HELUPOWER® 1000 RV-K

direct burial, XLPE core insulation / 90°C

TECHNICAL DATA

PVC connection cable acc. to UNE 21123-2; articles with 3+1/2 conductors: in alignment with UNE 21123-2

Temperature range	fixed -15°C to +90°C
Permissible operating temperature of the conductor	+90°C
Short circuit temperature at the conductor	+250°C (Short circuit temperature max. 5 s)
Nominal voltage	AC U_0/U 600/1000 V
Max. permissible operating voltage	alternating current (AC) conductor/earth 700 V three-phase alternating current (AC) conductor/conductor 1200 V direct current (DC) conductor/earth 900 V direct current (DC) conductor/conductor 1800 V
Test voltage core/core	3500 V
Minimum bending radius	<25 mm: 4x Outer-ø 25-50 mm: 5x Outer-ø >50 mm: 6x Outer-ø

CABLE STRUCTURE

- Copper wire bare, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Core insulation: XLPE acc. to UNE-HD 603-1 (compound type DIX 3)
- Core identification: see table
- G = with protective conductor GN-YE, in the outer layer, x = without protective conductor
- Cores stranded in layers with optimal lay lengths
- Outer sheath: PVC acc. to UNE HD 603-1 (compound type DMV 18)
- Sheath colour: black
- Length marking: in metres

PROPERTIES

- resistant to: UV radiation
- for outdoor use
- direct burial
- 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
- UV-resistant acc. to DIN VDE 0276-605 / HD 605 S2

APPLICATION

Suitable for use in dry, moist and wet rooms as well as outdoors. Also suitable for direct burial, laying in tubes and underground installation areas. Typical application areas range from general production machinery, to machine tool applications, conveyor belt systems, air-conditioning units, steel plants installations and factory automation. Ideal as power or control cable especially if increased temperature and/or voltage is required. UV resistant due to it's special PVC outer sheath compound and therefore also ideal as power connection cable for outdoor devices and machinery. Alternatively also for use as power connection cable in the stage and lighting industry or renewable energy sector.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only

Core identification acc. to DIN VDE 0293-308, black

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11003798	1 x 1.5	16	4.6 - 5.5	14.4	50.0
11003822	1 x 2.5	14	5.1 - 6.0	24.0	65.0
11003846	1 x 4	12	5.7 - 6.5	38.4	80.0
11003854	1 x 6	10	6.2 - 7.1	57.6	105.0
11003862	1 x 10	8	7.2 - 8.0	96.0	155.0
11003870	1 x 16	6	8.1 - 8.9	153.6	220.0
11003878	1 x 25	4	10.0 - 10.6	240.0	320.0
11003886	1 x 35	2	11.1 - 11.8	336.0	420.0
11003894	1 x 50	1	12.9 - 13.7	480.0	560.0
11003902	1 x 70	2/0	14.3 - 15.7	672.0	785.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11003910	1 x 95	3/0	16.2 - 17.3	912.0	1050.0
11003918	1 x 120	4/0	18.1 - 19.2	1152.0	1305.0
11003924	1 x 150	300 kcmil	19.9 - 21.4	1440.0	1610.0
11003930	1 x 185	350 kcmil	22.3 - 23.4	1776.0	1985.0
11003936	1 x 240	500 kcmil	25.2 - 26.8	2304.0	2610.0
11003942	1 x 300	600 kcmil	27.6 - 30.4	2880.0	3225.0
11003948	1 x 400	750 kcmil	32.0 - 34.0	3840.0	3500.0
11003949	1 x 500	1000 kcmil	38.4 - 40.0	4800.0	5060.0
11003950	1 x 630	1250 kcmil	43.6 - 45.2	6048.0	6760.0

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direct burial, XLPE core insulation / 90°C

Core identification acc. to DIN VDE 0293-308, colour coded

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11003799	2 x 1.5	16	8.3 - 8.9	28.8	145.0
11003823	2 x 2.5	14	9.3 - 9.9	48.0	195.0
11003847	2 x 4	12	10.4 - 11.0	76.8	235.0
11003855	2 x 6	10	11.4 - 12.2	115.2	300.0
11003863	2 x 10	8	13.7 - 14.8	192.0	460.0
11003871	2 x 16	6	15.9 - 17.1	307.2	635.0
11003879	2 x 25	4	19.1 - 20.9	480.0	930.0
11003887	2 x 35	2	21.4 - 23.1	672.0	1220.0
11003895	2 x 50	1	25.2 - 27.4	960.0	1665.0
11003903	2 x 70	2/0	29.0 - 30.4	1344.0	2320.0
11003911	2 x 95	3/0	32.0 - 34.3	1824.0	3025.0
11003919	2 x 120	4/0	36.5 - 38.6	2304.0	3845.0
11003925	2 x 150	300 kcmil	40.5 - 42.5	2880.0	4720.0
11003931	2 x 185	350 kcmil	45.2 - 47.8	3552.0	5910.0
11003937	2 x 240	500 kcmil	49.9 - 55.4	4608.0	7665.0
11003800	3 G 1.5	16	8.8 - 9.3	43.2	165.0
11003824	3 G 2.5	14	9.8 - 10.5	72.0	210.0
11003848	3 G 4	12	11.0 - 11.6	115.2	275.0
11003856	3 G 6	10	12.1 - 12.9	172.8	355.0
11003864	3 G 10	8	14.5 - 15.7	288.0	560.0
11003872	3 G 16	6	16.8 - 18.1	460.8	780.0
11003880	3 G 25	4	20.2 - 22.2	720.0	1160.0
11003888	3 G 35	2	22.8 - 24.8	1008.0	1535.0
11003896	3 G 50	1	26.8 - 29.2	1440.0	2090.0
11003904	3 G 70	2/0	31.0 - 33.0	2016.0	2945.0
11003912	3 G 95	3/0	34.6 - 36.8	2736.0	3925.0
11003920	3 G 120	4/0	39.0 - 41.3	3456.0	4905.0
11003926	3 G 150	300 kcmil	43.3 - 45.8	4320.0	6055.0
11003932	3 G 185	350 kcmil	47.3 - 51.4	5328.0	7570.0
11003938	3 G 240	500 kcmil	53.5 - 59.3	6912.0	9865.0
11003944	3 G 300	600 kcmil	58.5 - 67.5	8640.0	12120.0
11003801	3 x 1.5	16	8.8 - 9.3	43.2	165.0
11003825	3 x 2.5	14	9.8 - 10.5	72.0	210.0
11003849	3 x 4	12	11.0 - 11.6	115.2	275.0
11003857	3 x 6	10	12.1 - 12.9	172.8	355.0
11003865	3 x 10	8	14.5 - 15.7	288.0	560.0
11003873	3 x 16	6	16.8 - 18.1	460.8	780.0
11003881	3 x 25	4	20.2 - 22.2	720.0	1160.0
11003889	3 x 35	2	22.8 - 24.8	1008.0	1535.0
11003897	3 x 50	1	26.8 - 29.2	1440.0	2090.0
11003905	3 x 70	2/0	31.0 - 33.0	2016.0	2945.0
11003913	3 x 95	3/0	34.6 - 36.8	2736.0	3925.0
11003921	3 x 120	4/0	39.0 - 41.3	3456.0	4905.0
11003927	3 x 150	300 kcmil	43.3 - 45.8	4320.0	6055.0
11003933	3 x 185	350 kcmil	47.3 - 51.4	5328.0	7570.0
11003939	3 x 240	500 kcmil	53.5 - 59.3	6912.0	9865.0
11003945	3 x 300	600 kcmil	58.5 - 67.5	8640.0	12120.0
11003802	4 G 1.5	16	9.5 - 10.2	57.6	190.0
11003826	4 G 2.5	14	10.7 - 11.3	96.0	250.0
11003850	4 G 4	12	12.0 - 12.7	153.6	325.0
11003858	4 G 6	10	13.2 - 14.0	230.4	445.0
11003866	4 G 10	8	15.9 - 17.1	384.0	685.0
11003874	4 G 16	6	18.5 - 20.0	614.4	970.0
11003882	4 G 25	4	22.2 - 24.3	960.0	1450.0
11003890	4 G 35	2	25.5 - 27.2	1344.0	1960.0
11003898	4 G 50	1	29.3 - 32.7	1920.0	2640.0
11003906	4 G 70	2/0	34.5 - 36.5	2688.0	3790.0
11003914	4 G 95	3/0	38.6 - 40.7	3648.0	4985.0
11003922	4 G 120	4/0	43.4 - 46.3	4608.0	6255.0
11003928	4 G 150	300 kcmil	48.1 - 51.0	5760.0	7775.0
11003934	4 G 185	350 kcmil	53.0 - 57.8	7104.0	9640.0
11003940	4 G 240	500 kcmil	59.7 - 66.3	9216.0	12585.0
11003946	4 G 300	600 kcmil	65.4 - 69.4	11520.0	15475.0
11003803	4 x 1.5	16	9.5 - 10.2	57.6	190.0
11003827	4 x 2.5	14	10.7 - 11.3	96.0	250.0
11003851	4 x 4	12	12.0 - 12.7	153.6	325.0
11003859	4 x 6	10	13.2 - 14.0	230.4	445.0
11003867	4 x 10	8	15.9 - 17.1	384.0	685.0
11003875	4 x 16	6	18.5 - 20.0	614.4	970.0
11003883	4 x 25	4	22.2 - 24.3	960.0	1450.0
11003891	4 x 35	2	25.5 - 27.2	1344.0	1960.0
11003899	4 x 50	1	29.3 - 32.7	1920.0	2640.0
11003907	4 x 70	2/0	34.5 - 36.5	2688.0	3790.0
11003915	4 x 95	3/0	38.6 - 40.7	3648.0	4985.0
11003923	4 x 120	4/0	43.4 - 46.3	4608.0	6255.0
11003929	4 x 150	300 kcmil	48.1 - 51.0	5760.0	7775.0
11003935	4 x 185	350 kcmil	53.0 - 57.8	7104.0	9640.0
11003941	4 x 240	500 kcmil	59.7 - 66.3	9216.0	12585.0
11003947	4 x 300	600 kcmil	65.4 - 69.4	11520.0	15475.0
11003804	5 G 1.5	16	10.3 - 11.0	72.0	215.0
11003828	5 G 2.5	14	11.6 - 12.3	120.0	285.0
11003852	5 G 4	12	13.1 - 13.8	192.0	390.0
11003860	5 G 6	10	14.6 - 15.4	288.0	515.0
11003868	5 G 10	8	17.4 - 18.7	480.0	810.0
11003876	5 G 16	6	20.2 - 22.0	768.0	1150.0
11003884	5 G 25	4	19.9 - 26.9	1200.0	1760.0
11003892	5 G 35	2	28.2 - 30.1	1680.0	2345.0
11003900	5 G 50	1	32.6 - 36.2	2400.0	3175.0
11003908	5 G 70	2/0	39.0 - 41.0	3360.0	4560.0
11003916	5 G 95	3/0	43.1 - 45.1	4560.0	6035.0
11003805	5 x 1.5	16	10.3 - 11.0	72.0	215.0
11003829	5 x 2.5	14	11.6 - 12.3	120.0	285.0
11003853	5 x 4	12	13.1 - 13.8	192.0	390.0
11003861	5 x 6	10	14.6 - 15.4	288.0	515.0
11003869	5 x 10	8	17.4 - 18.7	480.0	810.0
11003877	5 x 16	6	20.2 - 22.0	768.0	1150.0
11003885	5 x 25	4	19.9 - 26.9	1200.0	1760.0
11003893	5 x 35	2	28.2 - 30.1	1680.0	2345.0
11003901	5 x 50	1	32.6 - 36.2	2400.0	3175.0
11003909	5 x 70	2/0	39.0 - 41.0	3360.0	4560.0
11003917	5 x 95	3/0	43.1 - 45.1	4560.0	6035.0

Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11003806	7 G 1.5	16	11.9 - 12.5	100.8	300.0
11003830	7 G 2.5	14	13.2 - 13.8	168.0	390.0
11003807	7 x 1.5	16	11.9 - 12.5	100.8	300.0
11003831	7 x 2.5	14	13.2 - 13.8	168.0	390.0
11003808	10 G 1.5	16	13.7 - 14.3	144.0	390.0
11003832	10 G 2.5	14	15.2 - 16.0	240.0	520.0
11003809	10 x 1.5	16	13.7 - 14.3	144.0	390.0
11003833	10 x 2.5	14	15.2 - 16.0	240.0	520.0
11003810	12 G 1.5	16	14.6 - 15.4	172.8	440.0
11003834	12 G 2.5	14	16.3 - 17.1	288.0	290.0
11003811	12 x 1.5	16	14.6 - 15.4	172.8	440.0
11003835	12 x 2.5	14	16.3 - 17.1	288.0	290.0
11003812	16 G 1.5	16	16.4 - 17.2	230.4	550.0
11003836	16 G 2.5	14	18.4 - 19.2	384.0	750.0

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Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11003813	16 x 1.5	16	16.4 - 17.2	230.4	550.0
11003837	16 x 2.5	14	18.4 - 19.2	384.0	750.0
11003816	19 G 1.5	16	17.3 - 18.1	273.6	620.0
11003840	19 G 2.5	14	19.5 - 20.3	456.0	850.0
11003817	19 x 1.5	16	17.3 - 18.1	273.6	620.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11003841	19 x 2.5	14	19.5 - 20.3	456.0	850.0
11003818	24 G 1.5	16	19.2 - 20.0	345.6	760.0
11003842	24 G 2.5	14	21.5 - 22.5	576.0	1040.0
11003819	24 x 1.5	16	19.2 - 20.0	345.6	760.0
11003843	24 x 2.5	14	21.5 - 22.5	576.0	1040.0

Core identification: green-yellow (1/2), brown, black, grey

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11007951	3 x 35 + 1 G 16	2	24.0 - 25.0	1162.0	1425.0
11007952	3 x 50 + 1 G 25	1	28.0 - 29.0	1680.0	2045.0
11007953	3 x 70 + 1 G 35	2/0	32.3 - 34.3	2352.0	2832.0
11007954	3 x 95 + 1 G 50	3/0	36.6 - 38.6	3216.0	3628.0
11007955	3 x 120 + 1 G 70	4/0	41.6 - 43.6	4128.0	4706.0

Part no.	No. cores x cross-sec. mm²	AWG, approx.	Outer-ø min - max mm	Cu-weight kg/km	Weight kg/km, approx.
11007956	3 x 150 + 1 G 70	300 kcmil	45.8 - 47.8	4992.0	5747.0
11007957	3 x 185 + 1 G 95	350 kcmil	49.5 - 53.5	6240.0	7174.0
11007958	3 x 240 + 1 G 120	500 kcmil	55.8 - 59.8	8064.0	9300.0
11007959	3 x 300 + 1 G 150	600 kcmil	61.4 - 65.4	10080.0	11945.0

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