2022	0.123	10
2NO	250	2.40	18	48VAC	504571	E290-32-20/48-60	2TAZ362000R2032	0.123	10
2NO	250	2.40	18	24VAC	504601	E290-32-20/24-60	2TAZ362000R2042	0.123	10
2NO	250	2.40	18	12VAC	504632	E290-32-20/12-60	2TAZ362000R2052	0.123	10
2NO	250	2.40	18	8VAC	504663	E290-32-20/8-60	2TAZ362000R2062	0.123	10
1NO+1NC	250	1.20	18	230VAC	504526	E290-32-11/230-60	2TAZ362000R2013	0.121	10
1NO+1NC	250	1.20	18	115VAC	504557	E290-32-11/115-60	2TAZ362000R2023	0.121	10
1NO+1NC	250	1.20	18	48VAC	504588	E290-32-11/48-60	2TAZ362000R2033	0.121	10
1NO+1NC	250	1.20	18	24VAC	504618	E290-32-11/24-60	2TAZ362000R2043	0.121	10
1NO+1NC	250	1.20	18	12VAC	504649	E290-32-11/12-60	2TAZ362000R2053	0.121	10
1NO+1NC	250	1.20	18	8VAC	504670	E290-32-11/8-60	2TAZ362000R2063	0.121	10

Command and signaling

E290 60Hz Mechanical Latching Relay

Ordering data of accessories

Accessories and additional devices for combinations with Latching relays

Cont. config.	Rated Voltage	Power loss 	Width mm	Coil control voltage VAC/VDC	Bbn 7612270 EAN	Type code	Order code	Weight per unit kg	Pack. unit units
Main Contact Module (Rated current = 16 A)									
1NO+1NC	250	0.32	9		503017	E292-16-11-60	2CCA704306R0001	0.045	10
2NO	250	0.64	9		503024	E292-16-20-60	2CCA704305R0001	0.045	10
1CO	250	0.32	9		503000	E292-16-001-60	2CCA704307R0001	0.045	10
Central ON-OFF Control Module (with different control voltages)									
			18	230VAC	504687	E294/230-60	2TAZ352001R2013	0.110	5
			18	24VAC	504694	E294/24-60	2TAZ352001R2043	0.109	5
Permanent Signal Module									
			9		939459	E295-PS	2TAZ312005R1003	0.041	10
Group Module									
			18		939466	E295-GM	2TAZ310002R1000	0.059	10
Compensator									
			18		939473	E296-CP	2TAZ310003R1000	0.055	10
Auxiliary Contact for Latching and Installation Relays (Rated current = 5 A)									
1NO+1NC	250	0.10	9		503031	E299-11-60	2CCA704342R0001	0.045	10
2NO	250	0.10	9		503048	E299-20-60	2CCA704343R0001	0.045	10
Intermediate piece (for heating dissipation – bag contains 5 items)									
			18		100989	ZLS725	2CCS500900R0181	0.100	1 bag
			9		104703	ZLS726	2CCS400900R0091	0.070	1 bag

* with Bbn 7612271

NO = normally-open contact; NC = normally-closed contact; CO = changeover contact

Control and automation

Load management relay

Technical characteristics



LCR

Input			
Rated voltage Un	[Vac]	230 (-15%/+10%)	
Rated frequency	[Hz]	50/60	
Rated capacity In	[A]	32	
Power consumption	[VA]	4	
Display			
Type of display		backlit LCD	
Resolution	[kW]	0.01	
Display dimensions	[mm]	27 × 23	
Non-priority load			
Regulating thresholds	[kW]	0.8..7	
Resolution of threshold	[kW]	0.1	
Delay of loads disconnection	[sec]	0..9999	
Delay between one connection and the next one	[sec]	0..9999	
Alarm notification		LED // buzzer	
Relay output			
Rated current	[A]	16	
Rated voltage	[Vac]	250	
Climatic conditions			
Storage temperature		-10°C to +65°C	
Operating temperature		-10°C to +45°C	
Relative humidity		max. 90% (non-condensing)	
Protection degree			
At terminals		IP20	
On the front panel		IP51	
Max cable cross-section			
	rigid	[mm²]	4
	flexible	[mm²]	6
Modules (18mm)		[No.]	2

Load management relay - LCR

Installed downstream of the main circuit-breaker, it compares the actual power consumption of the system to a preset maximum permitted value. Additionally, the load management relay prevents tripping of the main circuit-breaker by sequentially switching off one non-priority load when the preset threshold is exceeded. One red LED and an integrated buzzer indicate the load OFF conditions. At preset time intervals, the device automatically attempts to reconnect the previously disabled load.

Note: In unbalanced three phase systems same function of LCR can be implemented via DMTME multimeters. Digital outputs of the multimeter can be set to trip with an user defined delay to switch off - by means of external contactors - non priority loads of arbitrary consumption. See for details in Chapter 8 of Electrical installation solutions for buildings.

Rated current	Bbn 8012542			Price 1 piece	Weight 1 piece	Pack unit
A	EAN	Type code	Order code		kg	pc.
32	299011	LCR	2CSM229901R1311		0.135	1

M4M Network Analyzers

Accurate electrical measuring and power monitoring.

Simple in every aspect, M4M enables accurate energy efficiency evaluations and perfectly fits the ABB solution for monitoring, optimization and control of electrical system.



The image shows the front panel of the ABB M4M 30 Network Analyzer. It features a color LCD screen displaying a 'Home' menu with four large blue buttons: 'Graphs', 'Data Reading', 'Historicals', and 'Configuration'. The top of the screen has a red header with the 'ABB' logo and 'M4M 30'. Below the screen is a small red indicator light. Red lines connect the text blocks to specific features of the device.

Accurate measurement
Class 0.5 measurement according to IEC 61557-12 and advanced power quality functionalities, including historical measurements.

Clear visualization
Color display and App-structured menu for advanced graphic visualization.

Smart commissioning
Bluetooth module for easy configuration through EPiC Mobile App unique commissioning tool.

Intuitive access
Simplified access to the device via touch screen display or 5 pushbuttons keypad.



The image shows the back panel of the ABB M4M 30 Network Analyzer. It features a central rectangular cutout for a terminal block, with green terminal blocks on the left and right sides. Red lines connect the text blocks to specific features of the back panel.

Full communication
ABB Ability™ native network analyzers with complete communication protocols and I/O options for integration in any system.

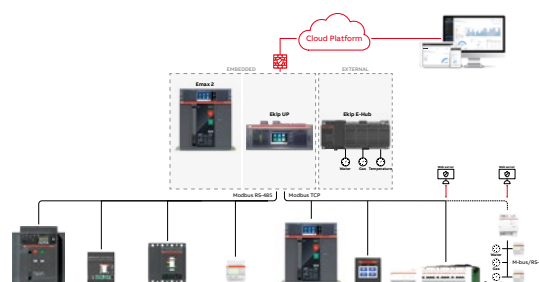
Easy to install
Fast one-hand mounting and comfortable installation with clips in only 57 mm depth inside the panel.

Fast wiring
All-removable terminals and one tool process to speed up the wiring activities.



Intuitive interface

Touchscreen display and easy-to-access App-structured menu make network analyzers' configuration and operation simple and quick. Graphic color display for advanced visualization of the Class 0,5S accurate parameters, interactive pop-ups and complete notifications. Quick navigation is ensured by Homepage and favorite page setting.



Full integration

ABB Ability™-native network analyzers, automatically integrated in ABB Ability™ Electrical Distribution Control System cloud-computing platform, allowing to monitor, optimize and control the complete electrical system. Wide integration in all main applications through embedded communication protocols (Modbus RTU, Modbus TCP/IP, BACnet/IP, Profibus DP V0).



Smart commissioning

All M4M network analyzers are equipped with Bluetooth BLE module, ensuring smart configuration and quick visualization via unique EPiC commissioning tool, both available as mobile App and desktop software. Availability of remote firmware update regularly at any time guarantees the latest and the most secure version of the device with no impact on operations.

Installation in any panel

Comfortable installation and secure fix on the panel is ensured by the easy-to-use clips, with different thickness setup for compatibility with any panel. One-hand mounting of the device thanks to the hooks on the housing. The reduced depth of only 57 mm inside the panel makes M4M suitable even in small-size switchboards.



Fast installation and wiring

All terminals on M4M are removable, including the current transformers (CTs) inputs for current measurement, allowing to carry out the wiring directly on the terminals and speeding up the process. Moreover, the vertical disposition of the terminals makes the cabling inside the switchboard more comfortable.



Rogowski coils compatibility

Specific M4M versions compatible with ABB's R4M Rogowski coils allow to retrofit in existing installations, integrating power quality metering with 0 downtime. The pre-wired terminals of R4M coils allow to save up to 70% time for current transformers cabling compared to standard CTs.

Energy efficiency

Network analyzers – M4M 20 and M4M 30

Technical features

Type	M4M 20 - Class 0,5S		M4M 30 - Class 0,5S
			
Auxiliary power supply			
Voltage range	[V]	48 - 240 VAC/VDC ±15%	
Frequency	[Hz]	50 or 60 ± 5%	
Power Consumption	[W]	5.0 W / 16.0 VA / 15.2 VAR max	
Installation category		CAT III 300V class per IEC 61010-1 edition 3	
Protection fuse		T1 A - 277 VAC	
Measurement accuracy*			
Measurement type		True RMS up to the 40 th harmonic 128 samples per cycle, zero blind	
IEC 61557-12		IEC 61557-12 PMD/S/K70/0,5 Class 0,5 acc. to IEC 61557-12 [*]	
Active energy		Class 0,5S acc. to IEC 62053-22	
Reactive energy		Class 2 acc. to IEC 61557-12 Class 2S acc. to IEC 62053-23	
Active power		Class 0,5 acc. to IEC 61557-12	
Reactive power		Class 2 acc. to IEC 61557-12	Class 1 acc. to IEC 61557-12
Apparent power		Class 0,5 acc. to IEC 61557-12	
Voltage		Class 0,2 acc. to IEC 61557-12	
Current		Class 0,2 acc. to IEC 61557-12	
Neutral current		Calculated	Class 0,2 acc. to IEC 61557-12
Frequency		Class 0,1 acc. to IEC 61557-12	
Unbalances (Current, Voltage)		Class 0,2 acc. to IEC 61557-12	
Harmonics, THD (Current, voltage)		Class 1 acc. to IEC 61557-12	
Voltage measurement inputs			
Measurement range	[V]	50 - 400 VAC (L-N) 87 - 690 VAC (L-L)	
Measurement category		400V~ (CAT III)	
Rated frequency	[Hz]	50-60 Hz	
Max. VT Primary (indirect connection)	[V]	60000	
Max over voltage	[V]	800 VAC (L-L)	
Protection fuse	[V]	T1 A - 277 VAC	

*Accuracy referred to insertion with .../5A CT or Rogowski coils, according to product version. Derating for .../1A CT.

Energy efficiency

Network analyzers – M4M 20 and M4M 30

Technical features

Type	M4M 20 - Class 0,5S	M4M 30 - Class 0,5S
		
Current measurement inputs		
Number of current inputs	3 (L1, L2, L3)	4 (L1, L2, L3, N)
Indirect insertion with CT		
CT rated secondary current	5 A (Class 0.5S) 1 A (Class 1)	
Measurement range without accuracy derating	50 mA - 6 A	
Starting current	5 mA	
Burden	0.024 VA at 6 A	
Indirect insertion with Rogowski coils	M4M 20 Rogowski	M4M 30 Rogowski
Rated current	10,000 A	
Measurement range without accuracy derating	100 A - 12 kA	
Starting current	[A]	10 A
I/O		
Digital Output		
Voltage (min - max)	5 - 240 VAC/DC	
Current (min - max)	2 - 100 mA	
Max ON state drop voltage	1.5 V	
Max R value at Min voltage conditions (5 V)	1750 Ohm	
Min R value at Max voltage conditions (240 V)	2400 Ohm	
Pulse duration	[ms]	20 ms ON, 20 ms OFF
Pulse frequency	25 Hz	
Alarm activation delay	[s]	1 - 900 s (programmable)
Alarm return hysteresis	0 - 40% (programmable)	
Digital Input		
Maximum voltage	240 VAC/DC	
Max voltage for OFF state on input	20 VAC/DC	
Min voltage for ON state on input	45 VAC/DC	
Analogue Output		
Programmable electrical span	Span [0 - 20 mA or 4 - 20 mA]	
Load	Typical 250 Ohm, max 500 Ohm	

Energy efficiency

Network analyzers – M4M 20 and M4M 30

Technical features

Type	M4M 20 - Class 0,5S		M4M 30 - Class 0,5S
 			
Mechanical characteristics			
Overall dimensions	96 mm × 96 mm × 77 mm (Depth inside the switchboard: 57 mm)		
IP degree of protection (acc. to IEC 60529)	Front: IP54 Terminals: IP20		
Weight	[g]	400	
Terminal characteristics			
Voltage inputs	Nominal cross section: 2.5 mm ² Solid/stranded wire: 0.2 - 2.5 mm ² (AWG 24 - 12) Pitch: 7.62 mm Poles: 4		
Current inputs	Nominal cross section: 2.5 mm ² Solid/stranded wire: 0.2 - 2.5 mm ² (AWG 24 - 12) Pitch: 5.08 mm Poles: 6 Screw flanges for fixing	ominal cross section: 2.5 mm ² Solid/stranded wire: 0.2 - 2.5 mm ² (AWG 24 - 12) Pitch: 5.08 mm Poles: 8 Screw flanges for fixing	
RS-485 Serial port	Nominal cross section: 2.5 mm ² Solid/stranded wire: 0.2 - 2.5 mm ² (AWG 24 - 12) Pitch: 5.08 mm Poles: 3		
I/O	Nominal cross section: 2.5 mm ² Solid/stranded wire: 0.2 - 2.5 mm ² (AWG 24 - 12) Pitch: 5.08 mm Poles: 3 (Programmable I/O, only on M4M 20 I/O) Poles: 3 (Digital outputs) Poles: 3 (Analogue outputs, only on M4M 20 I/O)	Nominal cross section: 2.5 mm ² Solid/stranded wire: 0.2 - 2.5 mm ² (AWG 24 - 12) Pitch: 5.08 mm Poles: 5 (Programmable I/O) Poles: 3 (Programmable I/O only on M4M 30 I/O) Poles: 3 (Analogue outputs, only on M4M 30 I/O)	
Rogowski current probes	Only with ABB Rogowski probes: - R4M-200 2CSG202150R1101 (200 mm diameter) - R4M-80 2CSG202160R1101 (80 mm diameter)		
Climatic conditions			
Operating temperature	-25 to 70 °C (K70 acc. to IEC 61557-12)		
Storage temperature	-40 to 85 °C (K70 acc. to IEC 61557-12)		
Relative humidity	Max 93% (non-condensing) at 40°C		
Pollution degree	2		
Altitude	< 2,000 m		
User Interface			
Access to device	5 pushbuttons	Touchscreen	
Display type	Graphic color display		
Display dimensions	70 × 52 mm (3.5")		

Energy efficiency

Network analyzers – M4M 20 and M4M 30

Technical features

Type	M4M 20 - Class 0,5S	M4M 30 - Class 0,5S
		
Communication protocol		
Modbus RTU	M4M 20 Modbus, M4M 20 I/O, M4M 20 Rogowski	M4M 30 Modbus, M4M 30 I/O, M4M 30 Rogowski
Communication interface	RS485 with optical isolation	
Baud rate	4.8, 9.6, 19.2, 38.4 kbps	
Parity number	Odd, Even, None	
Stop bit	1, 2	
Address	1-247	
Connector	3 pole terminal	
Profibus DP-V0	M4M 20 Profibus	M4M 30 Profibus
Protocol	Profibus with slave DP-V0 function in compliance with IEC 61158 regulations	
Communication interface	RS485 with optical isolation	
Baud rate	Automatic detection [9.6 - 12 Mbps]	
Address	0-126	
Connector	DB 9 female connector (do not use connectors with 90° cable outlet)	
LED indicators	Green for communication status Red for communication error	
Modbus TCP/IP	M4M 20 Ethernet	M4M 30 Ethernet
Protocol	Modbus TCP/IP	
Communication interface	RJ45	RJ45 (2 ports for daisy-chain)
BACnet	M4M 20 Bacnet	M4M 30 Bacnet
Protocol	BACnet/IP	
Communication interface	RJ45	
Bluetooth		
Type	BLE (Bluetooth Low Energy)	
Real-time clock		
Clock drift	-	~ 0.4 seconds per day
Battery backup time	-	~ 3 years without control power
Standards		
Power metering and monitoring devices (PMD)	IEC 61557-12 (IEC 62053-22, IEC 62053-23)	
Electrical safety	IEC 61010-1	
EMC	IEC 61326-1 (IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)	

Energy efficiency

Network analyzers – M4M 20 and M4M 30

Comparing the two versions

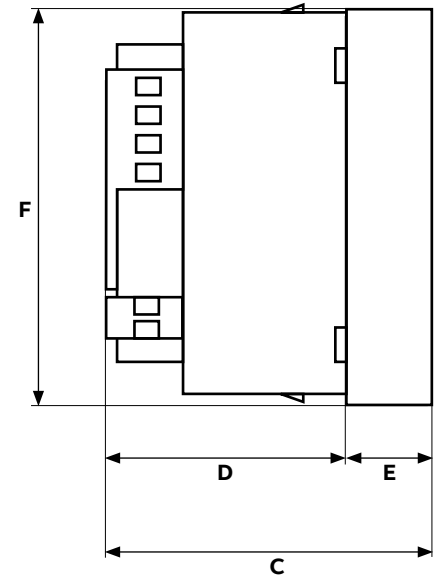
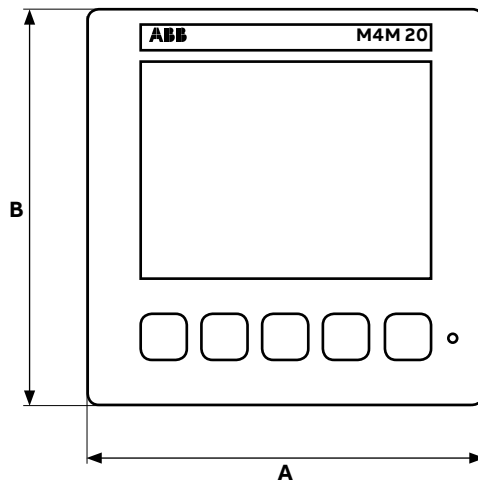
Type	M4M 20 - Class 0,5S	M4M 30 - Class 0,5S
		
Accuracy		
TRMS current	●	●
TRMS Voltage	●	●
Frequency	●	●
Active, Reactive and Apparent Power	●	●
Power Factor	●	●
Operating timer, countdown timer	●	●
Energy		
Active, Reactive and Apparent Energy	●	●
4 quadrants Energy (Import/Export)	●	●
Tariffs	/	●
Power Quality		
THD (I, VLN, VLL)	●	●
Individual Harmonics	/	40th
Unbalances (I, VLN, VLL)	/	●
Neutral current	Calculated	Measured
Phasors (I, VLN)	/	●
Waveforms (I, VLN, VLL)	/	●
Data recording and logs		
Single alarms	25	25
Warnings, alarms and errors log	●	●
Complex alarms with logics	/	4
Demand values (average)	Basic	Advanced
Min/Max Demand values	Basic	Advanced
Energy Trending logs	/	●
RTC	/	●
HMI		
	Graphic color	Graphic color touchscreen
Graphs visualization	Basic	Advanced
Notifications	●	●
Homepage and favourite page	●	●
Password protection	●	●
Connectivity		
Automatic integration in ABB Ability™ EDCS	●	●
Bluetooth Low Energy	●	●
Communication Protocols	Modbus RTU, Modbus TCP/IP, Profibus DP-V0, BACnet/IP	Modbus RTU, Modbus TCP/IP, Profibus DP-V0, BACnet/IP
RJ45 Daisy Chain (Ethernet version)	/	●

Energy efficiency

Network analyzers – Overall dimensions

Dimensions

- A: 96 mm
- B: 96 mm
- C: 77,5 mm
- D: 57 mm
- E: 20,5 mm
- F: 92 mm



Same dimensions for all M4M 20 and M4M 30 versions

Energy efficiency

Network analyzers

M4M 20

M4M 20 is ABB's network analyzer range that provides complete and accurate electrical parameters monitoring and basic power quality analysis.

Equipped with graphic color display for advanced visualization of the measured parameters and Bluetooth module for smart commissioning.



Communication protocol	I/O	Bbn 8012542 EAN	Type	Order code	Weight (1 pce) (kg)	Pack unit pc
BLE	2 Digital out.	511519	M4M 20	2CSG251151R4051	0.400	1
BLE, Modbus RTU	2 Digital out.	511410	M4M 20 Modbus	2CSG251141R4051	0.400	1
BLE, Modbus TCP/IP	2 Digital out.	044710	M4M 20 Ethernet	2CSG204471R4051	0.400	1
BLE, Profibus DP-V0	2 Digital out.	511311	M4M 20 Profibus	2CSG251131R4051	0.400	1
BLE, BACnet/IP	2 Digital out.	368311	M4M 20 Bacnet	2CSG236831R4051	0.400	1
BLE, Modbus RTU	2 Progr. I/O, 2 Digital out., 2 Analogue out.	511618	M4M 20 I/O	2CSG251161R4051	0.400	1

M4M 20 - Rogowski version

M4M 20 is also available as compatible with ABB's R4M Rogowski coils for current measurement, increasing the flexibility of network analyzers offer and allowing retrofit in any existing installations.

M4M 20 Rogowski together with R4M Rogowski coils ensures the integration of basic power quality metering in any existing system with 0 downtime.



Communication protocol	I/O	Bbn 8012542 EAN	Type	Order code	Weight (1 pce) (kg)	Pack unit pc
BLE, Modbus RTU	2 Digital Outputs	070818	M4M 20 Rogowski	2CSG207081R4051	0.400	1

Energy efficiency

Network analyzers

M4M 30

M4M 30 is ABB's network analyzer range that allows complete power quality analysis and energy efficiency evaluations.

Equipped with touchscreen color display for simplified access to the device and with Bluetooth module for smart commissioning, M4M 30 network analyzers allow.



Communication protocol	I/O	Bbn 8012542 EAN	Type	Order code	Weight (1 pce) (kg)	Pack unit pc
BLE, Modbus RTU	4 Progr. I/O	747611	M4M 30 Modbus	2CSG274761R4051	0.400	1
BLE, Modbus TCP/IP	4 Progr. I/O	746812	M4M 30 Ethernet	2CSG274681R4051	0.400	1
BLE, Profibus DP-V0	4 Progr. I/O	367918	M4M 30 Profibus	2CSG236791R4051	0.400	1
BLE, BACnet/IP	4 Progr. I/O	024514	M4M 30 Bacnet	2CSG202451R4051	0.400	1
BLE, Modbus RTU	6 Progr. I/O, 2 Analogue out.	024712	M4M 30 I/O	2CSG202471R4051	0.400	1



M4M 30 - Rogowski version

M4M 30 is also available as compatible with ABB's R4M Rogowski coils for current measurement, increasing the flexibility of network analyzers and allowing retrofit in any existing installations. M4M 30 Rogowski together with R4M coils ensure integration of complete PQ analysis in any existing system with 0 downtime.

Communication protocol	I/O	Bbn 8012542 EAN	Type	Order code	Weight (1 pce) (kg)	Pack unit pc
BLE, Modbus RTU	4 Progr. I/O	024613	M4M 30 Rogowski	2CSG202461R4051	0.400	1

R4M ROGOWSKI COILS

R4M Rogowski coils are flexible current transformer based on Rogowski technology, ideal to retrofit existing installations up to 12kA. Available in two different sizes (80mm or 200mm diameters), R4M coils are directly equipped with pre-wired removable terminals that perfectly fit M4M 20 Rogowski (3 Rogowski coil inputs) and M4M 30 Rogowski (4 Rogowski coil inputs), with no need for external integrators.



Diameter (mm)	Bbn 8012542 EAN	Type	Order code	Weight (1 pce) (kg)	Pack unit pc
80	021605	R4M-80	2CSG202160R1101	0.150	1
200	021506	R4M-200	2CSG202150R1101	0.250	1

SMISSLINE TP plug-in system

RCCB F404 series - B    type for continuous, selective continuous type fault currents technical features

F404 B RCCBs provide additional protection against direct contact and are the right choice to ensure maximum system safety thanks to early detection of fault currents with continuous waveforms or high frequencies.

	Number of poles	Rated residual current IΔn mA	Rated current In A	Bbn 761227			Price 1 piece	Weight 1 piece	Pack unit
				EAN	Type code	Order code		kg	pc.
	4	30	25	1506285	F404B-25/0.03	2CCG000052R0001		0.435	1
	4	30	40	1506292	F404B-40/0.03	2CCG000053R0001		0.435	1
	4	30	63	1506308	F404B-63/0.03	2CCG000054R0001		0.435	1
	4	300	25	1506315	F404B-25/0.3	2CCG000055R0001		0.435	1
	4	300	40	1506322	F404B-40/0.3	2CCG000056R0001		0.435	1
	4	300	63	1506339	F404B-63/0.3	2CCG000057R0001		0.435	1

F 404 B

SMISLINE TP plug-in system

Adapter for motor starter MS116, MS132

Adapter plate for MS325 contact to busbars with plug contacts



Designation	Bbn 761227			Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code		kg	pc.
Adapter MS116/132 L123 wire bottom for push in terminals	1503215	ZMS930-PI	2CCF182550R0001		0.058	1
Adapter MS116/132 L123 wire top for push in terminals	1503208	ZMS932-PI	2CCF182551R0001		0.058	1

SMISLINE TP plug-in system

Incoming terminal block and components

Crosstable old to new

Old range Incoming block		New range incoming block	
Type code	Order code	Type code	Order code
ZLS225	2CCF015197R0001	ZLS924-3L	2CCF181816R0001
ZLS224	2CCF015196R0001	ZLS924-3LN	2CCF181818R0001
ZLS225LAB	2CCA180155R0001	ZLS924-3LNAB	2CCF181820R0001
ZLS224LAB	2CCA180154R0001	ZLS924-3LNAB	2CCF181820R0001
ZLS225R	2CCA180153R0001	ZLS924-3L-R	2CCF181817R0001
ZLS224R	2CCA180152R0001	ZLS924-3LN-R	2CCF181819R0001
ZLS232	2CCF002785R0001	ZLS936	2CCF181805R0001
ZLS233	2CCF002786R0001	ZLS937	2CCF181807R0001
ZLS235	2CCA180069R0001	ZLS939	2CCF181812R0001
ZLS229	2CCF015201R0001	ZLS924-3L	2CCF181816R0001
ZLS228	2CCF015200R0001	ZLS925-3LN	2CCF181818R0001
ZLS229R	2CCF180158R0001	ZLS924-3L-R	2CCF181817R0001
ZLS228R	2CCF180157R0001	ZLS924-3LN-R	2CCF181819R0001

Sales start new range June 2019

Incoming terminal blocks 6 mm² to 50 mm² (2 × 25 mm²) + 2 × 10 mm² (LA, LB)

	Module	Bbn 761227			Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code	kg	pc.
	50 mm ² (2×25 mm ²) 3L left	4	1503086	ZLS924-3L	2CCF181816R0001	0.140	1
	50 mm ² (2×25 mm ²) 3L+N left	4	1503093	ZLS924-3LN	2CCF181818R0001	0.168	1
	50 mm ² (2×25 mm ²) 3L+N+LA+LB left	4	1503109	ZLS924-3LNAB	2CCF181820R0001	0.188	1
	50 mm ² (2×25 mm ²) 3L right	4	1503116	ZLS924-3L-R	2CCF181817R0001	0.140	1
	50 mm ² (2×25 mm ²) 3L+N right	4	1503123	ZLS924-3LN-R	2CCF181819R0001	0.168	1
	50 mm ² (2×25 mm ²) 3L+N+LA+LB right	4	1503130	ZLS924-3LNAB-R	2CCF181821R0001	0.188	1

Terminals for incoming block



Version	Module	Bbn 761227				Price 1 piece	Weight 1 piece	Pack unit
		EAN	Type code	Order code		kg	pc.	
Terminal L	–	1503147	ZLS936	2CCF181805R0001		0.028	1	
Terminal LA LB	–	1503154	ZLS937	2CCF181807R0001		0.010	1	

Cover for incoming terminal block

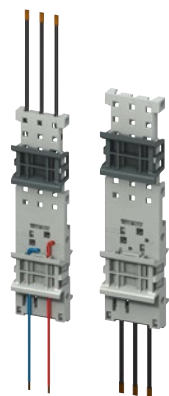
	Version	Module	Bbn 761227				Price 1 piece	Weight 1 piece	Pack unit
			EAN	Type code	Order code		kg	pc.	
		4	1503161	ZLS939	2CCF181812R0001		0.026	1	

SMISSLINE TP plug-in system

Combi module 32 A (IN), 6 A (IA, IB)

MS116/132 + AF contactor

Adapter for manual motor starter MS116 and MS132



Description/ application	Bbn 761227				Price 1 piece	Weight 1 piece	Pack unit
	EAN	Type code	Order code			kg	pc.
Adapter MS116/132 L123L wire bottom feed	1503208	ZMS132-3LWB	2CCF182543R0001			0.105	1
Adapter MS116/132 L123 wire top feed For push terminals	1503178	ZMS132-3L-PI	2CCF182540R0001			0.105	1
Adapter MS116/132 L123LB wire top feed For push terminals	1503185	ZMS132-3LB-PI	2CCF182541R0001			0.105	1
Adapter MS116/132 L123LAB wire top feed For push terminals	1503192	ZMS132-3LAB-PI	2CCF182542R0001			0.105	1
Adapter MS116/132 L123 wire bottom for push in terminals	1503215	ZMS930-PI	2CCF182550R0001			0.058	1
Adapter MS116/132 L123 wire top for push in terminals	1503208	ZMS932-PI	2CCF182551R0001			0.058	1

The 9mm wide additional housing is need to use when an unequal number (1, 3, 5, ...) of combi modules or adapter are plugged on the socket. This is needed to fill the space into a full module (18mm).

The 9mm wide additional housing can be also use when on one side of the manual motor starter an auxiliary contact is mounted.

SMISLINE TP plug-in system

Incoming bolt-on solution

Power Bar System 250 A

Incoming bolt-on solution M8 50 mm² up to 150 mm or 4/0AWG for UL

	Description	Bbn 761227	EAN	Type code	Order code	Price 1 piece	Weight 1 piece	Pack unit
							kg	pc.
	Incoming terminal block 3L 8PLE left 250A	1506124	ZLSP934-3L-1	2CCG000036R0001			0.300	1
	Incoming terminal block 3L+N 8PLE left 250A	1506148	ZLSP934-3LN	2CCG000038R0001			0.300	1
	Incoming terminal block 3L 8PLE right 250A	1506155	ZLSP934-3L-R-1	2CCG000039R0001			0.400	1
	Incoming terminal block 3L+N 8PLE right 250A	1506179	ZLSP934-3LN-R	2CCG000041R0001			0.400	1
	Incoming terminal block additional socket N PE left 250A 8PLE	1506186	ZLSP935-8NPE	2CCG000042R0001			0.200	1
	Incoming terminal block additional socket PE left 250A 8PLE	1506193	ZLSP935-8PE	2CCG000043R0001			0.100	1
	Incoming terminal block additional socket N PE right 250A 8PLE	1506223	ZLSP935-8NPE-R	2CCG000046R0001			0.200	1
	Incoming terminal block additional socket PE right 250A 8PLE	1506230	ZLSP935-8PE-R	2CCG000047R0001			0.100	1
	Cover for Incoming terminal block 250A	1506278	ZLSP963	2CCG000051R0001			0.200	1
	Cover an connection N-N 250A	1506261	ZLSP963N-N	2CCG000050R0001			0.050	1

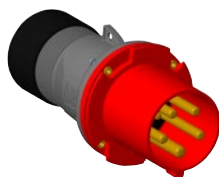
Industrial plugs and sockets

Plugs – IP44

63 A. Splashproof

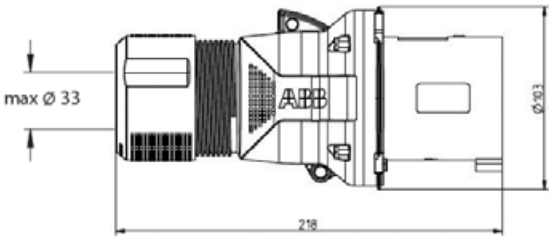
Housing in plastic (PA). Cable entry with compression gland. Cable area 6...16 mm²





463EP6

Terminals/ Poles	Color code	Voltage	Frequency	Type	Order Code	Pkg qty	Weight
		V	Hz				pkg (1pce) kg
2P+E							
3	Yellow	100...130	AC	263EP4	2CMA106079R1000	1	0.6
	Blue	200...250	50 and 60	263EP6	2CMA106080R1000		
	Red	380...415		263EP9	2CMA106081R1000		
3P+E							
4	Yellow	100...130	AC	363EP4	2CMA106083R1000	1	0.67
	Red	380...415	50 and 60	363EP6	2CMA106085R1000		
	Blue	200...250		363EP9	2CMA106087R1000		
3P+N+E							
5	Yellow	100...130	AC	463EP4	2CMA106091R1000	1	0.73
	Red	380...415	50 and 60	463EP6	2CMA106093R1000		
	Blue	208...250		463EP9	2CMA106095R1000		



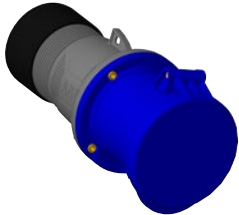
Industrial plugs and sockets

Connectors – IP44

63 A. Splashproof

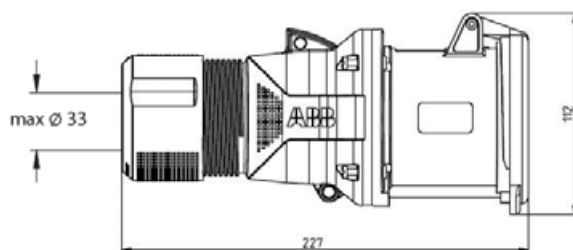
Housing in plastic (PA). Cable entry with compression gland. Cable area 6...16 mm²





363EC9

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Yellow	100...130	AC	263EC4	2CMA106060R1000	1	0.69
	Blue	200...250	50 and 60	263EC6	2CMA106061R1000		
	Red	380...415		263EC9	2CMA106062R1000		
3P+E							
4	Yellow	100...130	AC	363EC4	2CMA106064R1000	1	0.76
	Red	380...415	50 and 60	363EC6	2CMA106066R1000		
	Blue	200...250		363EC9	2CMA106068R1000		
3P+N+E							
5	Yellow	100...130	AC	463EC4	2CMA106072R1000	1	0.82
	Red	380...415	50 and 60	463EC6	2CMA106074R1000		
	Blue	208...250		463EC9	2CMA106076R1000		



Industrial plugs and sockets

Plugs IP67

63 A. Watertight

Housing in plastic (PA). Cable entry with ompression gland. Cable area 6...16 mm²

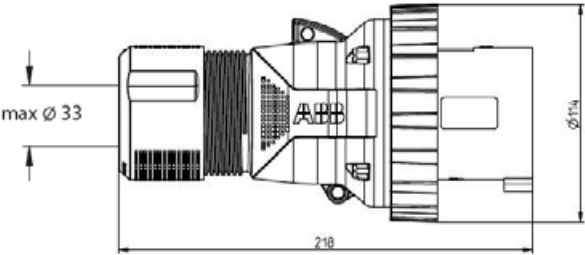


463EP6W



463EP6W

Terminals/ Poles	Color code	Voltage	Frequency	Type	Order Code	Pkg qty	Weight
		V	Hz				pkg (1pce) kg
2P+E							
3	Yellow	100...130	AC	263EP4W	2CMA106142R1000	1	0.36
	Blue	200...250	50 and 60	263EP6W	2CMA106143R1000		
	Red	380...415		263EP9W	2CMA106144R1000		
3P+E							
4	Yellow	100...130	AC	363EP4W	2CMA106147R1000	1	0.70
	Red	380...415	50 and 60	363EP6W	2CMA106149R1000		
	Blue	200...250		363EP9W	2CMA106151R1000		
3P+N+E							
5	Yellow	100...130	AC	463EP6W	2CMA106226R1000	1	0.76
	Red	346...415	50 and 60	463EP6W	2CMA106154R1000		
	Blue	208...250		463EP9W	2CMA106156R1000		



Industrial plugs and sockets

Connectors IP67

63 A. Watertight

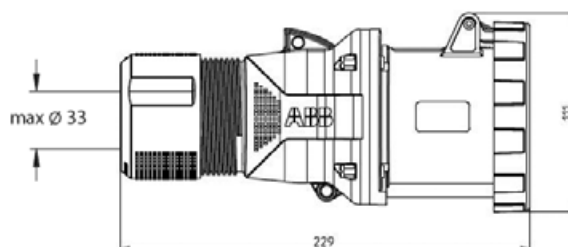
Housing in plastic (PA). Cable entry with compression gland. Cable area 6...16 mm²



463EC6W

463EC6W

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Yellow	100...130	AC	263EC4W	2CMA106126R1000	1	0.76
	Blue	200...250	50 and 60	263EC6W	2CMA106127R1000		
	Red	380...415		263EC9W	2CMA106128R1000		
3P+E							
4	Yellow	100...130	AC	363EC4W	2CMA106131R1000	1	0.83
	Red	380...415	50 and 60	363EC6W	2CMA106133R1000		
	Blue	200...250		363EC9W	2CMA106135R1000		
3P+N+E							
5	Yellow	100...130	AC	463EC4W	2CMA106225R1000	1	0.89
	Red	346...415	50 and 60	463EC6W	2CMA106138R1000		
	Black	480...500		463EC7W	2CMA106139R1000		
	Blue	208...250		463EC9W	2CMA106140R1000		



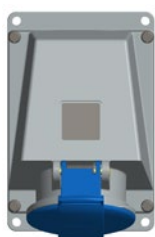
Industrial plugs and sockets

Socket outlet for wall mounting, IP44

16 A. Watertight

Housing in plastic (PBT). Cable entry with knock-outs 2×M20 on bottom and 2×M25 on top.

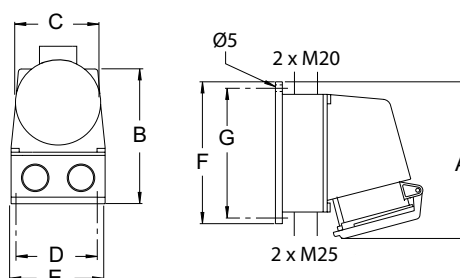
Cable area 1.5...4 mm²



216ERT6

216ERT6

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Grey		AC	216ERT1	2CMA101739R1000	1	0.36
	Green	>300...500	>50	216ERT2	2CMA101740R1000		
	Yellow	100...130	50 and 60	216ERT4	2CMA101719R1000		
	Blue	200...250		216ERT6	2CMA101742R1000		
	Grey	transf.		216ERT12	2CMA101743R1000		
3P+E							
4	Grey		AC	316ERT1	2CMA101744R1000	1	0.39
	Green	>300...500	>50	316ERT2	2CMA101745R1000		
	Yellow	100...130	50 and 60	316ERT4	2CMA101746R1000		
	Black	600...690		316ERT5	2CMA101747R1000		
	Red	380...415		316ERT6	2CMA101720R1000		
	Black	480...500		316ERT7	2CMA101748R1000		
	Blue	200...250		316ERT9	2CMA101721R1000		
	Green	100...300	>50	316ERT10	2CMA101749R1000		
	Red	440...460	60	316ERT11	2CMA101722R1000		
	Grey	transf.		316ERT12	2CMA101750R1000		
3P+N+E							
5	Grey		AC	416ERT1	2CMA101751R1000	10	0.41
	Green	>300...500	>50	416ERT2	2CMA101752R1000		
	Yellow	100...130	50 and 60	416ERT4	2CMA101753R1000		
	Red	346...415		416ERT6	2CMA101723R1000		
	Black	480...500		416ERT7	2CMA101754R1000		
	Blue	208...250		416ERT9	2CMA101755R1000		
	Red	440...460	60	416ERT11	2CMA101756R1000		



Dimensions (mm)

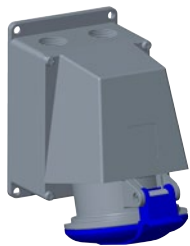
Type	A	B	C	D	E	F	6
216ERT...416ERT...	134	139	82	71	80	120	111

Industrial plugs and sockets

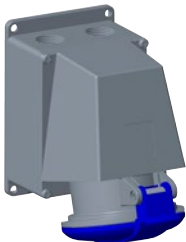
Socket outlet for wall mounting, IP44

32 A. Splashproof

Housing in plastic (PBT). Cable entry with knock-outs 2×M25 on top and 2×M25 on bottom. Cable area 2.5...10 mm²

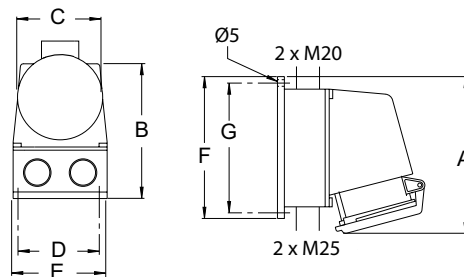


232ERT6



232ERT6

Terminals	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
	Green	>50	>300 ... 500	232ERT2	2CMA101757R1000	1	0.42
	Yellow	100 ... 130	50, 60	232ERT4	2CMA101759R1000		
	Blue	200 ... 250		232ERT6	2CMA101724R1000		
	Red	380 ... 415		232ERT9	2CMA101760R1000		
	Grey	Isol. Transformer		232ERT12	2CMA101761R1000		
3P+E							
	Green	>50	>300 ... 500	332ERT2	2CMA101762R1000	1	0.44
	Red	380/440	50/60	332ERT3	2CMA101763R1000		
	Yellow	100 ... 130		332ERT4	2CMA101764R1000		
	Black	600 ... 690		332ERT5	2CMA101765R1000		
	Red	380 ... 415		332ERT6	2CMA101725R1000		
	Black	480 ... 500		332ERT7	2CMA101766R1000		
	Blue	200 ... 250		332ERT9	2CMA101726R1000		
	Green	50 ... 600	100 ... 300	332ERT10	2CMA101767R1000		
	Red	440 ... 460	60	332ERT11	2CMA101768R1000		
	Grey	Isol. Transformer	50, 60	332ERT12	2CMA101769R1000		
3P+N+E							
	Green	>50	>300 ... 500	432ERT2	2CMA101770R1000	1	0.5
	Yellow	57/100 ... 75/130	50, 60	432ERT4	2CMA101771R1000		
	Red	200/346 ... 240/415		432ERT6	2CMA101727R1000		
	Black	277/480 ... 288/500		432ERT7	2CMA101772R1000		
	Blue	120/208 ... 144/250		432ERT9	2CMA101773R1000		
	Red	440 ... 460	60	432ERT11	2CMA101774R1000		



Dimensions (mm)

Type	A	B	C	D	E	F	G
232ERT... 432ERT	139	139	82	71	80	121	111
263ERT... 463ERT	225	186	100	124	149	149	129

Industrial plugs and sockets

Socket outlet for wall mounting, IP44

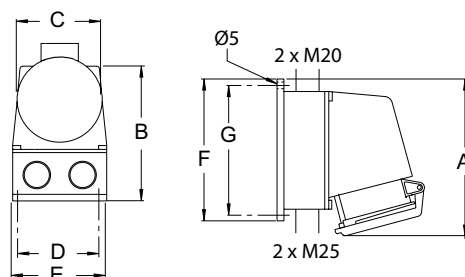
63 A. Splashproof

Housing in plastic (PBT). Cable entry with knock-outs 2×M32/M40 + 1 × M20 on top.
1×M20 + 1×M32/M40 on bottom. Cable area 6...25 mm²



232ERT6

Terminals	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E	Yellow	100 ... 130	50, 60	263ERT4	2CMA101894R1000	1	1.4
	Blue	200 ... 250		263ERT6	2CMA101895R1000		
3P+E	Yellow	100 ... 130	50, 60	363ERT4	2CMA101888R1000	1	1.4
	Black	600 ... 690		363ERT5	2CMA101889R1000		
	Red	380 ... 415		363ERT6	2CMA101890R1000		
	Black	480 ... 500	60	363ERT7	2CMA101891R1000		
	Blue	200 ... 250		363ERT9	2CMA101892R1000		
	Red	440 ... 460		363ERT11	2CMA101893R1000		
3P+N+E	Yellow	57/100 ... 75/130	50, 60	463ERT4	2CMA101884R1000	1	1.45
	Red	200/346 ... 240/415		463ERT6	2CMA101885R1000		
	Blue	120/208 ... 144/250	60	463ERT9	2CMA101886R1000		
	Red	250/440 ... 265/460		463ERT11	2CMA101887R1000		



Dimensions (mm)

Type	A	B	C	D	E	F	G
232ERT... 432ERT	139	139	82	71	80	121	111
263ERT... 463ERT	225	186	100	124	149	149	129

Industrial plugs and sockets

Socket outlet for wall mounting, IP67

16 A. Watertight

Housing in plastic (PBT). Cable entry with knock-outs 2×M20 on top and 2×M25 on bottom.

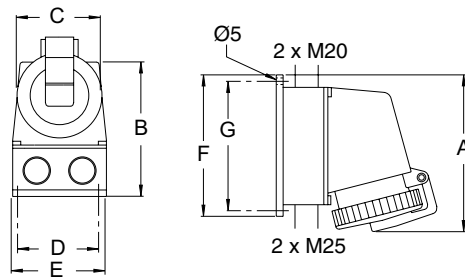
Cable area 1.5...4 mm²



216ERT6W

216ERT6W

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Yellow	100...130	50 and 60	216ERT4W	2CMA101728R1000	1	0.33
	Blue	200...250		216ERT6W	2CMA101729R1000		
	Red	380...415		216ERT9W	2CMA101776R1000		
	Grey	transf.		216ERT12W	2CMA101777R1000		
3P+E							
4	Green	>300...500	>50	316ERT2W	2CMA101778R1000	1	0.35
	Yellow	100...130	50 and 60	316ERT4W	2CMA101779R1000		
	Black	600...690		316ERT5W	2CMA101780R1000		
	Red	380...415	>50	316ERT6W	2CMA101730R1000		
	Black	480...500		316ERT7W	2CMA101781R1000		
	Blue	200...250		316ERT9W	2CMA101731R1000		
	Green	100...300		316ERT10W	2CMA101782R1000		
	Red	440...460	60	316ERT11W	2CMA101732R1000		
	Grey	transf.		316ERT12W	2CMA101783R1000		
3P+N+E							
5	Yellow	100...130	50 and 60	416ERT4W	2CMA101784R1000	1	0.39
	Red	346...415		416ERT6W	2CMA101733R1000		
	Black	480...500		416ERT7W	2CMA101785R1000		
	Blue	208...250		416ERT9W	2CMA101786R1000		
	Green	100...300	>50	416ERT10W	2CMA101787R1000		
	Red	440...460	60	416ERT11W	2CMA101788R1000		



Dimensions (mm)

Type	A	B	C	D	E	F	G
216ERT...W...416ERT...W	134	139	82	71	80	120	111

Industrial plugs and sockets

Socket outlet for wall mounting, IP67

32 A. Watertight

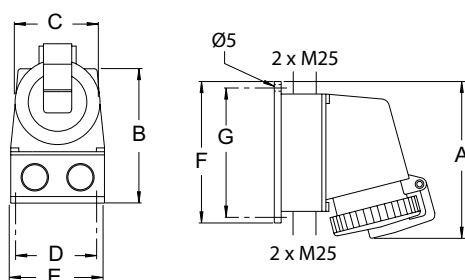
Housing in plastic (PBT). Cable entry with knock-outs 2×M20 on bottom and 2×M25 on top.

Cable area 2.5...10 mm²



432ERT6W

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	 Yellow	100...130	50 and 60	232ERT4W	2CMA101790R1000	1	0.37
	 Blue	200...250		232ERT6W	2CMA101791R1000		
	 Red	380...415		232ERT9W	2CMA101792R1000		
	 Grey	transf.		232ERT12W	2CMA101793R1000		
3P+E							
4	 Green	>300...500	>50	332ERT2W	2CMA101794R1000	1	0.42
	 Red	380/440	50/60	332ERT3W	2CMA101734R1000		
	 Yellow	100...130	50 and 60	332ERT4W	2CMA101795R1000		
	 Black	600...690		332ERT5W	2CMA101796R1000		
	 Red	380...415		332ERT6W	2CMA101735R1000		
	 Black	480...500		332ERT7W	2CMA101797R1000		
	 Blue	200...250		332ERT9W	2CMA101736R1000		
	 Green	100...300	>50	332ERT10W	2CMA101798R1000		
	 Red	440...460	60	332ERT11W	2CMA101737R1000		
	 Grey	transf.		332ERT12W	2CMA101799R1000		
3P+N+E							
	 Green	>300...500	>50	432ERT2W	2CMA101800R1000	1	0.47
	 Yellow	100...130	50 and 60	432ERT4W	2CMA101801R1000		
	 Red	346...415		432ERT6W	2CMA101738R1000		
	 Black	480...500	60	432ERT7W	2CMA101802R1000		
	 Blue	208...250		432ERT9W	2CMA101803R1000		
	 Red	440...460		432ERT11W	2CMA101804R1000		



Dimensions (mm)

Type	A	B	C	D	E	F	G
232ERT...W...332ERT...W	140	143	88	71	80	120	111
432ERT...W	142	146	95	71	80	120	111

Industrial plugs and sockets

Socket outlet for wall mounting, IP67

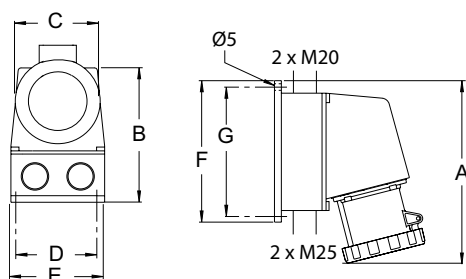
63 A. Watertight

Housing in plastic (PBT). Cable entry with knock-outs 2×M32/M40 + 1×M20 on top. 1×M20 + 1×M32/M40 on bottom. Cable area 6...25 mm²



463ERT6W

Terminals/ Poles	Color code	Voltage	Frequency	Type	Order Code	Pkg qty	Weight pkg (1pce)
		V	Hz				kg
3P+E							
4	 Black	600...690	50 and 60	363ERT5W	2CMA101898R1000	1	1.45
	 Red	380...415		363ERT6W	2CMA101899R1000		
	 Black	480...500		363ERT7W	2CMA101900R1000		
	 Blue	200...250		363ERT9W	2CMA101901R1000		
	 Red	440...460	60	363ERT11W	2CMA101902R1000		
3P+N+E							
5	 Red	346...415	50 and 60	463ERT6W	2CMA101896R1000	1	1.55
	 Blue	208...250		463ERT9W	2CMA101897R1000		



Dimensions (mm)

Type	A	B	C	D	E	F	G
263ERT...W...463ERT...W	255	215	108	129	150	187	124

Modular Combi Plastic

The enclosure is in plastic. Modul Combi Plastic is designed for different types of single phase domestic outlets and for IEC outlets up to and including 63 A.

Operating voltage 230/400 V ~

Enclosure: Plastic (PBT Thermoplastic)

Dimensions: According to table

Outlets: Combi Plastic is designed for different types of single phase domestic outlets and for IEC outlets up to and including 63 A.

With or without mechanical interlocked IEC outlets.

Cable entry: 4 knock-outs at the top, suitable for 2× Ø 40 mm and 2× Ø 25 mm

At the bottom 3× Ø 47 mm

Cable area: 2×16 mm² Cu. Designed for looping

Covers: For MCB/RCD, maximum 13 modules, 2 opened and knock-outs for the rest of the modules row. DIN-rail in bottom for terminals and MCB/RCDs.

With a distance at the bottom to allow wiring behind the rail. The lid is pad lockable.

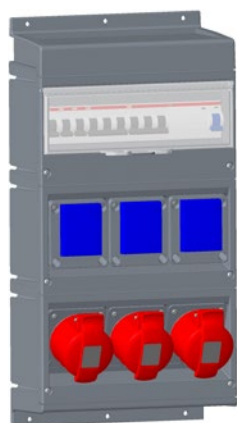


Industrial plugs and sockets

Modular Combi

Plastic 16 A

IP44, Splashproof



MPR16/3

	MCB	RCD	Switch	Schuko outlet 10/16 A	Outlet IEC	Type	Order Code	Size			Weight pkg (1pce) kg
								W	H	D	
	1xS203M C16	25 A/0.03	-	2 single	1x416	MPR16	2CMA168997R1000	250	300	160	3.1
	3xS201 C16 2xS203M C16	40 A/0.03	-	3 single	3x416	MPR16/3	2CMA168995R1000	250	430	160	3.4
	1xS203M C16	25 A/0.03	-	2 single	1x416	MPR16B *	2CMA101631R1000	250	300	160	3.1
	1xS203M C16	25 A/0.03	-	2 single	1x416	MPR16 BS Grey **	2CMA101651R1000	250	300	160	3.1
	1xS203M C16	25 A/0.03	-	2 single	1x416	MPR16B BS Black **	2CMA101655R1000	250	300	160	3.1

* Black enclosure

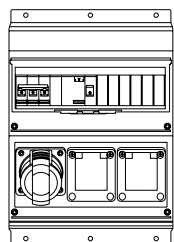
** Domestic outlet with British standard

Industrial plugs and sockets

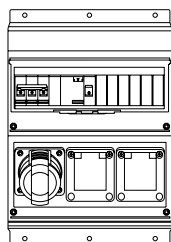
Modular Combi

Plastic 16 A

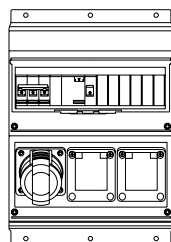
Front view



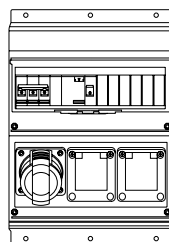
MPR16



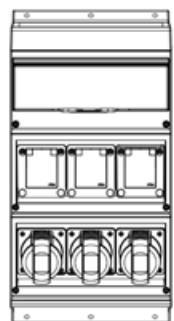
MPR16B



MPR16 BS Grey

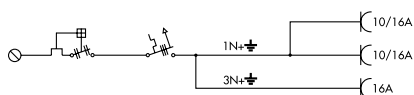


MPR16B BS Black

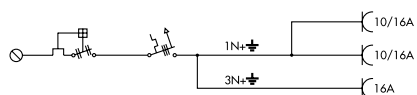


MPR16/3

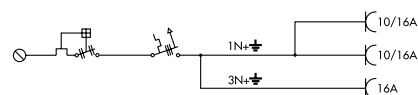
Wiring diagrams



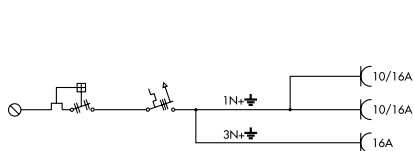
MPR16



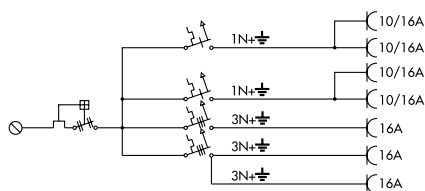
MPR16B



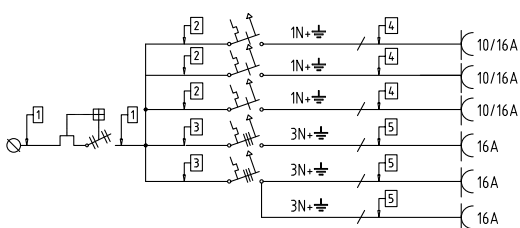
MPR16 BS Grey



MPR16B BS Black



MPR16/3



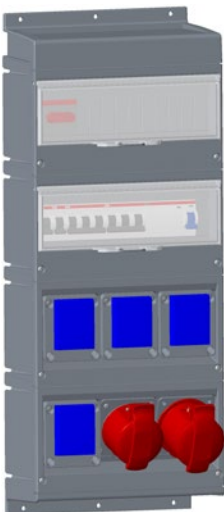
MP16/3

Industrial plugs and sockets

Modular Combi

Plastic 32 A

IP44, Splashproof

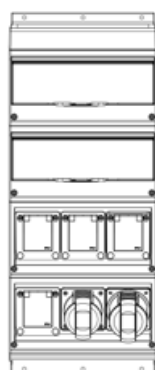
	MCB	RCD	Switch	Schuko outlet	Outlet IEC	Type	Order Code	Size			Weight pkg (1pce) kg
								W	H	D	
	3xS201 C16	63 A/0.03	-	3 single	1x416	MPR32/1	2CMA106211R1000	250	430	160	4.3
	1xMCB S203-C16 1xMCB S203-C32				1x432						
	2xMCB S201-C16 1xMCB S203-C16 1xMCB S203-C32	63 A/0.03	OT80F3/B	4 single	1x416 1x432	MPR32/1MS	2CMA168984R1000	250	560	160	4.8

MPR32/1MS

Front view

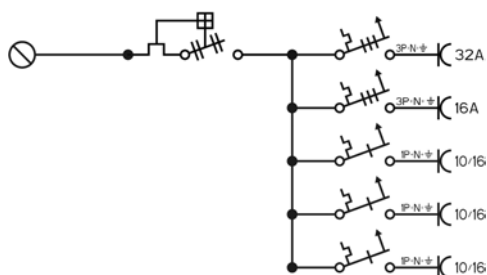


MPR32/1



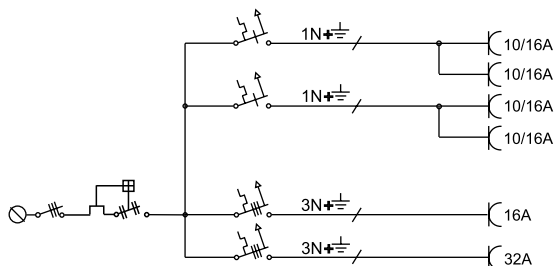
MPR32/1MS

Wiring diagram



MPR32/1

Wiring diagram



MPR32/1MS

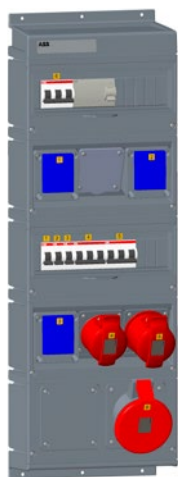
Industrial plugs and sockets

Modular Combi

Plastic

IP44, Splashproof

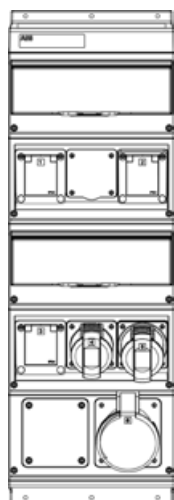
Housing in plastic (PBT)



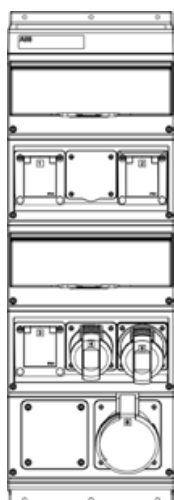
MPR63PRO

	MCB	RCD	Switch	Schuko outlet 10/16 A	Outlet IEC	Type	Order Code	Size			Weight pkg (1pc) kg
								W	H	D	
	3xS201-C16	40 A/0.03		3 single	1x416	MPR63PRO	2CMA101808R1000	250	750	165	4.0
	1xS203-C16				1x432						
	1xS203-C32				1x463						
	1xS203-C63										
	3xS201-C16	63 A/0.03		3 single	1x416	MPR63/ 1PRO	2CMA101809R1000	250	750	165	5.4
	1xS203-C16				1x432						
	1xS203-C32				1x463						
	1xS203-C63										
	3xS201-C16	63 A/0.03	OT80F3	3 single	1x416	MPR63/ 1MSPRO	2CMA101810R1000	250	750	165	5.7
	1xS203-C16				1x432						
	1xS203-C32				1x463						
	1xS203-C63										

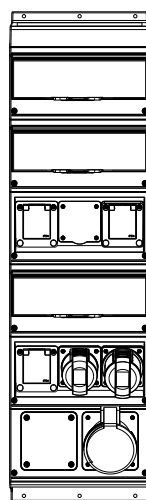
Front view



MPR63PRO

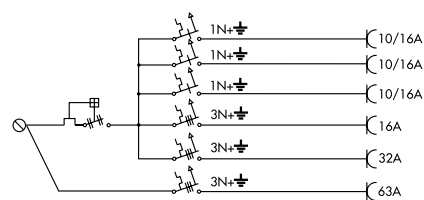


MPR63/1PRO

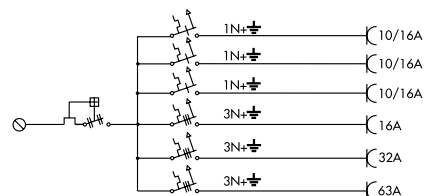


MPR63/1MSPRO

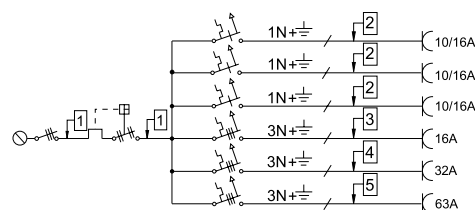
Wiring diagrams



MPR63PRO



MPR63/1PRO



MPR63/1MSPRO

Modular Combi Metal

The enclosure is in aluminium with front plates of galvanised steel. Modul Combi Metal is designed for different types of single phase domestic outlets and for IEC outlets up to and including 63 A.

Operating voltage 230/400 V~

Enclosure: Aluminium with front plates of galvanised steel.

Dimensions: According to table or customer order

Outlets: Combi Metal is designed for different types of single phase domestic outlets and for IEC outlets up to and including 63 A.
With or without mechanical interlocked IEC outlets.

Cable entry: FL21 flange openings at top and bottom

Cable area: 2×16 mm² Cu. Designed for looping

Covers: For MCB/RCD, maximum 12 modules. DIN-rail in bottom for terminals and MCB/RCDs.
With a distance at the bottom to allow wiring behind the rail. The lid is pad lockable.



Industrial plugs and sockets

Modular Combi

Metal

IP44, Splashproof

Housing in Aluminium with front plates of galvanised steel

Cable entry Alt 1: FL21 flange openings at top and bottom

Cable entry Alt 2: Covered top and rubber multi gland down (CTFL)

	MCB	RCD	Switch	Schuko	Outlet	Type	Order Code	Size			Weight
				outlet	IEC			W	H	D	pkg
				10/16 A							kg
	2xS201-C10	25 A/0.03		2 single	1x416	M16/2 JFB	2CMA179349R1000	250	314	172	4.55
	1xS203-C16										
	2xS201-C10	25 A/0.03		2 single	1x416	M16/2 JFB	2CMA100020R1000	250	314	172	4.55
	1xS203-C16					CTFL					
	4xS201-C10	63 A/0.03		4 single	1x416	M32/2 JFB	2CMA179351R1000	250	574	179	7.35
	1xS203-C16				1x432						
	1xS203-C32										
	4xS201-C10	63 A/0.03		4 single	1x416	M32/2 JFB	2CMA100022R1000	250	574	179	7.35
	1xS203-C16				1x432	CTFL					
	1xS203-C32										
	3xS201-C10	63 A/0.03		4 single	1x416	M63/2 JFB	2CMA100024R1000	250	704	188	9.55
	1xS203-C16				1x432	CTFL					
	1xS203-C32				1x463						
	1xS203-C63										
	3xS201-C10	63 A/0.03		4 single	1x416	M63/2 JFB	2CMA179353R1000	250	704	188	9.55
	1xS203-C16				1x432						
	1xS203-C32				1x463						
	1xS203-C63										

M63/2 JFB CTFL

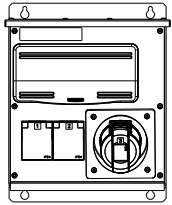
CTFL = Covered top and FL21 with multiflange down

Industrial plugs and sockets

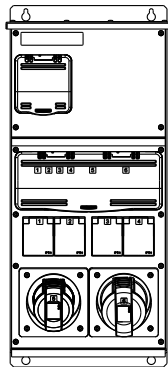
Modular Combi

Metal

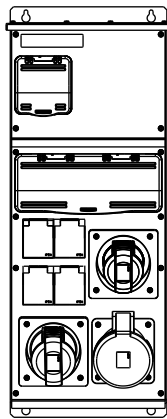
Front view



M16/2JFB

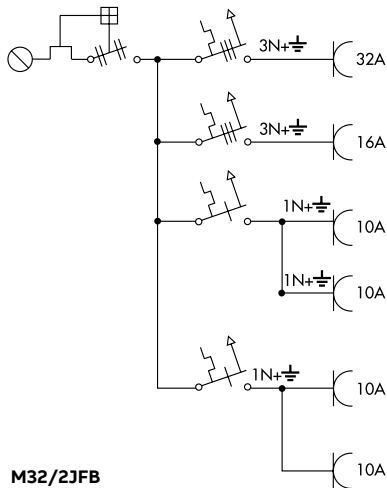


M32/2JFB

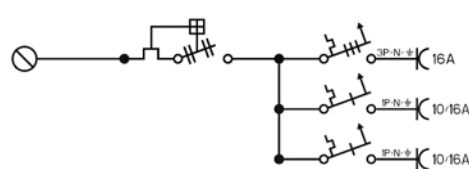


M63/2JFB

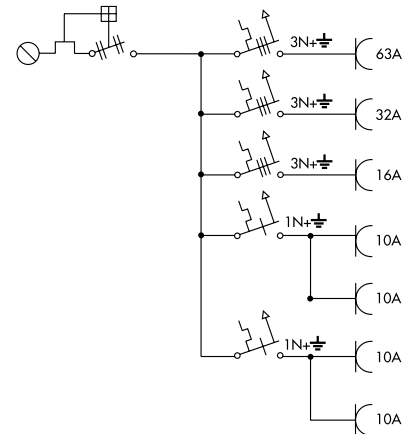
Wiring diagrams



M32/2JFB



M16/2JFB



M63/2JFB

Modular Combi Parts

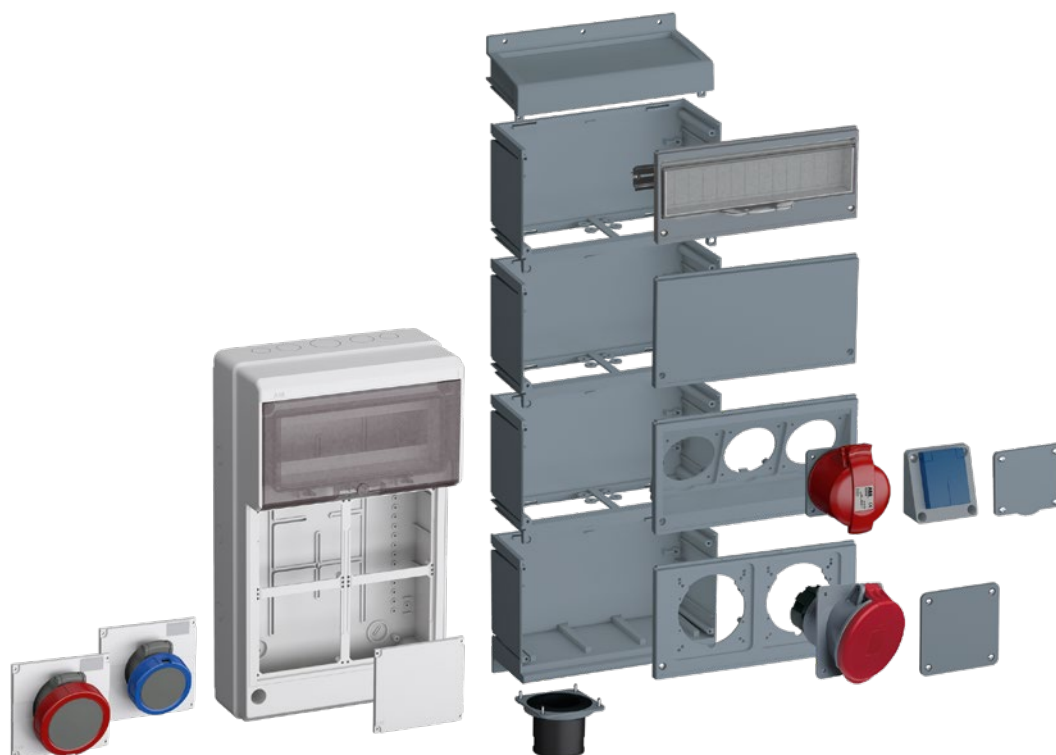
We are offering modular combi parts for special requests that are not covered by our standard range. The modular combi parts housing are made of heavy duty PBT plastic material that guarantees robustness, chemical resistance and high flammability rate in your application.

Modular Combi parts, IP44

Plastic PBT

Modular combi parts are Easy to assemble and install. It is a flexible and time efficient choice for special applications. Modular combi parts can be assembled to a height of 2 meters and there is a possibility to build on the width by looping if required. Din rail are suitable for 13 modules with a lot of space for your socket outlets protection.

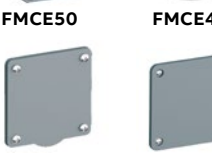
There are a large number of socket outlets to choose from our Easy & Safe and Tough & Safe Range depending on which IP degree and material that is required. There is also a possibility to have switched interlocked socket outlet to maximize personal safety. Assembled enclosure is tested and fulfills IP44 protection degree and can handle Socket outlets up to 63A.



Industrial plugs and sockets

Modular Combi parts – Top, bottom and middle section. Front and cover plates, cable flange and N/E terminal

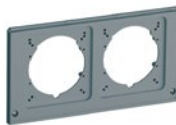
Parts in plastic (PBT)

	Description	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
	Top and bottom section				
	Top (2×40 mm and 2×25 mm) and bottom (3×47 mm) section incl. screws. Suitable for MP..., MPR...	FMCE40	2CMA191077R1000	1 pce	0.2kg
Top section FMCE40					
	Middle section				
	Middle section incl. screws. Suitable for MP..., MPR...	FMCE45	2CMA191082R1000	1 pce	0.25kg
Bottom section FMCE40					
	Front plate for 16-32 A outlet				
	Front plate suitable for three 16-32 A outlets incl. screws. Suitable for RU and FMCE50	FMCE47	2CMA191084R1000	1 pce	0.5kg
	Front plate for 63 A outlet				
	Front plate suitable for two 63 A outlets incl. screws	FMCE46	2CMA191083R1000	1 pce	0.5 kg
FMCE45					
	Front plate with mechanical interlock				
	Front plate with mechanical interlock, switch OT16FT3, socket not included	FMCE48	2CMA191085R1000	1 pce	0.5 kg
	Front plate with mechanical interlock				
	Front plate with mechanical interlock, switch OT40FT3, socket not included	FMCE49	2CMA191086R1000	1 pce	0.5 kg
FMCE47					
	Front plate with lid and DIN rail				
	Front with lid and DIN rail L=241 mm	FMCE52	2CMA191089R1000	1 pce	0.1 kg
	Front plate with schuko				
	Front plate with schuko outlet 10/16 A, incl. screws. Suitable for FMCE47	FMCE50	2CMA191087R1000	1 pce	0.2 kg
FMCE46					
	Cover plate for 16-32 A				
	Cover plate suitable for 16-32 A incl. screws	FMCE54	2CMA191091R1000	1 pce	0.1 kg
	Cover plate for 63 A				
	Cover plate suitable for 63 A incl. screws	FMCE53	2CMA191090R1000	1 pce	0.1 kg
FMCE52					
	Cover plate				
	Cover plate incl. screws	FMCE42	2CMA191079R1000	1 pce	0.5 kg
	Cable flange				
	Hose clamp, cable tightening, flange incl. screws	FMCE41	2CMA170188R1000	1 pce	0.25 kg
FMCE50					
	N/E terminal				
	N/E terminal 16 mm ² , brass bar = 240 mm	FMCE43	2CMA191080R1000	1 pce	0.19 kg
	DIN-Rail				
	DIN-Rail L=241 mm + screws + 5×35 mm ² terminal block	FMCE67	2CMA191103R1000	1 pce	0.3 kg
FMCE41					
	Flange				
	Flange for domestic socket, incl. screws	FMCE70	2CMA105989R1000	1 pce	0.2 kg
	DIN-Rail				
	DIN-Rail L=241 mm, incl. screws	FMCE71	2CMA105990R1000	1 pce	0.1 kg
FMCE54					
	DIN-Rail				
	Lowered DIN-Rail, incl. screws	FMCE72	2CMA105991R1000	1 pce	0.3 kg
FMCE53					
FMCE42					
FMCE43					

Industrial plugs and sockets

Multi-pack Modular Combi – Top, bottom and middle section. Front and cover plates, cable flange and N/E terminal

Parts in plastic (PBT)

	Description	Type	Order Code	Pkg qty
	Top section knock outs			
	Bottom section knock outs (2× Ø 40,5 mm and 2× Ø 25,5 mm) (2× Ø 40,5 mm and 1× Ø 47,5 mm) screws incl. and instruction	FMCE400	2CMA106004R1000	5
	Hose clamp			
	cable tightening, flange, C-nuts, screws incl.	FMCE410	2CMA106005R1000	10
	Cover plate screws incl.	FMCE420	2CMA106006R1000	10
	N/E terminals 16 mm² Brass bars 2pcs length 240 mm, Clamps 16pcs, screws 8pcs	FMCE430	2CMA106007R1000	10
	Middle section screws incl.	FMCE450	2CMA106008R1000	10
	Front plate suitable for two 63 A outlets screws incl.	FMCE460	2CMA106009R1000	10
	Front plate suitable for three 16-32 A outlets screws incl.	FMCE470	2CMA106010R1000	10
	Flange with Schuko outlet 10/16 A, screws incl.	FMCE500	2CMA106011R1000	10
	Front with lid (13 DIN modules wide), DIN-rail, screws incl.	FMCE520	2CMA106012R1000	10
	Cover flange 63 screws incl.	FMCE530	2CMA106013R1000	10
	Cover flange 16/32 screws incl.	FMCE540	2CMA106014R1000	10
	Flanges for Domestic socket screws incl.	FMCE700	2CMA106016R1000	10
	DIN Rail 241 mm screws incl.	FMCE710	2CMA106017R1000	10
	Lowered DIN-rail screws incl.	FMCE720	2CMA106015R1000	10
 	Screw STS T40*16 FZB Screw TS KN1039 Screw RTK 3,5X13 Screw STS T40x20, PT 30° DELG L=20 MM	FMCE730	2CMA106018R1000	4x100 pcs

Industrial plugs and sockets

Top, bottom and middle section. Front and cover plates, cable flange and N/E terminal

Parts in plastic (PBT)

	Description	Type	Order Code	Pkg qty
	Top section knock outs			
	Bottom section knock outs (2x Ø 40,5 mm and 2x Ø 25,5 mm) (2x Ø 40,5 mm and 1x Ø 47,5 mm) screws incl. and instruction	FMCE40B	2CMA105995R1000	1
Top section FMCE40B	Cover plate screws incl.	FMCE42B	2CMA105996R1000	1
	Middle section screws incl.	FMCE45B	2CMA105997R1000	1
	Front plate suitable for three 16-32 A outlets screws incl.	FMCE47B	2CMA105998R1000	1
Bottom section FMCE40B	Flange with Schuko outlet 10/16 A screws incl.	FMCE50B	2CMA105999R1000	1
	Front with lid (13 DIN modules wide) DIN-rail, screws incl.	FMCE52B	2CMA106001R1000	1
	Cover flange 16/32 screws incl.	FMCE54B	2CMA106002R1000	1
FMCE42B	Flanges for Domestic socket screws incl.	FMCE70B	2CMA106000R1000	1
				
FMCE45B				
				
FMCE47B				
				
FMCE54B				

Industrial plugs and sockets

Modular Combi parts

Modular Combi enclosure IP65 for global panel builders

Enclosure IP65 and outlets IP67

Modular Combi IP65 enclosure with space for four outlets and window lid in 12-module DIN-rail.

Choose suitable socket from Socket outlet with angled flange, IP67 of type ERAU or blank plates. IEC 61439-1 and -2.

Housing parts in PA, IK10, Knock-outs 1× Ø 37,5, 2× Ø 30, 2× Ø 23,5

	Description	Type	Order Code	Pkg	Weight
				qty	pkg (1pce) kg
	Enclosure in plastic IP65 455x275x140 RAL 7035	M Combi Enclosure	2CMA106186R1000	1	2.20
	Cover flange in plastic 109x119x5 RAL 7035	M Combi Flange	2CMA106187R1000	1	0.70
					

Industrial plugs and sockets

Modular Combi parts

Socket outlet with angled flange, IP67

16 A. Watertight

Housing in plastic (PA). Cable area 1...2.5 mm²



216ERAU6W

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Blue	200...250	50 and 60	216ERAU6W	2CMA104398R1000	10	0.15
3P+E							
4	Red	380...415	50 and 60	316ERAU6W	2CMA104399R1000	10	0.18
3P+N+E							
5	Red	346...415	50 and 60	416ERAU6W	2CMA104400R1000	10	0.21

32 A. Watertight

Housing in plastic (PA). Cable area 2.5...6 mm²



416ERAU6W

Terminals/ Poles	Color code	Voltage V	Frequency Hz	Type	Order Code	Pkg qty	Weight pkg (1pce) kg
2P+E							
3	Blue	200...250	50 and 60	232ERAU6W	2CMA104401R1000	10	0.22
3P+E							
4	Red	380...415	50 and 60	332ERAU6W	2CMA104402R1000	10	0.23
3P+N+E							
5	Red	346...415	50 and 60	432ERAU6W	2CMA104403R1000	10	0.23

Light switches and socket outlets

Zigbee Friends of Hue

Product	Article-No.	Order-No.	Pack/Qty
	Friends of Hue smart switch complete set Consisting of Friends of Hue smart switch insert 6716 U-500. Consisting of 2gang rocker 6736 FoH-8xx for Friends of Hue smart switch. Consisting of 1gang future® linear cover frames. Consisting of mounting plate and intermediate ring. Smart light switch for wireless remote control of Philips Hue lamps. For switching/dimming of Philips Hue lamps. For storing, recalling and dimming of max. 2 individual light scenes. Battery-free and maintenance-free thanks to "Energy Harvesting". Can be freely mounted in the room using the enclosed adhesive tape and mounting plate. Requires Philips Hue Bridge v2 (square shape) and the latest Philips Hue app (v3.2 or later). Maximum reliability due to Zigbee Mesh technology. Can be combined with switch ranges carat®, Busch-dynasty®, pure stainless steel, solo®, Busch-axcent® and future® linear. Including fixing plate for mounting on smooth walls or on switch boxes. Including mounting components: Double-sided tape + decorative sticker.		
	studio white	6716 UJ-84-500	2CKA006710A0011 1
	Friends of Hue smart switch insert Wall-mounted transmitter, 2 channel For Friends of Hue smart switch rocker 6736 FoH-8xx. Smart light switch for wireless remote control of Philips Hue lamps. For switching/dimming of Philips Hue lamps. For storing, recalling and dimming of max. 2 individual light scenes. Battery-free and maintenance-free thanks to "Energy Harvesting". Maximum reliability due to Zigbee Mesh technology. Requires Philips Hue Bridge v2 (square shape) and the latest Philips Hue app (v3.2 or later). Can be combined with switch ranges carat®, Busch-dynasty®, pure stainless steel, solo®, Busch-axcent® and future® linear. Can be freely mounted in the room using the enclosed adhesive tape and mounting plate. Including fixing plate for mounting on smooth walls or on switch boxes. Including mounting components: Double-sided tape + decorative sticker.		
		6716 U-500	2CKA006710A0014 1

Product	Article-No.	Order-No.	Pack/Qty
	Rocker For Friends of Hue smart switch insert 6716 U-500. Can be combined with switch ranges carat®, Busch-dynasty®, pure stainless steel, solo®, Busch-axcent® and future® linear.		
	future® linear		
anthracite	6736 FoH-81	2CKA006730A0133	1
ivory white	6736 FoH-82	2CKA006730A0134	1
aluminium silver ¹⁾	6736 FoH-83	2CKA006730A0135	1
studio white	6736 FoH-84	2CKA006730A0136	1
studio white, matt ¹⁾	6736 FoH-884	2CKA006730A0140	1
black matt ¹⁾	6736 FoH-885	2CKA006730A0141	1
	solo®		
ivory white	6736 FoH-82	2CKA006730A0134	1
studio white	6736 FoH-84	2CKA006730A0136	1
grey metallic ¹⁾	6736 FoH-803	2CKA006730A0137	1
	Busch-axcent®		
studio white	6736 FoH-84	2CKA006730A0136	1
	carat®		
anthracite	6736 FoH-81	2CKA006730A0133	1
ivory white	6736 FoH-82	2CKA006730A0134	1
studio white	6736 FoH-84	2CKA006730A0136	1
	pure stainless steel		
stainless steel	6736 FoH-866	2CKA006730A0139	1
	Busch-dynasty®		
antique brass	6736 FoH-840-500	2CKA006730A0138	1

¹⁾ Surface painted.

Light switches and socket outlets

Flush-mounted rotary dimmer

Product	Article-No.	Order-No.	Pack/Qty
	Busch-rotary dimmer LED, complete set Consisting of Busch LED rotary dimmer 6523 U-102. Consisting of the cover plate with rotary knob 6540-84-102. Cover frame design future® linear 1721-184K. Protection class (Device): IP 20 Temperature range (Device): 0 °C to 35 °C IEC 60669-2-1, British Standard EN 60669-2-1		
	6523 UJ-84-102	2CKA006512A0350	1
	Busch-rotary dimmer ¹⁾ ²⁾ ³⁾ ⁴⁾ ⁵⁾ ⁶⁾ flush mounted, RC, 40-420 W With rotary control, soft-catch and with trailing edge control. For incandescent lamps, 230 V tungsten halogen lamps and low-voltage halogen lamps with electronic transformers. Low-noise, short-circuit-proof, overload-protected. Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz Rated power: 40 - 420 W/VA IEC 60669-2-1, British Standard EN 60669-2-1		
	6513UJGL-84-102	2CKA006512A0351	1
	Busch-rotary dimmer ¹⁾ ²⁾ ³⁾ flush mounted, 1-10V With rotary control. For controlling ballast units for fluorescent lamps with control output 1-10 V DC, control current max. 50 mA DC. For LED control via control gears Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Rated power: 700 W/VA IEC 60669-2-1, British Standard EN 60669-2-1		
	2112UJGL-84-101	2CKA006599A3029	1

¹⁾ Non-illuminable.

²⁾ Only in conjunction with standard flush-mounting boxes according to DIN 49073, Part 1, erect or Busch-Jaeger No. 3040 wallbox stonework, 3050 wallbox cavity wall or 3060 wallbox concrete)

³⁾ Making-current limiters have to be provided in case of too high making currents.

Product	Article-No.	Order-No.	Pack/Qty
	Busch-rotary dimmer ¹⁾ Flush-mounted, DALI, with internal power supply, tunable white For DALI broadcast service (via central telegram). With integrated DALI power supply. For switching and dimming up to 64 DALI- devices like electronic ballasts and transformers with DALI-interface. With rotary control and ON/OFF push operation. For changing the colour temperature of "tunable white" lamps, which meet DALI Standard IEC 62386-209 (Device Type 8). Colour temperature can then be set between 2,700 K - 6,500 K. With electronic short-circuit protection. With electronic overload protection. Brightness power-on level and background brightness level adjustable, buffered. With integrated LED illumination for orientation. Color of orientation light adjustable (18 presets and OFF). Up to 5 potentiometers are connectable in parallel. Up to 3 potentiometers are connectable in parallel in active mode. Not suitable for combining with other DALI sensors or central units of other manufacturers. DALI-voltage: 15,5 V= Rated current: max. 75 mA Power consumption: < 2,5 W Number of DALI-units: 37 in case of one active power-potentiometer in case of three active power-potentiometer in parallel connection: 111 Active mode (mains connected): the potentiometer is supporting the necessary control circuit for other DALI-devices. Passive mode (mains disconnected): the potentiometer is suitable as additional operation point. Max. DALI-cable length: 300 m (1,5 - 2,5 mm ²). With cover plate and frame. Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Protection class (Device): IP 20 Temperature range (Device): 0 °C to 35 °C		
	2116/11UJGL-84	2CKA006599A3031	1

¹⁾ Only in conjunction with standard flush-mounting boxes according to DIN 49073, Part 1, erect or Busch-Jaeger No. 3040 wallbox stonework, 3050 wallbox cavity wall or 3060 wallbox concrete)

Light switches and socket outlets

Flush-mounted rotary dimmer

Product	Article-No.	Order-No.	Pack/Qty
	Busch-rotary dimmer ¹⁾ ²⁾ ³⁾ ⁴⁾ ⁵⁾ ⁶⁾ flush mounted, RC, 40-420 W Double Poled (DP) switched With rotary control, soft-catch and with trailing edge control. For incandescent lamps, 230 V tungsten halogen lamps and low-voltage halogen lamps with electronic transformers. Low-noise, short-circuit-proof, overload-protected. Without cover plate. DP cut off (P,N) Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz Rated power: 20 - 420 W/VA IEC 60669-2-1, British Standard EN 60669-2-1		
			
	6514 U-500	2CKA006514A0115	1

¹⁾ Not suitable with conventional transformers.

²⁾ Illuminable with neon lamp. Neon lamp included in delivery with cover plate.

³⁾ In case of electronic transformers, 5 % transformer losses.

⁴⁾ Provided with terminal for net disconnection devices.

⁵⁾ Also applicable for 1gang 2way installations.

⁶⁾ Only in conjunction with standard flush-mounting boxes according to DIN 49073, Part 1, erect or Busch-Jaeger No. 3040 wallbox stonework, 3050 wallbox cavity wall or 3060 wallbox concrete)

	Cover plate ¹⁾ with rotary knob, with indication lamp Elevated knob. With transparent luminous ring. For Busch-Dimmer®. For inserts 2112 U-101/2247 U/2250 U/6513 U-102/6517 U-10x/ 6519 U/6520 U/6523 U(R)(10x) /6591 U-10x and 6592 U.		
anthracite	6540-81-102-510	2CKA006599A3035	10
aluminium silver ²⁾	6540-83-102-510	2CKA006599A3036	10
studio white	6540-84-102-510	2CKA006599A3037	10/100

¹⁾ Replacement neon lamp, Art. No. 3855.

²⁾ Surface painted.

Basic blind insert, standard timer

Product	Article-No.	Order-No.	Pack/Qty
	Blind basic timer, complete set Consisting of blind basic insert 6418 U. Consisting of the standard timer control element 6456-101. Cover frame design future® linear 1721-184K. Consisting of the future® linear cover plate for timer control element 6435-84.		
studio white	6418 UJ-84	2CKA006410A0405	1

Light switches and socket outlets

Busch-Blind control II

Product	Article-No.	Order-No.	Pack/Qty
 Blind comfort timer, complete set Consisting of Busch-Blind control II insert 6411 U-101. Consisting of the comfort timer control element 6455-101. Cover frame design future® linear 1721-184K. Consisting of the future® linear cover plate for timer control element 6435-84.			
studio white	6411 UJ-84-101	2CKA006410A0408	1

USB charging devices

Product	Article-No.	Order-No.	Pack/Qty
 USB power adapter insert, flush-mounted ¹⁾ ²⁾ ³⁾ ⁴⁾ For supply and support of mobile devices via USB-cable. With two USB type A outputs. To support two devices at the same time. With electronic short-circuit protection. With electronic overload protection. Rated voltage: 120 - 230 V~, +10 % / -10 % Secondary: 5 V-, +5 % / -5 % Rated frequency: 50 Hz / 60 Hz Suitable for: In case one output is used: Rated current: 3 A Suitable for: In case two output are used: Rated current: 1.500 mA Protection class (Device): IP 20, SELV Temperature range (Device): 0 °C to 35 °C Dimensions: (L x W x D): 71 mm x 71 mm x 43 mm Mounting depth: 32 mm Available from November 2019			
	6472 U-500-101	2CKA006400A0094	1

¹⁾ No claw. Screw-fixing via keyholes.

²⁾ No data transfer.

³⁾ For terminal devices with standardized charging interface according to DIN EN 62684.

⁴⁾ Use dust cover 2098 when cleaning the device.

Light switches and socket outlets

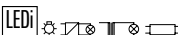
Presence detector

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Presence detector Universal, sensor 1) 2) 3) 12 meters		
	Master presence detector with mixed light measurement. For switching lighting systems that depend on brightness and movement. Detection range (for installation height of 3 m): circular Seated persons: up to Ø 10 m, walking persons: up to Ø 12 m. Extension of the detection range by means of master/slave combination. Mounting height: 35 mm For semiautomatic and fully automatic operation. Additional activation/deactivation possibility through pushbutton input. With continuous light/continuous off function (8 hours), IR service remote control required. With teach-in function of the brightness switching threshold, IR service remote control required. With brightness-independent test mode for evaluating the detection zone. With detection display in test mode. Remote control possible via IR service remote control 6843. Adjustment elements accessible on the front side. Surveillance density: 72 sectors with 640 switching segments. Switch-off delay: approx. 1 min. - 30 min. or short-time pulse adjustable. For Busch-Universal relay switch insert 6440/01 U-500. For Universal-e-contact insert 6440/04 U-500. For Universal-Slave insert 6440/05 U-500. Control element: 2 controllers for setting the brightness switching threshold and switch-off delay. Display elements: LED detection and status indication. Detection angle: 360 ° Brightness limit value: 5 Lux - 2000 Lux Mounting height: 2 m - 4 m Protection class (Device): IP 40 Temperature range (Device): -5 °C to 45 °C Dimensions: (L x W x D): 94 mm x 94 mm x 43 mm DIN EN 60669-2-1		
studio white matt	6813-24-102-500	2CKA006800A2861	1
aluminium silver	6813-183-102-500	2CKA006800A2863	1

¹⁾ The detection range with a central approach is reduced.

²⁾ The range specifications refer to an ambient temperature of 21 °C.

³⁾ Please order the respective flush-mounted insert separately.

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Presence detector Universal 1) 2) complete set		
Modular presence detector with universal lens (set packaging). Detection range (for installation height of 3 m): circular Seated persons: up to Ø 10 m, walking persons: up to Ø 12 m. Consisting of Busch-Presence detector Universal 6813-...-102-500. Consisting of Universal relay insert 6440/01 U-500. Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Outputs: 1x Normally open contact, potential-bound Suitable for: 230 V~ LEDi Rated power: 100 W/VA Suitable for: 230 V incandescent lamps/230 V halogen lamps Rated current: 10 AX Rated power: 2300 W Suitable for: Low voltage halogen lamps operated by transformers. Rated power: 2300 VA Detection angle: 360 ° Brightness limit value: 5 Lux - 2000 Lux Mounting height: 2 m - 4 m Protection class (Device): IP 40 Temperature range (Device): -5 °C to 45 °C Dimensions: (L x W x D): 94 mm x 94 mm x 74 mm Mounting depth: 31 mm DIN EN 60669-2-1			
			
studio white matt	6813/30-24-500	2CKA006800A2864	1
¹⁾ The detection range with a central approach is reduced. ²⁾ The range specifications refer to an ambient temperature of 21 °C.			
	Presence detector surface-mounted housing		
For mounting a universal insert in combination with the Busch-Presence detector sensor. For Busch-Presence detector sensor 6813-...-102-500. For Busch-Universal relay switch insert 6440/01 U-500. For Universal-e-contact insert 6440/04 U-500. For Universal-Slave insert 6440/05 U-500. Protection class (Device): IP 20 Dimensions: (L x W x D): 93 mm x 93 mm x 44 mm			
studio white matt	6883-24-500	2CKA006899A2369	1
aluminium silver	6883-183-500	2CKA006899A2371	1

Light switches and socket outlets

Busch-Watchdog presence inserts

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Universal relay switch insert 3 wire connection (neutral conductor required). For switching lighting systems. For Busch-Comfort switch control element 6815-...-101-500. For Busch-Presence detector sensor 6813-...-102-500. Can be combined with Universal-Slave insert 6440/05 U-500. Operation in 1gang 2way installations via push switch-unit for combination with flush-mounted units. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). 2 supplementary inputs via 127 V push switch (e.g. 2020 US), central disablement of all outputs possible, supplementary IR remote control is possible via IR flying receiver 6045 E-101 Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Outputs: 1x Normally open contact, potential-bound Suitable for: 230 V~ LEDi Rated power: 100 W/VA Suitable for: 230 V incandescent lamps/230 V halogen lamps Rated current: 10 AX Rated power: 2300 W Suitable for: Low voltage halogen lamps operated by transformers. Rated power: 2300 VA Temperature range (Device): -5 °C to 45 °C Dimensions: (L x W x D): 71 mm x 71 mm x 32 mm Mounting depth: 31 mm DIN EN 60669-2-1		
			
	6440/01 U-500	2CKA006400A0085	1

	Universal e-contact insert ¹⁾ 2-wire connection (neutral conductor not required) For switching lighting systems. For Busch-Comfort switch control element 6815-...-101-500. For Busch-Presence detector sensor 6813-...-102-500. Can be combined with Universal-Slave insert 6440/05 U-500. Operation in 1gang 2way installations via push switch-unit for combination with flush-mounted units. Operation also possible via conventional push buttons (2020 US, 2021/6 UK). 2 supplementary inputs via 127 V push switch (e.g. 2020 US), central disablement of all outputs possible, supplementary IR remote control is possible via IR flying receiver 6045 E-101 Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Outputs: 1x Normally open contact, potential-bound Suitable for: 230 V~ LEDi Rated power: 2 - 80 W/VA Suitable for: 230 V incandescent lamps/230 V halogen lamps Rated power: 20 - 180 W Suitable for: Low voltage halogen lamps operated by transformers. Rated power: 20 - 180 VA Temperature range (Device): -5 °C to 45 °C Dimensions: (L x W x D): 71 mm x 71 mm x 32 mm Mounting depth: 31 mm DIN EN 60669-2-1		
			
	6440/04 U-500	2CKA006400A0088	1

¹⁾ Only use dimmable high voltage LEDs.

Product	Article-No.	Order-No.	Pack/Qty
	Universal-Slave insert 3 wire connection (neutral conductor required). For the extension of Busch-Comfort switch or Busch-Presence detector installations. For communication with Universal relay insert 6440/01 U-500. For communication with Universal-e-contact insert 6440/04 U-500. For Busch-Comfort switch control element 6815-...-101-500. For Busch-Presence detector sensor 6813-...-102-500. Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Control/Signal outputs: 1, electronic output, potential-bound Temperature range (Device): -5 °C to 45 °C Dimensions: (L x W x D): 71 mm x 71 mm x 32 mm Mounting depth: 31 mm		
	6440/05 U-500	2CKA006400A0091	1

Light switches and socket outlets

Busch-Comfort switch

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Comfort switch control element ¹⁾ ²⁾ with neon lamp Movement detector/push-button switch combination. Push switch function possible at all times. For switching lighting systems that depend on brightness and movement. Extension of the detection range by means of master/slave combination. Additional activation/deactivation possibility through pushbutton input. Adjustable operating mode: automatic mode, automatic (motion-controlled) switch-on and switch-off. Adjustable operating mode: semiautomatic, manual switch-on, automatic (time and motion-controlled) switch-off. Adjustable operating mode: automatic switch-on, manual switch-off. With continuous light/continuous off function. Adjustment elements on the rear. Surveillance density: 9 sectors with 28 switching segments. Switch-off delay: 1 to 10 min., adjustable. For Busch-Universal relay switch insert 6440/01 U-500. For Universal-e-contact insert 6440/04 U-500. For Universal-Slave insert 6440/05 U-500. Control element: 2 controllers for setting the brightness switching threshold and switch-off delay. Display elements: LED for status display. Detection range: frontal: 5 m, lateral: 3 m, Mounting height: 1.1 m Detection angle: 170 ° Brightness limit value: 0.5 Lux - 500 Lux , Daytime operation Mounting height: 0.8 m - 1.2 m Protection class (Sensor): IP 20 Temperature range (Device): 0 °C to 35 °C Dimensions: (L x W x D): 63 mm x 63 mm x 28.3 mm DIN EN 60669-2-1		
	future® linear		
anthracite	6815-81-101-500	2CKA006800A2828	1
ivory white	6815-82-101-500	2CKA006800A2830	1
aluminium silver	6815-83-101-500	2CKA006800A2832	1
studio white	6815-84-101-500	2CKA006800A2834	1
studio white matt ³⁾	6815-884-101-500	2CKA006800A2838	1
black matt ³⁾	6815-885-101-500	2CKA006800A2840	1
solo®			
ivory white	6815-82-101-500	2CKA006800A2830	1
studio white	6815-84-101-500	2CKA006800A2834	1
grey metallic ³⁾	6815-803-101-500	2CKA006800A2836	1
Busch-axcent®			
studio white	6815-84-101-500	2CKA006800A2834	1
carat®			
anthracite	6815-81-101-500	2CKA006800A2828	1
ivory white	6815-82-101-500	2CKA006800A2830	1
studio white	6815-84-101-500	2CKA006800A2834	1
pure stainless steel			
stainless steel	6815-866-101-500	2CKA006800A2843	1
Busch-dynasty®			
antique brass	6815-840-101-500	2CKA006800A2841	1

¹⁾ Please order the respective flush-mounted insert separately.

²⁾ The range specifications refer to an ambient temperature of 21 °C.

³⁾ Surface painted.

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Comfort switch control element ¹⁾ ²⁾ with neon lamp Movement detector/push-button switch combination. Push switch function possible at all times. For switching lighting systems that depend on brightness and movement. Extension of the detection range by means of master/slave combination. Additional activation/deactivation possibility through pushbutton input. Adjustable operating mode: automatic mode, automatic (motion-controlled) switch-on and switch-off. Adjustable operating mode: semiautomatic, manual switch-on, automatic (time and motion-controlled) switch-off. Adjustable operating mode: automatic switch-on, manual switch-off. With continuous light/continuous off function. Adjustment elements on the rear. Surveillance density: 9 sectors with 28 switching segments. Switch-off delay: 1 to 10 min., adjustable. For Busch-Universal relay switch insert 6440/01 U-500. For Universal-e-contact insert 6440/04 U-500. For Universal-Slave insert 6440/05 U-500. Control element: 2 controllers for setting the brightness switching threshold and switch-off delay. Display elements: LED for status display. Detection range: frontal: 5 m, lateral: 3 m, Mounting height: 1.1 m Detection angle: 170 ° Brightness limit value: 0.5 Lux - 500 Lux , Daytime operation Mounting height: 0.8 m - 1.2 m Protection class (Sensor): IP 20 Temperature range (Device): 0 °C to 35 °C Dimensions: (L x W x D): 55.5 mm x 55.5 mm x 28.3 mm DIN EN 60669-2-1		
	white		
white	6815-92-101-507	2CKA006800A2848	1
champagne ³⁾	6815-93-101-507	2CKA006800A2849	1
alpine white	6815-94-101-507	2CKA006800A2850	1
château-black	6815-95-101-507	2CKA006800A2851	1
chalet-white	6815-96-101-507	2CKA006800A2852	1

¹⁾ Please order the respective flush-mounted insert separately.

²⁾ The range specifications refer to an ambient temperature of 21 °C.

³⁾ Surface painted.

Light switches and socket outlets

Busch-Comfort switch

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Comfort switch ¹⁾ complete set Ready-to-install movement detector/push-button switch combination (set packaging). Consisting of Busch-Comfort switch control element 6815-84-101-500. Consisting of Busch-Universal relay switch insert 6440/01 U-500. Consisting of 1gang future® linear cover frames. Control element: 2 controllers for setting the brightness switching threshold and switch-off delay. Display elements: LED for status display. Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Outputs: 1x Normally open contact, potential-bound Suitable for: 230 V~ LEDi Rated power: 100 W/VA Suitable for: 230 V incandescent lamps/230 V halogen lamps Rated current: 10 AX Rated power: 2300 W Suitable for: Niedervolt Halogenlampen mit elektronischen Transformatoren. Rated power: 2300 VA Detection range: frontal: 5 m, lateral: 3 m, Mounting height: 1.1 m Detection angle: 170 ° Brightness limit value: 5 Lux - 500 Lux , Daytime operation Mounting height: 0.8 m - 1.2 m Protection class (Sensor): IP 20 Temperature range (Device): 0 °C to 35 °C Dimensions: (L x W x D): 81 mm x 81 mm x 52 mm Mounting depth: 31 mm DIN EN 60669-2-1		
	studio white	6816 UJ-84-500	2CKA006800A2859 1

¹⁾ The range specifications refer to an ambient temperature of 21 °C.

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Comfort switch ¹⁾ complete set Ready-to-install movement detector/push-button switch combination (set packaging). Consisting of Busch-Universal relay switch insert 6815-84-101-500. Consisting of Universal relay insert 6440/01 U-500. Consisting of 1gang IMPRESSIVO® cover frame. Control element: 2 controllers for setting the brightness switching threshold and switch-off delay. Display elements: LED for status display. Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Outputs: 1x Normally open contact, potential-bound Suitable for: 230 V~ LEDi Rated power: 100 W/VA Suitable for: 230 V incandescent lamps/230 V halogen lamps Rated current: 10 AX Rated power: 2300 W Suitable for: Low voltage halogen lamps operated by transformers. Rated power: 2300 VA Detection range: frontal: 5 m, lateral: 3 m, Mounting height: 1.1 m Detection angle: 170 ° Brightness limit value: 5 Lux - 500 Lux , Daytime operation Mounting height: 0.8 m - 1.2 m Protection class (Sensor): IP 20 Temperature range (Device): 0 °C to 35 °C Dimensions: (L x W x D): 85 mm x 85 mm x 52 mm Mounting depth: 31 mm DIN EN 60669-2-1		
	studio white	6816/11 UJ-84-510	2CKA006800A2875 1

¹⁾ The range specifications refer to an ambient temperature of 21 °C.

Light switches and socket outlets

Busch-Comfort switch

Product	Article-No.	Order-No.	Pack/Qty
	Busch-Comfort switch ¹⁾ complete set Ready-to-install movement detector/push-button switch combination (set packaging). Consisting of Busch-Universal relay switch insert 6815-84-101-500. Consisting of Busch-Comfort switch control element 6440/04 U-500. Consisting of 1gang IMPRESSIVO® cover frame. Control element: 2 controllers for setting the brightness switching threshold and switch-off delay. Display elements: LED for status display. Rated voltage: 230 V~, +10 % / -10 % Rated frequency: 50 Hz - 60 Hz Outputs: 1x Normally open contact, potential-bound Suitable for: 230 V~ LEDi Rated power: 2 - 80 W/VA Suitable for: 230 V incandescent lamps/230 V halogen lamps Rated power: 20 - 180 W Suitable for: Low voltage halogen lamps operated by transformers. Rated power: 20 - 180 VA Detection range: frontal: 5 m, lateral: 3 m, Mounting height: 1.1 m Detection angle: 170 ° Brightness limit value: 5 Lux - 500 Lux , Daytime operation Mounting height: 0.8 m - 1.2 m Protection class (Sensor): IP 20 Temperature range (Device): 0 °C to 35 °C Dimensions: (L x W x D): 85 mm x 85 mm x 52 mm Mounting depth: 31 mm DIN EN 60669-2-1		
	studio white	6815/11 UJ-84-510	2CKA006800A2876 1

¹⁾ The range specifications refer to an ambient temperature of 21 °C.

Light switches and socket outlets

Millenium – 1 Gang switches. Premium rocker

Product	Article-No.	Order-No.	Pack/Qty
	Switch 1-gang, 1-way, DP premium 45A Rated voltage: 250Vac Rated current: 45A Status indicator LED Premium size rocker		
White Glass	AM17744-WG	2CLA620149N3001	1
Black Glass	AM17744-BG	2CLA620149N3101	1

Millenium – Socket outlets

Product	Article-No.	Order-No.	Pack/Qty
	BS SP switched socket outlet 13A Rated voltage: 250Vac Rated current: 13A Single pole Dual earth with child safety shutter system		
White Glass	AM23386-WG	2CLA623739N3001	1
Black Glass	AM23386-BG	2CLA623739N3101	1

	BS DP switched socket outlet 13A Rated voltage: 250Vac Rated current: 13A Double pole Dual earth with child safety shutter system		
White Glass	AM23786-WG	2CLA623719N3001	1
Black Glass	AM23786-BG	2CLA623719N3101	1

	BS SP switched socket outlet w/LED 13A Rated voltage: 250Vac Rated current: 13A Single pole Indicator LED Dual earth with child safety shutter system		
White Glass	AM23486-WG	2CLA623749N3001	1
Black Glass	AM23486-BG	2CLA623749N3101	1

	BS DP switched socket outlet w/LED 13A Rated voltage: 250Vac Rated current: 13A Double pole Indicator LED Dual earth with child safety shutter system		
White Glass	AM23886-WG	2CLA623729N3001	1
Black Glass	AM23886-BG	2CLA623729N3101	1

	BS DP switched socket outlet, 2-gang 13A Rated voltage: 250Vac Rated current: 13A Double pole Dual earth with child safety shutter system		
White Glass	AM239147-WG	2CLA643719N3001	1
Black Glass	AM239147-BG	2CLA643719N3101	1

	BS DP switched SO w/LED, 2-gang 13A Rated voltage: 250Vac Rated current: 13A Double pole Indicator LED Dual earth with child safety shutter system		
White Glass	AM240147-WG	2CLA643729N3001	1
Black Glass	AM240147-BG	2CLA643729N3101	1

Light switches and socket outlets

Millenium – Socket outlets

Product	Article-No.	Order-No.	Pack/Qty
	BS DP round pin switched outlet 5A Rated voltage: 250Vac Rated current: 5A Double pole Child safety shutter system		
White Glass	AM22186-WG	2CLA623759N3001	1
Black Glass	AM22186-BG	2CLA623759N3101	1
	BS DP round pin switched outlet 15A Rated voltage: 250Vac Rated current: 15A Double pole Child safety shutter system		
White Glass	AM20986-WG	2CLA623769N3001	1
Black Glass	AM20986-BG	2CLA623769N3101	1
	BS DP round pin switched outlet w/LED 15A Rated voltage: 250Vac Rated current: 15A Double pole Indicator LED Child safety shutter system		
White Glass	AM23186-WG	2CLA623779N3001	1
Black Glass	AM23186-BG	2CLA623779N3101	1
	Universal switched socket outlet 13A Rated voltage: 250Vac Rated current: 13A Child safety shutter system		
White Glass	AM29486-WG	2CLA623919N3001	1
Black Glass	AM29486-BG	2CLA623919N3101	1
	Cooker control unit Rated voltage: 250Vac Main switch: Rated current: 45A Double pole Indicator LED Socket outlet: Rated current: 13A Child safety shutter system Indicator LED Flush wall box 45mm		
White Glass	AM118147-WG	2CLA643749N3001	1

Millenium – Voice data & information connectors

Product	Article-No.	Order-No.	Pack/Qty
	Telephone outlet RJ11, 1-gang 4 pole UTP		
White Glass	AM32144-WG	2CLA611709N3001	1
Black Glass	AM32144-BG	2CLA611709N3101	1
	BT master telephone outlet RJ11/RJ12, 1-gang BT master 6 pole UTP		
White Glass	AM30544-WG	2CLA611889N3001	1
Black Glass	AM30544-BG	2CLA611889N3101	1
	BT secondary telephone outlet RJ11/RJ12, 1-gang BT secondary 6 pole UTP		
White Glass	AM30644-WG	2CLA611899N3001	1
Black Glass	AM30644-BG	2CLA611899N3101	1

Light switches and socket outlets

Millenium – Data & information connectors

Product	Article-No.	Order-No.	Pack/Qty
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Computer outlet RJ45 Cat. 6 UTP, 1-gang
8 pole
UTP

White Glass	AM33344-WG	2CLA611869N3001	1
Black Glass	AM33344-BG	2CLA611869N3101	1



Computer outlet RJ45 Cat. 6A, 1-gang
8 pole
Cat 6A

White Glass	AM33644-WG	2CLA611879N3001	1
Black Glass	AM33644-BG	2CLA611879N3101	1



Computer outlet RJ45 Cat. 6 UTP, 2-gang
8 pole
UTP

White Glass	AM32944-WG	2CLA621869N3001	1
Black Glass	AM32944-BG	2CLA621869N3101	1



Computer outlet RJ45 Cat. 6A, 2-gang
8 pole
Cat 6A

White Glass	AM33744-WG	2CLA621879N3001	1
Black Glass	AM33744-BG	2CLA621879N3101	1



TV outlet, 1-gang
M type isolated dead-end-feeder.

White Glass	AM30144-WG	2CLA615009N3001	1
Black Glass	AM30144-BG	2CLA615009N3101	1



TV/SAT outlet
F type isolated dead-feeder with filter.

White Glass	AM31344-WG	2CLA625009N3001	1
Black Glass	AM31344-BG	2CLA625009N3101	1

Product	Article-No.	Order-No.	Pack/Qty
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SAT outlet
F type isolated dead-end-feeder.

White Glass	AM30344-WG	2CLA615109N3001	1
Black Glass	AM30344-BG	2CLA615109N3101	1



SAT twin outlet F type
F type isolated dead-end-feeder.

White Glass	AM32344-WG	2CLA625109N3001	1
Black Glass	AM32344-BG	2CLA625109N3101	1



Flex outlet 20A
Rated current: 20A

White Glass	AM55044-WG	2CLA620729N3001	1
Black Glass	AM55044-BG	2CLA620729N3101	1

Light switches and socket outlets

Millenium – Dimmers

Product	Article-No.	Order-No.	Pack/Qty
	Double rotary dimmer, 2x1-gang Rated voltage: 230V~ +/-10 50 Hz. Min. power: 20W / VA. Max. power: - Incandescent lamps: 250 W. - Halogen lamps with ferromagnetic transformers: 150 VA. Operating temperature: 0° C to +30° C. For special ambient temperature read the recommendations in the user's manual.		
	White Glass	AM41244-WG	2CLA616039N3001 1
	Black Glass	AM41244-BG	2CLA616039N3101 1
	Rotary dimmer Rated voltage: 250V~ +/-10 50 Hz. Min. power: 40W / VA. Max. power: - Incandescent lamps: 400W. - Halogen lamps with ferromagnetic transformers: 300 VA. Operating temperature: 0° C to +30° C.		
	White Glass	AM41344-WG	2CLA626039N3001 1
	Black Glass	AM41344-BG	2CLA626039N3101 1

Millenium – Thermostats

Product	Article-No.	Order-No.	Pack/Qty
	Thermostat 2 pipe w/blue display Rated voltage: 250Vac Rated power: 200W Sensor: NTC Temperature setting: 5° C - 35° C Temp adjustment: +/- 1° C Depth: 25,5 mm.		
	White Glass	AM41786-WG	2CLA624059N3001 1
	Black Glass	AM41786-BG	2CLA624059N3101 1
	Thermostat 4 pipe w/blue display Rated voltage: 250Vac Rated power: 200W Sensor: NTC Temperature setting: 5° C - 35° C Temp adjustment: +/- 1° C Depth: 25,5 mm.		
	White Glass	AM42086-WG	2CLA624069N3001 1
	Black Glass	AM42086-BG	2CLA624069N3101 1

Light switches and socket outlets

Millenium – Hotel equipment

Product	Article-No.	Order-No.	Pack/Qty
	Card switch 16AX Rated voltage: 250Vac Rated current: 16AX Includes indication LED		
White Glass	AM40244-WG	2CLA621419N3001	1
Black Glass	AM40244-BG	2CLA621419N3101	1
	Electronic card switch 16AX Rated voltage: 250Vac Rated current: 16AX Includes indication LED Time relay : 5-90 sec. Cards up to 54 mm width.		
White Glass	AM40544-WG	2CLA621459N3001	1
Black Glass	AM40544-BG	2CLA621459N3101	1
	Shaver socket outlet Rated voltage: 20VA / 230Vac Outputs: 115V and 230V Dimensions: 150x90x54mm Flush wall box not included (45mm depth minimum)		
White Glass	AM40188-WG	2CLA680309N3001	1
Black Glass	AM40188-BG	2CLA680309N3101	1

Millenium – Various

Product	Article-No.	Order-No.	Pack/Qty
	Blank plate Premium size		
White Glass	AM50444-WG	2CLA620009N3001	1
Black Glass	AM50444-BG	2CLA620009N3101	1
	Fuse connection unit w/flex outlet 13A Rated voltage: 230Vac Rated current: 13A Fuse size: Ø6.3x25mm Fuse breaking capacity: 6kA 264V~ 50Hz Fuse according to BS1362		
White Glass	AM50653-WG	2CLA630809N3001	1
Black Glass	AM50653-BG	2CLA630809N3101	1
	Fuse connection unit w/flex outlet w/LED 13A Rated voltage: 230Vac Rated current: 13A Fuse size: Ø6.3x25mm Fuse breaking capacity: 6kA 264V~ 50Hz Fuse according to BS1362 Status indicator LED		
White Glass	AM50853-WG	2CLA630859N3001	1
Black Glass	AM50853-BG	2CLA630859N3101	1
	Switched fuse connection unit w/flex outlet w/LED 13A Rated voltage: 230Vac Rated current: 13A Fuse size: Ø6.3x25mm Fuse breaking capacity: 6kA 264V~ 50Hz Fuse according to BS1362 Status indicator LED		
White Glass	AM50753-WG	2CLA630829N3001	1
Black Glass	AM50753-BG	2CLA630829N3101	1

Light switches and socket outlets

Millenium – Rocker switch

Product	Article-No.	Order-No.	Pack/Qty
	Switch 1-gang, 1-way, SP 10AX Rated voltage: 250Vac Rated current: 10AX		
White Glass	AMD10120-WG	2CLA610100N3001	10
Black Glass	AMD10120-BG	2CLA610100N3101	10

	Switch 1-gang, 2-way, SP 10AX Rated voltage: 250Vac Rated current: 10AX		
White Glass	AMD10520-WG	2CLA610200N3001	5
Black Glass	AMD10520-BG	2CLA610200N3101	5

	Switch 1-gang, intermediate, SP 10AX Rated voltage: 250Vac Rated current: 10AX		
White Glass	AMD11920-WG	2CLA611000N3001	5
Black Glass	AMD11920-BG	2CLA611000N3101	5

	Switch 1-gang, 1-way, SP 20AX Rated voltage: 250Vac Rated current: 20AX		
White Glass	AMD11020-WG	2CLA610110N3001	10
Black Glass	AMD11020-BG	2CLA610110N3101	10

	Switch 1-gang, 2-way, SP 20AX Rated voltage: 250Vac Rated current: 20AX		
White Glass	AMD11520-WG	2CLA610210N3001	5
Black Glass	AMD11520-BG	2CLA610210N3101	5

	Switch 1-gang, 1-way, DP 20AX Rated voltage: 250Vac Rated current: 20AX Status indicator LED		
White Glass	AMD11120-WG	2CLA610130N3001	5
Black Glass	AMD11120-BG	2CLA610130N3101	5

Product	Article-No.	Order-No.	Pack/Qty
	Switch 1-gang, 1-way, DP water heater 20AX Rated voltage: 250Vac Rated current: 20AX Water heater indicator LED		
White Glass	AMD10920-WG	2CLA610140N3001	5
Black Glass	AMD10920-BG	2CLA610140N3101	5

	Push-button 1-gang, 1-way, SP 10A Rated voltage: 250Vac Rated current: 10A		
White Glass	AMD43020-WG	2CLA610400N3001	5
Black Glass	AMD43020-BG	2CLA610400N3101	5

	Push-button 1-gang, 1-way, SP with bell symbol 10A Rated voltage: 250Vac Rated current: 10A Bell symbol indicator LED		
White Glass	AMD42920-WG	2CLA610440N3001	5
Black Glass	AMD42920-BG	2CLA610440N3101	5

Rocker switch frames

	Rocker switch frame 1-gang Includes metal mounting frame Dimensions 86x86 mm.		
White Glass	AMD5120-WG	2CLA617100N3001	4
Black Glass	AMD5120-BG	2CLA617100N3101	4

Light switches and socket outlets

Millenium – Premium rocker switch

Product	Article-No.	Order-No.	Pack/Qty
	Switch 1-gang, 1-way, SP premium 10AX Rated voltage: 250Vac Rated current: 10AX Premium size rocker		
White Glass	AMD10144-WG	2CLA620100N3001	5
Black Glass	AMD10144-BG	2CLA620100N3101	5
	Switch 1-gang, 2-way, SP premium 10AX Rated voltage: 250Vac Rated current: 10AX Premium size rocker		
White Glass	AMD10544-WG	2CLA620200N3001	5
Black Glass	AMD10544-BG	2CLA620200N3101	5
	Switch 1-gang, intermediate, SP premium 10AX Rated voltage: 250Vac Rated current: 10AX Premium size rocker		
White Glass	AMD11944-WG	2CLA621000N3001	5
Black Glass	AMD11944-BG	2CLA621000N3101	5
	Switch 1-gang, 1-way, SP premium 20AX Rated voltage: 250Vac Rated current: 20AX Premium size rocker		
White Glass	AMD11044-WG	2CLA620110N3001	5
Black Glass	AMD11044-BG	2CLA620110N3101	5
	Switch 1-gang, 2-way, SP premium 20AX Rated voltage: 250Vac Rated current: 20AX Premium size rocker		
White Glass	AMD11544-WG	2CLA620210N3001	5
Black Glass	AMD11544-BG	2CLA620210N3101	5
	Push-button 1-gang, 1-way, SP premium 10A Rated voltage: 250Vac Rated current: 10A Premium size rocker		
White Glass	AMD43044-WG	2CLA620400N3001	5
Black Glass	AMD43044-BG	2CLA620400N3101	5

Product	Article-No.	Order-No.	Pack/Qty
	Push-button 1-gang, 1-way, SP premium w/bell symbol 10A Rated voltage: 250Vac Rated current: 10A Bell symbol indicator LED Premium size rocker		
White Glass	AMD42944-WG	2CLA620440N3001	5
Black Glass	AMD42944-BG	2CLA620440N3101	5

Light switches and socket outlets

Millenium – Premium rocker frames

Product	Article-No.	Order-No.	Pack/Qty
 Premium rocker switch frame 1-gang Includes metal mounting frame Dimensions 86x86 mm.			
White Glass	AMD5044-WG	2CLA617110N3001	4
Black Glass	AMD5044-BG	2CLA617110N3101	4
 Premium/double rocker switch frame 2-gang Includes metal mounting frame Dimensions 86x147 mm.			
White Glass	AMD5244-WG	2CLA647200N3001	5
Black Glass	AMD5244-BG	2CLA647200N3101	5
 Premium/half/double rocker switch frame 3-gang Includes metal mounting frame Dimensions 86x228 mm.			
White Glass	AMD5344-WG	2CLA667310N3001	2
Black Glass	AMD5344-BG	2CLA667310N3101	2
 Premium/half/double rocker switch frame 4-gang Includes metal mounting frame Dimensions 86x293 mm.			
White Glass	AMD5444-WG	2CLA687410N3001	2
Black Glass	AMD5444-BG	2CLA687410N3101	2

Millenium – Half/double rocker switches

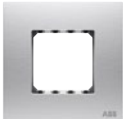
Product	Article-No.	Order-No.	Pack/Qty
 Switch 1-gang, 1-way, half rocker 10AX Rated voltage: 250Vac Rated current: 10AX Half rocker size			
White Glass	AMD10222-WG	2CLA680100N3001	5
Black Glass	AMD10222-BG	2CLA680100N3101	5
 Switch 1-gang, 2-way, half rocker 10AX Rated voltage: 250Vac Rated current: 10AX Half rocker size			
White Glass	AMD10622-WG	2CLA680200N3001	5
Black Glass	AMD10622-BG	2CLA680200N3101	5
 Switch 1-gang, intermediate, half rocker 10AX Rated voltage: 250Vac Rated current: 10AX Half rocker size			
White Glass	AMD12922-WG	2CLA681000N3001	5
Black Glass	AMD12922-BG	2CLA681000N3101	5
 Push button 1-gang, 1-way, half rocker 10A Rated voltage: 250Vac Rated current: 10A Half rocker size			
White Glass	AMD43222-WG	2CLA680400N3001	5
Black Glass	AMD43222-BG	2CLA680400N3101	5
 Switch 1-gang, 1-way, half rocker 20AX Rated voltage: 250Vac Rated current: 20AX Half rocker size			
White Glass	AMD11422-WG	2CLA680110N3001	5
Black Glass	AMD11422-BG	2CLA680110N3101	5
 Switch 1-gang, 2-way, half rocker 20AX Rated voltage: 250Vac Rated current: 20AX Half rocker size			
White Glass	AMD11622-WG	2CLA680210N3001	5
Black Glass	AMD11622-BG	2CLA680210N3101	5

Light switches and socket outlets

Millenium – Half/double rocker switches

Product	Article-No.	Order-No.	Pack/Qty
 Switch blind control Rated voltage: 250Vac Rated power: 16AX Output: 2 normally open contact Multi-way input terminal (up/down)			
White Glass	AMD11844-WG	2CLA624410N3001	5
Black Glass	AMD11844-BG	2CLA624410N3101	5
 Push button 2-gang, DND/MUR with bell symbol 10A Rated voltage: 250Vac Rated power: 10A Do Not Disturb Make Up my Room LED signalling			
White Glass	AMD40344-WG	2CLA621580N3001	5
Black Glass	AMD40344-BG	2CLA621580N3101	5
 Switch 2-gang, DND/MUR 10AX Rated voltage: 250Vac Rated power: 10AX Do Not Disturb Make Up my Room LED signalling			
White Glass	AMD40444-WG	2CLA621500N3001	5
Black Glass	AMD40444-BG	2CLA621500N3101	5
 Fan isolator 3 poles double 10A Rated voltage: 250Vac Rated power: 10A 3 poles			
White Glass	AMD13444-WG	2CLA620500N3001	5
Black Glass	AMD13444-BG	2CLA620500N3101	5

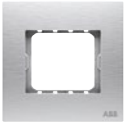
Millenium – Half/double rocker & other functions frames

Product	Article-No.	Order-No.	Pack/Qty
 Half/double rocker & other functions frame 1-gang Includes metal mounting frame Dimensions 86x86 mm.			
White Glass	AMD5144-WG	2CLA627100N3001	10
Black Glass	AMD5144-BG	2CLA627100N3101	10
 Premium/half/double rocker switch frame 2-gang Includes metal mounting frame Dimensions 86x147 mm.			
White Glass	AMD5244-WG	2CLA647200N3001	5
Black Glass	AMD5244-BG	2CLA647200N3101	5
 Premium/half/double rocker switch frame 3-gang Includes metal mounting frame Dimensions 86x228 mm.			
White Glass	AMD5344-WG	2CLA667310N3001	2
Black Glass	AMD5344-BG	2CLA667310N3101	2
 Premium/half/double rocker switch frame 4-gang Includes metal mounting frame Dimensions 86x293 mm.			
White Glass	AMD5444-WG	2CLA687410N3001	2
Black Glass	AMD5444-BG	2CLA687410N3101	2

Light switches and socket outlets

Millenium – Triple rocker switches

Product	Article-No.	Order-No.	Pack/Qty
	Switch 3-gang, 2-way, triple rocker 10AX Rated voltage: 250Vac Rated power: 10AX Total		
	White Glass	AMD10753-WG	2CLA630200N3001 5
	Black Glass	AMD10753-BG	2CLA630200N3101 5
	Switch 3-gang, 2-way, triple rocker 16AX Rated voltage: 250Vac Rated power: 16AX Total		
	White Glass	AMD12153-WG	2CLA630210N3001 5
	Black Glass	AMD12153-BG	2CLA630210N3101 5
	Push button 3-gang, 2-way, triple rocker 10AX Rated voltage: 250Vac Rated power: 10AX Total		
	White Glass	AMD43053-WG	2CLA630400N3001 5
	Black Glass	AMD43053-BG	2CLA630400N3101 5

Product	Article-No.	Order-No.	Pack/Qty
	Triple rocker switch/KNX sensors frame 1-gang Includes metal mounting frame Dimensions 86x86 mm.		
	White Glass	AMD5153-WG	2CLA637100N3001 10
	Black Glass	AMD5153-BG	2CLA637100N3101 10
	Triple rocker switch/KNX sensors frame 2-gang Includes metal mounting frame Dimensions 86x147 mm.		
	White Glass	AMD5253-WG	2CLA667200N3001 5
	Black Glass	AMD5253-BG	2CLA667200N3101 5

Energy Management

ABB EQmatic

With the new ABB EQmatic series, ABB offers a solution for storing, displaying and analyzing the consumption data of electricity, gas, water and heat meters. Thus, energy flows and costs in the building can be monitored and made transparent.

User interface offers helpful features

The evaluation and analysis of the data are carried out via the web-based graphical user interface. For a detailed monitoring the devices offer several analysis functions such as historical data analysis, benchmark functions, cost analysis, instantaneous values etc.

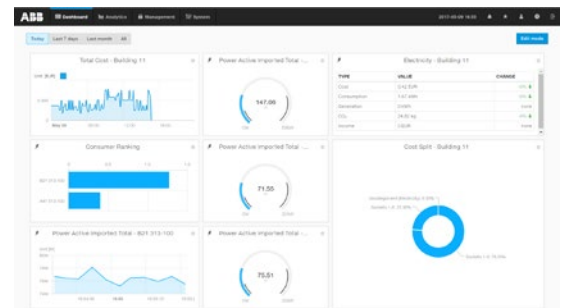
Increased Energy efficiency

This serves to increase energy efficiency and as a basis for further operational optimizations, based on the energy management standard ISO 50001.

High flexibility

Various export functions such as scheduled reports via FTP or E-Mail are available for further data processing.

The data sharing options via Modbus TCP and API allow the integration into supervisory systems.



Intuitive web-based user-interface to access meters easily. It can be flexibly configured to meet specific demands. For a quick overview, metering data and analytic charts can be individually configured and arranged here.



ABB i-bus® KNX

Energy Management Energy Analyzer

Energy Analyzer, KNX, 16 Devices, MDRC

Compact and web-based stand-alone device for energy management applications. For monitoring, logging, displaying and analyzing consumption data of up to 16 electricity, gas, water or heat meters via KNX TP. In addition measured values such as temperature, humidity, etc. can be processed and displayed. The alarm function allows early warning (e.g. via E-mail) if any value exceeds defined limits. The user interface provides graphical analysis functions, e.g. dashboard, historical data, instantaneous values, benchmark functions, cost allocation according to consumer groups and more. In order to increase energy efficiency, defined loads can be selectively switched off with the load control function if they exceed a configurable load limit. For further processing data can be exported cyclically (e.g. every month) via E-mail or upload to FTP server. Several data sharing options (e.g. Modbus TCP, Rest API) allow the communication with other systems. Available October 2019

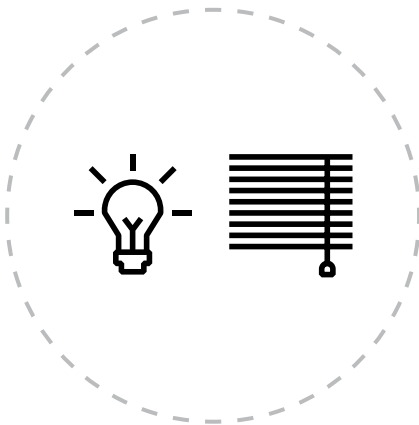


QA/S 1.16.1

Mod. width			Price 1 piece	Weight 1 piece	Pack unit
	Type code	Order code		kg	pc.
32	QA/S 1.16.1	2CDG110224R0011		0.19	1

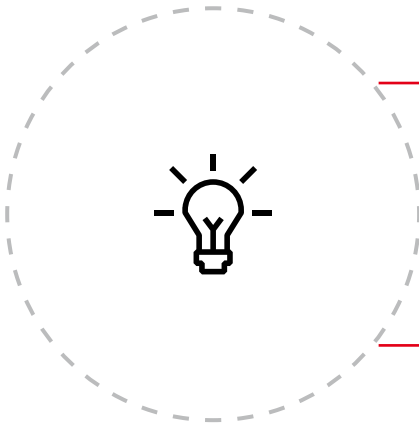
Outputs

New Actuators series from ABB



Combi actuators

The 9 Combi devices are combining two application: switching and shading. The products are ideally made for residential usage to offer greatest flexibility.



Standard Switch Actuators

These 12 devices are building the Standard when it comes to switching applications for commercial buildings. During the development we focused on providing a cost optimized selection of products, that matches the needs of commercial projects.

Professional Switch Actuators

The professional series includes 8 switch actuators made for high switching capacity. This portfolio has been developed to suit the high requirements of industry standards.

ABB i-bus® KNX

Outputs

Switch Actuators

Switch Actuator, 6 A, MDRC

The compact combi 6 A actuator has 8, 16 or 24 independent switching relays (no electromechanically interlocking). The outputs can be used individually via ABB i-bus® KNX for switching electrical loads or in pairs for controlling 230 V AC roller shutter or blind drives. Each output can be operated manually. The switching or driving status of each output is displayed on the device. The device features a manual operation, which can also be disabled. The device is powered by KNX and requires no additional power supply.

Available October 2019



SAH/S 8.6.7.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
8-fold	4	SAH/S 8.6.7.1	2CDG110244R0011		0.349	1
16-fold	8	SAH/S 16.6.7.1	2CDG110245R0011		0.596	1
24-fold	12	SAH/S 24.6.7.1	2CDG110246R0011		0.83	1

Switch Actuator, 10 A, MDRC

The compact combi 10 A actuator has 8, 16 or 24 independent switching relays (no electromechanically interlocking). The outputs can be used individually via ABB i-bus® KNX for switching electrical loads or in pairs for controlling 230 V AC roller shutter or blind drives. Each output can be operated manually. The switching or driving status of each output is displayed on the device. The device features a manual operation, which can also be disabled. The device is powered by KNX and requires no additional power supply.

Available October 2019



SAH/S 16.10.7.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
8-fold	4	SAH/S 8.10.7.1	2CDG110247R0011		0.349	1
16-fold	8	SAH/S 16.10.7.1	2CDG110248R0011		0.596	1
24-fold	12	SAH/S 24.10.7.1	2CDG110249R0011		0.83	1

Switch Actuator, 16 A, MDRC

The compact combi 16 A actuator has 8, 16 or 24 independent switching relays (no electromechanically interlocking). The outputs can be used individually via ABB i-bus® KNX for switching electrical loads or in pairs for controlling 230 V AC roller shutter or blind drives. Each output can be operated manually. The switching or driving status of each output is displayed on the device. The device features a manual operation, which can also be disabled. The device is powered by KNX and requires no additional power supply.

Available October 2019



SAH/S 24.16.7.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
8-fold	4	SAH/S 8.16.7.1	2CDG110250R0011		0.349	1
16-fold	8	SAH/S 16.16.7.1	2CDG110251R0011		0.596	1
24-fold	12	SAH/S 24.16.7.1	2CDG110252R0011		0.83	1

ABB i-bus® KNX

Outputs

Switch Actuators

Switch Actuator, 6 A, MDRC

The switch actuator uses potential free contacts to switch 2, 4, 8 or 12 independent electrical loads via the ABB i-bus® KNX. Manual operation and display of the switching state of the contacts. The 6 A device is especially suited to switch resistive, inductive or capacitive loads. The device is powered by KNX and requires no additional power supply.

Available December 2019



SA/S 2.6.2.2

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
2-fold	2	SA/S 2.6.2.2	2CDG110253R0011		0.197	1
4-fold	4	SA/S 4.6.2.2	2CDG110254R0011		0.292	1
8-fold	8	SA/S 8.6.2.2	2CDG110255R0011		0.5	1
12-fold	12	SA/S 12.6.2.2	2CDG110256R0011		0.718	1

Switch Actuator, 10 A, MDRC

The switch actuator uses potential free contacts to switch 2, 4, 8 or 12 independent electrical loads via the ABB i-bus® KNX. Manual operation and display of the switching state of the contacts. The 10 A device is especially suited for loads with high surge currents e.g. fluorescent lighting (AX) acc. EN 60669. The device is powered by KNX and requires no additional power supply.

Available December 2019



SA/S 8.10.2.2

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
2-fold	2	SA/S 2.10.2.2	2CDG110257R0011		0.197	1
4-fold	4	SA/S 4.10.2.2	2CDG110258R0011		0.292	1
8-fold	8	SA/S 8.10.2.2	2CDG110259R0011		0.5	1
12-fold	12	SA/S 12.10.2.2	2CDG110260R0011		0.718	1

Switch Actuator, 16 A, MDRC

The switch actuator uses potential free contacts to switch 2, 4, 8 or 12 independent electrical loads via the ABB i-bus® KNX. Manual operation and display of the switching state of the contacts. The 16 A device is especially suited for loads with high surge currents e.g. fluorescent lighting (AX) acc. EN 60669. The device is powered by KNX and requires no additional power supply.

Available December 2019



SAH/S 24.16.7.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
2-fold	2	SA/S 2.16.2.2	2CDG110261R0011		0.197	1
4-fold	4	SA/S 4.16.2.2	2CDG110262R0011		0.292	1
8-fold	8	SA/S 8.16.2.2	2CDG110263R0011		0.5	1
12-fold	12	SA/S 12.16.2.2	2CDG110264R0011		0.718	1

ABB i-bus® KNX

Outputs

Switch Actuators

Switch Actuator, 16 A, C-Load, MDRC

The switch actuator uses potential free contacts to switch 2, 4, 8 or 12 independent electrical loads via the ABB i-bus® KNX. Manual operation and display of the switching state of the contacts. The 16/20 A, 16 A-AC3 (C-load) device is especially suited for loads with high surge currents e.g. fluorescent lighting (AX) acc. EN 60669.

Available December 2019



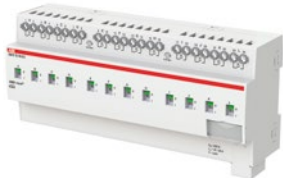
SA/S 4.16.5.2

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
2-fold	2	SA/S 2.16.5.2	2CDG110265R0011		0.207	1
4-fold	4	SA/S 4.16.5.2	2CDG110266R0011		0.313	1
8-fold	8	SA/S 8.16.5.2	2CDG110267R0011		0.546	1
12-fold	12	SA/S 12.16.5.2	2CDG110268R0011		0.786	1

Switch Actuator, 16 A, C-Load, Current Detection, MDRC

The switch actuator uses potential free contacts to switch 2, 4, 8 or 12 independent electrical loads via the ABB i-bus® KNX. Each output has an independent load current detection. Manual operation and display of the switching state of the contacts. The 16/20 A, 16 A-AC3 (C-load) device is especially suited for loads with high surge currents e.g. fluorescent lighting (AX) acc. EN 60669.

Available December 2019



SA/S 12.16.6.2

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
2-fold	2	SA/S 2.16.6.2	2CDG110269R0011		0.236	1
4-fold	4	SA/S 4.16.6.2	2CDG110270R0011		0.373	1
8-fold	8	SA/S 8.16.6.2	2CDG110271R0011		0.655	1
12-fold	12	SA/S 12.16.6.2	2CDG110272R0011		0.955	1

Lighting Control

ABB i-bus® KNX DALI Gateways

Impressive lighting atmosphere, thanks to the new tunable white DALI Gateway DG/S 1.64.5.1



A DALI Gateway serves as the interface between the KNX installation in the building and the digital DALI lighting control system, and therefore unites the two most important building automation standards.

ABB is adding one new DALI Gateway with tunable white functionality to its existing range of ABB i-bus® KNX lighting control products.

Alongside KNX building automation, DALI has become the most important lighting control in the building management system.

ABB i-bus® KNX

Lighting Control

DALI Gateway Colour

DALI Gateway Colour, 1-fold, MDRC

For controlling DALI devices via the ABB i-bus® KNX. One DALI output for up to 64 DALI slaves. DALI power supply is integrated. Control and status feedback is carried out via KNX per DALI slave (64), with lighting groups (16), together in broadcast or per scenes (16). DALI devices type DT2 (Self-contained emergency converter acc. EN 62386-202) and type DT8 (colour temperatur Tc / tunable white acc. EN 62386-209) will be supported. Extensive fault and error messages are available. By means of KNX and DT2 converter different emergency tests (e.g. function and duration test) can be triggered, test results are transversed back to KNX. With DT8 devices Dim2Warm, HCL, set and dim colour temperatur are possible. Slave-, staircase-, force-, block- and scene-function are integrated. Feedback is sent. DALI telegram rate can change.

For diagnostic use and individual change of the DALI address or group assignment a separate Software-Tool is available.

Available January 2020



DG/S 1.64.5.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
	4	DG/S 1.64.5.1	2CDG110273R0011		0.133	1

ABB i-bus® KNX

System Infrastructure and interfacing IP Router Secure and USB Interface

IP Router Secure, MDRC

Connects the KNX bus with the Ethernet network and encrypts communication on the IP backbone. The device uses the KNXnet/IP Secure protocol for communication (Routing and Tunneling). It can be used as a fast line and area coupler. The full filter table for main groups 0-31 is supported. KNX devices can be programmed via the LAN using ETS. For this and further clients 5 Secure Tunneling Servers are available. The IP address can be fixed or can be received from a DHCP server. Power supply via 12...30 V DC or PoE (IEEE 802.3af class 1). The KNX Standard Communication (Multicast) can be switched off. In this case, up to 10 IPR/S 3.5.1 can communicate using unicast communication.



IPR/S 3.5.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
	2	IPR/S 3.5.1	2CDG110176R0011		0.11	1

USB Interface, MDRC

Connects the KNX installation with PC software clients such as ETS or visualisations (programming, bus monitor, group monitor). The device supports Long Frames which allows faster download and download of KNX Secure devices.



USB/S 1.2

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
		USB/S 1.2	2CDG110243R0011		0.08	1

ABB i-bus® KNX

Security – Components

Rolling Door Reed Contact and Gas Detector with Relay Contact

Rolling Door Reed Contact

The Rolling Door Reed Contact Set is mounted mainly on rolling, sliding, and tilting doors.

The contact housing is mounted on the ground (a flat support surface is required).

Only screws made of anti-magnetic material may be used for mounting.

Due to the weatherproof and mechanically stable design of the contact housing, the circuit is mostly protected against damage when rubber-tired vehicles drive over it.

The 4-wire cable is protected by a plastic-coated metal hose.



MC-C 1.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
VdS Class B, EN Grade 2	–	MC-C1.1	2CDG250006R0011		0.3	1

Gas Detector with Relay Contact

The Gas Detector is used for monitoring gas leakage of domestic and commercial rooms. It detects gases like propane, methane and butane as well als acetylene, city gas and natural gas. The detector can be connected to ABB intrusion and fire alarm control panels, as well as ABB i-bus® binary inputs via a potential-free relay contact. Suitable as a stand-alone device. An external power supply with 12-24 V DC is required.



TD-C 1.1

Description	Mod. width	Type code	Order code	Price 1 piece	Weight 1 piece kg	Pack unit pc.
	–	TD-C 1.1	2CDG220023R0011		0.167	1

ABB free@home®

Lighting Control

Dimming actuator, 4gang ^{1) 2) 3)}

for ABB-free@home®

Multichannel universal dimming actuator optimised for dimming retrofit LED lamps (LEDi). Also suitable for dimming incandescent lamps, low-voltage halogen lights with conventional or electronic transformers, 230 V halogen lamps and dimmable energy-saving halogen lamps. Automatic load detection (can be deactivated).

Separate N-connection per channel.

Parallel connection of the outputs possible to increase the output power.

Outputs can be connected in parallel in any configuration.

Minimum load: 2 W.

Manual operation on device also possible without bus voltage or in an unprogrammed status.

Programming of the device also possible without applied 230 V supply voltage.

With integrated bus coupler.

Nominal power at 230 V~ mains voltage:

230 V~ incandescent and halogen lamps: 4 x 210 W/VA to 1 x 600 W/VA.

Dimmable 230 V~ LEDi: 4 x 210 W/VA to 1 x 600 W/VA in trailing edge control, 4 x 80 W/VA to 1 x 200 W/VA in leading edge control.

Inductive L-transformers with LED/low-voltage halogen lamp: 4 x 210 W/VA to 1 x 600 W/VA.

Electronic C-transformers with LED/low-voltage halogen lamp: 4 x 210 W/VA to 1 x 600 W/VA.

Electronic LC-transformers with LED/low-voltage halogen lamp: 4 x 80 W/VA to 1 x 200 W/VA.

Control element: One LED button per channel (including a colour status indication) for switching ON and OFF, as well as dimming up and down.

Bus voltage: 24 V

Rated voltage: 110 - 230 V~, +10 % / -10 %

Rated frequency: 50 Hz - 60 Hz

Outputs: 4x dimming channel

Rated power: 2 - 210 W/VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 108 mm x 64 mm

Mounting depth: 68 mm

Module width: 6 MW



DA/M.4.210.2.1

Description	Mod. width	Price 1 piece	Weight 1 piece	Pack unit
	Type code	Order code	kg	pc.
	DA/M.4.210.2.1	2CKA006220A0729		1

1) Programming only with bus voltage applied via the web interface of the System Access Point.

2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current Online-Catalog.

3) Recommendation: Always use lamps of the same type and manufacturer.

ABB free@home®

Lighting Control

Dimming actuator, 6gang ^{1) 2) 3)}

for ABB-free@home®

Multichannel universal dimming actuator optimised for dimming retrofit LED lamps (LEDi). Also suitable for dimming incandescent lamps, low-voltage halogen lights with conventional or electronic transformers, 230 V halogen lamps and dimmable energy-saving halogen lamps. Automatic load detection (can be deactivated).

Separate N-connection per channel.

Parallel connection of the outputs possible to increase the output power.

Outputs can be connected in parallel in any configuration.

Minimum load: 2 W.

Manual operation on device also possible without bus voltage or in an unprogrammed status.

Programming of the device also possible without applied 230 V supply voltage.

With integrated bus coupler.

Nominal power at 230 V~ mains voltage:

230 V~ incandescent and halogen lamps: 6 x 210 W/VA to 1 x 800 W/VA.

Dimmable 230 V~ LEDi: 6 x 210 W/VA to 1 x 800 W/VA in trailing edge control, 6 x 80 W/VA to 1 x 240 W/VA in leading edge control.

Inductive L-transformers with LED/low-voltage halogen lamp: 6 x 210 W/VA to 1 x 800 W/VA.

Electronic C-transformers with LED/low-voltage halogen lamp: 6 x 210 W/VA to 1 x 800 W/VA.

Electronic LC-transformers with LED/low-voltage halogen lamp: 6 x 80 W/VA to 1 x 240 W/VA.

Control element: One LED button per channel (including a colour status indication) for switching ON and OFF, as well as dimming up and down.

Bus voltage: 24 V

Rated voltage: 110 - 230 V~, +10 % / -10 %

Rated frequency: 50 Hz - 60 Hz

Outputs: 6x dimming channel

Rated power: 2 - 210 W/VA

Protection class (Device): IP 20

Temperature range (Device): -5 °C to 45 °C

Dimensions: (L x W x D): 90 mm x 144 mm x 64 mm

Mounting depth: 68 mm

Module width: 8 MW



DA/M.6.210.2.1

Description	Mod. width	Price 1 piece	Weight 1 piece	Pack unit
	Type code	Order code	kg	pc.
	DA/M.6.210.2.1	2CKA006220A0731		1

- 1) Programming only with bus voltage applied via the web interface of the System Access Point.
 2) Additional information about commissioning and operation is contained in the system manual and the online operating manual of the current Online-Catalog.
 3) Recommendation: Always use lamps of the same type and manufacturer.

Subdistribution boards

Fire protection housing

Housing for preventive fire protection

Preventive fire protection is not just the job of the construction managers. Electrical designers and installers or switchgear manufacturers are responsible during planning and execution for making sure that their systems will not be the cause of a fire. In electrical switchgear, the following elements:

- Loose terminals
- Short circuits
- Fault arcs
- Overloads
- Insulation errors
- Lightning strikes

can cause a fire. Therefore, the system operator also needs to make the appropriate contribution by checking the electrical systems at fixed intervals, maintaining them and upgrading them as needed.

In the case of technical installations in industry or in building complexes with large concentrations of people, such as in airports, train stations, nursing homes, hospitals or hotels, it is vital that the functionality of safety-relevant electrical systems is maintained even during a fire.

ABB STRIEBEL & JOHN offers you an innovative housing system for preventive fire protection made of non-flammable material with optimal technical and economic expansion options.

A wide range of wall and standing housings are available in various cabinet sizes.

- 1 Fire protection from inside, fire resistance duration at least 30/90 minutes; The fire protection housing was tested in accordance with DIN 4102-11.
- 2 Fire protection from outside, fire resistance duration at least 30/90 minutes; The fire protection housing was tested in accordance with DIN 4102-12.

Subdistribution boards

Fire protection housing

General technical data

Technical parameters

Protection goal	1 Fire protection from inside, fire resistance duration at least 30/90 minutes; The fire protection housing was tested in accordance with DIN 4102-11. 2 Fire protection from outside, fire resistance duration at least 30/90 minutes; The fire protection housing was tested in accordance with DIN 4102-12.
Mounting type	UP wall mounting/AP wall mounting/AP standing mounting
Housing material	Highly compressed, multi-layer fire protection panels (DIN 4102-1/DIN EN 13501-1) of building class 'A2' non-flammable, smoke-tight
Surface	coating light gray - similar to RAL 7035, edges in contrasting colors
Door	door hinge right or left as standard, left also possible after conversion, opening angle approx. 180 degrees
Lock	locking with sash lock through swivel handle with double bit half cylinder
Interior expansion	prepared for installing distributor fields and CombiLine module system fields
Cable entries	Top and bottom
Standard ventilation	Ventilation in case of fire self-closing
Additional equipment	IP54, various decorative surfaces, reinforced back wall for free installation, internal fan with smoke detector.

Standards/regulations*

DIN EN 61439-2 (VDE 0660-600-2) (modules EDFmounting frame)	X
DIN 43880 (rail-mounted devices)	X
Protection class	IP41/IP44/IP54
Installation site/environment	Interior space
Ambient temperature, 24-hour average	+ 35°
Ambient temperature maximum value	+ 40°
Ambient temperature minimum value	- 5°

Electrical characteristics

Rated impulse withstand voltage U_{imp}	III/6 kV
Pollution degree	3
Protection class	II
Rated surge current resistance I_{pk} 0.1 sec	max. 25 kA
Rated short-time current I_{cw} 1.0 sec	max. 12 kA
Rated frequency	50-60 Hz
Rated insulating voltage U_i	690 V
Rated operating voltage AC U_e	400 V

Subdistribution boards

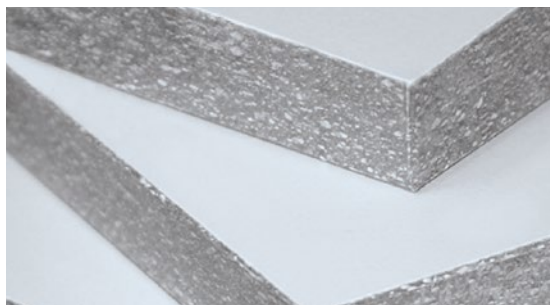
Fire protection housing

Standard features

**Material
+ Decor
A2 Class**

**Fire
Resistance
30 Min.**

**Fire
Resistance
90 Min.**



Material/design

- Building material with surface – A2-s1, d0
- Fire resistance F30/F90
- Protection class depending on application, IP41, IP44 or IP54
- Smoke-tight
- Cold smoke-proof
- Wall thickness reduced to 72 mm



Locking using the swivel handle

The doors have swivel levers in stainless steel look, which are located centrally and can be locked with double bit half cylinders



Changeable door hinge

The door hinge is easy to change - to convert, unscrew the hinge from the door joint and screw it into the opposite joint. The door is fastened using the pre-drilled fixing holes in the door and the cabinet body. The door hinge is on the right as standard.

Stainless steel hinges

High-quality stainless steel hinges with a push-out axle pin allow for easy removal of the door. If necessary, significant weight reduction can thus be achieved for transport.

Subdistribution boards

Fire protection housing

Standard features



Mounting tabs

The flush-mounted wall housings are screwed from the outside with two mounting tabs attached to the head part, each with a dowel on the wall behind it. Therefore, the equipped housing can be easily and quickly mounted.



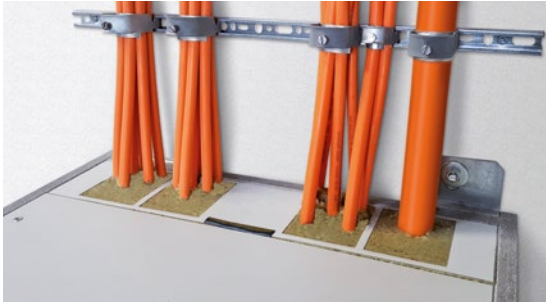
Integrated ventilation system

Consisting of fan and smoke detector, ready for connection (230 V AC), this reduces the area that can be fitted by one grid unit (RE).

Subdistribution boards

Fire protection housing

Standard features



Cable sheath

Cable sheaths for bundle or individual cable entry are located at the top and bottom of the housing.



Cable sheath (delivery condition)

The cable sheaths are standard in all wall and standing housings. This ensures quick and easy cable entry for every application.

Silicone seal

To increase the protection class to IP54, a full-perimeter silicone seal is needed for the cable entry points (see page 103).



- Empty housing, prepared for installing distributor fields and CombiLine module system fields each minus one raster unit per housing
- Doors are easy to remove - axle pin can be pushed out (reduced transport weight)
- Door opening angle 180 degrees
- Locking with rod lock, 2-point locking
- Color light gray - similar to RAL7035, with colored edges
- High chemical resistance (surface characteristics based on DIN EN 438-2)
- High mechanical strength and stability, Brinell hardness 50 N/mm²
- High material density 1,450 kg/m³
- Integrated ventilation system (area that can be fitted is reduced by one grid unit)

Subdistribution boards

Fire protection housing

Overview

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Flush-mounted wall housing UF, IP41



Housing depth 205mm
Housing for flush mount

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Surface-mount wall housing AF, IP44



Housing depth 349mm (internal depth 240mm)
Housing for surface wall mounting

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Standing housing SF, IP44



Housing depth 349mm (internal depth 240mm)
Housing for standing installation

Subdistribution boards

Fire protection housing

Overview

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Sheath housing MF, IP41



Housing for mounting using available distributors



Material
+ Decor
A2 Class

Smoke
Protection
min leakage

Fire
Resistance
90 Min.

Electric operating compartment in compact design KEB, IP54



Housing depth 586 mm

Housing to place individually equipped distributors

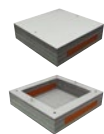
External ventilation system with functional integrity required

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Terminal boxes without terminal block KF, IP41



Housing for wall or ceiling mounting

Mounting material for ceiling mounting available on request



Facing doors VF, IP54

Doors which are installed in front of existing flush-mounted distributors



Subdistribution boards

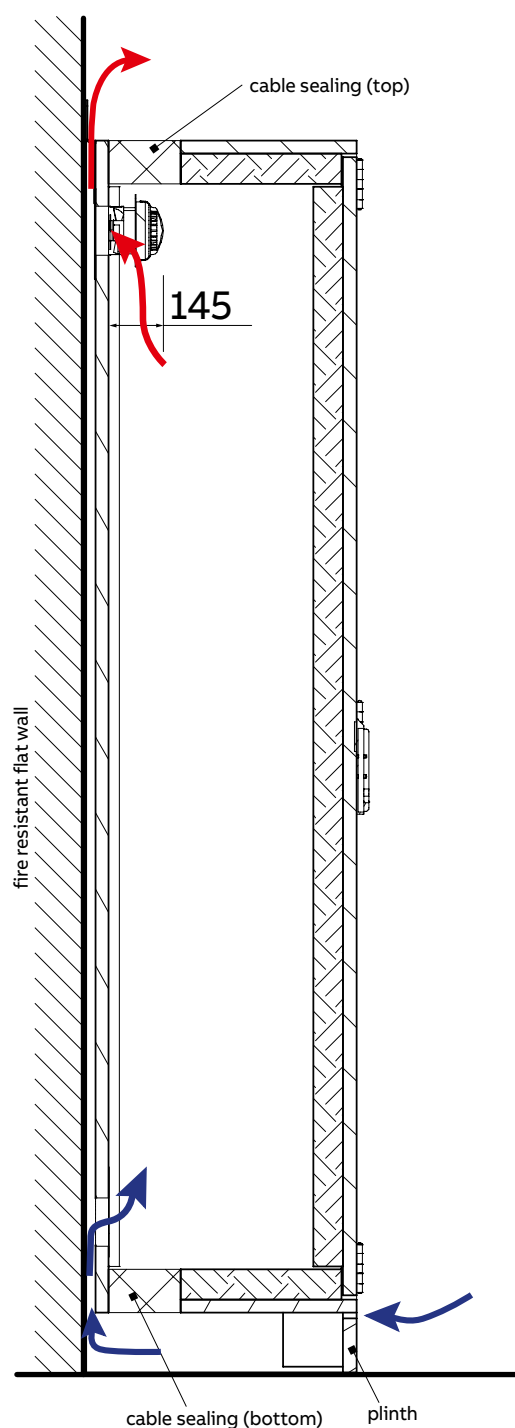
Fire protection housing

Additional equipment

Wall housing/standing housing when mounting or installing as freestanding unit

If installing as a free-standing unit, or in case of an extremely uneven wall, a BRW18 - BRW38 fire protection plate (42 mm thick) must be additionally screwed onto the back wall of the housing.

> The fire protection plate must be ordered separately, see page 103
The fire protection plate must be ordered separately, see page 103



Schematic representation of ventilation in a standing housing

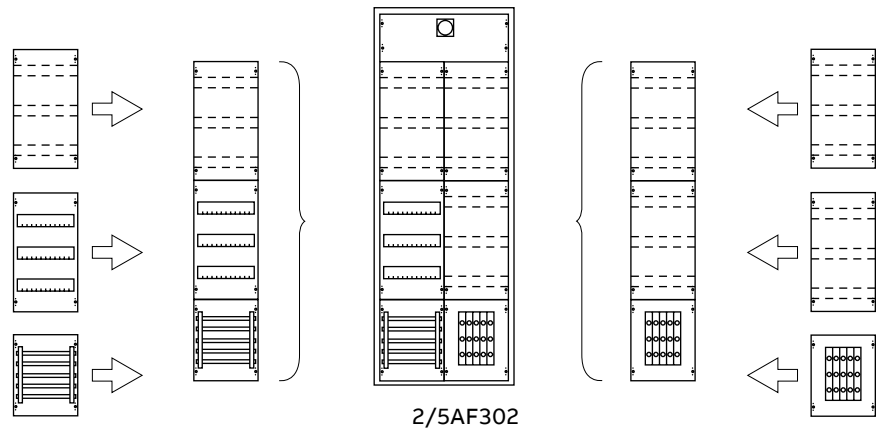
Subdistribution boards

Fire protection housing

Configuration example/mounting instructions

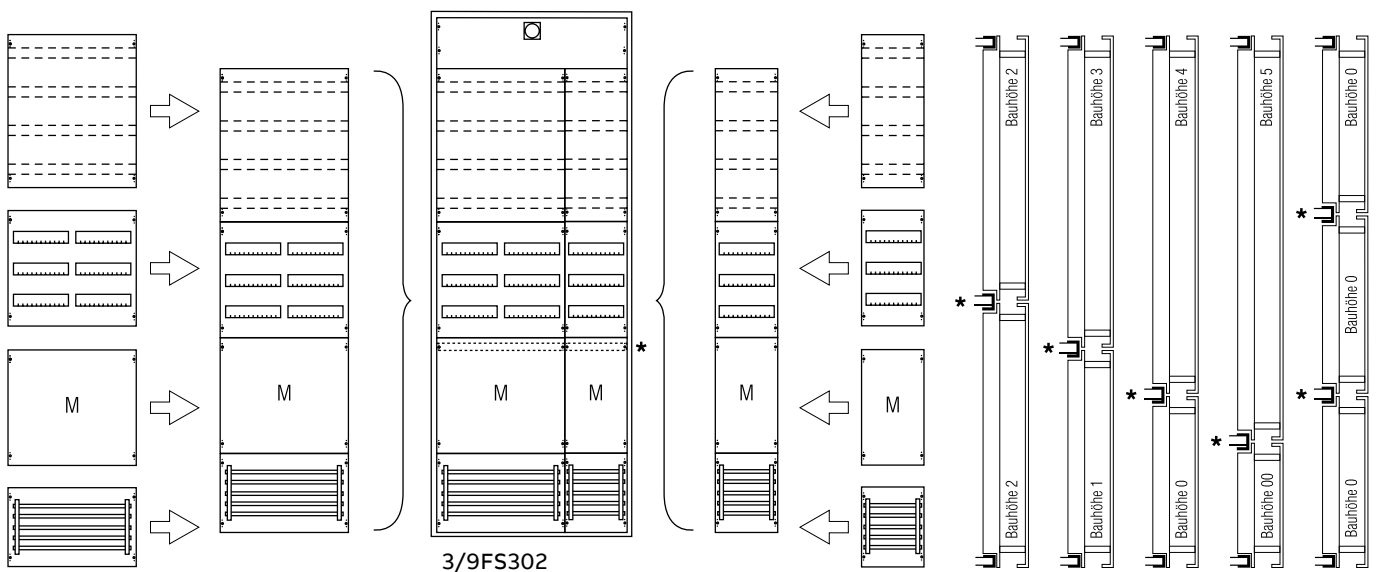
Configuration example:

Surface-mount wall housing AF



Configuration example:

Standing housing SF



*Middle support rail adjustable up and down

Important notes

For flush-mounted, surface-mounted and standing housings, the mounting frames needed to hold the CombiLine modules or distributor panels are prefitted (for CombiLine modules and distributor fields/combination sets see chapter 9)

There is a fan in the upper part of the housing which occupies the space of one grid unit (1 RE). This space has a closed cover and is not available for the installation of CombiLine modules or distributor fields/combination sets.

When planning modular system fields for standing housings, the middle support rail, which extends over the entire width of the housing, must be taken into account (see configuration example Standing housing SF).

Subdistribution boards

Fire protection housing

Flush-mounted wall housing

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Flush-mounted wall housing UF, IP41



Housing depth 205mm
Housing for flush mount

Main features

- Material with A2 surface coating - non-combustible, tested in accordance with DIN 4102-1
- Fire resistance F30/F90, tested in accordance with DIN 4102-2
- Protection type in accordance with IP41  protection class II
- Smoke-tight, cold smoke-tight

Structure

- Flush mount (solid wall F30/F90)
- Prepared for installation of distributor fields
- Prepared for expansion with CombiLine modules on EDFmounting frame
- Changeable door hinge
- Door can be de-attached, thereby reducing weight
- Locking with sash lock using swivel handle with double bit half cylinder
- Cable entry at the bottom and top
- Door internal
- Opening angle 180 degrees

Surface

- Color light gray - similar to RAL 7035, with colored edges
- High chemical resistance
- High mechanical strength and stability

Additional equipment/options

- A variety of decorative surfaces

Subdistribution boards

Fire protection housing

Flush-mounted wall housing, IP41 □, depth 205 mm



Flush-mounted wall housing IP41 □, depth 205 mm

Overall height	Locking unit	Field width	Door hinge	Space units	External dimensions in mm H × W × D	Type code	Order code	Price 1 piece	Weight 1 piece
	RE	FB		PLE					kg
0	4	1	right	48	682 × 332 × 205	1/0UF2020	2CPX040008R9999		41
0	4	1	left	48	682 × 332 × 205	1/0UF2120	2CPX040009R9999		41
0	4	2	right	96	682 × 582 × 205	2/0UF2020	2CPX040020R9999		58
0	4	2	left	96	682 × 582 × 205	2/0UF2120	2CPX040021R9999		58
2	6	1	left	72	982 × 332 × 205	1/2UF2120	2CPX040029R9999		55
2	6	2	right	144	982 × 582 × 205	2/2UF2020	2CPX040040R9999		80
2	6	2	left	144	982 × 582 × 205	2/2UF2120	2CPX040041R9999		80



Flush-mounted wall housing IP41 □, depth 205 mm

Overall height	Locking unit	Field width	Door hinge	Space units	External dimensions in mm H × W × D	Type code	Order code	Price 1 piece	Weight 1 piece
	RE	FB		PLE					kg
0	4	1	right	48	682 × 332 × 205	1/0UF2021	2CPX040052R9999		49
0	4	1	left	48	682 × 332 × 205	1/0UF2121	2CPX040053R9999		49
0	4	2	right	96	682 × 582 × 205	2/0UF2021	2CPX040064R9999		70
0	4	2	left	96	682 × 582 × 205	2/0UF2121	2CPX040065R9999		70
2	6	1	right	72	982 × 332 × 205	1/2UF2021	2CPX040076R9999		67
2	6	1	left	72	982 × 332 × 205	1/2UF2121	2CPX040077R9999		67
2	6	2	right	144	982 × 582 × 205	2/2UF2021	2CPX040088R9999		99
2	6	2	left	144	982 × 582 × 205	2/2UF2121	2CPX040089R9999		99

Subdistribution boards

Fire protection housing

Surface-mount wall housing

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Surface-mount wall housing AF, IP44



Housing depth 349mm

Housing for surface wall mounting

Main features

- Material with A2 surface coating - non-combustible, tested in accordance with DIN 4102-1/ EN 135 01-1
- Fire resistance F30/F90, tested in accordance with DIN 4102-2
- Protection type in accordance with IP44  protection class II
- Smoke-tight, cold smoke-tight
- Ventilation system in the rear wall

Structure

- Wall mounting (solid wall F30/F90)
- Prepared for installation of distributor fields
- Prepared for expansion with CombiLine modules on EDFmounting frame
- Changeable door hinge on site, standard right
- Door can be de-attached, thereby reducing weight
- Locking with rod lock using swivel handle with double bit half cylinder
- Cable entry at the bottom and top
- Mounting tabs placed externally
- Door internal
- Opening angle 180 degrees

Surface

- Color light gray - similar to RAL 7035, with colored edges
- High chemical resistance
- High mechanical strength and stability

Subdistribution boards

Fire protection housing

Surface-mount housing, IP44 □, depth 349 mm



Surface-mount housing, IP44 □, depth 349 mm

Overall height	Locking unit	Field width	Space units	External dimensions in mm		Price 1 piece	Weight 1 piece
	RE	FB	PLE	H × W × D	Type code	Order code	kg
0	3	1	36	598 × 398 × 349	1/00AF302	2CPX043265R9999	51
0	3	2	72	598 × 648 × 349	2/00AF302	2CPX043266R9999	71
0	4	1	48	748 × 398 × 349	1/0AF302	2CPX043267R9999	62
0	4	2	96	748 × 648 × 349	2/0AF302	2CPX043268R9999	85
1	5	1	60	898 × 398 × 349	1/1AF302	2CPX043269R9999	73
1	5	2	120	898 × 648 × 349	2/1AF302	2CPX043270R9999	99
2	6	1	72	1048 × 398 × 349	1/2AF302	2CPX043271R9999	83
2	6	2	144	1048 × 648 × 349	2/2AF302	2CPX043272R9999	114
3	7	1	84	1198 × 398 × 349	1/3AF302	2CPX043274R9999	94
3	7	2	168	1198 × 648 × 349	2/3AF302	2CPX043275R9999	128
3	7	3	252	1198 × 898 × 349	3/3AF302	2CPX043276R9999	163
4	8	2	192	1348 × 648 × 349	2/4AF302	2CPX043278R9999	143
5	9	2	216	1498 × 648 × 349	2/5AF302	2CPX043281R9999	157



Surface-mount housing, IP44 □, depth 349 mm

Overall height	Locking unit	Field width	Space units	External dimensions in mm		Price 1 piece	Weight 1 piece
	RE	FB	PLE	H × W × D	Type code	Order code	kg
0	3	1	36	598 × 398 × 349	1/00AF303	2CPX043380R9999	53
0	4	1	48	748 × 398 × 349	1/0AF303	2CPX043381R9999	64
0	4	2	96	748 × 648 × 349	2/0AF303	2CPX043382R9999	87
1	5	1	60	898 × 398 × 349	1/1AF303	2CPX043383R9999	75
1	5	2	120	898 × 648 × 349	2/1AF303	2CPX043384R9999	101
2	6	1	72	1048 × 398 × 349	1/2AF303	2CPX043385R9999	85
2	6	2	144	1048 × 648 × 349	2/2AF303	2CPX043386R9999	114
2	6	3	216	1048 × 898 × 349	3/2AF303	2CPX043387R9999	119
3	7	1	84	1198 × 398 × 349	1/3AF303	2CPX043388R9999	96
3	7	2	168	1198 × 648 × 349	2/3AF303	2CPX043389R9999	130
3	7	3	252	1198 × 898 × 349	3/3AF303	2CPX043390R9999	165

Important note

A cooling shutter is required for E90 function integrity

(Cooling shutters for cables, Cooling shutters for cables, see page 125)

> For surface-mount wall housing dimensions and weights, see page 103

> For CombiLine modules and distributor panels see chapter on interior expansion systems

Subdistribution boards

Fire protection housing

Standing housing

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Standing housing SF, IP44



Housing depth 349mm

Housing for standing installation

Main features

- Material with A2 surface coating - non-combustible, tested in accordance with DIN 4102-1/ EN 135 01-1
- Fire resistance F30/F90, tested in accordance with DIN 4102-2
- Protection type in accordance with IP44  protection class II
- Smoke-tight, cold smoke-tight
- Ventilation system in the rear wall

Structure

- Freestanding installation
- Prepared for installation of distributor fields
- Prepared for expansion with CombiLine modules on EDFmounting frame
- Changeable door hinge, option of right or left
- Door can be de-attached, thereby reducing weight
- Locking with rod lock using swivel handle with double bit half cylinder
- Cable sheath for bundle entry or single entry
- Cable entry point, top and bottom
- Door internal
- Opening angle 180 degrees
- Base with removable front for pallet truck
- Ventilation system through the back wall of the housing

Surface

- Color light gray - similar to RAL 7035, with colored edges
- High chemical resistance
- High mechanical strength and stability

Important note

If installing as a free-standing unit, or in case of an extremely uneven wall, a fire protection plate (42mm thick) must be additionally screwed onto the back wall of the housing (see page 103)

Subdistribution boards

Fire protection housing

Standing housing, IP44 ☐, depth 349 mm



Standing housing IP44 ☐, depth 349 mm

Overall height	Locking unit	Field width	Door hinge	Space units	External dimensions in mm		Price 1 piece	Weight 1 piece
	RE	FB		PLE	H × W × D	Type code	Order code	kg
8	12	1	right	144	2048 × 398 × 349	1/8SF302	2CPX043290R9999	152
8	12	2	right	288	2048 × 648 × 349	2/8SF302	2CPX043292R9999	206
8	12	3	right	432	2048 × 898 × 349	3/8SF302	2CPX043294R9999	259
9	13	1	right	156	2198 × 398 × 349	1/9SF302	2CPX043304R9999	163
9	13	2	right	312	2198 × 648 × 349	2/9SF302	2CPX043306R9999	220
9	13	3	right	468	2198 × 898 × 349	3/9SF302	2CPX043308R9999	278



Standing housing IP44 ☐, depth 349 mm

Overall height	Locking unit	Field width	Door hinge	Space units	External dimensions in mm		Price 1 piece	Weight 1 piece
	RE	FB		PLE	H × W × D	Type code	Order code	kg
8	12	1	right	144	2048 × 398 × 349	1/8SF303	2CPX043391R9999	154
8	12	2	right	288	2048 × 648 × 349	2/8SF303	2CPX043392R9999	208
8	12	3	right	432	2048 × 898 × 349	3/8SF303	2CPX043393R9999	261
9	13	1	right	156	2198 × 398 × 349	1/9SF303	2CPX043394R9999	165
9	13	2	right	312	2198 × 648 × 349	2/9SF303	2CPX043395R9999	222
9	13	3	right	468	2198 × 898 × 349	3/9SF303	2CPX043396R9999	280

Important note

A cooling shutter is required for E90 function integrity

(Cooling shutters for cables, see pageCooling shutters for cables, see page 125)

Subdistribution boards

Fire protection housing

Sheath housing

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Sheath housing MF, IP41



Housing depth 396 mm

Housing for mounting using available distributors

Main features

- Material with A2 surface coating - non-combustible, tested in accordance with DIN 4102-1
- Fire resistance F30/F90, tested in accordance with DIN 4102-2
- Protection class in accordance with IP41
- Smoke-tight

Structure

- Wall mounting
- Changeable door hinge
- Door can be de-attached, thereby reducing weight
- Locking with rod lock using swivel handle with double bit half cylinder
- Cable sheath for bundle entry
- Door internal
- Opening angle 180 degrees

Surface

- Color light gray - similar to RAL 7035, with colored edges
- High chemical resistance
- High mechanical strength and stability

Important note

The sheath housings are not suitable for fan mounting.
Sheath housings may only be mounted on fire-resistant walls.

Subdistribution boards

Fire protection housing

Sheath housing, IP41, depth 396 mm



Sheath housing, IP41, depth 396 mm

Internal dimensions in mm H × W × D	External dimensions in mm H × W × D	Type code	Order code	Price 1 piece	Weight 1 piece kg
665 × 354 × 240	829 × 518 × 340	1/OMF300	2CPX042420R9999		85
815 × 354 × 240	979 × 518 × 340	1/1MF300	2CPX042421R9999		97
815 × 604 × 240	979 × 768 × 340	2/1MF300	2CPX042422R9999		124
1115 × 354 × 240	1279 × 518 × 340	1/3MF300	2CPX042423R9999		121



Sheath housing, IP41, depth 396 mm

Internal dimensions in mm H × W × D	External dimensions in mm H × W × D	Type code	Order code	Price 1 piece	Weight 1 piece kg
665 × 354 × 240	829 × 518 × 340	1/OMF301	2CPX042424R9999		89
815 × 354 × 240	979 × 518 × 340	1/1MF301	2CPX042425R9999		101
815 × 604 × 240	979 × 768 × 340	2/1MF301	2CPX042426R9999		127
1115 × 354 × 240	1279 × 518 × 340	1/3MF301	2CPX042427R9999		125

Important note

A cooling shutter is required for E90 function integrity
(Cooling shutters for cables, see page 125)

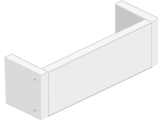
Subdistribution boards

Fire protection housing

Accessories



BRW28



Article	Dimensions in mm		Price 1 piece	Weight 1 piece
	H × W × D	Type code	Order code	kg
Fire protection panel If installing as a free-standing unit, or in case of an extremely uneven wall, a fire protection plate (42 mm thick) must be additionally screwed onto the back wall of the housing.				
for 1/8SF...		BRW18	2CPX042424R9999	30
for 2/8SF...		BRW28	2CPX042425R9999	60
for 3/8SF...		BRW38	2CPX042426R9999	90
Cooling shutters for cables Is always required for E90 function integrity				
field width 1	300 × 274 × 238	BKF1	2CPX041107R9999	13
2-field width	300 × 508 × 238	BKF2	2CPX041108R9999	18
3-field width	300 × 742 × 238	BKF3	2CPX041109R9999	23
Required accessories for conversion to IP54				
Silicone for sealing cable entries with IP54 protection class		ZB900	2CPX042432R9999	

Notes

Subdistribution boards

Fire protection housing

Electric functional unit in compact design/fire resistance 90 minutes

Fire-resistant functional unit made of non-combustible A2 building material for enclosing electrical safety systems as prescribed by building regulations. Complete distributor housings, e.g. TwinLine, with at least IP54 protection are installed in the fire-resistant functional units.

Housing of individually equipped low-voltage switchgear assemblies without separate building law proof for functional integrity (MLAR/MEltBauVO).

In this design, switchgear assemblies are suited for higher power dissipation than fire protection housings.

Important!

The functional units are prepared for connection to on-site ventilation systems. The ventilation system must be designed so that ventilation is guaranteed for the intended time even in case of fire.

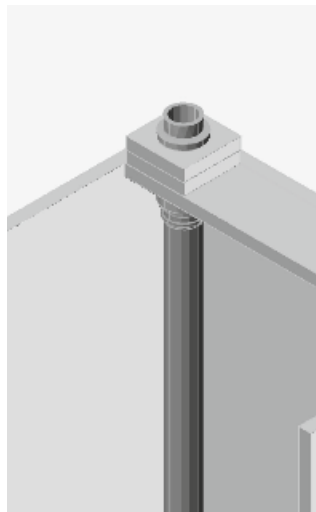
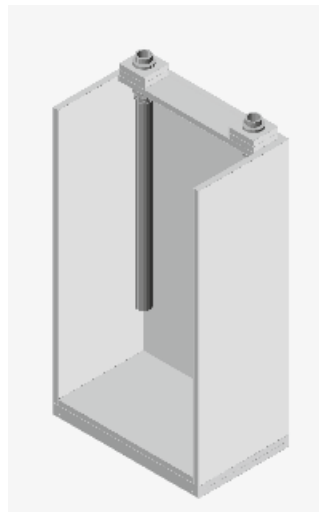


For a more clear illustration, there are no doors in the figures presented

Subdistribution boards

Fire protection housing

Electric functional unit in compact design/fire resistance 90 minutes



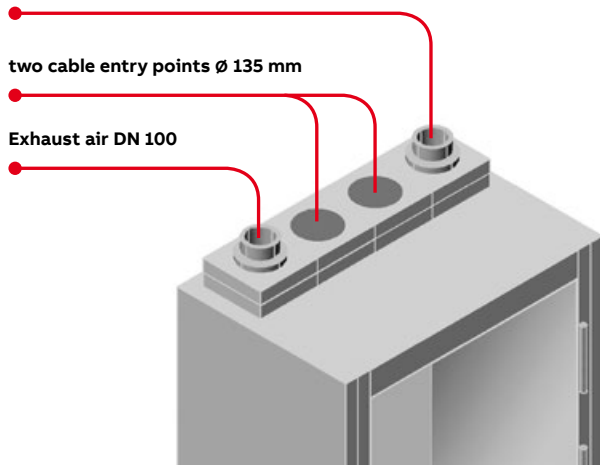
Ventilation

The functional units are prepared for connection to on-site ventilation systems. The ventilation system must be designed so that ventilation is guaranteed for the intended time even in case of fire.

Supply air DN 100

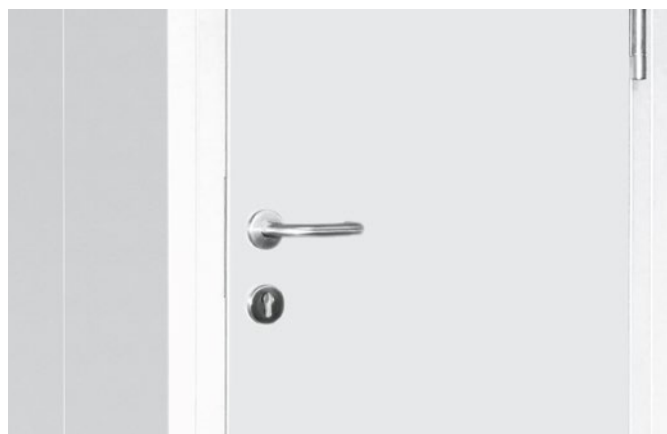
two cable entry points Ø 135 mm

Exhaust air DN 100



Cable entry

Cable entry from the top through two fire-resistant cable ducts.



Door

- With door handle, smoke-tight, self-closing
- Prepared for profile half cylinder
- Optionally with fire-proof window

Types of delivery

- Completely assembled
- As a kit for self-assembly

Subdistribution boards

Fire protection housing

Electric functional unit in compact design/fire resistance 90 minutes



Electric functional unit in compact design KEB, IP54 ±



Depth 586 mm

Housing in compact design

Main features

- Fire resistance 90 minutes, fire resistant
- EI 90/F 90 classification walls/ceiling
- T 90-RS classification of the door
- Smoke-tight door, tested for permanent function, self-closing
- IP54 protection class

Structure

- Functional unit with high mechanical and chemical resistance in two standard sizes
- Fire protection through the creation of a separate fire compartment
- Free-standing construction
- Door opening angle 180 degrees, self-closing
- De-attachable door, handle set in aluminum silver
- Locking via 3-latch lock for profile half cylinder
- Door with all-round smoke and fire protection seals, self-foaming in case of fire
- Fire-resistant, smoke-tight supply/exhaust air system per NW 100 mm for connection to on-site ventilation system
- Fire resistant cable sheaths 135 mm diameter
- Base mounted, included in scope of delivery

Material

- Material with surface coating, classified A2 - s1, d0: non-flammable
- Standard surface HPL is chemically highly resistant and insensitive to moisture
- Standard color light gray, similar to RAL 7035, edges and chamfers are darkened

Additional equipment/options

- Fire-proof viewing window in the door
- Additional cable entry point

Subdistribution boards

Fire protection housing

Functional units/base



KEB28R

Field width	External dimensions in mm H × W × D	Door hinge	Type code	Order code	Price 1 piece	Weight 1 piece kg
FB						
Completely mounted						
2-field width	2501 × 894 × 586	right	KEB28R	2CPX042930R9999		662
	2501 × 894 × 586	left	KEB28L	2CPX042931R9999		662
As a kit						
2-field width	2501 × 894 × 586	right	KEB28RB	2CPX042932R9999		662
	2501 × 894 × 586	left	KEB28LB	2CPX042933R9999		662



KEB38R

Completely mounted						
3-field width	2501 × 1144 × 586	right	KEB38R	2CPX042934R9999		692
	2501 × 1144 × 586	left	KEB38L	2CPX042935R9999		692
As a kit						
3-field width	2501 × 1144 × 586	right	KEB38RB	2CPX042936R9999		692
	2501 × 1144 × 586	left	KEB38LB	2CPX042937R9999		692



BSR2



BSR3

Article	Dimensions in mm H × W × D	Type code	Order code	Price 1 piece	Weight 1 piece kg
Base* Width 810 mm 2-field width	84 × 894 × 586	BSR2	2CPX042938R9999		50
Base* Width 1060 mm 3-field width	84 × 1144 × 586	BSR3	2CPX042939R9999		65

* Bases are included in the scope of delivery of the functional units.
>For dimensions, see page 125

Subdistribution boards

Fire protection housing

Terminal boxes without terminal block

Material
+ Decor
A2 Class

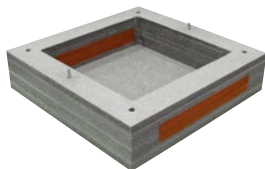
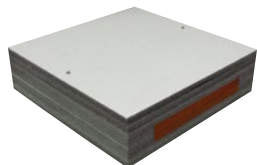
Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Terminal boxes without terminal block KF, IP41

Housing for wall or ceiling mounting

Mounting material for ceiling mounting available on request



Main features

- Material with A2 surface coating - non-combustible, tested in accordance with DIN 4102-1
- Fire resistance F30/F90, tested in accordance with DIN 4102-2
- Function integrity 30/90 minutes in accordance with DIN 4102-12
- Protection class in accordance with IP41 
- Smoke-tight

Structure

- Mounting via 4 holes in the frame corners using the enclosed mounting material
- Mounting to wall or ceiling possible
- Cover screwed with two self-locking nuts
- Cover provided with a handle groove
- Cable entry points from 2 sides
- In case of fire, the cable sheath automatically foams up
- Easy mounting of the fixtures using pre-drilled holes
- Easy insertion and clamping of the cables thanks to a detachable frame plate system (layer structure)

Surface

- Color light gray - similar to RAL 7035, with colored edges
- High chemical resistance
- High mechanical strength and stability

Subdistribution boards

Fire protection housing

Terminal boxes without terminal block, IP41 



Terminal boxes without terminal block, IP41

Internal dimensions in mm H × W × D	External dimensions in mm H × W × D	Cable entry point		Type code	Order code	Price 1 piece	Weight 1 piece kg
		W × H	Number				
200 × 200 × 84	350 × 350 × 128	50 × 170	2	KF35140	2CPX041092R9999		17
300 × 300 × 84	450 × 450 × 128	50 × 270	2	KF45140	2CPX041093R9999		25
400 × 400 × 84	550 × 550 × 128	50 × 370	2	KF55140	2CPX041094R9999		34



Terminal boxes without terminal block, IP41

Internal dimensions in mm H × W × D	External dimensions in mm H × W × D	Cable entry point		Type code	Order code	Price 1 piece	Weight 1 piece kg
		W × H	Number				
200 × 200 × 84	350 × 350 × 148	50 × 170	2	KF35161	2CPX041098R9999		21
300 × 300 × 84	450 × 450 × 148	50 × 270	2	KF45161	2CPX041099R9999		31
400 × 400 × 84	550 × 550 × 148	50 × 370	2	KF55161	2CPX041100R9999		43

Subdistribution boards

Fire protection housing

Facing doors

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Facing doors VF IP54

- Fire-resistant and smoke-tight seals
- Panel material with surface coating - non-flammable
- Fire resistance 30 and 90 minutes
- Mounting on different wall constructions

Fire protection facing doors are intended for the separation of existing flush-mounted wall distributions from escape and rescue paths (fire load insulation in accordance with MLAR). Likewise, functional integrity in case of fire is guaranteed if the appropriate proof can be provided.



Subdistribution boards

Fire protection housing

Facing doors

**Material
+ Decor
A2 Class**

**Fire
Resistance
30 Min.**

**Fire
Resistance
90 Min.**



Tested material with surface coating DIN 4102 Part 1; material class A2



Integrated frame with mounting points



Removable stainless steel hinges



Fire and smoke protection seal all around



2-point locking using rod lock



Swivel handle in stainless steel look with double bit half-cylinder

In the standard version, the distributor may protrude 20 mm out of the wall at the most. Old doors should be de-attached and removed. The facing door must be at least 115 mm above the existing distributor, i.e. this covering dimension plus the door thickness, due to the opening angle, must be maintained around the existing distributor.

If the current distributor protrudes more than 20 mm from the wall, an additional extension frame can be ordered for the facing door.

Subdistribution boards

Fire protection housing

Facing doors

Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Fire
Resistance
90 Min.

Facing doors VF, IP54



Door depth for 30 minutes 51 mm

Door depth for 90 minutes 71 mm

Door mounted in front of existing flush-mounted distributors

Function

- Material with A2 surface coating - non-combustible, tested in accordance with DIN 4102-1
- Fire resistance F30/F90, tested in accordance with DIN 4102-2
- Fire load insulation 30/90 minutes in accordance with DIN 4102-11
- Function integrity 30/90 minutes in accordance with DIN 4102-12
- Smoke-tight
- Protection class in accordance with IP54

Structure

- 1-wing door
- Door opening angle approx. 180 degrees with F30 version, approx. 150 degrees with F90 version
- Door hinge on right
- Surrounding wall compensating frame (W x D: 115 x 28 mm) with mounting holes
- Doors opening onto the frame
- Locking with swivel handle in metal look with DIN half cylinder
- 2-point locking with rod lock
- Stainless steel hinges with push-out axle pin for de-attaching the door wings
- Mounting material: Frame dowels, screws included in scope of delivery

Surface

- Color light gray - similar to RAL7035, with colored edges
- High chemical resistance
- High mechanical strength and stability, Brinell hardness 50 N/mm²
- High material density 1,450 kg/m³
- Surface characteristics based on DIN EN 438-2

Additional equipment/options

- Additional compensating frame for larger covers
- A variety of decorative surfaces
- Door hinge on left

Subdistribution boards

Fire protection housing

Facing doors, IP54, door depth 51 mm and 71 mm



Facing doors, IP54, door depth 51 mm

Overall height	Field width	Door hinge	Internal dimensions in mm H × W × D	External dimensions in mm H × W × D	Type code	Order code	Price 1 piece	Weight 1 piece kg
	FB							
0	1	right	665 × 345 × 0	895 × 575 × 51	1/0VF10	2CPX041048R9999		30
0	2	right	665 × 565 × 0	895 × 795 × 51	2/0VF10	2CPX041049R9999		37
1	2	right	815 × 565 × 0	1045 × 795 × 51	2/1VF10	2CPX041050R9999		42
1	3	right	815 × 815 × 0	1045 × 1045 × 51	3/1VF10	2CPX041051R9999		53
2	2	right	965 × 565 × 0	1195 × 795 × 51	2/2VF10	2CPX041052R9999		47
2	3	right	965 × 815 × 0	1195 × 1045 × 51	3/2VF10	2CPX041053R9999		60
2	4	Double door	965 × 1065 × 0	1195 × 1295 × 51	4/2VF20	2CPX041057R9999		72
3	2	right	1115 × 565 × 0	1345 × 795 × 51	2/3VF10	2CPX043397R9999		58
3	3	right	1115 × 815 × 0	1345 × 1045 × 51	3/3VF10	2CPX043398R9999		71
3	4	Double door	1115 × 1065 × 0	1345 × 1295 × 51	4/3VF20	2CPX041058R9999		80
4	2	right	1265 × 565 × 0	1495 × 795 × 51	2/4VF10	2CPX041054R9999		58
4	3	right	1265 × 815 × 0	1495 × 1045 × 51	3/4VF10	2CPX041055R9999		73
4	4	Double door	1265 × 1065 × 0	1495 × 1295 × 51	4/4VF20	2CPX041059R9999		88
5	2	right	1415 × 565 × 0	1645 × 795 × 51	2/5VF10	2CPX043399R9999		70
5	3	right	1415 × 815 × 0	1645 × 1045 × 51	3/5VF10	2CPX043400R9999		86
5	4	Double door	1415 × 1065 × 0	1645 × 1295 × 51	4/5VF20	2CPX043401R9999		107
8	2	right	1865 × 565 × 0	2095 × 795 × 51	2/8VF10	2CPX041056R9999		79
8	4	Double door	1865 × 1065 × 0	2095 × 1295 × 51	4/8VF20	2CPX041060R9999		119



Facing doors, IP54, door depth 51 mm

Overall height	Field width	Door hinge	Internal dimensions in mm H × W × D	External dimensions in mm H × W × D	Type code	Order code	Price 1 piece	Weight 1 piece kg
	FB							
0	1	right	665 × 345 × 22	895 × 575 × 71	1/0VF11	2CPX041061R9999		42
0	2	right	665 × 565 × 22	895 × 795 × 71	2/0VF11	2CPX041062R9999		58
1	2	right	815 × 565 × 22	1045 × 795 × 71	2/1VF11	2CPX041063R9999		67
1	3	right	815 × 815 × 22	1045 × 1045 × 71	3/1VF11	2CPX041064R9999		86
2	2	right	965 × 565 × 22	1195 × 795 × 71	2/2VF11	2CPX041065R9999		76
2	3	right	965 × 815 × 22	1195 × 1045 × 71	3/2VF11	2CPX041066R9999		97
2	4	Double door	965 × 1065 × 22	1195 × 1295 × 71	4/2VF21	2CPX041070R9999		118
3	1	right	1115 × 345 × 22	1345 × 575 × 71	1/3VF11	2CPX043402R9999		70
3	2	right	1115 × 565 × 22	1345 × 795 × 71	2/3VF11	2CPX043403R9999		90
3	3	right	1115 × 815 × 22	1345 × 1045 × 71	3/3VF11	2CPX043404R9999		113
3	4	Double door	1115 × 1065 × 22	1345 × 1295 × 71	4/3VF21	2CPX041071R9999		132
4	2	right	1265 × 565 × 22	1495 × 795 × 71	2/4VF11	2CPX041067R9999		94
4	3	right	1265 × 815 × 22	1495 × 1045 × 71	3/4VF11	2CPX041068R9999		120
4	4	Double door	1265 × 1065 × 22	1495 × 1295 × 71	4/4VF21	2CPX041072R9999		146
8	2	right	1865 × 565 × 22	2095 × 795 × 71	2/8VF11	2CPX041069R9999		129
8	4	Double door	1865 × 1065 × 22	2095 × 1295 × 71	4/8VF21	2CPX041073R9999		201

Important notes

Minimum internal dimension of facing doors = niche dimension of the flush-mounted wall box without flush-mounted frame

Facing door swings over the frame on the hinge side => leave at least 40 mm (see page 123)

Subdistribution boards

Fire protection housing

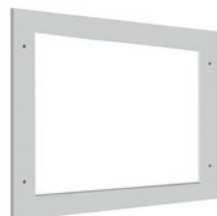
Extension frame for facing doors

Material
+ Decor
A2 Class

Fire
Resistance
90 Min.



2/2EF11



4/2EF21

Overall height	Field width	Internal dimensions in mm	External dimensions in mm	Type code	Order code	Price 1 piece	Weight 1 piece
FB	H x W x D	H x W x D					kg
Extension frame for 1-wing doors							
0	1	665 × 345 × 22	895 × 575 × 22	1/0EF11	2CPX041074R9999		10
0	2	665 × 565 × 22	895 × 795 × 22	2/0EF11	2CPX041075R9999		12
1	2	815 × 565 × 22	1045 × 795 × 22	2/1EF11	2CPX041076R9999		13
1	3	815 × 815 × 22	1045 × 1045 × 22	3/1EF11	2CPX041077R9999		15
2	2	965 × 565 × 22	1195 × 795 × 22	2/2EF11	2CPX041078R9999		14
2	3	965 × 815 × 22	1195 × 1045 × 22	3/2EF11	2CPX041079R9999		16
4	2	1265 × 565 × 22	1495 × 795 × 22	2/4EF11	2CPX041080R9999		17
4	3	1265 × 815 × 22	1495 × 1045 × 22	3/4EF11	2CPX041081R9999		19
8	2	1865 × 565 × 22	2095 × 795 × 22	2/8EVF1	2CPX041082R9999		22
Extension frame for 2-wing doors							
2	4	965 × 1065 × 22	1195 × 1295 × 22	4/2EF21	2CPX041083R9999		18
3	4	1115 × 1065 × 22	1345 × 1295 × 22	4/3EF21	2CPX041084R9999		20
4	4	1265 × 1065 × 22	1495 × 1295 × 22	4/4EF21	2CPX041085R9999		21
8	4	1865 × 1065 × 22	2095 × 1295 × 22	4/8EF21	2CPX041086R9999		26

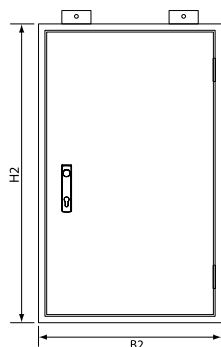
Notes

Subdistribution boards

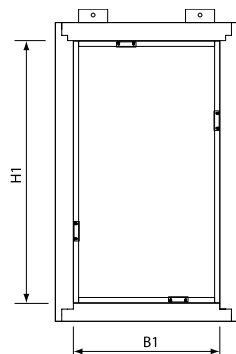
Flush-mounted wall housing

Dimensions, weights, power loss

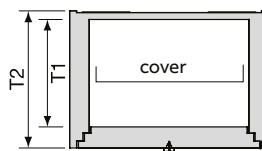
Front view



Internal view



Top view



Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Permissible power dissipation (W) at 25 °C ambient temperature w	Internal dimensions in mm H1 × W1 × D1	External dimensions in mm H2 × W2 × D2	Type code	Order code	Price 1 piece	Weight 1 piece kg
11	600 × 250 × 138	682 × 332 × 205	1/0UF2020			41
11	600 × 250 × 138	682 × 332 × 205	1/0UF2120			41
22	600 × 500 × 138	682 × 582 × 205	2/0UF2020			58
22	600 × 500 × 138	682 × 582 × 205	2/0UF2120			58
16	900 × 250 × 138	982 × 332 × 205	1/2UF2020			55
16	900 × 250 × 138	982 × 332 × 205	1/2UF2120			55
32	900 × 500 × 138	982 × 582 × 205	2/2UF2020			80
32	900 × 500 × 138	982 × 582 × 205	2/2UF2120			80

Material
+ Decor
A2 Class

Fire
Resistance
90 Min.

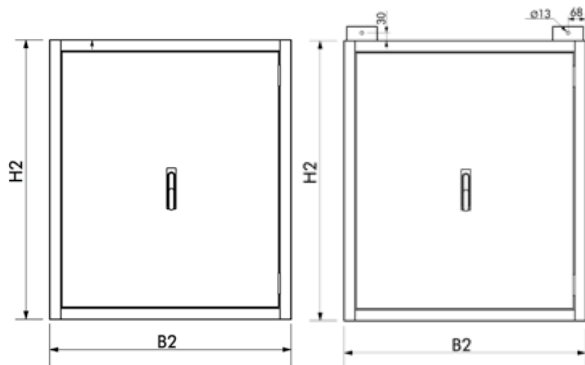
Permissible power dissipation (W) at 25 °C ambient temperature w	Internal dimensions in mm H1 × W1 × D1	External dimensions in mm H2 × W2 × D2	Type code	Order code	Price 1 piece	Weight 1 piece kg
9	600 × 250 × 118	682 × 332 × 205	1/0UF2021			49
9	600 × 250 × 118	682 × 332 × 205	1/0UF2121			49
19	600 × 500 × 118	682 × 582 × 205	2/0UF2021			70
19	600 × 500 × 118	682 × 582 × 205	2/0UF2121			70
14	900 × 250 × 118	982 × 332 × 205	1/2UF2021			67
14	900 × 250 × 118	982 × 332 × 205	1/2UF2121			67
28	900 × 500 × 118	982 × 582 × 205	2/2UF2021			99
28	900 × 500 × 118	982 × 582 × 205	2/2UF2121			99

Subdistribution boards

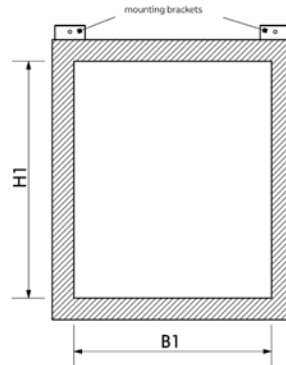
Sheath housing/cooling shutters

Dimensions, weights, power loss

Front view



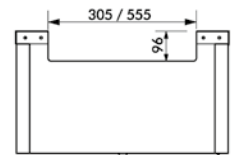
Internal view



Side view



Top view



Material
+ Decor
A2 Class

Fire
Resistance
30 Min.

Permissible power dissipation (W) at 25 °C ambient temperature W	Internal dimensions in mm H1 × W1 × D1	External dimensions in mm H2 × W2 × D2	Type code	Order code	Price 1 piece	Weight 1 piece kg
16	665 × 354 × 240	829 × 518 × 340	1/OMF300			85
18	815 × 354 × 240	979 × 518 × 340	1/1MF300			97
24	815 × 604 × 240	979 × 768 × 340	2/1MF300			124
23	1115 × 354 × 240	1279 × 518 × 340	1/3MF300			121

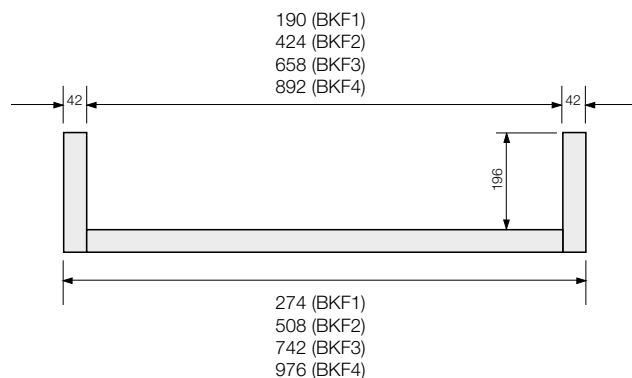
Material
+ Decor
A2 Class

Fire
Resistance
90 Min.

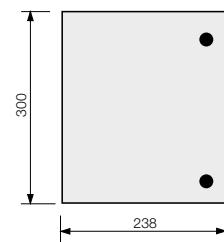
Permissible power dissipation (W) at 25 °C ambient temperature W	Internal dimensions in mm H1 × W1 × D1	External dimensions in mm H2 × W2 × D2	Type code	Order code	Price 1 piece	Weight 1 piece kg
16	665 × 354 × 240	829 × 518 × 340	1/OMF301			89
18	815 × 354 × 240	979 × 518 × 340	1/1MF301			101
24	815 × 604 × 240	979 × 768 × 340	2/1MF301			127
23	1115 × 354 × 240	1279 × 518 × 340	1/3MF301			125

Cooling shutters for cables

Top view



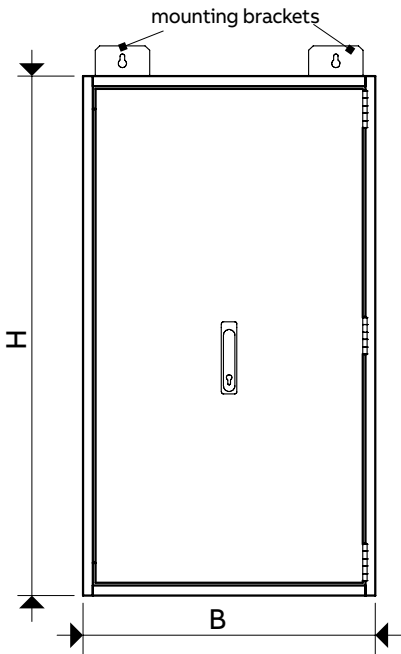
Side view



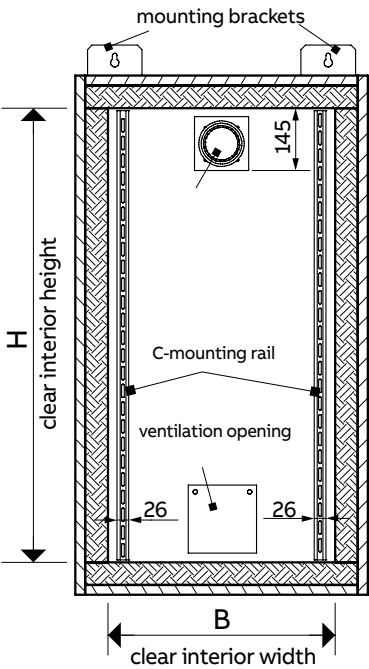
Subdistribution boards

Surface-mount wall housing
Dimensions, weights, power loss

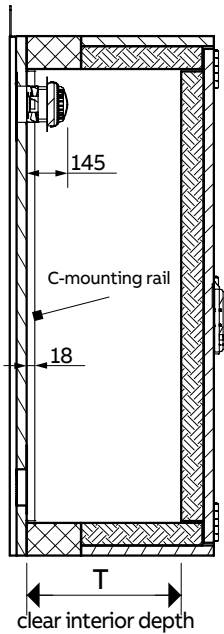
Front view



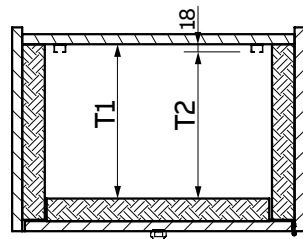
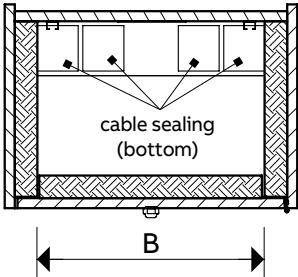
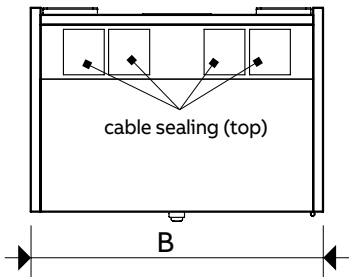
Internal view



Side view



Top view



External depth of housing	349 mm
Internal depth of housing T1	240 mm
Usable internal depth T2	222 mm

Subdistribution boards

Surface-mount wall housing

Dimensions, weights, power loss

Power dissipation	Internal dimensions in mm	External dimensions in mm			Price 1 piece	Weight 1 piece kg
P _v max. (W)	H1 × W1 × D1	H2 × W2 × D2	Type code	Order code		
237	598 × 398 × 349	454 × 254 × 240	1/00AF302			51
223	598 × 648 × 349	454 × 504 × 240	2/00AF302			71
214	748 × 398 × 349	604 × 254 × 240	1/0AF302			62
232	748 × 648 × 349	604 × 504 × 240	2/0AF302			85
220	898 × 398 × 349	754 × 254 × 240	1/1AF302			73
242	898 × 648 × 349	754 × 504 × 240	2/1AF302			99
226	1048 × 398 × 349	904 × 254 × 240	1/2AF302			83
251	1048 × 648 × 349	904 × 504 × 240	2/2AF302			114
232	1198 × 398 × 349	1054 × 254 × 240	1/3AF302			94
261	1198 × 648 × 349	1054 × 504 × 240	2/3AF302			128
290	1198 × 898 × 349	1054 × 754 × 240	3/3AF302			163
271	1348 × 648 × 349	1204 × 504 × 240	2/4AF302			143
280	1498 × 648 × 349	1354 × 504 × 240	2/5AF302			157

> Recommended approximate values for mounting and installation on a fire resistant wall. A derating of the electrical equipment must be considered.

Compliance with the limit overheating temperature in accordance with the valid DIN VDE 61439-1 must be observed.

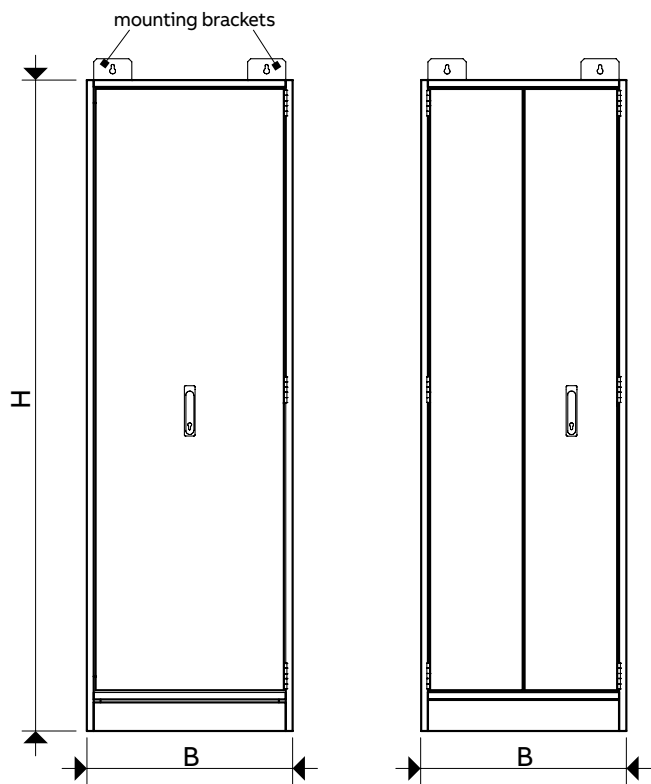
> Power loss in normal operation at $\Delta T = 13\text{ K}$ (inside 35 °C , outside 22 °C), with fan

Subdistribution boards

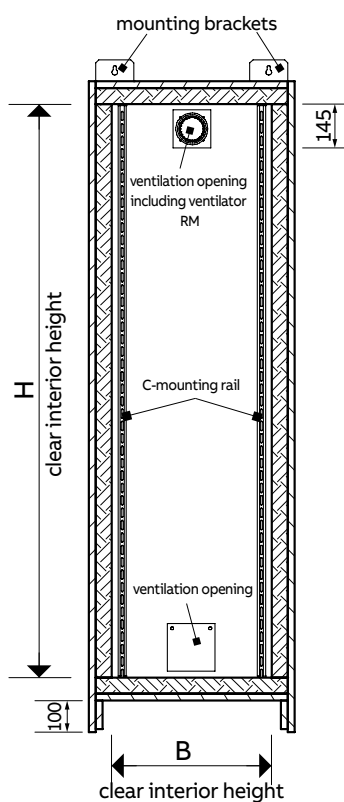
Standing housing

Dimensions, weights, power loss

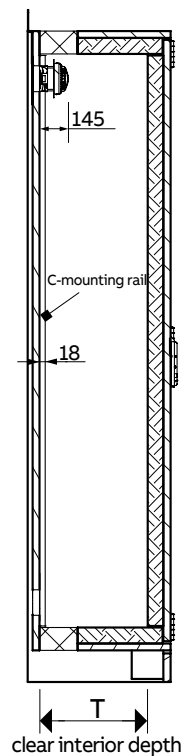
Front view



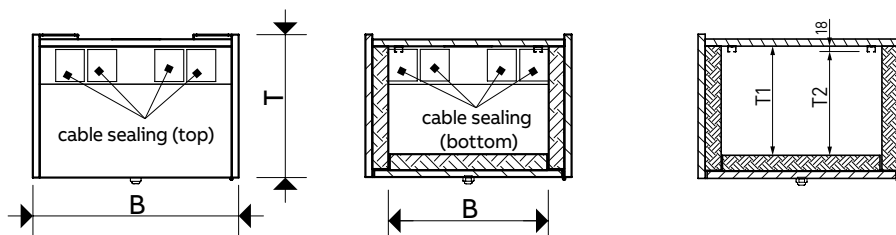
Internal view



Side view



Top view



External depth of housing	349 mm
Internal depth of housing T1	240 mm
Usable internal depth T2	222 mm

Subdistribution boards

Surface-mount wall housing

Dimensions, weights, power loss

Power dissipation	Internal dimensions in mm	External dimensions in mm			Price 1 piece	Weight 1 piece kg
P _v max. (W)	H1 × W1 × D1	H2 × W2 × D2	Type code	Order code		
261	2048 × 398 × 349	1804 × 254 × 240	1/8SF302			152
309	2048 × 648 × 349	1804 × 504 × 240	2/8SF302			206
357	2048 × 898 × 349	1804 × 754 × 240	3/8SF302			259
267	2198 × 398 × 349	1954 × 254 × 240	1/9SF302			163
318	2198 × 648 × 349	1954 × 504 × 240	2/9SF302			220
370	2198 × 898 × 349	1954 × 754 × 240	3/9SF302			278

> Recommended approximate values for mounting and installation on a fire resistant wall. A derating of the electrical equipment must be considered.

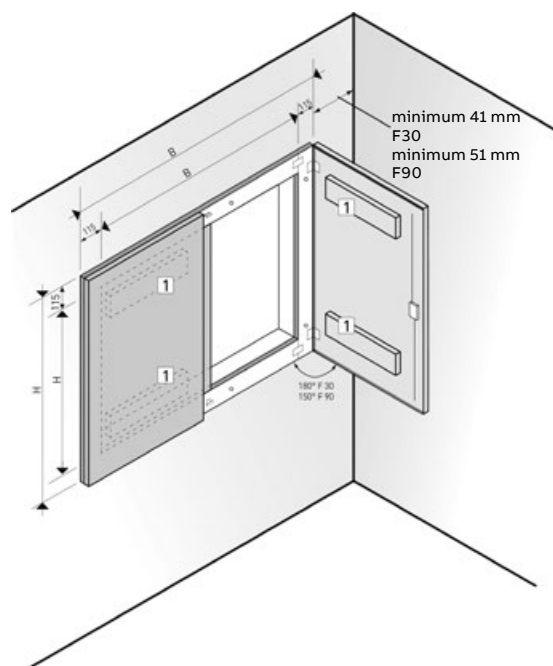
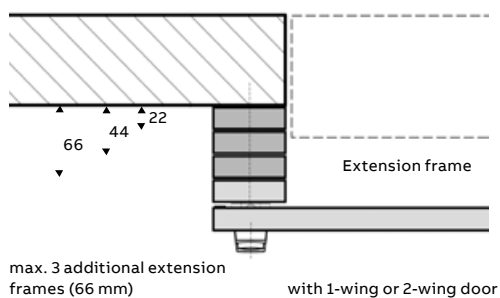
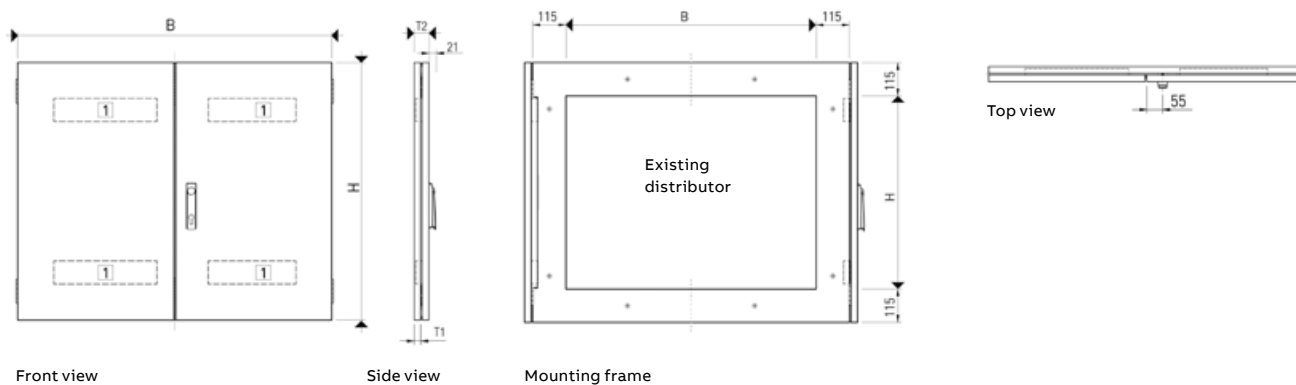
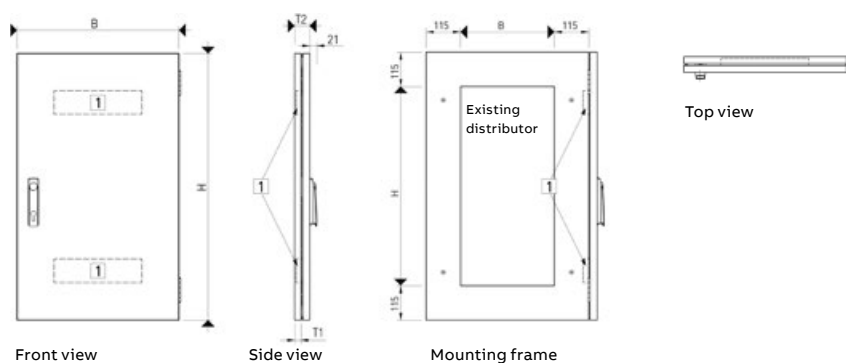
Compliance with the limit overheating temperature in accordance with the valid DIN VDE 61439-1 must be observed.

> Power loss in normal operation at $\Delta T = 13 \text{ K}$ (inside 35 °C, outside 22 °C), with fan

Subdistribution boards

Facing doors

Dimensions



Facing door with mounting frame
Door swivels over the frame on the hinge side.
Leave at least 41/51 mm distance from the wall.

1 Bar above and below on the inside of the door, only for 30-minute design.

> Dimensions in mm

Subdistribution boards

Facing doors

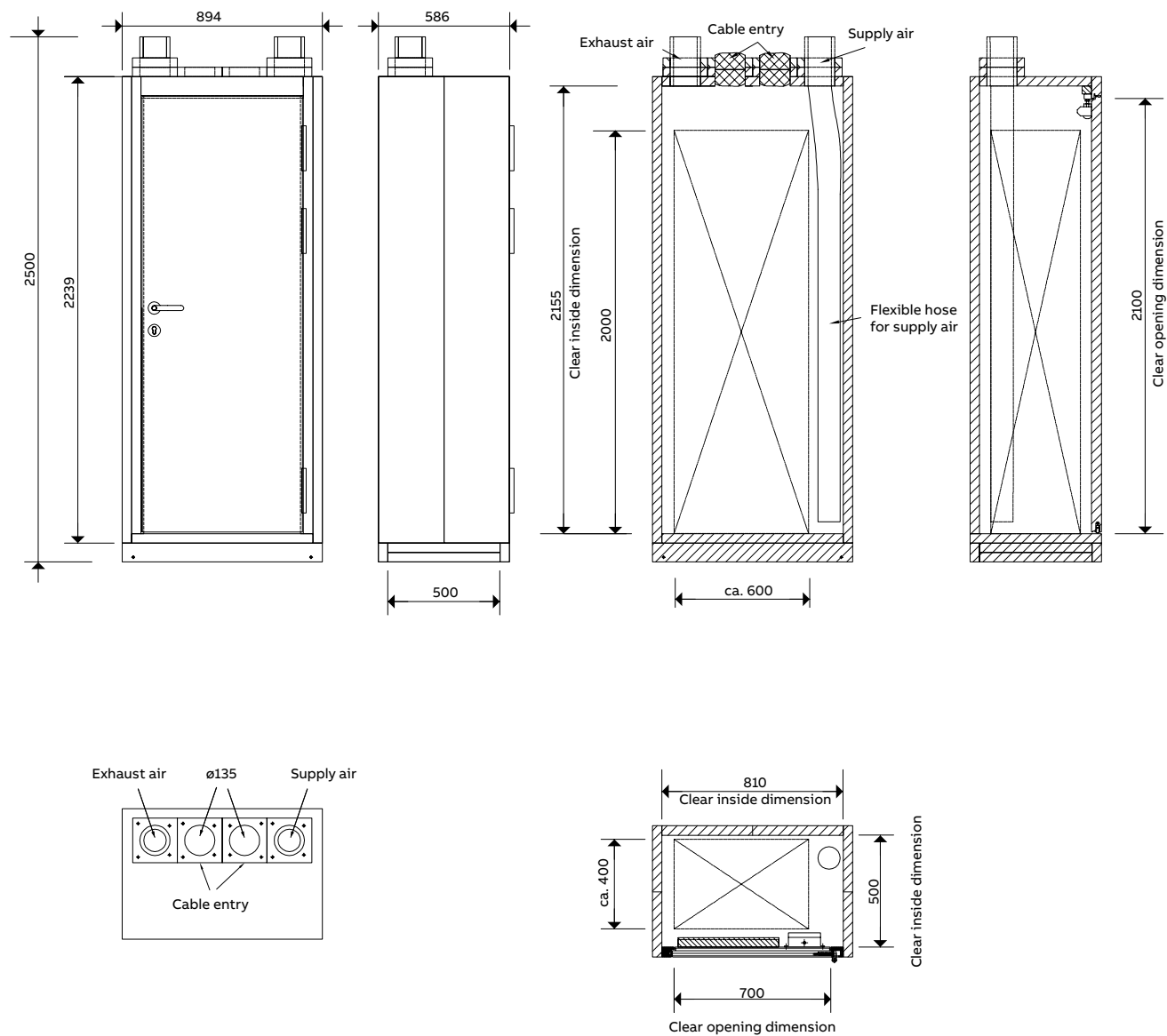
Dimensions

Type code	Internal dimensions in mm			External dimensions in mm		
	H1	B1	D1	H1	B1	D1
1/0VF10	665	345	0	895	575	51
2/0VF10	665	565	0	895	795	51
2/1VF10	815	565	0	1045	795	51
3/1VF10	815	815	0	1045	1045	51
2/2VF10	965	565	0	1195	795	51
3/2VF10	965	815	0	1195	1045	51
2/3VF10	1115	565	0	1345	795	51
3/3VF10	1115	815	0	1345	1045	51
2/4VF10	1265	565	0	1495	795	51
3/4VF10	1265	815	0	1495	1045	51
2/5VF10	1415	565	0	1645	795	51
3/5VF10	1415	815	0	1645	1045	51
2/8VF10	1865	565	0	2095	795	51
1/0VF11	665	345	22	895	545	71
2/0VF11	665	565	22	895	795	71
2/1VF11	815	565	22	1045	795	71
3/1VF11	815	815	22	1045	1045	71
2/2VF11	965	565	22	1195	795	71
3/2VF11	965	815	22	1195	1045	71
1/3VF11	1115	345	22	1345	575	71
2/3VF11	1115	565	22	1345	795	71
3/3VF11	1115	815	22	1345	1045	71
2/4VF11	1265	565	22	1495	795	71
3/4VF11	1265	815	22	1495	1045	71
2/8VF11	1865	565	22	2095	795	71
4/2VF20	965	1065	0	1195	1295	51
4/3VF20	1115	1065	0	1345	1295	51
4/4VF20	1265	1065	0	1495	1295	51
4/5VF20	1415	1065	0	1645	1295	51
4/8VF20	1865	1065	0	2095	1295	51
4/2VF21	965	1065	22	1195	1295	71
4/3VF21	1115	1065	22	1345	1295	71
4/4VF21	1265	1065	22	1495	1295	71
4/8VF21	1865	1065	22	2095	1295	71

Subdistribution boards

Electric functional unit in compact design

Dimensions for 2-field width



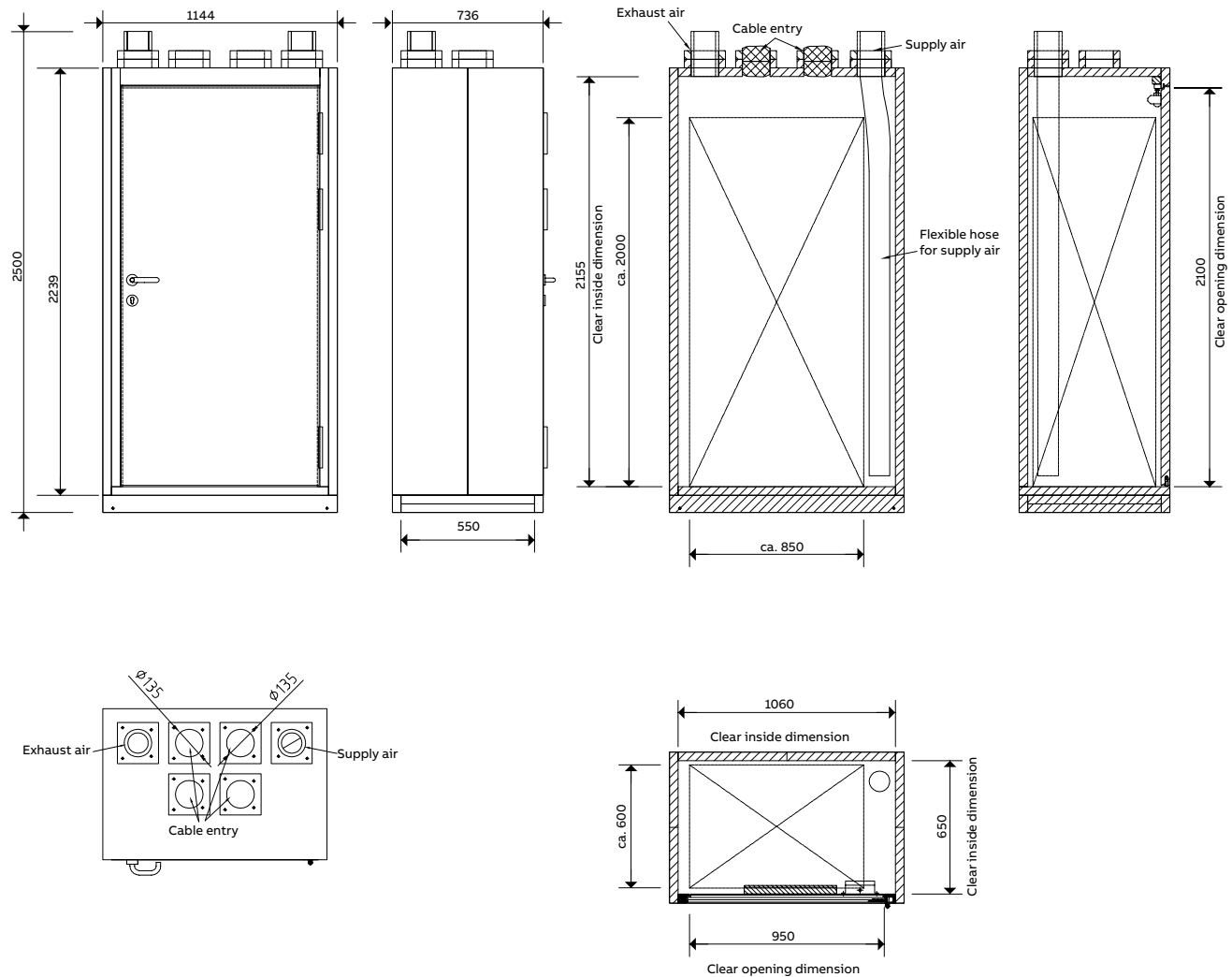
Power loss:

To calculate the allowable power dissipation for the low-voltage switchgear assemblies in the compact electric functional unit, assume an ambient temperature of 35 °C.

Subdistribution boards

Electric functional unit in compact design

Dimensions for 3-field width



Consumer units

ABB basic E



ABB basic E consumer units

With ABB basic E you find a complete assortment of high quality enclosures made for small and medium flats, multiple dwellings or office and administration buildings. They are available in different sizes, colors, wall and flush mounted versions with smart accessories. Efficient enclosures from ABB basic E are used wherever power is metered and distributed. A diversity of applications and products from which you can only benefit with ABB.

ABB Basic E enclosures are available in 8 different sizes



2 Modules

4 Modules

6 Modules

8 Modules

12 Modules

16 Modules

24 Modules

36 Modules

Consumer units

ABB basic E

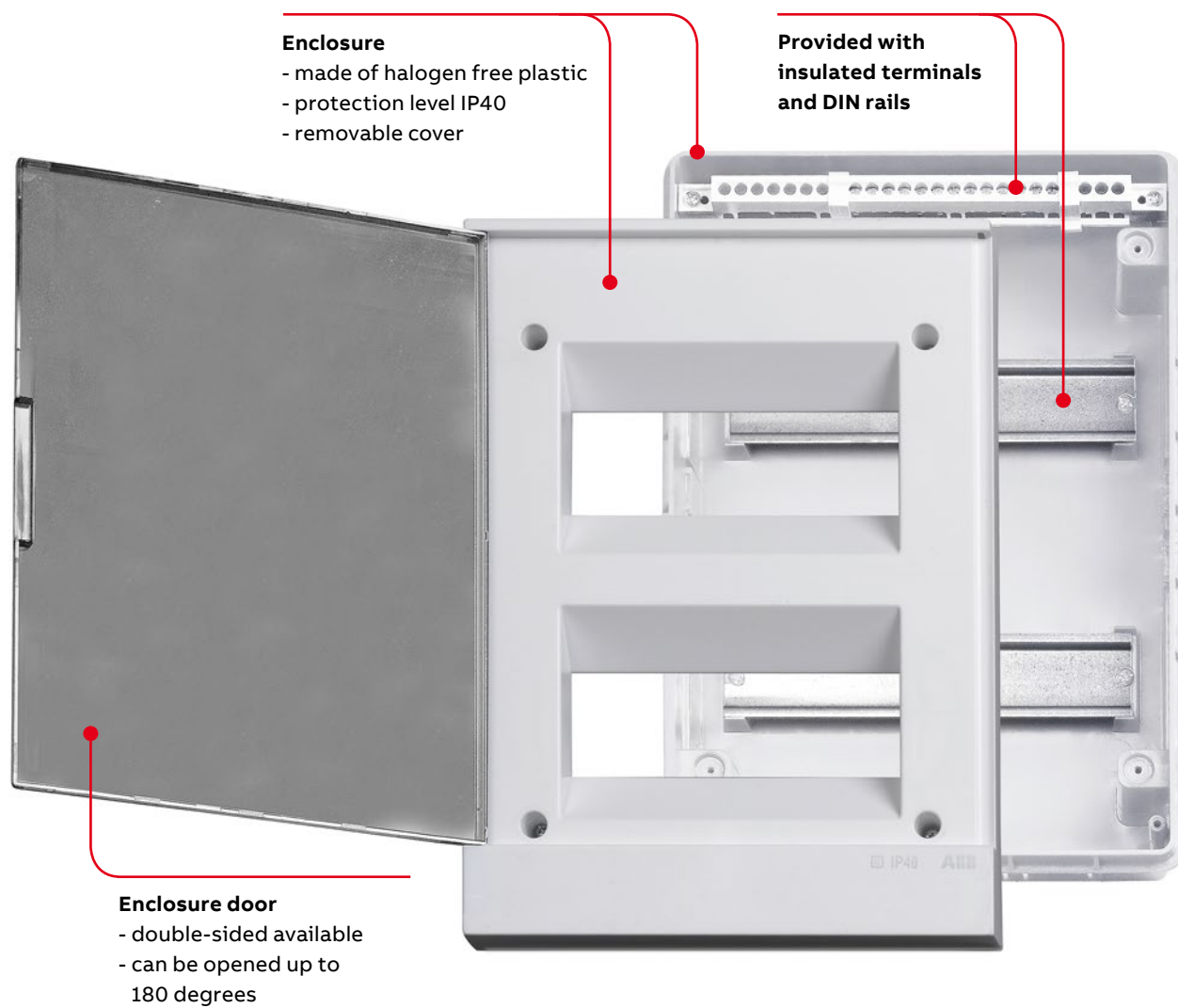


ABB basic E – simplified ordering code for easy reference

BE	X	XX	X	X	XX	
Series name	Instal. type		Door type	Terminal bar	Number of modules	
basic E	W	= wall	1	= no bars	02	
	F	= flush	2	= config. 1	04	
				2	= config. 2	06
				n	= config. N	08
						12
						24
					36	

Consumer units

ABB basic E - flush mounted

Ordering data

ABB basic E Flush Mounted	No. of Modules	Description	Type code	Order code	Pieces per pack
	2M	Flush mounted opaque white door 2 modules	BEF401202	1SZR004002A1100	40
		Flush mounted transparent grey door 2 modules	BEF402202	1SZR004002A1200	
	4M	Flush mounted opaque white door 4 modules	BEF401204	1SZR004002A1101	25
		Flush mounted transparent grey door 4 modules	BEF402204	1SZR004002A1201	
	6M	Flush mounted opaque white door 6 modules	BEF401206	1SZR004002A1102	20
		Flush mounted transparent grey door 6 modules	BEF402206	1SZR004002A1202	
	8M	Flush mounted opaque white door 8 modules	BEF401208	1SZR004002A1103	15
		Flush mounted transparent grey door 8 modules	BEF402208	1SZR004002A1203	
	12M	Flush mounted opaque white door 12 modules	BEF401212	1SZR004002A1104	10
		Flush mounted transparent grey door 12 modules	BEF402212	1SZR004002A1204	
	16M	Flush mounted opaque white door 16 modules	BEF401216	1SZR004002A1105	10
		Flush mounted transparent grey door 16 modules	BEF402216	1SZR004002A1205	
	24M	Flush mounted opaque white door 24 modules	BEF401224	1SZR004002A1107	5
		Flush mounted transparent grey door 24 modules	BEF402224	1SZR004002A1207	
	36M	Flush mounted opaque white door 36 modules	BEF401236	1SZR004002A1109	5
		Flush mounted transparent grey door 36 modules	BEF402236	1SZR004002A1209	

Consumer units

ABB basic E - surface mounted

Ordering data

ABB basic E Surface Mounted	No. of Modules	Description	Type code	Order code	Pieces per pack
 	2M	Surface mounted opaque white door 2 modules	BEW401202	1SZR004002A2100	40
		Surface mounted transparent grey door 2 modules	BEW402202	1SZR004002A2200	
 	4M	Surface mounted opaque white door 4 modules	BEW401204	1SZR004002A2101	25
		Surface mounted transparent grey door 4 modules	BEW402204	1SZR004002A2201	
 	6M	Surface mounted opaque white door 6 modules	BEW401206	1SZR004002A2102	20
		Surface mounted transparent grey door 6 modules	BEW402206	1SZR004002A2202	
 	8M	Surface mounted opaque white door 8 modules	BEW401208	1SZR004002A2103	15
		Surface mounted transparent grey door 8 modules	BEW402208	1SZR004002A2203	
 	12M	Surface mounted opaque white door 12 modules	BEW401212	1SZR004002A2104	10
		Surface mounted transparent grey door 12 modules	BEW402212	1SZR004002A2204	
 	16M	Surface mounted opaque white door 16 modules	BEW401216	1SZR004002A2105	10
		Surface mounted transparent grey door 16 modules	BEW402216	1SZR004002A2205	
 	24M	Surface mounted opaque white door 24 modules	BEW401224	1SZR004002A2107	5
		Surface mounted transparent grey door 24 modules	BEW402224	1SZR004002A2207	
 	36M	Surface mounted opaque white door 36 modules	BEW401236	1SZR004002A2109	5
		Surface mounted transparent grey door 36 modules	BEW402236	1SZR004002A2209	

Consumer units

ABB basic E - flush mounted

Technical data

ABB basic E – Flush Mounted								
Number of modules	2	4	6	8	12	16	24	36
Dimensions (WxHxD) in mm	120x180x102	155x180x102	190x180x102	230x180x102	300x220x102	230x315x102	300x335x102	300x450x102
Body / Cover Colour	White / White	White / White	White / White	White / White	White / White	White / White	White / White	White / White
Body / Cover Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Door Colour	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white
	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey
Door Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Fire Resistance Cover-Body, Terminal-Holder	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C
Installation Temperature	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60
Resistance to Heat Cover-Body, Terminal-Holder	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C
IP rating	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40
Max. dissipation power	10 W	14 W	16 W	20 W	27 W	31 W	33 W	40 W
Extractable DIN rail	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cable entry	Knockout	Knockout	Knockout	Knockout	Knockout	Knockout	Knockout	Knockout
Protection class	II □	II □	II □	II □	II □	II □	II □	II □
Resistance to mechanical impacts	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08
Maximum current	63 A	63 A	63 A	63 A	63 A	63 A	63 A	63 A
Resistance to heat	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C
Terminal bars (Number of holes)	–	–	–	2x5	2x13	2x13	2x13	2x21

Number of cable entries for Flush Mounted

ABB basic E Flush Mounted	Module	Top Number of Entries	Bottom Number of Entries	Right Number of Entries	Left Number of Entries	Hole diameter (mm)
	2	2	2	3	3	28
	4	2	2	3	3	28
	6	4	4	2	2	28
	8	4	4	2	2	28
	12	6	6	2	2	28
	16	4	4	2	2	28
	24	6	6	2	2	28
	36	6	6	6	6	28

Consumer units

ABB basic E - surface mounted

Technical data

ABB basic E – Surface Mounted								
Number of modules	2	4	6	8	12	16	24	36
Dimensions (WxHxD) in mm	120x180x102	155x180x102	190x180x102	230x180x102	300x220x102	230x315x102	300x335x102	300x450x102
Body / Cover Colour	White / White	White / White	White / White	White / White	White / White	White / White	White / White	White / White
Body / Cover Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Door Colour	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white	Opaque white
	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey	Transparent grey
Door Material	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Fire Resistance Cover-Body, Terminal-Holder	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C	650° C / 850° C
Installation Temperature	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60	-25 / +60
Resistance to Heat Cover-Body, Terminal-Holder	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C	650–70° C
IP rating	IP40	IP40	IP40	IP40	IP40	IP40	IP40	IP40
Max. dissipation power	10 W	14 W	16 W	20 W	27 W	31 W	33 W	40 W
Extractable DIN rail	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Halogen Free	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cable entry	Knockout	Knockout	Knockout	Knockout	Knockout	Knockout	Knockout	Knockout
Protection class	II □	II □	II □	II □	II □	II □	II □	II □
Resistance to mechanical impacts	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08
Maximum current	63 A	63 A	63 A	63 A	63 A	63 A	63 A	63 A
Resistance to heat	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C	BPT 70° C
Terminal bars (Number of holes)	–	–	–	2x5	2x13	2x13	2x13	2x21

Number of cable entries for Surface Mounted

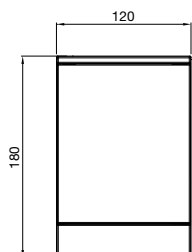
ABB basic E Surface Mounted	Module	Top Number of Entries	Bottom Number of Entries	Hole diameter (mm)
	2	1	1	24
	4	1	1	24
	6	2	2	24
	8	2	2	24
	12	3	3	24
	16	3	3	24
	24	3	3	24
	36	3	3	24

Consumer units

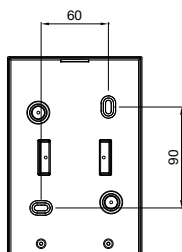
ABB basic E

Overall dimensions

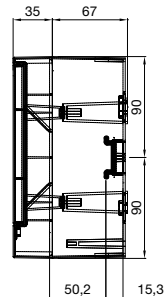
2M Enclosure, dimensions (mm)



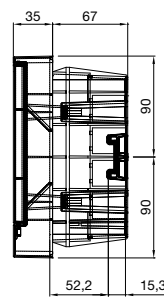
Front cover + door



Surface mounted

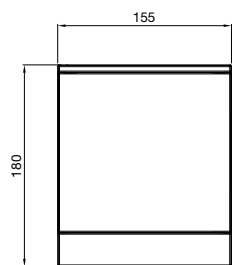


Surface mounted

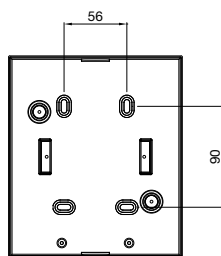


Flush mounted

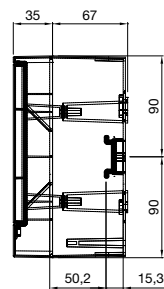
4M Enclosure, dimensions (mm)



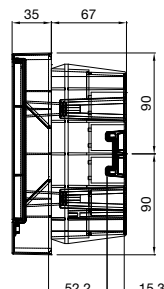
Front cover + door



Surface mounted

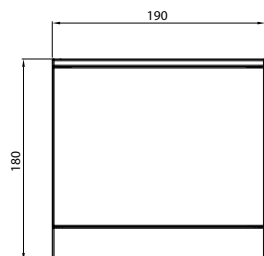


Surface mounted

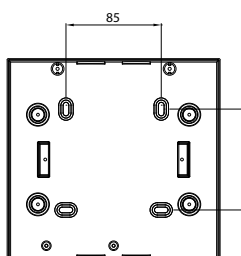


Flush mounted

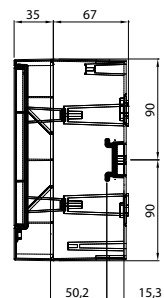
6M Enclosure, dimensions (mm)



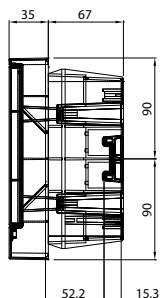
Front cover + door



Surface mounted



Surface mounted



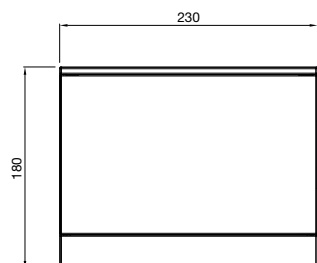
Flush mounted

Consumer units

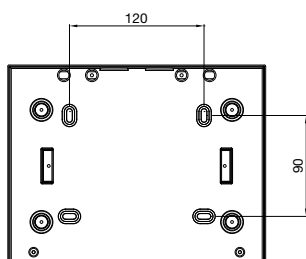
ABB basic E

Overall dimensions

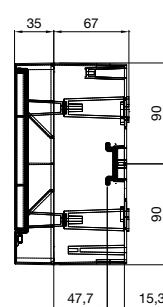
8M Enclosure, dimensions (mm)



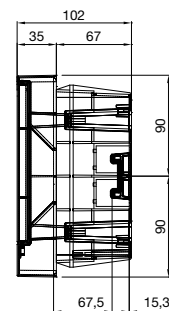
Front cover + door



Surface mounted

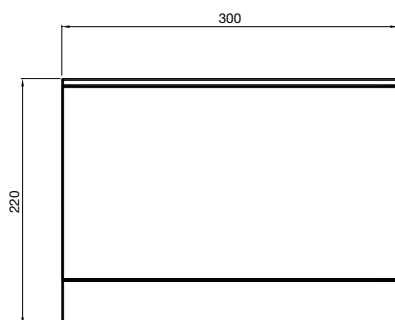


Surface mounted

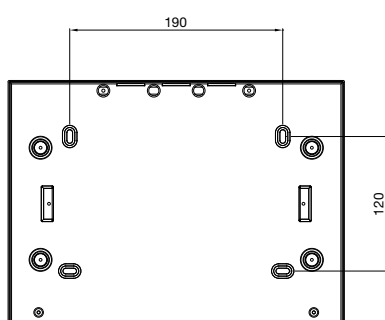


Flush mounted

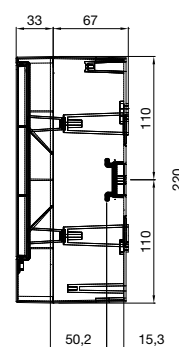
12M Enclosure, dimensions (mm)



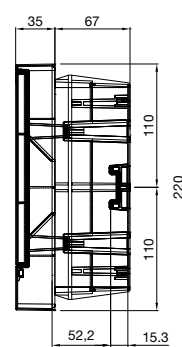
Front cover + door



Surface mounted

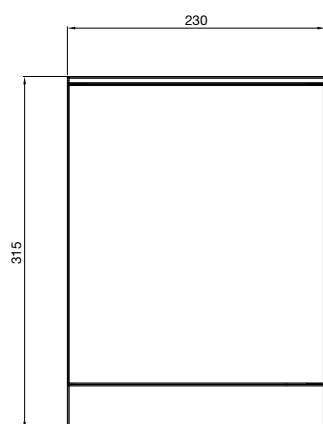


Surface mounted

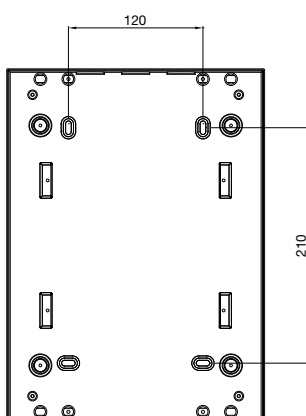


Flush mounted

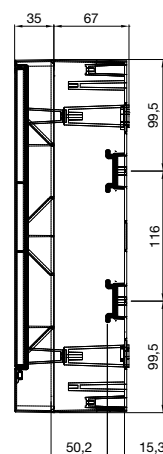
16M Enclosure, dimensions (mm)



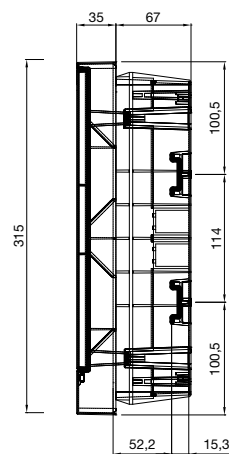
Front cover + door



Surface mounted



Surface mounted



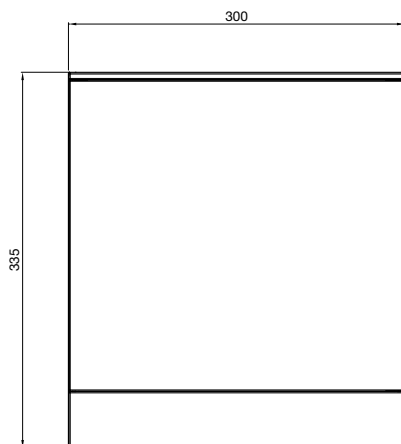
Flush mounted

Consumer units

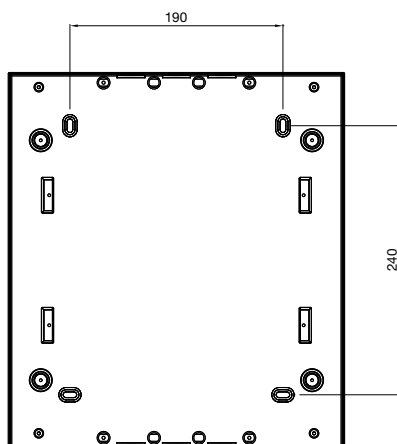
ABB basic E

Overall dimensions

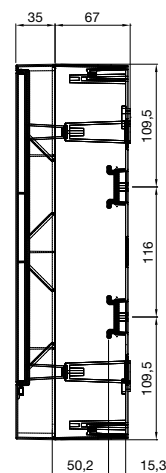
24M Enclosure, dimensions (mm)



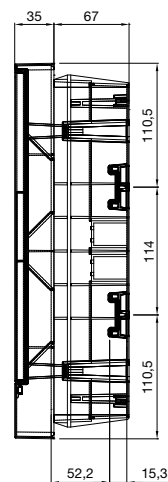
Front cover + door



Surface mounted

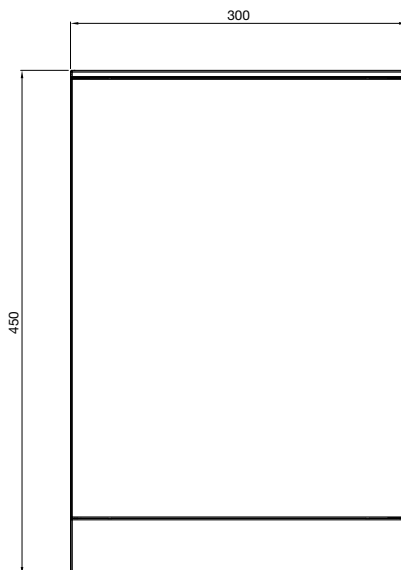


Surface mounted

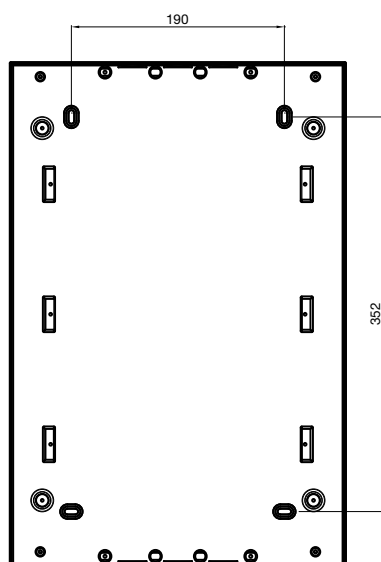


Flush mounted

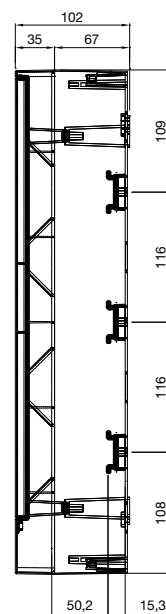
36M Enclosure, dimensions (mm)



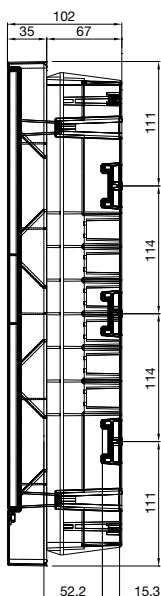
Front cover + door



Surface mounted



Surface mounted



Flush mounted



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