



SPECIALCAVI BALDASSARI S.r.l.



AZIENDA CERTIFICATA  
UNI EN ISO 9001:2008



e-mail: areatecnica@specialcavibaldassari.it

## DATA SHEET

**Cable type:** **H1Z2Z2-K IEMMEQU-HAR according to EN 50618 Eca**  
*LSZH unipolar cable for photovoltaic and solar plants with UV resistant sheath*

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### TECHNICAL CHARACTERISTICS:

**Operating Voltage** A.C. 1,0/1,0KV - D.C. 1,5/1,5KV

**Max. operating voltage** A.C. 1,2KV - D.C. 1,8KV

**Test voltage** A.C. 6,5KV or D.C. 15KV for 5 min

**Operating temperature** Max. 90°C at conductor (lifetime acc. to EN 50618 = 25 years).

The expected period of use at max. conductor temperature of 120°C and at the max. ambient temperature of 90°C is limited to 20000 h

**Ambient work temperature** -40 / + 90 °C

**Max. storage temperature** +40°C

**Min. temperature for installation and handling** -25°C

**Max. short circuit temperature** +250 °C for 5s

**Laying** Fixed.

**Maximum pulling stress** 15 N/mm<sup>2</sup> in operation, 50 N/mm<sup>2</sup> during installation

**Min. bending radius** 4 times the outer Ø

### NORMATIVE MAIN REFERENCE:

**Electric Cables for photovoltaic systems** EN 50618

**Conductor** EN 60228, EN 50395

**Insulation and sheath compound characteristics** EN 50618

**Cable electrical test** EN 50618, EN 50395, EN 62230

**Constructional and dimensional test** EN 50618, EN 50396, EN 60228

**Compatibility test** EN 60811-401, EN 50618

**Cold test** EN 60811-504, EN 60811-505, EN 60811-506, EN 50618

**Ozone resistance on complete cable** EN 60811-403, EN 50396, EN 50618

**Weathering/UV resistance on sheath** EN 50618, EN 50289-4-17 method A

**Dynamic penetration test** EN 50618

**Damp heat test** EN 60068-2-78

**Shrinkage test on sheath** EN 60811-503

**No flame propagation test** EN 60332-1-2

**Smoke emission of complete cable** EN 61034-2 (LT≥60%)

**Assessment of halogen for all non-metallic material** EN 50525-1

**Insulation and sheath compound thermal endurance** EN 50618, EN 60216-1, EN 60216-2

**Reaction to fire - Performance:** EN 50575:2016 Eca

### TECHNICAL DATA:

**CONDUCTOR:** Tinned copper multi-wires class 5

**INSULATION:** LSZH reticulated elastomeric compound ; colour neutral

**OUTER SHEATH:** LSZH reticulated elastomeric compound UV resistant colour BLACK or RED

**PRINTED:** <HAR> IEMMEQU CE 0987 H1Z2Z2-K formation mm<sup>2</sup> SPECIALCAVI BALDASSARI year  
Lot ECA

PRODUZIONE CAVI ELETTRICI SPECIALI

Via Pieraccini n.76 – 55012 CAPANNORI (Lucca) – Tel. (0583) 935741/936362 – Fax ric. aut. 0583 429474  
Mod AQ 003/ P03

Certificato di Conformità



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Section  mm <sup>2</sup>	Max. conductor resistance at 20° C  (Ω/Km)	Approx. outer diameter  mm	Approx. cable weight  kg/km	Current carrying capacity for (60°C ambient temperature)		
				A		
				Single cable free in air	Single cable on a surface	Two loaded cables touching, on a surface
1,5	13,7	4,7	32	30	29	24
2,5	8,21	5,1	43	41	39	33
4	5,09	5,6	58	55	52	44
6	3,39	6,2	78	70	67	57
10	1,95	7,2	119	98	93	79
16	1,24	8,4	179	132	125	107
25	0,795	10,3	274	176	167	142
35	0,565	11,7	372	218	207	176
50	0,393	13,5	523	276	262	221
70	0,277	15,4	714	347	330	278
95	0,210	17,5	959	416	395	333
120	0,164	19,2	1192	488	464	390

Note = The expected period of use at max. conductor temperature of 120°C and at the max. ambient temperature of 90°C is limited to 20000 h.

Current rating conversion factors for different ambient temperatures

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

Capannori, 04/10/2017

Laboratory manager  
Giovanni Battista Checchi

FOR CUSTOMER ACCEPTANCE  
DATE SIGN

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