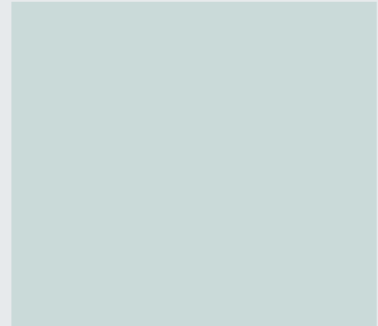




Protection Relays



Power Quality Analysis



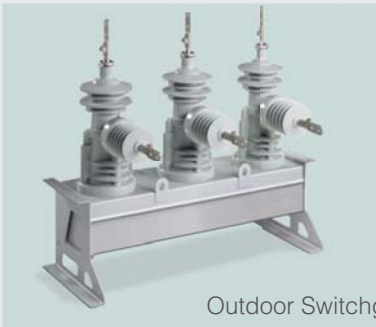
Time Synchronisation



Voltage Regulators



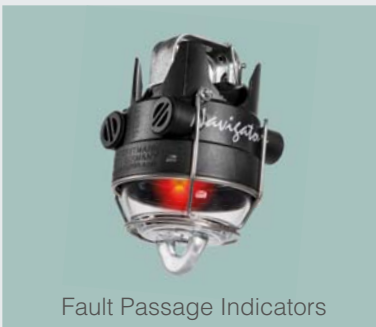
Substation Automation



Outdoor Switchgear



Ring Main Units



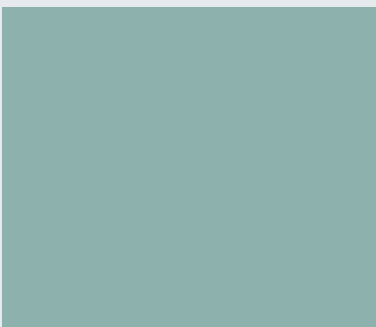
Fault Passage Indicators



Resonant Earthing



Transformer Condition Monitoring



Hardened Ethernet



Metering

HV Power

A hands-on Supplier!

In the drive for greater efficiency and network reliability, our customers are selecting more advanced technologies. Unfortunately, with skilled staff shortages and the trend for many companies to turn to contract staff, retention of knowledge and detail is poor.

Therefore in selecting equipment, a critical advantage is obtained by working with a local supplier whose staff have a thorough understanding of the products and their application.

HV Power understands that customers often cannot wait for a New Zealand supplier to rely solely on overseas principals to sort out problems. At HV Power, our staff have practical industry experience, together with the right equipment and bench test tools to allow us to duplicate customer setups, diagnose and resolve problems. We invest in regular training of our staff by our suppliers.

We pride ourselves on fully understanding the applications, product specifications, settings and operation of all our products. Our team at HV Power won't sell a product until we're confident that it does what it claims, and we can fully support it - locally.

HV Power – we're hands-on, simply more than a supplier!

Product Gallery



SIEMENS

SIEMENS is a global leader in power generation, transmission and distribution. In New Zealand, protection and control IED products from Siemens Energy division are distributed by HV Power.

The SIPROTEC family of Protection Relays has full IEC 61850 capability besides supporting all other major communication protocols, for seamless integration. The latest generation of technology, SIPROTEC 5, brings scalable and retrofit table hardware to fit customers' needs, together with multiple protocol support and security features required in today's communication environments.

We've been involved in the implementation of substation automation systems based on Siemens relays and IEC 61850 in many substations where SICAM PAS (Power Automation System) also provides SCADA connection to a wide range of serial and Ethernet protocols.

HV Power also represents Siemens range of MV switchgear, including Ring Main Units, Reclosers and outdoor circuit breakers.



TEKRON INTERNATIONAL

Since 1998 local NZ manufacturer Tekron International has manufactured GPS time clocks and signal isolation products for the synchronisation of equipment distributed across electrical and communication networks.

Tekron International's products are used in more than 40 countries by major electric utilities and telcos for whom reliable products and excellent back-up support are vital. Tekron's warranty is 10 years.

HV Power distribute Tekron products throughout New Zealand providing customers with practical, user-friendly and innovative solutions to meet even the most demanding time synchronisation specification.



A.EBERLE

REG-D and REG-DA voltage regulators developed by A.Eberle GmbH of Germany are the most widely used tap changer controllers in New Zealand. Local lines companies implement these 'one box' solutions for automatic voltage regulation and temperature control of their substation transformers.

Manufactured by A.Eberle, the REG-DP controller for classic Petersen Coils is one of the key components in HV Power's RE+DS system. Control of the coil allows it to act as a Rapid Earth Fault Current Limiter (REFCL), while A.Eberle's EOR-D & EOR-3D provide highly effective earth fault detection and location capabilities.

A.Eberle also have a range of power quality analysers for portable field use and models for permanent monitoring. This technology solves a number of issues that have frustrated users of test instrument style analysers for years.



Energy Automation Division
SIPROTEC Protection Relays
SICAM PAS Substation Automation



Siemens Protection Devices
Reyrolle Protection Relays



Transformer Regulators
Power Systems Analysers
Resonant Earth Systems



Time Synchronisation for IED's
& SCADA



Hardened Ethernet Switches
& Media Converters



RESONANT EARTHING & EARTH-FAULT DETECTION SYSTEMS (RE+DS)

In New Zealand and Australia there is increasing demand to reduce the number of supply interruptions experienced by consumers. For network owners there is also a statutory requirement to meet minimum SAIDI and CAIDI standards. One way of substantially improving these is to be able to continue operating the network safely in the presence of earth faults.

HV Power's RE+DS system offers a cost effective approach to Compensated Networks combining Petersen coil and controller with advanced Earth-fault Detection solutions.

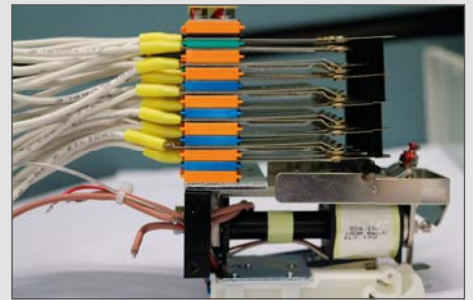


RMS

Relay Monitoring Systems Pty Ltd (RMS) is a company dedicated to the design, manufacture and distribution of high-quality protective relays and accessories including:

- Auxiliary and tripping relays
- Single and multi-function protection relays
- Trip circuit supervision relays
- Arc fault protection relays

With over 45 years of experience, RMS offer a broad base of field-proven products.



MTE HYDROCAL

Transformers are the most cost-intensive single component asset in power transmission/distribution and should therefore be supervised with special care. Analysis of the gases dissolved in transformer oil is recognised as the most useful tool for early detection and diagnosis of incipient faults in transformers. The cost effectiveness of online dissolved gas analysis (DGA) is well known.

HV Power support in NZ and Australia MTE's range of HYDROCAL brand, maintenance-free online DGA and moisture in oil detection solutions.

HORSTMANN FAULT PASSAGE INDICATORS

Following an agreement signed with Horstmann's Australasian master distributor MV Technologies, Horstmann Fault Passage Indicators are now available in New Zealand from HV Power. Fault Passage Indicators flag the passing of a short circuit or earth fault current on the line. High Intensity LED indicators on the device allow network staff to quickly patrol line sections to identify a faulted line section. Fault Passage Indicators can significantly reduce the time to discover faults and therefore to restore power to consumers. Horstmann's products also feature DNP SCADA connectivity allowing network operators to direct line staff directly to the faulted section – further reducing outage duration.

With SCADA connectivity, a host of other information becomes available, such as logging of line currents and conductor temperature, making the 'SMART NAVIGATOR' series an integral part of any smart grid system. Horstmann NAVIGATOR series offer auto setting capabilities, to provide sensitive and reliable indication, even with very lightly loaded feeders or changing customer load patterns. Ultra low-power consumption and robust enclosure materials support a long maintenance-free service life, even in the harshest outdoor environments.

For MV switchgear, the panel or cable mounted products including the popular Opto and ComPass B series, provide reliable fault current indications.



Siemens MV Equipment

HV Power represents quality Siemens MV switchgear in New Zealand. Our team has experienced project management staff and commissioning engineers to ensure customers get the best solution for their needs.

Indoor Switchgear

The 8DJH compact Ring Main Unit offers a wide variety of panel choices. Designs can include ring switches, transformer feeders using fuses or circuit breakers, cable feeders, bus sectionalisers and revenue metering panels. Your specific needs can be accommodated by specifying the modules and arrangement required. 11, 22 and 33 kV distribution systems (to 630 A) are supported.



8DJH Ring Main Unit



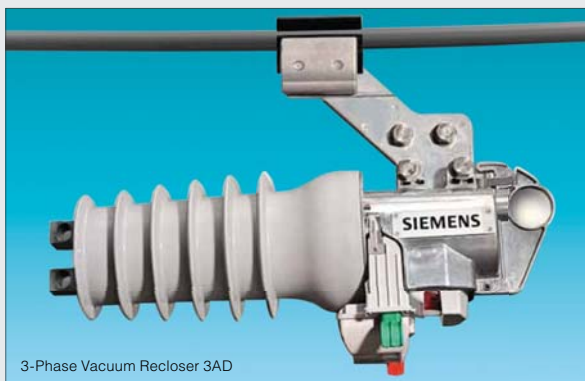
8DJH Ring Main Unit as switchboard panel

Front-panel locking is intuitive and fool-proof – meeting the specific needs of the New Zealand distribution companies' standard practices. The Ring Main Unit features low-pressure, sealed-for-life tanks, to eliminate the need for maintenance and gas handling. Further options for the 8DJH series include motorised operation of disconnectors and spring recharge, auxiliary switches for remote indication, surge protection, VT and CT options, and a range of protection, indication and fault passage indicators.

Outdoor Switchgear

Fusesaver™

Fusesaver™ is the most cost-effective solution to improve reliability and minimise operating costs of rural overhead MV networks. It is capable of almost completely removing the impacts of temporary faults that lead to the blowing of fuses feeding spur lines.



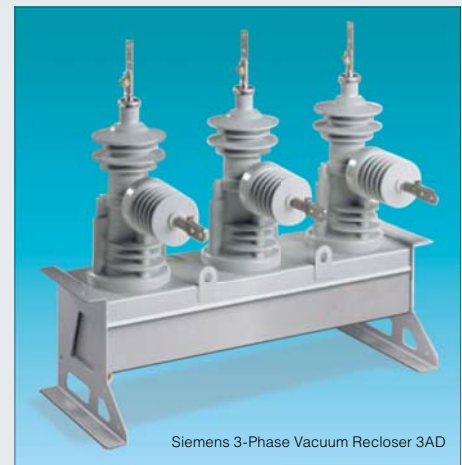
3-Phase Vacuum Recloser 3AD

Ring Main Units (11 and 22 kV)

The 11 and 22 kV 8DJH series of Ring Main Units is available with a variety of Class A and Class B (public safe) enclosures so they can be used for outdoor applications. The 36 kV 8DJH series is available with a Class A outdoor enclosure option. Contact HV Power for more information.

Reclosers (11, 22 and 33 kV)

Single and three pole outdoor reclosers with voltage ratings for 11 kV, 22 kV and 33 kV distribution systems are available from HV Power. The vacuum-only devices provide high performance and long life.



Siemens 3-Phase Vacuum Recloser 3AD

Outdoor Vacuum Circuit Breakers (11, 22 and 33 kV)

Siemens Outdoor Vacuum Circuit Breakers are specifically designed to have a minimum of moving parts and a simple design in order to guarantee a long electrical and mechanical service life.

The 3AF0 and 3AG0 are restrike-free and offer reliable operation through their stored-energy spring operating mechanism. They are easy to install, operate and maintain. Due to their modular structure and lightweight components, these Siemens live-tank circuit breakers can be easily transported to their installation site.



3AF0 Vacuum Breaker



POWER AUTOMATION TECHNOLOGIES

Siemens Power System Automation Devices

Remote Terminal Unit SICAM A8000 Series

The SICAM A8000 series is modular and designed for remote control and automation applications out on the distribution networks. The series was developed to operate in harsh electrical environments. Such applications demand reliability, and therefore the product features include the following.

- An extended temperature range from -40 to +70 °C for indoor and outdoor use.
- High voltage withstand up to 5 kV (IEC 60255) for use in substation environments.
- Tough cyber-security requirements, such as integrated crypto chip and IPSec encryption, for use in today's and tomorrow's environments.

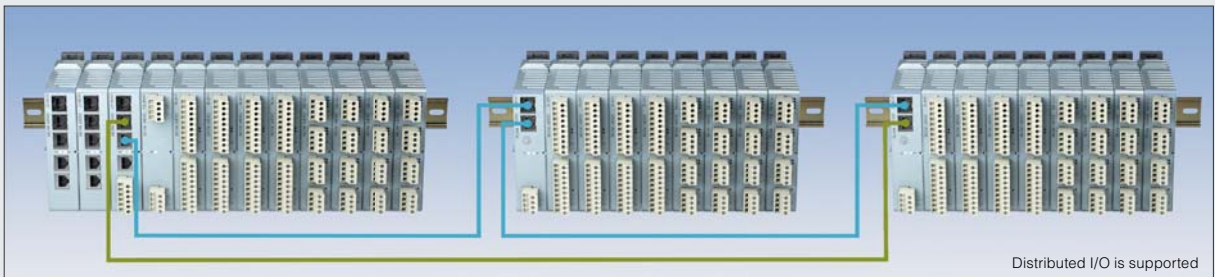
With the major cost of any project being labour, SICAM A8000 is a wise choice, as it is scalable. The same controller can be used cost-effectively for both small and large applications, simply by adding more I/O modules. Evolving communication protocols and security standards can render network equipment obsolete. For A8000, a long product life is assured through the existing security functions and protocols provided, which include DNP serial and DNP-IP (in addition to MODBUS RTU, MODBUS TCP and IEC 61850).



Power supply, CP-8021 RTU with additional I/O modules

I/O modules include:

- Binary inputs
- Binary outputs
- Analogue outputs
- PT100 inputs
- 4-20 mA inputs
- 63.5 V input for connection to traditional VTs, or LoPo inputs for voltage sensors
- 1/5 A inputs for CT secondary's, or adapter module for LoPo CTs



Distributed I/O is supported

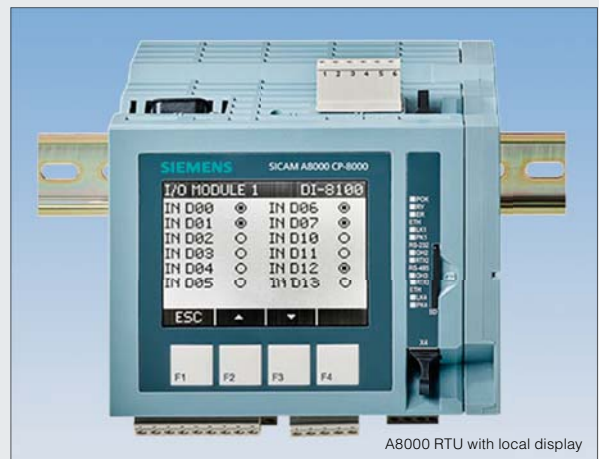
The CP-8050 is the more powerful RTU control module, allowing up to 10 Ethernet interfaces with integrated firewall and dual redundant power supplies.

A8000 products feature:

- RS-232 interface
- RS-485 interface
- 2+ Ethernet interface
- Protocols include MODBUS RTU/TCP, DNP serial/IP and IEC 61850
- RTU, protocol conversion and custom logic functionality
- Cellular and IP communications

An integrated web server interface is suitable for most setup functions, with SICAM Toolbox software being available where great functionality or management of multiple devices is required.

These features make the CP-8021 the RTU of choice for HV Power's 8DJH Ring Main Unit automation.



A8000 RTU with local display

The Company

Founded in 1994, HV Power is a privately held technology company that operates as the exclusive New Zealand distributor for several foreign and one local manufacturer. Our range of Intelligent Electronic Devices includes protective relaying, substation automation, transformer tap changer and temperature controls. We're also involved in fault passage indicators, time synchronisation, power quality monitoring, electrical metering products and transformer DGA monitoring. Plus we provide primary and secondary medium-voltage distribution equipment to the electrical industry (such as circuit breakers, ring main units and resonant earthing systems).

HV Power has built a solid reputation for providing comprehensive technical and practical hands-on support to our customers amongst the New Zealand power utility companies, their engineering consultants and contractors. The HV Power team holds many years of industry experience and knowledge on the application of the various technologies we supply. Examples of our team's practical hands-on success include providing the first IEC 61850-based substation automation systems in Australasia in early 2005. More recently we've worked with customers using cellular technology for remote control of Ring Main Units and for monitoring of FPLs. Our people often work with utilities to develop network standards for transformer controls and the roll-out of new technologies.

Technical Support 0800 HV CALL (0800 48 2255)

The HV Power front line



Geoff Vaughan // Founder & Director

Geoff founded the business back in 1994 with a background in electronics, test instruments and sales. These days he works three days a week, passing on his knowledge and expertise to our staff to help ensure HV Power's 'hands-on' service continues into the future.



Mike Strong // Managing Director

Mike joined the company in 2003 bringing practical experience from working for NZE, contracting companies and a local network lines company. Mike's role is to lead the team and to co-ordinate and manage the company and its resources. He is well known to our customers for leading 'from the front', being actively involved in sales of switchgear and other product lines.



Warwick Beech // Marketing Manager and Director

Originally qualified as an electrical/electronic technician, Warwick then moved into test and measurement product sales. After working internationally for a decade as a Product Manager in the power quality industry, Warwick returned in 2007 to set up a Wellington office for HV Power.



Rob Knight // Operations Support Manager

Rob has been involved in sales and the services/support side of HV Power. With the rapid growth of sales of Ring Main Units, Rob has taken on the role of Operations Support Manager based at our RMU facility. He's responsible for the delivery of quality standard and customised ring main solutions to our customers.



Marcus Ling // Product Specialist

Marcus has for many years been associated with the sale of primary plant to the local PTD sector. His role has been to develop opportunities for our RE+DS Resonant Earthing and Earth-fault Detection products. In the last two years he's been heavily involved in all aspects of the sales and support of Siemens MV switchgear at HV Power.



Vladimir Brijacek // Senior Engineer

Vladimir is well-known in the industry with 30 years of practical electrical engineering experience. At HV Power he's responsible for providing our field commissioning support and Engineer-to-Contract roles.



Wim van den Berg // Project Engineer - MV Switchgear

With increasing numbers of 8DJH RMUs being ordered with automation and customer-specific options, Wim co-ordinates the fulfilment of orders for engineered RMU solutions. He recently graduated with a Master of Engineering Management from Auckland University.



Pura Sasikaran // Technical Support Engineer

Pura joined HV Power in December 2012 and has been supporting customers with Siemens SIPROTEC Relay hardware, firmware and DIGSI setting software. Resolution of technical issues involves her liaising at a technical level with customers and suppliers as well as dealing with product repairs and updates.



Mohit Phadnis // Support Engineer

Mohit has worked for HV Power since graduating in 2012. His primary focus is providing application and technical support to customers. Mohit is now our technical lead support engineer for A.Eberle REG-D / REG-DA Voltage regulators for New Zealand and Australia.



Payam Hamidi // Support Engineer - SCADA & Automation

Payam is an Iranian electrical engineer who migrated from Oman. He brings experience with SCADA systems, substation automation and telecommunication systems for SCADA systems. His appointment in 2018 strengthens our technical support resources for automation, networking and communication technologies.



Shank Paramanathan // Sales Engineer

Since returning to HV Power in late 2017, Shank has been responsible for a local key customer account as well as customers in Queensland and NSW. To support our expanding A.Eberle business, Shank works out of our Auckland office, with regular visits to Australia.



Howard Wardley // Sales Engineer - Protection

Howard has significant industry experience locally and abroad in the roles of protection relay sales, support and power systems engineering. He joined HV Power in 2017 as 'Sales Engineer - Protection' to focus on the sales and support of Siemens SIPROTEC relays, RMS and other IED products in the lower South and upper North Islands.



Grant Wells // Business Development Manager

Based in Melbourne, Grant is HV Power's Business Development Manager for Australia. His extensive transformer experience makes him our transformer monitoring and controls application expert.



POWER AUTOMATION TECHNOLOGIES

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