CLIVE WILSON
SWITCHBOARDS

COMPANY PROFILE

Innovative switchboard solutions from one of New Zealand's leading industrial switchboard manufacturers since 1971.

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HELLO.

Clive Wilson Switchboards has a reputation for reliable and quality switchboard manufacturing throughout New Zealand and abroad, with over 55 years in the electrical industry.

EXPERIENCED & TRUSTED

We are a leading manufacturer of switchboards, control panels, automation systems and related services. With approximately 25 staff, including registered electricians, apprentices, estimators, automation engineers, CAD operators, and office management personnel. We also have a state-of-the-art, recently refurbished powder coating plant, as well as a laser engraving studio.

Our modern 2300 sq metre facility is located in central Invercargill. We are proud to have been ISO 9001 certified since 1995, and undergo annual audits to maintain our status. Additionally, we are a Schneider Electric Accredited Prisma Partner.

We are the preferred supplier to Fonterra, the Alliance Group, NZAS, Open Country Dairy Limited and Oceania Dairy Limited to name a few.

THROUGH THE YEARS

1968 - 1989

Company was initiated by Clive Wilson. In 1971, the Company moved to a purpose-built building. 1983 saw the sudden death of Clive, and his son Alan Wilson & Wayne Affleck purchased the business in 1988. A larger (and current) premises was purchased in Clyde Street in 1989.

1989 - 1992

In 1989 Clive Wilson Electrical Wholesale was added, and Clive Wilson Computers in 1992.

2009 - 2015

In 2009 Alan became the sole Managing Director of the CW Group. In 2013, CW Electrical Wholesale became part of the Telfer Group and was renamed CW Telfer Southland. In 2015, Clive Wilson Computers was closed.

2021

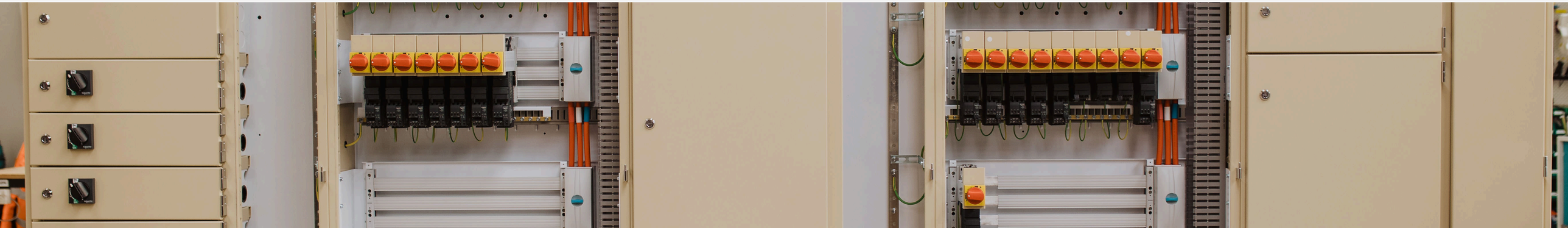
In 2021, CW Telfer Southland was sold to the Telfer Group, before their move to a new building leaving Clive Wilson Switchboards as the sole occupier of our Clyde Street premises.

2023

Major renovations of our premises have begun, with the relocation of our Powder Coating plant, and expansion of our workshop.

2025

Alan's son, Chris, and daughter, Kylie, are formally appointed as Directors, marking a new chapter in the company's leadership and continuing the Wilson family legacy.



MEET OUR TEAM

Alan Wilson

Managing Director of
Clive Wilson Switchboards.
Estimator/Contract Handler
with 45+ years experience in
switchboard manufacturing.

Chris Wilson

Director
Estimator
Contract Handler

Mark Boniface

Estimator
Contract Handler

Luke Payne

Workshop Foreman

Stephen Payne

Production Manager

Quintin Thompson

Leading Hand

Russell Yeo

Automation

Ben Yeo

Automation
Drafting

Kylie Thompson

Director
Financial Controller
Quality Manager ISO9001:2015
Health & Safety Coordinator

Daniel Evans
Lynda Heslin

Drafting

Peter Eccles

Freight & Stores

Karen Wilson
Krystal Birch

Administration

Supported by

11 Workshop Staff
3 Powder Coaters
1 Laser Engraver

QUALITY ASSURANCE

Clive Wilson Switchboards operates a fully integrated Quality Management System certified to ISO 9001:2015.
This internationally recognised standard ensures our processes are designed, implemented, and continuously improved to meet both customer expectations and regulatory requirements.

Our QMS provides a structured framework for:

- Documented procedures that control all aspects of production, testing, and delivery
- Regular internal audits to verify compliance and identify improvement opportunities
- Corrective and preventive actions to address non-conformities and reduce risk
- Management review meetings to evaluate performance, resourcing, and progress toward quality objectives
- Customer feedback collection and analysis, ensuring we respond proactively to needs and concerns

Certification to ISO 9001:2015 demonstrates our commitment to quality at every level of the business — from design and drafting through to final inspection and delivery. It reinforces our position as a trusted supplier of industrial switchboard solutions that meet the highest standards of performance, safety, and reliability.

OUR MISSION & VISION STATEMENT

At Clive Wilson Switchboards, our aim is to build and supply, with pride, products of the highest quality. We are committed to continually improving our products, services, and systems to ensure total customer satisfaction in everything we do.
We will achieve this through teamwork, trust, and the involvement of everyone across our organisation. The Director pledges to provide the resources and leadership necessary to support our goals.

Our policy is to:

- Meet or exceed all applicable requirements, including customer specifications, regulatory obligations, and contractual commitments.
- Provide a framework for setting and reviewing quality objectives aligned with our strategic direction.
- Maintain and improve the effectiveness of our Quality Management System (QMS) through training, engagement, and regular review.

We are committed to remaining a trusted and reliable leader in our field, delivering consistent quality and value to our customers.

LOGSTRUP

AS/NZS 61439 CERTIFIED MOTOR CONTROL CENTRES

Logstrup represents a high-performance, modular control panel and switchgear system engineered for industrial-grade applications. This system features a fully modular and scalable architecture, offering exceptional flexibility, safety, and ease of customisation across a wide range of industries.

Logstrup complies with the IEC 61439-2 and AS/NZS 61439 standards for low voltage switchgear and control gear assemblies. Its components are independently type-tested, including arc fault containment (IEC/TR 61641), ensuring full certification and safety assurance under demanding operational conditions. Constructed from 2mm Aluzinc with a high-strength five-bend profile, the Logstrup system is known for its durability and rigidity. Internal separation of equipment, busbars, and cabling compartments is achieved up to Form 4B, enhancing protection for operators and equipment. The standard finish is RAL 7035 fine structure, with optional RAL 9005 and other custom colour finishes available upon request.

Logstrup is designed for long-term adaptability, supporting upgrades and configuration changes without extensive modification. It offers three standard heights (1995mm, 2185mm, and 2375mm) and six depth options, with front or rear access configurations and custom sizes available. The bolted modular framework ensures that sections can be extended or reconfigured without cutting, welding, or drilling.
The busbar system supports main currents up to 8,500A with options for 2-, 3-, or 4-bar arrangements, and tin-plated copper construction ensures outstanding conductivity and corrosion resistance. Horizontal and vertical busbars are located in dedicated compartments and rated for peak withstand currents up to 363kA. Access for inspection or maintenance is facilitated via removable covers, and internal arc barriers can be added for enhanced safety. Cable management is integrated into each section, with dedicated vertical cable ways, pre-fitted cleats, and non-ferrous gland plates at both ends. All terminations are accessible from the front, allowing efficient and safe installation and maintenance.

Logstrup's modular system includes fixed, removable, and withdrawable functional units. Each module features interlocking mechanisms and high ingress protection (IP20 minimum, up to IP54). Functional units up to 630A are available in withdrawable or removable formats, supporting live reconfiguration and front-access installation. For larger capacity needs, fixed ACB units up to 2,500A are available with rear connection and secure bolted distribution.

The system accommodates equipment from all major switchgear brands and supports modern communication protocols such as DeviceNet and ProfiBus, ensuring compatibility with advanced automation and control systems. All units are modular in design, interchangeable within their series, and built for operator safety and operational flexibility.

WHAT WE CAN DO FOR YOU

SERVICES

Switchboards: Main Switchboards, Power and Load Distribution
Motor Control Centre: Forms 1, 2, 3 & 4
Distribution Boards: Mechanical & Electrical Services
Automation: Process and Control, Building Management
Generator Controls: Load Shedding, Synchronization, Automatic Mains Failure
Application Specific: Custom Design and Build
System Integration: PLC, SCADA, Telemetry, Networking
Engineering: Design, Estimation, CAD, Arc Flash studies, Selectivity and Discrimination Studies
Services: Modifications, Commissioning

We offer Arc Flash Studies and compliance support to help reduce risk, improve worker safety, and ensure your site meets industry obligations.

Arc Flash Risk Assessments: In line with IEEE 1584 and AS/NZS 4836 standards
Incident Energy Calculations: Determines arc flash boundary and PPE level required at each location
Custom Arc Flash Labels: Laser-engraved and site-specific, including cal/cm² and PPE category
PPE Level Identification: Supports safe work permits, energised access, and toolbox talks
Documentation Pack: Includes single line diagrams, trip unit settings, arc flash boundaries, fault level data, and control measures
Integrates with New or Existing Boards: Available as part of new CWS switchboards or retrofit site studies

HEALTH & SAFETY

ARC FLASH RELAYS: PROTECTING OPERATORS, MINIMISING RISK

Safety is central to every system we build. To minimise the serious risks of arc flash incidents, we integrate advanced arc flash relays that detect faults instantly and isolate the source before energy is released. We use two industry-leading platforms:

SEL-751 (by Schweitzer Engineering Laboratories)

A smart protection relay that combines light and current detection for ultra-fast (<4 ms) tripping.

Key Features:

- Zone-selective isolation to reduce unnecessary shutdowns
- Real-time event monitoring for improved safety procedures
- Seamless integration with SCADA, HMI, and remote systems

VAMP 321 (by Schneider Electric)

A dedicated arc flash relay ideal for high-risk or retrofit environments.

Key Features:

- Breaker tripping in under 2 ms
- Up to 30 arc sensors for full zone coverage
- Redundant trip channels for reliability
- Flexible use with new or existing systems

Benefits of Arc Flash Relay Integration

Faster fault clearing = Reduced risk of injury
Lower incident energy = May lower PPE requirements under AS/NZS 4836
Improved diagnostics = Quicker, safer fault recovery
Zone protection = Keeps unaffected areas live
Retrofit-ready = Adds safety to older boards
Remote visibility = Enables early warnings and safer control

By building in intelligent arc protection, we deliver safer systems, support compliance, and protect what matters most — your people.

FIRE DETECTION

& SUPRESSION INTEGRATION

We offer fully integrated fire detection and suppression options for switchboards and control panels, designed to protect critical electrical infrastructure and reduce downtime risk.

VESDA Early Smoke Detection

- Aspirating smoke detection for very early warning of overheating or smouldering
- Constant air sampling to detect smoke at the earliest possible stage
- Multi-level alarm thresholds to support staged response actions
- Ideal for high-sensitivity environments such as MCCs, control panels, and server enclosures
- Interfaces easily with SCADA, PLC, and building management systems

PAFSS Enclosure Fire Suppression

- Self-contained fire suppression that activates without external power
- Flexible heat-sensitive detection tubing discharges clean agent directly at the source
- Uses 3M™ Novec™ 1230 – a fast-acting, residue-free clean agent
- Designed for compact electrical enclosures such as MCCs, automation panels, and remote cabinets
- One system can be configured to protect multiple enclosures
- Low-maintenance and suitable for both new builds and retrofit applications

THERMAL IMAGING ACCESS

BUS CHAMBER SAFETY & MAINTENANCE

Busbar chambers are critical to system reliability and carry elevated arc flash risk. To support safer maintenance and predictive fault detection, we offer integrated thermal imaging access solutions for busbar compartments and other live enclosures.

Key Features

- Infrared Inspection Windows

Installed on bus chamber doors to enable non-invasive thermal scans while energised. Compatible with FLIR and Fluke thermal cameras.

- Fluke CV Series Windows

Uses ClirVu® crystal technology to maintain IP integrity and arc containment while allowing thermal visibility. Options include CV400 (95 mm) and CV300 (75 mm).

- Predictive Maintenance Ready

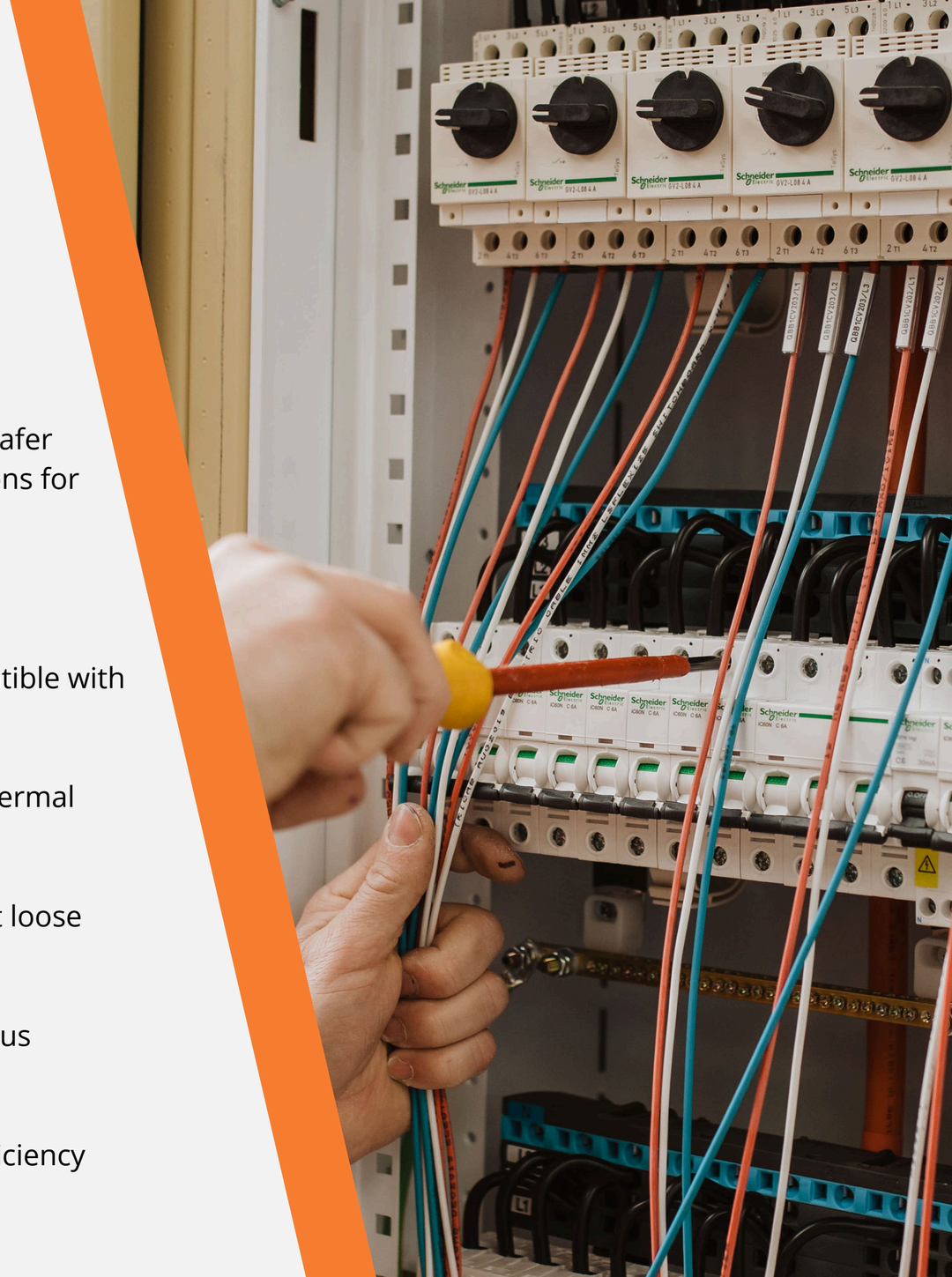
Enables routine thermal imaging as part of a preventative maintenance program. Helps detect loose terminations, unbalanced loads, and overheating before failures occur.

- Arc Flash Risk Reduction

Eliminates the need to open live compartments for inspections, reducing exposure to hazardous energy. Supports AS/NZS 4836 compliance and may lower PPE category requirements.

- No Downtime Required

Allows safe thermal inspections without de-energising equipment, improving maintenance efficiency and plant availability.



TECHNOLOGY

IOT 4.0 - EcoStruxure

EcoStruxure Maintenance Advisor

Predictive Maintenance and Asset Health Monitoring

EcoStruxure Maintenance Advisor is Schneider Electric's condition-based maintenance platform designed to provide visibility into the health and operational status of connected electrical equipment. It enables real-time monitoring of breakers, relays, and other critical devices, with the ability to log events, track wear indicators, and schedule maintenance tasks based on actual performance data.

Through direct integration with devices such as Micrologic trip units and Modicon PLCs, the platform supports automated diagnostics, alarm filtering, and historical analysis — allowing for more efficient fault response and reduced unplanned downtime.

Maintenance Advisor can be deployed locally or via cloud and integrates with EcoStruxure Power Monitoring Expert (PME) for a unified view of both energy usage and asset health.

Micrologic 7.0E Trip Unit

Advanced Protection and Intelligent Breaker Monitoring

The Micrologic 7.0E is Schneider Electric's most advanced electronic trip unit, designed for use in ComPacT NSX, NS, and Masterpact MTZ circuit breakers. It combines full protection functionality with integrated energy monitoring, making it ideal for applications where both electrical safety and operational visibility are priorities.

This trip unit enables high-resolution monitoring of load conditions, power quality, and breaker performance. When paired with a voltage module, it supports detailed metering of current, voltage, power (active, reactive, apparent), and total harmonic distortion (THD).

Key features include:

- Long-time, short-time, instantaneous, and ground fault protection
- Residual current (RC) protection when used with a compatible sensor
- Trip history logging with timestamp (Vmem required)
- Thermal stress and mechanical wear indicators
- Real-time current and power monitoring
- Built-in support for Modbus RTU or TCP via SL Interface or COM Module
- Seamless integration with EcoStruxure Maintenance Advisor and Modicon PLCs

The 7.0E is suitable for applications requiring condition-based maintenance, arc fault analysis (via logic inputs), and SCADA or EMS integration.

TeSys U – Compact Starter with Essential Diagnostics

A modular, space-saving solution combining starter, protection, and communication in a single unit. When fitted with an LUCB control unit and Modbus module, it provides essential motor monitoring and control data.

- Remote start/stop control via Modbus RTU
- Motor status feedback — ready, running, faulted
- Fault cause identification — overload, short-circuit, phase issues
- Estimated motor load indication
- Warning alerts and remote reset capabilities

Suited for distributed control systems, OEM applications, or cost-sensitive installations requiring compact design and core diagnostics.

TeSys T – Digital Overload with Advanced Diagnostics

An intelligent motor management system designed for high-value or critical loads where visibility and protection are essential.

- Full-featured electronic motor protection — overload, jam, stall, phase loss, ground fault, and more
- Continuous monitoring of current, voltage, and thermal load
- Detailed diagnostic and trip history, accessible remotely
- Live data enables predictive maintenance strategies
- Connects directly to Modicon PLCs and SCADA systems via
- Modbus RTU or TCP
- Remote configuration and reset without opening the panel

Ideal for MCCs and systems where early detection and minimal downtime are priorities.

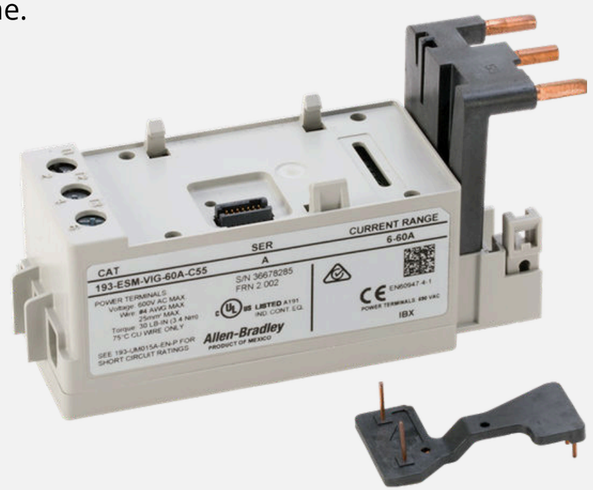
Allen-Bradley E300 Motor Protection Relays

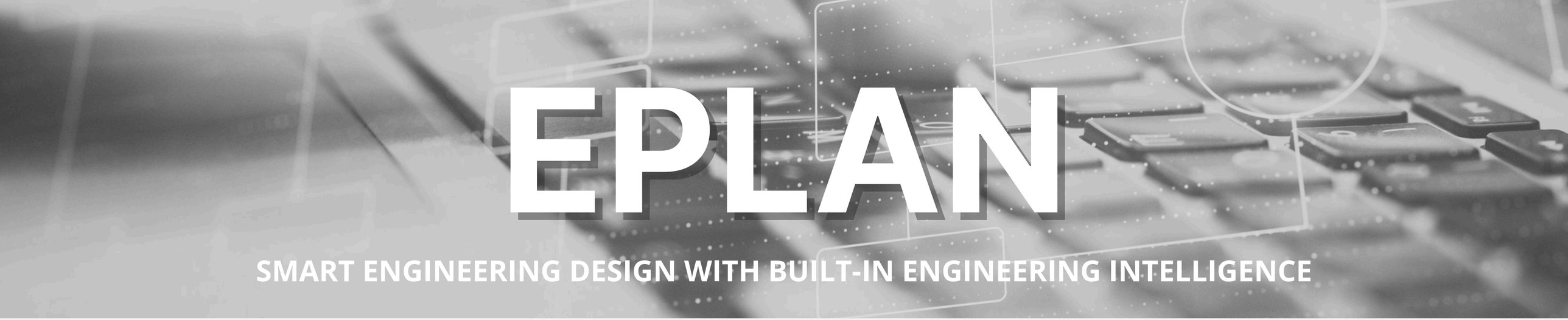
The Allen-Bradley E300 Electronic Overload Relay represents the latest advancement in motor protection technology, offering a modular design that integrates seamlessly into modern automation systems.

Key Features:

- Modular Design: Comprises sensing, control, and communication modules, allowing for tailored configurations to meet specific application requirements.
- Communication Flexibility: Provides seamless connectivity to Logix controllers via dual-port EtherNet/IP or single-port DeviceNet, facilitating efficient integration into various network architectures.
- Versatile Mounting Options: Supports DIN rail mounting or direct attachment to IEC contactors, offering installation flexibility.
- Comprehensive Motor Protection: Offers 54 operating modes suitable for a range of single and three-phase motor applications, enhancing its adaptability across different systems.
- Advanced Diagnostics: Delivers real-time diagnostic information, including thermal utilization, current imbalance, and trip histories, enabling proactive maintenance and reducing downtime.

By integrating the E300 relay into your motor control setup, you can achieve enhanced protection, improved diagnostic capabilities, and streamlined system integration, contributing to overall operational efficiency.





EPLAN

SMART ENGINEERING DESIGN WITH BUILT-IN ENGINEERING INTELLIGENCE

We use EPLAN Electric P8 – Pro Version as our standard platform for electrical drafting and documentation. This software goes well beyond traditional CAD, allowing us to engineer smarter from the outset and deliver consistent, accurate, and scalable designs. With the Pro version, we're able to automate repetitive tasks, standardise circuit layouts, and generate detailed schedules and build documentation directly from the design environment. It's especially valuable when working on modular switchboard sections, motor control centres, or projects that need to scale across multiple panels or sites.

Key features of our EPLAN setup include:

- Design Automation
- Common functional blocks like DOL starters, VSD feeders, and VCB protection schemes can be dropped in as macros, reducing manual work and keeping designs consistent across projects.
- Live Device Data
- All components are sourced from the EPLAN Data Portal, so part numbers, wiring info, and terminal IDs are always up to date and compliant with IEC standards.
- Error Reduction
- EPLAN's built-in logic checks catch missing references, open wires, and duplicated tags before they make it to the floor, helping avoid time-consuming rework.
- 3D Panel Layouts
- With 3D design tools, we can model panel internals with accurate spacing, DIN rail positions, and cable clearance — so what's built matches what's drawn.
- Manufacturing Integration
- EPLAN Pro supports direct export for CNC panel punching, automated wire cutting, and digital handover to assemblers and testers.
- PLC and Field Integration
- I/O references from Modicon, Siemens, or Allen-Bradley PLCs can be cross-linked to wiring diagrams automatically, keeping the schematics in sync with the control system.
- Smart PDF Exports
- All schematics and documentation are published as linked smart PDFs — meaning cross-references, wire numbers, and page jumps are fully clickable. This makes navigation faster for technicians during installation, commissioning, and fault finding.

Using EPLAN Pro means we're not just drawing — we're engineering with built-in intelligence. It helps us deliver faster, with fewer errors, and gives our clients structured, easy-to-navigate documentation from day one.

POWERCAD: ELECTRICAL DESIGN & COMPLIANCE CALCULATION SOFTWARE

PowerCAD is an Australian-developed software suite used for electrical system design, compliance verification, and documentation. It is commonly used by engineers and switchboard manufacturers to model and validate low-voltage distribution systems in accordance with AS/NZS 3000, AS/NZS 61439, and AS/NZS 3017.

Key Functions:

- Cable Sizing
- Calculates cable sizes based on voltage drop, derating factors, installation method, and short-circuit performance.
- Fault Loop Impedance & Disconnection Times
- Verifies fault loop paths and compliance with required disconnection times under AS/NZS 3000.
- Load Flow Calculations
- Assesses single- and three-phase load distribution, including diversity and demand factors.
- Short-Circuit Calculations
- Calculates prospective fault currents at all system nodes.
- Selectivity & Coordination Checks
- Assists in assessing discrimination between protective devices, including time-current curves and cascading effects between upstream and downstream breakers.
- Arc Flash Boundary & Labelling
- Provides incident energy estimates and arc flash boundaries, based on IEEE 1584 and NFPA 70E methodologies, with label outputs for site use.
- Switchboard Design Checks
- Supports AS/NZS 61439 verification including busbar sizing, form ratings, and thermal limits.
- Project Documentation Output
- Generates schedules, single line diagrams, arc flash labels, and compliance reports suitable for tender and final documentation.

BY THE NUMBERS

Technical

LOGSTRUP Power Distribution / Motor Control Centre is built to comply with AS/NZS 61439 and IEC 61439 standards.

Rated operating current
- InA up to 8500A (main busbar)
- Distribution busbars: up to 2000A (fixed) / 1800A (withdrawable & removable)

Rated operational voltage
- Ue 690V

Rated insulation voltage
- Ui 1000V
- AS/NZS 61439.1:2016 – 10.9.2

Rated impulse withstand voltage
- Uimp 8kV
- AS/NZS 61439.1:2016 – 10.9.3

Short circuit withstand strength
- Main busbar Icw up to 165kA for 1 sec – Ipk up to 363kA
- Distribution busbar Icw up to 100kA for 1 sec – Ipk up to 220kA
- AS/NZS 61439.1:2016 – 10.11

Degree of protection
- Up to IP54
- AS/NZS 61439.1:2016 – 10.3

Mechanical impact strength
- IK10
- AS/NZS 61439.1:2016 – 10.2.6

Routine verification
- AS/NZS 61439.1:2016 – 11

Compliance

General Rules
- AS/NZS 61439.1:2016
- IEC 61439-1 / BS EN 61439-1

Power Switchgear and Control Gear Assemblies
- AS/NZS 61439.2:2016
- IEC 61439-2 / BS EN 61439-2

Australian/New Zealand Electrical Wiring Rules
- AS/NZS 3000:2018

Environmental Testing
- IEC 60068-2-30/11

Fire Hazard Testing
- AS/NZS 60695.2.11:2001 + A1

Degrees of Protection – Mechanical Impact (IK Code)
- BS EN 62262:2002

Degrees of Protection – Ingress Protection (IP Code)
- AS 60529:2004 (Reconfirmed 2018) / IEC 60529

Arc Fault Containment
- IEC/TR 61641

Other Applicable Standards
- IEC 62208
- CSA-C22.2 No. 31 & 14
- DIN VDE 0660 Part 500

OUR PARTNERS

OMRON

Schneider Electric

RITTAL

NHP

A-B QUALITY

Allen-Bradley by ROCKWELL AUTOMATION

GET IN TOUCH

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