

Form 2-4 busbar systems

Flat-PLS



Busbar support Flat-PLS

for flat copper busbars (see below)

For the configuration of busbar systems from flat copper bars. For mounting on a system attachment or directly on the mounting plate. Also suitable for aluminium and copper-plated aluminium bars.

Max. permissible tolerance of bar width (60/100 mm) ± 0.3 mm, bar thickness (10 mm) ± 0.15 mm.

Material:

Polyamide (PA 6.6), 25 % fibreglass-reinforced. Continuous operating temperature max. 130°C. Fire protection corresponding to UL 94-V0.

Colour:

RAL 9005

Short-circuit protection levels:

- Flat-PLS 60
up to 51 kA 1 sec./109 kA peak
- Flat-PLS 100
up to 80 kA 1 sec./176 kA peak

Supply includes:

Assembly parts.

Note:

The internal busbar support insert may be rotated through 90° to allow upright or flat installation of the busbars.

Busbars,

see page 88.



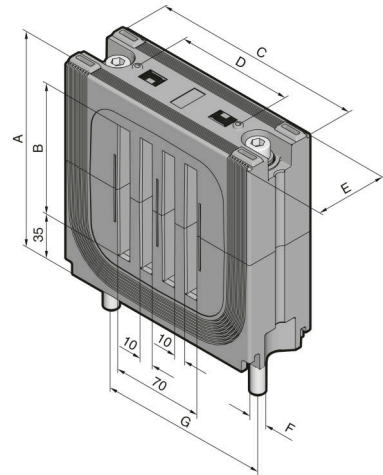
Accessories:

System attachment for Flat-PLS, see page 80.

End cover, see page 82.

Spacer, see page 82.

Filler piece, see page 82.



System	For busbars up to	A mm	B mm	C mm	D mm	E mm	F	G mm	Packs of	Model No. SV
1 Flat-PLS 60	4 x 60 x 10 mm	127.5	60	120	70	50	M8	100	1	9676.002 ¹⁾
2 Flat-PLS 100	4 x 100 x 10 mm	162.5	100	165	90	55	M10	125	1	9676.004 ¹⁾

¹⁾ With a bar width of < 60/100 mm the spacer should be used.

When using only 1, 2 or 3 bars, the vacant bar slots should be closed using the filler pieces.



System attachments

for Flat-PLS

For the assembly of 3- or 4-pole busbar systems of flat copper bars.

For mounting on the TS frame or punched section with mounting flange.

Material:

Stainless steel

Supply includes:

Assembly parts.

For busbar support Flat-PLS 60

For application	For enclosure depth mm	Bar centre distance mm	For assembly		Packs of	Model No. SV
			3-pole	4-pole		
In the roof section/ base section	600	125	■	■	2	9674.162
	800	125	■	■	2	9674.182
Vertical coupling set/ Directly underneath the coupling switch	600	125	■	■	2	9674.172
	800	125	■	■	2	9674.192
Rear section ¹⁾	–	125	■	■	2	9674.122
Single-pole assembly, for mounting on the TS 8 frame	–	–	–	–	2	9674.102

For busbar support Flat-PLS 100

For application	For enclosure depth mm	Bar centre distance mm	For assembly		Packs of	Model No. SV
			3-pole	4-pole		
In the roof section/ base section	600	165	■	–	2	9674.164
	800	165	■	■	2	9674.184
Vertical coupling set/ Directly underneath the coupling switch	600	165	■	–	2	9674.174
	800	165	■	■	2	9674.194
Rear section ¹⁾²⁾	–	165	■	■	2	9674.124
Single-pole assembly, for mounting on the TS 8 frame	–	–	–	–	2	9674.104

¹⁾ For mounting between the TS 8 roof frame and TS punched section with mounting flange.

²⁾ In conjunction with form separation, may only be used in 800 mm deep TS enclosures.



Busbar support Flat-PLS

for stabiliser bar (see below)

For the configuration of busbar systems from flat copper bars with increased short-circuit resistance. For mounting on a system attachment or directly on the mounting plate.

Also suitable for aluminium and copper-plated aluminium bars.

Max. permissible tolerance of bar width (60/100 mm) ± 0.3 mm, bar thickness (10 mm) ± 0.15 mm.

Material:

Polyamide (PA 6.6), 25 % fibreglass-reinforced. Continuous operating temperature max. 130°C. Fire protection corresponding to UL 94-V0.

Colour:

RAL 9005

Short-circuit protection levels:

- Flat-PLS 60
up to 75 kA 1 sec./165 kA peak
- Flat-PLS 100
up to 100 kA 1 sec./220 kA peak

Supply includes:

Assembly parts.

Note:

The internal busbar support insert may be rotated through 90° to allow upright or flat installation of the busbars.

Busbars,

see page 88.



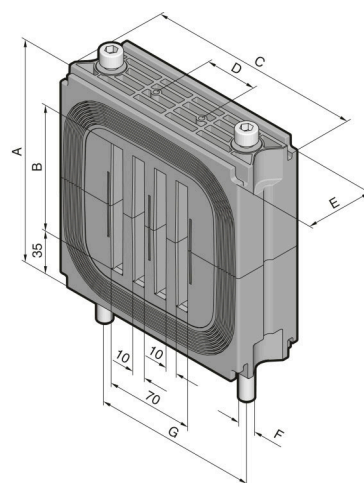
Also required:

System attachment for Flat-PLS, see page 80.
Busbar stabiliser bar, see page 81.



Accessories:

End cover, see page 82.
Spacer, see page 82.
Filler piece, see page 82.



System	For busbars up to	A mm	B mm	C mm	D mm	E mm	F	G mm	Packs of	Model No. SV
Flat-PLS 60	4 x 60 x 10 mm	130	60	120	70	50	M8	100	1	9676.020 ¹⁾
Flat-PLS 100	4 x 100 x 10 mm	170	100	165	90	55	M10	125	1	9676.021 ¹⁾

¹⁾ With a bar width of < 60/100 mm the spacer should be used.

When using only 1, 2 or 3 bars, the vacant bar slots should be closed using the filler pieces.



Busbar stabiliser bars

for busbar support Flat-PLS

For the configuration of busbar systems from flat copper bars with increased short-circuit resistance. For mounting in conjunction with system attachment and Flat-PLS busbar support for stabiliser bar.

Material:

Stainless steel



Also required:

System attachment for Flat-PLS, see page 80.



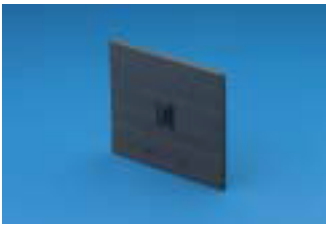
Accessories:

Busbar claw, see page 83.

For system	For busbar supports	System assembly	Packs of	Model No. SV
Flat-PLS 60	SV 9676.020	3-pole	2	9676.022
		4-pole	2	9676.023
Flat-PLS 100	SV 9676.021	3-pole	2	9676.024
		4-pole	2	9676.025

Form 2-4 busbar systems

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End covers

for busbar support Flat-PLS

Inserted into the Flat-PLS busbar supports for electric shockproof covering of the busbar ends.

Material:

Polyamide (PA 6.6).
Continuous operating temperature max. 130°C.
Fire protection corresponding to UL 94-V0.

Colour:

RAL 9005

For system	For busbar supports		Packs of	Model No. SV
Flat-PLS 60	SV 9676.002	SV 9676.020	2	9676.006
Flat-PLS 100	SV 9676.004	SV 9676.021		



Filler pieces

for busbar support Flat-PLS

To cover open chambers in busbar supports when using only 1, 2 or 3 bars per conductor or when using a busbar support as an end support.

Material:

Polyamide (PA 6.6), 25 % fibreglass-reinforced.
Continuous operating temperature max. 130°C.
Fire protection corresponding to UL 94-V0.

Colour:

RAL 9005

For system	For busbar supports		Packs of	Model No. SV
Flat-PLS 60	SV 9676.002	SV 9676.020	16	9676.008 ¹⁾
Flat-PLS 100	SV 9676.004	SV 9676.021		

¹⁾ Two required per chamber.

When using a busbar support as an end support, eight are required per support.



Spacers

for busbar support Flat-PLS

When using smaller busbar widths, the spacer piece should be inserted into the chambers of the support to compensate for width differences.

Material:

Polyamide (PA 6.6), 25 % fibreglass-reinforced.
Continuous operating temperature max. 130°C.
Fire protection corresponding to UL 94-V0.

Colour:

RAL 9005

For system	E-Cu Dimensions	Required number of spacers per chamber	Packs of	Model No. SV
Flat-PLS 60	40 x 10 mm	2	16	9676.007
	50 x 10 mm	1		
Flat-PLS 100	80 x 10 mm	2		





Busbar claws

for Flat-PLS

For the assembly of busbar systems from flat copper bars with increased short-circuit resistance or for the mechanical stabilisation of busbar stacks.

Material:

Stainless steel.

Accessories: Sheet steel, zinc-plated, passivated

Supply includes:

Assembly parts.



Accessories:

Cover for busbar claw, see page 83.



For system	For busbars up to	Packs of	Model No. SV
Flat-PLS 60	2 x 60 x 10 mm	1	9676.011
	3 x 60 x 10 mm	1	9676.012
	4 x 60 x 10 mm	1	9676.013
Flat-PLS 100	2 x 100 x 10 mm	1	9676.014
	3 x 100 x 10 mm	1	9676.015
	4 x 100 x 10 mm	1	9676.016



Covers

for busbar claws

For shockproof covering of the busbar claws. The cover terminates flush with the cover sections of the Flat-PLS system.

Material:

Polyamide (PA 6.6), 25 % fibreglass-reinforced.

Continuous operating temperature max. 130°C.

Fire protection corresponding to UL 94-V0.

Colour:

RAL 7035

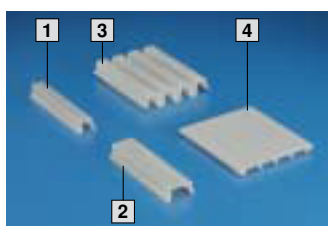


Accessories:

Cover section, see page 83.



For system	No. of bars per conductor	For busbar claws		Packs of	Model No. SV
Flat-PLS 60/ Flat-PLS 100	2	SV 9676.011	SV 9676.014	8	9676.046
	3	SV 9676.012	SV 9676.015	8	9676.047
	4	SV 9676.013	SV 9676.016	8	9676.048



Cover sections

for Flat-PLS

For electric shockproof covering of the Flat-PLS busbar system and connector kits for open power circuit-breakers. The cover sections may also be used outside of Flat-PLS for covering standard, commercially available flat copper bars. Edge cover sections should always be combined with side cover sections when assembling the cover.

Material:

Thermally modified hard PVC.

Continuous operating temperature max. 95°C.

Fire protection corresponding to UL 94-V0.

Colour:

RAL 7035



	For system	No. of bars per conductor	For busbar width mm	Length mm	Packs of	Model No. SV
1	Edge cover section for bar systems with no space between the bars	1	–	1000	10	9676.041
		2	–	1000	10	9676.042
		3	–	1000	10	9676.043
2	Edge cover section for bar systems with 10 mm space between the bars	2	–	1000	10	9676.052
		3	–	1000	10	9676.053
		4	–	1000	10	9676.054
3	Side cover section for bar systems, to match the edge cover sections	–	60	1000	10	9676.056
		–	80	1000	10	9676.058
		–	100	1000	10	9676.059

Form 2-4 busbar systems

Flat-PLS



Direct connection terminals for Flat-PLS

For direct connection of round conductors 95 – 300 mm² (multi-strand or sector-shaped). The mounting accessories supplied loose may be used to mount the connection terminal on the Flat-PLS busbar system without the need for drilling.

Material:

Brass alloy, nickel-plated surface finish

Supply includes:

Assembly parts.

For system	For busbar width mm	Packs of	Model No. SV
Flat-PLS 60	60	1	9676.731
Flat-PLS 100	100	1	9676.733



Connection plates with bolts M12/16 for Flat-PLS

For connecting ring terminals to a Flat-PLS busbar system with 2 – 4 bars per conductor. The mounting accessories supplied loose may be used to mount the connection terminal on a Flat-PLS busbar system without the need for drilling.

Material:

E-Cu, nickel-plated

Supply includes:

Assembly parts.

For system	For busbar width mm	Terminal studs	Packs of	Model No. SV
Flat-PLS 60	60	M12	1	9676.701
Flat-PLS 60	60	M16	1	9676.705
Flat-PLS 100	100	M12	1	9676.703
Flat-PLS 100	100	M16	1	9676.707



Connection plates with bolts M10 for Flat-PLS

For connecting ring terminals to a Flat-PLS busbar system with 2 – 4 bars per conductor. The straight-through screws and the mounting accessories supplied loose may be used to mount the connection terminal on a Flat-PLS busbar system without the need for drilling.

Material:

E-Cu, nickel-plated

Supply includes:

Assembly parts.

For system	For busbar width mm	Terminal studs	Packs of	Model No. SV
Flat-PLS 60	60	M10	1	9676.711
Flat-PLS 60	60	2 x M10	1	9676.715
Flat-PLS 100	100	M10	1	9676.713
Flat-PLS 100	100	2 x M10	1	9676.717



Connection plates for laminated copper bars

for Flat-PLS

For connecting laminated copper bars 10 x 40 x 1.0 mm (Flexibar) to a Flat-PLS busbar system with 2 – 4 bars per conductor. The mounting accessories supplied loose may be used to mount the copper bar on a Flat-PLS busbar system without the need for drilling.

Material:

E-Cu, nickel-plated

Supply includes:

Assembly parts.

Laminated copper bars, see page 95.

For system	For busbar width mm	For laminated copper bars up to	Packs of	Model No. SV
Flat-PLS 60	60	10 x 40 x 1.0 mm	1	9676.721
Flat-PLS 100	100	10 x 40 x 1.0 mm	1	9676.723



Longitudinal connectors for Flat-PLS

For connecting Flat-PLS busbar systems, no drilling required.

Material:

E-Cu

Supply includes:

Assembly parts.

Note:

Nickel-plated version of the longitudinal connector for connecting aluminium bars available on request.



For system	For busbar width mm	No. of strands per conductor	Packs of	Model No. SV
Flat-PLS 60	60	2	1	9676.626
	60	3 or 4	1	9676.646
Flat-PLS 100	80	2	1	9676.628
	80	3 or 4	1	9676.648
	100	2	1	9676.620
	100	3 or 4	1	9676.640



Contact makers for Flat-PLS

For connecting connection brackets and connector kits of flat copper bars to Flat-PLS busbar systems; no drilling required.

Material:

E-Cu

Supply includes:

Assembly parts.

Note:

Nickel-plated version of the contact maker for connecting aluminium bars available on request.



For system	For busbar width mm	No. of strands per conductor	Packs of	Model No. SV
Flat-PLS 60	60	2	1	9676.526
	60	3 or 4	1	9676.546
Flat-PLS 100	80	2	1	9676.528
	80	3 or 4	1	9676.548
	100	2	1	9676.520
	100	3 or 4	1	9676.540