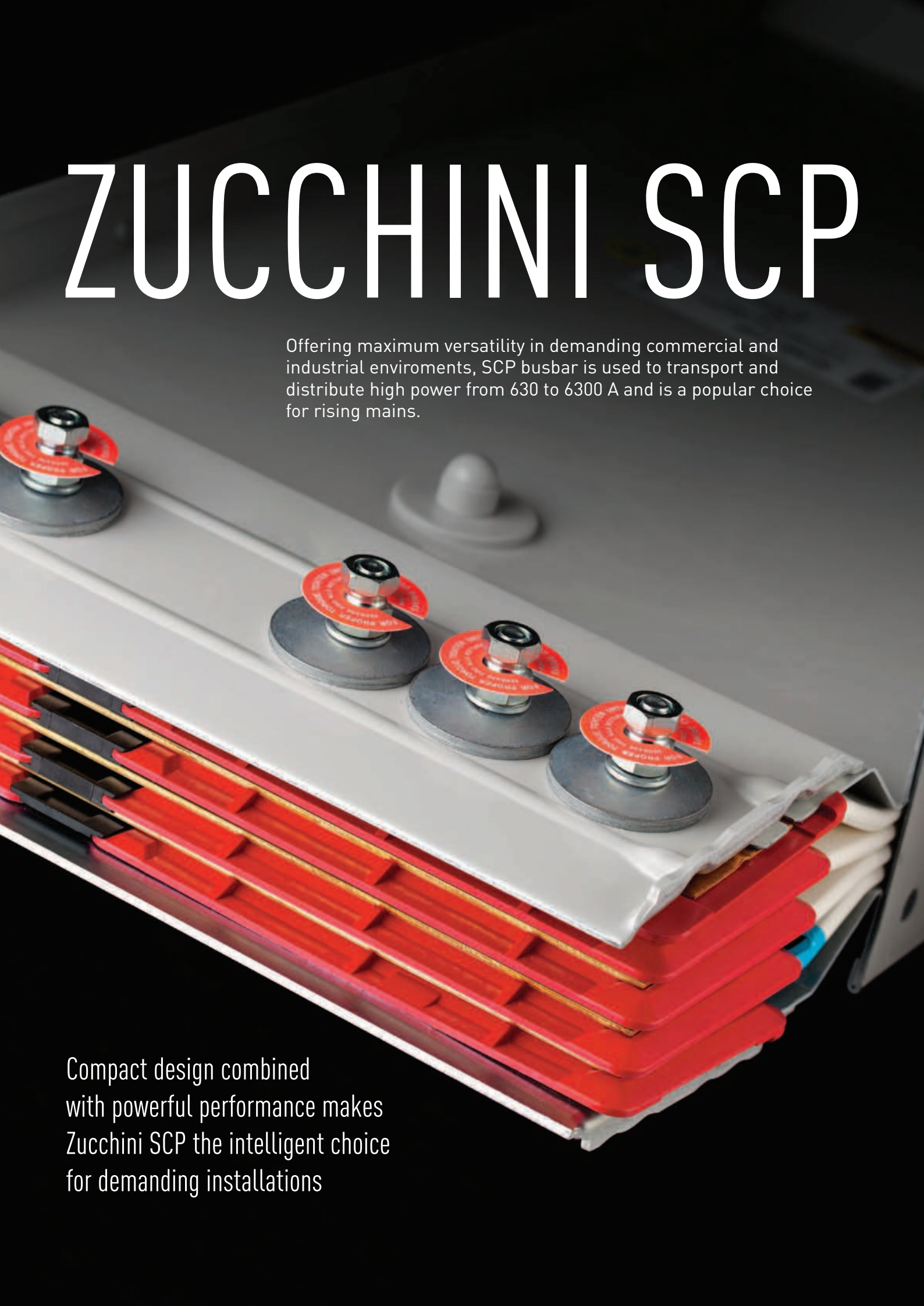
ZUCCHINI SCP

Offering maximum versatility in demanding commercial and industrial enviroments, SCP busbar is used to transport and distribute high power from 630 to 6300 A and is a popular choice for rising mains.



Compact design combined with powerful performance makes Zucchini SCP the intelligent choice for demanding installations

super compact high power busbar

Zucchini SCP busbar trunking systems are ideal for the distribution of high power in industrial, commercial and service sector installations. Flexible and safe, SCP is continually developed to offer maximum versatility for all power applications, in any type of environment.

The high power, super compact Zucchini busbar range provides a complete solution whether connecting power supply stations or transformers to the main panel board, or transporting and distributing power around the building, including rising mains applications.

SAFETY

Compact dimensions enhance SCP's resistance to short circuit stresses. Voltage drops can be controlled to reduce the impedance of the circuit and enable installation of high power electrical systems in confined spaces.

MAINTENANCE FREE

The range is designed to be maintenance free with the exception of the compulsory periodic inspections required by Standard IEC 60364. The tightening torque inspection can be carried out when the busbar is energised.

FLEXIBILITY

Plug-in tap-off boxes provide connection and power supply of three phase loads from 63 to 1250 A. Thanks to the galvanised metal sheet construction, the boxes are suitable for heavy loads and for shielding the electromagnetic fields generated by the passage of current.

ZUCCHINI SCP

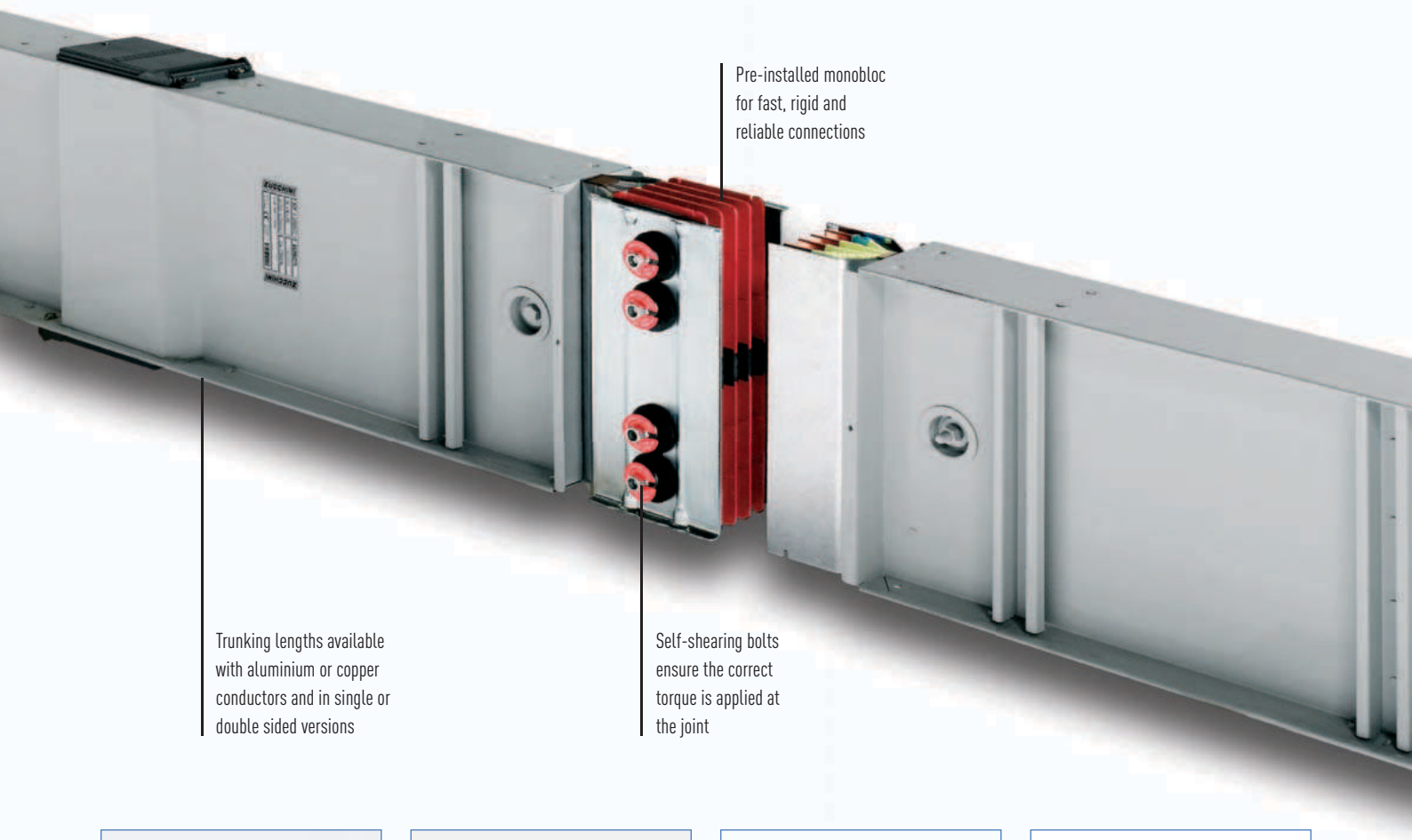
fast, simple installation saves time and money on site

INSTALLATION SIMPLICITY

Designed to work perfectly in conjunction with Zucchini EdM cast resin transformers, the SCP busbar range offers quick, reliable assembly with a vast combination of accessories for maximum flexibility. Conductors are available in a choice of copper or aluminium.

PLANNING SIMPLICITY

A comprehensive range of standard products is further enhanced by Legrand's technical expertise and ability to create bespoke solutions tailored to any requirement. The SCP range can be manufactured in standard, clean earth or 200% neutral versions.




SWITCHBOARD - TRANSFORMER FEED UNIT


HORIZONTAL ELBOW


VERTICAL ELBOW


JOINT

TRUSTED BY WORLD LEADING DEVELOPERS

Zucchini SCP has been selected by Land Securities as an approved high power busbar system. Being one of the few manufacturers selected, this demonstrates Legrand's ability to provide solutions that meet the quality and specification requirements of world leading property developers.

Land Securities is the UK's largest commercial property company and a member of the FTSE 100. The company owns and manages more than 29 million ft^2 of property, including shopping centres and offices.

For more information visit www.landsecurities.com

LandSecurities

SCP super compact busbar
aluminium conductors

TRUNKING LENGTHS

Rating (A)	Feeder lengths				
	Standard 3 m	Bespoke dimensions 1 to 1·5 m	Bespoke dimensions 1·5 to 2 m	Bespoke dimensions 2 to 2·5 m	Bespoke dimensions 2·5 to 3 m
630	60280100P	60280170P	60280120P	60280180P	60280150P
800	60280101P	60280171P	60280121P	60280181P	60280151P
1000	60280102P	60280172P	60280122P	60280182P	60280152P
1250	60280104P	60280174P	60280124P	60280184P	60280154P
1600	60280106P	60280176P	60280126P	60280186P	60280156P
2000	60280107P	60280177P	60280127P	60280187P	60280157P
2500	60390104P	60390174P	60390124P	60390184P	60390154P
3200	60390106P	60390176P	60390126P	60390186P	60390156P
4000	60390107P	60390177P	60390127P	60390187P	60390157P

ELBOWS AND TEES

	Horizontal elbows				Vertical elbows				Double horizontal elbows	
Rating (A)	Standard dimensions		Bespoke dimensions		Standard dimensions		Bespoke dimensions		Bespoke dimensions	
	Right hand	Left hand	Right hand	Left hand	Right hand	Left hand	Right hand	Left hand	Left + right hand	Right + left hand
630	60280300P	60280310P	60280320P	60280330P	60280400P	60280410P	60280420P	60280430P	60280350P	60280340P
800	60280301P	60280311P	60280321P	60280331P	60280401P	60280411P	60280421P	60280431P	60280351P	60280341P
1000	60280302P	60280312P	60280322P	60280332P	60280402P	60280412P	60280422P	60280432P	60280352P	60280342P
1250	60280304P	60280314P	60280324P	60280334P	60280404P	60280414P	60280424P	60280434P	60280354P	60280344P
1600	60280306P	60280316P	60280326P	60280336P	60280406P	60280416P	60280426P	60280436P	60280356P	60280346P
2000	60280307P	60280317P	60280327P	60280337P	60280407P	60280417P	60280427P	60280437P	60280357P	60280347P
2500	60390304P	60390314P	60390324P	60390334P	60390404P	60390414P	60390424P	60390434P	60390354P	60390344P
3200	60390306P	60390316P	60390326P	60390336P	60390406P	60390416P	60390426P	60390436P	60390356P	60390346P
4000	60390307P	60390317P	60390327P	60390337P	60390407P	60390417P	60390427P	60390437P	60390357P	60390347P

CONNECTION INTERFACES

	Connection interfaces				Connection interfaces + horizontal elbows			
Rating (A)	Standard dimensions		Bespoke dimensions		Bespoke dimensions			
	Type 1 male	Type 2 female	Type 1 male	Type 2 female	Type 1 female	Type 2 female	Type 3 male	Type 4 male
630	60281010P	60281000P	60281030P	60281020P	60281300P	60281310P	60281320P	60281330P
800	60281011P	60281001P	60281031P	60281021P	60281301P	60281311P	60281321P	60281331P
1000	60281012P	60281002P	60281032P	60281022P	60281302P	60281312P	60281322P	60281332P
1250	60281014P	60281004P	60281034P	60281024P	60281304P	60281314P	60281324P	60281334P
1600	60281016P	60281006P	60281036P	60281026P	60281306P	60281316P	60281326P	60281336P
2000	60281017P	60281007P	60281037P	60281027P	60281307P	60281317P	60281327P	60281337P
2500	60391014P	60391004P	60391034P	60391024P	60391304P	60391314P	60391324P	60391334P
3200	60391016P	60391006P	60391036P	60391026P	60391306P	60391316P	60391326P	60391336P
4000	60391017P	60391007P	60391037P	60391027P	60391307P	60391317P	60391327P	60391337P

Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown opposite

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

TRUNKING LENGTHS

Distribution lengths			Expansion lengths	Transposition lengths		Fire barriers	
3 m – 3 + 3 outlets	2 m – 2 + 2 outlets	1 m – 1 + 1 outlets		Phase transposition	Neutral rotation	Internal	External
60280130P	60280260P	60280280P	60280290P	60287100P	60287140P	6531FB01	652EFB01
60280131P	60280261P	60280281P	60280291P	60287101P	60287141P	–	652EFB01
60280132P	60280262P	60280282P	60280292P	60287102P	60287142P	–	652EFB01
60280134P	60280264P	60280284P	60280294P	60287104P	60287144P	–	652EFB01
60280136P	60280266P	60280286P	60280296P	60287106P	60287146P	–	652EFB02
60280137P	60280267P	60280287P	60280297P	60287107P	60287147P	–	652EFB03
60390134P	60390264P	60390284P	60390294P	60397104P	60397144P	6531FB01	653EFB02
60390136P	60390266P	60390286P	60390296P	60397106P	60397146P	6531FB01	653EFB03
60390137P	60390267P	60390287P	60390297P	60397107P	60397147P	6531FB01	653EFB04

ELBOWS AND TEES

Double vertical elbows		Vertical tees				Horizontal tees			
Bespoke dimensions		Bespoke dimensions				Bespoke dimensions			
Left + right hand	Right + left hand	Right hand female 300 to 1 499 mm	Right hand male 300 to 1 499 mm	Left hand male 300 to 1 499 mm	Left hand female 300 to 1 499 mm	Right hand female 550 to 1 049 mm	Right hand male 550 to 1 049 mm	Left hand male 550 to 1 049 mm	Left hand female 550 to 1 049 mm
60280450P	60280440P	60280800P	60280810P	60280820P	60280830P	60280700P	60280710P	60280720P	60280730P
60280451P	60280441P	60280801P	60280811P	60280821P	60280831P	60280701P	60280711P	60280721P	60280731P
60280452P	60280442P	60280802P	60280812P	60280822P	60280832P	60280702P	60280712P	60280722P	60280732P
60280454P	60280444P	60280804P	60280814P	60280824P	60280834P	60280704P	60280714P	60280724P	60280734P
60280456P	60280446P	60280806P	60280816P	60280826P	60280836P	60280706P	60280716P	60280726P	60280736P
60280457P	60280447P	60280807P	60280817P	60280827P	60280837P	60280707P	60280717P	60280727P	60280737P
60390454P	60390444P	60390804P	60390814P	60390824P	60390834P	60390704P	60390714P	60390724P	60390734P
60390456P	60390446P	60390806P	60390816P	60390826P	60390836P	60390706P	60390716P	60390726P	60390736P
60390457P	60390447P	60390807P	60390817P	60390827P	60390837P	60390707P	60390717P	60390727P	60390737P

CONNECTION INTERFACES / FEED UNITS AND END STOPS

Connection interfaces + vertical elbows				End feed units		End stops
Bespoke dimensions						
Type 1 female	Type 2 female	Type 3 male	Type 4 male	Type 1 male	Type 2 female	
60281400P	60281410P	60281420P	60281430P	60281110P	60281100P	65283101P
60281401P	60281411P	60281421P	60281431P	60281111P	60281101P	65283101P
60281402P	60281412P	60281422P	60281432P	60281112P	60281102P	65283101P
60281404P	60281414P	60281424P	60281434P	60281114P	60281104P	65283101P
60281406P	60281416P	60281426P	60281436P	60281116P	60281106P	65283102P
60281407P	60281417P	60281427P	60281437P	60281117P	60281107P	65283104P
60391404P	60391414P	60391424P	60391434P	60391114P	60391104P	65393102P
60391406P	60391416P	60391426P	60391436P	60391116P	60391106P	65393103P
60391407P	60391417P	60391427P	60391437P	60391117P	60391107P	65393104P

SCP super compact busbar
copper conductors

TRUNKING LENGTHS

Rating (A)	Feeder lengths				
	Standard 3 m	Bespoke dimensions 1 to 1·5 m	Bespoke dimensions 1·5 to 2 m	Bespoke dimensions 2 to 2·5 m	Bespoke dimensions 2·5 to 3 m
800	65280100P	65280170P	65280120P	65280180P	65280150P
1000	65280101P	65280171P	65280121P	65280181P	65280151P
1250	65280103P	65280173P	65280123P	65280183P	65280153P
1600	65280105P	65280175P	65280125P	65280185P	65280155P
2000	65280106P	65280176P	65280126P	65280186P	65280156P
2500	65280108P	65280178P	65280128P	65280188P	65280158P
3200	65390105P	65390175P	65390125P	65390185P	65390155P
4000	65390106P	65390176P	65390126P	65390186P	65390156P
5000	65390108P	65390178P	65390128P	65390188P	65390158P

ELBOWS AND TEES

	Horizontal elbows				Vertical elbows				Double horizontal elbows	
Rating (A)	Standard dimensions		Bespoke dimensions		Standard dimensions		Bespoke dimensions		Bespoke dimensions	
	Right hand	Left hand	Right hand	Left hand	Right hand	Left hand	Right hand	Left hand	Left + right hand	Right + left hand
800	65280300P	65280310P	65280320P	65280330P	65280400P	65280410P	65280420P	65280430P	65280350P	65280340P
1000	65280301P	65280311P	65280321P	65280331P	65280401P	65280411P	65280421P	65280431P	65280351P	65280341P
1250	65280303P	65280313P	65280323P	65280333P	65280403P	65280413P	65280423P	65280433P	65280353P	65280343P
1600	65280305P	65280315P	65280325P	65280335P	65280405P	65280415P	65280425P	65280435P	65280355P	65280345P
2000	65280306P	65280316P	65280326P	65280336P	65280406P	65280416P	65280426P	65280436P	65280356P	65280346P
2500	65280308P	65280318P	65280328P	65280338P	65280408P	65280418P	65280428P	65280438P	65280358P	65280348P
3200	65390305P	65390315P	65390325P	65390335P	65390405P	65390415P	65390425P	65390435P	65390355P	65390345P
4000	65390306P	65390316P	65390326P	65390336P	65390406P	65390416P	65390426P	65390436P	65390356P	65390346P
5000	65390308P	65390318P	65390328P	65390338P	65390408P	65390418P	65390428P	65390438P	65390358P	65390348P

CONNECTION INTERFACES

	Connection interfaces				Connection interfaces + horizontal elbows			
Rating (A)	Standard dimensions		Bespoke dimensions		Bespoke dimensions			
	Type 1 male	Type 2 female	Type 1 male	Type 2 female	Type 1 female	Type 2 female	Type 3 male	Type 4 male
800	65281010P	65281000P	65281030P	65281020P	65281300P	65281310P	65281320P	65281330P
1000	65281011P	65281001P	65281031P	65281021P	65281301P	65281311P	65281321P	65281331P
1250	65281013P	65281003P	65281033P	65281023P	65281303P	65281313P	65281323P	65281333P
1600	65281015P	65281005P	65281035P	65281025P	65281305P	65281315P	65281325P	65281335P
2000	65281016P	65281006P	65281036P	65281026P	65281306P	65281316P	65281326P	65281336P
2500	65281018P	65281008P	65281038P	65281028P	65281308P	65281318P	65281328P	65281338P
3200	65391015P	65391005P	65391035P	65391025P	65391305P	65391315P	65391325P	65391335P
4000	65391016P	65391006P	65391036P	65391026P	65391306P	65391316P	65391326P	65391336P
5000	65391018P	65391008P	65391038P	65391028P	65391308P	65391318P	65391328P	65391338P

Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown opposite

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

TRUNKING LENGTHS

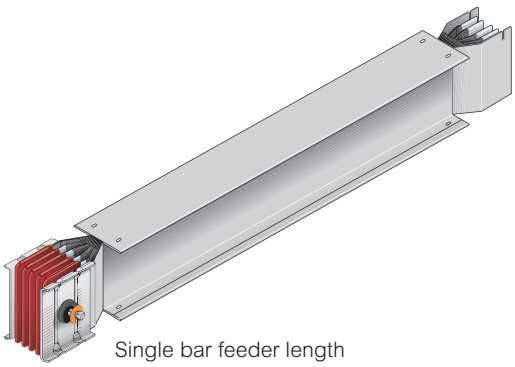
Distribution lengths			Expansion lengths	Transposition lengths		Fire barriers	
3 m – 3 + 3 outlets	2 m – 2 + 2 outlets	1 m – 1 + 1 outlets		Phase transposition	Neutral rotation	Internal	External
65280130P	65280260P	65280280P	65280290P	65287100P	65287140P	6531FB01	652EFB01
65280131P	65280261P	65280281P	65280291P	65287101P	65287141P	–	652EFB01
65280133P	65280263P	65280283P	65280293P	65287103P	65287143P	–	652EFB01
65280135P	65280265P	65280285P	65280295P	65287105P	65287145P	–	652EFB02
65280136P	65280266P	65280286P	65280296P	65287106P	65287146P	–	652EFB02
65280138P	65280268P	65280288P	65280298P	65287108P	65287148P	–	652EFB03
65390135P	65390265P	65390285P	65390295P	65397105P	65397145P	6531FB01	653EFB02
65390136P	65390266P	65390286P	65390296P	65397106P	65397146P	6531FB01	653EFB03
65390138P	65390268P	65390288P	65390298P	65397108P	65397148P	6531FB01	653EFB04

ELBOWS AND TEES

Double vertical elbows		Vertical tees				Horizontal tees			
Bespoke dimensions		Bespoke dimensions				Bespoke dimensions			
Left + right hand	Right + left hand	Right hand female 300 to 1 499 mm	Right hand male 300 to 1 499 mm	Left hand male 300 to 1 499 mm	Left hand female 300 to 1 499 mm	Right hand female 550 to 1 049 mm	Right hand male 550 to 1 049 mm	Left hand male 550 to 1 049 mm	Left hand female 550 to 1 049 mm
65280450P	65280440P	65280800P	65280810P	65280820P	65280830P	65280700P	65280710P	65280720P	65280730P
65280451P	65280441P	65280801P	65280811P	65280821P	65280831P	65280701P	65280711P	65280721P	65280731P
65280453P	65280443P	65280803P	65280813P	65280823P	65280833P	65280703P	65280713P	65280723P	65280733P
65280455P	65280445P	65280805P	65280815P	65280825P	65280835P	65280705P	65280715P	65280725P	65280735P
65280456P	65280446P	65280806P	65280816P	65280826P	65280836P	65280706P	65280716P	65280726P	65280736P
65280458P	65280448P	65280808P	65280818P	65280828P	65280838P	65280708P	65280718P	65280728P	65280738P
65390455P	65390445P	65390805P	65390815P	65390825P	65390835P	65390705P	65390715P	65390725P	65390735P
65390456P	65390446P	65390806P	65390816P	65390826P	65390836P	65390706P	65390716P	65390726P	65390736P
65390458P	65390448P	65390808P	65390818P	65390828P	65390838P	65390708P	65390718P	65390728P	65390738P

CONNECTION INTERFACES				FEED UNITS AND END STOPS		
Connection interfaces + vertical elbows				End feed units		End stops
Bespoke dimensions						
Type 1 female	Type 2 female	Type 3 male	Type 4 male	Type 1 male	Type 2 female	
65281400P	65281410P	65281420P	65281430P	65281110P	65281100P	65283101P
65281401P	65281411P	65281421P	65281431P	65281111P	65281101P	65283101P
65281403P	65281413P	65281423P	65281433P	65281113P	65281103P	65283101P
65281405P	65281415P	65281425P	65281435P	65281115P	65281105P	65283102P
65281406P	65281416P	65281426P	65281436P	65281116P	65281106P	65283102P
65281408P	65281418P	65281428P	65281438P	65281118P	65281108P	65283104P
65391405P	65391415P	65391425P	65391435P	65391115P	65391105P	65393102P
65391406P	65391416P	65391426P	65391436P	65391116P	65391106P	65393103P
65391408P	65391418P	65391428P	65391438P	65391118P	65391108P	65393104P

SCP super compact busbar
feeder lengths



Single bar feeder length

The SCP system is also available in 5 conductor versions and up to 6 300 A (copper)

Contact us on +44 (0) 845 600 6266

Selection charts **p. 62-65**
Dimensions and technical information **p. 95**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Supplied with electrical junction monobloc system pre-installed

Feeder lengths – standard 3 m

For runs exceeding 40 m an expansion length should be included (see p. 68)

3 000 mm single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280100P		630
1	60280101P	65280100P	800
1	60280102P	65280101P	1 000
1	60280104P	65280103P	1 250
1	60280106P	65280105P	1 600
1	60280107P	65280106P	2 000
1		65280108P	2 500

3 000 mm double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390104P		2 500
1	60390106P	65390105P	3 200
1	60390107P	65390106P	4 000
1		65390108P	5 000

Feeder lengths – bespoke dimensions

Please specify required length when ordering

1 000 - 1 500 mm single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280170P		630
1	60280171P	65280170P	800
1	60280172P	65280171P	1 000
1	60280174P	65280173P	1 250
1	60280176P	65280175P	1 600
1	60280177P	65280176P	2 000
1		65280178P	2 500

1 000 - 1 500 mm double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390174P		2 500
1	60390176P	65390175P	3 200
1	60390177P	65390176P	4 000
1		65390178P	5 000

1 501 - 2 000 mm single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280120P		630
1	60280121P	65280120P	800
1	60280122P	65280121P	1 000
1	60280124P	65280123P	1 250
1	60280126P	65280125P	1 600
1	60280127P	65280126P	2 000
1		65280128P	2 500

Feeder lengths – bespoke dimensions (continued)

Please specify required length when ordering

1 501 - 2 000 mm double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390124P		2 500
1	60390126P	65390125P	3 200
1	60390127P	65390126P	4 000
1		65390128P	5 000

2 001 - 2 500 mm single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280180P		630
1	60280181P	65280180P	800
1	60280182P	65280181P	1 000
1	60280184P	65280183P	1 250
1	60280186P	65280185P	1 600
1	60280187P	65280186P	2 000
1		65280188P	2 500

2 001 - 2 500 mm double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390184P		2 500
1	60390186P	65390185P	3 200
1	60390187P	65390186P	4 000
1		65390188P	5 000

2 501 - 2 999 mm single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280150P		630
1	60280151P	65280150P	800
1	60280152P	65280151P	1 000
1	60280154P	65280153P	1 250
1	60280156P	65280155P	1 600
1	60280157P	65280156P	2 000
1		65280158P	2 500

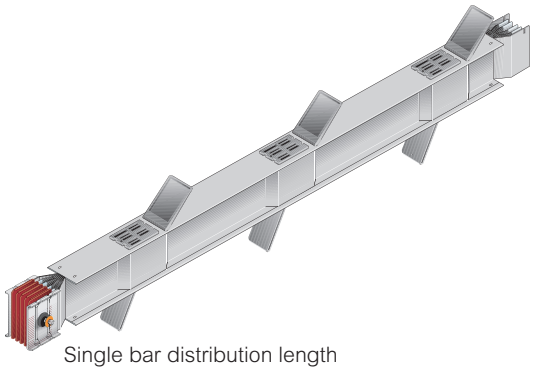
2 501 - 2 999 mm double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390154P		2 500
1	60390156P	65390155P	3 200
1	60390157P	65390156P	4 000
1		65390158P	5 000

Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

SCP super compact busbar
distribution lengths



Single bar distribution length

Selection charts **p. 62-65**
Dimensions and technical information **p. 95**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Supplied with electrical junction monobloc system pre-installed

Distribution lengths

For plug-in type tap-off boxes

For runs exceeding 40 m an expansion length should be included
Tap-off outlets are spaced at 850 mm intervals on both sides and are provided with hinged covers to ensure maximum safety and maintain IP 55 protection

3 m single bar – 3 + 3 outlets

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280130P[1]		630
1	60280131P	65280130P[1]	800
1	60280132P	65280131P	1 000
1	60280134P	65280133P	1 250
1	60280136P	65280135P	1 600
1	60280137P	65280136P	2 000
1		65280138P	2 500

3 m double bar – 3 + 3 outlets

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390134P		2 500
1	60390136P	65390135P	3 200
1	60390137P	65390136P	4 000
1		65390138P	5 000

2 m single bar – 2 + 2 outlets

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280260P[1]		630
1	60280261P	65280260P[1]	800
1	60280262P	65280261P	1 000
1	60280264P	65280263P	1 250
1	60280266P	65280265P	1 600
1	60280267P	65280266P	2 000
1		65280268P	2 500

2 m double bar – 2 + 2 outlets

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390264P		2 500
1	60390266P	65390265P	3 200
1	60390267P	65390266P	4 000
1		65390268P	5 000

1 : Lengths with tap-off outlets on top side only (3, 2 or 1 + 0)

Distribution lengths (continued)

1 m single bar – 1 + 1 outlets

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280280P[1]		630
1	60280281P	65280280P[1]	800
1	60280282P	65280281P	1 000
1	60280284P	65280283P	1 250
1	60280286P	65280285P	1 600
1	60280287P	65280286P	2 000
1		65280288P	2 500

1 m double bar – 1 + 1 outlets

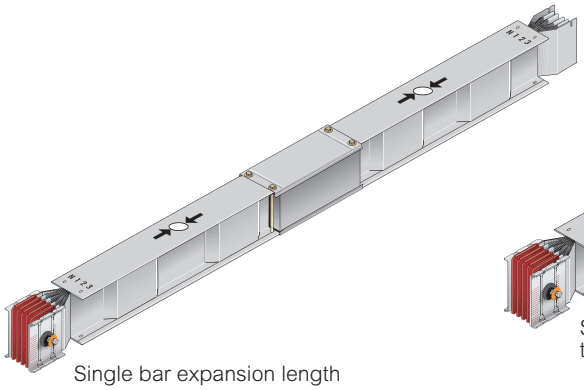
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390284P		2 500
1	60390286P	65390285P	3 200
1	60390287P	65390286P	4 000
1		65390288P	5 000

For feed units and tap-off boxes p. 77, 78-79

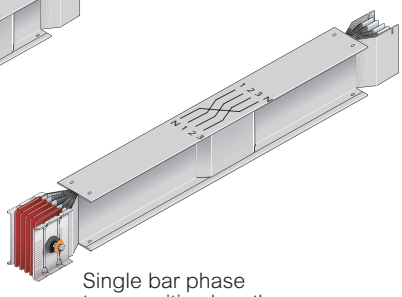
Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

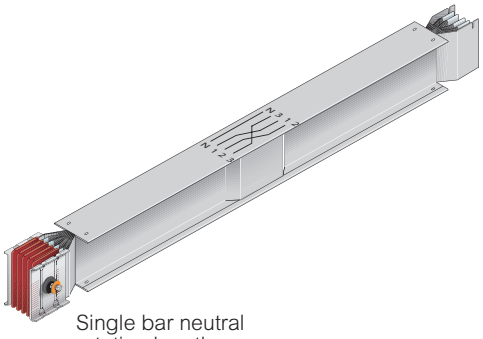
SCP super compact busbar
expansion and transposition lengths



Single bar expansion length



Single bar phase transposition length



Single bar neutral rotation length

Selection charts **p. 62-65**
Dimensions and technical information **p. 95**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Supplied with electrical junction monobloc system pre-installed

Expansion lengths

Standard – 3 m

Absorb the thermal expansion during normal use that, on long runs, would otherwise cumulate and put abnormal force on the connection points
Expansion length is to be placed in straight runs of more than 40 m and repeated every 40 m

Single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280290P		630
1	60280291P	65280290P	800
1	60280292P	65280291P	1 000
1	60280294P	65280293P	1 250
1	60280296P	65280295P	1 600
1	60280297P	65280296P	2 000
1		65280298P	2 500

Double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390294P		2 500
1	60390296P	65390295P	3 200
1	60390297P	65390296P	4 000
1		65390298P	5 000

Transposition lengths

Phase transposition – 1·2 m

In runs exceeding 100 m it is recommended to include two transposition lengths to balance mutual phase reactance and electric impedance (one at 1/3 and one at 2/3 distance of the run)

Single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60287100P		630
1	60287101P	65287100P	800
1	60287102P	65287101P	1 000
1	60287104P	65287103P	1 250
1	60287106P	65287105P	1 600
1	60287107P	65287106P	2 000
1		65287108P	2 500

Double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60397104P		2 500
1	60397106P	65397105P	3 200
1	60397107P	65397106P	4 000
1		65397108P	5 000

Neutral rotation – 1·0 m

When the sequence of the distribution board phases is different to that of the transformer

Single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60287140P		630
1	60287141P	65287140P	800
1	60287142P	65287141P	1 000
1	60287144P	65287143P	1 250
1	60287146P	65287145P	1 600
1	60287147P	65287146P	2 000
1		65287148P	2 500

Double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60397144P		2 500
1	60397146P	65397145P	3 200
1	60397147P	65397146P	4 000
1		65397148P	5 000

Key : How to select the correct configuration of bar
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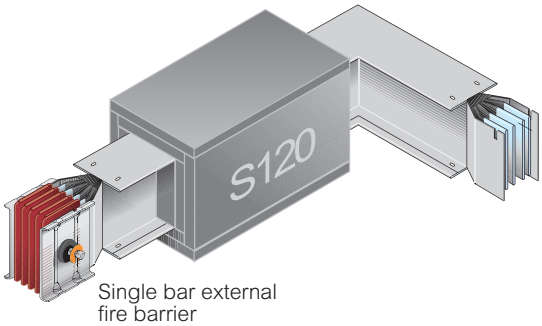
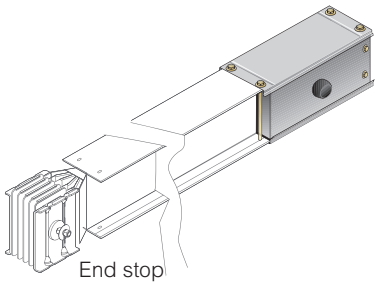
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

SCP super compact busbar
fire barriers and end stops



Single bar external fire barrier


End stop

Selection charts **p. 62-65**
Dimensions and technical information **p. 96**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Supplied with electrical junction monobloc system pre-installed

Internal fire barrier

Meets class S120 (EN 1366-3, DIN 4102-09)
Internal fire barriers are not required for 800 to 2 000 A aluminium systems, or 1 000 to 2 500 A copper systems but can be supplied with all other trunking components

Pack	Cat. Nos.	
1	6531FB01	**Internal fire barrier**

External fire barriers

Meets class S120 (EN 1366-3, DIN 4102-09)
External fire barriers can be used on any trunking component in compliance with the operating instructions (see p. 96)
Please specify the required position of the fire barrier when ordering (see p. 96)

External single bar

Pack	Aluminium	Copper	Rating (A)
1	652EFB01		630, 800, 1 000, 1 250
1	652EFB02		1 600
1	652EFB03		2 000
1		652EFB01	800, 1 000, 1 250
1		652EFB02	1 600, 2 000
1		652EFB03	2 500

External double bar

Pack			Rating (A)
1	653EFB02		2 500
1	653EFB03		3 200
1	653EFB04		4 000
1		653EFB02	3 200
1		653EFB03	4 000
1		653EFB04	5 000

End stops

Maintain IP 55 protection at the end of the run

Single bar

Pack	Aluminium	Copper	Rating (A)
1	65283101P		630 to 1 250
1		65283101P	800 to 1 250
1	65283102P		1 600
1		65283102P	1 600 to 2 000
1	65283104P		2 000
1		65283104P	2 500

Double bar

Pack			Rating (A)
1	65393102P		2 500
1		65393102P	3 200
1	65393103P		3 200
1		65393103P	4 000
1	65393104P		4 000
1		65393104P	5 000

Key : How to select the correct configuration of bar
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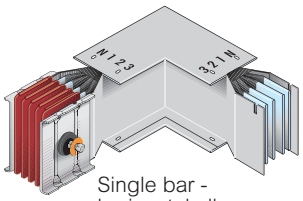
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

SCP super compact busbar
horizontal elbows



Single bar - horizontal elbow

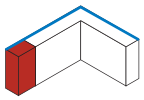
Selection charts **p. 62-65**
Dimensions and technical information **p. 96**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Elbows are supplied with pre-installed monobloc and are able to change direction with standard or bespoke dimensions

Horizontal elbows – standard 300 x 300 mm

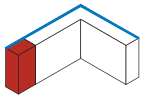
Right hand – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280300P		630
1	60280301P	65280300P	800
1	60280302P	65280301P	1 000
1	60280304P	65280303P	1 250
1	60280306P	65280305P	1 600
1	60280307P	65280306P	2 000
1		65280308P	2 500



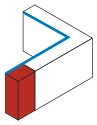
Right hand – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390304P		2 500
1	60390306P	65390305P	3 200
1	60390307P	65390306P	4 000
1		65390308P	5 000



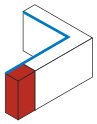
Left hand – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280310P		630
1	60280311P	65280310P	800
1	60280312P	65280311P	1 000
1	60280314P	65280313P	1 250
1	60280316P	65280315P	1 600
1	60280317P	65280316P	2 000
1		65280318P	2 500



Left hand – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390314P		2 500
1	60390316P	65390315P	3 200
1	60390317P	65390316P	4 000
1		65390318P	5 000

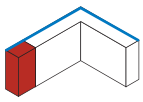


Horizontal elbows – bespoke dimensions

Please specify required length when ordering (see p. 96 for configuration)

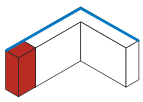
Right hand – single bar 250 to 1 299 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280320P		630
1	60280321P	65280320P	800
1	60280322P	65280321P	1 000
1	60280324P	65280323P	1 250
1	60280326P	65280325P	1 600
1	60280327P	65280326P	2 000
1		65280328P	2 500



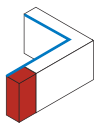
Right hand – double bar 250 to 1 449 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390324P		2 500
1	60390326P	65390325P	3 200
1	60390327P	65390326P	4 000
1		65390328P	5 000



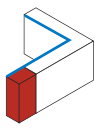
Left hand – single bar 250 to 1 299 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280330P		630
1	60280331P	65280330P	800
1	60280332P	65280331P	1 000
1	60280334P	65280333P	1 250
1	60280336P	65280335P	1 600
1	60280337P	65280336P	2 000
1		65280338P	2 500



Left hand – double bar 250 to 1 449 mm

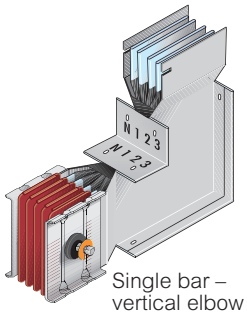
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390334P		2 500
1	60390336P	65390335P	3 200
1	60390337P	65390336P	4 000
1		65390338P	5 000



Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

SCP super compact busbar
vertical elbows



Single bar – vertical elbow

Selection charts **p. 62-65**
Dimensions and technical information **p. 96**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Elbows are supplied with pre-installed monobloc and are able to change direction with standard or bespoke dimensions

Vertical elbows – standard

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
Left hand – single bar 300 x 300 mm			
1	60280410P		630
1	60280411P	65280410P	800
1	60280412P	65280411P	1 000
1	60280414P	65280413P	1 250
1	60280416P	65280415P	1 600
1	60280417P	65280416P	2 000
1		65280418P	2 500
Left hand – double bar 450 x 450 mm			
1	60390414P		2 500
1	60390416P	65390415P	3 200
1	60390417P	65390416P	4 000
1		65390418P	5 000
Right hand – single bar 300 x 300 mm			
1	60280400P		630
1	60280401P	65280400P	800
1	60280402P	65280401P	1 000
1	60280404P	65280403P	1 250
1	60280406P	65280405P	1 600
1	60280407P	65280406P	2 000
1		65280408P	2 500
Right hand – double bar 450 x 450 mm			
1	60390404P		2 500
1	60390406P	65390405P	3 200
1	60390407P	65390406P	4 000
1		65390408P	5 000

Vertical elbows – bespoke dimensions

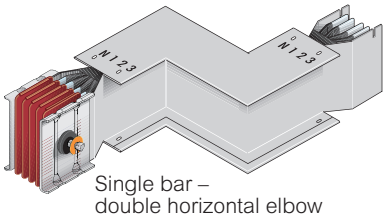
Please specify required length when ordering (see p. 96 for configuration)

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
Left hand – single bar 300 to 1 299 mm			
1	60280430P		630
1	60280431P	65280430P	800
1	60280432P	65280431P	1 000
1	60280434P	65280433P	1 250
1	60280436P	65280435P	1 600
1	60280437P	65280436P	2 000
1		65280438P	2 500
Left hand – double bar 450 to 1 449 mm			
1	60390434P		2 500
1	60390436P	65390435P	3 200
1	60390437P	65390436P	4 000
1		65390438P	5 000
Right hand – single bar 300 to 1 299 mm			
1	60280420P		630
1	60280421P	65280420P	800
1	60280422P	65280421P	1 000
1	60280424P	65280423P	1 250
1	60280426P	65280425P	1 600
1	60280427P	65280426P	2 000
1		65280428P	2 500
Right hand – double bar 450 to 1 449 mm			
1	60390424P		2 500
1	60390426P	65390425P	3 200
1	60390427P	65390426P	4 000
1		65390428P	5 000

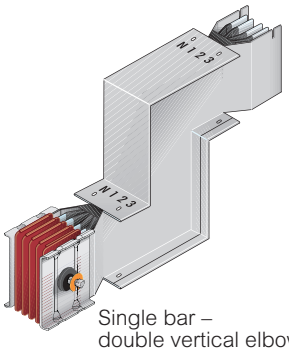
Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

SCP super compact busbar
double elbows



Single bar –
double horizontal elbow



Single bar –
double vertical elbow

Selection charts **p. 62-65**
Dimensions and technical information **p. 96-97**
Technical data **p. 112-117**

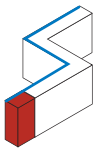
High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Elbows are supplied with pre-installed monobloc and are able to change direction with standard or bespoke dimensions

Double horizontal elbows – bespoke dimensions[1]

Please specify required length when ordering (see p. 96 for configuration)

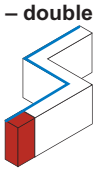
Left + right hand – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280350P		630
1	60280351P	65280350P	800
1	60280352P	65280351P	1 000
1	60280354P	65280353P	1 250
1	60280356P	65280355P	1 600
1	60280357P	65280356P	2 000
1		65280358P	2 500



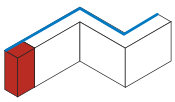
Left + right hand – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390354P		2 500
1	60390356P	65390355P	3 200
1	60390357P	65390356P	4 000
1		65390358P	5 000



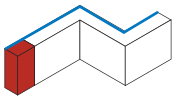
Right + left hand – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280340P		630
1	60280341P	65280340P	800
1	60280342P	65280341P	1 000
1	60280344P	65280343P	1 250
1	60280346P	65280345P	1 600
1	60280347P	65280346P	2 000
1		65280348P	2 500



Right + left hand – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390344P		2 500
1	60390346P	65390345P	3 200
1	60390347P	65390346P	4 000
1		65390348P	5 000



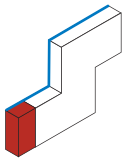
1 : Standard dimensions 300 + 300 + 300 mm

Double vertical elbows – bespoke dimensions[2]

Please specify required length when ordering (see p. 97 for configuration)

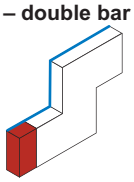
Left + right hand – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280450P		630
1	60280451P	65280450P	800
1	60280452P	65280451P	1 000
1	60280454P	65280453P	1 250
1	60280456P	65280455P	1 600
1	60280457P	65280456P	2 000
1		65280458P	2 500



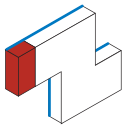
Left + right hand – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390454P		2 500
1	60390456P	65390455P	3 200
1	60390457P	65390456P	4 000
1		65390458P	5 000



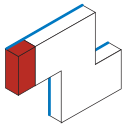
Right + left hand – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280440P		630
1	60280441P	65280440P	800
1	60280442P	65280441P	1 000
1	60280444P	65280443P	1 250
1	60280446P	65280445P	1 600
1	60280447P	65280446P	2 000
1		65280448P	2 500



Right + left hand – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390444P		2 500
1	60390446P	65390445P	3 200
1	60390447P	65390446P	4 000
1		65390448P	5 000

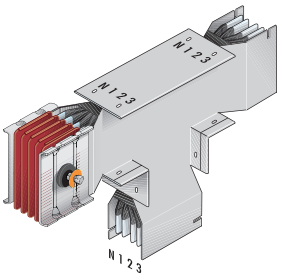


2 : Standard dimensions 300 + 300 + 300 mm single bar
and 450 + 450 + 450 mm double bar

Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

SCP super compact busbar
vertical tees



Single bar - vertical tee

Selection charts **p. 62-65**
Dimensions and technical information **p. 97**
Technical data **p. 112-117**

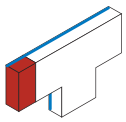
High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Tees are supplied with pre-installed monobloc and are able to change direction with standard or bespoke dimensions

Vertical tees – bespoke dimensions[1]

Please specify required length when ordering (see p. 97 for configuration)

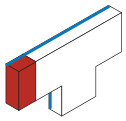
Right hand female – single bar 300 to 1 299 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280800P		630
1	60280801P	65280800P	800
1	60280802P	65280801P	1 000
1	60280804P	65280803P	1 250
1	60280806P	65280805P	1 600
1	60280807P	65280806P	2 000
1		65280808P	2 500



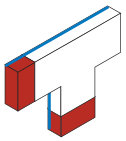
Right hand female – double bar 450 to 1 449 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390804P		2 500
1	60390806P	65390805P	3 200
1	60390807P	65390806P	4 000
1		65390808P	5 000



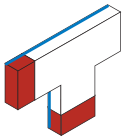
Right hand male – single bar 300 to 1 299 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280810P		630
1	60280811P	65280810P	800
1	60280812P	65280811P	1 000
1	60280814P	65280813P	1 250
1	60280816P	65280815P	1 600
1	60280817P	65280816P	2 000
1		65280818P	2 500



Right hand male – double bar 450 to 1 449 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390814P		2 500
1	60390816P	65390815P	3 200
1	60390817P	65390816P	4 000
1		65390818P	5 000

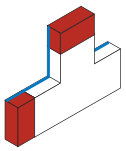


Vertical tees – bespoke dimensions (continued)[1]

Please specify required length when ordering (see p. 97 for configuration)

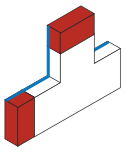
Left hand male – single bar 300 to 1 299 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280820P		630
1	60280821P	65280820P	800
1	60280822P	65280821P	1 000
1	60280824P	65280823P	1 250
1	60280826P	65280825P	1 600
1	60280827P	65280826P	2 000
1		65280828P	2 500



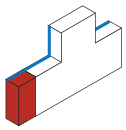
Left hand male – double bar 450 to 1 449 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390824P		2 500
1	60390826P	65390825P	3 200
1	60390827P	65390826P	4 000
1		65390828P	5 000



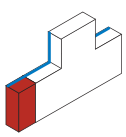
Left hand female – single bar 300 to 1 299 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280830P		630
1	60280831P	65280830P	800
1	60280832P	65280831P	1 000
1	60280834P	65280833P	1 250
1	60280836P	65280835P	1 600
1	60280837P	65280836P	2 000
1		65280838P	2 500



Left hand female – double bar 450 to 1 449 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390834P		2 500
1	60390836P	65390835P	3 200
1	60390837P	65390836P	4 000
1		65390838P	5 000

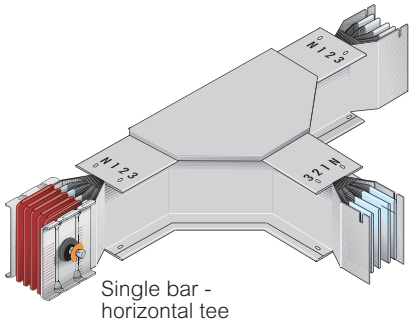


Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

1 : Standard dimensions 300 + 300 + 300 mm single bar and 600 + 600 + 600 mm double bar

SCP super compact busbar
horizontal tees



Single bar - horizontal tee

Selection charts **p. 62-65**
Dimensions and technical information **p. 98**
Technical data **p. 112-117**

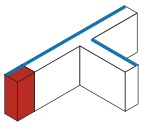
High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
Designed to be maintenance-free, except for the periodic and compulsory inspections required by the Standard IEC 60364
Tees are supplied with pre-installed monobloc and are able to change direction with standard or bespoke dimensions

Horizontal tees – bespoke dimensions[1]

Please specify required length when ordering (see p. 98 for configuration)

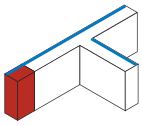
Right hand female – single bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280700P		630
1	60280701P	65280700P	800
1	60280702P	65280701P	1 000
1	60280704P	65280703P	1 250
1	60280706P	65280705P	1 600
1	60280707P	65280706P	2 000
1		65280708P	2 500



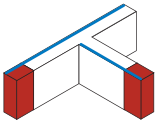
Right hand female – double bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390704P		2 500
1	60390706P	65390705P	3 200
1	60390707P	65390706P	4 000
1		65390708P	5 000



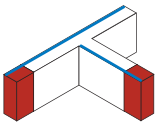
Right hand male – single bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280710P		630
1	60280711P	65280710P	800
1	60280712P	65280711P	1 000
1	60280714P	65280713P	1 250
1	60280716P	65280715P	1 600
1	60280717P	65280716P	2 000
1		65280718P	2 500



Right hand male – double bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390714P		2 500
1	60390716P	65390715P	3 200
1	60390717P	65390716P	4 000
1		65390718P	5 000

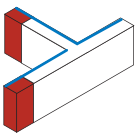


Horizontal tees – bespoke dimensions (continued)[1]

Please specify required length when ordering (see p. 98 for configuration)

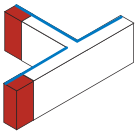
Left hand male – single bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280720P		630
1	60280721P	65280720P	800
1	60280722P	65280721P	1 000
1	60280724P	65280723P	1 250
1	60280726P	65280725P	1 600
1	60280727P	65280726P	2 000
1		65280728P	2 500



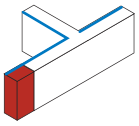
Left hand male – double bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390724P		2 500
1	60390726P	65390725P	3 200
1	60390727P	65390726P	4 000
1		65390728P	5 000



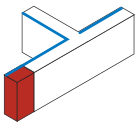
Left hand female – single bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60280730P		630
1	60280731P	65280730P	800
1	60280732P	65280731P	1 000
1	60280734P	65280733P	1 250
1	60280736P	65280735P	1 600
1	60280737P	65280736P	2 000
1		65280738P	2 500



Left hand female – double bar 550 to 1 049 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60390734P		2 500
1	60390736P	65390735P	3 200
1	60390737P	65390736P	4 000
1		65390738P	5 000

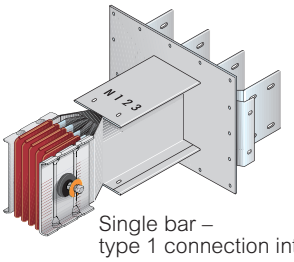


Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

1 : Standard dimensions 600 + 600 + 600 mm

SCP super compact busbar
connection interfaces



Single bar –
type 1 connection interface


For EdM cast resin transformers compatibility table **p. 101**

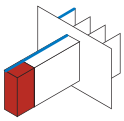
Selection charts **p. 62-65**
Dimensions and technical information **p. 98-99**
Coverplate and bar drilling details **p. 100**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
For connecting the busbar to the cabinet or transformer

Connection interfaces – in-line standard dimensions 300 mm

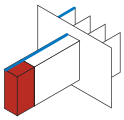
Type 1 male – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281010P		630
1	60281011P	65281010P	800
1	60281012P	65281011P	1 000
1	60281014P	65281013P	1 250
1	60281016P	65281015P	1 600
1	60281017P	65281016P	2 000
1		65281018P	2 500



Type 1 male – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391014P		2 500
1	60391016P	65391015P	3 200
1	60391017P	65391016P	4 000
1		65391018P	5 000



Type 2 female – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281000P		630
1	60281001P	65281000P	800
1	60281002P	65281001P	1 000
1	60281004P	65281003P	1 250
1	60281006P	65281005P	1 600
1	60281007P	65281006P	2 000
1		65281008P	2 500

Type 2 female – double bar

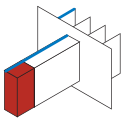
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391004P		2 500
1	60391006P	65391005P	3 200
1	60391007P	65391006P	4 000
1		65391008P	5 000

Connection interfaces – in-line bespoke dimensions

Please specify required length when ordering (see p.98 for configuration)

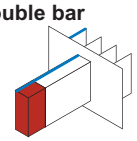
Type 1 male - single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281030P		630
1	60281031P	65281030P	800
1	60281032P	65281031P	1 000
1	60281034P	65281033P	1 250
1	60281036P	65281035P	1 600
1	60281037P	65281036P	2 000
1		65281038P	2 500



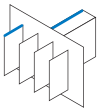
Type 1 male - double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391034P		2 500
1	60391036P	65391035P	3 200
1	60391037P	65391036P	4 000
1		65391038P	5 000



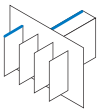
Type 2 female - single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281020P		630
1	60281021P	65281020P	800
1	60281022P	65281021P	1 000
1	60281024P	65281023P	1 250
1	60281026P	65281025P	1 600
1	60281027P	65281026P	2 000
1		65281028P	2 500



Type 2 female - double bar

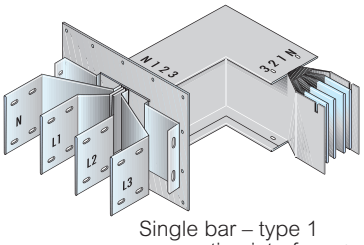
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391024P		2 500
1	60391026P	65391025P	3 200
1	60391027P	65391026P	4 000
1		65391028P	5 000



Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

SCP super compact busbar
connection interfaces + horizontal elbows



Single bar – type 1
connection interface +
horizontal elbow

For EdM cast resin transformers compatibility table **p. 101**

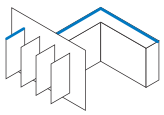
Selection charts **p. 62-65**
Dimensions and technical information **p. 98**
Coverplate and bar drilling details **p. 100**
Technical data **p. 112-117**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
For connecting the busbar to the cabinet or transformer

Connection interfaces + horizontal elbows – bespoke dimensions[1]

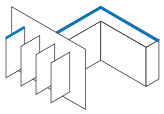
Please specify required length when ordering (see p. 98 for configuration)

Type 1 female – single bar



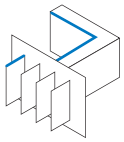
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281300P		630
1	60281301P	65281300P	800
1	60281302P	65281301P	1 000
1	60281304P	65281303P	1 250
1	60281306P	65281305P	1 600
1	60281307P	65281306P	2 000
1		65281308P	2 500

Type 1 female – double bar



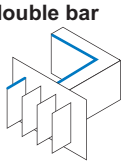
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391304P		2 500
1	60391306P	65391305P	3 200
1	60391307P	65391306P	4 000
1		65391308P	5 000

Type 2 female – single bar



Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281310P		630
1	60281311P	65281310P	800
1	60281312P	65281311P	1 000
1	60281314P	65281313P	1 250
1	60281316P	65281315P	1 600
1	60281317P	65281316P	2 000
1		65281318P	2 500

Type 2 female – double bar

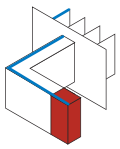


Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391314P		2 500
1	60391316P	65391315P	3 200
1	60391317P	65391316P	4 000
1		65391318P	5 000

Connection interfaces + horizontal elbows – bespoke dimensions (continued)[1]

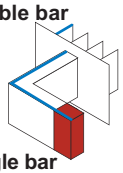
Please specify required length when ordering (see p. 98 for configuration)

Type 3 male – single bar



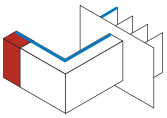
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281320P		630
1	60281321P	65281320P	800
1	60281322P	65281321P	1 000
1	60281324P	65281323P	1 250
1	60281326P	65281325P	1 600
1	60281327P	65281326P	2 000
1		65281328P	2 500

Type 3 male – double bar



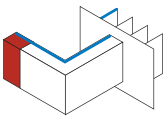
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391324P		2 500
1	60391326P	65391325P	3 200
1	60391327P	65391326P	4 000
1		65391328P	5 000

Type 4 male – single bar



Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281330P		630
1	60281331P	65281330P	800
1	60281332P	65281331P	1 000
1	60281334P	65281333P	1 250
1	60281336P	65281335P	1 600
1	60281337P	65281336P	2 000
1		65281338P	2 500

Type 4 male – double bar



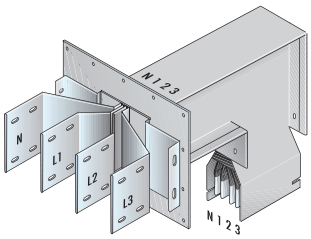
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391334P		2 500
1	60391336P	65391335P	3 200
1	60391337P	65391336P	4 000
1		65391338P	5 000

Key : How to select the correct configuration of bar
The 4th digit of an SCP Cat. No. determines the busbar configuration
All examples on this page show 4 conductor versions, ie. 8 or 9;
5 conductor and 200% neutral versions are available by substituting the 4th digit with 4, 5, 6 or 7, as shown below

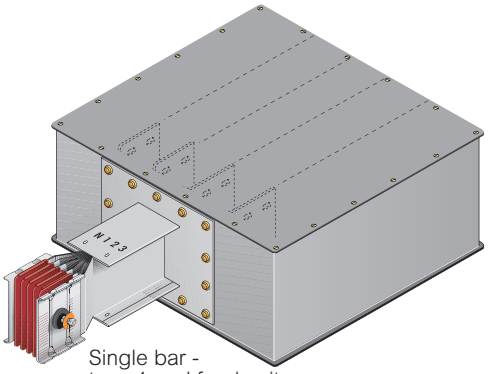
	3L + N + PE	3L + N + FE+ PE	3L + 2N + PE
Single bar	8	4	5
Double bar	9	6	7

1 : Standard dimensions 300 + 300 mm

SCP super compact busbar
connection interfaces + vertical elbows and feed units



Single bar – type 1 connection interface + vertical elbow



Single bar - type 1 end feed unit

Selection charts **p. 62-65**
Dimensions and technical information **p. 99**
Coverplate and bar drilling details **p. 100**
Technical data **p. 112-117**

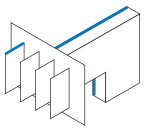
High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2
For connecting the busbar to the cabinet or transformer
End feed units have rear cable input and aluminium gland plate(s) for cable entry – 170 x 410 mm. Single bar 1 plate, double bar 2 plates

Connection interfaces + vertical elbows – bespoke dimensions[1]

Please specify required length when ordering (see p. 99 for configuration)

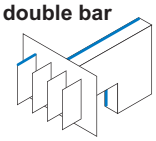
Type 1 female – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281400P		630
1	60281401P	65281400P	800
1	60281402P	65281401P	1 000
1	60281404P	65281403P	1 250
1	60281406P	65281405P	1 600
1	60281407P	65281406P	2 000
		65281408P	2 500



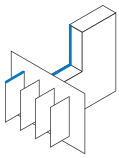
Type 1 female – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391404P		2 500
1	60391406P	65391405P	3 200
1	60391407P	65391406P	4 000
1		65391408P	5 000



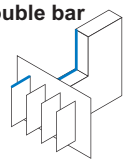
Type 2 female – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281410P		630
1	60281411P	65281410P	800
1	60281412P	65281411P	1 000
1	60281414P	65281413P	1 250
1	60281416P	65281415P	1 600
1	60281417P	65281416P	2 000
1		65281418P	2 500



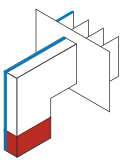
Type 2 female – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391414P		2 500
1	60391416P	65391415P	3 200
1	60391417P	65391416P	4 000
1		65391418P	5 000



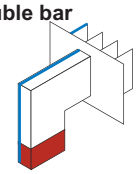
Type 3 male – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281420P		630
1	60281421P	65281420P	800
1	60281422P	65281421P	1 000
1	60281424P	65281423P	1 250
1	60281426P	65281425P	1 600
1	60281427P	65281426P	2 000
1		65281428P	2 500



Type 3 male – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391424P		2 500
1	60391426P	65391425P	3 200
1	60391427P	65391426P	4 000
1		65391428P	5 000



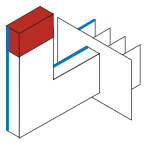
1 : Standard dimensions 300 + 300 mm single bar and 450 + 450 mm double bar

Connection interfaces + vertical elbows – bespoke dimensions (continued)[1]

Please specify required length when ordering (see p. 99 for configuration)

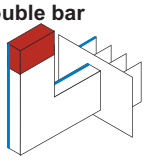
Type 4 male – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281430P		630
1	60281431P	65281430P	800
1	60281432P	65281431P	1 000
1	60281434P	65281433P	1 250
1	60281436P	65281435P	1 600
1	60281437P	65281436P	2 000
1		65281438P	2 500



Type 4 male – double bar

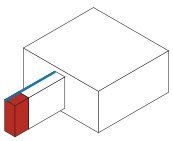
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391434P		2 500
1	60391436P	65391435P	3 200
1	60391437P	65391436P	4 000
1		65391438P	5 000



End feed unit – standard 300 mm

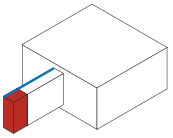
Type 1 male – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281110P		630
1	60281111P	65281110P	800
1	60281112P	65281111P	1 000
1	60281114P	65281113P	1 250
1	60281116P	65281115P	1 600
1	60281117P	65281116P	2 000
1		65281118P	2 500



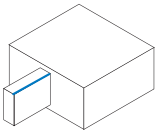
Type 1 male – double bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391114P		2 500
1	60391116P	65391115P	3 200
1	60391117P	65391116P	4 000
1		65391118P	5 000



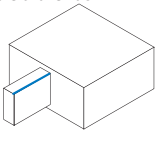
Type 2 female – single bar

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60281100P		630
1	60281101P	65281100P	800
1	60281102P	65281101P	1 000
1	60281104P	65281103P	1 250
1	60281106P	65281105P	1 600
1	60281107P	65281106P	2 000
1		65281108P	2 500



Type 2 female – double bar

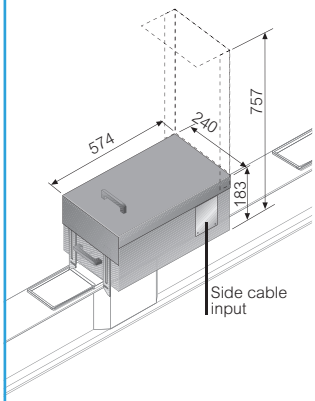
Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
1	60391104P		2 500
1	60391106P	65391105P	3 200
1	60391107P	65391106P	4 000
1		65391108P	5 000



SCP tap-off boxes : plug-in type 63-630 A
with AC21A disconnection on the door

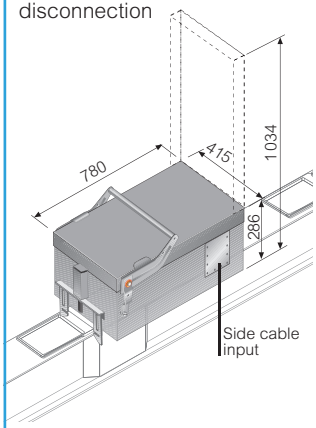
Plug-in boxes can be fitted on any length with tap-off outlets irrespective of rating and conductor material

Cover with AC21A disconnection



From 63 to 160 A

Cover with AC21A disconnection



From 250 to 630 A

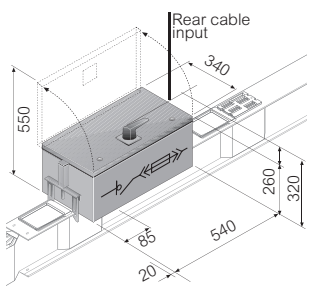
With fuse carrier (fuses not included)				
Tap-off rating	**Fuse carrier**	**3L + N + PE**	**3L + N + FE + PE**	**3L + 2N + PE**
63 A	CH22	65285031P	65245021P	65255031P
125 A	NH00	65285032P	65245022P	65255032P
160 A	NH00	65285033P	65245023P	65255033P
250 A	NH2	65285034P	65245024P	65255034P
630 A	NH3	65285036P	65245026P	65255036P
With switch disconnector (AC23) and fuse carrier (fuses not included)				
Tap-off rating	**Fuse carrier**	**3L + N + PE**	**3L + N + FE + PE**	**3L + 2N + PE**
63 A	NH000	65285051P	65245041P	65255051P
125 A	NH00	65285052P	65245042P	65255052P
160 A	NH00	65285053P	65245043P	65255053P
250 A	NH1	65285054P	65245044P	65255054P
400 A	NH2	65285055P	65245045P	65255055P
630 A	NH3	65285076P	65245066P	65255076P
Empty version				
Tap-off rating		**3L + N + PE**	**3L + N + FE + PE**	**3L + 2N + PE**
63 A		65285011P	65245001P	65255011P
125 A		65285012P	65245002P	65255012P
160 A		65285013P	65245003P	65255013P
250 A		65285014P	65245004P	65255014P
630 A		65285016P	65245006P	65255016P
Fully fitted tap-offs c/w 4P Legrand MCCB with rotary handle[1]				
Tap-off rating	**Breaker rating**	**3L + N + PE**	**3L + N + FE + PE**	**3L + 2N + PE**
63 A	40 A	65285011PM4RB	65245001PM4RB	65255011PM4RB
	63 A	65285011PM4RC	65245001PM4RC	65255011PM4RC
125 A	100 A	65285012PM4RD	65245002PM4RD	65255012PM4RD
	125 A	65285012PM4RE	65245002PM4RE	65255012PM4RE
160 A	160 A	65285013PM4RF	65245003PM4RF	65255013PM4RF
250 A	200 A	65285014PM4RG	65245004PM4RG	65255014PM4RG
	250 A	65285014PM4RH	65245004PM4RH	65255014PM4RH
630 A	400 A	65285016PM4RI	65245006PM4RI	65255016PM4RI
	630 A	65285016PM4RJ	65245006PM4RJ	65255016PM4RJ
Fully fitted tap-offs c/w FREE ISSUE MCCB				
Tap-off rating	**Breaker rating**	**3L + N + PE**	**3L + N + FE + PE**	**3L + 2N + PE**
63 A	40 A	65285011PMFB	65245001PMFB	65255011PMFB
	63 A	65285011PMFC	65245001PMFC	65255011PMFC
125 A	100 A	65285012PMFD	65245002PMFD	65255012PMFD
	125 A	65285012PMFE	65245002PMFE	65255012PMFE
160 A	160 A	65285013PMFF	65245003PMFF	65255013PMFF
250 A	200 A	65285014PMFG	65245004PMFG	65255014PMFG
	250 A	65285014PMFH	65245004PMFH	65255014PMFH
630 A	400 A	65285016PMFI	65245006PMFI	65255016PMFI
	630 A	65285016PMFJ	65245006PMFJ	65255016PMFJ

1 : For MCCB technical data, see p. 118-125

Dimensions and technical information **p. 102-103**
Technical data **p. 112-117**

SCP tap-off boxes : plug-in type 125-400 A
: bolt-on type 125-1 250 A

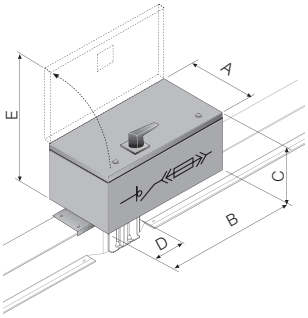
Plug-in tap-offs 125-1 250 A (remain live with door open)



With switch disconnector (AC23) and fuse carrier (fuses not included)

Tap-off rating	Fuse carrier	3L + N + PE	3L + N + FE + PE	3L + 2N + PE
125 A	NH00	65282001P	N/A	N/A
250 A	NH1	65282002P	N/A	N/A
400 A	NH2	65282003P	N/A	N/A

Bolt-on tap-offs – with switch disconnector (AC23) and fuse carrier 125 A to 1 250 A (fuses not included)



The boxes cannot be installed simultaneously on both sides of the same junction
The bolted boxes are to be installed directly on the junction when the busbar is disconnected and not energised
Dimensions and technical information **p. 103**. Technical data **p. 112-117**

Busbar system – aluminium

Tap-off rating/ fuse carrier	Single bar: 630 A 800 A 1 000 A 1 250 A	Single bar: 1 600 A	Single bar: 2 000 A	Double bar: 2 500 A	Double bar: 3 200 A	Double bar: 4 000 A
125 A NH00	65281811P	65281812P	65281814P	65391812P	65391813P	65391814P
250 A NH1	65281821P	65281822P	65281824P	65391822P	65391823P	65291824P
400 A NH2	65281831P	65281832P	65281834P	65391832P	65391833P	65291834P
630 A NH3	65286041P	65286042P	65286044P	65396042P	65396043P	65396044P
800 A NH4	65281851P	65281852P	65281854P	65391852P	65391853P	65291854P
1 000 A NH4	65281861P	65281862P	65281864P	65391862P	65391863P	65291864P
1 250 A NH4	65281871P	65281872P	65281874P	65391872P	65391873P	65291874P

Busbar system – copper

Tap-off rating/ fuse carrier	Single bar: 800 A 1 000 A 1 250 A	Single bar: 1 600 A 2 000 A	Single bar: 2 500 A	Double bar: 3 200 A	Double bar: 4 000 A	Double bar: 5 000 A
125 A NH00	65281811P	65281812P	65281814P	65391812P	65391813P	65391814P
250 A NH1	65281821P	65281822P	65281824P	65391822P	65391823P	65391824P
400 A NH2	65281831P	65281832P	65281834P	65391832P	65391833P	65391834P
630 A NH3	65286041P	65286042P	65286044P	65396042P	65396043P	65396044P
800 A NH4	65281851P	65281852P	65281854P	65391852P	65391853P	65391854P
1 000 A NH4	65281861P	65281862P	65281864P	65391862P	65391863P	65391864P
1 250 A NH4	65281871P	65281872P	65281874P	65391872P	65391873P	65391874P

Dimensions of the box

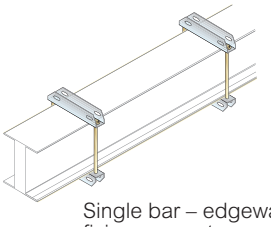
Box rating	125-400 A	630 A	800-1 250 A
(A) mm	365	400	450
(B) mm	630	750	1 050
(C) mm	270	280	300
(D) mm	95	115	115
(E) mm	635	680	750

Rated insulating AC voltage	Ui (V)	1 000
Rated impulse withstand voltage	Uimp (kV)	12
Type of rated duty	–	AC23A
Rated conditional short circuit current	(kA)	100

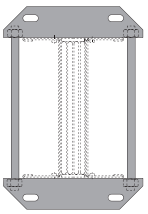
CEI EN 60947-3

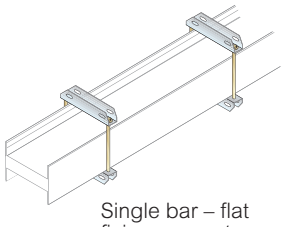
Dimensions and technical information **p. 103**
Technical data **p. 112-117**

SCP super compact busbar
fixing supports for horizontal installation

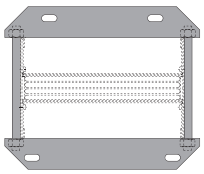


Single bar – edgeways fixing support





Single bar – flat fixing support



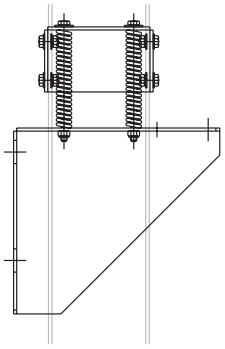
Dimensions and technical information **p. 104**

Fixing supports for fixing the busbar to the structure of the building

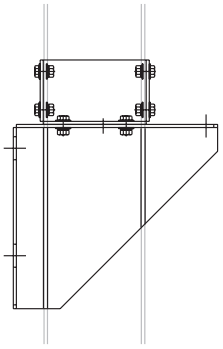
Pack	Cat. Nos.		Suspension brackets for edgeways installation
	Aluminium busbar	Copper busbar	**Single bar**
			Height : 210 mm
			Rating (A)
1	65202001		630 to 1 250
1		65202001	800 to 1 250
			Height : 250 mm
			Rating (A)
1	65202002		1 600
1		65202002	1 600 to 2 000
			Height : 300 mm
			Rating (A)
1	65202004		2 000
1		65202004	2 500
			Double bar
			Height : 460 mm
			Rating (A)
1	65222002		2 500
1		65222002	3 200
			Height : 520 mm
			Rating (A)
1	65222003		3 200
1		65222003	4 000
			Height : 560 mm
			Rating (A)
1	65222004		4 000
1		65222004	5 000

Pack	Cat. Nos.		Suspension brackets for flat installation
	Aluminium busbar	Copper busbar	**Single bar**
			Height : 190 mm
			Rating (A)
1	65202001		630 to 1 250
1		65202001	800 to 1 250
			Height : 315 mm
			Rating (A)
1	65202013		1 600 to 2 000
1		65202013	1 600 to 2 500
			Double bar
			Height : 430 mm
			Rating (A)
1	65202112		2 500
1		65202112	3 200
			Height : 490 mm
			Rating (A)
1	65202113		3 200
1		65202113	4 000
			Height : 530 mm
			Rating (A)
1	65202114		4 000
1		65202114	5 000

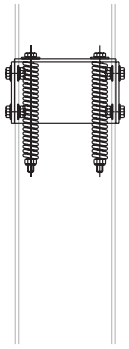
SCP super compact busbar
fixing supports for vertical installation



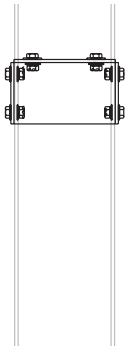
Fixing support with bracket and springs



Fixing support with bracket



Fixing support with springs



Fixing support – bracket only

Dimensions and technical information **p. 105-106**

Fixing supports for fixing the busbar to the structure of the building
For vertical installations and special applications

Fixing supports with bracket and springs

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
Single bar			
1	65213711		630 to 1 250
1	65213712		1 600
1		65213711	800 to 1 250
1		65213712	1 600 to 2 000
1	65213714		2 000
1		65213714	2 500
Double bar			
1	65213742		2 500
1		65213742	3 200
1	65213743		3 200
1		65213743	4 000
1	65213744		4 000
1		65213744	5 000

Fixing supports with bracket

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
Single bar – anti-seismic rated			
1	65213721		630 to 1 250
1		65213721	800 to 1 250
1	65213722		1 600
1		65213722	1 600 to 2 000
1	65213724		2 000
1		65213724	2 500
Double bar – not anti-seismic rated			
1	65213752		2 500
1		65213752	3 200
1	65213753		3 200
1		65213753	4 000
1	65213754		4 000
1		65213754	5 000
Double bar – anti-seismic rated			
1	65213792		2 500
1		65213792	3 200
1	65213793		3 200
1		65213793	4 000
1	65213794		4 000
1		65213794	5 000

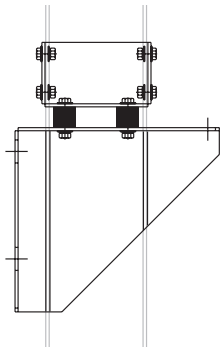
Fixing supports with springs

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
Single bar			
1	65213701		630 to 1 250
1		65213701	800 to 1 250
1	65213702		1 600
1		65213702	1 600 to 2 000
1	65213704		2 000
1		65213704	2 500
Double bar			
1	65213732		2 500
1		65213732	3 200
1	65213733		3 200
1		65213733	4 000
1	65213734		4 000
1		65213734	5 000

Fixing supports – bracket only

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)
Single bar			
1	65213761		630 to 1 250
1		65213761	800 to 1 250
1	65213762		1 600
1		65213762	1 600 to 2 000
1	65213764		2 000
1		65213764	2 500
Double bar			
1	65213772		2 500
1		65213772	3 200
1	65213773		3 200
1		65213773	4 000
1	65213774		4 000
1		65213774	5 000

SCP super compact busbar
fixing supports for vertical installation (continued)



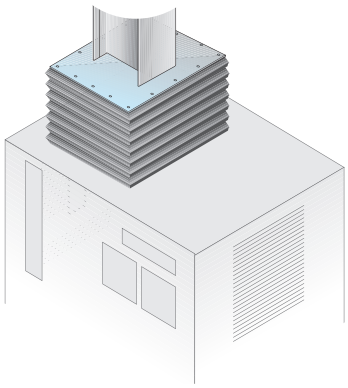
Fixing support for Naval applications

Dimensions and technical information **p. 105-106**

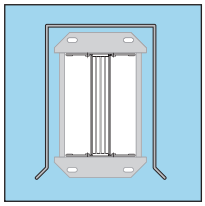
Fixing supports for fixing the busbar to the structure of the building

Pack	Cat. Nos.		Fixing supports for naval applications
	Aluminium	Copper	**Double bar**
			Rating (A)
1	65213782		2 500
1		65213782	3 200
1	65213783		3 200
1		65213783	4 000
1	65213784		4 000
1		65213784	5 000

SCP super compact busbar
protective bellows



Protective bellows – single bar



Protective covers for outdoor applications available on request

Contact us on +44 (0) 845 600 6266

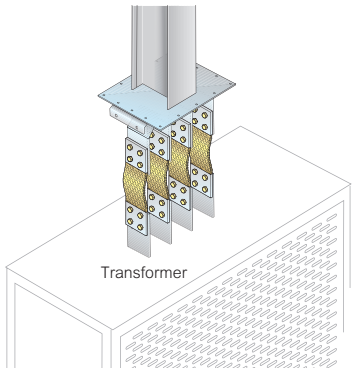
Dimensions and technical information **p. 107**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors SCP complies with BS EN 60439-2

Pack	Cat. Nos.		Protective bellows
	Aluminium	Copper	Recommended for protection of the interface connection on panel boards, dry-type transformer with enclosure and oil-type transformers For EdM cast resin transformers, custom-made connections are available upon request (see p. 83)
			Single bar
			Rating (A)
1	SF766040		630 to 2 000
1		SF766040	800 to 2 500
			Double bar
			Rating (A)
1	SF927140		2 500 to 4 000
1		SF927140	3 200 to 5 000

SCP super compact busbar
transformer connections

Flexible braid connection



Installation example

Dimensions and technical information **p. 108**

High power busbar from 630 A to 4 000 A with aluminium alloy conductors and from 800 A to 5 000 A with copper conductors
SCP complies with BS EN 60439-2

Flexible braid connections

When ordering, please specify hole dimensions on transformer side (A, B, Ø D) and length L (see p. 108)

Length : 300 - 450 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)	No. of braids per phase
1	FC100010		630	1
1	FC100010	FC100010	800	1
1	FC200010	FC200010	1 000	1
1	FC300010	FC300010	1 250	1
1	FC500010	FC500010	1 600	1
1	FC600010	FC600010	2 000	1
1	FC400010	FC400010	2 500	2
1	FC500010	FC500010	3 200	2
1	FC600010	FC600010	4 000	2
1		FC700010	5 000	2

Length : 451 - 600 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)	No. of braids per phase
1	FC100020		630	1
1	FC100020	FC100020	800	1
1	FC200020	FC200020	1 000	1
1	FC300020	FC300020	1 250	1
1	FC500020	FC500020	1 600	1
1	FC600020	FC600020	2 000	1
1	FC400020	FC400020	2 500	2
1	FC500020	FC500020	3 200	2
1	FC600020	FC600020	4 000	2
1		FC700020	5 000	2

Flexible braid connections (continued)

Length : 601 - 750 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)	No. of braids per phase
1	FC100030		630	1
1	FC100030	FC100030	800	1
1	FC200030	FC200030	1 000	1
1	FC300030	FC300030	1 250	1
1	FC500030	FC500030	1 600	1
1	FC600030	FC600030	2 000	1
1	FC400030	FC400030	2 500	2
1	FC500030	FC500030	3 200	2
1	FC600030	FC600030	4 000	2
1		FC700030	5 000	2

Length : over 750 mm

Pack	Cat. Nos. Aluminium	Cat. Nos. Copper	Rating (A)	No. of braids per phase
1	FC100099		630	1
1	FC100099	FC100099	800	1
1	FC200099	FC200099	1 000	1
1	FC300099	FC300099	1 250	1
1	FC500099	FC500099	1 600	1
1	FC600099	FC600099	2 000	1
1	FC400099	FC400099	2 500	2
1	FC500099	FC500099	3 200	2
1	FC600099	FC600099	4 000	2
1		FC700099	5 000	2

SCP super compact busbar
technical information

■ General features

SCP complies with BS EN 60439-2
The rated current of Zucchini busbar trunking systems is always rated at the average ambient temperature of 40°C against the 35°C required by the standard
The outer casing of the SCP range consists of four C-ribbed section bars, bordered and riveted (thickness 1·5 mm), with excellent mechanical, electric and heat loss efficiency
The sheet metal is manufactured from galvanised steel, treated according to UNI EN 10327 and painted with RAL 7035 resins with a high resistance to chemical agents
The standard degree of protection is IP 55 and with certain accessories (see p. 82), it can be installed outdoors
The busbar conductors have a rectangular cross-section with rounded corners. There are two versions :
- Electrolytic copper ETP 99.9 UNI EN13601
- Aluminum alloy treated over the entire surface with 5 galvanic processes (copper plating + tin plating)

The insulation between bars is ensured by a double sheath made with polyester film (total thickness 0·4 mm) Class B, Class F (155° C) thermal resistance available on request – contact us on +44 (0) 845 600 6266
All plastic components have a V1 self-extinguishing degree (as per UL94), are flame retardant and comply with the glow-wire test according to standards. The SCP range is halogen free

In order to facilitate storage and reduce installation time, the straight lengths and system components of the SCP range are supplied with a pre-installed monobloc for fast, easy and secure connection of the system
The junction contact is ensured by two silver-plated copper plates for each phase, insulated with red Class F thermoset plastic material
The monobloc has shearhead bolts : after tightening the nuts with a standard wrench, the outer head will break at the correct torque value, giving you the certainty that the connection has been made properly to guarantee safety and maximum performance over time
Finally, in order to completely verify the insulation level, every component with a monobloc undergoes an insulation test (phase-phase, phase-PE) at the factory with a test voltage of 5 000 V

■ Certificates

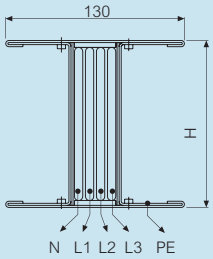
SCP has been given Type-Approval Certifications by the most prestigious Electro-technical agencies :

- Certificate of Compliance with Standards BS 60439-2 (ACAE - LOVAG)
- RINA Type-Approval (Italian Register of Shipping)
- ABS Type-Approval (American Bureau of Standard)
- GOST Type-Approval (Russia)
- REI120 fire resistance measurements
- Noise measurements (CESI)
- Fire resistance measurements with Fire Barrier
- Electromagnetic emissions measurements
- Mechanical vibration resistance measurements (Dynamic Test - ENEL HYDRO)

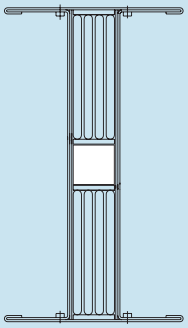
■ Standard versions

SCP line with 4 conductors
3L + N + PE, 3L + PEN, 3L + FE + PE

Note : for dimension H, see technical data section p. 112-117
PE : Protection earth
FE : Functional earth (clean earth)



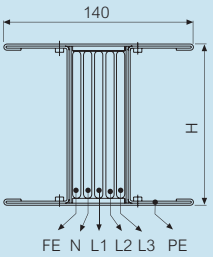
single bar



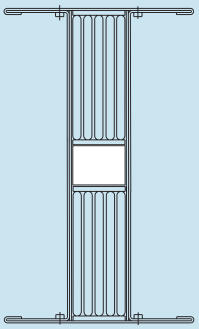
double bar

SCP5 line with 5 conductors
3L + N + FE + PE

Note : For dimension H, see technical data section p. 112-117
PE : Protection earth
FE : Functional earth (clean earth)



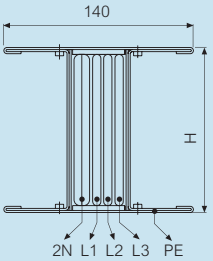
single bar



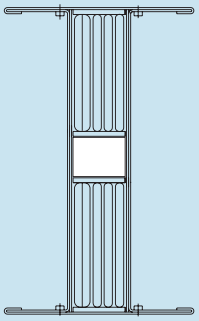
double bar

SCP2N 200% neutral line
3L + 2N + PE

Note : For dimension H, see technical data section p. 112-117
PE : Protection earth
FE : Functional earth (clean earth)



single bar

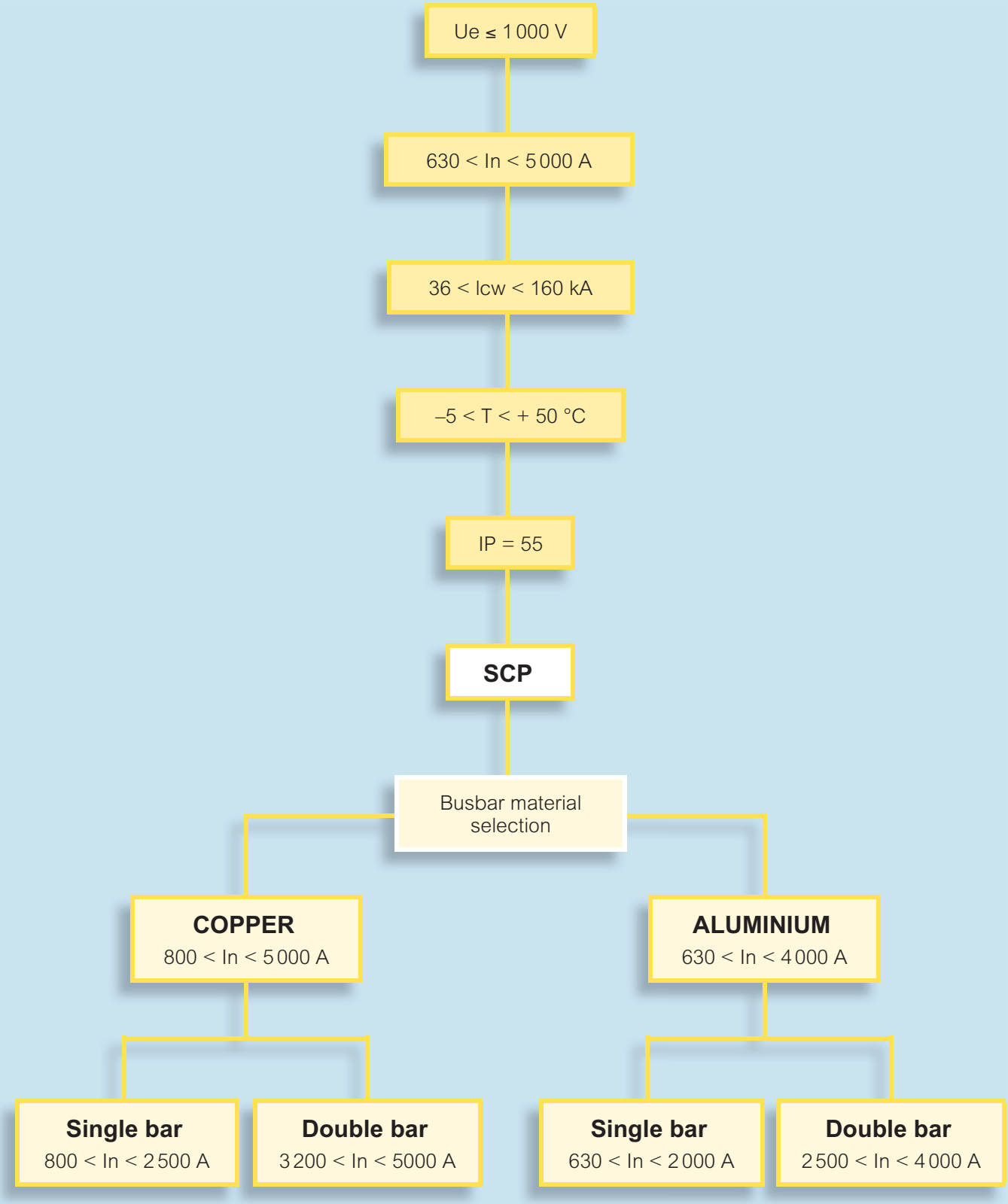


double bar

Special versions are available on request, contact us on +44 (0) 845 600 6266

All dimensions (mm) are nominal

■ Electric design criteria



SCP super compact busbar
technical information

■ Joule effect losses in busbars

Losses due to the Joule effect are essentially caused by the electrical resistance of the busbar
Lost energy is transformed into heat and contributes to the heating of the conduit of the environment
The calculation of power loss is useful data for correct sizing of the building air conditioning system

Three-phase regime losses are :

$$Pj = \frac{3 \cdot R_t \cdot I_b^2 \cdot L}{1\,000}$$

In single-phase regime :

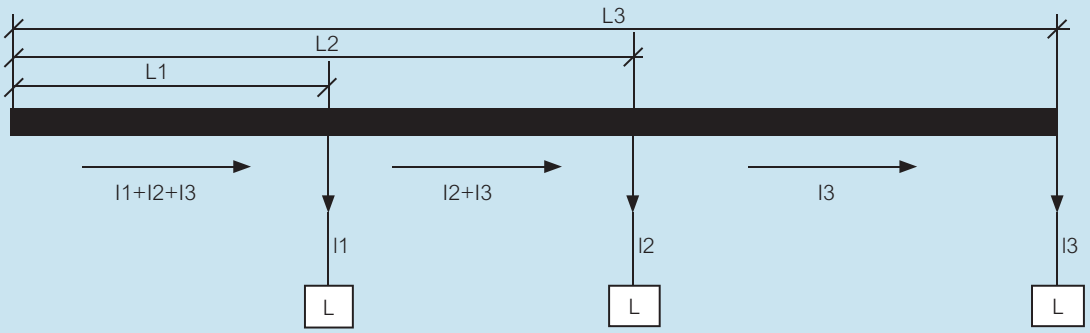
$$Pj = \frac{2 \cdot R_t \cdot I_b^2 \cdot L}{1\,000}$$

Where :
I_b = utilisation current (A)
R_t = phase resistance for unit of length of the busbar trunking system, measured at thermal regime (mΩ/m)
L = busbar length (m)

For accurate calculation, losses must be assessed trunk by trunk, taking into account the transiting currents ; for example, in the case of the distribution of the loads represented in the table below

	Length	Transiting current	Losses
1st trunk	L1	I1+I2+I3	$P1 = 3R_tL1(I1+I2+I3)^2$
2nd trunk	L2-L1	I2+I3	$P2 = 3R_t(L2-L1)\ (I2+I3)^2$
3rd trunk	L3-L2	I3	$P3 = 3R_t(L3-L2)\ (I3)^2$

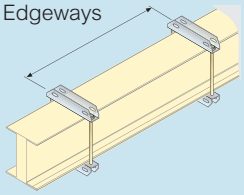
Total losses in the busbar trunking system Pt = P1 + P2 + P3



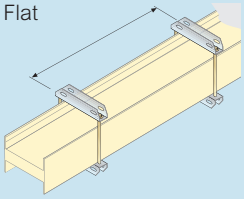
■ Losses based on the installation method

Thermal dispersion, rating and IP protection degree are independent from the type of installation (edgeways, flat, vertical)
This means that it is possible to install the SCP busbar trunking system as preferred, without having to consider a possible system downgrade

Edgeways



Flat



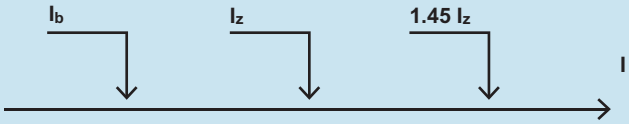
■ Overload protection

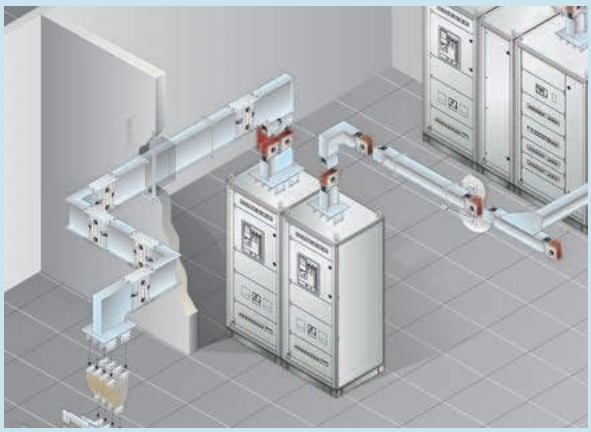
Busbar overload protection is ensured following the same criteria used for cables. It will be necessary to check the relationship :

$$I_b \leq I_n \leq I_z$$

Where :

I_b = circuit utilisation current
I_n = switch rated current
I_z = rating at permanent cable regime





The Ib utilisation current in a 3 phase system is calculated based on the following formula :

$$I_b = \frac{P_t \cdot \alpha \cdot \beta \cdot d}{\sqrt{3} \cdot Ue \cdot \cos\varphi_{\ medium}} \text{ (A)}$$

Where :

P_t = sum of the active powers of the loads installed (W)
d = power supply factor equal to 1 if the trunking is :
- only powered from one side
- powered from the centre or from both ends at the same time

Ue = operating voltage in (V)
$\cos\varphi m$ = average power factor of the loads
I_b = utilisation current (A)
α = diversity coefficient of the loads (.)
β = coefficient of utilisation of the loads (.)

The ambient temperature where the busbar trunking system is installed impacts on its rating
During the design stages, it is necessary to multiply the rating value at the reference temperature by a correction coefficient referred to the final operating temperature
All Zucchini products have been sized and tested for an average ambient temperature of 40 °C. For installation in environments with average daily temperatures lower than 40 °C, the rated current of the busbar must be multiplied by a k_t factor, which is higher than the unit for temperatures lower than 40 °C, and lower than the unit if the ambient temperature is higher than 40 °C

$$I_z = I_z0 \cdot K_t$$

Where :
- I_z0 is the current that the busbar trunking system can carry for an indefinite time at its reference temperature (40 °C)
- K_t is the correction coefficient for ambient temperature values other than the reference temperature, as shown in the following table

K_t correction coefficient for ambient temperature other than 40°C

Ambient temperature (°C)	15	20	25	30	35	40	45	50	55	60
k_t thermal correction factor	1·15	1·12	1·08	1·05	1·025	1	0·975	0·95	0·93	0·89

■ Selection of the busbar trunking system based on voltage drop

If the line is particularly long (> 100 m), it will be necessary to check the value of the voltage drop. For systems with power factor (cosφm) not lower than 0·8 the voltage loss can be calculated using the following formulas :

Three phase system

$$\Delta v = \frac{b \cdot \sqrt{3} \cdot I_b \cdot L \cdot (R_t \cdot \cos\varphi m + x \cdot \sin\varphi m)}{1\,000}$$

Single phase system

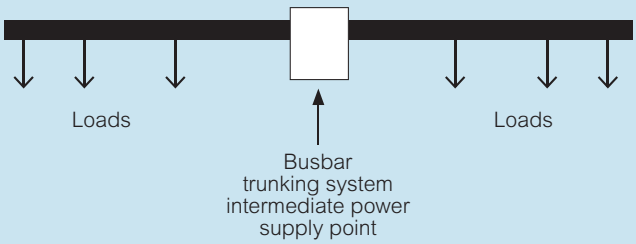
$$\Delta v = \frac{b \cdot 2 \cdot I_b \cdot L \cdot (R_t \cdot \cos\varphi m + x \cdot \sin\varphi m)}{1\,000}$$

The percentage voltage drop can be obtained from :

$$\Delta v\% = \frac{\Delta v}{Vr} \cdot 100$$

Where Vr is the system rated voltage

In order to limit the voltage drop in very long busbar trunking systems, it is possible to allow for a power supply at an intermediate position, rather than at the terminal point



Calculation of the voltage drop with loads not evenly distributed

If the load cannot be considered evenly distributed, the voltage drop may be determined more accurately using the relationships shown below

For the distribution of three phase loads, the voltage drop is calculated using the following formula, on the assumption (generally verified) that the section of busbar trunking is consistent :

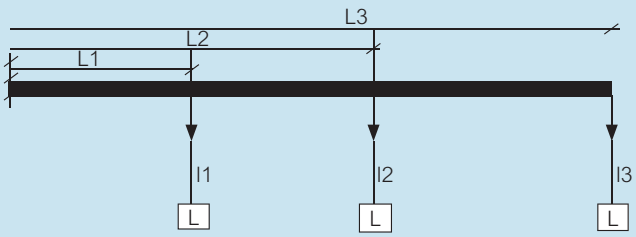
$$\Delta v = \sqrt{3}\,[R_t\,(I1L1\cos\varphi 1 + I2L1\cos\varphi 1 + I3L3\cos\varphi 3) + x\,(I1L1\sin\varphi 1 + I2L2\sin\varphi 2 + I3L3\sin\varphi 3)]$$

In general terms this becomes :

$$\Delta v = \frac{\sqrt{3}(R_t \cdot \sum Ii \cdot Li \cdot \cos\varphi mi + x \cdot \sum Ii \cdot Li \cdot \sin\varphi mi)}{1\,000}$$

If the three phase system and the power factor are not lower than cosφ = 0·7, the voltage loss may be calculated using the voltage drop coefficient shown in the table opposite

$$\Delta v\% = b \frac{k \cdot I_b \cdot L}{Vn} \cdot 100$$



Calculation of the voltage drop with loads not evenly distributed (continued)

The current distribution factor 'b' depends on how the circuit is fed and on the distribution of the electric loads along the busbar

The distribution factor of the current 'b'	
b = 2	Supplies at one end and load at the end of the line
b = 1	Supplies at one end and with load evenly distributed
b = 0·5	Supplies at both ends and with load evenly distributed
b = 0·5	Central supply with loads at both ends
b = 0·25	Central supply with load evenly distributed

Example : SCP 2 000 A Al for riser mains feed

I_b	= 1 600 A operating current
b = 1	supply from one end
k = 28·7	see technical data table, p. 112-117 (SCP 2 000 A Al cosφ = 0·85)
Cosφ	= 0·85
L	= 100 m line length
Vn	= 400 V operating voltage

$$\Delta v\% = 1 \cdot \frac{28{\cdot}7 \bullet 1\,600 \bullet 100}{400} \cdot 100 = 1{\cdot}15\%$$

Legend:

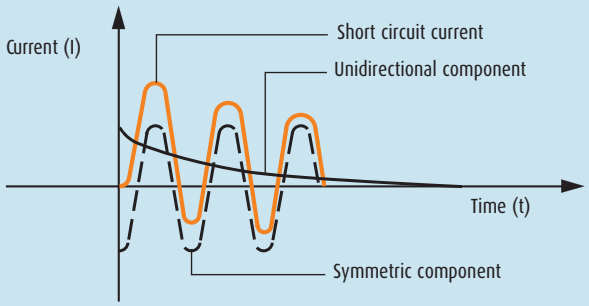
I_b	= the current that supplies the busbar (A)
Vn	= the voltage power supply of the busbar (V)
L	= the length of the busbar (m)
Δv%	= the voltage drop percentage
b	= the distribution factor of the current
k	= corresponding voltage drop factor a cosφ (V/m/A) (see technical data table, p. 112-117)
cosφ m	= average power factor of the loads
x	= phase reactance by unit of length of the busbar (mΩ/m)
R_t	= phase resistance by unit of length of the busbar (mΩ/m)
cosφ mi	= i-th load average power factor
Ii	= i-th load current (A)
Li	= distance of the i-th load from the origin of the busbar trunking system

■ Short circuit withstand

The CEI 64-8 standard indicates that, for the protection of the circuits of the system, it is necessary to allow for devices aimed at interrupting short circuit currents before these become dangerous due to the thermal and mechanical effects generated in the conductors and the connections. In order to size the electric system and the protection devices correctly, it is necessary to know the value of the estimated short circuit current at the point where this is to be created. This value enables selection of the correct protection devices based on their own tripping and closing powers, and to check the resistance to electro-dynamic stress of the busbar supports installed in control panels, and/or of the busbar trunking systems

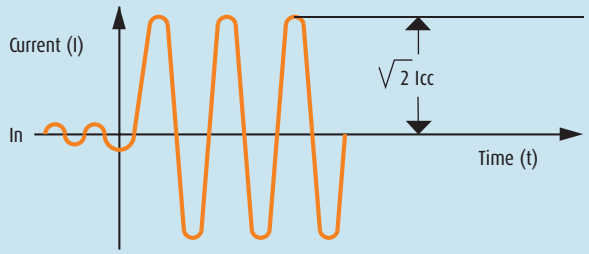
Characterisation of short circuit current

The estimated short circuit current at a point of the user system is the current that would occur if at the considered point a connection of negligible resistance was created between conductors under voltage. The magnitude of this current is an estimated value that represents the worst possible condition (null fault impedance, tripping time long enough to enable the current to reach the maximum theoretical values). In reality, the short circuit always occurs with significantly lower effective current values



The intensity of the estimated short circuit current essentially depends on the following factors :

- power of the cabin TRANSFORMER, meaning that the higher the power, the higher the current
- length of the line upstream the fault, in the sense that the longer the line, the lower the current



In three phase circuits with neutral it is possible to have three different types of short circuit :

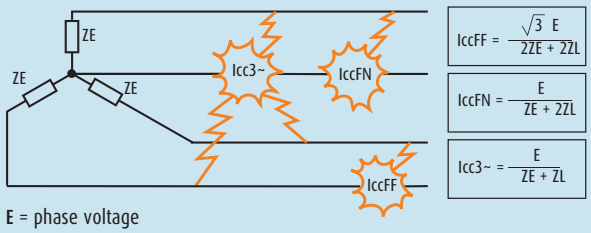
- phase-phase
- phase-neutral
- balanced three phase (most demanding condition)

The formula for the calculation of the symmetric component is :

$$\overline{Icc} = \frac{\overline{E}}{\overline{ZE}+\overline{ZL}}$$

Where :

- E = the phase voltage
- ZE = the secondary equivalent impedance of the TRANSFORMER measured between the phase and the neutral
- ZL = the impedance of the phase conductor only



$Icc_{FF} = \frac{\sqrt{3}\ E}{2ZE + 2ZL}$

$Icc_{FN} = \frac{E}{ZE + 2ZL}$

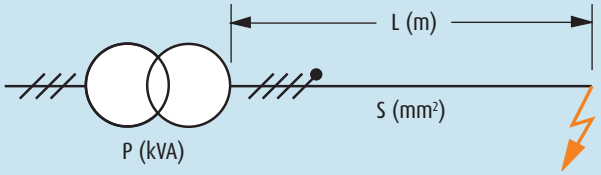
$Icc3\sim = \frac{E}{ZE + ZL}$

E = phase voltage

■ Short circuit withstand (continued)

Analytical determination of short circuit currents

In order to calculate the value of the estimated short circuit current at any point of the circuit, it is sufficient to apply the formulas shown below, knowing the impedance calculated at the origin of the system up to the point being assessed. In the formulas shown below, the value of the short circuit power is considered infinite and the short circuit impedance is equal to 0. This makes it possible to define short circuit current values higher than the actual ones, but generally acceptable



Line resistance **RL = r • L**	**RL** = resistance of the line upstream (m) **r** = specific line resistance (m/m) **L** = upstream line length (m)
Line reactance **XL = x • L**	**XL** = upstream line reactance (m) **x** = specific line reactance (m/m)
TRANSFORMER resistance $RE = \frac{1000\ Pcu}{3\ In^2}$	**RE** = transformer secondary equivalent resistance (m) **Pcu** = transformer COPPER losses (W) **In** = transformer rated current (A)
TRANSFORMER impedance $ZE = \frac{Vcc\%\ V^2c}{100\ P}$	**ZE** = transformer secondary equivalent impedance (m) **Vc** = phase voltage (V) **Vcc%** = percentage short circuit voltage **P** = transformer power (kVA)
TRANSFORMER reactance $XE = \sqrt{ZE^2 - RE^2}$	**XE** = transformer secondary equivalent reactance (m)
Short circuit impedance $Zcc = \sqrt{(RL + RE)^2 + (XL + XE)^2}$	**Zcc** = total short circuit impedance (m)
Estimated short circuit current $Icc = \frac{Vc}{\sqrt{3}\ Zcc}$	**Icc** = symmetric component of the short circuit current (kA)

Aluminium

Rating (A)	kA 3 phase Icw[1]	kA 3 phase Ipk	kA 1 phase Icw[1]	kA 1 phase Ipk
630	36	76	22	48
800	42	88	25	55
1 000	50	110	30	66
1 250	75	165	45	99
1 600	80	176	48	106
2 000	80	176	48	106
2 500	150	330	90	198
3 200	160	352	96	211
4 000	160	352	96	211

Copper

Rating (A)	kA 3 phase Icw[1]	kA 3 phase Ipk	kA 1 phase Icw[1]	kA 1 phase Ipk
800	45	95	27	57
1 000	50	110	30	66
1 250	60	132	36	79
1 600	85	187	51	112
2 000	88	194	53	116
2 500	88	194	53	116
3 200	170	374	102	224
4 000	176	387	106	232
5 000	176	387	106	232

1 : Icw for 1 second

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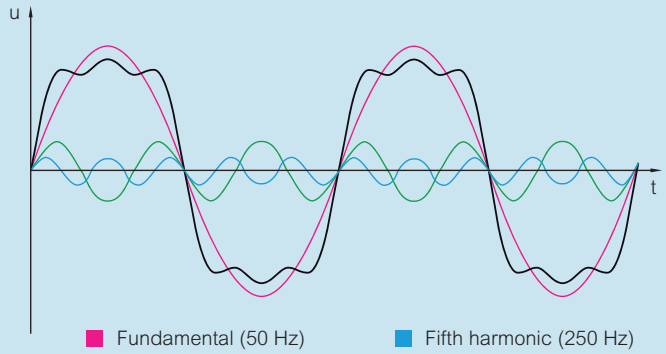
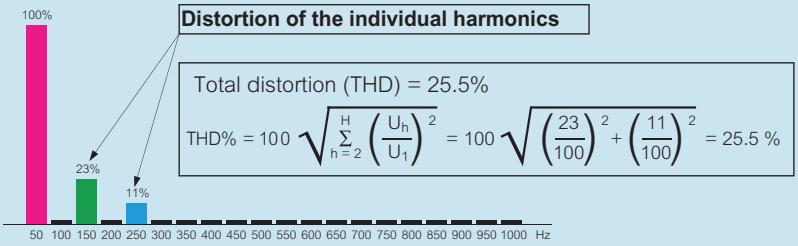
■ Harmonics

In a distribution system, currents and voltages should have a perfectly sinusoidal shape. However, in practice the equipment contains electric devices such as changeover devices or dimmers that make the load not linear
The currents absorbed, although at regular intervals and with frequencies equal to that of the rated voltage, sometimes have a non-sinusoidal wave form, which has the following negative effects :
•worsening of the power factor
•heating of the neutral
•additional losses in electric machinery (transformers and motors)
•instable operation of the protection elements (thermal magnetic and earth leakage circuit breakers)
In industrial plants these conditions have been occurring for a long time. However, they are now occurring more and more in service sector distribution systems, where, from backbone distribution (which uses 3 phase lines), single phase loads are often distributed, which contributes to increasing the unbalance of the electric system
Each type of non-sinusoidal periodical wave may be split into a more or less large number of sinusoids (called harmonic components)
A deformed current at a frequency of 50 Hz, like the example represented by the magenta line on the figure, consists of many sinusoidal currents with frequency of 50 Hz (fundamental), 100 Hz (second harmonic component), 150 Hz (third harmonic), and so on
The presence of current harmonics represents an important problem, causing overload conditions both on phase conductors, and on any neutral conductor, and results in the reduction of the conductor's permitted load

Measurement of harmonic distortion carried out with a network analyser





Choice of rating when in the presence of harmonics

When in the presence of harmonics, and when using the chosen Int rated current, the SCP busbar to be used shall have the rating specified in the table below

Rated current (A)	630 A	800 A	1 000 A	1 250 A	1 600 A	2 000 A	2 500 A	3 200 A	4 000 A	5 000 A
SCP busbar to be used										
THD ≤ 15%	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
15% < THD ≤ 33%	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000	–
THD > 33%	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000	–	–

Note
200% neutral versions are available for systems with harmonics present on the neutral

■ Measurement of magnetic induction

Since 1994, with a study carried out by Chalmers University of Technology of Goteborg, Legrand has taken an interest in the issues linked with the electromagnetic emissions in their Zucchini products, keeping at the forefront of the latest legislative directive, which has only recently imposed the quality standards that were already widely met by Zucchini busbar trunking systems

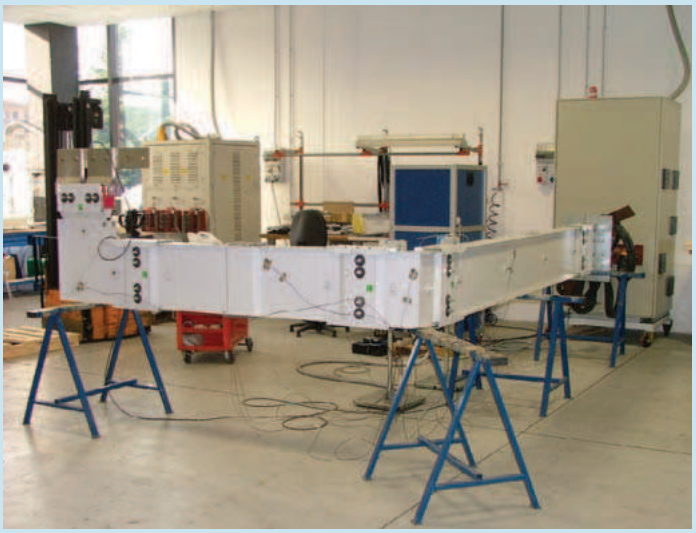
The ACAE (Association for the Certification of Electric and Electronic Equipment) certified internal laboratory is capable of carrying out the measurement of the electromagnetic emissions of busbar trunking systems. This measurement is nowadays one of the tests to which the products are subjected before they reach the market

The busbar trunking system in itself already minimises electromagnetic emissions, which are much lower when compared with those generated by cables with the same current intensity

It is a well-known fact that the electromagnetic field is the result of the superimposition of two fields : the electric and the magnetic field
The first is totally shielded by the equipotential metal casing of the busbar trunking system, while the second is very low due to the intrinsic characteristic of the busbar trunking system. More precisely, due to the fact that busbar conductors are extremely close inside the busbar package, the three busbar conductors, crossed by three balanced currents displaced by 120°, induce fields that tend to overlap, cancelling one another, therefore resulting in an extremely low external impact

However, also in conditions of imperfect current balance, the metal casing of the busbar trunking system is capable of reducing most of the magnetic field, which otherwise would spread through the surrounding environment

Testing at Legrand's laboratory in Italy for the approval certification of Zucchini SCP busbar trunking systems



The laboratory tests carried out show how the magnetic induction emitted by SCP busbar trunking systems, measured at a distance of approximately one metre, is well below the critical value of 3 µT

With Legislative Decree DPCM dated 8/7/2003, Italian law set the first exposure limit at 100 µT
In addition, in locations where attendance is expected for no less than four hours a day, an attention value of 10 µT has been set, to avoid possible long term effects on health
In the decree, the 3 µT threshold is indicated as the 'quality objective'. However, as the product is intended for the European and world market, low magnetic emission is a fundamental point that cannot be disregarded, to ensure a presence in foreign countries : one example of this is Germany, where for over 10 years the regulation has set a cautionary limit of 3 µT as the maximum permitted threshold in certain structures, for example hospitals, so much so that in these types of environments the busbar trunking system has become a mandatory choice, as well as a high quality one

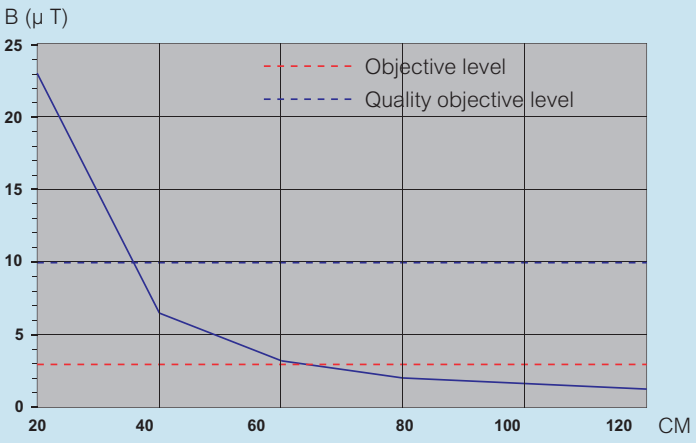
■ Measurement of magnetic induction (continued)

The high quality standard guaranteed by busbar trunking systems can be further appreciated by comparing the emission values measured against those of other commonly used equipment, as taken from table 7·1 of CEI 211-6 standard
The measurements obtained on aluminium SCP busbar trunking systems with ratings of 2 500 A (carried out in compliance with the requirements of the technical product standard CEI EN 60439-2), show that the magnetic induction generated by the busbar is in the range of 1·5 - 2 µT at a distance of one metre from the busbar itself
These values also apply near the junction, which is considered the critical point due to the wider distance between the busbar conductors in this position

Levels of exposure to industrial frequency magnetic field sources (table 7.1 from CEI 211-6 standard)

Source	Magnetic induction (µT)	Distance
Electric shaver	150-240	on the face
Hairdryer	1-13	10-20 cm
Blender	0·9	40 cm
12 V, 20 W halogen lamp	0·5	30 cm
Aerosol therapy equipment	20-50	20-30 cm
Electric blanket	2	on contact
21 inch television set	0·3	50 cm
Washing machine	3·4	50 cm
Dishwasher	0·05	50 cm
Electric oven	0·4	20 cm
600 W drill	2	on the chest
100 W welding machine	14·5	on the chest
225 W grinder	0·8	40 cm
1 100 W compressor	8·2	40 cm
2 150 W arc welding machine	23·2	40 cm
75 MW, 55-65 kA, 150 t arc oven	100-270	in proximity
Electric scalpel	2·9	in proximity
Battery charger	22·9	in proximity
Echograph	0·8	operator position
Projector	2·3	20 cm

One-dimensional trend of the magnetic induction near the junction. The blue dash shows the 'objective' level and the red dash shows the 'quality objective' required by law

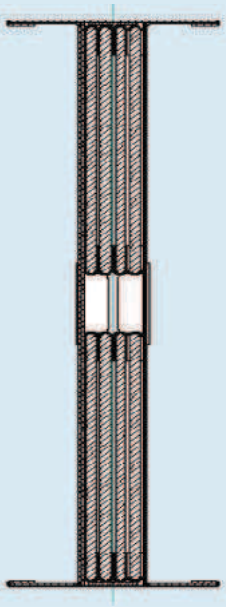


All dimensions (mm) are nominal

SCP super compact busbar
technical information

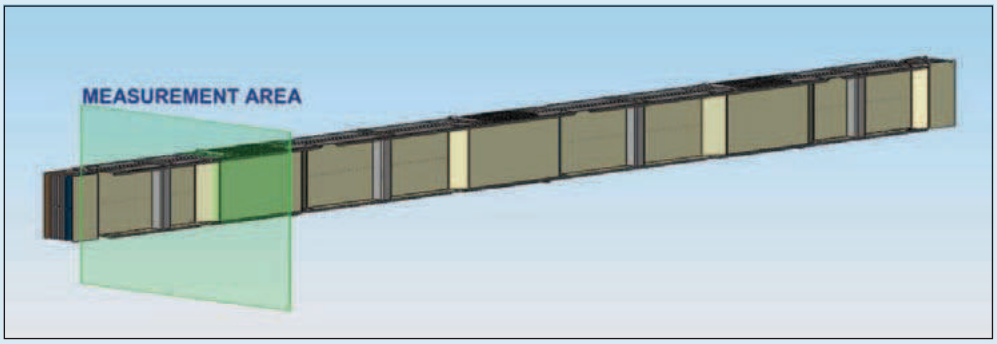
■ Example of measurement of the level of the magnetic field on the busbar

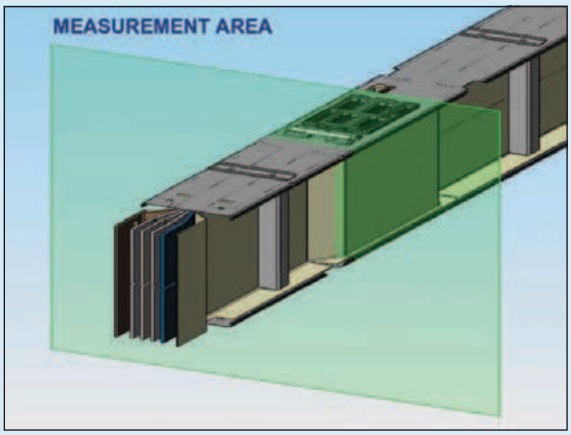
Transversal section (parallel to the measurement plane) of the SCP busbar on which the test is carried out



Graphic representation of an SCP double busbar 3 m straight length

Shown in green is the orthogonal plane of the element on which the magnetic inductions referred to in the following graphs are measured





Detailed view

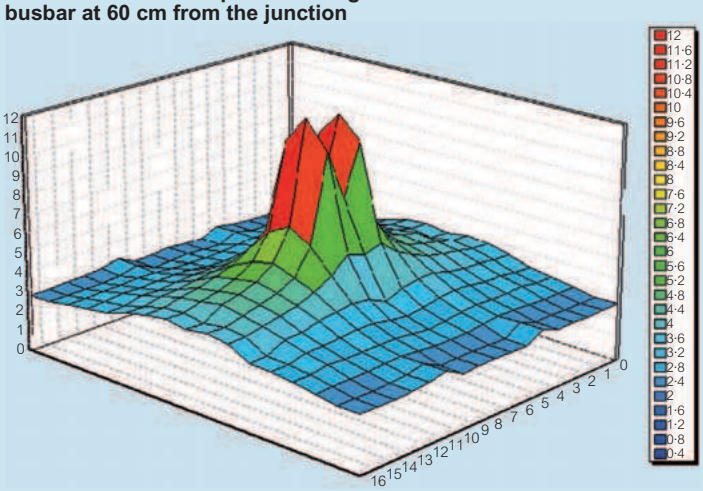
■ Magnetic induction graphs at 60 cm from the busbar

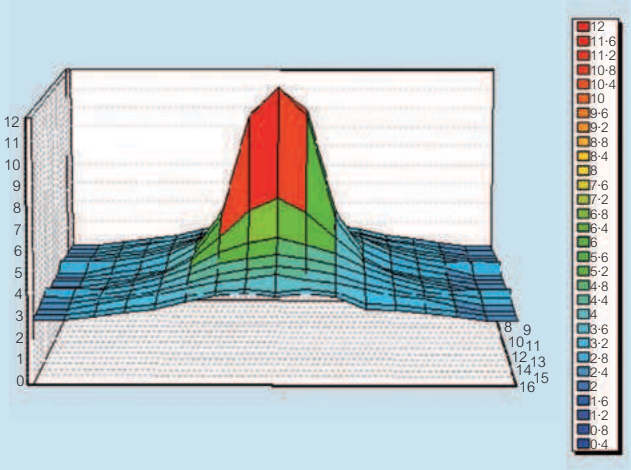
The graphs shown refer to the measurements carried out on the aluminium SCP prefabricated electric busbar with rated load of 2 500 A, crossed by a 2 500 A current

The measurements carried out at 60 cm from the junction are to be considered as higher due to the magnetic induction generated by the busbar power supply :
due to the intrinsic geometry of the measurement laboratory structure, it must be assumed that the measurement area is also affected by a magnetic induction of no less than 1·5 µT generated by the line power supply

In view of this observation, in case of actual operating line the quality objective indicated by Legislative Decree DPCM dated 8/7/2003 is widely met at less than one metre from the axis of the busbar

3 dimensional development of magnetic induction around the busbar at 60 cm from the junction

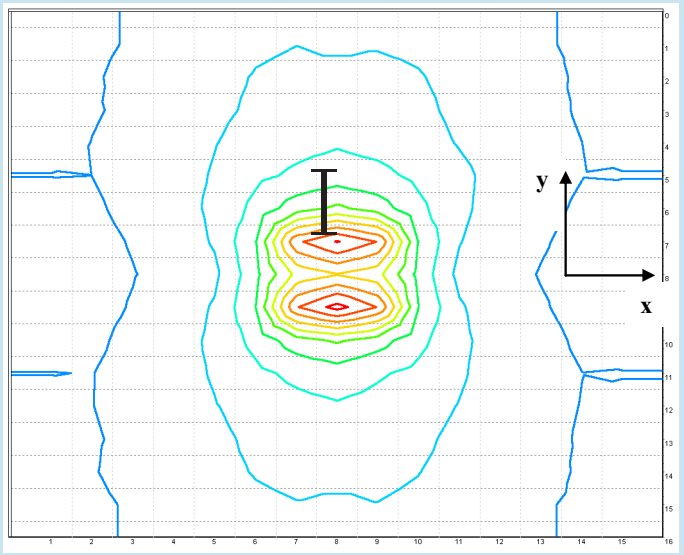




■ Magnetic induction graphs at 60 cm from the busbar (continued)

As it can be seen on the graph below, up to a distance of approximately 40 cm from the axis of the busbar, the field appears generated by two separate sources. This is due to the fact that the busbar being analysed consists of two series of busbar conductors set in parallel at a distance of approximately 5 cm from each other

The cells making up the measurement grid are 20 cm squares



2 dimensional map of the magnetic induction around the busbar at 60 cm from the junction
At the centre of the graphic is a schematic representation of the busbar

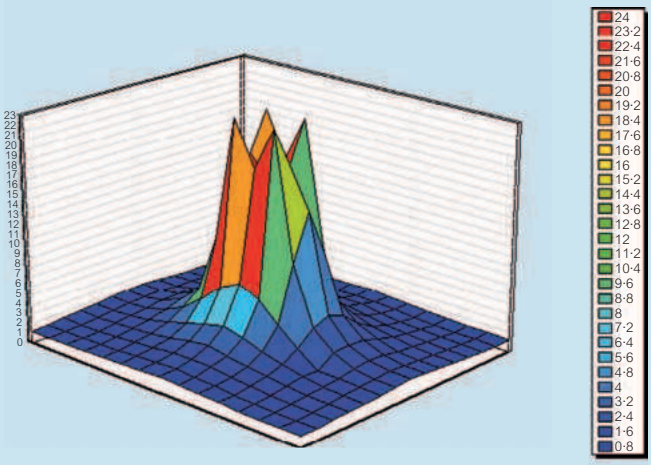
All dimensions (mm) are nominal

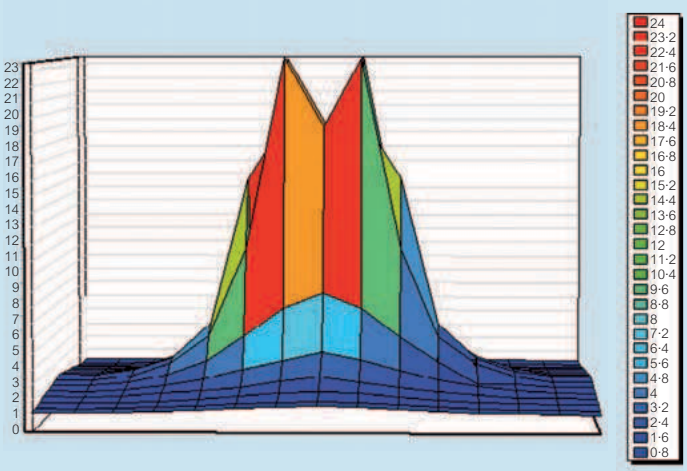
SCP super compact busbar
technical information

■ Graphs showing magnetic induction near the junction

It is considered important to show, side by side with the results relating to straight lengths, the results of the measurement carried nearby the electro-mechanic junction of the busbar length. This location may in fact be considered critical, as here magnetic induction is higher due to the higher distance between the busbar conductors corresponding to the various phases of the line

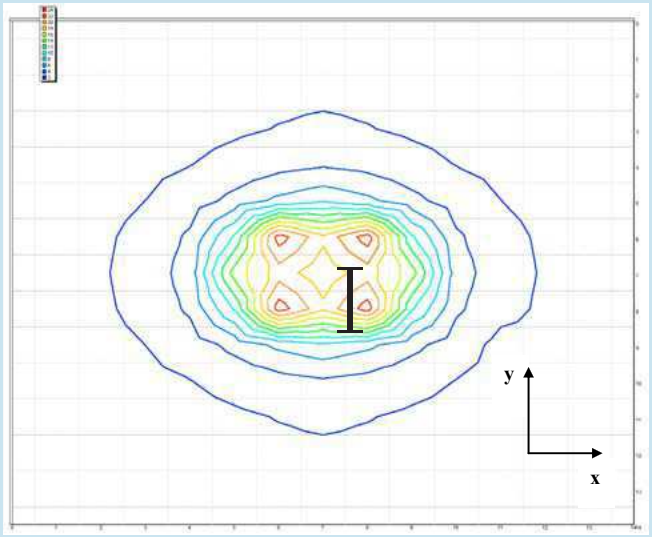
Tridimensional development of magnetic induction near the joint





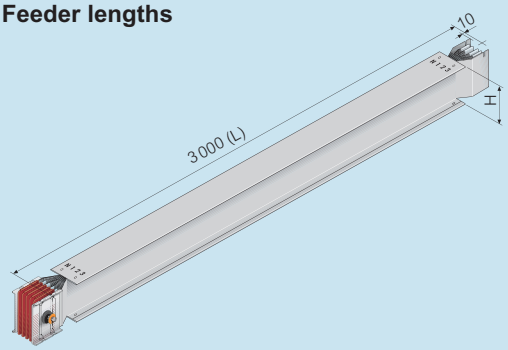
■ Graphs showing magnetic induction near the junction (continued)

2 dimensional map of magnetic induction near the junction
At the centre of the graphic is a schematic representation of the busbar



All dimensions (mm) are nominal

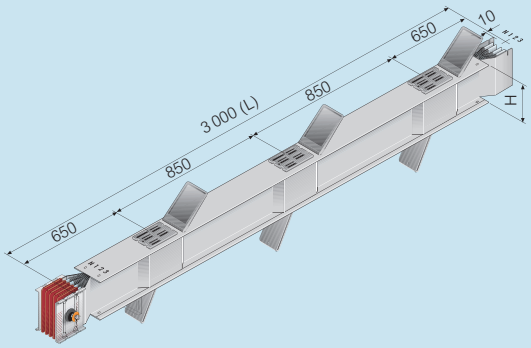
■ Feeder lengths



Dimension H changes with the rating, and is specified on p. 112-117

Minimum and maximum dimensions of single and double bars	
Aluminium	630 A to 4 000 A
Copper	800 A to 5 000 A
(L) min./max. (mm)	1 000 / 3 000

■ Distribution lengths



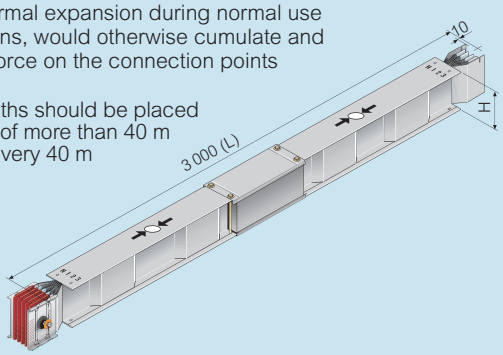
Dimension H changes with the rating, and is specified on p. 112-117

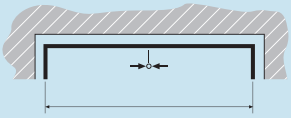
Minimum and maximum dimensions of single and double bars	
Aluminium	630 A to 4 000 A
Copper	800 A to 5 000 A
(L) min./max. (mm)	1 000 / 3 000

■ Expansion lengths

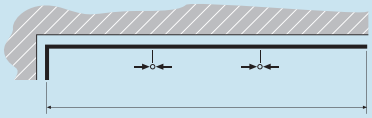
Absorb the thermal expansion during normal use that, on long runs, would otherwise cumulate and put abnormal force on the connection points

Expansion lengths should be placed in straight runs of more than 40 m and repeated every 40 m





e.g. 70 m straight section should contain 1 expansion length in the middle



e.g. 120 m straight section should contain 2 expansion lengths, spaced every 40 m

All dimensions (mm) are nominal

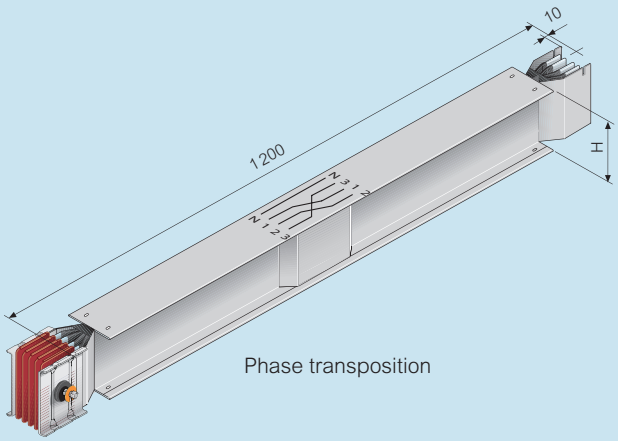
■ Transposition lengths

In runs exceeding 100 m it is recommended to include two transposition lengths to balance mutual phase reactance and electric impedance (one at 1/3 and one at 2/3 distance of the run)

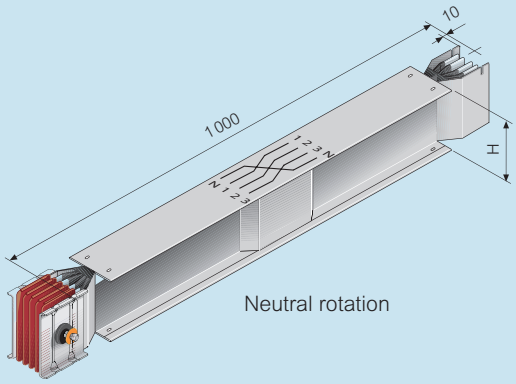
Dimension H changes with the rating and is specified on p. 112-117

Neutral rotation can be used when the sequence of the distribution board phases is different to that of the transformer

For more information please contact us on +44 (0) 845 600 6266



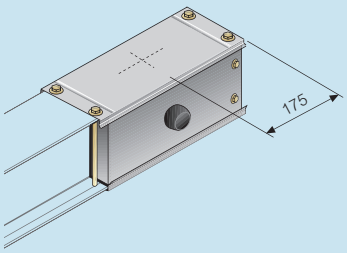
Phase transposition



Neutral rotation

■ End stops

Maintain IP 55 protection at the end of a run



SCP super compact busbar
technical information

■ Fire barriers

Fig. 1

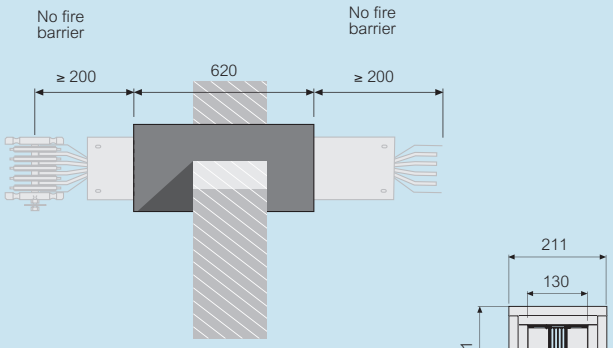
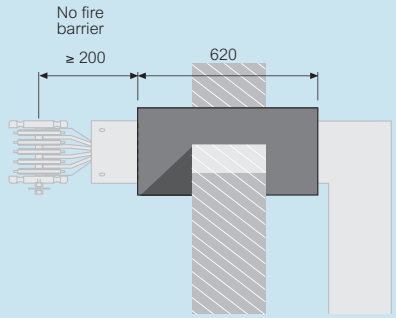


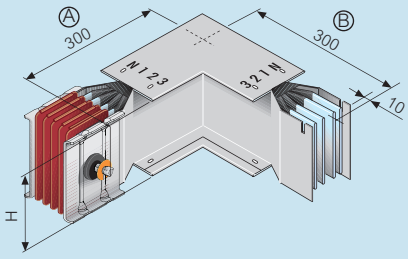
Fig. 2

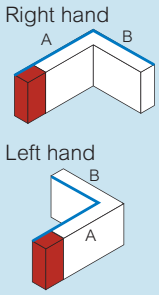


When ordering, please specify the length that will be equipped with an internal fire barrier
Due to the geometry of the models 800 A to 2000 A in aluminium and 1000 A to 2500 A in copper, the internal fire barrier is not needed
The external fire barrier can be used on any trunking component in compliance with the operating instructions specified in figures 1 and 2
Dimension H changes with the rating and is specified on p. 112-117

■ Direction changes

Horizontal elbow – standard dimensions





Dimension H changes with the rating and is specified on p. 112-117
The dimensions refer to standard elbows

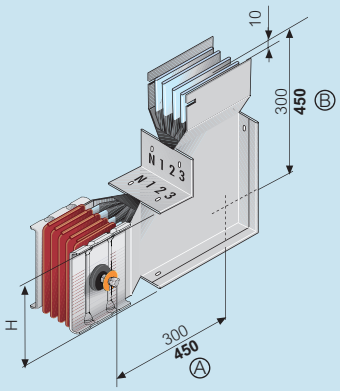
Horizontal elbow – bespoke dimensions

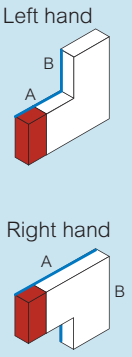
Please specify required dimensions when ordering

Minimum and maximum dimensions of single and double bars	
Aluminium	630 A to 4000 A
Copper	800 A to 5000 A
(A) min./max. (mm)	250 / 1299
(B) min./max. (mm)	250 / 1299

■ Direction changes

Vertical elbow – standard dimensions





Dimension H changes with the rating, and is specified on p. 112-117
The dimensions refer to standard elbows (bold = double bar)

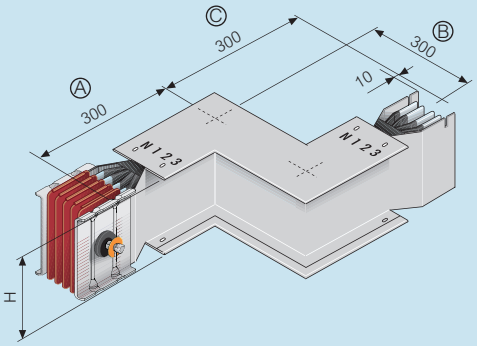
Vertical elbow – bespoke dimensions

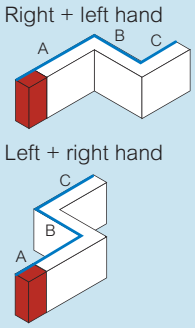
Please specify required dimensions when ordering

Minimum and maximum dimensions of single bar	
Aluminium	630 A to 2000 A
Copper	800 A to 2500 A
(A) min./max. (mm)	300 / 1299
(B) min./max. (mm)	300 / 1299

Minimum and maximum dimensions of double bar	
Aluminium	2500 A to 4000 A
Copper	3200 A to 5000 A
(A) min./max. (mm)	450 / 1449
(B) min./max. (mm)	450 / 1449

Double horizontal elbow – standard dimensions





Dimension H changes with the rating, and is specified on p. 112-117
The dimensions refer to standard elbows

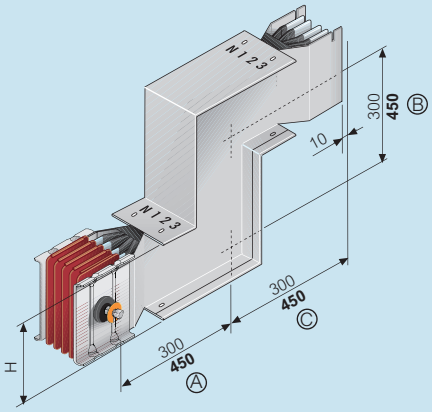
Double horizontal elbow – bespoke dimensions

Please specify required dimensions when ordering

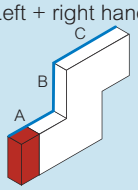
Minimum and maximum dimensions of single and double bars	
Aluminium	630 A to 4000 A
Copper	800 A to 5000 A
(A) min./max. (mm)	250 / 1299
(B) min./max. (mm)	50 / 599
(C) min./max. (mm)	250 / 1299

All dimensions (mm) are nominal

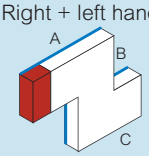
Double vertical elbow – standard dimensions



Left + right hand



Right + left hand



Dimension H changes with the rating, and is specified on p. 112-117
The dimensions refer to standard elbows (bold = double bar)

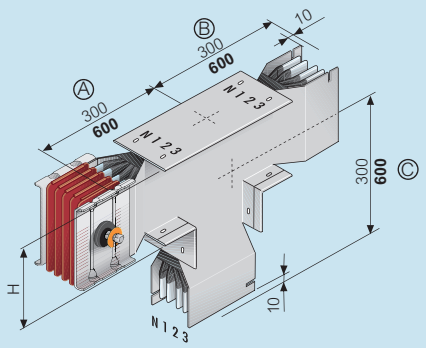
Double vertical elbow – bespoke dimensions

Please specify required dimensions when ordering

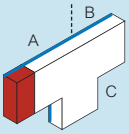
Minimum and maximum dimensions of single bar	
Aluminium	630 A to 2 000 A
Copper	800 A to 2 500 A
(A) min./max. (mm)	300 / 1 299
(B) min./max. (mm)	50 / 599
(C) min./max. (mm)	300 / 1 299

Minimum and maximum dimensions of double bar	
Aluminium	2 500 A to 4 000 A
Copper	3 200 A to 5 000 A
(A) min./max. (mm)	450 / 1 449
(B) min./max. (mm)	50 / 899
(C) min./max. (mm)	450 / 1 449

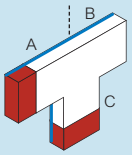
Vertical tees – standard dimensions



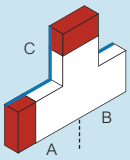
Right hand - female



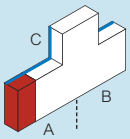
Right hand - male



Left hand - male



Left hand - female



Dimension H changes with the rating, and is specified on p. 112-117
The dimensions refer to standard tees (bold = double bar)

Vertical tees – bespoke dimensions

Please specify required dimensions when ordering

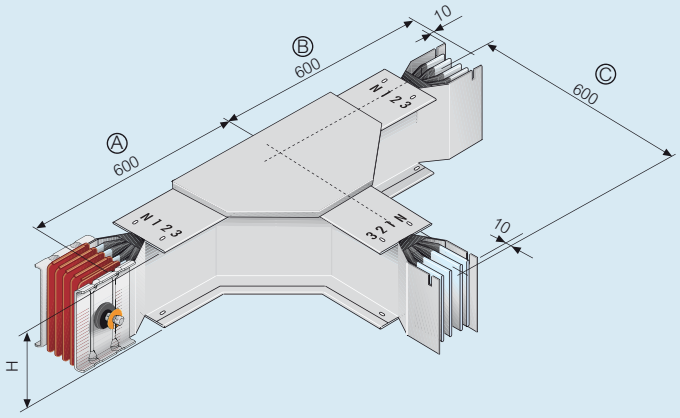
Minimum and maximum dimensions of single bar	
Aluminium	630 A to 2 000 A
Copper	800 A to 2 500 A
(A) min./max. (mm)	250 / 1 299
(B) min./max. (mm)	200 / 599
(C) min./max. (mm)	300 / 1 299

Minimum and maximum dimensions of double bar	
Aluminium	2 500 A to 4 000 A
Copper	3 200 A to 5 000 A
(A) min./max. (mm)	250 / 1 449
(B) min./max. (mm)	330 / 749
(C) min./max. (mm)	450 / 1 449

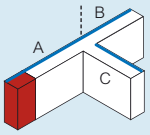
All dimensions (mm) are nominal

■ Direction changes (continued)

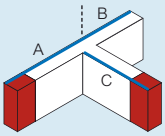
Horizontal tees – standard dimensions



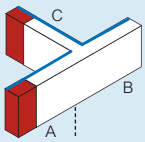
Right hand – female



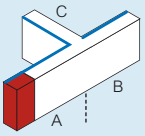
Right hand – male



Left hand – male



Left hand – female



Dimension H changes with the rating, and is specified on p. 112-117
The dimensions refer to standard tees (bold = double bar)

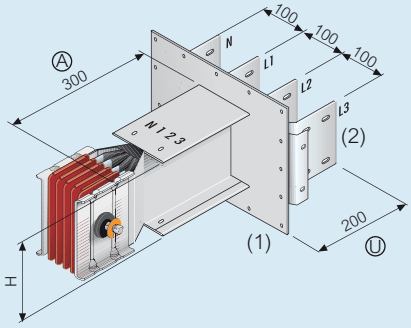
Horizontal tees – bespoke dimensions

Please specify required dimensions when ordering

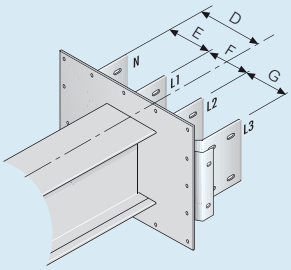
Minimum and maximum dimensions of single and double bars	
Aluminium	630 A to 4 000 A
Copper	800 A to 5 000 A
(A) min. / max. (mm)	550 / 1 049
(B) min. / max. (mm)	550 / 1 049
(C) min. / max. (mm)	550 / 1 049

■ Connection interfaces – in-line

Standard dimensions

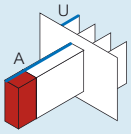


Non-standard centre distance

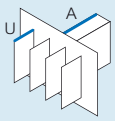


Dimensions to be provided when requesting a non-standard centre distance

Type 1 – male



Type 2 – female



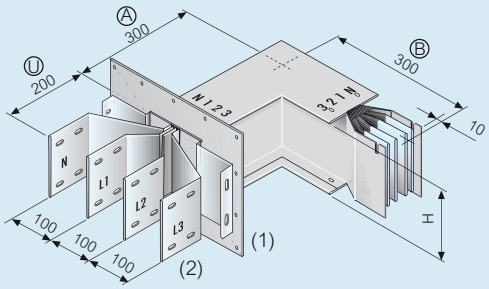
Dimension H changes with the rating, and is specified on p. 112-117
See p. 100 for dimensions of cover plate (1) and bars (2)

Connection interfaces – in-line bespoke dimensions

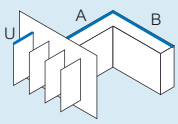
Please specify required dimensions when ordering

Minimum and maximum dimensions of single and double bars	
Aluminium	630 A to 4 000 A
Copper	800 A to 5 000 A
(A) min. / max. (mm)	300 / 1 299
(U) min. / max. (mm)	150 / 400

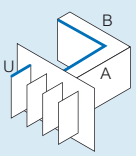
■ Connection interfaces + horizontal elbows



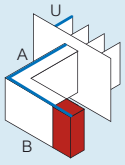
Type 1 – female



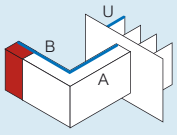
Type 2 – female



Type 3 – male



Type 4 – male



Dimension H changes with the rating and is specified on p. 112-117
The dimensions are referred to standard elements
See p. 100 for dimensions of cover plate (1) and bars (2)

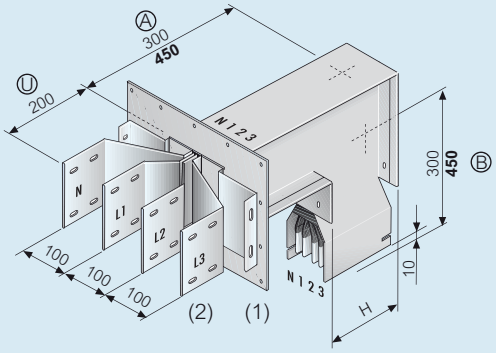
Connection interfaces + horizontal elbows – bespoke dimensions

Please specify required dimensions when ordering

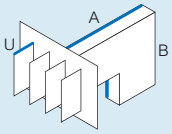
Minimum and maximum dimensions of single and double bars	
Aluminium	630 A to 4 000 A
Copper	800 A to 5 000 A
(A) min. / max. (mm)	150 / 1 299
(B) min. / max. (mm)	250 / 1 299
(U) min. / max. (mm)	150 / 400

All dimensions (mm) are nominal

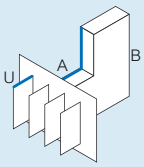
■ Connection interfaces + vertical elbows



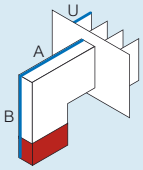
Type 1 – female



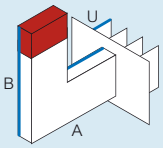
Type 2 – female



Type 3 – male



Type 4 – male



Dimension H changes with the rating and is specified on p. 112-117
The dimensions refer to standard tees (bold = double bar)
See p. 100 for dimensions of cover plate (1) and bars (2)

Connection interfaces + vertical elbows – bespoke dimensions

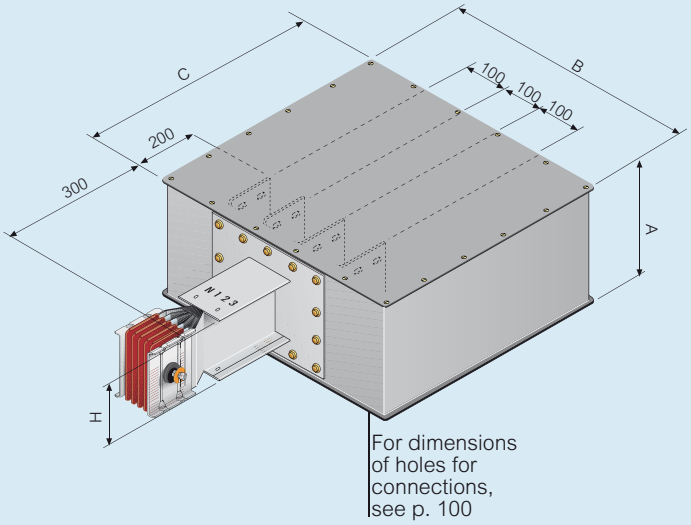
Please specify required dimensions when ordering

Minimum and maximum dimensions of single bar	
Aluminium	630 A to 2 000 A
Copper	800 A to 2 500 A
(A) min. / max. (mm)	150 / 1 299
(B) min. / max. (mm)	300 / 1 299
(U) min. / max. (mm)	150 / 400

Minimum and maximum dimensions of double bar	
Aluminium	2 500 A to 4 000 A
Copper	3 200 A to 5 000 A
(A) min. / max. (mm)	300 / 1 449
(B) min. / max. (mm)	450 / 1 449
(U) min. / max. (mm)	150 / 400

■ Feed units

End feed unit

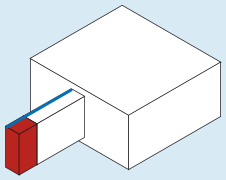


For dimensions of holes for connections, see p. 100

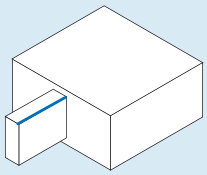
Dimension H changes with the rating and is specified on p. 112-117

Rear cable input
Aluminium gland plate(s) for cable entry
170mm x 410mm
Single bar : 1 plate
Double bar : 2 plates

Type 1 – male



Type 2 – female



Dimensions of the box			
Aluminium	630 A to 1 250 A	1 600 A to 2 000 A	2 500 A to 4 000 A
Copper	800 A to 1 250 A	1 600 A to 2 500 A	3 200 A to 5 000 A
(A) (mm)	320	320	600
(B) (mm)	600	600	600
(C) (mm)	610	810	810

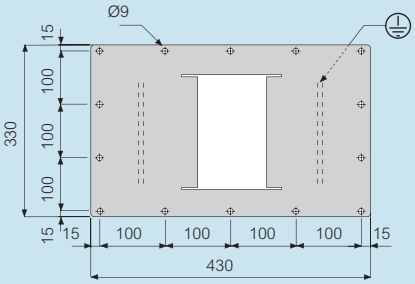
All dimensions (mm) are nominal

SCP super compact busbar
technical information

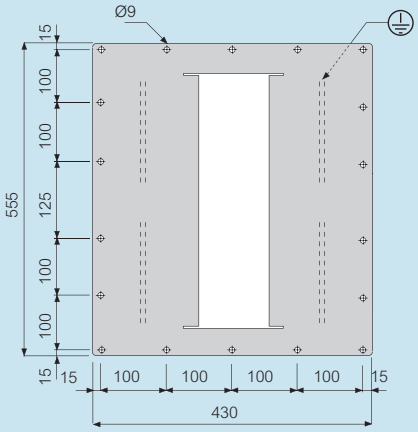
■ Connection interfaces

Cover plate drilling details

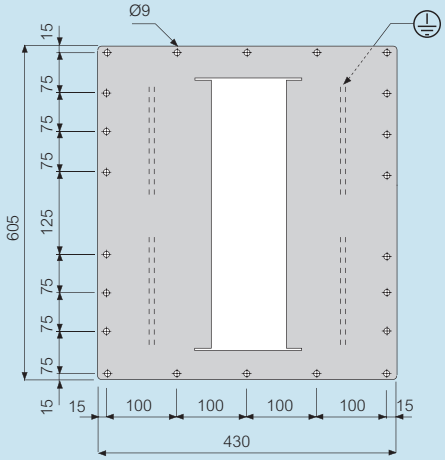
Aluminium 630 A to 2000 A
Copper 800 A to 2500 A



Aluminium 2500 A to 3200 A
Copper 3200 A to 4000 A

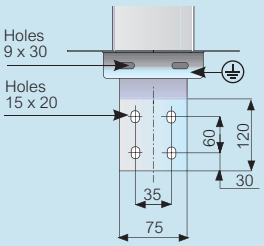


Aluminium 4000 A
Copper 5000 A

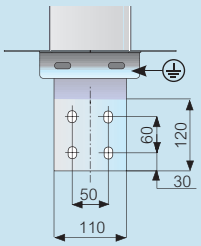


Bar drilling details

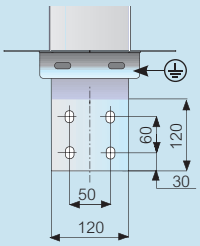
Aluminium 630 A
Copper 800 A



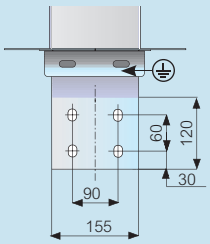
Aluminium 800 A-1000 A
Copper 1000 A-1250 A



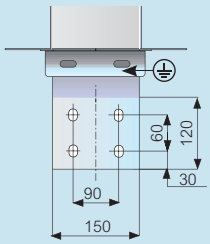
Aluminium 1250 A



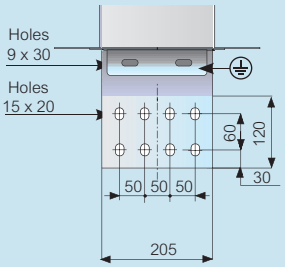
Aluminium 1600 A



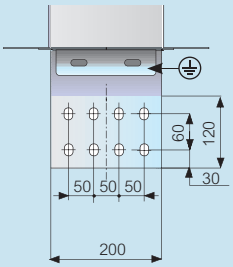
Copper 1600-2000 A



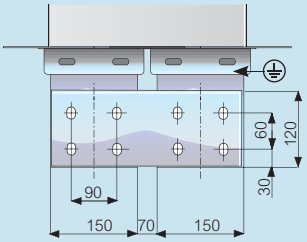
Aluminium 2000 A



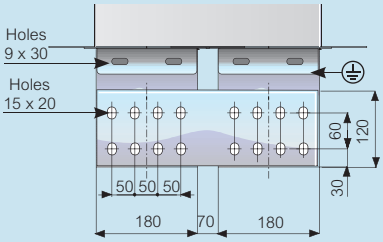
Copper 2500 A



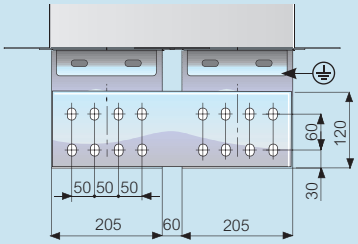
Aluminium 2500 A
Copper 3200 A



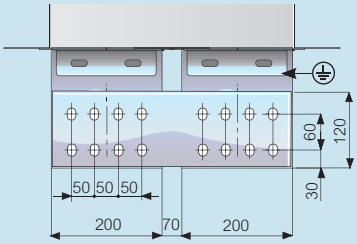
Aluminium 3200 A
Copper 4000 A



Aluminium 4000 A



Copper 5000 A



All dimensions (mm) are nominal

■ Compatibility with Zucchini SCP busbar

The Zucchini SCP busbar trunking system and EdM cast resin transformers have been designed in perfect synergy for a direct connection
The versions shown below represent just a few of the standardised solutions

400 V secondary voltage

Transformer				Busbar (aluminium)	
kVA (kVA)	Insulation class (kV)	400 V current (A)	IK 6 % (kA)	Family	Connection component
630	12, 17·5, 24, 36	910	15·20	SCP 1 000 A	60281012P
800		1 155	19·30	SCP 1 250 A	60281014P
1 000		1 444	24·10	SCP 1 600 A	60281016P
1 250		1 805	30·10	SCP 2 000 A	60281017P
1 600		2 310	38·50	SCP 2 500 A	60391014P
2 000		2 887	48·20	SCP 3 200 A	60391016P
2 500		3 609	60·20	SCP 4 000 A	60391017P

Transformer				Busbar (copper)	
kVA (kVA)	Insulation class (kV)	400 V current (A)	IK 6 % (kA)	Family	Connection component
630	12, 17·5, 24, 36	910	15·20	SCP 1 000 A	65281011P
800		1 155	19·30	SCP 1 250 A	65281013P
1 000		1 444	24·10	SCP 1 600 A	65281015P
1 250		1 805	30·10	SCP 2 000 A	65281016P
1 600		2 310	38·50	SCP 2 500 A	65391018P
2 000		2 887	48·20	SCP 3 200 A	65391015P
2 500		3 609	60·20	SCP 4 000 A	65391016P
3 150		4 547	65·00[1]	SCP 5 000 A	65391018P

1 : 7% impedance

417 V secondary voltage

Transformer				Busbar (aluminium)	
kVA (kVA)	Insulation class (kV)	417 V current (A)	IK 6 % (kA)	Family	Connection component
630	12, 17·5, 24, 36	873	14·60	SCP 1 000 A	60281012P
800		1 108	18·50	SCP 1 250 A	60281014P
1 000		1 385	23·10	SCP 1 600 A	60281016P
1 250		1 731	28·90	SCP 2 000 A	60281017P
1 600		2 216	37·00	SCP 2 500 A	60391014P
2 000		2 770	46·20	SCP 3 200 A	60391016P
2 500		3 462	57·70	SCP 4 000 A	60391017P

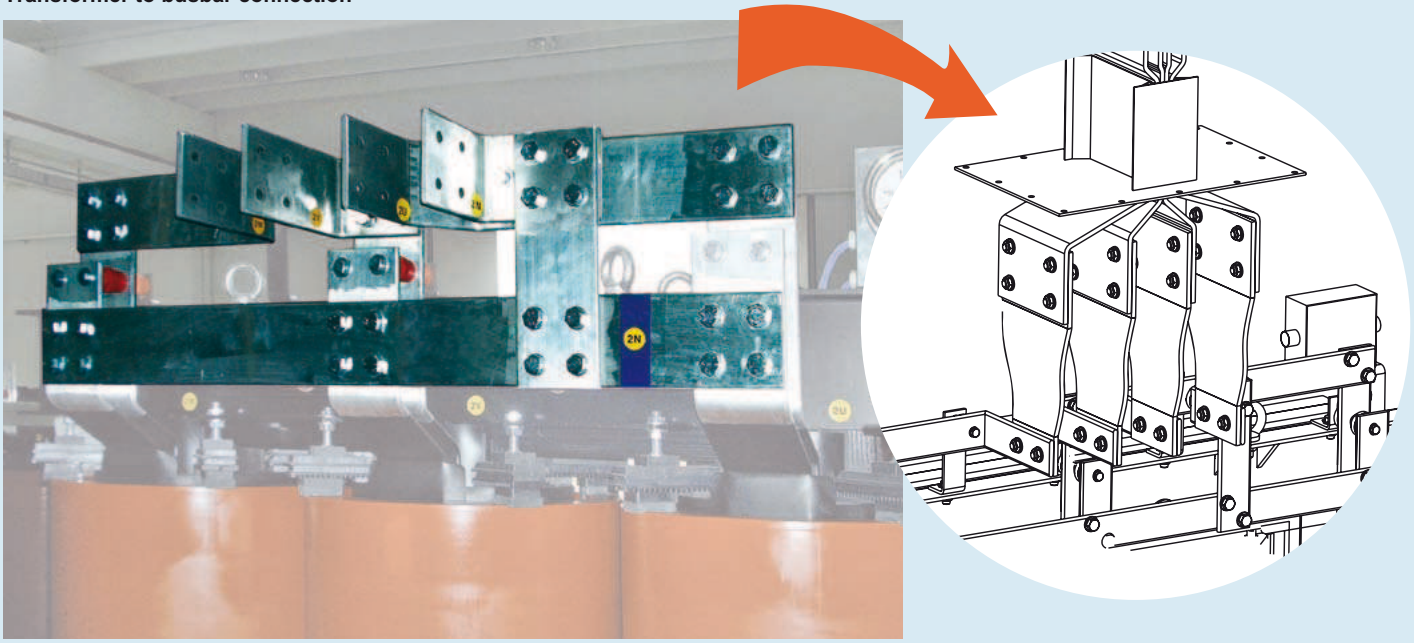
Transformer				Busbar (copper)	
kVA (kVA)	Insulation class (kV)	417 V current (A)	IK 6 % (kA)	Family	Connection component
630	12, 17·5, 24, 36	873	14·60	SCP 1 000 A	65281011P
800		1 108	18·50	SCP 1 250 A	65281013P
1 000		1 385	23·10	SCP 1 600 A	65281015P
1 250		1 731	28·90	SCP 2 000 A	65281016P
1 600		2 216	37·00	SCP 2 500 A	65391018P
2 000		2 770	46·20	SCP 3 200 A	65391015P
2 500		3 462	57·70	SCP 4 000 A	65391016P
3 150		4 362	62·40[1]	SCP 5 000 A	65391018P

433 V secondary voltage

Transformer				Busbar (aluminium)	
kVA (kVA)	Insulation class (kV)	433 V current (A)	IK 6 % (kA)	Family	Connection component
630	12, 17·5, 24, 36	841	14·10	SCP 1 000 A	60281012P
800		1 067	17·80	SCP 1 250 A	60281014P
1 000		1 334	22·30	SCP 1 600 A	60281016P
1 250		1 667	27·80	SCP 2 000 A	60281017P
1 600		2 134	35·60	SCP 2 500 A	60391014P
2 000		2 667	44·50	SCP 3 200 A	60391016P
2 500		3 334	55·60	SCP 4 000 A	60391017P

Transformer				Busbar (copper)	
kVA (kVA)	Insulation class (kV)	433 V current (A)	IK 6 % (kA)	Family	Connection component
630	12, 17·5, 24, 36	841	14·10	SCP 1 000 A	65281011P
800		1 067	17·80	SCP 1 250 A	65281013P
1 000		1 334	22·30	SCP 1 600 A	65281015P
1 250		1 667	27·80	SCP 2 000 A	65281016P
1 600		2 134	35·60	SCP 2 500 A	65391018P
2 000		2 667	44·50	SCP 3 200 A	65391015P
2 500		3 334	55·60	SCP 4 000 A	65391016P
3 150		4 201	60·10[1]	SCP 5 000 A	65391018P

Transformer to busbar connection

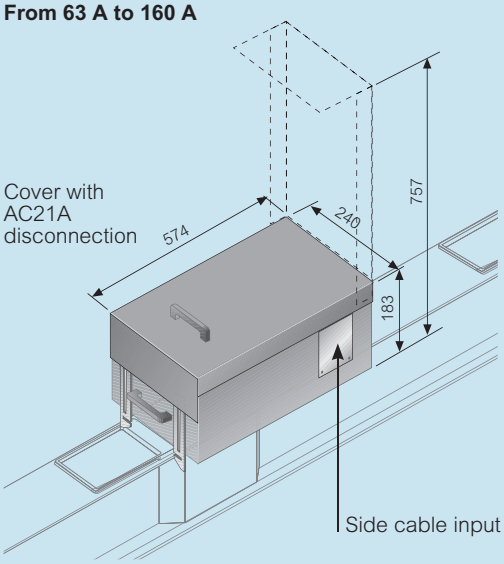


SCP super compact busbar
technical information

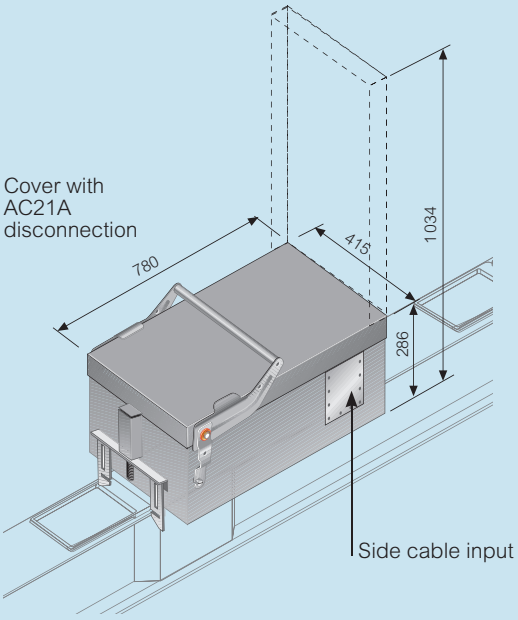
■ Tap-off boxes
63 A to 630 A : plug-in type

Polyester coated, galvanised steel structure. Metal boxes are suitable for heavy loads and are used to shield electromagnetic fields caused by flows of current
Fuses not included. Please contact us on +44 (0) 845 600 6266 for details of available fuses

With fuse carrier
From 63 A to 160 A



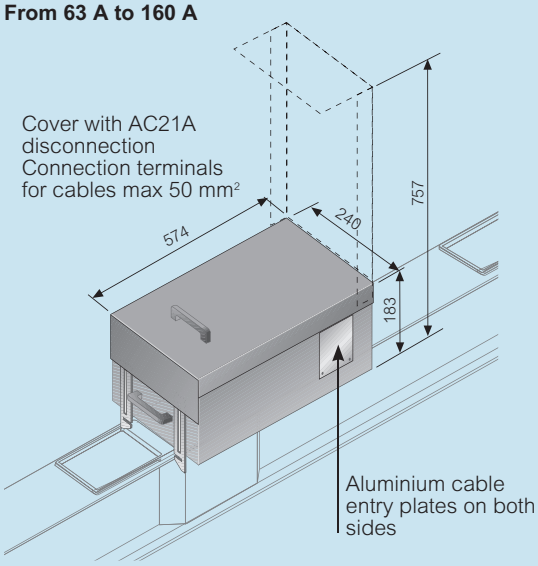
With switch disconnector
From 250 A to 630 A



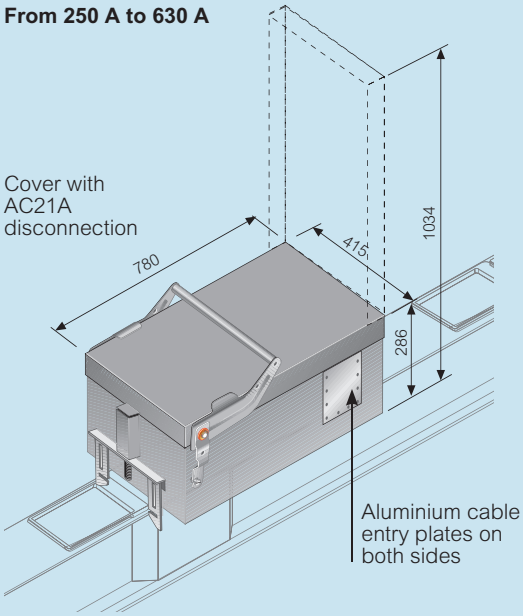
These tap-off boxes are equipped with a switch disconnector (AC23) and a fuse carrier. The disconnector switch is operated through a rotary handle on the cover (not shown in the picture)
N.B. Cover with AC21A disconnection : it is not possible to open, close, install or pull out the tap-off box if the switch is in 'ON' position
Can be installed and removed when the busbar is energized
To be used with components with any rating, with tap-off outlets
Fuses not included. Please contact us on +44 (0) 845 600 6266 for details of available fuses

■ Tap-off boxes
Empty tap-off box 63 A to 630 A

From 63 A to 160 A



From 250 A to 630 A

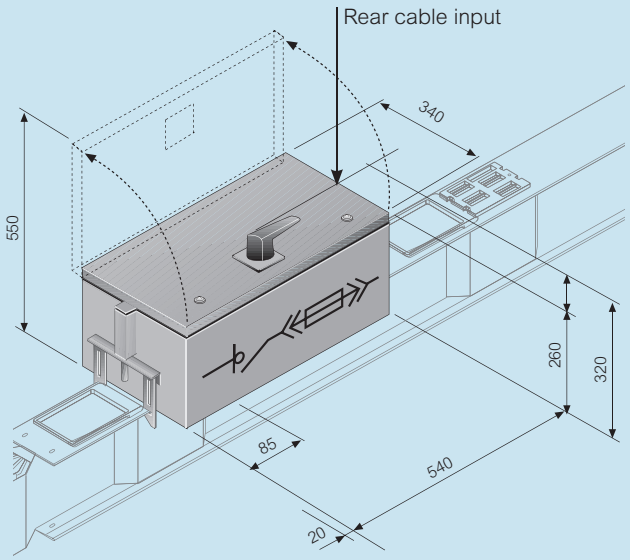


Tap-off boxes can be pre-equipped with DPX MCCBs on request, contact us on +44 (0) 845 600 6266
Can be installed and removed when the busbar is energized
To be used with components with any rating, with tap-off outlets

All dimensions (mm) are nominal

■ Tap-off boxes

With AC23A switch disconnector and fuse carrier, 125 A to 400 A : plug-in type

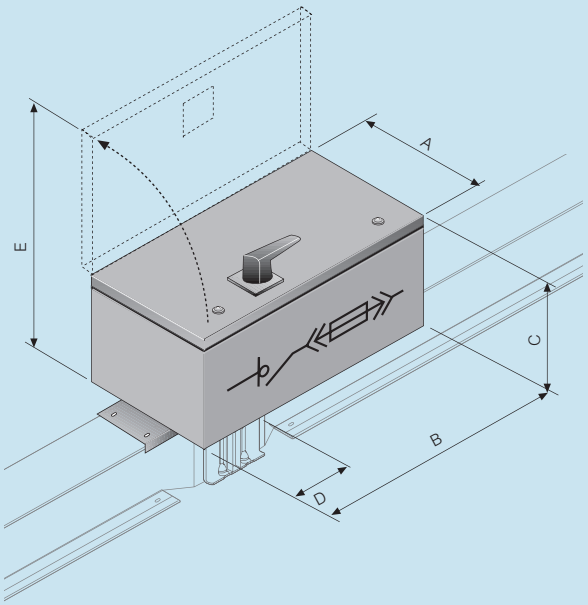


Can be installed and removed when the busbar is energized because the protective earth makes contact before other conductors
To be applied on components with any rating, with tap-off outlets
For operating voltages (Ue) different from 400 V, please contact us on +44 (0) 845 600 6266
Fuses not included. Please contact us on +44 (0) 845 600 6266 for details of available fuses

Specification		
Rated insulating AC voltage	Ui (V)	1000
Rated impulse withstand voltage	Uimp (kV)	12
Type of rated duty		AC23A
Rated conditional short circuit current	(kA)	100
		CEI EN 60947-3

■ Bolt-on tap-off boxes

With AC23 switch disconnector and fuse carrier : 125 A to 1 250 A



Please specify SCP type when ordering
Boxes cannot be installed simultaneously on both sides of the same junction

The bolted boxes are to be installed directly on the junction when the busbar is disconnected and not energized

For operating voltages (Ue) different from 400 V please contact us on +44 (0) 845 600 6266
Fuses not included. Please contact us on +44 (0) 845 600 6266 for details of available fuses

Dimensions of the box			
Box rating	125 A to 400 A	630 A	800 A to 1 250 A
(A) (mm)	365	400	450
(B) (mm)	630	750	1 050
(C) (mm)	270	280	300
(D) (mm)	95	115	115
(E) (mm)	635	680	750

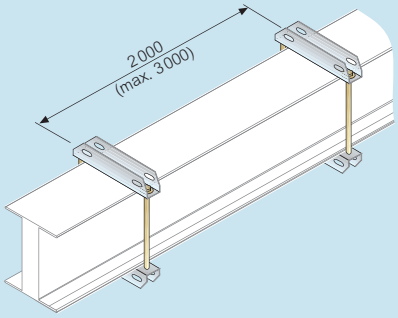
Specification		
Rated insulating AC voltage	Ui (V)	1 000
Rated impulse withstand voltage	Uimp (kV)	12
Type of rated duty		AC23A
Rated conditional short circuit current	(kA)	100
		CEI EN 60947-3

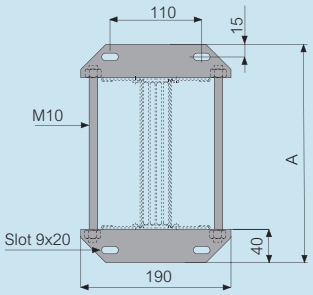
All dimensions (mm) are nominal

SCP super compact busbar
technical information

■ Fixing supports

Suspension bracket for edgeways installation





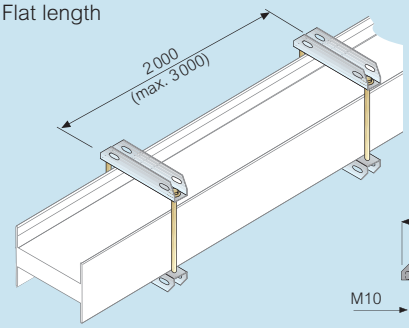
Suspension bracket for edgeways installation

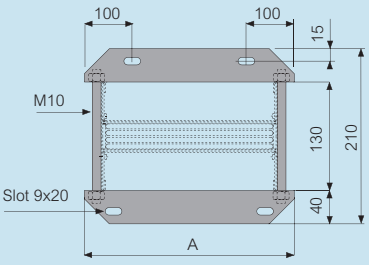
	Single bar						Double bar			
Aluminium busbar rating (A)	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
Dimension A (mm)	210	210	210	210	250	300	460	520	560	–

	Single bar							Double bar		
Copper busbar rating (A)	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
Dimension A (mm)	–	210	210	210	250	250	300	460	520	560

Suspension bracket for flat installation

Flat length





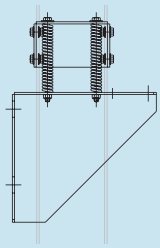
Suspension bracket for flat installation

	Single bar						Double bar			
Aluminium busbar rating (A)	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
Dimension A (mm)	190	190	190	190	315	315	430	490	530	–

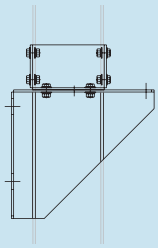
	Single bar							Double bar		
Copper busbar rating (A)	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
Dimension A (mm)	–	190	190	190	315	315	315	430	490	530

All dimensions (mm) are nominal

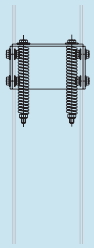
■ Fixing supports



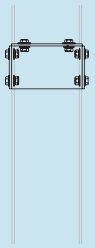
Type A
With bracket and spring



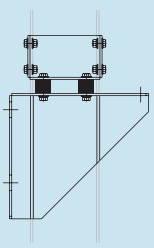
Type B
Standard with anti-seismic bracket[1]



Type C
With springs



Type D
Bracket only



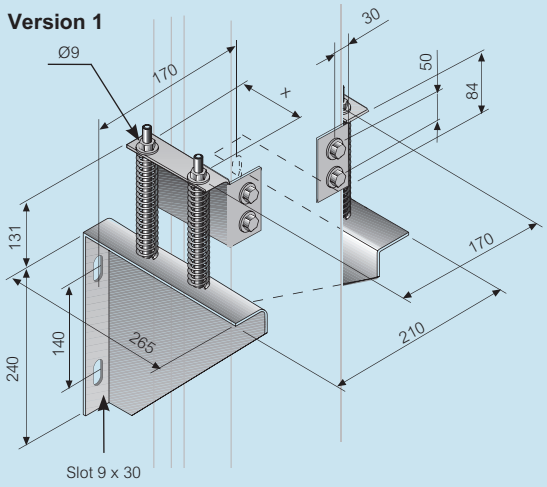
Type E
Naval applications

Type A and B brackets are used for wall installation, while type C and D are used for floor installation

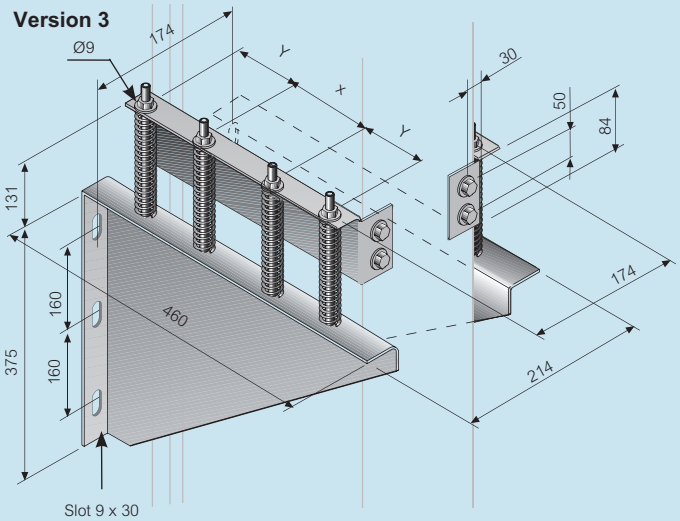
1 : For single bar lengths, the standard bracket is also anti-seismic rated
For double bar loads there are two separate Cat. Nos. see p. 82

Fixing supports for vertical lengths – dimensions

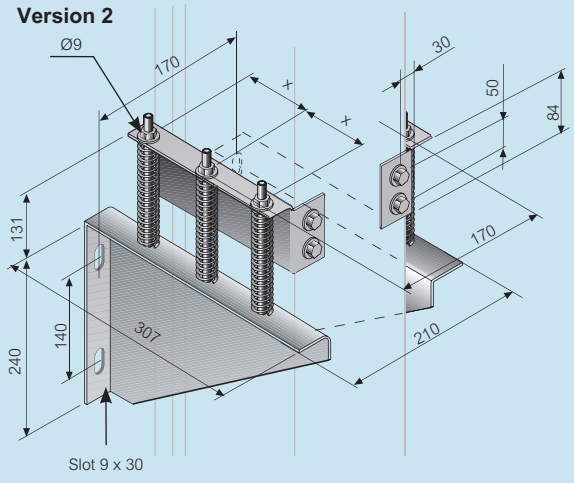
Version 1



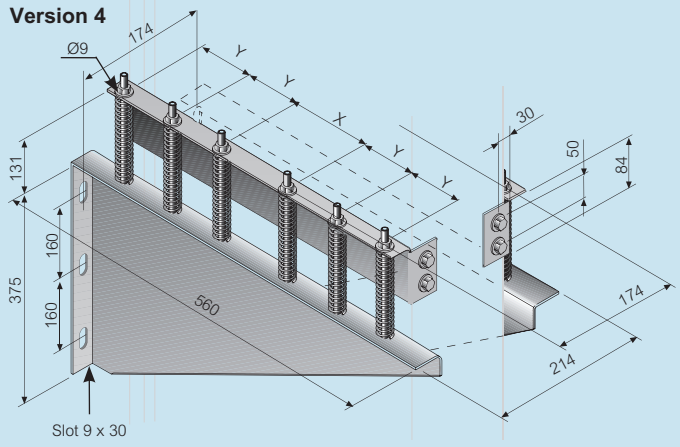
Version 3



Version 2



Version 4



X and Y dimensions of the brackets

	Version 1	Version 1	Version 2	Version 2	Version 3	Version 4	Version 4
Aluminium	630 A to 1 000 A	1 250 A	1 600 A	2 000 A	2 500 A	3 200 A	4 000 A
Copper	800 A to 1 250 A	1 600 A	2 000 A	2 500 A	3 200 A	4 000 A	5 000 A
x (mm)	90	120	80	90	80	80	80
y (mm)	-	-	-	-	110	80	90

All dimensions (mm) are nominal

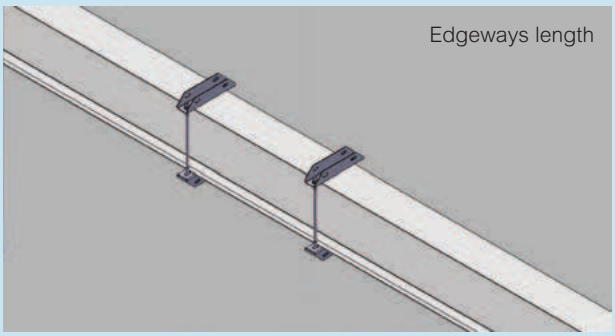
SCP super compact busbar
technical information

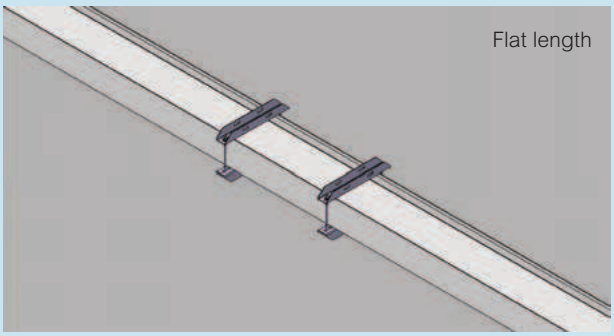
■ Fixing in standard conditions

For vertical path sections of less than 2 m the use of standard suspension brackets is sufficient

Horizontal installation fixing

Fixing recommended : 1 bracket every 1·5 m





Vertical installation fixing (rising mains)

In the case of rising mains, in addition to the standard brackets, it will also be necessary to use other screw fixed brackets to prevent the busbar sliding
Due to their pre-loaded springs, the brackets absorb the forces pressing on the busbar and direct any expansion in a precise direction They therefore operate as a limitation, and support the traction and compression forces of the busbar trunking system

• Section between 2 and 4 m
In the lowest point Type B vertical bracket if secured to the wall, or Type D if secured to the floor and one edgeways installation bracket

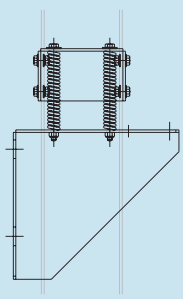
• Section of over 4 m
In the lowest point Type A vertical bracket if secured to the wall, or Type C if secured to the floor and one edgeways installation bracket every 1·5 m of the path and one Type A or C bracket based on the following table

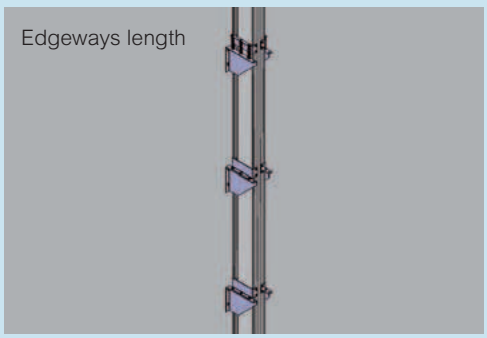
Aluminium		Copper	
Rating (A)	(m)	Rating (A)	(m)
630	17	–	–
800	16	800	10
1 000	16	1 000	9
1 250	15	1 250	9
1 600	12	1 600	7
2 000	10	2 000	6
2 500	14	2 500	4
3 200	12	3 200	7
4 000	10	4 000	6
–	–	5 000	5

■ Fixing for installation in seismic environments

Vertical installation (section lengths > 2 m)

Fit 1 bracket every 1·5 m of the busbar
Every 2 anti-seismic brackets with bracket (Type B) use one bracket with bracket and spring (Type A)

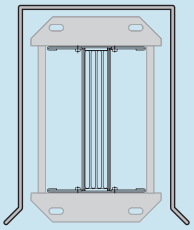


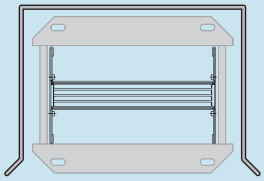


All dimensions (mm) are nominal

■ Protective cover for outdoor applications

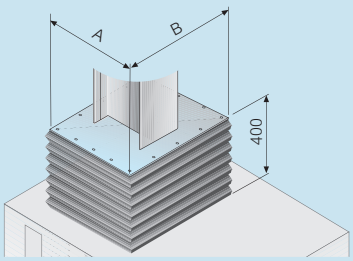
Covering accessory to be used for outdoor installations and wherever the standard IP 55 protection is not adequate
For more information, please contact us on +44 (0) 845 600 6266

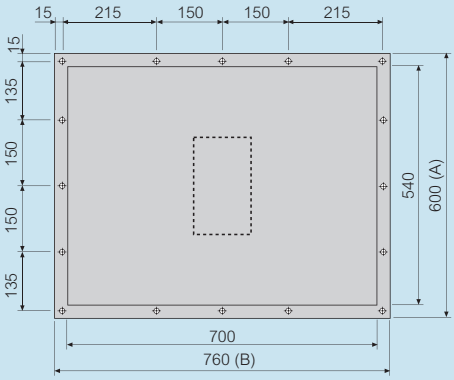

Edgeways length


Flat length

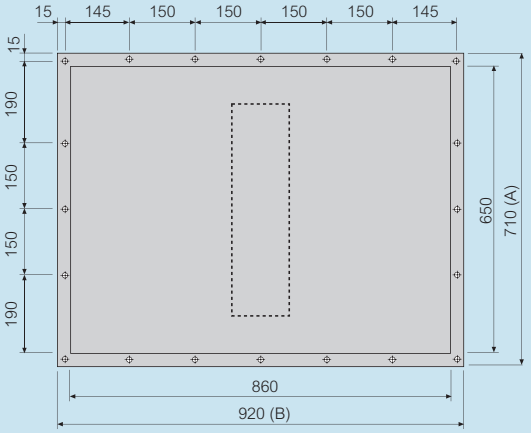
■ Protective bellows

Recommended for protection of the interface connection on panel boards, dry-type transformers with enclosure and oil-type transformers
For EdM cast resin transformers, custom-made connections are available upon request (see p. 83)





Single bar
Cat. No.
SF766040



Double bar
Cat. No.
SF927140

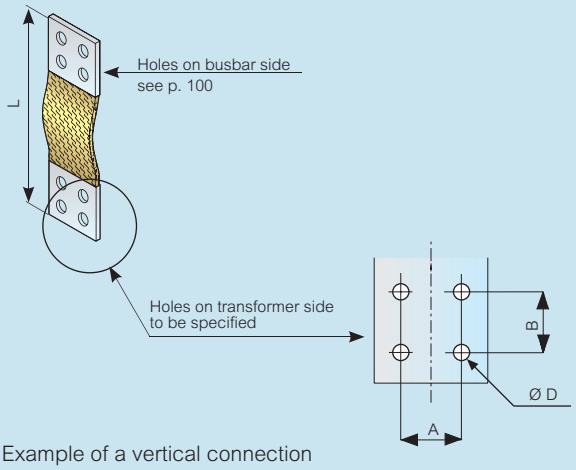
	Single bar	Double bar
Aluminium	630 A to 2000 A Cat. No. SF766040	2500 A to 4000 A Cat. No. SF927140
Copper	800 A to 2500 A Cat. No. SF766040	3200 A to 5000 A Cat. No. SF927140

All dimensions (mm) are nominal

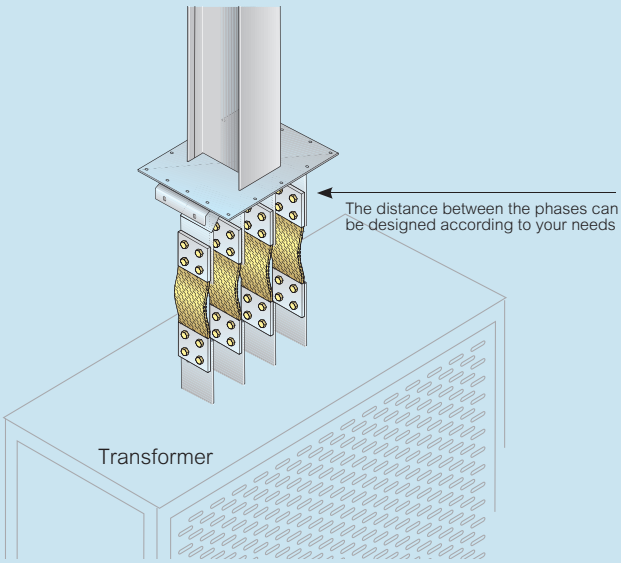
SCP super compact busbar
technical information

■ Flexible braid connections

When ordering, please specify hole dimensions on transformer side (A, B, Ø D) and length L



Example of a vertical connection



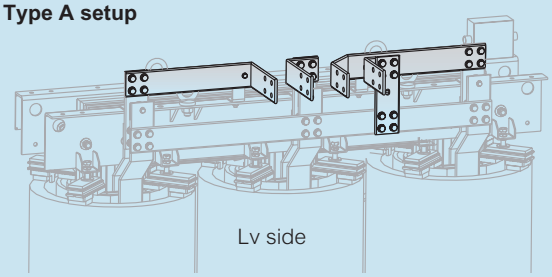
■ The system : the EdM transformer advantage

The Legrand Group offer meets the needs of any installation. EdM cast resin transformers have specifically designed connections for Zucchini busbars

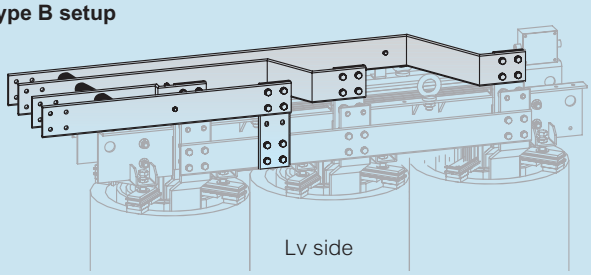
The versions shown represent some of the standardised solutions

For the outgoing busbar run from the transformer, see p. 98-100

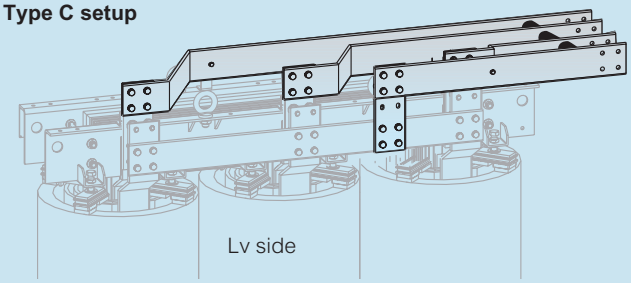
Type A setup



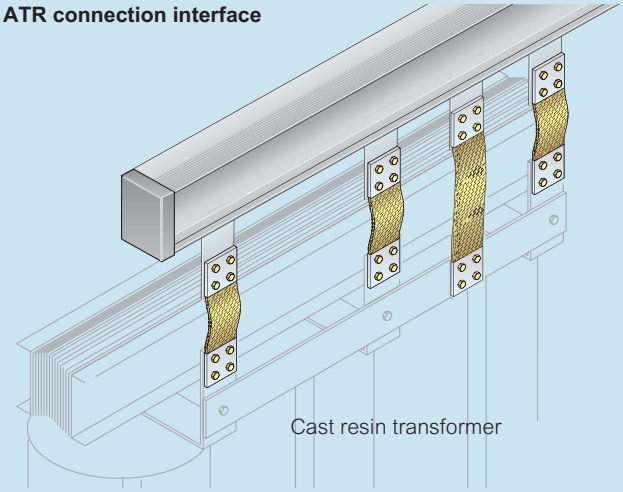
Type B setup



Type C setup



ATR connection interface



A technical drawing of the transformer is needed when creating an ATR connection interface

For EdM cast resin transformers contact us on +44 (0) 845 600 6266

All dimensions (mm) are nominal

SCP super compact busbar
installation guidelines

■ Installation design

1 Use a right hand end feed unit (without monobloc)
To position the tap-off boxes correctly, the neutral conductor of the riser mains must be on the left side of the length

2 Use one or more suspension brackets for the vertical lengths, according to the weight of the whole riser mains
For risers that are shorter than 4 m, fix to the base with type B brackets (see p. 81)
When longer, use a type A suspension bracket (see p. 81) every 300 kg of riser (including boxes)

3 Use a standard suspension bracket to hang the busbar every 2 metres of riser mains

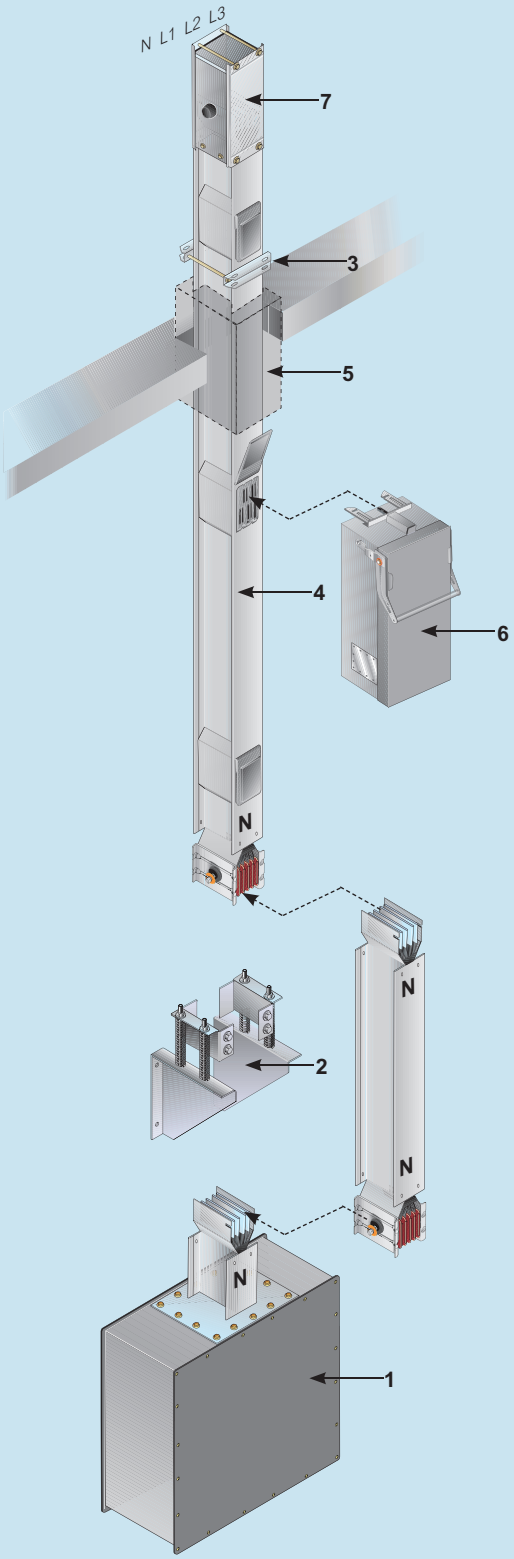
4 Use lengths with tap-off outlets (see p. 66)

5 Use S120 fire barrier kit for each compartment floor (see p. 69)

6 Tap-off boxes can be installed in the tap-off outlets and near the connection between lengths
In both cases, the boxes extend downward

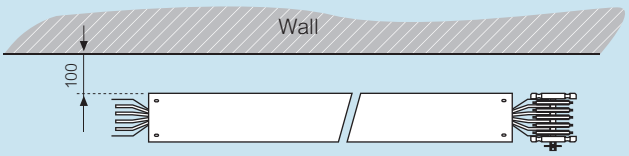
7 Position the IP 55 end cover at the end of the riser mains

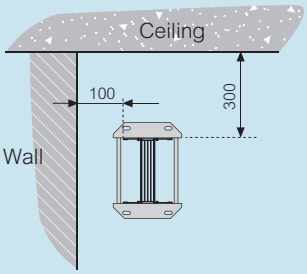
For further information,
please contact us on +44 (0) 845 600 6266

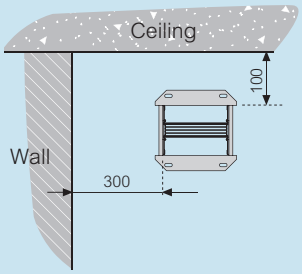


SCP super compact busbar
installation guidelines

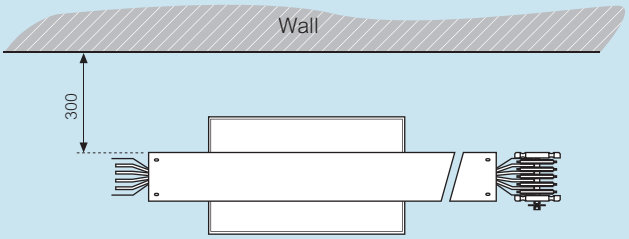
■ Minimum distance of the wall / ceiling lengths

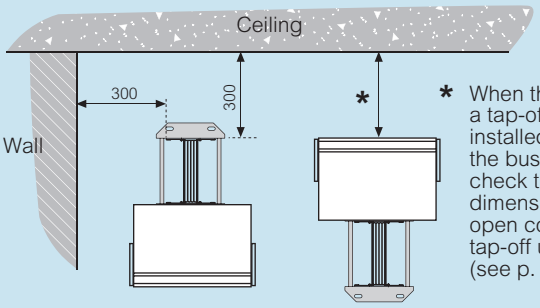




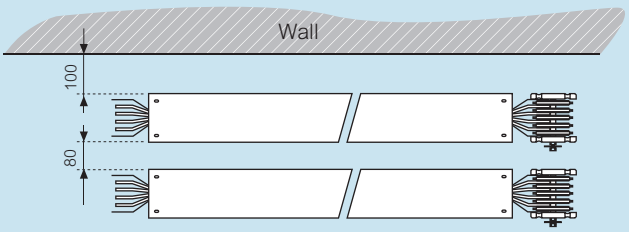


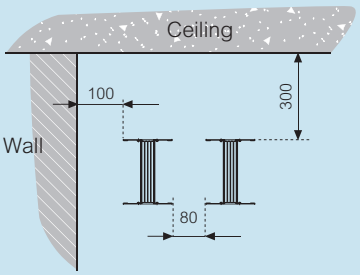
When there are tap-off units along the busbars, the minimum distances depend on the dimensions of the tap-offs selected.



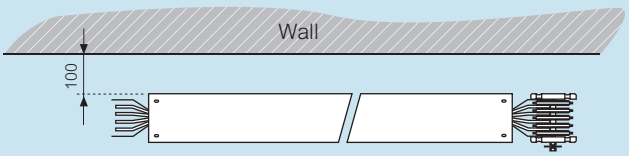


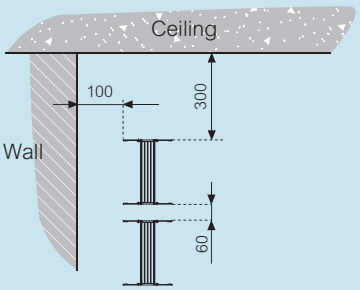
* When there is a tap-off box installed above the busbar, check the overall dimension of the open cover of the tap-off unit used (see p. 47-48)





Minimum installation distance when there are several adjacent lines





Minimum installation distance when there are several overlapped lines

For further information, please contact us on +44 (0) 845 600 6266

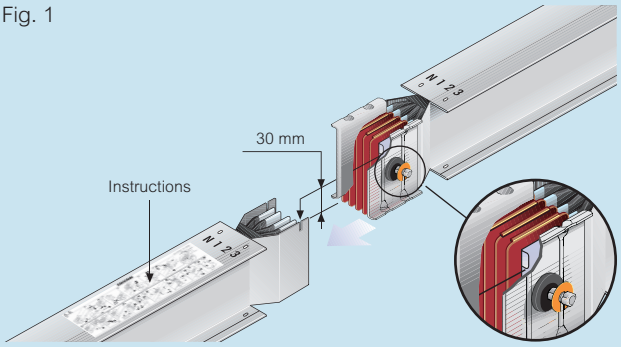
All dimensions (mm) are nominal

■ Installation sequence of the junction

1 Installation instructions are included near the junction (Fig.1)

Make sure that the contacts are clean before joining lengths

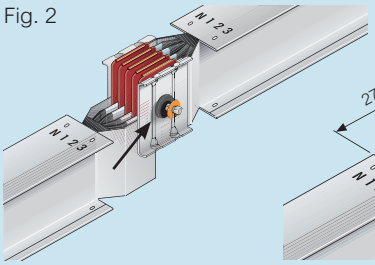
Fig. 1



2 Make sure that the earth plate of the trunking length is inserted behind the front plate of the junction monobloc (Fig.2)

The positioning pin on the monobloc should be fitted into the corresponding slot on the earth plate. Verify the distance between lengths, 270 mm, before tightening the monobloc completely (Fig.3)

Fig. 2



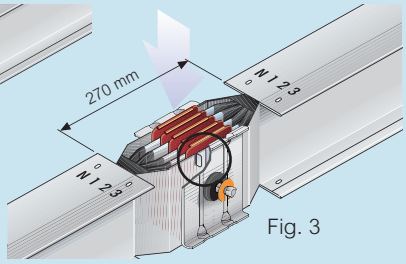


Fig. 3

3 Tighten the bolt of the monobloc until the 1st head breaks off (Fig. 4)

The bolt that tightens the monobloc has a second head which is used when carrying out operations or inspections on the line

The nominal tightening torque is 85Nm

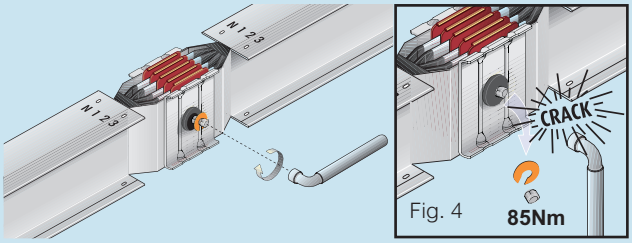


Fig. 4

4 Install the junction covers (Fig. 5)

Completed IP 55 installation (Fig. 6)

For further information, please contact us on +44 (0) 845 600 6266

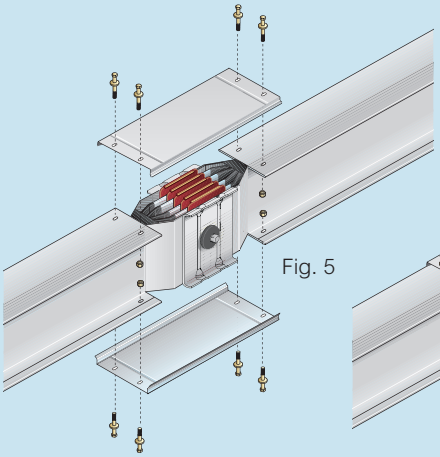


Fig. 5

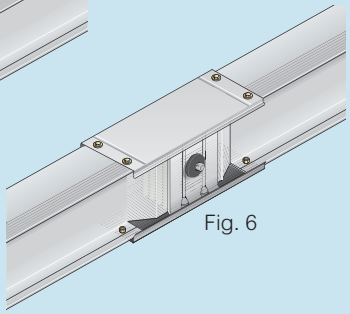


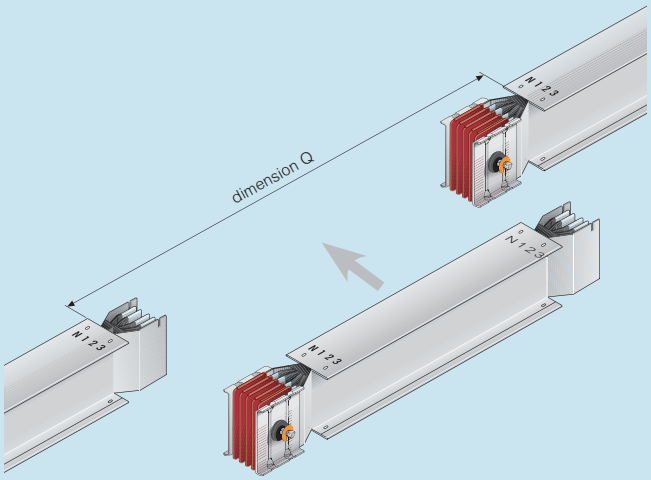
Fig. 6

Measurement of trunking lengths

The exact length to be ordered can be determined by measuring the distance between the components (as shown below) and then subtracting 270 mm

Length = Q - 270 mm

Example : dimension measured = 2 500 mm
length required = 2 230 mm



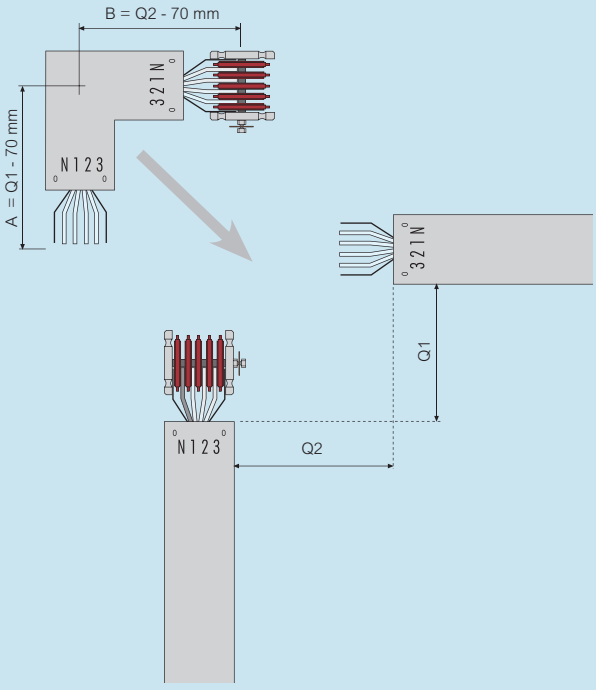
■ Measurement of bespoke components

Horizontal elbow

The exact length to be ordered can be determined by measuring the dimensions Q1 and Q2 (as shown below) and then subtracting 70 mm from each dimension

A = Q1 - 70 mm
B = Q2 - 70 mm

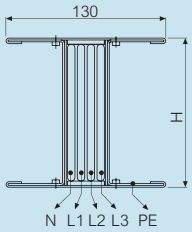
For further information, please contact us on +44 (0) 845 600 6266



All dimensions (mm) are nominal

SCP super compact busbar – 4 conductor (aluminium)
technical data

■ 3L + N + PE aluminium



Aluminium		Single bar						Double bar		
Rated current	I_n [A]	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000
Casing overall dimensions	L x H [mm]	130 x 130	130 x 130	130 x 130	130 x 130	130 x 170	130 x 220	130 x 380	130 x 440	130 x 480
Operating voltage	[V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Insulation voltage	U_i [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Frequency	[Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current for three-phase fault (1 s)	I_{cw} [kA]rms	36	42	50	75	80	80	150	160	160
Allowable peak current for three-phase fault	I_{pk} [kA]	76	88	110	165	176	176	330	352	352
Rated short-time current for single-phase fault (1 s)	I_{cw} [kA]rms	22	25	30	45	48	48	90	96	96
Allowable peak current for single-phase fault	I_{pk} [kA]	48	55	66	99	106	106	198	211	211
Allowable specific energy for three-phase fault	I^2t [MA^2s]	1 296	1 764	2 500	5 625	6 400	6 400	22 500	25 600	25 600
Phase resistance	R_{20} [mΩ/m]	0·077	0·058	0·058	0·047	0·035	0·027	0·022	0·017	0·014
Phase reactance (50 Hz)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·006	0·006	0·006
Phase impedance	Z [mΩ/m]	0·080	0·060	0·060	0·049	0·037	0·029	0·022	0·018	0·015
Phase resistance at thermal conditions	R_t [mΩ/m]	0·084	0·064	0·069	0·056	0·041	0·032	0·025	0·020	0·017
Phase impedance at thermal conditions	Z [mΩ/m]	0·087	0·066	0·071	0·058	0·043	0·034	0·026	0·021	0·018
Neutral resistance	R_{20} [mΩ/m]	0·077	0·058	0·058	0·047	0·035	0·027	0·022	0·017	0·014
Resistance of the protective conductor (PE 1)	R_{PE} [mΩ/m]	0·125	0·125	0·125	0·125	0·113	0·101	0·075	0·069	0·065
Resistance of the protective conductor (PE 2)	R_{PE} [mΩ/m]	0·036	0·036	0·036	0·036	0·028	0·023	0·014	0·012	0·011
Resistance of the protective conductor (PE 3)	R_{PE} [mΩ/m]	0·050	0·050	0·050	0·050	0·041	0·033	0·021	0·018	0·017
Reactance of the protective conductor (50 Hz)	X_{PE} [mΩ/m]	0·080	0·078	0·078	0·048	0·039	0·028	0·020	0·015	0·016
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0·209	0·189	0·194	0·181	0·154	0·133	0·100	0·089	0·082
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0·120	0·100	0·105	0·092	0·069	0·055	0·039	0·032	0·028
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0·134	0·114	0·119	0·106	0·082	0·065	0·046	0·038	0·034
Reactance of the fault loop (50 Hz)	X_o [mΩ/m]	0·10	0·10	0·10	0·06	0·05	0·04	0·03	0·02	0·02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0·233	0·212	0·216	0·192	0·163	0·139	0·103	0·092	0·085
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0·158	0·138	0·142	0·112	0·087	0·068	0·047	0·038	0·036
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0·169	0·149	0·152	0·123	0·098	0·076	0·053	0·044	0·041
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence Impedance phase - PE	Z_o [mΩ/m]	0·638	0·567	0·567	0·416	0·366	0·343	0·267	0·246	0·22
Voltage drop factor with distributed load $\Delta V = k.L.Ie.10^{-6}$ [V]	k [V/m/A]10^{-6} cosφ = 0·70	65·1	49·5	52·5	43·3	33·6	26·3	18·8	15·9	14·2
	cosφ = 0·75	67·7	51·5	54·7	45·1	34·7	27·2	19·6	16·5	14·6
	cosφ = 0·80	70·1	53·3	56·8	46·7	35·7	28·0	20·4	17·1	15·1
	cosφ = 0·85	72·3	55·1	58·7	48·2	36·6	28·7	21·1	17·6	15·4
	cosφ = 0·90	74·1	56·5	60·4	49·4	37·3	29·2	21·7	18·0	15·7
	cosφ = 0·95	75·3	57·5	61·6	50·3	37·6	29·4	22·1	18·2	15·8
	cosφ = 1·00	72·7	55·6	60·0	48·6	35·6	27·8	21·6	17·4	14·9
Weight (PE 1)	p [kg/m]	17·5	18·3	18·3	19·8	24·2	29·6	40·1	48·0	54·9
Weight (PE 2)	p [kg/m]	20·7	21·5	21·5	23·0	28·4	35·0	48·3	57·6	65·6
Weight (PE 3)	p [kg/m]	18·5	19·3	19·3	20·9	25·6	31·4	42·8	51·1	58·4
Fire load	[kWh/m]	4·5	5·5	5·5	6·0	8·5	10·5	16·0	19·0	21·0
Degree of protection	IP	55	55	55	55	55	55	55	55	55
Thermal resistance class of the insulating materials	–	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]
Joule effect losses at rated current	P [W/m]	100	123	208	263	315	386	468	618	827
Min./max. ambient temperature	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

Regulations and conformity :
IEC/EN 60439-1 and 2; DIN VDE 0660 500 and 502
Product suitable for Constant/Cyclic Warm, humid climates :
DIN IEC 68 part 2-3; DIN IEC 68 part 2-30
Degree of protection :
IP 55; IP x7 carrying lines available with accessories, on request - +44 (0) 845 600 6266
Insulation and surface treatment of the conductors :
Insulated conductors for the whole length, aluminum copper-plated and tin-plated
Busbar casing material :
1·5 mm galvanised steel plate, pre-painted or stainless steel
(available, if required, with special paint and/or with thickness 2 mm)

1 : Class F thermal resistance (155°C) available on request - +44 (0) 845 600 6266
In : rated current referred to a room temperature of 40°C

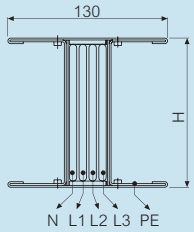

PE 1
Standard version


PE 2
Extra earth - copper


PE 3
Extra earth - aluminium

SCP super compact busbar – 4 conductor (copper)
technical data

■ 3L + N + PE copper



Copper		Single bar						Double bar		
Rated current	I_n [A]	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
Casing overall dimensions	L x H [mm]	130 x 130	130 x 130	130 x 130	130 x 170	130 x 170	130 x 220	130 x 380	130 x 440	130 x 480
Operating voltage	U_e [V]	1 000	1 000	1 000	1 000	1000	1 000	1 000	1 000	1 000
Insulation voltage	U_i [V]	1 000	1 000	1 000	1 000	1000	1 000	1 000	1 000	1 000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current for three-phase fault (1 s)	I_{cw} [kA]rms	45	50	60	85	88	88	170	176	176
Allowable peak current for three-phase fault	I_{pk} [kA]	95	110	132	187	194	194	374	387	387
Rated short-time current for single-phase fault (1 s)	I_{cw} [kA]rms	27	30	36	51	53	53	102	106	106
Allowable peak current for single-phase fault	[kA]	57	66	79	112	116	116	224	232	232
Allowable specific energy for three-phase fault	I^2t [MA^2s]	2 025	2 500	3 600	7 225	7 744	7 744	28 900	30 976	30 976
Phase resistance	R_{20} [mΩ/m]	0·041	0·032	0·032	0·024	0·020	0·016	0·012	0·010	0·008
Phase reactance (50 Hz)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·007	0·006	0·006
Phase impedance	Z [mΩ/m]	0·047	0·037	0·037	0·028	0·024	0·019	0·014	0·012	0·010
Phase resistance at thermal conditions	R_t [mΩ/m]	0·045	0·037	0·040	0·029	0·024	0·019	0·015	0·013	0·010
Neutral resistance	R_{20} [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·007	0·006	0·006
Phase impedance at thermal conditions	Z [mΩ/m]	0·050	0·041	0·043	0·033	0·028	0·022	0·016	0·014	0·012
Resistance of the protective conductor (PE 1)	R_{PE} [mΩ/m]	0·125	0·125	0·125	0·113	0·113	0·101	0·075	0·069	0·065
Resistance of the protective conductor (PE 2)	R_{PE} [mΩ/m]	0·036	0·036	0·036	0·028	0·028	0·023	0·014	0·012	0·011
Resistance of the protective conductor (PE 3)	R_{PE} [mΩ/m]	0·050	0·050	0·050	0·041	0·041	0·033	0·021	0·018	0·017
Reactance of the protective conductor (50 Hz)	X_{PE} [mΩ/m]	0·054	0·054	0·054	0·044	0·044	0·032	0·022	0·017	0·016
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0·170	0·162	0·165	0·142	0·137	0·120	0·090	0·082	0·075
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0·081	0·073	0·076	0·057	0·052	0·042	0·029	0·025	0·021
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0·095	0·087	0·090	0·070	0·065	0·052	0·036	0·031	0·027
Reactance of the fault loop (50 Hz)	X_o [mΩ/m]	0·077	0·071	0·071	0·059	0·058	0·043	0·029	0·023	0·022
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0·186	0·177	0·179	0·154	0·149	0·128	0·094	0·085	0·078
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0·111	0·102	0·104	0·082	0·078	0·060	0·041	0·034	0·030
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0·122	0·112	0·114	0·092	0·087	0·068	0·046	0·039	0·035
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Voltage drop factor with distributed load $\Delta V = k.L.Ie.10^{-6}$ [V]	k [V/m/A]10^{-6} cosφ = 0·70	41·3	33·0	34·6	27·1	23·5	18·5	13·2	11·5	9·8
	cosφ = 0·75	42·1	33·8	35·5	27·7	23·9	18·8	13·5	11·8	9·9
	cosφ = 0·80	42·8	34·5	36·3	28·1	24·2	19·1	13·8	12·1	10·0
	cosφ = 0·85	43·3	35·0	37·0	28·4	24·4	19·2	14·0	12·2	10·1
	cosφ = 0·90	43·4	35·3	37·3	28·5	24·4	19·2	14·1	12·3	10·1
	cosφ = 0·95	42·9	35·1	37·2	28·2	23·9	18·8	14·0	12·2	9·8
	cosφ = 1·00	38·6	32·1	34·4	25·4	21·2	16·7	12·7	11·2	8·7
Weight (PE 1)	p [kg/m]	28·9	32·6	32·6	41·8	47·9	60·6	79·0	93·4	116·7
Weight (PE 2)	p [kg/m]	38·4	42·1	42·1	54·2	60·3	76·8	103·4	122·3	148·6
Weight (PE 3)	p [kg/m]	32·0	35·7	35·7	45·8	51·9	65·9	87·0	102·8	127·1
Fire load	[kWh/m]	4·5	5·5	5·5	8	8·2	10·5	16	19	21
Degree of protection	IP	55	55	55	55	55	55	55	55	55
Thermal resistance class of the insulating materials	–	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]
Joule effect losses at rated current	P [W/m]	86	111	186	225	294	361	451	619	750
Min./max. ambient temperature	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

Regulations and conformity :
IEC/EN 60439-1 and 2; DIN VDE 0660 500 and 502
Product suitable for Constant/Cyclic Warm, humid climates :
DIN IEC 68 part 2-3; DIN IEC 68 part 2-30
Degree of protection :
IP 55; IP x7 carrying lines available with accessories, on request - +44 (0) 845 600 6266
Insulation and surface treatment of the conductors :
Insulated conductors for the whole length, aluminum copper-plated and tin-plated
Busbar casing material :
1·5 mm galvanised steel plate, pre-painted or stainless steel
(available, if required, with special paint and/or with thickness 2 mm)

1 : Class F thermal resistance (155°C) available on request - +44 (0) 845 600 6266
In : rated current referred to a room temperature of 40°C

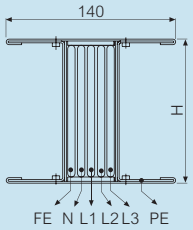

PE 1
Standard version


PE 2
Extra earth - copper


PE 3
Extra earth - aluminium

SCP super compact busbar – 5 conductor (aluminium)
technical data

■ SCP technical data functional earth clean earth / low noise SCP5C (3L + N + PE + FE) aluminium



Aluminium		Single bar						Double bar		
Rated current	I_n [A]	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000
Casing overall dimensions	L x H [mm]	140 x 130	140 x 130	140 x 130	140 x 130	140 x 170	140 x 220	140 x 380	140 x 440	140 x 480
Operating voltage	U_e [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Insulation voltage	U_i [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current for three-phase fault (1 s)	I_{CW} [kA]rms	36	42	50	75	80	80	150	160	160
Allowable peak current for three-phase fault	I_{pk} [kA]	76	88	110	165	176	176	330	352	352
Rated short-time current for single-phase fault (1 s)	I_{CW} [kA]rms	22	25	30	45	48	48	90	96	96
Allowable peak current for single-phase fault	I_{pk} [kA]	48	55	66	99	106	106	198	211	211
Allowable specific energy for three-phase fault	I^2t [MA^2s]	1 296	1 764	2 500	5 625	6 400	6 400	22 500	25 600	25 600
Phase resistance	R_{20} [mΩ/m]	0·077	0·058	0·058	0·047	0·035	0·027	0·022	0·017	0·014
Phase reactance (50 Hz)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·006	0·006	0·006
Phase impedance	Z [mΩ/m]	0·080	0·060	0·060	0·049	0·037	0·029	0·022	0·018	0·015
Phase resistance at thermal conditions	R_t [mΩ/m]	0·084	0·064	0·069	0·056	0·041	0·032	0·025	0·020	0·017
Phase impedance at thermal conditions	Z [mΩ/m]	0·087	0·066	0·071	0·058	0·043	0·034	0·026	0·021	0·018
Neutral resistance	R_{20} [mΩ/m]	0·077	0·058	0·058	0·047	0·035	0·027	0·022	0·017	0·014
Functional earthing resistance (FE)	R_{20} [mΩ/m]	0·077	0·058	0·058	0·047	0·035	0·027	0·022	0·017	0·014
Functional earthing reactance (FE)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·006	0·006	0·006
Resistance of the protective conductor (PE type 1)	R_{PE} [mΩ/m]	0·121	0·121	0·121	0·121	0·110	0·098	0·074	0·068	0·064
Resistance of the protective conductor (PE type 2)	R_{PE} [mΩ/m]	0·035	0·035	0·035	0·035	0·028	0·023	0·014	0·012	0·011
Resistance of the protective conductor (PE type 3)	R_{PE} [mΩ/m]	0·050	0·050	0·050	0·050	0·040	0·033	0·020	0·018	0·017
Reactance of the protective conductor (50 Hz)	X_{PE} [mΩ/m]	0·080	0·078	0·078	0·048	0·039	0·028	0·020	0·015	0·016
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0·131	0·103	0·108	0·090	0·067	0·053	0·042	0·034	0·028
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0·108	0·086	0·091	0·076	0·057	0·044	0·033	0·027	0·023
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0·114	0·091	0·096	0·080	0·060	0·047	0·035	0·029	0·025
Reactance of the fault loop (50 Hz)	X_o [mΩ/m]	0·10	0·10	0·10	0·06	0·05	0·04	0·03	0·02	0·02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0·167	0·140	0·144	0·110	0·086	0·066	0·049	0·040	0·036
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0·149	0·128	0·132	0·099	0·078	0·059	0·042	0·034	0·032
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0·154	0·132	0·135	0·102	0·080	0·061	0·044	0·036	0·033
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Voltage drop factor with distributed load $\Delta V = k.L.Ie.10^{-6}$ [V]	k [V/m/A]10^{-6} cosφ = 0·70	65·1	49·5	52·5	43·3	33·6	26·3	18·8	15·9	14·2
	cosφ = 0·75	67·7	51·5	54·7	45·1	34·7	27·2	19·6	16·5	14·6
	cosφ = 0·80	70·1	53·3	56·8	46·7	35·7	28·0	20·4	17·1	15·1
	cosφ = 0·85	72·3	55·1	58·7	48·2	36·6	28·7	21·1	17·6	15·4
	cosφ = 0·90	74·1	56·5	60·4	49·4	37·3	29·2	21·7	18·0	15·7
	cosφ = 0·95	75·3	57·5	61·6	50·3	37·6	29·4	22·1	18·2	15·8
	cosφ = 1·00	72·7	55·6	60·0	48·6	35·6	27·8	21·6	17·4	14·9
Weight (PE 1)	p [kg/m]	21·0	22·0	22·0	23·8	29·1	35·6	48·2	57·6	65·9
Weight (PE 2)	p [kg/m]	24·2	25·1	25·1	27·0	33·2	41·0	56·3	67·2	76·6
Weight (PE 3)	p [kg/m]	22·0	23·0	23·0	24·8	30·4	37·3	50·8	60·7	69·4
Fire load	[kWh/m]	5·6	6·9	6·9	7·5	10·6	13·1	20·0	23·8	26·3
Degree of protection	IP	55	55	55	55	55	55	55	55	55
Thermal resistance class of the insulating materials	–	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹
Joule effect losses at rated current	P [W/m]	100	123	208	263	315	386	468	618	827
Min./max. ambient temperature	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

Regulations and conformity :
IEC/EN 60439-1 and 2; DIN VDE 0660 500 and 502
Product suitable for Constant/Cyclic Warm, humid climates :
DIN IEC 68 part 2-3; DIN IEC 68 part 2-30
Degree of protection :
IP 55; IP x7 carrying lines available with accessories, on request - +44 (0) 845 600 6266
Insulation and surface treatment of the conductors :
Insulated conductors for the whole length, aluminum copper-plated and tin-plated
Busbar casing material :
1·5 mm galvanised steel plate, pre-painted or stainless steel
(available, if required, with special paint and/or with thickness 2 mm)

1 : Class F thermal resistance (155°C) available on request - +44 (0) 845 600 6266
In : rated current referred to a room temperature of 40°C

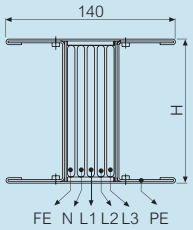

PE 1
Standard version


PE 2
Extra earth - copper


PE 3
Extra earth - aluminium

SCP super compact busbar – 5 conductor (copper)
technical data

■ SCP technical data functional earth clean earth / low noise SCP5C (3L + N + PE + FE) copper



Copper		Single bar						Double bar		
Rated current	I_n [A]	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
Casing overall dimensions	L x H [mm]	140 x 130	140 x 130	140 x 130	140 x 170	140 x 170	140 x 220	140 x 380	140 x 440	140 x 480
Operating voltage	U_e [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Insulation voltage	U_i [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current for three-phase fault (1 s)	I_{cw} [kA]rms	45	50	60	85	88	88	170	176	176
Allowable peak current for three-phase fault	I_{pk} [kA]	95	110	132	187	194	194	374	387	387
Rated short-time current for single-phase fault (1 s)	I_{cw} [kA]rms	27	30	36	51	53	53	102	106	106
Allowable peak current for single-phase fault	I_{pk} [kA]	57	66	79	112	116	116	224	232	232
Allowable specific energy for three-phase fault	I^2t [MA²s]	2025	2 500	3 600	7 225	7 744	7 744	28 900	30 976	30 976
Phase resistance	R_{20} [mΩ/m]	0·041	0·032	0·032	0·024	0·020	0·016	0·012	0·010	0·008
Phase reactance (50 Hz)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·007	0·006	0·006
Phase impedance	Z [mΩ/m]	0·047	0·037	0·037	0·028	0·024	0·019	0·014	0·012	0·010
Phase resistance at thermal conditions	R_t [mΩ/m]	0·045	0·037	0·040	0·029	0·024	0·019	0·015	0·013	0·010
Phase impedance at thermal conditions	Z [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·007	0·006	0·006
Neutral resistance	R_{20} [mΩ/m]	0·041	0·032	0·032	0·024	0·020	0·016	0·012	0·010	0·008
Functional earthing resistance (FE)	R_{20} [mΩ/m]	0·041	0·032	0·032	0·024	0·020	0·016	0·012	0·010	0·008
Functional earthing reactance (FE)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·007	0·006	0·006
Resistance of the protective conductor (PE type 1)	R_{PE} [mΩ/m]	0·125	0·125	0·125	0·113	0·113	0·101	0·075	0·069	0·065
Resistance of the protective conductor (PE type 2)	R_{PE} [mΩ/m]	0·036	0·036	0·036	0·028	0·028	0·023	0·014	0·012	0·011
Resistance of the protective conductor (PE type 3)	R_{PE} [mΩ/m]	0·050	0·050	0·050	0·041	0·041	0·033	0·021	0·018	0·017
Reactance of the protective conductor (50 Hz)	X_{PE} [mΩ/m]	0·054	0·054	0·054	0·044	0·044	0·032	0·022	0·017	0·016
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0·076	0·063	0·065	0·049	0·042	0·033	0·025	0·022	0·017
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0·064	0·054	0·057	0·042	0·036	0·029	0·021	0·018	0·015
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0·067	0·057	0·059	0·045	0·038	0·030	0·023	0·020	0·015
Reactance of the fault loop (50 Hz)	X_o [mΩ/m]	0·077	0·071	0·071	0·059	0·058	0·043	0·029	0·023	0·022
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0·108	0·095	0·097	0·077	0·071	0·054	0·039	0·032	0·028
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0·100	0·089	0·091	0·073	0·068	0·052	0·036	0·030	0·026
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0·102	0·091	0·093	0·074	0·069	0·052	0·037	0·030	0·027
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Voltage drop factor with distributed load $\Delta V = k.L.Ie.10^{-6}$ [V] k [V/m/A]10^{-6}	cosφ = 0·70	41·3	33·0	34·6	27·1	23·5	18·5	13·2	11·5	9·8
	cosφ = 0·75	42·1	33·8	35·5	27·7	23·9	18·8	13·5	11·8	9·9
	cosφ = 0·80	42·8	34·5	36·3	28·1	24·2	19·1	13·8	12·1	10·0
	cosφ = 0·85	43·3	35·0	37·0	28·4	24·4	19·2	14·0	12·2	10·1
	cosφ = 0·90	43·4	35·3	37·3	28·5	24·4	19·2	14·1	12·3	10·1
	cosφ = 0·95	42·9	35·1	37·2	28·2	23·9	18·8	14·0	12·2	9·8
	cosφ = 1·00	38·6	32·1	34·4	25·4	21·2	16·7	12·7	11·2	8·7
Weight (PE 1)	p [kg/m]	34·7	39·2	39·2	50·1	57·4	72·7	94·8	112·0	140·1
Weight (PE 2)	p [kg/m]	37·8	42·3	42·3	54·3	61·6	78·1	103·0	121·7	150·7
Weight (PE 3)	p [kg/m]	35·7	40·2	40·2	51·5	58·8	74·5	97·5	115·2	143·5
Fire load	[kWh/m]	5·6	6·9	6·9	10·0	10·3	13·1	20·0	23·8	26·3
Degree of protection	IP	55	55	55	55	55	55	55	55	55
Thermal resistance class of the insulating materials	–	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹	B/F¹
Joule effect losses at rated current	P [W/m]	86	111	186	225	294	361	451	619	750
Min./max. ambient temperature	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

Regulations and conformity :
IEC/EN 60439-1 and 2; DIN VDE 0660 500 and 502
Product suitable for Constant/Cyclic Warm, humid climates :
DIN IEC 68 part 2-3; DIN IEC 68 part 2-30
Degree of protection :
IP 55; IP x7 carrying lines available with accessories, on request - +44 (0) 845 600 6266
Insulation and surface treatment of the conductors :
Insulated conductors for the whole length, aluminum copper-plated and tin-plated
Busbar casing material :
1·5 mm galvanised steel plate, pre-painted or stainless steel
(available, if required, with special paint and/or with thickness 2 mm)

1 : Class F thermal resistance (155°C) available on request - +44 (0) 845 600 6266
In : rated current referred to a room temperature of 40°C


PE 1
Standard version

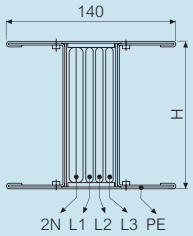

PE 2
Extra earth - copper


PE 3
Extra earth - aluminium

SCP super compact busbar – double neutral (aluminium)

technical data

■ Double neutral SCP2N (3L + 2N + PE) aluminium



Aluminium		Single bar						Double bar		
Rated current	I_n [A]	630	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000
Casing overall dimensions	L x H [mm]	140 x 130	140 x 130	140 x 130	140 x 130	140 x 170	140 x 220	140 x 380	140 x 440	140 x 480
Operating voltage	U_e [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Insulation voltage	U_i [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current for three-phase fault (1 s)	I_{cw} [kA]rms	36	42	50	75	80	80	150	160	160
Allowable peak current for three-phase fault	I_{pk} [kA]	76	88	110	165	176	176	330	352	352
Rated short-time current for single-phase fault (1 s)	I_{cw} [kA]rms	22	25	30	45	48	48	90	96	96
Allowable peak current for single-phase fault	I_{pk} [kA]	48	55	66	99	106	106	198	211	211
Rated short-time protection current (1 s)	I_{cw} [kA]rms	22	25	30	45	48	48	90	96	96
Protection circuit peak rated current	I_{pk} [kA]	48	55	66	99	106	106	198	211	211
Allowable specific energy for three-phase fault	I^2t [MA^2s]	1 296	1 764	2 500	5 625	6 400	6 400	22 500	25 600	25 600
Phase resistance	R_{20} [mΩ/m]	0·077	0·058	0·058	0·047	0·035	0·027	0·022	0·017	0·014
Phase reactance (50 Hz)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·006	0·006	0·006
Phase impedance	Z [mΩ/m]	0·080	0·060	0·060	0·049	0·037	0·029	0·022	0·018	0·015
Phase resistance at thermal conditions	R_t [mΩ/m]	0·084	0·064	0·069	0·056	0·041	0·032	0·025	0·020	0·017
Phase impedance at thermal conditions	Z [mΩ/m]	0·087	0·066	0·071	0·058	0·043	0·034	0·026	0·021	0·018
Neutral resistance	R_{20} [mΩ/m]	0·038	0·029	0·029	0·023	0·017	0·013	0·011	0·008	0·007
Resistance of the protective conductor (PE type 1)	R_{PE} [mΩ/m]	0·121	0·121	0·121	0·121	0·110	0·098	0·074	0·068	0·064
Resistance of the protective conductor (PE type 2)	R_{PE} [mΩ/m]	0·035	0·035	0·035	0·035	0·028	0·023	0·014	0·012	0·011
Resistance of the protective conductor (PE type 3)	R_{PE} [mΩ/m]	0·050	0·050	0·050	0·050	0·040	0·033	0·020	0·018	0·017
Reactance of the protective conductor (50 Hz)	X_{PE} [mΩ/m]	0·080	0·078	0·078	0·048	0·039	0·028	0·020	0·015	0·016
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0·205	0·185	0·190	0·177	0·151	0·130	0·099	0·088	0·081
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0·119	0·099	0·104	0·091	0·069	0·055	0·039	0·032	0·028
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0·134	0·114	0·119	0·106	0·081	0·065	0·045	0·038	0·034
Reactance of the fault loop (50 Hz)	X_o [mΩ/m]	0·10	0·10	0·10	0·06	0·05	0·04	0·03	0·02	0·02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0·229	0·208	0·213	0·188	0·160	0·136	0·102	0·091	0·084
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0·157	0·137	0·141	0·111	0·087	0·068	0·047	0·038	0·036
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0·169	0·149	0·152	0·123	0·097	0·076	0·052	0·044	0·041
Zero-sequence resistance phase - N	R_o [mΩ/m]	0·147	0·135	0·135	0·132	0·129	0·126	0·084	0·063	0·048
Zero-sequence reactance phase - N	X_o [mΩ/m]	0·198	0·180	0·180	0·166	0·160	0·190	0·135	0·165	0·103
Zero-sequence Impedance phase - N	Z_o [mΩ/m]	0·247	0·225	0·225	0·212	0·206	0·228	0·159	0·177	0·114
Zero-sequence 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
Zero-sequence 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
Zero-sequence 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
Voltage drop factor with distributed load $\Delta V = k.L.Ie.10^{-6}$ [V]	k [V/m/A]10^{-6} cosφ = 0·70	65·1	49·5	52·5	43·3	33·6	26·3	18·8	15·9	14·2
	cosφ = 0·75	67·7	51·5	54·7	45·1	34·7	27·2	19·6	16·5	14·6
	cosφ = 0·80	70·1	53·3	56·8	46·7	35·7	28·0	20·4	17·1	15·1
	cosφ = 0·85	72·3	55·1	58·7	48·2	36·6	28·7	21·1	17·6	15·4
	cosφ = 0·90	74·1	56·5	60·4	49·4	37·3	29·2	21·7	18·0	15·7
	cosφ = 0·95	75·3	57·5	61·6	50·3	37·6	29·4	22·1	18·2	15·8
	cosφ = 1·00	72·7	55·6	60·0	48·6	35·6	27·8	21·6	17·4	14·9
Weight (PE 1)	p [kg/m]	21·0	22·0	22·0	23·8	29·1	35·6	48·2	57·6	65·9
Weight (PE 2)	p [kg/m]	24·2	25·1	25·1	27·0	33·2	41·0	56·3	67·2	76·6
Weight (PE 3)	p [kg/m]	22·0	23·0	23·0	24·8	30·4	37·3	50·8	60·7	69·4
Fire load	[kWh/m]	5·6	6·9	6·9	7·5	10·6	13·1	20·0	23·8	26·3
Degree of protection	IP	55	55	55	55	55	55	55	55	55
Thermal resistance class of the insulating materials	–	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]
Joule effect losses at rated current	P [W/m]	100	123	208	263	315	386	468	618	827
Min./max. ambient temperature	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

Regulations and conformity :
IEC/EN 60439-1 and 2; DIN VDE 0660 500 and 502
Product suitable for Constant/Cyclic Warm, humid climates :
DIN IEC 68 part 2-3; DIN IEC 68 part 2-30
Degree of protection :
IP 55; IP x7 carrying lines available with accessories, on request - +44 (0) 845 600 6266
Insulation and surface treatment of the conductors :
Insulated conductors for the whole length, aluminum copper-plated and tin-plated
Busbar casing material :
1·5 mm galvanised steel plate, pre-painted or stainless steel
(available, if required, with special paint and/or with thickness 2 mm)

1 : Class F thermal resistance (155°C) available on request - +44 (0) 845 600 6266
In : rated current referred to a room temperature of 40°C

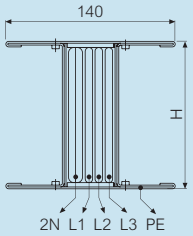

PE 1
Standard version


PE 2
Extra earth - copper


PE 3
Extra earth - aluminium

SCP super compact busbar – double neutral (copper)
technical data

■ Double neutral SCP2N (3L + 2N + PE) copper



Copper		Single bar						Double bar		
Rated current	I_n [A]	800	1 000	1 250	1 600	2 000	2 500	3 200	4 000	5 000
Casing overall dimensions	L x H [mm]	140 x 130	140 x 130	140 x 130	140 x 170	140 x 170	140 x 220	140 x 380	140 x 440	140 x 480
Operating voltage	U_e [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Insulation voltage	U_i [V]	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current for three-phase fault (1 s)	I_{cw} [kA]rms	45	50	60	85	88	88	170	176	176
Allowable peak current for three-phase fault	I_{pk} [kA]	95	110	132	187	194	194	374	387	387
Rated short-time current for single-phase fault (1 s)	I_{cw} [kA]rms	27	30	36	51	53	53	102	106	106
Allowable peak current for single-phase fault	I_{pk} [kA]	57	66	79	112	116	116	224	232	232
Rated short-time protection current (1 s)	I_{cw} [kA]rms	27	30	36	51	53	53	102	106	106
Protection circuit peak rated current	I_{pk} [kA]	57	66	79	112	116	116	224	232	232
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	2 025	2 500	3 600	7 225	7 744	7 744	28 900	30 976	30 976
Phase resistance	R_{20} [mΩ/m]	0·041	0·032	0·032	0·024	0·020	0·016	0·012	0·010	0·008
Phase reactance (50 Hz)	X [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·007	0·006	0·006
Phase impedance	Z [mΩ/m]	0·0471	0·0365	0·0365	0·0284	0·0244	0·019	0·0143	0·012	0·0101
Phase resistance at thermal conditions	R_t [mΩ/m]	0·0446	0·037	0·0397	0·0293	0·0245	0·0192	0·0147	0·0129	0·01
Phase impedance at thermal conditions	Z [mΩ/m]	0·023	0·017	0·017	0·015	0·014	0·011	0·007	0·006	0·006
Neutral resistance	R_{20} [mΩ/m]	0·0205	0·0162	0·0162	0·012	0·01	0·078	0·0062	0·0052	0·0041
Resistance of the protective conductor (PE type 1)	R_{PE} [mΩ/m]	0·125	0·125	0·125	0·113	0·113	0·101	0·075	0·069	0·065
Resistance of the protective conductor (PE type 2)	R_{PE} [mΩ/m]	0·036	0·036	0·036	0·028	0·028	0·023	0·014	0·012	0·011
Resistance of the protective conductor (PE type 3)	R_{PE} [mΩ/m]	0·05	0·05	0·05	0·041	0·041	0·033	0·021	0·018	0·017
Reactance of the protective conductor (50 Hz)	X_{PE} [mΩ/m]	0·054	0·054	0·054	0·044	0·044	0·032	0·022	0·017	0·016
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0·170	0·162	0·1647	0·1423	0·1375	0·1202	0·0897	0·0819	0·075
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0·081	0·073	0·0757	0·0573	0·0525	0·0422	0·0287	0·0249	0·021
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0·946	0·087	0·0897	0·0703	0·0655	0·0522	0·0357	0·0309	0·027
Reactance of the fault loop (50 Hz)	X_o [mΩ/m]	0·077	0·071	0·071	0·059	0·058	0·043	0·029	0·023	0·022
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0·186	0·177	0·179	0·154	0·149	0·128	0·094	0·085	0·078
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0·111	0·102	0·104	0·082	0·078	0·060	0·041	0·034	0·030
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0·122	0·112	0·114	0·092	0·087	0·068	0·046	0·039	0·035
Zero-sequence resistance phase - N	R_o [mΩ/m]	0·128	0·125	0·125	0·121	0·117	0·094	0·088	0·065	0·046
Zero-sequence reactance phase - N	X_o [mΩ/m]	0·184	0·152	0·152	0·143	0·127	0·122	0·078	0·076	0·073
Zero-sequence Impedance phase - N	Z_o [mΩ/m]	0·2241	0·1968	0·1968	0·1873	0·1727	0·154	0·1176	0·100	0·0863
Zero-sequence 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
Zero-sequence reactance phase - PE	X_o [mΩ/m]	0·201	0·177	0·177	0·143	0·15	0·124	0·111	0·094	0·086
Zero-sequence Impedance phase - PE	Z_o [mΩ/m]	0·545	0·4641	0·4641	0·3606	0·3203	0·2534	0·2089	0·2013	0·1677
Voltage drop factor with distributed load $\Delta V = k.L.Ie.10^{-6}$ [V] k [V/m/A]10^{-6}	cosφ = 0·70	41·3	33·0	34·6	27·1	23·5	18·5	13·2	11·5	9·8
	cosφ = 0·75	42·1	33·8	35·5	27·7	23·9	18·8	13·5	11·8	9·9
	cosφ = 0·80	42·8	34·5	36·3	28·1	24·2	19·1	13·8	12·1	10·0
	cosφ = 0·85	43·3	35·0	37·0	28·4	24·4	19·2	14·0	12·2	10·1
	cosφ = 0·90	43·4	35·3	37·3	28·5	24·4	19·2	14·1	12·3	10·1
	cosφ = 0·95	42·9	35·1	37·2	28·2	23·9	18·8	14·0	12·2	9·8
	cosφ = 1·00	38·6	32·1	34·4	25·4	21·2	16·7	12·7	11·2	8·7
Weight (PE 1)	p [kg/m]	34·7	39·2	39·2	50·1	57·4	72·7	94·8	112·0	140·1
Weight (PE 2)	p [kg/m]	37·8	42·3	42·3	54·3	61·6	78·1	103·0	121·7	150·7
Weight (PE 3)	p [kg/m]	35·7	40·2	40·2	51·5	58·8	74·5	97·5	115·2	143·5
Fire load	[kWh/m]	5·6	6·9	6·9	10·0	10·3	13·1	20·0	23·8	26·3
Degree of protection	IP	55	55	55	55	55	55	55	55	55
Thermal resistance class of the insulating materials	–	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]	B/F[1]
Joule effect losses at rated current	P [W/m]	86	111	186	225	294	361	451	619	750
Min./max. ambient temperature	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

Regulations and conformity :
IEC/EN 60439-1 and 2; DIN VDE 0660 500 and 502
Product suitable for Constant/Cyclic Warm, humid climates :
DIN IEC 68 part 2-3; DIN IEC 68 part 2-30
Degree of protection :
IP 55; IP x7 carrying lines available with accessories, on request - +44 (0) 845 600 6266
Insulation and surface treatment of the conductors :
Insulated conductors for the whole length, aluminum copper-plated and tin-plated
Busbar casing material :
1·5 mm galvanised steel plate, pre-painted or stainless steel
(available, if required, with special paint and/or with thickness 2 mm)

1 : Class F thermal resistance (155°C) available on request - +44 (0) 845 600 6266
In : rated current referred to a room temperature of 40°C


PE 1
Standard version


PE 2
Extra earth - copper


PE 3
Extra earth - aluminium