POWERFLEX

RV-K 0,6/1kV

The flexible universal cable for power transmission

a Applications

This cable for energy distribution is suitable for all types of low voltage industrial-type connections, in urban grids, building installations, etc. Its high flexibility makes the installation process substantially easier and as a result is particularly suitable for use in difficult layouts. It can be buried or installed in a tube as well as outdoors without requiring additional protection. Lastly, the Powerflex RV-K cable can withstand damp conditions including total immersion in water.

b Characteristics

1.- Excellent flexibility: The use of flexible copper conductors and special PVC compounds makes this cable highly flexible.

2.- Great power: The cross linked polyethylene insulation (XLPE) allows greater power transmission as well as a higher resistance to overloads. Additionally, it raises the maximum conductor temperature to 90º C (vs. 70º C in type NYY or VV cables).

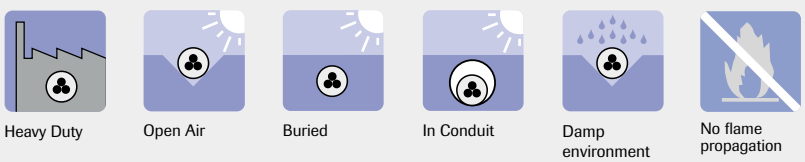
3.- Lower installation costs: The use of flexible cable noticeably speeds up the installation which in many cases means lower installation costs.

4.- Fire proof properties: The No flame propagation properties of the Powerflex RV-K cable contributes towards improving the overall safety of the installation.

5.- Protection: The special PVC mix outer sheath provides a high level of protection against hydrocarbon and mineral oils.

6.- Versatility. The Powerflex RV-K's design permits it to be installed in almost all types of environments: outdoors, buried, in humid environments and even submerged in water.

Applications



C Technical data

The table shows diameter, weight, current-carrying capacity and voltage drop detailed for each cable. Current-carrying capacities shown in the table are calculated according to IEC 60364 and for the following conditions:

- Open air installation: it is supposed an installation which allows effective air renewal with ambient temperature of 30 °C (reference method F for single core and E for multi core cables).

- Buried installation: cable in a duct buried at 70 cm depth, with ground thermal resistivity of 2,5 °K·m/W and ground temperature of 20 °C (reference method D).

- For cables with 2 conductors and for cables with 3 conductors up to 10 mm^2 it is supposed a single-phase circuit. A three-phase circuit it is supposed for all other cables.

Voltage drop, is the maximum that may occur. It is calculated to the maximum conductor temperature and for cos ϕ= 1.

Environmental conditions

No flame propagation : IEC 60332-1 EN 50265

Impact resistance : AG 2 Medium impact

Outdoor installation: permanent

Water resistance : AD 7 Immersion

Chemical & oil attack resistance: good

Top Cable

Dimensions

Cross-section mm²	Diameter ϕ mm	Weight kg/km	Open air at 30°C A	Buried at 20°C A	Voltage drop V/A km
1 x 1,5	5,7	41	21	22	29,5
1 x 2,5	6,2	53	29	29	17,7
1 x 4	6,7	69	40	37	11,0
1 x 6	7,2	89	53	46	7,32
1 x 10	8,2	134	74	61	4,23
1 x 16	9,3	193	101	79	2,68
1 x 25	10,9	284	135	101	1,73
1 x 35	12,1	377	169	122	1,23
1 x 50	13,8	522	207	144	0,860
1 x 70	15,9	721	268	178	0,603
1 x 95	17,6	913	328	211	0,457
1 x 120	19,5	1.156	383	240	0,357
1 x 150	21,7	1.450	444	271	0,286
1 x 185	23,9	1.745	510	304	0,235
1 x 240	26,9	2.285	607	351	0,178
1 x 300	29,6	2.844	703	396	0,142
1 x 400	33,8	3.726	823	464	0,108
1 x 500	37,4	4.728	946	525	0,085
1 x 630	42,7	6.088	1088	596	0,064
2 x 1,5	8,4	91	26	26	34,0
2 x 2,5	9,5	121	36	34	20,4
2 x 4	10,6	162	49	44	12,7
2 x 6	11,4	208	63	56	8,45
2 x 10	14,4	346	86	73	4,89
2 x 16	16,6	512	115	95	3,10
3 x 1,5	9	108	26	26	34,0
3 x 2,5	10	145	36	34	20,4
3 x 4	11,1	196	49	44	12,7
3 x 6	12,3	262	63	56	8,45
3 x 10	15,2	434	86	73	4,89
3 x 16	17,6	645	100	79	2,68
3 x 25	21,1	972	127	101	1,73
3 x 35	24,1	1.306	158	122	1,23
3 x 50	27,8	1.822	192	144	0,860
3 x 70	30,8	2.464	246	178	0,603
3 x 10/6	15,7	520	75	61	4,23
3 x 16/10	18,7	749	100	79	2,68
3 x 25/16	22,1	1.112	127	101	1,73
3 x 35/16	24,6	1.425	158	122	1,23
3 x 50/25	29,1	2.045	192	144	0,860
3 x 70/35	33,8	2.832	246	178	0,603
3 x 95/50	37,7	3.628	298	211	0,457
3 x 120/70	42,9	4.706	346	240	0,357
3 x 150/70	46,8	5747	399	271	0,286
3 x 185/95	53,5	7.174	456	304	0,235
3 x 240/120	60,4	9.300	538	351	0,178
4 x 1,5	9,6	128	23	22	29,5
4 x 2,5	10,8	174	32	29	17,7
4 x 4	12,1	241	42	37	11,0
4 x 6	13,3	322	54	46	7,32
4 x 10	16,5	537	75	61	4,23
4 x 16	19,6	817	100	79	2,68
4 x 25	23,1	1.201	127	101	1,73
4 x 35	26,1	1.642	158	122	1,23
4 x 50	31,3	2.327	192	144	0,860
4 x 70	36,1	3.206	246	178	0,603
4 x 95	40,4	4.092	298	211	0,457
4 x 120	45,4	5.227	346	240	0,357
4 x 150	50,4	6.600	399	271	0,286
4 x 185	56,1	8.026	456	304	0,235
4 x 240	63,1	10.491	538	351	0,178
5 x 1,5	10,7	153	23	22	29,5
5 x 2,5	11,9	210	32	29	17,7
5 x 4	13,3	291	42	37	11,0
5 x 6	14,7	393	54	46	7,32
5 x 10	18,0	654	75	61	4,23
5 x 16	21,6	1.013	100	79	2,68
5 x 25	25,6	1.506	127	101	1,73
5 x 35	29,1	2.040	158	122	1,23
5 x 50	34,5	2.895	192	144	0,860

Design

- **Conductor:** Flexible electrolytic annealed copper conductor, class 5 according to IEC 60228.

- **Insulation:** XLPE insulation, tipe DIX 3 according to HD 603. The standard identification as per HD 308 is by colours.

- **Outer sheath:** Flexible PVC outer sheath, type DMV 18 according to HD 603. The special PVC compound provide excellent resistance to chemical corrosion and water absorption.

Characteristics

According to IEC 60502


Flexible conductor class 5


Rated Voltage: 0,6/1 kV


Maximum service temperature 90ºC


Minimum bending radius: 5 x ϕ cable

Meter by meter marking