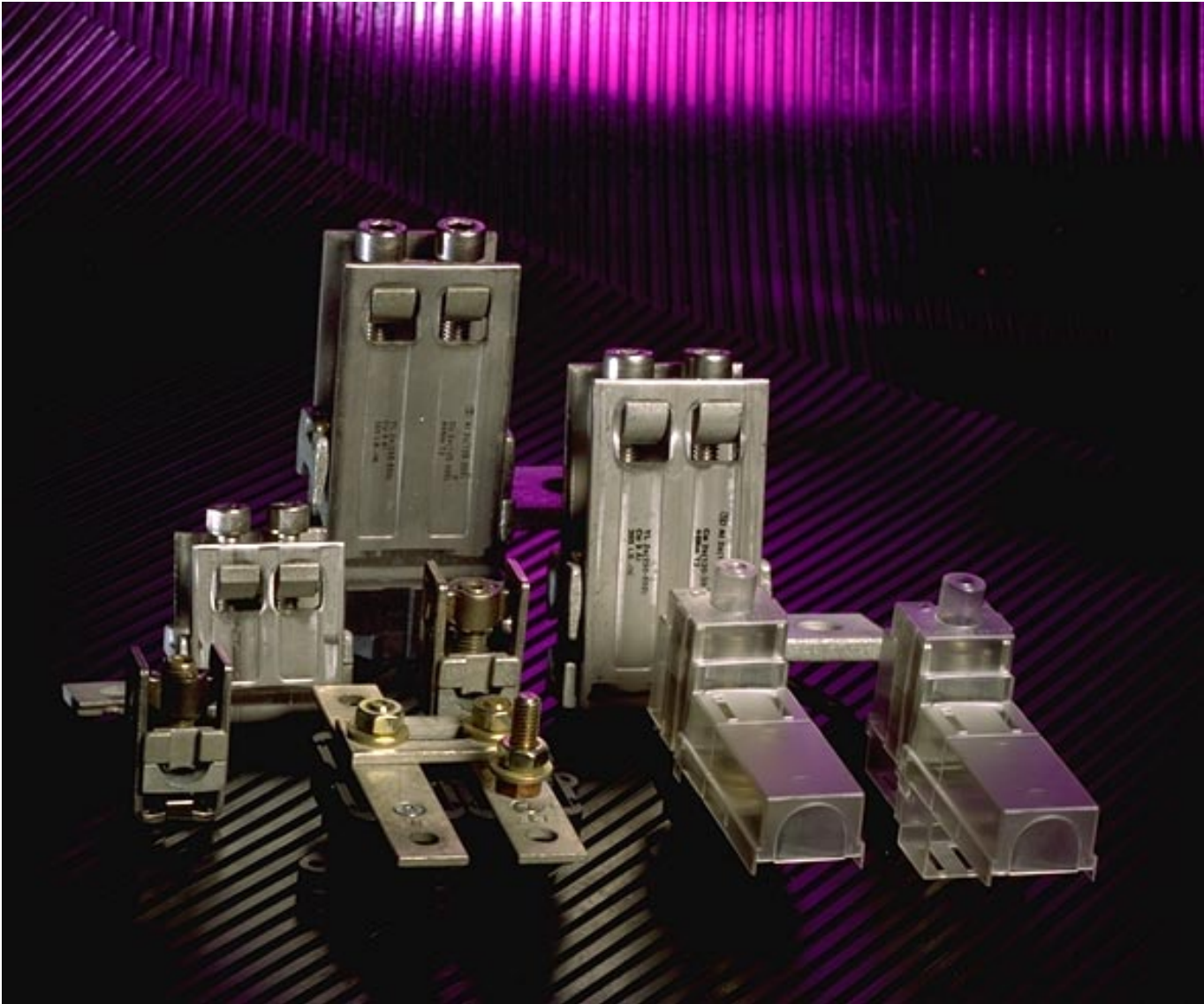


**Al/Cu Terminal Clamps**

Brochure OZX 1 GB 96-01

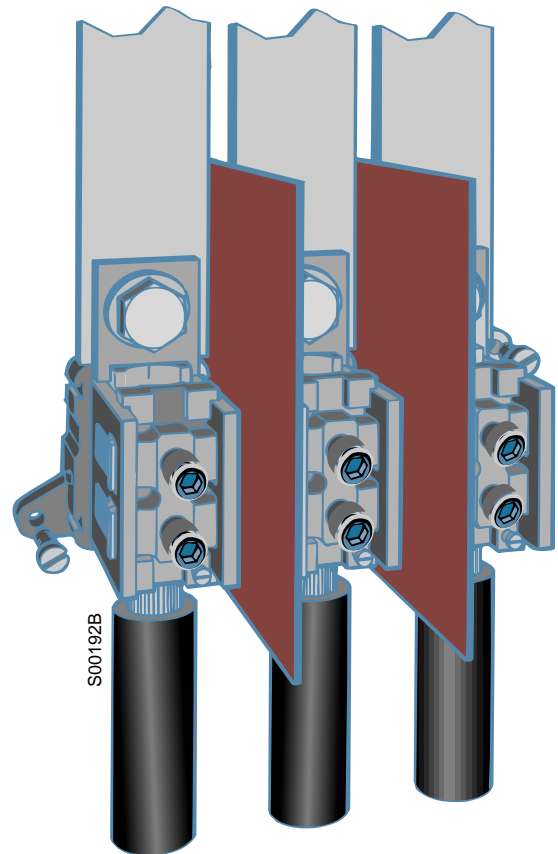
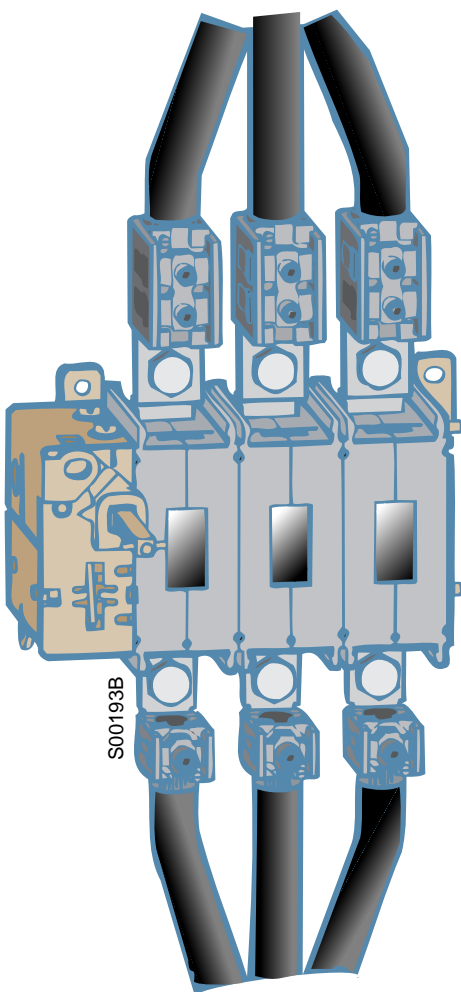


# Superior Terminal Clamps, OZX\_

- Universal terminal clamps for both Al- and Cu-cables from 10 mm<sup>2</sup> up to 2 x 300 mm<sup>2</sup>
- The clamps have been subjected to heat cycling tests based on DIN-standard VDE 0220, 1a/4.78 and SFS 2663, class T2. Accordingly, the clamps can be used with cables having an operation temperature in excess of 80° C and in a short-circuit a maximum temperature of 250° C.
- Further, the clamps can be used for example with Al-power cables with XLPE-insulation for 0.6/1 kV, designed and tested acc. to IEC 502 standard.

## Mounting:

- For direct connection of the cables to the low voltage apparatus terminals. Types OZX\_.
- To be mounted separately onto base plates by means of a fixing base made of insulation material (types OZXC\_ and OZXD\_). The clamps type OZXL\_ can be mounted side by side by fastening screws FPYT\_ . Clip-on phase barrier OZXS 1...5 and fastening screws can be ordered as accessories.



## Effective corrosion protection

- The OZX\_ terminal clamps protect the connection effectively against electro-mechanical corrosion. The frames of all the clamps are made of stainless steel which, due to the unique clamp design, absorbs the expansion and shrinkage of aluminium. The spring construction of the frame is designed to maintain steady, firm contact pressure under all circumstances. The joint will not get loose.

## Auxiliary terminal for measurement purposes

- The clamp types OZX\_ 2...7 have a built-in auxiliary terminal 1.5...4 mm<sup>2</sup>, for measurement purposes.

## Quick and easy mounting

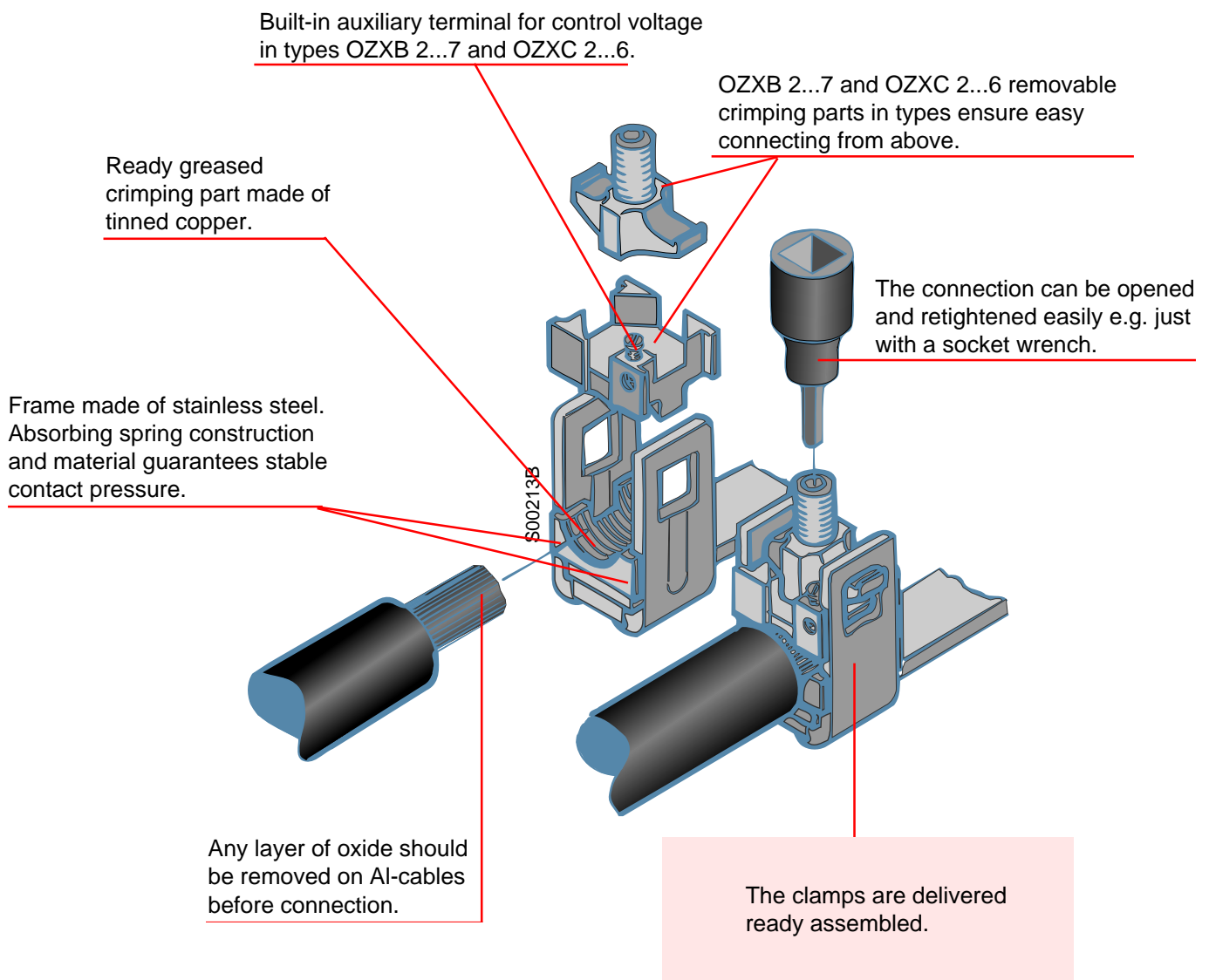
- The cables can be easily connected to the clamps without any heavy special tools.
- Thanks to the removable crimping parts of the clamps, the cables can be mounted into the clamps from above, so not much of installation space is needed.
- Quick connections of Al-cables:  
The cable crimping parts are made of tinned copper and the contact surfaces are ready greased with special grease containing particles that break the layer of oxide on the cable ends.  
The cable ends should however be brushed with a wirebrush and greased before the connection is made to achieve the best possible result. The rigid Al-cables can be mounted into the clamps from above, saving installation time and space.

## OZX\_ Terminal clamps reduce service costs

- Reduced down time  
Failure statistics indicate that up to 20 % of all failures in electrical circuits are caused by poor cable connections. The superior OZX\_ terminal clamps give a reliable connection, since it is easy to check the condition of the connection.
- The structure and material of the terminal clamps guarantee stable contact pressure so that the contact will not get loose.

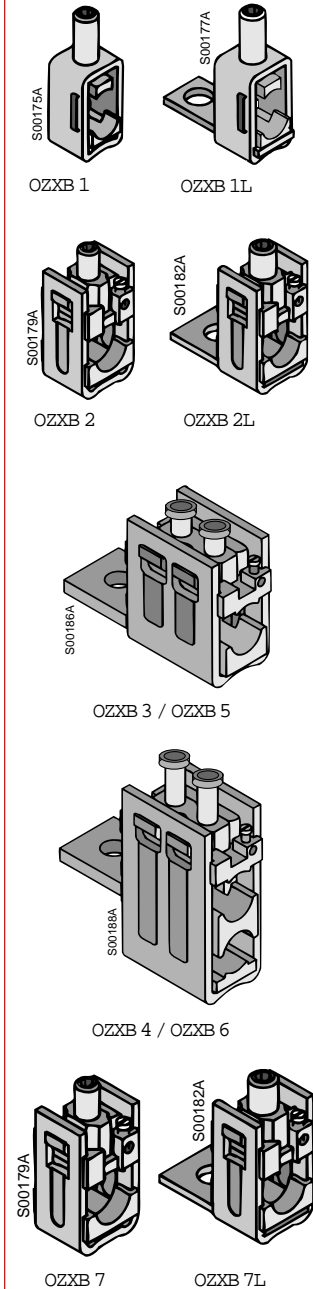
## Improved safety

- New terminal shrouds are now available for universal terminal clamps to eliminate the risk of touching live parts. Terminal shrouds can be easily snapped-on to ready mounted terminal clamps.



# Universal Terminal Clamps, for Al- and Cu-Cables 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup> Ordering Information

## Clamp sets for direct connection onto the apparatus terminal



Type	Cable cross-section [mm <sup>2</sup> ]	Direct connection onto ABB Control Oy apparatus types...	Pack. size [pcs]	Weight/pack. [kg]
OZXB 1 OZXB 1/1	10...70	Load-break switches OETL 125 D_ Fuse bases OFAX 00_	3 1	0.12 0.04
OZXB 1L OZXB 1L/1	10...70	Load-break switches OETL 200 K_ Switch fuses OESA 00_ OESA 00_-160, OESA 22x58, Fuse bases OFAX 00_L	3 1	0.16 0.05
OZXB 2 OZXB 2/1	25...120	Load-break switches OETL 200 KE_ Switch fuses OESA 00_ OESA 00_-160, OESA 22x58 Fuse bases OFAX 00_L	3 1	0.34 0.11
OZXB 2L OZXB 2L/1	25...120	Load-break switches OETL 250 K_ OETL 315 K_ OETL 400 D_ Switch fuses OESA 100 G_ OESA 160 B_ OESA 200_...OESA 400_ Fuse bases OFAX 1_ OFAX 2_	3 1	0.43 0.14
OZXB 3 OZXB 3/1	70...185	Load-break switches OETL 200_...OETL 3150_ Switch fuses OESA 160 B_ OESA 200_...OESA 800_ Fuse bases OFAX 1_ OFAX 2_ OFAS_3	3 1	1.28 0.43
OZXB 4 OZXB 4/1	2x(70...185)	Load-break switches OETL 250_...OETL 3150_ Switch fuses OESA 200_...OESA 800_ Fuse bases OFAX 1_ OFAX 2_ OFAS_3	3 1	1.71 0.57
OZXB 5 OZXB 5/1	120...300	Load-break switches OETL 400_...OETL 3150_ Switch fuses OESA 200_...OESA 800_ Fuse bases OFAX 1_ OFAX 2_ OFAS_3	3 1	2.28 0.76
OZXB 6 OZXB 6/1	2x(120...300)	Load-break switches OETL 400_...OETL 3150_ Switch fuses OESA 200_...OESA 800_ Fuse bases OFASB	3 1	3.12 1.04
OZXB 7 OZXB 7/1	120...240	Load-break switches 200_...400_ Fuse bases OFAX 1_	3 1	0.94 0.32
OZXB 7L OZXB 7L/1	120...240	Load-break switches OETL 400_...800_ Switch fuses OESA 200_...400_ Fuse bases OFAX 1_ 2_ and OFASA 3_	3 1	1.17 0.40

- The types OZXB 2\_ ... OZXB 7\_ have a built-in aux. terminal for 1,5 ... 4mm<sup>2</sup> cables for measurement purposes

# Universal Terminal Clamps, for Al- and Cu-Cables 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup> Ordering Information

## Clamps for mounting separately onto base plates

- Can be used as (N) Neutral- or (PE) earth terminals, as well as phase terminals for example in connecting boxes, for Cu- or Al-cables.
- The types OZXC 2 ... OZXC 7 have a built-in auxiliary terminal for 1.5 ... 4 mm<sup>2</sup> cables for measurement purposes.
- The types OZXC 1 and OZXC 2 can be mounted also on 35 mm DIN-rail.

Type	Cable cross-section [mm <sup>2</sup> ]	Package size [pcs]	Weight [kg]		
OZXC 1	10...70	1	0.11		
OZXC 2	25...120	1	0.21		
OZXC 3	70...185	1	0.47		
OZXC 4	2x(70...185)	1	0.60		
OZXC 5	120...300	1	0.80		
OZXC 6	2x(120...300)	1	1.08		

## N+PE/PEN+G -terminal clamps

- The type OZXD 11 incorporates two terminal clamps plus a removable Z-rail for earthing the base plate.
- OZXD 1...6, terminal clamps on separate base plates. N and PE/PEN connection can be removed. N, PE, PEN and G letters indicated.
- The types OZXD 1 and OZXD 2 can be mounted also on a DIN-rail.

Type	Cable cross-section [mm <sup>2</sup> ]	Package size [pcs]	Weight [kg]		
OZXD 11	10...70	1	0.13		
OZXD 1	10...70	1	0.24		
OZXD 2	25...120	1	0.41		
OZXD 3	70...185	1	1.16		
OZXD 4	2x(70...185)	1	1.41		
OZXD 5	120...300	1	1.71		
OZXD 6	2x(120...300)	1	2.55		

## Clip-on phase barriers

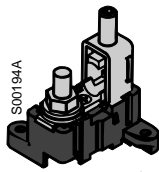
Type	For terminal clamps	Package [pcs]	Weight [kg]		
OZXS 1	OZXC 1, OZXD 11 <sup>1)</sup>	1	0.012		
OZXS 2	OZXC 2	1	0.016		
OZXS 3	OZXC 3, OZXC 4	1	0.024		
OZXS 5	OZXC 5, OZXC 6	1	0.032		

<sup>1)</sup> Type OZXD 11 clip-on phase barriers can be mounted only to the second side

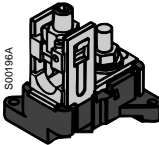
## Fixing screws

- Screws for fixing the clamps side by side to each other.

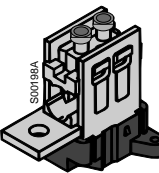
Type	For terminal clamps	Package [pcs]	Weight/pack. [kg]		
FPYT3.5x9.5X/20	OZXC 1, OZXD 11	20	0,016		
FPYT4.2x16X/20	OZXC 2...6	20	0,030		



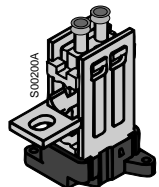
OZXC 1



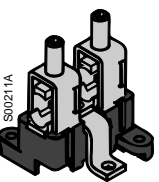
OZXC 2



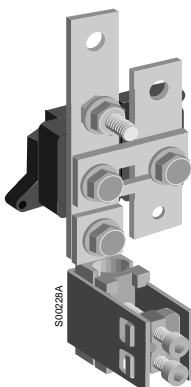
OZXC 3 / OZXC 5



OZXC 4 / OZXC 6



OZXD 11



OZXD\_

# Universal Terminal Clamps, for Al- and Cu-Cables 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup> Ordering Information

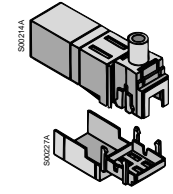
## Terminal shrouds

The types include terminal shrouds for three terminal clamps.

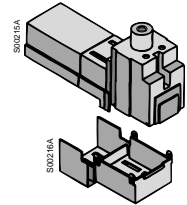
Type	For terminal clamps	Package [pcs]	Weight/pack. [kg]
OZXB 1 K	OZXB 1, OZXB 1L, OZXC 1	3	0.033
OZXB 2 K	OZXB 2, OZXB 2L, OZXC 2	3	0.057
OZXB 3 K	OZXB 3, OZXB 4, OZXC 3, OZXC 4	3	0.180
OZXB 4 K	OZXB 5, OZXB 6, OZXC 5, OZXC 6	3	0.236
OZXB 5 K	OZXB 7, OZXB 7L	3	0.126

## Tightening-up of the terminal clamps

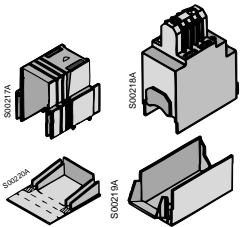
Terminal clamp	Size of socket wrench [mm]	Torque [Nm]
OZX_ 1_	4	15
OZX_ 2_	5	30
OZX_ 3_	6	22
OZX_ 4_	6	22
OZX_ 5_	8	44
OZX_ 6_	8	44
OZX_ 7_	5	35



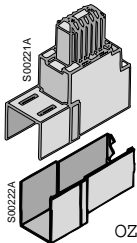
OZXB 1K



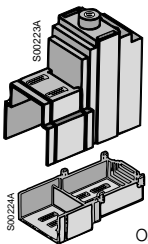
OZXB 2K



OZXB 3K



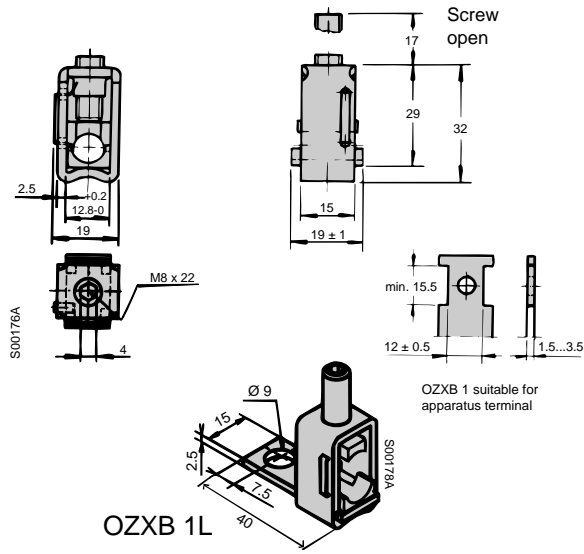
OZXB 4K



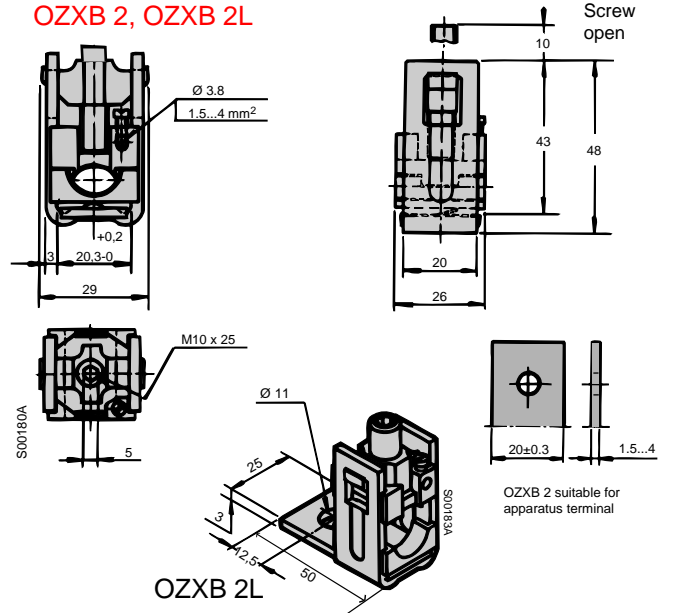
OZXB 5K

# Universal Terminal Clamps, for Al- and Cu-Cables 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup> Dimension Drawings

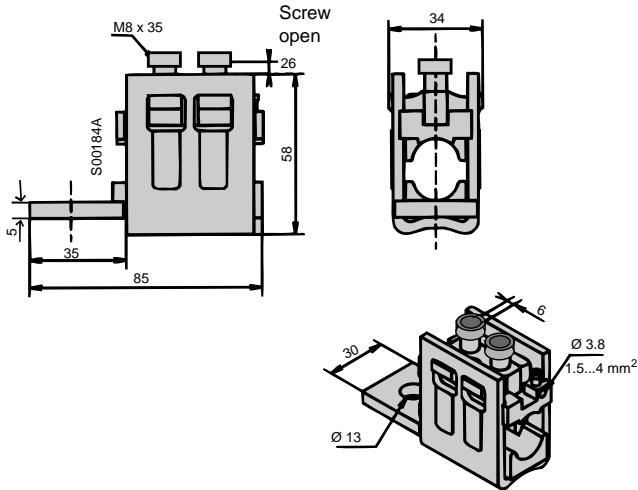
## OZXB 1, OZXB 1L



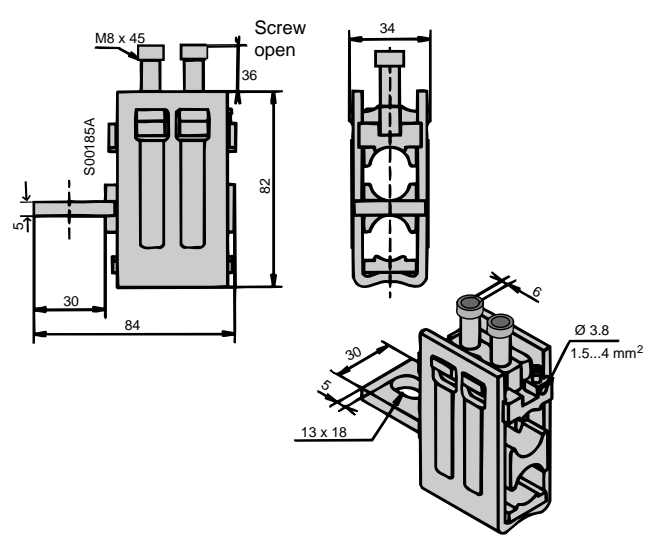
## OZXB 2, OZXB 2L



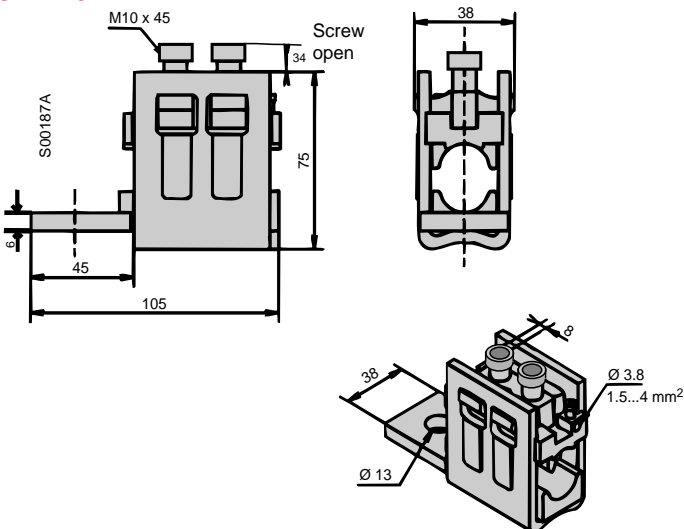
## OZXB 3



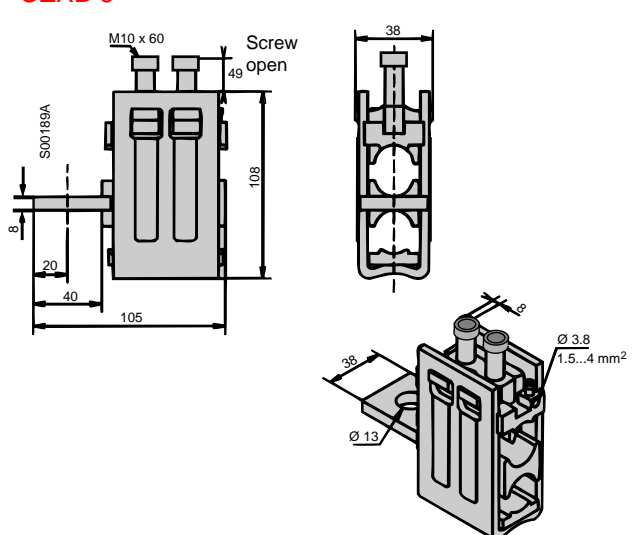
## OZXB 4



## OZXB 5



## OZXB 6

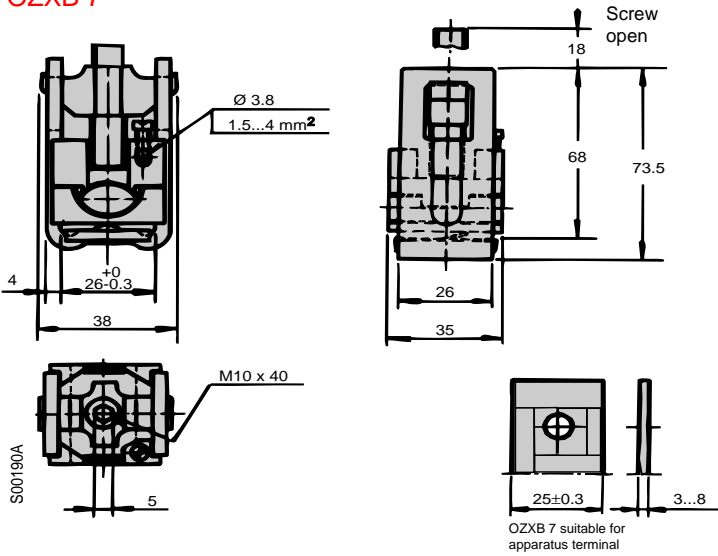


# Universal Terminal Clamps, for Al- and Cu-Cables

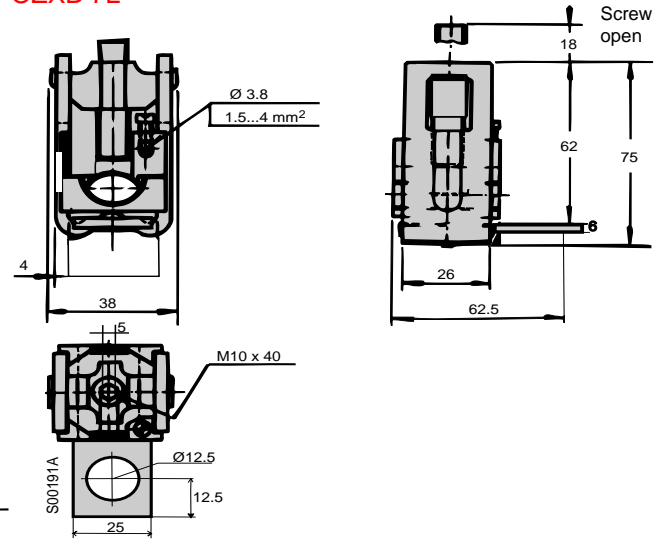
## 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup>

### Dimension Drawings

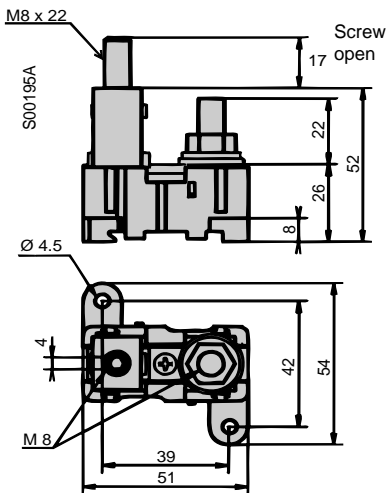
**OZXB 7**



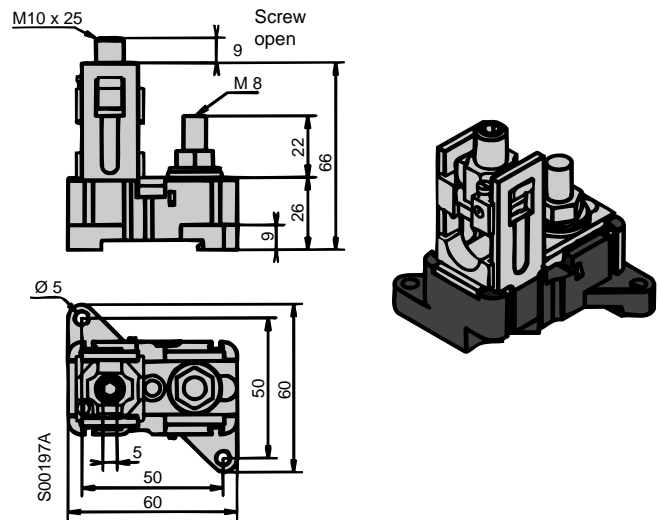
**OZXB 7L**



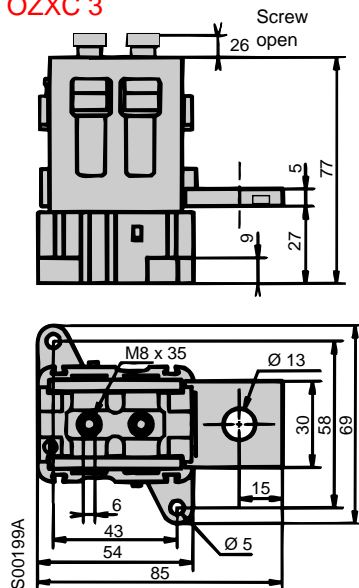
**OZXC 1**



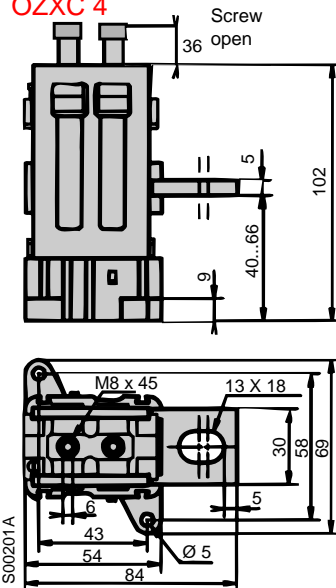
**OZXC 2**



**OZXC 3**



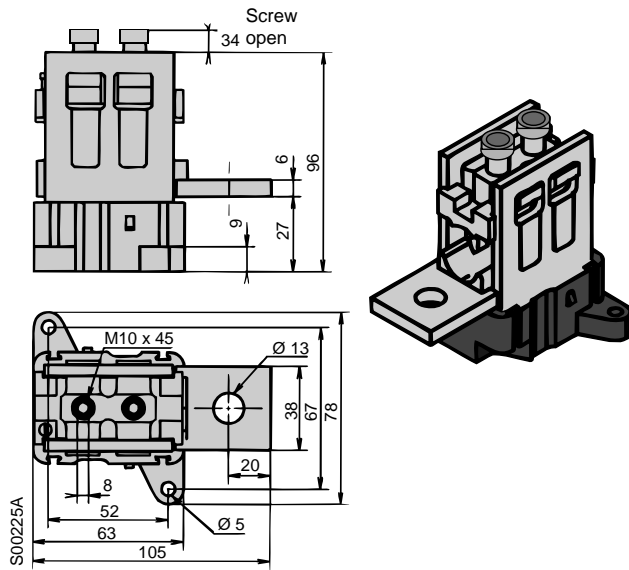
**OZXC 4**



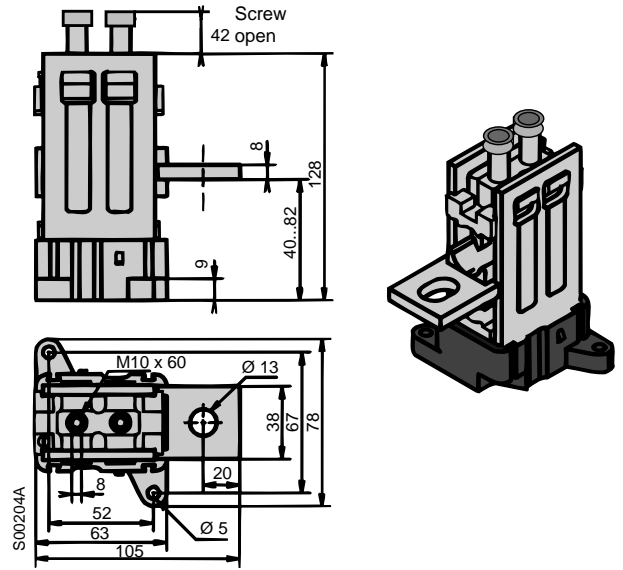


# Universal Terminal Clamps, for Al- and Cu-Cables 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup> Dimension Drawings

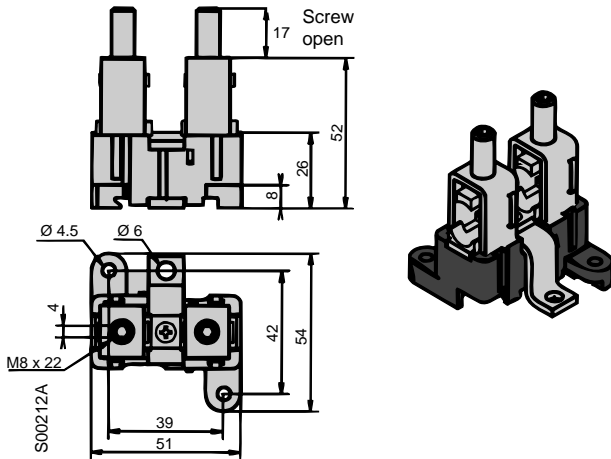
**OZXC 5**



**OZXC 6**

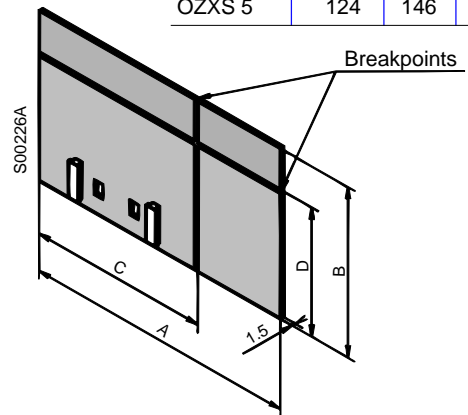


**OZXD 11**

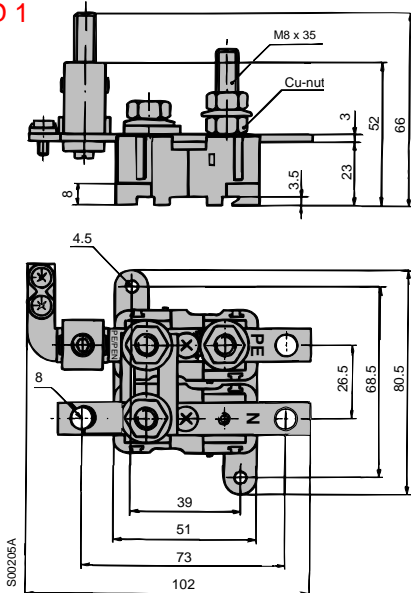


**OZXS 1...5**

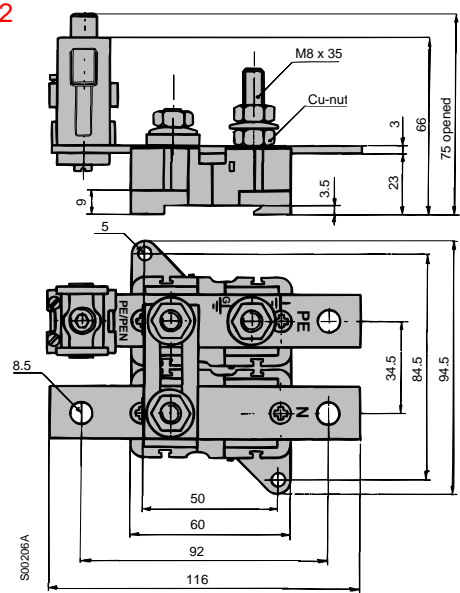
Barriers between phases	A [mm]	B [mm]	C [mm]	D [mm]
OZXS 1	109	67	71	-
OZXS 2	123	75	80	-
OZXS 3	104	120	-	83
OZXS 5	124	146	-	103



**OZXD 1**



**OZXD 2**

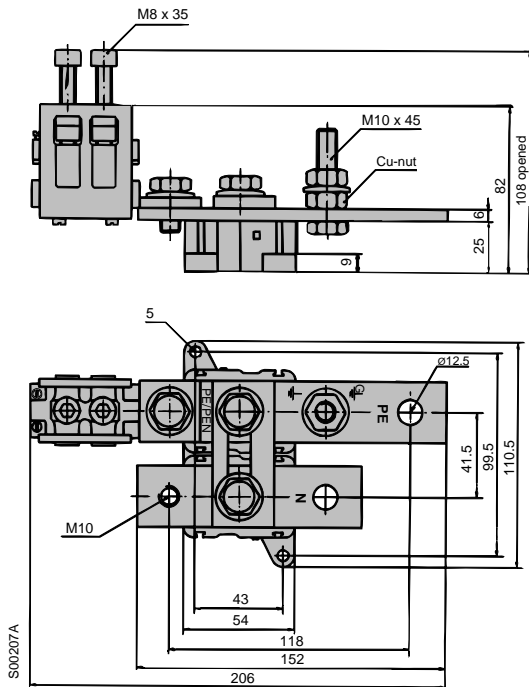


# Universal Terminal Clamps, for Al- and Cu-Cables

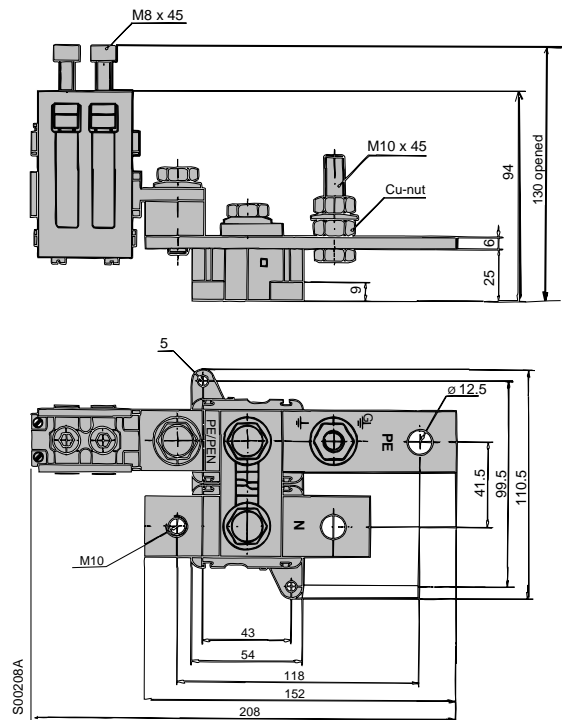
## 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup>

### Dimension Drawings

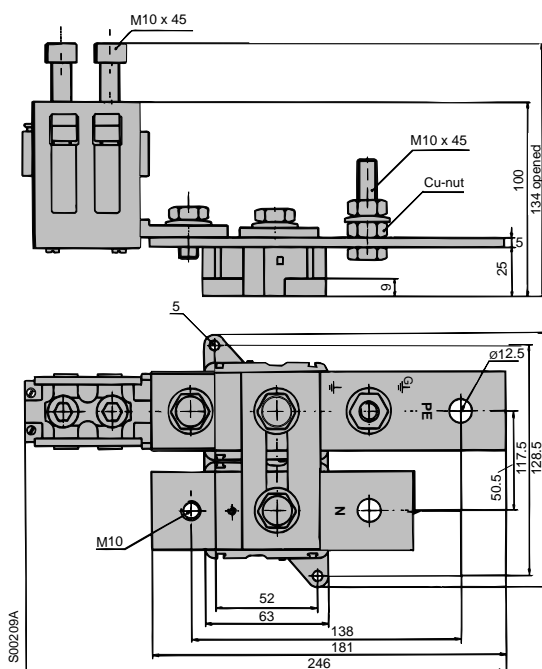
OZXD 3



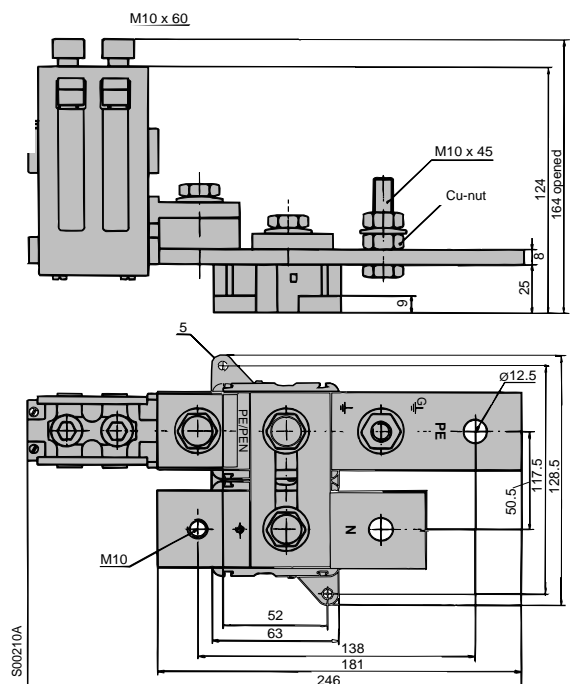
OZXD 4



OZXD 5



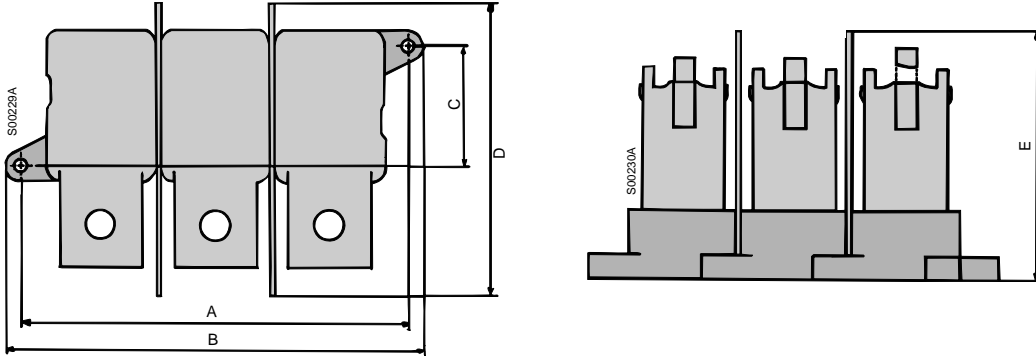
OZXD 6



# Universal Terminal Clamps, for Al- and Cu-Cables 10 mm<sup>2</sup> ... 2x300 mm<sup>2</sup> Dimension Drawings

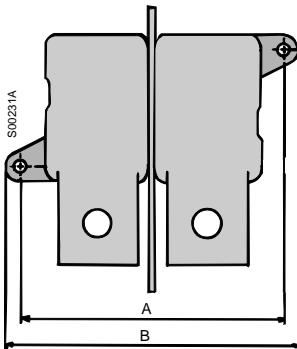
## Mounting of the terminal clamps with base plates in parallel

3 clamps in parallel



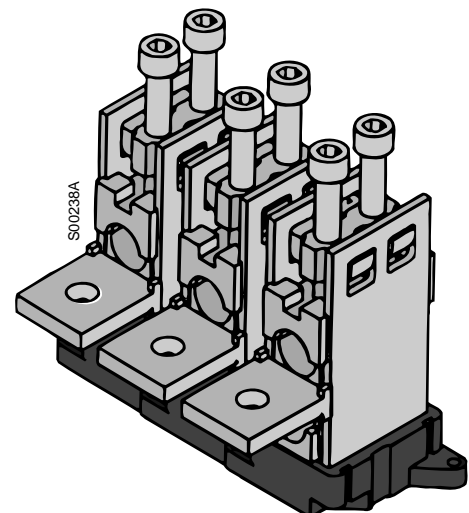
Type	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
OZXC 1	95	107	39	109	75
OZXC 2	119	129	50	123	84
OZXC 3	141	152	43	104	91
OZXC 4	141	152	43	104	129
OZXC 5	168	179	52	124	112
OZXC 6	168	179	52	124	155

2 clamps in parallel

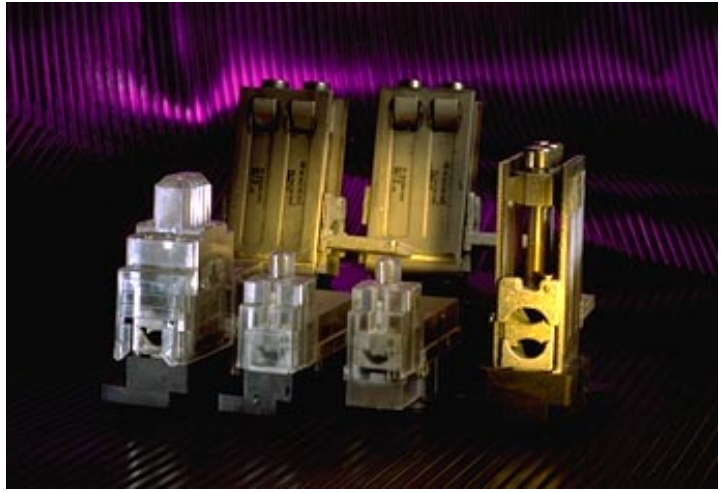


Type	A [mm]	B [mm]
OZXC 1	68.5	80.5
OZXC 2	84.5	94.5
OZXC 3	99.5	110.5
OZXC 4	99.5	110.5
OZXC 5	117.5	128.5
OZXC 6	117.5	128.5

Notice, that clip-on phase barriers and fastening screws must be ordered as accessories (page 5).



New terminal shrouds now available for universal terminal clamps. Terminal shrouds can be easily snapped on to a ready mounted clamp.



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## **ABB Control Oy**

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The technical data and dimensions are valid at the time of printing. We reserve the right to subsequent alterations.