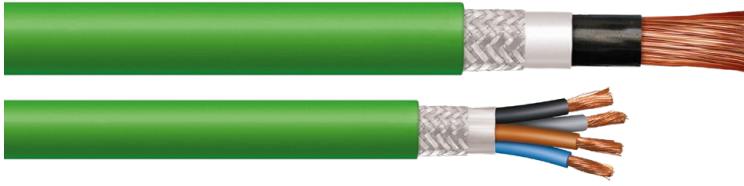
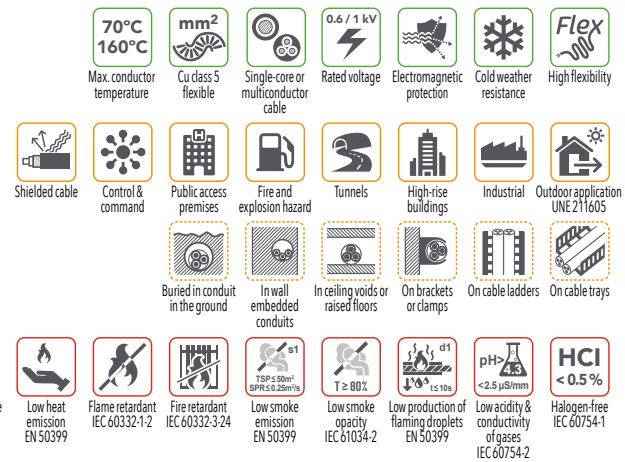


AFIRENAS SHIELD Z1C4Z1-K (AS) 0.6/1 kV

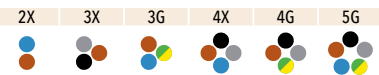
DoP : MC1000Z1C4Z1K. MIGUÉLEZ ARTICLE GROUP 215



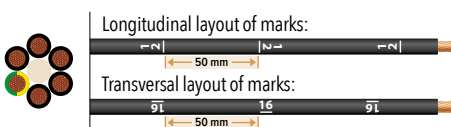
- **Standard (construction/tests):** UNE 211034 and ref. (IEC 60502-1).
- **Technical name:** Z1C4Z1-K (AS) 0.6/1 kV.
- **Construction:**
 - **Conductor:** Copper, class 5 (EN 60228 & IEC 60228).
 - **Insulation:** Thermoplastic polyolefin (HFFR), type T1 7 (EN 50363-7).
Assembly of cores (multicore cables): Cores cabled helically.
 - **Shield:** Al/PET tape + Cu Sn braid
100% shield coverage (Cu Sn braid > 65%). Other shield constructions or materials under request.
 - **Oversheath:** Thermoplastic polyolefin (HFFR), type ST8 (IEC 60502-1) and type DMZ-E (UNE 211034).
- **Rated voltage (Uo/U):** 0.6/1 kV AC.
- **Max. conductor temperature.** Normal operation / short-circuit (t≤5s): 70 °C / 160 °C.
- **Range:** Single-core or multiconductor cable. **Configurations:**
1X(1.5...240) mm² / 2X(1.5...25) mm² / 3X or 3G(1.5...25) mm² / 4X or 4G(1.5...25) mm² / 5G(1.5...25) mm² / (6...23)G1.5 mm² / (6...25)G2.5 mm².
- **Reaction to fire classification (CPR - EN 50575 & EN 13501-6):** Cca-s1a,d1,a1.
- **Other fire performance features (when CPR Regulation is not applicable):** Flame & fire retardant, halogen-free and low gas and smoke emission with low opacity/toxicity/corrosivity/conductivity (IEC 60332-1-2, IEC 60332-3-24, IEC 60754-1, IEC 60754-2 and IEC 61034-2).
- **Applications****:** Shielded cable, specially designed to be used in those installations which require electromagnetic protection and a special performance in case of fire. Especially designed as a power, command or control cable in tunnels, public access premises or locations with fire and explosion hazard. Perfect for protecting nearby signal cables or electronic devices against disturbances and interferences or for protecting itself against external disturbances and interferences. Suitable for indoor and outdoor installations (protected from direct and permanent UV radiation), on supports (brackets, clamps, cable trays or ladders), in conduits or buried in conduit.
 - **Ambient operating temperature (ranges):**
 - Minimum: -30 °C (static - without exposure to movement, mechanical damages, shocks, or vibrations).
 - Maximum: +50 °C.
 - **Minimum temperature for cable laying during installation and assembly of accessories:** 0 °C. Under normal conditions of care. This temperature is valid for the cable itself and not for the environment. If possible, the temperature of the cable shall be raised before laying (e.g., storing the cable in a heated room) in order to facilitate handling and reduce the risk of damages.
 - **Minimum bending radius:** 10 x D. D = overall diameter of the cable in mm. Bending nearby the temperature limits should be carried out extra carefully.
 - **Maximum pulling force:**
 - If the traction force is applied on the copper conductors: **F = 50xS (N)**. "S" = cross sectional area of conductors (mm²).
 - If the traction force is applied on the oversheath: **F = 3xD² (N)**. "D" = overall diameter of the cable (mm).
 It is assumed that the cable route is well designed for the laying procedure with well-established curves and enough cable rollers (if needed). Special attention shall be paid to the required minimum bending radius.



- **Identification:** Oversheath colour → Green.
 - **Core identification for multicore cables (From 2 to 5):** HD 308 S2.



- **Core identification for multiconductor cables (N > 5 cores):** EN 50334 (N-1 numbered black cores + G/Y).



- **Packaging:** Drum/cut to length.

* Short product code. Must be completed with the corresponding characters for 'oversheath colour' and 'packaging'. Check the 'Miguélez product code' section on our web page, in 'Downloads'.
 ** Check the CPR-classified range and the range included in the certifications indicated for each product, as well as much more information about our products, on the website: www.miguellez.com.
 *** Dimensional and weight values are approximate and subject to normal manufacturing tolerances.
 **** It is the sole responsibility of the end user to determine suitability of this product for its intended use and application. Please, consult the regulations, laws or standards that are applicable to each particular case. The installation systems and additional requirements established by any regulation, law and/or standards applicable to each particular case must be met.

| Code* | No. of cores & nominal cross-sectional area | Insulation thickness | Overall diameter | Total weight | Maximum electrical resistance at 20°C (DC) |
|-------------|---|----------------------|------------------|--------------|--|
| | mm ² | mm | mm | kg/km | Ω/km |
| 82150101-50 | 1 X 1.5 | 0.8 | 6.7 | 67 | 13.3 |
| 82150102-50 | 1 X 2.5 | 0.8 | 7.1 | 79 | 7.98 |
| 82150100040 | 1 X 4 | 1.0 | 8.1 | 107 | 4.95 |
| 82150100060 | 1 X 6 | 1.0 | 8.6 | 131 | 3.30 |
| 82150100100 | 1 X 10 | 1.0 | 9.5 | 178 | 1.91 |
| 82150100160 | 1 X 16 | 1.0 | 10.5 | 238 | 1.21 |
| 82150100250 | 1 X 25 | 1.2 | 12.0 | 334 | 0.780 |
| 82150100350 | 1 X 35 | 1.2 | 13.3 | 433 | 0.554 |
| 82150100500 | 1 X 50 | 1.4 | 15.1 | 591 | 0.386 |
| 82150100700 | 1 X 70 | 1.4 | 17.1 | 798 | 0.272 |
| 82150100950 | 1 X 95 | 1.6 | 19.0 | 1033 | 0.206 |
| 82150101200 | 1 X 120 | 1.6 | 20.9 | 1283 | 0.161 |
| 82150101500 | 1 X 150 | 1.8 | 23.0 | 1573 | 0.129 |
| 82150101850 | 1 X 185 | 2.0 | 25.2 | 1903 | 0.106 |
| 82150102400 | 1 X 240 | 2.2 | 28.0 | 2469 | 0.0801 |
| 82150201-50 | 2 X 1.5 | 0.8 | 9.8 | 128 | 13.3 |
| 82150202-50 | 2 X 2.5 | 0.8 | 10.6 | 154 | 7.98 |
| 82150200040 | 2 X 4 | 1.0 | 12.8 | 210 | 4.95 |
| 82150200060 | 2 X 6 | 1.0 | 14.4 | 262 | 3.30 |
| 82150200100 | 2 X 10 | 1.0 | 16.2 | 402 | 1.91 |
| 82150200160 | 2 X 16 | 1.0 | 18.2 | 530 | 1.21 |
| 82150200250 | 2 X 25 | 1.2 | 21.4 | 748 | 0.780 |
| 82150311-50 | 3 G 1.5 | 0.8 | 10.2 | 138 | 13.3 |
| 82150312-50 | 3 G 2.5 | 0.8 | 11.1 | 182 | 7.98 |
| 82150310040 | 3 G 4 | 1.0 | 13.4 | 250 | 4.95 |
| 82150310060 | 3 G 6 | 1.0 | 15.1 | 322 | 3.30 |
| 82150300100 | 3 X 10 | 1.0 | 17.0 | 504 | 1.91 |
| 82150310100 | 3 G 10 | 1.0 | 17.0 | 504 | 1.91 |
| 82150300160 | 3 X 16 | 1.0 | 19.2 | 698 | 1.21 |
| 82150300250 | 3 X 25 | 1.2 | 22.6 | 978 | 0.780 |
| 82150401-50 | 4 X 1.5 | 0.8 | 11.1 | 150 | 13.3 |
| 82150411-50 | 4 G 1.5 | 0.8 | 11.1 | 150 | 13.3 |
| 82150402-50 | 4 X 2.5 | 0.8 | 12.0 | 224 | 7.98 |
| 82150412-50 | 4 G 2.5 | 0.8 | 12.0 | 224 | 7.98 |
| 82150410040 | 4 X 4 | 1.0 | 14.6 | 308 | 4.95 |
| 82150410040 | 4 G 4 | 1.0 | 14.6 | 308 | 4.95 |
| 82150400060 | 4 X 6 | 1.0 | 16.5 | 415 | 3.30 |
| 82150410060 | 4 G 6 | 1.0 | 16.5 | 415 | 3.30 |
| 82150400100 | 4 X 10 | 1.0 | 18.6 | 628 | 1.91 |
| 82150400160 | 4 X 16 | 1.0 | 21.0 | 852 | 1.21 |
| 82150400250 | 4 X 25 | 1.2 | 24.8 | 1288 | 0.780 |

| Code* | No. of cores & nominal cross-sectional area | Insulation thickness | Overall diameter | Total weight | Maximum electrical resistance at 20°C (DC) |
|-------------|---|----------------------|------------------|--------------|--|
| | mm ² | mm | mm | kg/km | Ω/km |
| 82150511-50 | 5 G 1.5 | 0.8 | 12.0 | 192 | 13.3 |
| 82150512-50 | 5 G 2.5 | 0.8 | 13.1 | 255 | 7.98 |
| 82150510040 | 5 G 4 | 1.0 | 16.0 | 268 | 4.95 |
| 82150510060 | 5 G 6 | 1.0 | 17.9 | 482 | 3.30 |
| 82150510100 | 5 G 10 | 1.0 | 20.3 | 750 | 1.91 |
| 82150510160 | 5 G 16 | 1.0 | 23.0 | 1065 | 1.21 |
| 82150510250 | 5 G 25 | 1.2 | 27.3 | 1602 | 0.780 |
| 82150611-50 | 6 G 1.5 | 0.8 | 12.9 | 224 | 13.3 |
| 82150612-50 | 6 G 2.5 | 0.8 | 14.1 | 289 | 7.98 |
| 82150711-50 | 7 G 1.5 | 0.8 | 12.9 | 245 | 13.3 |
| 82150712-50 | 7 G 2.5 | 0.8 | 14.1 | 319 | 7.98 |
| 82150811-50 | 8 G 1.5 | 0.8 | 14.1 | 275 | 13.3 |
| 82150812-50 | 8 G 2.5 | 0.8 | 15.5 | 359 | 7.98 |
| 82150911-50 | 9 G 1.5 | 0.8 | 14.8 | 300 | 13.3 |
| 82150912-50 | 9 G 2.5 | 0.8 | 16.2 | 394 | 7.98 |
| 82151011-50 | 10 G 1.5 | 0.8 | 16.0 | 330 | 13.3 |
| 82151012-50 | 10 G 2.5 | 0.8 | 17.6 | 435 | 7.98 |
| 82151111-50 | 11 G 1.5 | 0.8 | 16.0 | 350 | 13.3 |
| 82151112-50 | 11 G 2.5 | 0.8 | 17.6 | 464 | 7.98 |
| 82151211-50 | 12 G 1.5 | 0.8 | 16.5 | 375 | 13.3 |
| 82151212-50 | 12 G 2.5 | 0.8 | 18.1 | 499 | 7.98 |
| 82151311-50 | 13 G 1.5 | 0.8 | 17.0 | 401 | 13.3 |
| 82151312-50 | 13 G 2.5 | 0.8 | 18.7 | 536 | 7.98 |
| 82151411-50 | 14 G 1.5 | 0.8 | 17.5 | 426 | 13.3 |
| 82151412-50 | 14 G 2.5 | 0.8 | 19.3 | 570 | 7.98 |
| 82151511-50 | 15 G 1.5 | 0.8 | 18.0 | 451 | 13.3 |
| 82151512-50 | 15 G 2.5 | 0.8 | 19.9 | 604 | 7.98 |
| 82151611-50 | 16 G 1.5 | 0.8 | 18.5 | 477 | 13.3 |
| 82151612-50 | 16 G 2.5 | 0.8 | 20.4 | 640 | 7.98 |
| 82151711-50 | 17 G 1.5 | 0.8 | 18.9 | 504 | 13.3 |
| 82151712-50 | 17 G 2.5 | 0.8 | 20.9 | 677 | 7.98 |
| 82151811-50 | 18 G 1.5 | 0.8 | 19.4 | 528 | 13.3 |
| 82151812-50 | 18 G 2.5 | 0.8 | 21.4 | 711 | 7.98 |
| 82151911-50 | 19 G 1.5 | 0.8 | 19.8 | 553 | 13.3 |
| 82151912-50 | 19 G 2.5 | 0.8 | 21.9 | 745 | 7.98 |
| 82152011-50 | 20 G 1.5 | 0.8 | 20.2 | 577 | 13.3 |
| 82152012-50 | 20 G 2.5 | 0.8 | 22.4 | 779 | 7.98 |
| 82152111-50 | 21 G 1.5 | 0.8 | 20.8 | 611 | 13.3 |
| 82152112-50 | 21 G 2.5 | 0.8 | 23.0 | 823 | 7.98 |
| 82152211-50 | 22 G 1.5 | 0.8 | 21.2 | 637 | 13.3 |
| 82152212-50 | 22 G 2.5 | 0.8 | 23.5 | 858 | 7.98 |
| 82152311-50 | 23 G 1.5 | 0.8 | 21.6 | 660 | 13.3 |
| 82152312-50 | 23 G 2.5 | 0.8 | 23.9 | 891 | 7.98 |
| 82152412-50 | 24 G 2.5 | 0.8 | 24.4 | 925 | 7.98 |
| 82152512-50 | 25 G 2.5 | 0.8 | 24.8 | 958 | 7.98 |

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* Short product code. Must be completed with the corresponding characters for 'oversheath colour' and 'packaging'. Check the 'Miguelélez product code' section on our web page, in 'Downloads'.
 ** Check the CPR-classified range and the range included in the certifications indicated for each product, as well as much more information about our products, on the website: www.miguelélez.com
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