



Flexibility and long service life

# IBC FlexiSun 2.5/4/6/10/16 mm<sup>2</sup> H1Z2Z2-K

Cable for photovoltaic systems



10 year power and  
30 year expected life



Robust



Buriable



100% tested quality



German warrantor

Flexibility in their laying and a particularly long service life – this is what sets IBC FlexiSun cables apart. They are tested for a minimum service life of more than 25 years and meet the latest TÜV and VDE standards. This means zero maintenance over the entire service life of your PV system. Their resistance to ammonia, UV light and ozone is a factor in ensuring this. As a result, the cables can be used both indoors and outdoors in areas where there is a potential for explosions as well as in industrial, commercial and agricultural operations. Another advantage: Flame propagation in cable harnesses and smoke emission values are better than the standard that is required. This is also ensured by internal tests.



• Type approved  
• Production controlled



Made in  
GERMANY

The ideal solution for:



<b>Electrical parameters</b>	
Nominal voltage AC	AC: 1.0/1.0 kV DC: 1.5/1.5 kV
Max. PV system voltage DC	1.5 kV
Max. permitted operating voltage AC	1.2/1.2 kV
Max. permitted operating voltage DC	1.8/1.8 kV
Test voltage AC/DC	6.5 kV/15 kV (test duration 5 min)
Current carrying capacity	According to EN 50618, table A-3
<b>Thermal parameter</b>	
Ambient temperature	During installation and handling: -25 °C to 60 °C; in use: -40 °C to 90 °C
Short circuit temperature	+250 °C (max. 5 sec on conductor)
Low-temperature resistance	According to EN 50618, table 2
Damp/heat test	According to EN 50618, table 2
<b>Mechanical parameters</b>	
Tensile load	15 N/mm <sup>2</sup> in use, 50 N/mm <sup>2</sup> during installation according to HD 516, DIN VDE 0298 paragraph 3 § 7.1 and paragraph 300 § 5.4.1
Bending radius	According to EN 50565-1
Abrasion	Emery paper (int. test according to DIN ISO 4649), sheath to sheath (int. test), sheath to metal (int. test), sheath to plastic (int. test)
Shore hardness	85 (int. test according to DIN EN ISO 868)
Rodent resistant (martens)	For absolute safety, use protective hoses or cables with metallic sheathing such as web covering or braided sleeving (optional available)
<b>Resistance to external influences</b>	
Resistance to petroleum	24 h, 100 °C (int. test according to VDE 0473-811-404, EN 60811-404)
Ozone resistance	Test according to DIN EN 50396, HD 22.2 test type B
UV resistance	According to EN 50289-4-17, meth. A
Acid and base resistance	According to EN 50618, part B: 7 days, 23 °C (N oxalic acid, N sodium hydroxide solution) to EN 60811-404
Ammonia resistance	30 days saturated ammonia atmosphere (int. test)
Water absorption (gravimetric)	Int. test according to DIN EN 60811-402
<b>Reaction to fire</b>	
Flame spread, individual cable	DIN EN 60332-1-2 and EN 50618, table 2
Flame spread, bundle of cables	Int. test according to DIN EN 50305-9 and DIN VDE 0482 part 332-3-25
Smoke emission, light transmission > 70 %	Int. test according to IEC 61034 and DIN VDE 0482 part 268-2
Ecological safety measures	RoHS conformity according to guideline 2011/65/EU
<b>Design criteria</b>	
Conductor	Electrolytic copper, fine-wired, class 5 according to IEC 60228 (DIN VDE 0295)
Insulation	Cross-linked HEPR 120 °C
Sheath	Cross-linked ethylene vinyl acetate-based elastomer 120 °C
Labeling	IBC FlexiSun® (cross section) H1Z2Z2-K according to: DIN EN 50618

## TECHNICAL DATA

Nominal cross section (mm <sup>2</sup> )	2.5	4	4**	6	6**	10	16
Conductor diameter (mm)	1.9	2.4	2.4	2.9	2.9	4	5.6
Outer diameter (minimum) (mm)	4.8	5.3	6	5.9	6.5	7	9
Outer diameter (maximum) (mm)	5.4	5.9	6.6	6.4	7.1	7.6	9.8
Net cable weight, approximate (kg/km)	50	70	90	80	110	130	200
Min. bending radius (mm)	17	18	26.4	20	28.4	23	30
Max. current load at 60 °C (A)	41	55	55	70	70	98	132
Permitted short circuit current (1 sec) (kA)	0.36	0.57	0.57	0.86	0.86	1.43	2.29
Item number 500 meter reel black	7000200023	7000200024	7000200052	7000200026	7000200053	7000200028	7000200029
Item number 100 meter flange black	7000200039	7000200040	-	7000200042	-	7000200044	7000200045
Item number 500 meter reel red	-	7000200025	-	7000200027	-	-	-
Item number 100 meter flange red	-	7000200041	-	7000200043	-	-	-

\*\* Metall-coated version

Presented by:

\* The warranty presupposes installation in accordance with the valid instructions. The precise conditions and content can be taken from the respectively valid version of the product warranty, which you obtain from your IBC Premium Partner.

Subject to modifications that represent progress.

As of: 2017-09-07  
9001500005