



# ULTRA SAFE 150 eB-HFFR



## About us

V-MARC India Limited stands today as one of India's most trusted and forward-looking wire and cable manufacturers, driven by a commitment to quality, safety, and technological excellence. With a strong presence across 24+ states, the company has established a robust distribution network that brings world-class electrical solutions to households, industries, and infrastructure projects across the country.

In 2006, under Mr. Garg's visionary leadership, the company established its factory at SIDCUL Haridwar. By 2009, the product range had expanded to include LT PVC and XLPE cables, further solidifying the company's position in the market. April 2021 marked a significant milestone with the launch of the company's IPO. This achievement underscores Mr. Garg's dedication to sustainable progress and his strategic acumen.

Under his able leadership, V-MARC India Ltd. is now ranked amongst the top companies and is one of the fastest-growing companies in India. Mr. Vikas Garg has demonstrated a deep understanding of the industry, continually aligning the company's goals with the broader vision of enhancing consumer experience.

At the heart of V-MARC's leadership is its continuous investment in advanced technology. The company is among the select few in India to adopt E-Beam (Electron Beam) Technology, a cutting-edge process that enhances the strength, durability, and heat-resistance of cables. This ensures enhanced safety, longer life, and superior performance—especially critical for high-risk and demanding applications.

Among its flagship offerings, ULTRA SAFE 150 eB-HFFR has emerged as India's Safest Wire, trusted by electricians, dealers, and consumers alike. Engineered to withstand extreme temperatures—without melting even at very high heat—ULTRA SAFE 150 eB-HFFR offers unmatched protection against short circuits and electrical hazards.

Over the past years, the company has delivered fantastic year-on-year financial growth, driven by strong product demand, consistent quality, and a reputation built on trust. Backed by a visionary leadership team and a culture of innovation, the organization continues to expand its footprint in India and global markets.

V-MARC India Limited is not just manufacturing wires and cables—it is powering the nation's progress, energizing dreams, and setting new benchmarks in India's electrical industry.

# ULTRA SAFE 150 eB-HFFR

Single and Multicore Flexible Cables - (confirms to IS 17048:2018)

**Conductor:** The conductors drawn from 99.97 % bright electrolytic grade Copper-Class- 2/5 with more than 100% conductivity. Annealed plain copper wires are bunched together to get uniformity of resistance and flexibility as per reference standards.

**Insulation:** The bunch conductors are insulated with specially formulated e-Beam XL Halogen Free flame-retardant compound with a high insulation resistance value. These cables are insulated with specially formulated & in-house manufactured HFFR compound by incorporating eB technology that enhances electrical, thermal, fire and mechanical property of wire & cables.

**Sheath:** HFFR EBXL (for multicore cable)

**Rated Temperature :** Up to 150°C

**Products Range :**

**Single Core**

Class -2 - upto 630 sqmm

Class - 5 - upto 300 sqmm

2/3/4 Core upto 300 sqmm

**Colour:**

Single Core - Available in all colors as per specifications including Bi-color (optional)  
Multicore – Black

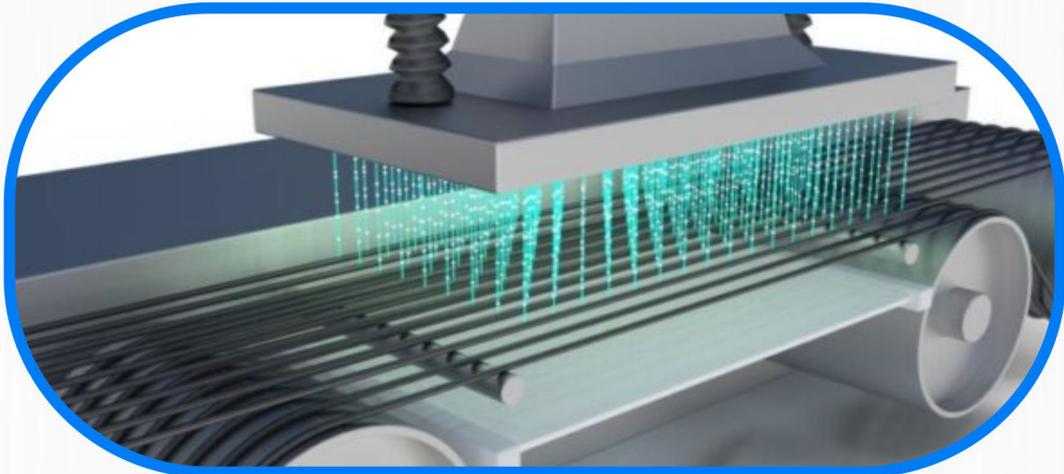


# Technical Comparison Chart

S. No.	ULTRA SAFE 150 eB-HFFR	Traditional Wire
1	Conductor Operating Temp. Upto 150°C	Conductor Operating Temp. Upto 70°C
2	Short circuit temperature 250°C	Short circuit temperature 160°C
3	Hot Set Property at 200°C = 50% (Max)	Hot Set – Not Available
4	Smoke Emission (Light Transmission) 90%	Smoke Emission (Light Transmission) 40%
5	Smoke Density 5%	Smoke Density 60%
6	Hydrogen Chloride Free	Hydrogen Chloride 20% Maximum

## Features : ULTRA SAFE 150 eB-HFFR

- 80% Extra current carrying capacity
- Rated Temperature :150°C
- No short circuit
- Insulation with Special e-Beam Cross-linked XLPO polymer non-toxic, sustainable materials.
- Superior fire resistance
- No smoke during contact with flame
- No harmful or poisonous gas emission
- Lasting performance beyond 60+ years





## Solar & Photovoltaic DC Cable- (IS-17293 : 2020, EN-50618, IEC-62930)

### Construction:

**Conductor:** Electrolytic annealed Flexible tinned Copper conductor, as per IS : 17293 : 2020, IS : 8130 : 2013, conforms to IEC 60228, Class 5.

**Insulation/sheath :** Cross-linked XLPO e-Beam compound.

Material Properties Like fire performance, Smoke emission, Halogen emission, Toxicity Ozone Resistant, Weathering Resistance are as per reference Indian / International Standards.

**Products Range :** Upto 400 sqmm

### Features

- Electron Beam Cross Linked
- Rated Temperature : Upto 120°C (20,000h)
- Short Circuit Temp : 250°C for Max. 5 Sec.
- RoHS compliant
- UV & Ozone resistant
- Improved oil, chemical resistance & improved crack resistance
- Enhanced mechanical properties in extreme temperature conditions
- Better ageing resistance
- Halogen Free, Flame Retardant, Fire Retardant, Low Smoke Emission
- Flexibility & Stripability for fast and easy installation
- Internal test voltage : 6500 AC for 5 mins



# eB<sup>+</sup> Power Cables

## Product Construction:

- Conductor:** Aluminium conductor complying with IS: 8130 : 2013
- Insulation:** Cross-linked e-Beam XLPE compound .
- Inner sheath:** PVC / as per Customer Specification.
- Armouring:** Strip, Wire, G.I. and Aluminium
- Outer sheath:** PVC ST-2 / HFFR EBXL / as per Customer Specification

## Technical Data:

- Operating Temperature:** -15°C to 125°C
- Short Circuit Temperature:** 250°C
- Bending radius (min):** 12 x Cable Dia
- Rated Voltage :** 1.1 KV
- Test Voltage:** 3.0 kV for 5 mins.
- Specification:** IS:7098 Part-1 : 1988



## Advantages of e-Beam Cross-Linked Over Conventional System

S. NO	Parameters	e-Beam Cross Linking	Coventional XLPE
1	Cross-Linking Bond	C - C	C - S x -C or C - O x -C
2	Operating Temperature	Up to 125°C	Up to 90°C
3	Life of Cable	40 Years (Min.)	10 Years (Min.)
4	Variation in Mechanical Parameters after Ageing at 135°C / 7 Days.	-5%	-25%
5	Effect on High Overload Current	Not Burned	Burned
6	Impurity in Compound	No Colour Pigment	Impurity adding by colour pigment
7	Cold Bend Test	- 40°C	- 15°C
8	Blooming Effects	No Effect.	Chances to bloom to Outer Layer Leading to surface deterioration.
9	Polymer Degradation during cross-linking	No	Yes
		As eB Cross Linking occurs at room temperature	As cross-linking occurs at higher temperature (90°C)
10	Oxidative degradation	No	Yes

# Features: eB<sup>+</sup> Power Cables

- e-Beam Cross-Linked “Power Cables” .
- Offers 30% higher current carrying capacity\*(during overload conditions)
- Rated Temperature : 125°C
- Minimize current leakages with high insulation resistance
- Resistant to corona effect
- Low direct electric losses
- High insulation resistance at elevated temperature, prevents fires caused due to overloads.
- Life Span 40+ years



## OUR PRODUCT RANGE



**eB+ POWER CABLE**



**PVC MULTICORE CABLES**



**HT POWER CABLES**



**EBXL SUBMERSIBLE CABLE**



**SOLAR DC CABLE**



**FIRE SURVIVAL CABLES**



**SOLAR STREET LIGHT**



**MVCC & ACCESSORIES**



**MULTISTRAND CABLE**



**MCB'S & RCCB**



**SWITCHES**



**FAN**

# Our Presence



## Our Offices

### Registered/Head Office

Plot No.3, 4, 18 & 20A  
Sector - IIDC, SIDCUL, Haridwar  
Uttarakhand - 249403

### Manufacturing Plant

Bahadrabad, Roorkee  
Haridwar, Uttarakhand - 247667

### Noida Office

C-27, C Block, 3rd Floor  
Trapezoid IT Park, Phase 2, Sector - 62  
Noida, Uttar Pradesh - 201309

### Cochin Office

BS 8, Heavenly Plaza,  
Civil Lines Rd, Vazhakkala  
Cochin, Kerala-682030

### Mumbai Office

401 Acme Plaza, Opp. Sangam Theatre  
Andheri Kurla Road, Andheri (East)  
Mumbai -400093

### Chennai Office

2/8 B, Anbu Valarmathi Nagar  
Vadaperumbakkam, Chennai  
Tamilnadu - 600060



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