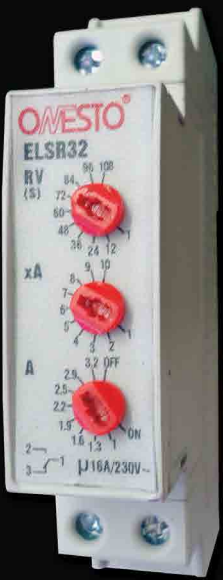


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NEW PRODUCT MARKS 25 YEARS OF SUCCESS



Major Tech launched VETi 2 in celebration of its 25th anniversary. Showing the new product are CEO Pat Shaw and product manager Rhodam Evans.

Major Tech turned 25 on the 9th of July this year. To celebrate this milestone, the company is to hold celebratory events in the centres of its five branches over the period of a month, starting 16 August.

Major Tech opened for business in 1992 with the intention of providing the electrical industry with innovative, high quality test and measurement instrumentation at an affordable price. In 1999 it launched its branded K-Series range of test instruments and 2005 saw the launch of its first-of-a-kind compact hand-held electrical testers with double injection mould casing. The company launched an IP67 multimeter in 2006 and in 2013 moved into its new 5600 m² head office on Sam Green Road in Elandsfontein.

Ten years ago, Major Tech took advantage of movement in the switches market to design and develop its own VETi range of modular switches and sockets and its VETi range of MCBs, DBs and enclosures for domestic and industrial solutions. The range, launched in 2010, proved to be highly successful and as a result of the introduction of VETi dimmers, Major Tech moved naturally into LED lamps, floodlights and decorative lighting.

"In life, change is the only constant and in order to remain relevant in any industry," says CEO Pat Shaw, "a company must be able to adapt to market needs and release new and exciting products. To do this, however, it is essential to work with the right people, and Major Tech has an outstanding team and team spirit that is pivotal to our success".

Innovation has, therefore, always been the driving force in Major Tech and, after 25 years in business, nothing has changed.

Enter VETi 2

To mark its silver anniversary Major Tech has introduced the VETi 2 range of switches and sockets. In the 'switch on style' of VETi, the new range brings elegance and flair to the entry level market.

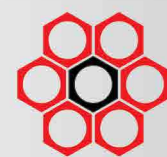
Shaw explains that it was important to Major Tech that buyers across the market had access to well-designed, affordable products of good quality. In addition, the company wanted a product that stood out from the rest. "If you go into any retail store," says Shaw, "the

switches available look very similar. We wanted something that stood out and we put a lot of thought into the design of the range".

The IEC and SANS compliant VETi 2 range stands out.

Monoblock in design and consisting of 22 products, the range is the first in South

CONTINUED ON PAGE 3



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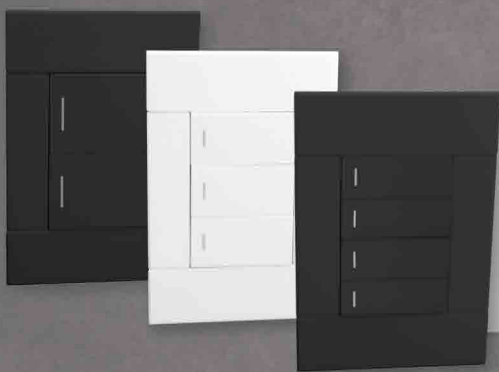


INTRODUCING A **NEW** RANGE FROM MAJOR TECH



VETi 2

Perfectly flat whether in an ON or OFF position



One-way switches available in 1 – 4 lever. Two-way switches available in 1 lever only. All switches come with a single live input.



The first socket in SA to accommodate a switched socket with 1 standard RSA socket, 2 V-slim sockets, and 2 USB ports.



Universal dimmers, rotary fan controllers, isolators and blank cover plates.



Communication sockets include data, satellite and TV. Data socket has CAT6 speed.

The all new VETi 2 range of superior quality switches and sockets is the latest innovation from Major Tech. With a completely new monoblock design and concept, the comprehensive range provides an upmarket product at an incredibly affordable price.

The ultra slim and flat design keeps the Veti 2 product flush to the wall surface.

The Stylish Switches come with a perfectly flat switch whether in an ON or Off position.

A modern and sophisticated range, Veti 2 is offered in both white and charcoal and is IEC and SANS Compliant.

VETi, don't be ordinary, switch on style.



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CHANGE IS NOT ALWAYS A SCARY THING



Danie Esterhuizen.

DANIE ESTERHUIZEN, general manager of Consolidated Electrical Distributions (CED), believes we are never too old to learn and for that reason should not be afraid of change. Known for his positive attitude, he gives praise where it is due and encourages members of his team to be informed and up-to-date with market trends. He is striving to become the most recognised person in this industry and has certainly made a good start having ensured that the Chint brand is specified in all electrical sectors in South Africa and having recently been awarded the Chint International 'Rising Star Award'. With this determination, it will not be long before Danie gets that skipper's licence and is fishing off the shores of Angola!

Sparks: Where were you educated?

DE: I was educated at High School Erasmus in Bronkhorstspuit.

Sparks: How long have you been involved in the electrical industry?

DE: I have been involved in various sectors for the past 20 years.

Sparks: When and where did you start your career?

DE: I started my career in 1996 at a company called Golnix Engineering, specialising in metering kiosks and electrical enclosures.

Sparks: What are the greatest changes you have seen over the years?

DE: Technology plays a vital role in the electrical industry, and it changes continuously. With each new development comes new and advanced products and systems.

Sparks: What major projects have you worked on and what is your greatest accomplishment?

DE: I have had the good fortune to work on many great projects, but I believe my greatest accomplishment is getting the Chint brand specified in all electrical sectors. This has taken us from strength to strength.

Sparks: Have you won any awards?

DE: Yes, I have won numerous awards. Most recently I was presented with the 'Rising Star' Award by Chint. This is a company award and the 'Rising Star' is chosen from within all the Chint companies internationally.

Sparks: Who has been your inspiration or have you had a mentor who has influenced your career?

DE: My biggest mentor is my father, he has also been in the electrical industry his whole life.

Sparks: What, to your mind, is one of the biggest challenges facing the industry at this time?

DE: Our greatest challenge is the brand house products streaming into the market throughout South Africa and Africa. The way this is being policed is also a problem. End users are specifically buying for price instead of product quality.

Sparks: What do you enjoy most about your job?

DE: The daily challenges in the market and industry and dealing with them head-on. I also enjoy closing deals ethically, and of course, working with my team at CED.

Sparks: How do you motivate your staff?

DE: I motivate them with a positive attitude, constantly encouraging growth through regular training so that they stay up to date with market trends. I am a strong believer in giving praise when it is due.

Sparks: If you could "do it all again", would you change anything? If so, what would that be?

DE: Change is not always a scary thing. There is always room for growth and something new as you are never too old to learn.

Sparks: Would you advise a person leaving school to enter the electrical industry? And why?

DE: I would certainly advise people to enter our industry. There are not enough skilled people in the electrical sector in South Africa, each and every industry is powered by electricity.

Sparks: What is your advice to electrical contractors and/or electrical engineers?

DE: Do not buy on price alone, and give new brands entering the

market a chance. Do not base a purchasing decision on past product specification; products change constantly and companies invest a lot of time, money, research and development to improve their product offerings.

Sparks: What is your favourite quote?

DE: "If you try and fail - congratulations most people won't even try."

Sparks: Name three things on your 'bucket list' (things you want to do before you 'kick the bucket').

DE: To become the most recognised person in my industry; to get my sail yacht skipper's licence; and to fish off the shores of Angola.

CONTINUED FROM PAGE 1

NEW PRODUCT MARKS 25 YEARS OF SUCCESS

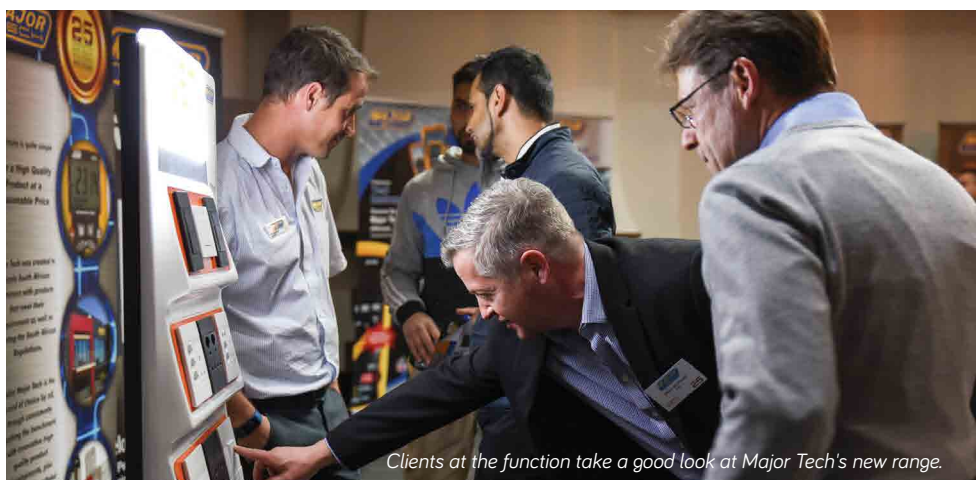
Africa to accommodate a switched socket with one standard South African socket, two V-slim sockets and two USB ports.

Manufactured from a polycarbonate and ABS blend with easy-to-connect terminals, the range includes easily removable covers available in white or charcoal in an ultra slim design, to ensure they are level to the wall.

The flush design and reset style switches means they remain flat whether they are in the 'on' or 'off' position and, because of this, can be mounted horizontally or vertically to create an element of style in any home.

Well designed using expensive technology, the 'Very Easy To Install' (VETI) range offers one to four lever one-way switches and two-way single lever switches, bell press/tactile dimmers and isolators. All switches come with a single live input and include a fluorescent locator.

There are 10 different socket outlet combinations in the VETI 2 range. These include the common single and double switched sockets, RED dedicated sockets, a shaver socket and a range of 2018 SANS 10142



Clients at the function take a good look at Major Tech's new range.

compliant sockets to ensure Major Tech is ready for the change. The range additionally includes data (CAT6 speed), satellite and TV communication outlets.

To differentiate VETI 2 from the original VETI line, the packaging has been redesigned. At leading distribution outlets, VETI 2 products will be housed on vacuum formed floor and wall mounted VETI stands, which reflect the elegant, sleek design of the product ranges.

BUILT FOR LIFE

The Classic Range is **BUILT FOR LIFE**. It is very expansive and as a steel range is highly durable and reliable. It is locally manufactured and is SABS approved.

Switches

LED Dimmer

Bell Press Dimmer

Sockets

USB Combo

Circuit Breaker Sockets - 6, 10, 16 Amp

Classic Cover Plate Colour Options

Note: Colour swatches are only an indication of the colour - do not use for colour matching purposes.
Deco Range Cover Plate Colour Options also available on request.

Classic Range

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MCE ELECTRIC AT DECOREX 2017



Decorex Joburg 2017 took place from 9 to 13 August at the Gallagher Convention Centre in Midrand. MCE Electric, a leading distributor of industrial and commercial electrical products, also specialises in domestic electrical products and took the opportunity to show its range of products to the public at large. Seen here on the MCE stand, from left, are Willie Peterson, Flip Reyneke and Christo Strydom.

PALM-SIZED DIGITAL MULTIMETERS

For a range of quality instruments technicians can rely on, the FlukeLite range offers an affordably priced selection of test and measurement tools to choose from.

Palm-sized digital multimeters (106 and 107) are compact, easy-to-use tools that deliver safe, reliable measurements time after time.

The current clamp i400E ac extends current measurements and is designed to work with the Fluke 106 and 107 palm-sized digital multimeters, as well as most Fluke multimeters or other voltage measurement tools that accept 19.05 mm shrouded banana plugs. The unit also has mV ac measurement functionality.

Multimeters 17B+ and 15B+ are designed and manufactured to Fluke's high standards of ruggedness, reliability and accuracy.

Clamp meters 305, 303 and 302+ are packed with the rugged, reliable, accurate and ergonomically designed features users have come to expect, in a smaller than traditional Fluke body.

Clamp meters 317 and 319 are true RMS clamp meters that are accurate, rugged and safe. The thin jaws and small, light body make them more suitable for use in confined spaces.

Two-pole Testers T90 / T110 / T130 / T150: All electricians need a two-pole tester. Fluke's range of two-pole voltage and continuity testers features measurement and safety technology.

Infrared thermometers 59 MAX and 59 MAX+ are small and lightweight and offer precise laser technology for accurate and repeatable measurements.

The FlukeLite range is available from Comtest. For more information on this range of affordable equipment, or for upcoming seminars, demos or to locate the nearest dealer, contact Comtest.

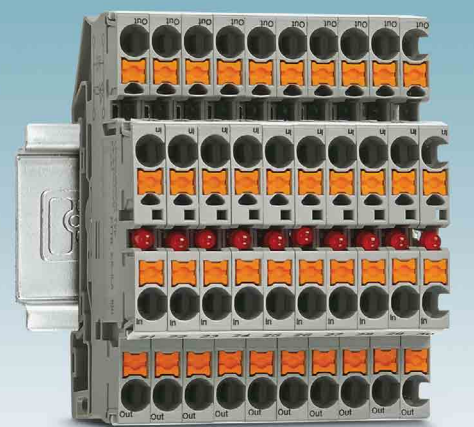
Enquiries: +27 (0)10 595 1821

CURRENT INDICATOR TERMINAL BLOCKS WITH PUSH-IN CONNECTION

Faults or cable interruptions are easily identified with the new PTTB 2,5-ILA 100 current indicator terminal blocks from Phoenix Contact. The voltage drop is evaluated at a reverse direction Zener diode and is indicated by an LED. A printed circuit diagram enables clear identification and minimises faulty wiring.

In addition to the system features of the Clipline complete terminal block system, the current indicator terminal blocks with Push-in connection are characterised by their easy, tool-free wiring of conductors with ferrules or solid conductors. Space savings can be made thanks to their compact design, and all terminal points are clearly marked. In addition, the PTTB 2,5-2BE double-level terminal blocks with the same shape are available for soldering in components.

Enquiries: +27 (0) 11 801 8200



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- 2m Extension cord
- Ideal for desks, counter tops and work stations.

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www.mce.co.za

CAN YOU TRUST YOUR ELECTRICAL INSTALLATION?

A SAFEhouse Guide to electrical installations:
The electrical Certificate of Compliance (CoC)



Tel: +27 11 396 8140/396 8251
info@safehousesa.co.za
www.safehousesa.co.za

Whether at home or at work, electricity is inherently dangerous. For this reason, electrical installations are subject to regulation in order to protect occupiers of buildings.

The governmental authority in this regard is the **Department of Labour**. Its Certificate of Compliance (COC), completed by the electrical contractor, is designed to provide assurance of such protection.

For a number of reasons, users are not always protected in this way.

In the interests of users, SAFEhouse has produced a Guide to Electrical Installations, centred on the requirements of the Certificate of Compliance.

The guide also contains some guidelines for owners and occupiers of homes and other buildings.

This and other SAFEhouse guides can be downloaded free of charge from our website. Limited quantities are available in printed format.

Download FREE copies of SAFEhouse guides from www.safehousesa.co.za



SAFEhouse members have signed a code of conduct: Your assurance of commitment to offer only safe electrical products and services.

SAFEhouse membership is suppliers' assurance to customers of responsible behaviour and of customers' safety as a priority. SAFEhouse members regulate themselves. SAFEhouse is primarily a communications association that informs users of safety requirements and occurrences of non-compliance with such requirements.



The SAFEhouse Association is a non-profit, industry organisation committed to the fight against sub-standard, unsafe electrical products and services.

For more information contact:

Barry O'Leary: Tel: 011 396 8251 | Email: barry.oleary@safehousesa.co.za

Pierre Nothard: Tel: 011 396 8140 | Email: pierren@safehousesa.co.za

www.safehousesa.co.za

As at 28/06/2017





The custom engineered diesel generator set solution for Syrah Resources' Balama graphite project.

SELF-GENERATED POWER NEEDS SPECIAL FOCUS ON EFFICIENCY

Remote projects that are far from national power grids will tend to pay a premium for generating their own energy, so they need to plan carefully to use it as efficiently as they can.

This is the advice of Zest WEG Group CEO Louis Meiring, who emphasises the opportunities presented by modern technology to reduce energy consumption in just about any industrial or mining enterprise.

"Savings of 3 to 5% of energy consumed on site are a realistic target for most projects, especially if the enabling technologies and equipment can be incorporated into the design at an early stage," says Meiring. "As a group that offers power generation

solutions as well as energy efficiency technologies, we can readily identify and quantify the efficiency benefits for customers."

He says the potential savings lie not only in the operating cost of the standalone power generating facility, but in the capital expenditure for construction, as better utilisation efficiencies can reduce the maximum output capacity required from the plant.

Alastair Gerrard, managing director of Zest Energy, says his company – which specialises in power supply solutions – works closely with EPCMs or directly with customers to plan and implement optimal solutions. This approach ensures that equipment life cycle costs are well controlled and con-

tribute to overall project efficiency.

"In addition to ensuring the right power generation solution for customers, we enhance our value-add through our knowledge of exactly how the generated energy can be best used," says Gerrard. "WEG's high efficiency, IE3 rated motors, for instance, can reduce the power consumed in a range of industrial functions such as pumping, conveyor systems and ventilation."

Zest Energy recently installed a turnkey diesel power generation facility for the Balama graphite project in a remote region of Mozambique. Technology options such as variable speed drives can further enhance efficiencies and reduce the consumptive demands that a standalone power plant will have to meet; regeneration strategies also lower costs by feeding power back into the network.

"There is also potential for 'heat and power' co-generation as an efficiency strategy," says Gerrard, "where heat can be drawn off equipment like engines to feed back into plant functions, rather than being dissipated with no benefit."

He sees a trend among many industrial users towards pursuing higher energy efficiencies, as this can improve the cost-per-hour of running their assets and lead to a reduction in emissions by using more efficient technologies. "There is also a growing interest in hybrid solutions that can incorporate renewable energy sources like solar and wind, alongside traditional fossil fuels," says Gerrard.

A wide footprint across Africa – including its own entities in Namibia, Zambia, Tanzania, Mozambique and Ghana – allows the Gauteng-based Zest WEG Group to implement and service projects to high standards.

Enquiries: +27 (0)11 723 6000

NORCOMP INDUSTRIAL MICRO-MINIATURE CONNECTORS

The Micro-D connector series from Norcomp offers a real alternative to military-spec connectors in industrial applications.

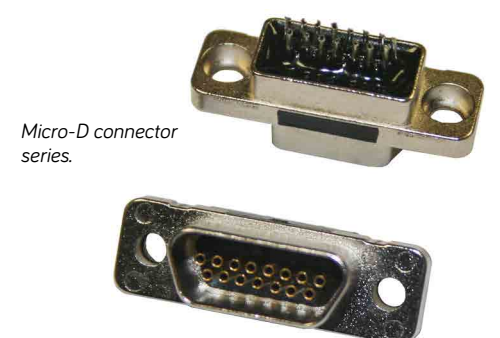
The 380/381/382/960 series of Micro-D connectors and cable assemblies has been designed for commercial markets including robotics, telecommunications and instrumentation equipment, and applications where space is at a premium yet a robust shielded I/O connector system is required.

The Norcomp Micro-D series is available in three industry-standard sizes – 9, 15 and 25-way – as well as in vertical and right angle board-mount and cable-mount options. Offering a contact spacing of 1.27 mm (0.050-inch), the connectors are less than a third of the size of standard D-sub connector types, yet deliver a metal-to-metal interface that provides robust mechanical connection and shield effectiveness.

Able to mate with most commercial competitor products, other features of the series include a 1 A contact rating and an operating temperature range of -55 C to +85 C.

The Norcomp range of industrial Micro-D connectors is available from RS Components.

Enquiries: za.rs-online.com



Micro-D connector series.

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Meet the first industrial printer with twin engines. With just one machine, you can print on tubes up to 6.5mm and labels up to 36mm without the need to swap cartridges.



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Switch between tube and label printing without replacing or re-inserting supplies. Need to replace worn-out parts? You can do it yourself in a few quick steps. It's that easy.



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The printer is compatible with TZe tapes, the toughest laminated labels in the market. Ideal for industrial use, TZe is resistant to water, chemicals and harsh weather conditions.



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TRAINING AND DEVELOPMENT BY NICK DU PLESSIS

TRAIN YOUR STAFF TO USE TOOLS AND EQUIPMENT CORRECTLY

How often do you hear contractors complain that their staff break, destroy or misuse hand as well as power tools? In my business, this seems to be the order of the day and being involved in training, I always have the same answer. 'Train them to use the tools and equipment, then they will last longer.'

Let's review the Occupational Health and Safety Act of 1985; it states that:

(I will start by looking at a few definitions to ensure mutual understanding of the word 'safe' as highlighted in the Act)

safe means free from any hazard;

hazard means a source of or exposure to danger;

danger means anything which may cause injury or damage to persons or property;

Now that we understand 'Safe' let's get back to the hand tools, as the Act states under section 8

8. General duties of employers to their employees

1) Every employer shall provide and maintain, as far as is reasonably practicable, a working environment that is safe and without risk to the health and safety of his employees.

2) Without derogating from the generality of an employer's duties under sub-section (1), the matters to which those duties refer include in particular –

(a) a provision and maintenance of systems of work, plant and machinery that, as far as is reasonably practicable, are safe and without risks to health;

(b) taking such steps as may be reasonably practicable to eliminate or mitigate any hazard or potential hazard to the safety of employees, before resorting to personal protective equipment;

(c) making arrangements for ensuring, as far as is reasonably practicable, the safety and absence of risks to health in connection with the production, processing, use, handling, storage or transport of articles or substances;

(d) establishing, as far as is reasonably practicable, what hazards to the health and safety of persons are attached to any work which is performed, any article or substance which is produced, processed, used, handled, stored or transported and any plant or machinery which is used in his business, and he shall as far as is reasonably practicable, further establish what precautionary measures should be taken with respect to such work, article, substance, plant and machinery in order to protect the health and safety of persons, and he shall provide the necessary means to apply such precautionary measures;

(e) providing such information, instructions, training and supervision as may be necessary to ensure, as far as is reasonably practicable, the health and safety at work of his employees;

(f) as far as is reasonably practicable, not permitting any employee to do any work or to produce, process, use, handle, store or transport any article or substance or to operate any plant or machinery, unless the precautionary measures contemplated in paragraphs (b) and (d), or any other precautionary measures which may be prescribed, have been taken;

(g) taking all necessary measures to ensure that the requirements of this Act are complied with by every person in his employment or on premises under his control where plant or machinery is used;

(h) enforcing such measures as may be necessary in the interest of health and safety;

(i) ensuring that work is performed and that plant or machinery is used under the general supervision of a person trained to understand the hazards associated with it and who have the authority to ensure that precautionary measures taken by the employer are implemented; and

(j) causing all employees to be informed regarding the scope of their authority as contemplated in section 37(1)(b).

Definitions supporting section 8:

machinery means any article or combination

of articles assembled, arranged or connected and which is used or intended to be used for converting any form of energy to performing work, or which is used or intended to be used, whether incidental thereto or not, for developing, receiving, storing, containing, confirming, transforming, transmitting, transferring, or controlling any form of energy;

work means work as an employee or as a self-employed person, and for such purpose an employee is deemed to be at work during the time that he is in the course of his employment, and a self-employed person is deemed to be at work during such time as he devotes to work as a self-employed person;

plant includes fixtures, fittings, implements, equipment, tools and appliances, and anything which is used for any purpose in connection with such plant;

premises includes any building, vehicle, vessel, train or aircraft;

prescribed means prescribed by regulations;

properly used means used with reasonable care, and with due regard to any information, instruction or advice supplied by the designer, manufacturer, importer, seller or supplier;

risk means the probability that injury or damage will occur;

It is clear, therefore, that as employers it is our responsibility to provide information, instructions, training and supervision to our employees, if we do this, our staff will know how to use the tools or equipment for the correct application.

Is it not your fault, therefore, as the employer, that your staff break, destroy or misuse, hand as well as power tools? Training will save you money, time and frustration and will ensure you are compliant with the Act.



In 1923 the first of its kind – today the best.

Miniature Circuit Breaker – S200

Back then and still today we are a trendsetting pioneer and technical leader for easy, safe and reliable use of electricity. Our circuit breakers S 200 and S 200 M are a living proof. So, with the new colored real contact position indication you can see the status within a twinkle of an eye. The optimized plane terminal plates guarantee right connection and can be reached even when the MCB is already installed. These and a lot more benefits make the miniature circuit breakers an effective addition to the successful System pro M compact®. Here you can find a wide range of compatible components for all your installation needs.

For more information, see abb.com





DETERMINING THE REAL COST OF LABOUR IN THE ELECTRICAL CONTRACTING INDUSTRY

Every electrical contractor needs to establish an as accurate as possible estimate of the cost of a project to determine the price at which he would do a job. This is called the tender price. Amongst the trickiest variables contractors need to deal with is the cost of labour. Material cost is fairly easy. This is determined by the supplier and the negotiated discount you are able to secure as a contractor. The extent to which you would be able to negotiate this depends on the relationship with the supplier, which is often dependent on the history of trading between the contractor and the supplier. You then need to decide what your trade mark-up is going to be. This is absolutely your business decision to make.

When it comes to the cost of labour, it is easy to make a mistake, which may shrink your profitability on the job or even result in you doing the job at a loss. When you make a mistake regarding the cost of labour, it would not be a valid excuse to say that you are not able to meet a certain obligation because you did not calculate the costs correctly. Very often, developing contractors get awarded work on a 'labour only subcontracting basis' by established contractors. It is important that both sides of the arrangement understand that neither escapes the burden placed on employers to pay the right costs. The costs are essentially the same for every employer with slight variations on the up side for employers who pay above the minimum wages. Costs are dictated by statute, and most of these by the collective agreement of the industry.

Let us use the example of an Elconop 1 and an Elconop 2 by way of illustration.

If your electrical contracting company is based in Soweto, the hourly wage rate of an Elconop 1 is R34.00 and that of an Elconop

2 is R53.29. If you are working 42.5 hours a week, what is the cost of your Elconop 1 and Elconop 2 per week respectively? Would it be correct to say that your cost for an Elconop 1 is R34 (rate per hour) x 42.5 (number of hours per week) = R1 445 and that an Elconop 2 costs you R53.29 x 42.5 = R2 264.82?

Let us say your labour profit margin is 15% of your cost. Would it be correct to say that your cost plus profit on labour is equal to R1 661.75 and R2 604.54 for an Elconop 1 and an Elconop 2 respectively? Let's say you really need this job and you would rather take 10% profit on the costs calculated above. Based on these numbers, your cost plus profit would be calculated as R1 589.50 and R2 491.30, respectively. Would this be correct?

I submit that you would have grossly understated the cost of your labour if you calculated the cost of your labour like the contractor above. The following is the real cost of an Elconop 1 and an Elconop 2 if you are a Soweto based firm:

Item	Elconop 1 (Soweto)	Elconop 2 (Soweto)
Basic wage rate per hour	R34.00	R53.29
Provident Fund per hour	R2.55	R4.00
ECA Labour Levy per hour	R0.26	R0.26
Sick Benefit fund per hour	R0.03	R0.05
Council Levy per hour	R0.14	R0.21
UIF per hour	R0.37	R0.58
Total per hour	R37.35	R58.39
Total per week	R1 587.38	R2 481.58

You would realise that, with the correct cost for an Elconop 1 in Soweto, the contractor who relies on 'wage rate only' understated the real cost by R142.38 and for an Elconop 2 by R216.76. Just with these two employees, the employer's calculation is out by R359.14 every week.

In his planning, he was going to bank this money. Because of the error in his determination of costs, he is actually doing the job for far too little. At this rate, his competition need only do far less work than he does for them to realise more profits. At a 10% 'margin', he is doing the job at a loss when you include things like lost time. At 15%, at least some 11% of his anticipated profit is wiped out.

Please note that the calculations above do not include company specific costs like labour contribution to overheads. Irrespective of how you look at it, if you understate the costs of labour by only looking at the hourly wage per the collective agreement, you will under-recover on your labour. When you accept a job as a labour only sub-contractor, irrespective of your overhead structure, please get your costs right.

On the other hand, as an established contractor, when you give work out on a subcontractor basis, be fair and allow for the subcontractor to cover his costs and some margin. You need a strong subcontractor to deliver on your obligations. After all, he is helping you by giving you certainty.

Enquiries: www.ecasa.co.za



WACO AND CITIQ PREPAID PARTNERSHIP

South Africa's premier prepaid electricity meter and vending system provider, Citiq Prepaid, is proud to announce its partnership with WACO Industries to distribute its range of prepaid meters into the market. WACO Industries is a distributor of industrial electrical products and accessories across Southern Africa.

Citiq Prepaid has expanded Citiq as a value-added service to the real estate industry and now offers services to anyone that requires a prepaid utility

collection solution, countrywide. Citiq Prepaid uses a self-developed proprietary token vending and funds recovery system. Aside from STS Association approved vending, the system provides comprehensive information management and reporting that significantly reduces the risk and complexity of utility collections for clients.

The partnership with WACO Industries makes it possible for Citiq Prepaid meters to be ordered through your nearest electrical wholesaler. Citiq

Prepaid continues to offer customers the same innovative vending system as before, with the same wide payment channel options and reliable monthly payment system.

Says Michael Franze, MD of Citiq Prepaid: "WACO Industries is an industry leader in supplying the wholesale market and we are very enthusiastic about working with them."

Enquiries: WACO +27 (0)11 677 2500/Citiq Prepaid +27 (0)87 551 1155

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Compiled to accommodate varying requirements and applications, Wiha toolkits include high quality, ergonomically designed tools for easy and efficient working. Made of durable materials and tested to rigorous standards, the tools and the toolbox are ideal for electricians and electrical contractors.

The wide range of tools available increases work efficiency; the sturdy dustproof, airtight and watertight toolbox with its lid-lock function satisfies safety requirements; the right tool at hand reduces costs by protecting against damage and rework; and all-in-all the toolbox set protects the electrician's health as the ergonomic design of the tools helps to prevent occupational injuries.

Each of the award winning VDE-insulated tools is individually tested to 10 000 V ac, to offer users full protection and improve their working lives.

Enquiries: garry@glimports.co.za



ELECTRIC FENCE COURSE



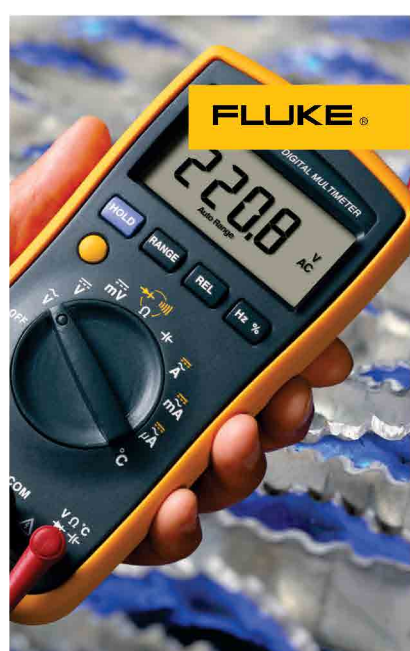
The ECA recently held a successful Electric Fence Installer Course. **Attending the course are: (front)** Jean Barnard (Open Sky Electrical); Mafatshe Bapela (Mankwane Trends); Pagane Ramoloto (Ramoloto Electrical); Vincent Gerber (St Kilda Projects); **(middle)** Daniel Tlou (RO-AL); Morné Joubert (Vyfsterelektries); Frans Swanepoel (Hoelveldrif Electrical); Glenn Pauli (Sterling Solutions); **(back)** Tiselto Ntloedibe (RO-AL); Sekgeme Ramushu (RO-AL); Chris Koen (presenter) and Emmanuel Chau (private).

The Energy and Water Sector Education and Training Authority (EWSETA) has given the ECA(SA) accreditation for Electrical Fence Training. The course covers the installation of electric fencing, inspection and testing of a single-phase domestic installation, testing and inspection of three-phase industrial and commercial installations, configuration of an installation, and determination of installation requirements.

Mark Mfikoe, national director of the ECA(SA), says this is "an opportunity for members to offer clients an extra service and access another source of income for their businesses".

Members of the ECA(SA) can undergo training at a discounted rate. This course is also available to non-members at competitive rates.

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WRAPPING UP INSTALLATION REGULATIONS (2009)

Over the past couple of instalments, we have been chatting in depth about the registration of various categories of accredited persons and of electrical contractors. We, of course, based our discussions on the Electrical Installations (2009) (EIR) that forms part of the Occupational Health and Safety Act (Act 85 of 1993). We also undertook a whistle-stop tour of the first few pages of the latest Installation Rules for the Wiring of Premises, namely SANS 10142-1: 2017 Edition 2.

We finally come to the last few Regulations of the Electrical Installation Regulations (2009) and I trust it has been as enlightening for you as it has been for me – re-reading them and having to explain the process on paper has been a totally different experience for a change. I confirmed one or two items again which incidentally, cropped up in the workplace recently.

I have not decided where to go from here – there are the General Machinery Regulations, the Electrical Machinery Regulations and a couple of others that have a direct bearing on our daily working lives, not forgetting the latest SANS 10142-1. But let us wrap up the Installation Regulations (2009) for now, and give me some time to think about what angle of attack I'll have next month.

So, Regulation 12 of the EIR reads:

Withdrawal of registration and approval

12. (1) Subject to the provisions of sub-regulation (2), the chief inspector may withdraw an approval issued to an approved inspection authority, a registration issued to an electrical contractor or a certificate of registration issued to a registered person if such person

- (a) no longer complies with any of the conditions referred to in regulation 3(2)(a), 6(4) or 11(2), respectively; or
- (b) is convicted of an offence referred to in regulation 15.

Right, the law makes provision for someone's license to be pulled. The first instance refers to a person not complying with the conditions for registration and the second instance refers to a person found guilty of an offence.

The conditions referenced are Regulation 3(2)(a) which refers to the accreditation certificate of an Authorised Electrical Inspection Authority. Regulations 6(4) and 11(2) refer to the conditions which apply to the Electrical Contractor and Accredited Person registration.

Instead of repeating everything here, I'll pull the famous SANS trick and refer you to Regulation 15 further down to see what the offences are that can cost me my licence or accreditation.

(2) The chief inspector may not withdraw a registration or an approval unless he or she has

- (a) informed the holder of such registration or approval of the intended withdrawal thereof and of the grounds upon which it is based; and
- (b) afforded such holder a reasonable opportunity to state his or her case and, if the holder is a person contemplated in sub-regulation (1)(a), afforded such holder an opportunity to comply with those conditions within the period specified by the chief inspector.

(3) The chief inspector shall, in writing, inform the person concerned of the reasons for his or her decision.

(4) Any person adversely affected by a decision of the chief inspector may, in writing, appeal to the Director-General against such decision.

(5) An appeal referred to in sub-regulation (4) shall

- (a) be lodged within sixty days from the date on which the decision was made known; and
- (b) set out the grounds of appeal.

(6) After considering the grounds of appeal and the chief inspector's reasons for his or her decision, the Director-General shall as soon as practicable confirm, set aside or amend the decision.

Regulation 12(2, 3, 4, 5 and 6) is oh so politically correct. I detest the 'ag shame' treatment of people who break the law.

Substitution of lost, damaged or destroyed certificate

13. (1) If any registration certificate issued in terms of these regulations to an electrical contractor or a registered person is lost, damaged or destroyed, the person to whom the certificate was issued may apply to the chief inspector for a duplicate certificate in the form of Annexure 6, together with the relevant registration fee prescribed by regulation 14.

(2) After proof that a certificate referred to in sub-regulation (1) has been lost, damaged or destroyed has been submitted to the satisfaction of the chief inspector, the chief inspector shall issue a duplicate thereof on which the word "duplicate" shall appear.

Let's face it, this can happen to anyone. My original 'Yellow Ticket' landed up in the wash! Others lose theirs when people take from them what does not belong to them. Regulation 13 makes provision to replace such lost or stolen certificates.

Fees payable

14. The fees payable in respect of an application in terms of regulation

3(2), 6(3) and 11(1) or a duplicate certificate of registration in terms of regulation 13(1) shall be R120 and shall be payable in the form of uncanceled revenue stamps affixed to the application form when payable to the chief inspector.

The saying goes, 'Betaal is die wet van Transvaal'. Yep, you have to pay someone to do the administration with regard to your certificates. What we have to note, however, is the use of 'revenue stamps' has ceased. The South African Revenue Service (SARS) abolished the Stamp Duty Act (77 of 1968) at midnight on 31 March, 2009.

Now, let's see what can land you in jail...

Offences and penalties

15. Any person who contravenes or fails to comply with any of the provisions of regulations 3(3), 4, 5, 6(1), 7, 8, 9, 11(4) and 11(5) shall be guilty of an offence and liable upon conviction to a fine or to imprisonment for a maximum period of 12 months and, in the case of a continuous offence, to an additional fine of R200 for each day on which the offence continues or to additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment shall not exceed 90 days.

As stated earlier, when we discussed the issue of losing a license.

Let's have a look at them. The first offence can be found in regulation 3(3), which refers to the Authorised Inspection Authority (AIA) neglecting to inform the Chief Inspector of any change affecting his/her approval.

Regulation 4 refers to Functions of approved inspection authorities for electrical installations. Regulation 5 refers to Design and construction. Regulation 6(1) refers to your registration as an electrical contractor. Regulations 7, 8 and 9 refer to the Certificate of Compliance, Commencement and permission to connect installation work and issuing of Certificate of Compliance.

Regulation 11(4) refers to the fact that an accredited person is obliged to produce his/her certificate if requested by an AIA or a Supplier of Electricity, for instance. Regulation 11(5) refers to any changes that can affect the registration of an accredited person.

Now, if the Department of Labour would practice what it preached, we would all have a safer and more compliant electrical industry. But perhaps it's too much to ask. It has not done anything of this nature since I joined the industry 37 years ago – why would it get going now, all of a sudden?

Till next time.

MOTOR CONTROL CENTRES FOR FOSKOR PHALABORWA

JB Switchgear Solutions (JBSS) was recently awarded two contracts for the design, manufacture and supply of motor control centres destined for the 300 ft. area and drier 4 and 5 at Foskor's Phalaborwa operations. The slurry from the plant comes into thickeners in the 300 ft. area where the water is separated from the slurry.



Said water is then sent back into the plant for process requirements, whilst the left over slurry is pumped into the tailings dam through a pump station downstream.

There are six driers on the plant. The MCCs for driers 4 and 5 are being replaced. The phosphate produced goes through the driers to remove excess moisture to achieve the correct level to meet customer requirements. When the phosphate comes from the filter plant the moisture level is typically around 8-9%. Once it has passed through the driers, the moisture content is reduced to around 1,5 - 2%. A positive spin-off is weight reduction when the product is transported to its destination.

For the 300 ft. area, the MCC was equipped with two 3200 A incomers and buscoupler, feeding a variety of DOL starters, feeders and large soft starters up to 315 kW. JBSS offered a full Siemens solution with Simocode Pro V intelligent overloads. Component selection complied with the 525 V, 50 kA, Type 2 co-ordination requirements of the plant. JBSS provided its 'Eagle' series panel in back-to-back configuration. The incomers were top-entry, while all starters and feeders were bottom entry. The MCCs for driers 4 and 5 were equipped with 1250 A incomers feeding a variety of DOL starters, feeders, VSDs and soft starters ranging between 0,75 kW and 160 kW.

Front-and-rear access 'Eagle' series panels were used for the driers, featuring Form 3b segregation and equipment selected for 525 V, 50 kA application. JB Switchgear's 'Eagle' series of motor control centres carry type test certification for compliance with SANS-IEC 61439 and SANS-IEC/TR 61641, with more than 31 000 tiers installed throughout Southern Africa and abroad.

Enquiries: +27 (0)11 027 5804

ALTERNATIVE WATER HEATING SYSTEMS

WITH the latest tariff hikes placing more pressure on consumers, it is becoming increasingly important to find alternatives for the largest energy consuming appliances in the home. This is according to Cala van der Westhuizen, Head of Marketing and Sales at Energy Partners Home Solutions, a division of Energy Partners and part of the PSG group of companies, who says that water heating accounts for as much as 50% of a household's electricity use.

"Replacing a home's conventional geyser with a renewable energy alternative is one of the first steps to decreasing an average home's monthly electricity spend. The current renewable energy powered water heating options available to homeowners are heat pumps and solar water heaters."

"A solar water heater is much easier to install than a heat pump, and the total cost of an average 200 ℓ system is around R 26 000. In the short-term, this is cheaper than an average heat pump with a 300 ℓ efficient tank system, which costs around R 35 500," he explains.

Solar water heating systems can also be expected to last for over ten years, while heat pumps generally need to be replaced

after five to ten years. The efficiency of a solar heating system fluctuates between 45% and 70%. This comes down to an average drop in energy costs by approximately 54% over the course of one year.

In contrast, a heat pump system is only slightly affected by variations in temperature, and therefore it runs efficiently at any time of day, says Van der Westhuizen. "It requires approximately one-third of the energy of a conventional geyser to heat the same amount of water, resulting in an average energy saving of up to 70%. This results in a cumulative cost saving of around R 62 500 for a standard four member household using an average of 52 ℓ of warm water per person over a ten year period. By comparison, a solar heating system achieves around R 59 500 in savings under the same conditions," he adds.

Heat pumps are consistent, rely on air, and can cut the cost of water heating by more than any other system currently on the market," Van der Westhuizen concludes.

Enquiries: www.poweryourself.co.za

MEANINGFUL TRANSFORMATION

ENERGY ENGINEERED PRODUCTS and associate companies, Multi Alloys and E-Metals Cape, have attained a Level 4 Black Economic Empowerment (BEE) contributor status. Aiming for Level 4, the organisations embarked on addressing all the elements on the score card. "In addition to focusing on our long-established programmes - investment in people and skills, training, socio-economic investments and procurement, we went a step further, addressing the B-BBEE ownership element of the scorecard to achieve the best possible rating," says Graham Whitty, director of Business Development at Energy Engineered Products. "Our significant and continued investment in our most important asset, our people, and developing their skills bears testament to our commitment and has proved to be invaluable as it has allowed us to steadily promote people to leadership positions."

Ownership, the final pillar on the BEE scorecard, proved to be the most challenging according to Whitty. "Two of our senior sales managers, Rowena Surneerchand and Anesh Prithilall, were recently welcomed as shareholders in the business in recognition of their ongoing dedication and commitment."

With the fundamental belief that skills and education are the drivers of transformation in South Africa, the organisation has been focusing on social-economic investments, providing support for education to previously disadvantaged people. In conclusion, Whitty says that while there are many challenges facing South Africans, opportunities to make a meaningful difference abound. "By taking small but consistent steps within your own sphere of influence, it is possible to collectively make a difference."

Enquiries: +27 (0)11 466 1926



ABB OPENS NEW OFFICE IN NAMIBIA

ABB has entrenched its Southern African commitment with the opening of a new 2 200 m² facility in Windhoek, Namibia. The facility increases the company's capacity to supply, maintain and service products to the local market and neighbouring countries, such as Zambia and Angola. The expanded facility will also service market needs for medium voltage products, low and high voltage switchgear, and is soon to introduce distribution transformers into the local market.

The facility is a consolidation of the two offices ABB had in Windhoek. The company has realigned its organisational structure to reflect its growth focus and position "ABB Ability", which represents its

portfolio of digital solutions with a set of common enabling technologies used to build devices, systems, and applications.

"Namibia is an important market for ABB. It is the second largest contributor to our revenue in the region, after South Africa, and this investment is part of our commitment to offer more services and products," said ABB Southern Africa MD, Leon Viljoen.

ABB has been operating in Namibia since 1990, after acquiring a small local contracting business and converting it into a full service business focusing on the local mining, utilities and industrial sectors. In the past decade, ABB's operations there

have grown in parallel to the country's GDP, resulting in more business from the public sector.

According to Viljoen, the Windhoek facility will ensure the company is prepared for anticipated continued public capital spend in the next few years. With a reasonable operation in Zambia, but small in Angola, he envisions Namibia becoming the main centre for delivering services across the border in Angola. "One advantage for our team in Namibia is it can speedily service customers in Angola," said Viljoen.

ABB has operations in 23 African countries and employs about 5000 people across the continent. The new Namibian facility employs about 70 peo-

ple and ABB has spent the past 12 months realigning and restructuring the operation, including upskilling local employees so they are able to respond positively to the growing service demand.

"For the Namibian office to deliver the service it envisions, skills development is a priority to ensure our employees are in a position to cover the full range of the products and services needed. They will receive training from colleges and trainers from training facilities in South Africa, Europe and India," said Victoria Konjore, Head of Human Resources, ABB in Namibia.

www.abb.com

DEWALT ADDS VISIBILITY AND POWER TO SELF-LEVELLING LASER



Dewalt has combined its extensive power tool battery and laser technology know-how with the addition of the rugged 10.8 V red and green beam self-levelling cross-line and 360° line lasers to its current portfolio. The DCE088D1G-QW and DCE089D1G-QW are the first models in the DEWALT range to feature a green diode.

Industry trends have shown that green lasers are the future for applications in construction, specifically for indoor tasks, as the beam is four times brighter to the naked eye than red. They provide greater visibility on site, especially in very bright or light conditions and over longer distances. They are also ideal for the precise installation of drywall, drop ceilings and ventilation systems among other applications.

The 10.8 V XR Lithium-Ion platform offers added versatility, including extended laser runtime compared to regular AA batteries. Tradesmen are able to remove and transfer the 10.8 V battery pack between the new lasers, or to another compatible Dewalt power tool, and vice versa. Furthermore, rapid charging minimises downtime during tasks.

The green beam self-levelling cross-line and 360° line lasers provide a working range of 30 m with an accuracy of +/-3 mm at 10 m, making them perfectly suited for large sites. Useful features include a pendulum lock for safe transportation of the instrument and to avoid damage to internal components.

The durable over-moulded casing has been designed to maintain calibration of the tool, and to protect components in extreme construction environments. Drop-tested to 2 m, and IP65 certified, it has been engineered for sustained resistance to solvents, water entry and debris.

Featuring the same technical product specification as the green diode lasers (enhanced visibility rating excluded), the latest extension includes red beam self-levelling cross-line (DCE088D1R-QW) and 360° line lasers (DCE089D1R-QW) with a range of 15 m and an accuracy of +/-3 mm at 10 m.

Enquiries: <http://www.dewaltpowertools.co.za/>

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C3 Technologies
Full range of circuit breakers/earth leakage breakers
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Consolidated Electrical Distributors
Full range of circuit breakers/earth leakage breakers
Edison Lebone
Full range of circuit breakers and earth leakage breakers
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Full range of circuit breakers and earth leakage breakers
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Complete range of circuit breakers up to 6 300 A, MCB, MCCB and ACB
Magnet Electrical Suppliers
Schneider and Eaton circuit breakers and earth leakage breakers
Major Tech
Full range of miniature circuit breakers, isolator switches, earth leakage breakers and populated boards pre-wired according to SANS 10142-1
MCE Electric
Onesto DIN rail circuit breakers and earth leakage devices, Onesto MCCBs, Schenker mini rail circuit breakers and earth leakage devices; Schenker 13 mm circuit breakers, Hyundai MCCBs and ACBs
O-Line
Full range of circuit breakers and earth leakage breakers
Phoenix Contact
Full range of circuit breakers
Switchboard Manufacturers
Full range of circuit breakers/earth leakage breakers
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Voltex LSis
Full range of protection devices

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Allbro
Full range of DBs
ARB Electrical Wholesalers
Full range of DBs
Atlas Group
Full range of DBs
Bellco
Full range of DBs
C3 Technologies
Full range of DBs
CBI-electric: low voltage
12- and 20-way distribution boards, 40- and 60-way architrave boards
Consolidated Electrical Distributors
Full range of DBs
Edison Lebone
Full range of DBs
Electrahertz
Full range of DBs
ElectroMechanica
Full range of DBs
Ellen Electrical Enclosures
Surface-mount distribution boards
Eurolux
Wide range of Eurolux DBs
JB Switchgear Solutions
Full range of DBs
JDL Electric
Full range of DBs
Legrand SA
Full range of flush- and surface-mount, waterproof, DIN rail boards
Magnet Electrical Suppliers
Schneider DBs
Major Tech
Full range of DBs including flush-mount Econo Boards (plastic and galvanised steel tray options), surface-mount Econo boards and surface-mount IP65 boards, populated DBs; ready boards
MCE Electric
MCE distribution boards IP41 to IP65, surface- and flush-mount from two-way to 52-way
Phoenix Contact
Terminals
R&C Instrumentation
Infrared inspection windows, 24-7 differential temperature monitoring, inside and outside boards
Sabelco Electrical Industries
Sabelco-Cubic type tested assemblies complying with IEC 61439, SANS 1973-1, SANS 1973-3, SANS/IEC 60439, manufactured in mild steel, 3CR12, 304 stainless and 316 stainless. IP rating up to IP65; form factor up to form 4B in any colour
Switchboard Manufacturers
Full range of DBs and weather proof kiosks
Voltex
Full range of DBs
Voltex LSis
Full range of DBs
Voltex MV/LV
Full range of DBs
Waco
Full range of DBs

LABELLING

ABB SA
Full range of labelling products
ARB Electrical Wholesalers
Full range of labelling products
Atlas Group
Full range of labelling products
Bellco
Full range of labelling products
Brother International SA
Full range of labelling products
C3 Technologies
Full range of labelling products
Consolidated Electrical Distributors
Full range of labelling products
Edison Lebone
Full range of labelling products
Electrahertz
Full range of labelling products
ElectroMechanica
Full range of labelling products
HellermannTyton
Panel plate labels - thermal transfer - print high contrast text and barcodes
JDL Electric
Full range of labelling products
Legrand SA
CAB3 and Memocab cable markers
Magnet Electrical Suppliers
Brady labelling products
Phambili Interface
Full range of labelling products
Phoenix Contact
Wide range of labelling products
R&C Instrumentation
APP-driven equipment tagging
Voltex
Full range of labelling products

FUSES

ABB SA
Full range of fuses
ACDC Dynamics
BS and DIN type fuses for fused isolators
ACTOM Electrical Products
Full range of fuses
Allbro
Full range of fuses
ARB Electrical Wholesalers
Full range of fuses
Bellco
Full range of fuses
C3 Technologies
Full range of fuses
Consolidated Electrical Distributors
Full range of fuses
Edison Lebone
Full range of fuses
Electrahertz
Full range of fuses
ElectroMechanica
Full range of fuses
Fusecomp
Full range of fuses
JDL Electric
Full range of fuses
Legrand SA
HRC, domestic and industrial fuses
Magnet Electrical Suppliers
Full range of fuses
MCE Electric
MCE fuses and fuse holders; Onesto fuses and fuse holders
Phoenix Contact
Din rail type
Voltex
Full range of fuses
Waco
Full range of fuses

SWITCHES/ISOLATORS

ABB
Full range of switches and isolators
ACDC Dynamics
Wide variety of switches and isolators
ACTOM Electrical Products
Full range of switches/isolators
ARB Electrical Wholesalers
Full range of switches/isolators
Atlas Group
Full range of switches/isolators
Bellco
Full range of switches/isolators
C3 Technologies
Full range of switches/isolators
CBI-electric: low voltage
Full range of commercial and industrial switch disconnectors
Consolidated Electrical Distributors
Full range of switches/isolators
Crabtree
Full range of switches/isolators
Edison Lebone
Full range of switches/isolators
Electrahertz
Full range of switches/isolators
ElectroMechanica
Full range of switches/isolators
Eurolux
Wide range of Eurolux switches and isolators
Fusecomp
Full range of switches/isolators
JDL Electric
Full range of switches/isolators
Legrand SA
Domestic and industrial switches and isolators
Magnet Electrical Suppliers
Full range of Schneider and Eaton switches and isolators
Major Tech
VETI complete switches in modular and assembled; VETI complete isolator range; VETI IS isolator series (one-pole to four-pole)
MCE Electric
Onesto isolators; Schenker isolators; MCE surface-mount isolators; changeover switches
Phoenix Contact
Full range of switches and isolators
Stone Stamcor
Chilly toggle switches; Triton float switches
Switchboard Manufacturers
Full range of switches/isolators
Voltex
Full range of switches and isolators
Waco
Full range of switches and isolators

CONTACTORS

ABB
Full range of contactors
ACDC Dynamics
Wide variety of contactors
ACTOM Electrical Products
Full range of contactors
ARB Electrical Wholesalers
Full range of contactors
Atlas Group
Full range of contactors
Bellco
Full range of contactors



CONTACTORS

C3 Technologies
Full range of contactors

CBI-electric: low voltage
Full range of magnetic contactors and thermal overload relays

Consolidated Electrical Distributors
Full range of contactors

Edison Lebone
Full range of contactors

Electrahertz
Full range of contactors

ElectroMechanica
Full range of contactors

Fusecomp
Full range of contactors

JDL Electric
Full range of contactors

Legrand SA
Contactors up to 800 A

Magnet Electrical Suppliers
Schneider and Eaton contactors

MCE Electric
MCE contactors in three-pole and four-pole, various coil voltages available

Phoenix Contact
Full range of contactors

Switchboard Manufacturers
Full range of contactors

Voltex
Full range of contactors

Voltex LSis
Full range of contactors

Waco
Full range of contactors

SURGE PROTECTION DEVICES

ABB
Full range of surge protection devices

ACDC Dynamics
Wide variety of surge protection devices

ACTOM Electrical Products
Full range of surge protection devices

ARB Electrical Wholesalers
Full range of surge protection devices

Atlas Group
Full range of surge protection devices

Bellco
Full range of surge protection devices

C3 Technologies
Full range of surge protection devices

CBI-electric: low voltage
Clip-in dual mount surge protection devices

Consolidated Electrical Distributors
Full range of surge protection devices

DEHN AFRICA
DEHNGuard 952 310; DEHNGuard 952 110; DEHNGuard 952 070; DEHNGuard 952 030; DEHNventil 951 310; DEHNventil 951 110; DEHNshield 941 310; DENHshield 941 310; DEHNGuard CI 952 322; DEHNGuard CI 952 327; DEHNven CI 961 200; DEHNgap Maxi 961 180; DEHNCord 900 430

Edison Lebone
Full range of surge protection devices

Electrahertz
Full range of surge protection devices

ElectroMechanica
Full range of surge protection devices

Eurolux
Range of CHINT surge protection

Fusecomp
Full range of protection devices

HellermannTyton
Surge plus – economical secondary protection, SANS 164-0 approval

JDL Electric
Full range of surge protection devices

Legrand SA
Full range of surge protection devices

Magnet Electrical Suppliers
Schneider and Phoenix Contact surge protection devices

Major Tech
MTD6 – appliance surge protector

MCE Electric
Onesto surge arresters; Schenker surge arresters

O-Line
Full range of surge protection devices

Phambili Interface
Full range of surge protection devices

Phoenix Contact
Full range of surge protection devices

Surge Technology
DEHN, Saltek, Copa, Tridelta

Switchboard Manufacturers
Full range of protection devices

Voltex
Full range of surge protection devices

Voltex LSis
Full range of surge protection devices

TIMERS

ABB
Full range of timers

ACDC Dynamics
Wide variety of timers including the Rhomberg range of timers

ACTOM Electrical Products
Full range of timers

ARB Electrical Wholesalers
Full range of timers

Atlas Group
Full range of timers

TIMERS

Bellco
Full range of timers

C3 Technologies
Full range of timers

CBI-electric: low voltage
Standard electronic time switch with 24-hour reserve

Consolidated Electrical Distributors
Full range of timers

Edison Lebone
Full range of timers

Electrahertz
Full range of timers

ElectroMechanica
Full range of timers

Eurolux
Range of Eurolux timers

HellermannTyton
TDDT7 – 7 Day Digital Timer (relay contracts) – Day/weekly 16 programmable settings, TDDGT -7 Day Digital Geyser Timer (Internal relay) – 3 year back-up battery, TMT2 – 24 Hour, Mechanical 3 pin socket – complies to IEC 60730 safety standard, TDT7 – Digital 3 pin socket – Ideal for household use, TMDT2 – 24 hour Mechanical Din Rail – 15 day battery back-up, TGTL C – Geyser Timer Load Controller – Six preset times with peak demand lock out

JDL Electric
Full range of timers

Legrand SA
Complete range of analogue and digital timers

Magnet Electrical Suppliers
Schneider and Eaton timers

Major Tech
Complete range of analogue and digital timers

MCE Electric
MCE time switches; digital geyser time switch; Schenker mini rail; digital geyser time switch

O-Line
Full range of timers

Phoenix Contact
Full range of timers

Radiant Group
Full range of timers

Stone-Stamcor
SAIA-Burgess timers

Switchboard Manufacturers
Full range of timers

Voltex
Full range of timers

Waco
Full range of timers

METERS

ABB
Full range of meters

ACDC Dynamics
Digital panel meters and digital process meters

ARB Electrical Wholesalers
Full range of meters

Atlas Group
Full range of meters

Bellco
Full range of meters

C3 Technologies
Full range of meters

BI-electric: low voltage
Rail mount meters

Consolidated Electrical Distributors
Full range of meters

Edison Lebone
Full range of meters

Electrahertz
Full range of meters

ElectroMechanica
Full range of meters

Eurolux
Variety of Eurolux multimeters

JDL Electric
Full range of meters

Legrand SA
Electrical energy and multifunction metering

Magnet Electrical Suppliers
Schneider and Power Star meters

Major Tech
Full range of professional test instruments and DIY meters

MCE Electric
Onesto kWh meter

Phoenix Contact
Energy power meters and CTs

Switchboard Manufacturers
Full range of meters

Voltex
Full range of meters

Waco
Full range of meters

DISTRIBUTION BOARD ENCLOSURES

ABB
Full range of DB enclosures

ACDC Dynamics
Wide range of DB enclosures in all colours, materials and sizes

ACTOM Electrical Products
Full range of DB enclosures

Allbro
Full range of DB enclosures

ARB Electrical Wholesalers
Full range of DB enclosures

Atlas Group
Full range of DB enclosures

DISTRIBUTION BOARD ENCLOSURES

Bellco
Full range of DB enclosures

C3 Technologies
Full range of DB enclosures

CBI-electric: low voltage
Flush and surface-mount distribution boards

Consolidated Electrical Distributors
Full range of DB enclosures

Edison Lebone
Full range of DB enclosures

Electrahertz
Full range of DB enclosures

ElectroMechanica
Full range of DB enclosures

Ellen Electrical Enclosures
Surface-mount distribution boards

Eurolux
Wide range of Eurolux DBs

HellermannTyton
KV Small-type distribution board up to 63A – IP rating 54 to 65, protection class II; ENYSTAR distribution board up to 250A - IP65, protection class II; Mi Power Distribution boards up to 630A - IP65, protection class II

JB Switchgear Solutions
Full range of DB enclosures

JDL Electric
Full range of DB enclosures

JB Switchgear Solutions
Full range of DB enclosures

Legrand SA
Full range of flush- and surface-mount, waterproof, DIN rail boards

Magnet Electrical Suppliers
Rittal and Allbro DB enclosures

Major Tech
Full range of IP65 and IP55 enclosures

MCE Electric
MCE plastic enclosures; mild steel enclosures; stainless steel enclosures, plastic and steel distribution boards available in surface and flush mount configurations

R&C Instrumentation
Infrared inspection windows

Sabelco Electrical Industries
Sabelco-Sabsteel enclosures up to IP65 certified, manufactured in mild steel, 3CR12, 304 stainless and 316 stainless, in any colour; standard sizes and custom manufactured sizes

Switchboard Manufacturers
Full range of DB enclosures

Voltex
Full range of DB enclosures

Voltex LSis
Full range of DB enclosures

Waco
Full range of DB enclosures

HAZARDOUS AREAS

ABB SA
Full range of products for hazardous areas

ACDC Dynamics
Full range of products for hazardous areas

ARB Electrical Wholesalers
Full range of products for hazardous areas

Atlas Group
Full range of products for hazardous areas

Bellco
Full range of products for hazardous areas

C3 Technologies
Full range of products for hazardous areas

Edison Lebone
Full range of products for hazardous areas

Ellen Electrical Enclosures
Junction boxes Eex'e zone 1, 2, 21, 22

Eurolux
Comprehensive range of hazardous area lighting

HellermannTyton
TPC7 – High voltage phase comparator/live line, designed IEC6:20011481

JDL Electric
Full range of products for hazardous areas

Magnet Electrical Suppliers
ATX products for hazardous areas

MCE Electric
MCE fireman switches

Phambili Interface
Full range of products for hazardous areas

Phoenix Contact
Intrinsically safe barriers

Supertume
Zone 1 – 2 x 36 w vapour proof light fittings

R&C Instrumentation
IS certified infrared thermometers

Voltex
Full range of products for hazardous areas

Voltex LSis
Full range of products for hazardous areas



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Consolidated Electrical Distributor

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LIGHTNING PROTECTION AND EARTH BONDING

I have heard it said that if we could harness all the electrical energy in lightning, we could power significant parts of the world. This, as a matter of fact, is not correct—a single bolt of lightning has enough energy in it to power a 60 W light bulb for about six months—the same amount of energy as in 150 litres of petrol. Since the discharges occur in milli- and microseconds, this means that we would need to have some pretty smart equipment to capture the energy for later use.

However, lightning has plenty of volts - from the ground to the cloud from which the strike originated can be 100 million volts. Doing basic maths we can calculate that if the cloud of origin is 5000 m from ground, then the potential to ground from the cloud is about 20 000 volts or 20 kV per metre. This means that as the lightning

“The best thing to do for lightning protection is to give it a path to earth and make sure the earth connection is made in a way that ensures the lightning dissipates into the ground in a non-damaging manner. This is called ‘earthing and bonding’.”

strikes the roof of our garage there is a voltage difference of about 80 000 volts from the roof to the ground below. The lightning literally takes the path of least resistance to ground, which can be via moisture in the walls, the hinges of the door, the electrical wiring and metal conduits, all in one big flash bang.

On the other hand, if the lightning strikes the ground itself, it raises the voltage of the ground locally to a few thousand volts and has to dissipate through the ground, which can also be via conduits, gate motors, fences and electrical fence energisers. The effect can be seen up to hundreds of metres from a lightning strike. The point is, it happens very quickly, in microseconds. Electricity (and thus lightning) travels at 100 m per microsecond. This means most of the time, surge arrestors and lightning strike protection devices, unless carefully designed, are starting to operate long after (in comparative terms) the strike is over. I have often heard people say, “Wow, the surge arrestor just blew apart!” and they think it’s a failure. It’s not - with a medium lightning strike this is what it should do.

The best thing to do for lightning protection is to give it a path to earth and make sure the earth connection is made in a way that ensures the lightning dissipates into the ground in a non-damaging manner. This is called ‘earthing and bonding’.

There is, however, a crowd of self-appointed experts who are not experts in any way but have



their own, often vocal, opinions on how this should be done. This crowd of ‘know-it-alls’ will explain how to do lightning protection and earth bonding but in fact, know nothing about it. They will tell you to bury a car radiator in a special soil to get a ‘good earth’ and that a tapered aluminum wire fixed to a chimney stack is a ‘great lightning conductor’ or that all you have to do is to connect the gutters together to the drain pipe from the sink and you will never have any lightning problems.

Unfortunately, these old wives’ tales gather credence when this is done and the property in question does not have any lightning problems. No one questions the fact that the property probably didn’t have any problems before it received the phony treatment. Even worse, there are suppliers

of items such as gate opening motors, solar panels, electric fence energisers and so on, who assure clients that they are fully protected against lightning and show them a strategically located surge arrestor. “See? Fully protected!” Subsequently, when any of the units is damaged by lightning the supplier says, “oh well, you can only do your best,” and makes a decent living replacing these items every second year or so.

In South Africa, there are only three or four firms that know everything about lightning protection and earth bonding. They are experts. Before you hire one, ask how long they’ve been in business, ask for references. Using them is the only way to have an installation that is adequately protected against lightning.

STAYING ONLINE DESPITE EXTREME LIGHTNING HAZARDS

The subtropical climate of the greater Johannesburg area brings with it regular rain showers in summer and this, in combination with its high elevation above sea level, makes the city particularly vulnerable to lightning strikes. Internet solutions provider Jenny Internet had a newly developed site in Constantia Kloof on the West Rand, an area that is notorious for having a good deal of lightning activity throughout the year. In such a consumer-centric industry, where being able to provide a reliable service to customers is critically important, the challenge was to mitigate the lightning risk for the entire site and also protect the electrical system from surges that would put the business in down-time.

Werner Stucky, MD at Jenny Internet, says, “We had a newly developed site on a position known for lots of lightning during the year, and needed to erect costly equipment on the tower. Bearing this in mind, we had to be sure that the equipment was not at risk. We had met DEHN Africa at the AfricaCOM telecommunications conference and, after testing some of its products, were convinced that implementing

DEHN products and solutions was the way to achieve an acceptable risk profile for the site.”

Stucky says that, following a site assessment visit, DEHN Africa drew up a detailed plan, a process which took a few weeks. He adds, “The site was already half built, DEHN had to come up with a solution that suited the layout.”

Kirk Risch, sales and marketing director at DEHN Africa, comments, “Lightning strikes to unprotected structures and buildings can cause great damage to a company’s assets, systems and procedures, resulting in costly delays and service interruptions, which ultimately has a negative effect on a company’s bottom line. We were pleased to be able to assist Jenny Internet’s Constantia Kloof operation and help to protect the business assets from lightning strikes into the future. There is, of course, a further advantage in that our systems give additional protection to Jenny Internet’s employees on-site as well - when looking at lightning protection systems, it is imperative to look at the human safety angle.”

Stucky adds that the DEHN equipment that Jenny Internet placed on site has already proven its value. He explains, “Over time, the company’s savings on insurance and downtime will improve the financial picture even more. DEHN provides a solution, its engineers are knowledgeable. This allows us to trust that the planning, products and implementation all fit together to create a solution.”

Enquiries: www.dehn-africa.com



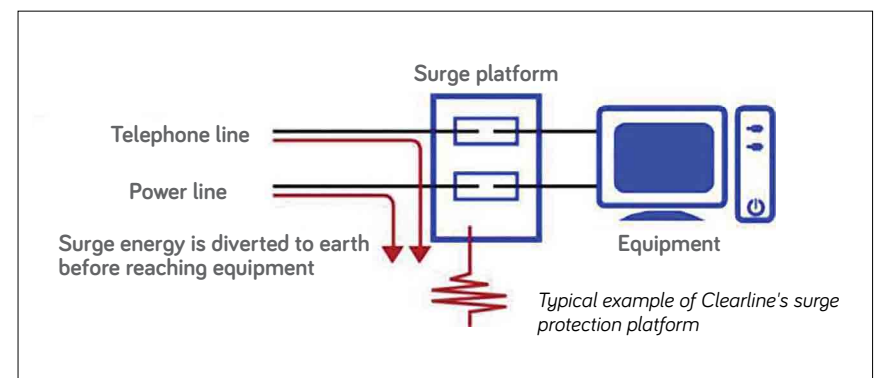
PROTECTION AGAINST SURGES

LIGHTNING PROTECTORS do not always prevent damage to equipment. Research shows that these failures are often due to incorrect installation - large voltages occur across the various inputs and outputs of equipment, causing damage.

Clearline has ‘surge potential platform’ on all its combination protection devices. This ensures that surge currents are interchanged on the surge platform and not through the equipment.

The protective devices are of the ‘plug and play’ variety and require no additional earthing.

In the diagram alongside, the data cable carrying the surge energy is passed through the protection platform. The surge energy is then diverted to the power earth before it can harm the equipment. A power and data surge arrester is also included in the platform.



Electronic disconnect in the event of protector failure

Unlike many devices available today, Clearline’s products have internal temperature fuses that will disconnect the power to the protector in the event of overload or fault. This ensures that ignition of the plastic housing will not take place. Indication

either as a mechanical flag or electronic indicator will advise the user of the protection status. On the professional models, additional filtering has been included with visual and audible fault indication.

Enquiries: www.clearline.co.za



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POWER QUALITY COMPANY is proud to be associated with the founding of ELPA



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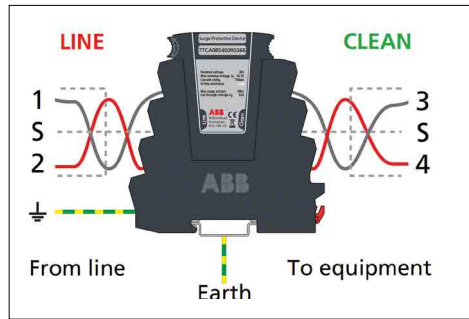


PROTECTION SOLUTIONS FOR TELEPHONY AND DATA LINE NETWORKS AGAINST SURGES

THE ABB OVR data/telecom range of surge protection devices (SPDs) is designed to protect equipment connected to data and telephone lines to complement the OVR power protection solution. The range covers protection of twisted pair data lines (including hazardous environments), computer networks, fire and burglar alarms, telecom systems including PBX & ISDN, CCTV and RF systems.

Protection for global telephony equipment: Any protector fitted to the telephone system should be 'invisible' to the application, and not interfere with its normal operation. It should not clip or limit the voltages that occur in normal system operation, and the bandwidth should be sufficient for existing applications with headroom for system development in the foreseeable future.

ABB OVR telephony products have maximum



working voltages of 296 V, and are not polarity sensitive. All OVR telephony protectors have a bandwidth in excess of 20 MHz, above the required maximum frequency rates, and provide ample headroom for future high-speed connections.

Protection for data, measurement and telecom systems: Compact surge protection for up to

8-wire systems, for working voltages of up to 6, 15, 30, 50 and 110 volts. OVR TNQ suitable for broadband, POTS, dial-up, T1/E1, lease line and DSL telephone applications.

Protection for resistance temperature detectors (RTDs): RTDs are widely used devices for measuring temperature. In basis terms, the electrical resistance of a sensing resistor in the presence of a constant current flowing through it using Ohm's Law. Given RTDs' typical locations in external field environments, the OVR RTD series is critical for their protection against surges.

Protection for telecoms and computer lines: Suitable devices for use on ten line LSA-PLUS disconnection modules to PBX telephone exchanges, ISDN and other telecoms equipment with LSA-PLUS disconnection modules.

Protection TV, satellite and radio systems: OVR

TV series protectors provide combined category C, B tested protection (to IEC 61643-21), suitable for use on analogue and digital cable, terrestrial and satellite TV systems, including 4 K high definition TV.

Install on lines running within buildings at boundaries up to LPZ 0 through to LPZ 3 to protect sensitive electronic equipment from transient damage.

Protection RF systems (power up to 150 W) OVR RF uses coaxial cables at frequencies between 50 MHz and 2.7 GHz to provide effective protection without impairing system performance. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.

Enquiries: www.abb.com/lowvoltage/
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EARTHING AND LIGHTNING PROTECTION ASSOCIATION KICKS-OFF FIRST CERTIFICATION CYCLE

ELPAs (Earthing and Lightning Protection Association) held its first set of examinations in August 2017.

South Africa has over 24 million lightning strikes each year, resulting in lightning-associated deaths and a cost to the economy that runs into billions of Rands. The formation of ELPA has therefore been widely welcomed by numerous engineers, associations, universities, government bodies, insurance bodies and the general public.

ELPA is also helping to take South Africa's prominence in the global lightning protection arena another step forward, says national director Trevor Manas. He says, "It is ELPA's stated intention to co-ordinate the dissemination of knowledge for lightning industry practitioners, consumers and the general public; communicate holistically around the potentially deadly dangers presented by lightning; and assist with advice on over-arching legislation to guide all concerned parties.

"With danger to property and loss of life, there's a serious need to upskill those who carry out lightning protection installations, to understand the science behind what they are doing. Working with ELPA-approved designs for lightning protection systems (LPS) as

well as ELPA-accredited installers ensures benefits that will have a widespread positive effect for the lightning protection industry, consumers and the insurance industry," he states.

The benefits of using ELPA-accredited designs and installers include the following:

- An approval service for LPS design drawings.
- ELPA-accredited installers are properly trained and have passed the examination with a mark of at least 80%.
- ELPA carries out random inspections of LPS installations by accredited ELPA inspectors.
- Guarantee of all installations carried out by accredited installers: if sub-standard workmanship or non-compliant installations are found, ELPA will fix the LPS installation to comply with the standards.
- Independent evaluation of installations and designs, whether completed by members or not.
- ELPA will provide the details of ELPA-accredited designers, installers and assessors to engineers or any other interested person on request.

The three different types of ELPA

memberships are:

- **Ordinary:** These members will be accredited as installers, designers and inspectors/assessors.
 - **Engineering/Associate Members:** These members are engineers and have access to technical assistance from a team of experts.
 - **Affiliate Members:** This is the manufacturer's membership – affiliate companies will be listed as ELPA's preferred/approved compliant component suppliers.
- "An ELPA guarantee on LPS work will assist the insurance industry as we will commit to fixing sub-standard work at our cost if an installation that was guaranteed by ELPA is later found to be non-compliant. In this way, using an ELPA-certified installer would provide peace of mind, as will the guarantees the association provides on a design, even before installation.

"We encourage all those who would like to be trained and accredited to contact ELPA for our training facilitators. The formal establishment of ELPA is an important addition to the standard of safety in the South African lightning and protection industry, and we look forward to this significant first set of examination results and moving on thereafter," concludes Manas.

Enquiries: www.elpasa.org.za.



DEHNbasic

DEHN Africa launches DEHNbasic

DEHN Africa launches the DEHNbasic 5ka and 10ka surge protection device.

DEHNbasic is:

- Ideal for domestic applications.
- Mountable on DIN and Samite rail distribution boards.
- Available through accredited ElectroMechanica wholesalers.



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LARGE SOLAR PV PLANTS NEED LIGHTNING PROTECTION SYSTEMS

The fact that large solar PV plants are relatively new in South Africa means there is not a large body of local data available, says Stephen Reynders, function manager, Power & Energy, SMEC South Africa.

"The design of the LPS requires an engineer with specialist knowledge and experience in electromagnetic compatibility (EMC). Although the risk-evaluation matrix of SANS/IEC 62305 is a logical process, it can have dire results if a practitioner produces faulty output based on poor-quality input," says Reynders.

Solar PV plants are large compared to other outdoor electrical installations. In addition, they have complex ac and dc electronic systems and cabling for power, control, and monitoring, especially where the panels are required to track the sun.

There are three key design elements to be taken into account for LPS design for large solar PV plants:

External lightning protection

The design must ensure that the lightning strike is intercepted with an air-termination system. The lightning current must be conducted safely towards the earth by means of a down conductor system, and dispersed by means of an earth termination system.

Air termination masts can be incorporated

into the support structure of the panels, provided there are significant clearances between the lightning current path and sensitive components. In the absence of such clearances, damage to panels and electronic components in the event of a lightning strike is a real possibility.

Where the PV panel support structure includes a steel pipe, the down conductor should never be run inside such a pipe, since the magnetically-induced opposing currents from the magnetic field in the pipe during a high current strike will render this down conductor totally ineffective.

Earthing system

The system design must ensure a low impedance path for conducting lightning current into the earth, provide equipotential bonding between the down conductors, and ensure that lightning and surge currents are dissipated effectively, without causing excessive potential differences.

Most solar plants have extensive cable trench routes that can be used to bury earth mat conductors. However, it is critical that the earth conductors are interconnected into a grid structure, since the cable-route network normally follows a tree-type structure. This is because every structure requires multiple paths for current or surge dissipation.

Internal lightning protection

The design must ensure that the direct lightning current and the effects of the lightning electromagnetic pulse (LEMP) do not penetrate sensitive electronic circuitry and cause damage and/or malfunction. To this end:

- Electrostatic shielding of all signal/control cabling with proper earthing has to be assessed.
- Magnetic shielding of internal electronic components has to be assessed.
- Zone boundaries, which are areas where there is an increase in the sensitivity of the internal components to damage/disruption, have to be defined. In addition, the need for a coordinated surge protection methodology (SPM) has to be assessed.

All electronic components should be enclosed in metallic enclosures to ensure that all sensitive control circuits are shielded. Control cables should have continuous earth shields that are earthed accordingly. Appropriate surge suppression devices should be installed where cables enter sensitive zones.

SMEC South Africa provides a comprehensive suite of consulting services, including detailed specialist designs, assessment of claims, dispute resolution, expert determination, and technical audit services.

Enquiries: www.smeccom



ROBUST HEAVY DUTY INSULATION TESTER

CABLE management specialist HellermannTyton offers a rugged, cost effective analogue voltage, continuity and insulation tester that comes with a life-time warranty.

Ideal for electrical contractors and personnel involved with electrical installation verification, the HellermannTyton Toptronic T1832 brings robustness and simplicity. The quality taut band movement displays results on an intuitive scale and absorbs the shocks of day-to-day electrical work owing to its advanced suspension, while the mirror scale eliminates the error owing to the 'parallax effect' by ensuring the needle and its reflection are seen as one. The device also

has the ability to be 'manually zeroed' if there's a need, and it adheres to SABS10142 regulations for compliance checking.

The visual contact detector works without batteries to warn the user of a live circuit. The ON LED indicator also serves as a battery test scale and rotary selection built into the tester.

The T1832's large scale is easy to read and colour-coded. Blue indicates voltage, red for insulation (test voltages of 250 V, 500 V and 1000 V), while green displays continuity resistance for 3 and 500 Ohm scales. The green knob located on the tester provides a

unique feature for 'zeroing' the test leads and fuse resistance on the two continuity scales. This is particularly beneficial when using extension leads for continuity testing of ring circuits.

The heavy-duty ABS doubled moulded hard and soft plastic case comes with accessories including test leads, batteries, spare fuses, shoulder strap and a user manual. The colour scheme - yellow and black - ensures enhanced visibility of the instrument regardless of potentially heavily lit or dark environments.

Enquiries: +27 (0)11 879 6600



CONTACTLESS CODED SAFETY SWITCH

In 1993, Comitronic-BTI, supplied locally by RET Automation Controls, launched the first contactless, coded safety switches that could operate without a safety relay. Today, new products such as the Vigilguard interlocking range are still developed using the same technology.

Interlocking devices are solutions used to protect operators from dangerous machinery. They represent an important and fundamental element of the machine and should be integrated during the early stages of the machine design.

Comitronic-BTI markets a range of tamper-proof coded safety switches using the Actom3 process. The Actom3 process is based on electronic monitoring and internal relays which negate the need for a separate safety module. This solution is cost effective (as the external relay is not needed), simplifies electrical wiring, and saves space in the electrical panel. The high switching capacity of both safety circuits (2A/48 V) is sufficient for most machines in industries such as packaging, palletising, woodworking, robotics and food industry.

The Vigilguard coded contactless solution solves the challenges of the traditional interlock when energised, the coded bolt is activated and inserted into the coded strike head. The Vigilguard solution then guarantees that the door is closed and locked correctly by reading the code in the strike head, thereby confirming that the bolt is inserted into the correct strike head before actuating the safety contacts. Owing to the dead bolt design, there is no mechanical wear, the mechanical lifetime expectancy is over 10 000 000 cycles. The housing material, Zamak (Zinc-Aluminium-Magnesium-Copper), is resistant to harsh environments and the rough handling experienced on the heavy doors commonly used in automotive and steel industries.

Fitted with internal relays, Vigilguard achieves the highest safety level (PL4e according to ISO EN 13849-1, or Category 4 as per EN954-1), without having to be wired to a safety module. The redundancy of the safety lines, self-checking circuitry, inclusion of a manual reset and emergency manual unlocking system allows the Vigilguard to be totally independent and safe.

To ensure that the device is easy to wire, the redundant safety lines have a potential free switching capacity of 2A/48 V, allowing them to be connected directly to most machines' contactors. The optional dual M12 connectors make wiring devices in series easy, while maintaining the same safety level.

Power on/door unlocked: When the power supply is not in the correct range, or when the temperature of the device becomes abnormal, a visual indication is given via the LED and it automatically switches the machine into a safe state.

Enquiries: www.retautomation.co.za

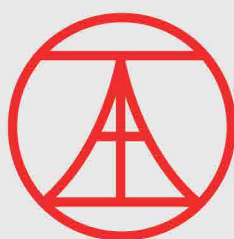
Allbro launches new "ROBUST" box range



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CONTAINERISED SUBSTATIONS - THINKING INSIDE THE BOX



BUSINESSES are under pressure to reduce their operational costs and maximise their profits, and one key area where big industries can make a significant cost savings is by using purpose-made, containerised substations. These repurposed marine shipping containers arrive on-site pre-installed with fully tested switchgear, ready for immediate cable connection.

Containerised substations are useful in remote areas. Civil construction costs are high, and converting a standard marine specification container into a substation is significantly less expensive than arranging for on-site construction of switchgear housing.

Another benefit is that they are fully equipped and assembled at the manufacturer's premises, and can comprise bespoke combinations of distribution equipment, control gear and PLC equipment. All this equipment undergoes full function testing before being dispatched, which converts to time savings on site.

Once on site, the containers are easily mounted on plinths, columns or skids. If mounted on columns, cable entry is possible through openings in the floor at the base of the container. If this isn't possible, then exterior cable entry boxes, mounted to the exterior of the container, provide cable entry through the side. The boxes are removed during transport of the container.

Some switchgear (such as ring main units) also need

arcng ducts out of the sides or bottom of the container. In this instance, special modification to the container is needed to prevent an arc from affecting the interior environment.

Containerised substations are most commonly used in more extreme environments, such as mines and open-air construction sites, among others. Containers are, by nature, well-sealed, meaning they offer an effective way of keeping dirt, dust and other pollutants out. Ventilation systems with filters can be fitted to maintain positive pressure within the container. Each system can be custom designed to suit individual site requirements, including high pollution environments.

Marine containers vary in size, with the average being about 10 m long, five metres wide and four metres high. This means they can easily be transported on a standard low-loader and lowered into position using a crane.

JB Switchgear manufactures high-quality switchgear systems that meet the latest national and international safety and performance standards. The company modifies marine containers for substation applications with options including insulation, flooring, lighting and small power, air conditioning and fire suppression, among others.

Enquiries: +27 (0)11 027 5804

STANDBY DISTRIBUTION BOARDS IN DOMESTIC APPLICATIONS

Installing a change-over switch in an existing distribution board is often challenging, mainly, owing to space restraints.

Some home owners have a standby generator stored in their garages for use during a power outage. When the generator is in use, the main supply switch and non-essential circuit breakers (CB) are switched off and the generator supply is fed into the distribution board by 'back feeding into a socket outlet'. This is extremely dangerous as the chances that there will be an earth leakage unit (ELU) and CB's protecting all the circuits are slim, not forgetting that the male pins on the plug top feeding into the socket will also be live, which means that an electric shock can occur.

The back feeding socket will most probably have two or more sockets (with no ELU or CB protection) on the same circuit and can draw as much current as the load requires or what the generator can deliver. Most generators commonly used in households can deliver over 30 A. This could lead to overloading of the socket outlets and the cables feeding them.

Deciding on the best way to install the change-over switch varies from site to site and requires careful consideration.

Whichever way is decided, the non-essential and essential loads must be grouped in a manner that ensures that all circuits have the correct circuit breaker protection and are under ELU protection no matter which supply is active.

Electrahertz manufactures and carries in its inventory, a 2-pole, IP65 standard manual change-over DB (EHZ-63A 2P C/O IND) that can easily be installed indoors or outdoors. A suitably rated cable feeding from the main DB to the change-over distribution board, a second cable of the same size feeding back, and a generator supply cable are all that is required. The change-over DB is complete with a pilot light and buzzer that alerts users when the main power is restored. The relay that operates the pilot light and buzzer may also be used to automatically switch off non-essential loads via a contactor (not supplied) whilst the generator is running.

Using this change-over DB ensures safe operation as the generator and supply authority cannot feed into the same circuit simultaneously.

A qualified electrician does the installation and a CoC from the ECA is issued to the client.

Enquiries: +27 (0)12 804 0120



POLE KITS EXTEND ENCLOSURE MOUNTING OPTIONS

Sealed enclosures are designed for indoor or outdoor installation and normally have holes positioned outside the sealed area to enable the enclosure to be attached directly to flat surfaces without compromising the environmental protection. In response to the need for small electronic monitoring and control systems to be installed in an increasingly wide variety of locations, Hammond Manufacturing has introduced five sizes of pole mounting kit, which enables three sealed enclosure families to be attached to round, square or rectangular poles with diameters from 38 to 381 mm. The corrosion resistant stainless steel kits reduce installation time and secure the enclosure against twisting once installed.

The initial range of kits are sized to fit the 1554/1555 IP67 ABS and polycarbonate range, the 1590Z IP66 heavy duty die-cast aluminium family and

the 1590ZGRP IP65 glass reinforced polyester range. The kits enable a total of 93 different sizes and styles across the three families to be pole mounted. Each kit consists of two brackets, two clamps and mounting hardware, all in stainless steel.

Enquiries: rhammond@hammfg.com





JB SWITCHGEAR SOLUTIONS (PTY) LTD

+27 11 027 5804 

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ELDON UDP DOUBLE DOOR ENCLOSURE RANGE WITH UPGRADED PROTECTION DEGREE

UDP wall mounted enclosures in fibreglass reinforced polyester are an affordable alternative to stainless steel cabinets for installations in challenging conditions.

Customer advantages are:

- Increased protection degree, now IP65.
- Suitable for demanding environments.
- Accessible and efficient alternative to stainless steel enclosures.
- Double insulation for maximum user safety.

Eldon has replaced its entire UDP range of double door enclosures with upgraded units to offer an increased degree of protection. Every upgrade developed aims to help customers stay ahead in a dynamic industrial market.

While the previous UDP double door wall mounted enclosure complies with IP54, the new version complies with IP65, enabling users

to install the cabinets in even more demanding conditions.

Designed for environments such as public utilities, oil refineries, the marine industry, photovoltaic energy, and the petrochemical industry, UDP double door polyester enclosures provide customers with an accessible and efficient alternative to stainless steel enclosures.

UDP wall mounted enclosures have double insulation offering users maximum safety. Different modular enclosures can be combined to achieve larger configurations.

Please note that there is also a change in the part code. The N has been removed, thus UDP125100N becomes UDP125100. The Eldon UDP double door enclosure range is available from ATI Systems.

Enquiries: +27 (0)11 383 8300

YSALIS SWITCHES AND SOCKETS AVAILABLE AT BUILDERS WAREHOUSE



Legrand's Ysalis switches and sockets are available in pre-packed kits from Builders Warehouse. Ysalis sockets accommodate current South African standards for local plugs and are easily adapted to suit European two pin socket appliances. 2400 mA intelligent USB technology provides fast charging of two devices, with balanced load sharing.

Legrand explains that the modular design allows any configuration to be adapted by changing the connection function and colour of the plate at any time. With the system, users can remove or change the number of lighting points or connections with no damage to the wall – the same box and support frames are used to accommodate all modifications.

The range offers advanced features for energy saving, enhanced aesthetics, safety and reliable control. Ysalis fittings are stylish in design. Slim, curvy shaped plates – available in white and champagne – enhance the décor of any room and provide easy and convenient control of functions like lighting, fans, air-conditioning and the television.

Enquiries: +27 (0)11 444 7971

RELIABLE DETECTION OF OBJECTS AND FILL LEVELS



Leuze's range of optoelectronic and inductive switches with capacitive proximity switches makes it possible to apply a solution for all detection requirements from a single source.

Leuze's range of optoelectronic and inductive switches with capacitive proximity switches makes it possible to apply a solution for all detection requirements from a single source. Using innovative technology, the sensors are able to reliably detect and monitor fill levels and detect objects through packaging materials.

Available from Countpulse Controls, the contactless, wear-free switches are resistant to electromagnetic influences,

interference and contaminants, such as dust, in the air.

Facilitating optimum flexibility in applying this technology, the capacitive switches are available in cylindrical or cubic design, and in embedded or non-embedded versions, to allow for a wide range of mounting options.

Designed using semiconductor technology, the Leuze switches offer a long life expectancy, regardless of the detection and switching frequency. The new genera-

tion sensors make contactless detection of many different objects and media possible, regardless of the shape.

With their IP67 housing, the switches are suitable for detecting objects in harsh and dirty environments. Furthermore, the ability to 'see through' certain materials allows them to be used in food and beverage and packaging industries where it is possible to detect products in outer packaging and behind container walls.

Enquiries: +27 (0)11 615 7556

PORTABLE MICRO-OHMMETER

The DLRO100 from Verotest enables low resistance measurement across multiple applications in areas without access to main power. The integral Li-ion battery supplies a constant 100 A current for up to 200 automatic or manual tests, enhancing productivity in remote locations.

With a focus on user safety, advanced design features ensure the safe operation of the instrument in adverse conditions, including a CAT IV 600 V safety rating in accordance with IEC61010. A dual ground feature is available on the DLRO100X and DLRO100H, which adds to the operators' safety by grounding both sides of the breaker under test.

The tough design, intuitive interface and IP54 (lid open) rating ensure reliability and ease-of-use in the most arduous conditions.

Features include:

- CAT IV 600 V for safe operation.
- Light, 100 A, battery powered unit for portability.
- High noise immunity for stable readings.
- Smooth dc output for circuit breaker testing.
- IP54 for protection against dust and moisture whilst testing.
- Save, download and delete results (DLRO100X and DLRO100H variants).
- Remote operation, Bluetooth®, asset and result tagging (DLRO100H variants).

Enquiries: www.verotest.co.za

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ADVANTAGES OF INSTALLING A DIMMABLE LED

LED lighting technology has been around for years and the adoption of LED lighting for new installations is taking on fast, along with a vast retrofit market to address. Installing dimmable LEDs provides opportunity for further market adoption as the user experience can be optimised. Here are some good reasons to install dimmable LED lighting.

Creating ambience: There is no denying that lighting affects us in many ways, which is why people hire lighting consultants and designers to generate the right atmosphere in homes, restaurants, theatres, offices and stores. Light levels affect our moods, health, productivity, concentration, sleep cycles and our ability to make decisions.

LEDs are available in many light colour temperature choices, offering flexibility in ambience control, and most modern installations consider the ability to dim lights and even groups of lights within the same room to be a necessity for creating an optimal ambience.

Durability: The long operational life of LED lamps clearly distinguishes them from ordinary ones. In addition, when an LED is dimmed, the current through the module reduces and the junction temperature reduces correspondingly. This has a profound effect on the lumen maintenance of the LED—the expected LED module lifetime increases as the junction temperature decreases. Dimming the lamp also reduces the overall temperature of the driver built into the LED lamp, reducing degradation and increasing the driver's lifetime.

Energy efficiency: If you are looking for ways to cut power consumption, LED is the way to go. LED dimmable lighting is energy efficient,

up to 80%. This represents the proportion of electrical energy that is transformed into light energy. Only about 20% of the electrical energy is lost as heat energy. For ordinary lamps, the reverse holds true; 80% of electrical energy is lost as heat energy, which puts efficiency at about 20%. The energy consumption of an LED lamp reduces proportionally when dimming down, saving even more energy. Although the energy consumption reduces when dimming conventional lamps, the savings is not proportional to the light level.

Cost effectiveness: Household and commercial lighting costs can be cut considerably by installing LED fittings. Although they cost more than ordinary ranges on initial purchase, they last much longer and are more energy efficient, especially when dimming. In the long run this amounts to significant savings.

Kinder to eyes: Users enjoy a more uniform distribution of light and a more comfortable light intensity with dimmable LED installations. This is kinder to the eyes and there is less eye strain than with some ordinary lighting and non-dimming installations.

Top tip: Ask manufacturers about compatibility: Most established lighting and dimming brands publish compatibility data on their websites. Dimmer modules are tested with various loads and the lamp performance graded. These grades are a useful reference point and can help when choosing a dimmer.

Shuttle Lighting's compatibility data with minimum and maximum loads for over 60 LED brands can be found on its website under the 'Resources' tab.

Enquiries: www.shuttlelighting.com

HONG KONG INTERNATIONAL LIGHTING FAIR (AUTUMN EDITION)



The 19th HKTDC Hong Kong International Lighting Fair (Autumn Edition) will be staged from 27 to 30 October 2017 at the Hong Kong Convention and Exhibition Centre (HKCEC). The HKTDC Hong Kong International Outdoor and Tech Light Expo will also see its second edition from 26 to 29 October 2017 at the AsiaWorld-Expo. Last year, the two lighting events featured more than 3 000 exhibitors from 37 countries and regions, and over 50 000 global buyers, forming the world's largest lighting marketplace with enormous business opportunities, and an ideal platform to tap into the international market.

Worldwide lighting brands shine

At the Lighting Fair (Autumn Edition), the Hall of Aurora comes to the limelight with top-notch brands around the globe presenting sophisticated collections of lighting accessories and applications. Buyers can browse a wide array of worldwide lighting brands, including BJB, BLAU-PUNKT, PHILIPS, LEDUS, MEGAMAN and VIRIBRIGHT.

High demand for green lighting

Consumers share growing concerns around environmental-friendliness and prefer energy-efficient, environmentally friendly and longer lasting products. Australia, the United States, the Chinese mainland and the European Union have phased out the sale of incandescent lamps that cannot meet the minimum energy efficiency requirements. The demand for energy-efficient LED lighting products therefore remains keen.

The LED & Green Lighting zone at the Lighting Fair (Autumn Edition) displays a wide array of energy-

efficient lighting for commercial and residential uses. Last year, this zone attracted over 1 000 exhibitors and was the biggest in scale at the fair. In response to the market's blazing demand for LED lighting, the LED Essentials zone is newly set up to display different LED lighting accessories.

Smart lighting for a brighter future

In response to the rising concepts of smart city and smart home, the industry has been proactive in developing cutting-edge smart lighting systems for residential, industrial and commercial uses to keep up with the technological trend. At the Lighting Fair (Autumn Edition), the Smart Lighting & Solutions zone showcases latest lighting designs, software, management systems and control panels. Other highlighted zones include Commercial Lighting, Household Lighting and many more. Related product zones are grouped together in the fairground to allow buyers to find their preferred products and exhibitors efficiently.

Multiple events to promote industry exchange

A series of seminars and forums will be held during the fair for industry players to keep abreast of the latest technological trends, market developments, and testing and certification information, as well as to exchange professional insights for strategic business planning. Networking receptions will take place to facilitate bond-building within the industry.

Fair website: www.hktdc.com/hklightingfairae

THORN ELECTRICAL DISTRIBUTORS: NOTHING LITTLE ABOUT THESE TWO GUYS

Whether in their own business or employed by the same company, Julian Lipson and George Pachai have worked together for 45 years. They are back together again and this time have taken over Thorn Electrical Distributors.

Situated in Wynberg, Sandton, Thorn Electrical offers a range of electrical products and supplies and is a 'wholesaler's wholesaler', as described by Lipson. "We appreciate," he says, "that we have set up business in a crowded space, but we are different from many of our competitors in that we are an independent company, with years of experience". In addition, Thorn Electrical will be bringing a new product to market in the first few months of 2018. It is in the final stages of development and will further set the company apart from others in the field.

Still with the theme 'small but powerful', the company's LED lighting products are marketed under the brand name 'Little-ou'. "Our hi-bays, IP65 connectors and floods are made to the highest quality. Our whole focus is on quality and we believe strongly that price is not everything," says Lipson. "On some products Philips LED chips are used to guarantee performance in output, lifespan and stability and while



George Pachai and Julian Lipson of Thorn Electrical Distributors have worked together for 45 years.

our lighting products may not be the cheapest, they may well end up being cheaper in the long run."

Enquiries: +27 (0)11 440 7463

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THE SHUFFLE SMART LIGHTING COLUMN

THE cities of Budapest and Balatonfüred hosted the FINA World Championships 2017 from 14th to 30th July, during which time athletes thrilled spectators with their swimming, water polo and diving skills.

Ahead of the event, Budapest seized the opportunity to implement the first smart city initiatives in the capital. It wanted to provide a connected urban space that would contribute to creating an engaging, unforgettable experience for athletes and fans, and evolve the city as a liveable, socially inclusive and dynamic space.

The area around the newly built Duna Arena, the main venue for the championship, was redeveloped and the Turbina promenade created. The riverside embankment provides easy access to the arena and features a bike path, which is an integral part of the EuroVelo international bicycle network along the River Danube.

To create a connected space, local authorities installed the Shuffle, which provides the necessary infrastructure

- in a single aesthetic column - for a range of services that improve quality of life for residents. Today, the modular system delivers an energy-efficient lighting solution that creates safe and welcoming landscapes while reducing the carbon footprint. Some columns are equipped with cameras to enhance the feeling of security while other Shuffles provide free WiFi for visitors and residents. All the Shuffles can be upgraded at any time to include extra features such as loudspeakers, EV chargers or sensors. The city intends to add new services in the near future to increase the efficiency of its public infrastructure.

A total of 160 Shuffles have been installed to date, contributing to the creation of a vibrant and connected outdoor space where athletes, visitors and residents can run, cycle or relax.

Enquiries: +27 (0)11 238 0069



By choosing the Shuffle, the city of Budapest is leveraging technology to turn its smart city ambitions into reality.

MAGNET TRILUX LIGHTING SOLUTIONS

MAGNET has been appointed as the exclusive distributor and supporter of the German range of Trilux lighting solutions in South Africa.

"Trilux indoor and outdoor lighting products - manufactured in Europe to stringent quality and safety specifications - are designed for use in offices, healthcare, educational facilities and industrial installations," says Dean Lotter, divisional head, Magnet Energy. Intelligent lighting solutions create suitable illumination for specific application areas, and custom designed Trilux solutions enable Magnet engineers to create energy efficient lighting concepts that meet individual requirements. For example, luminaires and accessories, designed especially for business locations, ensure suitable lighting for reception areas, offices, corridors, meeting rooms, restrooms and parking areas.

"Energy-efficient lighting technology is becoming increasingly important in the industrial sector. Modern lighting reduces operating costs, improves visual conditions and enhances concentration. These factors significantly improve productivity and operating safety, and protect the environment through integration into control networks," says Lotter.

The Trilux range encompasses indoor luminaires, downlights and spotlights, trunking and diffusers, as well as outdoor luminaires, spotlights and floodlights. Lighting control systems include intelligent light management, energy saving and colour control systems, as well as manual controls.

The intelligent LiveLink light management system utilises advanced sensor technology for simple and reliable control of all light points, even for complex lighting systems. LiveLink, which is optionally integrated to optimise energy savings and enable individualised lighting, facilitates effortless planning, installation and modifications.

Magnet's Trilux lighting solutions, which are enhanced by advanced LED innovations, meet the requirements of every project, to ensure suitable illumination, energy efficiency, enhanced aesthetics and optimum safety.

Enquiries: www.magnetgroup.co.za



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Contact information:

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MAGNET PARKADE LIGHTING AT CENTURION MALL

MAGNET ENERGY, part of the Magnet Group of Companies, has assisted many property groups in South Africa with the design and installation of lighting systems for shopping malls, offices, hotels and industrial applications.

Its latest project was the design and installation of a new lighting system at the Centurion Mall parkade in Pretoria. Advanced lighting technology has significantly improved light levels, enhanced safety and contributed to energy savings.

"The project brief from property group, Redefine, was to improve the quality of parkade lighting at the Centurion Mall. With extensive experience in turnkey lighting projects, the Magnet team understands that every installation requires individualised engineering solutions," says Dean Lotter, divisional head, Magnet Energy.

The Centurion Mall parkade upgrade project – which encompassed an onsite lighting audit, engineering and lighting design, and specification of technology, installation and commissioning – has improved light levels in the parkade from 12 to 50 lux.

Magnet's eco-friendly solutions to reduce wasted electricity and improve lighting quality at the parkade include the installation of Philips and MARS LED fittings, as well as Lite-C controllers and Schneider sensors.

Worth noting about the project is the installation of Magnet's Lite-C wireless binary controllers in specific areas of the parkade that are not

highly occupied. Advanced radio frequency (RF) technology allows input devices to communicate with and control output devices up to 200 m, without the need for cabling. If no movement is detected by the sensor after a period of time, the lights automatically switch off.

Magnet's energy efficient MARS and Philips LED lighting systems ensure optimum quality of light and extended lamp service life.

Enquiries: www.magnetgroup.co.za



Magnet Energy recently completed the design and installation of a new lighting system at the Centurion Mall's parkade. Advanced lighting technology has significantly improved light levels, enhanced safety and contributed to energy savings.

LOW VOLTAGE SOLUTION FOR POWER, LED LIGHTING AND CONTROLS

POWER management company Eaton has on offer the Distributed Low Voltage Power (DLVP) system, a flexible and electrically efficient low voltage system combining power, LED lighting and controls into a simple, energy code compliant, project solution by blending the benefits of ac and dc power distribution. The easily configured 'plug-and-play' system reduces installation labour by up to 40% with a total installed system cost savings of up to 20%.

The energy-efficient, commissioning DLVP solution utilises ac power for transmission and dc power for connectivity, offering a complete low voltage solution for applications with repeated spaces and matching configurations, including schools, private and open commercial offices, conference rooms and health-care facilities such as doctor's offices, urgent care and rehabilitation centres.

"Whether managing a single room or an entire facility, customers and installers want a safe, cost-conscious, easy-to-configure system that simplifies code compliance," says Quentin Mecklenborg, owner of Brooks and Sons Remodeling, the company that installed USGreentech's DLVP system. "It took one person less than a day to install a 186 m² space with lighting – from running the wire to the power module and connecting all the fixtures to working

order – versus traditional wiring, which would have taken two electricians over a day to wire the same number of fixtures."

"The out-of-the-box functionality of the DLVP system provides design-build contractors, installers and owners with an LED lighting and controls solution that offers fast, simple installation with reduced wiring materials and minimal complexity," says Chris Andrews, product manager, Eaton's Lighting Division. "The sustainable solution allows customers the ability to control and program different lighting products based on occupancy and daylighting. Our system provides energy code compliant lighting, receptacle and emergency controls capabilities without commissioning."

DLVP system components include a power module, available in 300 and 600 W; traditional lighting control options, including occupancy and daylight sensors; zone and scene wall stations that offer out-of-the-box control; and receptacle control switch packs to control receptacle plug loads.

The system includes hand-held programming and personal remotes. The programming remote sets sensor hold times and sensitivity, daylight gains by zone, sensor range and assigns fixtures with integrated sensors to control zones. The

personal remote allows users to individually control zones and create scenes to customise their lighting environments.

Enquiries: www.eaton.com/lighting

ENCOURAGING SOUTH AFRICANS TO SWITCH

As of 1 July 2017, consumers who receive their electricity from municipalities have experienced a 764% increase in electricity prices. "While changing to LEDs is the logical option for some, it is understandable that a better knowledge of how LEDs work and what their benefits are is necessary to encourage more people to make the switch", says Eurolux marketing manager, Eben Kruger. "We also feel it is important to point out that while LEDs have historically cost more than traditional light lamps, they now retail for almost the same price," he adds. By now, most consumers are aware that LED lamps have a longer lifespan than their incandescent counterparts. An LED offers 15 000 or more hours of light while an incandescent gives up to 1000 hours, roughly seven times less the amount of light.

LEDs are also notably better for the environment. When using LEDs you will dispose of fewer lamps. One LED is discarded for seven regular lamps.

LEDs don't merely serve a functional role, they offer multiple lighting possibilities for an array of applications. They come in various styles, sizes and shapes, and are available in different colours. Some LEDs have dimming capabilities, which make them an ideal choice for spaces where you want to create an ambience. Eurolux has a wide range of LEDs.

Enquiries: www.eurolux.co.za

PHILIPS LIGHTING SOUTH AFRICA TO BE PLATINUM SPONSOR OF AFRICA LED EXPO

PHILIPS Lighting South Africa (Pty) Ltd is to be the Platinum Sponsor of the Africa LED Expo for the next two years. The Africa LED expo, which takes place from 13-15 September 2017 in Hall 1 at the Gallagher Convention Centre in Johannesburg, is a focused exhibition for professionals to see the latest developments and innovations in the LED lighting industry.

Philips Lighting will showcase its advanced colour kinetics lighting system – which enables the same luminaire to provide high-quality intelligent colour and white light – as well as its cost effective Telemangement lighting system, Amplight. Also on display will be SportsStar LED, an innovative, LED-based luminaire that meets the challenges of both area and sports lighting. Philips has been revolutionising lighting for over 125 years. It pioneered the world changing development of electric light and LED, and is now leading the way in intelligent lighting systems. Visitors can head to the prominent Philips stand in Hall 2 (C49).

"Our lighting innovations empower our customers to provide safe, power-efficient residential lighting that helps beautify cities, delivers great lighting experiences at entertainment destinations, as well as the right level of lighting to keep employees as productive as possible," said Reggie Nxumalo, general manager of Philips Lighting, Southern Africa. "At this year's Africa LED Expo, visitors will be able to experience our latest innovations and discover how these will unlock value for their businesses and enrich their lives."

"We are excited to have a leading brand such as Philips Lighting as our Platinum Sponsor for the next two years. The Africa LED expo has been gaining traction in the industry and is the leading showcase for LED lighting solutions on this continent," said Africa LED Expo organiser Dyelan Copeland.

The expo will be co-located with Africa Print, FESPA Africa and Sign Africa, with its own dedicated area as there is a distinct synergy with the application of the respective products such as printed wall coverings, printed window graphics, way finding signage, Plexiglas, Perspex and other composite materials used with signage and building design.

Exhibitors will have an opportunity to share knowledge and products so that best practices can be communicated to stakeholders.

The event will focus on: architectural lighting; decorative lighting; commercial lighting, entertainment/gaming lighting and industrial lighting. Visitors to the expo will include: architects; lighting designers; commercial property owners; electrical engineers; ad agencies; the hospitality industry; casino/gaming industry and illumination professionals.

For more information, and to register online, visit: www.africalexpo.com.

Dimming at the touch of a switch

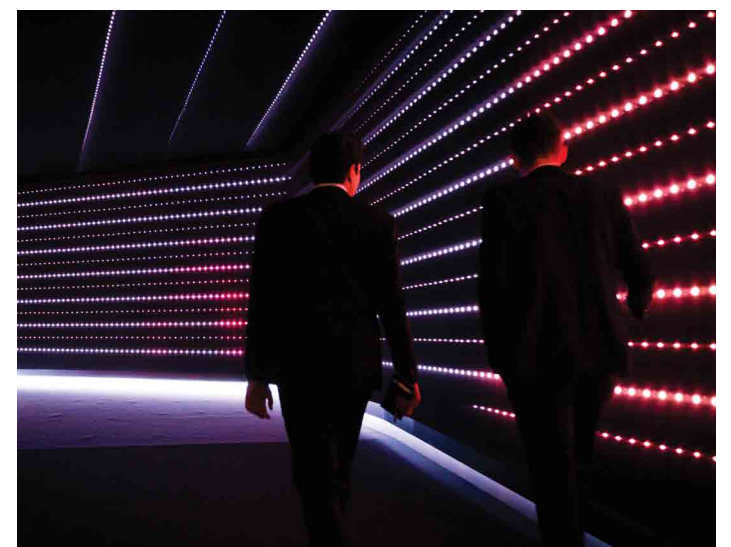
Dimmer for low voltage LED strip lights



Shuttle DC Dimmer

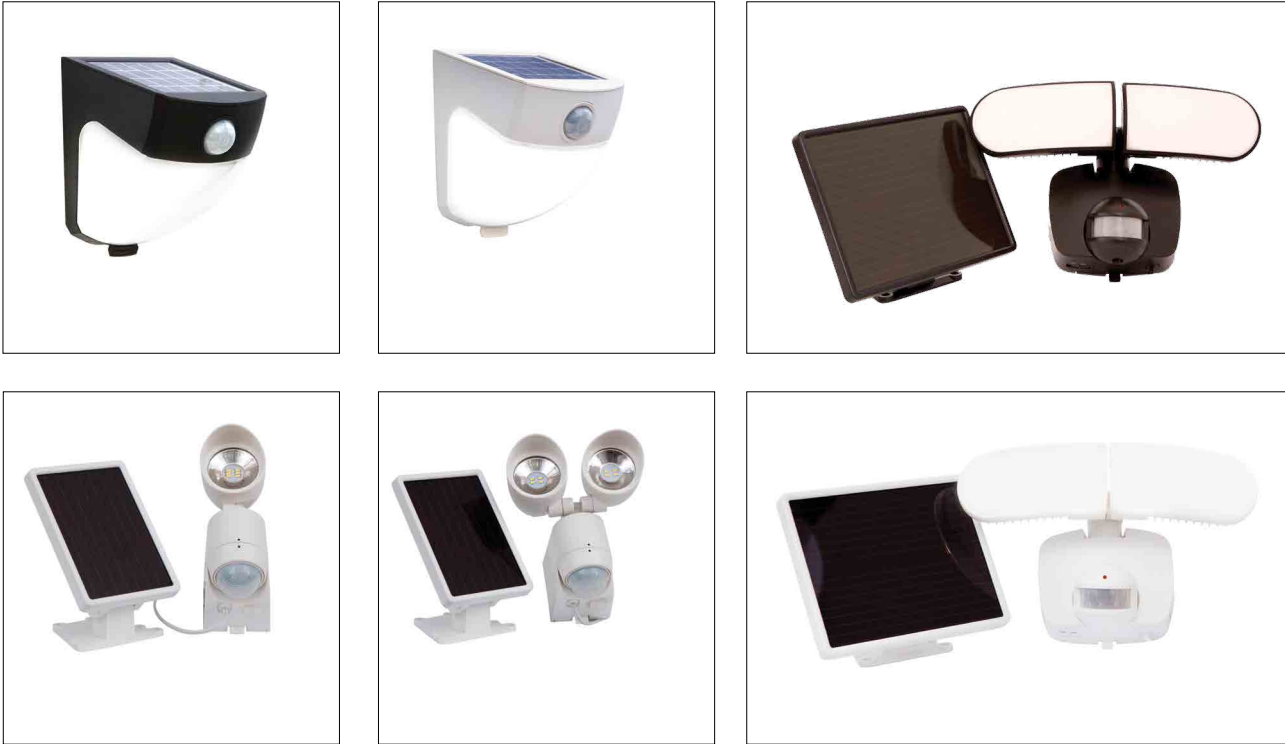
Dimming is to the lowest point with no flickering and is 100% silent.

Shuttle
www.shuttlelighting.com, T: 021 448 8229





LIGHT THE WAY WITH NEW SOLAR SECURITY LIGHTS



THERE can be little doubt that one of the most effective ways of protecting a property is with the installation of outdoor security lighting. Although it is still advisable to have other complementary methods of security in place, the mere presence of lighting is often enough to put off any would-be intruders.

Melissa Davidson of lighting supplier, The Lighting Warehouse, says: "Security products are in high demand in South Africa, and security lighting has become a must-have installation for any well-secured residential home or commercial property. However, as with most security lights, electricity is required for them to function, and any power outage would leave the lighting redundant. Unless, of course, the security lighting is powered using solar panels, which is why we now stock the range of All-Pro solar powered security

lighting." The All-Pro solar powered security light range offers several security lighting options, from a smaller 300 lumen solar powered motion sensor model, through to a 1000 lumen solar powered motion sensor floodlight. All models are equipped with motion sensors, Li-Ion battery packs, and they all come with their own solar panels.

The advantages of solar security lighting include:

- No wiring required: No electrical wiring is required, making installation quick, easy and affordable.
- It doesn't cost anything to run: You can count on lower electricity bills as the sun provides the energy required to run these lights free of charge.
- Minimal maintenance required: Maintenance

requirements are comparatively low owing to the lack of wiring and fewer fixtures.

- Maximum versatility: Lack of wiring also increases the versatility of solar security lights. They can be installed just about anywhere in the garden, as long as the panels are positioned to get maximum exposure to the sun.
- A green choice: As a renewable resource, solar power is a far more eco-friendly choice than lighting that runs using electricity.
- Safety: There's no risk of electrocution or light fittings getting too hot with solar lights. This makes them safer for use than electrical lights.

Enquiries: www.lightingwarehouse.co.za

SERIES OF ADVANCED LED_s FOR RANGE OF LIGHTING APPLICATIONS

RS COMPONENTS (RS), the trading brand of Electrocomponents plc, has announced availability of three new series of second-generation LEDs from Cree that offer higher performance with greater efficiency and longer service life. The LEDs target design engineers and are suitable for a diverse range of lighting applications including spot, street, parking, and low- and high-bay lighting.



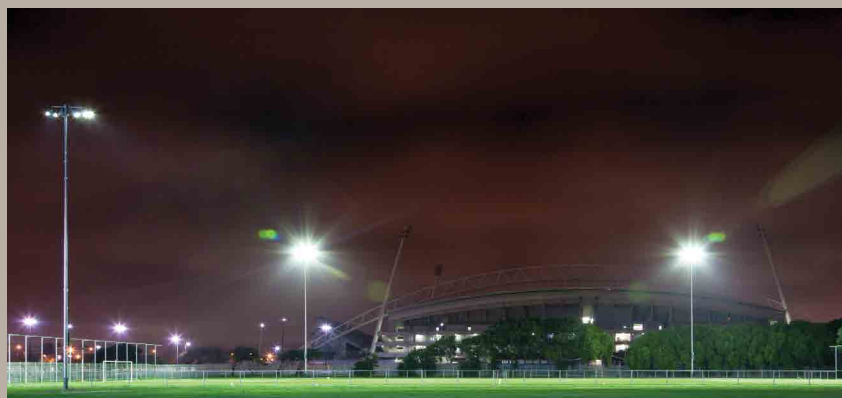
The CXA2 family of COB (chip-on-board) LEDs are multiple-die integrated arrays that deliver a high lumen output. Offering extended lifetimes of up to 60 000 hours, the LEDs deliver up to 33% higher efficiency and have the same range of packages as the previous generation of CXA devices, allowing a simple drop-in upgrade. The new range is based on the company's SC5 Technology™ platform, which delivers increased performance and enables the CXA2 LEDs to offer the same output from a smaller light emitting surface (LES) making the CXA2 COB LEDs suitable for applications including GU10s, downlights, outdoor lighting and high-bay lighting.

The XLamp XHP50.2 series of extreme high-power white LEDs delivers the highest lumen efficiency in its class. Based on Cree's SC5 Technology platform, the second generation of XHP50 LEDs offers increased lumen output and lumens per Watt, while maintaining the same compact 5 x 5mm package as the original XHP50 LEDs. This allows the rapid upgrade of existing XHP50 lighting projects as well as facilitating system cost and size reductions for new and innovative applications.

The XLamp XHP35 series of LEDs offers extreme high-power LED performance in the 3.5 mm XP footprint. Utilising Cree's SC5 Technology, the XHP35 LED provides high lumen density from a compact package with dimensions of 3.45 x 3.45 mm. Available in high-density or high-intensity options, the XLamp XHP35 series has been application optimised to enable new low-cost designs.

Enquiries: za.rs-online.com

LIGHTING UP CAPE TOWN INFORMAL SETTLEMENTS ONE STADIUM AT A TIME



One of the City of Cape Town's priorities is to provide its citizens with the best facilities possible. This extends to all communities. As part of Cape Town's commitment to all its people, various football fields have been upgraded to include a synthetic surface, in some cases, and sports field lighting, some of which is suitable for high definition television cameras.

Commissioned by the City to install large area lighting at the communities' football fields, Maritz Electrical has upgraded many of the city's community sports fields, which now offer the latest in lighting technology. According to Maritz's managing director, Kurt Maritz, not only do the fields now have adequate lighting suitable for television cameras and similar installations as used in many international arenas and sports fields across the globe, they also offer significantly reduced maintenance and energy costs and a 10-year guarantee.

The upgrades have a far-reaching and positive impact on property values too. History shows that where facilities are nearby, house prices rise, as do the values of neighbourhoods as they become sought after for residential and commercial developments.

The City of Cape Town is getting lit up one stadium at a time, and this brings technology to the people of the Western Cape. For rising sporting talent, it means facilities they require to develop the skills needed to compete for positions in top local and national teams.

In addition, some of the clubs get a 10-year warranty on the entire lighting system including lamps. This means they will incur no maintenance costs for the lighting for a decade. Lighting levels are also maintained so there is no lumen depreciation (light loss) for 10 years.

Enquiries: +27 (0)21 703 0867

AWARD-WINNING TABLE LAMP



EMPTY LIGHT by Amanda Buckley is a table lamp that encourages viewers to look directly into the shade by creating a surprising and beautiful optical illusion. It can adapt quickly and easily to the need at hand; the shade pivots and swivels on a hinge allowing it to be used in any position. With a gentle pivot it can transform from a reading or task light to an up light, or it can be angled towards a wall to provide reflected, ambient light.

Empty Light features an empty concave shade coated in a soft wash of white that reflects a hidden array of LEDs. While the shade is concave, it gives the appearance of being a flat diffused surface, creating a beautiful and surprising optical illusion.

Lighting is a ubiquitous part of our everyday environments, and often when we look at a lamp or a beautiful shade we are faced with a bare light bulb. Empty Light was inspired by this and was designed to

encourage viewers to look directly into the light. It features a conical design, a shape that is iconic within lighting design and creates an expectation of what you will find inside. This was used as an element of surprise to delight viewers when they look inside and find it empty.

The overall design is simple with subtle details as to keep the emphasis on the interior of the shade and the lighting effect. Empty Light is made of aluminium and comes in a range of colours, light grey, blue and black, and is coated with a soft-coat finish. Empty Light table lamp is part of a developing collection that includes a floor lamp and ceiling lamp. It won the Bronze Award in the 2017 European Product Design Awards in the category Illumination/ Table Lamps.

Enquiries: www.amanda-buckley.com/



HOMEGRID FORUM



Dr. Leonard Dauphinee - president



Jorge Mesquita operations manager

JB SWITCHGEAR



Blessing Nyabani trainee engineer



Joyce Hlalele receptionist

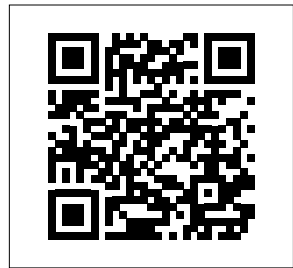
DEHN AFRICA



Hannes Ackermann managing director



Hano Oelofse technical director



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BRIGHT SPARK

THE LIFT

A lift is on the ground floor. There are four people in the lift including me. When the lift reaches first floor, one person gets out and three people get in. The lift goes up to the second floor, 2 people get out 6 people get in. It then goes to the next floor up, no-one gets out but 12 people get in. Halfway to the next floor up the lift cable snaps, it crashes to the floor. Everyone else dies in the lift. How did I survive?

AUGUST SOLUTION

Two half-full barrels are dumped into one of the empty barrels. Two more half-full barrels are dumped into another one of the empty barrels. This results in nine full barrels, three half-full barrels, and nine empty barrels. Each son gets three full barrels, one half-full barrel, and three empty barrels.

SEPTEMBER FEATURES

- MCCs and motor protection
 - Energy measurement and supply
 - Lighting
- Buyers' guide**
- Motor control centres and motor protection
- Deadlines**
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