

Ready for the World.



Bhansali Photo Voltaic Wires.

Now with  approval.

Bhansali Cables & Conductors Pvt Ltd., was founded in 1987 as a 'boutique' cable manufacturer. Today, the company's manufacturing facilities in Bhiwadi, near the national capital Delhi, produce a variety of specialised and custom-made cables and telecom products.

Our growth has been steady with our only ambition being to stay ahead to service our customers to their delight.

THE BHANSALI PHILOSOPHY

The Bhansali philosophy is simple: we will deliver, whatever required, where required, when required to the best of our abilities.

We produce quality products and continuous R&D efforts help us to keep ahead of the curve.

We learn from our failures and do not give up in the face of any hurdle be it in business or technology.

We do not compromise on matters of ethics and believe that relationships are more important than mere transactions.

In all that we do, our focus remains squarely on just one thing: our customer.

THE BHANSALI ADVANTAGE

The advantage of working with Bhansali is that you enjoy the benefits of a large manufacturer with the plusses of a small organisation.

We are big enough to ensure best practices, right resources and business experience. Yet, we are small enough in terms of our client focus, entrepreneurial thinking and manufacturing flexibility.

Nothing is too small for us to overlook and there is hardly anything that is too large for us to handle.

So, choose Bhansali. You will really be the winner with our quality.

UL-4703, Type PV

GENERAL CHARACTER AND USE

LISTED

Bhansali Cable's Type PV is a single-conductor, sunlight resistant, photovoltaic wire rated 90° C wet and dry, 600, 1000 and 2000 V, for interconnection wiring of grounded and ungrounded photovoltaic power systems described in Section 690.31 (A) and other applicable parts of the National Electrical Code (NEC), NFPA 70.

Ratings/Approvals

- UL listed as 600, 1000 and 2000V Type PV
- Suitable compound for XHHW, XHH, XHHW-2, RHH, RHW, RHW-2 & SIS
- 90°C in wet and dry conditions
- UL VW-1
- Sunlight Resistance
- -40° C to +90° C
- UL Subject 4703: Outline of Investigation for Photovoltaic Wire, Type PV, Direct Burial

Features

- Construction of flame retardant and sunlight resistant, cross linked polyethylene insulated layer. Design based on construction allowed for use on grounded and ungrounded systems as described in NEC article 690 without need for conduit when installed exposed.
- Suitable for continuous operating temperature of 90° C wet or dry
- Direct burial 2 kV
- Cold bend impact: -40°C
- UL listed as Sunlight Resistant
- Flame Resistance: UL VW-1
- Compatible with all major connectors

CONSTRUCTION DETAILS

Conductor: Stranded copper, size 18 AWG – 2000 kcmil, or stranded aluminum or copper-clad aluminum conductor. Size 12 AWG – 2000 kcmil, in accordance with Type RHW-2 in the Standard for Thermoset-Insulated Wires and Cables, UL 44, except that 18 and 16 AWG meet the requirements in Section 6 of the Standard for Fixture Wire, UL 66.

AWG Construction – 600 V Rated Wire

AWG Size of Conductor		mils	
Copper	Aluminum or copper-clad aluminum	Minimum Average Thickness	Minimum Thickness at any Point
18 - 10	12 - 10	60	54
8 - 2	9 - 2	75	68
1 - 4/0	1 - 4/0	95	86
250 - 500 kcmil	250 - 500 kcmil	110	99
550 - 1000	550 - 1000	125	112
1100 - 2000	1100 - 2000	140	126

AWG Construction 1000 or 2000 V Rated Wire

18 - 10	12 - 10	75	68
8 - 2	9 - 2	85	77
1 - 4/0	1 - 4/0	105	95
250 - 500 kcmil	250 - 500 kcmil	120	108
550 - 1000	550 - 1000	135	121
1100 - 2000	1100 - 2000	155	140

Metric Conductors in Accordance with Conductors of Insulated Cables. IEC 60228, Class-5 Copper as per IEC 60228 600 V Rated Wire

Nominal cross sectional area (mm ²)	Maximum dia. of wires in conductors (mm)	Maximum resistance of conductor at 20 °C		Minimum Av. thickness (mm)	Minimum thickness at any point (mm)
		Plain wires (0hm/km)	Metal-coated (0hm/km)		
0.50	0.21	39.0000	40.100	1.52	1.37
0.75	0.21	26.0000	26.700	1.52	1.37
1.00	0.21	19.5000	20.000	1.52	1.37
1.50	0.26	13.3000	13.700	1.52	1.37
2.50	0.26	7.9800	8.2100	1.52	1.37
4.00	0.31	4.9500	5.0900	1.52	1.37
6.00	0.31	3.3000	3.3900	1.91	1.73
10.00	0.41	1.9100	1.9500	1.91	1.73
16.00	0.41	1.2100	1.2400	1.91	1.73
25.00	0.41	0.7800	0.7950	1.91	1.73
35.00	0.41	0.5540	0.5650	2.41	2.18
50.00	0.41	0.3860	0.3930	2.41	2.18
70.00	0.51	0.2720	0.2770	2.41	2.18
95.00	0.51	0.2060	0.2100	2.41	2.18
120.00	0.51	0.1610	0.1640	2.79	2.51
150.00	0.51	0.1290	0.1323	2.79	2.51
185.00	0.51	0.1060	0.1080	2.79	2.51
240.00	0.51	0.0801	0.0817	2.79	2.51
300.00	0.51	0.0641	0.0654	3.18	2.84
400.00	0.51	0.0486	0.0495	3.18	2.84
500.00	0.61	0.0384	0.0391	3.18	2.84
630.00	0.61	0.0287	0.0292	3.56	3.20



**Metric Conductors in Accordance with Conductors of Insulated Cables. IEC 60228,
Class-5 Copper as per IEC 60228**

1000 or 2000 V Rated Wire

Nominal cross sectional area (mm ²)	Maximum dia. of wires in conductors (mm)	Maximum resistance of conductor at 20 °C		Minimum Av. thickness (mm)	Minimum thickness at any point (mm)
		Plain wires (0hm/km)	Metal-coated (0hm/km)		
0.50	0.21	39.0000	40.1000	1.91	1.73
0.75	0.21	26.0000	26.7000	1.91	1.73
1.00	0.21	19.5000	20.0000	1.91	1.73
1.50	0.26	13.3000	13.7000	1.91	1.73
2.50	0.26	7.9800	8.2100	1.91	1.73
4.00	0.31	4.9500	5.0900	1.91	1.73
6.00	0.31	3.3000	3.3900	2.16	1.96
10.00	0.41	1.9100	1.9500	2.16	1.96
16.00	0.41	1.2100	1.2400	2.16	1.96
25.00	0.41	0.7800	0.7950	2.16	1.96
35.00	0.41	0.5540	0.5650	2.67	2.41
50.00	0.41	0.3860	0.3930	2.67	2.41
70.00	0.51	0.2720	0.2770	2.67	2.41
95.00	0.51	0.2060	0.2100	2.67	2.41
120.00	0.51	0.1610	0.1640	3.05	2.74
150.00	0.51	0.1290	0.1323	3.05	2.74
185.00	0.51	0.1060	0.1080	3.05	2.74
240.00	0.51	0.0801	0.0817	3.05	2.74
300.00	0.51	0.0641	0.0654	3.43	3.07
400.00	0.51	0.0486	0.0495	3.43	3.07
500.00	0.61	0.0384	0.0391	3.43	3.07
630.00	0.61	0.0287	0.0292	3.43	3.07



ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 certified