



# H1Z2Z2-K

Photovoltaic Solar Cable

## APPLICATION

For free and stationary or for freely suspended outdoor and indoor cabling between the solar modules, or between the module strings and the DC/AC inverter, for example in line with HD 60364-7-712 on PV systems, and EN 50618 on H1Z2Z2-K cable type, etc....; Short circuit and earth fault protected per EN 50618, Annex A, and per HD 60364-5-52 Photovoltaic systems with DC system voltage up to 1800 V to ground. As per EN 50618, Annex A, They are intended for permanent use outdoor and indoor, for free movable, free hanging and fixed installation. Installation also in conduits and trunkings on, in or under plaster as well as in appliances. Suitable for the application in/at equipment with protective insulation (protection class II). AD8: Permanent water contact and submersion down to 1 metre in water depth.

## CONSTRUCTION

Conductors: Tinned copper conductor, class 5  
 Insulation: Halogen-free cross-linked compound  
 Sheath: Halogen-free cross-linked, flame retardant compound, UV resistant acc. to:  
 - ISO 4892-1 - General guidance  
 - ISO 4892-2 - Xenon-arc lamps  
 - ISO 4892-3 - Fluorescent UV lamps

## CORE IDENTIFICATION

Outer Sheath Colour:

● Black OR ● Red

Other colours available on request

## TECHNICAL CHARACTERISTICS

Test voltage: 6,5 kV

Rated voltage: 1/1 kV AC, 1,5/1,5 kV DC

Max. voltage: 1,8 kV

Min. temp. for cable laying: -25°C

Working temperature: -40°C to 90°C

Working temp. of max. 20000h: 120°C

Max. short-circuit temperature: 250°C

Min. bending radius: 4xD

Water Resistant: AD8

Flame retardant: EN 60332-3-24/VDE 0482-266-2-4

Halogen content: EN 60754-1, EN 60754-2

## STANDARD

EN 50618

## CERTIFICATION



| NOMINAL CROSS-SECTION | MAX. RESISTANCE AT 20°C | MAX. RESISTANCE AT 90°C | NOM. THICKNESS OF INSULATION | NOM. THICKNESS OF SHEATH | SINGLE CABLE IN AIR | SINGLE CABLE ON SURFACE | TWO CABLES ADJACENT ON SURFACE | OUTER DIAM. (APPROX.) | CABLE WEIGHT (APPROX.) |
|-----------------------|-------------------------|-------------------------|------------------------------|--------------------------|---------------------|-------------------------|--------------------------------|-----------------------|------------------------|
| mm <sup>2</sup>       | Ω/km                    | Ω/km                    | mm                           | mm                       | A                   | A                       | A                              | mm                    | kg/km                  |
| 1x1,5                 | 13,7                    | 17,468                  | 0,7                          | 0,8                      | 30                  | 29                      | 24                             | 4,6                   | 36                     |
| 1x2,5                 | 8,21                    | 10,468                  | 0,7                          | 0,8                      | 41                  | 39                      | 33                             | 5,0                   | 46                     |
| 1x4                   | 5,09                    | 6,490                   | 0,7                          | 0,8                      | 55                  | 52                      | 44                             | 5,6                   | 62                     |
| 1x6                   | 3,39                    | 4,322                   | 0,7                          | 0,8                      | 70                  | 67                      | 57                             | 6,1                   | 82                     |
| 1x10                  | 1,95                    | 2,486                   | 0,7                          | 0,8                      | 98                  | 93                      | 79                             | 7,1                   | 125                    |
| 1x16                  | 1,24                    | 1,581                   | 0,7                          | 0,9                      | 132                 | 125                     | 107                            | 8,5                   | 190                    |
| 1x25                  | 0,795                   | 1,013                   | 0,9                          | 1,0                      | 176                 | 167                     | 142                            | 10,4                  | 285                    |
| 1x35                  | 0,565                   | 0,720                   | 0,9                          | 1,1                      | 218                 | 207                     | 176                            | 11,5                  | 385                    |
| 1x50                  | 0,393                   | 0,501                   | 1,0                          | 1,2                      | 276                 | 262                     | 221                            | 13,7                  | 540                    |
| 1x70                  | 0,277                   | 0,353                   | 1,1                          | 1,2                      | 347                 | 330                     | 278                            | 15,8                  | 740                    |
| 1x95                  | 0,210                   | 0,267                   | 1,1                          | 1,3                      | 416                 | 395                     | 333                            | 17,3                  | 965                    |
| 1x120                 | 0,164                   | 0,209                   | 1,2                          | 1,3                      | 488                 | 464                     | 390                            | 19,1                  | 1210                   |
| 1x150                 | 0,132                   | 0,168                   | 1,4                          | 1,4                      | 566                 | 538                     | 453                            | 21,4                  | 1495                   |
| 1x185                 | 0,108                   | 0,137                   | 1,6                          | 1,6                      | 644                 | 612                     | 515                            | 24,9                  | 1885                   |
| 1x240                 | 0,082                   | 0,104                   | 1,7                          | 1,7                      | 775                 | 736                     | 620                            | 27,3                  | 2395                   |

