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}

C_{ca}

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 rubber, type 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 mm^2): 300/500 V.
H07Z-K (from 1,5 mm^2 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.
Fire non-propagation according to EN 60332-3 / IEC 60332-3 and EN 50399.
Reaction to fire CPR: D_{ca}-s2,d2,a1 or C_{ca}-s1b,d2,a1 according to EN 50575 (see cross-section).
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 > 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}-s2, d2, a1 or C_{ca}-s1b,d2,a1 (according to cross-section)

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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
1 x 4	4,1	45	42	37	12,6
1 x 6	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 x35	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

CORRECTION FACTORS

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

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