

VDE Reg.-Nr.



HELUKABEL VDE Reg.-Nr. 7032 JZ-500 25G1,5 QMM / 10110 300/500 V 001041117 C€

RoHS

## Technical data

- Control cables, special PVC
- Conforms to DIN VDE 0281, 0293, 0295
- **Temperature range**  
flexing -15 °C<sup>1)</sup> to +80 °C  
fixed installation -40 °C to +80 °C
- **Nominal voltage** U<sub>0</sub>/U 300/500 V
- **Test voltage** 4000 V
- **Breakdown voltage** min. 8000 V
- **Insulation resistance**  
min. 20 MΩm x km
- **Minimum bending radius**  
flexing 7,5x cable ø  
fixed installation 4x cable ø
- **Radiation resistance**  
up to 80x10<sup>6</sup> cJ/kg (up to 80 Mrad)
- <sup>1)</sup> cold bending test, impact resistance test at low temperatures, elongation test at low temperatures. Tested according VDE 0473 part 811-1-4, EN 60811-1-4

## Cable structure

- Bare copper, fine wire conductors, according to DIN VDE 0295 cl. 5, BS 6360 cl. 5 and IEC 60228 cl. 5
- Core insulation of special PVC Z 7225
- Black cores with continuous white numbering according to DIN VDE 0293 (also available with other core colours)
- Green-yellow earth core in the outer layer (3 cores and above)
- Cores stranded in layers with optimal lay-length
- Outer sheath of special PVC, TM2 to DIN VDE 0281 part 1 and HD 21.1
- colour grey (RAL 7001)
- with meter marking, change-over in 2011

## Properties

- Extensively oil resistant, oil-/ chemical Resistance - see table Technical Informations
- PVC self-extinguishing and flame retardant according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers
- conditional drag chain compatible
- conditional suitability for torsion

## Note

- G = with green-yellow earth core; x = without green-yellow earth core (OZ).
- Important for assemblers: We supply any "desired length" of stranded cores without outer sheath, core insulation colour acc. RAL 9005 with number combination acc. customers requirement.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.
- Please note the cleanroom qualification when ordering.
- **screened analogue type:**  
**F-CY-JZ**, see page A 27  
**F-CY-OZ (LIY-CY)**, see page A 25  
**Y-CY-JB**, see page A 38  
**Y-CY-JZ**, see page A 32

## Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air, as measuring and control cables in tool machines, conveyor belts, production lines in machinery production, in air-conditioning and in steel production.

The earth core is laid in the outer layer. Selected PVC-compounds guarantee a good flexibility as well as an economic and fast installation.

C€= The product is conformed with the EC Low-Voltage Directive 2006/95/EG.

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
10001	2 x 0,5	4,9	9,6	40,0	20
10002	3 G 0,5	5,2	14,4	46,0	20
10003	3 x 0,5	5,2	14,4	46,0	20
10004	4 G 0,5	5,6	19,0	56,0	20
10005	4 x 0,5	5,6	19,0	56,0	20
10006	5 G 0,5	6,3	24,0	65,0	20
10007	5 x 0,5	6,3	24,0	65,0	20
10008	6 G 0,5	6,9	29,0	75,0	20
10009	7 G 0,5	6,9	33,6	80,0	20
10010	7 x 0,5	6,9	33,6	80,0	20
10011	8 G 0,5	7,4	38,0	97,0	20
10172	8 x 0,5	7,4	38,0	97,0	20
10012	10 G 0,5	8,3	48,0	116,0	20
10013	12 G 0,5	8,8	58,0	135,0	20
10014	12 x 0,5	8,8	58,0	135,0	20
10015	14 G 0,5	9,7	67,0	150,0	20
10183	16 G 0,5	10,2	76,0	175,0	20
10016	18 G 0,5	11,0	86,0	196,0	20
10017	20 G 0,5	11,5	96,0	215,0	20
10018	21 G 0,5	11,5	101,0	240,0	20
10019	25 G 0,5	12,9	120,0	270,0	20
10020	30 G 0,5	13,8	144,0	310,0	20
10021	32 G 0,5	14,3	154,0	323,0	20
10022	34 G 0,5	14,9	163,0	362,0	20
10023	40 G 0,5	15,6	192,0	434,0	20
10024	42 G 0,5	16,1	202,0	449,0	20

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
10025	50 G 0,5	17,9	240,0	513,0	20
10169	52 G 0,5	17,9	252,0	534,0	20
10026	61 G 0,5	19,0	293,0	625,0	20
10027	65 G 0,5	19,7	312,0	682,0	20
10028	80 G 0,5	21,8	384,0	780,0	20
10029	100 G 0,5	24,3	480,0	980,0	20
10030	2 x 0,75	5,3	14,4	46,0	18
10031	3 G 0,75	5,6	21,6	54,0	18
10032	3 x 0,75	5,6	21,6	54,0	18
10033	4 G 0,75	6,3	28,8	66,0	18
10034	4 x 0,75	6,3	29,0	66,0	18
10035	5 G 0,75	6,9	36,0	80,0	18
10036	5 x 0,75	6,9	36,0	80,0	18
10037	6 G 0,75	7,5	43,0	99,0	18
10177	6 x 0,75	7,5	43,0	99,0	18
10038	7 G 0,75	7,5	50,0	110,0	18
10039	7 x 0,75	7,5	50,0	110,0	18
10040	8 G 0,75	8,2	58,0	130,0	18
10173	8 x 0,75	8,2	58,0	130,0	18
10041	9 G 0,75	8,8	65,0	153,0	18
10042	10 G 0,75	9,2	72,0	162,0	18
10043	12 G 0,75	9,8	86,0	179,0	18
10044	12 x 0,75	9,8	86,0	179,0	18
10045	14 G 0,75	10,6	101,0	214,0	18
10046	15 G 0,75	11,4	108,0	218,0	18
10047	18 G 0,75	12,2	130,0	257,0	18

Continuation ▶

# JZ-500 flexible, number coded, meter marking



Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
10533	19 G 0,75	12,7	137,0	264,0	18
10048	20 G 0,75	12,7	144,0	286,0	18
10049	21 G 0,75	12,7	151,0	320,0	18
10050	25 G 0,75	14,3	180,0	365,0	18
10534	27 G 0,75	15,2	195,0	382,0	18
10051	32 G 0,75	15,9	230,0	455,0	18
10052	34 G 0,75	16,7	245,0	510,0	18
10182	37 G 0,75	17,2	266,0	537,0	18
10053	40 G 0,75	17,2	288,0	595,0	18
10054	41 G 0,75	18,0	296,0	607,0	18
10055	42 G 0,75	18,0	302,0	612,0	18
10056	50 G 0,75	19,8	360,0	735,0	18
10057	61 G 0,75	21,2	439,0	845,0	18
10178	65 G 0,75	21,7	468,0	895,0	18
10058	80 G 0,75	24,3	576,0	1070,0	18
10059	100 G 0,75	27,0	720,0	1322,0	18
10060	2 x 1	5,6	19,2	60,0	17
10061	3 G 1	5,9	29,0	72,0	17
10062	3 x 1	5,9	29,0	72,0	17
10063	4 G 1	6,6	38,4	86,0	17
10064	4 x 1	6,6	38,4	86,0	17
10065	5 G 1	7,3	48,0	104,0	17
10066	5 x 1	7,3	48,0	104,0	17
10067	6 G 1	8,1	58,0	125,0	17
10068	7 G 1	8,1	67,0	141,0	17
10069	7 x 1	8,1	67,0	141,0	17
10070	8 G 1	8,7	77,0	175,0	17
10071	9 G 1	9,8	86,0	200,0	17
10180	10 G 1	9,8	96,0	217,0	17
10170	10 x 1	9,8	96,0	217,0	17
10072	12 G 1	10,4	115,0	230,0	17
10073	12 x 1	10,4	115,0	230,0	17
10074	14 G 1	11,4	134,0	271,0	17
10075	16 G 1	12,3	154,0	300,0	17
10076	18 G 1	12,9	173,0	343,0	17
10174	18 x 1	12,9	173,0	343,0	17
10197	19 G 1	13,0	182,0	355,0	17
10077	20 G 1	13,7	192,0	375,0	17
10184	20 x 1	13,7	192,0	375,0	17
10179	21 G 1	13,7	205,0	420,0	17
10175	24 G 1	14,7	230,0	440,0	17
10078	25 G 1	15,4	240,0	485,0	17
10176	25 x 1	15,4	240,0	485,0	17
10196	26 G 1	15,6	252,0	500,0	17
10198	27 G 1	15,8	259,0	534,0	17
10168	30 x 1	16,4	308,0	550,0	17
10079	34 G 1	17,9	326,0	650,0	17
10080	36 G 1	17,9	346,0	668,0	17
10199	37 G 1	18,4	355,0	701,0	17
10081	40 G 1	18,5	384,0	755,0	17
10167	40 x 1	18,5	384,0	755,0	17
10082	41 G 1	19,4	394,0	770,0	17
10083	42 G 1	19,4	403,0	810,0	17
10084	50 G 1	21,2	480,0	936,0	17
10085	56 G 1	21,9	538,0	920,0	17
10086	61 G 1	22,5	586,0	1100,0	17
10087	65 G 1	23,5	628,0	1180,0	17
10088	80 G 1	26,0	768,0	1294,0	17
10089	100 G 1	29,2	960,0	1644,0	17
10090	2 x 1,5	6,4	29,0	70,0	16
10091	3 G 1,5	6,8	43,0	90,0	16
10092	3 x 1,5	6,8	43,0	90,0	16
10093	4 G 1,5	7,4	58,0	109,0	16
10094	4 x 1,5	7,4	58,0	109,0	16
10095	5 G 1,5	8,3	72,0	131,0	16
10096	5 x 1,5	8,3	72,0	131,0	16
10097	6 G 1,5	9,2	86,0	157,0	16
10098	7 G 1,5	9,2	101,0	184,0	16
10099	7 x 1,5	9,2	101,0	184,0	16
10100	8 G 1,5	9,9	115,0	216,0	16
10101	9 G 1,5	10,9	129,0	259,0	16
10181	10 G 1,5	10,9	144,0	275,0	16
10102	11 G 1,5	12,0	158,0	300,0	16
10103	12 G 1,5	12,0	173,0	309,0	16
10104	12 x 1,5	12,0	173,0	309,0	16
10105	14 G 1,5	13,0	202,0	345,0	16

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
10106	16 G 1,5	13,9	230,0	386,0	16
10107	18 G 1,5	14,6	259,0	440,0	16
10185	19 G 1,5	15,2	279,0	445,0	16
10108	20 G 1,5	15,5	288,0	490,0	16
10109	21 G 1,5	15,5	302,0	555,0	16
10110	25 G 1,5	17,4	360,0	620,0	16
10535	27 G 1,5	19,0	389,0	670,0	16
10111	32 G 1,5	19,5	461,0	790,0	16
10112	34 G 1,5	20,2	490,0	850,0	16
10536	37 G 1,5	20,2	533,0	892,0	16
10113	41 G 1,5	21,8	591,0	996,0	16
10114	42 G 1,5	21,8	605,0	1007,0	16
10115	50 G 1,5	24,2	720,0	1250,0	16
10116	56 G 1,5	24,9	806,0	1352,0	16
10117	61 G 1,5	25,8	878,0	1440,0	16
10187	65 G 1,5	26,7	936,0	1602,0	16
10118	80 G 1,5	29,8	1152,0	1871,0	16
10119	100 G 1,5	33,2	1440,0	2353,0	16
10120	2 x 2,5	7,8	48,0	112,0	14
10121	3 G 2,5	8,3	72,0	148,0	14
10122	3 x 2,5	8,3	72,0	148,0	14
10123	4 G 2,5	9,2	96,0	178,0	14
10124	4 x 2,5	9,2	96,0	178,0	14
10125	5 G 2,5	10,1	120,0	221,0	14
10126	5 x 2,5	10,1	120,0	221,0	14
10127	7 G 2,5	11,2	168,0	306,0	14
10128	7 x 2,5	11,2	168,0	306,0	14
10129	8 G 2,5	12,3	192,0	363,0	14
10130	12 G 2,5	14,8	288,0	498,0	14
10131	14 G 2,5	16,0	336,0	569,0	14
10132	18 G 2,5	18,2	432,0	764,0	14
10133	21 G 2,5	19,1	504,0	914,0	14
10134	25 G 2,5	21,6	600,0	1044,0	14
10135	34 G 2,5	25,0	816,0	1470,0	14
10136	42 G 2,5	27,2	1008,0	1790,0	14
10137	50 G 2,5	30,0	1200,0	2095,0	14
10138	61 G 2,5	32,0	1464,0	2750,0	14
10139	100 G 2,5	41,4	2400,0	4450,0	14
10140	2 x 4	9,3	77,0	195,0	12
10141	3 G 4	9,8	115,0	250,0	12
10142	4 G 4	11,0	154,0	295,0	12
10143	5 G 4	12,3	192,0	361,0	12
10144	7 G 4	13,6	269,0	458,0	12
10145	8 G 4	14,6	307,0	590,0	12
10146	12 G 4	17,8	461,0	790,0	12
10147	3 G 6	11,9	173,0	355,0	10
10148	4 G 6	13,0	230,0	424,0	10
10149	5 G 6	14,5	288,0	525,0	10
10150	7 G 6	16,2	403,0	625,0	10
10151	3 G 10	14,8	288,0	540,0	8
10152	4 G 10	16,4	384,0	701,0	8
10153	5 G 10	18,3	480,0	858,0	8
10154	7 G 10	20,2	672,0	1106,0	8
10190	3 G 16	18,2	461,0	827,0	6
10155	4 G 16	20,0	614,0	1035,0	6
10156	5 G 16	22,6	768,0	1259,0	6
10157	7 G 16	24,8	1075,0	1780,0	6
10191	3 G 25	22,2	720,0	1186,0	4
10158	4 G 25	24,9	960,0	1582,0	4
10159	5 G 25	27,7	1200,0	1999,0	4
10160	7 G 25	30,6	1680,0	2825,0	4
10192	3 G 35	25,6	1008,0	1585,0	2
10161	4 G 35	28,4	1344,0	2105,0	2
10162	5 G 35	31,7	1680,0	2633,0	2
10193	3 G 50	30,9	1440,0	2550,0	1
10163	4 G 50	34,2	1920,0	2940,0	1
10188	5 G 50	38,3	2400,0	2936,0	1
10194	3 G 70	36,5	2016,0	3180,0	2/0
10164	4 G 70	40,3	2688,0	4090,0	2/0
10189	5 G 70	45,3	3360,0	5443,0	2/0
10195	3 G 95	41,1	2736,0	4680,0	3/0
10165	4 G 95	45,8	3648,0	5540,0	3/0
10533	5 G 95	52,7	4560,0	6931,0	3/0
10166	4 G 120	51,4	4608,0	7000,0	4/0
13139	4 G 150	58,5	5760,0	8340,0	300 kcmil
13140	4 G 185	61,1	7104,0	9904,0	350 kcmil

Dimensions and specifications may be changed without prior notice. (RA01)