



# U-1000 AR2V

Power cable 0,6/1 kV with Al conductors, XLPE insulated and PVC sheathed

## APPLICATION

These cables for energy distribution are suitable for all types of low voltage industrial-type connection, in urban grids, building installations, etc. Particularly suited in cases of high operating temperature and when high resistance to solar radiation and atmospheric agents is required. Good resistance to low temperature and chemical agents. Can be used without additional mechanical protection in the open air, fixed to walls or in raceways, inside walkways, and in empty in Cable Constructions in general. Can be laid underground with mechanical protection constructed from slabs, tiles, or bricks. They are not recommend to lay this cable in ground flooded for more than two months per year. With appropriate mechanical protection it can be use in areas subject to risk of explosion, but in this case the permitted current load is reduced by 15%. It can be used in ambient temperature down to -25°.

## CONSTRUCTION

**Conductors:** Al, class 2 according to EN 60228

**Insulation:** XLPE compound

**Bedding:** Extruded elastomere or plastomere compound

**Sheath:** PVC compound

## CORE IDENTIFICATION

According to HD 308 S2

Insulation Color:

Single-core: ● Green/Yellow OR ● Black

2-core: ● Brown ● Blue

3-core (a): ● Green/Yellow ● Brown ● Blue

3-core (b): ● Black ● Brown ● Grey

4-core (a): ● Green/Yellow ● Brown ● Black ● Grey

4-core (b): ● Blue ● Brown ● Black ● Grey

5-core: ● Green/Yellow ● Blue ● Brown ● Black ● Grey

Outer Sheath Colour:

● Black

*Other colours available on request*

## TECHNICAL CHARACTERISTICS

**Voltage rating (U<sub>0</sub>/U):** 0,6/1 kV

**Testing voltage:** 4 kV

**Min. temp. for cable laying:** -5°C

**Max. working temperature:** 90°C

**Max. short-circuit temperature:** 250°C

**Min. bending radius:** multi-core- 12D  
Single-core – 15D

**CPR class:** Eca

**Water protection:** AD7

## STANDARD

NF C32-321, IEC 60502-1

## CERTIFICATION



Nominal cross-section	Conductor shape	Max. resistance at 20°C	Nom. thickness of insul.	Insulated core thickness	Outer diam. (max..)	Al weight	Cable weight (approx.)
mm <sup>2</sup>		Ω/km	mm	mm	mm	kg/km	kg/km
1x16	RM	1,910	0,7	6,1	8,3	46,4	114
1x25	RM	1,200	0,9	7,6	9,8	72,5	161
1x35	RM	0,868	0,9	8,8	10,9	101,5	202
1x50	RM	0,641	1,0	10	12,4	145,0	266
1x70	RM	0,443	1,1	11,8	14,0	203,0	347
1x95	RM	0,320	1,1	13,6	15,6	275,5	439
1x120	RM	0,253	1,2	15,2	17,4	348,0	547
1x150	RM	0,206	1,4	16,7	19,2	435,0	671
1x185	RM	0,164	1,6	19	21,3	536,5	826
1x240	RE	0,125	1,7	20,3	23,3	696,0	1035
1x240	RM	0,125	1,7	21,3	23,9	696,0	1045
1x300	RM	0,1000	1,8	24,1	26,3	870,0	1280
1x400	RM	0,0778	2,0	26,6	30,0	1160,0	1671
1x500	RM	0,0605	2,2	30,3	33,2	1450,0	2062
1x630	RM	0,0469	2,4	34,1	37,1	1827,0	2581
2x10	RM	3,080	0,7	5,1	16,0	59,2	290
2x16	RM	1,910	0,7	6,1	18,5	94,7	330
2x25	RM	1,200	0,9	7,6	22,0	148,0	520
2x35	RM	0,868	0,9	8,8	24,5	207,2	649
3x10	RM	3,080	0,7	5,1	17,0	88,8	266
3x16	RM	1,910	0,7	6,1	19,5	142,1	410
3x25	RM	1,200	0,9	7,6	23,5	222,0	602
3x35	RM	0,868	0,9	8,8	26,0	310,8	740
3x50	RM	0,641	1,0	10	29,0	444,0	940
3x70	RM	0,443	1,1	11,8	34,0	621,6	1322
3x95	RM	0,320	1,1	13,6	38,5	843,6	1681
3x120	RM	0,253	1,2	15,2	42,5	1065,6	2144
3x150	RM	0,206	1,4	16,7	47,5	1332,0	2622
3x185	RM	0,164	1,6	19	53,0	1642,8	3249
3x240	RM	0,125	1,7	21,3	59,5	2131,2	4154
3x300	RM	0,100	1,8	24,1	66,0	2664,0	5070
3x50+35	RM	0,641	1,0/0,9	10/8,8	28,9	536,5	1096
3x70+50	RM	0,443	1,1/1,0	11,8/10	33,5	754,0	1490
3x95+50	RM	0,320	1,1/1,0	13,6/10	36,6	971,5	1867
3x120+70	RM	0,253	1,2/1,1	15,2/11,8	40,7	1247,0	2313
3x150+70	RM	0,206	1,4/1,1	16,7/11,8	44,6	1508,0	2841
3x185+70	RM	0,164	1,6/1,1	19/11,8	48,4	1812,5	3444
3x240+95	RM	0,125	1,7/1,1	21,3/13,6	54,5	2363,5	4395
4x10	RM	3,080	0,7	5,1	18,5	118,4	370
4x16	RM	1,910	0,7	6,1	21,0	189,4	485
4x25	RM	1,200	0,9	7,6	25,5	296,0	710
4x35	RM	0,868	0,9	8,8	28,5	414,4	890
4x50	RM	0,641	1,0	10	32,5	592,0	1115
4x70	RM	0,443	1,1	11,8	37,5	828,9	1576

Nominal cross-section	Conductor shape	Max. resistance at 20°C	Nom. thickness of insul.	Insulated core thickness	Outer diam. (max.)	Al weight	Cable weight (approx.)
mm <sup>2</sup>		Ω/km	mm	mm	mm	kg/km	kg/km
4x95	RM	0,320	1,1	13,6	42,5	1124,8	2039
4x120	RM	0,253	1,2	15,2	47,5	1420,8	2402
4x150	RM	0,206	1,4	16,7	52,5	1776,0	3010
4x185	RM	0,164	1,6	19	59,0	2190,4	3932
4x240	RM	0,125	1,7	21,3	66,5	2841,6	4901
4x300	RM	0,100	1,8	24,1	73,5	3552,0	6124
5x10	RM	3,080	0,7	5,1	20,0	148,0	366
5x16	RM	1,910	0,7	6,1	23,0	236,8	577
5x25	RM	1,200	0,9	7,6	28,0	370,0	850
5x35	RM	0,868	0,9	8,8	29,4	1680	2236
5x50	RM	0,641	1,0	10	31,6	2400	3116
5x70	RM	0,443	1,1	11,8	36,4	3360	4287
5x95	RM	0,320	1,1	13,6	40,6	4560	5661



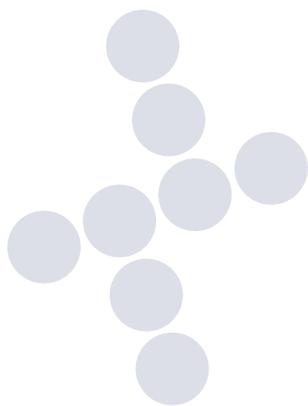
## Current capacities

All current capacities are according to standard NF C15-100-1

- Reference method B1- single-core cables or conductors in pipes on the wall
- Reference method B2- multi-core cables in pipes on the wall

CROSS – SECTION	REFERENCE METHOD B1 (A)		REFERENCE METHOD B2 (A)	
	mm <sup>2</sup>	XLPE 2	XLPE 3	XLPE 2
10	59	52	54	48
16	79	71	72	64
25	105	93	94	84
35	130	116	115	103
50	157	140	138	124
70	200	179	175	156
95	242	217	210	188
120	281	251	242	216
150	307	267	261	240
185	351	300	300	272
240	412	351	358	318
300	471	402	415	364
400	566	-	489	-
500	652	-	564	-
630	755	-	653	-

- XLPE 2 indicates a single-phase or two-phase circuit)
- XLPE 3 indicates a three-phase circuit



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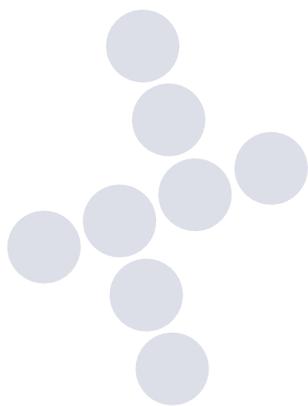
## Current capacities

All current capacities are according to standard NF C15-100-1

- Reference method D1- single-core or multi-core cables in underground duct
- Reference method D2- single-core or multi-core cables directly in the ground

CROSS – SECTION	REFERENCE METHOD D1 (A)				REFERENCE METHOD D2 (A)			
	SOIL RESISTIVITY - 2,5 K.m/W		SOIL RESISTIVITY - 1 K.m/W		SOIL RESISTIVITY - 2,5 K.m/W		SOIL RESISTIVITY - 1 K.m/W	
mm <sup>2</sup>	XLPE 2	XLPE 3	XLPE 2	XLPE 3	XLPE 2	XLPE 3	XLPE 2	XLPE 3
10	55	46	65	54	-	-	-	-
16	71	59	84	70	76	64	114	96
25	90	75	106	89	98	82	147	123
35	108	90	127	106	117	98	176	147
50	128	106	151	125	139	117	209	176
70	158	130	186	153	170	144	255	216
95	186	154	219	182	204	172	306	258
120	211	174	249	205	233	197	350	296
150	238	197	281	232	261	220	392	330
185	267	220	315	260	296	250	444	375
240	307	253	362	299	343	290	515	435
300	346	286	408	337	386	326	579	489

- XLPE 2 indicates a single-phase or two-phase circuit
- XLPE 3 indicates a three-phase circuit



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