MAHENG/2012/47805

EPR

electrical & power review

WAACAB is developing advanced solar DC cables for extreme conditions

The company's cables are certified to EN 50618:2014 and IEC standards, ensuring adherence to international quality benchmarks.

The climatic conditions in India are challenging, so WAACAB is reshaping solar connectivity in the country with advanced cables, connectors, and power distribution solutions specifically designed for these conditions. Backed by global certifications and continuous R&D, the company is redefining innovation in reliability, safety, and sustainability to empower EPCs, developers, and utilities, helping to deliver efficient, future-ready renewable energy projects at scale. Satyam Khamar shares insights of the company with EPR.

How is WAACAB ensuring durability in India's extreme climatic conditions?

At WAACAB, we have focused on developing solar DC cables with enhanced UV resistance, higher temperature tolerance, and improved flame-retardant properties. These features help cables to withstand the diverse and often extreme Indian climatic conditions. Our cables are certified to EN 50618:2014 and IEC standards, ensuring compliance with international quality benchmarks. On the connectivity side, our MC4 and solar branch connectors have been upgraded with low contact resistance, IP67 & IP68 protection, and anti-ageing insulation. This guarantees safe and long-lasting performance in dusty, humid, and high-temperature environments commonly seen across solar plants in India.

How is WAACAB addressing evolving standards for reliability?

As standards evolve, our R&D team continuously aligns designs with BIS, IEC, RoHS, CE, and TUV certifications. For earthing cables, we are introducing corrosion-resistant tinned copper variants

Now you can read this story online by scanning the QR code

Satyam Khamar
Head BD & Planning
WAACAB

to ensure stability in high-moisture zones. Our armoured and unarmoured cables are designed with higher mechanical strength and anti-rodent features, reducing the risk of physical damage in long-term deployments. Flexible and multi-core cables are optimised with fine-strand conductors and robust insulation compounds, balancing both flexibility for installation and durability for reliability over decades.

What innovations has WAACAB introduced for reliability?

The biggest challenge with submersible cables is ensuring waterproofing, abrasion resistance, and long-term insulation integrity. We have innovated our products with triple-layer insulation technology and specialised PVC compounds that resist not just water ingress but also oil and chemical exposure in borewells. We also offer flat submersible cables optimised for the PM-KUSUM scheme, which enables reliable power delivery for agricultural pump sets in rural India, where durability and affordability must go hand in hand.

Moreover, our power distribution solutions are evolving into smarter and safer systems. In ACDBs and DCDBs, we have integrated surge protection devices, string monitoring features, and higher short-circuit withstand capacities. AJBs are designed for plug-and-play installation with IP65/66 enclosures, ensuring faster project execution. LT Panels are being developed with digital metering, IoT-based monitoring, and modular scalability, which allows EPCs and utilities to manage loads more efficiently while reducing downtime.

How is your future roadmap aligning with evolving industry trends for EPCs and utility-scale renewable projects?

Our roadmap is focused on innovation, sustainability, and reliability. We are investing in smart cables with embedded monitoring, transitioning to eco-friendly, halogen-free insulation materials. Additionally, we offer pre-assembled, plug-and-play distribution boxes that help EPCs save on installation time. For utilities, we are designing tailor-made cable and power distribution solutions for large-scale solar, hybrid, and storage projects. We aim to be more than a manufacturer; we strive to be a trusted solutions partner, powering the country's renewable future with speed and long-term dependability.

What offerings are you putting forward at the REI Expo 2025 event?

Yes, we are participating in REI Expo 2025. These platforms are critical for us to showcase our end-to-end solar ecosystem solutions, like:

- Solar DC Cables, Earthing & LA Cables
- Flexible, Armoured/Unarmoured, and Submersible Cables
- ACDB, DCDB, AJB & LT panels
- MC4 and solar branch connectors

Our theme this year is "Powering Reliability, Enabling Growth", highlighting how WAACAB supports EPCs, developers, and utilities in delivering projects that are both cost-effective and future-ready.