

RCP



IP68 RESIN BUSBAR TRUNKING



**GLOBAL SPECIALIST IN ELECTRICAL
AND DIGITAL BUILDING INFRASTRUCTURE**

 **legrand**[®]

IP68 RCP

RESIN BUSBAR TRUNKING

New resin busbar RCP ranging from 630 A to 6300 A and **IP68 degree of protection**, represents the completion of the solution for **distribution** of high-power energy.

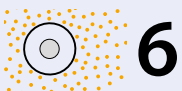
This new product is made with internal conductors completely embedded **in a epoxy resin**, which provides mechanical strength and electrical insulation.

With RCP it is possible to provide **specific solutions** for different environments (outdoor and indoor) where it is not possible to reach with IP55 busbar.

DEGREE OF PROTECTION

1st DIGIT IP

Protection against penetration of solid bodies



6

Complete protection against dust

2nd DIGIT IP

Protection against penetration of liquids



8

Protection against effects of immersion under pressure

(At a maximum of 1m according to BS EN 60529)

TYPICAL APPLICATIONS

- Outdoor (in different extreme conditions)
- Industrial plants
- Petrochemical plants
- Chemical plants (*)
- In areas with risk of flooding

(*) refer to the table of chemical resistance on page 23.

Suitable for internal and external installations

RCP IP68 (Resin Compact) is the most suitable solution in extreme environmental conditions such as high humidity, presence of corrosive agents and environments with a saline atmosphere. The high degree of protection that characterises RCP allows its use in many demanding environments, and unlike other systems, it can be used both inside and outside of buildings.



Besides being an advantage in tight spaces, the compactness of RCP also improves its resistance to short circuits and reduces the impedance of the circuit, while limiting voltage drop.

RCP is available in aluminium versions (630 - 5000 A) or with copper conductors (800 - 6300 A)

Rated current	630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
RCP Aluminum	Single bar						Double bar			*	
RCP Copper		Single bar						Double bar			*

* Combination of 2 parallel busbar lines:
2x2500 A for the aluminium version and 2x3200 A for the version with copper conductors.

RANGE FEATURES

Main features of the busbar trunking

- Ingress protection: IP68
- Mechanical Impact: IK10
- Fully encapsulated with epoxy resin
- Conductors insulated in polyester film
- Rated current between 630 - 6300 A
- Insulation voltage up to 1000 V
- Compact dimensions
- Maintenance free
- Feeder bar solution, no tap-offs
- Excellent resistance to chemicals, UV rays, animals, fungus...



- Suitable for extreme temperatures (-40 /+50 ° C)
- Conductors available in aluminum alloy or copper (copper busbars with a purity greater than 99.9%).

CERTIFICATIONS AND TESTS

RCP IP68 busbar trunking has been tested and approved to IEC EN 61439-6. Part 6 refers specifically to busbar trunking systems (busways)



IP55 - IP68 INTEGRATION

Complete and integrable solution

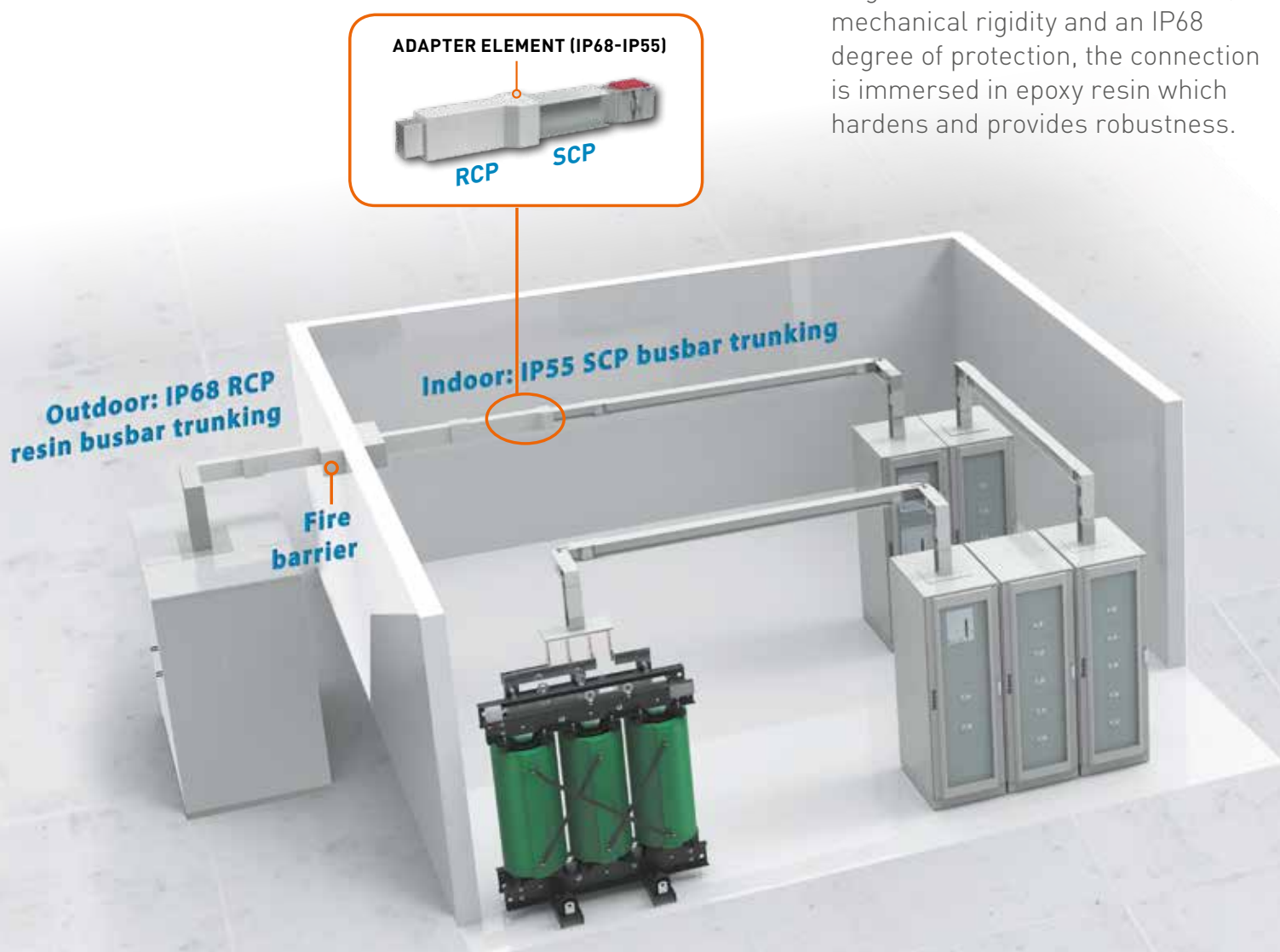
RCP IP68 is a complete busbar system which includes all the necessary components to allow for any directional changes to the busbar run that your project requires. It can also be used in hybrid systems where different degrees of protection are required.

It is possible to transition from the outside to the inside of a building by connecting the IP68 RCP resin busbar trunking with IP55 SCP busbar trunking using an adaptor element.

Fast and simple connection

The junction between the various system components is made by a monobloc which is inserted between the phases of the components to be connected.

To guarantee electrical insulation, mechanical rigidity and an IP68 degree of protection, the connection is immersed in epoxy resin which hardens and provides robustness.



NOTE:

For information related to closing a junction between two lengths of RCP and the necessary accessories, please contact Legrand.

RANGE COMPOSITION



STRAIGHT ELEMENT



VERTICAL ELBOW



HORIZONTAL ELBOW



CONNECTION INTERFACE



ADAPTER ELEMENT IP68-IP55



DOUBLE VERTICAL ELBOW



DOUBLE HORIZONTAL ELBOW



DOUBLE ELBOW
HORIZONTAL + VERTICAL



FEED UNIT



FIRE BARRIER ELEMENT

Other items are available
on request to answer
all customer needs.



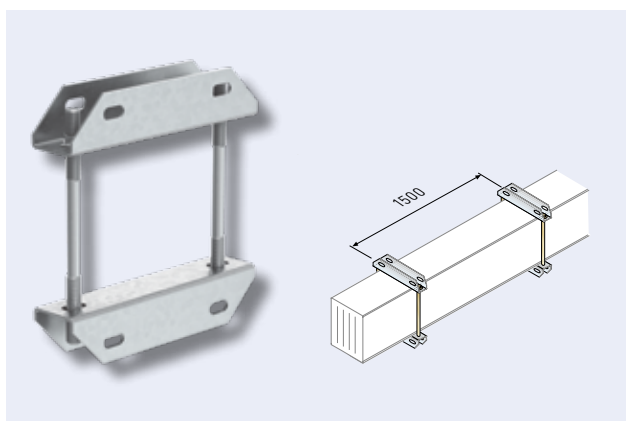
CONNECTION INTERFACE + HORIZONTAL ELBOW

FIXING ACCESSORIES

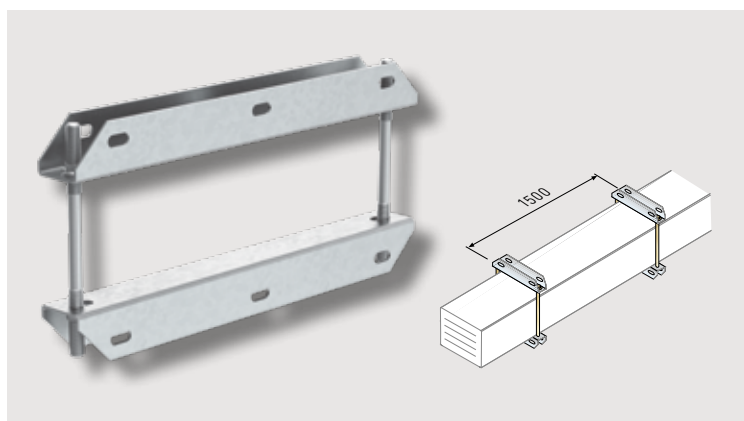
Horizontal suspension bracket

These brackets enable sturdy installation of the busbar to the system support structures. The recommended installation distance between brackets is 1.5 metres.

EDGEWISE INSTALLATION



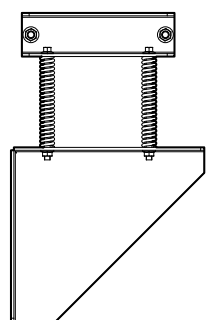
FLAT INSTALLATION



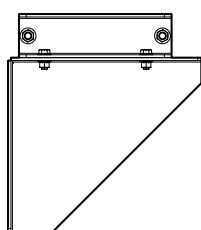
Vertical suspension bracket

In case of rising mains, pre-loaded spring brackets both hold the bar in place, and support the weight of the system.

4 TYPES OF VERTICAL BRACKETS



1. with shelf and springs



2. with shelf



3. with springs



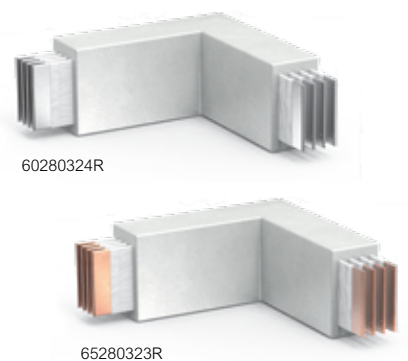
4. bracket only



For more information on RCP busbar fixings, see p. 16

RCP RESIN BUSBARS

straight elements and elbows



Cat.Nos		Straight lengths		
Al	Cu	In (A)	L (mm)	
60280150R	-	630	2001÷3000	
60280151R	65280150R	800		
60280152R	65280151R	1000		
60280154R	65280153R	1250		
60280156R	65280155R	1600		
60280157R	65280156R	2000		
60390154R	65280158R	2500		
60390156R	65390155R	3200		
60390157R	65390156R	4000		
60390158R	65390158R	5000		
-	65390159R	6300		
<hr/>				
60280120R	-	630		500÷2000
60280121R	65280120R	800		
60280122R	65280121R	1000		
60280124R	65280123R	1250		
60280126R	65280125R	1600		
60280127R	65280126R	2000		
60390124R	65280128R	2500		
60390126R	65390125R	3200		
60390127R	65390126R	4000		
60390128R	65390128R	5000		
-	65390129R	6300		

Cat.Nos		Horizontal elbows	
Al	Cu	In (A)	
60280320R	-	630	
60280321R	65280320R	800	
60280322R	65280321R	1000	
60280324R	65280323R	1250	
60280326R	65280325R	1600	
60280327R	65280326R	2000	
60390324R	65280328R	2500	
60390326R	65390325R	3200	
60390327R	65390326R	4000	
60390328R	65390328R	5000	
-	65390329R	6300	

EXAMPLE TABLE FOR CODE CONVERSION		
n° conductors	Single bar	Double bar
4 (standard version)	60280150R	60390154R
5 conductors	60240150R	60360154R
3 conductors	60280150R-3W	60390154R-3W
extra earth 3 conductors	60280150R-L3	60390154R-L3
extra earth 4 conductors	60280150R-H3	60390154R-H3
extra earth 5 conductors	60240150R-H3	60360154R-H3

Cat.Nos		Vertical elbows	
Al	Cu	In (A)	
60280420R	-	630	
60280421R	65280420R	800	
60280422R	65280421R	1000	
60280424R	65280423R	1250	
60280426R	65280425R	1600	
60280427R	65280426R	2000	
60390424R	65280428R	2500	
60390426R	65390425R	3200	
60390427R	65390426R	4000	
60390428R	65390428R	5000	
-	65390429R	6300	

NOTE: the codes indicated in the catalogue refer to the standard versions (4 conductors). For different versions (RCP with 3 or 5 conductors, or with extra earth), modify the codes according to the rules indicated in the conversion table above.

RCP RESIN BUSBARS

elbows



60280344R



65280343R



60280614R



65280613R

Cat.Nos Double horizontal elbows

Cat.Nos		In (A)
Al	Cu	
60280340R	-	630
60280341R	65280340R	800
60280342R	65280341R	1000
60280344R	65280343R	1250
60280346R	65280345R	1600
60280347R	65280346R	2000
60390344R	65280348R	2500
60390346R	65390345R	3200
60390347R	65390346R	4000
60390348R	65390348R	5000
-	65390349R	6300



60280444R

65280443R

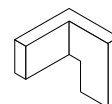
Cat.Nos Double vertical elbows

Cat.Nos		In (A)
Al	Cu	
60280440R	-	630
60280441R	65280440R	800
60280442R	65280441R	1000
60280444R	65280443R	1250
60280446R	65280445R	1600
60280447R	65280446R	2000
60390444R	65280448R	2500
60390446R	65390445R	3200
60390447R	65390446R	4000
60390448R	65390448R	5000
-	65390449R	6300

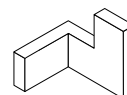
Cat.Nos Double elbows horizontal + vertical

Cat.Nos		In (A)
Al	Cu	
60280600R	-	630
60280601R	65280600R	800
60280602R	65280601R	1000
60280604R	65280603R	1250
60280606R	65280605R	1600
60280607R	65280606R	2000
60390604R	65280608R	2500
60390606R	65390605R	3200
60390607R	65390606R	4000
60390608R	65390608R	5000
-	65390609R	6300
60280610R	-	630
60280611R	65280610R	800
60280612R	65280611R	1000
60280614R	65280613R	1250
60280616R	65280615R	1600
60280617R	65280616R	2000
60390614R	65280618R	2500
60390616R	65390615R	3200
60390617R	65390616R	4000
60390618R	65390618R	5000
-	65390619R	6300

TIPO 1



TIPO 2



Double elbows vertical + horizontal available on request

NOTE: the codes indicated in the catalogue refer to the standard versions (4 conductors).
For different versions (RCP with 3 or 5 conductors, or with extra earth), modify the codes according to the rules indicated in the conversion table on page 8.

RCP RESIN BUSBARS

connection interfaces and feed units



60281004R



65281003R



60281104R



65281103R

RIGHT connection interface (without monoblock)

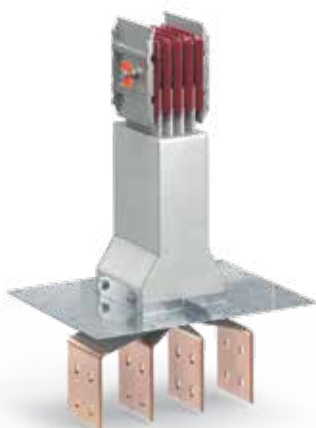
Cat.Nos		In (A)
Al	Cu	
60281000R	-	630
60281001R	65281000R	800
60281002R	65281001R	1000
60281004R	65281003R	1250
60281006R	65281005R	1600
60281007R	65281006R	2000
60391004R	65281008R	2500
60391006R	65391005R	3200
60391007R	65391006R	4000
60391008R	65391008R	5000
-	65391009R	6300

RIGHT feed unit (without monoblock) IP55 for outdoor

Cat.Nos		In (A)
Al	Cu	
60281100R	-	630
60281101R	65281100R	800
60281102R	65281101R	1000
60281104R	65281103R	1250
60281106R	65281105R	1600
60281107R	65281106R	2000
60391104R	65281108R	2500
60391106R	65391105R	3200
60391107R	65391106R	4000
60391108R	65391108R	5000
-	65391109R	6300



60281014R



65281013R



60281114R



65281113R

LEFT connection interface (with monoblock)

Cat.Nos		In (A)
Al	Cu	
60281010R	-	630
60281011R	65281010R	800
60281012R	65281011R	1000
60281014R	65281013R	1250
60281016R	65281015R	1600
60281017R	65281016R	2000
60391014R	65281018R	2500
60391016R	65391015R	3200
60391017R	65391016R	4000
60391018R	65391018R	5000
-	65391019R	6300

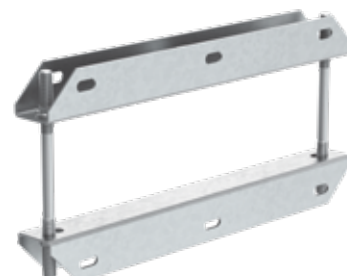
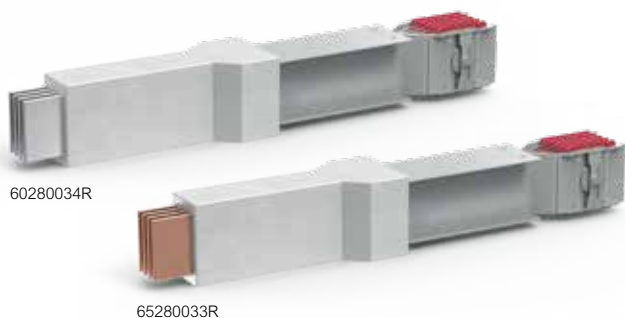
LEFT feed unit (with monoblock) IP55 for outdoor

Cat.Nos		In (A)
Al	Cu	
60281110R	-	630
60281111R	65281110R	800
60281112R	65281111R	1000
60281114R	65281113R	1250
60281116R	65281115R	1600
60281117R	65281116R	2000
60391114R	65281118R	2500
60391116R	65391115R	3200
60391117R	65391116R	4000
60391118R	65391118R	5000
-	65391119R	6300

NOTE: the codes indicated in the catalogue refer to the standard versions (4 conductors). For different versions (RCP with 3 or 5 conductors, or with extra earth), modify the codes according to the rules indicated in the conversion table on page 8.

RCP RESIN BUSBARS

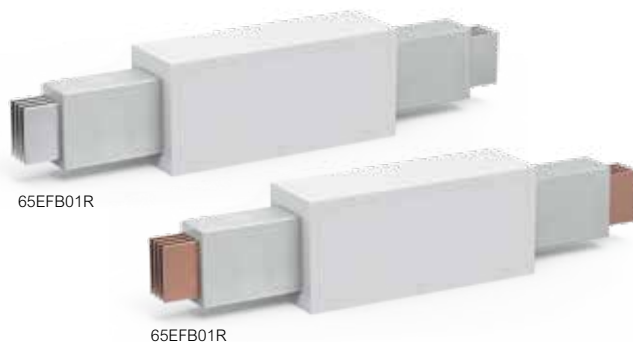
adapter elements and brackets



Cat.Nos		Adapter element IP68-IP55 (1 m)	
Al	Cu	In (A)	Type
60280030R		630A	right
60280031R	65280030R	800A	
60280032R	65280031R	1000A	
60280034R	65280033R	1250A	
60280036R	65280035R	1600A	
60280037R	65280036R	2000A	
60390034R	65280038R	2500A	
60390036R	65390035R	3200A	
60390037R	65390036R	4000A	
60390038R	65390038R	5000A	
	65390039R	6300A	
60280040R		630A	
60280041R	65280040R	800A	
60280042R	65280041R	1000A	
60280044R	65280043R	1250A	
60280046R	65280045R	1600A	
60280047R	65280046R	2000A	
60390044R	65280048R	2500A	
60390046R	65390045R	3200A	
60390047R	65390046R	4000A	
60390048R	65390048R	5000A	
	65390049R	6300A	

Cat.Nos		Suspension brackets	
Al	Cu	In (A)	Type
65202021R	-	630	edgewise
65202022R	65202021R	800	
65202022R	65202022R	1000	
65202022R	65202022R	1250	
65202023R	65202023R	1600	
65222024R	65202023R	2000	
65222025R	65222024R	2500	
65222026R	65222026R	3200	
65222027R	65222026R	4000	
65222028R	65222027R	5000	
-	65222029R	6300	
65202021R	-	630	
65202032R	65202021R	800	
65202032R	65202032R	1000	
65202032R	65202032R	1250	
65202032R	65202023R	1600	
65202032R	65202032R	2000	
65222035R	65202032R	2500	
65222036R	65222036R	3200	
65222037R	65222036R	4000	
65222038R	65222037R	5000	
-	65222039R	6300	

NOTE: the codes indicated in the catalogue refer to the standard versions (4 conductors). For different versions (RCP with 3 or 5 conductors, or with extra earth), modify the codes according to the rules indicated in the conversion table on page 8.



Cat.Nos		Fire barriers	
Al	Cu	In (A)	
65EFB01R	-	630	
65EFB02R	65EFB01R	800	
65EFB02R	65EFB02R	1000	
65EFB03R	65EFB02R	1250	
65EFB05R	65EFB04R	1600	
65EFB07R	65EFB05R	2000	
65EFB32R	65EFB06R	2500	
65EFB34R	65EFB33R	3200	
65EFB35R	65EFB34R	4000	
65EFB32R*	65EFB36R	5000	
-	65EFB33R*	6300	

Cat.Nos		Brackets for vertical elements	
Al	Cu	In (A)	
65203711R	-	630A	
65203712R	65203711R	800A	
65203712R	65203712R	1000A	
65203713R	65203712R	1250A	
65203715R	65203714R	1600A	
65203717R	65203715R	2000A	
65203742R	65203716R	2500A	
65203744R	65203743R	3200A	
65203746R	65203744R	4000A	
65203747R	65203745R	5000A	
-	65203748R	6300A	

* For current capacity 5000 A (Al) and 6300 A (Cu), consisting of two parallel lines (2500 + 2500 = 5000A and 3200 + 3200 = 6300A), use 2 fire barriers

RCP RESIN BUSBARS

moulds and accessories



Horizontal mould (Edgewise installation)



Horizontal mould (Flat installation)



Vertical mould

Cat.Nos		In (A)	
Al	Cu		
6MLD4E01R	-	630	demoulding agent not included
6MLD4E02R	6MLD4E01R	800	
6MLD4E02R	6MLD4E02R	1000	
6MLD4E03R	6MLD4E02R	1250	
6MLD4E05R	6MLD4E04R	1600	
6MLD4E07R	6MLD4E05R	2000	
6MLD4E11R	6MLD4E06R	2500	
6MLD4E13R	6MLD4E12R	3200	
6MLD4E14R	6MLD4E13R	4000	
6MLD4E11R*	6MLD4E15R	5000	
-	6MLD4E12R*	6300	

Horizontal mould (Edgewise installation)

Cat.Nos		In (A)	
Al	Cu		
6MLD4F01R	-	630	demoulding agent not included
6MLD4F02R	6MLD4F01R	800	
6MLD4F02R	6MLD4F02R	1000	
6MLD4F03R	6MLD4F02R	1250	
6MLD4F05R	6MLD4F04R	1600	
6MLD4F07R	6MLD4F05R	2000	
6MLD4F11R	6MLD4F06R	2500	
6MLD4F13R	6MLD4F12R	3200	
6MLD4F14R	6MLD4F13R	4000	
6MLD4F11R*	6MLD4F15R	5000	
-	6MLD4F12R*	6300	

Horizontal mould (flat installation)

Cat.Nos		In (A)	
Al	Cu		
6MLD4R01R	-	630	demoulding agent not included
6MLD4R02R	6MLD4R01R	800	
6MLD4R02R	6MLD4R02R	1000	
6MLD4R03R	6MLD4R02R	1250	
6MLD4R05R	6MLD4R04R	1600	
6MLD4R07R	6MLD4R05R	2000	
6MLD4R11R	6MLD4R06R	2500	
6MLD4R13R	6MLD4R12R	3200	
6MLD4R14R	6MLD4R13R	4000	
6MLD4R11R*	6MLD4R15R	5000	
-	6MLD4R12R*	6300	

Vertical mould

Cat.Nos	Accessories for mould
6MLD0001R	Water based demoulding agent for moulds For an estimate of the amount of demoulding agent required, consider the number of mould used in the installation and the busbar rated current
65200001R	Junction kit (part 1) It Includes 1 metal bucket for mixing, 1 dye bag, 1 bag of sand This kit must be completed with an additional kit (part 2) to be chosen according to the temperature of the environment in which the installation is carried out
65200002R	Summer junction kit (part 2), to close or resinate the junction Includes 1 metal bucket with resin, 1 bucket with hardener and 1 bucket with additive that generates the self-extinguishing properties The kit can be used at room temperatures greater than or equal to + 18 °C
65200003R	Winter junction kit (part 2), to close or resinate the junction Includes 1 metal bucket with resin, 1 bucket with hardener and 1 bucket with additive that generates the self-extinguishing properties The kit can be used at room temperatures between 5 and 18 °C

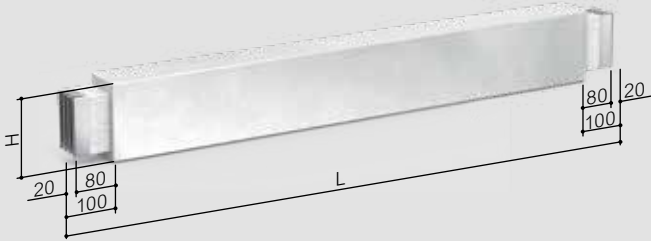
3 - 3 conductors
4 - 4 conductors
5 - 5 conductors

* For current capacity 5000 A (Al) and 6300 A (Cu), consisting of two parallel lines (2500 + 2500 = 5000A and 3200 + 3200 = 6300A), use 2 moulds for each junction

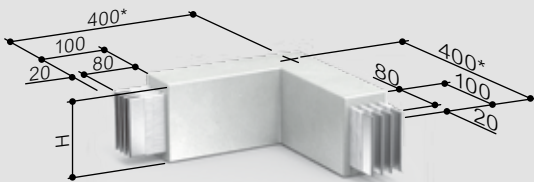
RCP RESIN BUSBARS

dimensional data

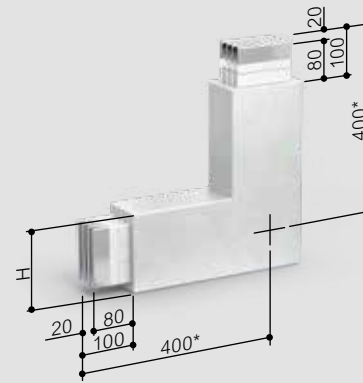
STRAIGHT ELEMENT



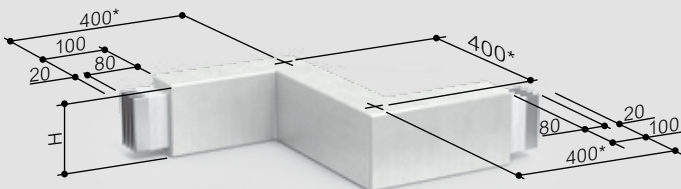
HORIZONTAL ELBOW



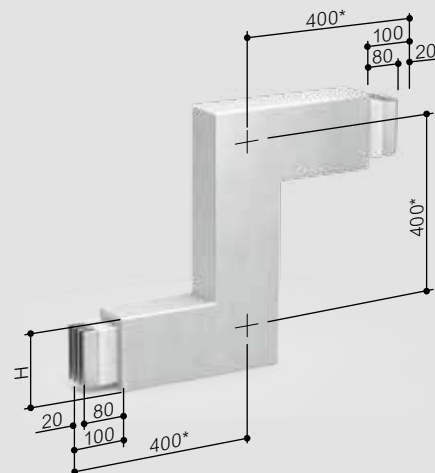
VERTICAL ELBOW



DOUBLE HORIZONTAL ELBOW



DOUBLE VERTICAL ELBOWS



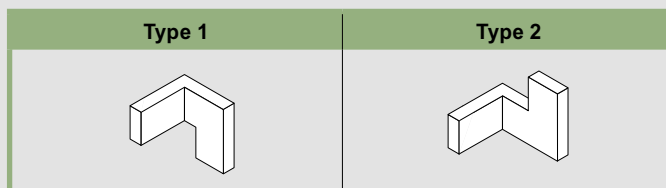
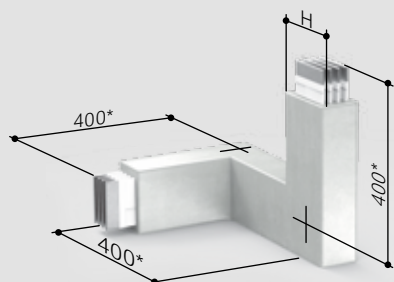
* nominal dimensions (indicated in mm)

Dimension H changes with the rating which is specified in the technical information

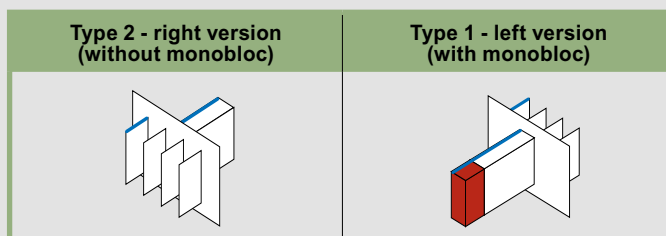
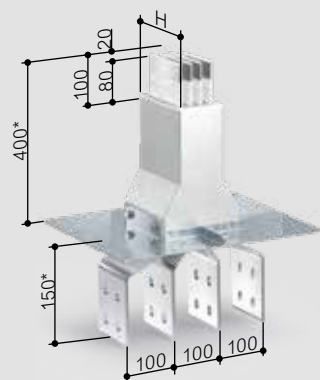
RCP RESIN BUSBARS

dimensional data

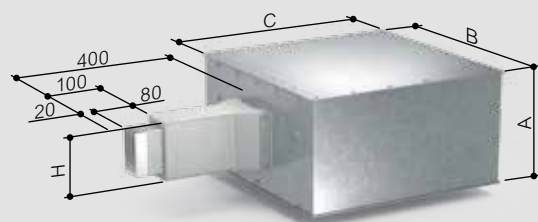
DOUBLE ELBOWS HORIZONTAL + VERTICAL



CONNECTION INTERFACE

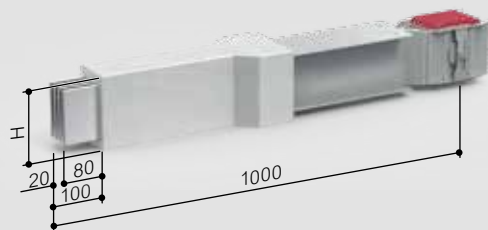


FEED UNIT

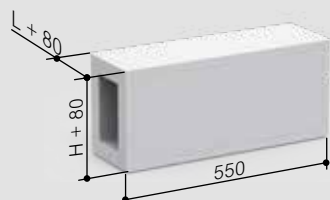


FEED UNIT DIMENSIONAL DATA			
Al	630A-1250A	1600-2000A	2500A-4000A
Cu	800A-1250A	1600A-2500A	3200-5000A
(A) [mm]	320	320	600
(B) [mm]	600	600	600
(C) [mm]	610	810	810

ADAPTER ELEMENT IP68-IP55 (1 m)



FIRE BARRIER



* nominal dimensions (indicated in mm)

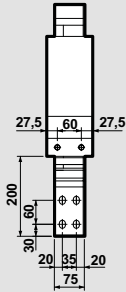
Dimension H changes with the rating which is specified in the technical information

RCP RESIN BUSBARS

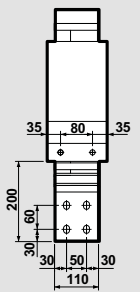
dimensional data

BAR DRILLING DETAILS

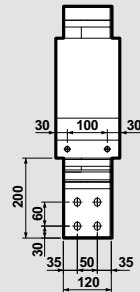
UB RCP 630 A AI - 800 A Cu



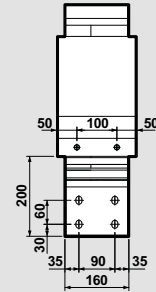
UB RCP 800 A, 1000 A AI - 1000 A, 1250 A Cu



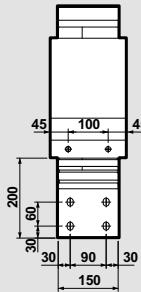
UB RCP 1250 A AI



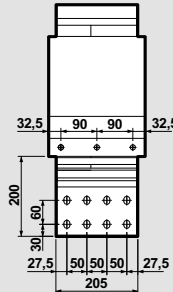
UB RCP 1600 A AI - 2000 A Cu



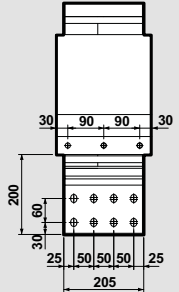
UB RCP 1600 A Cu



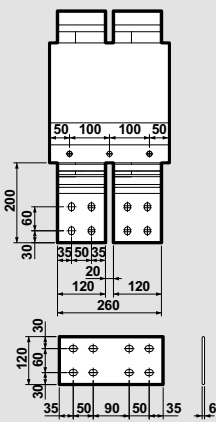
UB RCP 2000 A Cu



UB RCP 2500 A Cu

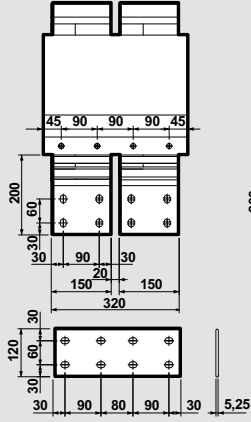


UB RCP 2500 A AI



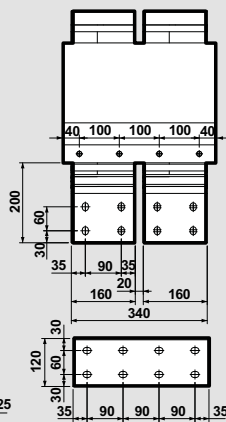
N. 1 PARALLEL BY PHASE

UB RCP 3200 A Cu



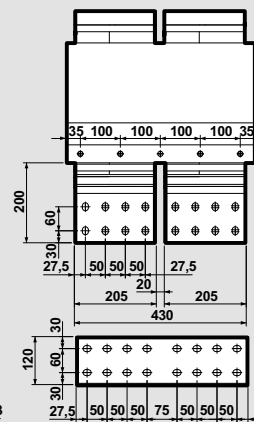
N. 1 PARALLEL BY PHASE

UB RCP 3200 A AI - 4000 A Cu



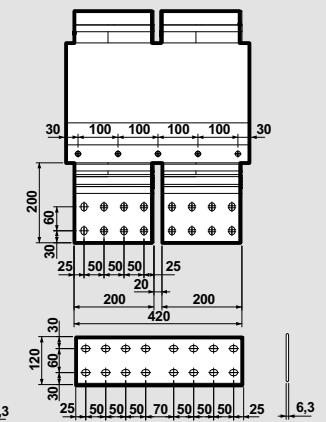
N. 2 PARALLEL BY PHASE

UB RCP 4000 A AI



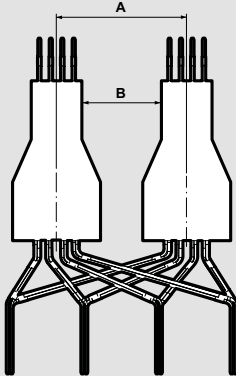
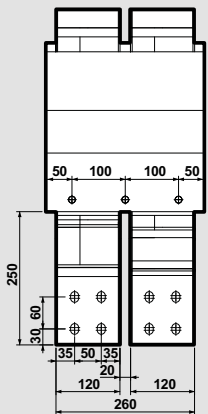
N. 2 PARALLEL BY PHASE

UB RCP 5000 A Cu

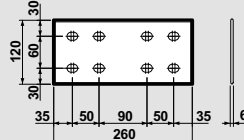


N. 2 PARALLEL BY PHASE

UB RCP 5000 A AI

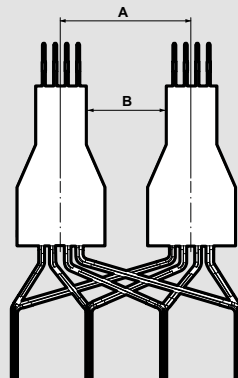
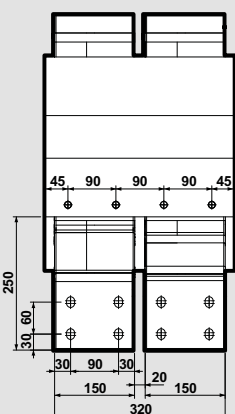


N. 3 PARALLEL BY PHASE

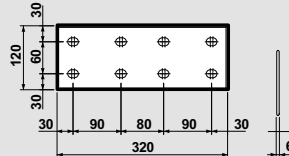


Interaxes	3C	4C	5C
A	245	245	245
B	170	150	130

UB RCP 6300 A Cu



N. 4 PARALLEL BY PHASE



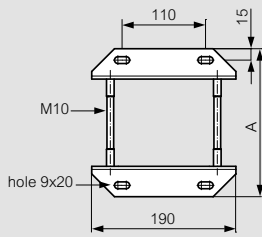
Interaxes	3C	4C	5C
A	245	245	245
B	170	150	130

RCP RESIN BUSBARS

dimensional data

HORIZONTAL SUSPENSION BRACKET

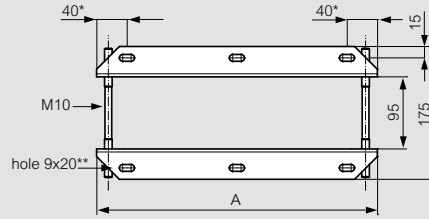
Edgewise installation



In (A)	A (mm)	
	Al	Cu
630	195	-
800	230	195
1000	230	230
1250	240	230
1600	280	270
2000	325	280
2500	380	320
3200	460	440
4000	550	460
5000	-	540

Standard distance between 2 brackets: 1500 mm

Flat installation

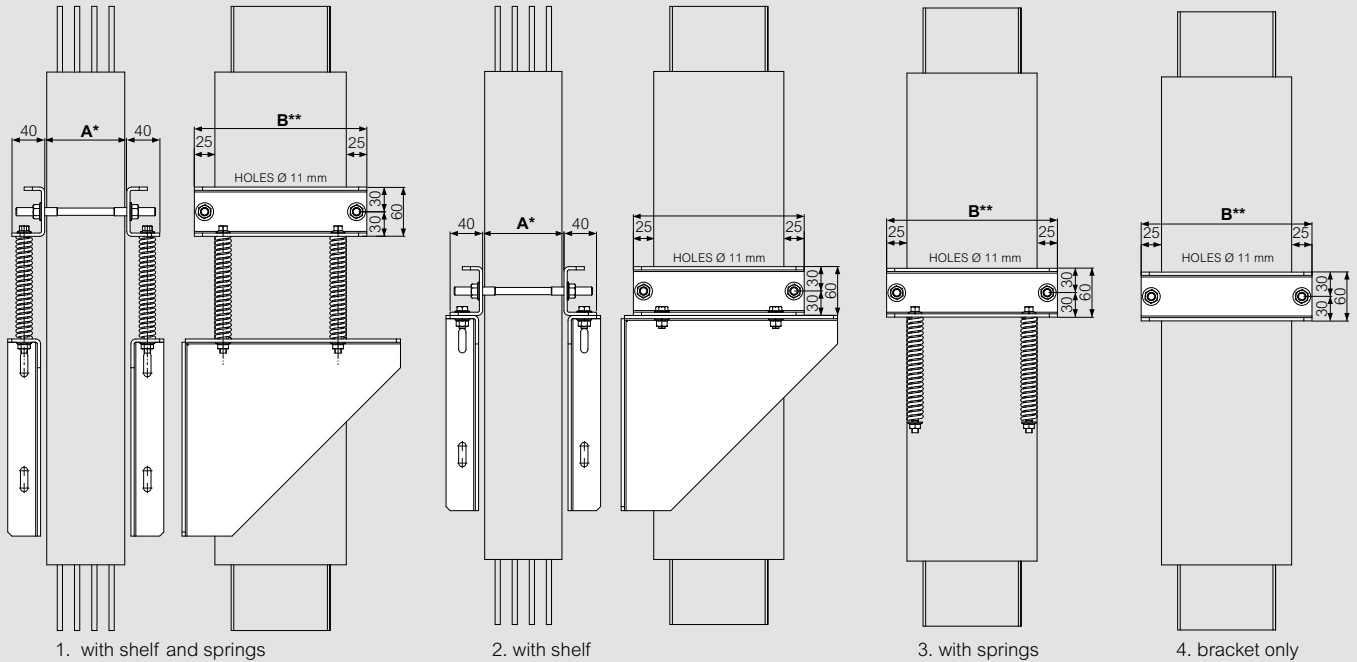


In (A)	A (mm)	
	Al	Cu
630	190	-
800	315	190
1000	315	315
1250	315	315
1600	315	315
2000	315	315
2500	370	315
3200	430	430
4000	530	430
5000	-	530

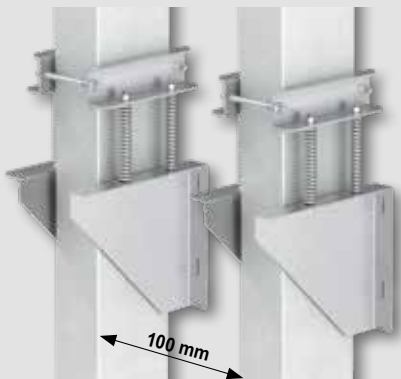
*100 mm for 1600 A and 2000 A
**hole 9x30 mm for 1600 A and 2000 A

Standard distance between 2 brackets: 1500 mm

VERTICAL SUSPENSION BRACKET



A*: depending of the quantity of requested conductors
B**: depending of the rating of busbar



For 5000 A (Al) and 6300 A (Cu) vertical installation systems, please note:
The two busbars must be installed 100 mm apart.

- Required brackets

RCP 5000 A (Al) = 2 sets of brackets for 2500 A (Al)

RCP 6300 A (Cu) = 2 sets of brackets for 3200 A (Cu)

MATERIAL	RATING (A)	QUANTITY OF SPRINGS	WEIGHT HOLDING CAPACITY (KG)
AL	630	4	300
	800	4	300
	1000	4	300
	1250	4	300
	1600	6	300
	2000	8	600
	2500	8	600
	3200	12	600
4000	12	600	
CU	800	4	300
	1000	4	300
	1250	4	300
	1600	6	300
	2000	6	300
	2500	8	600
	3200	8	600
	4000	12	600
5000	12	600	

RCP IP68 - 4 CONDUCTORS (ALUMINUM)

technical information

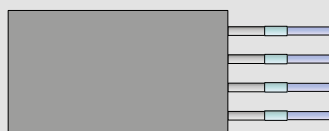
	In [A]	SINGLE BAR						DOUBLE BAR			(2 x 2500) DOUBLE BARS
		630	800	1000	1250	1600	2000	2500	3200	4000	5000
Rated current of the BTS (ASSEMBLY as stated in 61439-1)	In [A]	630	800	1000	1250	1600	2000	2500	3200	4000	5000
Overall dimension of the busbars	L x H [mm]	95x115	95x150	95x150	95x160	95x200	95x245	95x300	95x380	95x470	2x95x300
Overall dimension of the junction	L x H [mm]	160x180	160x180	160x180	160x180	160x220	160x270	160x350	160x430	160x490	2x160x350
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (1 s)	Icw [kA]rms	30	36	36	50	50	60	80	100	100	100
Peak current	Ipk [kA]	63	76	76	105	105	132	176	220	220	220
Rated short-time current of the neutral bar (1 s)	Icw [kA]rms	18	22	22	30	30	36	48	60	60	60
Peak current of the neutral bar	Ipk [kA]	36	45	45	63	63	76	101	132	132	132
Rated short-time current of the protective circuit PE1 (1 s)	Icw [kA]rms	18	22	22	30	30	36	48	60	60	60
Peak current of the protective circuit PE1	Ipk [kA]	36	45	45	63	63	76	101	132	132	132
Average phase resistance at 20°C	R20 [mΩ/m]	0,082	0,061	0,061	0,049	0,035	0,027	0,024	0,017	0,013	0,012
Average phase reactance	X [mΩ/m]	0,055	0,049	0,049	0,031	0,037	0,030	0,023	0,017	0,010	0,007
Average phase impedance	Z [mΩ/m]	0,098	0,078	0,078	0,058	0,051	0,040	0,033	0,024	0,017	0,014
Average phase resistance at thermal conditions	R [mΩ/m]	0,093	0,070	0,076	0,062	0,043	0,034	0,029	0,022	0,018	0,017
Average phase impedance at thermal conditions	Z [mΩ/m]	0,108	0,086	0,091	0,069	0,057	0,046	0,037	0,028	0,021	0,018
Average Neutral resistance	R20 [mΩ/m]	0,082	0,061	0,061	0,049	0,035	0,027	0,024	0,017	0,013	0,012
Average Resistance of the protective bar (PE 1)	RPE [mΩ/m]	0,124	0,105	0,105	0,105	0,105	0,105	0,052	0,052	0,052	0,026
Average reactance of the protective bar	XPE [mΩ/m]	0,080	0,078	0,078	0,048	0,039	0,028	0,020	0,015	0,016	0,013
Average resistance of the fault loop (PE 1)	Ro [mΩ/m]	0,205	0,165	0,165	0,153	0,139	0,132	0,077	0,070	0,066	0,038
Average reactance of the fault loop	Xo [mΩ/m]	0,14	0,13	0,13	0,08	0,08	0,06	0,04	0,03	0,03	0,02
Average impedance of the fault loop (PE 1)	Zo [mΩ/m]	0,246	0,209	0,209	0,173	0,159	0,144	0,088	0,077	0,071	0,043
Zero-sequence short-circuit average resistance phase - N	Ro [mΩ/m]	0,306	0,257	0,257	0,238	0,172	0,140	0,107	0,080	0,070	0,060
Zero-sequence short-circuit average reactance phase - N	Xo [mΩ/m]	0,174	0,160	0,160	0,128	0,106	0,108	0,083	0,073	0,060	0,056
Zero-sequence short-circuit average impedance phase - N	Zo [mΩ/m]	0,352	0,303	0,303	0,270	0,202	0,177	0,135	0,108	0,092	0,082
Zero-sequence short-circuit average resistance phase - PE	Ro [mΩ/m]	0,581	0,519	0,519	0,369	0,321	0,270	0,217	0,196	0,164	0,149
Zero-sequence short-circuit average reactance phase - PE	Xo [mΩ/m]	0,263	0,229	0,229	0,191	0,175	0,212	0,155	0,148	0,146	0,142
Zero-sequence short-circuit average impedance phase - PE	Zo [mΩ/m]	0,638	0,567	0,567	0,416	0,366	0,343	0,267	0,246	0,220	0,206
Voltage drop with load at the end of the line (b=1) ΔV [V/(m/A)]10 ⁻⁶	cosφ= 0,70	183,2	147,5	154,6	114,9	98,8	79,4	64,7	48,1	34,5	29,0
	cosφ= 0,75	186,4	149,2	156,8	117,5	99,2	79,6	65,2	48,4	35,2	29,8
	cosφ= 0,80	188,7	150,2	158,3	119,7	99,1	79,5	65,4	48,6	35,7	30,5
	cosφ= 0,85	190,0	150,2	158,8	121,3	98,2	78,7	65,0	48,3	36,0	31,1
	cosφ= 0,90	189,5	148,7	157,8	121,8	96,1	77,0	64,0	47,6	36,1	31,4
	cosφ= 0,95	186,0	144,4	154,0	120,7	92,0	73,6	61,7	45,9	35,5	31,4
cosφ= 1,00	164,5	124,1	134,2	109,4	75,8	60,4	51,8	38,6	31,7	29,0	
Weight (RCP Standard)	p [kg/m]	29,2	35,4	35,4	37,5	46,9	57,6	72,7	91,2	110,3	2x72,7
Weight (PE 1)	p [kg/m]	29,9	36,3	36,3	38,4	47,8	58,5	74,5	93,0	112,1	2x74,5
Fire load	[kWh/m]	4,5	5,5	5,5	6,0	8,5	10,5	16,0	19,0	21,0	22,0
Degree of protection	IP	68	68	68	68	68	68	68	68	68	68
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	111	135	229	291	331	412	552	674	865	1239
Ambient temperature min/MAX	[°C]	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50

* Class F available on request

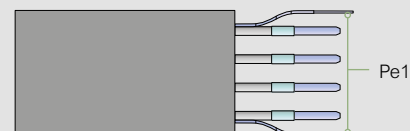
4P - (3P+N) without earth
4P - (3P+N)+Pe1

Versions with internal conductors available on request:
- 3P / 3P+(Pe1)
- 5P / 5P+(Pe1)
- 2N / 2N+(Pe1)

CORRECTION FACTORS FOR MEDIUM AMBIENT TEMPERATURES OTHER THAN 40°C (KT)								
Ambient temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
kt factor	1,15	1,12	1,08	1,05	1,025	1	0,975	0,95



RCP 4P - (3P+N) without earth (standard version)



RCP 4P+Pe - (3P+N)+Pe1

RCP IP68 - 4 CONDUCTORS (COPPER)

technical information

		SINGLE BAR						DOUBLE BAR			(2 x 3200) DOUBLE BARS
		800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Rated current	I_n [A]										
Overall dimension of the busbars	L x H [mm]	95x115	95x150	95x150	95x190	95x200	95x240	95x360	95x380	95x460	2x95x360
Overall dimension of the junction	L x H [mm]	160x180	160x180	160x180	160x220	160x220	160x270	160x430	160x430	160x490	2x160x430
Rated operational voltage	U_e [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	U_i [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/61
Rated short-time current (1 s)	I_{CW} [kA]rms	45	45	45	65	65	80	100	100	100	100
Peak current	I_{pk} [kA]	95	95	95	143	143	176	220	220	220	220
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]rms	27	27	27	39	39	48	60	60	60	60
Peak current of the neutral bar	I_{pk} [kA]	57	57	57	82	82	101	132	132	132	132
Rated short-time current of the protective circuit PE1 (1 s)	I_{CW} [kA]rms	27	27	27	39	39	48	60	60	60	60
Peak current of the protective circuit PE1	I_{pk} [kA]	57	57	57	82	82	101	132	132	132	132
Average phase resistance at 20°C	R_{20} [mΩ/m]	0,040	0,031	0,031	0,023	0,018	0,014	0,011	0,009	0,007	0,006
Average phase reactance	X [mΩ/m]	0,055	0,049	0,049	0,045	0,037	0,030	0,023	0,017	0,010	0,007
Average phase impedance	Z [mΩ/m]	0,068	0,058	0,058	0,050	0,041	0,033	0,026	0,019	0,012	0,009
Average phase resistance at thermal conditions	R [mΩ/m]	0,045	0,037	0,039	0,028	0,023	0,018	0,014	0,012	0,009	0,007
Average phase impedance at thermal conditions	Z [mΩ/m]	0,071	0,061	0,063	0,053	0,044	0,035	0,027	0,021	0,013	0,010
Average Neutral resistance	R_{20} [mΩ/m]	0,040	0,031	0,031	0,023	0,018	0,014	0,011	0,009	0,007	0,006
Average Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0,124	0,105	0,105	0,105	0,105	0,105	0,052	0,052	0,052	0,026
Average reactance of the protective bar	X_{PE} [mΩ/m]	0,054	0,054	0,054	0,044	0,044	0,032	0,022	0,017	0,016	0,014
Average resistance of the fault loop (PE 1)	R_o [mΩ/m]	0,163	0,136	0,136	0,127	0,123	0,119	0,064	0,062	0,059	0,032
Average reactance of the fault loop	X_o [mΩ/m]	0,11	0,10	0,10	0,09	0,08	0,06	0,05	0,03	0,03	0,02
Average impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0,196	0,170	0,170	0,155	0,148	0,134	0,078	0,070	0,065	0,038
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0,170	0,155	0,155	0,115	0,120	0,098	0,083	0,071	0,062	0,054
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0,159	0,151	0,151	0,114	0,098	0,065	0,056	0,055	0,042	0,038
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0,233	0,216	0,216	0,162	0,155	0,118	0,100	0,090	0,075	0,066
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0,507	0,429	0,429	0,331	0,283	0,221	0,177	0,178	0,144	0,132
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0,201	0,177	0,177	0,143	0,150	0,124	0,111	0,094	0,086	0,075
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0,545	0,464	0,464	0,361	0,320	0,253	0,209	0,201	0,168	0,152
Voltage drop with load at the end of the line (b=1) ΔV [V/(m/A)]10 ⁻⁶	cosφ= 0,70	123,4	105,7	108,8	90,7	74,6	59,3	45,4	35,6	23,5	17,9
	cosφ= 0,75	122,4	104,5	107,8	89,1	73,3	58,2	44,5	35,1	23,3	17,9
	cosφ= 0,80	120,5	102,5	106,0	86,8	71,4	56,6	43,2	34,4	23,1	17,8
	cosφ= 0,85	117,4	99,5	103,3	83,6	68,8	54,4	41,5	33,3	22,6	17,6
	cosφ= 0,90	112,7	95,0	99,0	79,0	65,0	51,2	39,1	31,6	21,8	17,1
	cosφ= 0,95	104,9	87,7	92,0	71,9	59,2	46,4	35,4	29,0	20,4	16,3
cosφ= 1,00	79,1	64,4	68,9	50,1	41,2	31,8	24,2	20,9	15,8	13,1	
Weight (RCP Standard)	p [kg/m]	41,1	50,4	50,4	65,1	71,4	89,0	127,0	141,0	173,6	2x127
Weight (PE 1)	p [kg/m]	41,9	51,3	51,3	66,0	72,3	89,9	128,8	142,8	175,4	2x128,8
Fire load	[kWh/m]	4,5	5,5	5,5	8,0	8,2	10,5	16,0	19,0	21,0	24,0
Degree of protection	IP	68	68	68	68	68	68	68	68	68	68
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	86	110	184	219	281	339	422	570	675	890
Ambient temperature min/MAX	[°C]	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50

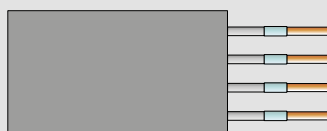
* Class F available on request

CORRECTION FACTORS FOR MEDIUM AMBIENT TEMPERATURES OTHER THAN 40°C (KT)

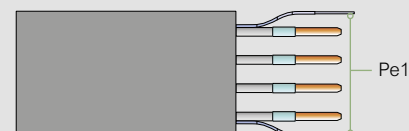
Ambient temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
kt factor	1,15	1,12	1,08	1,05	1,025	1	0,975	0,95

4P - (3P+N) without earth
4P - (3P+N)+Pe1

Available on request, versions with internal conductors:
- 3P / 3P+(Pe1)
- 5P / 5P+(Pe1)
- 2N / 2N+(Pe1)



RCP 4P - (3P+N) without earth (standard version)



RCP 4P+Pe - (3P+N)+Pe1

RCP IP68 - 3 CONDUCTORS (ALUMINUM)

technical information

		SINGLE BAR						DOUBLE BAR			(2 x 2500) DOUBLE BARS
		630	800	1000	1250	1600	2000	2500	3200	4000	5000
Rated current	I_n [A]										
Overall dimension of the busbars	L x H [mm]	75x115	75x150	75x150	75x160	75x200	75x245	75x300	75x380	75x470	2x75x300
Overall dimension of the junction	L x H [mm]	140x180	140x180	140x180	140x180	140x220	140x270	140x350	140x430	140x490	2x140x350
Rated operational voltage	U_e [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	U_i [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (1 s)	I_{cw} [kA]rms	30	36	36	50	50	60	80	100	100	100
Peak current	I_{pk} [kA]	63	76	79	110	110	132	176	220	220	220
Rated short-time current of the protective circuit PE1 (1 s)	I_{cw} [kA]rms	18	22	22	30	30	36	48	60	60	60
Peak current of the protective circuit PE1	I_{pk} [kA]	40	48	48	66	66	79	106	132	132	132
Average phase resistance at 20°C	R_{20} [mΩ/m]	0,082	0,061	0,061	0,049	0,035	0,027	0,024	0,017	0,013	0,012
Average phase reactance	X [mΩ/m]	0,055	0,049	0,049	0,031	0,037	0,030	0,023	0,017	0,010	0,007
Average phase impedance	Z [mΩ/m]	0,098	0,078	0,078	0,058	0,051	0,040	0,033	0,024	0,017	0,014
Average phase resistance at thermal conditions	R [mΩ/m]	0,093	0,070	0,076	0,062	0,043	0,034	0,029	0,022	0,018	0,017
Average phase impedance at thermal conditions	Z [mΩ/m]	0,108	0,086	0,091	0,069	0,057	0,046	0,037	0,028	0,021	0,018
Average Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0,124	0,105	0,105	0,105	0,105	0,105	0,052	0,052	0,052	0,026
Average reactance of the protective bar	X_{PE} [mΩ/m]	0,080	0,078	0,078	0,048	0,039	0,028	0,020	0,015	0,016	0,013
Average resistance of the fault loop (PE 1)	R_o [mΩ/m]	0,205	0,165	0,165	0,153	0,139	0,132	0,077	0,070	0,066	0,038
Average reactance of the fault loop	X_o [mΩ/m]	0,14	0,13	0,13	0,08	0,08	0,06	0,04	0,03	0,03	0,02
Average impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0,246	0,209	0,209	0,173	0,159	0,144	0,088	0,077	0,071	0,043
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0,581	0,519	0,519	0,369	0,321	0,270	0,217	0,196	0,164	0,149
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0,263	0,229	0,229	0,191	0,175	0,212	0,155	0,148	0,146	0,142
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0,638	0,567	0,567	0,416	0,366	0,343	0,267	0,246	0,220	0,206
Voltage drop with load at the end of the line (b=1) ΔV [V/(m/A)]10 ⁻⁶	cosφ= 0,70	183,2	147,5	154,6	114,9	98,8	79,4	64,7	48,1	34,5	29,0
	cosφ= 0,75	186,4	149,2	156,8	117,5	99,2	79,6	65,2	48,4	35,2	29,8
	cosφ= 0,80	188,7	150,2	158,3	119,7	99,1	79,5	65,4	48,6	35,7	30,5
	cosφ= 0,85	190,0	150,2	158,8	121,3	98,2	78,7	65,0	48,3	36,0	31,1
	cosφ= 0,90	189,5	148,7	157,8	121,8	96,1	77,0	64,0	47,6	36,1	31,4
	cosφ= 0,95	186,0	144,4	154,0	120,7	92,0	73,6	61,7	45,9	35,5	31,4
	cosφ= 1,00	164,5	124,1	134,2	109,4	75,8	60,4	51,8	38,6	31,7	29,0
Weight (RCP Standard)	p [kg/m]	23,9	28,8	28,8	30,4	38,0	46,6	59,1	74,0	89,3	2x59,1
Weight (PE 1)	p [kg/m]	24,6	29,7	29,7	31,3	38,9	47,5	60,9	75,8	91,1	2x60,9
Fire load	[kWh/m]	3,4	4,1	4,1	4,5	6,4	7,9	12,0	14,3	15,8	15,8
Degree of protection	IP	68	68	68	68	68	68	68	68	68	68
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	111	135	229	291	331	412	552	674	865	1239
Ambient temperature min/MAX	[°C]	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50

* Class F available on request

CORRECTION FACTORS FOR MEDIUM AMBIENT TEMPERATURES OTHER THAN 40°C (KT)								
Ambient temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
kt factor	1,15	1,12	1,08	1,05	1,025	1	0,975	0,95

RCP IP68 - 3 CONDUCTORS (COPPER)

technical information

		SINGLE BAR						DOUBLE BAR			(2 x 3200) DOUBLE BARS
		800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Rated current	I_n [A]										
Overall dimension of the busbars	L x H [mm]	75x115	75x150	75x150	75x190	75x200	75x240	75x360	75x380	75x460	2x75x360
Overall dimension of the junction	L x H [mm]	140x180	140x180	140x220	140x220	140x220	140x270	140x430	140x430	140x490	2x140x430
Rated operational voltage	U_e [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	U_i [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/61
Rated short-time current (1 s)	I_{cw} [kA]rms	45	45	45	65	65	80	100	100	100	100
Peak current	I_{pk} [kA]	95	99	99	143	143	176	220	220	220	220
Rated short-time current of the protective circuit PE1 (1 s)	I_{cw} [kA]rms	27	27	27	39	39	48	60	60	60	60
Peak current of the protective circuit PE1	I_{pk} [kA]	57	59	59	86	86	106	132	132	132	132
Average phase resistance at 20°C	R_{20} [mΩ/m]	0,040	0,031	0,031	0,023	0,018	0,014	0,011	0,009	0,007	0,006
Average phase reactance	X [mΩ/m]	0,055	0,049	0,049	0,045	0,037	0,030	0,023	0,017	0,010	0,007
Average phase impedance	Z [mΩ/m]	0,068	0,058	0,058	0,050	0,041	0,033	0,026	0,019	0,012	0,009
Average phase resistance at thermal conditions	R [mΩ/m]	0,045	0,037	0,039	0,028	0,023	0,018	0,014	0,012	0,009	0,007
Average phase impedance at thermal conditions	Z [mΩ/m]	0,071	0,061	0,063	0,053	0,044	0,035	0,027	0,021	0,013	0,010
Average Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0,124	0,105	0,105	0,105	0,105	0,105	0,052	0,052	0,052	0,026
Average reactance of the protective bar	X_{PE} [mΩ/m]	0,054	0,054	0,054	0,044	0,044	0,032	0,022	0,017	0,016	0,014
Average resistance of the fault loop (PE 1)	R_o [mΩ/m]	0,163	0,136	0,136	0,127	0,123	0,119	0,064	0,062	0,059	0,032
Average reactance of the fault loop	X_o [mΩ/m]	0,109	0,103	0,103	0,089	0,081	0,062	0,045	0,034	0,026	0,021
Average impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0,196	0,170	0,170	0,155	0,148	0,134	0,078	0,070	0,065	0,038
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0,507	0,429	0,429	0,331	0,283	0,221	0,177	0,178	0,144	0,132
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0,201	0,177	0,177	0,143	0,150	0,124	0,111	0,094	0,086	0,075
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0,545	0,464	0,464	0,361	0,320	0,253	0,209	0,201	0,168	0,152
Voltage drop with load at the end of the line (b=1) ΔV [V/(m/A)]10 ⁻⁶	cosφ= 0,70	123,4	105,7	108,8	90,7	74,6	59,3	45,4	35,6	23,5	17,9
	cosφ= 0,75	122,4	104,5	107,8	89,1	73,3	58,2	44,5	35,1	23,3	17,9
	cosφ= 0,80	120,5	102,5	106,0	86,8	71,4	56,6	43,2	34,4	23,1	17,8
	cosφ= 0,85	117,4	99,5	103,3	83,6	68,8	54,4	41,5	33,3	22,6	17,6
	cosφ= 0,90	112,7	95,0	99,0	79,0	65,0	51,2	39,1	31,6	21,8	17,1
	cosφ= 0,95	104,9	87,7	92,0	71,9	59,2	46,4	35,4	29,0	20,4	16,3
	cosφ= 1,00	79,1	64,4	68,9	50,1	41,2	31,8	24,2	20,9	15,8	13,1
Weight (RCP Standard)	p [kg/m]	32,4	40,2	40,2	50,0	57,8	71,2	97,5	114,4	138,9	2x97,5
Weight (PE 1)	p [kg/m]	33,2	41,1	41,1	50,9	58,7	72,1	99,3	116,2	139,8	2x99,3
Fire load	[kWh/m]	3,4	4,1	4,1	6,0	6,2	7,9	12,0	14,3	15,8	19,7
Degree of protection	IP	68	68	68	68	68	68	68	68	68	68
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	86	110	184	219	281	339	422	570	675	890
Ambient temperature min/MAX	[°C]	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50

* Class F available on request

CORRECTION FACTORS FOR MEDIUM AMBIENT TEMPERATURES OTHER THAN 40°C (KT)								
Ambient temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
kt factor	1,15	1,12	1,08	1,05	1,025	1	0,975	0,95

RCP IP68 - 5 CONDUCTORS (ALUMINUM)

technical information

		SINGLE BAR						DOUBLE BAR			(2 x 2500) DOUBLE BARS
		630	800	1000	1250	1600	2000	2500	3200	4000	5000
Rated current	I_n [A]										
Overall dimension of the busbars	L x H [mm]	115x115	115x150	115x150	115x160	115x200	115x245	115x300	115x380	115x470	2x115x300
Overall dimension of the junction	L x H [mm]	180x180	180x180	180x180	180x180	180x220	180x270	180x350	180x430	180x490	2x180x350
Rated operational voltage	U_e [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	U_i [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (1 s)	I_{cw} [kA]rms	30	36	36	50	50	60	80	100	100	100
Peak current	I_{pk} [kA]	63	76	79	110	110	132	176	220	220	220
Rated short-time current of the neutral bar (1 s)	I_{cn} [kA]rms	18	22	22	30	30	36	48	60	60	60
Peak current of the neutral bar	I_{pkn} [kA]	40	48	48	66	66	79	106	132	132	132
Rated short-time current of the protective circuit (1 s)	I_{cn} [kA]rms	18	22	22	30	30	36	48	60	60	60
Peak current of the protective circuit	I_{pkn} [kA]	40	48	48	66	66	79	106	132	132	132
Average phase resistance at 20°C	R_{20} [mΩ/m]	0,082	0,061	0,061	0,049	0,035	0,027	0,024	0,017	0,013	0,012
Average phase reactance	X [mΩ/m]	0,055	0,049	0,049	0,031	0,037	0,030	0,023	0,017	0,010	0,007
Average phase impedance	Z [mΩ/m]	0,098	0,078	0,078	0,058	0,051	0,040	0,033	0,024	0,017	0,014
Average phase resistance at thermal conditions	R [mΩ/m]	0,093	0,070	0,076	0,062	0,043	0,034	0,029	0,022	0,018	0,017
Average phase impedance at thermal conditions	Z [mΩ/m]	0,108	0,086	0,091	0,069	0,057	0,046	0,037	0,028	0,021	0,018
Average Neutral resistance	R_{20} [mΩ/m]	0,082	0,061	0,061	0,049	0,035	0,027	0,024	0,017	0,013	0,012
Average functional Earth resistance (FE)	R_{20} [mΩ/m]	0,082	0,061	0,061	0,049	0,035	0,027	0,024	0,017	0,013	0,012
Average functional Earth reactance (FE)	X [mΩ/m]	0,055	0,049	0,049	0,031	0,037	0,030	0,023	0,017	0,010	0,007
Average Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0,124	0,105	0,105	0,105	0,105	0,105	0,052	0,052	0,052	0,026
Average reactance of the protective bar	X_{PE} [mΩ/m]	0,080	0,078	0,078	0,048	0,039	0,028	0,020	0,015	0,016	0,013
Average resistance of the fault loop (PE 1)	R_o [mΩ/m]	0,131	0,099	0,099	0,082	0,061	0,048	0,041	0,030	0,024	0,020
Average reactance of the fault loop	X_o [mΩ/m]	0,14	0,13	0,13	0,08	0,08	0,06	0,04	0,03	0,03	0,02
Average impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0,188	0,161	0,161	0,114	0,097	0,076	0,059	0,044	0,036	0,029
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0,306	0,257	0,257	0,238	0,172	0,140	0,107	0,080	0,070	0,060
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0,174	0,160	0,160	0,128	0,106	0,108	0,083	0,073	0,060	0,056
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0,352	0,303	0,303	0,270	0,202	0,177	0,135	0,108	0,092	0,082
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0,468	0,387	0,387	0,246	0,213	0,173	0,113	0,107	0,070	0,050
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0,263	0,229	0,229	0,191	0,175	0,212	0,155	0,148	0,146	0,142
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0,537	0,450	0,450	0,311	0,276	0,274	0,192	0,183	0,162	0,151
Voltage drop with load at the end of the line ($b=1$) ΔV [V/(m/A)] 10^{-6}	$\cos\phi=0,70$	181,2	146,0	153,1	113,7	98,0	78,7	64,1	47,6	34,2	28,7
	$\cos\phi=0,75$	184,2	147,7	155,2	116,3	98,3	78,9	64,6	48,0	34,9	29,5
	$\cos\phi=0,80$	186,5	148,6	156,6	118,4	98,1	78,7	64,7	48,1	35,4	30,2
	$\cos\phi=0,85$	187,6	148,4	157,0	119,8	97,2	77,9	64,3	47,8	35,6	30,7
	$\cos\phi=0,90$	187,0	146,8	155,9	120,3	95,1	76,1	63,3	47,0	35,6	31,0
	$\cos\phi=0,95$	183,3	142,4	152,0	119,1	90,9	72,7	60,9	45,3	35,1	31,0
	$\cos\phi=1,00$	161,6	122,0	132,1	107,7	74,6	59,4	51,0	38,0	31,2	28,6
Weight (RCP Standard)	p [kg/m]	39,0	48,2	48,2	52,4	67,1	83,1	102,2	131,0	160,5	2x102,2
Weight (PE 1)	p [kg/m]	39,8	49,1	49,1	53,3	68,0	83,9	104,0	132,8	162,3	2x104
Fire load	[kWh/m]	5,6	6,9	6,9	7,5	10,6	13,1	20,0	23,8	26,3	28,3
Degree of protection	IP	68	68	68	68	68	68	68	68	68	68
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	111	135	229	291	331	412	552	674	865	1239
Ambient temperature min/MAX	[°C]	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50

* Class F available on request

CORRECTION FACTORS FOR MEDIUM AMBIENT TEMPERATURES OTHER THAN 40°C (KT)								
Ambient temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
kt factor	1,15	1,12	1,08	1,05	1,025	1	0,975	0,95

RCP IP68 - 5 CONDUCTORS (COPPER)

technical information

		SINGLE BAR						DOUBLE BAR			(2 x 3200) DOUBLE BARS
		800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Rated current	I_n [A]										
Overall dimension of the busbars	L x H [mm]	115x115	115x150	115x150	115x190	115x200	115x240	115x360	115x380	115x460	2x115x360
Overall dimension of the junction	L x H [mm]	180x180	180x180	180x220	180x220	180x220	180x270	180x430	180x430	180x490	2x180x430
Rated operational voltage	U_e [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	U_i [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/61
Rated short-time current (1 s)	I_{CW} [kA]rms	45	45	45	65	65	80	100	100	100	100
Peak current	I_{pk} [kA]	95	99	99	143	143	176	220	220	220	220
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]rms	27	27	27	39	39	48	60	60	60	60
Peak current of the neutral bar	I_{pk} [kA]	57	59	59	86	86	106	132	132	132	132
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]rms	27	27	27	39	39	48	60	60	60	60
Peak current of the protective circuit	I_{pk} [kA]	57	59	59	86	86	106	132	132	132	132
Average phase resistance at 20°C	R_{20} [mΩ/m]	0,040	0,031	0,031	0,023	0,018	0,014	0,011	0,009	0,007	0,006
Average phase reactance	X [mΩ/m]	0,055	0,049	0,049	0,045	0,037	0,030	0,023	0,017	0,010	0,007
Average phase impedance	Z [mΩ/m]	0,068	0,058	0,058	0,050	0,041	0,033	0,026	0,019	0,012	0,009
Average phase resistance at thermal conditions	R [mΩ/m]	0,045	0,037	0,039	0,028	0,023	0,018	0,014	0,012	0,009	0,007
Average phase impedance at thermal conditions	Z [mΩ/m]	0,071	0,061	0,063	0,053	0,044	0,035	0,027	0,021	0,013	0,010
Average Neutral resistance	R_{20} [mΩ/m]	0,040	0,031	0,031	0,023	0,018	0,014	0,011	0,009	0,007	0,006
Average functional Earth resistance (FE)	R_{20} [mΩ/m]	0,040	0,031	0,031	0,023	0,018	0,014	0,011	0,009	0,007	0,006
Average functional Earth reactance (FE)	X [mΩ/m]	0,055	0,049	0,049	0,045	0,037	0,030	0,023	0,017	0,010	0,007
Average Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0,124	0,105	0,105	0,105	0,105	0,105	0,052	0,052	0,052	0,026
Average reactance of the protective bar	X_{PE} [mΩ/m]	0,054	0,054	0,054	0,044	0,044	0,032	0,022	0,017	0,016	0,014
Average resistance of the fault loop (PE 1)	R_o [mΩ/m]	0,070	0,055	0,055	0,041	0,034	0,026	0,021	0,017	0,013	0,010
Average reactance of the fault loop	X_o [mΩ/m]	0,109	0,103	0,103	0,089	0,081	0,062	0,045	0,034	0,026	0,021
Average impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0,129	0,117	0,117	0,098	0,088	0,067	0,049	0,038	0,029	0,023
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0,170	0,155	0,155	0,115	0,120	0,098	0,083	0,071	0,062	0,054
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0,159	0,151	0,151	0,114	0,098	0,065	0,056	0,055	0,042	0,038
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0,233	0,216	0,216	0,162	0,155	0,118	0,100	0,090	0,075	0,066
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0,408	0,320	0,320	0,220	0,188	0,142	0,092	0,077	0,061	0,061
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0,196	0,158	0,158	0,126	0,135	0,136	0,104	0,088	0,075	0,075
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0,453	0,357	0,357	0,254	0,231	0,197	0,139	0,117	0,097	0,097
Voltage drop with load at the end of the line ($b=1$) ΔV [V/(m/A)] 10^{-6}	$\cos\phi=0,70$	123,4	105,7	108,8	90,7	74,6	59,3	45,4	35,6	23,5	17,9
	$\cos\phi=0,75$	122,4	104,5	107,8	89,1	73,3	58,2	44,5	35,1	23,3	17,9
	$\cos\phi=0,80$	120,5	102,5	106,0	86,8	71,4	56,6	43,2	34,4	23,1	17,8
	$\cos\phi=0,85$	117,4	99,5	103,3	83,6	68,8	54,4	41,5	33,3	22,6	17,6
	$\cos\phi=0,90$	112,7	95,0	99,0	79,0	65,0	51,2	39,1	31,6	21,8	17,1
	$\cos\phi=0,95$	104,9	87,7	92,0	71,9	59,2	46,4	35,4	29,0	20,4	16,3
	$\cos\phi=1,00$	79,1	64,4	68,9	50,1	41,2	31,8	24,2	20,9	15,8	13,1
Weight (RCP Standard)	p [kg/m]	48,2	59,3	59,3	76,7	84,5	105,4	149,7	166,6	205,7	2x149,7
Weight (PE 1)	p [kg/m]	49,0	60,2	60,2	77,6	85,4	106,2	151,5	168,4	207,5	2x151,5
Fire load	[kWh/m]	5,6	6,9	6,9	10,0	10,3	13,1	20,0	23,8	26,3	28,3
Degree of protection	IP	68	68	68	68	68	68	68	68	68	68
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	86	110	184	219	281	339	422	570	675	890
Ambient temperature min/MAX	[°C]	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50	-40/50

* Class F available on request

CORRECTION FACTORS FOR MEDIUM AMBIENT TEMPERATURES OTHER THAN 40°C (KT)								
Ambient temperature	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
kt factor	1,15	1,12	1,08	1,05	1,025	1	0,975	0,95

TABLE OF CHEMICAL RESISTANCE OF RCP RESIN

CHEMICAL	RESISTANCE		RESISTANCE
Boric Acid	(+)	Glycerol	(+)
Hydrochloric Acid 10%	(-)	Greases and Lubricating Oils	(+)
Citric Acid	(+)	Greases and Oils	(+)
Lactic Acid	(+)	Vegetable Oils	(+)
Ethly Alcohol	(0)	Aliphatic Hydrocarbons	(+)
Beer	(+)	Aromatic Hydrocarbons	(-)
Acetone	(-)	Carbon Tetrachloride	(-)
Calcium Chloride	(+)	Ammonia	(+)
Combustible Liquid	(+)	Milk	(+)
Water	(+)	Sodium Hydroxide 10%	(+)
Esters	(+) / (0)	Soap	(+)
Ethers	(-)	Sugar	(+)
Formalin 30%-40%	(+)	Urine	(+)

SPECIFIC TEST OF PROLONGED IMMERSION IN DIFFERENT CHEMICAL AGENTS AT AMBIENT TEMPERATURE

CHEMICAL AGENT	AFTER 15 DAYS	AFTER 30 DAYS
10% Hydrochloric Acid Solution	(-)	(-)
10% NaOH Solution	(+)	(+) / (0)
Gasoline	(+)	(+)
Fuel (Diesel)	(+)	(+)
Antifreeze	(+) / (0)	(+) / (0)
DBE (Di Basic Esther)	(0)	(0) / (-)

(+) - Cast Resin is resistant to the chemical agent


(0) - Cast Resin is partially resistant to the chemical agent

(-) - Cast Resin is not resistant to the chemical agent



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