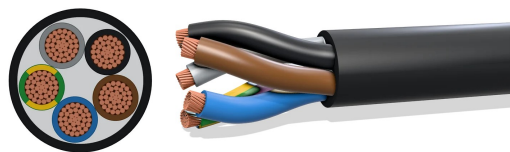


Application

RV-K is a flexible 0.6/1 kV power cable to UNE 21123-2 and IEC 60502-1 for the transport and distribution of electric power in fixed installations and for industrial use. It is suitable for indoor and outdoor installation, in air, buried or in conduit. The flexible class 5 copper conductor is insulated with cross-linked polyethylene (XLPE) for a conductor temperature of 90 °C, under a black PVC sheath. RV-K is not suitable for the power supply of submersible pumps. It is available from 1×1.5 to 1×500 mm², in two to five cores and as multicore cable up to 61×1.5 mm²; other sizes on request.



CONSTRUCTION

Conductor	Plain copper, flexible, class 5 acc. to EN 60228.
Insulation	Cross-linked polyethylene (XLPE), type DIX-3.
Core identification	Acc. to HD 308. 1×: natural (uncoloured). Up to 5 cores: blue, brown, black, grey, green/yellow. 6 cores and more: black, numbered, with or without green/yellow.
Assembly	Concentric stranding; thermoplastic filler optional.
Outer sheath	PVC-based compound, type DMV-18; black.
Marking	RV-K 0,6/1 kV, UNE 21123-2, IEC 60502-1, Eca.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage Uo/U	0.6/1 kV AC; Um 1.2 kV.
Rated voltage DC	1.8 kV max. (core to core, without earthing).
Test voltage	3.5 kV AC; 6.5 kV DC.
Max. conductor temperature	+90 °C; +250 °C in short circuit (max. 5 s, acc. to IEC 60724).
Temperature range	-15 °C to +90 °C; down to -40 °C in fixed and protected installations.

FIRE PERFORMANCE

Flame-retardant	Acc. to EN 60332-1-2.
Reaction to fire (CPR)	Eca acc. to EN 50575.

MECHANICAL AND ENVIRONMENTAL PROPERTIES

Min. bending radius	4×D for D below 25 mm; 5×D for D from 25 to 50 mm; 6×D for D above 50 mm (D = overall diameter).
Water	AD7 (intermittent immersion) acc. to IEC 60364-5-51; IPX7 acc. to EN 60529.
Oil resistance	Acc. to ICEA S-73-532.
UV resistance	Acc. to UNE 211605.
Installation	Indoor and outdoor; in air, buried or in conduit. Not for the power supply of submersible pumps.

DIMENSIONS & TECHNICAL DATA

Current-carrying capacity acc. to IEC 60364-5-52 and HD 60364-5-52, one circuit. In air: on a tray, ambient 40 °C; method F with three loaded conductors in trefoil for single cores (three-phase), method E with two loaded conductors for 2× and 3G (single-phase), method E with three loaded conductors for 3×, 4×, 4G and 5G (three-phase). In ground: directly buried (method D2) or in conduit (method D1), ground temperature 25 °C, soil thermal resistivity 2.5 K·m/W; two loaded conductors for 2× and 3G, three for all other sizes. Voltage drop: single-phase for 2× and 3G, three-phase for all other sizes. Maximum pulling force: 50 N/mm² of conductor cross-section, with a pulling head on the conductors or a pulling sleeve with a friction connection to the conductors (0.2 % conductor elongation). A dash means not given; on request. The source gives no current ratings and voltage drops for 7 cores and more.

Single core (1×)

Cores × mm ²	Cond. R @20°C (Ω/km)	Insul. (mm)	Sheath (mm)	Overall Ø (mm)	Weight (kg/km)	Max. pull (N)	In air 40 °C (A)	Ground 25 °C (A)	Volt. drop cosφ 0.8 (V/A·km)	Volt. drop cosφ 1 (V/A·km)
1×1.5	13.3	0.7	1.4	5.8	46	75	21	21	23.66	29.374
1×2.5	7.98	0.7	1.4	6.2	58	125	30	27	14.25	17.624
1×4	4.95	0.7	1.4	6.7	74	200	40	35	8.887	10.933
1×6	3.30	0.7	1.4	7.3	95	300	52	44	5.964	7.288
1×10	1.91	0.7	1.4	8.2	137	500	72	58	3.495	4.218
1×16	1.21	0.7	1.4	9.3	192	800	97	75	2.238	2.673
1×25	0.780	0.9	1.4	10.9	282	1250	122	96	1.487	1.723
1×35	0.554	0.9	1.4	12.1	376	1750	153	117	1.082	1.223
1×50	0.386	1.0	1.4	13.7	510	2500	188	138	0.782	0.852
1×70	0.272	1.1	1.4	15.9	723	3500	243	170	0.576	0.601
1×95	0.206	1.1	1.5	17.6	918	4750	298	202	0.458	0.456
1×120	0.161	1.2	1.5	19.4	1158	6000	350	230	0.377	0.355
1×150	0.129	1.4	1.6	21.6	1434	7500	401	260	0.318	0.284
1×185	0.106	1.6	1.6	23.6	1724	9250	460	291	0.277	0.234
1×240	0.0801	1.7	1.7	27.3	2270	12000	545	336	0.23	0.177
1×300	0.0641	1.8	1.8	30.2	2880	15000	630	380	0.201	0.142
1×400	0.0486	-	2.0	35.5	3805	20000	716	464	-	-
1×500	0.0384	-	2.0	41.4	4800	25000	823	525	-	-

Two cores (2×)

Cores × mm ²	Cond. R @20°C (Ω/km)	Insul. (mm)	Sheath (mm)	Overall Ø (mm)	Weight (kg/km)	Max. pull (N)	In air 40 °C (A)	Ground 25 °C (A)	Volt. drop cosφ 0.8 (V/A·km)	Volt. drop cosφ 1 (V/A·km)
2×1.5	13.3	0.7	1.25	8.5	100	150	23	24	27.371	33.918
2×2.5	7.98	0.7	1.25	9.3	130	250	32	32	16.502	20.35
2×4	4.95	0.7	1.25	10.3	170	400	44	42	10.308	12.624
2×6	3.30	0.7	1.25	11.4	220	600	57	53	6.931	8.416
2×10	1.91	0.7	1.25	13.3	330	1000	78	70	4.082	4.87
2×16	1.21	0.7	1.25	15.4	475	1600	104	91	2.614	3.086
2×25	0.780	0.9	1.4	18.9	725	2500	135	116	1.772	1.99
2×35	0.554	0.9	1.5	21.5	980	3500	168	140	1.304	1.412
2×50	0.386	1.0	1.6	26.0	1455	5000	204	166	0.96	0.984
2×70	0.272	1.1	1.7	30.6	2070	7000	262	204	0.724	0.694

Three cores (3G, 3×)

Cores × mm ²	Cond. R @20°C (Ω/km)	Insul. (mm)	Sheath (mm)	Overall Ø (mm)	Weight (kg/km)	Max. pull (N)	In air 40 °C (A)	Ground 25 °C (A)	Volt. drop cosφ 0.8 (V/A·km)	Volt. drop cosφ 1 (V/A·km)
3G1.5	13.3	0.7	1.25	9.0	120	225	23	24	27.371	33.918
3G2.5	7.98	0.7	1.25	9.8	155	375	32	32	16.502	20.35
3G4	4.95	0.7	1.25	10.9	205	600	44	42	10.308	12.624
3G6	3.30	0.7	1.25	12.1	275	900	57	53	6.931	8.416
3G10	1.91	0.7	1.25	14.2	420	1500	78	70	4.082	4.87
3×16	1.21	0.7	1.4	16.7	615	2400	91	75	2.201	2.673
3×25	0.780	0.9	1.4	20.2	930	3750	115	96	1.457	1.723
3×35	0.554	0.9	1.5	23.0	1270	5250	143	117	1.054	1.223
3×50	0.386	1.0	1.6	27.7	1860	7500	174	138	0.757	0.852
3×70	0.272	1.1	1.7	32.7	2660	10500	223	170	0.555	0.601
3×95	0.206	1.1	1.8	36.0	3355	14250	271	202	0.436	0.456
3×120	0.161	1.2	1.9	40.1	4070	18000	301	230	0.356	0.355
3×150	0.129	1.4	2.3	45.2	5082	22500	344	260	0.3	0.284
3×185	0.106	1.6	2.4	49.8	6257	27750	391	291	0.26	0.234
3×240	0.0801	1.7	2.6	57.8	8274	36000	468	336	0.213	0.177

Four cores (4G, 4×)

Cores × mm ²	Cond. R @20°C (Ω/km)	Insul. (mm)	Sheath (mm)	Overall Ø (mm)	Weight (kg/km)	Max. pull (N)	In air 40 °C (A)	Ground 25 °C (A)	Volt. drop cosφ 0.8 (V/A·km)	Volt. drop cosφ 1 (V/A·km)
4G1.5	13.3	0.7	1.25	9.8	140	300	20	21	23.602	29.374
4G2.5	7.98	0.7	1.25	10.7	185	500	28	27	14.196	17.624
4G4	4.95	0.7	1.25	11.9	250	800	38	35	8.837	10.933
4G6	3.30	0.7	1.25	13.3	340	1200	49	44	5.917	7.288
4G10	1.91	0.7	1.25	15.6	520	2000	68	58	3.455	4.218
4×16	1.21	0.7	1.4	18.4	775	3200	91	75	2.201	2.673
4×25	0.780	0.9	1.5	22.5	1185	5000	115	96	1.457	1.723
4×35	0.554	0.9	1.6	25.6	1615	7000	143	117	1.054	1.223
4×50	0.386	1.0	1.7	30.8	2350	10000	174	138	0.757	0.852
4×70	0.272	1.1	1.8	36.3	3360	14000	223	170	0.555	0.601
4×95	0.206	1.1	1.9	40.0	4250	19000	271	202	0.436	0.456
4×120	0.161	1.2	2.3	45.2	5225	24000	301	230	0.356	0.355
4×150	0.129	1.4	2.4	50.2	6466	30000	344	260	0.3	0.284
4×185	0.106	1.6	2.6	55.5	7940	37000	391	291	0.26	0.234
4×240	0.0801	1.7	2.8	64.4	10485	48000	468	336	0.213	0.177

Five cores (5G)

Cores × mm ²	Cond. R @20°C (Ω/km)	Insul. (mm)	Sheath (mm)	Overall Ø (mm)	Weight (kg/km)	Max. pull (N)	In air 40 °C (A)	Ground 25 °C (A)	Volt. drop cosφ 0.8 (V/A·km)	Volt. drop cosφ 1 (V/A·km)
5G1.5	13.3	0.7	1.25	10.6	160	375	20	21	23.602	29.374
5G2.5	7.98	0.7	1.25	11.7	220	625	28	27	14.196	17.624
5G4	4.95	0.7	1.25	13.0	300	1000	38	35	8.837	10.933
5G6	3.30	0.7	1.25	14.5	405	1500	49	44	5.917	7.288
5G10	1.91	0.7	1.4	17.4	640	2500	68	58	3.455	4.218
5G16	1.21	0.7	1.4	20.2	930	4000	91	75	2.201	2.673
5G25	0.780	0.9	1.5	24.7	1425	6250	115	96	1.457	1.723
5G35	0.554	0.9	1.6	28.2	1960	8750	143	117	1.054	1.223
5G50	0.386	1.0	1.8	34.0	2845	12500	174	138	0.757	0.852
5G95	0.206	1.1	1.9	44.3	5010	23750	271	202	0.436	0.456

7 cores and more, 1.5 mm² (black, numbered)

Cores × mm ²	Cond. R @20°C (Ω/km)	Insul. (mm)	Sheath (mm)	Overall Ø (mm)	Weight (kg/km)	Max. pull (N)	In air 40 °C (A)	Ground 25 °C (A)	Volt. drop cosφ 0.8 (V/A·km)	Volt. drop cosφ 1 (V/A·km)
7×1.5	13.3	0.7	1.25	11.5	200	525	-	-	-	-
8×1.5	13.3	0.7	1.25	12.9	235	600	-	-	-	-
10×1.5	13.3	0.7	1.25	14.5	300	750	-	-	-	-
12×1.5	13.3	0.7	1.25	15.0	335	900	-	-	-	-
14×1.5	13.3	0.7	1.25	15.8	370	1050	-	-	-	-
16×1.5	13.3	0.7	1.4	16.9	420	1200	-	-	-	-
19×1.5	13.3	0.7	1.4	17.8	475	1425	-	-	-	-
21×1.5	13.3	0.7	1.4	19.2	540	1575	-	-	-	-
24×1.5	13.3	0.7	1.5	21.0	645	1800	-	-	-	-
27×1.5	13.3	0.7	1.5	21.5	685	2025	-	-	-	-
30×1.5	13.3	0.7	1.5	22.3	740	2250	-	-	-	-
33×1.5	13.3	0.7	1.5	23.1	790	2475	-	-	-	-
37×1.5	13.3	0.7	1.5	24.0	865	2775	-	-	-	-
40×1.5	13.3	0.7	1.6	25.6	970	3000	-	-	-	-
44×1.5	13.3	0.7	1.6	27.2	1090	3300	-	-	-	-
48×1.5	13.3	0.7	1.6	27.7	1145	3600	-	-	-	-
52×1.5	13.3	0.7	1.6	28.5	1210	3900	-	-	-	-
56×1.5	13.3	0.7	1.7	29.5	1295	4200	-	-	-	-
61×1.5	13.3	0.7	1.7	30.4	1390	4575	-	-	-	-

7 cores and more, 2.5 and 4 mm² (black, numbered)

Cores × mm ²	Cond. R @20°C (Ω/km)	Insul. (mm)	Sheath (mm)	Overall Ø (mm)	Weight (kg/km)	Max. pull (N)	In air 40 °C (A)	Ground 25 °C (A)	Volt. drop cosφ 0.8 (V/A·km)	Volt. drop cosφ 1 (V/A·km)
7×2.5	7.98	0.7	1.25	12.7	280	875	-	-	-	-
8×2.5	7.98	0.7	1.25	14.2	330	1000	-	-	-	-
10×2.5	7.98	0.7	1.3	16.2	425	1250	-	-	-	-
12×2.5	7.98	0.7	1.4	16.9	480	1500	-	-	-	-
14×2.5	7.98	0.7	1.4	17.8	535	1750	-	-	-	-
16×2.5	7.98	0.7	1.4	18.8	600	2000	-	-	-	-
19×2.5	7.98	0.7	1.4	19.8	685	2375	-	-	-	-
21×2.5	7.98	0.7	1.5	21.5	785	2625	-	-	-	-
24×2.5	7.98	0.7	1.5	23.4	920	3000	-	-	-	-
27×2.5	7.98	0.7	1.5	23.9	980	3375	-	-	-	-
30×2.5	7.98	0.7	1.6	25.0	1075	3750	-	-	-	-
33×2.5	7.98	0.7	1.6	26.0	1165	4125	-	-	-	-
37×2.5	7.98	0.7	1.6	27.0	1280	4625	-	-	-	-
40×2.5	7.98	0.7	1.6	28.5	1405	5000	-	-	-	-
44×2.5	7.98	0.7	1.7	30.6	1595	5500	-	-	-	-
48×2.5	7.98	0.7	1.7	31.1	1680	6000	-	-	-	-
52×2.5	7.98	0.7	1.7	32.0	1785	6500	-	-	-	-
56×2.5	7.98	0.7	1.7	33.0	1900	7000	-	-	-	-
61×2.5	7.98	0.7	1.8	34.2	2060	7625	-	-	-	-
7×4	4.95	0.7	1.25	14.2	385	1400	-	-	-	-
8×4	4.95	0.7	1.25	16.0	460	1600	-	-	-	-
10×4	4.95	0.7	1.4	18.4	600	2000	-	-	-	-
12×4	4.95	0.7	1.4	19.0	670	2400	-	-	-	-

Dimensions and weights are approximate manufacturer values, subject to small production variations. Conductor resistances are the IEC 60228 class 5 maxima at 20 °C. All values are indicative and non-binding.