

PRYSUN H1Z2Z2-K 1/1kV AC (1.5/1.5kV DC)



PRYSUN H1Z2Z2-K 1/1kV AC (1.5/1.5kV DC) PV cables, elastomer insulated Per EN50618



Application

Designed and tested acc. to EN50618:2014, 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.

Global data

Brand	PRYSUN
Type designation	H1Z2Z2-K
Standard	Refer to EN50618:2014

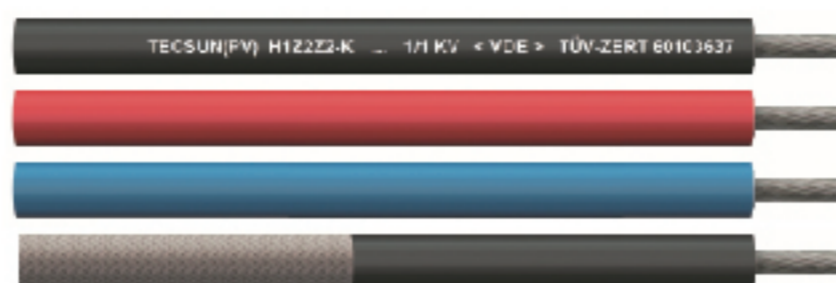
Design features

Conductor	Class 5 Tinned copper conductor
Insulation	Halogen free cross-linked elastomer Natural color - white or Red
Outer sheath	Halogen free cross-linked elastomer
Outer Sheath Colour	Black or Red

Electrical parameters

Rated voltage	DC: 1,5/1,5 kV
Maximum PV-System voltage	AC: 1,0/1,0 kV
Max. permissible operating voltage AC	1.2/1.2 kV
Max. permissible operating voltage DC	1.8/1.8 kV
Test voltage	AC: 6,5 kV / DC: 15 kV (5 Min.)
Current Carrying Capacity description	According to EN 50618, Table A-3
Electrical Tests	Acc. to EN 50618, Table 2: <ul style="list-style-type: none"> • Conductor Resistance; • Voltage Test on completed cable (AC and DC); • Spark Test on insulation; Insulation Resistance (at 20°C and 90°C in water); • Insulation Long-Term Resistance to DC (10 days, in 85°C water, 1,8 kV DC); • Surface Resistance of Sheath.

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Chemical parameters

Reaction to fire	Acc. to EN 50618, Table 2: <ul style="list-style-type: none"> • Single Cable Flame Test per EN 60332-1-2; • Low Smoke Emission per EN 61034-2 (Light Transmittance > 70%); • Halogen-free per EN 50525-1, Annex B.
Weather resistance	Acc. to EN 50618, Annex E and Table 2: <ul style="list-style-type: none"> • UV Resistance on sheath: tensile strength and elongation at break after 720h (360 Cycles) of exposure to UV lights acc. to EN 50289-4-17, Method A; • Ozone resistance: per Test Type B (EN 50396).
Acid and alkaline resistance	Acc. to EN 50618, Annex B: <ul style="list-style-type: none"> • 7 days, 23°C (N-Oxalic Acid, N-Sodium Hydroxide) acc. to EN 60811-404.

Thermal parameters

Max. operating temperature of the conductor	Max. 90°C at conductor. 20.000 hours of operation at conductor temperature of 120°C (and 90°C ambient temperature) are permitted.
Max. short circuit temperature of the conductor	250 °C (5 s.)
Ambient temperature (for fixed and flexible installation)	Installation and handling: -25°C up to 60°C In operation: -40°C up to +90°C
Resistance to cold	Acc. to EN 50618, Table 2: <ul style="list-style-type: none"> • Cold Bending Test at -40°C acc. to DIN EN 60811-504; • Cold Elongation Test at -40°C acc. to DIN EN 60811-505; • Cold Impact Test at -40°C acc. to DIN EN 60811-506 and EN 50618 Annex C.
Damp-Heat Test	Acc. to EN 50618, Table 2: <ul style="list-style-type: none"> • 1.000h at 90°C and 85% humidity (test acc. to EN 60068-2-78).

Mechanical parameters

Max. tensile load	15 N/mm ² in operation, 50 N/mm ² during installation
Min. bending radius	Acc. to EN 50565-1
Shrinkage Test	Acc. to EN 50618, Table 2: <ul style="list-style-type: none"> • Maximum Shrinkage <2% (test acc. to EN 60811-503).
Dynamic Penetration Test	Acc. to EN 50618, Annex D: <ul style="list-style-type: none"> • Meets requirements of EN 50618.
Durability of Print	Acc. to EN 50618: <ul style="list-style-type: none"> • Test acc. to EN 50396.

Datasheet 电缆参数

Number of cores x cross section	Colour	Conductor diameter max. mm	Outer diameter min. mm	Outer diameter max. mm	Bending radius fixed min. mm	Weight (approx.) kg/km	Permissible tensile force max. N	Conductor resistance at 20°C max. Ω/km	Current carrying capacity for single cable free in air (60°C ambient temp.) A	Current carrying capacity for single cable on a surface (60°C ambient temp.) A	Short Circuit Current (1s. from 90°C to 250°C) kA
1x1,5	black	1.6	4.4	5.2	15	35	23	13.7	30	29	0.21
1x2,5	black	1.9	4.9	5.7	17	47	38	8.21	41	39	0.36
1x4	black	2.4	5.4	6.2	18	61	60	5.09	55	52	0.57
1x6	black	2.9	5.9	6.4	20	81	90	3.39	70	67	0.86
1x10	black	4	7.1	7.8	23	124	150	1.95	98	93	1.43
1x16	black	5.6	9	9.8	30	190	240	1.24	132	125	2.29
1x25	black	6.4	10.4	11.5	34	285	375	0.795	176	167	3.58
1x35	black	7.5	11.7	12.8	50	380	525	0.565	218	207	5.01
1x50	black	9	13.5	14.5	58	535	750	0.393	276	262	7.15
1x70	black	10.8	15.5	16.5	66	745	1050	0.277	347	330	10.01
1x95	black	12.6	17.7	18.7	75	965	1425	0.21	416	395	13.59
1x120	black	14.2	19.2	20.4	82	1211	1800	0.164	488	464	17.16
1x150	black	15.8	21.4	22.6	91	1481	2250	0.132	566	538	21.45
1x185	black	17.4	23.7	25.1	101	1822	2775	0.108	644	612	26.46
1x240	black	20.4	27.1	28.5	114	2353	3600	0.082	775	736	34.32