

SUBSTATION CLAMPS

Up to 245kV
Up to 420kV
and
Al Bus-bar clamps



(Catalogue extract)

Please contact our office, if you need a product not presented in the catalogue

Use of the catalogue

At the top of the chart you can see the description of the assembly and the upper limit of its applicability.

The figure shown on the left side of the catalogue depicts the assembly.

The dimensions expressed in mm in the table indicated with various letters on the drawing represent the parameters required to the selection of the assembly.

The assembly corresponding to the selected dimensions can be ordered by specifying the 9-digit number taken from the table. Of course, one ordering number relates to the dimensions indicated beside it in the given row.

Explanation of the letters indicated in the drawing:

The letters „A” and „B” show the minimum and maximum diameters of the stranded wires and pins to be connected to the connection.

„C” distance between two stranded wires

„D1”, „D2” size of the surface of the flat connection

„E” height of the centre of the tubular rail or stranded wire

„F” plate thickness

„G” , „H” length of the connecting surface

 „G1”, „H1” length of the connecting surface in case of twin-bracket clamping

 „G2” , „H2” length of the connecting surface in case of triple-bracket clamping

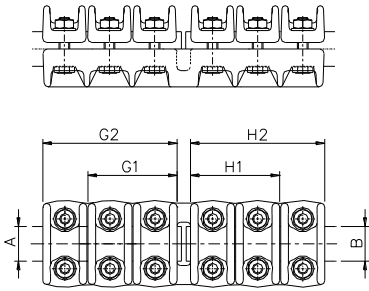
In case of connection of a stranded wire, to provide the appropriate contact surfaces and a low contact resistance, use always the triple-bracket clamping method.

The twin-bracket clamping method shall be used for pins shorter than the triple-bracket connection.

When ordering, please specify the ordering number and the diameters of the connecting stranded wires and/or pin, the material of the pin (copper or aluminium), in case of flat connection, the diameters of the holes needed to the fixation and the distances between the holes.

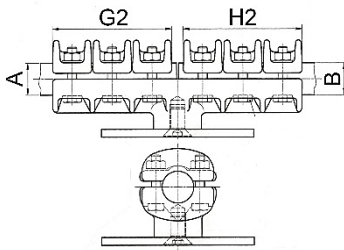
In case of a copper pin, the thickness of the cupal plate between the pin and the assembly shall be considered; i. e. +2 mm in diameter. In fact, the diameter + 2 mm of the copper pin shall be less than or equal to the maximum diameter connected to the assembly.

In case of any problem or, if you have questions, please do not hesitate contacting our office.



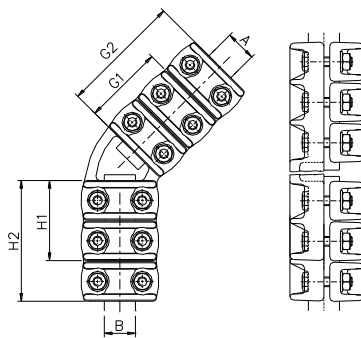
To 245kV AI-Clamps, straight

Order number	A	B	G2	H1	H2
140 283 001	22-33	22-33	124		124
140 251 252	22-33	22-33	124	82	
145 706 707	22-33	32-43	124		124
145 706 708	22-33	32-43	124	82	
145 706 750	22-33	47-60	124		124



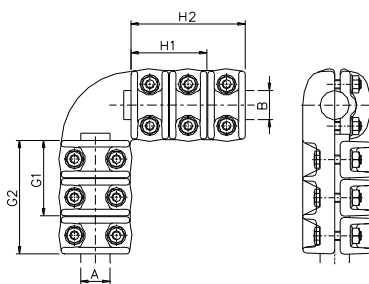
To 245kV AI-Clamps, straight

Order number	A	B	G2	H2
140 283 050	22-33	22-33	124	124



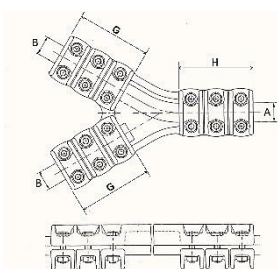
To 245kV AI-Clamps, 45° angle

Order number	A	B	G2	H1	H2
140 333 334	22-33	22-33	124		124
140 333 335	22-33	22-33	124	82	
145 738 739	32-43	22-33	124		124
145 738 740	32-43	22-33	124	82	
145 738 750	47-60	22-33	124		124



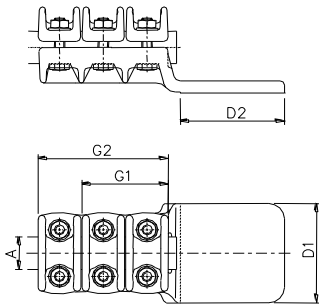
To 245kV AI-Clamps, 45° angle

Order number	A	B	G1	G2	H2
140 367 368	22-33	22-33		124	124
140 367 369	22-33	22-33	82		124
140 090 091	33-43	13-33		143	143
145 876 877	32-43	22-33		124	124
145 876 878	32-43	22-33	82		124
145 876 850	47-60	22-33	124		124



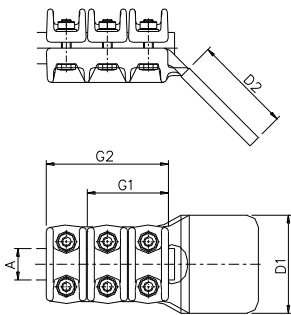
To 245kV „Y”-Clamps, straight

Order number	A	B	G	H
160 100 100	22-33	22-33	124	124



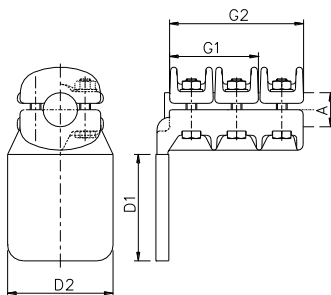
To 245kV AI Flat Clamps, straight

Order number	A	G2	D1	D2
146 036 037	16-23	115	100	100
158 088 089	22-33	124	100	100
155 561 562	22-33	124	125	125
196 299 002	29-43	124	100	100
197 328 417	39-50	124	120	120
156 457 125	48-63	124	125	125
245 125 072	63-75	124	125	125



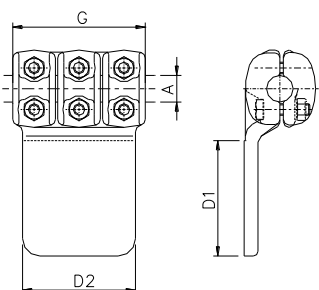
To 245kV AI Flat Clamps, 45° angle

Order number	A	G2	D1	D2
146 104 105	16-23	115	100	100
146 106 107	22-33	124	100	100
146 106 125	22-33	124	125	125



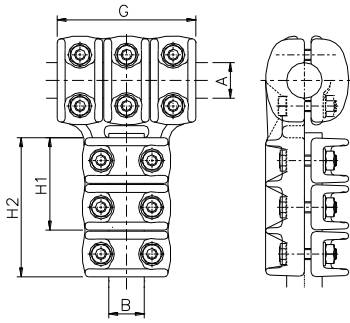
To 245kV AI Flat Clamps, 90° angle

Order number	A	G2	D1	D2
158 090 001	22-33	124	100	100
158 090 125	22-33	124	125	125
156 090 125	48-63	124	125	125
245 090 072	63-75	124	125	125
158 090 002	32-43	124	100	100



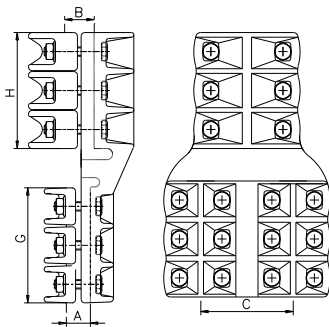
To 245kV AI Flat "T" Clamps, straight

Order number	A	G	D1	D2
146 218 219	16-23	115	100	100
146 220 221	30-33	124	100	100



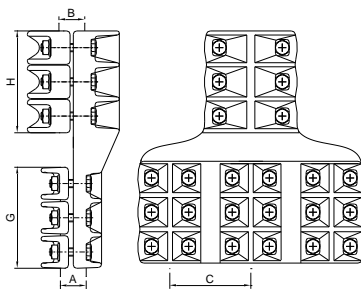
To 245kV AI T Clamps

Order number	A	B	G	H2
140 615 001	22-33	22-33	124	124
146 400 401	22-33	32-43	124	124
146 400 063	20-43	48-63	124	124



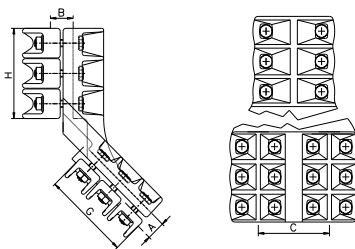
To 245kV AI Fork Clamps, straight

Order number	A	B	C	G	H
159 087 100	22-33	30-63	100	124	124



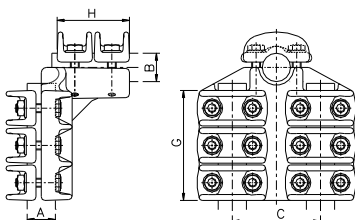
To 245kV AI triple Clamps, straight

Order number	A	B	C	G	H
245 168 333	22-33	30-63	100	124	124



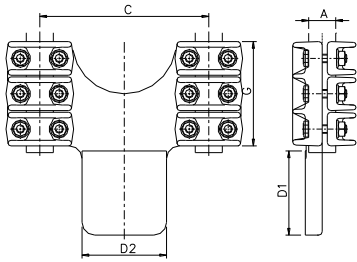
To 245kV AI Fork Clamps, 45° angle

Order number	A	B	C	G	H
156 775 100	22-33	30-63	100	124	124



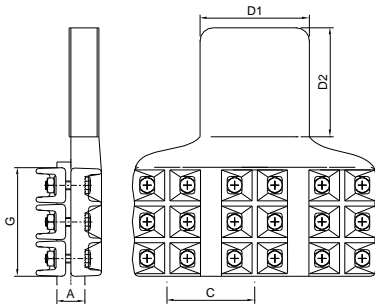
To 245kV AI Fork Clamps, 90° angle

Order number	A	B	C	G	H
140 819 820	22-33	22-33	100	124	82
140 819 100	22-33	30-63	100	124	124



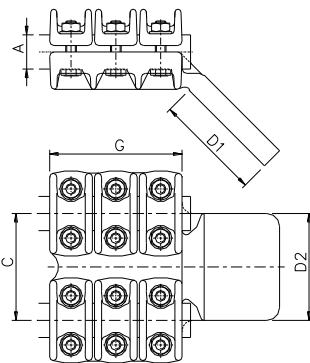
To 245kV AI Flat Bundled Conductor Clamps, straight

Order number	A	C	D1	D2	G
158 813 814	22-33	100	100	100	124
158 813 125	22-33	100	125	125	124
196 868 001	22-33	200	100	100	124



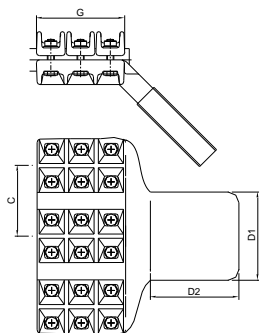
To 245kV AI Flat triple Clamps, straight

Order number	A	C	D1	D2	G
245 125 333	22-33	100	125	125	124



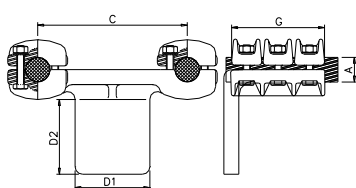
To 245kV AI Flat Bundled Conductor Clamps, 45°angle

Order number	A	C	D1	D2	G
159 786 787	22-33	100	100	100	124



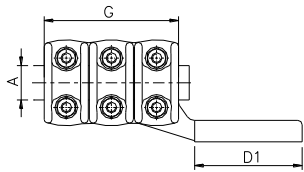
To 245kV AI Flat triple Clamps, 45°angle

Order number	A	C	D1	D2	G
245 045 333	22-33	100	125	125	124



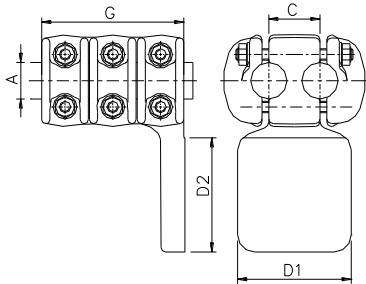
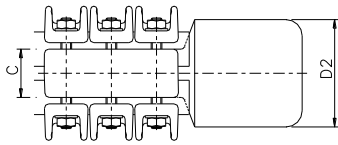
To 245kV AI Flat Bundled Conductor Clamps, 90°angle

Order number	A	C	D1	D2	G
159 788 789	22-33	100	100	100	124
195 728 001	22-33	200	100	100	124
197 814 002	32-43	100	100	100	124
195 728 002	22-33	160	100	100	124



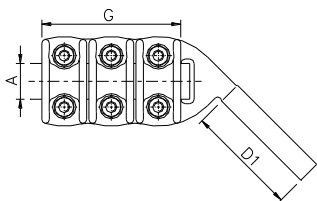
To 245kV AI Flat Bundled Conductor Clamps, straight

Order number	A	C	D1	D2	G
156 573 574	30-33	45	100	100	124



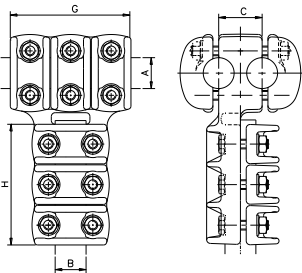
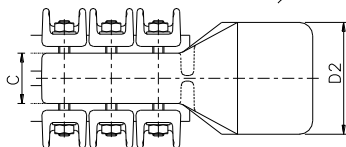
To 245kV AI Flat Bundled Conductor Clamps, 90°angle

Order number	A	C	D1	D2	G
158 010 011	19-33	45	100	100	124



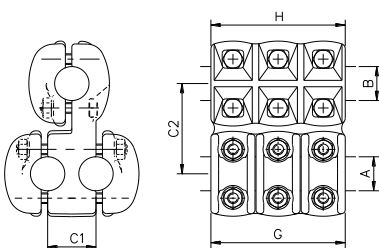
To 245kV AI Flat Bundled Conductor Clamps, 45°angle

Order number	A	C	D1	D2	G
195 943 002	22-33	45	100	100	124



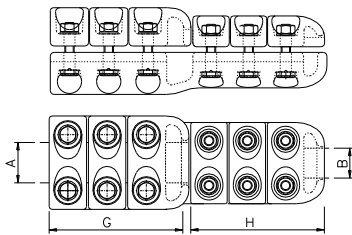
To 245kV AI T Bundled Conductor Clamps

Order number	A	B	C	G	H
141 109 001	22-33	22-33	45	124	124



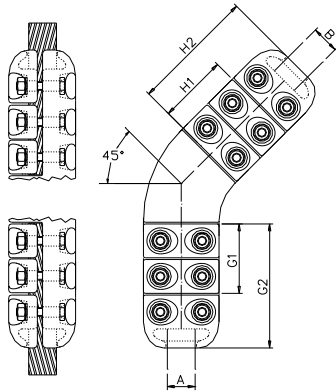
To 245kV AI Parallel Bundled Conductor Clamps

Order number	A	B	C1	C2	G	H
140 695 896	22-33	22-33	45	85	124	124



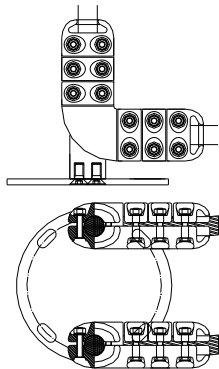
To 420kV Al-Clamps, straight

Order number	A	B	G	H
198 407 001	33-43	22-33	143	143
198 033 060	43-63	22-33	143	143



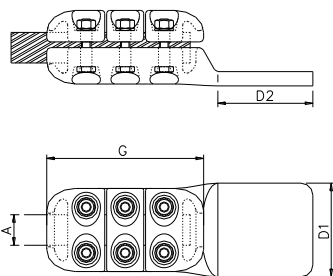
To 420kV Al-Clamps, 45° angle

Order number	A	B	G1	G2	H2
140 349 350	23-33	23-33		143	143
140 349 351	23-33	23-33	78		143
145 826 827	33-43	23-33		124	143
145 826 828	33-43	23-33	78		143



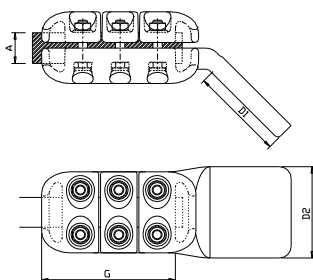
To 420 kV-os Al-Clamps, 90° angle, double

Order number	A	B	G2	H2	
140 090 033	23-33	23-33	143	143	



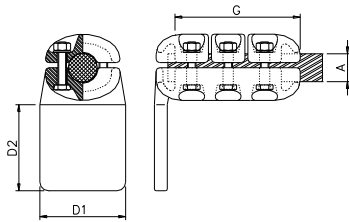
To 420kV Al Flat Clamps, straight

Order number	A	G	D1	D2
156 333 334	23-33	143	100	100
196 446 002	33-43	149	100	100



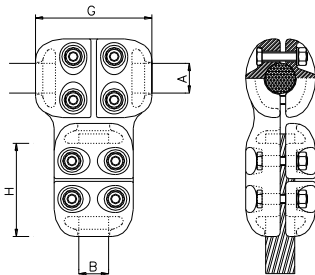
To 420kV Al Flat Clamps, 45° angle

Order number	A	G	D1	D2
156 333 045	23-33	143	100	100



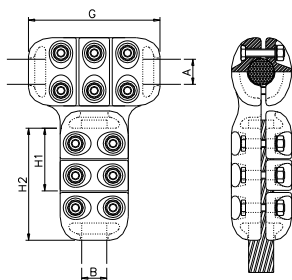
To 420kV AI Flat Clamps, 90°angle

Order number	A	G	D1	D2
157 409 410	23-33	143	100	100



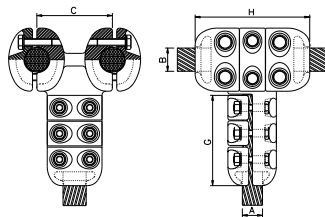
To 420kV AI T Clamps

Order number	A	B	G	H
140 559 560	23-33	23-33	103	103



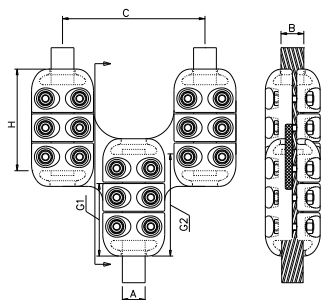
To 420kV AI T Clamps

Order number	A	B	G	H2	
140 657 001	30-33	30-33	143	143	
140 671 672	23-33	33-43	143	149	
157 635 636	33-43	33-43	149	149	



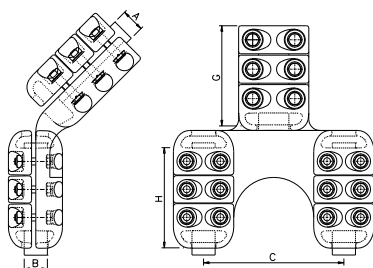
To 420kV AI T Bundled Conductor Clamps

Order number	A	B	C	G	H
106 209 001	23-33	33-43	100	143	149



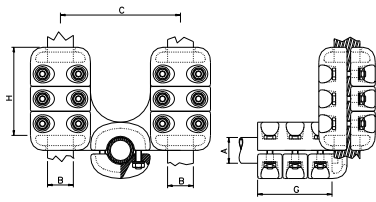
To 420kV AI Fork Bundled Conductor Clamps

Order number	A	B	C	G2	H
156 547 548	23-33	22-33	200	143	143
400 050 200	43-63	22-33	200	143	143



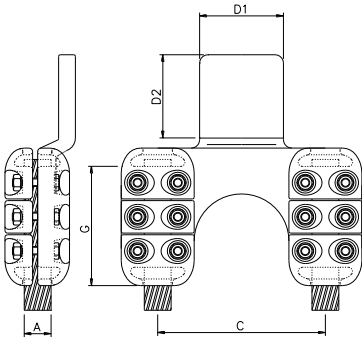
To 420kV AI Fork Bundled Conductor Clamps, 45°angle

Order number	A	B	C	G2	H
199 334 200	33-43	22-33	200	143	143
199 050 200	43-63	22-33	200	143	143



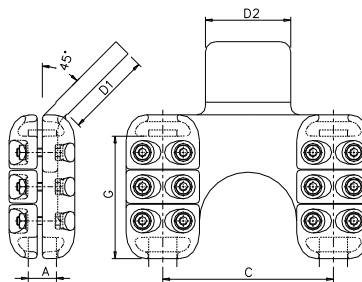
To 420kV AI Fork Bundled Conductor Clamps, 90°angle

Order number	A	B	C	G	H
146 574 575	30-43	23-33	200	149	143
146 050 200	43-63	23-33	200	143	143



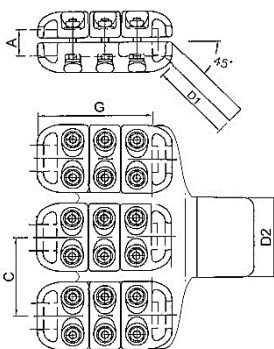
To 420kV AI Flat Bundled Conductor Clamps, straight

Order number	A	C	D1	D2	G
147 020 100	23-33	200	100	100	143
147 020 125	23-33	200	125	125	143
147 020 190	23-33	200	125	190	143
147 020 200	23-33	200	200	100	143



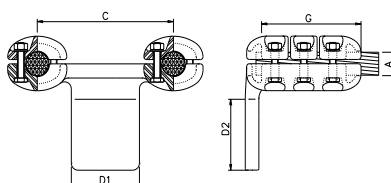
To 420kV AI Flat Bundled Conductor Clamps, 45°angle

Order number	A	C	D1	D2	G
158 439 440	23-33	200	100	100	143
158 439 446	23-33	200	100	200	143



To 420kV AI Flat triple Clamps, 45°angle

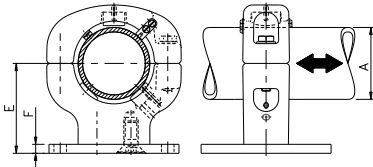
Order number	A	C	D1	D2	G
158 539 539	23-33	100	100	200	143



To 420kV AI Flat Bundled Conductor Clamps, 90°angle

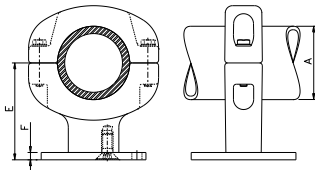
Order number	A	C	D1	D2	G
103 286 019	23-33	200	100	100	143
156 510 511	23-33	200	200	100	143

AI Bus Supports, slide bearing

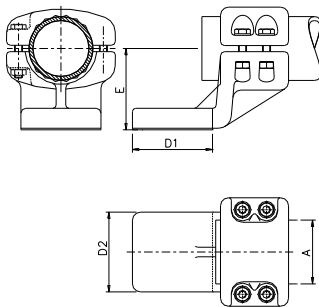


Order number	A	E	F
158 823 824	80	100	10
195 849 002	100	100	10
158 160 001	160	150	10
158 823 826 for regulating inductor	80	100	10 AI

AI Bus Supports, fixed bearing

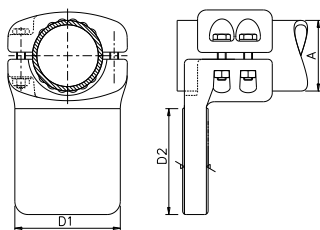


Order number	A	E	F
197 090 003	80	100	10
157 751 752	100	100	10
197 160 001	160	150	10
197 090 006 for regulating inductor	80	100	10 AI
197 090 050	48-80	100	10



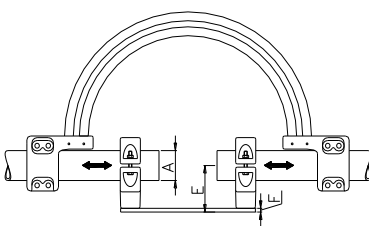
AI Bus Flat clamps, straight

Order number	A	E	D1	D2
197 090 002	80	100	100	100
170 247 002	100	110	100	100



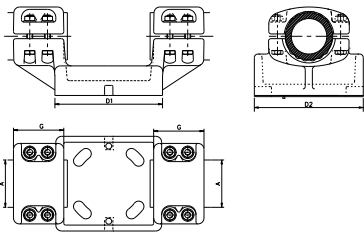
AI Bus Flat clamps, 90° angle

Order number	A	D1	D2
197 288 001	80	120	120



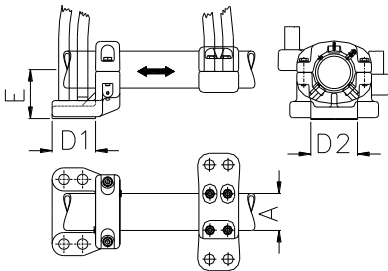
AI Expansion Bus Support Coupler, slide

Order number	A	E	F
195 350 000	80	100	10
158 710 100	100	120	10



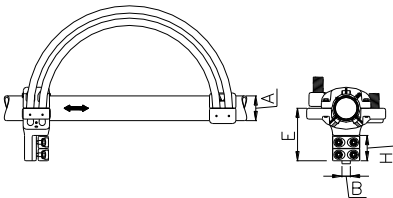
AI Bus Support Coupler

Order number	A	G	D1	D2
159 457 010	80	85	185	185
170 348 001	100	85	185	185



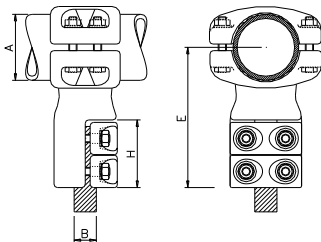
AI Expansion Flat Couplers

Order number	A	E	D1	D2
158 585 586	80	100	100	100
195 794 002	100	120	100	100



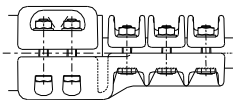
AI Expansion T-Coupler

Order number	A	B	E	H
199 819 000	80	27-33	170	82



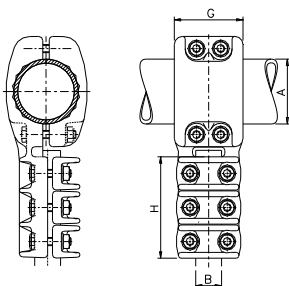
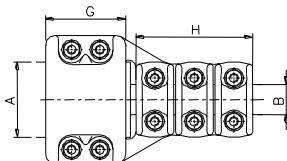
AI T-Clamps, fixed bearing

Order number	A	B	E	H
199 819 003	80	27-33	170	82



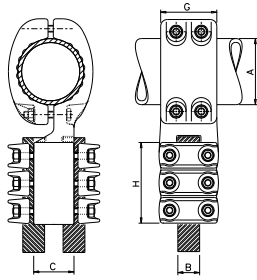
To 245kV AI Clamps, straight

Order number	A	B	G	H
159 631 632	80	22-33	85	124



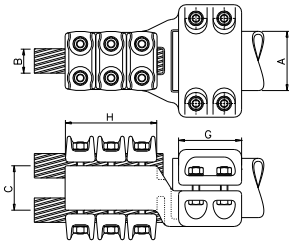
To 245kV AI T-Clamps

Order number	A	B	G	H
146 426 427	80	22-33	85	124
146 426 100	100	22-33	85	124
199 861 001	125	22-33	85	124
159 197 198	160	22-33	85	124



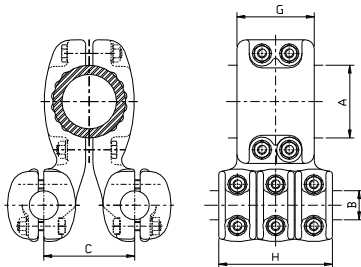
To 245kV AI T Bundled Conductor Clamps

Order number	A	B	C	G	H
197 617 002	80	22-33	45	85	124
197 806 001	100	32-43	60	85	124



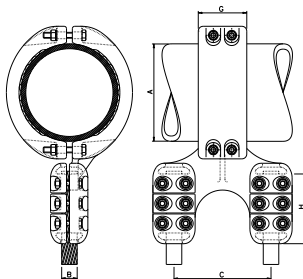
To 245kV AI Bundled Conductor Clamps, straight

Order number	A	B	C	G	H
195 977 002	80	22-33	60	85	124



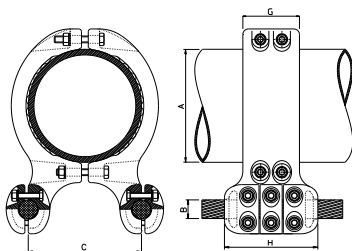
To 245kV AI Bundled Conductor Clamps, parallel

Order number	A	B	C	G	H
158 536 536	80	22-33	100	85	124



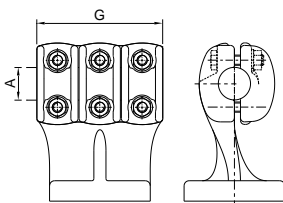
To 420kV AI T Bundled Conductor Clamps

Order number	A	B	C	G	H
196 360 010	160	23-33	200	85	124
196 360 200	200	23-33	200	85	124



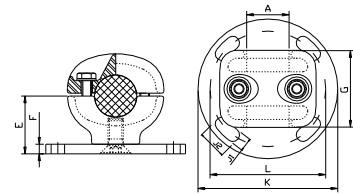
To 420kV AI Bundled Conductor Clamps, parallel

Order number	A	B	C	G	H
195 740 002	200	23-33	200	85	124
195 160 001	160	23-33	200	85	124



Conductor support „T” AI-Clamps

Order number	A	E	F	G
160 221 221	22-33	115	10	124



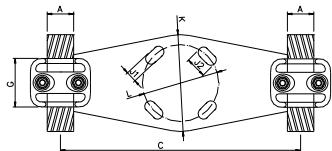
AI Conductor Supports

Order number	A	E	F	G
195 769 001	30-43	60	10	80
113 842 001	32-50	60	10	67
195 769 003	15-43	50	10	



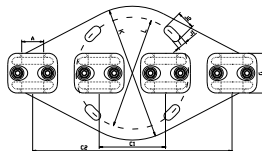
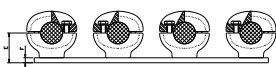
AI Duplex Bundled Conductor Supports

Order number	A	E	F	G
195 769 020	30-43	60	10	80
113 842 020	32-50	60	10	67

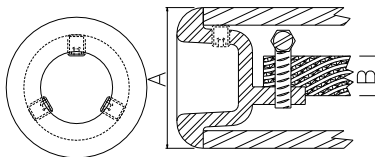


AI 4 Bundled Conductor Supports

Order number	A	E	F	G
195 769 040	30-43	60	10	80
113 842 040	32-50	60	10	67

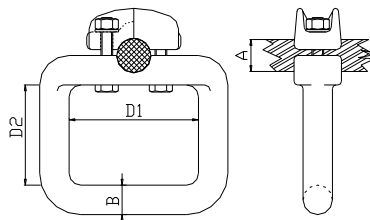


Tube end cover



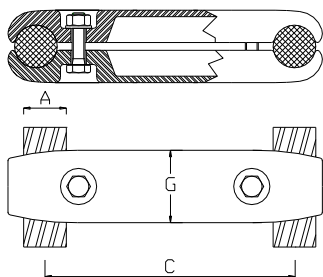
Order number	A	B
152 021 080	80	Max 22,5
152 021 100	100	33

Earthig Clamps



Order number	A	B	D1	D2
360 365 020	16-23	20	80	85
360 365 005	22-33	25	110	85
360 365 030	51-80	30	140	85
360 365 100	100	30	107	100

Double Bundled Conductor AI connection element



Order number	A	C	G
161 990 001	32-33	100	50
194 098 200	32-33	200	50
194 098 400	32-33	400	50