



Driving forward **electrical excellence**

ABB Drives & Motors

Specialist Control Panels

Service Contracts

About Us

Since 1991, Halcyon Drives have provided electrical engineering solutions both locally and nationally, earning ourselves a reputation of excellence.

Operating as three departments, specialist distribution, service and control panels, that function both in solitude and in unity, providing our clients with a unique offering with our industry.

Our specialist distribution division focuses primarily on the small portfolio of brands and with whom we are partnered. As such, we have a specialist for each of our product ranges, providing our clients with the convenience needed to easily specify and select the relevant product for their needs. We appreciate our customers are responsible for a wide variety of duties within their roles, reducing the stress of selection of product doesn't need to be one of them.

Through our service team, our client's needs and the minimisation of downtime is the focal point of our operations. The team are comprised of highly experienced and specialist engineers. Providing the most capable of solutions for your needs, no matter the complexity.

Finally, our control panel and MCC division boast a team of highly qualified designers, PLC software writers and a team of wiremen and panel builders who produce control panels to a substantial quality. Our capabilities range from small user panels to Form 4 MCC's.

Halcyon Drives Ltd are partnered with leading brands including ABB, Automation, Riello UPS & PULS.



Drives
Motors
Softstarters



Because our portfolio is focused, our team is enabled to train on the supported product groups regularly, to provide a quality service to our clients. Whether it is pre or post sales support of the product ranges, our team are available to assist with your enquiry.

Accreditations & Certificates



Achilles UVDB Registered

Achilles is a leading provider of supplier risk management services who deliver managed supplier pre-qualification programmes, carry out industry audits, mitigate risks, cleanse supplier data and provide reports and analysis to drive continuous improvement.



SafeContractor

SafeContractor is the leading third-party accreditations scheme that recognises very high standards in health and safety management, equal opportunities, diversity and environmental management practices amongst UK contractors.



Reset

Reset aims to improve and simplify health and safety procedures for estates and facilities managers, health and safety professionals and building managers, as well as principal and subcontractors.



ISO Management Systems (ISO 9001, ISO 45001, ISO 14001)

The integration of these management system standards place a no compromise policy and commitment to maintain and continually improve on

- the quality of goods and services provided.
- the health & safety of all staff, visitors and the general public.
- efficient use of resources and waste reduction.





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Service available 24 hours a day, 7 days a week

Please feel free to contact us with your enquiries on:

0113 236 1509

Office: Mon-Thurs 8:30 - 17:00 | Friday - 8:30 - 16:30 (Excluding Bank Holidays)

Control Panels and Motor Control Centres

Halcyon Drives was born from a passion for designing and building quality control panels and MCC's over 40 years ago.



The Beginning

Two of the founding directors recognised there was a spectrum of quality within the market, with their knowledge and skills they wanted to offer one of the finest quality solutions available. And so, in 1985, TW Controls & Automation Ltd was born.



Moving On Up

By 2006 we expanded to a facility that boasted over 20,000 sq. ft to meet the demand for large control panels & motor control centres up to 10m in length.

Expanding our capacity to build for any application within any industry, pushing the boundaries of our expertise further still.



Present Day

Fast forward to the present day, now named Halcyon Drives, we have become one of the most successful control panel manufacturers in Yorkshire.

With a wealth of experience in both the design and build teams, working within all industries we are able to apply our expertise to all clients to ensure they have the best design possible for them.

What makes Halcyon Drives unique?

As a result of being the largest ABB Value Provider (Variable Speed Drive partner) in the UK, it lends a remarkable benefit to our clients.

Specifying a VSD can be tricky, especially when considering the most hazardous of areas on-site, fortunately, we are experts in this area.

In addition, our ABB Service team are experts on the functionality and commissioning of the variable speed drives as well as the commissioning of the VSD for your process. It is likely you do not access all the potential parameters that are relevant for your process and in fact, you may find the utilisation of such parameters is not only more cost-effective but add further benefit to your plant.



Innovation

At times we are faced with clients challenging issues that we as a team must overcome.

Not every job is simple, for instance, a control panel may be so old there are simply no drawings and we must backwards engineer the job before providing the best solution possible. Perhaps space is limited, we designed a back-to-back MCC for such a situation. Whatever the issue, we will always try to provide a solution.

At any given point through any division of our business, we want to provide our clients with peace of mind for the best solution that will ensure a smooth transition through to commissioning.

PLC and Software writing

The ethos of Halcyon Drives recognises that we will work only with clients in which we are able to add quality and the best value to the client, we are not prepared to offer substandard at any point of our delivery.

It is important to the core of our business philosophy that the people within our teams have the same delivery. Working in partnership with a local company that shares the same vision has meant that our services can be expanded and together can offer the systems integration package many have requested.



Offering expertise on a wide range of vendors has meant that those passions for the best job possible can be transferred through skill-sets incredibly beneficial to the client.

Some of those vendors include:

- Siemens
- Mitsubishi
- Allen Bradley
- Schneider

Design and Build

Whether you have a specification you are required to utilise, need design support, require drawings creating or in fact want a full turnkey solution.

Our design team can work to your exact needs, where specifications and design work is flexible, we will always try to encompass our wealth of experience to provide you with the most future-proofed and cost-effective solution possible.



Components

There are no limitations to the components that we use within our control panels, our relationships with key suppliers mean we can supply the products specified by the client. If your specification is open, we will always strive to utilise the highest quality components.

Durability, reliability and quality of our product is our ultimate goal, we want you or your client to be satisfied by their high-quality system and minimise the possibility of failures on-site.

Standards

As an ISO 9001 certified company, we follow stringent quality standards for manufacture and delivery of all our products and services. Maintaining our high levels of customer satisfaction is at the forefront of everything we do, but not at any cost.

Our additional certification to ISO 45001 and ISO 14001 means we can continue to meet our health & safety and environmental obligation while still delivering the high level of quality product expected by all our customers.



UL Listed Industrial Control Panel Manufacturer



As Halcyon Drives has grown, so have the geographical markets in which we can supply products.

Having become a UL listed Industrial Control Panel manufacturer, we are able to design and build control panels compliant to UL 508A standards. This means our expertise can now be supplied to the North America and Canada markets, with the in-house capabilities needed to serve this growing customer base.



Factory Acceptance Testing (FAT) and Documentation

With the complexity of a control panel or MCC comes countless opportunities for error, the purpose of the FAT is to ensure the components and the build of the product operates and performs to the high standards which we expect.

This can be done with the client to witness or be simply signed off by ourselves.

This is the basic level of testing that we would comply with, which will receive test documents and a declaration of conformity with the addition of drawings.

For those who have a concern about their temperatures on-site, temperature rise testing can be performed to demonstrate the performance of the control panel within a temperature range.

Installation and Commissioning

If you choose to utilise our team for the installation and commissioning, it is imperative that the transition of the control panel into your plant runs with minimum downtime.

Therefore we ensure there is pre-planning to effectively install the unit as quickly as possible, paired with our highly experienced engineers to minimise any complications with the process through the commissioning stage.

Keeping your downtime to a minimum is absolutely key to us, we understand that production flow is one of the main criteria for the works.



Testimonial

"We've worked closely with Halcyon for over 20 years, the reason for that is the reliability, cost, skill-set and most of all excellent customer service we receive on every project.

From small panel projects to large multiple projects, Halcyon are our first choice when it comes to panel build. All panels are inspected internally with any remedial snags actioned before final sign off.

They are given a wide range of complex drawings from different customers to work with and can offer everything from initial design right through to installation and commissioning if needed.

The panel builders are very experienced and what is good to see is the investment in young apprentices that show the commitment to the future of the firm."

Electrical Project Manager

ABB Low Voltage AC Variable Speed Drives

All compatible user interface saves commissioning and learning time.

The foundation of the all-compatible drives' portfolio lays in its architecture. The drives share the same software platform, tools, user interfaces and options. Yet, there is an optimal drive from the smallest water pump to the biggest cement kiln, and everything in the between. When you have learned to use one drive, it is easy to use the other drives in the portfolio.

The portfolio covers the complete spectrum of drives. From micro and machinery drives for machine building to industrial drives for controlling processing lines, all the way up to industry specific drives with purpose-designed features and functionality.

ABB drives are available directly from stock or can be built to order to meet more complex requirements. Our life cycle services ensure your processes run exactly as you expect - year after year.



ACS380 // Machinery Drive

0.25 kW - 22 kW

The ACS380 is an all-compatible machinery drive ideal for machine building.

Features

- Support for asynchronous, permanent magnet and synchronous reluctance motors
- Safe Torque Off (STO) is built-in as standard and can be controlled via PROFIsafe with an optional module
- Coated circuit boards as standard
- Design for up to 50 °C without de-rating



ACS480 // General Purpose Drive

0.75 kW - 22 kW

ACS480 drives are designed for customers who value high quality and robustness in their applications and have all the essential features built-in, reducing commissioning and set-up time.

Features

- Integrated Safe Torque Off (STO)
- USB interface for PC tool connection
- Integrated brake chopper and EMC C2 filter
- Integrated PID controllers, timers, load analyser, supervision functions, energy saving optimiser and energy saving calculator for effortless and easy operation
- Three relay outputs and PFC macro for simplifying running parallel pumps, fans or compressors



ACS580 // General Purpose Drive

ACS580-01 from 0.75kW - 250kW ACS580-04 from 250kW - 500kW ACS580-07 from 75kW - 500kW

ACS580 drives have all the essential features built-in, reducing commissioning and set up time. The assistant control panel with a broad set of languages is standard for ACS580 drives.

Features

- Integrated Safe Torque Off (STO)
- Two option slots, one for a field bus adapter and one for an I/O extension
- Integrated brake chopper and EMC C2 filter
- Can be upgraded with Bluetooth control panel for wireless commissioning and monitoring



ACH580 // HVAC Drive

ACH580-01 from 0.75kW - 250kW ACH580-04 from 250kW - 500kW ACH580-07 from 75kW - 500kW

ACH580 drives offer a complete HVAC functionality for controlling fans, pumps and compressors as well as complex equipment like air-handling units and chillers.

Features

- 5 PIDS to control HVAC processes
- BACnet MS/TP, Modbus RTU and N2
- Multi-fan/-pump/-compressor control for up to 8 units
- Safe torque off (STO) SIL 3/PI e
- Fireman's override
- Side-by-side mounting for wall-installed units

ACS880

The ACS880 offers the highest level of performance.



The drives are equipped with ABB's signature direct torque control (DTC), which provides precise speed and torque control for all applications and supports virtually any type of motor.

The extensive ACS880 offering includes wall-mounted drives, drive modules and cabinet-built drives, as well as low harmonic and regenerative variants.



ACS880 // Wall Mounted

0.55 kW - 250 kW

Compact wall-mounted drives with all important features built-in to the drive, saving installation space and time.

Enjoy premium control of virtually any type of AC motor with direct torque control (DTC), including permanent magnet motors and synchronous reluctance motors.

Flexibility is thanks to universal connectivity and a broad range of internal and external options.

Features

- Built on ABB's common drives architecture
- IP20, IP21 and IP55 enclosure cases
- Integrated safety including STO as standard
- Intuitive control panel with USB port
- EMC filter, choke and brake chopper built-in
- Supports a wide range of field bus protocols, I/O and encoder options
- Marine type approved design



ACS880 // Drive Modules

0.75 kW - 3200 kW

ACS880 drive modules consist of two types – single drive modules that control one motor and multi-drive modules that is used to control several motors.

They both have a configuration that contains a rectifier, DC link and an inverter. Multi-drive modules are essential in multi-drives where a standard DC bus arrangement is used, enabling single power entry and common braking resources for several drives.

Suitable for industries such as metals, oil and gas, mining, marine, offshore, material handling, pulp & paper, automotive, food & beverage, cement, power, water & wastewater.

Features

- Intuitive control panel and PC tool
- Direct torque control (DTC) for precise open and closed loop control
- Communication with all major automation networks
- Removable memory unit for easy drive commissioning and replacement
- Energy optimiser
- Designed for easy service

ABB Process Performance Induction Motors



ABB Process performance induction motors are tough, high quality products designed for durability in the most demanding environments and applications.

They are ideally suited to process industries and heavy-duty applications – sectors like mining, cement and paper - where motors have to meet high requirements for reliability, availability and efficiency in harsh conditions.

Features

- Cast Iron M3BP - IEC frame sizes 71 to 450
- Aluminium M3AA - IEC frame sizes 56 to 280
- Output power 0.12 to 1000 kW
- Efficiency class IE2, IE3 and IE4
- Wide range of options and accessories available

ABB General Performance Motors



Developed from the outset for maximum convenience and easy handling, ABB General Performance Motors can be used in a wide range of industrial applications.

These motors are suitable for OEMs to build into pumps and fans, as well as for gearboxes, conveyors, general machinery and other applications.

Features

- Cast Iron
- M2BAX - Frame sizes 71 to 335
- Output power 0.18 kW to 355 kW
- Efficiency class IE1, IE2 and IE3
- Simple and robust design
- Extensive modification possibilities with brand standard designs
- Online documentation

ABB IE5 SynRM and Drives



Synchronous reluctance technology combines the performance of the permanent magnet motor with the simplicity and service-friendliness of an induction motor.

The rotor has neither magnets nor winding and suffers virtually no power losses.

Features

- IE5 efficiency
- Magnet-free design
- Straightforward maintenance

ATEX Motor and Drive Packages

An ATEX approved AC motor and drive combination gives safe, economic power together with effective control.

By choosing an ATEX compliant motor and drive package, end-users can be confident that it is optimised for their application, complies to ATEX 2014/34/EU (ATEX 95) and is commercially beneficial, giving more available power. Combining the drive, motor and ATEX approved safe disconnects, means traditional cabinets can be replaced by wall-mounted drives, at IP21 or IP55.



ACS880 Wall Mounted Drive

Enjoy premium control of virtually any type of AC motor with direct torque control (DTC), including permanent magnet motors and synchronous reluctance motors.



ACS580 General Purpose Drive

ACS580 drives have all the essential features built-in, reducing commissioning and set up time.

The assistant control panel with a broad set of languages is standard for ACS580 drives.





ABB Ability™ Smart Sensor for Motors

The ABB Ability™ Smart Sensor converts traditional motors into smart, wirelessly connected devices.

It is attached to the frame of the motor; no wiring or machining is needed. Using algorithms, based on ABB's decades of motor expertise, the ABB Ability™ Smart Sensor relays information about the motor's operation and health via a Bluetooth-gateway or smartphone to a secure server.

The ABB Ability™ Smart Sensor picks up data on vibration, temperature and other parameters that can be used to gain meaningful information on the condition and performance of the motor.

ABB Ability™ Smart Sensor for motors can help you to:

- Identify inefficiencies within the system
- Uncover potential for energy savings
- Reduce risks related to operation and maintenance
- Prevent unexpected breakdowns
- Extend equipment lifetime
- Reduce maintenance costs (maintenance can be planned according to actual needs rather than based on generic schedules)



Product highlights

- Simple to install and use
- No wiring or machining is needed
- Data transfer via built-in wireless Bluetooth®
- Low Energy
- Data communications use industry standard encryption protocols
- All data is securely stored in the cloud

MEPS (Minimum Energy Performance Standards)

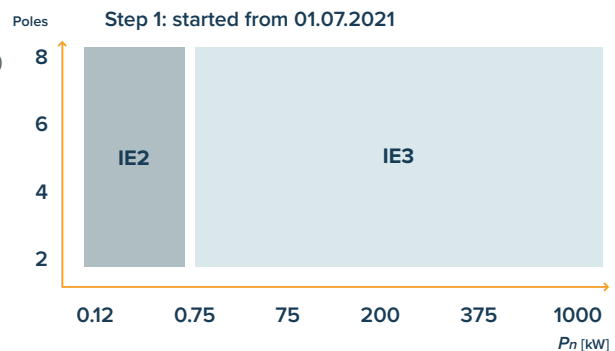
MEPS (Minimum Energy Performance Standards) for low voltage motors have played an important role in helping countries to meet their energy efficiency and carbon dioxide emissions targets.

Today ABB already offers a comprehensive motor portfolio that complies with the new requirements set by the new regulation, including motor types that are exempt in the current regulation like Ex motors, TEAO motors and motors for the 60 Hz network.

New regulation for electric motors

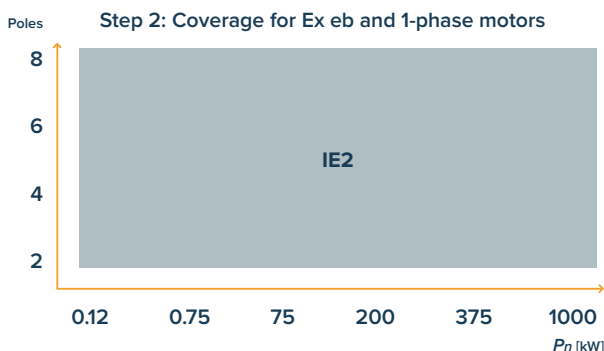
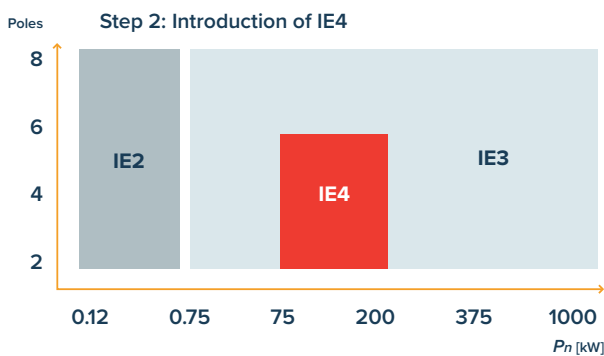
Step 1: Started 01.07.2021

The regulation covers 3-phase single speed motors 50 Hz, 60 Hz, 50/60 Hz rated for direct-on-line operation with continuous type defined as S1, S3>80% and S6>80%, motors for potentially explosive atmospheres with protection types of Ex t, Ex ec, Ex d and Ex de, brake motors with external brake and also Totally Enclosed, Air Over (TEAO) motors. It is important to note that the option of IE2 and VSD cases.



Step 2: Starting 01.07.2023 (additions to Step 1)

IE4 for 3-phase will become mandatory for 2-6 poles single speed motors between 75-200 kW. The coverage is also extended to Ex eb motors and 1-phase motors that must be of IE2.

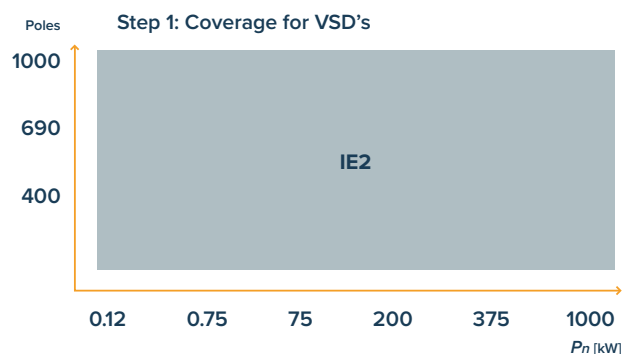


New regulation for variable speed drives

Step 1: Started 01.07.2021

The regulation covers 3-phase standard drives (diode rectifier) from 0.12kW < Pn < 1,000 kW.

For LV AC drives, the following exclusions from the directive apply: regenerative drives, low-harmonic drives (THD < 10%), multiple AC-output drives and 1-phase drives. A drive cabinet with already conformity assessed drives module does not need to be assessed again. Several drive types are also excluded from the directive: MV drives, DC drives and traction drives.



ABB's major drive products ACS880, ACS580, ACH580, ACQ580, ACS480, ACH480, ACS380 are confirmed as compliant, with product documentation and manuals updated accordingly.

Variable Speed Drive Service



Installation and Commissioning

We often find variable speed drives programmed in their most basic format, which means that they are running inefficiently.

When you use our highly trained and experienced ABB engineers to install and commission your variable speed drive, you will have far more detailed settings for your process.

Service Contracts

When you are running a plant where a number of your applications are critical, the last thing people consider is how you can deal with a variable speed drive failure.

By implementing a service contract with us, you can rely on us to get your variable speed drive back up and running - 24 hours a day, 7 days a week. If we can't repair the variable speed drive on site, we have a fleet of hire drives as a short-term solution.



Maintenance Visits

Variable speed drives are an integral component to a process and ideally should be maintained at least once a year.

Our team of highly trained engineers will work on site to maintain your variable speed drives, report any issues and make any recommendations. Implementing a maintenance programme will increase the life expectancy of your unit and, more importantly, reduce any potential downtime before a fault occurs.



Breakdown Assistance

Our service engineers are fully equipped to work on site to repair breakdowns, however, without a service contract this will be in normal working hours, and we would also be under obligation to work with a contracted client should the breakdown occur at the same time.

Hire Drives

It isn't always so straightforward to replace or repair a variable speed drive, which is why we have a fleet of hire drive units ranging from 18.5kW to 1mW.

All units are within a panel on wheels, in order to have the unit set up as quickly as possible. Hire drives are also often used to prove energy savings before capital expenditure.



Repair

Our highly qualified repair team will assess your variable speed drive within our repair workshop to give you an estimate of repair costs.

Usually on larger drives the cost of a new drive can be significant versus the cost of repair, but we will always provide you with the information to make the decision yourselves.

Training Courses

Training courses are available for ABB Variable Speed Drives, either at our purpose built training facility or at your own facilities. We have two courses available:

- Full Day Course - Installation and Maintenance Schedule
- Half Day Course - Programming

Each individual will receive a training certificate upon completion of the course. In addition to this, we're also pleased to offer a more in-depth training programme to meet any other requirements you may have.





Survey Work

Energy Audit

Our energy audits are quick, easy and free of charge. We will attend the site to view your applications and motor sizes, gain an understanding of your application, costs and energy consumption and produce a report that estimates potential savings.

Power Factor Correction Survey

Power quality can be an issue to any industrial site consuming commercial volumes of electricity. Electricity must be consumed efficiently, with its minimum performance of 0.95. Below 0.95 carries penalties charged by the electricity provider.

We can assess your power consumption and determine whether improvements can be made and what benefits you will gain.

Harmonic Survey

To facilitate our customers' needs in complying with the latest government legislation, Halcyon Drives carry out pre & post harmonic surveys to G5/5.

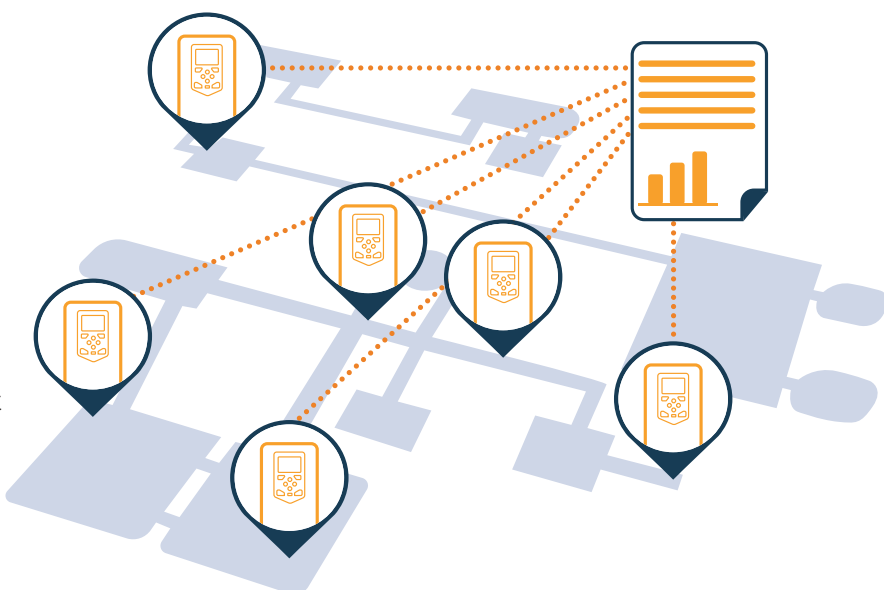
These surveys are particularly important when carrying out any new installations or adding any additional drives on site that may have a bearing on the total harmonic loading.

Life Cycle Assessment

The Halcyon Drives Life Cycle Assessment provides a full report on the type, location and duty of every drive in an installation.

The report details the condition and criticality of each drive and highlights any issues which may result in premature failure due to incorrect installation or poor maintenance, also bringing your attention to any drives which may have become obsolete.

All this information allows better planning of preventative and routine maintenance, avoiding costly and unscheduled periods of downtime.



Rockwell Automation

Guardmaster

Innovative safety products and solutions improve the functional operation of your machinery while helping to increase personnel safety, efficiency and productivity.

Offering one of the broadest safety portfolios in the industry to help you achieve both safety and productivity goals in process and discrete manufacturing applications.



TLS-GD2 Guard Locking Switch

The TLS-GD2 Guard Locking Switch is a positive-mode, tongue-operated interlock switch. It locks a machine guard closed until power is isolated and then keeps the power isolated while the guard is open. The TLS-GD2 has three safety (N.C.) contacts and two auxiliary (N.O.) contacts.



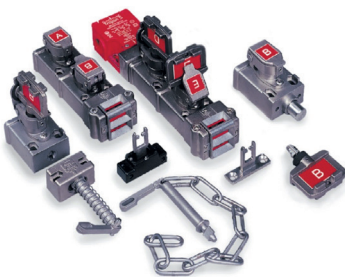
Bulletin 450L GuardShield™ POC Safety Light Curtains

The Bulletin 450L GuardShield™ POC safety light curtains are unlike traditional safety light curtains, which are based on separate transmitter and receiver units. Patented technology allows each transceiver to be used as a transmitter or receiver via an innovative plug-in module. The 450L-B is the basic model with on/off functionality. The advanced 450L-E model features integrated laser alignment, cascading, blanking, and integrated muting.



Safety Relays

Safety Relays check and monitor a safety system and either allow the machine to start or execute commands to stop the machine. Single-function safety relays are the most economical solution for smaller machines where a dedicated logic device is needed to complete the safety function. Modular and configurable monitoring safety relays are preferred where a large and diverse number of safeguarding devices and minimal zone control are required.



Trapped Key Bolt Interlock Switches

Our Trapped Key Bolt Interlock Switches allow access to hazardous areas only when an appropriate key is inserted into the interlock. These stainless steel bolt interlocks provide a rugged, industrial-grade method of helping prevent access through gates. With these bolt interlocks, there is no need to run power wires to the gate. These bolt interlocks are available in mechanical, electrical and solenoid switch types.



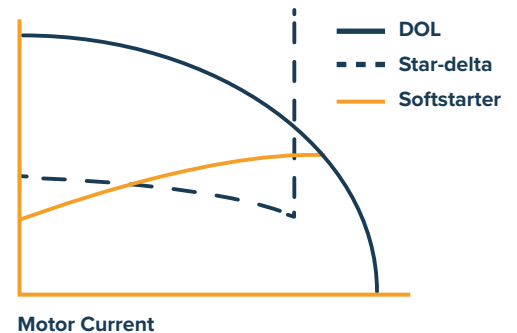
ABB Soft Starters

ABB's soft starter portfolio now consists of three different ranges making it possible to find a suitable soft starter for almost any possible application and motor size all the way up to 1250 A.

The soft starter family consists of the compact PSR, the efficient PSE and the advanced PSTX range.

Like direct-on-line and star-delta starters, softstarters are used to start and stop motors in full-speed applications. It eliminates common problems associated with motor starting and stopping, including electrical surges, spikes and high inrush currents.

Because it offers soft starting and stopping, a softstarter is the optimal compromise between a direct-on-line or star-delta starter and a variable speed drive in many full-speed motor applications.



Riello Uninterrupted Power Supplies

Riello UPS's award-winning range of uninterruptible power supply systems incorporates solutions for every application, from domestic use and home offices through to factories, utilities and data centres.

Choose from our selection of single phase or three-phase UPS from 400 VA to 6.4 MVA. Whether it's online, line interactive, or VFD, all Riello UPS power supplies are designed using the latest technologies and techniques to deliver reliable power protection in the most energy efficient way possible.



PULS

PULS is the only company worldwide focused entirely on the development and production of DIN rail power supplies.

We concentrate our engineering knowledge, resources and energy on one goal: To be the best in this technology. As a result of this focus, we set standards in terms of efficiency and quality that delight our customers.

Our products are founded on the expertise and pioneering spirit of more than 100 development engineers. The power supplies in our product families DIMENSION, PIANO and MiniLine are the result of talented and creative engineering. We always think one step ahead and are ready and willing to go that extra mile.





Halcyon Drives Ltd

Butler Way, Stanningley, Leeds, West Yorkshire, LS28 6EA

Tel: 0113 236 1509 • **Email:** sales@halcyondrives.com • **Web:** www.halcyondrives.com

