JOULE ENERGY SOLUTIONS
Energy. Efficient.

CAB009 | CAB010 | CAB014 | CAB015

PRYSUN

LOW VOLTAGE POWER CABLES

H1Z2Z2-K	1,0/1,0 KV (1,2/1,2 KVAC MAX.)
H1Z2Z2-K	1.5/1.5 KVDC (1.8/1.8 KVDC MAX.)
DESIGN STANDARD	EN 50618 / IEC 62930

CHARACTERISTICS AND TESTING

- Operating temperature: -40 °C, +90 °C (120 °C, 20 000 h).
- Design continuous voltage: 1.5/1.5 kV
- Maximum continuous voltage: 1.8/1.8 kV
- Design alternating voltage: 1/1 kV
- Maximum alternating voltage: 1.2/1.2 kV
- Alternating voltage test for 5 min.: 6.5 kV
- Continuous voltage test for 5 min.: 15 kV
- Minimum static bend radius (final installation)

FIRE SAFETY PERFORMANCE IN THE EUROPEAN UNION:

- Fire performance rating (CPR): Eca. (cross-sections between 1x4 & 1x25).
- Fire requirements: EN 50575:2014 + A1:2016.
- Fire classification: EN 13501-6.
- Application of results: CLC/TS 50576.
- Test methods: EN 60332-1-2.

FIRE STANDARDS ALSO APPLICABLE IN COUNTRIES NOT IN THE EUROPEAN UNION:

- Flame retardant: EN 60332-1-2; IEC 60332-1-2; NFC 32070-C2.
- Halogen-free: IEC 62821-1, EN 50525-1
- Low smoke opacity: EN 61034-2; IEC 61034-2.

STRUCTURE

CONDUCTOR

- Metal: tinned copper.
- Flexibility: flexible, class 5
- Maximum temperature in conductor: 90 °C (120 °C, for 20 000 h). Cross-linked halogen-free compound: 250 °C in short circuit.

INSULATION

- Material: cross-linked halogen-free compound as per table.

SHEATH

- Material: cross-linked halogen-free compound as per table.
- Colours: black, red or blue.

APPLICATIONS

- Specially designed for interior, exterior, industrial, agricultural, fixed or mobile (with supports) photovoltaic installations. Can be installed in trays, ducts and equipment.
- Also suitable for direct current side in photovoltaic systems for self-consumption.

Prysmian Group

FV PRYSUN CABLE: ADDITIONAL TESTING & DATA

Estimated service life	25 years
Certification	Bureau Veritas LCIE
Mobile services	Yes
Double insulation (class II)	Yes
Maximum conductor temperature	90°C (120°C 20 000 h)
Ozone resistance	IEC 62930 Tab.3 as per IEC 60811-403; EN 50618 Tab.2 as per EN 50396 type of test B
UV resistance	IEC 62930 Annex E; EN 50618 Annex E
Water resistance	AD7 (immersion)
Resistance to acids and bases	IEC 62930 and EN 50618 Annex B 7 days, 23 ºC N-Oxalic acid, N-Sodium hydroxide (as per IEC 60811-404; EN 60811-404).
Cold resistance test	IEC 62930 Tab 2 as per IEC 60811-503; EN 50618 Tab 2 as per EN 60811-503 (maximum shrinkage 2 %)
Resistance to humid heat	IEC 62930 Tab.2 y EN 50618 Tab.2 1000h at 90ºC and 85% humidity for IEC 60068-2-78, EN- 60068-2-78
Long-term insulation resistance	IEC 62821-2 ; EN 50395-9 (240h/85ºC water/1,8kV DC)
Environmental protection	Directive RoHS 2011/65/EU European Union
Dynamic penetration test	IEC 62930 Annex D; EN 50618 Annex D
Bending at low temperature	Bending and stretching at -40ºC as per IEC 60811-504 and -505 y EN 50618 Tab.2 as per N 60811-1-4 and EN 60811-504 and -505
Cold impact resistance	Resistance to impact at -40º C as per IEC 62930 Annex C as per IEC 60811-506 and EN 50618 Annex C as per EN 60811-506
Marking durability	IEC 62930; EN 50396

TECHNICAL DATA

NUMBER OF CONDUCTORS x CROSS-SECTION mm2	MAXIMUM CONDUCTOR DIAMETER mm (1)	CABLE OUTER DIAMETER (MAX.) mm	MINIMUM DINAMIC CURVE RADIUS mm	MINIMUM STATIC CURVE RADIUS mm	WEIGHT kg/km (1)	CONDUCTOR RESISTANCE AT 20 °C Ω/km	PERMITTED CURRENT SURFACE MOUNTED (2) A	PERMITTED CURRENT SURFACE MOUNTED. AMBIENT T 60 °C & CONDUCTOR T 120 °C(3)	VOLTAGE DROP V/(A·km) (2)
1 x 1,5	1,8	5,4	22	16	33	13,7	24	30	27,4
1 x 2,5	2,4	5,9	24	18	45	8,21	34	41	16,42
1 x 4	3,0	6,6	26	20	61	5,09	46	55	10,18
1 x 6	3,9	7,4	30	22	80	3,39	59	70	6,78
1 x 10	5,1	8,8	35	26	124	1,95	82	98	3,90
1 x 16	6,3	10,1	40	30	186	1,24	110	132	2,48
1 x 25	7,8	12,5	63	50	286	795	140	176	1,59
1 x 35	9,2	14,0	70	56	390	565	182	218	1,13
1 x 50	11,0	16,3	82	65	542	393	220	276	786
1 x 70	13,1	18,7	94	75	742	277	282	347	554
1 x 95	15,1	20,8	125	83	953	210	343	416	0,42
1 x 120	17,0	22,8	137	91	1206	164	397	488	328
1 x 150	19,0	25,5	153	102	1500	132	458	566	264
1 x 185	21,0	28,5	171	114	1843	108	523	644	216
1 x 240	24,0	32,1	193	128	2394	817	617	775	1,634