



TOXFREE MARINE XTCuZ1-K (AS)

The Marine armoured power cable.

IEC 60092-353

DESIGN

1. Conductor

Electrolytic copper, class 5 (flexible), based on EN 60228.

2. Insulation

LSZH XLPE 90°C.

The standard identification is the following:

1 x	Black
2 x	Blue + Brown
3 x	Brown + Black + Grey
4 x	Blue + Brown + Black + Grey
5 or more conductors	White with black numbers.

3. Armour

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

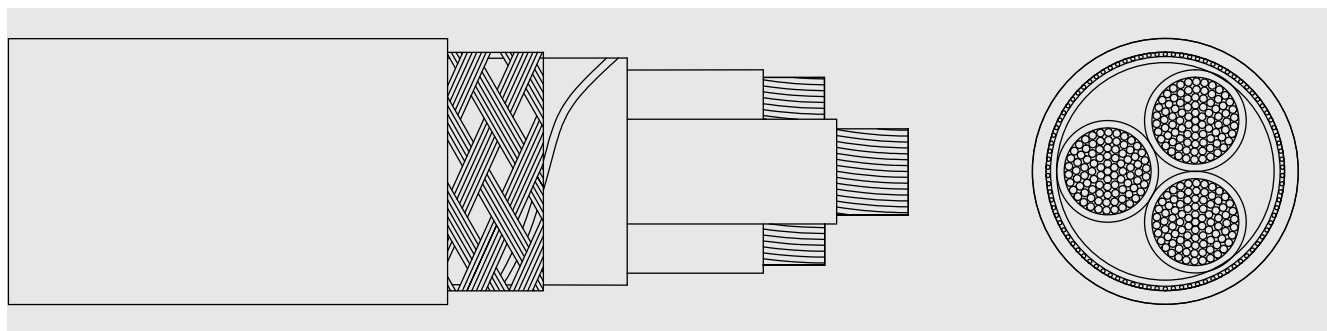
4. Outer sheath

LSZH polyolefin outer sheath SHF1 type. Black colour, non-toxic and fire retardant.

APPLICATIONS

The Toxfree Marine XTCuZ1-K (AS) cable with zero halogen is a 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 recommended in marine applications.





CHARACTERISTICS



Electrical performance

LOW VOLTAGE 0.6/1 kV



Standards

IEC 60092-353 / IEC60502-1



Approvals

DNV-GL
ABS
Bureau Veritas
Lloyd's Register
CE
RoHS



Thermal performance

Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°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 EN 60332-3-22 and IEC 60332-3-22.
LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.
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.



Mechanical performance

Minimum bending radius: x5 cable diameter.
Impact resistance: AG3 High severity.



Chemical performance

Chemical & Oil resistance: Acceptable.



Water performance

Water resistance: AD6 waves.



Other

Metre by metre marking.



Installation conditions

Open Air.
Wall Attached.
On Tray.
In Conduit.



Applications

Marine use.
Public Places.





DIMENSIONS

Cross section (mm ²)	Diameter (mm)	Weight (Kg/km)	Open Air 45°C (A)	Voltage drop (V/A-km)	Conductor resistance at 20°C (Ohm/Km)
1 x 2,5	8,20	108	25	17,70	7,98
1 x 4	8,90	133	35	11,00	4,95
1 x 6	9,50	158	46	7,32	3,30
1 x 10	10,40	209	64	4,23	1,91
1 x 16	11,60	280	88	2,68	1,21
1 x 25	14,00	424	117	1,73	0,78
1 x 35	15,10	532	147	1,23	0,55
1 x 50	17,00	702	180	0,86	0,39
1 x 70	18,70	912	233	0,60	0,27
1 x 95	20,80	1.156	285	0,46	0,21
1 x 120	22,60	1.422	333	0,36	0,16
1 x 150	24,90	1.733	386	0,29	0,13
1 x 185	27,50	2.079	444	0,24	0,11
1 x 240	30,50	2.650	528	0,18	0,08
1 x 300	33,60	3.300	612	0,14	0,06
2 x 1,5	8,70	102	23	34,00	13,30
2 x 2,5	9,50	128	31	20,40	7,98
2 x 4	10,70	166	43	12,70	4,95
2 x 6	11,90	216	55	8,45	3,30
2 x 10	14,40	347	75	4,89	1,91
2 x 16	16,00	470	100	3,10	1,21
3 x 1,5	9,40	125	23	34,00	13,30
3 x 2,5	10,20	160	31	20,40	7,98
3 x 4	11,50	216	43	12,70	4,95
3 x 6	12,70	279	55	8,45	3,30
3 x 10	15,50	455	75	4,89	1,91
3 x 16	17,70	642	87	2,68	1,21
3 x 25	21,40	948	110	1,73	0,78
3 x 35	24,40	1.265	137	1,23	0,55
3 x 50	28,20	1.739	167	0,86	0,39
3 x 70	30,90	2.330	214	0,60	0,27
3 x 95	37,30	3.145	259	0,46	0,21
3 x 120	41,20	3.931	301	0,36	0,16
3 x 150	45,90	4.826	347	0,29	0,13

Cross section (mm ²)	Diameter (mm)	Weight (Kg/km)	Open Air 45°C (A)	Voltage drop (V/A-km)	Conductor resistance at 20°C (Ohm/Km)
3 x 185	51,70	5.870	397	0,24	0,11
3 x 240	58,10	7.573	468	0,18	0,08
4 x 1,5	10,20	150	20	29,50	13,30
4 x 2,5	11,20	198	28	17,70	7,98
4 x 4	12,60	266	37	11,00	4,95
4 x 6	14,60	386	47	7,32	3,30
4 x 10	17,10	575	65	4,23	1,91
4 x 16	19,80	822	87	2,68	1,21
4 x 25	24,00	1.219	110	1,73	0,78
4 x 35	26,30	1.616	137	1,23	0,55
4 x 50	31,70	2.252	167	0,86	0,39
4 x 70	36,60	3.152	214	0,60	0,27
4 x 95	41,50	4.086	259	0,46	0,21
4 x 120	45,60	5.093	301	0,36	0,16
4 x 150	51,00	6.326	347	0,29	0,13
4 x 185	57,40	7.696	397	0,24	0,11
4 x 240	64,50	9.945	468	0,18	0,08
5 x 1,5	10,90	177	20	29,50	13,30
5 x 2,5	12,30	239	28	17,70	7,98
5 x 4	14,40	358	37	11,00	4,95
5 x 6	15,90	467	47	7,32	3,30
5 x 10	18,60	700	65	4,23	1,91
5 x 16	21,70	1.010	87	2,68	1,21
7 x 1,5	11,90	219	11	29,50	13,30
7 x 2,5	14,00	332	15	17,70	7,98
10 x 1,5	14,50	326	10	29,50	13,30
12 x 1,5	15,20	369	9	29,50	13,30
12 x 2,5	18,10	518	12	17,70	7,98
14 x 1,5	16,20	416	9	29,50	13,30
16 x 1,5	17,50	474	8	29,50	13,30
19 x 1,5	18,20	529	8	29,50	13,30
19 x 2,5	21,10	743	11	17,70	7,98
24 x 1,5	20,40	648	7	29,50	13,30
27 x 1,5	21,60	716	7	29,50	13,30
27 x 2,5	25,40	1.023	9	17,70	7,98