

[ISSUE 4] DECEMBER 07

# NEWSROOM

INDUSTRIAL SWITCHGEAR & AUTOMATION SPECIALISTS



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EDITORIAL



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Managing Director / CEO



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**Christmas message 2007**

**As we always say at this time of the year, "hasn't time flown"!**

It's been particularly busy of late at NHP with the very successful NHP-STAHl launch at our Laverton facility recently as well as dealing with the opportunities that present themselves in a strong economy such as that which prevails, particularly in Australia, at the moment.

The Australian economic environment, as part of the global community is driven very much by the mining sector. I think there are six big issues which are and will continue to influence our lives and our businesses:

1. Generational change is having a significant impact with the challenges of different ages working together with differing objectives in part. The sharing of knowledge and experience between generations is both beneficial and essential for businesses who want to remain at the cutting edge.
2. The emerging markets are impacting the global economy and particularly the Australian economy as China, India, Russia and South America are having a global impact. This is particularly evident in the mining sector and so very relevant to us in Australia. The 19th century could perhaps be described as belonging to Europe, the 20th century to the U.S.A. and perhaps the 21st century will be driven by Asia.
3. Infrastructure development in both developed and developing countries is in need of major upgrade. The business opportunities arising from this are enormous and the projects will be very challenging.
4. The environment has moved from something of cult status to mainstream in the recent past. Most thinking people are concerned about global warming and the effect greenhouse gas emissions are having on our ecosystem, an issue that will only become more relevant in our society.
5. We live in a "real time" world where connectivity is at a level many of us could not believe possible. The flow on effect of instant connectivity on decision making, both good and bad, is impacting on all aspects of our lives as we move, I suspect, into a zone of virtual reality.
6. Ultra liquidity has emerged as a significant influence on our lives and it is affecting global investment markets, property and business activities.

**I would like to wish everyone a happy and safe Christmas and a prosperous 2008.**

When we look more closely at our industry environment, we see within the electrical industry an opportunity to increase our share of the economy. As an Industry, I believe we do not gain our "fair share of the cake" and a lot of work remains to be done in order to market our industry collectively in a way which has the broader community value what the electrical industry provides. I suspect we undersell ourselves as an Industry group to the broader community and I believe we need to develop forums which provide the wider community with a better understanding of what we do and how we do it.

Within our business at NHP, to come even closer to home, we continue to make good progress. People remain the key to our future and we continue to be focused on recruiting and developing strong young talented people who are empowered and feel confident to develop initiatives in order that we can prosper in the future.

We foster an environment where our older staff are mentoring younger staff and the younger staff are reverse mentoring the more experienced. NHP continues to push the boundaries and encourage a dynamic environment

in order to develop new initiatives with the view to benefit our customers.

As I mentioned at the outset, our product range develops as does our ability to "value add". The market continually requires more of us and we must be able to respond in an "easy to do business with" fashion. We continue to upgrade and expand our facilities to provide further support and market reach for our customers. The year just past saw us with a new office in Campbelltown, on the outer reaches of Sydney, as well as a new office in Canberra. Another new office in Albury is due to open next April.

Clearly NHP is a great company to partner with for the future! Just recently, Nigel Peck, NHP's Founder, celebrated his 80th birthday. We all congratulate him on achieving that milestone and wish him the best of health and happiness for the future.

**What remains now I think is for me to thank all of our staff for their commitment and support during the past year.**

**Importantly, I would like to thank all of our customers and our supply partners for their support during the past year and to wish everyone a happy and safe Christmas and a prosperous 2008, as we look forward with confidence to the future.**

**Lloyd Thomas**

**NHP in Australia's capital**

**In early November NHP marked the opening of its newest branch office in Canberra. Over 100 customers, wholesalers, switchboard builders and contractors attended the all day event.**

A 'mini-HQ' in profile, the Canberra branch has a team of regional representatives and sales support. The new NHP branch is approximately 1000 m<sup>2</sup> in size and has over \$1 million dollars worth of stock warehousing, providing everything that is required to support our customer's immediate requirements.

NHP saw the need to support local business and invest in the future. With exciting new initiatives NHP will continue to grow the business where its customers require it most.



*In early November NHP opened its newest branch in Canberra*

## NHP helps build the Data Centre of tomorrow

**Unisys, the global computer giant and one of New Zealand's largest systems integrators and Information Technology (IT) business solution providers, is expanding its data and service centre business in Paraparaumu, north of Wellington.**

After five years planning by Unisys, and strong competitor bids for the work, NHP was successful in being awarded the job to supply power distribution products and services for this major building expansion on New Zealand's picturesque Kapiti Coast. The entire works will virtually double the size of the Unisys data centre building in terms of capacity of the hardware and potentially the number of people accommodated.

NHP's National Project Manager, Ian Simpson, has been across the project right from the very beginning. Ian worked closely with Unisys advisers Beca Engineering, to consult on the benefits of specifying Terasaki TemBreak 2 Moulded Case Circuit Breakers (MCCBs) and Cubic Switchboards to both expand and replace old equipment for a massive performance and functionality boost.

### PUSHING THE BOUNDARIES

"Terasaki MCCBs offer leading power system protection that's efficient and reliable – and convenient for onsite fitting of accessories. Increased kA ratings mean stronger breaker performance and better cascading possibilities," says Ian.

"Cubic is an economic and easy-to-construct switchboard system that can be either wall or floor mounted on a plinth. It's also a versatile system that adapts to special and specific enclosure designs where double or multi-compartments are required within a single enclosure," he adds.

With the Unisys job, Ian explains that the application included two power switchboards; a main switchboard for the building, and a mains/generator switchboard (with two 3200 A main air circuit breakers and two 1600 A air circuit breaker feeders) which feeds it.



*NHP specified Terasaki TemBreak 2 Moulded Case Circuit Breakers (MCCBs) and Cubic Switchboards*

### A TEAM EFFORT

As with many projects of similar size and importance, the project came together with the benefit of supply chain partners either side of NHP's involvement; including Joule Products who built up the switchboards from the products supplied by NHP, and Stones Electrical, the electrical contractor responsible for on-site installation.

According to Graeme Backhouse from Joule Products, "We have been delighted to work with NHP on this project. NHP's experience in supplying first-class products and technical know-how according to the exacting requirements of the job has assisted greatly throughout the design, construction and installation phases".

The end result for Unisys is a continuous and reliable power supply for an uninterrupted business work flow – for now, and for the foreseeable future.

For more information contact:

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***NHP National Project Manager, Ian Simpson worked closely with Unisys advisers Beca Engineering, to consult on the benefits of specifying Terasaki TemBreak 2 Moulded Case Circuit Breakers (MCCBs) and Cubic Switchboards to both expand and replace old equipment for a massive performance and functionality boost.***

## NHP wins Chairman's Choice Conference Award

**NHP recently attended the 2007 Victorian Water Industry Engineers & Operators Conference. Competing against 160 companies displaying throughout the three day event, NHP had the honour of being presented the Chairman's Choice Conference Award for best stand.**

The judging panel's criterion was based on engagement with delegates, innovation, presentation, product range and novelty. The solution centre and the multi-pumping display were fantastic drawcards to our stand as it demonstrated the full force of NHP in the water industry.

"We utilised the Solutions Centre at the Water Conference as it is a great hands-on demonstration that illustrates NHP's capabilities for all water pumping applications. It demonstrates the products suitable for water pumping applications which are primarily Variable Speed Drives and soft starters as well as the automation system that controls them," said Wes Cassidy, NHP's National Application Engineering Manager.

Geoff Thorp, NHP's Product Manager for Variable Speed Drives, describes the benefits of VSD's in any multi-pump set up.

"Variable speed operation allows for the most efficient and energy saving option for a pump system. The operation of a variable speed system provides the same energy savings of a single pump, multiplied across all of the pumps. A complete variable speed system has the added benefit of providing a faster response to changing load conditions and is able to maintain a more stable system," says Geoff.

All Water Boards attendees who visited NHP's displays were provided with product information and a drive/pumping industry CD that would benefit their future water projects.

"This was NHP's second year exhibiting at Bendigo and with the interest generated in the first year we made the decision to double the size of our stand. With our focus being the Water Industry, our stand needed to exhibit new products and demonstrate engineered solutions that would create further interest and enquiries throughout the Water Boards." said Leigh Heath, NHP's Sales Manager in North Western Victoria.

**For more information on NHP's entire product and solution range visit [www.nhp.com.au](http://www.nhp.com.au) or visit [www.nhp-nz.com/santerno](http://www.nhp-nz.com/santerno)**



# TemBreak

# CUBIC

### WHAT IS A DATA CENTRE?

**A data centre is a room or building used to store computer systems and related components including telecommunications equipment, storage systems and power supply.**

Some businesses will have their own data centre (or simply called a computer room in smaller businesses) for running computing and telecommunications operations. However, in more and more cases, organisations will outsource the management of these increasingly complex operations to a provider such as Unisys.

IT operations are now such a critical aspect for most organisations that their information systems must be run on a reliable and secure infrastructure, and managed professionally to ensure minimal disruption and continuity of business operations.

Unisys has currently more than 60 IT technology outsourcing centres globally including general purpose data centres with hardware, software, and staff; applications support and call centres.



***NHP - Chairman's Choice Trade Exhibitors award winners***

*"Our focus throughout the Conference was to be more substantial with our products having more interactive displays to interest customers".*

*Wes Cassidy, NHP's National Application Engineering Manager.*



*In preparation for the launch of R5 on 1 March 2008, NHP is building stock levels of the Eldon range of enclosures to make sure the transition is as seamless as possible.*

## Our enclosures are changing colour



**The Eldon Group has announced they will be changing the colour of their industrial range of enclosures from RAL 7032 to 'light grey' RAL 7035. This is due to pressure from the industry to unify colours.**

Although Eldon have continued to maintain RAL 7032 as their standard for industrial enclosures, it is becoming apparent that the market would prefer some unification, therefore Eldon will be changing their standard industrial range to 'light grey' RAL 7035 (R5 for short) as from 1 March 2008.

In preparation for the launch of R5 on 1 March 2008, NHP is building stock levels of the Eldon range of enclosures to make sure the transition is as seamless as possible.

Although the impact of changing the colour of floor standing enclosures is likely to cause less disruption than that of wall mounted enclosures, because they are more project driven, and therefore usually known about in advance of the project beginning, both colours will be available from stock in March 2008.

Those products affected by this change are Multi-Mount wall mount enclosures, Multi-Flex floor standing enclosures, consoles and terminal boxes. To identify the new colour, we will add R5 to the end of the existing part number (including accessories). The part number of those products already supplied in RAL 7035 (i.e. computer cabinets) will not change. The outer packaging of all Multi-Mount wall mounting enclosures will carry a separate sticker with the R5 logo, which will also appear on the part number label of all Multi-Flex floor standing products.

We will continue to use the same high quality painting process as before. All Eldon mild steel enclosures are uniquely painted inside and out, using a structured powder coating of up to 80 microns, to ensure maximum protection against corrosion.

**For more information, contact:  
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RAL 7032

*Representation of colour only.*



RAL 7035



*Above - City Cats traverse the Thames in London*

*Opposite - The 38 m catamaran in construction by Brisbane Ship Construction (BSC)*

*Opposite inset - Part of the boards and enclosures supplied by NHP to control lighting and power*

## London City Cats - Shipshape with NHP

**A Brisbane shipbuilder is constructing six ferries to operate on the Thames River in London - powering the vessels are switchboards supplied by NHP.**

The 38 m catamaran ferries, capable of carrying 220 passengers and travelling at 27 knots, are being built by Brisbane Ship Construction (BSC) and will form the centrepiece of a dramatic expansion of London's only commuter ferry service, run by Thames Clippers. This contract has been possible with the help of a crew of 300 people and supply partners - notably NHP.

NHP's Technical Sales Representative, Les Ross, explains that NHP had a 'good, solid working relationship with BSC' built up over similar work outfitting switchboards in other vessels they'd constructed for Townsville and Brisbane waterways.

"BSC had a tight brief they had to respond to and then fulfil," Les explains. "But the NHP Brisbane team was right onto it. Keith Whitta, our Estimation Co-ordinator organised the estimation and quote, while Jason Glasgow, our Estimation/Workshop Manager, co-ordinated the switchboard building."

"We supplied Eldon enclosures and Concept Plus boards which are now controlling light and power," adds Les. "We also installed control cabinets with DC batteries for emergency back up for things like power

to start the engines." BSC Managing Director and owner Mike Hollis said that his company had shipped four vessels this year with two further to be shipped before year end and was confident of securing an option for a further two vessels, which would be ready to traverse the Thames in 2008.

Thames Clippers, which already runs six ferries, is best known for a brightly coloured vessel, decorated by the artist Damien Hirst, that runs between the Tate Modern art gallery and the Tate Britain.



## Solid state motor protection

**NHP has released the second generation of Sprecher + Schuh's CEP 7 solid state overload relays, bringing a new level of advanced, leading edge technology to the Australasian market.**

Sprecher + Schuh has built on its international field experience in developing the improved CEP 7 overload. And its upgrades are pretty impressive.

The unit is now capable of adjustment to a maximum of five times the minimum set current, thereby dramatically reducing the number of units required on-hand to cover the full range of current settings up to 90 amperes.

The CEP 7-EE is full featured selectable trip class (10, 15, 20 or 30 seconds). This enables users to closely match the trip class with the run-up time of the motor.

A more robust mechanical and electrical mounting now includes provision for field mountable modules to handle remote reset, stall and other modules previously available only in higher priced electronic overload relays. Manual reset or automatic reset can be selected with dip switches on the new CEP 7-EE models.

### Other features include:

- Simple, quick, direct mounting to CA 7 contactors
- A complete program of relays - 20 devices covering an operating range of 0.1 to 800 amps
- One N/C trip contact and one N/O alarm contact. Both contacts provide a signal to an external device when they have tripped. This allows external devices to either react to a change of state or prompts an indicator to display that a fault has occurred.
- Wide current adjustment range which means fewer types are required
- Extra power efficiency - an extremely low power consumption of 150 mW. Dramatically reduced energy requirement saves money and reduces panel space.
- The CEP 7 has on board electronics constantly monitoring all motor phases (ASIC chip). If the ASIC chip senses that one or more of the phases are missing during a steady state operation of a fully loaded motor, it will trip in three seconds.

- Self-powered design means convenience. By developing the power it requires from the applied voltage, the CEP 7 is 'self-powered', eliminating the need for a separate control power source.
- Optional modules – entry level electronic enhanced with side modules
- Test button and visible trip indicator for instant status assessment

### A cost effective, feature packed alternative to traditional bimetal devices



The CEP 7 has been redesigned to physically extend to the backpan, therefore aligning the mounting of the overload with the corresponding contactor. And the bipolar latching relay which controls the normally-closed trip contacts and normally-open alarm circuit contacts has been self-enclosed, insulating the electro-magnet and shielding against airborne metal particles and other environmental debris. The new CEP 7 has been tested to operate in -20 °C to 60 °C (140 °F) and withstand 3 G of vibration or 30 G of shock on a mountain as high as 2,000 m or in a tropical area with 95 % humidity. Reliability under every conceivable environmental condition is built into the design of this second generation CEP 7 electronic overload relay.

For more information, contact:  
**NHP Motor Control Business Unit**  
**Telephone: +64 9 276 1967**  
**or visit: [www.nhp.com.au/s+s](http://www.nhp.com.au/s+s)**

### THE NEW CEP 7 OVERLOADS NOW OFFER A FORMIDABLE RANGE OF SMART ADD ON MODULES:

- CEP 7-ERR remote reset module
- CEP 7-EJM jam protection and remote reset
- CEP 7-EPT PTC thermistor relay and remote reset
- CEP 7-EGF ground fault protection and remote reset module
- CEP 7-EGJ ground fault/jam protection and remote reset module

### And side mount modules deliver entry level communication DeviceNet™ and Profibus®. For example:

- CEP 7-EDN DeviceNet™ communication module – available for fully adjustable jam/stall protection and thermal warning to indicate imminent overload trip
- CEP 7-EPRB Profibus® communication module includes warning for jam trip, overload and underload. Includes device trip and warn status
- CEP 7-DNCT – hand held programming terminal includes one metre cable to be used with CEP 7-EDN (DeviceNet™ module)



CEP 7-ED1BB



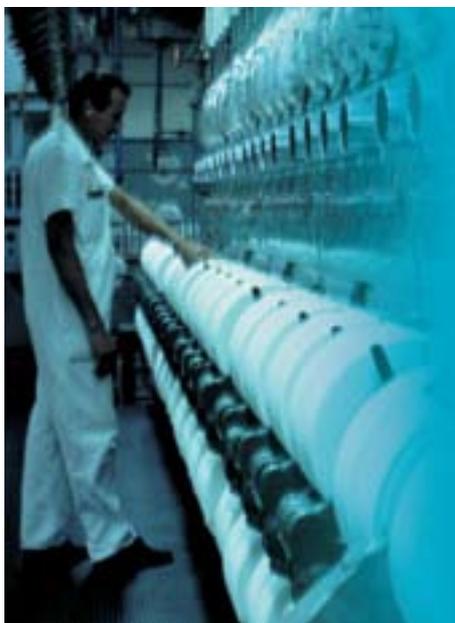
CEP 7-EEED



CEP 7-EEGE



CEP 7-EEJF



PRODUCT REVIEWS

GET BETTER CONNECTED

What is the most important selection criteria you look for in a wire connection device? You'd probably answer ease of wiring, safety, secure connections and durability.



Sprecher + Schuh has addressed these factors, and more, in their newest terminal block range, the V7-W. The V7-W is a DIN-rail mounted screw connection terminal block rated to 800 V, it comes in seven sizes, accommodating cable sizes from 0.5 mm<sup>2</sup> to 70 mm<sup>2</sup>, and delivers NHP customers complete flow through compatibility with the existing Sprecher + Schuh range.

Complementing the feed through terminals, a selection of specialist terminal blocks is also available, including:

- Double deck and earth terminals
- Dual connection terminals
- Diode and resistor terminals
- Plug-in receptacle style terminals
- Isolating and fuse terminals
- Proximity switch terminals

This complete range of terminal products offers a wide array of terminal types for the majority of circuits and functions from control through to low level power applications.

And the terminal features are impressive.

**Quick, reliable connection.** Wire insertion is made easy by threading through a specially moulded funnel that automatically guides cables into the terminal block. All screw connections are supplied open and, once inserted, the cable is simply secured by a recessed contact pad and clamped into place by a specially serrated current bar. With V7-W cable connections are safe and secure in seconds.

**Improved safety.** All metal parts have been designed to be recessed into the moulding providing an IP 20 level of touch proof safety. V7-W terminal cases are produced free of harmful chemicals.

**Performance plus.** All the V7-W metal parts are corrosion resistant and screws are made of stainless steel providing excellent performance in the worst conditions. The casing is moulded in self extinguishing Polyamide 6.6 V2 Nylon, renowned for its excellent thermal stability, impact resistance and resistance to electrical creepage. Rated up to 90 °C for continued operation, these moulded casings retain elastic properties down to -40 °C without fracture.



ELETTRONICA SANTERNO - THE ITALIAN STALLION OF DRIVES

Elettronica Santerno develops, produces and markets a full range of advanced variable speed drives for both domestic and industrial applications with power ratings up to 2 MW and supply voltages up to 690 V.

NHP and Elettronica Santerno have joined forces to bring you the Sinus Penta drives and have now added the Sinus Nano and Sinus Micro versions of variable speed drives to the range. With these new additions, the complete Sinus family of variable speed drives now covers every motor starting and control solution.

The Sinus Nano and Sinus Micro drives incorporate two built-in control functions which allow the one product to be adapted to many different types of applications. Both single phase and three phase input versions are available and all have three phase output. Functions include inverter frequency drive (IFD) which offers an adjustable V/f for general-purpose applications and sensorless vector control to improve torque performance without the use of any feedback.

In addition to these features, the Sinus Micro is also suitable for use in any HVAC application and will shortly be available in IP 54 versions, making the Sinus Micro suitable for use in the food industry, irrigation or industrial applications requiring dispersed motor control.



Suitable for the full spectrum of industrial motor control applications, the Sinus range is the culmination of years of Italian engineering excellence. Both Sinus Nano and Sinus Micro drives offer a full two year warranty.

For more information on Elettronica Santerno's variable speed drives, please visit [www.nhp.com.au/santerno](http://www.nhp.com.au/santerno)



PLUG-IN SWITCH FUSES – GOOD TO GO

NHP's Socomec switch-fuse range has been enhanced with a new plug-in range. The PSF plug-in switch-fuse offers 'plug-in plug-out' functionality – designed to meet the needs of dynamic site requirements. The plug-in switch-fuse allows retrofitting of replacement modules and upgrading of current ratings to be done quickly, simply and effectively.



For use in any sort of motor control function, the new features means instant upgradeability across applications, delivering:

- Flexibility. The site can change as it grows.

S+S CAM SWITCHES = SAFE, SECURE AND SIMPLE

The Sprecher + Schuh range of L2 cam switches continues to be a popular performer and it's little wonder.



An attractive design delivering a high quality, super-reliable operation is available for control and load applications up to 25 A enclosed in IP 65 high-impact thermoplastic.

A wide range of switching configurations is offered as stock standard up to 25 A. And, a selection of IP 66 control handles is available in two sizes, 48 mm or 64 mm and in screw fixing or central nut mounting type.

Other advantages of the cam switches include:

- The switch body is touch safe and rated IP 20 with captive terminals and screwdriver guides
- A choice of panel or base mount (DIN-rail) switches can contain 16 contacts or 8 wafers (maximum recommended)
- A metal shaft extension is available for base mount switches with door coupling
- Pad lockable or key locking options available with up to 12 different key codes
- A wide range of accessories to suit most needs is available - mainly snap-on type
- Escutcheon and header plates can be specially engraved to suit
- Specially assembled MBB (make-before-break) switches to suit your needs

Sprecher + Schuh's range of L2 cam switches can be custom supplied to just about any switching configuration. They are manufactured locally and can also be specially assembled to order. Special priority is given to emergency orders in the event of a breakdown situation.

For a special order form for custom built switches up to 25 A refer to section 5-20 of the NHP Part B Price List Catalogue where stock standard switches and control handle references are listed together.



- Superior short fuse protection
- A long 320 mm shaft allowing for a wide variety of enclosure depths
- Shaft alignment of all switch-fuse sizes from 32 to 400 A to ensure the switchboard has that professional finish
- Added safety. The switch fuse padlocking device is fitted to the actual device so it can't be defeated
- Compact size – easy to mount. The switch fuse is a small, neat unit needing no extra arcing space
- Range of types. In DIN style and BS 88, the unit will suit major current ranges

Units are now available in 32 – 800 A configurations, switched on thinking!



### HAAKE trapped key system – machine safety to Cat-4

**Safety Category-4 compliant machine safeguarding is now easier to design and implement, thanks to the HAAKE trapped-key safety interlock range from NHP.**

The trapped-key interlock concept is simple, yet very effective. It is based on the principle that a mechanical key cannot be in two places at any given time.

This interlocking system has particular advantages in areas where conventional electrical safety interlocking might prove a challenge, such as underground mining installations, hazardous area environments (where explosion vapours and combustible dust atmospheres are found) or in difficult-to-wire locations.

The modular HAAKE approach allows machine safety systems to be developed easily, using a logical array of keys, latches and mechanical guarding. These are built from a collection of six essential latching, locking and isolating elements.

#### MEETING SAFETY STANDARDS

All elements of the HAAKE range meet major industrial safety standards including European standards EN 292 'Safety of machinery – basic concepts and general principles for design' and EN 1088 'Safety standards of machinery – interlocking devices associated with guards – Principles for design and selection'.

HAAKE key-switch, latching and locking mechanisms are manufactured entirely of robust, corrosion-resistant stainless steel. The key itself has no exposed keying or serrations that might be susceptible to wear or sabotage, and the associated



spring loaded lock dust cap helps to preserve the unit's longevity.

The unique keying configuration of each HAAKE key is enclosed within a tamper-proof stainless steel cylinder. Additionally, all key-operated units are available in either single or double key assembly.

Each element of the HAAKE trapped-key solution boasts a mechanical life of more than one million operations. All elements are also rated to withstand operating temperatures ranging from -25 °C to +200 °C (electrical switch mechanisms are rated for operation in temperatures ranging from 0 °C to 55 °C). An optional DIP (Zone 21 and 22) and Ex'd' flameproof switch mechanism is also available on request.

For more information, contact:  
**NHP Sales Engineer, Chris Brandon**  
**Telephone: + 64 3377 4407**  
**Email: cbrandon@nhp-nz.com**



**Single-key rotary switch**



**Key exchange unit**



**Single-key door interlock**

### Proconnect – ISO Connect now at NHP

**NHP is pleased to announce it has secured the sole distributing rights of the Proconnect brand of plugs and sockets.**

Proconnect is a world leader in the manufacture of industrial plugs and sockets for the mining, food processing, commercial, rail and marine industries.

The 3PS isolating plugs from Proconnect are available in five sizes: 16 A, 32 A, 63 A, 125 A and 200 A. The benefits of an isolating plug is that it eliminates the need for a switch and ensures that power is available where and when it is required with complete safety to the operator. The socket outlet and appliance inlet are interlocked and then switched when engaged, making the connection and disconnection under load, safe and reliable.

The connector also discriminates so connection of the same voltage, amperage and number of poles can only be mated; making the 3PS isolating plugs the complete answer for industrial safety, without the need

for specialised personnel when operating portable tools and equipment.

For more information, contact:  
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**The Proconnect range of plugs and sockets**



INNOVATIONS



*In this profile of Sprecher + Schuh contactor products, we examine some of the innovative and ingenious product features that make the range one of the most respected and used in the electrical world.*



## NHP and Sprecher + Schuh – partners in quality and excellence

**NHP's Motor Control supply partners are, quite simply, the best in the world. Sprecher + Schuh, for example, has long been recognised internationally for their motor control and motor protection products' expertise.**

The broad range of Sprecher + Schuh general purpose contactors combines performance and reliability in space saving designs that are well proven and used the world over.

The line is extensive and covers all possible motor control and switching applications - from AC motors, DC applications, 1000 V applications, capacitor switching and safety contactors. And the range is famously manufactured to the most internationally exacting quality standards, guaranteeing fit for purpose and a long lifespan.

### CA 6 EI CONTACTOR

The development of the CA 6 range has now extended to the CA 6-860-EI. The complete range now covers 1000 volt, AC 3 ratings up to 500 kW.

The CA 6 range is ideally suited for demanding applications such as steel mills, rock quarries, mines or for any middle kW application where a durable contactor is needed.

Special design features of these contactors include a unique electronically controlled mechanism (ECM). As well as providing the unparalleled advantages of electronic coil control, the ECM version includes a built in PLC interface.

The CA 6-EI contactor is unique – offering electronic control in a low power consumption electronic coil system. But, did you know, other CA 6 features include:

- Very low pick up and hold coil consumption (constant VA)
- No contact chatter because of the defined pick up and drop out voltage which gives high contact reliability
- Reduced heat within magnet system
- Safety arc chamber interlock
- Wide voltage tolerance of coils

### CA 6 MECHANICAL INTERLOCKS

CA 6 contactors can be mechanically interlocked without occupying additional space. A really good idea to minimise the size of your switchboard.

The CA 6 range of mechanical interlock snaps into place between any of the CA 6 contactors. Other versions include:

- The CM6-D00 interlocks all CA 6 contactors within the range
- The CM6-D02 contains two built in N/C auxiliaries
- The CM6-C00 interlocks any size of the CA 7 contactors with any size of the CA 6 range
- The CM6-C02 provides the same functionality, however it also contains two built in N/C auxiliaries

### CA 6 HB TERMINAL BLOCKS

Terminal blocks in the CA 6 line have been designed around safety, compact fit and ease of use. Robust and reliable, they also include:

- IP 20 finger protection
- Three types which cover CA 6 - 95 through to CA 6-420EI
- Provision for two cables
- Ability to clamp cable and/or bars which minimises any incorrect termination procedures

### CA 7 CONTACTOR

Sprecher + Schuh's innovative contactor solution for demanding applications ranging up to 45 kW, the CA 7 range of switching contactors represents the most modern and flexible power contactor available on the market.

Rugged, space saving and modular, the CA 7 comes in four compact sizes, with a high power to size ratio in ten convenient current ranges. In 3 and 4 pole versions, the CA 7 offers a choice of AC or DC coil operation. A modular accessories suite is common and interchangeable across the entire range, for example, the CA 7 (CRI7E) is a plug in electronic interface which clips onto the CA 7 coil and provides switching via a PLC. But, it also:

- Does not add any width onto the CA 7 contactor
- Includes an in built suppressor and LED status indicator

### CA 7 MECHANICAL INTERLOCKS

Only 9 mm wide, the CM 7 mechanical interlock snaps simply into place between any of the CA 7 contactors.

A variation with built-in N/C auxiliary contacts for electrical interlocking is available.

### COIL SUPPRESSES FOR CA 7

Safety, reliability and flexibility are the watchwords for the CA 7 coil mounted suppressor features. Types included:

- R-C (resistor capacitor) suppressor module for limiting switching overvoltages of the coil circuit. Clips neatly onto all CA 7 contactor coils.
- Suppressor module – varistor for limiting switching overvoltages of the coil circuit (surge protection). Clips onto CA 7 contactors for AC or DC coil circuits.
- A diode suppressor is available for DC coils

### D7 EMERGENCY STOP OPERATORS

Sprecher + Schuh's unique self monitoring 'Auto Break' contact blocks offer safety and protection against removal or incorrect installation. Did you also know they:

- Come in plastic or metal construction with a simple twist release
- Have an illumination option, providing visual indication of function

Enclosed emergency stop stations are available in either plastic or metal, depending on your requirements.

For more information, contact:  
**NHP Motor Control Business Unit**  
**Telephone: +64 9276 1967**  
**or visit: [www.nhp.com.au/s+s](http://www.nhp.com.au/s+s)**



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**NHP ELECTRICAL ENGINEERING PRODUCTS PTY LTD**

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