

TOXFREE® XTREM ZH H07ZZ-F (AS)

The extra-flexible LSHF rubber cable for mobile service.

ACCORDING TO: EN 50525-3-21



B2ca

APPLICATION

Toxfree® Xtrem ZH H07ZZ-F (AS) is a flexible cable for mobile service, suitable for installations where low smoke and halogen free fumes under fire conditions are required.

Suitable for installations where the cable must withstand medium mechanical stress, for machines in industrial and agricultural workshops, for motors and transportable machines on construction sites, for windmills and for agricultural applications.

- Industrial use.
- Mobile use.
- Windmills.

CONSTRUCTION

Conductor

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

Insulation

Halogen free thermosetting rubber insulation, type EI8 according to EN 50363-5.








The standard identification according to HD 308, is the following:

| | |
|-----------|--|
| 1 x | Natural |
| 2 x | Blue + Brown |
| 3 G | Blue + Brown + Green/Yellow |
| 4 G | Brown + Black + Grey + Green/Yellow |
| 5 G | Brown + Black + Grey + Blue + Green/Yellow |
| 6 or more | Black numbered + Green/Yellow |

Outer sheath


Halogen free thermosetting flexible rubber outer sheath type EM8, according to EN 50363-6. Black colour.


CHARACTERISTICS

-  **Electrical performance**
Low voltage 450/750 V.
-  **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 according to EN 60332-1 / IEC 60332-1.
Fire non-propagation according to EN 60332-3 / IEC 60332-3.
Reaction to fire CPR: B2ca-slb, d1,a1, according to EN 50575 (see cross-section).
Low smoke emission according to EN 61034 / IEC 61034:
Light transmittance > 60%.
Low corrosive gases emission according to UNE-EN 60754-2 / IEC 60754-2.
-  **Mechanical performance**
Minimum bending radius: 3x cable diameter < 12 mm.
4x cable diameter ≥ 12 mm.
Impact resistance: AG2 Medium severity.
-  **Environmental performance**
Chemical & Oil resistance: excellent.
Grease & mineral oils resistance: excellent.
Water resistance: AD7 immersion.
-  **Installation conditions**
Open Air.
In conduit.
-  **Other**
Meter by meter marking.

STANDARDS / COMPLIANCE

 According to
EN 50525-3-21

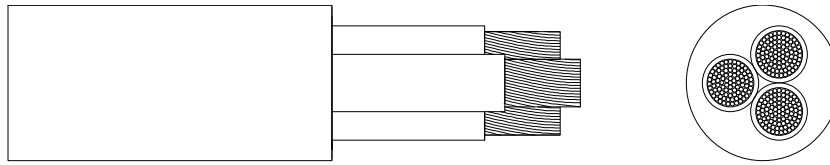
 Standards and approvals
HAR / AENOR / CE

 CPR (Construction Products Regulation)
B2ca-slb, d1,a1. (according to cross-section)



TOXFREE® XTREM ZH H07ZZ-F (AS)

DIMENSIONS & ADMISSIBLE INTENSITIES



| Cross-Section (mm ²) | Diameter (mm) | Weight (kg/km) | Fixed Inst. (A) ¹ | Mobile Service (A) ² | Voltage drop (V/A · km) ³ |
|----------------------------------|---------------|----------------|------------------------------|---------------------------------|--------------------------------------|
| 1 x 6 | 8,2 | 115 | 53 | 38 | 6,63 |
| 1 x 10 | 9,9 | 180 | 74 | 53 | 3,84 |
| 1 x 16 | 11,2 | 255 | 101 | 71 | 2,43 |
| 1 x 25 | 13,1 | 370 | 135 | 94 | 1,57 |
| 1 x 35 | 14,7 | 485 | 169 | 117 | 1,11 |
| 1 x 50 | 17,1 | 670 | 207 | 148 | 0,776 |
| 1 x 70 | 19,2 | 895 | 268 | 185 | 0,546 |
| 1 x 95 | 21,7 | 1.125 | 328 | 222 | 0,414 |
| 1 x 120 | 23,8 | 1.425 | 383 | 260 | 0,320 |
| 1 x 150 | 26,2 | 1.770 | 444 | 300 | 0,259 |
| 1 x 185 | 28,8 | 2.130 | 510 | 341 | 0,213 |
| 1 x 240 | 32,0 | 2.735 | 607 | 407 | 0,161 |
| 1 x 300 | 34,9 | 3.360 | 703 | 468 | 0,129 |
| 1 x 630 | 48,8 | 7.055 | 1.088 | 742 | 0,057 |
| 2 x 1 | 8,3 | 95 | 21 | 10 | 45,2 |
| 2 x 1,5 | 8,7 | 110 | 26 | 16 | 31,9 |
| 2 x 2,5 | 10,4 | 160 | 36 | 25 | 18,5 |
| 2 x 4 | 12,0 | 220 | 49 | 34 | 11,5 |
| 2 x 6 | 13,5 | 290 | 63 | 43 | 7,66 |
| 2 x 10 | 17,8 | 505 | 86 | 60 | 4,43 |
| 2 x 16 | 21,4 | 730 | 115 | 79 | 2,81 |
| 2 x 25 | 25,5 | 1.060 | 149 | 105 | 1,81 |
| 3 G 1 | 8,8 | 110 | 21 | 10 | 45,2 |
| 3 G 1,5 | 9,7 | 140 | 26 | 16 | 30,9 |
| 3 G 2,5 | 11,4 | 200 | 36 | 25 | 18,5 |
| 3 G 4 | 13,0 | 275 | 49 | 35 | 11,5 |
| 3 G 6 | 14,3 | 352 | 63 | 44 | 7,66 |
| 3 G 10 | 19,8 | 650 | 86 | 62 | 4,43 |
| 3 G 16 | 22,4 | 895 | 115 | 82 | 2,81 |
| 3 G 25 | 26,8 | 1.305 | 149 | 109 | 1,81 |
| 3 G 35 | 29,7 | 1.700 | 185 | 135 | 1,29 |
| 3 G 50 | 35,4 | 2.395 | 225 | 169 | 0,896 |
| 3 G 70 | 39,6 | 3.155 | 289 | 211 | 0,631 |
| 4 G 1 | 9,7 | 135 | 17 | 10 | 39,2 |
| 4 G 1,5 | 10,6 | 170 | 23 | 16 | 26,7 |
| 4 G 2,5 | 12,6 | 245 | 32 | 20 | 16,0 |
| 4 G 4 | 14,5 | 340 | 42 | 30 | 9,95 |
| 4 G 6 | 16,3 | 460 | 54 | 37 | 6,63 |
| 4 G 10 | 21,3 | 790 | 75 | 52 | 3,84 |
| 4 G 16 | 24,3 | 1.105 | 100 | 69 | 2,43 |
| 4 G 25 | 30,2 | 1.685 | 127 | 92 | 1,57 |
| 4 G 35 | 33,3 | 2.180 | 158 | 114 | 1,11 |
| 4 G 50 | 38,6 | 3.020 | 192 | 143 | 0,776 |
| 4 G 70 | 43,1 | 3.995 | 246 | 178 | 0,546 |
| 4 G 95 | 50,5 | 5.260 | 298 | 210 | 0,414 |
| 5 G 1 | 10,5 | 160 | 17 | 10 | 39,2 |
| 5 G 1,5 | 11,6 | 205 | 23 | 16 | 26,7 |
| 5 G 2,5 | 13,9 | 295 | 32 | 20 | 16,0 |
| 5 G 4 | 16,3 | 435 | 42 | 30 | 9,95 |
| 5 G 6 | 17,9 | 555 | 54 | 38 | 6,63 |
| 5 G 10 | 23,6 | 975 | 75 | 54 | 3,84 |
| 5 G 16 | 27,3 | 1.380 | 100 | 71 | 2,43 |
| 5 G 25 | 33,0 | 2.055 | 127 | 94 | 1,57 |
| 5 G 35 | 35,8 | 2.640 | 158 | 114 | 1,11 |

¹Reference method F for single-core and method E for multicore cables according to IEC60364-5-52 in open air at 30°C ambient temperature.

²One cable in open air at 30°C ambient temperature according to EN 50565.

³At 60°C conductor temperature and cos φ=1.

For cables having 2 or 3 cores, it is supposed a single-phase circuit. For the rest of the cables it is supposed a three-phase circuit.