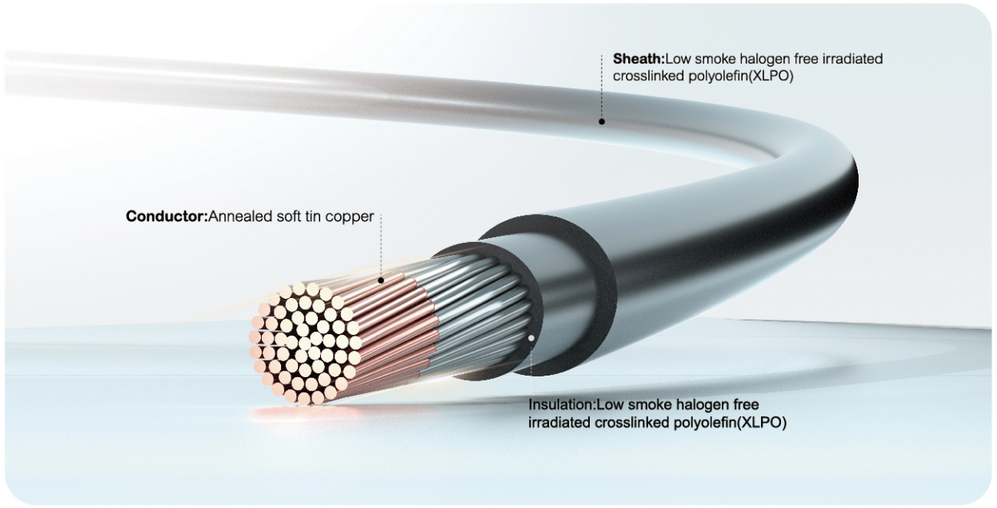


Product Characteristics

Technical Parameters

- Rated voltage: U0/U1.0/1.0KV(AC) 1500V(DC)
- Test voltage: AC6.5KV/5min(20°C±0.5)
  Or DC15KV/5min(20°C±0.5) without breakdown
- Ambient temperature: -40°C~+90°C
- Conductor maximum temperature: 120°C
- Expected service life: 25 years
- Bending radius: ≥4D

Cable structure

- Conductor: EN 50618 Type 5 tinned copper flexible conductor
- Insulation: 125°C irradiation cross-linked low smoke halogen-free flame retardant polyolefin
- Sheath: 125°C irradiation cross-linked low smoke halogen-free flame retardant polyolefin
- Color: Red or black

Features and compliance

- Fire resistance: EN 60332-1-2
- Weathering/UV resistance: EN 50289-4-17/ENISO4892
- Halogen determination: EN 50525
- Salt Spray Emission: IEC 61034
- Compliance: ROHS TUV
- Compliance: EN 50218:2014/1EC 60930:2017

DC CABLES

- H1Z2Z2-K

RoHS

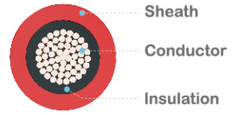


H1Z2Z2-K

TUV Single Core Solar Cable EN50618/IEC62930

RoHS





Structural dimensions and parameters

Model	Specification mm²	Insulation nominal thickness mm	Sheath nominal thickness mm	Approximate outer diameter of finished product mm	Maximum DC resistance of conductor at 20°C Ω/km	Minimum insulation resistance at 90°C m Ω/km
H1Z2Z2-K	1.5	0.7	0.8	4.6	13.7	0.86
H1Z2Z2-K	2.5	0.7	0.8	5.0	8.21	0.69
H1Z2Z2-K	4.0	0.7	0.8	5.55	5.09	0.58
H1Z2Z2-K	6.0	0.7	0.8	6.15	3.39	0.50
H1Z2Z2-K	10	0.7	0.8	7.4	1.95	0.42
H1Z2Z2-K	16	0.7	0.9	8.52	1.24	0.34
H1Z2Z2-K	25	0.9	1.0	10.6	0.795	0.34
H1Z2Z2-K	35	0.9	1.1	12.5	0.565	0.29
H1Z2Z2-K	50	1.0	1.2	14.2	0.393	0.27
H1Z2Z2-K	2X1.5	0.7	0.8	4.6X9.7	13.7	0.86
H1Z2Z2-K	2X2.5	0.7	0.8	5.0X10.5	8.21	0.69
H1Z2Z2-K	2X4.0	0.7	0.8	5.55X11.6	5.09	0.58
H1Z2Z2-K	2X6.0	0.7	0.8	6.15X12.8	3.39	0.50
H1Z2Z2-K	2X10	0.7	0.8	7.4X15.3	1.95	0.42

Reference table for quick selection of carrying capacity

Cross-sectional area mm²	Recommended value of carrying ampacity (A)	Carrying ampacity conversion factor for different ambient temperatures	
Copper conductor	Laying in the air	Ambient temperature °C	Conversion factor
1.5	30	10	1.15
2.5	41	20	1.08
4	55	30	1.0
6	70	40	0.91
10	98	50	0.82
16	132	60	0.71
25	176	70	0.58
35	218	80	0.41
50	276		
2X1.5	24		
2X2.5	33		
2X4.0	44		
2X 6.0	57		
2X 10	79		

Note: Ambient temperature 30°C; conductor maximum temperature 90°C

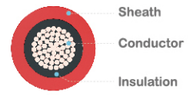




PV-UL4703

American Standard UL Photovoltaic cable





PV-UL4703

Rated voltage	U=600V,1.0KV/2.0KV AC
Ambient temperature	-40°C~+90°C
Specification AWG	12AWG, 10AWG, 9AWG, 8AWG, 7AWG, 6AWG
Test voltage	U=600V 14-10AWG 3KV/1min, 8-6AWG 3.5KV/1min; U=1.0KV/2.0KV 14-10AWG 6KV/1min, 8-6AWG 7.5KV/1min
Conductor maximum temperature	90°C,105°C,125°C

Product Characteristics

Technical Parameters

- Rated voltage: 600V(AC), 1000V(AC), 2000V(AC)
- Ambient temperature: -40°C~+90°C
- Conductor maximum temperature: 125°C
- Maximum short circuit temperature: ≤250°C/5S
- Expected service life: 25 years
- Bending radius: ≥4D

Features and compliance

- Flame test: UL1581VW-1
- Relative permittivity: UL854
- Stability factor: UL854
- Sunlight resistance: UL2556
- Cold bending test: UL854

Cable structure

- Conductor: Tinned copper flexible conductors in UL4703
- Nsulation: 90°C/105°/125°C irradiation cross-linked low smoke halogen-free flame retardant polyolefin
- Sheath: 90°C/105°/125°C irradiation cross-linked low smoke halogen-free flame retardant polyolefin
- Color: Red or black

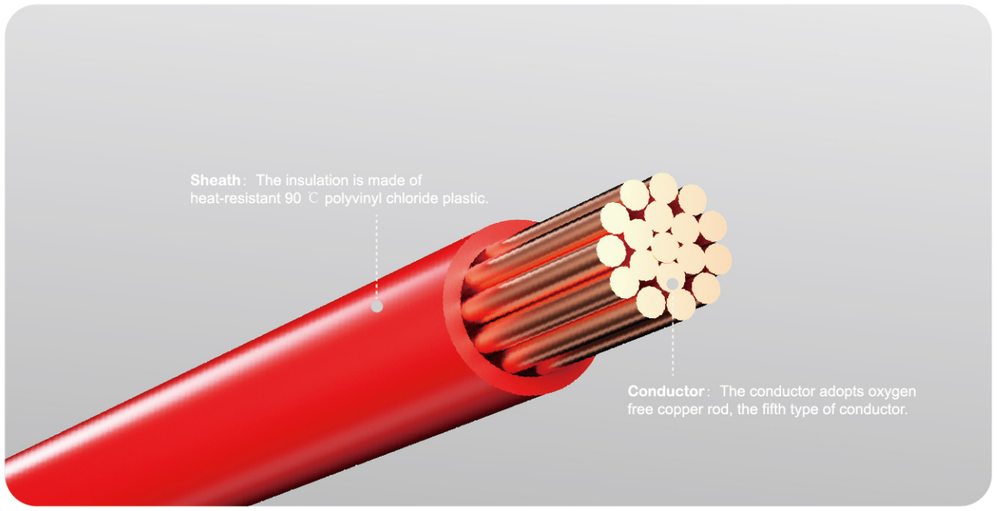
Structural dimensions and parameters

Specification	Cross section	Wire core structure	600V			1000V/2000V			Maximum DC resistance of conductor at 20°C Ω/km
AWG	mm²	Quantity Single Diameter	Inner Insulation Thickness	Outer Insulation Thickness	Outer diameter mm²	Inner Insulation Thickness	Outer Insulation Thickness	Outer diameter mm²	
14	2.08	32/0.28	0.78	0.78	5.05	1.15	0.78	5.80	8.96
12	3.31	49/0.285	0.78	0.78	5.50	1.15	0.78	6.30	5.64
10	5.261	7/0.285	0.78	0.78	6.10	1.15	0.78	6.90	3.546
8	8.367	123/0.285	1.15	0.78	7.70	1.40	0.78	8.20	2.23
6	13.30	197/0.285	1.15	1.15	9.40	1.40	1.15	9.90	1.403

DC CABLES

- PV-UL4703





Product Characteristics

Technical Parameters

- Rated voltage: 1000V(DC)
- Ambient temperature: -20°C~+50°C
- Conductor maximum temperature: 90°C
- Maximum operating temperature of cable : 60°C

Compliance

- Reference standards: GB/T5023.3-2008

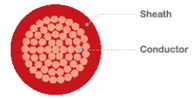
Cable structure

- Conductor: The insulation is made of heat-resistant 90 ℃ polyvinyl chloride plastic.
- Sheath: The conductor adopts oxygen free copper rod, the fifth type of conductor
- Color: Red or black

RV

Unshielded electrochemical DC cable



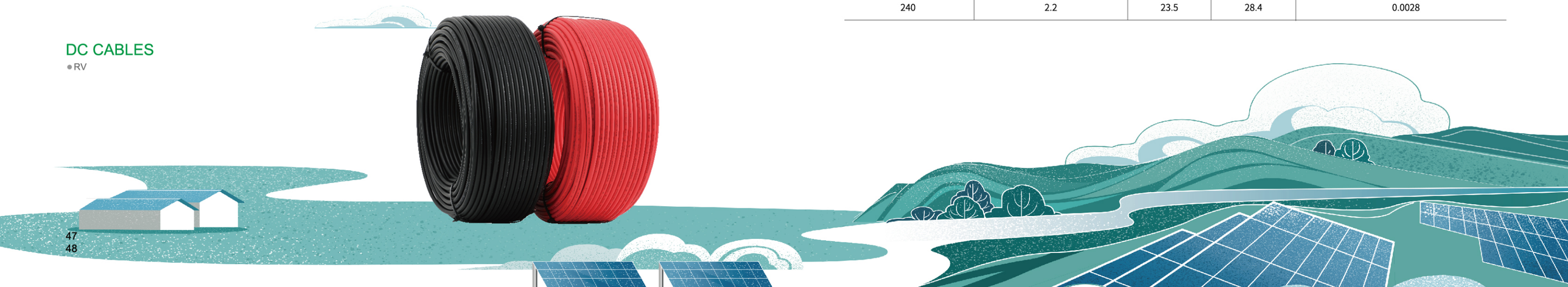


Insulation/Sheath Material	Maximum temperature of conductor ° C	Recommended environmental temperature range ° C	Maximum operating temperature of cable ° C
polyvinyl chloride	90	-20~+50	60

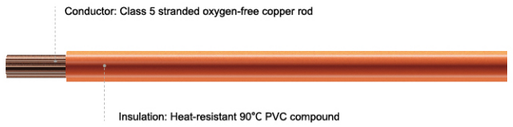
Conductor area/mm²	Insulation thickness specified value/mm	Average Outer Diameter/mm		Minimum insulation resistance at 70°C/(MΩ ·km)
		lower limit	limit	
1.5	0.7	2.8	3.4	0.01
2.5	0.8	3.4	4.1	0.009
4	0.8	3.9	4.8	0.007
6	0.8	4.4	5.3	0.006
10	1.0	5.7	6.8	0.0056
16	1.0	6.7	8.1	0.0046
25	1.2	8.4	10.2	0.0044
35	1.2	9.7	11.7	0.0038
50	1.4	11.5	13.9	0.0037
70	1.4	13.2	16.0	0.0032
98	1.6	15.1	18.2	0.0032
120	1.6	16.7	20.2	0.0029
150	1.8	18.6	22.5	0.0029
185	2.0	20.6	24.9	0.0029
240	2.2	23.5	28.4	0.0028

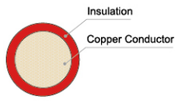
DC CABLES

- RV



EVS-1000V
Unarmored Electrochemical DC Cable





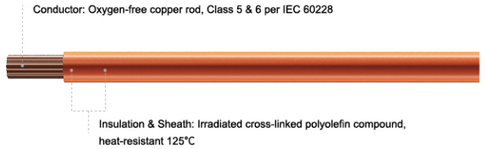
- Reference Standard: TICW 27-2023
- Rated Voltage: 1000V DC
- Temperature Rating: Max. conductor temperature 90°C under continuous operation
- Standard Colors: Black, Red, Orange

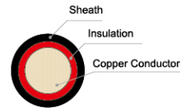
Insulation/Sheath Material	Max. Conductor Temperature°C	Recommended Ambient Temperature Range °C	Max. Operating Temperature °C
PVC	+90	-20~+50	60

ESV-1000V Unarmored Electrochemical DC Cable Parameters

Conductor Size	Conductor Construction	Onductor Diameter mm±0.10	Insulation Thickness mm	Overall Diameter mm ±0.2	DC Resistance at 20°C (Ω/km)	Current Rating at 45°C (A)	Reference Weight KG/KM
4	52/0.30	2.59	1.0	4.69	4.95	43	19.4
6	78/0.30	3.15	1.0	5.25	3.30	55	22.6
10	75/0.40	4.19	1.0	6.29	1.910	79	28.6
16	118/0.40	5.51	1.0	7.61	1.210	105	36.1
25	186/0.40	6.84	1.2	9.34	0.780	138	52.1
35	262/0.40	8.07	1.2	10.57	0.554	169	60.3
50	368/0.40	9.56	1.4	12.46	0.386	211	81.5
70	336/0.50	11.28	1.4	14.18	0.272	269	94.6
95	446/0.50	12.89	1.6	16.19	0.206	328	121.7
120	572/0.50	14.51	1.6	17.81	0.161	391	135.4

ESRZZ-1500V
Electrochemical DC Cable





- Reference Standard: TICW 27-2023
- Rated Voltage: 1000V DC
- Temperature Rating: Max. conductor temperature 125°C under continuous operation
- Standard Colors: Black, Red, Orange

Insulation/Sheath Material	Max. Conductor Temperature°C	Recommended Ambient Temperature Range °C	Max. Operating Temperature °C
PVC	+90	-20~+50	60

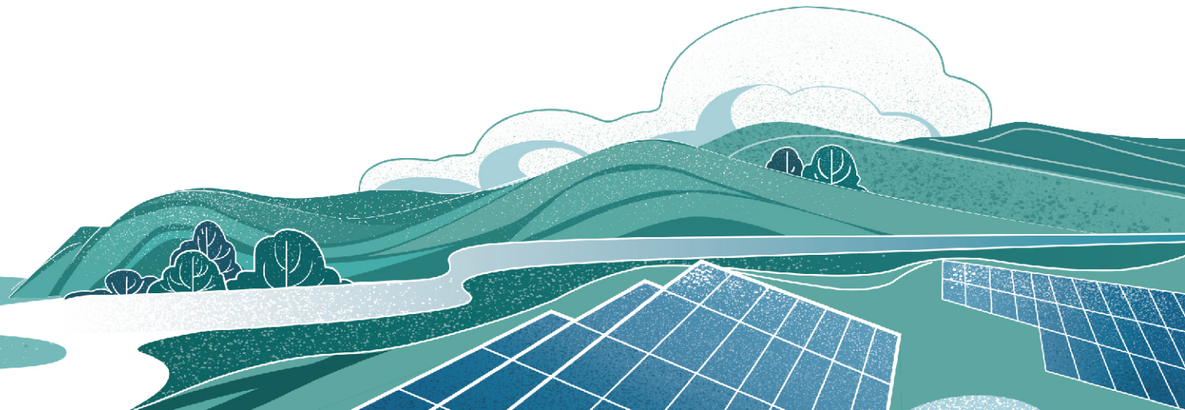
ESRZZ-1500VE lectrochemical DC Cable Parameters

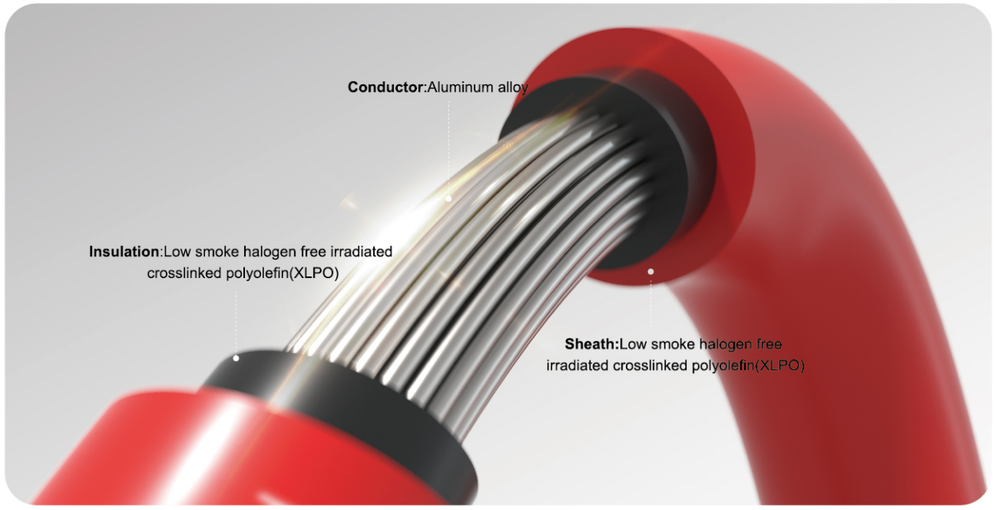
Model	Specification	Conductor Construction	Conductor Diameter mm ±0.10	Insulation Thickness mm	Sheath Thickness mm	Overall Diameter mm ±0.2	DC Resistance at 20°C (Ω/km)	Current Carrying Capacity at 45°C (A)	Reference Weight KG/KM
ESRZZ	4	205/0.150	2.58	0.8	1.0	6.33	4.95	43	70.07
ESRZZ	6	172/0.20	3.13	0.8	1.0	6.88	3.30	55	90.74
ESRZZ	10	299/0.20	4.19	1.0	1.1	8.54	1.91	79	147.69
ESRZZ	16	469/0.20	5.50	1.1	1.1	10.05	1.21	105	213.60
ESRZZ	25	736/0.20	6.81	1.3	1.2	11.96	0.78	138	319.49
ESRZZ	35	1040/0.20	8.05	1.3	1.3	13.40	0.55	169	426.76
ESRZZ	50	660/0.30	9.60	1.5	1.4	15.55	0.39	211	593.75
ESRZZ	70	938/0.30	11.31	1.5	1.4	17.26	0.27	269	795.21
ESRZZ	95	1242/0.30	12.91	1.5	1.5	19.06	0.21	328	1020.69
ESRZZ	120	1584/0.30	14.49	1.5	1.6	20.84	0.16	391	1271.83

DC CABLES

- EVS-1000V
- ESRZZ-1500V







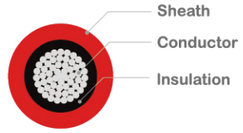
PHOTOVOLTAIC ALUMINUM ALLOY CABLE

Approvals PPP 11029APV1.5KVDC-AL1x4mm²~10mm²

Technical data

- ***Rated voltage:DC:1.5KV AC:0.6/1.0KV***
- ***Voltage test on completed cable:AC:6.5KV DC:15Kv.5min***
- ***Ambient temperature:-40℃~+90℃***
- ***The expected period of use is 25years(Ambiet temperature:-40℃ Cup to+90℃)***
- ***High temperature resistance:EN60216-2***
- ***Ozone resistance:EN50396***
- ***ACID and Alkali resistance:EN60811-2-1***
- ***Low temperature resistance:EN60811-1-4***
- ***Weathering/Uv-resistance:EN50289-4-17***
- ***Ozone resistance at complete cable:EN60754-1/EN60754--2***
- ***Test under fire conditions:EN60332-1-2***





THE STRUCTURE OF CABLE

Cross section(mm²)	Conductor construction (Φ n/mm±0.015)	Conductor stranded (Φ mm±0.02)	Insulation mediun thickness(mm)	Sheath mediun thickness(mm)	Cable OD (Φ mm±0.02)	Conductor Dc Rasistance(Ω/Km)	Current carring capacity AT 60°C(A)
4	56x0.3	2.6	0.7	0.8	6.1	7.26	30
6	84x0.3	3.15	0.7	0.8	7.0	4.91	39
10	80x0.4	4.10	0.7	0.8	8.2	2.89	51

DC CABLES

