

CABLE LUGS RANGE



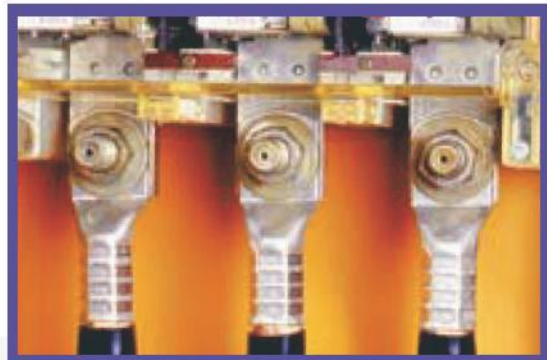
TECHNICAL INFORMATION

Copper tubular cable lugs and connectors for all applications

Secure electrical connections are crucial. Power outages caused by faulty cable connections can cause severe damages. The power supply is interrupted. Production comes to a standstill. Traffic is disrupted.

Tubular cable lugs and connectors from EPP meet the highest quality requirements and satisfy international standards.

Traditional applications are power supply, transportation, trade and industry and building installation technology.



- Extensive product range for low and medium-voltage.
- Distinct phase for easy entry of the conductor.
- Consistent precision, high safety and rating thanks to high quality pure electrolyte copper.
- EPP coding system with manufacturer's identification, nominal cross section and hole.

EPP tubular cable lugs are suitable for practically every application with copper conductors.

Correct cable lugs for every application.

Products to EPP standards in various designs and shapes.

- Tailor made solutions for various applications.
- Solutions for cables with compacted round conductors, as well as
- cables with sector shaped conductors.

Benefits:

Correct products for any installation scenario.

- Highest flexibility for connecting cables.



Hold even with strong vibrations.

- Consistent material thickness, precise diameters and accurate fit allow optimum processing and ultimate safety.

Benefits:

- With professional installation of the correct type, optimised stability even with mechanically stressed or severely vibrating connections.
- Less repair and maintenance.



Pure material, special processing.

- EPP tubular cable lugs are made from quality E-Cu tubes.
- Defined, unique material properties by annealing the cable lugs.

Benefits:

- Optimised conductivity, enhanced safety and high cable lug rating thanks to high quality material.
- EPP connecting materials are annealed at a defined hardness, allowing them to be processed with reduced effort, hence saving the tool.



Connections with a system.

- Besides a wide choice of cable lugs and connectors, the EPP range also includes the appropriate manual crimping tools.

Benefits:

- One single source for everything – from the cable lug to the tool.
- Guarantees the correct tools for professional electrical installations.

Material Properties

Information on materials used for copper and aluminium cable lugs and compression joints

- All copper tubular cable lugs, terminals and pin terminals as well as relevant compression joints are manufactured from Cu to Din 13600.
- Cable end-sleeves to DIN 46228 part 1 and part 4 are manufactured from Cu to DIN EN 13600.
- Aluminium compression cable lugs and compression joints are manufactured from E-Al 99.5 to DIN 1712.

Electrical Properties

- The maximum permissible current load of our connecting material, in conjunction with insulated conductors is according to values in the following chart.

Goup1

One or several single-core cables laid in conduits

Goup2

Multi-core cables, e.g. plastic-sheathed cables, lead sheathed metal-sheathed cables, flat webbed cables, flexible cables

Goup3

Overhead single-core cables with clearance between lines at least corresponding to cable diameter

Nominal cross section mm ²	Cu (A)	Al (A)	Cu (A)	Al (A)	Cu (A)	Al (A)
0.75	-	-	12	-	15	-
1	11	-	15	-	19	-
1.5	15	-	18	-	24	-
2.5	20	-	26	-	32	-
4	25	-	34	-	42	-
6	33	-	44	-	54	-
10	45	-	61	48	73	57
16	61	48	82	64	98	77
25	83	65	108	85	129	103
35	103	81	135	105	158	124
50	132	103	168	132	198	155
70	165	-	207	163	245	193
95	197	-	250	197	292	230
120	235	-	292	230	344	268
150	-	-	335	263	391	310
185	-	-	383	301	448	352
240	-	-	453	357	528	414
300	-	-	504	409	608	479
400	-	-	-	-	726	569
500	-	-	-	-	830	649

Values only valid at an ambient temperature of 30 °C

Mechanical properties

- The tensile strength of connections assembled in accordance with our assembly instructions and tools complies with DIN EN 61238-1.



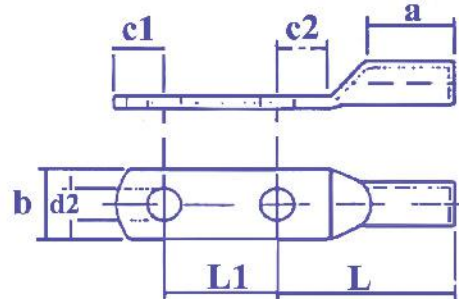
CHECK-LIST

For special Cable Lugs and Connectors.

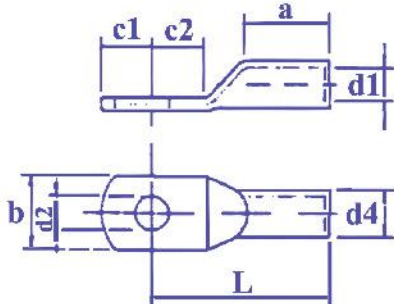
Drawing

Please fill in all the required dimensions and necessary data.

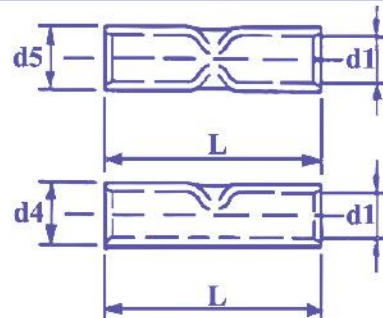
Double hole cable lug



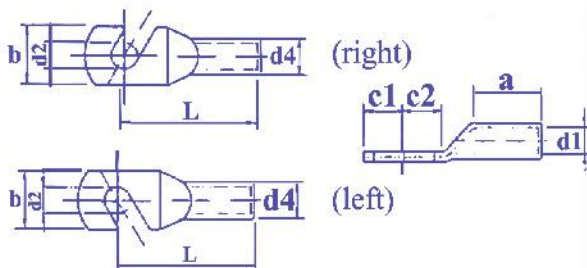
Cable Lug



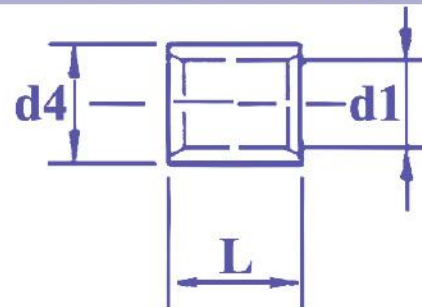
Butt splice



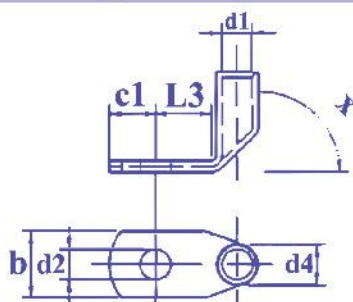
Cable lug with hook



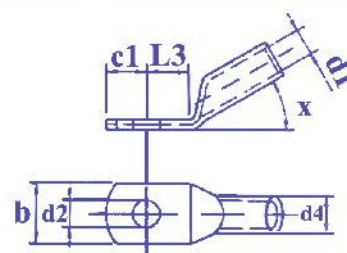
Parallel connector



Lug with angle from 30° to 90°



Lug with angle up to 30°





Customer / Company: Customer No.

Address: Fax:

Contact Person: Phone:

Dimensions

Nominal dimensions (mm)

Dimension d1 : _____ Dimension L : _____

Dimension d4 : _____ Dimension L1 : _____

Dimension d2 : _____ Dimension L3 : _____

Dimension a : _____

Dimension b : _____

Dimension c1 : _____ Angle X : _____

Dimension c2 : _____

Other types acc. to your sketches / Remarks :

Technical Data

Kind of application / Type of conductor:

(if know) _____

Section (cable) _____

Inspection hole (on cable lugs)

Cable lug

DIN lug

Surface :

Tin plated _____

Nickel plated _____

Bright _____

Others :

Material :

Cu

Others :

Commercial Data

Quantity / Annual requirement _____

Requested delivery time : _____

Sample : Yes No

Test report of first sample : Yes No

Additional information :

Which Items

Date :

Signature (Customer) :

Designation of cables and conductors

a) Copper

■ Our copper cable lugs and compression joints are suitable for stranded copper conductors according to DIN 48201, part 1 and copper conductors according to DIN EN 60228 (see chart).

b) Aluminium

■ Our aluminium cable lugs and compression joints are suitable for stranded aluminium conductors according to DIN 48201, part 1 DIN EN 50182 and aluminium conductors according to DIN EN60228,(see chart).

Sector conductors must be rounded with crimping tools before assembly.

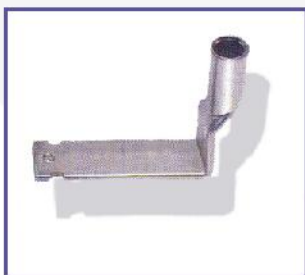
Cross section compatibility chart for cable lugs and compression joints to copper and aluminium conductors according to

- VDE 0250
- DIN 48200
- DIN 48201 part 1, DIN EN 50/82
- DIN EN 60228

Cross section mm ²	Reference Cross section	Cable Cu and Al		Stranded circular conductor	Compressed circular conductor		Solid conductor		Fine and finest stranded conductor
	DIN 48201 part1, DIN EN 50182			VDE 0295, DIN EN60228					
	(mm ²)	Number of wires	CableΦ (mm)	ConductorΦ (mm)	ConductorΦ min. (mm)	ConductorΦ max. (mm)	ConductorΦ min. (mm)	ConductorΦ max. (mm)	CableΦ max. (mm)
0.5	-	-	-	1.1	-	-	-	0.9	1.1
0.75	-	-	-	1.2	-	-	-	1	1.3
1	-	-	-	1.4	-	-	-	1.2	1.5
1.5	-	-	-	1.7	-	-	-	1.5	1.8
2.5	-	-	-	2.2	-	-	-	1.9	2.3
4	-	-	-	2.7	-	-	-	2.4	2.9
6	-	-	-	3.3	-	-	-	2.9	3.9
10	10.02	7	4.1	4.2	-	-	-	3.7	5.1
16	15.89	7	5.1	5.3	-	-	-	4.6	6.3
25	24.25	7	6.3	6.6	5.6	6.5	5.2	5.7	7.8
35	34.36	7	7.5	7.9	6.6	7.5	6.1	6.7	9.2
50	49.48	7	9	9.1	7.7	8.6	7.2	7.8	-
50	48.35	19	9	-	-	-	-	-	11
70	65.81	19	10.5	11	9.3	10.2	8.7	9.4	13.1
95	93.27	19	12.5	12.9	11	12	10.3	11	15.1
120	116.99	19	14	14.5	12.5	13.5	11.6	12.4	17
150	147.11	37	15.8	16.2	13.9	15	12.9	13.8	19
185	181.62	37	17.5	18	15.5	16.8	-	-	21
240	242.54	61	20.3	20.6	17.8	19.2	-	-	24
300	299.43	61	22.5	23.1	20	21.6	-	-	27
400	400.14	61	26	26.1	22.9	24.6	-	-	31
500	499.83	61	29.1	29.2	25.7	27.6	-	-	35
625	626.2	91	32.6	33.2	29.3	32.5	-	-	39
800	802.09	91	36.9	37.6	-	-	-	-	-
1000	999.71	91	41.1	42.2	-	-	-	-	-

SPECIAL TYPES

For example: roll cable lugs, flag cable lugs, tubular cable lugs
in special designs with two - or four - hole palm.
please use our check-list, catalog page D7-D8.

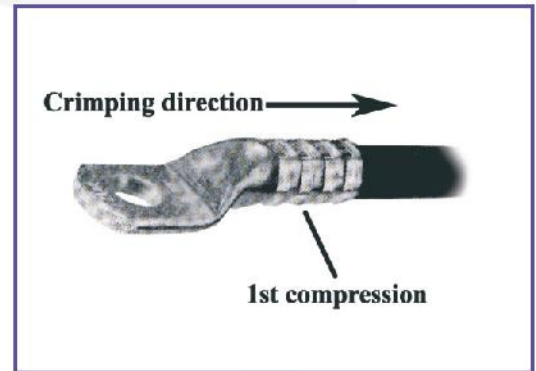


D8

please always state the ordering number when ordering

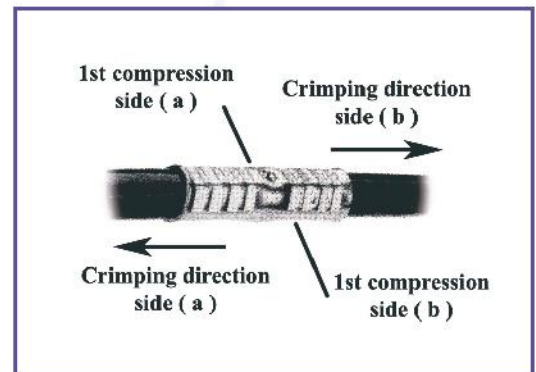
Assembly instructions for cable lugs and connectors

- 1) Strip conductor according to insertion depth (+10% because of length changing of crimped sleeve).
- 2) Conductor ends must be cleaned with a cloth or brush before assembly.
- 3) Insert conductor fully into cable lug or connector.
- 4) Observing the crimping direction, crimp the cable lug or connector using the appropriate tools. The crimping direction for cable lugs and connectors is indicated in the illustration below.





we recommend the following number of crimps for individual cross sections:

Cross section mm ²	Tubular cable lugs		Cable lugs DIN 46235		Aluminium cable lugs	
	5 mm crimping dies	wide crimping dies	5 mm crimping dies	wide crimping dies	7 mm crimping dies	wide crimping dies
6	1		2			
10	1		2			
16	1	1	2	1	4	2
25	2	1	2	1	4	2
35	2	1	2	1	5	2
50	2	1	3	1	5	2
70	2	1	3	1	6	3
95	2	1	4	2	6	3
120	2	1	4	2	6	3
150	2	1	4	2	6	3
185	2	1	4	2	6	3
240	4	2	5	2	8	3
300	4	2		2	8	3
400	4	2		3		4
500				3		4
625				3		
800				3		
1000				3		



British and American measuring units

Length		Area		Volume		Fluid Volume		Weight	
1 mill	0.0254 mm	1 sq.in.	645.1 mm ²	1 cu.in.	16.386 mm ³	1 pint	0.568l	1 grain	0.059 g
1 inch (Zoll)	25.400 mm	1 sq.ft.	0.093 m ²	1 cu.ft.	0.028 m ³	1 quart	1.136l	1 ounce	28.349 g
1 foot	0.3048 mm	1 sq.yd.	0.836 m ²	1 cu.yd.	0.764 m ³	1 brit.gallon	4.554l	1 pound(lb)	0.454kg
1 yard	0.9140 mm					1 am.gallon	3.785l	1 brit.ton	1.016 t
1 mile	1.6090 km					1 quarter	290.790l	1 am.ton	0.907 t
						1 bushel	36.350l		

	Hexagon Crimping	Hexagon crimping to crimp tubular copper cable lugs and connectors " standard type " & compression joints. Range of application: 6-150 mm ²
	Indent Crimping	Indent crimping to crimp tubular copper cable lugs and connectors " standard type " , tubular cable lugs and connectors for fine stranded cables, tubular nickel cable lugs and connectors. Range of application: 6-400 mm ²



Please note that crimping of solderless cable connectors with tools from other manufactures will not guarantee proper connection. We exclusively recommend the use of EPP soldress cable connections with EPP tools.

Selection of length and cable cross selection and cable lugs

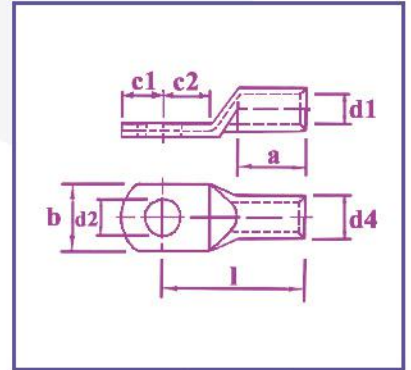
P	I	Sm/m ²														
		1.5	2.5	4	6	10	16	25	35	50	70	95	120	150	185	240
KW	A															
2.5	5	190	325	510	745											
3	6	166	270	420	620											
3.5	7	155	230	365	540	895										
4	8	120	200	320	476	785										
4.5	9	105	185	285	420	700										
5	10	96	165	255	375	630	970									
6	12	79	135	210	315	325	870									
7	14	68	115	190	270	455	700									
8	16	60	105	160	240	400	670	940								
9	16	51	92	145	215	355	550	850								
10	19	LM	84	130	190	320	500	780								
12	23		69	110	160	265	425	640	880							
14	27		LM	94	140	230	355	550	760							
16	31			81	120	220	315	465	655	960						
18	35			LM	110	180	280	430	580	770						
20	38				98	160	255	390	520	690						
25	48				LM	130	205	315	420	555	760					
30	57					LM	170	260	355	465	610					
35	67						145	225	300	400	550	840				
40	76						LM	195	260	350	480	730	745			
45	86							175	235	310	430	640	670	770		
50	96							160	215	285	365	565	600	695		
60	114							LM	180	235	320	510	500	580	616	
70	133			hm					LM	200	275	420	430	495	580	
80	152			H						LM	240	365	375	428	510	
90	171										215	345	335	385	445	
100	190										LM	250	300	350	405	
120	228											LM	250	250	340	

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STANDARD TUBULAR CABLE LUGS

* the mounting bolts are preferred.

- The Cable Lugs are marked with the following:
- EPP (manufacturer trade mark: Electro Parak Paya)
- Conductor Cross - section area
- bolt size
- The marking are readable after assembly on the conductor.



Conductor mm ²	bolt ø	Dimensions									Pack Qty	Carton Qty	Order No.
		d1	a	b	d2	d4	c1	c2	1				
6	M5	3.5	10	10	5.5	6.5	8.5	7.5	22	500	4000	1033420101	
	M6			12	6.5		8.5	7.5	22			1033420102	
	M8			15	8.5		12	10	24			1033420103	
	M10			17	10.5		14	12	26			1033420104	
	M12			19	13		15	13	29			1033420105	
10	M5	4.5	10	12	5.5	7	8.5	7.5	22	350	2800	1033420106	
	M6*			12	6.5		8.5	7.5	22			1033420107	
	M8			15	8.5		12	10	25			1033420108	
	M10			17	10.5		14	12	27			1033420109	
	M12			19	13		15	13	29			1033420110	
16	M5	5.5	20	12	5.5	8.5	7.5	6.5	33	250	2000	1033420111	
	M6			12	6.5		8.25	7.5	34			1033420112	
	M8*			15	8.5		10.5	9.5	36			1033420113	
	M10			17	10.5		12.5	11.5	38			1033420114	
	M12			19	13		14	13	40			1033420115	
25	M5	7	20	14	5.5	10	9.5	7.5	35	150	1200	1033420116	
	M6			14	6.5		9.5	7.5	35			1033420117	
	M8*			16	8.5		12	10	37			1033420118	
	M10			18	10.5		14	12	39			1033420119	
	M12			19	13		15	13	40			1033420120	
35	M5	7	20	14	5.5	10	9.5	7.5	35	140	1120	1033420121	
	M6	8.5	20	17	6.5	12	9.5	7.5	35			1033420122	
	M8*			17	8.5		12	10	37			1033420123	
	M10			19	10.5		14	12	40			1033420124	
	M12			21	13		15	13	41			1033420125	
50	M5	7	20	14	5.5	10	9.5	7.5	35	80	640	1033420126	
	M6	8.5	20	17	6.5	12	9.5	7.5	35			1033420127	
	M8*			17	8.5		12	10	37			1033420128	
	M10			19	10.5		14	12	40			1033420129	
	M12			21	13		15	13	41			1033420130	
70	M5	7	20	14	5.5	10	9.5	7.5	35	50	400	1033420131	
	M6	8.5	20	17	6.5	12	9.5	7.5	35			1033420132	
	M8*			17	8.5		12	10	37			1033420133	
	M10			19	10.5		14	12	40			1033420134	
	M12			21	13		15	13	41			1033420135	
	M14			23	15		16.5	14.5	54	1033420136			
	M16			28	17		18	16	55	1033420137			
	M20			30	21		21	19	57	1033420138			
	M6	12	28	23	6.5	16.5	12	10	50	1033420139			
	M8			23	8.5		12	10	50	1033420140			
	M10*			23	10.5		14	12	51	1033420141			
	M12			23	13		15	13	53	1033420142			
	M14			23	15		16.5	14.5	55	1033420143			
	M16			28	17		18	16	57	1033420144			
	M20			30	21		21	19	60	1033420145			
											1033420146		
											1033420147		

Material: Copper

Surface: Tin Plated

With or without inspection hole.

Order number for inspection hole version

With appendix "IH"

Dimensions are in Millimetres

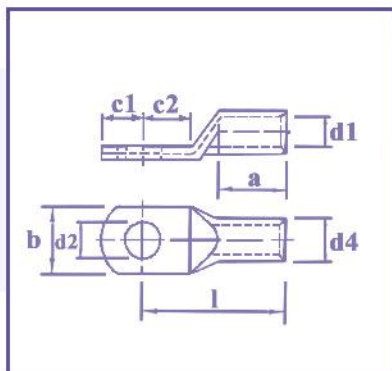
STANDARD TUBULAR CABLE LUGS

Please always state the ordering number when ordering

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Conductor mm ²	bolt ϕ	Dimensions								Pack Qty	Carton Qty	Order No.	
		d1	a	b	d2	d4	c1	c2	l				
95	M8	13.5	35	26	8.5	18	14	12	58	40	320	1033420201	
	M10*			26	10.5		14	12	58			1033420202	
	M12			26	13		15	13	59			1033420203	
	M14			26	15		16.5	14.5	61			1033420204	
	M16			28	17		18	16	64			1033420205	
	M20			36	21		24	22	70			1033420206	
120	M8	15	35	28	8.5	19.5	16	14	60	40	320	1033420207	
	M10			28	10.5		16	14	60			1033420208	
	M12*			28	13		16	14	60			1033420209	
	M14			28	15		17	15	61			1033420210	
	M16			30	17		18	16	63			1033420211	
	M20			36	21		24	22	72			1033420212	
150	M8	16.5	35	31	8.5	21	16	14	61	35	280	1033420213	
	M10			31	10.5		16	14	61			1033420214	
	M12*			31	13		17	15	62			1033420215	
	M14			31	15		17	15	62			1033420216	
	M16			31	17		18	16	63			1033420217	
	M20			36	21		24	22	71			1033420218	
185	M10	19	40	35	10.5	24	20	18	75	20	160	1033420219	
	M12*			35	13		20	18	75			1033420220	
	M14			35	15		20	18	75			1033420221	
	M16			35	17		20	18	75			1033420222	
	M20			39	21		24	22	79			1033420223	
													1033420224
240	M10	21	40	39	10.5	26	23.5	19	77	16	128	1033420225	
	M12*				13							1033420226	
	M14				15							1033420227	
	M16				17							1033420228	
	M20				21							1033420229	
													1033420230
300	M12*	23.5	50	43	13	29.5	26	24	93	12	96	1033420231	
	M14				15							1033420232	
	M16				17							1033420233	
	M20				21							1033420234	
													1033420235
													1033420236
400	M12	27	70	49	13	34	26	24	116	6	48	1033420237	
	M14				15							1033420238	
	M16*				17							1033420239	
	M20				21							1033420240	
													1033420241
													1033420242
500	M16*	31	70	60	17	42	27	25	125	4	32	1033420243	
	M20				21							1033420244	
													1033420245
													1033420246
													1033420247
													1033420248
630	M16	34.5	80	64	17	44	27	25	135			1033420249	
	M20				21							1033420250	
													1033420251
													1033420252
													1033420253
													1033420254
800	M16	40	100	75	17	52	32	30	165			1033420255	
	M20				21							1033420256	
													1033420257
													1033420258
													1033420259
													1033420260
1000	M16	44	100	83	17	58	32	30	165			1033420261	
	M20				21							1033420262	
													1033420263
													1033420264
													1033420265
													1033420266

Dimensions are in Millimetres



Material: Copper

Surface: Tin Plated

With or without inspection hole.

Order number for inspection hole version

With appendix "IH"

ALUMINIUM CABLE LUGS

rm/sm	Cross section mm ² se	size of bolt Ø	d1	d2	Dimension b	l	a	Number of crimps mech.	Order No.
16	25	M 8	5.8	8.4	20	50	30	4	1033420501
	25	M10	5.8	10.5	20	50	30	4	1033420502
25	35	M 8	6.8	8.4	25	50	30	4	1033420503
	35	M10	6.8	10.5	25	50	30	4	1033420504
	35	M12	6.8	13.0	25	50	30	4	1033420505
35	50	M 8	8.0	8.4	25	62	42	5	1033420506
	50	M 10	8.0	10.5	25	62	42	5	1033420507
	50	M 12	8.0	13.0	25	62	42	5	1033420508
	70	M 8	9.8	8.4	25	62	42	5	1033420509
50	70	M 10	9.8	10.5	25	62	42	5	1033420510
	70	M 12	9.8	13.0	25	62	42	5	1033420511
	95	M 8	11.2	8.4	25	72	42	6	1033420512
70	95	M 10	11.2	10.5	25	72	52	6	1033420513
	95	M 12	11.2	13.0	25	72	52	6	1033420514
	120	M 10	13.2	10.5	25	75	52	6	1033420515
95	120	M 12	13.2	13.0	25	75	56	6	1033420516
	120	M 16	13.2	17.0	25	75	56	6	1033420517
120	150	M 10	14.7	10.5	30	80	58	6	1033420518
	150	M 12	14.7	13.0	30	80	58	6	1033420519
	150	M 16	14.7	17.0	30	80	58	6	1033420520
	185	M 10	16.3	10.5	30	90	60	6	1033420521
150	185	M 12	16.3	13.0	30	90	60	6	1033420522
	185	M 16	16.3	17.0	30	90	60	6	1033420523
	185	M 20	16.3	21.0	30	90	60	6	1033420524
	240	M 10	18.3	10.5	30	91	60	6	1033420525
185	240	M 12	18.3	13.0	30	91	60	6	1033420526
	240	M 16	18.3	17.0	30	91	60	6	1033420527
	240	M 20	18.3	21.0	30	91	60	6	1033420528

Dimensions are in Millimetres

- Barrier design with oil stop.
- Optional tin plated (20 µm) version to connect copper busbars (interior).
- For non-tension connections of Al cables to DIN48201 part 1 and aluminium cables to DIN EN 50182.

Characteristics:

Manufactured according to DIN46329

With markings for correct crimping

Material:

E-Al

Surface:

Bright

Order info:

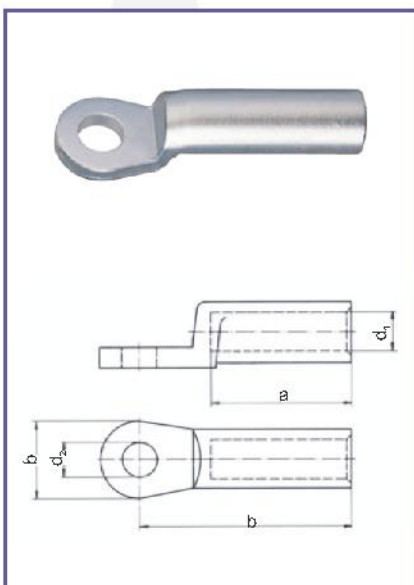
Part number appendix for tinned version "v"

sm/se- conductor needs to be pre - rounded

sm=sector stranded

rm= round stranded

se= sector solid



ALUMINIUM CABLE LUGS

Cross section mm ² m/sm	size of bolt Ø	d1	d2	Dimension b	l	a	Number of crimps mech.	Order No.
240	M 10	21.0	10.5	38	103	70	8	1033420601
	M 12	21.0	13.0	38	103	70	8	1033420602
	M 16	21.0	17.0	38	103	70	8	1033420603
	M 20	21.0	21.0	38	103	70	8	1033420604
300	M 12	23.3	13.0	38	103	70	8	1033420605
	M 16	23.3	17.0	38	103	70	8	1033420606
	M 20	23.3	21.0	38	103	70	8	1033420607
400	M 12	26.0	13.0	38	116	73	--	1033420608
	M 16	26.0	17.0	38	116	73	--	1033420609
	M 20	26.0	21.0	38	116	73	--	1033420610
500	M 12	29.0	13.0	44	122	79	--	1033420611
	M 16	29.0	17.0	44	122	79	--	1033420612
	M 20	29.0	21.0	44	122	79	--	1033420613

Dimensions are in Millimetres

- Barrier design with oil stop.
- Optional tin plated (20 µm) version to connect copper busbars (interior).
- For non- tension connections of Al cables to DIN48201 part 1 and aluminium cables to DIN EN 50182.

Characteristics:

Manufactured according to DIN46329

With markings for correct crimping

Material:

E-Al

Surface:

Bright

Order info:

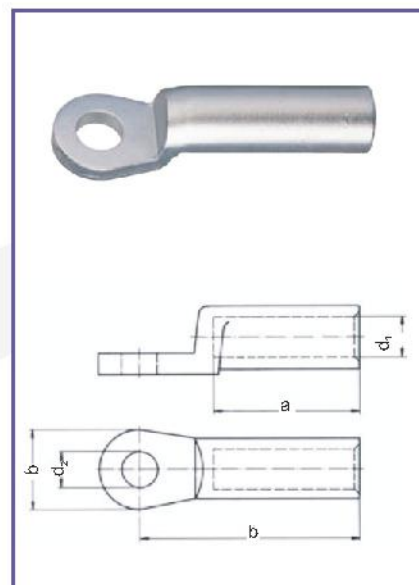
Part number appendix for tinned version " v"

sm/se- conductor needs to be pre - rounded

sm=sector stranded

rm= round stranded

se= sector solid



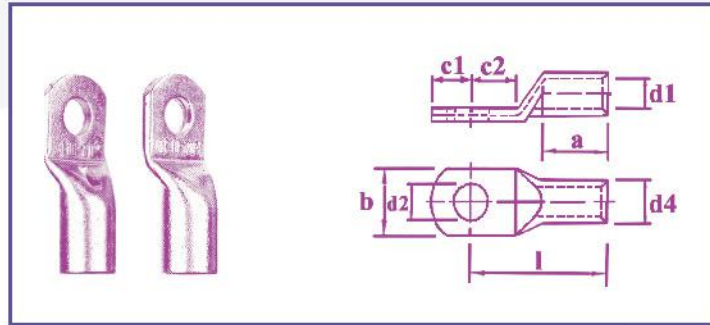
D
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please always state the ordering number when ordering

TYPICAL TUBULAR CABLE LUGS

* the mounting bolts are preferred.

- The Cable Lugs are marked with the following:
- EPP (manufacturer trade mark: Electro Parak Paya)
- Conductor Cross - section area
- bolt size
- The marking are readable after assembly on the conductor.



Conductor mm ²	bolt Ø	Dimensions									Order No.
		d1	a	b	d2	d4	c1	c2	l		
6	M5	3.5	10	10	5.5	5.5	8.5	7.5	22	1033420301	
	M6			12	6.5		8.5	7.5	22	1033420302	
	M8			15	8.5		12	10	24	1033420303	
	M10			17	10.5		14	12	26	1033420304	
	M12			19	13		15	13	29	1033420305	
10	M5	4.5	10	12	5.5	6.5	8.5	7.5	22	1033420306	
	M6*			12	6.5		8.5	7.5	22	1033420307	
	M8			15	8.5		12	10	25	1033420308	
	M10			17	10.5		14	12	27	1033420309	
	M12			19	13		15	13	29	1033420310	
16	M5	5.5	20	12	5.5	8	7.5	6.5	33	1033420311	
	M6			12	6.5		8.25	7.5	34	1033420312	
	M8*			15	8.5		10.5	9.5	36	1033420313	
	M10			17	10.5		12.5	11.5	38	1033420314	
	M12			19	13		14	13	40	1033420315	
25	M5	7	20	14	5.5	9	9.5	7.5	35	1033420316	
	M6			14	6.5		9.5	7.5	35	1033420317	
	M8*			16	8.5		12	10	37	1033420318	
	M10			18	10.5		14	12	39	1033420319	
	M12			19	13		15	13	40	1033420320	
35	M14			21	15		16.5	14.5	43	1033420321	
	M5	8.5	20	17	6.5	11	9.5	7.5	35	1033420322	
	M6			17	8.5		12	10	37	1033420323	
	M8*			19	10.5		14	12	40	1033420324	
	M10			21	13		15	13	41	1033420325	
50	M12			21	15		16.5	14.5	43	1033420326	
	M14			21	15		16.5	14.5	43	1033420327	
	M16			26	17		18	16	45	1033420328	
	M6	10	28	20	6.5	13	12	10	46	1033420329	
	M8*			20	8.5		12	10	46	1033420330	
70	M10			20	10.5		14	12	48	1033420331	
	M12			23	13		15	13	52	1033420332	
	M14			23	15		16.5	14.5	54	1033420333	
	M16			28	17		18	16	55	1033420334	
	M20			30	21		21	19	57	1033420335	
	M6	12	28	23	6.5	15.5	12	10	50	1033420336	
	M8			23	8.5		12	10	50	1033420337	
	M10*			23	10.5		14	12	51	1033420338	
	M12			23	13		15	13	53	1033420339	
	M14			23	15		16.5	14.5	55	1033420340	
	M16			28	17		18	16	57	1033420341	
	M18			28	17		18	16	57	1033420342	
	M20			30	21		21	19	60	1033420343	

Material: Copper

Surface: Tin Plated

With or without inspection hole.

Order number for inspection hole

Version with appendix "H"

Dimensions are in Millimetres

TYPICAL TUBULAR CABLE LUGS

Please always state the ordering number when ordering

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Conductor mm ²	bolt Ø	Dimensions								Order No.
		d1	a	b	d2	d4	c1	c2	l	
95	M8	13.5	35	26	8.5	18	14	12	58	1033420401
	M10*			26	10.5		14	12	58	1033420402
	M12			26	13		15	13	59	1033420403
	M14			26	15		16.5	14.5	61	1033420404
	M16			28	17		18	16	64	1033420405
	M20			36	21		24	22	70	1033420406
120	M8	15	35	28	8.5	19.5	16	14	60	1033420407
	M10			28	10.5		16	14	60	1033420408
	M12*			28	13		16	14	60	1033420409
	M14			28	15		17	15	61	1033420410
	M16			30	17		18	16	63	1033420411
	M20			36	21		24	22	72	1033420412
150	M8	16.5	35	31	8.5	21	16	14	61	1033420413
	M10			31	10.5		16	14	61	1033420414
	M12*			31	13		17	15	62	1033420415
	M14			31	15		17	15	62	1033420416
	M16			31	17		18	16	63	1033420417
	M20			36	21		24	22	71	1033420418
185	M10	19	40	35	10.5	24	20	18	75	1033420419
	M12*			35	13		20	18	75	1033420420
	M14			35	15		20	18	75	1033420421
	M16			35	17		20	18	75	1033420422
	M20			39	21		24	22	79	1033420423
										1033420424
240	M10	21	40	39	10.5	26	23.5	19	77	1033420425
	M12*				13					1033420426
	M14				15					1033420427
	M16				17					1033420428
	M20				21					1033420429
										1033420430
									1033420431	
									1033420432	
									1033420433	

Dimensions are in Millimetres

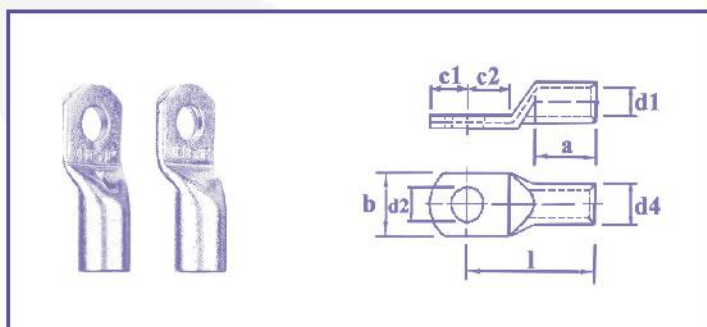
Material: Copper

Surface: Tin Plated

With or without inspection hole.

Order number for inspection hole version

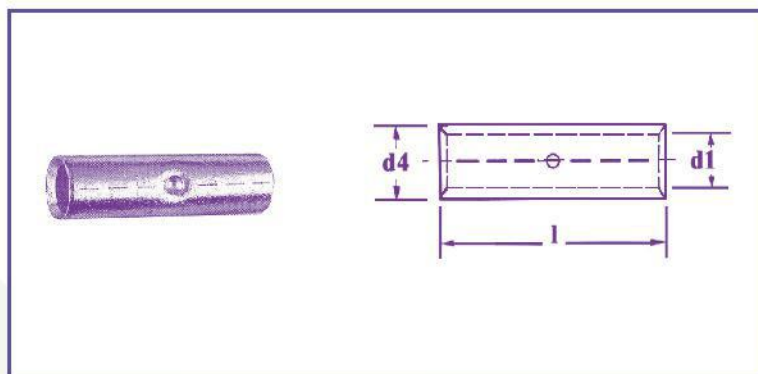
With appendix "IH"



BUTT-CONNECTORS

Conductor mm ²	Dimensions			Order No.
	d1	d4	l	
6	3.5	6.5	25	1033420701 1033420702
10	4.5	7	30	1033420703 1033420704
16	5.5	8.5	35	1033420705 1033420706
25	7	10	40	1033420707 1033420708
35	8.5	12	45	1033420709 1033420710
50	10	14	50	1033420711 1033420712
70	12	16.5	55	1033420713 1033420714
95	13.5	18	60	1033420715 1033420716
20	15	19.5	65	1033420717 1033420718
150	16.5	21	70	1033420719 1033420720
185	19	24	75	1033420721 1033420722
240	21	26	85	1033420723 1033420724
300	23.5	29.5	100	1033420725 1033420726
400	27	34	100	1033420727

Dimensions are in Millimetres



Standard type

Material: Copper

Surface: Tin Plated

also available without stop.

Order number for "without stop"
version with appendix "WS"

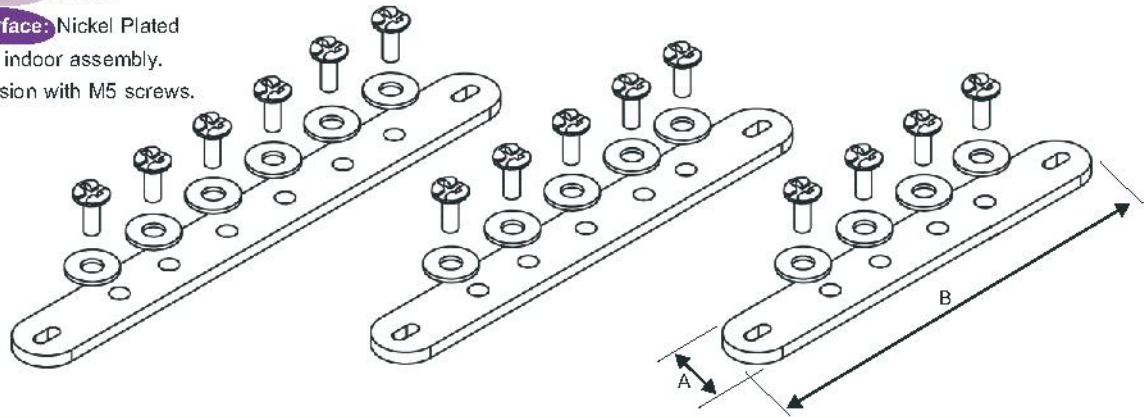
SLIP BUSBAR CONNECTION TERMINAL

Material: Brass

Surface: Nickel Plated

For indoor assembly.

Version with M5 screws.



Type	Dimensions		No. of Screws	Pack Qty	Order No.
	A	B			
SB 4	15	112	4	12	1033430101
SB 5	15	125	5	12	1033430102
SB 6	15	148	6	12	1033430103

Dimensions are in Millimetres



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BASE SLIP BUSBAR

Type: BBW

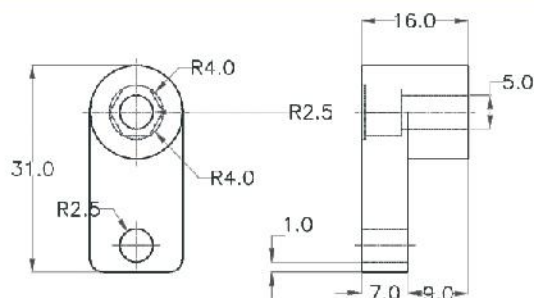
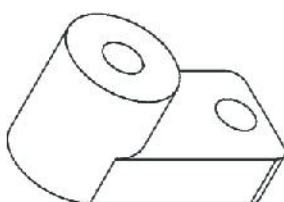
Material: Polyamide, Acrylonitrile Butadiene Styrene

Color: White

Pack Qty: 100

Order No.:

For Slip Busbar Connection Terminal assembly.



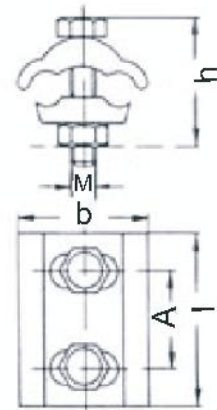
PARALLEL GROOVE CLAMPS

Material: Brass

Surface: Copper Plated

For outdoor assembly.

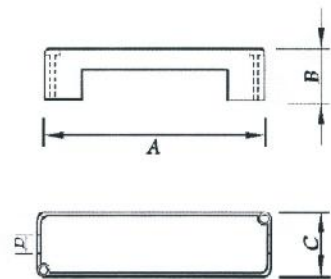
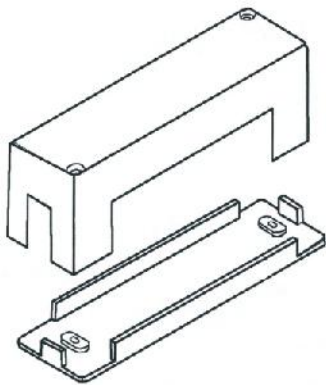
Version with 2 hexagon head screws.



Conductor mm ²	Dimensions					Pack Qty	Order No.
	b	A	h	I	M		
16	20.5	13	16	24	M6	50	1033430201
25	20.5	15	22	30	M6	50	1033430202
35	30	15	23	30	M6	50	1033430203
50	32.5	18	27	36	M8	30	1033430204
70	37	19	29	38	M8	30	1033430205
95	45	25.5	36	46	M10	20	1033430206
150	52.5	26	40	52	M10	20	1033430207

Dimensions are in Millimetres

EQUIPOTENTIAL BONDING JUMPER



Material: Polystyrene

color: Light grey (RAL 7035)

Clamping Rail: Brass, nickel-plated

Type	Pack Qty	Order No.
EPP 8080	100	1033430208

A	B	C	D
78	28	23	9

Dimensions are in Millimetres