SVARN
Inspired by possibilities

Fueling change powered by the sun

CABLES FOR PHOTOVOLTAIC INSTALLATIONS

IS 17293 : 2020 Certification
for Svarn PV Electric Cables (Rated Voltage 1500V DC)

SVARN GROUP

TELECOM | AUTOMOTIVE | DEFENCE | RAILWAYS | POWER | PROJECTS

SVARN SOLAR PV CABLES

High performance cables for long-lasting PV installations

With a proven track record spanning over two decades in cable manufacturing across diverse industries, Svarn stands as a distinguished leader in the field. Our meticulously engineered solar cables guarantee peak performance, reliability, and safety for solar energy systems of any scale. Designed to endure the rigors of extreme weather and challenging environments, our cables ensure seamless power generation under all circumstances. Committed to excellence, we establish the gold standard in PV cables, meeting and exceeding stringent global criteria, to deliver unparalleled quality and dependability for every solar project.

Total traceability in our product range

Complete range solution for solar system up to 1.5kv

Worldwide recognized certificates

CPR certified cables

Cables specifically designed for solar installations

Power and Fiber cables

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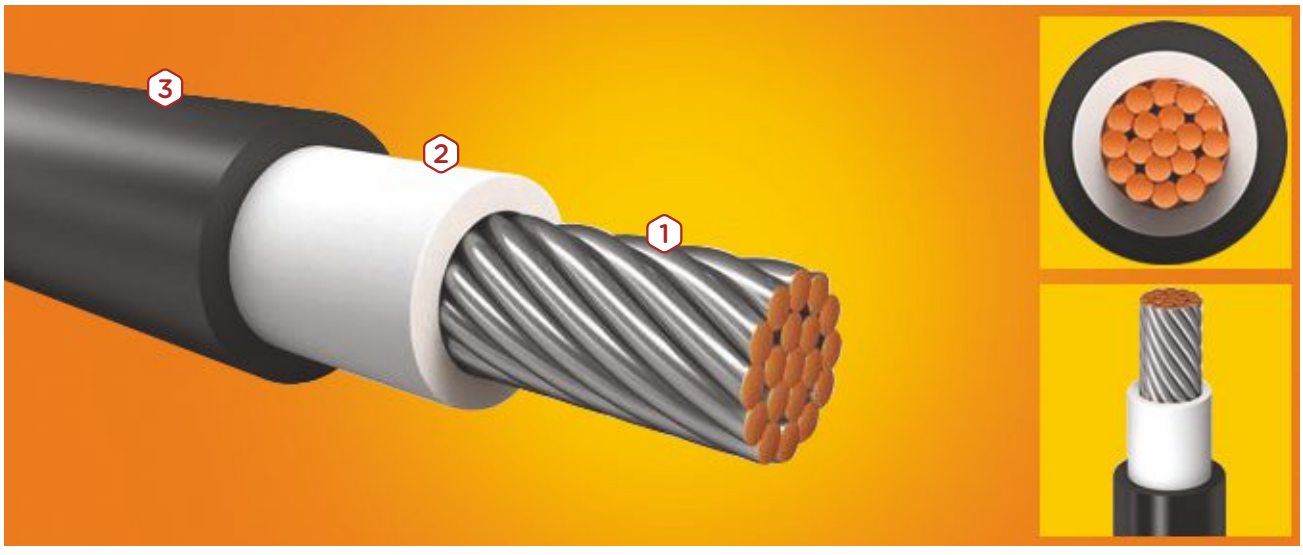
ABOUT US

At Svarn, we're pioneers in turning big ideas into real-world solutions. Our legacy of innovation, rooted in the essence of "Svarn" or Gold, has thrived since 2005. With over 3,000 dedicated employees, we're constantly pushing the boundaries of technology to benefit our customers and society. Our impact spans across six key industries, supported by seven cutting-edge manufacturing facilities and global offices in strategic locations. Through relentless innovation, we're shaping a prosperous and sustainable future **— inspired by possibilities.**

Know more at www.svarn.com

SOLAR PV CABLE — H1Z2Z2-K

Svarn solar photovoltaic cables are equipped with Class 5 annealed tinned copper conductors. They are coated with cross-linked halogen-free XLPO compounds, both for insulation and sheathing, providing enhanced safety and flame-retardant properties.



CABLE STRUCTURE

1. Annealed tinned copper conductor-Class 5
2. Cross linked insulated halogen-free polyolefin compound / E-Beam cross linked halogen free and flame-retardant compound (XLPO)
3. Cross linked halogen free polyolefin sheath compound / E-Beam cross linked halogen free and flame-retardant compound (XLPO)

TECHNICAL DATA

- Nominal voltage: 1500 VDC (Between conductors as well as conductor and earth)
- Maximum permitted voltage: 1800 VDC
- Temperature range: -40°C to 90°C (Max. Temperature at conductor: 120°C for 20000hrs)
- Test voltage: 3kv (AC)

FEATURES

- Used in extreme weather conditions (UV Resistance)
- Oil & Chemical resistant
- Flexibility & stripability: for fast and easy installation
- Thermal stress resistant
- High flexibility
- Flame & fire retardant
- Halogen free: low smoke emission and toxicity during fire

STANDARD

As per IS 17293 : 2020, BS EN 50618:2014, IEC 62930:2017

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H1Z2Z2-K

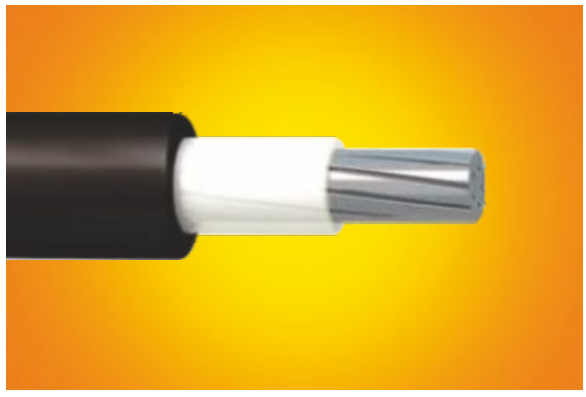
SVARN SOLAR PV CABLE

ITEM CODE	NO OF CORES & CROSS SECTIONAL AREA Sq.mm	THICKNESS OF INSULATION (NOM) mm	THICKNESS OF OUTER SHEATH (NOM) mm	OVERALL DIA OF CABLE mm	APPROX. WEIGHT OF CABLE Kg/km
FGCBPVH1Z2Z2-K1C1.5	1.5	0.6	0.8	4.6	36
FGCBPVH1Z2Z2-K1C2.5	2.5	0.6	0.8	4.9	46
FGCBPVH1Z2Z2-K1C4.0	4	0.6	0.8	5.4	61
FGCBPVH1Z2Z2-K1C6.0	6	0.6	0.8	5.9	81
FGCBPVH1Z2Z2-K1C10	10	0.7	0.8	7.1	121
FGCBPVH1Z2Z2-K1C16	16	0.7	0.8	8.6	181
FGCBPVH1Z2Z2-K1C25	25	0.8	0.9	10.3	276
FGCBPVH1Z2Z2-K1C35	35	0.8	0.9	11.7	371
FGCBPVH1Z2Z2-K1C50	50	0.9	1	13.7	516
FGCBPVH1Z2Z2-K1C70	70	1	1.1	16	711
FGCBPVH1Z2Z2-K1C95	95	1	1.1	17.7	931
FGCBPVH1Z2Z2-K1C120	120	1.2	1.3	20.2	1191
FGCBPVH1Z2Z2-K1C150	150	1.3	1.4	22.2	1471
FGCBPVH1Z2Z2-K1C185	185	1.4	1.5	24.6	1801
FGCBPVH1Z2Z2-K1C240	240	1.5	1.6	27.7	2311

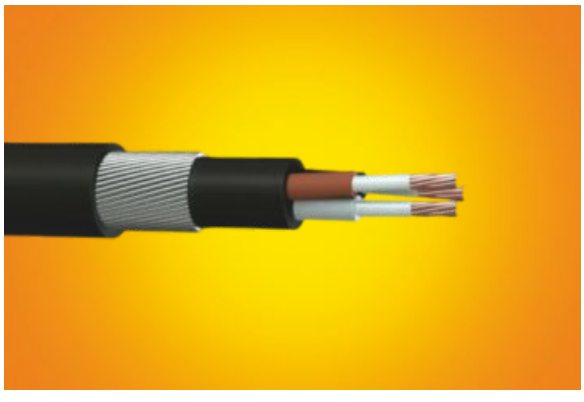
COMPREHENSIVE CABLING SOLUTIONS FOR SOLAR PV INSTALLATIONS

ALUMINIUM CABLES

Svarn unarmoured single-core aluminium cable is ideal for various underground and open-air solar setups. It's particularly well-suited for linking string boxes and photovoltaic inverters in expansive ground and rooftop PV installations. This cable excels in distributing electric power effectively.



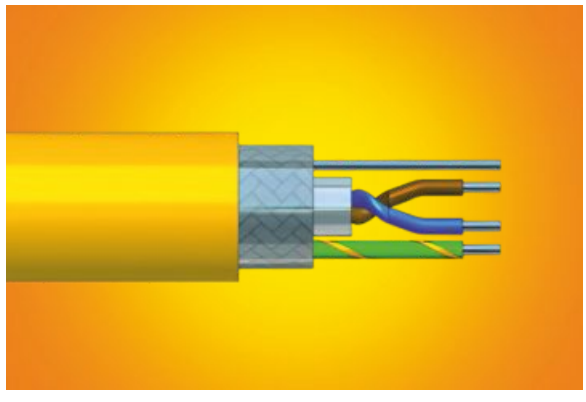
FIRE RESISTANT CABLES



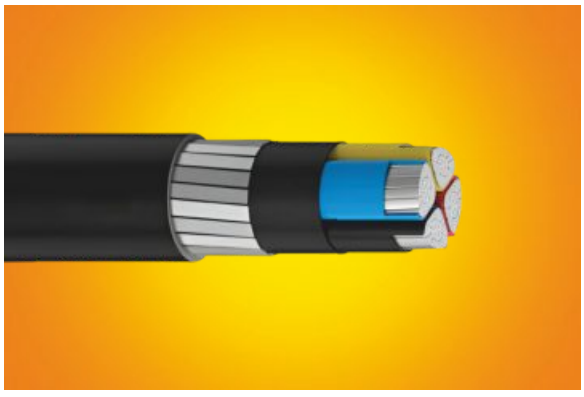
During a fire, it's crucial that onboard equipment remains operational to facilitate evacuation. Svarn leads in advancing fire-resistant cable technology for use in safety systems like emergency lighting, fire detection, and door opening mechanisms. These cables maintain electrical circuit integrity for a specified period post-fire. Svarn's power, control, and instrumentation cables enhance safety in solar farms, safeguarding both lives and installations from fire hazards.

FIELDBUS, COAXIAL OR OPTICAL FIBER CABLES

Can Bus or Profibus cables offer fixed impedance for precise digital signal transmission, controlling essential PV array functions like motors and hydraulics. Coaxial cables handle high-frequency data transmission onboard, including video signals for surveillance cameras. Optical fibers transmit information over long distances at high speeds, and are immune to electromagnetic interference from power cables or machinery.



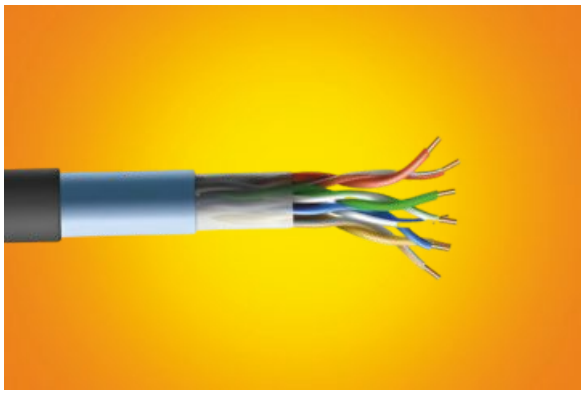
POWER & CONTROL CABLE



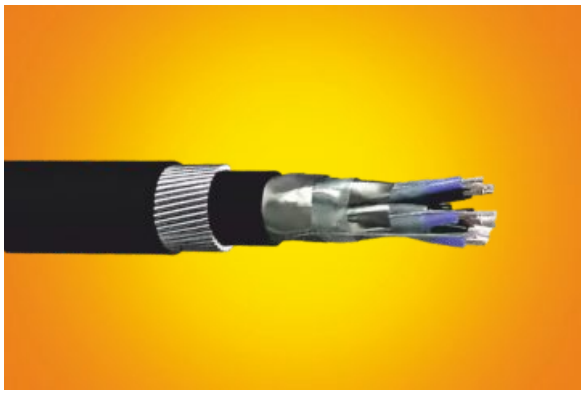
Svarn offers unarmoured power and control cables for fixed installations without mechanical risk. In contrast, Svarn armoured cables are suitable for areas needing extra mechanical protection and electrical screening (EMC). For tight spaces requiring optimal bending, the highly flexible Svarn cable range is recommended. Additionally, the sectoral conductors of multicore cables contribute to space and weight savings on cable trays.

LAN CABLE

LAN cables facilitate secure and high-speed data transmission for solar irrigation via RJ45 connectivity. Depending on performance needs, LAN cables are available in various categories such as Cat 6 and Cat 6A, tailored for demanding communication systems. To meet mechanical and EMC challenges, LAN cables feature designs with tinned copper braid, SF/UTP, or S/FTP shielding. They are offered in configurations of 4 pairs or 2x4 pairs to help minimize installation expenses.



TELECOMMUNICATION AND INSTRUMENTATION CABLE



Svarn's telecommunication and instrumentation cables are tailored for fixed applications, with circuits rated at 150/250 V, meeting BS EN 50288-7 and IEC 60092-376 standards. Multi-core cables are primarily for control purposes, while multi-pairs, triples, or quads cater to instrumentation devices. Both armoured and unarmoured options are available for these cables.

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WORKS

Haryana
74th Milestone, Delhi-Mathura Road,
Hodal Toll Plaza, Distt. Palwal–121005

Rajasthan
Plot No. SP5 – 249, 250, RIICO Industrial Area,
Ghiloth, Neemrana, Alwar – 301705

Maharashtra
Gat No. 153/1/1, Village Ambethan, Taluka Khed
(near Dwarka School), Pune – 410501

Uttarakhand
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