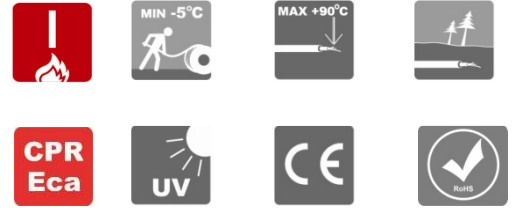


RV-K IF 0,6/1kV

Based on IEC 60502-1



XLPE insulated and PVC sheathed flexible cable



CONSTRUCTION

Conductors:	annealed copper, flexible conductor class 5 acc. to EN 60228
Insulation:	special flexible XLPE compound type DIX-3
Inner covering:	non-vulcanized rubber
Sheath:	special PVC compound type ST ₂ acc. to IEC 60502-1 (DMV18 acc. to HD 603)

CHARACTERISTIC

Colour of sheath:	black or white, UV resistant (ISO 4892-2)
Core identification acc. to HD308:	
with protective conductor (G):	
3-core:	green-yellow, blue, brown
4-core:	green-yellow, brown, black, grey
5-core:	green-yellow, blue, brown, black, grey
Maximum conductor operating temperature:	+90°C
Lowest ambient temperature for fixed installation:	-30°C
Lowest installation temperature:	-5°C
Maximum short-circuit conductor temperature:	+250°C
Test voltage AC 50Hz 5min:	4kV
Minimum bending radius:	8 x D, D – overall diameter
Oil resistant:	IEC 60811-2-1
Cold bending and impact test acc. to HD 603-3J:	-25°C

FIRE PERFORMANCE

▪ Flame retardant:	EN 60332-1-2
▪ CPR – class reaction to fire (acc EN 50575):	Eca

APPLICATIONS

XLPE insulated and PVC sheathed power cables for the supply of electrical energy, in urban grids, building installations, etc. It can be buried or installed in a tube as well as outdoors without additional protection and additionally can withstand damp conditions including total immersion in water.

Standard length cable packing	1000m on drums. Other forms of packing and delivery are available on request
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Number and cross-sectional area of conductor	Maximum diameter of wires in conductor	Approximate overall diameter	Approximate net weight of cables	Maximum conductor resistance at temperature 20°C	Heat of combustion value (gross calorific value)
n x mm ²	mm	mm	kg/km	Ω/km	MJ/m
1x95RF	0,51	18	926	0,206	3,92
1x120RF	0,51	19,2	1158	0,161	4,43
1x50RF	0,51	21,4	1434	0,129	2,59
1x185RF	0,51	24,1	1740	0,106	6,66
1x240RF	0,51	26	2252	0,0801	7,67
3G1,5RF	0,26	10,7	159	13,3	2,16
3G2,5RF	0,26	11,7	203	7,89	2,52
3G4RF	0,31	12,7	260	4,95	2,88
3G6RF	0,31	14	337	3,30	3,35
3G10RF	0,41	15,9	487	1,91	4,14
3G16RF	0,41	18,4	699	1,21	5,11
3G25RF	0,41	21,4	1004	0,780	6,88
3G35RF	0,41	23,6	1324	0,554	7,99
3x35RF+16RF	0,41	24,7	1489	0,554/1,21	9,07
3x50RF+25RF	0,41	29,0	2101	0,386/0,780	11,99
3x70RF+35RF	0,51/0,41	33,6	2923	0,272/0,554	15,70
3x95RF+50RF	0,51/0,41	39	3870	0,206/0,386	20,02
3x120RF+70RF	0,51	42,7	4884	0,161/0,272	23,40
4G1,5RF	0,26	11,4	182	13,3	2,48
4G2,5RF	0,26	12,6	238	7,89	2,92
4G4RF	0,31	13,7	309	4,95	3,35
4G6RF	0,31	15,1	403	3,30	3,89
4G10RF	0,41	17,4	593	1,91	4,82
4G16RF	0,41	20,1	860	1,21	5,94
4G25RF	0,41	23,5	1244	0,780	8,03
4G35RF	0,41	26,0	1681	0,554	9,72
4G50RF	0,41	30,8	2345	0,780	13,00
4G95RF	0,51	41,7	4321	0,206	21,24
4G120RF	0,51	45,1	5414	0,161	25,02
4G150RF	0,51	50,8	6760	0,129	31,61
4G185RF	0,51	57,5	8317	0,106	40,25
4G240RF	0,51	62,0	10581	0,0801	46,48
5G1,5RF	0,26	12,3	213	13,3	2,99
5G2,5RF	0,26	13,6	280	7,89	3,53
5G4RF	0,31	14,9	367	4,95	4,10

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5G6RF	0,31	16,4	482	3,30	4,82
5G10RF	0,41	18,9	715	1,91	6,01
5G16RF	0,41	22	1042	1,21	7,56
5G25RF	0,41	26,2	1517	0,780	10,33
5G35RF	0,41	28,6	2043	0,554	12,06
5G50RF	0,41	34,3	2893	0,554	16,63
5G95RF	0,51	46,6	5339	0,206	27,65
5G120RF	0,51	50	6636	0,161	31,86
5G240RF	0,51	69	13012	0,0801	59,90

Current ratings*

Operating temperature at conductor 90°C; ambient air temperature 30°C, ground temperature 20°

Installation	Single core, two loaded conductors touching	Multicore, directly in ground	Multicore, directly in ground	Single core, two loaded conductors touching	Multicore, clearance to wall not less than 0,3 times cable diameter	Multicore, clearance to wall not less than 0,3 times cable diameter
laying in ground				laying in air		
Cross-section, mm ²	Current ratings in Ampere (A)					
1,5	-	27	23	-	26	23
2,5	-	35	30	-	36	32
4	-	46	39	-	49	42
6	-	58	49	-	63	54
10	-	77	65	-	86	75
16	-	100	84	-	115	100
25	-	129	107	161	149	127
35	-	155	129	200	185	158
50	-	183	153	242	225	192
70	-	225	188	310	289	246
95	-	270	226	377	352	298
120	-	306	257	347	410	346
150	-	343	287	504	473	399
185	-	387	324	575	542	456
240	-	448	375	679	641	538
300	-	502	419	783	741	621
400	-	-	-	940	-	-
500	-	-	-	1083	-	-

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Current ratings for cables – IEC 60364-5-52

Operating temperature at conductor 90°C; ambient air temperature 30°C, ground temperature 20°C

Installation: - in thermally insulated walls - in insulating tubes							Clearance to wall not less than 0,3 times cable diameter	
	2	3	2	3	2	3	2	3
Number of loaded cores								
1,5	18,5	16,5	22	19,5	24	22	26	23
2,5	25	22	30	26	33	30	36	32
4	33	30	40	35	45	40	49	42
6	42	38	51	44	58	52	63	54
10	57	51	69	60	80	71	86	75
16	76	68	91	80	107	96	115	100
25	99	89	119	105	138	119	149	127
35	121	109	146	128	171	147	185	158
50	145	130	175	154	209	179	225	192
70	183	164	221	194	269	229	289	246
95	220	197	265	233	328	278	352	298
120	253	227	305	268	382	322	410	346
150	290	259	334	300	441	371	473	399
185	329	295	384	340	506	424	542	456
240	386	346	459	398	599	500	641	538
300	442	396	532	455	693	576	741	621

Current ratings for cables – IEC 60364-5-52

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RV-K IF 0,6/1kV

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Number of loaded cores	Current ratings in Ampere (A)	
	laying in ground	laying in air
3	31	25
3	41	33
4	53	43

The values are referred to the following basic conditions:

Laying in ground		Laying in air	
Ground temperature at installation depth:	20°C	Ambient temperature:	30°C
Load factor:	0,7	Load factor:	1,0
Soil-thermal resistivity of moist area:	1,0 K · m/W	Arrangement: free in air, protection against direct solar radiation, no external heat sources, unrestricted dissipation of heat.	
Soil-thermal resistivity of dry area:	2,5 K · m/W		
Laying depth:	0,7 m		

Correction factors for various ambient air temperatures

Ambient temperature, °C	10	15	20	25	30	35	40	45	50
Rating factor	1,15	1,12	1,08	1,04	1,00	0,96	0,91	0,87	0,82

Conversion factors for multicore cable (≥ 5 cores)

The conversion factors are to be used for laying the cables in ground or in air, to the values given in above tables

Number of loaded cores	Conversion factors	
	Laying in ground	Laying in air
5	0,70	0,75
7	0,60	0,65
10	0,50	0,55
14	0,45	0,50
19	0,40	0,45
24	0,35	0,40
40	0,30	0,35
61	0,25	0,30

Note: valid for cross-section 1,5 to 10 mm²

* As defined in DIN VDE 0276-603, DIN VDE 0276-627, HD 603 S1, HD 627 S1 and IEC 60364-5-52

Conversion factors for deviating ambient temperature defined in DIN VDE 0298 part 4.

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