TOXFREE® ZH OUTDOOR
H07Z1-K (AS) type 2 CuSn

Flexible and halogen free earthing connections.

ACCORDING TO: EN 50525-3-31 / UNE 211002

100% Green Energy Cable Production

$B2_{ca}$

APPLICATION

Toxfree® ZH Outdoor H07Z1-K is a LSHF safety cable specially engineered for earthing connections in outdoor installations. The tinned copper and the special UV resistant compound make the cable resistant against corrosion and UV rays' degradation.

CONSTRUCTION

Conductor
Electrolytic annealed tinned copper, class 5 (flexible) according to IEC 60228 and EN 60228.

Insulation
UV resistant polyolefin, type TI7 according to EN 50363-7.
The standard identification of insulated conductors is the following:
Green/Yellow RAL 6018/1021
Other colours available on request.

CHARACTERISTICS

Electrical performance
Low voltage: 450/750 V.

Thermal performance
Maximum conductor 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 according to EN 60332-1 / IEC 60332-1.
Fire non-propagation according to EN 60332-3-24 / IEC 60332-3-24 and EN 50399.
Reaction to fire CPR: $B2_{ca}$-s1a, d1, a1, according to EN 50575.
Low Smoke Halogen-Free according to EN 60754-1 / IEC 60754-1.
Low corrosive gases emission according to EN 60754-2 / IEC 60754-2.
Low smoke emission according to EN 61034 / IEC 61034:
Light transmittance > 80%.

Mechanical performance
Minimum bending radius: 5x cable diameter.

Environmental performance
Chemical & Oil resistance: Excellent.
Grease & mineral oils resistance: Excellent.
UV Resistant according to EN 50618.
Ozone resistant according to EN 50618.

STANDARDS / COMPLIANCE

According to
EN 50525-3-31 / UNE 211002

Standards and approvals
HAR / AENOR / BUREAU VERITAS / RoHS / CE

CPR (Construction Products Regulation)
$B2_{ca}$-s1a, d1, a1

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DIMENSIONS & ADMISSIBLE INTENSITIES

Cross-section (mm^2)	Diameter (mm)	Weight (kg/km)	In conduit 2 cond. (A) [1]	In conduit 3 cond. (A) [1]	Voltage drop (V/A · km) [2]
1 x 4	4,1	45	32	28	12,2
1 x 6	4,7	65	41	36	8,11
1 x 10	6,0	105	57	50	4,66
1 x 16	7,0	160	76	68	2,97
1 x 25	8,8	250	101	89	1,90
1 x 35	9,9	335	125	110	1,35
1 x 50	11,7	480	151	134	0,94
1 x 70	13,2	660	192	171	0,66

[1] Reference method B1 for two and three loaded conductors installed in conduit on a wall according to IEC60364-5-52 in open air at 30°C ambient temperature.
[2] At 70°C conductor temperature, cos φ= 1 and single-phase circuit.

SHORT-CIRCUIT CURRENT-CARRYING CAPACITIES

Time (s)	0,1	0,2	0,3	0,5	1	1,5	2	2,5	3
A/mm^2	364	257	210	163	115	94	81	73	66

CORRECTION FACTORS FOR AIR TEMPERATURE

Air T. (°C)	20	25	30	35	40	45	50	55	60
Factor	1,12	1,06	1	0,94	0,87	0,79	0,71	0,61	0,50