



HELUKABEL <VDE> 0276 NYY-J 0,6/1 kV

Technical data

- Power and control cable acc. to DIN VDE 0276-603 / HD 603 S1 / IEC 60502 7 core and above acc. to DIN VDE 0276-627 / HD 627 S1 / IEC 60502
- **Temperature range** flexing -5°C to +50°C fixed installation -40°C to +70°C
- Permissible **operating temperature** at conductor +70°C
- Permissible **short circuit temperature** (short circuit duration max. 5 s) $\leq 300 \text{ mm}^2 + 160^\circ\text{C}$ $> 300 \text{ mm}^2 + 140^\circ\text{C}$
- **Nominal voltage** $U_0/U 0,6/1 \text{ kV}$
- **Test voltage** 4 kV
- Max. permissible **tensile stress** with cable grip at conductor 50 N/mm²
- **Minimum bending radius** single-core 15x outer \varnothing multi-core 12x outer \varnothing
- **Caloric load values** see "Technical Information"

Cable structure

- Bare copper conductor, single wire or multi wire acc. to DIN VDE 0295 cl.1 or cl.2 / IEC 60228 cl.1 or cl.2
- Core insulation of PVC compound type DIV4 acc. to HD 603 S1
- Core identification acc. to DIN VDE 0293-308 / 0276-603
- Core colour for 3+½ conductor J-version: GN-YE (½), BN, BK, GY O-version: BU (½), BN, BK, GY
- Cores stranded in concentric layers
- Outer sheath of PVC compound type DMV5 to HD 603 S1
- Sheath colour: black

Properties

- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

Tests

- Flame retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2

Highest permissible voltage

- Direct current systems 1,8 kV
- Alternating current systems
 - Single-phase systems both outer conductors insulated 1,4 kV
 - Single-phase systems one outer conductor earthed 0,7 kV
- Three-phase systems 1,2 kV

Note

- re = round conductor, single-wire
- rm = round conductor, multi-wire
- sm = sectional conductor, multi-wire
- J-version = with GN-YE conductor
- O-version = without GN-YE conductor
- In respect to 3+½ conductors Whereby only one conductor is allowed to contain a smaller cross section (as per DIN VDE 0276 part 603 table 5) and permitted to place as insulated core (green-yellow and blue as ½-conductor), stranded in layer.
- The conductor is metrically constructed (mm²). The AWG designation is approximate and purely informative.

Application

Power cables for energy supply are installed in open air, in underground, in water, in concrete, indoors, in cable ducts, power stations, for industry and distribution boards as well as in subscriber networks, where mechanical damages are not to be expected.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

No. cores x cross-sec. mm ²		Outer \varnothing app. mm	Cop. weight kg / km	Weight app. kg / km	J type Part no.	AWG-No.	O type Part no.	AWG-No.
1 x 4	re	8,1	38,0	115,0	32001	12	32089	12
1 x 6	re	8,6	58,0	135,0	32002	10	32090	10
1 x 10	re	10,0	96,0	179,0	32003	8	32091	8
1 x 16	re	11,0	154,0	245,0	32004	6	32092	6
1 x 25	rm	13,7	240,0	360,0	32005	4	32093	4
1 x 35	rm	14,5	336,0	470,0	32006	2	32094	2
1 x 50	rm	16,0	480,0	620,0	32007	1	32095	1
1 x 70	rm	17,5	672,0	810,0	32008	2/0	32096	2/0
1 x 95	rm	19,0	912,0	1110,0	32009	3/0	32097	3/0
1 x 120	rm	20,5	1152,0	1360,0	32010	4/0	32098	4/0
1 x 150	rm	22,5	1440,0	1670,0	32011	300 kcmil	32099	300 kcmil
1 x 185	rm	25,0	1776,0	2050,0	32012	350 kcmil	32100	350 kcmil
1 x 240	rm	28,0	2304,0	2630,0	32013	500 kcmil	32101	500 kcmil
1 x 300	rm	30,0	2880,0	3200,0	32014	600 kcmil	32102	600 kcmil
1 x 400	rm	34,0	3840,0	4150,0	32015	750 kcmil	32103	750 kcmil
1 x 500	rm	38,0	4800,0	5200,0	32556	1000 kcmil	32558	1000 kcmil
1 x 630	rm	43,0	6048,0	6650,0	32557	1250 kcmil	32559	1250 kcmil

Continuation ▶

No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	J type Part no.	AWG-No.	O type Part no.	AWG-No.
2 x 1,5 re	11,0	29,0	175,0	32016	16	-	32104 16
2 x 2,5 re	12,0	48,0	215,0	32017	14	-	32105 14
2 x 4 re	14,0	77,0	295,0	32018	12	-	32106 12
2 x 6 re	15,0	115,0	370,0	32019	10	-	32107 10
2 x 10 re	16,5	192,0	495,0	32020	8	-	32108 8
2 x 16 re	18,5	307,0	670,0	32021	6	-	32109 6
2 x 25 rm	20,5	480,0	960,0	32022	4	-	32110 4
3 x 1,5 re	11,5	43,0	195,0	32023	16	-	32111 16
3 x 2,5 re	12,5	72,0	250,0	32024	14	-	32112 14
3 x 4 re	14,0	115,0	340,0	32025	12	-	32113 12
3 x 6 re	15,0	173,0	430,0	32026	10	-	32114 10
3 x 10 re	17,0	288,0	590,0	32027	8	-	32115 8
3 x 16 re	19,0	461,0	820,0	32028	6	-	32116 6
3 x 25 rm	24,0	720,0	1320,0	32029	4	-	32117 4
3 x 35 sm	25,0	1008,0	1450,0	32030	2	-	32118 2
3 x 50 sm	28,4	1440,0	1850,0	32031	1	-	32119 1
3 x 70 sm	30,0	2016,0	2450,0	32032	2/0	-	32120 2/0
3 x 95 sm	34,5	2736,0	3300,0	32033	3/0	-	32121 3/0
3 x 120 sm	37,0	3456,0	4100,0	32034	4/0	-	32122 4/0
3 x 150 sm	36,5	4320,0	4900,0	32293	300 kcmil	-	32296 300 kcmil
3 x 185 sm	41,5	5328,0	6500,0	32294	350 kcmil	-	32297 350 kcmil
3 x 240 sm	51,0	6912,0	8300,0	32295	500 kcmil	-	32298 500 kcmil
4 x 1,5 re	12,0	58,0	230,0	32044	16	-	32132 16
4 x 2,5 re	13,5	96,0	300,0	32045	14	-	32133 14
4 x 4 re	16,0	154,0	410,0	32046	12	-	32134 12
4 x 6 re	16,5	230,0	520,0	32047	10	-	32135 10
4 x 10 re	18,5	384,0	730,0	32048	8	-	32136 8
4 x 16 re	20,3	614,0	1045,0	32049	6	-	32137 6
4 x 25 rm	24,5	960,0	1640,0	32050	4	-	32138 4
4 x 35 sm	23,5	1344,0	1760,0	32051	2	-	32139 2
4 x 50 sm	27,0	1920,0	2350,0	32052	1	-	32140 1
4 x 70 sm	34,0	2688,0	3100,0	32053	2/0	-	32141 2/0
4 x 95 sm	35,5	3648,0	4250,0	32054	3/0	-	32142 3/0
4 x 120 sm	39,0	4608,0	5300,0	32055	4/0	-	32143 4/0
4 x 150 sm	42,5	5760,0	6400,0	32056	300 kcmil	-	32144 300 kcmil
4 x 185 sm	48,5	7104,0	8500,0	32057	350 kcmil	-	32145 350 kcmil
4 x 240 sm	53,5	9216,0	11000,0	32058	500 kcmil	-	32146 500 kcmil
5 x 1,5 re	13,0	72,0	270,0	32059	16	-	32147 16
5 x 2,5 re	14,5	120,0	360,0	32060	14	-	32148 14
5 x 4 re	16,5	192,0	490,0	32061	12	-	32149 12
5 x 6 re	19,5	288,0	600,0	32062	10	-	32150 10
5 x 10 re	20,0	480,0	890,0	32063	8	-	32151 8
5 x 16 re	22,5	768,0	1255,0	32064	6	-	32152 6
5 x 25 rm	28,0	1200,0	1960,0	32065	4	-	-
5 x 35 rm	34,0	1680,0	2400,0	32300	2	-	-
5 x 50 rm	35,3	2400,0	3500,0	32257	1	-	-
5 x 70 rm	39,0	3360,0	4470,0	79608	2/0	-	-
5 x 95 rm	47,0	4560,0	6149,0	700939	3/0	-	-
7 x 1,5 re	14,5	101,0	310,0	32066	16	-	32153 16
7 x 2,5 re	15,5	168,0	450,0	32076	14	-	32163 14
7 x 4 re	18,5	269,0	640,0	32086	12	-	32173 12
7 x 6 re	20,0	403,0	850,0	32087	10	-	32174 10
7 x 10 re	23,5	672,0	1200,0	32088	8	-	32175 8
10 x 1,5 re	18,0	144,0	380,0	32067	16	-	32154 16
10 x 2,5 re	19,5	240,0	520,0	32077	14	-	32164 14
12 x 1,5 re	19,0	173,0	420,0	32068	16	-	32155 16
12 x 2,5 re	20,5	288,0	600,0	32078	14	-	32165 14
14 x 1,5 re	19,0	202,0	470,0	32069	16	-	32156 16
14 x 2,5 re	21,0	336,0	680,0	32079	14	-	32166 14
16 x 1,5 re	19,0	230,0	520,0	32070	16	-	32157 16
16 x 2,5 re	22,0	384,0	750,0	32080	14	-	32167 14
19 x 1,5 re	22,0	274,0	570,0	32071	16	-	32158 16
19 x 2,5 re	23,0	456,0	850,0	32081	14	-	32168 14
21 x 1,5 re	21,0	302,0	650,0	32072	16	-	32159 16
21 x 2,5 re	23,0	504,0	980,0	32082	14	-	-
24 x 1,5 re	25,0	346,0	750,0	32073	16	-	32160 16
24 x 2,5 re	27,0	576,0	1100,0	32083	14	-	32170 14
30 x 1,5 re	26,0	432,0	860,0	32074	16	-	32161 16
30 x 2,5 re	28,0	720,0	1280,0	32084	14	-	32171 14
40 x 1,5 re	29,0	576,0	1070,0	32075	16	-	32162 16
40 x 2,5 re	31,5	960,0	1700,0	32085	14	-	32172 14
52 x 2,5 re	35,0	1248,0	2150,0	32169	14	-	-
61 x 1,5 re	32,0	878,0	1680,0	32176	16	-	-

3+1/2 conductors

No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	J type Part no.	AWG-No.	O type Part no.	AWG-No.
3 x 25 / 16 rm/re	27,5	874,0	1530,0	32035	4	-	32123 4
3 x 35 / 16 sm/re	28,0	1162,0	1750,0	32036	2	-	32124 2
3 x 50 / 25 sm	31,5	1680,0	2350,0	32037	1	-	32125 1
3 x 70 / 35 sm/rm	35,0	2352,0	2850,0	32038	2/0	-	32126 2/0
3 x 95 / 50 sm	38,0	3216,0	3850,0	32039	3/0	-	32127 3/0
3 x 120 / 70 sm	41,0	4128,0	4780,0	32040	4/0	-	32128 4/0
3 x 150 / 70 sm	46,0	4992,0	5800,0	32041	300 kcmil	-	32129 300 kcmil
3 x 185 / 95 sm	51,0	6240,0	7600,0	32042	350 kcmil	-	32130 350 kcmil
3 x 240 / 120 sm	58,0	8064,0	9800,0	32043	500 kcmil	-	32131 500 kcmil
3 x 300 / 150 sm	56,5	10080,0	11500,0	32256	600 kcmil	-	-

Dimensions and specifications may be changed without prior notice. (RQ01)