PRYSUN H1Z2Z2-K

Application

Designed and tested refer to EN50618 and IEC 62930, PRYSMIAN Solar cables PRYSUN H1Z2Z2-K are intended for use in Photovoltaic Power Supply Systems: Indoor and/or outdoor, in industrial and agriculture fields. They are suitable for applications in/at equipment with protective insulation (Protecting Class II), and may be installed as fixed or freely suspended or free movable. Installation in cable trays, conduits, on and in walls is permissible.

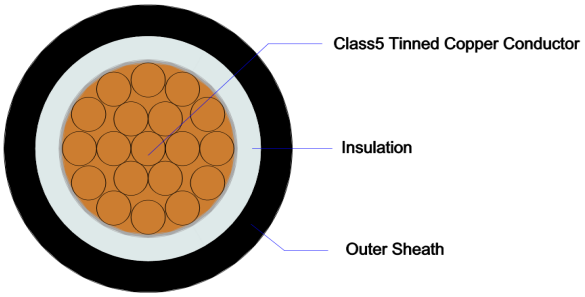
Design

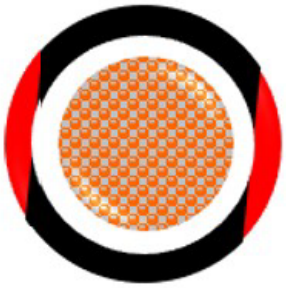
- Standard
  Refer to EN50618:2014 and IEC 62930:2017
- Conductor
  Class 5 Tinned copper conductor
- Insulation
  Halogen free cross-linked elastomer
  White
- Outer sheath
  Halogen free cross-linked elastomer
  Black or Red or Black/Red

Characteristics

Rated voltage AC	1.0/1.0kV
Nominal DC voltage	1.5kV
Max. permissible operating voltage AC	1.2/1.2 kV
Max. permissible operating voltage DC	1.8 kV
Test voltage	AC: 6,5kV/5min DC: 15kV/5 Min
Max. tensile load of cable	15N/mm2
Min. bending radius	6D
Resistance to fire	EN 60332-1-2/IEC 60332-1-2
Low Smoke Emission	EN 61034-2/ IEC 61034-2
Halogen-free per	EN 50525-1/IEC62821-1, Annex B
Sheath resistance against acid and alkaline solution	On sheath:7x24h, 23°C EN 60811-404/ IEC 60811-404
Weather/UV resistance	EN 50618/IEC 62930, Annex E
Environmentally Friendly	RoHS 2011/65/EU
Ozone resistance	EN 50396/IEC 60811-403,
Max. operating temperature of the conductor	90°C
Max. short circuit temperature of the conductor	250°C
Ambient temperature (for fixed and flexible installation)	Installation: -25°C up to 60°C In operation: -40°C up to +90°C

Drawing





Marking:

Eg. ： PRYSMIAN CN PRYSUN H1Z2Z2-K DC1.5kV 1X6 YEAR **** M

Or ： PRYSMIAN CN PRYSUN H1Z2Z2-K 1.0/1.0kV 1X6 YEAR **** M

Datasheet

Spec	Conductor diameter	Insulation Thickness	Sheath Thickness	Overall Diameter	Approx. Cable Weight	Min. Insulation Resistance At 20 °C	Min. Insulation Resistance At 90 °C	DC resistance at 20°C
mm2	mm	mm	mm	mm	kg/km	MΩ*km	MΩ*km	max.Ω/km
1X1.5	1.52	0.7	0.8	4.4-5.2	35	860	0.86	13.7
1X2.5	2.0	0.7	0.8	4.9-5.7	47	690	0.69	8.21
1X4	2.49	0.7	0.8	5.4-6.2	61	580	058	5.09
1X6	2.95	0.7	0.8	5.9-6.4	81	500	0.50	3.39
1X10	4.1	0.7	0.8	6.8-7.8	123	420	0.42	1.95
1X16	5.2	0.7	0.9	8.2-9.8	189	340	0.34	1.24
1X25	6.5	0.9	1.0	9.9-11.5	288	340	0.34	0.795
1X35	7.6	0.9	1.1	11.2-12.8	379	290	0.29	0.565
1X50	8.9	1.0	1.2	13.4-15.0	535	270	0.27	0.393
1X70	10.8	1.1	1.2	15.4-17.0	745	250	0.25	0.277
1X95	12.5	1.1	1.3	17.4-19.0	965	220	0.22	0.210
1X120	13.9	1.2	1.3	18.6-20.4	1211	210	0.21	0.164
1X150	15.8	1.4	1.4	21.0-22.8	1481	210	0.21	0.132
1X185	17.4	1.6	1.6	23.7-25.5	1822	200	0.20	0.108
1X240	19.9	1.7	1.7	26.7-28.5	2353	200	0.20	0.0817
1X300	23.2	1.8	1.8	28.6-32.6	2912	200	0.20	0.0654

Current carrying capacity

Current carrying capacity of PV cables

Nominal cross sectional area	Current carrying capacity according to method of installation		
	Single cable free in air	Single cable on a surface	Two loaded cables touching, on a surface
mm²	A	A	A
1,5	30	29	24
2,5	41	39	33
4	55	52	44
6	70	67	57
10	98	93	79
10	132	125	107
25	176	167	142
35	218	207	176
50	276	262	221
70	347	330	278
95	416	395	333
120	488	464	390
150	566	538	453
185	644	612	515
240	775	736	620
Ambient temperature: 60°C (see Table A.4 for other ambient temperatures) max. conductor temperature: 120°C.			
NOTE The expected period of use at a max. conductor tempreature of 120°C and a max. ambient temperature of 90°C is limited to 20 000 h.			

Table A.4 - Current rating conversion factors for different ambient temperatures

Ambient temperature °C	Conversion factor
up to 60	1,00
70	0,92
80	0,84
90	0,75

Prysmian Group

PRYSMIAN Draka

Connectors Selection table

Spec	Conductor diameter	Overall Diameter	MC4 equivalent connector
mm2	mm	mm	
1X2.5	2.0	4.9 - 5.7	PV-KBT4-EVO 2/2,5I-UR PV-KST4-EVO 2/2,5I-UR
1X4	2.49	5.4 - 6.2	PV-KBT4-EVO 2/6I-UR PV-KST4-EVO 2/6I-UR
1X6	2.95	5.9 - 6.4	PV-KBT4-EVO 2/6I-UR PV-KST4-EVO 2/6I-UR
1X10	4.1	7.1 - 7.8.	PV-KBT4-EVO 2/10II-UR PV-KST4-EVO 2/10II-UR