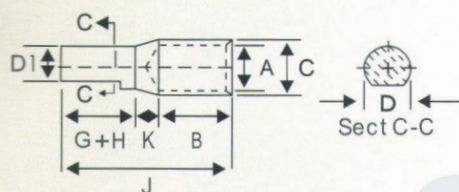


CRIMPING TYPE ALUMINIUM REDUCER TYPE TERMINAL ENDS

Material : Aluminium

Finish : Natural / Passivated Al.

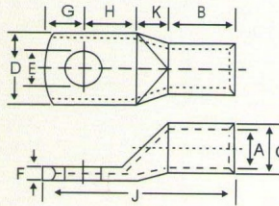


CABLE SIZE mm ²	DIMENSIONS									PROD. CODE
	A	C	D	B	D1	G+H		K	J	
2.5	2.0	5.5	4.5	7	4.0	10	4	21		HPA - 01
2.5	2.6	5.5	3.8	7	3.3	10	4	21		HPA - 07
4	2.9	5.5	4.5	7	4.0	10	4	21		HPA - 15
4	2.9	5.5	3.8	7	3.3	10	4	21		HPA - 16
6	3.5	5.5	4.5	7	4.0	10	4	21		HPA - 17
6	3.5	5.5	3.8	7	3.3	10	4	21		HPA - 18
10	3.8	7.4	4.5	9	4.0	10	4	23		HPA - 19
10	3.8	7.4	3.8	9	3.3	10	4	23		HPA - 20
10	4.4	7.4	4.5	9	4.0	10	4	23		HPA - 21
10	4.4	7.4	3.8	9	3.3	10	4	23		HPA - 22
16	5.4	8.3	6.0	13	5.5	15	5	33		HPA - 23
16	5.4	8.3	6.0	13	5.5	20	5	38		HPA - 24
16	5.4	8.3	3.8	13	3.3	13	5	31		HPA - 02
25	7.0	10.0	6.0	16	5.5	15	5	36		HPA - 25
25	7.0	10.0	7.5	16	6.5	20	5	41		HPA - 03
35	8.0	10.8	7.5	18	6.5	20	5	43		HPA - 04
50	9.3	13.0	7.5	22	6.5	20	5	47		HPA - 26
50	10.4	14.0	14.0	22	1.3	24	7	53		HPA - 05
70	11.6	16.0	7.5	26	6.5	20	5	51		HPA - 27
70	11.6	16.0	11.5	26	10.5	25	5	56		HPA - 06
70	11.6	16.0	11.5	26	10.5	32	5	63		HPA - 28
95	12.9	17.1	11.5	28	10.5	25	6	59		HPA - 29
95	12.9	17.1	15.6	28	14.0	27	6	61		HPA - 08
95	12.9	17.1	7.5	28	6.5	22	6	56		HPA - 31
95	12.9	17.1	12.8	28	11.8	32	6	66		HPA - 32
120	14.8	19.6	11.5	32	10.5	25	6	63		HPA - 33
120	14.8	19.6	7.5	32	6.5	22	6	60		HPA - 34
120	14.8	19.6	11.5	32	10.5	32	6	70		HPA - 35
120	14.8	19.6	15.6	32	14.0	32	6	70		HPA - 36
150	16.1	21.2	15.6	34	14.0	32	6	72		HPA - 10
150	16.1	21.2	11.5	34	10.5	32	6	72		HPA - 37
185	18.0	23.7	15.6	36	14.0	32	6	74		HPA - 30
185	18.0	23.7	11.5	36	10.5	32	6	74		HPA - 38
225	20.6	27.0	15.6	40	14.0	32	8	80		HPA - 39
225	20.6	27.0	21.0	40	18.0	42	8	90		HPA - 46
225	20.6	27.0	16.0	40	15.0	42	8	90		HPA - 42
240	22.0	28.0	16.0	44	15.0	42	8	94		HPA - 44
240	22.0	28.0	15.6	44	14.0	32	8	84		HPA - 43
300	24.0	31.0	16.0	47	15.0	42	8	97		HPA - 45
300	24.0	31.0	15.6	47	14.0	32	8	87		HPA - 47

CRIMPING TYPE ALUMINUM CABLE TERMINAL ENDS for ALUMINUM CONDUCTORS

Material : Aluminum

Finish : Natural / Passivated Al

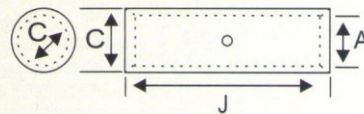


CABLE SIZE mm ²	HOLE E	DIMENSIONS									PROD. CODE
		A	C	D	F	B	K	H	G	J	
2.5	3.2	2.0	5.5	6.6	3.5	7	3	4	4	18	HAS - 151
2.5	3.7	2.6	5.5	7.0	2.9	7	3	4	4	18	HAS - 309
4	4.2	2.9	5.5	7.2	2.6	7	3	4	4	18	HAS - 155
4	5.1	2.9	5.5	12	1.2	7	4	7	6	23	HAS - 317
6	5.2	3.5	5.5	7.5	2.0	7	4	7	6	24	HAS - 158
6	6.5	3.5	5.5	12.0	1.1	7	4	7	6	24	HAS - 313
10	4.2	3.8	6.2	8.4	2.4	7	4	9	8	28	HAS - 159
10	6.4	4.4	7.2	9.7	2.8	9	4	9	8	30	HAS - 214
10	8.2	4.4	7.2	15.0	1.8	9	4	9	8	30	HAS - 215
16	6.4	5.4	8.3	11.4	2.9	13	4	11	9	37	HAS - 252
16	8.2	5.4	8.3	11.4	2.9	13	4	11	9	37	HAS - 216
16	10.2	5.4	8.3	18.0	1.8	13	4	11	9	37	HAS - 217
25	6.4	7.0	9.7	13.7	2.7	16	7	12	9	44	HAS - 253
25	8.2	7.0	9.7	13.7	2.7	16	7	12	9	44	HAS - 218
25	10.2	7.0	9.7	20.0	1.7	16	7	11	10	44	HAS - 219
25	12.7	7.0	9.7	20.0	1.7	16	7	11	10	44	HAS - 220
35	6.4	8.0	10.8	15.4	2.8	18	7	11	11	47	HAS - 254
35	8.2	8.0	10.8	15.4	2.8	18	7	11	11	47	HAS - 221
35	10.2	8.0	10.8	20.0	2.1	18	7	11	11	47	HAS - 222
50	8.2	9.3	13.0	18.3	3.7	22	8	13	11	54	HAS - 255
50	10.2	9.3	13.0	23.0	2.8	22	8	13	11	54	HAS - 312
50	12.7	9.3	13.0	23.0	2.8	22	8	12	12	54	HAS - 224
70	8.2	11.6	16.0	22.6	4.4	26	8	13	13	60	HAS - 256
70	10.2	11.6	16.0	22.6	4.4	26	8	13	13	60	HAS - 225
70	12.7	11.6	16.0	22.6	4.4	26	8	13	13	60	HAS - 226
95	10.2	12.9	17.1	24.5	4.2	28	8	14	14	64	HAS - 227
95	12.7	12.9	17.1	24.5	4.2	28	8	14	14	64	HAS - 228
95	16.2	12.9	17.1	24.5	4.2	28	8	14	14	64	HAS - 229
120	10.2	15.0	19.6	28.2	4.6	32	11	15	15	73	HAS - 257
120	12.7	15.0	19.6	28.2	4.6	32	11	15	15	73	HAS - 230
120	16.2	15.0	19.6	28.2	4.6	32	11	15	15	73	HAS - 231
150	10.2	16.5	21.5	30.9	5.0	34	11	17	17	79	HAS - 258
150	12.7	16.5	21.5	30.9	5.0	34	11	17	17	79	HAS - 232
150	16.2	16.5	21.5	30.9	5.0	34	11	17	17	79	HAS - 233
185	12.7	18.6	24.0	34.6	5.5	36	12	18	18	84	HAS - 311
185	12.7	18.5	24.0	34.6	5.5	36	12	18	18	84	HAS - 234
185	16.2	18.5	24.0	34.6	5.5	36	12	18	18	84	HAS - 235
225	12.7	21.0	27.0	39.0	6.0	40	14	20	20	94	HAS - 320
240	12.7	22.0	28.6	41.2	6.6	44	14	22	22	102	HAS - 236
240	16.2	22.0	28.6	41.2	6.6	44	14	22	22	102	HAS - 237
300	16.2	25.0	32.0	46.3	7.0	47	14	27	27	115	HAS - 300
300	20.3	25.0	32.0	46.3	7.0	47	14	27	27	115	HAS - 259
400	20.3	29.0	37.5	54.1	8.5	56	13	31	30	130	HAS - 260
500	20.3	31.0	41.0	58.7	10.0	60	15	33	32	140	HAS - 296
630	20.3	36.0	46.0	66.6	10.0	69	16	35	34	154	HAS - 261
800	-	39.0	51.0	73.3	12.0	77	25	39	39	180	HAS - 318
1000	-	43.5	57.0	81.9	13.5	100	30	45	45	220	HAS - 319

CRIMPING TYPE ALUMINIUM IN - LINE CONNECTORS for ALUMINIUM CONDUCTORS

Material : Aluminium

Finish : Natural / Passivated Al.



CABLE SIZE mm ²	DIMENSIONS			PROD. CODE
	A	C	J	
2.5	2.0	5.5	16	HAI - 145
2.5	2.6	5.5	16	HAI - 6
4	2.9	5.5	16	HAI - 5
6	3.5	5.5	16	HAI - 13
10	3.8	6.2	20	HAI - 146
10	4.4	7.4	20	HAI - 14
16	5.4	8.3	26	HAI - 4
25	7.0	9.7	35	HAI - 3
35	8.0	10.8	40	HAI - 2
50	9.3	13.0	45	HAI - 12
70	11.6	16.0	55	HAI - 1
95	12.9	17.1	60	HAI - 15
120	15.0	19.6	65	HAI - 9
150	16.5	21.2	70	HAI - 10
185	18.5	24.0	75	HAI - 11
225	21.0	27.0	85	HAI - 147
240	22.0	28.6	90	HAI - 16
300	25.0	32.0	100	HAI - 17
400	29.0	37.5	115	HAI - 18
500	31.0	41.0	125	HAI - 19
630	36.0	46.0	140	HAI - 20
800	39.0	51.0	160	HAI - 148
1000	43.5	57.0	210	HAI - 149

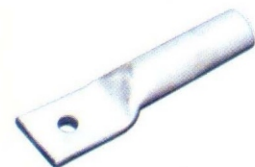
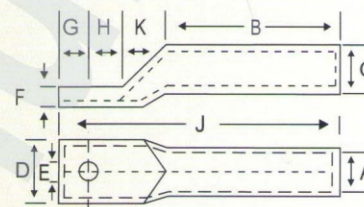
HEAVY DUTY LONG BARREL ALUMINIUM IN-LINE CONNECTOR for XLPE CABLE

CABLE SIZE mm ²	DIMENSIONS			PROD. CODE
	A	C	J	
25	7.2	9.6	82	HAXL - 25
35	8.3	11.1	90	HAXL - 35
50	10.1	13.5	100	HAXL - 50
70	10.2	14.5	104	HAXL - 70
95	12.0	16.9	108	HAXL - 95
120	13.7	19.0	112	HAXL - 120
150	15.1	21.2	116	HAXL - 150
185	16.6	23.9	128	HAXL - 185
225	18.6	26.1	136	HAXL - 225
240	19.3	27.2	148	HAXL - 240
300	21.8	30.2	160	HAXL - 300
400	25.0	34.8	182	HAXL - 400
500	28.2	39.1	190	HAXL - 500
630	31.7	44.4	200	HAXL - 630
800	35.7	49.5	225	HAXL - 800
1000	41.0	56.0	250	HAXL - 1000

CRIMPING TYPE HEAVY DUTY LONG BARREL ALUMINIUM TERMINAL ENDS for XLPE CABLE

Material : Aluminium

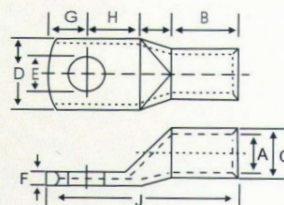
Finish : Natural / Passivated Al.



CABLE SIZE mm ²	HOLE E	DIMENSIONS									PROD. CODE
		A	C	D	F	B	K	H	G	J	
25	8	7.2	9.6	14.0	2.4	41	7	12	9	69	HAC - 25
35	8	8.3	11.1	16.0	2.8	50	7	11	11	79	HAC - 35
50	10	10.1	13.5	19.5	3.4	49	8	13	11	81	HAC - 50
70	10	10.2	14.5	20.5	4.3	62	8	13	13	96	HAC - 70
95	13	12.0	16.9	23.5	4.9	73	8	14	14	109	HAC - 95
120	13	13.7	19.0	26.5	5.3	73	11	15	15	114	HAC - 120
150	13	15.1	21.1	29.5	6.1	83	11	17	17	128	HAC - 150
185	13	16.6	23.9	33.0	7.3	83	12	18	18	131	HAC - 185
225	13	18.6	26.1	36.0	7.5	86	14	20	20	140	HAC - 225
240	13	19.3	27.2	37.5	7.9	86	14	22	22	144	HAC - 240
300	20	21.8	30.2	42.0	8.4	89	14	27	27	157	HAC - 300
400	20	25.0	34.8	48.0	9.8	113	13	30	30	187	HAC - 400
500	20	28.2	39.1	54.0	11.0	125	15	32	32	205	HAC - 500
630	20	31.7	44.4	61.0	13.0	140	16	34	34	225	HAC - 625
800	20.3	35.7	49.5	68.0	13.8	147	25	39	39	250	HAC - 800
1000	20.3	41.0	56.0	77.5	15.0	160	30	45	45	280	HAC - 1000

CRIMPING TYPE ALUMINIUM TUBULAR TERMINAL ENDS WITH LONG BARREL FOR ALUMINIUM CONDUTORS

Material : Aluminium IS 5082

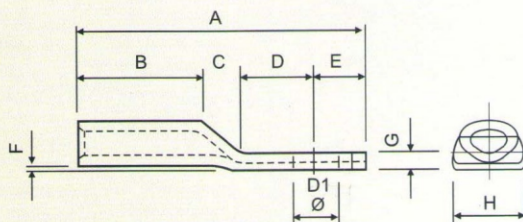


CABLE mm ²	DIMENSIONS							PROD. CODE
	E	A	C	D	B	GH	J	
2.5	3.2	2.0	5.5	7.0	10.5	8	21.5	HASL-551
2.5	3.7	2.6	5.5	7.0	10.5	8	21.5	HASL-509
4	4.2	2.9	5.5	7.0	10.5	8	21.5	HASL-555
4	5.1	2.9	5.5	12.0	10.5	14	27.5	HASL-517
6	5.2	3.5	5.5	7.5	10.5	14	27.5	HASL-558
6	6.5	3.5	5.5	12.0	10.5	14	27.5	HASL-513
10	6.4	4.4	7.4	10	13.5	17	34.5	HASL-514
10	8.2	4.4	7.4	15	13.5	17	34.5	HASL-515
16	6.4	5.4	8.3	11.4	19.5	20	43.5	HASL-552
16	8.2	5.4	8.3	11	19.5	20	43.5	HASL-516
16	10.2	5.4	8.3	18.0	19.5	20	43.5	HASL-617
25	8.2	7.0	10	14	24	22	52	HASL-518
25	10.2	7.0	10	20.0	24	22	52	HASL-519
25	12.7	7.0	10	20.0	24	22	52	HASL-520
35	8.2	8.0	10.8	15.0	27	22	56	HASL-521
35	10.2	8.0	10.8	20.0	27	22	56	HASL-522
50	8.2	9.3	13.0	18.0	33	27	65	HASL-655
50	10.2	9.3	13.0	23.0	33	27	65	HASL-512
50	12.7	9.3	13.0	23.0	33	27	65	HASL-524
70	8.2	11.6	16.0	22.6	39	29	73	HASL-526
70	10.2	11.6	16.0	22.0	39	29	73	HASL-525
70	12.7	11.6	16.0	22.0	39	29	73	HASL-526
95	10.2	12.9	17.1	25.0	42	30	78	HASL-527
95	12.7	12.9	17.1	25.0	42	30	78	HASL-528
95	16.2	12.9	17.1	25.0	42	30	78	HASL-529
120	10.2	14.8	19.6	28.0	48	33	89	HASL-557
120	12.7	14.8	19.6	28.0	48	33	89	HASL-530
120	16.2	14.8	19.6	28.0	48	33	89	HASL-531
150	10.2	16.1	21.2	31.0	51	36	96	HASL-658
150	12.7	16.1	21.2	31.0	51	36	96	HASL-532
150	16.2	16.1	21.2	31.0	51	36	96	HASL-533
185	10.2	18.0	23.7	34.0	54	36.5	102	HASL-511
185	12.7	18.0	23.7	34.0	54	36.5	102	HASL-534
185	16.2	18.0	23.7	34.0	54	36.5	102	HASL-535
225	12.7	20.6	27	39	60	40	114	HASL-620
240	12.7	22	28	40	66	44	124	HASL-536
240	16.2	22	28	40	66	44	124	HASL-537
300	16.2	24	31	45.7	70.5	53	138.5	HASL-500
300	20.3	24	31	45.7	70.5	53	138.5	HASL-559
400	20.3	28	36	51	84	61	158	HASL-560
500	20.3	30	41	58.0	90	65	170	HASL-596
625	20.3	35	46	66.0	103.5	69	188.5	HASL-561
800	BL	39	51	73.0	115.5	78	218.5	HASL-618
1000	BL	43.5	57	81.0	150	90	270	HASL-619

ALUMINIUM 3-CORE SECTOR CABLE LUGS

Material : Aluminium

Finish : Natural / Passivated Aluminium

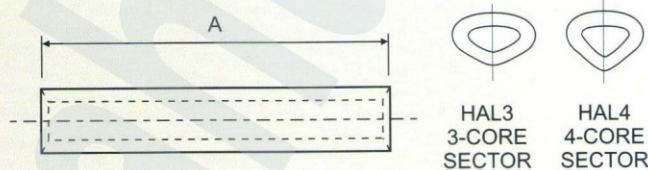


CABLE mm ²	STUD Ø	DIMENSIONS									PROD. CODE
		A	B	C	D	E	F	G	H	D1Ø	
25	8	65	25	8	17	12	1	4.1	15.2	8.4	HAL3-8-25
25	10	65	25	8	17	12	1	4.1	15.2	10.4	HAL3-10-25
25	12	65	25	8	17	12	1	2.9	21	12.5	HAL3-12-25
35	8	68	30	8	17	12	1	4.4	17.6	8.4	HAL3-8-35
35	10	68	30	8	17	12	1	4.4	17.6	10.4	HAL3-10-35
35	12	68	30	8	17	12	1	3.6	21	12.5	HAL3-12-35
50	10	68	32	10	17	12	1	4.5	20.3	8.4	HAL3-10-50
50	12	71	32	10	17	12	1	4.5	20.3	10.4	HAL3-12-50
50	16	71	32	10	17	12	1	2.9	21	12.5	HAL3-16-50
70	10	10	35.5	11	17	12	1	5	23.2	10.4	HAL3-10-70
70	12	76	35.5	11	17	12	1	5	23.2	12.5	HAL3-12-70
70	16	76	35.5	11	17	12	1	4.6	26	16.5	HAL3-16-70
95	10	82	39	14	17	12	1.5	5.7	27.7	10.4	HAL3-10-95
95	12	82	39	14	17	12	1.5	5.7	27.7	12.5	HAL3-12-95
95	16	82	39	14	17	12	1.5	5.7	27.7	16.5	HAL3-16-95
120	12	88	44	15	17	12	1.5	6.5	31	10.4	HAL3-12-120
120	16	88	44	15	17	12	1.5	6.5	31	12.5	HAL3-16-120
120	20	88	44	15	17	12	1.5	6.5	31	16.5	HAL3-20-120
150	12	100	47.5	16	20.5	16	1.5	7.2	34.7	12.4	HAL3-12-150
150	16	100	47.5	16	20.5	16	1.5	7.2	34.7	16.5	HAL3-16-150
150	20	100	47.5	16	20.5	16	1.5	7.2	34.7	20.5	HAL3-20-150
185	12	106	47.5	16	20.5	16	1.5	7.2	34.7	12.4	HAL3-12-185
185	16	106	47.5	16	20.5	16	1.5	7.2	34.7	16.5	HAL3-16-185
185	20	106	47.5	16	20.5	16	1.5	7.2	34.7	20.5	HAL3-20-185
240	20	116	55.5	20.5	22	18	2	5.7	43.6	20.5	HAL3-0-240
300	20	128.5	60.5	23	25	20	2	9.7	49.2	20.5	HAL3-0-300

ALUMINIUM SECTOR FERRULES

Material : Aluminium

Finish : Natural / Passivated Aluminium

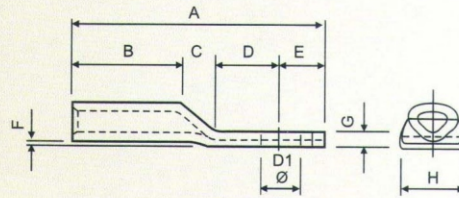


CABLE mm ²	A	PROD. CODE	
		3-CORE SECTOR	4-CORE SECTOR
25	66	HAL-3F-25	HAL-4F-25
35	70	HAL-3F-35	HAL-4F-35
50	74	HAL-3F-50	HAL-4F-50
70	78	HAL-3F-70	HAL-4F-70
95	84	HAL-3F-95	HAL-4F-95
120	91	HAL-3F-120	HAL-4F-120
150	102	HAL-3F-150	HAL-4F-150
185	108	HAL-3F-185	HAL-4F-185
240	118	HAL-3F-240	HAL-4F-240
300	130	HAL-3F-300	HAL-4F-300
400	140	-	-
500	155	-	-
630	172	-	-
800	-	-	-
1000	-	-	-

ALUMINIUM 4-CORE SECTOR CABLE LUGS

Material : Aluminium

Finish : Natural / Passivated Aluminium



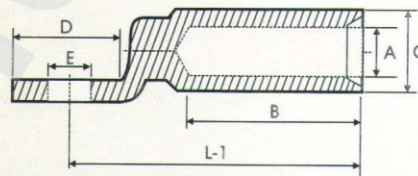
CABLE mm ²	STUD Ø	DIMENSIONS									PROD. CODE
		A	B	C	D	E	F	G	H	D1Ø	
25	8	65	25	8	17	12	1	4.1	15.2	8.4	HAL4-8-25
25	10	65	25	8	17	12	1	4.1	15.2	10.4	HAL4-10-25
25	12	65	25	8	17	12	1	2.9	21	12.5	HAL4-12-25
35	8	68	30	8	17	12	1	4.4	17.6	8.4	HAL4-8-35
35	10	68	30	8	17	12	1	4.4	17.6	10.4	HAL4-10-35
35	12	68	30	8	17	12	1	3.6	21	12.5	HAL4-12-35
50	10	71	32	10	17	12	1	4.5	20.3	8.4	HAL4-10-50
50	12	71	32	10	17	12	1	4.5	20.3	10.4	HAL4-12-50
50	16	71	32	10	17	12	1	2.9	21	12.5	HAL4-16-50
70	10	76	35.5	11	17	12	1	5	23.2	10.4	HAL4-10-70
70	12	76	35.5	11	17	12	1	5	23.2	12.5	HAL4-12-70
70	16	76	35.5	11	17	12	1	4.6	26	16.5	HAL4-16-70
95	10	82	39	14	17	12	1.5	5.7	27.7	10.4	HAL4-10-95
95	12	82	39	14	17	12	1.5	5.7	27.7	12.5	HAL4-12-95
95	16	82	39	14	17	12	1.5	5.7	27.7	16.5	HAL4-16-95
120	12	88	44	15	17	12	1.5	6.5	31	10.4	HAL4-12-120
120	16	88	44	15	17	12	1.5	6.5	31	12.5	HAL4-16-120
120	20	88	44	15	17	12	1.5	6.5	31	16.5	HAL4-20-120
150	12	100	47.5	16	20.5	16	1.5	7.2	34.7	12.4	HAL4-12-150
150	16	100	47.5	16	20.5	16	1.5	7.2	34.7	16.5	HAL4-16-150
150	20	100	47.5	16	20.5	16	1.5	7.2	34.7	20.5	HAL4-20-150
185	12	106	47.5	16	20.5	16	1.5	7.2	34.7	12.4	HAL4-12-185
185	16	106	47.5	16	20.5	16	1.5	7.2	34.7	16.5	HAL4-16-185
185	20	106	47.5	16	20.5	16	1.5	7.2	34.7	20.5	HAL4-20-185
240	20	116	55.5	20.5	22	18	2	5.7	43.6	20.5	HAL4-20-240
300	20	128.5	60.5	23	25	20	2	9.7	49.2	20.5	HAL4-20-300

ALUMINIUM forged CABLE LUGS

(AS PER DIN 46329)

Material : Aluminium

Finish : Natural / Passivated Aluminium



CABLE mm ²	HOLE E	DIMENSIONS						PROD. CODE
		BOLT	A	C	D	B	L1	
16	8.4	M 8	5.8	12	20	30	50	HAFL 16-8
25	8.4	M 8	6.8	12	20	30	50	HAFL 25-8
35	8.4	M 8	8	14	25	42	62	HAFL 35-8
50	8.4	M 8	9.8	16	25	42	62	HAFL 50-8
70	8.4	M 8	11.2	18	25	52	72	HAFL 70-8
95	10.5	M 10	13.2	22	25	56	75	HAFL 95-10
120	10.5	M 10	14.7	22	30	56	80	HAFL 120-10
150	10.5	M 10	16.3	25	30	60	90	HAFL 150-10
185	10.5	M 10	18.3	28	30	60	91	HAFL 185-10
240	10.5	M 10	21	32	38	70	103	HAFL 240-10
300	13	M12	23.3	34	38	70	103	HAFL 300-12
400	13	M12	26	38	38	73	116	HAFL 400-12
500	13	M12	29	44	44	79	122	HAFL 500-12

* Other Hole sizes available on request.

Note : All dimensions in mm

• ONLY ON SPECIAL REQUEST : Barrels can be capped & filled with grease to avoid oxidation of the conductor.