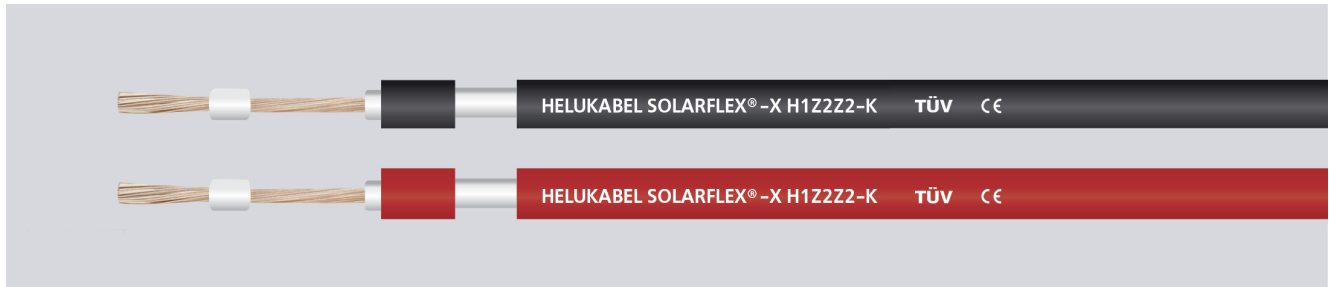


SOLARFLEX®-X H1Z2Z2-K

1500 V DC, EN 50618



Technical data

- Cables for PV systems acc. to EN 50618
- **Temperature range**
-40°C to +90°C
- Permissible **operating temperature**
at the conductor +120°C
- **Nominal voltage**
AC 1,0/1,0 kV
DC 1,5/1,5 kV
- **Maximum permissible DC voltage**
1.8 kV
- **Test voltage**
AC 6,5 kV
- **Minimum bending radius**
fixed installation 5x outer Ø

Cable structure

- Tinned copper conductor, fine wire acc. to DIN VDE 0295 cl.5 / IEC 60228 cl.5
- Core insulation: Cross-linked Polyolefin
- Sheath: Cross-linked Polyolefin
- Sheath colour: see table below

Properties

- Complies protection class II
- UV-resistant
- Ozone resistant

Tests

- Halogen-free acc. to DIN VDE 0285-525-1 / DIN EN 50525-1 appendix B / DIN EN 60754-1 / IEC 60754-1
- Flame retardant acc. to IEC 60332-1-2
- Smoke density acc. to IEC 61034
- Weathering/UV-resistance acc. to EN 50618 appendix E
- Ozone resistant acc. to EN 50618
- Water resistant acc. to DIN VDE 0285-525-2-21 / AD8 category Test Acc. to EN 50525-2-21 "Annex E" (after immersion for 100 days to 50c)
- DC Voltage resistance of insulation acc. to DIN VDE 0283-618 / DIN EN 50618 Tab. 2

Approvals

- EN 50618 / TÜV

Application

The SOLARFLEX®-X H1Z2Z2-K is used for cabling solar modules. Suitable for direct burial. Recommendation: Laying in pipe, Suitable for Solar Rooftop, Solar Farm and Solar Floating application.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

Part no.	No. cores x cross-sec. mml	Sheath colour	Outer Ø approx. mm	No. cond./wire Ø mm	AWG-No.
713530	1 x 4	black	5,5±0,15	52/0,3±0,008	12
713545	1 x 4	red	5,5±0,15	52/0,3±0,008	12
713531	1 x 6	black	6,1±0,15	78/0,3±0,008	10
713569	1 x 6	red	6,1±0,15	78/0,3±0,008	10
713532	1 x 10	black	7,2±0,18	77/0,4±0,008	8
713571	1 x 10	red	7,2±0,18	77/0,4±0,008	8

JZ-500 flexible, number coded, meter marking**Technical data**

- Special-PVC control cable adapted to DIN VDE 0285-525-2-51 / DIN EN 50525-2-51
- **Temperature range**
flexing -15°C to +80°C
fixed installation -40°C to +80°C
- **Nominal voltage** U_0/U 300/500 V
- **Test voltage** 4000 V
- **Breakdown voltage** min. 8000 V
- **Insulation resistance**
min. 20 MOhm x km
- **Minimum bending radius**
flexing 7,5x cable Ø
fixed installation 4x cable Ø
- **Radiation resistance**
up to 80x10⁶ cJ/kg (up to 80 Mrad)

Cable structure

- Bare copper-conductor, to DIN VDE 0295 cl.5, fine-wire, BS 6360 cl.5, IEC 60228 cl.5
- Core insulation of special PVC compound type Z 7225
- Core identification to DIN VDE 0293 black cores with continuous white numbering (also available in other colours on request)
- GN-YE conductor, 3 cores and above in the outer layer
- Cores stranded in layers with optimal lay-length
- Outer sheath of special PVC compound type TM2 to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1
- Sheath colour grey (RAL 7001)
- with meter marking

Properties

- Extensively oil resistant, oil-/chemical resistance see table Technical Informations
- conditional drag chain compatible
- conditional suitability for torsion
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Tests

- PVC self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)

Note

- G = with green-yellow conductor
x = without green-yellow conductor (OZ)
- We supply any "desired length" of stranded cores without outer sheath, core insulation colour acc. RAL 9005 with number combination acc. customers requirement.
- Please note the cleanroom qualification when ordering.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- screened analogue type:
F-CY-JZ, confer page 50
F-CY-OZ (LiY-CY), confer page 48
Y-CY-JB, confer page 62
Y-CY-JZ, confer page 53

Application

These cables are used for flexible use for medium mechanical stresses with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air, as measuring and control cables in tool machines, conveyor belts, production lines in machinery production, in air-conditioning and in steel production.

Selected PVC-compounds guarantee a good flexibility as well as an economic and fast installation.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

Part no.	No. cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
10001	2 x 0,5	4,8	9,6	40,0	20
10002	3 G 0,5	5,1	14,4	46,0	20
10003	3 x 0,5	5,1	14,4	46,0	20
10004	4 G 0,5	5,5	19,0	56,0	20
10005	4 x 0,5	5,5	19,0	56,0	20
10006	5 G 0,5	6,2	24,0	65,0	20
10007	5 x 0,5	6,2	24,0	65,0	20
10008	6 G 0,5	6,7	29,0	75,0	20
10009	7 G 0,5	6,7	33,6	80,0	20
10010	7 x 0,5	6,7	33,6	80,0	20
10011	8 G 0,5	7,4	38,0	97,0	20
10172	8 x 0,5	7,4	38,0	97,0	20
10012	10 G 0,5	8,3	48,0	116,0	20
10013	12 G 0,5	8,7	58,0	135,0	20
10014	12 x 0,5	8,7	58,0	135,0	20
10015	14 G 0,5	9,5	67,0	150,0	20
10183	16 G 0,5	10,0	76,0	175,0	20
10016	18 G 0,5	10,7	86,0	196,0	20
10017	20 G 0,5	11,3	96,0	215,0	20
10018	21 G 0,5	11,3	101,0	240,0	20
10019	25 G 0,5	12,6	120,0	270,0	20
10020	30 G 0,5	13,5	144,0	310,0	20
10021	32 G 0,5	14,0	154,0	323,0	20
10022	34 G 0,5	14,3	163,0	362,0	20
10023	40 G 0,5	15,3	192,0	434,0	20
10024	42 G 0,5	15,8	202,0	449,0	20

Part no.	No. cores x cross-sec. mm ²	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
10025	50 G 0,5	17,5	240,0	513,0	20
10169	52 G 0,5	17,5	252,0	534,0	20
10026	61 G 0,5	18,5	293,0	625,0	20
10027	65 G 0,5	19,4	312,0	682,0	20
10028	80 G 0,5	21,4	384,0	780,0	20
10029	100 G 0,5	24,0	480,0	980,0	20
10030	2 x 0,75	5,3	14,4	46,0	19
10031	3 G 0,75	5,6	21,6	54,0	19
10032	3 x 0,75	5,6	21,6	54,0	19
10033	4 G 0,75	6,3	28,8	66,0	19
10034	4 x 0,75	6,3	29,0	66,0	19
10035	5 G 0,75	6,9	36,0	80,0	19
10036	5 x 0,75	6,9	36,0	80,0	19
10037	6 G 0,75	7,5	43,0	99,0	19
10177	6 x 0,75	7,5	43,0	99,0	19
10038	7 G 0,75	7,5	50,0	110,0	19
10039	7 x 0,75	7,5	50,0	110,0	19
10040	8 G 0,75	8,3	58,0	130,0	19
10173	8 x 0,75	8,3	58,0	130,0	19
10041	9 G 0,75	8,9	65,0	153,0	19
10042	10 G 0,75	9,2	72,0	162,0	19
10043	12 G 0,75	9,8	86,0	179,0	19
10044	12 x 0,75	9,8	86,0	179,0	19
10045	14 G 0,75	10,6	101,0	214,0	19
10046	15 G 0,75	11,4	108,0	218,0	19
10047	18 G 0,75	12,2	130,0	257,0	19

Continuation ►

TRONIC-CY (LiY-CY)

flexible, colour coded to DIN 47100, screened, meter marking, EMC-preferred type



Technical data

- Special-PVC data cable adapted to DIN VDE 0812
- **Temperature range**
flexing -5°C to +80°C
fixed installation -40°C to +80°C
- **Operating peak voltage**
(not for heavy current installation purposes)
0,14 mm² 350 V
≥ 0,25 mm² 500 V
- **Test voltage**
core/core 1200 V
core/screen 800 V
- **Breakdown voltage**
min. 2400 V
- **Capacitance** at 800 Hz
core/core 0,14 mm² app. 120 pF/m
core/core 0,25 mm² app. 150 pF/m
core/screen 0,14 mm² app. 240 pF/m
core/screen 0,25 mm² app. 270 pF/m
- **Inductance**
approx. 0,65 mH/km
- **Impedance**
approx. 78 Ohm
- **Coupling resistance**
max. 250 Ohm/km
- **Minimum bending radius**
flexing 10x cable Ø
fixed installation 5x cable Ø
- **Radiation resistance**
up to 80x10⁶ cJ/kg (up to 80 Mrad)

Cable structure

- Bare copper conductor, from 0,5 mm² to DIN VDE 0295 cl.5, fine wire, BS 6360 cl.5, IEC 60228 cl.5
- Conductor construction:
0,14 mm² approx. 18x0,1 mm
0,25 mm² approx. 14x0,15 mm
0,34 mm² = 7x0,25 mm
- Core insulation of special PVC compound type T12 to DIN VDE 0207-363-3 / DIN EN 50363-3
- Core identification adapted to DIN 47100, without colour repetition
- Cores stranded in layers with optimal lay length
- Foil wrapping
- Drain-wire, tinned
- Tinned, copper braided screen, approx. 85% coverage
- Outer sheath of special PVC compound type TM2 to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1
- Sheath colour: grey (RAL 7001)
- With meter marking

Properties

- Extensively oil resistant, oil-/chemical resistance see "Technical Informations"
- The materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

Tests

- PVC self-extinguishing and flame retardant acc. to DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

Note

- Also available in paired version, see HELUKABEL®-PAAR-TRONIC-CY
- For 1 core cable screen of helically wound (LiY-DY).
- AWG sizes are approximate equivalent values. The actual cross section is in mm².
- Unscreened analogue type:

TRONIC (LiYY)

Application

These screened cables are used for flexible use with free movement without tensile stress or forced movements in dry, moist and wet rooms but not suitable for open air, wherever the construction requirements call for a minimum outer diameter, TRONIC is the suitable cable to use. This applies especially to such areas as tool making and machine industries as well as electronic, computer, measurement and control sectors. The extremely small outer diameter make suitable for miniature plugs etc.

EMC = Electromagnetic compatibility

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE = Product conforms with Low-Voltage Directive 2014/35/EU.

Part no.	No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
20139	1 x 0,14	2,6	6,1	16,0	26
20001	2 x 0,14	3,9	12,0	20,0	26
20002	3 x 0,14	4,0	13,0	27,0	26
20003	4 x 0,14	4,3	14,5	32,0	26
20004	5 x 0,14	4,7	15,5	37,0	26
20005	6 x 0,14	5,2	18,2	42,0	26
20006	7 x 0,14	5,2	19,0	48,0	26
20007	8 x 0,14	5,9	21,3	55,0	26
20008	10 x 0,14	6,5	28,7	65,0	26
20009	12 x 0,14	6,7	30,5	77,0	26
20010	14 x 0,14	6,9	32,0	79,0	26
20011	16 x 0,14	7,3	43,2	89,0	26
20012	18 x 0,14	7,6	51,0	103,0	26
20013	20 x 0,14	8,3	55,0	116,0	26

Part no.	No. cores x cross-sec. mm ²	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
20014	21 x 0,14	8,4	56,0	120,0	26
20015	24 x 0,14	8,9	62,0	131,0	26
20091	25 x 0,14	9,1	61,0	136,0	26
20016	27 x 0,14	9,2	65,0	142,0	26
20017	30 x 0,14	9,5	69,0	157,0	26
20018	32 x 0,14	9,9	76,0	163,0	26
20019	36 x 0,14	10,2	83,0	182,0	26
20020	40 x 0,14	11,1	88,0	209,0	26
20021	42 x 0,14	11,2	94,0	217,0	26
20022	44 x 0,14	11,5	110,0	226,0	26
20023	48 x 0,14	11,7	115,0	240,0	26
20024	52 x 0,14	12,3	124,0	270,0	26
20025	56 x 0,14	12,5	132,0	320,0	26
20026	61 x 0,14	12,8	146,0	370,0	26

Continuation ►