



TOXFREE ZH Z1C4Z1-K (AS)

1 kV Halogen free (LSZH) screened power cable.

IEC 60502-1 / UNE 21123-4

DESIGN

Conductor

Electrolytic copper, class 5 (flexible), based on

EN 60228 and IEC 60228.

Insulation

Cross-linked polyethylene (XLPE)

The standard identification of insulated conductors is the following:

1 x	Natural
2 x	Blue + Brown
3 G	Blue + Brown + Yellow/green
3 x	Brown + Black + Grey
3 x + 1 x	Brown + Black + Grey + Blue (reduced cross section)
4 G	Brown + Black + Grey + Green/yellow
4 x	Brown + Black + Grey + Blue
5 G	Brown + Black + Grey + Blue + Green/yellow
6 G or more conductors:	Black numbered + Green/yellow

Screen

Coverage of 100% composed by aluminium-polyester tape and tinned copper braid.

Outer sheath

Low Smoke Zero Halogen (LSZH) polyolefin. Green colour(*), non-toxic and fire retardant. The ripcord allows you to gently tear the outer-sheath allowing you to gently peel it away without damaging the screen.

(*) Other outer sheath colours available on request.

APPLICATIONS

Toxfree Z1C4Z1-K is a screened LSZH safety cable. In case of fire, it does not emit toxic or corrosive gases, thereby protecting public health and avoiding any possible damage to electronic equipment. For this reason, its use is highly recommended for public places and for all installations where it is necessary avoid to electric interference of nearby circuits .



C_{ca}-s1a, d1, a1





CHARACTERISTICS



Electrical performance

LOW VOLTAGE 0,6/1kV



Standard

IEC 60502-1



Approvals

CE



C_{ca}-s1a, d1, a1



Thermal performance

Maximum service temperature: 70°C.

Maximum short-circuit temperature: 160°C (max. 5 s)

Minimum service temperature: -40°C (fixed and protected installations).



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.

Fire non-propagation based on UNE-EN 60332-3, IEC 60332-3 and EN 50399.

LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754 and IEC 60754.

Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%

Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.

Reaction to fire CPR: C_{ca}-s1a,d1,a1 according to 50575.



Mechanical performance

Minimum bending radius: x5 cable diameter.

Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Acceptable.

UV Resistant: UNE 211605.



Water performance

Water resistance: AD5 Jets.



Other

Meter by meter marking.



Installation conditions

Open Air.

Buried.

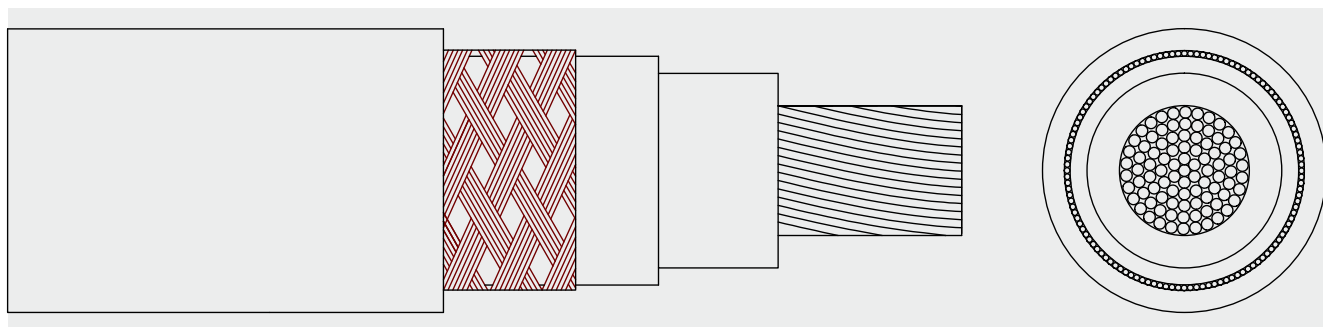
In conduit.



Applications

Industrial use.

Public places.



DIMENSIONS

Cross section (mm ²)	Diameter (mm)	Weight (Kg/km)	Open Air 30°C (A)	Buried 20°C (A)	Voltage drop (V/A · km)
1 x 10	11,2	215	74	61	4,23
1 x 16	12,2	280	101	79	2,68
1 x 25	13,9	390	135	101	1,73
1 x 35	14,8	490	169	122	1,23
1 x 50	16,6	640	207	144	0,86
1 x 70	18,8	865	268	178	0,603
1 x 95	20,4	1.080	328	211	0,457
1 x 120	22,5	1.350	383	240	0,357
1 x 150	24,7	1.650	444	271	0,286
1 x 185	26,8	1.970	510	304	0,235
1 x 240	29,5	2.520	607	351	0,178
1 x 300	32,5	3.120	703	396	0,142
1 x 400	37,2	4.085	823	464	0,108
2 x 1,5	9	100	26	26	34,0
2 x 2,5	9,9	125	36	34	20,4
2 x 4	10,7	160	49	44	12,7
2 x 6	11,8	205	63	56	8,45
2 x 10	13,8	300	86	73	4,89
2 x 16	16,3	440	115	95	3,10
2 x 35	22,5	880	185	146	1,42
3 G 1,5	9,6	120	26	26	34,0
3 G 2,5	11,2	175	36	34	20,4
3 G 4	12	220	49	44	12,7
3 G 6	13,4	290	63	56	8,45
3 G 10	15,7	425	86	73	4,89
3 x 16	17,6	595	100	79	2,68
3 x 25	21,2	875	127	101	1,73
3 x 35	24,4	1.195	158	122	1,23
3 x 50	28,6	1.670	192	144	0,86
3 x 70	33,3	2.305	246	178	0,603

Cross section (mm ²)	Diameter (mm)	Weight (Kg/km)	Open Air 30°C (A)	Buried 20°C (A)	Voltage drop (V/A · km)
4 G 1,5	10,3	145	23	22	29,5
4 G 2,5	11,2	185	32	29	17,7
4 G 4	13,1	275	42	37	11,0
4 G 6	14,8	355	54	46	7,32
4 G 10	17,1	530	75	61	4,23
4 G 16	19,5	755	100	79	2,68
4 G 25	22,5	1.080	127	101	1,73
4 G 35	25,7	1.510	158	122	1,23
4 G 50	30,1	2.040	192	144	0,86
4 G 70	35	2.805	246	178	0,603
4 G 95	40,2	3.745	298	211	0,457
5 G 1,5	11,2	170	23	22	29,5
5 G 2,5	12,7	235	32	29	17,7
5 G 4	14	310	42	37	11,0
5 G 6	16	435	54	46	7,32
5 G 10	18,1	620	75	61	4,23
5 G 16	21,5	930	100	79	2,68
5 G 25	25,7	1.390	127	101	1,73
5 G 35	29,8	1.905	158	122	1,23
7 G 1,5	11,9	210	26	26	33,9
7 G 2,5	13,5	285	36	34	20,4
12 G 1,5	14,6	315	26	26	33,9
12 G 2,5	17,5	455	36	34	20,4
14 G 1,5	16,4	370	26	26	33,9
14 G 2,5	18,4	510	36	34	20,4
19 G 1,5	18,1	465	26	26	33,9
19 G 2,5	20,6	665	36	34	20,4
24 G 1,5	19,8	575	26	26	33,9
24 G 2,5	22,3	815	36	34	20,4

Maximum current capacity according to IEC 60364-5-52.

For other installation conditions, please refer to correction factors in the appendix to this catalogue.

See more technical data on the particular cable specification and on its Declaration of Performance (DoP)

Top Cable reserves the right to carry out any modification to the data sheets whatsoever without giving previous notice.

For more information please contact sales@topcable.com

