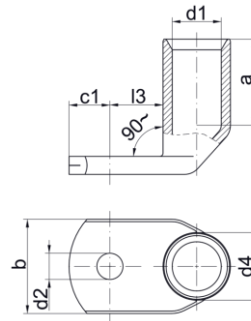


Data sheet R-Series angled

Available from 6 up to 400mm², bolt size M5 up to M20.



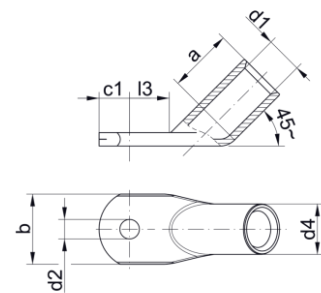
Figure similar 90°



Drawing 90°



Figure similar 45°



Drawing 45°

A1: Dimensions (90°):

Nennquerschnitt mm ²	Anschl.-bolzen ø	Art.-Nr.	Abmessung mm							Gewicht/100 St. ~ kg	VE/St.
			d1	a	b	d2	d4	c1	l3		
6	M5	41R5	3,5	9	10	5,5	6,5	7,5	9	0,59	50
	M6	41R6	3,5	9	12	6,5	6,5	7,5	10	0,58	50
	M8	41R8	3,5	9	14	8,5	6,5	10,0	13	0,61	50
	M10	41R10	3,5	9	17	10,5	6,5	12,0	15	0,65	50
	M12	41R12	3,5	9	19	13,0	6,5	13,0	17	0,62	50
10	M5	42R5	4,5	10	12	5,5	7,0	6,5	10	0,57	50
	M6	42R6	4,5	10	12	6,5	7,0	6,5	10	0,57	50
	M8	42R8	4,5	10	15	8,5	7,0	10,0	13	0,63	50
	M10	42R10	4,5	10	17	10,5	7,0	12,0	15	0,66	50
	M12	42R12	4,5	10	19	13,0	7,0	13,0	18	0,81	50
16	M5	43R5	5,5	13	12	5,5	8,5	7,5	10	1,01	50
	M6	43R6	5,5	13	12	6,5	8,5	7,5	11	1,01	50
	M8	43R8	5,5	13	15	8,5	8,5	10,0	13	1,08	50
	M10	43R10	5,5	13	17	10,5	8,5	12,0	15	1,09	50
	M12	43R12	5,5	13	19	13,0	8,5	13,0	18	1,15	50

25	M5	44R5	7,0	15	14	5,5	10,0	7,5	11	1,40	25
	M6	44R6	7,0	15	14	6,5	10,0	7,5	11	1,32	25
	M8	44R8	7,0	15	16	8,5	10,0	10,0	13	1,44	25
	M10	44R10	7,0	15	18	10,5	10,0	12,0	15	1,49	25
	M12	44R12	7,0	15	19	13,0	10,0	13,0	18	1,44	25
	M14	44R14	7,0	15	21	15,0	10,0	14,5	20	1,55	25
35	M6	45R6	8,5	17	17	6,5	12,0	7,5	11	2,05	25
	M8	45R8	8,5	17	17	8,5	12,0	10,0	13	2,20	25
	M10	45R10	8,5	17	19	10,5	12,0	12,0	15	2,28	25
	M12	45R12	8,5	17	21	13,0	12,0	13,0	18	2,38	25
	M14	45R14	8,5	17	21	15,0	12,0	14,5	20	2,41	25
	M16	45R16	8,5	17	26	17,0	12,0	16,0	22	2,40	25
50	M6	46R6	10,0	19	20	6,5	14,0	10,0	13	3,34	25
	M8	46R8	10,0	19	20	8,5	14,0	10,0	13	3,28	25
	M10	46R10	10,0	19	20	10,5	14,0	12,0	16	3,47	25
	M12	46R12	10,0	19	23	13,0	14,0	13,0	18	3,42	25
	M14	46R14	10,0	19	23	15,0	14,0	14,5	20	3,55	25
	M16	46R16	10,0	19	28	17,0	14,0	16,0	22	3,58	25
70	M20	46R20	10,0	19	30	21,0	14,0	19,0	24	3,15	25
	M6	47R6	12,0	21	23	6,5	16,5	10,0	13	4,90	25
	M8	47R8	12,0	21	23	8,5	16,5	10,0	14	4,80	25
	M10	47R10	12,0	21	23	10,5	16,5	12,0	16	4,88	25
	M12	47R12	12,0	21	23	13,0	16,5	13,0	18	4,99	25
	M14	47R14	12,0	21	23	15,0	16,5	14,5	20	5,38	25
95	M16	47R16	12,0	21	28	17,0	16,5	16,0	22	5,35	25
	M20	47R20	12,0	21	30	21,0	16,5	19,0	24	5,30	25
	M8	48R8	13,5	25	26	8,5	18,0	12,0	14	5,89	25
	M10	48R10	13,5	25	26	10,5	18,0	12,0	17	5,88	25
	M12	48R12	13,5	25	26	13,0	18,0	13,0	18	5,93	25
	M14	48R14	13,5	25	26	15,0	18,0	14,5	20	6,03	25
120	M16	48R16	13,5	25	28	17,0	18,0	16,0	22	6,17	25
	M20	48R20	13,5	25	36	21,0	18,0	22,0	24	6,42	25
	M8	49R8	15,0	26	28	8,5	19,5	14,0	16	7,26	10
	M10	49R10	15,0	26	28	10,5	19,5	14,0	17	7,30	10
	M12	49R12	15,0	26	28	13,0	19,5	14,0	18	7,19	10
	M14	49R14	15,0	26	28	15,0	19,5	15,0	20	7,30	10
150	M16	49R16	15,0	26	30	17,0	19,5	16,0	22	7,35	10
	M20	49R20	15,0	26	36	21,0	19,5	22,0	24	7,60	10
	M8	50R8	16,5	30	31	8,5	21,0	14,0	16	8,41	10
	M10	50R10	16,5	30	31	10,5	21,0	14,0	17	8,27	10
	M12	50R12	16,5	30	31	13,0	21,0	15,0	18	8,34	10
	M14	50R14	16,5	30	31	15,0	21,0	15,0	20	8,52	10
185	M16	50R16	16,5	30	31	17,0	21,0	16,0	22	8,62	10
	M20	50R20	16,5	30	36	21,0	21,0	22,0	24	9,10	10
	M10	51R10	19,0	30	35	10,5	24,0	18,0	22	12,17	10
	M12	51R12	19,0	30	35	13,0	24,0	18,0	22	11,97	10
	M14	51R14	19,0	30	35	15,0	24,0	18,0	22	11,77	10
	M16	51R16	19,0	30	35	17,0	24,0	18,0	22	11,53	10
	M20	51R20	19,0	30	39	21,0	24,0	22,0	24	12,00	10

240	M10	52R10	21,0	35	39	10,5	26,0	21,5	22	15,60	10
	M12	52R12	21,0	35	39	13,0	26,0	21,5	22	15,60	10
	M14	52R14	21,0	35	39	15,0	26,0	21,5	22	15,41	10
	M16	52R16	21,0	35	39	17,0	26,0	21,5	22	15,18	10
	M20	52R20	21,0	35	39	21,0	26,0	21,5	24	14,80	10
300	M12	53R12	23,5	44	43	13,0	29,5	24,0	24	23,60	5
	M14	53R14	23,5	44	43	15,0	29,5	24,0	24	23,40	5
	M16	53R16	23,5	44	43	17,0	29,5	24,0	24	20,99	5
	M20	53R20	23,5	44	43	21,0	29,5	24,0	24	22,70	5
400	M12	54R12	27,0	44	49	13,0	34,0	24,0	24	32,53	5
	M14	54R14	27,0	44	49	15,0	34,0	24,0	24	33,40	5
	M16	54R16	27,0	44	49	17,0	34,0	24,0	24	32,60	5
	M20	54R20	27,0	44	49	21,0	34,0	24,0	24	31,80	5

A2: Dimensions (45°):

Nennquerschnitt mm ²	Ansch.-bolzen ø	Art.-Nr.	Abmessung mm							Gewicht/100 St. ~ kg	VE/St.
			d1	a	b	d2	d4	c1	l3		
6	M5	41R545	3,5	9	10	5,5	6,5	7,5	9	0,60	50
	M6	41R645	3,5	9	12	6,5	6,5	7,5	10	0,58	50
	M8	41R845	3,5	9	14	8,5	6,5	10,0	13	0,68	50
	M10	41R1045	3,5	9	17	10,5	6,5	12,0	15	0,70	50
	M12	41R1245	3,5	9	19	13,0	6,5	13,0	17	0,70	50
10	M5	42R545	4,5	10	12	5,5	7,0	6,5	10	0,57	50
	M6	42R645	4,5	10	12	6,5	7,0	6,5	10	0,57	50
	M8	42R845	4,5	10	15	8,5	7,0	10,0	13	0,63	50
	M10	42R1045	4,5	10	17	10,5	7,0	12,0	15	0,68	50
	M12	42R1245	4,5	10	19	13,0	7,0	13,0	18	0,68	50
16	M5	43R545	5,5	13	12	5,5	8,5	7,5	10	1,01	50
	M6	43R645	5,5	13	12	6,5	8,5	7,5	11	1,06	50
	M8	43R845	5,5	13	15	8,5	8,5	10,0	13	1,15	50
	M10	43R1045	5,5	13	17	10,5	8,5	12,0	15	1,09	50
	M12	43R1245	5,5	13	19	13,0	8,5	13,0	18	1,15	50
25	M5	44R545	7,0	15	14	5,5	10,0	7,5	11	1,40	25
	M6	44R645	7,0	15	14	6,5	10,0	7,5	11	1,32	25
	M8	44R845	7,0	15	16	8,5	10,0	10,0	13	1,44	25
	M10	44R1045	7,0	15	18	10,5	10,0	12,0	15	1,49	25
	M12	44R1245	7,0	15	19	13,0	10,0	13,0	18	1,44	25
	M14	44R1445	7,0	15	21	15,0	10,0	14,5	20	1,55	25
35	M6	45R645	8,5	17	17	6,5	12,0	7,5	11	2,05	25
	M8	45R845	8,5	17	17	8,5	12,0	10,0	13	2,20	25
	M10	45R1045	8,5	17	19	10,5	12,0	12,0	15	2,28	25
	M12	45R1245	8,5	17	21	13,0	12,0	13,0	18	2,38	25
	M14	45R1445	8,5	17	21	15,0	12,0	14,5	20	2,41	25
M16	45R1645	8,5	17	26	17,0	12,0	16,0	22	2,40	25	

50	M6	46R645	10,0	19	20	6,5	14,0	10,0	13	3,43	25
	M8	46R845	10,0	19	20	8,5	14,0	10,0	13	3,28	25
	M10	46R1045	10,0	19	20	10,5	14,0	12,0	16	3,47	25
	M12	46R1245	10,0	19	23	13,0	14,0	13,0	18	3,42	25
	M14	46R1445	10,0	19	23	15,0	14,0	14,5	20	3,65	25
	M16	46R1645	10,0	19	28	17,0	14,0	16,0	22	3,76	25
M20	46R2045	10,0	19	30	21,0	14,0	19,0	24	3,30	25	
70	M6	47R645	12,0	21	23	6,5	16,5	10,0	13	5,06	25
	M8	47R845	12,0	21	23	8,5	16,5	10,0	14	5,06	25
	M10	47R1045	12,0	21	23	10,5	16,5	12,0	16	5,25	25
	M12	47R1245	12,0	21	23	13,0	16,5	13,0	18	5,30	25
	M14	47R1445	12,0	21	23	15,0	16,5	14,5	20	5,60	25
	M16	47R1645	12,0	21	28	17,0	16,5	16,0	22	5,61	25
M20	47R2045	12,0	21	30	21,0	16,5	19,0	24	5,60	25	
95	M8	48R845	13,5	25	26	8,5	18,0	12,0	14	6,19	25
	M10	48R1045	13,5	25	26	10,5	18,0	12,0	17	5,70	25
	M12	48R1245	13,5	25	26	13,0	18,0	13,0	18	6,67	25
	M14	48R1445	13,5	25	26	15,0	18,0	14,5	20	6,60	25
	M16	48R1645	13,5	25	28	17,0	18,0	16,0	22	6,78	25
	M20	48R2045	13,5	25	36	21,0	18,0	22,0	24	6,80	25
120	M8	49R845	15,0	26	28	8,5	19,5	14,0	16	7,92	10
	M10	49R1045	15,0	26	28	10,5	19,5	14,0	17	7,99	10
	M12	49R1245	15,0	26	28	13,0	19,5	14,0	18	7,96	10
	M14	49R1445	15,0	26	28	15,0	19,5	15,0	20	7,94	10
	M16	49R1645	15,0	26	30	17,0	19,5	16,0	22	8,26	10
	M20	49R2045	15,0	26	36	21,0	19,5	22,0	24	8,20	10
150	M8	50R845	16,5	30	31	8,5	21,0	14,0	16	9,00	10
	M10	50R1045	16,5	30	31	10,5	21,0	14,0	17	9,15	10
	M12	50R1245	16,5	30	31	13,0	21,0	15,0	18	8,75	10
	M14	50R1445	16,5	30	31	15,0	21,0	15,0	20	9,20	10
	M16	50R1645	16,5	30	31	17,0	21,0	16,0	22	9,22	10
	M20	50R2045	16,5	30	36	21,0	21,0	22,0	24	9,26	10
185	M10	51R1045	19,0	30	35	10,5	24,0	18,0	22	13,30	10
	M12	51R1245	19,0	30	35	13,0	24,0	18,0	22	13,32	10
	M14	51R1445	19,0	30	35	15,0	24,0	18,0	22	13,40	10
	M16	51R1645	19,0	30	35	17,0	24,0	18,0	22	12,80	10
	M20	51R2045	19,0	30	39	21,0	24,0	22,0	24	13,10	10
240	M10	52R1045	21,0	35	39	10,5	26,0	21,5	22	16,28	10
	M12	52R1245	21,0	35	39	13,0	26,0	21,5	22	16,80	10
	M14	52R1445	21,0	35	39	15,0	26,0	21,5	22	16,40	10
	M16	52R1645	21,0	35	39	17,0	26,0	21,5	22	16,10	10
	M20	52R2045	21,0	35	39	21,0	26,0	21,5	24	16,10	10
300	M12	53R1245	23,5	44	43	13,0	29,5	24,0	24	24,08	5
	M14	53R1445	23,5	44	43	15,0	29,5	24,0	24	24,20	5
	M16	53R1645	23,5	44	43	17,0	29,5	24,0	24	23,23	5
	M20	53R2045	23,5	44	43	21,0	29,5	24,0	24	23,50	5
400	M12	54R1245	27,0	44	49	13,0	34,0	24,0	24	34,00	5
	M14	54R1445	27,0	44	49	15,0	34,0	24,0	24	33,40	5
	M16	54R1645	27,0	44	49	17,0	34,0	24,0	24	34,28	5
	M20	54R2045	27,0	44	49	21,0	34,0	24,0	24	31,80	5

B: Material specifications:

1. General

Material: Cu according EN 13600

2. Condition

2.1 Surface

2.1.1 smooth, bright, even, no tears, scoring, folds, blisters, no other defects

2.1.2 averaged roughness depth Rz max. 2µm

2.1.3 galvanically tined (3 – 5 µm)

2.1.4 Maximum temperature: Min -40°C – Max. 120°C

C: Processing information:

3. Conductor compatibility

Compatible with class 2 conductor when using the hexagonal crimp and compatible with class 2 and class 5 according to IEC 60228 when using the indent crimp of the EKM60ID.

4. Standard crimping indent dies

4.1 EKM60IDCF, indent crimp

4.1.1 10-240 mm²

4.2 EK30IDML

4.2.1 6-120 mm²

4.3 Series 50, hexagonal crimp

4.3.1 Compatible tools

4.3.1.1 Battery mechanic tool: EK50ML

4.3.1.2 Hand tool: K50

Part No.	R504	R505
Cross section mm ²	6-16	16-25

4.4 Series 4, hexagonal crimp

4.4.1 Compatible tools

4.4.1.1 Battery hydraulic tools: EK354ML, EK354

4.4.1.2 Hand tools: K354

Part No.	HR46	HR410	HR416	HR425	HR435	HR450	HR470	HR495	HR4120	HR4150
Cross section mm ²	6	10	16	25	35	50	70	95	120	150

4.5 Series 22, hexagonal crimp

4.5.1 Compatible tools

- 4.5.1.1 Battery hydraulic tools: EKM6022, EK6022, EKM60UNV + UA22, EK60UNV + UA22
- 4.5.1.2 Hand hydraulic tools: HK6022, HK60UNV + UA22
- 4.5.1.3 Crimping heads: PK22, PK60UNV + UA22
- 4.5.1.4 Hydraulic tool for workbench: THK22
- 4.5.1.5 Hand tool: K22

Part No.	R226	R2210	R2216	R2225	R2235	R2250	R2270
Cross section mm²	6	10	16	25	35	50	70
Part No.	R2295	R22120	R22150	R22185	R22240	R22300	
Cross section mm²	95	120	150	185	240	300	

4.6 Series 13, hexagonal crimp

4.6.1 Compatible tools

- 4.6.1.1 Battery hydraulic tools: EK12032, EK12042, EK120UNV + UA12TKL, EK120U, EK135FT + UA15T
- 4.6.1.2 Hand hydraulic tools: HK12030, HK12042, HK120U
- 4.6.1.3 Crimping heads: PK12042, PK120U, PK252 + 25A13, HK252 + 25A13
- 4.6.1.4 Hydraulic tool for workbench: THK120

Part No.	HR1310	HR1316	HR1325	HR1335	HR1350	HR1370
Cross section mm²	10	16	25	35	50	70
Part No.	HR1395	HR13120	HR13150	HR13185	HR13240	HR13300
Cross section mm²	95	120	150	185	240	300
Part No.	HR13400					
Cross section mm²	400					

4.7 Series 25, hexagonal crimp

4.7.1 Compatible tools

4.7.2 Crimping heads: HK252, PK252

Part No.	25A13 + HR1310	25A13 + HR1316	25A13 + HR1325	25A13 + HR1335	25A13 + HR1350	25A13 + HR1370
Cross section mm²	10	16	25	35	50	70
Part No.	25A13 + HR1395	25A13 + HR13120	HR25150 / 25A13 + HR13150	HR25185 / 25A13 + HR13185	HR25240 / 25A13 + HR13240	HR25300 / 25A13 + HR13300
Cross section mm²	95	120	150	185	240	300
Part No.	HR25400 / 25A13 + HR13400					
Cross section mm²	400					

4.8 Mechanical Hand tools with not interchangeable dies:

K2	0,75-16 mm ² , indent crimp
K04	10-25 mm ² , hexagonal crimp
K05	6-50 mm ² , hexagonal crimp
K06	6-120 mm ² , hexagonal crimp
K09	25-150 mm ² , hexagonal crimp
K95	16-95 mm ² , indent crimp
K5	6-50 mm ² , indent crimp
K6	50-120 mm ² , indent crimp
K07	185-400 mm ² , indent crimp
K7	120-240 mm ² , indent crimp
K8	35-95 mm ² , indent crimp

C: Certification and Tests

1. Underwriters Laboratories (UL) tested and listed acc. to UL 486A-486B
2. IEC 61238-1, class a in an accredited test laboratory
3. DNV certified and listed