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SIGN OFF TABLES					
For Prysmian				For Customer/Client	
	Name	signature	Date	signature	Date
Issued by	Jinsong Yu	Jinsong Yu	17 th Mar.2023		
Approved by	Road Sun	<i>Road Sun</i>	17 th Mar.2023		

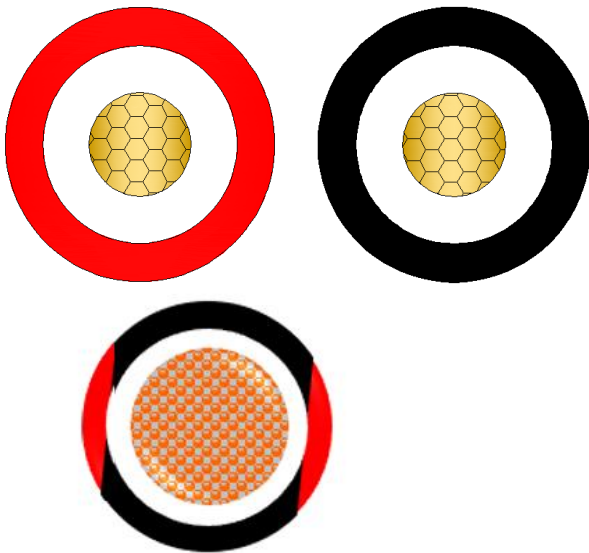
REVISION TABLE		
Rev. No.	Date	Details
1	2023-03-09	First issue
2	2023-03-17	Add current carrying capacity and voltage drop

Cable 1. – PRYSUN H1Z2Z2-K

Cable Design

CABLE DESCRIPTION

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, the cable also suitable for floating solar application.



DESIGN & CONSTRUCTION

- **1 STANDARD**
Refer to EN50618:2014 and IEC 62930:2017
- **2 CONDUCTOR**
Class 5 Tinned copper conductor
- **3 INSULATION**
Halogen free cross-linked elastomer
White
- **4. OUTER SHEATH**
Halogen free cross-linked elastomer
Black or Red or Black/Red

Core Identification:

Insulation: White

Sheath: Black or Red or Black/Red

Sheath 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

Technical data

Technical Information

No.	ITEM	UNIT	Cable Type: PRYSUN H1Z2Z2-K
1	Rated voltage AC	kV	1.0/1.0
2	Nominal DC voltage	kV	1.5
3	Max. permissible operating voltage AC	kV	1.2/1.2
4	Max. permissible operating voltage DC	kV	1.8
5	Test voltage	kV/min	AC: 6,5/5 DC: 15/5
6	Max. tensile load of cable	N/mm ²	15
7	Min. bending radius		6D
8	Resistance to fire		EN 60332-1-2/IEC 60332-1-2
9	Low Smoke Emission		EN 61034-2/ IEC 61034-2
10	Halogen-free per		EN 50525-1/IEC62821-1, Annex B
11	Sheath resistance against acid and alkaline solution		On sheath: 7x24h, 23°C EN 60811-404/ IEC 60811-404
12	Weather/UV resistance		EN 50618/IEC 62930, Annex E
13	Environmentally Friendly		RoHS 2011/65/EU
14	Ozone resistance		EN 50396/IEC 60811-403
15	Water resistance		EN 50525-2-21*
16	Max. operating temperature of the conductor	°C	90
17	Max. short circuit temperature of the conductor	°C	250
18	Ambient temperature (for fixed and flexible installation)		Installation: -25°C up to 60°C In operation: -40°C up to +90°C

*AD8 Water resistance acc. to EN 50525-2-21:

- Annex D.1 & D.3 (Electrical Test – Immersion for 14days at 50°C)
 - D.1 Voltage pre-test on completed cables
 - D.3 Insulation resistance test after pre-voltage test
 - (a) D.3.1 Voltage test on cores (50°C x 24 hours then apply 2.5kV/5min)
Volume resistivity >1012 Ω.cm
 - (b) D.3.2 Voltage test on cores (50°C x 14 days x 1kV)
Volume resistivity >1011 Ω.cm
- Annex E (Increase in mass – Immersion for 100days at 50°C)
- Annex E (Mechanical Test – Immersion for 100days at 50°C) with tensile strength > 8N/mm² and elongation at break 125% (EN 50618 values)

Technical Datasheet

Spec	Overall Diameter	Approx. Cable Weight	Min. Insulation Resistance At 20 °C	Min. Insulation Resistance At 90 °C	DC Current carrying capacity ¹			DC resistance at 20°C	Voltage drop
					Single cable free in air	Single cable on a surface	Two loaded cables touching, on a surface		
mm ²	mm	kg/km	MΩ*km	MΩ*km	A	A	A	max.Ω/km	mV/A/m
1X1.5	4.4-5.2	35	860	0.86	31	30	24	13.7	38.167
1X2.5	4.9-5.7	47	690	0.69	42	40	33	8.21	22.871
1X4	5.4-6.2	61	580	0.58	57	54	45	5.09	14.180
1X6	5.9-6.4	81	500	0.50	72	69	58	3.39	9.444
1X10	6.8-7.8	123	420	0.42	98	96	80	1.95	5.433
1X16	8.2-9.8	189	340	0.34	132	130	107	1.24	3.455
1X25	9.9-11.5	288	340	0.34	183	174	138	0.795	2.215
1X35	11.2-12.8	379	290	0.29	227	215	171	0.565	1.574
1X50	13.4-15.0	535	270	0.27	287	273	209	0.393	1.095
1X70	15.4-17.0	745	250	0.25	361	344	269	0.277	0.772
1X95	17.4-19.0	965	220	0.22	433	411	328	0.210	0.585
1X120	18.6-20.4	1211	210	0.21	508	483	382	0.164	0.457
1X150	21.0-22.8	1481	210	0.21	590	560	441	0.132	0.368
1X185	23.7-25.5	1822	200	0.20	671	638	506	0.108	0.301
1X240	26.7-28.5	2353	200	0.20	808	767	599	0.0817	0.228
1X300	28.6-32.6	2912	200	0.20	913	866	693	0.0654	0.155

Remark:

¹Ambient Temperature: 30°C. Max. conductor Temperature: 120°C