

CELEBRATING 40 YEARS OF INNOVATION: ACDC DYNAMICS UNVEILS THE 2025/26 CATALOGUE



CONTINUED ON PAGE 7

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In 1984, a small electrical distributor, Trans Electron, began its journey in South Africa. Fast forward 40 years, and that company – now known as ACDC Dynamics – has grown into a powerhouse of innovation and excellence in the electrical and automation industries. Now, ACDC Dynamics celebrates its milestone anniversary by launching the 2025/26 Catalogue, an industry-defining resource showcasing its extensive range of products and solutions.

Four decades of growth

ACDC Dynamics' story is one of adaptability and visionary leadership. Rebranding in 1995, the company diversified its offerings in the late 1990s to include industrial, commercial, and residential equipment. This strategic expansion laid the foundation for its current standing as a leader in electrical and automation solutions.

Innovation has been a constant theme throughout ACDC's history. In 2000, the company introduced retail stores, followed by the ACDC Express franchise in 2007, making it easier for customers to access its products nationwide. In 2013, they embraced the digital age by launching an e-commerce platform, bringing convenience to their customers.

Even during the challenges of the COVID-19 pandemic, ACDC continued to lead, venturing into sustainable energy solutions, including the notable installation of a solar system in Antarctica in 2023.

Today, ACDC Dynamics boasts a team of approximately 1,100 employees (excluding franchise staff) and continues to expand its world-class product...

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Industry celebrates Reinhard Koegel's retirement after 45-year career

By Ilana Koegelenberg

In November last year, Regent Lighting Solutions hosted a surprise farewell for Reinhard Koegel, a retiring lighting consultant from Vossloh-Schwabe (VS) who contributed significantly to the African lighting industry.

"Reinhard Koegel has made an incredible impression on the African Lighting industry over the years, and I feel it's fitting to celebrate his contribution," Randal Wahl, managing director of Regent Lighting, explained when inviting industry stakeholders to lunch at Regent's Johannesburg premises on 14 November to celebrate Koegel's significant impact.

"Light is life"

Koegel has been serving the lighting industry since 1979, living by his motto of "light is life". On 30 September 2024, Koegel officially retired after 45 months and two months of service – a formidable feat. When asked about that motto, Koegel replied that "no life can exist without light".

The event at Regent Lighting was well-

attended and a welcome surprise to Koegel, who was kept in the dark about the secret event and thought he was invited to a team lunch. Various stakeholders who have worked with Koegel over the years attended, including *Sparks Electrical News*.

During the brief formalities, Wahl said a few words about Koegel's contribution and its impact on the local lighting market. "We may be a smaller market than overseas, but we take it very seriously," Wahl said. "He [Koegel] taught all of us how to approach the local market and what quality really means; it was his passion. He was always happy to grow and learn new ideas."

Koegel then said a few words in thanks, remembering when he first arrived in South Africa and how much the industry has changed over the past few decades.

Celebrated by the industry

Sparks Electrical News reached out to a few individuals who have worked closely with Koegel. Here's what they had to say:

- "Reinhard has instilled in us all at Regent how to approach light differently. His mantra of "A Disruptive

Innovation" should always be embraced. This, coupled with his ethos of self-improvement, ensured he was kept abreast of the industry trends.

Surrounding himself with a service driven team has ensured VS has remained at the forefront of technical solutions for our industry. Reinhard leaves a legacy of consistent high-level performers balanced by his passion for light. The team Reinhard leaves behind is a testament to his years of dedication and craft." – **Randal Wahl**, managing director, Regent Lighting Solutions

- "Reinhard has been a cornerstone of the industry. We celebrate his unwavering commitment to quality and the strong relationships he built over the years, which has strengthened the lighting community." – **Cornel Neethling**, operations director, LED Lighting SA
- "This is just a few lines for the man we at Energywise call 'the Captain'. Reinhard Koegel is a visionary whose handshake carries the weight of a legal contract – a testament to his unwavering integrity and commitment. His profound love for the lighting industry and his vast knowledge and genuine compassion made him not just a supplier but a trusted mentor, a steadfast friend, and an irreplaceable



Reinhard Koegel (left) with Randal Wahl.

pillar of the South African lighting industry." – **Andrea Barausser**, managing director, Energywise

- "I have had the privilege of working with Reinhard since 2003, when he mentored me and incorporated me into the VS family. Reinhard helped and taught me so much in business and helped with my personal life as well. We have been through a lot together: starting a company, growing a business, and affecting change in the lighting industry in South Africa. I want to extend my best wishes for your life ahead and wherever the wind may take you. Enjoy every moment and have a well-deserved rest." – **Barry Hall**, sales manager, Vossloh-Schwabe

What does a microgrid controller system do?

Whether for residential, commercial, or industrial applications, Rubicon's microgrid controllers provide robust and versatile energy management, adapting to the ever-changing demands and opportunities within the energy landscape.

Microgrids are self-contained systems that generate power using renewable energy, batteries, or generators, providing communities with clean and reliable energy. Introducing Rubicon's APEX Microgrid Controller System (MCS)...

A promising alternative

In South Africa, microgrids have gained popularity due to the energy crisis, which has been characterised by frequent power outages caused by ageing infrastructure and high demand. Considering the current constraints to generate energy reliably at a national level, microgrids offer a promising alternative to traditional energy distribution, delivering clean and uninterrupted power.

Rubicon's APEX MCS optimises power management to ensure cost-efficient and uninterrupted power supply in grid-connected and islanded microgrids. Its in-house APEX energy manufacturing facility produces energy solutions, including microgrid controller systems, engineered to perform in local conditions.

The APEX MCS family of controllers is specifically designed for demanding power management applications, both on-grid and off-grid. These controllers effectively manage and control microgrid elements based on site-specific requirements, grid regulations, and available power sources.

A standout feature is its ability to seamlessly transition between different operational modes. For example, the system can prioritise backup power today, shift to photovoltaic (PV) self-consumption tomorrow, and focus on tariff arbitrage the day after.

The key benefits of the APEX MCS include Time of Use (TOU) optimisation, battery arbitrage, and export limiting. Its controller's integration with cloud services enhances the control of local energy sources, setting it apart from other products in the microgrid market.

A flexible solution

The MCS offers a flexible and intelligent solution for modern energy management needs. Leveraging



advanced cloud services and adaptive control strategies ensures that energy is always managed in the most efficient and cost-effective manner.

The APEX MCS is versatile and suited for a variety of use cases, namely:

- **Microgrid systems:** Optimises the management of energy sources and loads in both grid-connected and islanded microgrids, ensuring cost-effective and uninterrupted energy delivery.

- **Decentralised energy plants:** Provides robust control and coordination for decentralised energy plants, enhancing efficiency and reliability.

- **DNP3 control with multiple inverters:** Enables advanced DNP3 control for seamless integration and management of multiple inverters within a microgrid. This ensures synchronised operation and optimised performance.

- **Battery energy storage systems (BESS) and genset control:** Reduces diesel usage by efficiently managing BESS and genset operations. This optimises energy storage and generation to lower operational costs and environmental impact.

- **Remote monitoring:** Offers real-time remote monitoring capabilities, allowing users to oversee and control their energy systems from anywhere. This ensures optimal performance and rapid response to any issues.

By addressing these diverse use cases, the APEX MCS provides a comprehensive solution for modern energy management, delivering enhanced efficiency, reliability, and sustainability.

"The APEX MCS is a testament to intelligent and adaptable energy management, empowering users to achieve a new level of control and efficiency coupled with peace of mind," says Rubicon, whose extensive industry experience allows its team to provide high-level technical support.

Enquiries: www.rubicon.tech

GBCSA sees exponential growth in green building practices

The 2024 Green Building Leadership Awards took place at the end of last year during the Green Building Council South Africa's (GBCSA) 17th Green Building Convention held in Cape Town. The event highlighted the increasing demand for green building practices locally, celebrating the trailblazers leading the way.

The event has gathered the top role players in sustainability in the built environment under the banner: Zero+: Net Zero Today, Climate Positive Tomorrow, which is fittingly the theme of this year's convention.

Lisa Reynolds, CEO of GBCSA, says the awardees have demonstrated an unwavering commitment to the goal of a climate-positive future.

Exponential growth

Presenting at the opening plenary, GBCSA's head of technical Georgina Smit illustrated the exponential growth in the adoption of green building practices in the last ten years: "There is a clear and increasing demand for green building certification across Green Star, EDGE and Net Zero, with close to 1,300 certifications to date, and counting."

She explained that 2009 was when the first certification was awarded. By 2014, there were

76 completed, and by 2020, the number had risen sharply to 647. In the four years that followed, over 600 further certifications have been awarded, with the number now

sitting at 1,260, and rising.

"There are just over 15,000 EDGE final certified housing units in the market, with another approximately 65,000 on the way to support green homes for South Africa, inclusive of the affordable housing market. Green Star Existing Building Performance is influencing real time emissions, and there are 65 Net Zero projects showcasing the solutions and expertise to scale climate action in the property sector."

The green premium

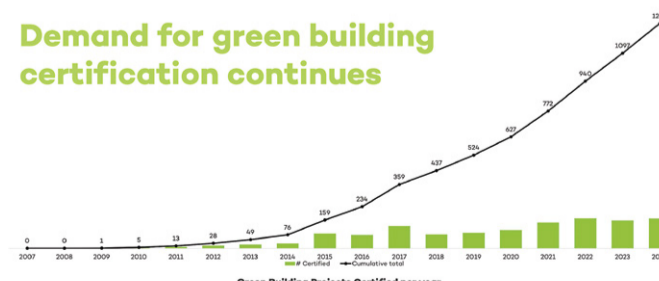
Smit says: "Going green shouldn't be a guessing game, and the research shows that the green premium is not only less than expected, but it continues to fall – making sustainable choices more accessible and achievable, for all."

Reynolds concludes: "We all need to work at creating a built environment that goes beyond simply meeting targets, aiming to foster a positive, regenerative impact. So much has been achieved on this journey over nearly twenty years, and we need to shout to the rooftops about the good work being done, in order for wider adoption to follow."

Enquiries: www.gbcsaconvention.org.za

1 260+ certifications

Demand for green building certification continues





Starting the year off right



Ilana Koegelenberg

It's a new year and a new opportunity to change your life. I hope everyone is ready to tackle 2025 head-on.

For those I haven't yet met – hi there, I'm Ilana, and I've been the *SPARKS Electrical News* editor since September last year. Welcome to our first Editor's Column.

Although I've only been here a few

months, learning about the SPARKS community and what you all do has been so enriching. I have much more to learn, but I'm so grateful to everyone who has taken the time to help me find my feet. The people I've met thus far have been so friendly and kind. Thank you for letting me into your circle.

As we start 2025, I'm sure some of you have set goals for yourself. My goal for SPARKS this year is simple: I want to get to know more members of the community and share your wonderful stories. This is your magazine, after all. So, feel free to reach out to me any time if you have a story idea.

We're starting this year off with a bang, and this edition is packed with carefully curated industry updates. Speaking of starting this year off right – don't forget to enter our Happy Holidays competition, if you haven't yet. You have until 10 January, and there are some pretty awesome

prizes up for grabs.

Our cover story is all about ACDC Dynamic's 2025/26 catalogue launch. Did you know they've been around for 40 years already? To celebrate, three spectacular functions were hosted in Johannesburg, Durban, and Cape Town at the end of last year. I attended the Johannesburg event, and all I can say is – wow! You'll see from the photos on page 7.

For this edition, I also had a long conversation with the well-travelled and well-known Yolanda De Lange, executive director of the Institute of Energy Professional Africa NPC (IEPA) and former SPARKS editor. She shared more about what the institute does and how South Africa compares to the rest of the world regarding energy efficiency and training. (Read more on page 5.)

I also attended the farewell of lighting industry legend Reinhard Koegel – a surprise event hosted at

Regent Lighting in Johannesburg. After 45 years (and two months), Reinhard has finally retired, and we collected some messages from industry players who have worked with him over the years. Check it out on page 2.

Beyond our regular lighting feature, we also focus on cables and cable accessories this edition, as well as earthing, lightning, and surge protection – very useful for this time of year (depending on where you live, of course). Find out what's new in our respective features sections.

I hope you enjoy this edition. If you do, or if you have any suggestions or stories, feel free to send me an email at sparks@crowm.co.za. I would love to hear from you.

Have a good start to the year, everyone!

Ilana Koegelenberg

sparks@crowm.co.za

Have you entered our Happy Holidays competition?

If you want to start your year off on a positive note, this might be your lucky day. You only have a few days left to submit your entry for Happy Holidays. Submissions close on 10 January, but luckily, entering is super easy.

As is our annual tradition, *Sparks Electrical News* has teamed up with South Africa's leading electrical companies, who have donated great prizes for our Happy Holidays promotion. From fans, tools, and drills to a smart home automation kit and so much more, there really is a cool (and useful) collection of prizes up for grabs.

To enter, simply scan QR code below using you mobile

phone and fill the form, or visit www.sparkselectricalnewsmagazine.co.za – and click on the competition banner at the top of the page. You can also email your name, company, postal address, and contact number to sparks@crowm.co.za.

All names will be entered into the draw that will take place during this month, and the winners will be announced in our February 2025 issue of *Sparks Electrical News*.

Good luck to you; may the odds be forever in your favour.

Enquiries: sparks@crowm.co.za

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HAPPY *Holidays* **2025** **PROMOTION**

In memory of Trevor Milne

By Henk Rotman of Tridonic

It is with deep regret and great sadness that we bid farewell to the long-serving managing director of Tridonic South Africa – Trevor Milne. After almost 40 years with the company, Trevor leaves an irreplaceable gap. He was not only a mentor but also a trailblazer who, with his vision and passion for lighting solutions, built Tridonic South Africa and led it into a new era as a leading provider of lighting technologies.

Trevor joined the ZumTobel group almost four decades ago – a journey characterised not only by professional success but also by personal commitment and deep respect for his colleagues.

In all the years he led the South African team, he demonstrated not only professional excellence but, above all, humanity and integrity. His ability to inspire and motivate people was outstanding and characterised and encouraged many of us.

As managing director of Tridonic South Africa, Trevor played a key role in the strategic direction and growth of this important market. Through his visionary leadership and tireless commitment to the team's success, he developed markets and created a culture of collaboration, respect and trust.

In the Tridonic office, he showed his team what it truly meant to lead with empathy and integrity. Whether through a thoughtful piece of advice, a shared smile, or support in difficult moments, Trevor had a way of making each team member feel valued and

encouraged to grow. He trusted the team to do their best in their own way without micro-management but offered support when needed.

Apart from his Tridonic role, Trevor was very involved in the lighting industry at large and contributed greatly to establishing the Illuminating Engineering Society of South Africa (IESSA) as the representation of the lighting industry in the country. He was IESSA president from 2010 to 2012.

The mark Trevor has left on the South-African market will be lasting. His legacy will live on in the hearts and actions of all those who had the privilege of working with and learning from him.



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Another bright year ahead for solar, says PV industry body

Dr Rethabile Melamu, CEO of the Solar PV Industry Association (SAPVIA), discusses highlights from last year and what the local and global solar PV sector can expect in 2025.

The world's appetite for electricity shows no signs of abating. A recent report by the International Energy Agency (IEA) says the growth in demand in 2024 and 2025 is forecast to be among the highest levels in the past two decades. Solar PV alone is expected to meet half of the increase, IEA estimates.

"Authors in this report say the world's demand for electricity is rising at its fastest rate in years, driven by robust economic growth, intense heatwaves and the increasing uptake of technologies that run on electricity, such as EVs and heat pumps," explains Melamu. "At the same time, renewables continue their rapid ascent, with solar PV on course to set new records. This is a positive prediction for the future for members of our industry here at home as well.

The amount of electricity generated by renewables worldwide in 2025 is forecast to eclipse the amount generated by coal for the first time. Solar PV alone is expected to meet roughly half of the growth in global electricity demand over 2024 and 2025 – with solar and wind combined meeting as much as three-quarters of the growth, according to the IEA.

Keisuke Sadamori, IEA director of Energy Markets and Security, says, "It's encouraging to see clean energy's share

of the electricity mix continuing to rise, but this needs to happen at a much faster rate to meet international energy and climate goals. At the same time, it's crucial to expand and reinforce grids to provide citizens with secure and reliable electricity supply – and to implement higher energy efficiency standards to reduce the impacts of increased cooling demand on power systems."

SAPVIA is one of the contributors to the recent Global Market Outlook for Solar 2024 – 2028 report. This document also paints a positive picture for the future of the solar industry.

"We will see the climate emergency continuing to capture governments' attention and energy security remaining the new compelling argument to invest in solar power in a quickly fragmenting world order," says Melamu.

For the first time, this latest Outlook report contained policy recommendations from solar's global industry organisation, the Global Solar Council. This includes asks for setting ambitious national targets, and immediate efforts to unleash the flexibility revolution by scaling up investments in battery storage, grids, and electrification.

Looking local

On the South African stage, Melamu says there are several highlights for 2024 that are worth celebrating:

Significant increase in installed capacity: South Africa's installed solar capacity is

expected to grow from 6.68 gigawatts (GW) in 2024 to 11.03 GW by 2029, driven by the increasing demand for clean energy.

Government support and policy initiatives: The Renewable Energy Independent Power Producer Procurement programme continues to attract investment, supporting the development of new solar projects.

Private solar PV expansion: There has been a notable increase in private solar installations, with capacity rising from 2,264 MW in July 2022 to 6,165 MW by October 2024.

Technological advancements: Advances in PV technology and the development of new solar projects are expected to further boost the sector.

What are the predictions for 2025?

Continued growth in capacity: The solar energy market is projected to continue its growth trajectory, with additional generation capacity expected from both private sector projects and government initiatives.

Increased private sector participation:

More private sector projects are anticipated to connect to the grid, contributing to the overall increase in solar capacity.

Completion of ongoing projects: Several projects from previous bid windows are expected to reach completion, adding to the national grid.

Focus on sustainability: The emphasis on reducing reliance on coal-based power plants will drive further investments in solar energy.

Economic and environmental benefits: The expansion of the solar sector is expected to create economic opportunities and contribute to South Africa's decarbonisation commitments.

"The solar energy sector in South Africa is poised for significant growth, with strong support from both the government and private sector, making it an exciting space to watch in the coming year," concludes Melamu.

Enquiries: www.sapvia.co.za



Choosing the right inverter for South Africa's future energy needs

Selecting the right inverter is crucial to ensuring optimal performance, reliability, and cost-effectiveness for your energy system. What solution is the right solution for the future local market?

With South Africa's unique energy landscape, characterised by grid stability challenges and high electricity prices, Growatt offers the following solutions:

1. Battery-ready systems

Growatt's battery-ready systems are designed with a pre-configured interface for easy integration with energy storage systems. This feature eliminates the need for additional modifications when adding storage, simplifying installation and enhancing efficiency. In South Africa, energy costs can be optimised by storing electricity during low-price periods or high sunshine, making this solution ideal for reducing peak-time expenses.

2. Grid-tied systems

Growatt provides a comprehensive range of smart photovoltaic (PV) solutions suitable for residential, commercial, and utility-scale solar plants, with capacities ranging from 0.75 kW to 350 kW. Its grid-tied inverters allow users to sell excess electricity back to the grid, generating economic benefits. In areas without grid-connection policies, anti-reflux equipment can be installed to maximise self-consumption.



Comprehensive energy storage solutions

If grid stability becomes an issue, Growatt offers a variety of energy storage solutions, including all-in-one systems, off-grid systems, commercial storage systems, and hybrid storage systems. It has a local service centre that provides professional product training and high-quality after-sales service.

Enquiries: <https://en.growatt.com/>

RS: inspiring future engineers with hands-on education

In celebration of STEM Day last year, RS South Africa highlighted the crucial role of STEM education in driving South Africa's economic growth and equipping youth with skills to thrive in a rapidly advancing technological landscape.

Through partnerships with universities and ongoing outreach programmes, RS South Africa is dedicated to fostering a passion for science, technology, engineering and mathematics (STEM) among students and preparing them for a variety of career paths.

RS's support for STEM education centres around collaborations with universities across South Africa. These partnerships enable RS to contribute resources to university-led high school outreach initiatives, providing students with a hands-on introduction to the field of engineering and a real-world glimpse into various career opportunities.

One significant initiative includes high school engagement activities where university students mentor younger students in building and coding projects like drones or hovercrafts. "We have university students share their experiences with high schoolers, and the hands-on projects make engineering feel more accessible and exciting," says Wesley Hood, education and social impact specialist at RS South Africa. "It's a powerful blend of mentorship and practical learning that resonates with students."

Additionally, RS supports university students directly through sponsorship of engineering competitions and workshops. These events allow students to apply for funding for innovative projects, gaining critical hands-on experience and enhancing their employability. Volunteer opportunities also help students strengthen their resumes while contributing to their communities.

Connecting students

Another important aspect of RS's mission is connecting students globally. The company's RS DesignSpark platform allows students to showcase their projects, inspiring peers across borders. Through RS DesignSpark, students can post photos, share project explanations, and see what others are doing worldwide, sparking a greater interest in STEM.

RS is also committed to breaking gender stereotypes in engineering. "We are seeing more women enter the field, bringing fresh perspectives, but there is still work to be done. Increasing female participation in engineering remains a priority," comments Hood.

While many students believe they need to go overseas to find opportunities in engineering, Hood stresses that South Africa has tremendous potential for innovation. "Engineering offers enormous entrepreneurial opportunities. It's not just about working for corporations; engineering skills enable students to start their own businesses and develop new solutions," he adds.

From STEM clubs in underprivileged schools to university competitions where students build solar cars and bridges, RS South Africa continues to drive impact. "Every workshop, competition, and partnership is a step toward building a stronger STEM foundation for South Africa," says Hood.

As technology advances and the demand for engineers grows, STEM education will be essential in shaping the future. "Engineering forms the foundation for these aspirations. With each student we inspire, we are making a small but significant impact toward that future," concludes Hood.

Enquiries: <https://za.rs-online.com/web/>



Transforming energy efficiency training: IEPA's award-winning formula

By Ilana Koegelenberg

The Institute of Energy Professional Africa NPC (IEPA) has made significant strides in energy efficiency training and youth development in South Africa and the greater African continent. Recently receiving recognition at the Association of Energy Engineers (AEE) World Energy Conference 2024 for Best Community Capacity Building Program, IEPA has demonstrated that local expertise can compete on a global stage.

We sat down with Yolanda de Lange, executive director of IEPA (and former SPARKS editor), who shared insights about the institute's journey, achievements, and views on the energy efficiency landscape in Africa.

Ilana Koegelenberg (IK): How did you end up at the IEPA, and what was your journey to this point?

Yolanda De Lange (YDL): I started as the editor of *Sparks Electrical News* in 1997, and then later became editor of *Electricity + Control*. During my time at the publisher of these magazines, Crown Publications, I developed an interest in energy efficiency after publishing papers about the coming energy shortage. This led me to publish handbooks on *Energy Efficiency Made Simple* in 2006, 2009, and 2011.

In 2002, as part of my role at *Electricity + Control*, I helped with marketing and advertising for the South African Association of Energy Efficiency (SAEE) and the Energy Training Foundation (ETF), which were both founded that year. This cemented my interest in the sector. In 2011, I officially joined the ETF and later became their training manager.

After the success of implementing a few youth programmes, the potential for youth development in the energy industry became apparent, as well as the need to start preparing the younger generation for a just energy transition. This resulted in a decision in 2019 to transition from a profit-driven organisation to establish IEPA as a non-profit company. We wanted to focus more on youth development, which wasn't possible under the previous structure where profits went to shareholders.

IEPA was established with the intention to do youth development, but the international body AEE felt their programmes had to be included in the new entity as well. So, we transitioned with all the same people, the same products, everything. I went out on my own with the team – we took a leap of faith, and here we are.

In February this year, IEPA will officially be five years old.

IK: What do you consider IEPA's greatest achievement thus far?

YDL: Besides putting together an energy-efficient building, our most significant achievement has been assisting youth to enter this industry. It's an ageing industry, and despite available government and international funding, little was being done about youth development, specifically around energy efficiency. We took a qualification that had been dormant for almost ten years and used it to build youth capacity in the industry.

We've also been able to unlock the potential of all the staff; we've all grown into very significant roles since having to run the business by ourselves. IEPA started with two employees, then the other two employees joined after the transition six months later, and now we are 13 – all females – seven of whom are former students we trained and re-employed. They're now helping to capacitate other youths like themselves.

IK: Why do you employ so many women at IEPA? Do you think women are appropriately represented in the industry?

YDL: We specifically chose to employ more women to balance out our trainer pool, which is 80% male. I find that multi-skilling, in most instances, comes easier to women, which is crucial for our type of work where you need to jump between tasks continuously throughout the day.

However, women are still underrepresented in the industry overall. There are still biases against employing women, particularly concerning maternity leave and family responsibilities.

The women working here are all high-functioning

individuals, seven of whom are engineers, yet many of them struggled to find engineering jobs in the industry. At IEPA, the engineers have been reskilled into the energy industry and the educational sector and are now competent trainers, assessors, moderators and project managers. In our youth programmes, we're seeing positive change, with over 50% of our participants being female.

IK: Tell us about the award you won at the AEE World Energy Conference.

YDL: We won the Best Community Capacity Building Program award from the AEE, presented at the AEE World Energy Conference held in Nashville, Tennessee (US). The project, which got prestigious recognition, was implemented with the support of the local Energy & Water Sector Education Training Authority (EWSETA) and GIZ, where youth were trained for employment in the energy industry in South Africa.

Our permanent employment rate after the programme set us apart – 84%, which is about 78% higher than average. Out of 206 participants, we have over 160 people in permanent employment. This is significant considering that many similar projects training 5,000 students achieve less than 1% permanent employment.

Some of our graduates have very high-profile jobs already, and some have progressed to get their international certification. Starting from electrician and entry-level engineering qualifications, they are now reskilled in the energy industry.

IK: How has your international travel influenced your view on the industry?

YDL: My love for Africa has only grown as I travel; I don't want to move anywhere else. Whatever I learn, I always bring it back to see how we can implement it in South Africa and on our continent.

It's interesting to understand how other governments approach skills development and capacity building differently. I've realised that South Africa's skills planning and how we at IEPA do things don't need to stand back for anybody in the world. Our programmes have been recognised internationally, and not for the first time – I won an International Innovator of the Year award in 2017 for our approach to youth skills programme development.

The way we implement our programmes ensures that the students are ready to walk into a workplace and they can actually do the job. It's not a big adjustment. Because of how we've put the programmes together, we look at the individual and the industry. So, we don't just look at: "There's a qualification, there's money, let's do something with it". We look at all the aspects around it.

They always talk about private-public partnerships, but I talk about private-public people partnerships, taking a holistic approach rather than just implementing qualifications because funding is available. We have a proven recipe for success. We always deliver more than we promised.

When I attended two weeks of training on youth skills development in the 'green' economy at the International Labour Organisation (ILO) international training centre in Italy, with other South African stakeholders, as well as relevant participants from across the world, I realised our programme was on-par, if not better, than many other country programmes, which explains our international recognition.

Additionally, I believe our success comes from how seriously we take feedback and our approach to monitoring and evaluation. Rather than treating our youth development programmes as just a tick-box exercise for funders, we actively implement lessons learned in real-time. When we identify areas for improvement, we immediately adjust our projects to optimise their success. While we may not train thousands of people, our impact is substantially more meaningful because we focus on quality and continuous improvement.

IK: Where does South Africa stand in terms of energy efficiency compared to other African countries?

YDL: Regarding policy implementation, South Africa is lagging behind the rest of the continent. Kenya has been active in this instance for many years, with other



Yolanda De Lange



countries like Tanzania, Zimbabwe, Ghana and Mauritius actively working towards policy implementation. Other countries have less red tape between having a policy and implementing it, as well as government willingness to make progress.

In South Africa, there's often a disconnect – policies are enforced on private industry before government compliance, creating a back-and-forth in whether compliance will be required or not. This creates business uncertainty for companies that invest in equipping themselves to meet compliance requirements. In some countries, the government leads the way – something we can learn from.

IK: What is your hope for IEPA in 2025?

YDL: My primary hope for the coming year is to complete our building, the IEPA International Energy Training Centre in Benoni, and establish a more practical, hands-on training facility at our site. We aim to double the number of youths we can support in this industry.

We currently have 90 people in training and another 100 in process. Beyond just numbers, what really drives me is seeing these young people succeed. Often, when they first arrive, we wonder if trainees make it in this industry. But time and again, they surprise us, and that's what I want to continue seeing – I want every young person who walks through our doors to surprise us with their achievements.

Enquiries: www.iepa.org.za



Vertiv introduces UPS for large data centres and other critical applications

Vertiv's new PowerUPS 9000 UPS system provides highly energy-efficient, scalable and reliable power protection for space-constrained environments.

Vertiv, a global provider of critical digital infrastructure and continuity solutions, recently introduced the Vertiv PowerUPS 9000 – an energy-efficient, high-power density uninterruptible power supply (UPS) system with a compact footprint. The system is engineered to support IT applications from traditional computing to high-density applications. It is available globally in UL and CE models, from 250 to 1,250 kW per unit.

The Vertiv PowerUPS 9000 is designed for high-power density, as well as a high double-

conversion efficiency of up to 97.5%. The system enables fast and easy installation, with top or bottom cable entry, as well as back feed protection and ground fault kit options that are embedded in the system without the need for extra space or on-site installation.

The units are deployable anywhere in the world, reducing potential procurement and service inconsistencies, delivery delays and downtime.

Engineered for reliability and efficiency

"The Vertiv PowerUPS 9000 UPS is engineered to maximise reliability and efficiency and to minimise footprint and complexity," says Giovanni Zanei, vice president,

Large Power at Vertiv. "With its modular structure and high-power density, it will deliver energy-efficient, reliable power protection that data centre customers are looking for to protect both traditional and mixed AI applications."

The Vertiv PowerUPS 9000 is Vertiv's most efficient UPS in its product class, with a physical footprint 32% smaller than previous generations. It is compatible with Vertiv EnergyCore lithium battery cabinet, and other battery technologies, including Valve-Regulated Lead-Acid (VRLA) and Nickel-Zinc.

Dedicated, segregated controls and dual, hot-swappable communication and control boards allow each power module to operate independently. In the event of a fault, the affected module can isolate itself, thereby protecting the other modules and enabling continued operation.

The continuous-duty solid-state bypass switch optimises the bypass line, and the system is fully hot-service and hot-swappable, meaning maintenance and upgrades can occur without downtime.

The Vertiv PowerUPS 9000 can be enabled with Vertiv Next Predict, a preventative maintenance strategy with advanced monitoring, data-driven health analytics and insights that optimise site operations. By leveraging AI and machine learning algorithms to monitor actual equipment conditions and measure equipment health, Vertiv offers a comprehensive solution for optimal equipment performance and longevity.

In Vertiv's test labs, Vertiv engineers subjected Vertiv PowerUPS 9000 to extensive Engineering Validation Tests (EVT) and Design Validation Tests (DVT) against a wide spectrum of operational conditions to confirm

its performance and reliability in real-world scenarios. It also passed additional environmental, performance and corner case tests – including debris protection, structural tests of seismic integrity and durability, and voltage surge and sag tests – that simulated extreme conditions the system may encounter.

Enquiries: www.vertiv.com



Safeguarding distributed control systems

Today's Distributed Control Systems (DCS) are highly intelligent, converging operational technology (OT) and information technology (IT) in a centralised manner that allows for simplified management and coordination of operations. It is technology evolution at its finest, but with a caveat, cybersecurity challenges. Kobus Vermeulen, direct sales executive, Process Automation at Schneider Electric, explores the topic further.

A great risk

With the convergence and interconnectivity, DCS has become susceptible to a range of threats, posing risks not only to operational continuity but also to safety and data integrity.

As it stands, interconnected DCS systems face several critical cybersecurity challenges:

Vulnerabilities to cyber-attacks: DCS systems are often targeted by cyber threats like malware, ransomware, and unauthorised access attempts.

Legacy system risks: many DCS systems run on legacy infrastructure with outdated security protocols, making them particularly vulnerable to cyber intrusions.

Interoperability concerns: as industries integrate various systems and devices, interoperability challenges can create security gaps. Incompatible security standards between different devices and platforms can lead to vulnerabilities that cyber attackers may exploit.

Insider threats: unauthorised or malicious activities by employees or contractors with access to DCS systems can compromise system integrity, data confidentiality, and operational security.

Best practices

Clearly, the above challenges can lead to far-reaching and even detrimental results. Apart from production loss, costly downtime, and even intellectual property theft, data breaches can also disrupt safety protocols which can be hazardous

to both man and machine.

To address DCS cybersecurity challenges, industries can adopt the following best practices:

Security by design: building cybersecurity into DCS technologies from the outset ensures resilience and minimises vulnerabilities.

Access control: limiting system access to authorised personnel only and implementing strict authentication measures reduce the risk of insider and external threats.

Regular updates and patching: routine updates ensure that systems are protected against the latest vulnerabilities.

Network segmentation: isolating critical DCS networks from non-critical ones limits the potential spread of cyber-attacks.

Employee training: promoting cybersecurity awareness among employees fosters a culture of security and prepares teams to handle potential threats effectively.

Fortifying DCS

Schneider Electric integrates advanced cybersecurity measures into its DCS solutions, designed to protect both the OT and IT infrastructures within industrial settings. These measures include:

OT cybersecurity solutions and services: its solutions help organisations meet their security objectives while complying with both international and local cybersecurity standards.

Network infrastructure protection: by securing OT network infrastructures and enabling convergence with IT platforms, Schneider Electric aims to offer a robust defence against cyber threats across all industrial domains.

"Additionally, our commitment to sustainability ensures that our cybersecurity offerings are designed for long-term operational stability and (aligned with) digital transformation goals," Vermeulen says.

Enquiries: www.se.com/za/en/

Orange to accelerate digital inclusion in Africa

As part of Orange's commitment to digital inclusion and a focus on driving growth in the Middle East and Africa, it recently announced that it will partner with OpenAI and Meta to fine-tune AI Large Language models (LLMs) to understand regional languages in Africa that GenAI models currently do not understand.

This innovative project aims to develop custom AI models that allow customers to communicate naturally in their local languages. Orange will also provide these open-source AI models externally with a free license for non-commercial use.

Orange intends to help drive AI innovation in these regional languages by collaborating on these new AI models with local startups and other technology companies and, by doing so, mitigating the growing digital divide faced by people across the African continent.

The initiative, commencing in the first half of 2025, will initially focus on incorporating regional languages, namely Wolof and Pulaar, spoken by 16 million people and six million people, respectively, in West Africa. Orange's long-term goal is to work with many AI technology providers to enable future models to recognise all African

languages spoken and written across Orange's 18-country footprint in the region.

"By fine-tuning leading AI models such as OpenAI's 'Whisper' speech model and Meta's 'Llama' text model with diverse examples of these languages, we will enable them to better understand these regional languages," Orange says. "Orange's vision is to make AI and other related advances accessible to all, including illiterate populations, who are currently unable to benefit from the potential of artificial intelligence. The initiative is a blueprint for how AI can be used to benefit those currently excluded."

Orange is focused on delivering "Responsible AI", where the company carefully chooses the most appropriate and simplest solution for each AI use case. This approach means only using the latest LLMs where they are necessary, and otherwise choosing simpler and cheaper solutions, thereby minimising the impact on the environment as well as reducing cost for the many valuable AI use cases deployed across Orange.

Enquiries: www.orange.com





CONTINUED FROM PAGE 1

CELEBRATING 40 YEARS OF INNOVATION: ACDC DYNAMICS UNVEILS THE 2025/26 CATALOGUE

offerings, solidifying its role as a driving force in the electrical industry.

The 2025/26 catalogue: a game-changer

The latest ACDC catalogue is not just another product directory – it is a symbol of the company's commitment to excellence and progress. Spanning over 1,100 pages, the catalogue features 70,000 products across 27 categories, with 7,000 new additions. From automation and lighting to circuit protection and renewable energy solutions, it serves as a comprehensive resource for professionals in diverse industries.

The development of this catalogue was no small feat. Over 37,970 man-hours went into its creation, alongside an investment exceeding R9 million. Every page is a testament to ACDC Dynamics' dedication to delivering quality and innovation. CEO Mario Maio describes the catalogue as "a robust industry resource" that reflects the company's forward-thinking vision.

"The catalogue is an invaluable resource that embodies decades of expertise and our forward-looking vision for electrical solutions," Maio said at the Johannesburg event, moments before his wife Guida helped him officially unveil the new catalogue.

A lot of work went into the catalogue. It took a staggering 21,800 man-hours plus 16,110 hours for the graphics to complete this catalogue, with an investment exceeding R13.8 million. "A special thank you to the team for your relentless pursuit of excellence," Maio said during the event. "I am proud of what we've accomplished together."

Marking the milestone

To celebrate 40 years of success and the launch of the new catalogue, ACDC Dynamics hosted three exclusive events in major cities across South Africa. Beginning with a glamorous evening at Katy's Palace in Johannesburg on 18 November 2024, the celebrations continued in Durban (Rockets on 28 November) and Cape Town (Rooftop on Bree on 3 December).

Guests were invited to "discover the heart of innovation" and were treated to an elegant atmosphere, outstanding entertainment, and a memorable display of pyrotechnics to officially unveil the catalogue.

During his speech, Maio took guests on a journey spanning the company's four-decade legacy and expressed gratitude to customers, suppliers, and employees for their unwavering support.

A brand-new corporate video showcased ACDC Dynamics' journey, highlighting key milestones and their vision for the future. In Johannesburg, famed adventurer Riaan Manser served as the master of ceremonies in Johannesburg, captivating attendees with his unique travel stories, while Masood Boomgaard and Jean de Villiers captivated the guests in Durban and Cape Town, respectively.

A testament to quality

The 2025/26 catalogue does not only include updates to existing ranges but exciting new partnerships and offerings too. Exclusive deals, such as the right to distribute Siemens PLC automation products and an agreement with Conlog Direct for prepaid meters, underscore ACDC's commitment to staying at the forefront of the industry.

Smart and IoT products are also prominently featured, a testament to ACDC Dynamics' investment in researching cutting-edge technology to meet the evolving needs of its customers. Maio himself remains deeply involved in the research and development process, ensuring that only the highest quality products make it into the catalogue.

Looking ahead

The launch of the 2025/26 catalogue is more than just a milestone – it is a celebration of ACDC Dynamics' unwavering commitment to empowering progress, building connections, and delivering industry-leading solutions. This catalogue is designed not only to inspire professionals but also to serve as a trusted guide in achieving greater heights.

With both hardcopy and digital formats available, ACDC Dynamics invites customers, suppliers, and industry professionals to explore the new catalogue and celebrate 40 years of excellence.

As ACDC Dynamics enters its fifth decade, the future looks bright, powered by innovation, quality, and a steadfast commitment to excellence.

Enquiries: <https://acdc.co.za/>



The importance of surge and lightning protection

Dehn Africa is a key player in the field of lightning and surge protection solutions, providing essential services to safeguard electrical systems throughout the country. With a focus on quality and innovation, Dehn Africa helps various industries mitigate the risks associated with electrical surges and lightning strikes.

South Africa experiences severe

thunderstorms, particularly during the summer months. These storms can produce powerful lightning strikes that generate massive voltage fluctuations, potentially exceeding several hundred thousand volts. Such surges can lead to catastrophic failures in sensitive electronic equipment, resulting in extensive operational disruptions across multiple sectors. For example, data

centres may incur substantial recovery costs due to equipment failure caused by power surges, which can compromise data integrity and lead to significant financial losses.

Standards and compliance

To mitigate these risks, adherence to national and international standards is crucial. The South African Bureau of Standards (SABS) provides guidelines for lightning protection systems to ensure installations comply with safety requirements. The SANS 10313

standard outlines essential measures for protecting structures from lightning strikes, including the design and installation of air termination systems, down conductors, and earth termination systems.

Additionally, SANS 62305 offers comprehensive guidelines for surge protection, emphasising the need for Surge Protective Devices (SPDs) that can effectively divert excess voltage away from sensitive equipment. Compliance with these standards is vital for ensuring that facilities are adequately protected against the unpredictable nature of electrical surges. Organisations must conduct regular risk assessments to identify vulnerabilities in their infrastructure and implement appropriate protective measures.

Affected sectors

The impact of inadequate surge protection extends across various sectors:

Telecommunications: Lightning strikes can lead to service outages and damage critical infrastructure such as cell towers and data transmission lines. SPDs are essential for protecting communication equipment from transient overvoltages.

Healthcare: Medical facilities depend on uninterrupted power supply; surges can jeopardise patient care by disrupting life-saving equipment such as ventilators and monitoring systems. Implementing robust surge protection measures is critical for maintaining operational continuity.

Manufacturing: Automated processes are increasingly reliant on sophisticated electronic control systems. Electrical surges can cause machinery malfunctions or shutdowns, leading to costly downtime and production losses.

Mining: Heavy machinery used in mining operations is susceptible to damage from voltage spikes. Protecting these assets with effective surge protection solutions minimises the risk of operational delays and costly repairs.

Oil and Gas: The oil and gas sector relies on sensitive equipment that must be protected from surges to ensure operational continuity. Lightning strikes can pose significant risks to drilling rigs and refineries, making surge protection a critical component of safety protocols.

Dehn Africa's solutions

Dehn Africa specialises in providing tailored solutions that address the unique challenges of lightning and surge events. It offers:

SPDs: These devices are designed to protect electrical installations from transient overvoltages by diverting excess energy away from sensitive equipment.

Lightning protection systems: Comprehensive solutions that include air termination systems, down conductors, grounding systems, and surge protection devices integrated into one cohesive system.

Consultation services: Expert guidance on compliance with relevant standards, risk assessments, system design, installation best practices, and ongoing maintenance strategies.

In conclusion, as South Africa continues to face challenges from severe weather events, investing in robust surge and lightning protection is essential.

Enquiries: www.dehn-africa.co.za / +27 (0)11 704 1487

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Lightning safety, compliance and purpose

For most of South Africa, we are at the peak of the thunderstorm-lightning season in January. With some statistical variances in different parts of the country, thunderstorms become a daily occurrence from mid-October and will continue regularly to mid-April. What does the Earthing and Lightning Protection Association of South Africa (ELPA) advise?

Lightning risk

The risk of any damage to property and electrical and/or electronic equipment increases with the frequency with which thunderstorms take place. The severity of the damage increases with the value of the property and equipment damaged.

Lightning, which can cause this damage to property, is an electrical phenomenon driven by lightning current, which is the transfer of electrical charge between the overhead clouds and the ground. If a property is in the way, it will get damaged unless there is a safe path provided for that electrical charge to get to the ground without passing through the property.

Lightning-safe South Africa

The ELPA serves South Africa by building a sustainable lightning protection industry that will deliver appropriate lightning protection solutions according to the degree to which each and every property owner can tolerate the threat of lightning.

Lightning safety includes the people present at the properties during thunderstorms and forms part of the responsibility the property owners and risk managers must consider when determining that tolerable threat.

Lightning solutions

Appropriate lightning protection can be realised through three strategies:

1. Permanently installed lightning protection systems (LPS) that specifically intercept lightning that will strike the property and people;
2. Equipotential bonding of metal parts of buildings that can become electrically charged; and
3. Adopting appropriate "standard operating procedures" to minimise risk when thunderstorms are imminent, during storms and after they have passed through.

Lightning safety compliance

It is important to recognise that "compliance" in lightning protection terms means the

successful protection of property and people as required by the property owner. The property owner has a duty to protect the interests of all who reside at or use the premises.

There is abundant South African legislation that spells out the duties of the property owner and traders using the properties. In addition, there are many regulations underpinning that legislation

that protects South African citizens both at work and as consumers of products.

Competencies

It is equally important to recognise that both service providers and property owners must apply due diligence when offering and when purchasing lightning protection solutions for their needs. Unlike most other technical trades, the lightning protection industry must establish and maintain its own skills development qualifications. The

task is ongoing, and ELPA is in the final stages of launching advanced lightning protection installation and general lightning protection design qualifications. The South African Qualifications Authority (SAQA) requires these qualifications to recognise competency independently of training facilities and South African representative organisations and professional bodies such as ELPA.

Enquiries: <https://elpasa.org.za/>

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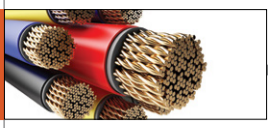


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Richard Evert, national director of ELPA.



Hidden dangers of cheap, non-compliant electrical cable products in South Africa

How safe is your business? How safe is your family? In a market flooded with low-priced electrical products, South African businesses and consumers face a growing risk: non-compliant, sub-standard electrotechnical products. While these products may offer immediate cost savings, the long-term consequences could be devastating. As South Africa's economy remains under pressure, many entities take advantage of economic challenges by importing unsafe, cheap electrotechnical products in retail and informal sectors at prices well below standard market rates. These products pose significant dangers to both businesses and households.

"At Apex Cordset Technologies, we understand that safety cannot be compromised for a cheaper price," says Willem Olivier, sales and marketing executive at Apex Cordset Technologies. "As a leader in the manufacture of electrical products and cable assemblies, we take pride in our commitment to quality, reliability, and compliance."

Apex's range includes power cords, household wiring accessories, and specialised assemblies for sectors including mining, electronics, refrigeration,

and more. From power cords and plugs to grommets and connectors, Apex delivers products designed to meet rigorous safety standards and prevent the hazards posed by non-compliant alternatives.

The proliferation of non-compliant cables is a direct threat to consumer safety, says Apex. These products often lack adherence to safety regulations and may be prone to overheating, short circuits, electrical shocks, and even fires. "In a market driven by cost-cutting pressures, manufacturers sometimes choose to reduce product quality to stay competitive, but at what cost?" Olivier asks.

The choice to use cheaper, non-compliant products could result in significant damage to equipment, business reputation, and – most importantly – human lives.

"As a company that specialises in safe, compliant electrical solutions, Apex believes that cutting corners to lower product costs is never a viable option," Olivier explains. That's why Apex's three dedicated manufacturing units – Apex Leads, Kosmolink, and EDCAP – serve a broad range of industries with products that adhere to ISO 9001:2015 and ISO 45001:2018 standards. "Our stringent in-house quality control, backed by three on-site laboratories, ensures that every cable

and cordset we produce is safe, reliable, and compliant," says Olivier.

Apex is not only committed to delivering superior products but also to educating the market about the dangers of non-compliant cables. Apex collaborates with the Safehouse Association, a non-profit organisation that raises awareness about substandard electrical products. "Through our partnership, we aim to empower consumers to make informed decisions and avoid potentially life-threatening risks," he says. The role of regulatory bodies in South Africa is crucial in enforcing compliance and protecting consumers from sub-standard electrical products. However, it is not enough to rely solely on regulation. A collaborative effort from manufacturers, retailers, and consumers is necessary to ensure that safety remains a priority in every aspect of the electrical industry.

The dangers posed by cheap, non-compliant electrical cables are real and growing.

With a manufacturing capacity of over 37 million units across various business units and a strong global presence in markets such as the United States, Canada, and Australia, Apex stands as a beacon of safety,

reliability, and innovation. "Whether supplying OEMs with cordsets for home appliances or providing mining industries with detonator cable assemblies, our products serve industries where safety is non-negotiable."

Apex Cordset Technologies is a proudly South African company committed to safety, compliance, and quality. "We are proud to be part of the solution, delivering high-quality, compliant products that safeguard businesses, families, and communities," Olivier concludes.

Enquiries: www.apex-leads.co.za



How to choose the right conductor material for cables and wires

From copper and aluminium to optical fibres – Helukabel discusses how the various conductor materials in cables and wires differ from one another.

Various materials can be used as electric conductors to transmit energy, signals or data in cables and wires. The most well-known and commonly used one is copper

(Cu), a very ductile metal with high conductivity. It is also flexible, high-tensile and comparatively cheap, making it the first choice for many applications.

The conductor comprises either a single wire or multiple wires twisted together to form a so-called strand. Copper can be tin-plated, for example, to make it more corrosion-resistant, or nickel-plated to improve its temperature range.

Choosing the right conductor material is often difficult for cable and wire users.

Aluminium (Al) is another potential conductor material. Its major benefit over copper is a much lower density. But it has poorer conductivity, which means a greater cross section is required to transmit the same current. In addition, aluminium wires are less flexible and, hence, more likely to break. This makes them unsuitable for moving applications. As a result, aluminium is mainly used for energy distribution cables and medium-voltage cables where weight plays an important role.

The material with the best conductivity is silver (Ag) but it is many times more expensive than copper. For this reason, silver is normally only used in special applications where exceptional performance and efficiency are required – for example, in high-end audio.

Another possible conductor for audio cables is silver-plated copper wire which stands out for high conductivity and resistance

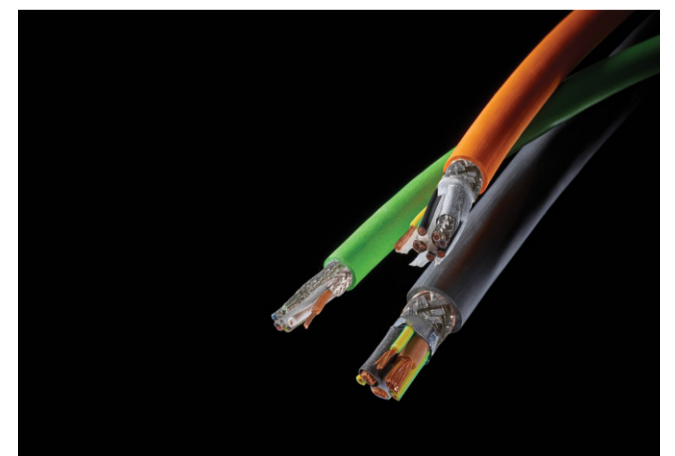
to corrosion. The high price and poorer conductivity of gold (Au) compared to silver and copper rule this out as a conductor.

Another material that, at first glance, would also appear to be an unsuitable conductor is steel, which has a conductivity significantly worse than that of copper or aluminium. On the other hand, it is extremely strong and highly tensile. For this reason, steel is used in military and aerospace applications, often in combination with other materials such as aluminium.

Alongside all these metal conductors are optical fibres, or so-called optical waveguides. These are ideal for transmitting signals at high-speed using light. They consist of a quartz glass or plastic fibre core. The latter is more flexible and hence can be bent more easily. The core is surrounded by an optical jacket, known as the cladding. The light signals are reflected between the core and cladding and transmitted through the waveguide at high speed. Optical waveguides are used in a variety of applications, such as in telecommunications, medicine and aerospace. They cannot transmit current, though.

The best conductor material thus depends heavily on the application in question and the prevailing conditions. These must be known precisely to be able to consider the pros and cons of each material carefully. Of course, other characteristics of a cable, such as stranding, cross-section, insulation and sheathing material, also play an important role. For this reason, it is always best to seek expert advice when choosing cables and wires to ensure compliance with all the requirements of everyday use.

Enquiries: www.helukabel.co.za





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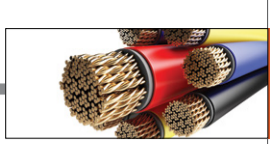
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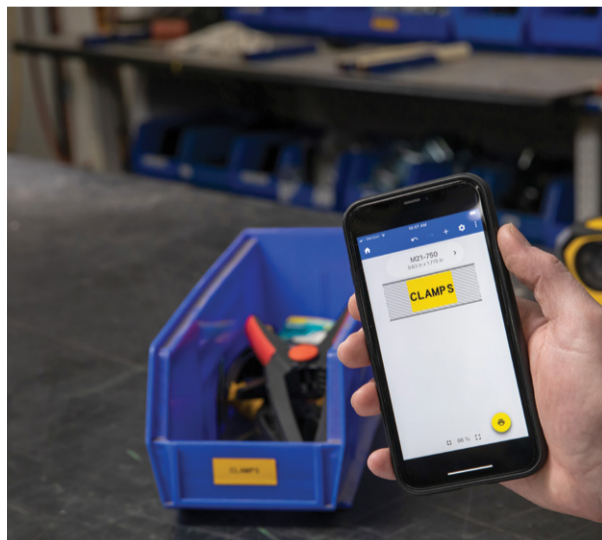


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Enquiries: www.brady.eu

Three-D's innovative solutions for lugs and terminals

When it comes to ensuring reliable and efficient electrical connections, the choice of lugs and terminals is crucial. Three-D Agencies' extensive range of lugs and terminals is designed to meet the diverse needs of various electrical applications.

From copper and aluminium lugs to pre-insulated terminals and bi-metal options, Three-D's products are sourced from leading international manufacturers to guarantee top-notch quality and performance.

"Whether you're working on industrial, commercial, or residential projects, our lugs and terminals provide the durability and reliability you need for seamless electrical connections," says Gabriel Pieterse, sales director at Three-D Agencies.

Understanding lugs and terminals

Lugs and terminals are the backbone of electrical systems, serving as the critical contact points that ensure the flow of electricity is consistent and secure. Lugs are typically used to connect cables to electrical appliances, distribution equipment, or other cables.

Terminals, on the other hand, serve as the endpoint for wiring where a connection is made to external circuits.

Types of lugs and terminals

Three-D Agencies offers a variety of lugs and terminals, each suited for different types of electrical work: **Copper lugs:** Known for their excellent conductivity and corrosion resistance, copper lugs are ideal for high-voltage applications and are widely used in industrial settings.

Aluminium lugs: These lugs are lighter and more cost-effective than copper, making them suitable for applications where weight and budget are considerations.

Pre-insulated terminals: These terminals come with insulation to protect connections against short circuits, making them perfect for environments where safety is paramount.

Bi-metal options: Bi-metal lugs and terminals allow for the connection between dissimilar metals, preventing galvanic corrosion in such scenarios.

Choosing the right lug and terminal

Selecting the appropriate lug or terminal is not merely a matter of

preference but a critical decision that affects the safety and efficiency of an electrical system. Factors such as the type of wire, the environmental conditions and the electrical load must be considered. Three-D Agencies' range is designed to cater to these variables, ensuring that every electrical connection is optimised for performance and safety.

Three-D Agencies' quality assurance

Three-D was established in 1977, and for over 46 years, it has provided the highest quality range of cable accessories to a wide spectrum of South African industries. Its geographic footprint covers all the major economic hubs of South Africa, plus neighbouring countries such as Lesotho, Swaziland, Zimbabwe, Zambia, Botswana, Namibia, Angola, Ghana, Mozambique, Tanzania and Nigeria.

By sourcing products from leading international manufacturers such as HEX, Three-D ensures that each lug and terminal meets stringent quality standards. HEX is an industry leader in manufacturing high-quality products, including cable terminal ends and connectors.

This thorough selection process not only guarantees the reliability of the electrical connections but also extends the lifespan of the entire system. Additionally, by partnering with globally recognised brands, Three-D can offer a diverse range of high-quality products that cater to various industrial needs. "This commitment to excellence ensures that our customers receive the best possible solutions for their electrical infrastructure, enhancing overall performance and safety," says Pieterse.

Essential components

In conclusion, the role of lugs and terminals in electrical work cannot be overstated. They are essential components that, when chosen correctly, can significantly enhance the

reliability and efficiency of an electrical system. Three-D Agencies understands this, which is why they offer an extensive range of high-quality lugs and terminals to meet the needs of any project, big or small.

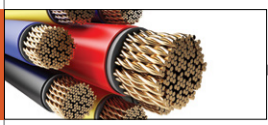
By prioritising quality and variety, Three-D Agencies ensures that electrical professionals have access to the best products on the market.

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The future of electrical safety: key innovations in cables, earthing, surge protection, and lightning safety

The electrical industry continues to evolve rapidly, driven by technological advancements that enhance safety, performance, and sustainability. As one of South Africa's leading suppliers of electrical products and solutions, Voltex stays ahead of the curve by offering cutting-edge products that help safeguard electrical systems in an increasingly connected world.

In 2025, as the world becomes more reliant on digital technologies and interconnected systems, the protection of critical infrastructure from electrical surges and lightning strikes has become a pressing concern. This editorial examines the latest innovations in surge protection, lightning safety, earthing, cables and cable accessories, focusing on how new technologies, including Artificial Intelligence (AI) and smart Internet of Things (IoT) systems, are shaping the future of electrical safety.

Cables and accessories: the backbone of electrical systems

Cables and accessories are the essential components that allow electricity to flow safely and efficiently through modern infrastructure. With the rise of smart cities, 5G networks, and the electrification of transport systems, the demand for more robust and efficient cables has never been higher. Innovations in cable design and materials, as well as smarter cable management solutions, are driving significant improvements in electrical safety and system performance.

Low-smoke, zero-halogen (LSZH) cables have become a standard in high-risk environments. These cables are engineered to emit minimal toxic smoke or halogen gases during a fire, reducing the risk to human health and safety in enclosed spaces such as data centres, airports, underground mines and hospitals. As the need for high-power and high-speed data transfer grows, materials like fibre optics and shielded cables have become indispensable in supporting 5G technology and IoT infrastructure.

Moreover, smart cable management systems have evolved to integrate sensors and smart monitoring to detect cable degradation or damage. These systems can alert maintenance teams in real time, reducing downtime and preventing potential failures, which is critical in the age of connected devices.

Surge protection: safeguarding electrical equipment from unexpected surges

In 2025, the risk of electrical surges due to lightning

strikes, power fluctuations, and electromagnetic interference has escalated, especially with the increased reliance on sensitive electronic devices and interconnected systems. Surge protection is now more sophisticated than ever, with AI technologies playing a pivotal role in enhancing its effectiveness.

Surge protection devices (SPDs) have evolved to handle larger surge currents, with modern systems capable of predicting and mitigating surge events before they occur. AI-powered SPDs can now assess the electrical environment in real time, learning patterns of electrical use and anticipating potential threats. These intelligent systems can trigger protective measures before surges damage valuable electronics.

Additionally, the integration of whole-house surge protectors has expanded, with advanced models providing comprehensive protection for everything from home appliances to industrial equipment. The use of Type 2 SPDs in electrical panels is becoming standard practice, as they offer robust protection for all appliances and systems connected to the grid, providing peace of mind in the face of unpredictable power events.

In areas with a high incidence of lightning strikes, surge protection devices now include lightning-induced surge protection, offering an added layer of safety by diverting the high-energy surges caused by lightning to the ground without compromising the integrity of the electrical systems.

Lightning protection: mitigating the dangers of lightning strikes

Lightning protection systems have become more advanced with the integration of smart technologies and AI. In 2025, lightning protection goes beyond traditional lightning rods and grounding electrodes to include systems capable of predicting lightning strikes and responding automatically.

Early streamer emission (ESE) lightning rods are now enhanced with AI algorithms that can predict the likelihood of a lightning strike based on real-time weather data and environmental conditions. These intelligent systems not only improve the effectiveness of lightning rods but also ensure that protective measures are triggered in time to prevent damage.

AI-powered lightning protection systems are integrated into smart buildings and smart cities, where they monitor environmental conditions and adjust protection strategies accordingly. These systems can detect the presence of a



thunderstorm, assess the risk of a lightning strike, and activate protective measures, such as surge protection devices, to safeguard sensitive equipment or sound alarms as early warnings.

In industries like telecommunications, data centres, and energy generation, where continuous operation is critical, lightning protection is no longer just a precaution but an active, intelligent system that monitors and responds to potential threats.

Earthing: a cornerstone of electrical safety

Earthing systems are benefiting from innovations that incorporate AI and IoT technologies. These systems now not only protect against electrical faults but also provide real-time monitoring to ensure optimal safety and performance.

Smart earthing systems are increasingly deployed, integrating sensors and AI to assess the health of the earthing infrastructure continuously. These systems can detect faults or inefficiencies in the earthing path and alert maintenance teams to take corrective actions before problems escalate into safety risks. For instance, AI-driven predictive maintenance can forecast potential earthing failures, allowing for timely intervention.

Corrosion-resistant earthing materials like copper-bonded rods and conductive concrete are being used to extend the life of earthing systems, ensuring they remain effective even in harsh environments. These materials are now paired with smart monitoring that ensures the earthing system is always functioning at its best, even as electrical systems grow in complexity.

Conclusion

In 2025, the integration of AI, IoT, and smart technologies into the electrical industry is transforming the way we protect electrical systems from surges, lightning strikes, and faults. From AI-powered surge protection to smart earthing systems and intelligent lightning protection, the future of electrical safety is becoming increasingly automated and predictive.

As a leader in electrical solutions, Voltex is at the forefront of these advancements, providing innovative products that ensure the safety and reliability of electrical systems across a variety of industries.

"As technology continues to evolve, we remain committed to offering our customers cutting-edge solutions that meet the demands of a rapidly changing world," says Voltex. "By embracing these new technologies, we can build safer, more resilient electrical systems for the future."

The future of electrical safety is bright, driven by intelligent, connected systems that proactively mitigate risks and ensure the longevity and reliability of electrical infrastructure.

Enquiries: <https://www.voltex.co.za/contact-us/>

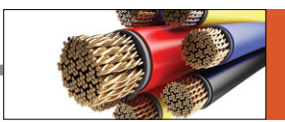
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Repair, reuse, and reduce waste with Pratley adhesives

Pratley, a manufacturer of adhesives, highlights how it can help you contribute to sustainability through its innovative adhesive products.

Pratley empowers users to repair, reuse, and extend the life of their products by offering a range of strong, versatile, and efficient adhesives as well as comprehensive support and guidance. This ultimately leads to waste reduction and cost savings, says Mark Bell, national sales and marketing manager at Pratley.

A strong, durable bond

Pratley's adhesives are designed to create strong, durable bonds between a wide range of different materials. The adhesive bond strength of Pratley's adhesives ensures that broken or damaged items can be repaired as opposed to spending money on replacements.

"Our adhesives are formulated to provide the highest bonding strength, ensuring long-lasting repairs that can withstand various environmental conditions and stresses," highlights Bell.

Pratley has developed precision applicators to minimise excess adhesive use. Pratley Powda Bond has a precision nozzle, allowing users to make fixes with pinpoint accuracy. "It allows end users to deliver the exact quantity of adhesive needed, which not only ensures a cleaner application but also significantly reduces waste," notes Bell.

Powda Bond can be used for a variety of fixes to items that are usually thrown away, such as plastic electrical plugs or car headlamps. "The versatility of our adhesives means that users can rely on one product for a variety of tasks, making it a more sustainable and cost-effective choice," adds Bell.

Importance of proper curing

The importance of the curing period in Pratley's adhesives cannot be overstated. Proper curing results in long-lasting repairs that can withstand different environmental conditions and stresses. This durability extends the lifespan of repaired products and further promotes reusability.

"A well-cured adhesive bond is essential for ensuring the longevity of repairs, which is a cornerstone of our sustainability efforts," says Bell. Pratley Putty's rock-hard strength makes it perfect for repairing anything from fuel lines to metal petrol and water tanks.

Dedicated to sustainability

Pratley is also committed to sustainability in its packaging solutions. Adhesives

are available in small packs for home use and larger quantities for industrial applications.

"By offering a range of packaging sizes, we can reduce the environmental impact and limit package disposal costs," says Bell. "We are continuously looking into ways to improve our packaging to make it more sustainable."

Pratley provides extensive technical

support and guidance on proper adhesive selection and application techniques. "Our technical support team is always ready to assist customers with their adhesive needs, ensuring that they use the right product in the right way," says Bell. This support helps users achieve optimal results, reducing the likelihood of failed repairs and the associated waste of materials and resources.

Pratley is actively adapting to global trends in environmental awareness and sustainability. The company has changed its packaging to meet demand from overseas markets and is exploring more eco-friendly materials as its exports continue to grow. "It is a whole learning curve, but it is essential to save the planet. We are committed to making these changes despite the associated challenges," acknowledges Bell.

Enquiries: www.pratleyadhesives.com






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BEKA Schröder's LED streetlighting retrofit for Pretoria golf estate

BEKA Schröder has supplied the decorative retrofit LED streetlighting solution for Woodhill Residential Estate and Country Club in Pretoria East, South Africa. Woodhill is one of the leading golf estates in Pretoria and offers a blend of luxury living, world-class golf, and exceptional venues for conferencing and weddings.

This esteemed golf estate sought to upgrade its post-top streetlighting from high-pressure sodium to an LED solution, with two key requirements: aesthetics and performance. BEKA Schröder recommended the VERTICE-R post-top luminaire, and after installing samples, both the board of directors and homeowners were delighted with the outcome.

The first phase has been completed, with the remainder of the installation scheduled for early 2025.

VERTICE: classic, efficient, functional
The VERTICE combines a classic yet modern

design with efficient light distribution, delivering effective illumination for a variety of urban environments.

Designed and manufactured in South Africa, this luminaire offers all the advantages of LED technology, including energy savings and enhanced visual comfort. The VERTICE is easy to install, requires minimal maintenance, and comes with a full five-year warranty.

What sets the VERTICE apart is its versatility. It offers a range of light distributions and four different LED engine configurations, allowing for an aesthetic look tailored to your specific application. Additionally, it supports Schröder EXEDRA and Schröder ITERRA control systems with external surge protection.

For areas prone to power outages, the optional battery backup version is an ideal solution. It provides up to four hours of backup lighting and features a fast-charging inverter, ensuring it is ready for the next power disruption.



Locally manufactured
BEKA Schröder develops and manufactures a wide range of energy-efficient LED lighting products in South Africa, designed and suitable for local conditions.

"We are very proud to be associated with Latin Electrical in providing a successful LED lighting solution for this project," says BEKA Schröder.

Enquiries: info@beka-schreder.co.za.

Shining a light on sports venues: opportunities and trends

By IESSA

The right lighting can make or break a sports venue. Not only does it ensure players and spectators see every detail, but it also elevates the viewing experience for audiences tuning in from home. The Illumination Engineering Society of South Africa (IESSA) explores the latest trends in sports lighting and how South Africa is keeping pace with global innovations.

A growth opportunity for lighting professionals

For decades, electrical distributors and lighting agents didn't pay close attention to the sports lighting category. If a town or school wanted to light their fields, for example, the typical solution meant installing pole-mounted metal halide floodlights and calling it a day. But, like everything else in lighting, things have become more complicated in the wake of LED light sources and lighting controls – but "complicated" is not a bad thing for our industry.

According to the Electrical Trends blog, having lights on fields is becoming a revenue generation opportunity. What we're also seeing happening in sports is a change from the traditional grass field to artificial turf. Once they put the turf on, they can triple the usage per year because there is no loss of use due to damage to the grass. If a community invests in turf, adding lights just makes sense.

Trends and advances in sport lighting

The following trends have been observed – locally and abroad.



1. Energy-efficient LED technology

Global shift: LED lighting has revolutionised stadiums worldwide. Compared to older metal halide or halogen lights, LEDs consume far less energy, emit less heat, and last longer. This technology reduces the environmental footprint of stadiums and results in significant cost savings over time. LEDs also offer better colour rendering, which enhances on-field clarity and overall broadcast quality.

South Africa's progress: South African sports venues are increasingly adopting LED lighting solutions. Major stadiums have replaced older systems with LED setups that meet international broadcast standards. However, some smaller venues may still rely on traditional systems, primarily due to budget constraints. Despite this, LED implementation continues to gain traction, with a focus on energy-saving solutions for sustainable growth.

2. Advanced lighting controls and dynamic systems

Global shift: The latest lighting systems in stadiums are no longer just on-and-off setups; they're designed to be dynamic. Sophisticated control systems allow stadiums to adjust lighting intensity, colour temperature, and even animate lighting effects to create immersive experiences. This adaptability means that stadiums can tailor lighting for different events – whether it's a football game or a concert – making the venue more versatile.

South Africa's progress: Some of South Africa's premier sports venues, particularly those in Johannesburg and Cape Town, have adopted these advanced lighting controls. As venues nationwide look to offer more dynamic experiences, investing in customisable lighting systems can boost local venues' attractiveness for international events and elevate the fan experience.

3. Optimised illumination for broadcasts and high-definition viewing

Global shift: As global audiences

increasingly watch sports events in HD and even 4K resolution, stadiums must ensure that lighting quality supports these high-definition broadcasts. This includes minimising shadows, enhancing uniformity, and achieving optimal brightness without glare. In regions like Europe and the United States, lighting setups are fine-tuned to meet the exacting standards of high-end broadcasters.

South Africa's progress: Many of South Africa's larger stadiums have made strides to meet these standards, though smaller venues may struggle to keep up. Collaborative efforts between broadcasters, lighting professionals, and stadium owners can ensure South African sports venues maintain a competitive edge, offering broadcast-quality experiences for local and international audiences.

4. Sustainable and eco-friendly lighting solutions

Global shift: Sustainability is a driving force in lighting innovation worldwide. Many stadiums are investing in solar panels, battery storage, and smart grid integration to reduce reliance on the power grid. This shift not only lowers energy costs but also aligns with environmental goals that fans and governing bodies are prioritising more each year.

South Africa's progress: South Africa's sunny climate presents a unique opportunity for sports venues to explore solar-powered lighting options. While some progress has been made, there's room for growth, especially in integrating renewable energy sources with lighting systems. By prioritising green energy, South African venues can position themselves as pioneers in sustainable sports infrastructure on the continent.

5. Enhanced spectator and player experience with colour and temperature control

Global shift: Lighting systems are now capable of creating ambiance by adjusting colour temperature and hues. Warmer tones may be used during pre-game events, while cooler, brighter tones enhance visibility during the match. Such control adds to the atmosphere and can impact player performance and fan enjoyment.

South Africa's progress: South African stadiums have started to experiment with these adjustable lighting temperatures, particularly for events that draw large crowds. While some venues are early adopters, expanding this trend to more locations could ensure a more immersive and enjoyable experience across all South African sports venues.

6. Reduced light pollution and protection of the natural night environment

Global shift: Dark sky requirements are guidelines for outdoor lighting that aim to reduce light pollution, that encourage the use of compliant fixtures that are fully shielded and emit no light above the horizontal plane.

South Africa's progress: There has been a shift in residential areas neighbouring sports fields, where they have been requested to also be compliant by adding louvres and hoods to floodlights to avoid spill light.

LED, it's a game-changer

The integration of LED lights into sports has been a game-changer. From energy efficiency to enhanced visibility, these lights have improved both the athlete's performance and the fan's experience. Moreover, LED lights have helped sports venues become more sustainable, aligning with the global push for eco-friendliness.

South Africa's sports lighting landscape is evolving rapidly, with many venues adopting global trends that prioritise sustainability, audience engagement, and energy efficiency. As we move forward, continuing to champion these advances will help ensure South African sports venues are not just on par with, but ahead of, global standards. Whether it's through LED retrofits, solar power, or advanced lighting controls, the future is bright for South African sports lighting.

Encouraging collaboration between lighting professionals, stadium owners, and broadcasters can propel South Africa's stadiums to a new level, ensuring that local athletes and fans experience world-class lighting at every game.

Enquiries: www.iessa.org.za



Bug-free illumination with Radiant Lighting's insect-repelling floodlights

The latest in South Africa-ready lighting solutions: a range of floodlights that doesn't attract insects! Designed specifically for environments where both lighting efficiency and insect control are essential, these floods are the ideal answer for a bug-free life!

Technical specifications and performance

This advanced line of floodlights from Radiant offers an impressive blend of cutting-edge LED technology, robust construction, and insect-repelling properties. At the heart of these floodlights is an integrated LED module available in three power options: 20 W, 50 W, and 100 W. Each variant delivers a well-defined light output ranging from 730 lumens for the 20 W model to 3,340 lumens for the 100 W model. The light emitted operates at a particular and quite specific wavelength, 600 nanometres – also known as “amber light”.

Amber light is a warm yellowy-orange light with a longer wavelength than that of white and UV light. At a frequency of 600 nm, amber light doesn't draw insects in the same way that white or UV light does, in fact the opposite, insects seem to hardly notice the light.

The reason comes down to simple biological science – insects have evolved to be most responsive to natural light such as sunlight and moonlight, hence their vision is more attuned to shorter wavelength light.

This makes the longer wavelength amber floodlight advantageous in outdoor spaces such as gardens, patios, and commercial outdoor venues where insect activity can be disruptive.

The floodlights' beam angle of 110° ensures broad coverage, making them suitable for wide-area illumination. In addition to their lighting efficiency, these products boast a power factor of over 0.9, contributing to energy efficiency and ensuring minimal power wastage during operation.

Durability and protection

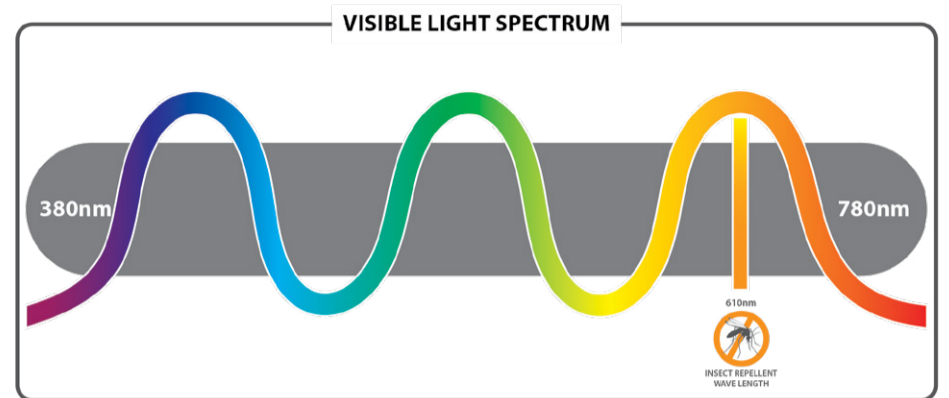
Constructed from die-cast aluminium, these floodlights are designed to withstand the elements, with an IP65 rating that guarantees resistance to dust and water ingress. This makes them an ideal choice for harsh outdoor conditions. Furthermore, the series is equipped with advanced surge protection – 1 kV surge protection for the 20 W model and 2 kV for the 50 W and 100 W models—ensuring resilience against voltage spikes and enhancing the longevity of the fixtures.

Practical applications

One of the standout features of these floodlights is their dual functionality. Not only do they serve as high-performance outdoor lighting, but their 1,600 K amber hue repels insects, improving the comfort and usability of outdoor areas without compromising on brightness or visibility. This makes them an excellent choice for residential gardens, hospitality venues, and public spaces where insect presence could otherwise be a nuisance.

Additional features

Each floodlight in the range comes with a standard 500 mm cable for easy installation, and the compact design – ranging from 100 mm x 85 mm for the 20 W



version to 260 mm x 180 mm for the 100 W version – ensures a sleek profile that won't detract from the aesthetic of your outdoor setup.

With a two-year warranty across the board, these floodlights offer both peace of mind and a long-term lighting solution.

Conclusion

Radiant's insect-repelling LED floodlights are a versatile, energy-efficient solution designed for those who require high-

performance outdoor lighting without the nuisance of insects. With robust construction, excellent surge protection, and insect-repelling capabilities, this range is set to redefine outdoor lighting in residential, commercial, and public settings.

Available since September last year, these floodlights are expected to become an indispensable part of outdoor lighting designs across a variety of sectors.

Enquiries: info@radiant.co.za

Why LED anti-corrosive luminaires are a must-have for industrial settings – and why Aurora Lighting Africa has the perfect solution

In rugged industrial settings like carparks, factories, warehouses, and processing plants, reliable lighting is a necessity. When lighting must withstand exposure to moisture, chemicals, dust, and fluctuating temperatures, regular luminaires just don't cut it. That is why anti-corrosive luminaires, especially those with high protection ratings like IP66, are increasingly the top choice for industries that need durable, efficient lighting they can count on.

Aurora Lighting Africa has stepped up

to meet this need with a high-efficiency, IP66-rated LinearPac+, LED anti-corrosive luminaire that's ideal for demanding environments. This fixture delivers an impressive 160lm/W output, has a lifespan of 50,000 hours, and comes backed by a five-year warranty.

Here's a look at why anti-corrosive luminaires make sense for industrial spaces and why Aurora's solution is worth considering.

Why choose LED anti-corrosive luminaires with an IP66 rating?

Industrial facilities are tough on lighting. With constant exposure to dust, water, and potentially corrosive chemicals, traditional luminaires break down quickly, costing time and money in repairs and replacements. Aurora's IP66-rated anti-corrosive LED luminaires are designed to tackle these challenges head-on.

The IP66 rating means the luminaire is totally sealed against dust and can withstand powerful jets of water, making it ideal for areas where dirt and moisture are constant issues. This durability means less maintenance and fewer interruptions, saving both time and money in the long run.

High efficiency that's good for the budget and the planet

In large facilities, lighting can be a major part of the energy bill, especially in spaces that need illumination around the clock. Aurora Lighting Africa's 160lm/W LED anti-corrosive luminaire helps lower that cost by delivering maximum brightness while using reduced energy.

With this high-efficiency lighting, facilities can get all the light they need with fewer fixtures and lower energy costs. And, as an added bonus, using energy-efficient LEDs helps reduce the facility's carbon footprint, a big plus for companies looking to improve sustainability.

Built to last: reducing maintenance and disruptions

With an impressive 50,000-hour lifespan, Aurora's LED anti-corrosive luminaire is

built to go the distance. Frequent lighting replacements aren't just a hassle; they're disruptive and costly. For teams working 24/7, it's a big advantage to have reliable lighting that requires minimal attention, boosting productivity and reducing risks for maintenance crews.

Peace of mind with a five-year warranty

On top of great performance, Aurora Lighting Africa's anti-corrosive luminaires come with a five-year warranty. This kind of long-term support shows Aurora's confidence in its product and gives customers extra reassurance. In an industrial setting, where reliability and quality are essential, a warranty like this adds an extra layer of trust, making it clear that these fixtures are built to last.

The smart choice for modern industrial lighting

For facility managers, upgrading to Aurora's LED anti-corrosive luminaire isn't just a practical move, it's a strategic one. With these luminaires, you're investing in durability, cost savings, and sustainability, giving your facility lighting that will stand the test of time.

“The launch of the LinearPac+ high-efficiency LED anti-corrosive luminaire aligns with global efforts to reduce energy consumption and to provide a best-in-class lighting solution for industrial spaces,” said Scylagh Clunnie, managing director of Aurora Africa, at the launch of the new catalogue.

Enquiries: info@aurora-africa.com





LESCO Manufacturing: empowering potential and breaking barriers

LESCO Manufacturing is more than just a leader in producing and distributing innovative electrical products. It is also committed to driving South Africa's socio-economic growth by creating equal opportunities for all. As a company, LESCO empowers those from previously disadvantaged backgrounds, including people with disabilities, unskilled and semi-skilled workers, and youth, to thrive in an inclusive, dynamic workforce.

One such individual is Katelego Maduku, who

embodies the spirit of determination, resilience, and leadership. Maduku has overcome unique personal challenges to thrive at LESCO, breaking down barriers and proving that disability is not a limitation to success.

Making friends and aspiring to lead

Katelego Maduku is an 18-year-old born in the North West province. Before joining LESCO, Maduku was a student at Afrika Tikun, a leading non-profit company in education, skills development, and socioeconomics.

There, an Occupational Therapist (OT) saw her potential and helped her secure a learnership at LESCO. "I started working with my hands, and then an OT met me and helped me get this opportunity," she explains.

When she arrived, Maduku learned assembly line tasks, including machine press and rockers, and quickly found her rhythm. "I enjoy my work here," she says. Maduku feels a strong sense of satisfaction with her role, she explains.

Despite facing physical challenges since the age of two due to neurofibromatosis, Maduku maintains a positive outlook. Neurofibromatosis, a condition that causes skin changes and physical complications, affected her at a young age. "I was born normal, then, when I was two years old, I

started noticing skin changes on one side. Then, as time went by, I ended up here," she explains. Despite these challenges, Maduku feels healthy and adaptable and has never let her condition define her.

In addition to her work at LESCO, Maduku has built strong relationships with her colleagues, particularly members of the deaf community. "I started making friends with deaf colleagues," she says. This has led her to start learning sign language, which has helped her connect with her co-workers meaningfully.

Looking ahead, Maduku has clear goals for her career. "In the next two years, I want to learn more products and eventually become a line leader," she shares. She believes that becoming a successful line leader requires a balance of kindness, positivity, and a willingness to help others. "To be a good leader, you must be kind, stay positive, and help people, when possible," she explains. "And most importantly, you must not be afraid."

Enquiries: <https://lescosk.com/>



Katelego Maduku, LESCO.

FEBRUARY 2025 FEATURES

- DBs, switches, sockets and protection
- Energy efficiency
- Lighting

MARCH 2025 FEATURES

- Tools of the trade
- Energy measurement and supply
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Published monthly by:
Crown Publications (Pty) Ltd
P O Box 140
Bedfordview, 2008
Tel: (011) 622-4770
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e-mail: sparks@crown.co.za

Website: www.crown.co.za

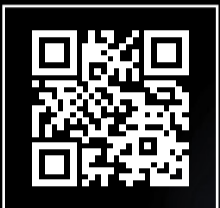
Printed by: Tandym Print

The views expressed in this publication are not necessarily those of the editor or the publisher.

This publication is distributed to electrical contractors, wholesalers, distributors, OEMs, panel builders, Eskom, mining electricians and consulting engineers (electrical) as well as libraries, members of IESSA and public utilities.

Total 14 865 per month.

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