

### nVent ERIFLEX Flexbus

Easy-to-install Flexible Power Connection Solution from 500 A to 6300 A



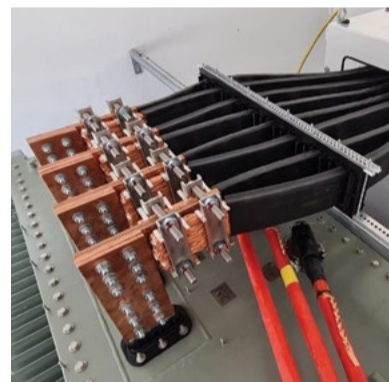
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## ATI SYSTEMS KEEPS REVOLUTIONISING POWER DISTRIBUTION IN SOUTH AFRICA



The nVent ERIFLEX Flexbus offers several advantages over traditional power connection solutions, making it an attractive option for various applications.



ATI Systems has been at the forefront of providing cutting-edge solutions for electrical installations in South Africa. With two main divisions, nVent Hoffman and Elsteel, ATI Systems offers a range of innovative products that meet international standards and certifications, ensuring reliability and safety.

ATI Systems began distributing the Eldon range of enclosures in the mid-1990s, focusing on high-quality enclosures. Recently, Eldon became part of the nVent Hoffman family, which expanded ATI Systems' product offerings, especially in the increased safety market, including intrinsically safe panels.

According to Jaco Nel from ATI Systems, these products come with all internationally specified standards and certifications, ensuring they meet the highest safety and quality requirements.

#### Market position

ATI Systems has established itself as a leader in the South African electrical industry by consistently sourcing the best products, providing exceptional customer care, and investing in the training of its representatives. The company's

commitment to quality and customer satisfaction has earned it a strong reputation and a significant market share.

"With nVent Hoffman acquiring Eldon, ATI Systems was approached to handle some other products within the nVent family. Amongst some of these products product is the Flexbus power distribution product. It is used to connect transformers to power distribution panels, generators and large UPS," says Nel.

#### A game-changing solution

The nVent ERIFLEX Flexbus is a game-changer in power distribution systems.

The Flexbus system offers several advantages over traditional power connection solutions, making it an attractive option for various applications.

The Flexbus power connection solution is characterised by its lightweight copper-coated aluminium conductors, which are easy to handle and install.

This makes it particularly suitable for installations where space and weight are critical factors. The system is versatile and customisable, allowing for flexible designs tailored to specific project requirements. It requires no special tools and is designed for typical distances of up to 25 metres.

One of the major benefits of the Flexbus system is its speed of installation. It is at least 50% quicker to install than conventional busduct or cable connections, significantly reducing labour costs and minimising installation time.

As a result the need for labour-intensive and costly cable lugs is eliminated, and imperfect site conditions or misaligned equipment are no longer an issue.

The Flexbus system also offers significant space and weight advantages. For example, only one conductor per phase is needed for capacities ranging from 400 kVA (560 A) to 1600 kVA (2250 A), compared to multiple conductors required by cable solutions.

This results in a total installation cost reduction of at least 20%. Additionally, the system's design does not require specific engineering studies or strict installation measurements, further simplifying the installation process.

Safety and security are paramount in the design of the Flexbus system. The conductors are insulated with a high-temperature, flame-retardant, low-smoke, and halogen-free material, ensuring they meet IEC worldwide standards and certifications. Additionally, the use of aluminium conductors, which are less attractive to copper thieves, adds an extra layer of security.

#### Customer benefits

ATI Systems' extensive stock of high-quality enclosures, including the Flexbus system, means they can supply complete Motor Control Centres (MCCs) directly from stock. This is particularly beneficial for contractors and consumers who require immediate replacements or installations.

ATI Systems works closely with low and medium voltage contractors, guiding them in making sound product choices and providing the necessary support for successful installations.

ATI Systems continues to lead the way in providing innovative and reliable solutions for the South African electrical industry.

The nVent ERIFLEX Flexbus exemplifies their commitment to offering state-of-the-art products that enhance efficiency, safety, and cost-effectiveness.

By maintaining a strong stock position and focusing on customer needs, ATI Systems ensures that it remains a trusted partner for electrical contractors and businesses across Southern Africa.

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## WEG Africa is pioneering the local manufacture of MV softstarters

WEG Africa has become the first OEM to produce medium voltage (MV) softstarters in South Africa, reducing lead times for customers and supporting the drive for local manufacture.

The WEG SSW7000 units are produced at WEG Africa's Robertsham facility south of Johannesburg to the high-quality standards for which the company is well known. According to Pervin Gurie, Director of the

Digital & Systems Division at WEG Africa, the popular SSW7000 range is well-regarded by the market. These softstarters, which are extensively used in pump and fan applications in Africa's mining sector, have now also become more cost effective.

"As the demand for our MV softstarters has grown in recent years, we recognised that customers could benefit considerably from having these products manufactured

locally," says Gurie. "The immediate benefit is that we can almost halve the lead time from 20 to 24 weeks to 10 weeks, by removing the need for long-distance shipping from WEG's Brazil facilities."

He notes that the strategic value of softstarters has come to the fore as users look for ways to address the rising cost of electricity, as well as to protect their electric motors and extend their operational lifecycle.

Softstarters allow a gentle ramp up of power as electric motors are started, reducing the peak energy demand during startup. Motors starting with a conventional direct-on-line (DOL) starting will draw up to 700% more than its rated current, while a softstarter can reduce this to just 300%.

"Our Robertsham design and production facility already manufactures a range of Variable Speed Drive Panels and Motor Control Centres, among other solutions," he explains. "Our customers are always impressed by our infrastructure and expertise here, and we look forward to welcoming more of them when they visit to inspect the new MV softstarter manufacturing area."

The local manufacturing capability will include the continued customisation of MV softstarters, where units are designed to meet specific requirements in customers' applications. Gurie highlights that solutions can also be packaged in a containerised substation, as was the case with a recent order for a mining customer in Angola.

"The order of 11 units that we built last year was delivered in three containerised substations, and could be easily transported and installed on site for quick commissioning," he says. "We have also found that customers in Africa have particular needs, such as extra space in their panels to accommodate thicker cables with less flexibility."

He sees ongoing potential for the WEG SSW7000 range, which includes a monitoring feature that tracks whether the electric motor is overheating or drawing excessive current. This enables the shutdown of the motor down before damage is caused.

"To produce these MV softstarters locally, we have been able to apply our stringent manufacturing quality systems in place at our Robertsham facility," he says.

"We also use the proven WEG designs from our head office in Brazil, as well as technical input from our engineers there, as and when required. This assures customers that all these units continue to be produced to WEG's world class standards."

Enquiries: [www.weg.net](http://www.weg.net)



Pervin Gurie, Director of the Digital & Systems Division at WEG Africa.



The strategic value of softstarters has come to the fore as users look for ways to address the rising cost of electricity, as well as to protect their electric motors and extend their operational lifecycle.

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WEG is one of the largest manufacturers of Mini Substations, Distribution Transformers, Power Transformers (up to 45 MVA, 132 kV) and Mobile Substations, including transformers for renewable energy generation (photovoltaic and wind farms) in South Africa.

Operating two manufacturing facilities, one in Wadeville and the other in Heidelberg, we have the capability to design, engineer and manufacture the complete range of transformers presently in use in the country's energy generation, transmission, distribution, mining, industrial, rail and renewable sectors. All designs are done in accordance with clients' specifications and international standards.

Value added services include a state-of-the-art oil sampling laboratory in Heidelberg, which supports local production, as well as monitoring the health of customers' units, allowing for preventative maintenance and ensuring the longevity of transformers.

With international support from our transformer factories located abroad (10 facilities), WEG has successfully delivered a variety of units in Africa, with the largest installed transformers being 500 MVA, 400 kV.

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Driving efficiency and sustainability



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## Inspiration and innovation at this year's Electra Mining Africa

From drones to the Cloud to AI, the world is progressing at the speed of light. It's not always easy staying on top of the latest innovations in your field.

But at Electra Mining Africa 2024, you'll find all the latest cutting-edge technology on display, hear talks from trailblazers in the industry and meet hundreds of exhibitors across the areas of mining, electrical, automation, manufacturing, power and transport all in one place.

Taking place at the Expo Centre in Nasrec, Johannesburg from 2 to 6 September, this year's event will be one of the biggest Electra Mining Africa exhibitions to date.

The show will extend across 35,000+ m<sup>2</sup> of exhibition space and accommodate over 850 exhibitors, demonstrating the popularity of the show. It's focus is largely on local industry suppliers and manufacturers with top brands participating, together with an international contingent from countries including the United Kingdom, United States of America, Canada, Australia, Italy, Germany, Switzerland, Taiwan, India and China.

As the largest trade show of its kind in Southern Africa and with its over five decades of experience, Electra Mining Africa offers an outstanding opportunity for both exhibitors and visitors, buyers and sellers, to connect face-to-face and develop long-lasting business relationships.

Hundreds of live demonstrations will bring machinery and equipment to life, with thousands of new products and innovations displayed throughout the five exhibition halls

and extensive outside exhibit areas.

"We're looking forward to this year's show," says Gary Corin, Managing Director of Specialised Exhibitions, a division of Montgomery Group. "The industry gave its full support to Electra Mining Africa 2022, which had just over 30,000 visitors through the gates. We're expecting to exceed those numbers this year. Large organisations and SMMEs will be represented across the areas of mining, electrical, automation, manufacturing, power and transport. Some have exhibited with us for over 50 years, with their businesses growing alongside the growth of Electra Mining Africa. What better way to bring a brand to life: on the floor of an exhibition where you're engaging with your target market face-to-face. It's a unique value-proposition to participate in an exhibition like this."

The Electra Mining Africa Innovation and New Products Awards will be taking place again this year, following its success in 2022. Organised in partnership with the South African Capital Equipment Export Council (SACEEC), the awards recognise the outstanding levels of innovation at the show. Many entries are anticipated again this year.

Charlene Hefer, Portfolio Director at Specialised Exhibitions, spoke about the various attractions, citing the Forklift Driver competition and the focused automation hall as two of the exciting elements at this year's show.

"The Forklift Driver competition organised in conjunction with Lifting Africa and LEEASA is back this year on a much bigger



Visitors at the 2022 edition of Electra Mining Africa.

scale. It's where exceptional forklift driver skills will be put to the test with Forklift operators competing for the coveted title of Forklift Driver Champion," explains Hefer. "We're also thrilled that the automation hall, a huge attraction in 2022, has received overwhelming support from industry again this year and will be filled with groundbreaking innovations. In addition, for the first time this year, Electra Mining Africa is incorporating the Local Southern African Manufacturing Expo."

Education and learning is important to Electra Mining Africa. Industry experts will be delivering free-to-attend talks on latest trends and developments at the Seminar Theatre in Hall 9, hosted by the South

African Institute of Mechanical Engineering (SAIMechE). Topics will be aligned with the show's theme days of sustainability, women and skills development, safety and lifting, innovation and South Africa day. The Lifting Equipment Engineering Association of SA (LEEASA) and the Southern African Institute of Mining and Metallurgy (SAIMM) will be hosting conferences alongside the show. Women in Mining South Africa (WiMSA) will be hosting a half-day women in mining workshop.

"Electra Mining Africa is going to be a great show and the innovation on display will be mind-blowing," concludes Hefer.

Enquiries: [www.electramining.co.za](http://www.electramining.co.za)

## A new, ultimate mounting solution

A leading innovator in adhesive technology, Pratley has launched its latest addition to an already impressive range of ultra-high-performance adhesives. Pratley GripTack Double Sided Mounting Tape is a cutting-edge adhesive tape that offers an alternative to screws, nails, and other mechanical fasteners by providing users with a quick, easy, long-lasting, and reliable solution for mounting and holding objects in place.

"With its convenient application and ultra-strong, industrial strength bond, this tape simplifies mounting tasks, making it quicker, easier, and more efficient than ever before," says Mark Bell, National Sales and Marketing Manager at Pratley Adhesives.

GripTack Double Sided Mounting Tape is quick to use without any hassle, making it suitable for both DIY projects and professional use. The tape provides a reliable and robust bond that increases in strength over time. "We have combined the user-friendliness of a DIY tape and the strength and technology of a high-performance industrial product to create the ultimate double sided adhesive tape," highlights Bell.

Due to its strong adhesive properties and high-quality polyurethane foam, GripTack tape also helps dampen vibrations, making it perfect to mount objects in environments where movement or vibration occurs.

"Whether you are mounting items inside your home or securing something outdoors, this tape can handle a lot," says Bell. It is perfect for a variety of applications in and around the home, garage, or workshop. From mounting picture frames and mirrors onto walls, affixing bathroom towel hooks onto tiles, securing mats to prevent movement or bonding vehicle number plates, and trimming, Pratley GripTack tape has a multitude of uses and is ideal for both indoor and outdoor applications.

As is the case with all adhesives, when applying GripTack Double Side Mounting Tape, users should ensure that both surfaces to be bonded are clean and free of any loose material as well as any oil or grease. For the ultimate bond, it is recommended that the tape be applied at ambient

temperatures higher than 15°C. When applying the tape in colder conditions, users can put the tape in a warm area or in their pocket for a few minutes. Once applied, GripTack Double Sided Mounting Tape can withstand temperatures as low as -20°C and as high as 60°C.

"If you are looking for the ultimate,

reliable double sided mounting tape that combines the user-friendliness of a DIY tape, and the strength and technology of a high-performance industrial tape, then Pratley GripTack® Double Sided Mounting Tape is the ideal choice," concludes Bell.

Enquiries: [www.pratleyadhesives.com](http://www.pratleyadhesives.com)



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## SEW-EURODRIVE aims to close the loop offering complete panel solutions

As companies in various sectors move toward a preference for single sources of supply, SEW-EURODRIVE South Africa is highlighting its capabilities in the supply of complete control panels.

Well known for its geared motors, frequency inverters, controls and software, the company's control panels help customers to streamline their costs and supply chain.

In addition to its quality range of geared motors and related solutions, SEW-EURODRIVE South Africa is 'closing the loop' of products by offering customers electrical control panels as part of the package.

According to Willem Strydom, Business Development Electronics Manager at SEW-EURODRIVE, there has been a strong trend in recent years of companies wanting to deal directly with original equipment suppliers (OEMs). The preference is moving toward a single source of supply to reduce cost and risk, and to simplify the supply chain.

"The market in many industries from mining to agriculture has made it clear that they can no longer afford 'middlemen' in the procurement process," says Strydom. "Companies want to deal with one supplier, preferably a specialised OEM who has a depth of expertise and can stand behind their solutions with the necessary support."

Responding to these customer needs, SEW-EURODRIVE has been pursuing a strategy of complementing its existing range by steadily adding more value – or closing the loop. Control panels are another vital aspect of most contracts in which the company is involved, so it has actively moved into this space to make it easier for customers.

"There are relatively few OEMs in our field in this region, which gives us the ability to broaden our offering while giving customers high quality solutions and peace of mind," he says. "With one of the largest sales forces in the country with on the ground representation across Africa, SEW-EURODRIVE delivers outstanding service levels to support our depth of mechanical and electronic capability."

The company's in-house engineering team designs control panels for specific applications where its drive technology is being applied, and even provides the programming required. The local assembly of these units also aligns



Willem Strydom, Business Development Electronics Manager at SEW-EURODRIVE.



View inside an SEW-EURODRIVE wall mount panel.

with many industries' efforts to support the local economy and secure their supply chains against possible disruption.

"Our customers are looking for the same high quality of ancillary equipment as they receive with all our other products and solutions," says Strydom. "With our established reputation in the market, customers trust that we will deliver what they need."

The quality design and manufacture of SEW-EURODRIVE South Africa's panels and enclosures can be suited to any customer requirement, including floor mounts or wall mounts – and with ingress protection (IP) ratings up to IP65 or whatever the application demands. The panels can also be supplied for containerised solutions such as e-houses, which are increasingly popular around Africa on remote mining sites as well as other industrial applications.

"While our focus in the past has been on our specialised componentry and solutions, our customers have requested our broader involvement in their projects – leading to us entering this important space," he concludes. "This has further cemented our relationships with customers, through being able to assume responsibility for a wider scope."

Enquiries: [www.sew-eurodrive.co.za](http://www.sew-eurodrive.co.za)

## Thousands visit this year's A-OSH Expo

From 11 to 13 June, the A-OSH Expo 2024 served as a comprehensive, all-inclusive platform for industry safety specialists sourcing occupational safety and health (OSH) technology and services.

The expo, co-located with Securex South Africa, Facilities Management Expo, and Fireexpo at the Gallagher Convention Centre in Midrand, provided visitors with a keen insight into the current state of occupational health.

Co-located expos like Securex showcased the multi-industry appeal of the event, featuring solar power, backup power, and lighting alongside products aimed at safety and security. "Experience shows that the location of these four leading symbiotic trade shows under one roof has a positive effect for exhibitors and visitors alike. Visitors

to the expos are exposed to thousands of end-to-end safety, security, and facilities management solutions in one venue, greatly reducing the time required to find the exact technology and services to optimise their workplace," said Mark Anderson, Portfolio Director at Specialised Exhibitions, a division of Montgomery Group, the organisers of the annual event.

The A-OSH Expo was populated by the latest trends in safety and health, with live demonstrations at exhibitor stands allowing visitors to benefit from an immersive, hands-on experience. "We have numerous highly knowledgeable exhibitors who freely disseminate information to aid the market in making the right choices when it comes to security. These same exhibitors also provide advice to fellow exhibitors to assist them in growing their businesses and remaining competitive in the market," said Anderson.

Some exhibitors included ALCO-Safe at

## RS PRO ensures automation efficiency with a new extended range



RS PRO offers a complete set of products across multiple technologies.



The new RS PRO range stands out as the go-to solution for improving the efficiency of automation process.

RS South Africa, has announced the launch of its RS PRO Automation Efficiency.

This expansion enriches the RS PRO portfolio with over 1,100 new products spanning more than 18 technologies, emphasising its commitment to providing comprehensive and cutting-edge solutions for industrial automation.

Ensuring efficiency in industrial automation processes is essential to improve plant performance when it comes to production, energy saving, consumption reduction and minimising environmental impact. "RS PRO offers a complete set of products across multiple technologies to maximise automation efficiency daily and keep your production line fully effective," comments Sales Director Erick Wessels.

Adding to a wide existing range of over 45,000 products in this area, the new launch has the goal of offering customers an ever-expanding and comprehensive choice at a competitive price. The new

RS PRO range stands out as the go-to solution for improving the efficiency of automation processes, from saving energy to increasing productivity, while at the same time ensuring cost reduction.

From logic controllers and push buttons to Cat6 cables, circuit protection, energy-saving lighting and more, RS PRO offers a comprehensive one-brand solution for diverse industrial automation needs.

The Automation Efficiency launch targets a wide range of sectors, including food and beverage, paper and packaging, medical, pharmaceutical, chemical, oil & gas, equipment manufacturing, utilities, energy, engineering services, and automation.

RS PRO aims to support designers, machine builders, and maintainers by providing a comprehensive offering that meets design and compliance specifications at every stage of the product lifecycle.

Enquiries: [za.rs-online.com](http://za.rs-online.com)



Secutel Technologies showcased at Securex this year. Some of their security solutions include backup and emergency power.

Hall 3, Stand B03. ALCO-Safe is a major supplier of quality electronic breath alcohol detectors and drug detectors in South Africa. Bata Industrials, also exhibiting at Hall 3 this year, produces high-quality safety shoes and work socks. The safety shoes of Bata Industrials are characterised by innovation, comfort, and a focus on safety in different industries like electricity.

A-OSH Expo 2024 has once again solidified its position as Africa's premier occupational safety and health event, where thousands of industry leaders converged to explore the latest OSH trends, network with peers, engage with knowledgeable exhibitors, and attend the complementary sessions at the Saioosh Seminar Theatre.

The growing emphasis on preserving and enhancing human life in the workplace underscores the long-term benefits organisations can reap from a strategic OSH approach. A-OSH Expo plays a crucial role in helping OSH and risk managers create safer workplaces by showcasing trending products and services from leading manufacturers and suppliers. The importance of maintaining a work environment with uncompromising levels of personal well-



Juggernaut, Allbro, a key components supplier for transformers, was present at A-OSH 2024.



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being remains a top priority.

Organisers are already planning next year's event. Gallagher Convention Centre is set to host A-OSH 2025 from 11 to 13 June 2025, offering another opportunity for attendees to source solutions, network with their peers, interact with knowledgeable exhibitors, and enjoy the free-to-attend sessions at the Saioosh Seminar Theatre and the Working at Height and Safety Seminar Theatre. A-OSH Expo 2025 presents an excellent opportunity for organisations to gain exposure to an extended target market, and the organisers are already working on next year's edition of the expo.

Enquiries: [www.aosh.co.za](http://www.aosh.co.za)



## Cape Town enhances energy distribution

The City of Cape Town, responsible for delivering energy to 4.8 million residents in the Western Cape, has awarded ABB a three-year contract for a phased retrofit of its legacy medium voltage (MV) switchgear infrastructure. This contract builds on the success of a 2020 project, which saw the replacement of over 400 11kV oil-filled circuit breakers and more than 100 SF6 insulated circuit breakers with next-generation ABB VD4 vacuum circuit breakers. This initiative also safely disposed of 160kg of potent SF6 gas, explains Frans Bouwer, ABB Regional Manager for the Western Cape.

"In the latest phase, the City will again collaborate with ABB to install additional 12kV VD4 circuit breakers and ancillary equipment, replacing their ageing LMX installations. These advanced devices can clear potentially harmful short-circuit faults in milliseconds, preventing severe damage to electrical infrastructure and minimising downtime – a critical factor during planned loadshedding in the Western Cape," says Bouwer.

Enhanced operator safety was a key consideration, leading to the installation of a type-tested Arc-vent door, behind which the racking of the circuit breakers is completed. "We are proud to be a long-term service provider for the City of Cape Town and delighted to support them on this milestone modernisation project. Improving the reliability of the power supply is crucial for the Western Cape, but this project goes much further. The City not only invested in an upgrade to enhance power quality and availability but also sought a sustainable solution supporting the circular economy," adds the energy executive.

Over the past four years, ABB has delivered significant savings and efficiency gains for the City by replacing older legacy circuit breakers rather than entire feeder boards and substations. "This approach minimised downtime and avoided the costs and emissions associated with replacing the entire switchgear. The carefully executed retrofit preserved most of the City's existing installed base and prevented the use of an estimated 358,400 litres of oil, which would have been necessary had like-for-like circuit breakers been used," says Bouwer. "Furthermore, the project ensured the safe and sustainable disposal of the old SF6 breakers and gases. With one kg of SF6 having the equivalent greenhouse effect as 23,500 kg of CO2, ABB's full-circle end-of-life service eliminated any risk from SF6 disposal."

Upgrading outdated components is where the largest environmental gains and cost savings can be made – reducing the total cost of ownership by a third, substantially extending the lifecycle of installed assets, and minimising the need for on-site maintenance and associated transport emissions.

Patrick O'Halloran, Principal Professional Officer: Equipment Standards for the City of Cape Town, says, "ABB's collaborative approach, combined with their innovative retrofit solution, has been key in successfully continuing the ongoing modernisation of our electrical infrastructure, ensuring reliable and sustainable energy to the region and supporting our strong environmental commitments."

More than half of electrical equipment, such as metal switchgear cabinets, steel plates, and busbars, can be used for extended periods without replacement if outdated components like circuit breakers, relays, and internal components are upgraded, regularly monitored, and maintained. ABB's compact VD4-LMT vacuum circuit breakers are easy

and fast to install. The 12kV range includes 630A, 1250A, and 2000A circuit breakers, type-tested at 25kA for 3 seconds. VD4 mechanisms are tested to perform over 10,000 mechanical operations, delivering increased durability and further reducing downtime.

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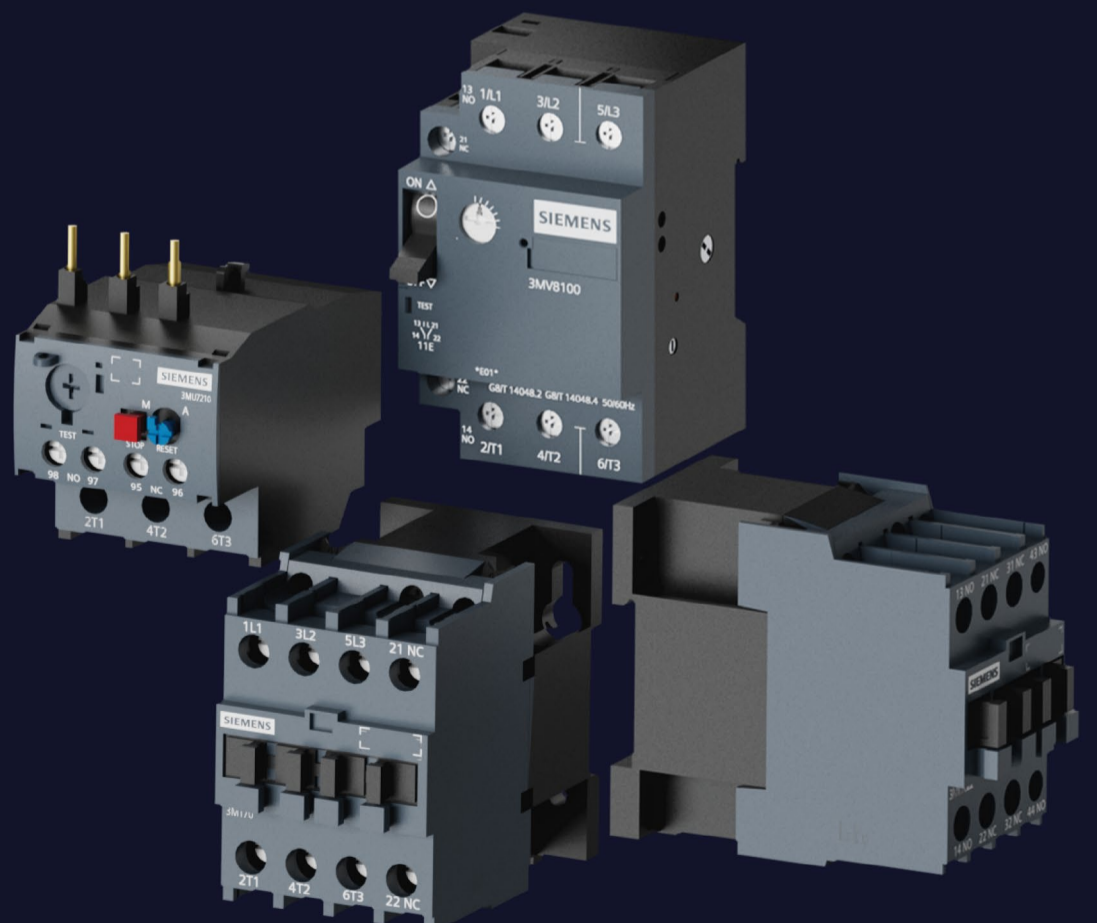
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SIEMENS



## Circular Energy NPC is growing ways to responsibly dispose of electronics

Circular Energy, a registered not-for-profit Producer Responsibility Organisation (PRO), has partnered with Hirsch's Homestores to assist South Africans in disposing of their end-of-use appliances.

This partnership underscores the critical role Circular Energy plays in ensuring effective waste management and environmental stewardship.

As a PRO, Circular Energy is approved and registered with the Department of Forestry, Fisheries and the Environment (DFFE) to operate a nationwide take-back system for the collection, recycling, and environmentally sound processing of a variety of products, including electrical and electronic equipment. By collaborating with Hirsch's, Circular Energy expands its impact, ensuring that hazardous materials are handled safely and valuable resources are recovered for reuse in secondary markets.

"Once the appliance is collected from Hirsch's, it is transported to the recycling hub where it is treated with state-of-the-art recycling technology. Here, the various components are separated and recovered as raw materials from the appliance," says Patricia Schröder, CEO of Circular Energy.

These appliances are recycled using environmentally sound practices, where all materials recovered are tracked and traced. This results in every component or material from various appliances being recovered and brought back to a raw material form where it can contribute to secondary resources.

### Reused or recycled

This advanced recycling process not only allows these components to be reused, but minimises resource wastage, reduces landfill waste, and mitigates the environmental impact of hazardous substances.

"In the case of refrigeration equipment and the outer casing - which often ends up in a landfill and is illegal to dispose of in this manner - the Polyurethane Insulation material (PUI) that acts as an insulator for temperature regulation on the interior of the refrigerator is safely separated," explains Schröder.

PUI is an excellent oil adsorbent and is applied in an oil adsorbent process used in alternative energy generation for cement kiln firing (a cornerstone in cement production). Incidentally, a newly developed PUI foam that is fully recyclable was recently launched by BASF, a Circular Energy member.

The metal recovered from the casing after the PUI that is safely removed is also recycled in local smelters where new steel is made. By converting waste into valuable resources, this initiative supports the circular economy and drives innovation in recycling technologies. "With regards to the refrigerant compressors on appliances, the oil is drained from the compressor, safely collected, and sent to used-oil recyclers. If there is still refrigerant gas left in the appliance, this is recovered

## Making digitisation & sustainability work

In 2023, the energy management and automation industry placed a strong emphasis on leveraging digital tools to meet sustainability goals. Companies are working diligently to demonstrate the tangible benefits of these tools. According to Schneider Electric's report, 'The Path to Net Zero Buildings', "Digital and electric solutions can reduce carbon emissions in office buildings by up to 70%," says Ahmed El-Besary, Vice President, Channel Sales & Marketing, Anglophone Africa, MEA at Schneider Electric.

### Driving digitisation & sustainability in channel programs

Vendors are proactively encouraging digitisation and sustainability within their channel programs. This strategic realignment aims to incentivise partners to adopt digital transformation and sustainable practices. To effectively support their partners, vendors are providing the necessary knowledge and tools to navigate this digitally transformed landscape, says El-Besary.

"Programs such as Schneider Electric's EcoXpert partner initiative are designed to equip channel partners with the industry knowledge and skills needed for a sustainable future. This program educates, supports, and fosters collaboration among partners, enhancing their sales prospects with tailored solutions and driving long-term

profitability by tapping into the growing market."

### The Importance of solutions

The demand for digitised solutions that achieve sustainability goals is continually evolving. By embracing this shift, partners not only benefit individually but also strengthen the position of vendors as industry leaders. Vendors driving positive change contribute to a more sustainable future for all.

El-Besary adds "Vendor leadership remains crucial in promoting a sustainable future. Multinational technology vendors must fulfil their environmental commitments and empower channel partners with the tools and solutions needed to achieve sustainability goals. Delivering transparent sustainability reports, demonstrating measurable progress in decarbonising supply chains, and offering a diverse portfolio of sustainable products are key expectations."

By meeting these demands, vendors enhance their reputation as innovative, responsible, and climate-conscious companies. The energy management and automation industry's approach to driving digital transformation and sustainability within channel partner programs serves as an important example for other sectors.

### Schneider Electric's commitment

Schneider Electric's partners play a vital



Ahmed El-Besary, Vice President, Channel Sales & Marketing, Anglophone Africa, MEA at Schneider Electric.

role in helping the company meet its sustainability goals, including providing 50 million people with access to clean electricity, training one million people, and supporting 10,000 entrepreneurs by 2025. "In Africa, Schneider Electric's Access to Energy program has connected over 25 million people, trained 28,000 individuals in more than 90 training centres across 27 countries," explains El-Besary, adding, "By equipping partners for the digital landscape, integrating sustainability initiatives, and meeting customer demands, vendors are enhancing their partners' success and contributing to a more sustainable and resilient future."

Enquiries: [www.se.com](http://www.se.com)



and sent to a gas supplier that scrubs the gas to be cleaned for re-use," adds Schröder. This meticulous process ensures that harmful chemicals and other substances do not pollute the environment, enhancing the sustainability of waste management practices.

This partnership highlights the critical role that retailers and PROs play in ensuring effective waste management. By working together, they not only provide a convenient solution for consumers to dispose of their old appliances, but also contribute to a healthier, more sustainable environment.

Furthermore, this collaboration fosters community awareness and encourages responsible consumer behaviour, reinforcing the importance of environmental stewardship.

Anyone unsure where to take their appliances, and household batteries for recycling can ask a store manager for advice on drop-off locations. Circular Energy also offers household collections, which can be requested through its website. Furthermore, Hirsch's provides a service where, upon delivery of new appliances, they will take old appliances and dispose of them in the relevant drop-off locations for the customer.

Enquiries: [www.circular-energy.org](http://www.circular-energy.org)

## Don't underestimate the importance of risk management when it comes to AI

Artificial Intelligence (AI) is rapidly becoming embedded in our everyday lives, from the apps we use, to search engines, facial recognition, smart devices in our homes, and more. However, while AI has many applications and benefits, and businesses are exploring its use in a variety of ways, there is also a level of risk involved, particularly when it comes to the data that AI uses. According to Ryan Boyes the governance, risk and compliance officer at Galix, risk management around AI is critical for any business, whether you have an AI strategy or not, because AI, simply put, is everywhere.

### Global standardisation

Having an international standard in place to manage the long-term risk of AI is critical, especially in light of companies like OpenAI recently disbanding their long-term risk team. The need for this is highlighted by the introduction of the International Standards Organisation (ISO) 42001 standard in December 2023.

ISO 42001 provides organisations with best practices for governing AI effectively, with formalised standards around AI management systems and a focus on understanding the risk of AI. It offers a comprehensive approach to managing AI systems throughout their lifecycle.

While ISO 42001 is a separate standard and certification, it is also intrinsically linked to ISO 27001, which is the standard for information security, because AI relies on data to perform its functions. It is therefore impossible to effectively manage AI without addressing information management systems as well. Every time anyone makes use of any AI system, whether

this is part of corporate strategy or not, there is information that is used and processed. It has become imperative that this is better understood and better managed; otherwise, organisations run the risk of information leaks, compliance breaches, and other issues around data security.

### Intelligence requires information

The reality is that AI and automation are frequently applied to information in today's world, often without our noticing or being fully aware.

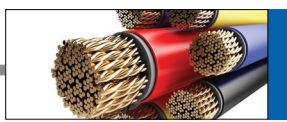
For example, if you use an AI platform like ChatGPT to build a document or help construct an email, which is something many people do without thinking, what information are you inputting to do this?

If there is sensitive data like client names or company intellectual property, there is a risk of compliance breaches, as this information is now no longer under your control and could be stored, processed, and used in a way that goes against local legislation.

Even storing information in SharePoint and then using Microsoft Copilot could potentially be problematic, as the AI servers may be located outside of your jurisdiction, and this may breach laws that your company is required to adhere to. If there is an information breach, the potential implications could be dire.

Organisations today need to be aware of how to manage the risks around AI when it comes to their information, and this needs to form an intrinsic part of both compliance and cybersecurity strategy.

Enquiries: [www.galix.com](http://www.galix.com)



## How to take advantage of overhead power distribution in data centres

The need for additional bandwidth is steadily escalating, and as a result additional bandwidth is required. This in turn needs more and larger facilities and infrastructure, which demand require additional power and a dependable electricity supply.

To address these challenges in the most efficient way, it is important that decision-makers take advantage of the most advanced technology available, rather than facing the needs of the future, with solutions of the past.

Data centres need to be able to accommodate more servers and facilities managers need to quickly address the constant need for additional capacity. In order to support the extra elements required, worldwide IT spending on servers, power and cooling and management has increased significantly over the last decade.

In addition to the increase in costs at data centres, the need for a higher voltage of power poses additional challenges. To accommodate this need, the installation of overhead power distribution systems in data centres has proved an effective way to provide increasing amperages of power.

### Busway systems to meet requirements

Power and cooling are two critical requirements of a data centre. Previously, raised floors or concrete tiles installed onto a steel grid above a slab floor, were deployed for cooling purposes. The perforated tiles that make up the floor allowed cool air to flow out of the passage below and onto the server racks.

However, this underfloor area also houses cables that supply power to the racks. As the facility expands, more server racks are installed, which require more power, in turn creating more cables under the raised floor; ultimately restricting the flow of cool air.

Disadvantages of the outdated underfloor method also include the fact that raised

floors are costly and maintenance is required to remove unused cables, which tend to be abandoned and pose a risk while working with circuit breakers and cables that are not designed to cope with a given load.

Overhead power distribution, or busway systems, directly combat the traditional power solution of cables installed beneath a raised floor. Overhead systems have been proven to be both scalable and sustainable solutions to providing power.

Select busway systems also provide continuous access to power, enabling the data centre facility to always be prepared for future reconfigurations or expansion. Power is accessible at any location with various plug-in units, eliminating the need for panel boards, long runs of conduit and wire and expensive installation costs for dedicated power outlets.

With an overhead bus system, there is no need to work on live panels or schedule outages to add, move or change outlets. Busway systems eliminate the need to remove and scrap short or undersized cable whips and run new longer or larger ones. Therefore, the risk of unintended potential power outages is avoided and racks can be installed or moved without disrupting operations.

Busways are highly sustainable systems and can be used for many years, which means there is less material waste than the traditional cables method. In addition, to cope with today's increasing server densities, an increase in kW power density is needed, which equates to a related increase in cooling requirements. Previously, this would mean the need for additional power cables under the floor that obstruct air flow and make cooling more difficult. With the safe and energy efficient overhead busway system for distributing power, this threat is eliminated.

### Flexible and scalable

It is sometimes difficult to know the exact electrical design needed at the beginning of a project and the need to reconfigure electrical outlets and locations, increases costs and causes schedule delays.

With a scalable overhead busway system, components and power circuits can be added as needed, without unnecessary capital investment and wasted resources. This system also reduces maintenance requirements, as there is no need to reconfigure electrical outlet locations and types.

### Increased usable space

Overhead busway systems also allow for efficient use of valuable space in data centres, resulting in more usable space in the facility for IT equipment and server racks. In addition, few metres of power cables are required, when power outlets or drops can be located exactly where they are needed.

### Monitored power usage

Uptime is critical at data centres and unplanned power outages must be avoided. It is also important for the facilities manager to accurately monitor the amount of power being used.

Premium overhead power distribution systems can incorporate metering units at both the feed and circuit breaker level. These devices capture real-time power and energy measurements, providing the data necessary to make informed



The busbar trunking system is ideal for the transport and distribution of energy in data centres.



Busway power distribution provides an innovative, customisable power distribution and monitoring solution that meets each customer's critical requirements.

decisions, like enabling phase balancing as needed.

Other metering functions include optional display and daisy-chain Ethernet to reduce the number of network switch ports, alarm functions and remote communication via an integrated webpage. By incorporating these capabilities into the power distribution system, data centres managers are able to intelligently track power usage and plan for future requirements.

[www.legrand.co.za](http://www.legrand.co.za)

## Samtec NovaRay cable assembly delivers PAM4 signals in dense designs

Samtec has announced availability of its NovaRay cable assemblies that combine extreme density and performance by using 40% less space than traditional arrays to support 112 Gbps PAM4 per channel.

Applications include datacom, AI/ML, HPC, computer and semiconductor, medical, test and measurement, military/aerospace, and mobile networks.

Samtec's NovaRay cable assemblies enable extremely low (<30dB, FEXT and NEXT) crosstalk out to 40 GHz. Operating across -40 to +125°C, the NovaRay cable assemblies (part number NVAC) are PCIe®6.0/CXL® 3.1 capable.

The innovative design of the Samtec NovaRay connector combines extreme performance with extreme density, which is critical as speeds increase and system sizes decrease.

The fully shielded differential pair design and two reliable points of contact contribute to its industry-leading 4.0 Tbps aggregate data rate.

The NovaRay cable assemblies include two connectors and are available with optional shielding and latching systems.

While End 1 of the NovaRay cable assembly includes a NovaRay connector, designers can select from a variety of End 2 options from the Samtec catalog depending on their application, including FQSFP, NovaRay I/O, ExaMAX®backplane, and upcoming NovaRay backplane.

NovaRay cable assemblies are available

with 34 AWG EyeSpeed® ultra-low-skew twinax cable (<3.5 ps/meter). Options include 34 AWG/100 Ω, 34 AWG/92 Ω, and 34 AWG Thinax™/92 Ω ultra-performance cable (with a 40% smaller cross-sectional area). The 92 Ω solutions address both 85 Ω and 100 Ω applications.

Samtec's NovaRay cable assemblies are in stock and available now, directly from Samtec or through authorized distributors. Samtec SI experts can be reached directly for design assistance at [sig@samtec.com](mailto:sig@samtec.com).

About Samtec, Inc.

Founded in 1976, Samtec is a privately held, \$1 Billion global manufacturer of a broad line of electronic interconnect solutions, including High-Speed Board-to-Board, High-Speed Cables, Mid-Board and Panel Optics, Precision RF, Flexible Stacking, and Micro/Rugged components and cables. Samtec Technology Centers are dedicated to developing and advancing technologies, strategies, and products to optimize both the performance and cost of a system from the bare die to an interface 100 meters away, and all interconnect points in between. With 40+ international locations and products sold in more than 125 different countries, Samtec's global presence enables its unmatched customer service.

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## Different electrical cable types and their various uses

When it comes to electrical installations, choosing the right type of cable is crucial to ensure safety, efficiency, and compliance with regulations.

Brite Lighting and Electrical is taking the guesswork out of cables with a comprehensive overview of different electrical cable types, their characteristics, and common uses.

### Flat cables

A flat electrical cable, also known as flat twin and earth cable or flat twin flex, is a type of electrical cable that has a flat, ribbon-like shape. It is typically made of two or more insulated copper conductors that are laid up parallel and then encased in a flat PVC sheath. The cables may also include a separate insulated earth conductor for grounding purposes.

Flat electrical cables are commonly used for domestic and industrial wiring applications. These include:

**Under-plaster wiring:** Flat electrical cables are often used for under-plaster wiring, where they are run through walls and ceilings. Their flat shape makes them easy to hide and less likely to damage the plaster.

**Surface wiring:** Flat electrical cables can also be used for surface wiring, where they are run along the surface of walls and ceilings. Their flat shape makes them less obtrusive

than round cables.

**Appliance wiring:** Flat electrical cables are also commonly used for appliance wiring, such as connecting ovens, stoves, and other appliances to the mains supply.

**Low-voltage applications:** Flat electrical cables can also be used for low-voltage applications, such as connecting LEDs, security systems, and audio/video equipment.

Flat electrical cables offer several advantages over round cables. They are easier to install, as they can be run through tight spaces and are less likely to snag or get tangled.

Flat electrical cables are less obtrusive than round cables, as they can be more easily hidden.

These cables are also more flexible than round cables, making them easier to bend and run around corners. Some of the major disadvantages to flat electrical cables are the fact that they have a lower current carrying capacity than round cables of the same size. They are also easier to pierce and cut.

**More susceptible to damage:** Flat electrical cables are more susceptible to damage than round cables, as they can be easily pierced or cut.

### Surfix cables

Surfix cable is a type of electrical cable that is commonly used for

surface wiring in residential and commercial buildings. It is a flat, ribbon-like cable that is typically made of two or more insulated copper conductors that are laid up parallel and then encased in a flat PVC sheath. The cables may also include a separate insulated earth conductor for grounding purposes.

Surfix cables are available in a variety of sizes and colours, and it is designed to be easy to install and maintain. It is also a relatively inexpensive type of cable, making it a popular choice for many applications.

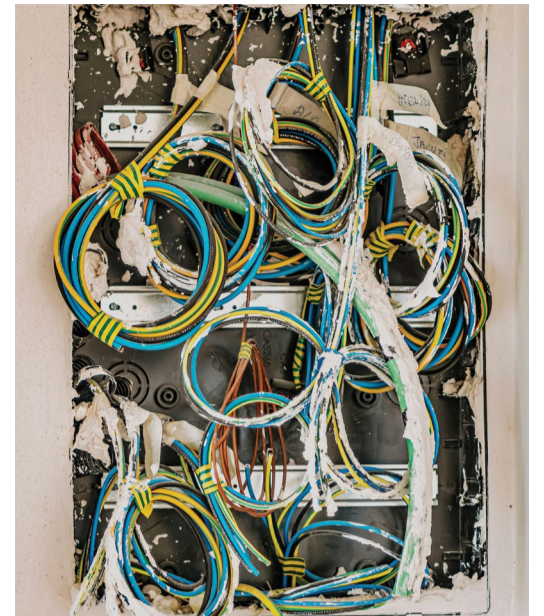
When choosing a Surfix cable, it is important to consider the application it will be used for. For example, a cable with a higher current carrying capacity is needed for an appliance that draws a lot of current, such as an oven. The conductor size of the cable must also be large enough to handle the current that will flow through it. It's also important that the voltage rating of the cable must be high enough to handle the voltage that will be applied to it.

It is always a good idea to consult with a qualified electrician to choose the right Surfix cable for your specific application.

### Armoured cables

An armoured cable is a type of electrical cable that has a metal protective covering. The metal armour can be made of steel, aluminium, or lead. Armoured cables are used in a variety of applications where the cable needs to be protected from physical damage, such as underground or outdoor installations.

Armoured cables are more resistant to physical damage than non-armoured cable, and they can also provide some protection against electromagnetic interference (EMI) and radio frequency interference (RFI). This can be important for applications where



the cable needs to be run near electrical equipment or radio antennas.

There are three types of armoured cables available:

- **Steel tape armoured (STA) cable:** STA cable is a type of armoured cable that has a steel tape armour. The steel tape is wrapped around the cable and then covered with a PVC sheath.
- **Steel wire armoured (SWA) cable:** SWA cable is a type of armoured cable that has steel wire armour. The steel wire is wrapped around the cable and then covered with a PVC sheath.
- **Lead-covered cable:** Lead-covered cable is a type of armoured cable that has a lead sheath. The lead sheath protects the conductors from moisture and corrosion.

Enquiries: [britelighting.co.za](http://britelighting.co.za)

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## New patch cables from LAPP for solar applications

With the latest EPIC SOLAR 4 GEN2 patch, LAPP is offering customised patch cables specifically for the solar industry for the first time.

The patch cables are available in individual lengths and to the highest quality standards.

In the solar and photovoltaic sectors in particular, patch cables are increasingly needed to guarantee the efficiency and reliability of solar systems. They help to simplify system installation and make maintenance easier. For example, installers need the patch cables to connect solar modules together and enable series or parallel connection so that the direct current they generate (up to 1,500 volts) can be efficiently collected and forwarded.

For use in households and power grids, the direct current (DC) must then be converted into alternating current (AC) using inverters. Here too, patches reliably connect the solar modules to the inverters.

### Reliability in data transmission

LAPP offers customers in this area a particularly efficient and time-saving solution from a single source: The prefabricated EPIC SOLAR 4 GEN2 patch assembly consisting of the TÜV SÜD-tested EPIC SOLAR 4 GEN2 connector and the ÖLFLEX SOLAR H1 BUR solar cable guarantees users the highest quality standards and traceability.

The automated crimping with pressing force and torque monitoring when tightening the screw connection also promises maximum reliability and a vibration-proof connection thanks to maximum contact reliability between

contact and cable. The automated assemblies offer a major advantage over conventional solutions, as previously assemblies often had to be created on site at the solar park, and cables had to be cut to length and crimped and the connectors had to be assembled by hand.

LAPP is now able to fulfil this entire process in-house at competitive prices and with multi-stage quality assurance. Faulty connections are thus ruled out. The machines for this production step were purchased specifically for this purpose.

Another advantage of LAPP patches is customers can order individual lengths from one to ten metres (in 1 metre increments, lengths over 2.5 and 7.5 metres as standard), as well as customer-specific packaging sizes and patch labelling from the leading provider of integrated solutions and branded products in the field of cable and connection technology.

Enquiries: [www.lapp.com](http://www.lapp.com)

LAPP's prefabricated  
assembly promises  
the highest quality  
and reliability.





## The tools to find a cable fault

When it comes to identifying and resolving cable faults, having the right tools is crucial. HellermannTyton South Africa offers a range of advanced equipment designed to make this task easier and more efficient. Here's a look at some of the key tools in their lineup:

### TJSG16KV and TJSG32KV Surge Generators

The TJSG16KV and TJSG32KV Surge Generators are powerful tools that convert a 220V input voltage into a high voltage surge of up to 16kV or 32kV, respectively. This surge is sent down the cable via a timer relay, creating a short circuit at the fault point.

This short circuit produces a distinctive "thump" sound, earning the device the nickname "Thumper." The high voltage surge also generates a magnetic field, which helps trace the cable's underground path.

The TJSG16KV features:

- Upgradeable to Modsys
  - Van or Trolley Mount
  - Robust Design
  - Mains Condition Lockout System
  - ICE Coupler Built-In
  - 4, 8, 16kV 500J Max Output
  - Stainless Steel IP21 Enclosure
- The TJSG32KV features:
- Stand Alone Surge Generator
  - Upgradeable to Modsys
  - Van or Trolley Mount
  - Robust Design
  - Mains Condition Lockout System
  - ICE Coupler Built-In
  - 0-32kV 2200J Max Output
  - Stainless Steel IP21 Enclosure

### TGM205 Ground Microphone

The TGM205 Ground Microphone is an essential tool for electricians working with underground cables. It allows the user to listen for the thumping noise created by the short circuit in the cable.

This microphone is user-friendly and highly accurate, even in noisy environments. It detects the magnetic field generated by the surge generator, helping to pinpoint the exact location of the fault by hearing the thump sound through the geophone.

The TGM205 Ground Microphone features:

- Ease of use
- Portable
- Robust design
- Analogue indicators of acoustic and magnetic signals
- Rechargeable lithium batteries
- IP67 enclosure

### TPCS101 Cable Locator

For long cables, the TPCS101 Cable Locator uses a pre-locator instrument in two ways: the Time Domain Reflectometer (TDR) method and the Impulse Current Mode. The TDR method involves transmitting a pulse that reflects off the cable's far end.

Impedance mismatches along the cable indicate potential fault locations. In Impulse Current Mode, a high voltage discharge from a surge generator breaks down the fault, and the TPCS101 displays the distance to the fault on a digital screen.

This device is portable and convenient, as it can be used with a strap around the neck for hands-free operation.

The TPCS101 Cable Locator has the following features:

- Ease of use
- Lightweight
- Robust design

- Long Battery Life
- Compact
- TDR
- Impulse Current
- Arc-Reflection

The TPCS101 Cable Locator power supply features a rechargeable built-in lithium battery that offers an impressive 8-hour battery life.

Standard accessories include a padded canvas carry case, test leads, a switch-mode battery charger, and an

operator manual. The display is a 240 x 320 pixel transmissive LCD with multilevel greyscaling and is permanently backlit for optimal visibility.

Enquiries:  
[www.HellermannTyton.co.za](http://www.HellermannTyton.co.za)



# HellermannTyton

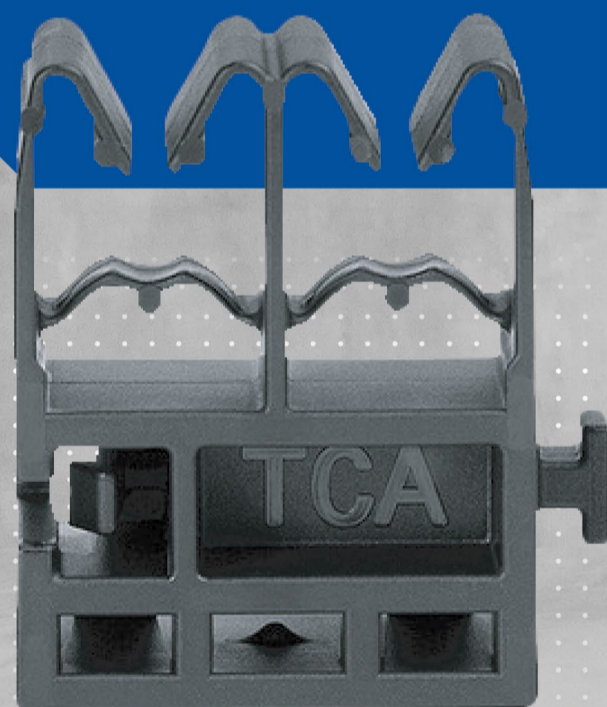
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## FEATURES

- Accommodates various cable sizes/types
- Designed with eco-friendly materials
- Eco-friendly manufacturing processes
- Environmentally responsible
- Versatile for solar and other installations
- Secures cable away from metal surfaces
- Can be linked together

# QWICGRIP

Fixings elements for parallel routing



**QWICGRIP** is a cutting-edge cable securing solution, designed to streamline and enhance cable management in solar installations. Its secure cable management and strain relief features minimise cable damage and safety hazards, ensuring your solar installation is not only reliable but built to last. With **QWICGRIP** you can have peace of mind knowing that your solar system is in the safest hands.

Say goodbye to cable hassles and hello to efficiency with **QWICGRIP**



## Eaton opens new manufacturing base in Finland

Eaton, the intelligent power management company, has opened a new state-of-the-art campus in Helsinki to boost its capacity to manufacture and supply Uninterruptible Power Supply (UPS) systems, including its latest product, the Eaton 9395X.

Eaton is one of the world's largest manufacturers of three-phase UPS systems and the company's investment in its new Helsinki campus is driven by strong growth in its business. UPS systems are in high demand, particularly in the data centre sector where the heavy processing requirements of AI applications and digital data management make continuous power supply vital, and the need for expansion likely. UPS systems are also used extensively in commercial and industrial buildings and within the healthcare sector to protect against supply interruptions or voltage fluctuations.

### Smaller with bigger benefits

The new Eaton 9395X occupies a footprint up to 30% smaller than similar UPS models, which is clearly a benefit in a data center expansion scenario. The 9395X which is based on silicon carbide converters is also more energy efficient, and equipped with Eaton's proprietary EnergyAware technology, which prioritises system

continuity yet supports the provision of demand response services to national grids.

Dr Karina Rigby, president, Critical Systems, Electrical Sector, EMEA, Eaton, says, "EnergyAware makes it possible for businesses, especially data centres, to sell flexibility services to the grid - an attractive revenue source which also delivers considerable sustainability benefit. This is because flexibility helps grid operators to bring more renewable energy on to the grid, thus offsetting the carbon impact of the flexibility provider. Supporting the energy transition in this way helps bridge the flexibility gap between the amount of variable renewable energy needed, and the corresponding flexibility required to balance it."

Philippe Perrot, business unit general manager, Critical Power Solutions, Electrical Sector, EMEA, Eaton, further explains the rationale for the new campus. "Our business is growing so fast that we had outgrown our existing factory in the Helsinki region. Our new site is much bigger and designed to support outstanding customer experience. It will supply UPS systems primarily for data centres, but also for healthcare, commercial and marine sector applications, and introduce customers to the benefits of our associated low voltage product portfolio. In fact, we are already working

toward expanding in Helsinki. We will grow the existing 390-strong workforce with the addition of at least 100 new employees."

### Meeting demand

Petri Koskinen, plant manager, Helsinki, Finland, will oversee much of the continuing growth and expresses his excitement to work for professionals in the critical power arena. He says, "We have a rich knowledge base in Helsinki, having manufactured UPS and power conversion technology here since 1962, and we will build on that heritage. The sustainability credentials of our campus are notable, with the energy efficiency features of the building and its operation designed to be leading edge and ISO 50001 compliant."

Jaco du Plooy, Product Marketing Manager at Eaton Africa, highlights the significance of this move. "This expansion marks a fundamental moment for Eaton in meeting the surging demand for UPS systems," he notes.

"The introduction of the Eaton 9395X, with its smaller footprint and enhanced energy efficiency, underscores our commitment to delivering innovative solutions tailored to the evolving needs of our customers, particularly in critical sectors like data centres.

Enquiries: [www.eaton.com](http://www.eaton.com).

## Africa Energy Indaba organisers ready for next year

Africa is experiencing unprecedented population growth, with projections suggesting that the continent's population could double by 2050, reaching over 2.5 billion people. This demographic expansion presents both opportunities and challenges, particularly in the context of meeting the continent's energy needs. As Africa's population continues to grow, so too does the demand for energy.

Access to reliable and affordable energy is essential for driving economic development, improving living standards, and enhancing overall quality of life. However, many African countries currently face significant energy deficits, with millions of people lacking access to electricity or gas and relying on traditional biomass for cooking and heating.

### The energy-development nexus

Energy is intricately linked to various aspects of development, including education, healthcare, communication, agriculture, commerce, and industry.

Adequate energy access is essential for powering schools, hospitals, farms, and businesses, enabling them to function effectively and contribute to socio-economic progress. Moreover, access to

modern energy services can unlock new opportunities for entrepreneurship, job creation, and innovation, driving inclusive growth and poverty reduction.

### Renewable energy

Addressing Africa's energy needs requires a holistic approach that prioritises sustainability, resilience, and inclusivity. Renewable energy sources, such as solar, wind, hydro, and geothermal power, offer promising solutions for expanding energy access while minimising environmental impacts.

Investments in sustainable energy infrastructure not only help bridge the energy gap but also contribute to mitigating climate change.

### Policy and investment

To harness the potential of renewable energy and meet Africa's growing energy demand, concerted efforts are needed from governments, policymakers, investors, and development partners.

This includes implementing supportive policy frameworks, enhancing regulatory environments, and mobilising financial resources for energy infrastructure development. Public-private partnerships

international cooperation are also crucial for unlocking investments, promoting technology and skills transfer, and scaling up renewable energy deployment across the continent.

### Sustainable energy future

By prioritising energy access and sustainability, Africa can unlock its full potential for economic growth, social development, and environmental stewardship. As the continent continues to navigate the challenges and opportunities associated with rapid population growth, ensuring universal access to modern energy services remains a cornerstone of Africa's development agenda.

The impact of population growth on the continent's energy needs will underpin many of the conversations at the 2025 Africa Energy Indaba.

With an overarching aim to find solutions for Africa's energy challenges, the 17<sup>th</sup> edition of the Africa Energy Indaba will further this discussion by bringing together diverse stakeholders to foster collaboration, innovation, and investment in the energy sector, creating pathways towards a brighter, more prosperous, and sustainable future for Africa and its people.

During this year's Indaba, high-level government representatives reaffirmed their commitment to supporting the energy transition in Africa. Policy discussions centred on creating an enabling environment for investment, fostering regulatory frameworks, and promoting collaboration between the public and private sectors.

Reflecting on the success of the event, Liz Hart, Managing Director of the Africa Energy Indaba, stated, "The Africa Energy Indaba 2024 has been a resounding success, showcasing the commitment of stakeholders across the continent to address the energy challenges and embrace sustainable solutions. The discussions and collaborations that took place over the past three days have laid the foundation for a more resilient and inclusive energy future for Africa."

The momentum generated by the event is expected to catalyse positive change and drive the implementation of forward-thinking initiatives across the African energy landscape.

Enquiries: [africaenergyindaba.com](http://africaenergyindaba.com)

## Batteries are the key to solar power investment



Lance Dickerson, co-founder and MD of REV0V.

South Africa urgently needs to address a fundamental misunderstanding about solar energy to prevent continued financial waste by the government, corporates, and investors says Lance Dickerson, Co-founder and MD of REV0V. At present, the country is experiencing a temporary respite from load shedding, bringing much-needed relief to the economy. However, this stability is superficial. During the day, there is sufficient energy supply, but from 6pm to 9pm, the country relies on expensive open-cycle gas turbines to meet the demand.

This reliance highlights the inadequacy of solar power alone to ensure energy security in South Africa. The solution lies in investing equally in battery energy storage systems (BESS) alongside solar panels.

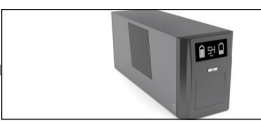
Nersa's recent alert underscores the issue. In the last quarter of 2023, R7.8 billion was invested in solar power generation, with three commercial



The SA Energy Investment Forum during this year's edition of the Indaba.

and

Enquiries: [africaenergyindaba.com](http://africaenergyindaba.com)



## ABB's miniature circuit breaker seamlessly integrates with renewable energy sources

Celebrating a remarkable milestone in electrical safety, ABB proudly marks the 100-year anniversary of its revolutionary Miniature Circuit Breaker (MCB).

Since its inception, the MCB has been an unsung hero, safeguarding electrical circuits and paving the way for a safer, more sustainable world. As we embark on a journey towards a net-zero future, ABB's MCB stands as a beacon of innovation, enabling the seamless integration of renewable energy sources while ensuring unparalleled protection against electrical hazards.

Ettienne Delport, the Vice President of Electrification - Smart Buildings, Smart Power at ABB, reflects on the significance of this milestone: "As we

transition towards a net-zero future, it is essential to increase electrification and integrate more diversified, renewable energy sources. ABB provides electrical safety to everything from solar panels and heat pumps to electric vehicles and brings additional protection against faults like residual currents, surges, earth fault currents, or arc faults."

The evolution of the MCB is a testament to ABB's commitment to excellence and innovation. From its humble beginnings in 1924, when Hugo Stotz and Heinrich Schachtner pioneered the first resettable MCB, to its present-day production lines spanning the globe, ABB has continuously set industry standards for performance, compact size, connectivity, and transparency.

At the heart of ABB's MCB lies a blend of cutting-edge technology and unwavering dedication to safety. With the ability to detect electrical faults within milliseconds, the MCB ensures swift intervention, mitigating potential risks and preventing catastrophic events. Its flexible, time-saving designs not only streamline installation processes but also address the current industry skills shortage, making it accessible to a broader spectrum of professionals.

As the world transitions towards sustainable practices, ABB's MCB remains at the forefront of innovation, facilitating the safe development of modern communities, cities, and urban landscapes.

From residential buildings to rail infrastructure, factories, commercial buildings, and data centres, the impact of ABB's MCB is felt across diverse sectors, safeguarding lives and assets with unwavering reliability.

Enquiries: [www.new.abb.com/africa](http://www.new.abb.com/africa)



The S800P is a protection device and allows for remote control and monitoring.

solar facilities costing R1.7 billion. Yet, only R4 million was invested in batteries.

This imbalance is problematic because solar panels can only generate electricity when the sun is shining. Without batteries, any electricity produced is lost when it is not immediately needed by the grid.

To illustrate, consider a scenario of severe load shedding during the day. Solar panels can feed power into the grid as needed, but once demand drops, any excess energy is wasted. For example, a 50MW solar plant only produces what the grid demands at any given time. If only 1MW is needed, the other 49MW is wasted. With a proper BESS, excess energy could be stored and used during peak hours (6am to 9am and 6pm to 9pm), alleviating pressure on Eskom's generation capacity. Despite the evident benefits, the investment focus remains skewed towards solar farms without considering the necessary battery infrastructure. This oversight has resulted in billions of rands being spent on incomplete projects. Properly integrating BESS would have allowed the country to achieve greater impact with a fraction of the investment in solar power alone.

The current situation sees solar panel providers leading the charge, while the real value lies in the engineering of batteries and inverters.

These components are crucial for addressing the actual problem of energy storage and peak demand. If South Africa had matched its solar investments with equivalent spending on BESS, the country could have significantly buffered against load shedding and peak demand periods.

The reality is stark: installing solar panels without accompanying batteries results in immense financial and energy wastage. Addressing daytime energy needs does not solve the issues faced during peak times. As long as this imbalance persists, South Africa will continue to rely on Eskom's limited and unreliable energy reserves.

Enquiries: [revov.co.za](http://revov.co.za)

## Zinc paves the way for SA's sustainable development

Refined zinc is emerging as a cornerstone in South Africa's quest for sustainable development, with the International Zinc Association (IZA) championing its use as a green solution. Amid the global drive towards carbon neutrality, zinc's role in reducing carbon footprints across various sectors is increasingly vital.

Simon Norton, Director of IZA Africa, underscores the importance of refined zinc in achieving carbon neutrality. "Refined zinc is playing an increasingly vital role in reducing carbon footprints across various industries," Norton states. "Its application in galvanised steel, energy storage, and eco-friendly manufacturing processes is paving the way for a greener economy in South Africa."

### Galvanised steel: A sustainable choice

Galvanised steel, known for its durability and corrosion resistance, stands out as a sustainable option due to its protective zinc layer. This extends the lifespan of steel products, significantly reducing the need for frequent replacements and maintenance. As a result, there is a considerable reduction in waste and energy consumption associated with manufacturing processes.

### Zinc-based energy storage: Powering the future

In the energy storage sector, zinc-based technologies are revolutionising the approach to decarbonisation in energy and transportation. Zinc batteries are gaining traction as a flexible, long-lasting, and safe solution. These batteries are non-toxic, made from abundant materials, and fully recyclable, aligning perfectly with South Africa's commitment to sustainable energy solutions.

### Eco-friendly manufacturing: Zinc at the forefront

Zinc's recyclability and low-energy refining process position it as a leader in eco-friendly manufacturing. IZA Africa actively promotes zinc's environmental benefits to reduce the overall carbon footprint of the manufacturing sector. This initiative is crucial in fostering a sustainable industrial landscape.

### A call to action

Norton emphasises the critical role of zinc in South Africa's environmental strategy. "As we move towards a greener future, it is imperative that we

embrace materials and processes that support our environmental goals. Zinc is not just a metal; it's a commitment to sustainability. IZA Africa's call to action is for industries and policymakers to invest in zinc and its applications to foster sustainable economic growth while protecting our planet for future generations."

By advocating for zinc's diverse applications, IZA Africa is not only supporting sustainable development but also encouraging a broader adoption of

eco-friendly practices across industries. This aligns with South Africa's vision of achieving a greener, more sustainable future.

Enquiries: [www.zinc.org](http://www.zinc.org)



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SPARKS ELECTRICAL NEWS

JULY 2024



## Solar PV industry takes centre stage at Enlit Africa

The role of solar PV in South Africa's pursuit of an energy-secure future took centre stage at Enlit Africa.

The event, one of the continent's premier power, energy, and water symposiums, brought together a comprehensive array of stakeholders from both private and public sectors, hailing from across the continent.

The South African Photovoltaic Industry Association (SAPVIA) was proud to be the Solar Pavilion Partner at this year's event.

SAPVIA used the opportunity to engage in discussions around the latest advancements in solar PV technology, contribute to strategic solutions for pressing industry challenges, and play a role in shaping key conversations around Africa's energy future, according to the association's solar energy technical specialist, De Wet Taljaard.

"The SAPVIA Pavilion was a hub where attendees could tap into our wealth of expertise. It was a space where industry players converged to identify opportunities for growth and collaboration," he explained.

### Uptake in solar power

SAPVIA has played a facilitating role

in South Africa's gradual adoption of renewable energy from solar PV, especially the rapid uptake seen in the past couple of years. In particular, the solar PV industry in South Africa experienced significant growth in 2023, with installed capacity growing by 3.3 GW overall, of which private sector solar additions accounted for 2.6 GW.

This growth also had a substantial economic impact and was linked to the creation of more than 20,000 jobs – mostly in the PV installation sub-sector.

"SAPVIA viewed our partnership with Enlit Africa as a valuable opportunity to demonstrate the practical benefits of solar PV as an affordable, distributed energy technology at an event with regional reach," said Taljaard.

"We were excited to engage with fellow industry leaders for three days of in-depth exploration around the evolving energy landscape and the many opportunities opening in the continent's PV space.

### Energy storage and backup

"For communities, businesses, and industries across the continent, increasing

accessibility to solar PV could significantly alter energy generation and consumption patterns," he said.

"The declining cost of solar PV technology is one of the drivers of the shift we're seeing across Africa's energy landscape. As solar PV becomes more affordable, it's creating opportunities for a wider range of sectors to adopt this clean energy solution. In combination with Battery Energy Storage Systems (BESS), it presents a compelling solution to some of Africa's energy access challenges." "Solar PV and BESS in synergy are helping us solve the issue of getting power in regions where grid infrastructure is limited or unreliable. These technologies offer a decentralised energy solution, allowing communities and businesses to achieve a measure of energy independence," he explained.

Enlit Africa ran for three days May and boasted four stages running simultaneous conference tracks: two dedicated to strategy, one focusing on energy storage, and a fourth for discussions around all things water.

SAPVIA encouraged all stakeholders in the energy value chain – from policymakers,



De Wet Taljaard, Technical Specialist at South African Photovoltaic Industry Association (SAPVIA).

researchers, and investors, to developers, installers, and even end-users – to participate in the event.

"Visiting the SAPVIA pavilion at Enlit Africa provided an excellent chance to engage with our experts, form new partnerships, and understand the evolving role of solar energy in Africa," said Taljaard.

Enquiries: [www.sapvia.co.za](http://www.sapvia.co.za)

## Experts to help navigate JET and ESG balancing act

As the world faces an unprecedented energy crisis requiring technical expertise, creativity, and collaboration, advisory firm Zutari supports clients in achieving responsible growth across the energy project lifecycle.

Zutari's Generation, Transmission, Distribution, System Studies, and Industrial Energy teams combine technical and digital skills to create extraordinary value for clients.

"We combine our deep technical expertise with creative and digital skillsets to create extraordinary value for our clients," explains Heskin Mzungu, Client Director: Energy.

He believes that meeting Environmental, Social and Governance (ESG), Just Energy Transition (JET), and long-term climate resilience and decarbonisation targets is a fine balancing act. However, Zutari is ideally positioned and resourced to tackle these challenges.

"It looks more positive now as we have received tenders for transmission projects," reveals Mzungu. Here Zutari becomes a single point of contact for clients in this space. Apart from its technical engineering capabilities, it can supply a single solution as Owner's Engineer, an independent representative for the project owner. It provides a critical support role throughout all stages of the asset lifecycle, in addition to project management and quality assurance support.

The JET plan, spanning 2023-2037, aims for decarbonisation and energy security, outlined in South Africa's Integrated Resource Plan (IRP) 2023. Zutari assists clients in navigating complex policies, such as the Renewable Energy Independent Power Producer Procurement Programme (REIPPP) and the Gas IPP Procurement Programme.

With the unbundling of Eskom and the creation of the National Transmission Company of South Africa (NTCSA), Zutari anticipates significant investment in the



Heskin Mzungu, Client Director Energy at Zutari.

transmission network. Mzungu emphasises the importance of financial viability in energy projects and Zutari's role in guiding clients through technical, financial, and legal challenges.

The private sector's investment in renewable energy, alongside coal as a baseload source, provides a more positive energy outlook. Mzungu notes the affordability and scalability of renewable technologies and Zutari's extensive experience in the sector. While municipalities lag, opportunities exist at the local government level.

Looking ahead, Mzungu foresees increased private sector uptake of solar energy, with coal remaining a key energy source. Despite challenges, the energy transition is progressing, with Zutari's stakeholder engagement enhancing public participation and job creation.

Its capability in this regard allows it to assist communities and enormously increase public participation on projects, generating jobs on the ground, and then obviously ensuring that all the necessary permitting is in place. "It is a complex process with many factors to consider, which is why clients really need the single point of contact we can provide," concludes Mzungu.

Enquiries: [www.zutari.com](http://www.zutari.com)

## Ways to maximise solar panel performance in winter

As South African transitions into winter, so too do their energy needs and consumption patterns – as well as their solar panel efficiency.

"The change in weather, specifically the length of day in winter versus summer, has a direct impact on your solar performance," says Ross Mains-Sheard, Co-Founder and CEO of Versofy SOLAR.

From the length of day to the angle of the sun in the sky, there are many factors that affect solar panel performance in winter. It is important that we, as consumers, also understand how our energy needs and behaviours shift through the different seasons so that we can implement practical steps to maximise our solar systems at this time of year.

According to Mains-Sheard, regardless of your geographic location, the simple fact that the sun is just not up for as long in winter as it is in summer has the biggest impact on solar systems.

Interestingly, cooler temperatures are actually better for solar efficiency. "Solar panels at the coast perform better relative to those in hot areas like the Karoo, due to the cool sea breeze. It is important to note that solar panels rely on light, not heat."

It might seem obvious, but it is also crucial to understand how our energy

needs shift through the year, from season to season. In winter, the days are shorter, and the nights are longer, meaning lights are switched on earlier in the morning and evening.

Naturally, you heat more in winter with oil and bar heaters, electric blankets and you even boil the kettle more frequently for hot drinks. Your geyser works harder because your ambient temperature is much lower, and the geyser must be on for longer periods of time to reach and maintain a temperature. Location, too, plays a part in your seasonality impact. If you live in Cape Town, for example, you are likely to use tumble dryers more because of high winter rainfall, whereas in Johannesburg it's sunny almost every day.

"Some practical changes include shifting your loads to sunlight hours if you have solar and installing timers on your geysers, so they work during the day when the ambient temperature is higher," says Mains-Sheard.

"Our solar app is a great tool as it takes weather conditions and historical usage into account. For example, it knows that if it is going to be a sunny day tomorrow, you can drain the battery more today (and use less from Eskom). The app applies technology that takes the myriad of variables into account, so

that you don't need to."

Installing more solar panels and batteries would assist with resilience to cloud cover and rain in areas like the Cape during winter. "We encourage more panelling in these areas, and now is a good time to upgrade, as panel prices are at an all-time low due to the high levels of demand."

Enquiries: [www.versofy.com](http://www.versofy.com)





## Ledvance launches multi-colour, multi lumen range for professional users

Ledvance announced the introduction of new Multi Select luminaires last month. This range is focused on convenient adjustments of colour temperature and lumens directly at the luminaire.

Multiple light colours and luminous flux levels in a single luminaire provide wholesalers and installers with versatile solutions to meet various lighting needs.

### Up to nine products combined in one

The Multi Select luminaires stand out for their exceptional flexibility. With a simple switch, they can achieve several light colours and luminous flux levels. This allows wholesalers to optimize their inventory, without reducing their overall product offering. With the Multi Select luminaires, they can continue to meet almost every customer need with always the right product on stock.

Installers benefit from the possibility to adjust light colour and luminous flux directly

on-site using simple switches on the driver or luminaire.

This feature enables them to cater to customer requirements, like various ceiling heights, with just one product.

### Wide range of luminaires

The Ledvance Surface Square and Surface Circular luminaires are ideal for both wall and ceiling installations, offering a sleek design that integrates seamlessly with the architecture of most buildings.

The Ledvance Spot Combo family of ceiling-integrated spotlights comes with a variety of options including fix or adjustable spots, and cover rings in various colours to match specific aesthetic requirements.

The Ledvance Damp Proof Compact GEN2 luminaires are suitable for damp environments to ensure reliable lighting in challenging conditions. These robust models can be mounted using flexible brackets and give easy access to the

electrical terminal thanks to the end caps with a twist and lock mechanism.

The Ledvance Panel Comfort and Panel Compact recessed luminaire families are particularly suitable for creating comfortable and energy-efficient lighting in office environments, while the external driver offers extended flexibility and ease of installation. A wide range of accessories and options makes this the office allrounder.

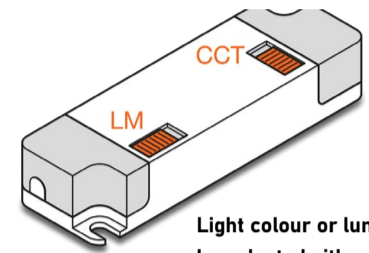
### Energy-efficient and durable

All models with the Multi Select features deliver the reliable quality that defines Ledvance lighting solutions. The products are designed for straightforward installation and quick deployment, ensuring that users can benefit from reliable and long-lasting LED lighting. These solutions not only reduce energy consumption but also minimise maintenance costs. While the Multi Select range offers a cost-effective entry point with increased versatility, it also emphasises high-quality solutions that embrace innovative approaches to lighting.

Enquiries: [www.ledvance.com](http://www.ledvance.com)



Multi-colour LED luminaires with up to three colour temperatures enable adaption to specific requirements before installation.



Light colour or lumen can be selected either on the driver or on the luminaire.

## Mobi Light to keep heavy operations running

Pilot Crushtec is now offering a branded range of mobile lighting towers. The Mobi Light tower range helps to keep continuous crushing operations safe and efficient by ensuring sites and machinery are always well lit.

Crushing and screening operations frequently run around the clock to meet demand and optimise productivity. This is why Pilot Crushtec is the ideal partner to introduce its own brand of mobile lighting towers for these and other applications.

According to Pilot Crushtec Sales and Marketing Executive Francois Marais, the company has supplied lighting products before, but this step will see the new range under its own brand – Mobi Light.

"Our own brand gives us the flexibility to source the right products internationally, and provide the high level of local support that customers have come to expect from us," says Marais. "Owners of sites that operate after dark will benefit from this range, and we will also supply to plant hire companies who rent this equipment to mainly the construction and mining sectors."

### A range of options

The range covers mobile lighting solutions at entry level right up to premium applications, he explains.

On the smaller end, a unit with four 320 LED floodlights will achieve a lighting area up to 5,000 m<sup>2</sup>; at the other end of the scale, a mining unit with six 320 WLED floodlights will light up 7,800 m<sup>2</sup>.

Ben Armitage, Sales Engineer

at Pilot Crushtec, explains that safety is a key consideration in the way the company has positioned its offering.

"Not only do you need sufficient lighting for the stationery crushing and screening equipment on a site, but there are typically several pieces of yellow metal equipment such as excavators, trucks and loaders moving around," says Armitage.

"Good lighting is therefore a critical element of the industry's quest for zero harm."

He notes that insufficient lighting also affects productivity. Where there is limited visual capacity, operators tend to reduce feed rates to plants – to avoid the risk of blockages and spillage. This can have a substantial effect on production and the resultant cost of operating the site.

"Another factor that the Mobi Light tower range considers is the height of our masts," he continues. "With our high masts at 8,5 metres, this ensures an increased lighting area while reducing operator fatigue, as the light is high enough to never shine in the operators' eyes."

The range takes advantage of developments in lighting technology – away from metal halide and toward light-emitting diode (LED) technology. LED lights offer a much longer lifespan, operate at low voltages and produce less heat.

"This has significant benefits for outdoor site operators," he says. "LED lights light up the work area instantly and don't require a cool-down period before the lighting plant can be relocated. These lights also consume less power, saving



The Mobi Light range offer ready-to-run, versatile lighting towers with instant set-up time, ensuring customers can move the unit to site and begin operations.



money especially when on-site power is diesel generated."

Designed for demanding site conditions, the lighting units have a robust steel canopy to house the generating unit and start up panel. This strong structure prevents battery and diesel theft. Maintenance and inspection are also easier, as the steel doors on each side of the lighting plant can be opened for access to the large engine bay.

Enquiries: [www.pilotcrushtec.com](http://www.pilotcrushtec.com)

## Reasons to connect with lighting professionals at the 18th IESSA Conference

The eagerly anticipated 18th annual conference of the Illumination Engineering Society of South Africa (IESSA) is set to take place on the 15 and 16 August at Riverstone Lodge in Muldersdrift, Johannesburg.

This premier event promises to be an unparalleled opportunity for professional development, networking, and staying abreast of the latest developments in the lighting industry.

If you are a lighting engineer or work in the lighting industry in any technical, commercial, educational, municipal, or public capacity, here are five compelling reasons to attend:

### Regulations, technology, and environment

The conference will focus on the critical forces shaping the lighting industry today. Attendees will gain insights into the latest regulatory updates, technological advancements, and environmental considerations affecting the sector.

### Broaden your knowledge

One of IESSA's core principles is the advancement of lighting knowledge. The conference will feature presentations on the latest innovations and developments in lighting research, technology, and techniques.

As the national representative on the National Committee of the CIE (Commission International De L'Eclairage), IESSA plays a crucial role in the government and regulatory landscape of South Africa's lighting industry.

### Network with industry peers

Networking is a key aspect of the IESSA conference. Attendees will

have ample opportunities to connect with industry leaders and peers from Gauteng and across South Africa. This year's event also includes a hybrid option for those who prefer to attend virtually, ensuring everyone can benefit from the shared knowledge and insights.

### Meet your suppliers

With the rapid pace of technological change, staying updated with industry suppliers is essential. The conference offers a unique chance to engage with sales representatives, directors, and CEOs who can provide bespoke solutions and invaluable industry connections.

### Earn CPD Points

Understanding the importance of Continuous Professional Development (CPD), IESSA is accredited with the Engineering Council of South Africa (ECSA). Attendees will earn 1.5 CPD points, helping them stay compliant with professional development requirements.

### Reignite your passion

The IESSA conference is more than just an event; it is an opportunity to rediscover your passion for the lighting industry. Gain inspiration from learning new things and interacting with fellow professionals who share your enthusiasm. Leave the conference re-energised, inspired, and equipped with new knowledge to enhance your work.

For lighting professionals, this is an event not to be missed. Join the 18th IESSA Conference and take your career to new heights while contributing to the advancement of the lighting industry in South Africa.

Enquiries: [www.iessa.org.za](http://www.iessa.org.za)



## Eurolux welcomes the new lightbulb legislation

Until now there has been no standard minimum efficacy requirement on lamp imports, which means you can easily buy lamps that are exceptionally inefficient, they may burn brightly but the wattage consumption is high, so they use much more power than necessary. They often are of an inferior quality and pose heat and safety risks. In fact, the South African market is flooded with lightbulbs which will not stand up to scrutiny for safety and longevity, are potentially harmful and highly inefficient, chewing through consumers' power at a time we can ill-afford to waste electricity.

### New legislation is a game-changer

The new legislation ensures that our standards are aligned with international markets - the higher standards serve us as South Africans by ensuring that all imported lamps are efficient, safer and meet a minimum efficacy requirement to be legally imported.

Part of the new law is that a lamp must retain its advertised brightness level - the lumens value indicated on the box - for the full lifetime, whether it is 15000 or 25000 hours, and will not dim with age, which often happens.

The new minimum Rated Efficacy requirement works as follows:

- Efficiency refers to energy usage of a lamp - so the light it provides relative to the power it consumes.
- Light is measured in LUMENS and power in WATTS.
- For any given lamp, by dividing the lumens output by the watts rating we get the lumen per watt rating.

Example: a 540 lumen, 6W A60 spec globe works out as follows:

$$\frac{540 \text{ lumens}}{6 \text{ watts}} = 90 \text{ lumens/watt}$$

What this means for consumers is that a year from now any lightbulb that does not meet the new specification of 90lm/W should not be available in South Africa. This will last for two years, after which the even stricter specification of 105lm/W will apply.

Certain specialised lamps will be exempted from the new efficiency rating, such as colour globes and heat lamps, in which case these packs will need to clearly feature a statement to confirm that the lamp is 'not intended for general illumination purposes'.

### What can customers expect?

The switch will be smooth and simple. All the regular-shaped CFL and Halogen lamps that have been available up to now will be easily replaceable with an LED alternative,



right through to the vintage look carbon filaments, which are already available in LED filament and beautiful amber shades.

Eurolux has been a lighting supplier for over 30 years, and currently services 4,000 stores in Southern Africa, including retailers, wholesalers and many online retailers.

Enquiries: [www.eurolux.co.za](http://www.eurolux.co.za)

## High-powered 100W LED floodlights ensure safety

Future Light has unveiled its latest security essential, the 100W LED Floodlight. This advanced floodlight boasts superior brightness, energy efficiency, and robust durability, making it an ideal addition to any home or business security system.

The new 100W LED Floodlight is engineered with security as a priority, offering exceptional brightness to easily illuminate large areas. With a high lumen output, this powerful floodlight ensures no corner is left in darkness. Whether deterring potential intruders or providing clear visibility for security cameras, the 100W LED Floodlight delivers outstanding performance.

### Efficiency and performance

A key feature of the 100W LED Floodlight is its remarkable energy efficiency. Leveraging the latest LED technology, this floodlight uses significantly less power than traditional lighting solutions without sacrificing brightness. Homeowners and business operators can enjoy enhanced security lighting while also benefiting from lower energy bills and a reduced carbon footprint.

### Durability

Constructed to endure the harshest conditions, the 100W LED Floodlight is encased in a sturdy, weather-resistant housing. This ensures reliable operation in all weather conditions, from heavy rain to extreme heat. Its durable construction makes it an ideal choice for both residential and commercial applications, providing long-lasting security lighting you can depend on.

### Versatile

The 100W LED Floodlight's versatility makes it suitable for a variety of applications. Homeowners can install it to illuminate driveways, gardens, and other outdoor spaces, enhancing safety and security. Businesses can use these floodlights to brighten car parks, building perimeters, and other critical areas, deterring unauthorised access and improving overall site security.

### Low maintenance

Future Light has designed the 100W LED Floodlight with user convenience in mind. The floodlight is easy to install, with a flexible mounting bracket that allows for precise positioning. Once installed, it requires minimal maintenance, thanks to its long-lasting LED technology and sturdy build. Users can have peace of mind knowing that their security lighting is both reliable and hassle-free.

### Eco-friendly

Beyond its security benefits, the 100W LED Floodlight is an environmentally friendly choice. By utilising energy-efficient LED technology, this floodlight reduces energy consumption and greenhouse gas emissions. Additionally, LEDs have a longer lifespan compared to traditional lighting, which means fewer replacements and less waste. Choosing the 100W LED Floodlight is not only a smart security investment but also a step towards a more sustainable future.

The 100W LED Floodlight is now available for purchase through Future Light.

Enquiries: [www.futurelight.co.za](http://www.futurelight.co.za)

## New Philips Hue aimed at enhancing sleep and personalising homes



Thanks to their flexibility, Solo lightstrips from the Philips Hue range can transform spaces.

The brand-new Philips Hue lights and app features have been launched. The products provide additional ways to expand and personalise the lighting in any home.

Philips Hue Twilight, the brand's newest innovation, was designed to support human circadian rhythm. Following the launch of the Lightguide Ellipse bulb, the Philips Hue Lightguide range now includes four more shapes - small globe, large globe, Edison, and triangle - which can be seamlessly combined with matching table lamp bases.

Also launched is the Philips Hue Solo lightstrip, which enables you to add light anywhere in your home, and Philips Hue Datura, a dual light source ceiling panel.

### Light for better sleep

Philips Hue Twilight sleep and wake-up light, available in both white and black, is designed



to support your circadian rhythm.

It helps you maintain a regular sleep routine, fall asleep peacefully, and wake up feeling more refreshed. With two individually controllable light sources - an illumination head and a back light featuring one-of-a-kind



## Sports need the right illumination too

**B**EKA Schröder supplied the smart floodlighting solution for the University of Ghana Sports Stadium in Accra, Ghana.

The stadium served as the main stadium for the 13th African Games this year. This significant event showcased the abundance of talent across the continent, serving not only as a prelude to the Olympics but also as a platform for athletes to compete and celebrate their skills.

BEKA Schröder supplied the lighting solution for the University of Ghana Sports Stadium, the Rugby Stadium and the Warm-Up Track in Accra.

The floodlights was professionally installed by their local partner, Lightingale Limited and their associate Electrosafe cc in Ghana. BEKA Schröder supplied the wireless sports lighting control solution and OMNIBLAST-2-E MAXI floodlights, ensuring the stadiums received the most economical and energy-efficient lighting solution.

### Making it user-friendly

Schröder ITERRA is a complete user- and installer-friendly wireless control solution for sports lighting applications, which ensures comfort and effective energy management.

This includes dimming, scheduling, monitoring and the creation of dynamic lighting scenarios to entertain fans. It offers site managers a robust, cost-effective and futureproof platform to run their

infrastructure with the utmost flexibility for adapting the lighting to any scenario or event while maximising energy savings and providing the best experience for players and fans.

Being a mobile App-based system, Schröder ITERRA is very easy to operate. It comes with an intuitive visual interface that users can quickly personalise to a layout and setting of their preference.

Schröder ITERRA is based on Bluetooth Low Energy (BLE), the state-of-the-art wireless communication standard, and is fully compatible with all recent smartphones and tablets. The use of open and standard technologies, coupled with the handy App, makes Schröder ITERRA a true plug-and-play remote control solution for extracting the full potential of the lighting installation.

### Warm-up track

The OMNIBLAST-E is the ideal tool for sports venues and other very large area applications that require a lighting solution with the highest efficiency and flexibility to adapt to the different lighting needs.

Available in a MIDI and MAXI variant, this LED solution offers an alternative, with proven benefits, to traditional floodlights fitted with 400W to 2000W HID lamps.

The OMNIBLAST-E meets various lighting applications prerequisites, ranging from general area lighting, to recreational sports lighting, up to professional broadcasting requirements, matching the horizontal



and vertical obligatory lighting levels respectively. This makes it compliant with UHD/HD/4K broadcast and super slow-motion replays, as the lighting is flicker-free.

The OMNIBLAST-E's modular concept of optical units means that 1, 2 or 3 modules can be mounted on a similar bracket arrangement to offer the utmost versatility, thereby providing a light distribution and lumen package perfectly adapted to the specifications of the area to be illuminated.

For this project, the BlastFlex™4 photometric engine was used, offering the highest efficiency for directional beams dedicated to specific applications in architectural and sports lighting. The ability to control the light with the

highest accuracy reduces light pollution to surrounding areas, ensures uniformity on the area being lit and contributes to optimal use of the energy consumed.

The OMNIBLAST-E guarantees perfect glare control, a high colour rendering index (CRI) and meets the required television lighting consistency index (TLCI), as well as providing flicker-free lighting. The OMNIBLAST-E MAXI incorporates a patented cooling technology that maximises its lifespan and lumen output.

As a result of these lighting solutions the 13th Africa Games were not only well-lit, but also a successful start to this year's major sporting events.

Enquiries: [www.za.schreder.com](http://www.za.schreder.com)

ColorCast technology — Philips Hue Twilight mimics the wide palette of colours in both morning and evening sky light.

The compact design fits easily onto a bedside table and features two customisable buttons to control the light, in addition to the Philips Hue app.

By default, one button cycles through six new light scenes, like 'Arise' or 'Sleepy'. The other triggers the new Sunset Go-to-Sleep automation, simulating a sunset with a rich blend of red tones.

Additionally, set a wake-up automation, which gradually brightens so you gently awaken to the colours of the morning sun. Ultra-low dimming enables smooth transitions for an effective wake-up and the perfect nightlight. Philips Hue Twilight dims to an industry-leading 0.5% brightness.

Following the launch of the popular Ellipse shape, the four new Philips Hue Lightguide bulbs allow you to create a unique lighting experience.

Users can now choose from five premium shapes of hand-blown glass bulbs: small globe, large globe, triangle, Edison, and Ellipse.

Their striking and contemporary design offers eye-catching modern style along with all the smart functionalities of Philips Hue. These bulbs offer millions of shades of white and colour light, so that you can personalise and design colourful light scenes, and are controllable with the Philips Hue app.

Lightguide bulbs can be combined with the Philips Hue 3D-printed table lamp base. Users can place the duo on side or coffee tables as a striking decorative piece to enrich their home décor. The lamp, which is 3D printed using bio-circular materials, is available in sage, sand, and glossy black.

### Add light in any spaces

Shape and bend lighting to your needs with the Philips Hue Solo lightstrip. Easy to use and accessible for any user, it offers the flexibility to add light in even hard-to-reach places.

With cuttable 3m, 5m, and 10m versions, it subtly fits into any area, such as in closets, on ceilings or walls, and along stairs and floors, to upgrade any space. Illuminated by 1700 lumens of stunning light output, the light strip brightens your home with pure colour and pure white light (thanks to RGBWW LEDs).

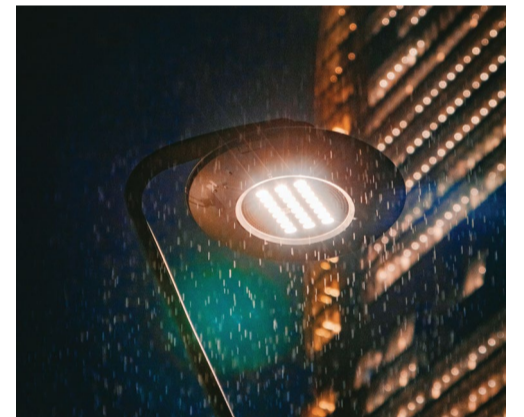
Philips Hue users can conveniently expand their smart lighting range by integrating the lightstrip with the full Philips Hue system — enabling different light experiences to fit any mood.

Enquiries: [www.philips-hue.com](http://www.philips-hue.com)

## Signify wants the world to use LEDs

**S**ignify has announced an ambitious plan to significantly reduce its greenhouse gas (GHG) emissions. Signify will implement several key initiatives across its operations and value chain. These include encouraging suppliers to switch to renewable energy sources and expanding the use of energy-efficient LED lighting, which has been the primary factor in reducing emissions within the lighting industry.

Enquiries: [www.signify.com](http://www.signify.com)





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## A new approach to training electrical apprentices

In the fast-paced world of electrical contracting, finding skilled workers who can hit the ground running is more crucial than ever.

However, it's no secret that talent is hard to come by and training someone from scratch can be just as challenging. BluLever Education is on a mission to change this. BluLever Education has developed an innovative apprenticeship program tailored to produce competent, adaptable, and customer-focused artisans from day one, addressing the increasing demand for skilled professionals.

### Trained to be ready for work

Electrical contractors and business owners facing the

challenges of modern job sites can benefit from BluLever's comprehensive apprenticeship program, which goes beyond traditional technical training.

Unlike programmes that focus solely on theory, BluLever emphasises hands-on experience and practical skills tailored to industry demands. This approach ensures that apprentices not only grasp the intricacies of electrical systems but also develop the critical thinking and problem-solving abilities required to handle on-site challenges independently.

Before apprentices are selected to be a part of the apprenticeship they undergo a rigorous 2-month work readiness program, called Leadership Base Camp, that evaluates their passion for the trade, their ability to work in

teams, problem-solve and cope with the physical demands of being an apprentice. This programme helps young people develop the skills necessary to thrive in the workplace and ensures that only applicants who are well-matched and work-ready are selected for the apprenticeship.

### Classroom to job site

Once the 3-year apprenticeship begins, apprentices undergo rigorous training that blends theoretical knowledge with real-world experience. BluLever's curriculum not only contains technical training, but also training in soft skills such as project management, communication, and interpersonal skills. This ensures that learning does not happen in a vacuum; it's about preparing apprentices for the challenges of everyday work environments. By the time apprentices step onto a job site, they're not only familiar with the tools, protocols, and expectations of the trade but also know how to manage projects and drive work independently.

Last year BluLever expanded into the electrical trade, partnering with 20+ electrical employers so far, and with over 80 electrical apprentices to date. BluLever is excited about the electrical industry and early signs are showing similar success to that seen in plumbing.

Businesses seeking to expand their workforce with skilled, reliable future professionals might consider partnering with BluLever Education. By joining BluLever as employer partners, companies gain access to a pool of trained apprentices while contributing to the development of a sustainable, skilled workforce. BluLever's innovative approach to artisan education is making waves, and support from within the industry can help bridge the skills gap and elevate standards across the board.

Enquiries: [www.blulever.com](http://www.blulever.com)

#### AUGUST 2024 FEATURES

- MCCs and motor protection
- Energy efficiency
- Lighting

#### SEPTEMBER 2024 FEATURES

- DBs, switches, sockets and protection
- Industry 4.0 and Automation
- Lighting

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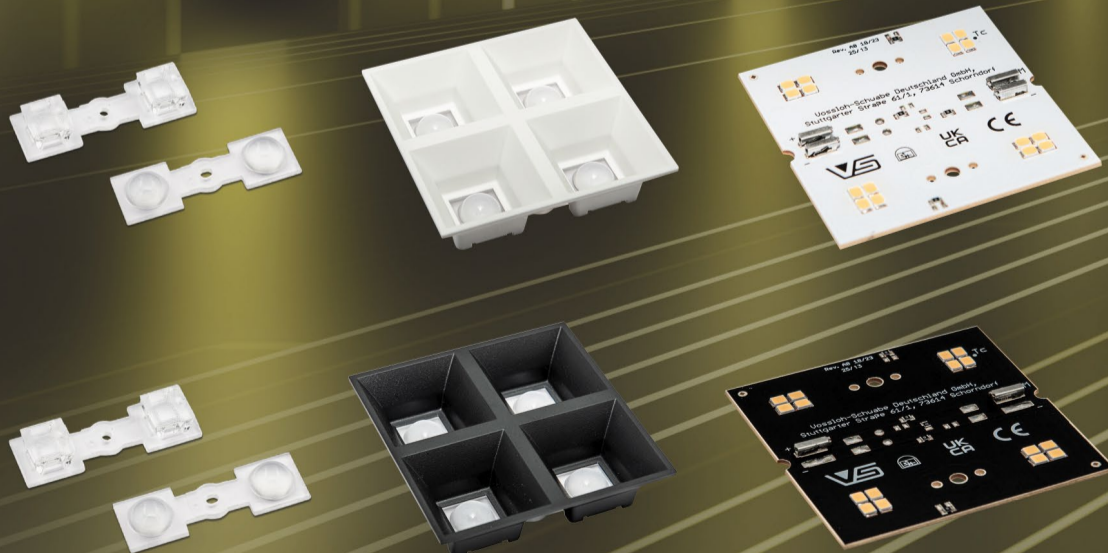
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- For high uniformity
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