

Protection and safety

OVR T1-T2-T3 25 kA High energy

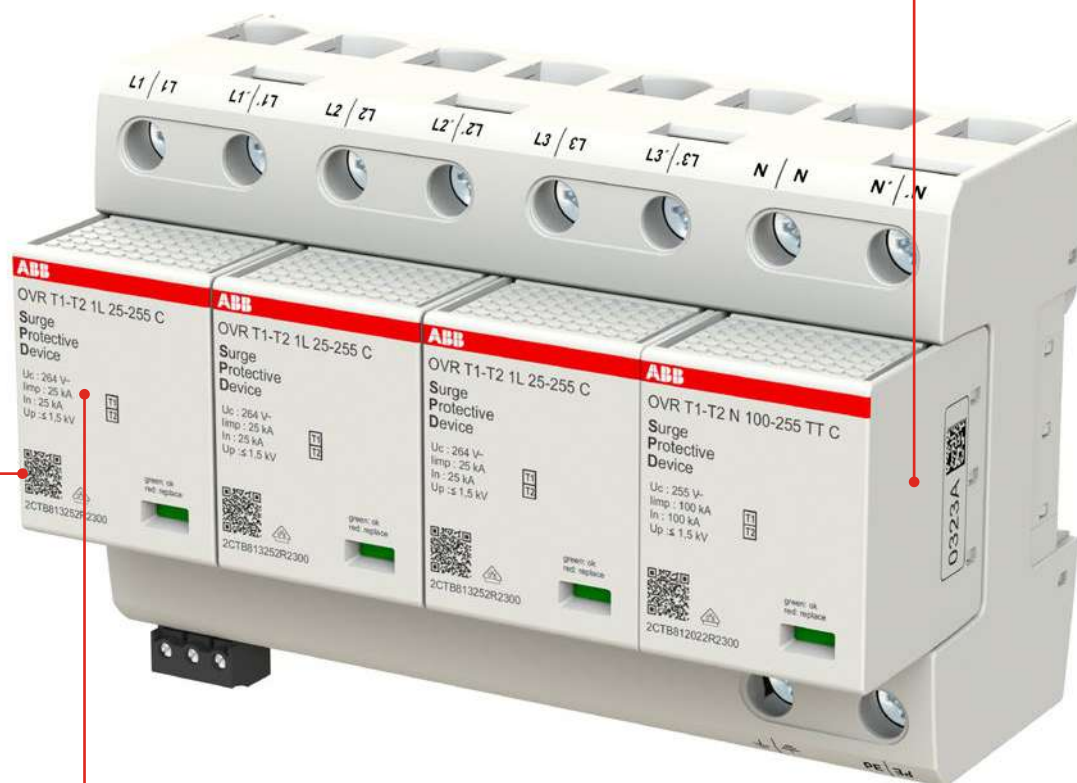


OVR T1-T2-T3, T1-T2, T2 and T2-T3 ranges. The details make the difference

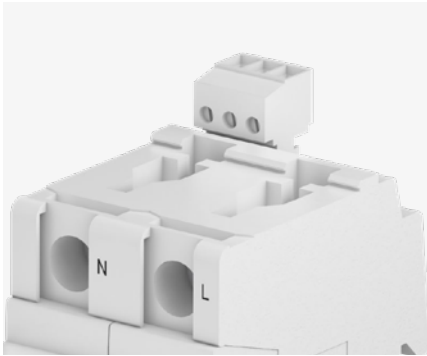
A complete range for your surge protection

Pluggable cartridge for
easy replacement during
maintenance operations.

Smart identification
QR code



Clear information on the front of
the product indicating the technical
characteristics of the OVR.



OVR T1-T2 12.5, T2 and T2-T3 ranges are using same terminal as Pro M compact devices to guarantee a complete coordination and time saving in wiring operation.



The pluggable feature of ABB OVR pluggable surge protective devices (SPDs) facilitates maintenance. Should one or more worn cartridges need to be replaced, the wires do not have to be removed.



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

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OVR surge protective devices selection tables

Pro- tected lines	Impulse current	Max. dis- charge current	Nominal current	Follow current interrupt- ing rating	Voltage protec- tion level	Nominal voltage	Max. cont. op- erating voltage	Order details	
	Iimp 10/350 kA	I _{max} 8/20 kA	I _n kA	I _{fi} kA	U _p kV	U _n V	U _c V	Type code	Order code
Type T1-T2 OVR pluggable									
Uc 255 V									
1	25	-	25	50	1.5	230	264	OVR T1-T2 1L 25-255 P	2CTB813250R2300
1	25	-	25	50	1.5	230	264	OVR T1-T2 1L 25-255 P TS	2CTB813251R2300
1+1	25	-	25	50/0,1	1.5	230	255	OVR T1-T2 1N 50-255 P TS	2CTB812511R2300
3	25	-	25	50	1.5	230/400	264	OVR T1-T2 3L 75-255 P TS	2CTB812751R2300
4	25	-	25	50	1.5	230/400	264	OVR T1-T2 4L 100-255 P TS	2CTB812101R2300
3+1	25	-	25	50/0,1	1.5	230/400	255	OVR T1-T2 3N 100-255 P TS	2CTB812111R2300
Uc 275 V									
1	12.5	80	20	-	1.4	230	275	OVR T1-T2 12.5-275s P TS QS	2CTB815710R0000
1+1	12.5	80	20	-	1.4	230	275	OVR T1-T2 1N 12.5-275s P TS QS	2CTB815710R0100
3	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3L 12.5-275s P TS QS	2CTB815710R0600
3+1	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3N 12.5-275s P TS QS	2CTB815710R0700
4	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 4L 12.5-275s P TS QS	2CTB815710R1100
1	12.5	80	20	-	1.4	230	275	OVR T1-T2 12.5-275s P QS	2CTB815710R1200
1+1	12.5	80	20	-	1.4	230	275	OVR T1-T2 1N 12.5-275s P QS	2CTB815710R1300
3	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3L 12.5-275s P QS	2CTB815710R1800
3+1	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 3N 12.5-275s P QS	2CTB815710R1900
4	12.5	80	20	-	1.4	230/400	275	OVR T1-T2 4L 12.5-275s P QS	2CTB815710R2300
Uc 440 V									
1	12.5	80	20	-	1.9	400	440	OVR T1-T2 12.5-440s P TS QS	2CTB815710R2900
1+1	12.5	80	20	-	1.9	400	440	OVR T1-T2 1N 12.5-440s P TS QS	2CTB815710R3000
3	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3L 12.5-440s P TS QS	2CTB815710R3500
3+1	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3N 12.5-440s P TS QS	2CTB815710R3600
4	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 4L 12.5-440s P TS QS	2CTB815710R4000
1	12.5	80	20	-	1.9	400	440	OVR T1-T2 12.5-440s P QS	2CTB815710R4100
1+1	12.5	80	20	-	1.9	400	440	OVR T1-T2 1N 12.5-440s P QS	2CTB815710R4200
3	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3L 12.5-440s P QS	2CTB815710R4700
3+1	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 3N 12.5-440s P QS	2CTB815710R4800
4	12.5	80	20	-	1.9	400/690	440	OVR T1-T2 4L 12.5-440s P QS	2CTB815710R5200
Neutral									
1	100	-	100	0.1	1.5	230	255	OVR T1-T2 N 100-255 P	2CTB813010R2300
1	100	-	100	0.1	1.5	230	255	OVR T1-T2 N 100-255 P TS	2CTB813011R2300
1	50	100	50	0.1	1.4	230	275	OVR T1-T2 N 50-275s P QS	2CTB815710R5300
1	50	100	50	0.1	1.9	400	440	OVR T1-T2 N 50-440s P QS	2CTB815710R5300
Cartridges									
1	25	-	25	50	1.5	230	264	OVR T1-T2 1L 25-255 C	2CTB813252R2300
1	50	-	50	0.1	1.5	230	255	OVR T1-T2 N 50-255 C	2CTB812522R2300
1	100	-	100	0.1	1.5	230	255	OVR T1-T2 N 100-255 TT C	2CTB812022R2300
1	100	-	100	0.1	1.5	230	255	OVR T1-T2 N 100-255 C	2CTB813012R2300
1	12.5	80	20	-	1.4	230	275	OVR T1-T2 12.5-275s C QS	2CTB815710R2600
1	12.5	80	20	-	1.9	400	440	OVR T1-T2 12.5-440s C QS	2CTB815710R5500
1	50	100	50	-	1.4	230	275	OVR T1-T2 N 50-275s C QS	2CTB815710R2700
1	50	100	50	-	1.9	400	440	OVR T1-T2 N 50-440s C QS	2CTB815710R5600
Type 2 OVR non-pluggable									
Uc 275 V									
1	-	20	5	-	1.0	230	275	OVR T2 20-275	2CTB804200R0100
1	-	40	20	-	1.4	230	275	OVR T2 40-275	2CTB804201R0100
1	-	20	5	-	1.0	230	275	OVR T2 20-275 (x20)	2CTB804200R1100
1	-	40	20	-	1.4	230	275	OVR T2 40-275 (x20)	2CTB804201R1100

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OVR surge protective devices selection tables

Pro- tected lines	Impulse current Iimp 10/350 kA	Max. dis- charge current Imax 8/20 kA	Nominal current In kA	Follow current interrupt- ing rating Ifi kA	Voltage protec- tion level Up kV	Nominal voltage Un V	Max. cont. op- erating voltage Uc V	Order details	
								Type code	Order code
Type 2 OVR pluggable									
Uc 275 V									
1	2	40	20	-	1.25	230	275	OVR T2 40-275 P TS QS	2CTB803871R1700
1+1	2	40	20	-	1.25	230	275	OVR T2 1N 40-275 P TS QS	2CTB803972R0500
3	2	40	20	-	1.25	230/400	275	OVR T2 3L 40-275 P TS QS	2CTB803873R2500
4	2	40	20	-	1.25	230/400	275	OVR T2 4L 40-275 P TS QS	2CTB803873R5200
1	2	40	20	-	1.25	230	275	OVR T2 40-275 P QS	2CTB803871R2300
1+1	2	40	20	-	1.25	230	275	OVR T2 1N 40-275 P QS	2CTB803972R1100
3	2	40	20	-	1.25	230/400	275	OVR T2 3L 40-275 P QS	2CTB803873R2400
4	2	40	20	-	1.25	230/400	275	OVR T2 4L 40-275 P QS	2CTB803873R5600
1	2	40	20	-	1.4	230	275	OVR T2 40-275s P TS QS	2CTB815704R0000
1+1	2	40	20	-	1.4	230	275	OVR T2 1N 40-275s P TS QS	2CTB815704R0200
3	2	40	20	-	1.4	230/400	275	OVR T2 3L 40-275s P TS QS	2CTB815704R0600
4	2	40	20	-	1.4	230/400	275	OVR T2 4L 40-275s P TS QS	2CTB815704R1100
1	2	40	20	-	1.4	230	275	OVR T2 40-275s P QS	2CTB815704R1200
1+1	2	40	20	-	1.4	230	275	OVR T2 1N 40-275s P QS	2CTB815704R1400
3	2	40	20	-	1.4	230/400	275	OVR T2 3L 40-275s P QS	2CTB815704R1800
4	2	40	20	-	1.4	230/400	275	OVR T2 4L 40-275s P QS	2CTB815704R2300
1	6.25	80	20	-	1.4	230	275	OVR T2 80-275s P TS QS	2CTB815708R0000
1+1	6.25	80	20	-	1.4	230	275	OVR T2 1N 80-275s P TS QS	2CTB815708R0200
3	6.25	80	20	-	1.4	230/400	275	OVR T2 3L 80-275s P TS QS	2CTB815708R0600
4	6.25	80	20	-	1.4	230/400	275	OVR T2 4L 80-275s P TS QS	2CTB815708R1100
1	6.25	80	20	-	1.4	230	275	OVR T2 80-275s P QS	2CTB815708R1200
1+1	6.25	80	20	-	1.4	230	275	OVR T2 1N 80-275s P QS	2CTB815708R1400
3	6.25	80	20	-	1.4	230/400	275	OVR T2 3L 80-275s P QS	2CTB815708R1800
4	6.25	80	20	-	1.4	230/400	275	OVR T2 4L 80-275s P QS	2CTB815708R2300

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OVR surge protective devices selection tables

Pro- tected lines	Impulse current	Max. dis- charge current	Nominal current	Follow current interrupt- ing rating	Voltage protec- tion level	Nominal voltage	Max. cont. op- erating voltage	Order details	
	Iimp 10/350 kA	I _{max} 8/20 kA	I _n kA	I _{fi} kA	U _p kV	U _n V	U _c V	Type code	Order code
Neutral									
1	2	80	30	0.1	1.4	230	275	OVR T2-T3 N 80-275 P QS	2CTB803973R1900
1	6.25	80	30	0.1	1.4	230	275	OVR T2 N 80-275s P QS	2CTB815708R2500
Cartridges									
1	2	80	30	-	1.4	230	275	OVR T2-T3 N 80-275 C QS	2CTB803876R0000
1	2	40	20	-	1.25	230	275	OVR T2 40-275 C QS	2CTB803876R1000
1	6.25	40	20	-	1.4	230	275	OVR T2 40-275s C QS	2CTB815704R2600
1	6.25	80	20	-	1.4	230	275	OVR T2 80-275s C QS	2CTB815708R2600
1	6.25	80	30	-	1.4	230	275	OVR T2 N 80-275s C QS	2CTB815708R2800
Uc 350V									
1	2	40	20	-	1.5	230	350	OVR T2 40-350 P QS	2CTB803881R2300
1	2	40	20	-	1.5	230	350	OVR T2 40-350 P TS QS	2CTB803881R1700
1+1	2	40	20	-	1.7	230	350	OVR T2 1N 40-350 P QS	2CTB803982R1100
1+1	2	40	20	-	1.7	230	350	OVR T2 1N 40-350 P TS QS	2CTB803982R0500
3	2	40	20	-	1.5	230/400	350	OVR T2 3L 40-350 P QS	2CTB803883R2400
3	2	40	20	-	1.5	230/400	350	OVR T2 3L 40-350 P TS QS	2CTB803883R2500
3+1	2	40	20	-	1.7	230/400	350	OVR T2 3N 40-350 P QS	2CTB803983R1100
3+1	2	40	20	-	1.7	230/400	350	OVR T2 3N 40-350 P TS QS	2CTB803983R0500
Neutral									
1	2	80	30	0.1	1.4	230	350	OVR T2 N 80-350 P QS	2CTB803983R1900
Cartridges									
1	2	80	30	0.1	1.4	230	350	OVR T2 N 80-350 C QS	2CTB803886R0000
1	2	40	20	-	1.5	230	350	OVR T2 40-350 C QS	2CTB803886R1000
Uc 440V									
1	2	40	20	-	1.8	400	440	OVR T2 40-440 P QS	2CTB803871R1200
1	2	40	20	-	1.8	400	440	OVR T2 40-440 P TS QS	2CTB803871R0500
3	2	40	20	-	1.8	400/690	440	OVR T2 3L 40-440 P TS QS	2CTB803873R2700
4	2	40	20	-	1.8	400/690	440	OVR T2 4L 40-440 P QS	2CTB803873R5100
4	2	40	20	-	1.8	400/690	440	OVR T2 4L 40-440 P TS QS	2CTB803873R5300
3+1	2	40	20	-	2.1	400/690	440	OVR T2 3N 40-440 P QS	2CTB803973R1400
3+1	2	40	20	-	2.1	400/690	440	OVR T2 3N 40-440 P TS QS	2CTB803973R1500
3	2	40	20	-	1.8	400/690	440	OVR T2 3L 40-440 P QS	2CTB803873R2800
1	2	40	20	-	1.8	400	440	OVR T2 40-440s P TS QS	2CTB815704R2900
3+1	2	40	20	-	1.8	400/690	440	OVR T2 3N 40-440s P TS QS	2CTB815704R3700
1	2	40	20	-	1.8	400	440	OVR T2 40-440s P QS	2CTB815704R4100
1	6.25	80	20	-	1.8	400	440	OVR T2 80-440s P TS QS	2CTB815708R2900
3	6.25	80	20	-	1.8	400/690	440	OVR T2 3L 80-440s P TS QS	2CTB815708R3500
3+1	6.25	80	20	-	1.8	400/690	440	OVR T2 3N 80-440s P TS QS	2CTB815708R3700
4	6.25	80	20	-	1.8	400/690	440	OVR T2 4L 80-440s P TS QS	2CTB815708R4000
1	6.25	80	20	-	1.8	400	440	OVR T2 80-440s P QS	2CTB815708R4100
3	6.25	80	20	-	1.8	400/690	440	OVR T2 3L 80-440s P QS	2CTB815708R4700
3+1	6.25	80	20	-	1.8	400/690	440	OVR T2 3N 80-440s P QS	2CTB815708R4900
4	6.25	80	20	-	1.8	400/690	440	OVR T2 4L 80-440s P QS	2CTB815708R5200
1+1	2	40	20	-	1.9	400	440	OVR T2 1N 40-440 P TS QS	2CTB803972R1400

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OVR surge protective devices selection tables

Pro- tected lines	Impulse current	Max. dis- charge current	Nominal current	Follow current interrupt- ing rating	Voltage protec- tion level	Nominal voltage	Max. cont. op- erating voltage	Order details	
	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 code	Order code
Neutral									
1	6.25	80	30	0.1	2	400	440	OVR T2 N 80-440s P QS	2CTB815708R5400
1	2	80	30	0.1	1.4	400	440	OVR T2-T3 N 80-440 P QS	2CTB803973R2000
Cartridges									
1	2	80	20	-	1.8	400	440	OVR T2 40-440 C QS	2CTB803876R0400
1	2	40	20	-	1.8	400	440	OVR T2-T3 40-440s C QS	2CTB815704R5500
1	6.25	80	20	-	1.8	400	440	OVR T2 80-440s C QS	2CTB815708R5500
1	6.25	80	30	-	1.4	400	440	OVR T2-T3 N 80-440 C QS	2CTB803886R0100
1	6.25	80	30	-	2	400	440	OVR T2 N 80-440s C QS	2CTB815708R5700
Type T2-T3 OVR Pluggable									
Uc 275V									
1	2	20	5	-	0.9	230	275	OVR T2-T3 20-275 P QS	2CTB803871R2400
1	2	20	5	-	0.9	230	275	OVR T2-T3 20-275 P TS QS	2CTB803871R2500
1+1	2	20	5	-	1.4	230	275	OVR T2-T3 1N 20-275 P QS	2CTB803972R1200
1+1	2	20	5	-	1.4	230	275	OVR T2-T3 1N 20-275 P TS QS	2CTB803972R1300
3	2	20	5	-	0.85	230/400	275	OVR T2-T3 3L 20-275 P QS	2CTB803873R3400
3	2	20	5	-	0.85	230/400	275	OVR T2-T3 3L 20-275 P TS QS	2CTB803873R3500
3+1	2	20	5	-	1.4	230/400	275	OVR T2-T3 3N 20-275 P QS	2CTB803973R1200
3+1	2	20	5	-	1.4	230/400	275	OVR T2-T3 3N 20-275 P TS QS	2CTB803973R1600
Neutral									
1	-	80	30	0.1	1.4	230	275	OVR T2-T3 N 80-275 P QS	2CTB803973R1900
Cartridges									
1	-	20	5	-	1.4	230	275	OVR T2 20-275 C QS	2CTB803876R1200
1	-	80	30	-	1.4	230	275	OVR T2-T3 N 80-275 C QS	2CTB803876R0000
Uc 440V									
1	2	20	5	-	1.4	400	440	OVR T2-T3 20-440 P QS	2CTB803871R1100
1	2	20	5	-	1.4	400	440	OVR T2-T3 20-440 P TS QS	2CTB803871R1300
3+1	2	20	5	-	1.4	400/690	440	OVR T2-T3 3N 20-440 P QS	2CTB803973R1300
Neutral									
1		80	30	0.1	1.4	400	440	OVR T2-T3 N 80-440 P QS	2CTB803973R2000
Cartridges									
1	-	80	5	-	1.4	400	440	OVR T2 20-440 C QS	2CTB803876R0600
1	-	80	30	-	1.4	400	440	OVR T2-T3 N 80-440 C QS	2CTB803886R0100

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OVR surge protective devices selection tables

Protected lines	Total Discharge Current	Impulse current	Max. discharge current	Nominal current	Short-circuit current rating	Voltage protection level	Nominal voltage	Max. cont. operating voltage	Order details	
	I_{total} 10/350 kA	I_{imp} 10/350 kA	I_{max} 8/20 kA	I_n kA	I_{scpv} A	U_p kV	U_n V	U_c V	Type code	Order code
Type T1-T2 OVR pluggable PV application										
U_c 1100 V DC										
1+1 DC	5	5	40	20	11.000	3.8	1000	1100	OVR PV T1-T2 5-1000 P QS	2CTB812050R1000
1+1 DC	5	5	40	20	11.000	3.8	1000	1100	OVR PV T1-T2 5-1000 P TS QS	2CTB812051R1000
1+1 DC	6,25	12.5	40	20	11.000	3.8	1000	1100	OVR PV T1-T2 12.5-1000 P QS	2CTB812120R1000
1+1 DC	6,25	12.5	40	20	11.000	3.8	1000	1100	OVR PV T1-T2 12.5-1000 P TS QS	2CTB812121R1000
Cartridges										
1+1 DC	5	5	40	20	11.000	-	1000	1100	OVR PV T1-T2 5-1000 C QS	2CTB812052R1000
1+1 DC	6,25	6,25	40	20	11.000	-	1000	1100	OVR PV T1-T2 12.5-1000 C QS	2CTB812122R1000
1+1 DC	6,25	6,25	40	20	11.000	-	1000	1100	OVR PV T1-T2 12.5-1000 M C QS	2CTB812122R1001
U_c 1500 V DC										
1+1 DC	5	5	30	20	11.000	5	1500	1500	OVR PV T1-T2 5-1500 P QS	2CTB812050R1500
1+1 DC	5	5	30	20	11.000	5	1500	1500	OVR PV T1-T2 5-1500 P TS QS	2CTB812051R1500
1+1 DC	5	10	30	20	11.000	5	1500	1500	OVR PV T1-T2 10-1500 P QS	2CTB812100R1500
1+1 DC	5	10	30	20	11.000	5	1500	1500	OVR PV T1-T2 10-1500 P TS QS	2CTB812101R1500
Cartridges										
1+1 DC	5	5	30	20	11.000	-	1500	1500	OVR PV T1-T2 5-1500 C QS	2CTB812052R1500
1+1 DC	5	5	30	20	11.000	-	1500	1500	OVR PV T1-T2 10-1500 C QS	2CTB812102R1500
1+1 DC	5	5	30	20	11.000	-	1500	1500	OVR PV T1-T2 10-1500 M C QS	2CTB812102R1501

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OVR surge protective devices selection tables

Protected lines	Impulse current limp 10/350 kA	Max. discharge current Imax 8/20 kA	Nominal current In kA	Short-circuit current rating Iscpv A	Voltage protection level Up kV	Nominal voltage Un V	Max. cont. operating voltage Uc V	Order details	
								Type code	Order code
Type 2 OVR pluggable PV applications									
Uc 1000 V DC									
1+1 DC	-	40	20	10.000	4	1000	1000	OVR PV T2 40-1000 P	2CTB802400R1000
1+1 DC	-	40	20	10.000	4	1000	1000	OVR PV T2 40-1000 P BULK (x20)	2CTB802400Z1000
1+1 DC	-	40	20	10.000	4	1000	1000	OVR PV T2 40-1000 P TS BULK (x20)	2CTB802401Z1000
Cartridges									
1+1 DC	-	40	20	10.000	-	1000	1000	OVR PV T2 40-1000 C	2CTB802402R1000
Uc 1500 V DC									
1+1 DC	-	40	15	10.000	5	1500	1500	OVR PV T2 40-1500 P	2CTB802400R1500
1+1 DC	-	40	15	10.000	5	1500	1500	OVR PV T2 40-1500 P BULK (x20)	2CTB802400Z1500
1+1 DC	-	40	10	10.000	5	1500	1500	OVR PV T2 40-1500 P TS BULK (x20)	2CTB802401Z1500
Cartridges									
1+1 DC	2	40	10	10.000	-	1500	1500	OVR PV T2 40-1500 C	2CTB802402R1500



OVR PV T2 40-1000 P TS

Protection and safety

OVR Type 1+2 surge protective devices Single pole



**OVR T1-T2 1L
25-255 P TS**

Technical features

Types		OVR T1-T2 1L 25-255 P	
with auxiliary contact (TS)		OVR T1-T2 1L 25-255 P TS	
Technology		Spark Gap	
Electrical features			
Standard		IEC 61643-11 / EN 61643-11 UL 1449, 5th Edition	
Type/test class		T1-T2 / I - II	
Protected lines		1	
System network		TNC - TNS - TT	
Type of current		47-63Hz	
Voltage regulation of the system network		± 10 %	
Nominal system voltage Un	[V]	230	
Max. cont. operating voltage Uc	[V]	264	
Maximum impulse current Iimp (10/350)	[kA]	25	
Nominal discharge current In (8/20)	[kA]	25	
Maximum discharge current Imax (8/20)	[kA]	-	
Follow current interrupting rating Ifi	[kA]	50	
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	1.5 / - / -	
Voltage protection level Ures at 3 kA	[kV]	-	
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	440 V: 120 min / -	
Response time	[ns]	≤ 100	
Short-circuit withstand capability Isccr	[kA]	50	
Max Limitation/Extinction of mains follow currents (L-N)/(N-PE)	[kA]	100 / -	
Maximum Prospective Short-Circuit current on the point of installation	[kA]	100	
Backup protection fuse (gG)	[A]	≤ 315	
maximum rating circuit breaker (B or C curve)	[A]	-	
Pluggable cartridge		Yes	
Integrated thermal disconnecter		Yes	
State indicator		Yes	
Safety reserve		No	
Auxiliary contact		Yes (TS option)	
Installation			
Wire range (L, N, PE)	solid wire (single wiring / V wiring)	[mm²]	10...35 / 10...25
	stranded wire (single wiring / V wiring)	[mm²]	10...50 / 10...35
Stripping length (L, N, PE)		[mm]	16.5
Tightening torque (L, N, PE)		[Nm]	7
Auxiliary contact (TS)			
Contacts information		1 NO - 1 NC	
Min. load		5V DC - 10 mA	
Max. load		250 V AC - 0,5A	
Connection cross-section		[mm²]	0.5 ...1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C]	-40 to +80
Maximal Altitude		[m]	2000
Degree of protection		IP20 - Indoor	
Fire resistance according to UL 94		V0	
Dimensions			
height x width x depth	[mm]	90 x 36 x 73	
	[inches]	3.51 x 1.40 x 2.85	
Dimensions with auxiliary contact (TS)			
height x width x depth	[mm]	99 x 36 x 73	
	[inches]	3.86 x 1.40 x 2.85	
Replacement Cartridges			
Phase Product ID		OVR T1-T2 1L 25-255 C 2CTB813252R2300	
Neutral Product ID		-	

Protection and safety

OVR Type 1+2 surge protective devices Single pole

OVR T1-T2 12.5-275s P QS	OVR T1-T2 12.5-440s P QS
OVR T1-T2 12.5-275s P TS QS	OVR T1-T2 12.5-440s P TS QS
Varistor	Varistor
IEC 61643-11 / EN 61643-11: 2012 / A11: 2018	IEC 61643-11 / EN 61643-11: 2012 / A11: 2018
T1-T2 / I - II	T1-T2 / I - II
1	1
TT (L-N) - TNS - TNC	TT (L-N) - TNS - TNC
AC 47-63 Hz	AC 47-63 Hz
± 20%	± 10%
230	400
275	440
12.5	12.5
20	20
80	80
-	-
1.4 / - / 1.4	1.9 / - / 1.9
0.5	0.5
337 /	581 /
< 25	< 25
100	100
-	-
100	100
≤ 160	≤ 160
≤ 125	≤ 125
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
Yes (TS option)	Yes (TS option)
2.5 ... 35 / -	2.5 ... 35 / -
2.5 ... 25 / -	2.5 ... 25 / -
12.5	12.5
2.8	2.8
1 NO - 1 NC	1 NO - 1 NC
12 V DC - 10 mA	12 V DC - 10 mA
250 V AC - 1A	250 V AC - 1A
0.5 ...1.5	0.5 ...1.5
-40 to +80	-40 to +80
5000	5000
IP 20 - Indoor	IP 20 - Indoor
V-0	V-0
88 x 17.8 x 76.7	88 x 35.6 x 76.7
3.46 x 0.70 x 3.02	3.46 x 1.4 x 3.02
95.8 x 17.8 x 76.7	95.8 x 35.6 x 76.7
3.77 x 0.70 x 3.02	3.77 x 1.4 x 3.02
OVR T1-T2 12.5-275s C QS 2CTB815710R2600	OVR T1-T2 12.5-440s C QS 2CTB815710R5500
-	-

Protection and safety

OVR Type 1+2 surge protective devices Single pole



**OVR T1-T2 N
100-255 P TS**

Technical features

Types		OVR T1-T2 N 100-255 P
with auxiliary contact (TS)		OVR T1-T2 N 100-255 P TS
Technology		Spark Gap
Electrical features		
Standard		IEC 61643-11 / EN 61643-11 UL 1449, 5th Edition
Type/test class		T1-T2 / I - II
Protected lines		N
System network		TNS / TT
Type of current		47-63Hz
Voltage regulation of the system network		± 10 %
Nominal system voltage Un	[V]	230
Max. cont. operating voltage Uc	[V]	255
Maximum impulse current Iimp (10/350)	[kA]	100
Nominal discharge current In (8/20)	[kA]	100
Maximum discharge current Imax (8/20)	[kA]	-
Follow current interrupting rating Ifi	[kA]	0,1
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	- / 1.5 / -
Voltage protection level Ures at 3 kA	[kV]	-
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	- / 1200
Response time	[ns]	≤100
Short-circuit withstand capability Isccr	[kA]	-
Backup protection fuse (gG)	[A]	-
maximum rating circuit breaker (B or C curve)	[A]	-
Pluggable cartridge		Yes
Integrated thermal disconnecter		Yes
State indicator		Yes
Safety reserve		No
Auxiliary contact		Yes (TS option)
Installation		
Wire range (L, N, PE)	solid wire (single wiring / V wiring)	[mm²] 10...35 / 10...25
	stranded wire (single wiring / V wiring)	[mm²] 10...50 / 10...35
Stripping length (L, N, PE)	[mm]	16.5
Tightening torque (L, N, PE)	[Nm]	7
Auxiliary contact (TS)		
Contacts information		1 NO - 1 NC
Min. load		5V DC - 10 mA
Max. load		250 V AC - 0,5A
Connection cross-section	[mm²]	0.5 ...1.5
Miscellaneous characteristics		
Stocking and operating temperature		[°C] -40 to +60
Maximal Altitude		[m] 2000
Degree of protection		IP20 - Indoor
Fire resistance according to UL 94		V0
Dimensions		
height x width x depth	[mm]	90 x 36 x 73
	[inches]	3.51 x 1.40 x 2.85
Dimensions with auxiliary contact (TS)		
height x width x depth	[mm]	99 x 36 x 73
	[inches]	3.86 x 1.40 x 2.85
Replacement Cartridges		
Phase Product ID		
Neutral Product ID		OVR T1-T2 N 100-255 C 2CTB813012R2300

Protection and safety

OVR Type 1+2 surge protective devices Single pole

OVR T1-T2 N 50-275s P QS	OVR T1-T2 N 50-440s P QS
GDT	GDT
IEC 61643-11 / EN 61643-11: 2012 / A11: 2018	IEC 61643-11 / EN 61643-11: 2012 / A11: 2018
T1-T2 / I - II	T1-T2 / I - II
N	N
TT (N-PE) - TNS (N-PE)	TT (N-PE) - TNS (N-PE)
AC 47-63 Hz	AC 47-63 Hz
± 20%	± 10%
230	400
275	440
50	50
50	50
100	100
-	-
- / 1.4 / -	- / 1.9 / -
-	-
- / 1200	- / 1200
≤10	≤10
≤100	≤100
-	-
-	-
Yes	Yes
No	No
No	No
No	No
No	No
2.5 ... 50 / -	2.5 ... 50 / -
2.5 ... 35 / -	2.5 ... 35 / -
12.5	12.5
3.5	3.5
-40 to +80	-40 to +80
5000	5000
IP 20 - Indoor	IP 20 - Indoor
V0	V0
88 x 17.8 x 76.7	88 x 17.8 x 76.7
3.46 x 0.7 x 3.02	3.46 x 0.7 x 3.02
OVR T1-T2 N 50-275s C QS 2CTB815710R2700	OVR T1-T2 N 50-440s C QS 2CTB815710R5600

Protection and safety

OVR Type 1+2 surge protective devices Single pole

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.

Poles	Impulse current 10/350 μ s	Max. discharge current I _{max} 8/20 μ s	Follow current interrupting rating I _{fi}	Voltage protection level Up	Nominal voltage U _n	Max. cont. operating voltage U _c	Bbn 3660308	Order details		Weight 1 piece
	kA	kA	kA	kV	V	V	EAN	Type code	Order code	kg
1	25	-	50	1.5	230	264	4053546053364	OVR T1-T2 1L 25-255 P	2CTB813250R2300	0.27
1	25	-	50	1.5	230	264	4053546053371	OVR T1-T2 1L 25-255 P TS	2CTB813251R2300	0.3
1	25	-	0.1	1.5	230	255	4053546053234	OVR T1-T2 N 100-255 P	2CTB813010R2300	0.3
1	25	-	0.1	1.5	230	255	4053546054736	OVR T1-T2 N 100-255 P TS	2CTB813011R2300	0.3
1	12.5	80	-	1.4	230	275	524881	OVR T1-T2 12.5-275s P TS QS	2CTB815710R0000	0.15
1	12.5	80	-	1.4	230	275	524959	OVR T1-T2 12.5-275s P QS	2CTB815710R1200	0.15
1	12.5	80	-	1.9	400	440	525055	OVR T1-T2 12.5-440s P TS QS	2CTB815710R2900	0.30
1	12.5	80	-	1.9	400	440	525123	OVR T1-T2 12.5-440s P QS	2CTB815710R4100	0.30
1	50	100	-	1.4	230	275	525024	OVR T1-T2 N 50-275s P QS	2CTB815710R2400	0.15
1	50	100	-	1.9	400	440	525192	OVR T1-T2 N 50-440s P QS	2CTB815710R5300	0.14

Notes

Protection and safety

OVR Type 1+2 surge protective devices TNC 230 and 400 V networks

Technical features

Types			OVR T1-T2 3L 12.5-275s P QS	OVR T1-T2 3L 12.5-440s P QS
with auxiliary contact (TS)		OVR T1-T2 3L 75-255 P TS	OVR T1-T2 3L 12.5-275s P TS QS	OVR T1-T2 3L 12.5-440s P TS QS
Technology		Spark Gap	Varistor	Varistor
Electrical features				
Standard		IEC 61643-11/EN 61643-11 UL 1449. 5th Edition	IEC 61643-11/EN 61643-11:2012/A11:2018	IEC 61643-11/EN 61643-11:2012/A11:2018
Type/test class		T1-T2/I - II	T1-T2/I - II	T1-T2/I - II
Protected lines		3	3	3
System network		TNC	TNC	TNC
Type of current		AC 47-63 Hz	AC 47-63 Hz	AC 47-63 Hz
Voltage regulation of the system network		± 10 %	± 20 %	± 10 %
Nominal system voltage Un	[V]	230/400	230/400	400/690
Max. cont. operating voltage Uc	[V]	264	275	440
Maximum impulse current Iimp (10/350)	[kA]	25	12.5	12.5
Max. Imp current Tot Iimp (10/350)	[kA]	75	37.5	37.5
Nominal discharge current In (8/20)	[kA]	25	20	20
Maximum discharge current Imax (8/20)	[kA]	-	80	80
Follow current interrupting rating Ifi	[kA]	50	-	-
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	-/-1.5	-/-1.4	-/-2
Voltage protection level Ures at 3 kA	[kV]	-	0.5	0.8
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200 ms)	[V]	440 V: 120 min	337/-	581/-
Response time	[ns]	≤ 100	≤ 25	≤ 25
Short-circuit withstand capability Isccr	[kA]	50	100	100
Max Limitation/Extinction of mains follow currents (L-N)/(N-PE)	[kA]	100/-	-	-
Maximum Prospective Short-Circuit current on the point of installation	[kA]	100	100	100
Backup fuse (gG)	[A]	≤ 315	≤ 160	≤ 160
protection circuit breaker (B or C)	[A]	-	≤ 125	≤ 125
maximum rating				
Pluggable cartridge		Yes	Yes	Yes
Integrated thermal disconnecter		Yes	Yes	Yes
State indicator		Yes	Yes	Yes
Safety reserve		No	Yes	Yes
Auxiliary contact		Yes	Yes (TS option)	Yes (TS option)
Installation				
Wire range (L, N, PE)	solid wire, single wiring	[mm ²]	10...35	2.5 ... 35
	stranded wire, single wiring	[mm ²]	10...50	2.5 ... 25
Stripping length (L, N, PE)		[mm]	15.5	12.5
Tightening torque (L, N, PE)		[Nm]	7	2.8
Auxiliary contact (TS)				
Contacts information		1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Min. load		5V DC - 10 mA	12 DC - 10 mA	12 DC - 10 mA
Max. load		250 V AC - 0,5A	250 V AC - 1A	250 V AC - 1A
Connection cross-section		[mm ²]	0.5 ...1.5	0.5 ...1.5
Miscellaneous characteristics				
Stocking and operating temperature		[°C]	-40 to +60	-40 to +80
Maximal Altitude		[m]	2000	5000
Degree of protection			IP20 - Indoor	IP 20 - Indoor
Fire resistance according to UL 94			V0	V-0
Dimensions				
height x width x depth		[mm]	88 x 53.4 x 76.7	88 x 106.8 x 76.7
		[inches]	3.46 x 2.1 x 3.02	3.46 x 4.2 x 3.02
Dimensions with auxiliary contact (TS)				
height x width x depth		[mm]	99 x 72 x 108	95.8 x 53.4 x 76.7
		[inches]	3.86 x 2.80 x 4.25	3.77 x 2.1 x 3.02
				3.77 x 4.2 x 3.02
Replacement Cartridges				
Phase Product ID		OVR T1-T2 1L 25-255 C 2CTB813252R2300	OVR T1-T2 12.5-275s C QS 2CTB815710R2600	OVR T1-T2 12.5-440s C QS 2CTB815710R5500

Protection and safety

OVR Type 1+2 surge protective devices TNC networks



OVR T1-T2 3L
75-255 P TS

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 (U_p).

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 10/350 kA	Max discharge current I_{max} 8/20 kA	Voltage protection level U_p kV	Nominal voltage U_n V	Max. cont. operating voltage U_c V	Bbn 3660308 EAN	Order details		Weight 1 piece kg
							Type code	Order code	
3	25	50	1.5	230/400	264	4053546114621	OVR T1-T2 3L 75-255 P TS	2CTB812751R2300	0.52
3	12.5	80	1.4	230/400	275	524911	OVR T1-T2 3L 12.5- 275s P TS QS	2CTB815710R0600	0.45
3	12.5	80	1.4	230/400	275	524980	OVR T1-T2 3L 12.5-275s P QS	2CTB815710R1800	0.45
3	12.5	80	1.9	400/690	440	525086	OVR T1-T2 3L 12.5- 440s P TS QS	2CTB815710R3500	0.90
3	12.5	80	2	400/690	440	525154	OVR T1-T2 3L 12.5-440s P QS	2CTB815710R4700	0.90

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 230 1Ph+N and 3Ph+N networks

Technical features

Types				
with auxiliary contact (TS)		OVR T1-T2 1N 50-255 P TS		
Technology		Spark Gap		
Electrical features				
Standard		IEC 61643-11 / EN 61643-11 UL 1449. 5th Edition		
Type/test class		T1-T2 / I - II		
Protected lines		1+N		
System network		TN / TT		
Type of current		47-63Hz		
Voltage regulation of the system network		± 10 %		
Nominal system voltage Un	[V]	230		
Max. cont. operating voltage Uc	[V]	255		
Maximum impulse current Iimp (10/350)	[kA]	25		
Max.Imp current Tot Iimp (10/350)	[kA]	50		
Nominal discharge current In (8/20)	[kA]	25		
Maximal discharge current Imax (8/20) kA	[kA]	-		
Follow current interrupting rating Ifi	[kA]	50		
Voltage protection level Up at In (L-N/N-PE/L-PE)	[kV]	≤ 1.5 / ≤ 1.5/ ≤ 1.8		
Voltage protection level Ures at 3 kA	[kV]	-		
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)	[V]	440 V: 120 min / 1200 V		
Response time	[ns]	≤ 100		
Short-circuit withstand capability Isccr	[kA]	50 / -		
Max Limitation / Extinction of mains follow currents (L-N)/(N-PE)	[kA]	100 / 0,1		
Maximum Prospective Short-Circuit current on the point of installation	[kA]	100		
Backup protection maximum rating	fuse (gG)	[A]	≤ 315	
	circuit breaker (B or C curve)	[A]	-	
Pluggable cartridge			Yes	
Integrated thermal disconnector			Yes	
State indicator			Yes	
Safety reserve			No	
Auxiliary contact			Yes	
Installation				
Wire range (L, N, PE)		solid wire, single wiring	[mm²]	10...35
		stranded wire, single wiring	[mm²]	10...50
Stripping length (L, N, PE)		[mm]	15.5	
Tightening torque (L, N, PE)		[Nm]	7	
Auxiliary contact (TS)				
Contacts information			1 NO - 1 NC	
Min. load			5V DC - 10 mA	
Max. load			250 V AC - 0,5A	
Connection cross-section		[mm²]	0.5 ...1.5	
Miscellaneous characteristics				
Stocking and operating temperature		[°C]	-40 to +60	
Maximal Altitude		[m]	2000	
Degree of protection			IP20 - Indoor	
Fire resistance according to UL 94			V0	
Dimensions				
height x width x depth		[mm]		
		[inches]		
Dimensions with auxiliary contact (TS)				
height x width x depth		[mm]	99 x 72 x 72	
		[inches]	3.86 x 2.80 x 2.85	
Replacement Cartridges				
Phase Product ID			OVR T1-T2 1L 25-255 C 2CTB813252R2300	
Neutral Product ID			OVR T1-T2 N 50-255 C 2CTB812522R2300	

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 230 1Ph+N and 3Ph+N networks

OVR T1-T2 3N 100-255 P TS	OVR T1-T2 4L 100-255 P TS
Spark Gap	Spark Gap
IEC 61643-11 / EN 61643-11 UL 1449. 5th Edition	IEC 61643-11/EN 61643-11 UL 1449. 5th Edition
T1-T2 / I - II	T1-T2 / I - II
3+N	4
TNS / TT	TNS
47-63Hz	47-63Hz
± 10 %	± 10 %
230/400	230/400
255	255
25	25
100	100
25	25
-	-
50	50
≤ 1.5 / ≤ 1.5 / ≤ 1.8	≤ 3 / ≤ 1.5 / ≤ 1,5
-	-
440 V: 120 min / 1200 V	440 V: 120 min / -
≤ 100	≤ 100
50 / -	50
100 / 0,1	100/100
100	100
≤ 315	≤ 315
-	-
Yes	Yes
Yes	Yes
Yes	Yes
No	No
Yes	Yes
10...35	10...35
10...50	10...50
15.5	15.5
7	7
1 NO - 1 NC	1 NO - 1 NC
5V DC - 10 mA	5V DC - 10 mA
250 V AC - 0,5A	250 V AC - 0,5A
0.5 ...1.5	0.5 ...1.5
-40 to +60	-40 to +60
2000	2000
IP20 - Indoor	IP20 - Indoor
V0	V0
99 x 144 x 72	99 x 144 x 72
3.86 x 5.60 x 2.85	3.86 x 5.60 x 2.85
OVR T1-T2 1L 25-255 C 2CTB813252R2300	OVR T1-T2 1L 25-255 C 2CTB813252R2300
OVR T1-T2 N 100-255 TT C 2CTB812022R2300	OVR T1-T2 1L 25-255 C 2CTB813252R2300

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 230 1Ph+N and 3Ph+N networks

Technical features

Types			OVR T1-T2 1N 12.5-275s P QS
with auxiliary contact (TS)			OVR T1-T2 1N 12.5-275s P TS QS
Technology			Varistor + GDT
Electrical features			
Standard			IEC 61643-11/EN 61643-11:2012/A11:2018
Type/test class			T1-T2/I - II
Protected lines			1+1
System network			TT - TNS
Type of current			AC 47-63 Hz
Voltage regulation of the system network			± 20 %
Nominal system voltage Un		[V]	230
Max. cont. operating voltage Uc		[V]	275
Maximum impulse current Iimp (10/350)		[kA]	12.5
Max.Imp current Tot Iimp (10/350)		[kA]	25
Nominal discharge current In (8/20)		[kA]	20
Maximal discharge current Imax (8/20) kA		[kA]	80
Follow current interrupting rating Ifi		[kA]	
Voltage protection level Up at In (L-N/N-PE/L-PE)		[kV]	1.4/1.4/1.5
Voltage protection level Ures at 3 kA		[kV]	0.5
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)		[V]	337/1200
Response time		[ns]	≤ 25
Short-circuit withstand capability Isccr		[kA]	100
Backup protection maximum rating	fuse (gG)	[A]	≤ 160
	circuit breaker (B or C curve)	[A]	≤ 125
Pluggable cartridge			Yes
Integrated thermal disconnecter			Yes
State indicator			Yes
Safety reserve			Yes
Auxiliary contact			Yes (TS option)
Installation			
Wire range (L, N, PE)	solid wire, single wiring	[mm²]	2.5 ... 35
	stranded wire, single wiring	[mm²]	2.5 ... 25
Stripping length (L, N, PE)		[mm]	12.5
Tightening torque (L, N, PE)		[Nm]	2.8
Auxiliary contact (TS)			
Contacts information		1 NO - 1 NC	
Min. load		12 V DC - 10 mA	
Max. load		250 V AC - 1A	
Connection cross-section		[mm²]	0.5 ...1.5
Miscellaneous characteristics			
Stocking and operating temperature		[°C]	-40 to +80
Maximal Altitude		[m]	5000
Degree of protection		IP 20 - Indoor	
Fire resistance according to UL 94		V-0	
Dimensions			
height x width x depth	[mm]	88 x 35.6 x 76.7	
	[inches]	3.46 x 1.4 x 3.02	
Dimensions with auxiliary contact (TS)			
height x width x depth	[mm]	95.8 x 35.6 x 76.7	
	[inches]	3.46 x 1.4 x 3.02	
Replacement Cartridges			
Phase Product ID		OVR T1-T2 12.5-275s C QS 2CTB815710R2600	
Neutral Product ID		OVR T1-T2 N 50-275s C QS 2CTB815710R2700	

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 230 1Ph+N and 3Ph+N networks

OVR T1-T2 3N 12.5-275s P QS	OVR T1-T2 4L 12.5-275s P QS
OVR T1-T2 3N 12.5-275s P TS QS	OVR T1-T2 4L 12.5-275s P TS QS
Varistor + GDT	Varistor
IEC 61643-11/EN 61643-11:2012/A11:2018	IEC 61643-11/EN 61643-11:2012/A11:2018
T1-T2/I - II	T1-T2/I - II
3+1	3+N
TT - TNS	TNS
AC 47-63 Hz	AC 47-63 Hz
± 20%	± 20%
230/400	230/400
275	275
12.5	12.5
50	50
20	20
80	80
	-
1.4/1.4/1.5	2.8/1.4/1.4
0.5	0.5
337/1200	337/
≤ 25	≤ 25
100	100
≤ 160	≤ 160
≤ 125	≤ 125
Yes	Yes
Yes	Yes
Yes	Yes
Yes	Yes
Yes (TS option)	Yes (TS option)
2.5 ... 35	2.5 ... 35
2.5 ... 25	2.5 ... 25
12.5	12.5
2.8	2.8
1 NO - 1 NC	1 NO - 1 NC
12 V DC - 10 mA	12 V DC - 10 mA
250 V AC - 1A	250 V AC - 1A
0.5 ...1.5	0.5 ...1.5
-40 to +80	-40 to +80
5000	5000
IP 20 - Indoor	IP 20 - Indoor
V-0	V-0
88 x 71.2 x 76.7	88 x 71.2 x 76.7
3.46 x 2.8 x 3.02	3.46 x 2.8 x 3.02
95.8 x 71.2 x 76.7	95.8 x 71.2 x 76.7
3.77 x 2.8 x 3.02	3.77 x 2.8 x 3.02
OVR T1-T2 12.5-275s C QS 2CTB815710R2600	OVR T1-T2 12.5-275s C QS 2CTB815710R2600
OVR T1-T2 N 50-275s C QS 2CTB815710R2700	

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 400 V 1Ph+N and 3Ph+N networks

Technical features

Types			OVR T1-T2 1N 12.5-440s P QS	OVR T1-T2 3N 12.5-440s P QS	OVR T1-T2 4L 12.5-440s P QS
with auxiliary contact (TS)			OVR T1-T2 1N 12.5-440s P TS QS	OVR T1-T2 3N 12.5-440s P TS QS	OVR T1-T2 4L 12.5-440s P TS QS
Technology			Varistor + GDT	Varistor + GDT	Varistor
Electrical features					
Standard			IEC 61643-11/EN 61643-11:2012/A11:2018	IEC 61643-11/EN 61643-11:2012/A11:2018	IEC 61643-11/EN 61643-11:2012/A11:2018
Type/test class			T1-T2/I - II	T1-T2/I - II	T1-T2/I - II
Protected lines			1+1	3+1	4
System network			TT- TNS	TT- TNS	TNS
Type of current			AC 47-63 Hz	AC 47-63 Hz	AC 47-63 Hz
Voltage regulation of the system network			± 10%	± 10%	± 10%
Nominal system voltage Un		[V]	400	400/690	400/690
Max. cont. operating voltage Uc		[V]	440	440	440
Maximum impulse current Iimp (10/350)		[kA]	12.5	12.5	12.5
Max.Imp current Tot Iimp (10/350)		[kA]	25	50	50
Nominal discharge current In (8/20)		[kA]	20	20	20
Maximal discharge current Imax (8/20) kA		[kA]	80	80	80
Follow current interrupting rating Ifi		[kA]			
Voltage protection level Up at In (L-N/N-PE/L-PE)		[kV]	1.9/1.9/2	1.9/1.9/2	3.8/1.9/1.9
Voltage protection level Ures at 3 kA		[kV]	0.8	0.8	0.8
TOV (Temporary overvoltage) withstand Ut (L-N: 5s./N-PE: 200ms)		[V]	581/1200	581/1200	581/
Response time		[ns]	≤ 25	≤ 25	≤ 25
Short-circuit withstand capability Isccr		[kA]	100	100	100
Backup protection fuse (gG)		[A]	≤ 160	≤ 160	≤ 160
maximum rating circuit breaker (B or C curve)		[A]	≤ 125	≤ 125	≤ 125
Pluggable cartridge			Yes	Yes	Yes
Integrated thermal disconnector			Yes	Yes	Yes
State indicator			Yes	Yes	Yes
Safety reserve			Yes	Yes	Yes
Auxiliary contact			Yes (TS option)	Yes (TS option)	Yes (TS option)
Installation					
Wire range (L, N, PE)		solid wire, single wiring	[mm²]	2.5 ... 35	2.5 ... 35
		stranded wire, single wiring	[mm²]	2.5 ... 25	2.5 ... 25
Stripping length (L, N, PE)		[mm]	12.5	12.5	12.5
Tightening torque (L, N, PE)		[Nm]	2.8	2.8	2.8
Auxiliary contact (TS)					
Contacts information			1 NO - 1 NC	1 NO - 1 NC	1 NO - 1 NC
Min. load			12 V DC - 10 mA	12 V DC - 10 mA	12 V DC - 10 mA
Max. load			250 V AC - 1 A	250 V AC - 1 A	250 V AC - 1 A
Connection cross-section		[mm²]	0.5 ...1.5	0.5 ...1.5	0.5 ...1.5
Miscellaneous characteristics					
Stocking and operating temperature		[°C]	-40 to +80	-40 to +80	-40 to +80
Maximal Altitude		[m]	5000	5000	5000
Degree of protection			IP 20 - Indoor	IP 20 - Indoor	IP 20 - Indoor
Fire resistance according to UL 94			V-0	V-0	V-0
Dimensions					
height x width x depth		[mm]	88 x 53.4 x 76.7	88 x 124.6 x 76.7	88 x 142.4 x 76.7
		[inches]	3.46 x 2.1 x 3.02	3.46 x 4.91 x 3.02	3.46 x 5.61 x 3.02
Dimensions with auxiliary contact (TS)					
height x width x depth		[mm]	95.8 x 53.4 x 76.7	95.8 x 124.6 x 76.7	95.8 x 142.4 x 76.7
		[inches]	3.77 x 2.1 x 3.02	3.77 x 4.91 x 3.02	3.77 x 5.61 x 3.02
Replacement Cartridges					
Phase Product ID			OVR T1-T2 12.5-440s C QS 2CTB815710R5500	OVR T1-T2 12.5-440s C QS 2CTB815710R5500	OVR T1-T2 12.5-440s C QS 2CTB815710R5500
Neutral Product ID			OVR T1-T2 N 50-440s C QS 2CTB815710R5600	OVR T1-T2 N 50-440s C QS 2CTB815710R5600	

Protection and safety

OVR Type 1+2 surge protective devices TNS/TT 1Ph+N and 3Ph+N networks



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.

OVR T1-T2
1N 12.5-440s
P TS QS

Poles	Impulse current Iimp 10/350	Max. discharge current I _{max} 8/20	Follow current interrupting rating I _{fi}	Voltage protection level U _p	Nominal voltage U _n	Max. cont. operating voltage U _c	Bbn 3660 308	Order details		Weight 1 piece
	kA	kA	kA	kV	V	V	EAN	Type code	Order code	kg
1+1	25	-	50	1.5	230	255	4053546114614	OVR T1-T2 1N 50-255 P TS	2CTB812511R2300	0.46
3+1	25	-	50	1.5	230/400	255	4053546114645	OVR T1-T2 3N 100-255 P TS	2CTB812111R2300	0.54
4	25	-	50	1.5	230/400	264	4053546114638	OVR T1-T2 4L 100-255 P TS	2CTB812101R2300	0.54
1+1	12.5	80	-	1.4	230	275	524966	OVR T1-T2 1N 12.5-275s P QS	2CTB815710R1300	0.30
1+1	12.5	80	-	1.4	230	275	524898	OVR T1-T2 1N 12.5-275s P TS QS	2CTB815710R0100	0.30
1+1	12.5	80	-	1.9	400	440	525130	OVR T1-T2 1N 12.5-440s P QS	2CTB815710R4200	0.45
1+1	12.5	80	-	1.9	400	440	525062	OVR T1-T2 1N 12.5-440s P TS QS	2CTB815710R3000	0.45
3+1	12.5	80	-	1.4	230/400	275	524997	OVR T1-T2 3N 12.5-275s P QS	2CTB815710R1900	0.60
3+1	12.5	80	-	1.4	230/400	275	524928	OVR T1-T2 3N 12.5-275s P TS QS	2CTB815710R0700	0.60
3+1	12.5	80	-	1.9	400/690	440	525161	OVR T1-T2 3N 12.5-440s P QS	2CTB815710R4800	1.05
3+1	12.5	80	-	1.9	400/690	440	525093	OVR T1-T2 3N 12.5-440s P TS QS	2CTB815710R3600	1.05
4	12.5	80	-	1.4	230/400	275	525017	OVR T1-T2 4L 12.5-275s P QS	2CTB815710R2300	0.60
4	12.5	80	-	1.4	230/400	275	524942	OVR T1-T2 4L 12.5-275s P TS QS	2CTB815710R1100	0.60
4	12.5	80	-	1.9	400/690	440	525185	OVR T1-T2 4L 12.5-440s P QS	2CTB815710R5200	1.20
4	12.5	80	-	1.9	400/690	440	525116	OVR T1-T2 4L 12.5-440s P TS QS	2CTB815710R4000	1.20



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