Contents

Parallel groove clamps

GENERAL

Parallel groove clamps are mainly used for transmitting current between the interconnected conductors, for example for connection loops on terminal poles or tapping off bus-bars to equipment on substations.
From this function it is therefore obvious that the electrical conducting properties and the corrosion resistance are the main factors for consideration in the design.
Besides this main area of application parallel groove clamps are also used for **safety loops** and therefore they must provide an adequate mechanical holding strength.
A further area of application is the damping of vibrations as PG-clamps are used to attach the **bretelle damper**.
It is recommended to use two PG-clamps on conductors bigger than 17,2 mm dia.
PG-clamps can be used as a **jumper spacer** and in that case they are connected by a steel bar.
It is also possible to connect two conductors of different sizes by using **reduction tubes**.
If conductors made of different materials are to be connected this can be done by using **bimetallic tubes**.

Our design fulfills also the following important criteria:

Holding strength
- An adequate mechanical **holding strength** is achieved. In case of higher values two or more PG-clamps should be used in series.

Corona
- Good **corona** and radio interference voltage (RIV) behaviour due to rounded shapes.

Corrosion resistance
- Maximum **corrosion resistance** is achieved by using a clamp material that matches with that of the conductor, for example a corrosion-resistant AlMgSi alloy for conductors made of aluminium, al-alloy etc.

Short circuit and current carrying capacity
- The requirements will be fulfilled and demonstrated by **heat cycle tests.**

Hot dip galvanising

Steel hardware is hot dip galvanised in Mosdorfer's own plant.
Galvanising can be done in accordance to national and international standards.

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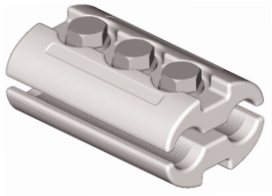
Parallel groove clamps, acc. DIN 48075 with serrated grooves
for aluminium-, al-alloy-, ACSR-, AACSR- and alumoweld conductors

Material: Body: aluminium-alloy, forged
Screws: look at comments

L.-Nr.	Dimensions in mm		Bolts	Weight kg
	Conductor Ø	Length		
1PA100-020	9,0– 9,9	70	2 x M10	0,30
1PA100-040	10,5–11,7	70	2 x M10	0,30
1PA100-060	12,5–13,6	65	2 x M12	0,30
1PA100-070	12,6–14,9	90	3 x M10	0,50
1PA100-110	15,0–17,3	98	3 x M10	0,60
1PA100-140	17,2–19,0	100	3 x M12	0,60
1PA100-160	19,1–21,1	100	3 x M12	0,60
1PA100-200	21,1–23,4	120	3 x M12	0,80
1PA100-230	23,5–25,7	120	3 x M12	0,80
1PA100-260	25,8–27,8	130	3 x M12	0,90
1PA100-310	27,9–29,9	130	3 x M12	0,90
1PA100-350	30,0–31,9	140	3 x M12	1,20
1PA100-360	32,0–33,4	140	3 x M12	1,40
1PA100-410	30,0–33,0	180	4 x M12	2,20
1PA100-420	33,0–36,0	150	3 x M12	1,90
1PA100-460	33,0–36,0	180	4 x M12	2,60
1PA100-500	36,0–39,0	144	3 x M14	2,20
1PA100-480	36,0–39,0	220	5 x M14	3,20
1PA100-530	40,0–50,0	152	3 x M14	3,20

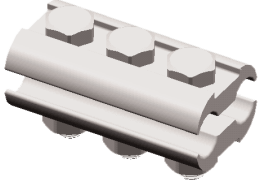


Reduction- and bimetallic tubes on request.
Parallel groove clamps for fibre optic cables see catalogue part 18.
The L.-Nr. are valid for bolts A2F80.
For parallel groove clamps with steel bolts 8.8.hot dip galvanized: replace the – by **+**:
f. e. 1PA100**+**020

Parallel groove clamps up to 110 kV
for aluminium-, al-alloy-, ACSR-, AACSR- and alumoweld conductors

Material: Body: extruded aluminium-alloy
Screws: steel 8.8, hot dip galvanised

L.-Nr.	Dimensions in mm		Bolts	Weight kg
	Conductor Ø	Length		
4502.10	5,1– 8,1	64	3 x M 8	0,12
4502.11	8,2–11,7	80	3 x M10	0,24
4502.12	11,8–15,8	95	3 x M12	0,44
4502.13	15,8–19,2	97	3 x M12	0,51
4502.14	19,3–24,3	112	3 x M14	0,90



Clamps with reduction tubes on request.
These parallel groove clamps are also available with one or two bolts.
The length is then reduced to 1/3 or 2/3.
Parallel groove clamps for fibre optic cables see catalogue part 18.

Parallel groove clamps

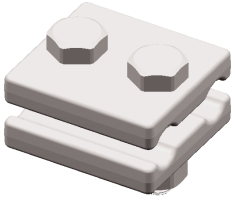
for copper- and bronze conductors

Material: Body: copper-alloy, forged or cast Bolts: steel 8.8, hot dip galvanised				
L.-Nr.	Dimensions in mm		Bolts	Weight kg
	Conductor Ø	Length		
3PA100-055	12,5–14,0	90	3 x M10	1,50
3PA100-045	15,0–17,3	98	3 x M10	1,50
3PA100-160	19,1–21,0	100	3 x M12	1,40
3PA100-065	21,1–23,4	120	3 x M12	2,00
3PA100-075	25,7–27,9	130	3 x M12	2,50
3PA100-040	28,0–30,1	120	3 x M12	3,90
3PA100-120	33,0–36,0	150	3 x M12	5,50

Other dimensions on request.

Parallel groove clamps

for steel conductors



Material: Steel, hot dip galvanised				
L.-Nr.	Dimensions in mm		Bolts	Weight kg
	Conductor Ø	Length		
4503.10	5,1– 8,1	58	2 x M10	0,28
4503.11	8,2–11,6	64	2 x M10	0.,43
4503.12	11,7–15,7	65	2 x M12	0,88
4503.13	15,8–19,2	75	2 x M12	1,15
4503.15	19,3–23,0	80	2 x M12	1,30

Other dimensions on request.

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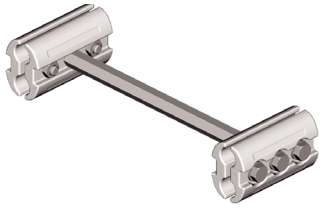
Jumper spacers for twin-bundles
for aluminium-, al-alloy-, ACSR-, AACSR- and alumoweld conductors

Material: Body: aluminium-alloy, forged
Distance piece: steel, hot dip galvanised
Bolts: steel 8.8, hot dip galvanised

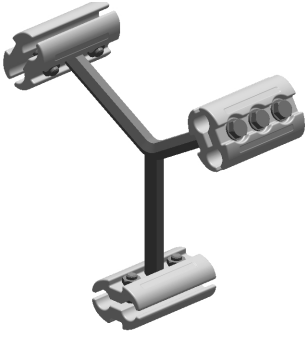
L.-Nr.	Dimensions in mm			Bolts	Weight kg
	Conductor Ø	Distance	Length		
553.24/2	19,1–21,1	400	100	3 x M12	2,30
553.25/11	21,1–23,4	400	120	3 x M12	2,50
553.25/2	23,5–25,7	400	120	3 x M12	3,10
553.26/1	25,8–27,8	400	130	3 x M12	3,30
553.26/2	27,9–29,9	400	130	3 x M12	3,30
553.27/1	30,0–31,9	400	140	3 x M12	3,50
553.27/2	32,0–33,4	400	140	3 x M12	3,50
553.27/24	33,0–36,0	400	150	3 x M12	4,40
553.27/26	36,0–39,0	400	144	3 x M14	5,00
553.28/13	40,0–50,0	400	152	3 x M14	7,00

Other distances and diameters on request.

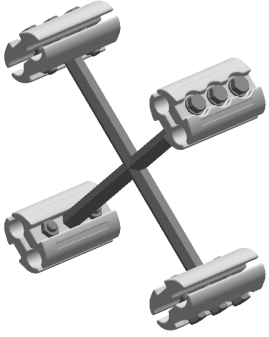


Jumper spacers
for twin-bundles

Jumper spacers for triple- and four-bundles



Jumper spacers
for triple-bundles



Jumper spacers
for four-bundles

Spacers to be used as jumper spacer see catalogue part 9.