SOUTH CABLE

Photovoltaic Solar Cable PV1-F



APPLICATION

PV1-F solar cable is specially designed for photovoltaic power generation systems. It features high temperature resistance, UV resistance, ozone resistance and excellent weatherproof performance.

With flexible tinned copper conductor and double-layer cross-linked polyolefin insulation and sheath, the cable owns outstanding anti-aging, oil resistant and flame retardant properties.

It is widely applied in solar panel connection, photovoltaic power station wiring, rooftop solar projects and outdoor solar power transmission, suitable for long-term outdoor harsh working conditions.

CHARACTERISTICS

Voltage Rating Uo/U (Um)
AC: 1000/1000V
DC: 1500/1500V

Maximum Voltage (Umax)
1800V

Test Voltage
6.5kV AC

Temperature Rating
Fixed: -40°C to +90°C

Minimum Bending Radius
5 x overall diameter

Maximum Conductor Temperature
+120°C (for 20000h)

CONSTRUCTION

Conductor
Class 5 flexible tinned copper conductor

Insulation
Halogen-free cross-linked compound

Sheath
Halogen-free cross-linked, flame retardant compound

Sheath Colour
Black. Other colours available on request

STANDARDS

IEC 62930-2017

THE CABLE TEST

We have world-class testing facility, and made rigorous testing regime, every meter of cable before leaving the factory must go through strict testing, testing qualified products will be shipped to customers, effectively ensure product quality and meet customer requirements.

SUSTAINABILITY COMMITMENT

South Cable actively implements the ‘carbon reduction’ goal, strives to promote the green’s low-carbon transformation, strengthens energy-saving and emission reduction technology innovation, and promotes the company’s healthy and sustainable development.

CONTACT INFO:
Whatsapp:+86 138 4908 4504 Email:info@southcable.cn
SOUTH CABLE High-tech Zone, Zhengzhou City, Henan Province, China

SOUTH CABLE

DIMENSIONS

NO. OF CORES	NOMINAL CROSS SECTIONAL AREA	NOMINAL OVERALL DIAMETER	NOMINAL WEIGHT	TENSILE STRENGTH IN OPERATION
	mm²	mm	kg/km	N
1	1.5	4.6	36	22
1	2.5	5	46	37
1	4	5.6	62	60
1	6	6.1	82	90
1	10	7.1	125	150
1	16	8.5	190	240
1	25	10.4	285	375
1	35	11.5	385	525
1	50	13.7	540	750
1	70	15.8	740	1050
1	95	17.3	965	1350
1	120	19.1	1210	1800
1	150	21.4	1495	2250
1	185	24.9	1885	2775
1	240	27.3	2395	3600

ELECTRICAL CHARACTERISTICS

NOMINAL CROSS SECTIONAL AREA	MAXIMUM CONDUCTOR DC RESISTANCE AT 20°C	MAXIMUM CONDUCTOR DC RESISTANCE AT 90°C	CURRENT CARRYING CAPACITY A			VOLTAGE DROP mV/A/m
mm²	Ω/km	Ω/km	Single Cable In Air	Single Cable On Surface	Two Cables Adjacent On Surface	
1.5	13.7	17.468	30	29	24	38.2
2.5	8.21	10.468	41	39	33	23
4	5.09	6.49	55	52	44	14.3
6	3.39	4.322	70	67	57	9.49
10	1.95	2.486	98	93	79	5.46
16	1.24	1.581	132	125	107	3.47
25	0.795	1.013	176	167	142	2.23
35	0.565	0.72	218	207	176	1.58
50	0.393	0.501	276	262	221	1.1
70	0.277	0.353	347	330	278	0.772
95	0.21	0.267	416	395	333	0.585
120	0.164	0.209	488	464	390	0.457
150	0.132	0.168	566	538	453	0.368
185	0.108	0.137	644	612	515	0.301
240	0.0817	0.104	775	736	620	0.228

DE-RATING FACTORS

AIR TEMPERATURE	UP TO 60°C	70°C	80°C	90°C	100°C	
DE-RATING FACTOR	1.00	0.91	0.82	0.71	0.58	0.41

The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication.

CONTACT INFO:
Whatsapp:+86 138 4908 4504 Email:info@southcable.cn
SOUTH CABLE High-tech Zone, Zhengzhou City, Henan Province, China