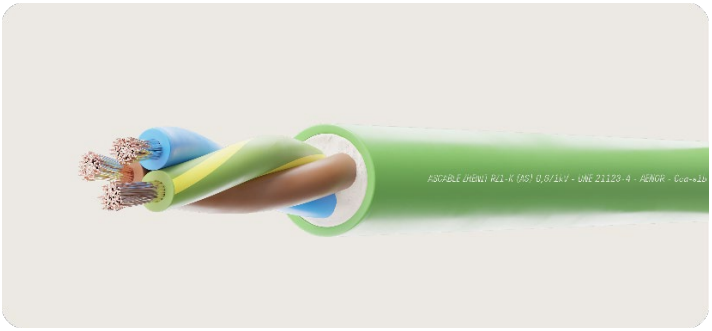

Description

Cables with cross-linked polyethylene insulation and halogen-free polyolefin sheath.

Applicable Standard

UNE 21123-4

Applications

Suitable for electric power transmission and distribution in fixed indoor or outdoor installations and for industrial use. Suitable for installation on open supports, in conduits, or buried. Suitable for installation in high-occupancy premises such as theaters, hospitals, shopping centers, etc., thanks to their low smoke emission and fire non-propagation characteristics.

Construcción

1 Conductor	Flexible bare copper, class 5	a/EN 60228
2 Insulation	Cross linked polyethylene, type DIX-3	
	Identification: 1x: transluced - up to 5c: blue, brown, black, grey, yellow/green - 6c or more: black numbered with yellow/green	
	Assembly: concentric stranded	
3 Bedding	Thermoplastic compound LSZH (optional)	
	Habitual colour: Natural	
4 Sheath	Halogen free compound, type DMZ-E	
	Habitual colour: Verde	
Marked	ASCABLE Zhenit 1000 RZ1-K (AS) 0,6/1kV - UNE 21123-4 - AENOR - Cca-s1b d1	

Technical specifications

Rated voltage Vac (Uo/U):	0,6 / 1 kV	
Rated voltage Vdc (Uo/U):	0,9 / 1,5 kV	
Max. voltage Vac (Um):	1,2 kV	
Max. voltage Vdc (Um):	1,8 kV max. (wire/wire, without grounding)	
Test voltage Vac:	3.500 V	
Maximum temperature:	+90 °C	
Minimum temperature:	-40 °C (fixed and protected installations)	
Maximum short-circuit temperature:	250 °C (max. 5 s)	a/IEC 60724
Water resistance [1]:	AD7	a/IEC 60364-5-51
Water resistance	IPX7	a/EN 60529
Hydrocarbon resistance	O.K.	a/ICEA S-73-532
UV resistant	O.K.	a/UNE 21123-4
CPR class	Cca-s1b, d1, a1	a/EN 50575

(1) **AD7: Immersion**
Possibility of intermittent, partial, or total water coverage.
Environments likely to be flooded, where the equipment with the cable is submerged as follows:

- The lowest part of equipment with a height of less than 0.85 m is located 1 m below the water surface.
- The highest part of equipment with a height equal to or greater than 0.85 m is located 0.15 m below the water surface.

Features front fire

Test	Values	Standard
Flame retardant	O.K.	EN 60332-1-2
Fire retardant	O.K.	EN 50399
Low smoke emission (transmitance > 60%)	O.K.	EN 61034-2
Halogen free (HCl) (<0,5%)	O.K.	EN 60754-1
Corrosivity test	pH ≥ 4,3 / Conductivity ≤ 100 µS/cm	EN 60754-2

Data and dimensions

Dimensions are approximates, subject to small variations due to process. Other sizes are possible on request.

Cross section mm²	Resistance Ω/km a 20°C	Insulation thickness, mm	Sheath mm		Intensity [1] maximum, A		Voltage drop [2] V/Axkm		Pulling force [3] max., N	Weight Kg/km
			thickness	Ø outer	In air	buried	Cos ϕ 0,8	Cos ϕ 1		
1x1,5	13,3	0,7	1,4	7,4	21	21	23,66	29,374	75	70
1x2,5	7,98	0,7	1,4	7,8	30	27	14,25	17,624	125	80
1x4	4,95	0,7	1,4	8,5	40	35	8,887	10,933	200	105
1x6	3,30	0,7	1,4	9,1	52	44	5,964	7,288	300	130
1x10	1,91	0,7	1,4	10,0	72	58	3,495	4,218	500	175
1x16	1,21	0,7	1,4	11,3	97	75	2,238	2,673	800	245
1x25	0,780	0,9	1,4	12,9	122	96	1,487	1,723	1.250	345
1x35	0,554	0,9	1,4	14,3	153	117	1,082	1,223	1.750	455
1x50	0,386	1,0	1,4	15,9	188	138	0,782	0,852	2.500	605
1x70	0,272	1,1	1,5	18,5	243	170	0,576	0,601	3.500	860
1x95	0,206	1,1	1,5	20,2	298	202	0,458	0,456	4.750	1.075
1x120	0,161	1,2	1,6	22,4	350	230	0,377	0,355	6.000	1.360
1x150	0,129	1,4	1,6	24,4	401	260	0,318	0,284	7.500	1.655
1x185	0,106	1,6	1,7	26,8	460	291	0,277	0,234	9.250	2.000
1x240	0,0801	1,7	1,8	30,9	545	336	0,23	0,177	12.000	2.625
1x300	0,0641	1,8	1,9	34,0	630	380	0,201	0,142	15.000	3.305
2x1,5	13,3	0,7	1,25	8,8	23	24	27,371	33,918	150	140
2x2,5	7,98	0,7	1,25	9,6	32	32	16,502	20,35	250	107
2x4	4,95	0,7	1,25	11,9	44	42	10,308	12,624	400	220
2x6	3,30	0,7	1,25	13	57	53	6,931	8,416	600	280
2x10	1,91	0,7	1,4	15,2	78	70	4,082	4,87	1.000	400
2x16	1,21	0,7	1,4	17,5	104	91	2,614	3,086	1.600	575
2x25	0,780	0,9	1,6	21,6	135	116	1,772	1,99	2.500	870
2x35	0,554	0,9	1,6	23,9	168	140	1,304	1,412	3.500	1.140
2x50	0,386	1,0	1,7	27,6	204	166	0,96	0,984	5.000	1.555
2x70	0,272	1.1	1,9	32,4	262	204	0,724	0,694	7.000	2.190
3G1,5	13,3	0,7	1,25	9,3	23	24	27,371	33,918	225	125
3G2,5	7,98	0,7	1,25	10,1	32	32	16,502	20,35	375	160
3G4	4,95	0,7	1,25	12,5	44	42	10,308	12,624	600	260
3G6	3,30	0,7	1,25	13,7	57	53	6,931	8,416	900	335
3G10	1,91	0,7	1,4	16,3	78	70	4,082	4,87	1.500	490

Cross section mm²	Resistance Ω/km a 20°C	Insulation thickness, mm	Sheath mm		Intensity [1] maximum, A		Voltage drop [2] V/Axkm		Pulling force [3] max., N	Weight Kg/km
			thickness	Ø outer	In air	buried	Cos ϕ 0,8	Cos ϕ 1		
3x16	1,21	0,7	1,5	18,7	91	75	2,201	2,673	2.400	710
3x25	0,780	0,9	1,6	22,9	115	96	1,457	1,723	3.750	1.085
3x35	0,554	0,9	1,7	25,8	143	117	1,054	1,223	5.250	1.460
3x50	0,386	1,0	1,8	29,5	174	138	0,757	0,852	7.500	1.975
3x70	0,272	1,1	1,9	35,1	223	170	0,555	0,601	10.500	2.855
3x95	0,206	1.1	2,0	38,4	271	202	0,436	0,456	14.250	3.565
4G1,5	13,3	0,7	1,25	11,4	20	21	23,602	29,374	300	185
4G2,5	7,98	0,7	1,25	12,3	28	27	14,196	17,624	500	235
4G4	4,95	0,7	1,25	13,5	38	35	8,837	10,933	800	305
4G6	3,30	0,7	1,4	15,2	49	44	5,917	7,288	1.200	405
4G10	1,91	0,7	1,4	17,7	68	58	3,455	4,218	2.000	610
4x16	1,21	0,7	1,5	20,8	91	75	2,201	2,673	3.200	905
4x25	0,780	0,9	1,7	25,2	115	96	1,457	1,723	5.000	1.335
4x35	0,554	0,9	1,7	28,2	143	117	1,054	1,223	7.000	1.805
4x50	0,386	1,0	1,9	32,8	174	138	0,757	0,852	10.000	2.485
4x70	0,272	1,1	2,0	38,7	223	170	0,555	0,601	14.000	3.575
5G1,5	13,3	0,7	1,25	12,2	20	21	23,602	29,374	375	210
5G2,5	7,98	0,7	1,25	13,3	28	27	14,196	17,624	625	275
5G4	4,95	0,7	1,4	14,9	38	35	8,837	10,933	1.000	360
5G6	3,30	0,7	1,4	16,6	49	44	5,917	7,288	1.500	490
5G10	1,91	0,7	1,5	19,6	68	58	3,455	4,218	2.500	735
5G16	1,21	0,7	1,6	22,8	91	75	2,201	2,673	4.000	1.075
5G25	0,780	0,9	1,7	27,7	115	96	1,457	1,723	6.250	1.620
5G35	0,554	0,9	1,8	31,0	143	117	1,054	1,223	8.750	2.180
5G50	0,386	1,0	2,0	36,4	174	138	0,757	0,852	12.500	3.030
7x1,5	13,3	0,7	1,25	13,1	11	---	27,371	33,918	525	255
7x2,5	7,98	0,7	1,4	14,6	16	---	16,502	20,35	875	340
7x4	4,95	0,7	1,4	16,3	21	---	10,308	12,624	1.400	460
10x1,5	13,3	0,7	1,4	16,6	10	---	27,371	33,918	750	395
10x2,5	7,98	0,7	1,5	18,4	14	---	16,502	20,35	1.250	525
10x4	4,95	0,7	1,5	20,8	19	---	10,308	12,624	2.000	735
12x2,5	7,98	0,7	1,5	18,9	12	---	16,502	20,35	1.500	575
12x4	4,95	0,7	1,6	21,6	17	---	10,308	12,624	2.400	810
14x2,5	7,98	0,7	1,5	20,2	11	---	16,502	20,35	1.750	650

Other constructions, please consult.

(1) Reference conditions for the calculation of intensity

According to HD 60364-5-52 e IEC 60364-5-52, maximum intensity in air at ambient temperature 40 °C.

Installation method type F	3 loaded conductors trefoil (1x, three-phase)
Installation method type E	2 loaded conductors (2x, 3G monophase)
Installation method type E	3 loaded conductors (3x, 4x, 4G, 5G three-phase)
Installation method type E	2 loaded conductors, with reduction factor according to point 1 table B.52.17 (> 5 cores)

Maximum intensity directly buried (method D2) or under conduit (method D1), thermal resistivity of soil de 2,5 K.m/W and ambient temperature on the ground of 25 °C:

Installation type D/D2	2 loaded conductors (2x, 3G monophase)
Installation type D/D2	3 loaded conductors (3x, 4x, 4G, 5G three-phase)

Other conditions are possible, consult standards HD 60364-5-52 and IEC 60364-5-52

(2) Voltage drop:

Single-phase method	2x, 3G
Three-phase method	1x, 3x, 4x, 4G, 5G three-phase

(3) Calculation for pulling force:

By means of a pulling head on the conductors or by means of a pulling sleeve with a friction connection between the pulling sleeve and the cable conductors, a maximum tensile load value of 50 N/mm² is allowed.
This maximum pulling force takes into account the permitted elongation of 0,2 % for the conductor.

Minimum bending radius

During installation the radius of curvature should never be below the following values:

Ø (*)	Minimum bending radius
Ø < 25	4 Ø
25 ≤ Ø ≤ 50	5 Ø
Ø > 50	6 Ø

(*) Ø = Outside cable diameter

Note: The cable installation temperature must be at least 0°C. This temperature refers to the cables themselves, not the surrounding environment. If the cables are below 0°C, they must be warmed up, for example, by storing them in a heated room for a sufficient time until they reach the appropriate temperature.

Directives / Regulations

RoHS COMPLIANT · CE · L.V.D. · CPR

Certificates

AENOR CABLE ELÉCTRICO
N 042_000961

Certificate of constancy of performance
0099/CPR/B85/0026
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