



FEATURES

- Earthing lightning and surge protection 15
- Distribution boards, switches, sockets and protection 16-18

REGULARS

- Contractors' corner 2-14
- Buyers' guide 12-13
- Lighting 19-23
- People on the move 24

Off to WorldSkills 2015 in São Paulo, Brazil

YOUNG Jeandré van der Watt, South Africa's top electrical apprentice, jetted off to Brazil to compete against the world's best at the 43rd WorldSkills Competition held at Anhembi Parque, São Paulo, Brazil from 11 to 16 August.

Van der Watt (22), South Africa's entrant for the electrical installations category and another 20 top artisans in various fields – including IT web design, hairdressing, welding, mechatronics, mobile robotics, CNC turning and plumbing – were accompanied by their mentors, a technical delegation and WorldSkills' officials.

Van der Watt's journey to Brazil began when, after being selected to enter WorldSkills 2015, he achieved the highest percentage pass in a regional theoretical test and advanced to the national competition in Cape Town where he competed against nine contestants. After being placed in the top three, he was chosen to represent South Africa at WorldSkills 2015.

"Intense"

Since then, the preparation for WorldSkills has been "intense" says Van der Watt, who has undergone extensive training over the past few months, being primed by his mentor for the competition, Nick du Plessis, and a dedicated team of training officers.

"I did my training at SAJ Competence Training Institute and, in line with the CHIETA's regulations, I underwent trade test preparations at another training provider – namely P&T Technology – for two weeks prior to taking my Trade Test and I qualified as an electrician on 15 May," explains Van der Watt.

At P&T Technology in Germiston, the 'task example' – a replica of the work station at WorldSkills – was constructed to prepare Van der Watt for the competition. P&T Technology paid all the expenses to send Van der Watt for training in home automation.

"I am now one of only 49 people in SA to have completed the training on Programmable Logic Controllers at Siemens," he says.

Although Van der Watt admits to "long hours and little sleep", he adds that being trained by expert coaches had been "the best part" of his apprenticeship.

Send-off

The Chemical Industries Education & Training Authority (CHIETA) gave Van der Watt and Ambrosius Kamerika, the Namibian entrant, an enthusiastic send-off party at P&T Technology on 30 July, and Ayesha Itzkin, the CHIETA's acting CEO, wished them good luck.

Expert team

Van der Watt, who is employed as an apprentice at Nampak Glass, says he has "always had an interest in electricity" and admits that, as a young boy, he would dismantle his remote controlled cars and use the spares "to build all kinds of interesting creations" so the decision to become an electrician was "simple".

"I am extremely grateful for the support from my family and friends and for the expert training at



At the Chemical Industries Education & Training Authority (CHIETA) send-off celebration at P&T Technology in Germiston are: Nick du Plessis (technical expert); Ayesha Itzkin (acting CEO, CHIETA); Jeandré van der Watt (South Africa's entrant for the electrical installation category); and André Viljoen (South Africa's technical delegate at WorldSkills). Behind them is a replica of the electrical workstation in which Van der Watt will compete in Brazil.



NEW ONESTO PRODUCTS



ELSR32 - 230VAC Electronic Load Shed Relay

- Adjustable from 0,1 to 32A with internal current transformer.
- Cuts down on domestic household electricity costs by turning off non-essential items.

ONESTO WEATHERPROOF SWITCHES & SOCKETS

Available from 1 module to 6 modules.

Customise with various switch / socket modules.



FOR MORE INFORMATION VISIT OUR WEBSITE. BROUGHT TO YOU BY:

MCE ELECTRIC
www.mce.co.za

Continued on page 3

INSULOK Beware of imitations!

TRIED AND TESTED...



...ONLY HellermannTyton Insulok cable ties are

- Locally manufactured to international standards
- Designed for specific industry requirements and operating conditions
- Available in a wide range of permanent and releasable ties, in various sizes and colours

E-mail: sales.jhb@hellermann.co.za

Website: www.hellermannntyton.co.za

Johannesburg (011) 879-6620 Cape Town (021) 594-7100 Durban (031) 569-9900 Port Elizabeth (041) 408-2400

HellermannTyton

27755/ja/itika



It's time to save with Major Tech's WatchPromotion

STARTING 01 AUGUST 2015 UNTIL 30 APRIL 2016

VISIT WWW.MAJOR-TECH.COM FOR MORE PROMOTION DETAILS

Purchase any of the products from the "yellow category" and receive a MTW1 - 50M WATER RESISTANT SPORT WATCH or when you buy from the "blue category" receive a limited edition MTW2 - STAINLESS STEEL 30M WATER RESISTANT WATCH

T9 Industrial Village, Sam Green Road, Tunney Ext. 9, Elandsfontein, South Africa • Tel: 011 872 5500



FREE



NEW

LASCON C10 LED

SPACE TO ILLUMINATE

Product Features and Accessories

- High colour rendering index CRI > 80
- Colour temperature 4000K (3000K and 6500K on request)
- Small colour tolerance - MacAdam 3
- Tridonic LED module and driver
- Ambient temperature: -30...+45°C
- Self-extinguishing polycarbonate body
- UV stabilised, self-extinguishing polycarbonate diffuser with photo-engraved interior and smooth outer surface
- Anti-tamper polycarbonate snap-lock latches (stainless steel on request)
- Hingeable gear tray
- Complete with mounting accessories
- DALI and Dimmable options
- Emergency option

Applications

- Parking garages
- Cold storage facilities
- Industrial halls
- Power stations

Life/Maintenance

LED driver average rated life: 100 000 hours
LED Life: 60 000 hours @ 250mA (L70 F10, TP 65 °C)
 58 000 hours @ 350mA (L70 F10, TP 65 °C)

Contact us today for the solution that best suits you.

LASCON



facebook.com/VoltexSA | twitter.com/voltexsa



Look out for our **NEW**
 Commercial Lighting Catalogue
COMING SOON

voltex
 lighting

adding value through innovation.

For more information contact:

Cape Town **021 440 7100**

Durban **031 573 9200**

Gauteng **011 402 0251**

info@voltex.co.za or www.voltex.co.za



Personality of the Month

We learn from our mistakes so let's make lots of mistakes and learn quicker



Doug Craig.

DOUG Craig has worked at Crabtree for 41 years and is considered an 'institution' in his own right. Jovial, outgoing, down-to-earth and approachable, he is regarded as a 'people person' of the first order.

His four decades of experience at Crabtree and his willingness to share his wisdom is of immense value to the sales team, who look to him for guidance and encouragement. And, his remarkable product knowledge, accumulated over a lifetime, is valued by his colleagues and clients alike.

Sparks: Where were you educated?

DC: I was educated at Adelphi Terrace in Glasgow, Scotland.

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

DC: I've been in this industry for 41 years.

Sparks: When and where did you start your career?

DC: After leaving school, I served a five-year apprenticeship and then went into selling furniture for two years. After that I was in wholesaling for eight years before joining Crabtree in 1974 when I came to South Africa.

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

DC: The biggest change for me is the number

of switch and socket ranges on the market today compared to 20 years ago when there were only about six ranges available – and five of them were manufactured locally. Today, there are nearly 60 different ranges of switches and sockets to choose from and, although the competition is fierce, Crabtree is the only local company that does the designing, makes the tools, moulds the plastic and bends the metal to turn out a good quality product for the South African market.

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

DC: I have worked on many projects – from hospitals and shopping malls to office blocks and hotels. The one that stands out for me is the Lost City project – we went to site and were told that Crabtree had been replaced because the company could not do the colour required. I made an appointment with the interior designer and presented the Crabtree range. I showed him the specified range and another local make and, in the end, he chose Crabtree.

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

DC: Two people come to mind: Fred Hawkins who had a great selling technique; and Bill Rogers – the Crabtree design engineer, who was brilliant with motor control and all things technical.

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

DC: The biggest challenge is Eskom's lack of capacity, which is not only holding back many projects but is affecting growth in the economy.

Sparks: What do you enjoy most about your job?

DC: I really enjoy selling a product that I have full confidence in because I know it is built to last.

Sparks: How do you motivate your staff?

DC: Over the years, I have seen different styles of management and I believe that staff motivation always starts at the top.

The kind of encouragement that is being given to the Crabtree team now makes everybody enthusiastic and eager to do their best.

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

DC: I wouldn't change anything. We all make mistakes – but we learn from them so I believe we should make more mistakes and learn quicker!

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

DC: Yes. With all the power challenges we're facing, we have to reduce consumption of electricity; this, in turn, is inspiration for new technologies – and young people embrace them much quicker than the older generation does.

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

DC: Electrical contractors and engineers should remember that sales people are there to help them – so they should give them five minutes to look at the problems and come up with solutions.

Sparks: What is your favourite quote?

DC: "Think like a lazy man; He first works out the easiest

way to do the job, then proceeds."

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

DC: Three things on my bucket list are: To see Glasgow again after 41 years; to enjoy some long summer evenings in Scotland; and to get my weight down to 85 kg.



ICE LAMP



GU10 LED RETROFIT LAMPS

EN-DGU005 Dimmable

EN-GU005 Non-Dimmable



The most efficient lamp in South Africa!

- 108 Lumens per Watt
- Lowest Rand per lumen cost
- 1.5kV surge protection - GU10
- 3 year warranty

EnFiniti

EnFiniti™ edge-to-edge multifaceted polycarbonate lens creates low glare and halogen like appearance.



NEW CATALOGUE AVAILABLE

Full range of lighting essentials

T: 011 234 4878

E: info@enlitelighting.com

An AURORA Group Company

Continued from page 1

Off to WorldSkills 2015 in São Paulo, Brazil

P&T Technology, and Nick du Plessis together with his exceptional expert team for all their patience, dedication and effort in training me for this competition."

He says his personal motto is: "You have to do what others won't to achieve what they don't."

His advice to other apprentices is to have a goal. "Just keep reminding yourself of that goal every day and push yourself past your limits to keep improving and learning."

André Viljoen, South Africa's technical delegate at WorldSkills since 1995, says this year's competition has been the "biggest highlight in the history of WorldSkills South Africa". He adds the competition has been fully supported and endorsed by the Minister of Higher Education, Dr Blade Nzimande and has had "full support from Government".

The next WorldSkills competition will be held in Abu Dhabi in 2017.

At the time of going to print, the results of the competition were not known however, as soon as the results are known, they will be posted on the Sparks website.

A SAFEhouse Guide to Surge Protection

For **extra copies** contact:

Tel: (011) 396-8140
info@safehousesa.co.za

System pro E comfort
MISTRAL® series
Create your own masterpiece



Power and productivity for a better world™ **ABB**

These innovative units incorporate all you expect from ABB: Ample internal space, flexible configuration and a unified range of accessories. IP41 and IP65 ratings allow for installation in industrial, commercial and residential environments. www.abb.co.za/lowvoltage

ABB South Africa (Pty) Ltd
Tel. +27 10 202 5880
E-mail: LP@za.abb.com



Working knowledge by Terry McKenzie-Hoy

Small electric motors: what works and why

MOST electricians know that you get single-phase motors and three-phase motors. Both these types of motor rely on a 'rotating' magnetic field created by the stator (the part of the motor that is static and does not rotate), which interacts with the rotor – the part of the motor that does rotate and is integral with the shaft.

In a three-phase motor, the stator windings (three of them) are connected so that current flows first in the one winding, then in the second, then in the third, and then in the first one again

to create a magnetic field that rotates. The rotor consists of something that looks like a hamster wheel; that is to say a circular, insulated copper ring to which are attached a whole lot of bars also attached to another ring and all set into steel laminations.

The whole arrangement – excluding the steel laminations – looks just like one of those wheels that hamsters run in endlessly. Now, for some reason, this type of arrangement is called a 'squirrel cage' motor when, in fact, it should be called a

'hamster wheel' motor ... but squirrel cage it is.

Depending on how the connections in the state (stator) are arranged, the motor can be a two-pole, four-pole or six-pole motor. The no-load speed of the motor is dependent on the number of poles and is equal to $(120 \times \text{frequency} / \text{number of poles})$. Thus, a four-pole motor has a no-load speed of about 1 500 rpm. However, when the motor is delivering shaft power, it rotates at about 1 480 rpm. The percentage less than 1 500 rpm that the motor turns at load is

called the 'percent slip'. In general, most induction motors have the winding terminations brought out to the terminal box. There are six terminations: U1, V1, W1 and U2, V2, W2. Thus, from U1 to U2 is one termination, V1 to V2 another, and so on. If the motor is connected as follows: red phase to U1 and V2, white phase to V1 and W2, blue phase to W1 and U2, then the motor is regarded as being connected 'in delta'.

This connection gives maximum power. If, on the other hand, the motor is connected: red phase to U1, white phase to V1 and blue phase to W1 and U2, V2 and W2 all connected together, then the motor is regarded as being connected 'in star'.

In 'star', a reduced voltage is applied across the windings and so the motor does not draw as much current from the mains as in 'delta'.

Using switchgear, one can cause the motor to start in 'star' and switch over to 'delta'. This reduces the starting current from the supply. The direction in which the motor turns is dependent on the mains connection. If you have the motor spinning in one direction and you change any two phases over, then the motor will turn in the other direction.

Just about all small electric motors are rated (in South Africa) as S1 duty. This means they will deliver full load power continually. There are motors in America for which this is not the case. Motors in South Africa are also generally rated as IP 55, which means they can operate in a dusty environment and with the application of water jets. This implies that the motor is pretty much fully enclosed. The motor has to be cooled and, thus, at one end of the motor there is a fan that draws in air over the casing. These motors are often referred to as TEFC motors or 'totally enclosed fan cooled'.

For this reason, one should always provide a path for air to travel over the motor. The manufacturers can advise on this. A very important thing to remember is that motor manufacturers have been making motors for many years and they know what works. Sometimes large industrial plants have their own specifications and they try to change the way the motor manufacturers make motors. It is very unwise to do this.

It is much better to just specify the shaft power, the speed, the voltage, the type of mounting and let the supplier do the rest.

New business leader appointed



Riaan Olivier has been appointed as the Head of South African Business for Stanley Black & Decker (SBD). The company has recently expanded its corporate presence in South Africa.



MINI RAIL DISTRIBUTION BOARD, CIRCUIT BREAKERS, EARTH LEAKAGES, ISOLATORS & SURGE PROTECTION

NEW 13mm SCHENKER MINI CIRCUIT BREAKERS



New!

- MINI Rail
- Available in 1 pole, 2 pole, 1 pole+neutral, and 3 pole in **3kA**
 - 1A to 63A
- Available in 1 pole 2 pole & 3 pole in **6kA**
- Voltage Rating 240/415VAC - 50/60Hz

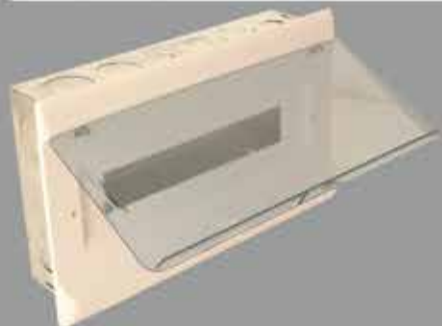
NEW D CURVE 13mm CIRCUIT BREAKERS



New!

- MINI Rail
- Available in 1 pole, 2 pole and 3 pole
- 6A to 63A
- Available in **6kA C CURVE**

SCHENKER DISTRIBUTION BOARDS



- Available from 4 WAY to 24 WAY
- Available in surface and flush
- Adjustable flush mounting distribution boards available



MINI RAIL SURGE ARRESTORS

- Available in 1 pole, 2 pole, 3 pole & 4 pole
- Available in **10kA, 20kA, 40kA & 60kA**



MINI RAIL ISOLATORS

- Available in 1 pole, 2 pole, 3 pole & 4 pole
- 32A to 125A
- To automatically open a circuit in the event of an earth leakage

BROUGHT TO YOU BY:



MCE JHB (Head Office)
97 Turffontein Road
Stafford Ext 2
• Tel: +27 (0) 11 683 0641
• Fax: +27 (0) 11 683 1799
• Email: salesjhb@mce.co.za

MCE PTA
129 Fusie Street
Silvertondale Ext 2
• Tel: +27 (0) 12 804 6005
• Fax: +27 (0) 12 804 5478
• Email: salespta@mce.co.za

MCE DBN
Unit 6, 2 Corobrick Rd,
Riverhorse Valley
• Tel: +27 (0) 31 569 4846
• Fax: +27 (0) 31 569 4811
• Email: salesdbn@mce.co.za

www.mce.co.za

Looking for quality and affordability?

Safe, affordable Easy9 Residential Miniature Circuit Breaker range now available at authorised Schneider Electric distributors.

The new Easy9 range better supports your business, helping you to save time and offers better quality to your customers:

- Guaranteed compliance to IEC and SANS standards
- Availability when and where you look for it
- High reliability at a price you can afford
- Protection from electric shocks, overloads, short circuits and power surges

Get more out of your day with the Easy9 range.



Watch our Easy9 video today

and stand a chance to WIN a FREE Mobiya Portable solar LED lighting system.
Terms & Conditions apply

Visit www.SEreply.com Key Code 58132p

www.schneider-electric.co.za

Schneider
Electric



Getting to grips with SANS 10142-1 by Hannes Beard

A nightmare on Maxwell Drive

SOUTH Africa is trash. If it was a contract, it wouldn't be worth the paper it's written on. Being employed in the electrical industry, it grates me to not have a hot meal when I arrive home after a long day's slog. After all, I paid good money for the electrical installation and the mandatory Certificate of Compliance.

I'm in my bakkie, driving through the outskirts of Sandton. I stop in front of an enormous complex with an equally enormous totem pole declaring this complex as being 'Megawatt Park'. I get out of my

bakkie; get into my overalls; and don my hard hat, reflective vest and safety shoes. I dig in my toolbox. Out comes a pocket reference. I have a serious safety moment and toolbox talk with myself. I identify an emergency place of assembly and use my shirt sleeve to polish the fire extinguisher and green cross decals on the canopy window. I look around to see if there are any immediate safety and health risks – ah! Loud traffic! Out come the ear plugs ... everything goes silent. I walk over to my bakkie ... not being able to hear properly, it feels as though

I'm disconnected from the real world. I carefully untie the ladder. I dig in the toolbox again and find the latest small tool inspection certificate neatly in a flipchart together with my first aid certificate and other relevant documents. I look around to make sure I'm not going to knock someone unconscious when I take the ladder from the regulation type roof rack. I place the ladder up against the totem pole and secure it. I go back to the bakkie and return with some funny kind of blue paint. I take the regulation paintbrush and open the can of paint bearing a

SABS mark of approval. I cross out 'Mega' and insert 'Milli'. The totem pole now reads 'Milliwatt Park'. I stand back to admire my handiwork ... right in front of a huge truck! I toss and turn ... I fly... Ouch!

I fall right out of bed, onto the floor. Soaking wet from what has been a terrible nightmare ... I lie there and slowly it all comes back to me ... A sigh of relief passes my lips as I realise South Africa is not trash. There is still good around and my electrical life is governed by a world class piece of legislation, namely the Occupational Health and Safety Act (Act 85 of 1993).

I get back into bed, comforted by the thought of all the good around. If only the people would appreciate it, behave like professionals and not hooligans that ride roughshod over everything legislative. After all, laws are enacted by Parliament. The Minister can get on with writing his regulations that govern my daily life and make it a little more structured ... and there are enough regulations, believe me.

Let's have a look at what the Occupational Health and Safety Act (our own world-class legislation) has to say about it in Section 43.

43. Regulations.

(1) The Minister may make regulations –
 (a) As to any matter, which in terms of this Act, shall or may be prescribed;
 (b) Which, in the opinion of the Minister, are necessary or expedient in the interests of the health and safety of persons at work or the health and safety of persons in connection with the use of plant or machinery, or the protection of persons other than persons at work against risks to health and safety arising from or connected with the activities of persons at work, including regulations as to ...

(c) As to the preventive and protective measures for major hazard installations with a view to the protection of employees and the public against the risk of major incidents;
 (d) As to the registration of premises where employees perform any work or where plant or machinery is used and the fee payable to the State in respect of such registration;
 (e) Whereby provision is made for the continuation of any registration under this Act;
 (f) As to the registration of plant and machinery and the fee payable to the State in respect of such registration;
 (g) As to the establishment of one or more committees for the administration of a provision of the regulations, the constitution of such committees, the functions of such committees, the procedure to be followed at meetings of such committees, the allowances which may be paid to members of such committees from money appropriated by Parliament for such purpose and the person by whom such allowances shall be fixed;

Unfortunately this is all we have for now. We will explore the rest of Section 43 a little later.

Sleep with your eyes wide open until we meet next time.

Real Bosch!

FlexiClick offers professionals maximum flexibility



The GSR 18 V-EC FC2 Professional cordless drill driver brings a fitting 13mm drill chuck, compact off-centre, angle and SDS Plus hammer attachment with. This makes the FlexiClick the most versatile cordless drill driver system on the market. Applications range from classical screwdriving applications through to drilling in wood, metal and even up to 10mm in concrete using the tool and matching SDS Plus adapter. FlexiClick - Five tools in One.

www.bosch-professional.com



Bosch Professional Power Tools SA



BoschPro_SA



BOSCH
Invented for life

A link to your Wireman's License



Phone +27 11 827 4113 or go to:
http://www.crown.co.za/sparks_electrical_news.htm
 and click on the P & T Technology logo.

Behind Living. Behind Life.

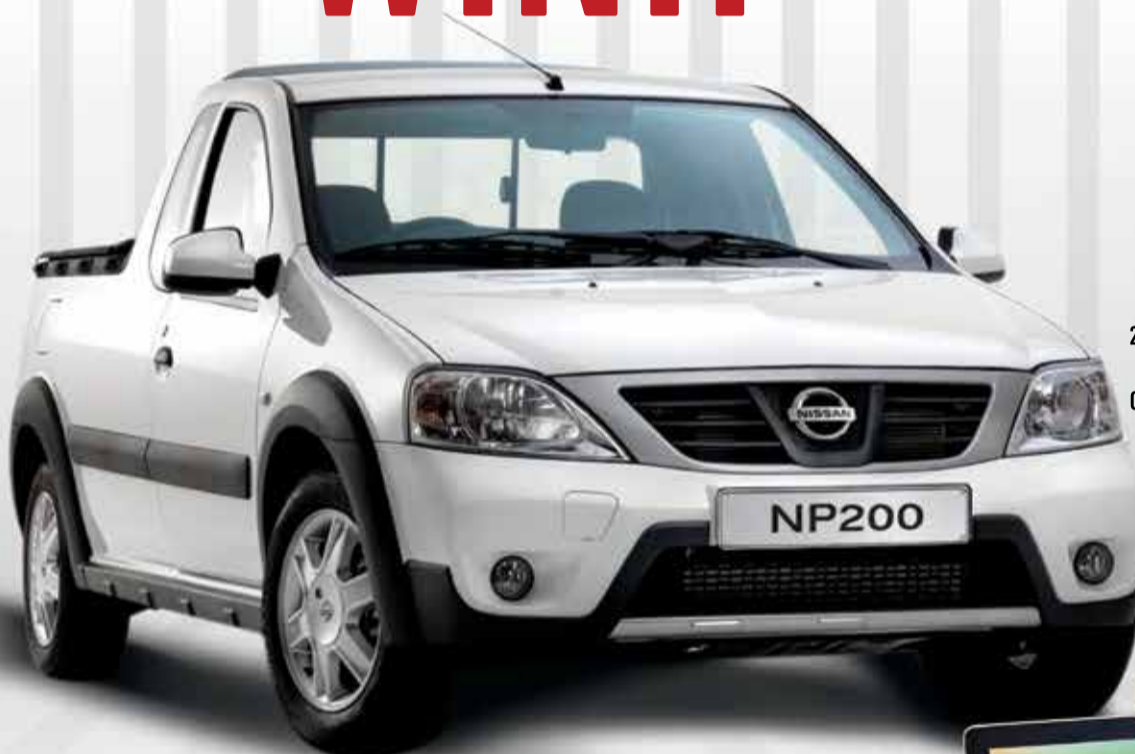
Switch to the "Crabtree.Clique"

Purchase any Crabtree product and stand a chance to

★ ★ ★ ★ **WIN!!** ★ ★ ★ ★



3 PER DAY
UP FOR GRABS
200 limited Edition sleeveless
Crabtree branded jackets
to be won!



2 GRAND PRIZES
UP FOR GRABS
2 x Crabtree branded Nissan
NP200 bakkie's including
Crabtree products & Canopy

2 PER WEEK
UP FOR GRABS
24 Huawei 10" Tablets
to be won!



Step 1

Purchase any Crabtree product from your favourite wholesaler and stand a chance to win!



Step 2

Send a copy of your receipt PLUS your name, phone number and contractors registration number to us! You can do this by completing an entry form in store at your favourite wholesaler OR by uploading it on www.crabtreeclique.co.za



Step 3

Congratulations you're in the draw.



Step 4

Remember : the more you enter, the more chances you have in the draw! See the winners a



Supporting, enabling and assisting electrical contractors to grow their business
Visit www.crabtreeclique.co.za for terms and conditions



Driven by **Powertech**

Competition runs from 1st September – 30th November 2015

Technical expertise impresses visitors



Voltex exhibited at two recent shows – the travelling Mining and Technical Exhibitions – held at the Tweefontein Golf Club and the Landau Recreation Centre in Mpumalanga. Representing Voltex are: Pieter Groenewald (Impact Energy); Nicholas Strydom (Voltex Witbank); Johan Hattingh (Voltex LSIS); Denzil Iyavoo (Voltex Witbank); and Steve Lea (Phambili Interface). The Mining and Technical Exhibitions showcase innovative products and energy solutions for the mining and industrial sectors and attracted industry professionals and commercial contractors. Energy efficiency was high on visitors' agendas and LED products attracted a lot of interest. Contingency measures for alternative energy also drew many visitors to the Voltex stand, which showcased commercial generators amongst other innovative power generation solutions. Visitors were impressed by the broad range of innovative energy efficient products and the Voltex teams' technical expertise contributed to the positive leads generated at the show and existing client relationships were strengthened.

Enquiries: +27 11 879 2000

Heavy-duty tasks made simple and safe



THE new GWS grinders from Bosch Industrial Power Tools SA offer maximum safety and productivity over an extended time says senior brand manager, Juergen Lauer. He says the new GWS grinders "are superior to predecessor models" due to their improved productivity and user protection.

"The GWS 13-125 CI or CIE and GWS 17-125 CI or CIE models boast powerful 1 300 and 1 700 W motors respectively and are well equipped with additional safety features. A soft-start feature reduces the start-up torque to protect the motor, while constant electronic technology keeps the selected speed constant and optimises cut quality," he explains.

"To further improve control and lower user fatigue, an anti-vibration auxiliary handle reduces vibration by 40%. To minimise threat of injury caused by dangerous tool kickback, the innovative 'KickBack Stop' safety feature is prompted by microprocessor triggers in the event of a disk jam," he says, adding that user safety is enhanced by 'restart protection' that prevents uncontrolled start-up after power interruption, and by a burst-proof blade guard with tool-free adjustment.

The CI models are best suited to heavy-duty applications, such as cutting steel pipes and profiles, while the CIE models are suitable for working on materials that include concrete, stone and tile. Both incorporate variable speed pre-selection, allowing the user to match working speed to the material.

Enquiries: +27 11 651 9600

Professional laminated labels for electricians and cable installers

- Backlit easy-to-read LCD display
- Uses 6,9,12,18 & 24mm TZe laminated tapes
- Rugged and durable protective hand grip
- Easy label creation for electrical symbols
- Create DB board label templates
- Cable wrapping capability
- PC connectivity via USB cable



Visit www.brother.co.za to view our full product range.
print • copy • scan • fax • label...and sew much more



ECA(SA) Presidential Awards – call for entries

THE ECA(SA) invites its members to enter the prestigious annual Presidential Excellence Awards, which celebrates quality, outstanding workmanship and professionalism within South Africa's electrical industry.

This year, awards will be conferred in the following categories:

- Installation of the Year: Retail
- Installation of the Year: Shopping Centres.
- Installation of the Year: Office Blocks and Hotels.
- Installation of the Year: Industrial.
- Best Contributor to Energy Efficiency.
- Reticulation Contractor of the Year
- Apprentice of the Year (male)
- Apprentice of the Year (female).
- Woman-owned Business of the Year
- Regional Excellence Award
- ECA Employee of the Year award

Florence Mabena, executive secretary for the ECA(SA)'s national marketing committee, says that members are invited to enter as many categories as they would like to and may enter more than one project in any one category. Members are also invited to nominate and motivate entries for candidates in the categories 'Apprentice of the Year' and 'Woman-owned Business of the Year'.

She says that the ECA(SA) uses the awards to promote the industry and the calibre of its members and that award winners have the right to include the description 'ECA(SA) Award Winner' in their promotional material.

The awards will be presented at a formal banquet on 5 November 2015 at a venue that is still to be confirmed.

For detailed information about the ECA(SA) Presidential Excellence Awards, email Florence Mabena at Florence@ecasa.co.za

Enquiries: +2 11 392 0000

Which surge protection products can you trust?



Looks can be deceiving, expensive – and deadly

There are many products claiming to provide protection of expensive assets against power surges. Some, perhaps many, will not do the job, which will only be discovered when it's too late.

And some are dangerous too*

It is impossible for a buyer to assess these products' capabilities from appearances and, mostly, only an expert will be able to identify shortcomings when the product is opened up.

The **SAFEhouse guide**** to surge protection gives you some information which could help you avoid expensive or dangerous mistakes.

*Regrettably, a quirk of the regulations allows a period of grace for suppliers to meet a changed specification and to continue selling a product if the supplier holds a certificate of compliance with the old specification, even if the old specification lacks a vital safety feature.

** On our website or on request by email

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



The SAFEhouse code of conduct includes:

- To offer only products that are safe
- To advise customers if any of their sold products fail this undertaking
- To recall unsafe products
- To replace unsafe products or render them safe

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

For more information contact:

Pierre Nothard Cell: 083 414 4980

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

www.safehousesa.co.za





ECA News by Mark Mfikoe, national director of the Electrical Contractors' Association of South Africa

Registration of electrical contractors: the impact of Regulation 6

A summary of a paper delivered at the Department of Labour's Electrical Safety Indaba in June

THE Electrical Contractors' Association of South Africa owes its existence to the Labour Relations Act (LRA) as far as its certificate of registration is concerned – and represents electrical contractors in this country.

These contractors can only legitimately be called electrical contractors

if they satisfy the requirements of Regulation 6 of the Electrical Installation Regulations of 2009, which are promulgated under Section 43 of the Occupational Health and Safety Act of 1993 (OHS).

The Department of Labour (DoL) is a custodian of the Labour Relations Act and the OHS Act – so the ECA(SA) also owes its existence to the DoL.

It is the ECA(SA)'s intention to work with the DoL to achieve the

intention of the law in the promotion of health and safety.

As the DoL is considering submissions with a view to revising the Regulations, my focus is on the Electrical Installation Regulations (2009) (EIR), and the implications for safety.

Regulation 6 states:

- 1 No person may do electrical installation work as an electrical contractor unless that person has been registered as an electrical contractor in terms of this regulation.
- 2 Any person who does electrical installation work as an electrical contractor shall register annually in the form of Annexure 3 with the chief inspector or a person appointed by the chief inspector.
- 3 Such application shall be accompanied by a fee.
- 4 The chief inspector or a person nominated by the chief inspector shall register any person referred to in subregulation (1) as an electrical contractor and enter such regulation into the national database: Provided that such person –
 - (a) has a fixed address and a telephone number.
 - (b) employs a registered person in a fulltime capacity or is himself a registered person.

Annexure 3 clearly states that it derives its authority from Regulation 6(2), which provides for an annual registration of contractors. Regulation 12 in relation to Electrical Contractors states that the chief inspector may withdraw the approval issued to an electrical contractor if such a contractor no longer complies with the provisions of Regulation 6(4).

Let's look at South Africa today and ask: Have these regulations allowed only that which is permissible and removed all that is in conflict

with its prescripts?

Regulation 6(1)

A team at the National Bargaining Council for the Electrical Industry (NBEISA), Popularly known as the Crack Team, has been carrying out inspections at construction sites.

In Gauteng alone, this team has found more than 80 contractors operating in violation of Regulation 6(1) as well as 1 235 employees who were employed outside of the regulations and outside of the NBCEISA benefit structures.

Clearly non-compliance with Regulation 6(1) and did not stop these people from operating.

Regulation 6(2)

Regulation 6(2) dictates an annual registration and regulation 6(3) specifies an annual fee.

However, when this Regulation 6(3) fee has been paid three times, you get a tri-annual registration; and on paying it twice, you get a bi-annual registration.

I have consulted all interpretations of statutes but cannot find an interpretation that allows for this practice.

According to law, contractors must register annually and I cannot find any authoritative document that has officially amended these regulations.

To assume that all labour will stay with one contractor for three years is risky. Annual registration gives the DoL one opportunity per year to inspect application documents and verify compliance with Regulation 6(4).

The only regulated opportunity for intervention is in terms of the Draft National Register of Artisans Regulations of 2015 in terms of the Skills Development Act, 1998 (Act 97 of 1998). Regulation 5 states that the

Director General of the Department of Higher Education may deregister an artisan.

If such artisan was the registered person, thus helping the contractor satisfy the requirements of Regulation 6(4), there would be an opportunity for deregistration. Such hope fades a bit when you realise there is neither regulated conduit nor obligation on the part of the DG to communicate such findings to the Chief Inspector.

Regulation 6(4)

Once the registration of the contractor database is approved, all will be well. It is continuous monitoring during the 'life' of such registration that poses a challenge. I don't know how practical it would be, over a three year period, for the Chief inspector to establish continued compliance with Regulation 6(4) to ensure that the powers placed upon the Chief inspector in terms of Regulation 12(a) are exercised.

The presence of a Registered Person for purposes of registration is a requirement of statute. A three-year interval of verification is too long and must be reviewed. It is the consumer and the public that must be put first. Expedience of administration should not compromise a safety regulation.

I would even call for an increase in the number of Registered Persons per contractor and link a proposed change with the Construction Industry Development Board (CIDB) rating of contractors – you cannot do an electrical installation of a project like Woodmead Shopping Centre with only one registered person.

Safety dictates that we should define the bottom line by the amount of lives we have saved and not by the amount of money in the bank.

Stone-Stamcor
bringing power to your product

Insulated Terminals

JHB: 011 452 1415 | DBN: 031 304 9757 | CT: 021 511 8143
www.stonestamcor.co.za

KNIPEX PREMIUM QUALITY PLIERS, CRIMPERS & TOOLS SINCE 1882
www.knipex.com

wiha PREMIUM QUALITY SCREWDRIVERS & HEX KEYS SINCE 1939
www.wiha.com

EXECUTIVE PREMIUM QUALITY TOOLKITS

IREGA PREMIUM QUALITY SHIFTING SPANNERS
www.irega.es

RE PREMIUM QUALITY CHISELS, PUNCHES & SDS BITS
www.reminsteig.com

GARRY LUMPE 18 PARTS
TEL: 0861 237770

Award-winning vibration meter

FOR the second year in a row, the Industrial Designers Society of America (IDSA) has honoured the industrial design team at Fluke Corporation with an International Design Excellence Award (IDEA), the premier international competition honouring design excellence in products, ecodesign, interaction design, packaging, strategy, research, and concepts.

The Fluke team won a Bronze Award in the Commercial and Industrial Products category for its work on the Fluke 805 Vibration Meter.

The 805 Vibration Meter is an easy-to-use tool for technicians performing preventative bearing inspections. The user simply presses the sensor tip against the motor housing. The 805 teaches the user how to get an accurate reading by calculating how hard it

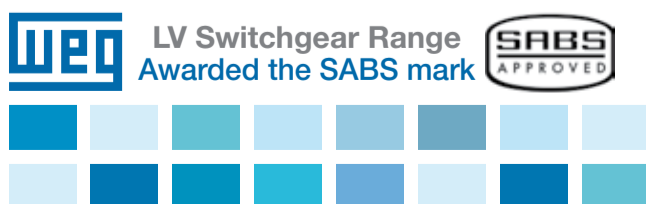
is being pressed against a motor. When the user applies the correct force, a ring around the handle lights up: green for 'ready to measure' and red for 'try again'.

"Precision vibration analysis is a science requiring complex equipment and know-how, so the challenge in designing the 805 was to create a handheld tool that dramatically simplifies the measurement process," said Matthew Marzynski, industrial design manager for Fluke Corp. "By designing an interface that makes measurement taking and interpreting the results easy, we created a product that anyone on the maintenance crew can use successfully."

Enquiries: +27 11 608 8520



PROVEN RELIABILITY AND READILY AVAILABLE SWITCHGEAR TO MEET ALL YOUR NEEDS



ZEST
WEG Group

www.zest.co.za
+27 11 723 6000



Medium Voltage Power **cables** you can trust

Aberdare Cables, a leading cable manufacturer since 1946, brings you medium voltage electric cable of the highest standard in quality, safety and reliability.

Paper insulated lead covered (PILC) cables and cross-linked polyethylene (XLPE) cables are used in many electrical distribution and reticulation applications including:

- Municipal distribution
- Mining (special construction with water blocking as well as flame retardency for shaft installations available)
- Petrochemical industry
- Wind farms

181A Barbara Road, Elandsfontein, Gauteng P.O. Box 1679, Edenvale, Gauteng 1610, South Africa
 Tel +27 (0)11 396 8000 Fax +27 (0)11 396 8010 www.aberdare.co.za



ABERDARE
CABLES

Driven by Powertech 

Manufacturers

ABB SA
ACDC Dynamics
Allbro Industries
CBI-electric : low voltage
Crabtree Electrical Accessories
HellermannTyton
JB Switchgear Solutions
Legrand SA
NewElec
Power Panels and Electrical
Power Process Systems
Radiant Group
Sabelco Electrical Industries
SRE Developments
Schneider Electric

Distributors

ACDC Dynamics
ACTOM Electrical Products
Allbro Industries
ARB Electrical Wholesalers
Atlas Group
Bellco
Electrahertz
Elen Electrical Enclosures
Eurolux
HellermannTyton
Magnet Electrical Suppliers
Major Tech
MCE Global Suppliers
Phambili
PMCG
R&C Instrumentation
Riken SA
SRE Developments
Stone Stamcor
Voltex
Voltex LSis
Voltex MVLV
Waco

Protection

ABB
 Full range of protection devices
ACDC Dynamics
 Full range of motor protection circuit breakers (MPCBs) from 32 A to 110 A frame high break capacity; all accessories and auxiliary contacts available including the Gewiss IEC309 HP range of connectors
ACTOM Electrical Products
 Full range of protection devices
ARB Electrical Wholesalers
 Full range of protection devices
Atlas Group
 Full range of protection devices
Bellco
 Full range of protection devices
CBI-electric : low voltage
 Full range of quality low voltage electrical distribution, protection and control equipment
Electrahertz
 Full range of protection devices
HellermannTyton
 Full range of heat shrink protection
Legrand SA
 Complete range of protection devices
Magnet Electrical Suppliers
 Schneider and Eaton protection devices
NewElec
 LV 3-phase motor protection products for fans, pumps, compressors, crushers and conveyor motors
PMCG
 Full range of protection devices
Power Process Systems
 Full range of protection devices
R&C Instrumentation
 Infrared inspection windows; 24-7 differential temperature monitoring, inside v outside boards
Riken
 Overload protection – thermal (Riken, CE), overload protection electronic
SRE Developments
 Distributor of protection devices
Voltex
 Full range of protection devices
Voltex LSis
 Full range of protection devices

Fuses

ABB SA
 Full range of fuses
ACDC Dynamics
 BS and DIN type fuses for fused isolators
ACTOM Electrical Products
 Full range of fuses
ARB Electrical Wholesalers
 Full range of fuses
Bellco
 Full range of fuses
Electrahertz
 Full range of fuses
Legrand SA
 HRC, domestic and industrial fuses
Magnet Electrical Suppliers
 Full range of fuses
MCE Global Suppliers
 MCE fuses and fuse holders; Onesto fuses and fuse holders
PMCG
 Full range of fuses
Power Process Systems
 Full range of fuses
Radiant Group
 Range of fuses
Riken
 10 x 38 mm cylindrical fuses, 2 A to 16 A (CE) in line fuses – 4 A glass (CE)
SRE Developments
 Distributor of fuses
Voltex
 Full range of fuses
Waco
 Full range of fuses

Contact

ABB
 Paul Louw
ACDC Dynamics
 Sara Ross
ACTOM Electrical Products
 Russell Ramsden
Allbro Industries
 John Allan
ARB Electrical Wholesalers
 Arvinash Ramdas
Atlas Group
 Annie Storar
Bellco
 Fred Wilson
CBI-electric : low voltage
 Aletta Olivier
Crabtree Electrical Accessories
 Sales
Electrahertz
 Frank Proude
Elen Electrical Enclosures
 Andy Kapral
Eurolux
 Andrew Wex
HellermannTyton
 Sales
JB Switchgear Solutions
 Thomas Theodoulou
Legrand SA
 Johan Bosch
Magnet Electrical Suppliers
 Kevin Govender
Major Tech
 Werner Grobbelaar
MCE Global Suppliers
 Sales
NewElec
 Luc Dutrieux
O-line
 Sales
Phambili
 Alex Lockyer
Phoenix Contact
 Dereck Styane
PMCG
 Hannes Schwartz/Colin Laubscher
Power Panels and Electrical
 Andy van der Merwe
Power Process Systems
 Joyce Toth
R&C Instrumentation
 Steve Edwards
Radiant Group
 Ashveer Lalla
Riken SA
 Hartley Greger
Sabelco Electrical Industries
 Ludi Erasmus
Schneider Electric
 Nico van der Merwe
SRE Developments
 Cheryl Hird
Stone Stamcor
 Theo Momphe
Voltex
 Hugh Ward
Voltex LSis
 Gary Paterson
Voltex MVLV
 Sales
Waco Industries
 Jaco Coetzee

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
CBI-electric : low voltage
 Full range of contactors, overload relays and motor starters
Electrahertz
 Full range of contactors
Legrand SA
 Contactors up to 310 A
Magnet Electrical Suppliers
 Schneider and Eaton contactors
MCE Global Suppliers
 MCE contactors in three-pole and four-pole
PMCG
 Full range of contactors
Power Panels and Electrical
 Full range of contactors; Schneider; ABB
Power Process Systems
 Full range of contactors
Riken
 Riken contactors – 12 A up to 400 A, CE contactors – 9 A up to 630 A
SRE Developments
 Distributor of contactors
Voltex
 Full range of contactors
Voltex LSis
 Full range of contactors
Waco
 Full range of contactors

Other

Elen Electrical Enclosures
 Enclosures and cabinets, compression cable glands, panel ventilation fans and cooling units, vortex tube panel coolers, thermoelectric panel coolers, resistance heaters

Distribution boards

ABB SA
 Full range of DBs
ACDC Dynamics
 Wide range of DBs in various materials; economy plastic to steel; pre-wired and open boxes; surface and flush mount boxes available in most ranges; watertight enclosures
ACTOM Electrical Products
 Full range of DBs
Allbro Industries
 Full range of DBs
ARB Electrical Wholesalers
 Full range of DBs
Atlas Group
 Full range of DBs
Bellco
 Full range of DBs
CBI-electric : low voltage
 Steel and plastic cover DBs
Crabtree Electrical Accessories
 Full range of DBs
Electrahertz
 Full range of DBs
Elen Electrical Enclosures
 Range of enclosures by Schneider Electric Universal Enclosures (SAREL)
Eurolux
 Wide range of Eurolux DBs
JB Switchgear Solutions
 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 Global Suppliers
 MCE distribution boards IP41 to IP65, surface- and flush-mount from two-way to 52-way
PMCG
 Full range of DBs
Power Panels and Electrical
 Full range of DBs: Prisma; Panelmaster; Gersan
Power Process Systems
 Full range of DBs
R&C Instrumentation
 Infrared inspection windows, 24-7 differential temperature monitoring, inside and outside boards
Riken
 Flush mount – plastic and metal
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
Schneider Electric
 4-Series flush and surface DBs, power range
SRE Developments
 Distributor of DBs
Voltex
 Full range of DBs
Voltex LSis
 Full range of DBs
Voltex MVLV
 Full range of DBs
Waco
 Full range of DBs

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
Allbro Industries
 Full range of timers
ARB Electrical Wholesalers
 Full range of timers
Atlas Group
 Full range of timers
Bellco
 Full range of timers
CBI-electric : low voltage
 Standard electronic time switches and energy control units
Electrahertz
 Full range of timers
Eurolux
 Range of Eurolux timers
HellermannTyton
 Full range of timers
Legrand SA
 Complete range of analogue and digital timers
Magnet Electrical Suppliers
 Schneider and Eaton timers
Major Tech
 Full range of programmable timers MTD3 – 24-hour programmable timer; MTD5 – weekly programmable timer; MTD7 and MTD9 – 18 on/off digital programmable timer; MTD12 – 12-hour on/off digital programmable timer; MTD2 and MTD4 – 24-hour analogue industrial timer and MTD8 – 8 on/off digital industrial programmable timer
MCE Global Suppliers
 MCE time switches; digital geyser time switch; Schenker mini rail; digital geyser time switch
PMCG
 Full range of timers
Power Process Systems
 Full range of timers
Radiant Group
 06SW2 range of lighting and geyser timers
Riken
 Electronic timers (Riken), time switches – electromechanical and digital (CE)
Schneider Electric
 4-Series programmable digital and analogue timers, DIN rail timers
SRE Developments
 Manufacturer of timers
Stone-Stamcor
 SAIA-Burgess timers
Voltex
 Full range of timers
Waco
 Full range of timers

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 Industries
 Full range of DB enclosures
ARB Electrical Wholesalers
 Full range of DB enclosures
Atlas Group
 Full range of DB enclosures
Bellco
 Full range of DB enclosures
CBI-electric : low voltage
 12-way and 20-way DB enclosures
Crabtree Electrical Supplies
 Full range of DB enclosures
Electrahertz
 Full range of DB enclosures
Elen Electrical Enclosures
 Range of enclosures by Schneider Electric Universal Enclosures (SAREL)
Eurolux
 Wide range of Eurolux DBs
HellermannTyton
 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 Global Suppliers
 MCE plastic enclosures; mild steel enclosures; stainless steel enclosures
PMCG
 Full range of DB enclosures
Power Panels and Electrical
 Full range of DB enclosures: Prisma; EAE; Gersan
Power Process Systems
 Full range of DB enclosures
R&C Instrumentation
 Infrared inspection windows
Riken
 DB enclosures designed and manufactured to all specifications
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
SRE Developments
 Distributor of DB enclosures
Voltex
 Full range of DB enclosures
Voltex LSis
 Full range of DB enclosures
Waco
 Full range of DB enclosures

Circuit breakers / earth leakage breakers

ABB
 Full range of circuit breakers, earth leakage breakers
ACDC Dynamics
 Full range of switchgear from 13 mm MCBs to MCCBs and ACBs; MCCBs rated from 20 A to 1 600 A; complementary isolator and earth leakage ranges also available
ACTOM Electrical Products
 Full range of circuit breakers/earth leakage breakers
ARB Electrical Wholesalers
 Full range of circuit breakers/earth leakage breakers
Atlas Group
 Full range of circuit breakers/earth leakage breakers
Bellco
 Full range of circuit breakers/earth leakage breakers
CBI-electric : low voltage
 Full range of low voltage circuit breakers and earth leakage units – MCBs, MCCBs, ACBs, CBE
Crabtree Electrical Accessories
 Full range of circuit breakers and earth leakage breakers
Electrahertz
 Full range of circuit breakers and earth leakage breakers
Eurolux
 CHINT breakers
Legrand SA
 Full range of circuit breakers up to 6 300 A
Magnet Electrical Suppliers
 Schneider and Eaton circuit breaks and earth leakage breakers
Major Tech
 VETI 3 – 3 kA MCB series (one-pole to four-pole); VETI 6 – 6 kA MCB series (one-pole to four-pole); VETI EL – earth leakage series (two-pole and four-pole); VETI IS – isolator series (one-pole to four-pole)
MCE Global Suppliers
 Onesto DIN rail circuit breakers and earth leakage devices; Schenker mini rail circuit breakers and earth leakage devices; Schenker 13 mm circuit breakers
PMCG
 Full range of circuit breakers and earth leakage breakers
Power Panels and Electrical
 Full range of circuit breakers and earth leakage breakers: ABB; Schneider; Siemens; Legrand; Chint
Power Process Systems
 Full range of circuit breakers/earth leakage breakers
Riken SA
 3 kA, 6 kA DIN miniature circuit breakers: 1 A up to 100 A, moulded case circuit breakers, isolators – 32 A up to 1 250 A, earth leakage units DIN mount 25 A to 63 A
Schneider Electric
 4-series miniature circuit breakers, 4 series earth leakage circuit breakers with and without overload protection, 4 series power range DIN rail
SRE Developments
 Distributor of circuit breakers and earth leakage breakers
Voltex
 Full range of circuit breakers, earth leakage breakers
Voltex LSis
 Full range of circuit breakers, earth leakage breakers
Waco
 Full range of circuit breakers, earth leakage breakers

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

Allbro Industries
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

CBI-electric : low voltage
Full range of low voltage switch disconnectors

Crabtree Electrical Accessories
Full range of switches/isolators

Electrahertz
Full range of switches and isolators

Eurolux
Wide range of Eurolux switches and 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 Global Suppliers
Onesto isolators; Schenker isolators; MCE surface-mount isolators; changeover switches

PMCG
Full range of switches and isolators

Power Process Systems
Full range of switches/isolators

Riken
Rotary switches – 10 A to 400 A, bypass switches up to 1 250 A, change over switches load break isolators

Schneider Electric
Full range of switches/isolators

SRE Developments
Distributor of switches and isolators

Voltex
Full range of switches and isolators

Waco
Full range of switches and isolators

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

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

Electrahertz
Full range of surge protection devices

Eurolux
Range of CHINT surge protection

HellermannTyton
Full range of surge protection devices

Legrand SA
Full range of surge protectors

Magnet Electrical Suppliers
Schneider and Phoenix Contact surge protection devices

Major Tech
MTD6 – appliance surge protector

MCE Global Suppliers
Onesto surge arresters; Schenker surge arresters

PMCG
Full range of surge protection devices

Power Panels and Electrical
Full range of surge protection devices: Surgetek; NTE

Power Process Systems
Full range of surge protection devices

Riken
8kA on lighting arresters

Schneider Electric
Full range of surge protection devices

SRE Developments
Distributor of surge protection devices

Voltex
Full range of surge protection devices

Waco
Full range of surge protection devices

Disclaimer: Information will be published as supplied. Only distributors and manufacturers who meet the deadline are included in the guide. The onus is on distributors and manufacturers to ensure that the editor is notified of any changes to existing listings.
Email: sparks@crowm.co.za

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

CBI-electric : low voltage
Class I electricity rain mount meters – single- and three-phase alternatives in DIN and mini rail

Electrahertz
Full range of meters

Eurolux
Variety of Eurolux multimeters

HellermannTyton
Full range of test instruments

Legrand SA
Lexic DIN rail mount

Magnet Electrical Suppliers
Schneider and Power Star meters

MCE Global Suppliers
Onesto kWh meter

PMCG
Full range of meters

Power Process Systems
Full range of meters

Riken
Ammeters, voltmeters, running hour meters, frequency meters

Voltex
Full range of meters

Waco
Full range of meters

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

Electrahertz
Full range of products for hazardous areas

Elen Electrical Enclosures
Assembled, tested and certified to Eex'e (increased safety), Eex'l (intrinsic safety)

Eurolux
Comprehensive range of hazardous area lighting

Magnet Electrical Suppliers
ATX products for hazardous areas

Major Tech
Major Tech stocks a range of tripod-mounted fully enclosed floodlights available in halogen, energy saving and LED models

MCE Global Suppliers
MCE fireman switches

Phambili
Full range of products for hazardous areas

Power Process Systems
Full range of products for hazardous areas

R&C Instrumentation
IS certified infrared thermometers

Voltex
Full range of products for hazardous areas

Voltex LSis
Full range of products for hazardous areas

Labeling

ARB Electrical Wholesalers
Full range of labeling products

Atlas Group
Full range of labelling products

Bellco
Full range of labelling products

Electrahertz
Full range of labelling products

HellermannTyton
Full range of labelling product

Legrand SA
Cable markers CAB3 and Memocab

Magnet Electrical Suppliers
Brady labelling products

MCE Global Suppliers
DB label book (self-adhesive)

Phambili
Full range of labelling products

PMCG
Full range of labeling products

Power Process Systems
Full range of labeling products

Stone Stamcor
Brady identification systems

Voltex
Full range of labeling products

 **Stone-Stamcor**
Bringing Power to your Product
+27 11 452 1415

 **ACDC DYNAMICS**
+27 10 202 3300

 **ABB**
+27 10 202 5000

 **MCE ELECTRIC**
+27 11 683 0641

 **MAJOR TECH**
08 61 62 5678

 **ARB Electrical Wholesalers (Pty) Ltd.**
+27 31 910 0200

 **Crabtree**
Driven by Powertech
+27 11 874 7600

 **Schneider Electric**
+27 11 254 6400

 **PPS**
POWER PROCESS SYSTEMS
+27 11 494 3550

 **S.W. PRODUCTS**
+27 11 615 7193

 **ABERDARE CABLES**
Driven by Powertech
+27 11 396 8000

 **HellermannTyton**
+27 11 879 6600

 **voltex**
your electrical connection
+27 11 879 2000



People, Innovation and Value Added Services

WITH an essential and continuous focus on people, Aberdare Cables has shown great commitment towards its BBBEE obligations says Keith Edmond, CEO of Aberdare Cables. "Aberdare Cables, a Level 2 contributor, acknowledges that transformation is an ongoing strategic enabler and measures have been put in place to ensure that we can continue to support the merit of empowerment."

He says this commitment yields great benefits for Aberdare's business, its customers and the industry at large "and allows us to realise strategic objectives, re-energise leadership, improve operational efficiency and effectiveness and enhance customer experience".

"In the face of shifting market conditions and the need to maintain a competitive standing, Aberdare Cables continues to innovate and tailor product offerings.

Aberdare Cables is a customer solution provider and with our high standard of technical expertise, we are well-positioned to enhance and adjust our portfolio and services accordingly," says Edmond.

Some of Aberdare's latest product innovations include:

- Transport cables – diesel and electric locomotives (PRASA, Transnet).
- SaferDac – a product enhancement to the standard CNE Airdac.
- Renewable energy cables – Solardac; Windac; and Solarflex .

Edmond explains that Aberdare Cables has also recently extended its offering to engineering services, which comprises four aspects:

Cable fault location

When cable insulation has deteriorated to a degree that a breakdown occurs (allowing a surge of current to ground) the cable is referred to as a faulted cable and the position of maximum leakage may be considered a catastrophic insulation failure. During cable fault location, we will pinpoint the exact position of this fault.

Testing and commissioning

It is standard procedure to over voltage test the cable before re-energising. This is done to assess the integrity of the cable insulation, cable accessories and the workmanship in order to eliminate any possible ongoing failures.

Cable diagnostics testing

The prior steps are enough to re-energise the cable and restore the power supply to customers or plants. However, the question now is how long the installation will last. To answer that question, further testing is required,

namely tan-delta and partial discharge testing. These tests will form part of a SANS 10198 Part 13 requirement for the installation of all MV cables.

Cable accessories and repairs

Once the approximate location of the fault is determined, the following step is to excavate and repair. The repair often requires a piece of similar cable and two joint kits. The jointing is done by skilled jointers who are trained and declared competent by EWSETA registered assessors. The process is concluded by refilling the excavated

area and by completing the re-instatement. "The Aberdare strategy focuses on the company's core competencies of cabling solutions and customer support, underpinned by its strengths of people, innovation and quality; this allows us to materialise our company vision," says Edmond, adding, "While remaining true to the core of our strategy, Aberdare Cables will adapt to changing circumstances by seeking alternative opportunities and adjusting focus to continue being a customer solution provider."

Enquiries: +27 11 396 8000

New generation contactors save energy and space

THE new generation of WEG contactors has been engineered to facilitate energy savings as well as the optimisation of space within electric panels. These environmentally friendly devices use only non-toxic and eco-friendly materials.

Designed using WEG technology and in-house software modelling programmes, the WEG CWB range of contactors has been engineered to accommodate surge suppressors directly in the device. This is not only a space saving feature, but also allows easy access for maintenance or replacement. Another important feature is that coil replacement can be accomplished without the need for any tools making this a simple and time saving task.

Energy savings are achieved through the low consumption of the coils used in the WEG CWB contactors and these also allow direct switching from PLCs without the need for interface relays. This facilitates both space and cost savings for the end-user.

Developed by WEG's R&D department in Brazil, all devices in the WEG CWB contactor range meet the IEC 60947 and UL 508 international specifications. The range has been specifically designed to accommodate electric motors up

to 18.5 kW at 380/415 V (AC-3).

These contactors are ideal for applications where the majority of the motor starters in an electrical panel are direct online, forward reverse or star delta. The seamless integration between the WEG CWB range of contactors, overload relays and motor protection circuit breakers allows fast and easy assembly of compact starters and protection sets for low voltage motors. These modular devices offer a wide variety of combinations allowing greater flexibility.

The WEG CWB range of contactors affords customer a high level of flexibility owing to the modular design which will also reduce manufacturing time. It is complemented by a full range of accessories including auxiliary contacts, spare coils and wiring kits.

Enquiries: +27 11 723 6000



The new generation of WEG contactors has been engineered to facilitate energy savings as well as the optimisation of space within electric panels.

The Affordable UPS

Designed to handle Africa's harshest conditions



PowerMan started manufacturing UPS's in South Africa in 1984. Users have depended on our units for mission-critical applications in the computer, industrial and medical environments over the past 30 years.

PowerMan specialises in long run time units for home and office environments. Solar ready UPS's are also available.

PowerMan also offers the following services

- On-site maintenance to most makes of UPS's
- Preventative maintenance contracts

Tel: 0861 444 445
Fax: (011) 794 7435
www.powerman.co.za

POWERMAN
ESTD 1984
UPS

New metering offer to simplify southern Africa's power quality

SCHNEIDER Electric has announced the local introduction of the PowerLogic PM8000 series power meter. The newest addition to the PowerLogic portfolio of power and energy meters introduces power quality compliance and analyses capabilities that were once reserved for more advanced meters.

In accordance with power quality standards IEC 61000-4-30 Class S and IEC 62586, the PowerLogic PM8000 series meters are ideal for helping to ensure contractual obligations for the quality of your electrical supply.

The meters also have extensive power quality analysis capabilities, such as EN 50160 compliance, sag/ swell detection, waveform capture, disturbance direction detection, and trending and forecasting, to help facility managers detect, mitigate and correct adverse conditions.

Power quality monitoring is crucial for power-critical facilities like hospitals, data centres, and large manufacturers. Schneider Electric designed the PM8000 series to aid with both PQ compliance monitoring and analysis. Data accuracy is assured to IEC 61000-4-30 Class S and IEC 62586 standards when verifying contractual supply levels. If a PQ event does occur, the patented

disturbance direction detection feature helps identify the location by determining if it occurred upstream or downstream of the meter, so correcting the problem is much faster.

Engineered on a compact, modular and flexible platform, the PowerLogic PM8000 series meters have the versatility to perform nearly any metering job at key points throughout a facility. The highly-accurate, reliable meters are compliant with ANSI C12.20 Class 0.2, IEC 62053-22 Class 0.2S (real energy), and IEC 61557-12.

"This accuracy combined with the meter's extensive I/O options makes the PM8000 series meters ideal for the unified metering of all WAGES (water, air, gas, electricity, and steam) utilities. Meters are locally available in both

panel-mount and DIN rail-mount form factors, and boast high-visibility colour displays," points out Nathan Potgieter, Eco offer manager for southern Africa at Schneider Electric.

The PowerLogic PM8000 series meters are built on the company's patented ION technology platform. "Not only does the meter provide useful preconfigured functions 'out of the box', but customers familiar with this technology know that it can be used to adapt and scale the meter's functionality to meet nearly any requirement they have – both now and in the future," he adds.

Enquiries: +27 11 254 6400



ADD Electrical
ARB Wholesalers

DOWNLOAD THE
ARB ELECTRICAL TOOLKIT
APP TODAY!



CONVERSION
TOOLS



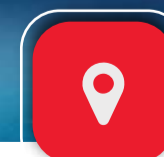
CABLE
GUIDES



MOTOR/
TRANSFORMER



ELECTRICAL
FACTS



BRANCH
FINDER



LATEST
SPECIALS

www.arb.co.za/our-app

Mark Palmer – Electrical Approved Inspection Authority Southern Africa (EAIASA)

Fuse boards in residential installations – the end of the line?

I AM – as I am sure many Registered Persons are – faced with the predicament: When is the life of a residential fuse board officially over? This predicament arises particularly when Certificates of Compliance are required to be issued when properties containing fixed electrical installations are sold.

When looking at the current Regulations, it is clear under sub-regulation (1) that “every user or lessor of an electrical installation, as the case may be, shall have a valid Certificate of Compliance for that installation”.

In addition the following is also applicable:

Sub regulation (1) shall not apply to an electrical installation that existed prior to 23 October 1992, and where there was no change of ownership after 1 March 1994: Provided that, if any addition or alteration is effected to such an electrical installation, the user or lessor of the electrical installation, as the case may be, shall obtain a Certificate of Compliance for the whole electrical installation, where after the provisions of sub regulation (1) shall

be applicable to such electrical installation.

The important issue here is if any addition or alteration has been effected to the electrical installation. In simple terms, therefore, if an electrical installation existed before 23/10/1992, and the electrical installation is exactly as it was back then, then no CoC would be required by that user. What is not made clear in the Regulations, however, is that responsibility for the safety of the electrical installation still rests with the “user or lessor”.

Although this regulation addresses the “user or lessor” of an electrical installation, the intention of the legislature was to place the responsibility for the safety, safe use and maintenance on the owner of such electrical installation. However, whenever any addition or alteration is made to this electrical installation, then a CoC would be required for the entire electrical installation. It is, in fact, these very “additions or alterations”, wherein the dilemma lies. What is defined as an “addition or alteration”? These

terms are not defined in the Regulations but, in looking for some guidance here, it is imperative that any addition or alteration be regarded as electrical installation work that has taken place to the electrical installation.

The Regulations, in turn, do provide a definition of this “electrical installation work” meaning:

- (a) The installation, extension, modification or repair of an electrical installation;
- (b) The connection of machinery at the supply terminals of such machinery; or
- (e) The inspection, testing and verification of electrical installations for the purpose of issuing a Certificate of Compliance.

For purposes of this discussion I would like to deal with item (a) above only. It is clear from the above definition that the extension, modification or repair of an electrical installation is regarded as “installation” work and, therefore, deemed to be an “addition or alteration” to an electrical installation. The important parts of the definition, which are often missed, are the references to “modification” and “repair”.

Having discussed the legal aspects then, which require clarification, I would like to look at a scenario where a fuse board exists. The property containing the fuse board has been sold and the Registered Person is now required to issue a CoC. Furthermore, it is also ascertained during the inspection that original socket outlets (as installed at time of construction) have been changed to newer socket outlets covered in the SANS 164-1 or SANS 164-2 specifications.

The immediate requirement in referring to the testing requirements detailed in SANS 10142-1 is that “in the case of installations that existed before the publication of this edition of this part of SANS 10142, the installation complies with the general safety principles of this edition of this part of SANS 10142 and is reasonably safe”.

One of the general safety principles referred to is the requirement for earth leakage protection for socket outlets (Amendment 8). The immediate question now is: where is the earth leakage device being called for going to be installed?

One cannot, for example, just fix it to the wooden base to which the fuse board had been installed. This equipment is designed for use in a distribution board and the requirements of Section 10(1) of the Occupational Health and Safety Act 85 of 1993 must also be complied with. Reference is also made “properly used” in the CoC, which means: *Used with reasonable care, and with due regard to any information, instruction or advice supplied by the designer, manufacturer, importer, seller or supplier.* In addition thereto, the addition of this equipment is also now regarded as an “alteration or addition”.

The changing of the socket outlets themselves is also regarded as an “alteration or addition” and the entire fuse board now becomes questionable.

One also needs to look at the safety requirements detailed in SANS 10142-1, in particular, protection where the use of fuses in the final circuits of residential installations is not permitted. So, can this fuse board be allowed to continue to exist in such an electrical installation? My opinion is definitely not!

There are a number of other safety issues that need consideration: Can the user or lessor safely

deal with the replacement of the required fuse wire?

The replacement of the correct size fuse wire is a danger (meaning anything which may cause injury or damage to persons or property) that the user has neither the ability nor understanding of in terms of the protection of the circuit. It further would require a user to engage a Registered Person to replace such fuse wire each time that such wire required replacement as this would be regarded as “installation work” in terms of the provisions of the EIR 2009. This would be an undue duty imposed on the user and would not be “reasonably practicable”. Furthermore, such fuse wire is not readily available for these purposes. The duty to determine the danger, hazard and risk with respect to the electrical installation falls to the Registered Person (as the employer or self-employed person) as defined in terms of the provisions of the EIR 2009 and to remove or mitigate such danger.

The final issue worth mentioning here is the duty imposed on the Registered Person in light of the danger detailed above, which is more specifically prescribed in the Occupational Health and Safety Act 85 of 1993 applicable to self-employed persons:

General duties of employers and self-employed persons to persons other than their employees

Every employer shall conduct his undertaking in such a manner as to ensure, as far as is reasonably practicable, that persons other than those in his employment who may be directly affected by his activities are not thereby exposed to hazards to their health or safety.

Every self-employed person shall conduct his undertaking in such a manner as to ensure, as far as is reasonably practicable, that he and other persons who may be directly affected by his activities are not thereby exposed to hazards to their health or safety.

Furthermore, the above Section requires that the actions of the self-employed person be “reasonably practicable”, which means: practicable having regard to:

- The severity and scope of the hazard or risk concerned;
- The state of knowledge reasonably available concerning that hazard or risk and of any means of removing or mitigating that hazard or risk;
- The availability and suitability of means to remove or mitigate that hazard or risk; and
- The cost of removing or mitigating that hazard or risk in relation to the benefits deriving therefrom.

As Registered Persons, therefore, it must be understood that it is not possible to fall back entirely to older standards applicable to electrical installations at the time of construction, as safety regulations promulgated after such construction will take precedence when certification is done. In referring to this aspect again I would highlight the requirements of the Electrical Installation Regulations 2009 and the incorporated SANS 10142-1: “... an electrical installation which existed prior to the publication of the current edition of the health and safety standard incorporated into these Regulations in terms of regulation 5(1), complies with the general safety principles of such standard.”

Lightning impulse current laboratory upgraded



DEHN's newly upgraded impulse current laboratory, based in Neumarkt Germany, is the most powerful of its kind anywhere in the world.

The extremely high lightning currents, which may occur in the event of direct lightning strikes, are the primary source of lightning damage to structures as well as electrical devices and systems. To prove the effectiveness of protection measures, it is often necessary to perform lightning current tests on complete systems. The newly designed test laboratory generates extremely high lightning currents with a peak value up to 400 kA in the standardised 10/350 µs test wave form. This powerful test laboratory allows for the testing of lightning protection systems for installations and systems requiring maximum protection.

The performance of the test laboratory has been doubled so that lightning impulse currents twice as high as that required for the maximum lightning protection level (LPL I: 200 kA (10/350 µs)) described in the latest IEC 62305-1 lightning protection standard, can now be simulated. With its powerful test laboratory for simulating such high lightning currents,

DEHN once again underlines its leading position in the fields of lightning and surge protection.

The test centre consists of five different laboratories, extending over a floor space of 800 m². It is equipped with the latest devices and technologies essential for developing new products and practical solutions.

The DEHN test centre offers the following services:

- Testing of surge protective devices (SPDs) according to IEC 61643-11, IEC 61643-21 and UL 1449.
- Testing of surge protective devices (SPDs) used in photovoltaic systems according to EN 50539-11.
- Testing of external lightning protection components according to IEC 62561.
- High-voltage testing with lightning impulses according to IEC 60060-1.
- Complete lightning current tests for low-voltage distribution boards according to IEC 62305-1, IEC 62305-4 and IEC 61643-12.
- A surge immunity test according to IEC 61000-4-5.
- A surge immunity test for telecommunication systems according to ITU-T and CCITT.

- Lightning current tests for wind turbines, photovoltaic systems and cell sites according to IEC 62305-1 and IEC 61400-24.
- Functional testing for low-voltage switchgear installations according to IEC 60947.

The test centre allows DEHN to develop and distribute market-oriented, top-quality products and solutions based on national and international safety standards. DEHN is represented locally by DEHN Africa.

Enquiries: +27 11 704 1487



Surge arrester to protect against induced lightning surges

SALTEK's SLP-275 V/1+1 is a Class 2 combined varistor-based surge arrester and an encapsulated spark gap connected in the 1+1 circuit mode. The surge arrester is designed for installation in single phase low-voltage distribution boards and switchgear installations at the boundary of LPZ 1 and LPZ 2 Zones. The surge arrester protects equipment against the over-voltage effects induced during a lightning strike and switching surges.

The varistor module used between phase and neutral is designed to withstand a peak surge current of 40 kA (8/20) and to limit the voltage to less than 1.25 kV. The gapped arrester used

to protect the neutral is designed to withstand peak surge currents of 40 kA (8/20) and limit the voltage to less than 1.25 kV.

All units are DIN rail mounting and the modules are keyed to ensure that live and neutral modules are not interchanged by accident. In addition, the modules are clearly colour coded to ensure easy identification.

If required, an optional remote status signalling feature is available in addition to the visual fault signal which is indicated in the glass window.

Saltek is represented locally by Surgetek.

Enquiries: +27 11 792 1303

Celebrating 30 years of success in SA



Pierre Nothard (chairman, SAFEhouse Association), Johan Bosch (general manager, Legrand) and Gian Campetti (consultant) at the celebration of the 30th anniversary of Legrand South Africa. The company hosted a function for customers, architects, contractors, consultants and interior designers, as well as friends from the media. A highlight of the event was the announcement of Legrand's new general manager, Johan Bosch.

LEGRAND, a leading manufacturer of products and systems for electrical and digital building infrastructures, opened a South African subsidiary in Johannesburg 30 years ago.

"Legrand's environmentally approach to constantly changing global markets, encompasses ongoing technological developments of the company's extensive product portfolio. Energy efficiency, quality power supply, optimum safety and enhanced aesthetics are critical in the advancement of all Legrand systems," says Johan Bosch, general manager, Legrand SA. "The company has made a substantial investment in research, development and design, to adapt products specifically to the South African market.

"Many products in Legrand's range have been awarded SABS certification. This mark enhances quality systems like IEC and ISO 9001, to give users the pledge that products have been manufactured in accordance with stringent specifications, in terms of design, development, production, installation and servicing.

"Legrand's extensive range features innovative systems to meet exact user demands, also allowing for simple and efficient installation and modification."

The latest trend in the development of new systems - including lighting and motion management systems - is to make industrial, commercial and domestic buildings more energy efficient. There is also an important focus in South Africa on enhanced safety. New Legrand CCTV solutions, emergency lighting devices, home automation solutions and video door entry systems have recently been launched to the local market.

Legrand systems include power distribution, switches and sockets, residential and lighting management components, cable management and structured cabling, as well as connection products. These flexible systems provide solutions in installations in residential, hospitality, office, retail and educational environments. Products and systems are also designed for data centres and industrial applications.

The company benefits from the Group's ongoing research and development programme and close international ties give the local operation the edge on product design, selection, cost efficiency, safety and reliability of equipment.

Enquiries: +27 11 444 7971

DBs, junction boxes and enclosures for contractors

MAJOR Tech offers high quality flame retardant electrical enclosures including DIN rail distribution boards, a range of different sized IP55 junction boxes and an array of IP65 weatherproof enclosures.

"The entire range of enclosures has CE accreditation and has been tested to IEC standards to ensure that standards meet Major Tech's quality assurance and Major Tech's policy of quality at an affordable price," says Rodhan Evans, VETI manager.

The DIN rail distribution boards are available in two different designs, which include a robust IP65 surface-mount offer intended for outdoor usage or where strength is a pre-requirement; and an elegant IP20 flush-mount and surface-mount offer intended for indoor usage where aesthetics and ease-of-use are paramount, says Evans.

All distribution boards are supplied with a removable earth / neutral bar, an adjustable DIN rail to ensure straight installation and multiple knock-outs in different shapes and sizes located on the top, bottom, sides, and back of the DBs to ensure that all installation types are catered for.

The IP20 flush mount offer is available with either a sturdy ABS tray or a galvanised steel tray. The galvanised steel offer is supplied with wire mesh spot welded to the back for increased fixing support.

The range of IP55 junction boxes range from 50 mm x 50 mm round boxes up to 400 mm x 350 mm x 120 mm depending on the installer's specific requirements. The junction boxes are available with rubber glands or standard 20 mm knock-outs depending on the preference for the installation.

The IP65 weatherproof enclosures are completely sealed with a rubber lining and tight ABS screws to ensure that no ingress of any foreign object is possible when installed.

The offer is available in a smoky translucent finish to allow one to see into the box once installed; and in solid ABS plastic where one



can't see inside the box to prevent damage from sunlight or to hide the contents of the box.

"Veti enclosures are a simple, smart and cost-effective solution to any installation," says Evans

Enquiries: +27 11 872 5500

Compact modular vacuum switchgear for MV networks

SCHNEIDER Electric has introduced its new Premset architecture, now up to 17.5 kV, to southern African utilities looking to improve availability and safety, while still remaining flexible and modular.

According to Canninah Mapena, director of the energy division at Schneider Electric South Africa, the compact modular vacuum switchgear, a next generation of medium voltage (MV) switchgear, is a new way to design, install, and operate MV networks.

"With three-in-one breaking-disconnecting-earthing functions, it also features smart-grid functionality and a distributed architecture for easy installation, operation and scalability. It is so compact it fits in any environment," she says.

Mapena adds that with its shielded solid insulation (2SIS) the risk of internal arc is reduced. She also highlights that the intelligent electronic devices used in the Premset system have been designed to optimise substation performance.

"Based on standard communications protocol, they have a plug-and-play scanning system for easy configuration," she says.

Because it has been designed for the smart grid, the Premset switchgear enables greater efficiency through advanced monitoring and control. It helps ensure peak network performance in several ways, including feeder automation with built-in communication



and local intelligence, load management with integrated smart metering, assets management with the advanced monitoring of switchgear, and the use of standard communication protocols.

"Premset's smart grid embedded features are improving the management of today's networks and are anticipating the future, more severe requirements of grid-management regulations," says Mapena.

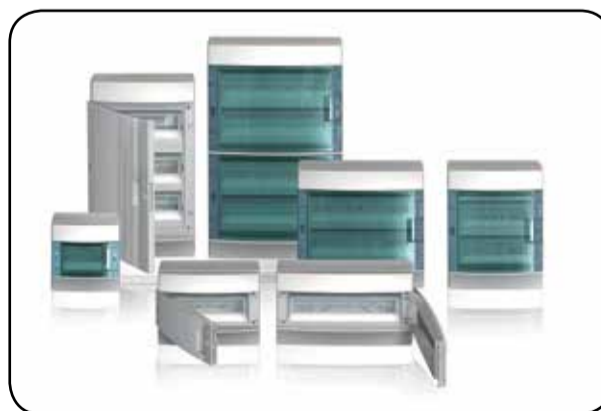
Enquiries: +27 11 254 6400

Innovative enclosure range offers easy installation

THE introduction of ABB's System pro E Mistral range of consumer enclosures is set to change the local enclosure marketplace says ABB's Etienne Delpont, general manager DIN rail products and enclosures.

"This enclosure provides the flexibility to allow its use in most kinds of electrical distribution environments - commercial, domestic or industrial - and offers a versatile, efficient and safe solution to electrical engineers, contractors and installation owners," he says.

"System pro E Mistral offers fast and easy installation due to features from ample internal space to allowing fast and easy cabling that is enhanced the by provision of cable ties' anchor eyeholes. Furthermore, various snap-op terminal blocks that are



Elements of ABB's System Pro E Comfort Mistral range.

separately colour-coded can be installed in both the upper and lower sections of the unit. These terminal blocks form part of an extensive range of accessories," he explains.

"Elegance, form and function are all integral to the Mistral's design philosophy. This is evident in features such as perfect symmetry, allowing for the rotation of

either the front panel or the entire unit allowing for door opening to be from either left or right.

"To facilitate use and service, the door opens a full 180° and can be opaque or transparent," says Delpont, adding that the enclosures are offered as flush, in-wall or wall-mounted products and all share recyclable thermoplastic construction.

Coupled with this installation flexibility the series offers either IP41 or IP66 ratings, determined by the selected configuration.

"The Mistral range reflects ABB's approach to innovation, where we embrace a long-term perspective through the use of eco-compatible materials for our products; from manufacture to disposal, protection of the environment has been considered. The System pro E range and been assessed for environmental compatibility using the life cycle assessment (LCA) methodology and has shown to comply with best practice," concludes Delpont.

Enquiries: +27 10 202 5600

S.W. PRODUCTS



Wide variety of products including busbars

- Outstanding quality, competitively priced
- Locally manufactured using virgin SA copper
- Operating for over 50 years
- Made to SABS specification
- Approved lugs for PRASA
- Made to customer specifications

Contact:
Jacques Smit
Tel: (011) 615-7193
Cell: 060 995 9642
jacques@swproducts.co.za

AVAILABLE
NATIONWIDE*

COMPACT, TIME-SAVING
LABELLING FOR ON-THE-GO PROS.

Get labelling jobs done fast and done right!

DYMO



The new DYMO® Rhino™ 4200 gets labelling jobs done fast and done right.

- **Easy to navigate computer-style Qwerty keyboard**
 - Quick and comfortable text entry.
- **One-Touch: Hot Keys™ - a DYMO exclusive**
 - Shortcut keys for creating and formatting wire/cable wraps, flags, Code 39 and Code 128 barcodes, fixed length, general and breaker labels.
- **Industrial-strength labelling versatility**
 - Print 6mm, 12mm and 19mm wide labels in a variety of materials and colours **PLUS** print directly on heat-shrink tubes.
- **NEW "Favorites" key**
 - Single-key access to your most commonly used labels, symbols and terms.
- **NEW "Custom" key prevents needless repetition**
 - Customise and save settings for individual label formats.

*Lead times may apply.

Contact us today for more info.

facebook.com/VoltexSA | twitter.com/voltexsa



voltex
your electrical connection

SAFE
HOUSE
Support you can trust

www.voltex.co.za
info@voltex.co.za

Proudly
Bidvest

Test leads with advanced safety features



THE new ultra-rugged Fluke TL 175 TwistGuard™ Test Leads feature a manually adjustable guard. The patented TwistGuard extendable tip shroud meets the highest electrical safety requirements to reduce tip exposure while providing the versatility needed for most measurements. Simply twisting the test lead cuts the exposed probe tip length from 19 to 4 mm. Extra-heavy duty strain relief on both probe-end and plug-end has, remarkably, tested beyond 30 000 bends without failure. WearGuard double-insulated silicone leads ensure additional safety as each lead has two silicone insulation layers: red or black on the outside and white inside. Any white showing through warns of nicks or scuffs in the insulation. The double insulation also means they can withstand high temperatures and remain flexible in cold temperatures. The leads are CAT II 1 000 V (extended) or CAT III 1 000 V and CAT IV 600 V safety rated (retracted). Universal input plugs are compatible with all instruments that accept standard 4 mm shrouded banana plugs.

Enquiries: +27 10 595 1821

Affordable, compact imaging IR thermometer launched



THE new TG165 Imaging IR Thermometer from FLIR Systems is a powerful, affordable, compact tool that lets the user see invisible heat patterns, meas-

ure temperatures accurately, and conveniently store images and measurement data for reporting.

Built around Flir's exclusive Lepton micro thermal imaging camera core, the TG165 eliminates the blind guesswork of troubleshooting by combining a single spot IR thermometer with the power of a thermal camera in a rugged, compact package anyone can use. This unique combination of technologies speeds troubleshooting, making it easy to find invisible hot and cold spots from a safe distance so you can investigate and solve problems quickly.

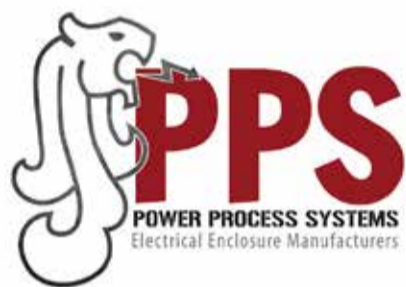
Fast and easy to use, the TG165 lets you get right to work with no training required. Its dual lasers visually mark the edges of what is being measured and the cross hairs pinpoint the centre point of the measurement area. The TG165 is designed to withstand a two-metre drop, making it rugged enough for industrial professionals while offering the simplicity valued by first-time users.

"The TG165 bridges the gap between current generation IR thermometers that offer no imaging capability, and Flir's market-leading thermal cameras," said Flir president and CEO, Andy Teich.

"By leveraging our new Lepton core's revolutionary price, size and low power consumption, the TG165 transforms one of the most commonly used measurement tools into a discovery device that gives facility maintenance workers, contractors, electricians and HVAC technicians greater capability to solve heating and electrical issues quickly and safely."

The TG165 is available at popular industrial test equipment retailers in markets around the world from early October. For more information, please visit www.flir.com/tg165

Enquiries: +27 82 255 3962



Cape Town
T +27 21 845 4108
73 Sabax Road Aeroton Johannesburg
Tel JHB Branch 0861 PPS POW (777 769)
F +27 11 494 3572
powerps@iafrica.com
www.ppspower.co.za

0861 PPS POW (777 769)



With Power Theres Life



Assemblies manufactured to SABS 1765 for the safety of distribution boards

Cable identification systems for Africa



John Yorke and Terry O'Kelly, owners of Banding Identification Solutions Africa. Banding & ID Solutions Africa's range includes products for cable fixing, various hose and cable identification systems, stainless steel cable ties for general fastening, cable trays, and cable and wire management solutions. The company's business manager, Rosa Remendos, says, "We supply electrical distributors and end-users and our package includes product training and after-sales service." She adds that Banding & ID Solutions guarantees "a high-quality product offering in competitive turnaround times".

Enquiries: +27 11 974 0424

PE lighting acquisition opens up export opportunities

IN order to establish the Fagerhult Group in the South African market and the sub Saharan region, Fagerhult has signed an agreement to acquire the assets of Port Elizabeth-based Lighting Innovations. The agreement includes subsidiary companies Beacon Lighting and Arrow Lighting. The acquisition is expected to have a positive effect on the earnings per share during 2016 and forward.

The three companies manufacture light fixtures and solutions primarily for the indoor commercial sector, which include typical application areas such as offices, retail, shopping malls, hospital and educational buildings. Lighting Innovations is also involved in stadium and sports field lighting and provided the lighting solutions for three of the 2010 World Cup Soccer stadiums.

The Fagerhult Group, which employs around 2 370 people in 20 countries, achieved sales of R5.9-billion in the 2014 business year.

"One key element of our strategy is to increase our market position to emerging markets. With this acquisition, we gain access to the South Africa market and several interesting growth

opportunities within the dynamic sub Saharan region. I am pleased that Craig Waddell will remain with the company as managing director and continue to build on a strong platform that he and especially his father, Bruce Waddell, has established since founding the company," says Johan Hjertsonsson, CEO Fagerhult.

Lighting innovations will benefit from Fagerhult's vast experience and expertise in the design and manufacturing of energy efficient LED fixtures, which opens up additional export opportunities.

Enquiries: +27 11 444 1168



LED systems for industrial lighting and floodlighting

ACDC Dynamics, sole distributor of the Italian designed Gewiss product ranges in Southern Africa, has introduced the Smart [4] LED lighting range for industrial lighting and floodlighting applications.

"This is truly innovative technology," says ACDC Dynamics brand manager, Charlton Opperman.

"Intelligent lighting adapts to the environment by selecting the best solutions in terms of effectiveness and efficiency for any application and in any environment."

He says that Gewiss' new Smart [4] lighting range "interprets intelligence and provides versatility and adaptability thereby defining the unique aspects of its identity and, in doing so, offers sustainable lighting".

"Another unique point is that Smart [4] offers varied types of application and lighting performance. Smart [4] can be a floodlight, high bay or ceiling light as needed and offers different photometry depending on the different applications. The benefits of the new luminaires guarantee optimal lighting performance in any application, from industrial to sports environments, indoor or outdoor," says Opperman.

"The horizontal and vertical modularity of the new product is combined with the ease of installation and maintenance, with the use of 'green' materials and with the unmistakable style of Italian design," he says, adding that it is "the speed of implementation is a characteristic that makes Smart [4] an intelligent product."

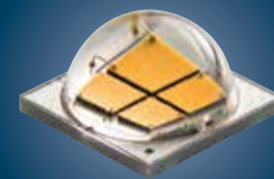
The benefits of Smart [4] include:

- **Performance:** Smart [4] was developed by the Gewiss research centre to reduce the total life cycle cost and make it affordable to replace lighting systems.
- **Energy consumption:** Using Smart [4] products instead of traditional light sources yields energy savings of up to 60%, in comparison to other systems and up to 80% in comparison to obsolete or poorly maintained systems.
- **Configuration:** Various methods and configurations ensure a flexible solution for any application.
- **Installation:** The entire Smart [4] product range was designed and developed to make it easy to install and to retrofit existing devices and obsolete lighting systems.

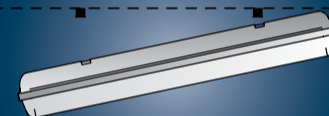
"ACDC prides itself in providing product ranges of the highest quality," concludes Opperman.

Enquiries: +27 10 2023400

TRULY SUSTAINABLE LIGHTING



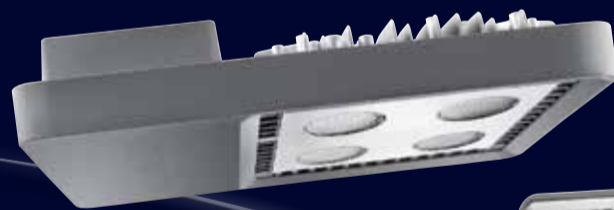
Innovative POWER LED system



Ease of installation and replacement



Comprehensive lighting solution



Smart [4]

LED SYSTEMS FOR INDUSTRIAL LIGHTING AND PROJECTION



SMART[4] is the new Gewiss lighting range that can be used as a floodlight, high-bay or ceiling light, offering different photometric characteristics depending on your installation requirements. With the unmistakable Italian styling, you are ensured of an easy and effective installation with a vertical or horizontal installation option. SMART[4] delivers you energy efficiency, cost savings, superior light quality with fast and easy installation.

www.gewiss.com

ACDC
DYNAMICS
www.acdc.co.za

JOHANNESBURG Tel: 010 202 3300
CAPE TOWN Tel: 021 510 0710
PINETOWN Tel: 031 700 4215
GERMISTON Tel: 011 418 9600
RIVERHORSE Tel: 031 492 4800

Distributors and Franchises throughout Southern Africa

GEWISS

Unlocking the secret to great outdoor lighting



THE South African climate often allows for the use of outside spaces all year round, however, making the most of these spaces once the sun sets requires the installation of appropriate lighting.

The latest EGLO outdoor range, locally available solely through Eurolux, adds functionality, style and security to any space. This Austrian range includes recessed wall and ground lights, wall lanterns, garden spikes, wall washers and much more.

"EGLO is one of the leading suppliers of decorative lighting in Europe, with Eurolux having successfully represented them in South Africa for over 12 years," says Shaun Bouchier, director at Eurolux. "Innovative market research, attention to detail and a flair for the fashionable is what sets this company apart, and has helped establish EGLO as a firm favourite in the South African market."

Roffia

The EGLO Roffia sets the tone for the range with its matching wall and post-lights set in an aluminium and white finish. Being fitted with an LED, it is energy savvy and the aluminium adds to its durability. "Mounted to an external wall, often near to the front door or over a garage, these wall lights are ideal to illuminate entries, so you can easily see locks and identify callers," adds Bouchier. "It is designed to be understated, placing the focus on the space it is illuminating, rather than becoming a feature in itself."

Lepus

Another wall light that is set to complement modern homes is the Lepus, featuring a galvanised steel and white finish. The galvanised steel extends from the wall in a half-moon shape, ensuring that the light beams are cast downwards in a 12.5 m projection range for evenly distributed lighting. According to Bouchier, products such as the Lepus or Seville lamps are particularly popular due to the incorporation of galvanised steel. "Landscape lighting should withstand outdoor elements, so before purchasing lighting, inspect each fixture for quality. It is always advisable to purchase high quality landscape lighting, made from durable materials such as galvanised steel, die-cast aluminium, brass, copper or other materials that resist rust and corrosion. And, when possible, purchase light fixtures that carry an extended warranty."

Fontella

LED wall washers, such as the EGLO Fontella, are perfect for feature lighting, providing an amazing colour wash

effect to the outside of buildings. The Fontella also beautifully lights up landscape features with its low, even light spread. It can be used to illuminate shrubs, plants or textured wall surfaces to silhouette special details.

Margo

For those on the market for unobtrusive, flush-mounted ceiling lights, the EGLO Margo is ideal. Finished in a modern stainless steel finish with a frosted white glass diffuser, it too has a contemporary look and feel. "Home owners who want to create a seamless flow between their indoor and outdoor spaces will want to match outdoor lighting to their home's interior. In a contemporary home, outdoor lighting should be simple and sleek in its design and choice of materials. The EGLO Margo offers just that," says Bouchier.

Rigo

The EGLO Rigo is an outdoor recessed floor lamp designed to be embedded into a deck or even outdoor stairways. The lamp is available in a stainless steel, black or white finish and the fitting is designed to be used with appropriate energy saving lamps.

Bouchier says all EGLO products are SABS approved and come with a minimum two-year warranty, so you are assured of their quality. "The EGLO range offers a wide range of fittings and lamps; it really is just a question of determining what purpose the specific light needs to fulfil and then co-ordinate it with the look and feel of your home."

Visit www.eurolux.co.za for a look at the complete range of EGLO products on offer at Eurolux.

Enquiries: +27 21 528 8400

Investing in eco-friendly green lighting technology for a lifetime of savings



MAGNET has recently completed the design and installation of energy efficient lighting solutions at the new offices of Woodhead Bigby Attorneys in Umhlanga, KwaZulu-Natal. "The design objective of this lighting system required the selection of low energy fittings that would enhance the aesthetics of this professional office environment and ensure there is exactly the right amount of light when and where it is needed," says Brian Howarth, managing director, Magnet. "The Magnet team has extensive experience in identifying energy saving opportunities and implementing appropriate eco-friendly solutions to reduce wasted electricity.

"To ensure low power consumption and maximum comfort for occupants of this re-vamped building, over 100 low energy internal light fittings and lamps have been installed. Occupancy sensors throughout the building save hours of wasted lighting each day. These sensors automatically switch lighting off in unoccupied areas and on again when someone enters the room.

"Reduced lighting consumption not only lowers operating costs, but also helps decrease Green House Gas (GHG) emissions. Additional savings include reduced lamp replacement and maintenance requirements and lower power demand during peak hours."

The latest range of Philips LED energy efficient lighting was the perfect solution for this modern building. 30 W and 60 W SmartBright troffers provide the correct amount of lighting in the office spaces with minimal glare. 10 W and 17 W SmartBright downlights have been installed in other areas to achieve the ideal lux level and colour temperature

best suited for this environment. This project also involved the installation of water heating systems, which include a canteen geyser and an instant boiling and chilled drinking water system. Bibo machines implement the latest technology in water filtration and UV lamp purification for the provision of healthy drinking water in office environments.

Magnet, which provides a specialist design and installation service, has made a significant contribution to the reduction of wasted energy in industrial and commercial sectors throughout South Africa. Each system can be customised to suit any building design and specific lighting requirements.

Scott Bigby at Woodhead Bigby Attorneys says the company is "thrilled" with the lighting solution provided by Magnet for the company's new premises.

"Brian Howarth recommended that we install Magnet's new ultra low energy fittings and lamps with light and movement sensors. The cost was easily justified, so we took the plunge and specified the recommended solution throughout the entire building. We now don't have to worry about switching lights on and off because that happens automatically, which is essential in an office environment," he explains. "The special light bulbs last a lifetime, and the energy savings are significant. We are very pleased to be at the forefront of this green technology, especially in these times of power shortages. Our entire power consumption on lighting is extremely low and therefore also generator-friendly during outages," he comments.

Enquiries: +27 31 274 1998

Letting the light shine in on Mandela Day



Jacob Mkwena; Jenny van Rooyen; Louise Rivett; Charls Matthews; (front) Dineo Lelaka, Nosiphiwo Mbunjana; Oko Matshaya; Dikeledi Gouwe; and Mpo Leeto on Mandela Day, when representatives from Schneider Electric and the University of Johannesburg (UJ) travelled to the village of Gwawkwani, located in Venda, Limpopo Province. "Together with UJ, we installed solar lighting solutions in 30 homes in the village and trained entrepreneurs to sell and maintain our solar powered portable LED lamps with mobile phone charger, the Mobiya TS 120S," says Zanelle Dalglish, head of Sustainable Development at Schneider Electric. The Mobiya TS 120S is especially suited for the rural environment of Gwawkwani as it is an energy efficient, eco-friendly and robust portable lamp producing 120-lumen light output. The lamp is also equipped with a mobile phone charger that includes a USB port, enabling users to charge their mobile phones any time. Dalglish says working in collaboration with UJ is in line with Schneider's sustainable development strategy, which focuses on partnering with other businesses, NGOs, NPOs and funders to establish an electrification model for off-grid communities.

Enquiries: +27 11 254 6400

Chinese fair to showcase quality products

SOUTH Africa's inaugural China Homelife Fair, which will be coming to this country in September, will see Chinese exhibitors introducing a wide range of products in Johannesburg's Sandton Convention Centre from 1 to 3 September.

This business-to-business exhibition gives buyers from southern Africa an opportunity to source quality products from over 250 superior Chinese suppliers.

China Homelife, organised by Meorient International Exhibitions, is the number one Chinese product sourcing fair in emerging markets, now with a footprint in nine countries including Poland, Turkey, Brazil, Jordan, Dubai, India, Egypt, South Africa and Kazakhstan.

Collectively in 2015, the portfolio of shows will bring together over 5 000 exhibitors and about 75 000 visitors from the nine countries.

The key success factors of China Homelife include; the show's concept, product profile of exhibitors and the selection criteria by which China Homelife ensures the highest level of quality exhibitors at each show. Strategic networking tools such as the matchmaking programme and VIP buyers' programme are unique to China Homelife and they play a critical role in improving the efficiency of buyer-seller interaction.

Chief Operating Officer for Meorient International Exhibitions, Binu Pillai feels that there is still a misperception regarding

Chinese products, "Unfortunately there's a misperception about Chinese products regarding their quality.

Chinese manufacturers have the ability to manufacture products with different quality based on the buyer's requirement," says Pillai, adding that often orders from importer are for "low quality products which are then sold at a premium price in the local market".

China Homelife exhibitors are selected through a strict quality control process to ensure they meet buyers' expectations.

"China Homelife have had to reject almost 17 companies who wanted to join the show, because they couldn't meet the quality standards," says Pillai.

Enquiries: +27 11 702 9601



Customisable LED night lights



INCLUDED in Legrand's range of 'special' plugs are night lights with a light sensitive sensor for automatic lighting control.

"These 230 V devices have been designed using the latest LED technology and a light sensitive sensor that automatically controls lighting levels according to pre-set light level thresholds," explains Johan Bosch, general manager, Legrand SA.

"These chic night lights ensure there is exactly the right amount of light when it is needed and are perfect for use in hotels, hospitals and frail care establishments.

"Legrand's night light units are especially fashionable in children's bedrooms and to the delight of younger users, these devices are supplied with four solid coloured labels and a customisable paper label to enable children can create their own design."

Enquiries: +27 11 444 7971

Legrand's night lights, with LED technology and light sensitive sensors, enhance comfort in homes, hotels and frail care establishments.

Old masters in a new light



The Fränkische Galerie (Franconian Gallery) is housed in the Rosenberg fortress in Kronach in Germany. Its collection comprises some 200 masterpieces of painting and sculpture from the Late Gothic and Early Renaissance periods – including paintings by Lucas Cranach the Elder (1472–1553), who was born in Kronach. Katrin Söncksen from the lighting design office lichttransfer in Berlin devised an energy-efficient lighting concept that is configured precisely to the requirements of the artwork while creating focal points. Much like a subtle guidance system, the light directs visitors through the exhibition rooms in the museum. A choreography of high-contrast accent lighting stages the individual objects in each room as required for an optimised visual experience. The lighting designers opted for ERCO's 12 W Optec LED spotlight, which offers interchangeable Spherolit lenses and diverse light distributions for fine and precise adjustment to the characteristic features of each exhibit.

Photograph by: Alexandra Lechner.

Breakthrough the DARKNESS with SUPERLUME

Lamps and Luminaire

Industrial Lighting



Open Channel Fluorescent
For T8 ECG & Wired LED T8 Tubes



Recessed Fluorescent T5
3 X 14W
3 X 28W



ELX233L
Rechargeable Portable Emergency Lantern 48 LED



R7s LED
78mm, 118mm, 189mm



LED Floodlight
Outputs Ranging from 10 - 150 Watts

Contact us regarding our SPRING SPECIALS!

JHB Tel: 011 614 5760 Fax: 011 618 3007	Cape Town Tel: 021 706 4215 Fax: 021 706 0864	KZN Tel: 031 266 5520 Fax: 036 750 7495	Free-State Tel: 082 400 7241 Fax: 086 693 3942
willie@superlume.co.za			

Behind Living. Behind Life.





Suppliers you can trust



Driven by Powertech

For further information:
Contact your local Crabtree representative on 0860 SOCKET (762 538) or 011 874 7600
www.crabtree.co.za
info@crabtree.co.za



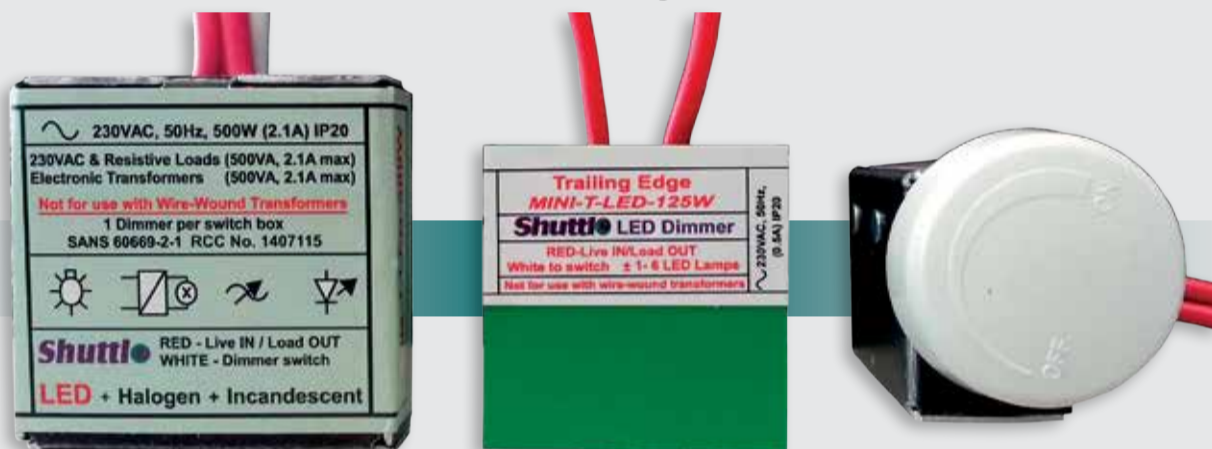
Youngsters get a bright royal treat

Royal Philips, a global leader in LED lighting, in partnership with the Prince Albert II of Monaco Foundation, today unveiled the first of two new Community Light Centres for South Africa. Much to the excitement of the local community, His Serene Highness Prince Albert II of Monaco attended the official opening on invitation by Philips Lighting Southern Africa to follow-up on his Foundation's support of the Philips Community Light Centre. This visit comes as part of his ongoing commitment to promoting renewable energy as a key element in catalysing a transition to a low-carbon economy. Reggie Nxumalo, general manager for Philips Lighting Southern Africa said that a quality solar-powered solution applied in the right way can have a tremendously positive effect at a community level by extending the day and enabling early evening community activities, education and sports. Bernard Fautrier, CEO and vice-president of the Prince Albert

II of Monaco Foundation, highlighted that energy is a central issue in all societies due to its impact on climate change, the economy and development. "With the unveiling of the first of two new Community Light Centres for South Africa, we are writing a new page in our history." He added that, with Philips Lighting as a partner, the foundation strives for the common objectives: "A new relationship with the world; the re-affirmation of our responsibility to future generations; and the opportunity for each and every one of us to shape his or her own destiny." The lighting centre at the Actonville Primary School's soccer pitch provides 1 000m² of high quality LED lighting powered by solar panels. Principal, Venessa Moodley, said that the school takes great pride in its Philips Community Light Centre and that the local community has been involved in creating additional activities to advance the benefits of the light centre.

Shuttle

Dimmers for LED + Halogen + Incandescent



TRAILING OR LEADING EDGE 125W, 500W AND 800W

Deep dimming. No flickering. NRCS RCC certificate for CoC. Silent.
Recommended by all leading LED manufacturers. Maximum load varies by lamp.
 Minimum load 1 lamp. Details available on www.shuttlelighting.com



MULTIPLE ZONE CONTROLLER - MZC

NEW CONTROLLER FOR DIMMING COMBINED ZONES FROM ONE SWITCH.
 Suitable for all Shuttle dimmers
 All products available at leading wholesalers.

Shuttle Energy Manager-Circuit Controller (SEMCC)



SAVE UP TO 70% ENERGY

- Save energy immediately
- Turns electricity off when no-one is around
- Can control any electrical equipment (air-conditioners, heaters, lights)
- No specialised wiring required (Install at DB)
- No computer interface or programming required
- Ideal for parking garages, offices, hotels.
- Adds to security as it provides an early warning signal of occupancy when controlling lights
- Connect standard burglar alarm PIR sensors to the unit or any switch that open/closes
- 4 Independent 16A circuits
- Up to 5 independent sensors per circuit
- 16 Selectable delay times (10s – 1 hour)
- Fail-safe



Enquiries: sales@shuttlelighting.com • Web-site: www.shuttlelighting.com
 Head Office: 021 448 8229 • Laboratory: 012 991 2521

Five year warranty on corrosion-proof luminaires



Available from Nordland, the JBL5 is a range of enclosed corrosion proof luminaires with a unique opaque prismatic diffuser, which optimises the light distribution from the LED modules. They are a good replacement for any standard electronic ballast luminaires, and are available in 600 mm, 1 200 mm and 1 500 mm bodies. The use of LEDs gives a reduction in maintenance costs and the JBL5 is ideally suited for applications with demanding requirements. Various wattages are available from 28 W up to 92 W and the rated life is >50 000 hours. The luminaires feature stainless steel vandal-proof clips

Enquiries: +27 11 662 4300

Award winning solar light and charger



A SOLAR-powered portable LED lamp with a mobile charger, the Mobyia TS 120S from Schneider Electric design has won Grand Prix, Strategies Du Design 2013 and European Design awards. This energy efficient, eco-friendly and robust portable lamp – with 120 lumen light output – is also equipped with a mobile phone charger and USB port. With three brightness settings, the Mobyia provides up to 48 hours of lighting from just one day of solar charge. The lamp can be hand-held, hooked to a ceiling, mounted on a wall, placed on a surface, fixed on a bottle top and carried on a pole. Its superior battery technology – Lithium Ferro Phosphate – delivers high performance for more than three years and the micro controller-based charge controller ensures efficient solar charging, prevents over charge and deep discharge.

Enquiries: +27 11 254 6400

Value added partnership for lighting specialists



Reggie Nxumalo (general manager, Philips Lighting SA) and Ross Blakeway, CEO at Solid State Lighting International's (SSLI) South African operation, with which Philips Lighting SA formed its first partnership in a recently launched value-added partner programme to support local independent lighting specialist companies and help create innovative opportunities to grow their business offerings.

Addressing the challenges of LED lighting

THE brightness levels of today's LEDs are opening the door for the use of LEDs in general lighting applications that require high lumen output levels. Building an LED-based luminaire poses a new set of technical challenges, among them new optical requirements, providing adequate thermal management for stable operation and dealing with the ever-improving performance of LEDs. Nevertheless, LED technology also offers an unknown wealth of possibilities, providing access to unprecedented levels of performance and new ways of integration.

OSRAM's PrevaLED family of LED light engines addresses the challenges of LED-based lighting while providing users with great performance and flexibility at the same time. Enabled by the application of LED technology, PrevaLED aims to push the envelope of what is possible in terms of performance and simplicity.

The PrevaLED Flat AC series of light engines is ideally suited for use in highly diffuse wall-mounted and ceiling-mounted luminaires in decorative, hospitality or domestic applications.

OSRAM PrevaLED Flat AC

PrevaLED Flat AC light engines have been developed for decorative diffuse luminaires that can be used in demanding traffic way applications in buildings that require functions such as emergency lighting. It is the first range of LED engines specifically designed to meet all necessary requirements for such traffic way applications in buildings:

- Power-on-board: for simple integration as well as novel thin luminaires.
- L-EM (local emergency) and C-EM (central emergency): for local and central emergency operation.

- Master/slave interface: to control up to five slave luminaires on one master luminaire.

Products benefits

- Optimal design for low profile luminaires with high uniformity.
- High system efficacy up to 123 lumen per watt and simple thermal management.
- High reliability through overheating protection.
- Touch protection accessory for 'LEDifying' of existing luminaires.

Areas of applications

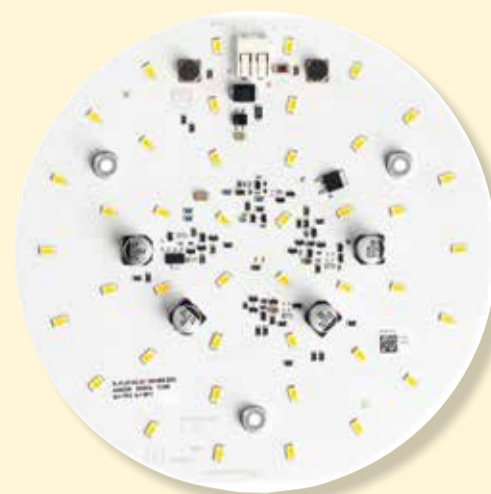
- Corridors, stairways, entrance ways.

- Hospitality: hotels, restaurants.
- Public, commercial and office buildings.
- Secondary rooms: garages, storage.

Technical features

- Rated luminous flux: typically 1 500 lumen, 2 300 lumen and 2 500 lumen.
- Light colours: warm white (3 000 kelvin), cool white (4 000 kelvin).
- Colour rendering index: typically 83.
- Diameters: 170 and 240 mm.
- Operation with mains voltage: 220 – 240 V; 50/60 Hz.

Enquiries: +27 11 207 5600



Cost-effective third generation LED light engine



TRIDONIC has launched the third generation of the TALEX engine Stark SLE LED light engine – more cost-effective and more efficient. Generation three provides up to 80% higher luminous flux, greater efficiency under real-life conditions (up to 125 lm/W at 4 000 K) and better hot lumen efficiency (up to $T_p = 85^\circ\text{C}$). Even after 50 000 hours of operation the third generation achieves a life of up to L90. At the same time the modules are matched to the new Eco and Top series of TALEX converters and together constitute an optimum system.

With the new LED module, Tridonic is presenting itself as a competent system supplier for professional lighting solutions based on chip-on-board (COB) light sources. Thanks to a new COB design with improved thermal properties, more efficient LED chips and perfect matching with the appropriate converters, the Classic, Select and Mini modules achieve even greater efficiency at lower costs. Up to 4 800 lumen can now be emitted from a LES 19 (light emitting surface). There is also a new operating mode for the Classic and Select modules, known as best LED operation (BLO). This ensures an ideal balance between efficiency, lifetime and costs. The lumen package is automatically configured when the LED module is connected to the converter. The luminous flux remains constant at all times, even if the colour temperature changes.

Enquiries: +27 11 923 9686



www.osram.com

Light is simplicity. OSRAM PrevaLED Flat AC.

PrevaLED Flat AC light engines have been developed for decorative diffuse luminaires which can be used in demanding traffic way applications in buildings requiring functions such as emergency lighting. It is the first range of LED engines specifically designed to meet all necessary requirements for such traffic way applications in buildings.

Benefits & Technical Features

- Optimal design for low profile luminaires with high uniformity
- High system efficacy up to 123 lumen per watt and simple thermal management
- Rated luminous flux: typ. 1,500 lumen, 2,300 lumen and 2,500 lumen
- Colour rendering index: typ. 83
- Diameters: 170 and 240 mm
- Operation with mains voltage: 220 – 240 V; 50/60 Hz

Light is OSRAM



JB Switchgear



Evan Atherton,
technical assistant.

Unicloxx Technologies



Jacques Schoeman,
sales manager.



Shorne Groep,
key accounts
manager.



Cathlean Willemse,
retail sales and
marketing manager.



Roland Ramasami,
technical support
manager.

Bright Spark

The two desperadoes

JAKE Pearson and Guts Geraghty each accused the other of having betrayed their operation to the police. The Boss knew who he thought had done it, but he could not prove his suspicion, so he picked up a small black bag and turning to Guts said, "In this bag are one black ball and one white ball. You will put your hand into the bag and take out one ball. If you take out the black ball you die, but if take out the white ball Jake dies. Choose!" Jake was grinning as the Boss said this, and Guts knew that he was in trouble.

Turning to the Boss, he said, "I have just one request. I do not wish to be responsible for announcing my own death. When I have taken the ball from the bag, I want Jake to take the other ball and show it to me. When he knows his fate, I will also know mine" The Boss readily agreed, but Jake turned pale and then tries to run from the room. Why?

July solution

Chopping the chocolate

Thirty-four breaks is the smallest number possible. Barry starts with one piece of chocolate. Every time he makes a break, he creates one extra piece of chocolate. This is true whether he breaks a small piece into two, or a large rectangle into two parts. Since he ends up with 35 pieces, he must have made 34 breaks.

OCTOBER FEATURES

ENERGY MEASUREMENT & SUPPLY

MV/LV systems, transformers, mini-sub, suspension devices, poles, switchgear, control gear, quality of supply protection, load control, cables and cable accessories, cable and jointing techniques, metering, energy management, energy efficiency, timers, load shedding, load balancing, testing equipment, hazardous areas, flameproof equipment.

MOTOR CONTROL CENTRES AND MOTOR PROTECTION

Panel building, gauges, displays, maintenance, protection, protection relays, starters, drives, motor types, sizing, starting, stopping, refurbishment, controlling, enclosures, switches, push-buttons, LEDs, digital displays, relays, timers, temperature controls, process, building management, insulation testing, vibration monitoring, maintenance, flameproof equipment.

Editor:

Erika van Zyl

Advertising:

Carin Hannay

Production & layout:

Colin Mazibuko

Consultant:

Ian Jandrell PrEng, BSc(Eng), GDE, PhD, FSAIIE, MIEEE

Director:

Jenny Warwick

Publisher:

Karen Grant

Published monthly by:

Crown Publications cc
P O Box 140
Bedfordview, 2008
Tel: (011) 622-4770
Fax: (011) 615-6108
e-mail: sparks@crown.co.za
Website: www.crown.co.za

Printed by:

Tandym Print

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

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

Total 6 779 per month.



Your One Stop Solution



Office



Omni Cluster

- 290mm x 90mm
- Various colours
- 2.1A USB Charging modules available
- Combine data & power in one wall box

400W Two-Way Push Button Dimmer + Switch

- Various colours
- Locator switch
- 50 x 100mm

Pull Up Power Tower

- Spring loaded handle
- Data / Telephone outlets
- Charge USB devices
- Strong aluminium housing
- Standard / V-Slim™ Sockets

LED Wall Lights

- Cool White / 512 Lumen
- Warm White / 470 Lumen
- 6 x 1W LED
- Beam angle 360°
- IP54 - Indoor / Outdoor
- Dimmable available

LED Garden Lights

- IP65
- Cool White / 6500K
- 3 x 1W LED
- 256 Lumen
- Beam angle 360°

LED Step Lights

- Cool White / 6500K
- Decorative blue ring
- Die cast aluminium
- Beam angle 180°
- 180 Lumen



Branches: Johannesburg | Cape Town | Durban | Port Elizabeth | Bloemfontein
011 872 5500 | 021 556 3091 | 031 569 1024 | 041 452 1172 | 051 430 4958
National Telephone Number: 08 61 62 5678

email: sales@major-tech.com

For more information on our products visit our website :

www.major-tech.com