

TOXFREE® ZH H05Z-K & H07Z-K

Flexible and halogen free 90°C cable for
electrical panel wiring.

ACCORDING TO: EN 50525-3-41

D_{ca}

TOP CABLE TOXFREE H07Z-K

APPLICATION

Toxfree® ZH H05Z-K & H07Z-K is a flexible cable for fixed and protected installations.

It is highly recommended for use in public places such as: hospitals, schools, museums, airports, bus terminals, shopping malls, offices, laboratories, etc.

Not suitable for wet places or immersed.

- Domestic use.
- Public places.
- Electrical panel wiring.

CONSTRUCTION

Conductor

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

Insulation

Halogen free thermosetting flexible compound EI5 according to EN 50363-5.

The standard identification of insulated conductors is the following:

Blue	RAL 5015
Brown	RAL 8003
Black	RAL 9005
Red	RAL 3000
Green/Yellow	RAL 6018/1021
Grey	RAL 7000
White	RAL 9010

Other colours available on request.

CHARACTERISTICS



Electrical performance

Low voltage: 300/500 V.

450/750 V.

Rated Voltage:

H05Z-K (up to 1 mm²): 300/500 V.

H07Z-K (from 1,5 mm² onwards): 450/750 V.



Thermal performance

Maximum conductor 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 according to EN 60332-1 / IEC 60332-1.
Reaction to fire CPR: D_{ca}-s1b, d1, a1 according to EN 50575 (see cross-section).

Low Smoke Zero Halogen 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 > 60%.



Mechanical performance

Minimum bending radius: 5x cable diameter.



Environmental performance

Chemical & Oil resistance: Acceptable.



Installation conditions

In conduit.

STANDARDS / COMPLIANCE



According to
EN 50525-3-41



Standards and approvals
HAR / AENOR / RoHS / CE



CPR (Construction Products Regulation)
D_{ca}-s1b, d1, a1 (according to cross-section)



DIMENSIONS & ADMISSIBLE INTENSITIES



Cross-section (mm²)	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 1	2,4	13	-	-	49,7
1 x 1,5	2,9	20	23	20	33,9
1 x 2,5	3,6	30	31	28	20,3
1x4	4,1	45	42	37	12,6
1x6	4,7	60	54	48	8,41
1 x 10	6,0	105	75	66	4,87
1 x 16	7,0	160	100	88	3,08
1 x 25	8,8	245	133	117	1,99
1 x 35	9,9	340	164	144	1,41
1 x 50	11,8	470	198	175	0,984
1 x 70	13,2	650	253	222	0,693
1 x 95	15,4	860	306	269	0,525
1 x 120	16,9	1.080	354	312	0,410
1 x 150	19,0	1.345	393	342	0,328
1 x 185	21,1	1.640	449	384	0,270
1 x 240	23,9	2.165	528	450	0,204
1 x 300 *	26,9	2.690	603	514	0,163

* Cable based on EN 50525-3-41.

¹ Reference method B1 according to IEC 60364-5-52 in open air at 30°C ambient temperature. Two or three loaded conductors installed in conduit on a wall.

² At maximum conductor temperature, cosφ=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/mm²	452	320	261	202	143	117	101	90	83

CORRECTIONFACTORS

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