



INNOVCABLE PHOTOVOLTAIC ECO120H LSZH + UV (0.6/1Kv AC-AC) (1.8 kv DC-DC)





- Conductor material: Tinned copper wire.
- Conductor class: According to DIN VDE 0295 class 5 and IEC 60228 cl. 5
- Vein insulation: special compound INNOVPO-36, in white colour
- Outer layer in special elastomer compound INNOVPO-44.
- Manufactured in RAL 9005 black colour, or other on customer's request.
- Nominal voltage: (0.6/1Kv AC-AC) (1.8 kV DC-DC). Cables for other voltages are possible on request.
- Voltage test: 5.000 V.
- Conductor resistance: According to DIN VDE 0295 class 5 and IEC 60228 cl. 5.
- Insulation resistance: min. 20 MQX Km.
- min. bending radius fixed use: up to 12mm = 3 x d, > 12 mm = 4 x

Identification

INNOVCABLE PHOTOVOLTAIC ECO 120H LSZH + UV (0.6/1Kv AC-AC) (1.8 kV DC-DC) XX
mm²OF: XXXX/YEAR



Applicable Specifications

DIN VDE 0295 CLASS 5

IEC 60228 CLASS 5

VDE 0276

RoHS 2000/53 EC and 2002/95 EC

DIN IN 60332-2-1

DIN EN 60754-1

DIN EN 60754-2

ABNT NBR 16612 - Power cables for photovoltaic systems, non-halogenated, insulated, with cover, for voltage up to 1.8 kV DC between conductors - Performance requirements.

EN 50618

Applications

Cable for photovoltaic systems in fixed and flexible applications without traction. Can be applied in dry and wet locations. For direct application to the weather. High resistance to the effects of solar radiation and weather in general. Ecological product, can be recycled Manufactured free of noxious substances and Silicone (during the manufacturing process). High resistance to the effects of solar radiation and general weathering. To meet UVB resistance and burning resistance requirements, these cables are supplied with a specially formulated protective jacket to meet the requirements of UL 2556, IEC 60332-1, ABNT NBR 16612 and EN 50618. The special coating of the conductors guarantees a better performance of the connections throughout their useful life,



especially in the interconnections of panels and connection modules in photovoltaic systems. Additionally, and according to the indoor application standard, they have low smoke and toxic gas emission characteristics, being halogen free. The Arrhenius methodology for determining the temperature index (IT) is applied in the coating, with special characteristics of flame resistance, UVB resistant, non-halogenated and with low acid gas emission.

- Life span: Minimum 25 years under direct solar radiation, 20,000h at 120° C.
- Excellent thermal expansion 200/250° C.
- Resistant to oils, lubricants, oxygen and microbes.
- UV-resistant.
- Halogen free.
- Ozone resistant.
- Seawater resistant.
- Acids and bases resistant.
- Flame retardant.
- Short circuit temperature: 250° C.
- Pressure-resistant at high temperatures up to 140° C.
- Non-corrosive under fire. DIN EN 60754-1 and 60754-2.
- Insulation resistance: at 20° C > 800 MΩX Km, at 90° C > 50 MΩX Km.

Maximum Conductor Temperature

Continuous duty: 90°C
Short circuit: 250°C

Notes

- We can produce on request, several other cable options and configurations. Innovcable reserves the right to change this catalogue without prior notice.



Seção transversal do condutor [mm ²]	Diâmetro do condutor [mm]	Espessura da isolamento [mm]	Espessura nominal da cobertura [mm]	Diâmetro Externo [mm]	Massa aproximada [kg/km]
2,5	1,95	0,7	0,9	5,5	50
4	2,45	0,7	0,9	6	65
6	3,0	0,7	0,9	6,5	80
10	3,92	0,7	1	7,5	130
16	4,93	0,7	1	8,5	190
25	6,16	0,9	1,1	10,5	285
35	7,46	0,9	1,1	12	385
50	9,31	1,0	1,2	14	530
70	10,8	1,1	1,2	16	720
95	12,74	1,1	1,3	18	955
120	14,68	1,2	1,3	20,5	1190
150	16,23	1,4	1,4	22,5	1485
185	18,39	1,6	1,4	25	1780
240	20,35	1,7	1,5	27,5	2300



Seção transversal do condutor [mm ²]	Reatância indutiva [Ohm/km]	Max. DC Resist. Cond. 20°C [Ohm/km]	Max. DC resist. cond. 90°C [Ohm/km]	Resistência elétrica máxima CA 60Hz 90°C [Ohm/km]	Voltage Drop [V/A.km]	Avaliação de corrente DC permissível [A]	current rating in air 30°C - trefoil [A]
2,5	0,1255	8,21	10,469	10,469	14,64	37	29
4	0,1223	5,09	6,490	6,49	9,12	50	40
6	0,114	3,39	4,323	4,323	6,11	65	53
10	0,0994	1,95	2,486	2,486	3,55	90	74
16	0,0918	1,24	1,581	1,581	2,29	121	101
25	0,09	0,795	1,014	1,014	1,5	161	135
35	0,0846	0,565	0,720	0,721	1,09	200	169
50	0,0814	0,393	0,501	0,502	0,78	242	207
70	0,079	0,277	0,353	0,354	0,57	310	268
95	0,0764	0,21	0,268	0,269	0,45	377	328
120	0,0779	0,164	0,209	0,211	0,37	437	383
150	0,0819	0,132	0,168	0,17	0,32	504	444
185	0,0806	0,108	0,138	0,14	0,27	575	510
240	0,08	0,0817	0,1042	0,108	0,23	679	607