RV-K - IEC 60502-1 Class 5 Copper XLPE PVC Cable 1.5mm² to 240mm²



Description

RV-K cable is a low voltage power distribution cable with a rating of 600/1000V. It is made in accordance with IEC 60502-1 and AENOR Spanish standard UNE 21123-2.

The high flexibility of the RV-K Cable with its Class 5 Copper conductors makes cable it suitable for complex routes as are found in Datacentres and renewables installations. It can be buried or installed in conduit as well as outdoors without requiring additional protection as allowable by various local regulations.

The outer sheath of the RV-K cable is flame retardant PVC in accordance with EN 60332-1 and the XLPE insulation provides an operating temperature range of -15oC to +90oC. RV-K is compliant to CPR. The RV-K cable is rated AD8 for water resistance, permitting permanent submersion to 5m depth. It is also available as a flexible LSZH cable in our RZ-1 range

Key Features

Voltage Rating
AC: 0.6/1 (1.2)kV
DC: 0.9/1.8kV

Minimum Bending Radius
5 x Overall Diameter

Flame Retardancy
BS EN/IEC 60332-1-2

Temperature Limits
Temperature Range: -15°C to +90°C

Core Colours

2 core - Blue, Brown

3 core - Brown, Blue, Green Yellow

4 core - Brown, Blue, Grey, Green Yellow

5 core - Brown, Black, Grey, Blue, Green Yellow

6 core and above - Black with White numbers plus Green Yellow

Standards

- UNE 211605
- BS EN/IEC 60332-1-2
- BS EN/IEC 60228
- UNE 21123-2
- AENOR
- AD8 water resistance
- IEC 60502-1

Construction

- **Conductor**: Class 5 Flexible stranded copper
- **Insulation**: Cross Linked polyethylene (XLPE)
- **Outer Sheath**: UV resistant Polyvinyl Chloride compound (PVC)

Training & Testing Lab

AN ISO/IEC 17025 ACCREDITED FACILITY

Cleveland Cable Test & Training Lab
Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing.

ISO/IEC 17025 Accredited Testing Laboratory

CPR
Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.

Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.

ecovadis
Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

RV-K - IEC 60502-1 Class 5 Copper XLPE PVC Cable 1.5mm² to 240mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Minimum Bending Radius	Overall Diameter(mm)	Weight(Kg/Km)
RVKCU1KV1X1/5	1.5	1	29	5.8	45
RVKCU1KV1X2/5	2.5	1	32	6.3	57
RVKCU1KV1X4	4	1	34	6.8	75
RVKCU1KV1X6	6	1	37.5	7.5	95
RVKCU1KV1X10	10	1	43	8.5	144
RVKCU1KV1X16	16	1	47	9.4	200
RVKCU1KV1X25	25	1	55.0	11.0	295
RVKCU1KV1X35	35	1	60.0	12.0	390
RVKCU1KV1X50	50	1	68	13.5	5.5
RVKCU1KV1X70	70	1	78	15.5	703
RVKCU1KV1X95	95	1	85	17.0	925
RVKCU1KV1X120	120	1	97	19.4	1138
RVKCU1KV1X150	150	1	105	21.0	1430
RVKCU1KV1X185	185	1	115	23.0	1745
RVKCU1KV1X240	240	1	130	26.0	2266
RVKCU1KV1X300	300	1	145	29.0	2840
RVKCU1KV1X400	400	1	175	35.0	3625
RVKCU1KV1X500	500	1	190	38.0	4870

Multi core non-armoured 90 °C and 180°C thermosetting insulated flexible cables with sheath Reproduced from BS7671:2018 Wiring Regulations

TABLE 4F2A

CURRENT-CARRYING CAPACITY (Amps)

Ambient temperature: 30 °C
Conductor operating temperature: 90 °C

Conductor cross sectional area	Single-phase AC or DC	Three-phase AC	Single-phase AC or DC
	1 x 2 core cable, with or without protective conductor	1 x 3 core, 4 core or 5 core cable	2 single-core cables, touching
(mm^2)	(A)	(A)	(A)
4	42	37	-
6	55	49	-
10	76	66	-
16	103	89	-
25	136	119	-
35	-	146	200
50	-	177	250
70	-	225	310
95	-	273	369
120	-	316	432
150	-	363	497
185	-	414	564
240	-	487	673
300	-	560	773
400	-	-	924
500	-	-	1062
630	-	-	1242

NOTES:

1 The current ratings tabulated are for cables in free air but may also be used for cables resting on a surface. If the cable is to be wound on a drum on load the ratings should be reduced in accordance with ***NOTE 2*** below and for cables which may be covered, ***NOTE 3 below.***

2 **Flexible cables wound on reeling drums**
The current ratings of cables used on reeling drums are to be reduced by the following factors:

a) Radial type drum
ventilated: 85 %
unventilated: 75 %

b) Ventilated cylindrical type drum
I layer of cable: 85 %
2 layers of cable: 65 %
3 layers of cable: 45 %
4 layers of cable: 35 %

A radial type drum is one where spiral layers of cable are accommodated between closely spaced flanges; if fitted with solid flanges the ratings given above should be reduced and the drum is described as non-ventilated. If the flanges have suitable apertures the drum is described as ventilated.

A ventilated cylindrical cable drum is one where layers of cable are accommodated between widely spaced flanges and the drum and end flanges have suitable ventilating apertures.

3 Where cable may be covered over or coiled up whilst on load, or the air movement over the cable restricted, the current rating should be reduced.

It is not possible to specify the amount of reduction but the table of rating factors for reeling drums can be used as a guide.

4 For 180 °C cables, the rating factors for ambient temperature allow a conductor operating temperature up to 150 °C.
Consult the cable manufacturer for further information.

5 Where it is intended to connect the cables in this table to equipment or accessories designed to operate at a temperature lower than the maximum operating temperature of the cable, the cables should be rated at the maximum operating temperature of the equipment or accessory (see Regulation 512.1.5).

6 Where it is intended to group a cable in this table with other cables, the cable should be rated at the lowest of the maximum operating temperatures of any of the cables in the group (see Regulation 512.1.5).

TABLE 4F2B

VOLTAGE DROP (per ampere per metre):

Conductor operating temperature: 90 °C

Conductor cross-sectional area	Two-core cable or 2 x Single core cables DC	2 core cable, single-phase AC			1 x 3 core, 4 core or 5 core cable, three-phase AC			2 single-core cables, touching Single-phase AC*		
(mm^2)	(mV/Nm)	(mV/Nm)			(mV/Nm)			(mV/Nm)		
4	13.20	13.20			11.10			-		
6	8.50	8.50			7.40			-		
10	5.10	5.10			4.40			-		
16	3.20	3.20			2.70			-		
		r	x	z	r	x	z	r	x	z
25	2.03	2.03	0.175	2.04	1.73	0.150	1.73	-	-	-
35	1.420	-	-	-	1.22	0.150	1.23	1.44	0.21	1.46
50	1.000	-	-	-	0.91	0.145	0.93	1.00	0.21	1.02
70	0.710	-	-	-	0.62	0.140	0.64	0.71	0.20	0.73
95	0.540	-	-	-	0.47	0.135	0.49	0.54	0.195	0.57
120	0.420	-	-	-	0.37	0.135	0.39	0.42	0.190	0.46
150	0.340	-	-	-	0.29	0.130	0.32	0.34	0.190	0.39
185	0.270	-	-	-	0.24	0.130	0.27	0.27	0.190	0.33
240	0.210	-	-	-	0.188	0.130	0.23	0.210	0.185	0.28
300	0.167	-	-	-	0.147	0.125	0.195	0.173	0.180	0.25
400	0.127	-	-	-	-	-	-	0.132	0.175	0.22
500	0.100	-	-	-	-	-	-	0.107	0.170	0.20
630	0.074	-	-	-	-	-	-	0.085	0.170	0.190

NOTES:

1 The voltage drop figures given above are based on a conductor operating temperature of 90 °C and are therefore not accurate when the operating temperature is in excess of 90 C. In the case of the 180 °C cables with a conductor temperature of 150 °C the above resistive values should be increased by a factor of 1.2.

2 *A larger voltage drop will result if the cables are spaced.

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.