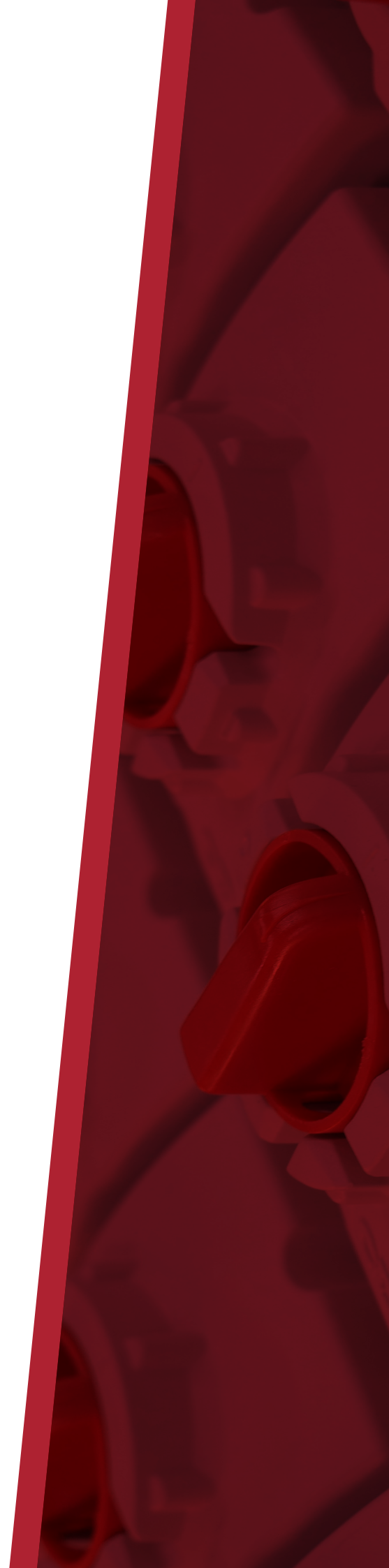


# Industrial Catalogue

Make the switch...





## We are C&D

Over the past 100 years, Craig & Derricott, a British manufacturing company, has built a strong reputation for exceptional customer service and the delivery of high-quality products.

Established in 1922, the company specialises in the design, manufacture, and refurbishment of low-voltage switchgear and control gear, rail rolling stock components, and LED lighting solutions, serving customers of all sizes across the globe.

In 2017, Craig & Derricott became part of the Addtech Group, a Swedish technology organisation that develops and supplies high-tech components, products, and systems to industrial and service-sector companies worldwide.



## The C&D vision

We enable our customers to achieve success and growth through innovative thinking, exceptional engineering, and durable, high-quality products.

Our mission is to build strong, sustainable partnerships that create a meaningful impact — for people, industry, and the planet. While the world continues to evolve, after more than a century, our passion for progress and excellence remains as strong as ever.

## Our products

Initially, rotary switches formed the core of the company's production, soon complemented by a range of heavy-duty pushbutton components and a wide variety of limit switch formats.

Today, Craig & Derricott offers an extensive product portfolio, including assembled electrical isolation switchgear, automatic transfer switches (ATS), control stations, rail rolling stock components, and LED lighting.

Supported by our bespoke mi-switch service, customers can specify exact requirements, allowing products to be custom-designed and manufactured to order.

## Our customers

Our customers span the globe and operate across a diverse range of markets and sectors, including Railway, Construction, Ventilation (Fire-Rated), Explosion-Proof, Medical, Military, Panel Builders, and Power & Distribution.

Driven by a passion for delivering strong performance to all our stakeholders, Craig & Derricott is profitable, achieving consistent sales growth year-on-year. The company continually evolves its manufacturing equipment and techniques, while enhancing and expanding its portfolio of electrical control and switchgear plus rail rolling stock components.

## Get in touch

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[www.craigandderricott.co.uk](http://www.craigandderricott.co.uk)





# Technical guidance for product selection

## Ingress protection

When selecting a control device, consideration must be given not only to its electrical performance but also to the environmental conditions in which it will be installed. The device may be exposed to dust, dirt, or varying levels of moisture. While indoor conditions can differ significantly, some devices may be installed outdoors, where they are subject to the full effects of rain, ice, and snow. The degree of protection required for such conditions is specified in BS EN 60529:1992.

EN 60529:1992, employs a two-digit IP (Ingress Protection) code. This standard defines protection against solid objects with the first digit, and protection against water ingress with the second digit.

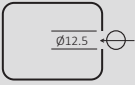


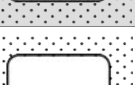
Employing a two digit code the standard defines protection against solid objects and separately protection against water i.e



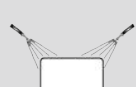

- IP66
- └─

Protection against solid objects
- └─

Protection against water

The following extract defines the IP categories used within this document.

1st Digit	Protection against solid objects	
0	Not Protected	
2		Protected against solid objects greater than Ø12.5
4		Protected against solid objects greater than Ø1.0
5		Protected against dust allowing a degree of ingress that isn't harmful to the assembly.
6		No ingress of dust.

2nd Digit	Protection against water	
0	Not Protected	
1		Protected against dripping water.
4		Protected against splashed water from any direction.
5		Protected against water jets from any direction.
6		Protected against strong water jets from any direction.

Please refer to BS EN 60529:1992 for full details



## Product guide

Disconnecter	A disconnecter is a mechanical switch which, in the 'Open' position, meets the requirements specified for the isolating function. Also referred to as an isolator, it is an off-load device marked with "Isolate elsewhere before opening" and has an AC-20/DC-20 utilisation category.
Switch	A switch is a mechanical device capable of making, carrying, and breaking current under normal circuit conditions, which may include specified operating overload conditions. It can also carry, for a specified duration, currents under specified abnormal circuit conditions, such as short circuit. (I.e. Utilisation category AC23A duty).
Switch-Disconnecter	A switch-disconnector meets the functions of both a switch and a disconnector. When equipped with a red/yellow pad lockable handle, it is also referred to as a safety isolator
Changeover Switch	A changeover switch is used to connect a circuit to one of two sources. In isolation applications, it requires a central 'Off' position. In all other respects, it conforms to the requirements of a switch-disconnector.
Fuse Combination Unit	A switch-disconnector fuse combines a mechanical switching device with fuses in a single assembly

## Corrosive Enviroment

When selecting an enclosure, it is important to choose the most suitable material, considering factors such as location, pollution levels, temperature, UV exposure, vibration, and humidity.

Typical enclosure materials include aluminium, powder-coated mild steel, and stainless steel. Enclosures rated IP65 are often mistakenly assumed to be suitable for all outdoor environments; however, powder-coated mild steel or aluminium enclosures can degrade and corrode under certain conditions.

External installation may also lead to condensation forming inside the enclosure, which can resemble water ingress. This occurs due to temperature differences between the inner and outer surfaces. The most common solution is to fit an anti-condensation heater and a breather gland. When the enclosure is exposed to chemical cleaning, stainless steel is recommended, but the correct grade must be selected.

For guidance, please contact our technical department at [sales@craigandderricott.com](mailto:sales@craigandderricott.com) or +44 (0)1543 375 541.

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# ENCLOSED SWITCHGEAR

Craig & Derricott has been at the forefront of switchgear design and manufacture for over 100 years, consistently prioritizing the needs of installers and end-users. This commitment is exemplified in the i-switch range, which offers a broad selection of products that are simple to install, safe, and highly effective in operation. The range is designed to ensure safe disconnection of electrical equipment from the supply and provides the following key features:

- Adequate clearance between the supply and load appropriate to the applied voltage.
- Provide a means of locking in the 'Off' position. (Padlocking)
- Clear indication of contact status for operational confidence.
- Reliable disconnection even under fault conditions.

By consistently meeting—and often exceeding—these rigorous standards, Craig & Derricott products remain the preferred choice for safety, performance, and reliability in today's electrical market.



A range of moulded plastic enclosed isolation equipment is available with sealing up to IP66, ensuring robust protection in demanding environments. All units feature a pad lockable handle capable of accepting up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' Units are interlocked in the 'On' position, preventing lid removal, and remain secure when padlocked in the 'Off' position. The range also offers enhanced flexibility through optional auxiliary blocks, providing additional contacts, and a choice of neutral assemblies. All products are fully compliant with IEC / BS EN 60947-3.

'N' = switched neutral (early make, late break) | 'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts

For padlocking in the 'On' position, add the suffix '/10' to the catalogue number (e.g., SDP253/10).




Switch Disconnectors (O-I)										
Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	
	20A	6P	GX20	SDP206	A	PC / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm	
		6P+2EB Aux		SDP206EB						
	25A	2P	CS25	SDP252	A	PC / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm	
		3P		SDP253						
		3P+N		SDP253N						
		3P+NL		SDP253NL						
		3P+2EB Aux		SDP253EB						
	32A	2P	CS32	SDP322	A	PC / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm	
		3P		SDP323						
		3P+N		SDP323N						
		3P+NL		SDP323NL						
		3P+2EB Aux		SDP323EB						
		40A	2P	CS40R	SDP402	B	PC / ABS	Light Grey RAL 7035	IP65	2 x M20/25 Knock-outs Top & Btm. Back Face - 2 x M20 Knock-outs
			3P		SDP403					
			3P+N		SDP403N					
3P+NL			SDP403NL							
3P+2EB Aux			SDP403EB							
6P			GX40	SDP406						
6P+2EB Aux				SDP406EB						
63A		2P	CS63	SDP632	B	PC / ABS	Light Grey RAL 7035	IP65	2 x M20/25 Knock-outs Top & Btm. Back Face - 2 x M20 Knock-outs	
		3P		SDP633						
		3P+N		SDP633N						
		3P+NL		SDP633NL						
		3P+2EB Aux		SDP633EB						
		80A	2P	CS80	SDP802	C	PC	Light Grey RAL 7035	IP65	Blank Sides
			3P		SDP803					
			3P+N		SDP803N					
	3P+NL		SDP803NL							
	3P+2EB Aux		SDP803EB							
	100A	2P	CS100	SDP1002	D	PC	Light Grey RAL 7035	IP65	Blank Sides	
		3P		SDP1003						
		3P+N		SDP1003N						
		3P+NL		SDP1003NL						
		3P+2EB Aux		SDP1003EB						
Changeover Switch Disconnectors (I-O-II)										
	20A	2P	GX20	SCODP202	A	PC / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm	
		3P		SCODP203						
		4P		SCODP204						
	40A	2P	GX40	SCODP402	B	PC / ABS	Light Grey RAL 7035	IP65	2 x M20/25 Knock-outs Top & Btm. Back Face - 2 x M20 Knock-outs	
		3P		SCODP403						
		4P		SCODP404						

A range of moulded plastic enclosed isolation equipment is available with protection up to IP66.

This range of 4P isolators, rated from 25A to 63A, provides a versatile 3-in-1 solution for end-users, capable of meeting 2P, 3P, and 4P requirements. The spacious IP66 enclosure features four external fixing holes and allows the internal switch to be removed from the built-in DIN rail, enabling easy cabling and rapid installation.

All variants are equipped with a red safety pad lockable handle, which accommodates up to two padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' Units are interlocked in the 'On' position, preventing lid removal, and remain secure when padlocked in the 'Off' position.

Each unit has been independently tested and is competitively priced for the industrial market. For further information, contact your local area sales manager. All units are fully compliant with IEC / BS EN 60947-3.

Switch Disconnectors (O-I)									
Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	25A	4P	K25	EDMP254	EA	PC / ABS	Light Grey RAL 7047	IP66	2xM12/M20 knock-outs top and btm
	32A	4P	K32	EDMP324	EA	PC / ABS	Light Grey RAL 7047	IP66	2xM12/M20 knock-outs top and btm
	40A	4P	K40	EDMP404	EA	PC / ABS	Light Grey RAL 7047	IP66	2xM12/M20 knock-outs top and btm
	40A	4P	K40H	EDMP404H	EB	PC / ABS	Light Grey RAL 7047	IP66	2xM20/M25 knock-outs top and btm
	63A	4P	K63	EDMP634	EB	PC / ABS	Light Grey RAL 7047	IP66	2xM20/M25 knock-outs top and btm
	80A	4P	K80	EDMP804	EC	PC / ABS	Light Grey RAL 7047	IP65	2xM32/M25 & 1xM20 top and btm
	100A	4P	K100	EDMP1004	EC	PC / ABS	Light Grey RAL 7047	IP65	2xM32/M25 & 1xM20 top and btm

A range of die-cast aluminium enclosed isolation equipment is available with IP66 protection and finished in either Light Grey (RAL 7035) or Traffic Red (RAL 3020) powder coating. These units are suitable for environments where impact resistance, moisture, and dust/dirt protection are essential. All units feature a pad lockable handle accommodating up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' Units are interlocked in the 'On' position, preventing lid removal, and remain secure when padlocked in the 'Off' position. The range also offers enhanced flexibility through optional auxiliary blocks, providing additional contacts, and a choice of neutral assemblies. All products are fully compliant with IEC / BS EN 60947-3.

Enclosures finished Red (RAL 3020) are available to order, please contact our Sales team for details. Replace 'G' in the Cat. No. to 'R' e.g. SDDR253N

'N' = switched neutral (early make, late break) | 'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary con

Switch Disconnectors (O-I)										
Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	
	20A	6P	GX20	SDDG206	A	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2xM20 On Bottom Face	
		6P+2EB Aux		SDDG206EB						
	25A	2P	CS25	SDDG252	A	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2xM20 On Bottom Face	
		3P		SDDG253						
		3P+N		SDDG253N						
		3P+NL		SDDG253NL						
		3P+2EB Aux		SDDG253EB						
	32A	2P	CS32	SDDG322	A	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2xM20 On Bottom Face	
		3P		SDDG323						
		3P+N		SDDG323N						
		3P+NL		SDDG323NL						
		3P+2EB Aux		SDDG323EB						
		40A	2P	CS40R	SDDG402X	A	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2xM25 On Bottom Face
			3P		SDDG403X					
			3P+N		SDDG403NX					
3P+NL			SDDG403NLX							
3P+2EB Aux			SDDG403EBX							
2P			SDDG402		B	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2xM25 + 1xM20 On Bottom Face	
3P			SDDG403							
3P+N			SDDG403N							
3P+NL			SDDG403NL							
3P+2EB Aux			SDDG403EB							
6P		SDDG406	GX40	SDDG406						
6P+2EB Aux		SDDG406EB								
63A		2P	CS63	SDDG632	B	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2xM25 + 1xM20 On Bottom Face	
		3P		SDDG633						
		3P+N		SDDG633N						
	3P+NL	SDDG633NL								
	3P+2EB Aux	SDDG633EB								
	6P	SDDG636								
	6P+2EB Aux	SDDG636EB								
80A	3P	CS80	SDDG803	B	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2xM32 + 1xM20 On Bottom Face		
	3P+N		SDDG803N							
	3P+NL		SDDG803NL							
Changeover Switch Disconnectors (I-O-II)										
	20A	2P	GX20	SCODDG202	A	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2xM20 On Bottom Face	
		3P		SCODDG203						
		4P		SCODDG204						
	40A	2P	GX40	SCODDG402	B	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2xM25 + 1xM20 On Bottom Face	
		3P		SCODDG403						
		4P		SCODDG404						



A range of die-cast aluminium enclosed isolation equipment is available with IP66 protection. All units feature a pad lockable handle that accommodates up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' Units are interlocked in the 'On' position, preventing the lid from being removed, and remain secure when padlocked in the 'Off' position. The range offers additional flexibility through optional auxiliary blocks, providing extra contacts, and a choice of neutral assemblies. All products are fully compliant with IEC / BS EN 60947-3.

'N' = switched neutral (early make, late break) | 'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts | 'CO' = 1N/O + 1N/C auxiliary early break contacts

For padlocking in the 'On' position, add the suffix '/10' to the catalogue number (e.g., EDDG633/10).

Switch Disconnectors (O-I)a									
Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	20A	6P	GX20	EDDG206	C	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2 x M20 Btm only
		6P+2EB Aux		EDDG206EB					
	25A	2P	K25	EDDKG252	C	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2 x M20 Btm only
		3P		EDDKG253					
		3P+N		EDDKG253N					
		3P+NL		EDDKG253NL					
		3P+1NO/1NC		EDDKG253CO					
	32A	2P	K32	EDDKG322	C	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2 x M20 Btm only
		3P		EDDKG323					
		3P+N		EDDKG323N					
		3P+NL		EDDKG323NL					
		3P+1NO/1NC		EDDKG323CO					
	40A	2P	K40	EDDKG402	C	Die-Cast Aluminium	Light Grey RAL 7035	IP66	2 x M20 Btm only
		3P		EDDKG403					
		3P+N		EDDKG403N					
		3P+NL		EDDKG403NL					
		3P+1NO/1NC		EDDKG403CO					
		6P	GX40	EDDG406	B			IP65	2 x M25 & 1 x M20 Btm Only
		6P+2EB Aux		EDDG406EB					
	63A	2P	K63	EDDKG632	B	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2 x M25 & 1 x M20 Btm Only
		3P		EDDKG633					
		3P+N		EDDKG633N					
		3P+NL		EDDKG633NL					
		3P+2EB Aux		EDDKG633EB					
		6P		EDDKG636					
		6P+2EB Aux		EDDKG636EB					
	80A	2P	K80	EDDKG802	B	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2 x M25 & 1 x M20 Btm Only
		3P		EDDKG803					
		3P+N		EDDKG803N					
		3P+NL		EDDKG803NL					
		3P	GA080A	EDDKG803T					
		3P+N		EDDG803NT					
		3P+NL		EDDG803NLT					
	100A	2P	K100	EDDKG1002	B	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2 x M25 & 1 x M20 Btm Only
		3P		EDDKG1003					
		3P+N		EDDKG100N					
		3P+NL		EDDKG100NL					




# Photovoltaic (PV) Enclosed Switchgear

Technical - pg. 24 | Dims - pg. 31

Solar power is an environmentally friendly method of generating electricity, achieved using Photovoltaic (PV) cells that capture sunlight and convert it into electrical energy. By combining multiple cells into an array, current configurations can be achieved. Once installed, a PV array continues to generate voltage and current, making it essential to provide safe isolation for fault conditions or maintenance.

To meet this need, Craig & Derricott has developed a range of DC Switch Disconnectors, specifically designed for photovoltaic applications. Our range of true AC and DC photovoltaic isolators, based on the well-established i-switch family, is engineered to meet the unique requirements of solar panel technology. Rated up to IP66, these PV isolators are housed in moulded plastic enclosures and feature a pad lockable handle that accommodates up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On'.

The range also offers enhanced flexibility through optional auxiliary blocks, providing additional contacts, and a choice of neutral assemblies. For added convenience, pre-cabled DC isolators, and PV bundle packs—containing one AC and one DC isolator—are available to provide a complete PV isolation solution for users.

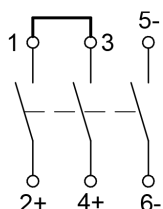
Switch Disconnectors (O-I)									
Image	Rating	Format	Max. DC Voltage	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	16A	DC 2P	1,000V	EPV162	E	PA / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm & Back
		DC 4P	1,500V	PVP164	B			IP65	1 x M20 & M25 Knock-outs Top & Btm. 2 x M20 Knock-outs Back
		Twin Array DC 2x 2P	1,000V	PVP1622					
	25A	DC 2P	1,000V	EPV252	E	PA / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm & Back
		DC 3P	1,000V	EPV253					
		DC 4P	1,000V	PVP254	B			IP65	1 x M20 & M25 Knock-outs Top & Btm. 2 x M20 Knock-outs Back
		Twin Array DC 2x 2P	1,500V	PVP2522					
	32A	DC 2P	600V	EPV322	E	PA / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm & Back
		DC 3P	1,000V	EPV323					
		DC 4P	1,500V	PVP324	B			IP65	1 x M20 & M25 Knock-outs Top & Btm. 2 x M20 Knock-outs Back
		Twin Array DC 2x 2P	600V	PVP3222					
	40A	DC 2P	300V/400V	EPV402	E	PA / ABS	Light Grey RAL 7035	IP66	2 x M20 Knock-outs Top & Btm & Back
		DC 3P	800V	EPV403					
		DC 4P	1,500V	PVP404	B			IP65	1 x M20 & M25 Knock-outs Top & Btm. 2 x M20 Knock-outs Back
		Twin Array DC 2x 2P	300V/400V	PVP4022					
Pre-wired Switch Disconnectors (O-I)									
	16A	DC 2P	1,000V	EPV162C	E	PA / ABS	Light Grey RAL 7035	IP66	Flying Leads with MC4 Connectors Top & Btm
				PVP162C	A				
	16A	DC 2P	1,000V	EPV162P	E	PA/ABS	Light Grey RAL 7035	IP66	Panel Mounted MC4 Connectors
				PVP162P	A				

## Switch Diagrams

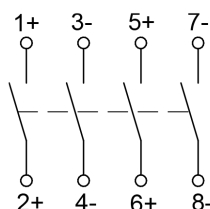
EPV\*\*2 / PVP\*\*2



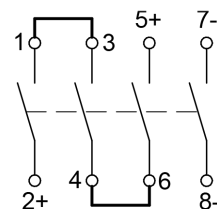
EPV\*\*3 / PVP\*\*3



EPV\*\*4 / PVP\*\*4



PVP\*\*22



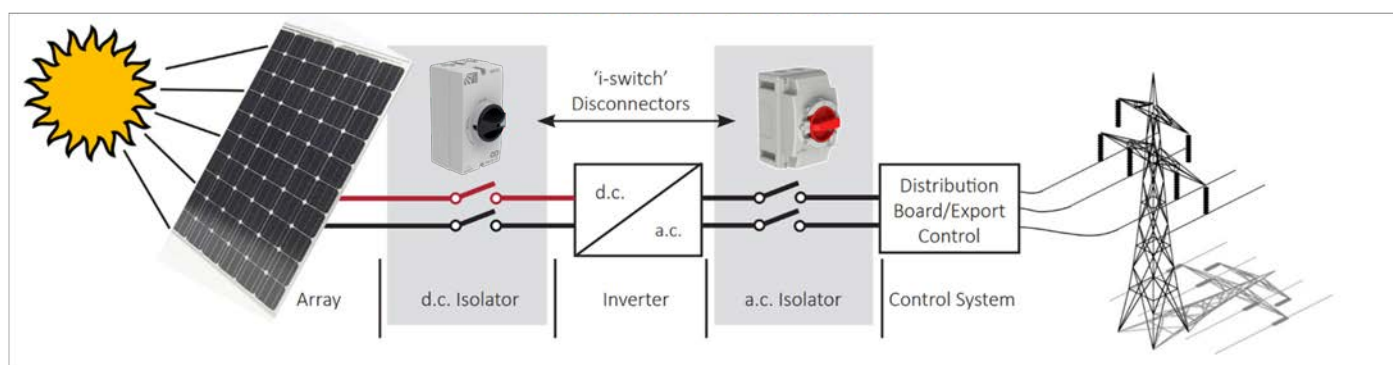
Solar power is a sustainable method of generating electricity, using Photovoltaic (PV) cells to convert sunlight into electrical energy. When combined into an array, PV cells can produce varying voltage and current outputs. Because a PV array continues to generate power when exposed to sufficient light, safe isolation is essential for maintenance or in the event of a fault.

Craig & Derricott offers a range of DC Switch Disconnectors, based on our well-established i-switch range and specifically designed for photovoltaic applications, providing reliable disconnection in solar power systems.

Key Features:

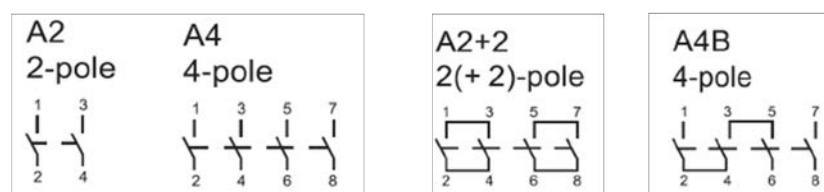
- IP66-rated moulded plastic enclosure for robust environmental protection.
- Pad lockable handle accommodates up to two padlocks in the 'Off' position, preventing unintended operation.
- Designed for solar applications, ensuring full compatibility with PV installations.

## The Basic PV Installation



Switch Disconnectors (O-I)								
Image	Rating	Format	Max DC Voltage	Cat No.	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	16A	4P	1500V	EMPV16	PC / ABS	Light Grey RAL 7047	IP66	2xM12/M16/M20/M25 knock-outs top and btm
	25A			EMPV25				
	32A			EMPV32				

## Switch Diagrams





Craig & Derricott PVFS Firefighter Safety Switch provides automatic isolation for up to 12 photovoltaic (PV) solar panel strings, delivering enhanced safety and rapid disconnection in emergency situations. Specifically designed for DC photovoltaic installations, the PVFS continuously monitors the building's AC power supply and, in the event of power loss, automatically isolates the connected PV strings as close to the panels as possible. This reduces live DC cabling, minimising electrical hazards and improving safety for emergency responders.

Each unit is housed in an IP65-rated weather-resistant enclosure, ensuring durability and suitability for outdoor and harsh environments. The system is designed to automatically restore PV connectivity once AC power is reinstated, minimising downtime and maintaining operational efficiency. By instantly disconnecting PV strings during power loss and reactivating them upon power restoration, the PVFS delivers a robust and reliable safety solution, providing essential protection for both property and personnel in emergency situations.



Model	PVFS40-2				PVFS40-4				PVFS40-6				PVFS40-8				PVFS40-10				PVFS40-12			
Number of strings	2				4				6				8				10				12			
Max DC voltage	1000 V d.c.																							
Max DC current	40A																							
Current rating @Voltage rating	40A 800V	40A 1000V	32A 1250V	26A 1500V	40A 800V	40A 1000V	32A 1250V	26A 1500V	40A 800V	40A 1000V	32A 1250V	26A 1500V	40A 800V	40A 1000V	32A 1250V	26A 1500V	40A 800V	40A 1000V	32A 1250V	26A 1500V	40A 800V	40A 1000V	32A 1250V	26A 1500V
DC connector	MC4 Style connectors																							
Weight (kg)	2.5				3.6				4.4				5.8				7.6				7.9			

## Control loop parameters

Power supply type	AC single phase
Nominal voltage	230V a.c.
Operating voltage	100V - 270V a.c.
Nominal frequency	50/60 Hz
Operating frequency	47-63 Hz
Nominal current	35 mA
Max current	200 mA
AC Current	Plug-in

## Product parameters

Protection level	Class 2
Certification	CE, UKCA
Switch according to:	EN 60947-3
No. of operations	>10000
No. of ops under load	>1500
Operating temperature	-20°C - 70°C
Temperature sensor trigger	70°C
Recommended cable sizes	MC4 Style connectors - 4mm <sup>2</sup> - 6mm <sup>2</sup> PV Cable
	Signal Cable - 1mm <sup>2</sup>

# CDSG — Easy Fit Enclosed Surge Protection Solutions

Electrical surges are transient overvoltage events that can originate from nearby lightning strikes, switching operations on the grid, or even internal equipment cycling. These surges create high-voltage spikes that last only milliseconds but can cause irreversible damage to sensitive electronics.

To address this, Craig & Derricott offers a range of easy to fit surge protection devices (SPDs) mounted in a steel consumer unit for ease of application in compliance with BS 7671:2018+A2:2022 and IEC 61643-11. Each solution is coupled with an MCB specified to coordinate with the upstream protection scheme



## Key Features

- Type 1+2+3 and Type 2+3 SPD protection options
- Specially selected circuit protection designed to align with the most common upstream circuit protection schemes
- Products designed for use with either TN(x) or TT Earthing systems.
- Hard wearing steel enclosures
- Simple connection arrangement for ease of installation

CDSG Part no.	CDSG/1P/T23/FS25	CDSG/1P/T23/FS40	CDSG/3P/T23/FS25	CDSG/3P/T23/FS40	CDSG/1P/T23/20	CDSG/3P/T23/20	CDSG/1P/T23/40	CDSG/3P/T23/40	CDSG/1P/T123/40	CDSG/1P/T123/63	CDSG/3P/T123/40	CDSG/3P/T123/63
Enclosure/Consumer unit Size	4-way CS	4-way CS	4-way CS	4-way CS	4-way CS	6-way CS	4-way CS	6-way CS	4-way CS	4-way CS	10-way CU	10-way CU
No. of Poles	1P+N	1P+N	3P+N	3P+N	1P+N	3P+N	1P+N	3P+N	1P+N	1P+N	3P+N	3P+N
SPD Type	Type 2/3	Type 2/3	Type 2/3	Type 2/3	Type 2/3	Type 2/3	Type 2/3	Type 2/3	Type 1/2/3	Type 1/2/3	Type 1/2/3	Type 1/2/3
Network (V)	230	230	230/400	230/400	230	230/400	230	230/400	230	230	230/400	230/400
AC System	TT-TN	TT-TN	TT-TNS	TT-TNS	TT-TN	TT-TNS	TT-TN	TT-TNS	TT-TN	TT-TN	TT-TNS	TT-TNS
Max AC operating voltage	275 V a.c.											
TOV* Characteristic - 5s w/o disconnect	335 V a.c. Withstand											
TOV* Characteristic - 120 mn w/o disconnect or safety disconnect	440 V a.c. Withstand											
TOV* Characteristic N/PE w/o disconnect or safety disconnect	1200V/300A/ 200ms Withstand											
Nominal discharge current (In) 15 x 8/20µs (Uc)	5 kA	15kA	5 kA	15kA	5 kA	5 kA	5 kA	5 kA	20 kA	20kA	20kA	20kA
Max. discharge current @8/20µs by Pole (Imax)	15 kA	25kA	15 kA	25kA	15 kA	15 kA	15 kA	15 kA	50 kA	50 kA	50 kA	50 kA
Total max. discharge current @8/20µs (Imax Total)	-				30 kA	40 kA	30 kA	40 kA	100 kA	100 kA	100 kA	100 kA
Protection level N/PE @In (8/20µs)	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV
Protection level L/N & N/PE @In (8/20µs) and @ 6 kV (1.2/50µs)	-				0.9 kV	0.9 kV	0.9 kV	0.9 kV	1.5 kV	1.5 kV	1.5 kV	1.5 kV
Residual Voltage L/N & N/PE @ 5 kA (8/20µs)	-								0.7 kV	0.7 kV	0.7 kV	0.7 kV
Admissible short circuit current (Iscsr)	100 kA	100 kA	100 kA	100 kA	10 kA	10 kA	10 kA	10 kA	25 kA	25 kA	25 kA	25 kA
Disconnection indicator	Window + Volt free											
Operating temperature	-40/+85°C								-25/+55°C			
Protection rating	IP20											
MCB Curve	-				C	C	C	C	C	C	C	C
MCB - Rated current (A)	-				20	20	40	40	40	63	40	63
Integrated fuselink (gG equivalent) protection (A)	25	40	25	40	-	-	-	-	-	-	-	-
Impulse withstand (kV)	-				6	6	6	6	6	6	6	6
Rated service breaking capacity (Icn)	-				10 kA	10 kA	10 kA	10 kA	50 kA	50 kA	50 kA	50 kA
Cable terminal (mm²)	2.5 - 25				1 - 25				2.5 - 50			
Wiring for remote signal (mm²)	1.5 max.											
Max. voltage/current for remote signalling	250V/0.5A a.c. - 30V/3A d.c.											
Standards compliance	EN 61643-11 - EN 60947-2 - EN 61439-2 - EN 60529											
Product dimensions (cm)	130x240 x112	130x240 x112	130x240 x112	130x240 x112	130x240 x112	160x240 x112	130x240 x112	160x240 x112	130x240 x112	130x240 x112	232x240 x112	232x240 x112

A range of Sheet Steel enclosed isolation equipment sealed to IP66, providing the user with a robust and cost effective assembly. Each unit is supplied with a polyester powder coated finish, in Light Grey (RAL 7035).

The range is supplied with a handle manufactured from a material suitable to withstand cleaning products containing sodium hydroxide. The handle is padlockable allowing for the insertion of up to three padlocks in the 'Off' position, thus preventing the isolator being switched to the 'On' position. All units are interlocked in the ON position preventing the lid from being removed. Standard shackle diameter Ø6.4 earth continuity terminals are provided in the base and lid of each enclosure.

The option to add a selection of auxiliary blocks providing additional contacts and a choice of Neutral assemblies increases the flexibility of the product range. External mounting feet in Stainless Steel are offered as an accessory sized to match each enclosure.

'N' = switched neutral (early make, late break) | 'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts

Switch Disconnectors (O-I)										
Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	
	20A	6P	GX20	SDMG206	A	Sheet Steel	Light Grey RAL 7035	IP66	2 x M20	
		6P+2EB Aux		SDMG206EB						
	25A	2P	CS25	SDMG252	A	Sheet Steel	Light Grey RAL 7035	IP66	2 x M20	
		3P		SDMG253						
		3P+N		SDMG253N						
		3P+NL		SDMG253NL						
		3P+2EB Aux		SDMG253EB						
	32A	2P	CS32	SDMG322	A	Sheet Steel	Light Grey RAL 7035	IP66	2 x M20	
		3P		SDMG323						
		3P+N		SDMG323N						
		3P+NL		SDMG323NL						
		3P+2EB Aux		SDMG323EB						
		40A	2P	CS40R	SDMG402	B	Sheet Steel	Light Grey RAL 7035	IP66	2 x M20 + 2 x M25
			3P		SDMG403					
			3P+N		SDMG403N					
3P+NL			SDMG403NL							
3P+2EB Aux			SDMG403EB							
6P			GX40	SDMG406						
6P+2EB Aux				SDMG406EB						
63A		2P	CS63	SDMG632	B	Sheet Steel	Light Grey RAL 7035	IP66	2 x M20 + 2 x M25	
		3P		SDMG633						
		3P+N		SDMG633N						
		3P+NL		SDMG633NL						
		3P+2EB Aux		SDMG633EB						
		80A	2P	GA080A	SDMG802	C	Sheet Steel	Light Grey RAL 7035	IP66	-
			3P		SDMG803					
			3P+1EB		SDMG803/1EB					
	3P+N		SDMG803N							
	3P+NL		SDMG803NL							
	100A	2P	GA0100A	SDMG1002	C	Sheet Steel	Light Grey RAL 7035	IP66	-	
		3P		SDMG1003						
		3P+1EB		SDMG1003/1EB						
		3P+N		SDMG1003N						
		3P+NL		SDMG1003NL						
	Changeover Switch Disconnectors (I-O-II)									
		20A	2P	GX20	SCODMG202	A	Sheet Steel	Light Grey RAL 7035	IP66	2 x M20
3P			SCODMG203							
4P			SCODMG204							
40A		2P	GX40	SCODMG402	B	Sheet Steel	Light Grey RAL 7035	IP66	2 x M20 + 2 x M25	
		3P		SCODMG403						
		4P		SCODMG404						



A range of isolation equipment is housed in Grade 304 Stainless Steel enclosures sealed to IP66, providing a durable and corrosion-resistant solution. The range features a handle manufactured from a material resistant to cleaning products containing sodium hydroxide, which is pad lockable to accommodate up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' All units are interlocked in the 'On' position, preventing the lid from being removed.

Key features:

- Optional auxiliary blocks provide additional contacts, with a choice of neutral assemblies for increased flexibility.
- External mounting feet in stainless steel are available as accessories, sized to match each enclosure.
- Grade 316 Stainless Steel enclosures are available on request for enhanced corrosion resistance.

'N' = switched neutral (early make, late break) | 'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts

Switch Disconnectors (O-I)										
Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	
	20A	6P	GX20	SDS206	A	Stainless Steel Grade 304	Brushed Satin Finish	IP66	2 x M20	
		6P+2EB Aux		SDS206EB						
	25A	2P	CS25	SDS252	A	Stainless Steel Grade 304	Brushed Satin Finish	IP66	2 x M20	
		3P		SDS253						
		3P+N		SDS253N						
		3P+NL		SDS253NL						
		3P+2EB Aux		SDS253EB						
	32A	2P	CS32	SDS322	A	Stainless Steel Grade 304	Brushed Satin Finish	IP66	2 x M20	
		3P		SDS323						
		3P+N		SDS323N						
		3P+NL		SDS323NL						
		3P+2EB Aux		SDS323EB						
		40A	2P	CS40R	SDS402	B	Stainless Steel Grade 304	Brushed Satin Finish	IP66	2 x M20 + 2 x M25
			3P		SDS403					
			3P+N		SDS403N					
3P+NL			SDS403NL							
3P+2EB Aux			SDS403EB							
6P			GX40	SDS406						
6P+2EB Aux				SDS406EB						
63A		2P	CS63	SDS632	B	Stainless Steel Grade 304	Brushed Satin Finish	IP66	2 x M20 + 2 x M25	
		3P		SDS633						
		3P+N		SDS633N						
		3P+NL		SDS633NL						
		3P+2EB Aux		SDS633EB						
Changeover Switch Disconnectors (I-O-II)										
		20A	2P	GX20	SCODS202	A	Stainless Steel Grade 304	Brushed Satin Finish	IP66	2 x M20
			3P		SCODS203					
	4P		SCODS204							
	40A	2P	GX40	SCODS402	B	Stainless Steel Grade 304	Brushed Satin Finish	IP66	2 x M20 + 2 x M25	
		3P		SCODS403						
		4P		SCODS404						

A range of isolation equipment is housed in Grade 316 Stainless Steel enclosures, featuring a specially designed stainless steel sloping roof. These units are ideally suited for hygienic environments with rigorous cleaning routines. The design minimises areas where dirt can accumulate, incorporating a flush rear surface and universal fixing, and is sealed to IP66.

The range is supplied with a handle resistant to cleaning products containing sodium hydroxide, which is pad lockable to accommodate up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' All units are interlocked in the 'On' position, preventing lid removal.



Key features:

- Optional auxiliary blocks provide additional contacts, with a choice of neutral assemblies for increased flexibility.
  - External stainless steel mounting feet are available as accessories, sized to match each enclosure.
  - Optional pre-drilled bottom entries can be supplied:
1. For 2xM20 in Size A enclosures, add suffix '/M20' to the catalogue number (e.g., SDSSR253/M20)
  2. For 2xM25 in Size B enclosures, add suffix '/M25' to the catalogue number (e.g., SDSSR253/M25)

'N' = switched neutral (early make, late break) | 'EB' = 2 N/O early break auxiliary contacts

Optional pre-drilled bottom entries can be supplied. For 2xM20 in Size A Enclosures add suffix '/M20' to the Cat. No. E.g. SDSSR253/M20 | For 2xM25 in Size B Enclosures add suffix '/M25' to the Cat. No. E.g. SDSSR253/M25.

Switch Disconnectors (O-I)

Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Fascia plate Material	Encl. Material	IP Rating	Roof Angle	Cable Entries
	20A	6P	GX20	SDSSR206	A	Stainless Steel Grade 316	Brushed Satin Finish	IP66	15° Slope	None
		6P+2EB Aux		SDSSR206EB						
	25A	2P	CS25	SDSSR252	A	Stainless Steel Grade 316	Brushed Satin Finish	IP66	15° Slope	None
		3P		SDSSR253						
		3P+N		SDSSR253N						
		3P+2EB Aux		SDSSR253EB						
	32A	2P	CS32	SDSSR322	A	Stainless Steel Grade 316	Brushed Satin Finish	IP66	15° Slope	None
		3P		SDSSR323						
		3P+N		SDSSR323N						
		3P+2EB Aux		SDSSR323EB						
	40A	2P	CS40R	SDSSR402	B	Stainless Steel Grade 316	Brushed Satin Finish	IP66	15° Slope	None
		3P		SDSSR403						
		3P+N		SDSSR403N						
		3P+2EB Aux		SDSSR403EB						
		6P	GX40	SDSSR406						
		6P+2EB Aux		SDSSR406EB						
	63A	2P	CS63	SDSSR632	B	Stainless Steel Grade 316	Brushed Satin Finish	IP66	15° Slope	None
		3P		SDSSR633						
		3P+N		SDSSR633N						
		3P+2EB Aux		SDSSR633EB						
	80A	2P	CS80	SDSSR802	B	Stainless Steel Grade 316	Brushed Satin Finish	IP66	15° Slope	None
		3P		SDSSR803						
		3P+N		SDSSR803N						
		3P+2EB Aux		SDSSR803EB						

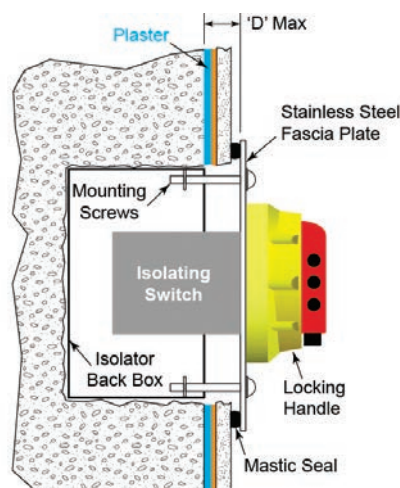
A range of flush-mounting isolation equipment, rated from 20A to 63A, is supplied with a sheet steel back box and stainless-steel fascia plate, sealed up to IP65. This range is ideal for installation in kitchens, laboratories, food processing areas, hospitals, and other environments where hygiene and durability are essential. The range features a handle resistant to cleaning products containing sodium hydroxide, which is pad lockable to accommodate up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' All units are interlocked in the 'On' position, preventing lid removal.

To maintain IP65 sealing, a proper bond using gasket material is essential, particularly on tiled surfaces where grout lines may channel moisture. A continuous bead of moisture-resistant mastic provides a reliable seal and can improve the appearance of the final assembly on uneven surfaces.

Key features:

- Optional auxiliary blocks provide additional contacts, with a choice of neutral assemblies for increased flexibility.
- External stainless steel mounting feet are available as accessories, sized to match each enclosure.

Switch Disconnectors (O-I)									
Image	Rating	Format	Interior Switch	Cat No.	Encl. Size	Fascia plate Material	Back Box Material	IP Rating	Cable Entries
	20A	2P	GX20	SDFL202	A	Brushed Stainless Steel Grade 304	Zinc Plated Sheet Steel	Isolating switch to Stainless Steel fascia plate IP65	Knock-outs In Back Box
		3P		SDFL203					
		4P		SDFL204					
	32A	2P	GX32	SDFL322	B	Brushed Stainless Steel Grade 304	Zinc Plated Sheet Steel	Isolating switch to Stainless Steel fascia plate IP65	Knock-outs In Back Box
		3P		SDFL323					
		4P		SDFL324					
	40A	2P	GX40	SDFL402	B	Brushed Stainless Steel Grade 304	Zinc Plated Sheet Steel	Isolating switch to Stainless Steel fascia plate IP65	Knock-outs In Back Box
		3P		SDFL403					
		4P		SDFL404					
	63A	2P	GN63	SDFL632	C	Brushed Stainless Steel Grade 304	Zinc Plated Sheet Steel	Isolating switch to Stainless Steel fascia plate IP65	Knock-outs In Back Box
		3P		SDFL633					
		4P		SDFL634					
	80A	2P	CS80	SDFLL0802	D	Brushed Stainless Steel Grade 304	Zinc Plated Sheet Steel	Isolating switch to Stainless Steel fascia plate IP65	None
		3P		SDFLL0803					
		4P		SDFLL0804					
	100A	2P	CS100	SDFLL1002	E	Brushed Stainless Steel Grade 304	Zinc Plated Sheet Steel	Isolating switch to Stainless Steel fascia plate IP65	None
		3P		SDFLL1003					
		4P		SDFLL1004					



Typical Installation

'D' max = 20mm with standard length mounting screws

A range of 'hinged door' Light Grey (RAL 7035) powder coated Sheet Steel isolation equipment. Supplied in IP65 generously sized boxes to help avoid the need for extension boxes. All enclosures have the switches mounted on a removable galvanised chassis plate. All units are provided with removable top & bottom gland plates.


The range has a padlockable handle which allows for the insertion of up to three padlocks in the "Off" position. The hinged door cannot be opened in the ON position or when the handle is padlocked in the OFF position. For padlocking in both 'Off' and 'On' positions, add '/10' to the catalogue no. E.g. EDG00323N/10. The door interlock handle can be defeated to enable emergency opening or for testing purposes (100A and above). The option to add a selection of auxiliary blocks providing additional contacts and a choice of Neutral assemblies increases the flexibility of the product range.

Flagged hinged door isolators are available upon request.


Red (RAL 3020) painted Sheet Steel and Stainless Steel (Grade 304 & 316) enclosures are available on request for the more severe environments. Contact our sales team on 01543 375 541 for further information. Compliant to IEC / BS EN 60947-3.


'N' = switched neutral | 'NL' = unswitched neutral (100% rated 32A-200A, 50% rated 250A-1250A) | 'EB' = 2 N/O early break auxiliary contacts

Switch Disconnectors (O-I)

Image	Rating	Format	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	32A	3P+N	EDG00323N	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDG00323NL					
	63A	3P+N	EDG00633N	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDG00633NL					
		6P	EDG00636					
	80A	6P+2EB Aux	EDG00636EB	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+N	EDG00803N					
		3P+NL	EDG00803NL					
	100A	6P	EDG00806	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+N	EDG01003N					
		3P+NL	EDG01003NL					
	125A	6P	EDG01006	3	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+N	EDG01253N					
		3P+NL	EDG01253NL					
	160A	6P	EDG01256	5	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+N	EDG01603N					
		3P+NL	EDG01603NL					
	200A	6P	EDG01606	3	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+N	EDG02003N					
		3P+NL	EDG02003NL					
	250A	6P	EDG02006	7	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+N	EDG02503N					
		3P+NL	EDG02503NL					
	400A	6P+2EB Aux	EDG02506EB	9	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+N	EDG04003N					
		3P+NL	EDG04003NL					
	630A	3P+N	EDG06303N	11	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDG06303NL					
		3P+N	EDG08003N	13	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	800A	3P+NL	EDG08003NL					
		3P+N	EDG10003N	14	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDG10003NL					
	1000A	3P+N	EDG12503N	14	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDG12503NL					
	1250A	3P+N	EDG12503N					
		3P+NL	EDG12503NL					
		3P+N	EDG12503N					
		3P+NL	EDG12503NL					

Changeover Switch Disconnectors (I-O-II)

	63A	4P	ECODG00634	4	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	100A	4P	ECODG01004	4	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	125A	4P	ECODG01254	8	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	160A	4P	ECODG01604	8	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	200A	4P	ECODG02004	8	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	250A	4P	ECODG02504	10	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	400A	4P	ECODG04004	13	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	630A	4P	ECODG06304	13	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates

Fuse Combination Units (O-I)								
Image	Rating	Format	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	32A	3P+NL	EDFG00323NL	2	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	63A	3P+NL	EDFG00633NL	2	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	100A	3P+NL	EDFG01003NL	6	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	125A	3P+NL	EDFG01253NL	6	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	160A	3P+NL	EDFG01603NL	6	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	200A	3P+NL	EDFG02003NL	8	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	250A	3P+NL	EDFG02503NL	8	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	315A	3P+NL	EDFG03153NL	12	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	400A	3P+NL	EDFG04003NL	12	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	630A	3P+NL	EDFG06303NL	14	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
	800A	3P+NL	EDFG08003NL	14	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates

## GRP Hinged Door Switchgear

Technical - pg. 25 | Dims - pg. 34

Our range of 'hinged door' switch disconnectors is housed in Light Grey (RAL 7035) Glass Fibre Reinforced Polyester (GRP) enclosures, rated IP65. The generously sized enclosures reduce the need for cable extension boxes, and all switches are mounted on removable galvanised chassis plates for easy installation and maintenance.

The isolators feature a pad lockable handle that accommodates up to three padlocks in the 'Off' position, preventing the isolator from being switched to 'On.' On units rated 100A and above, the door interlock handle can be overridden for emergency opening or testing purposes.

Designed for harsh and demanding environments, each unit is chemical resistant and fire resistant up to 960°C. Optional auxiliary blocks provide additional contacts, and a choice of neutral assemblies increases flexibility across the product range.

All units are tested in accordance with IEC/EN 60947-3 and UV tested to ISO 4892 to ensure long-term durability. Fuse combination units are available on request.

N' = switched neutral (early make, late break) | 'NL' = unswitched neutral

Switch Disconnectors (I-O)								
Image	Rating	Format	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	32A	3P+N	EDGP00323N	1	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP00323NL					
	63A	3P+N	EDGP00633N	1	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP00633NL					
	80A	3P+N	EDGP00803N	1	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP00803NL					
	100A	3P+N	EDGP01003N	2	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP01003NL					
	125A	3P+N	EDGP01253N	2	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP01253NL					
	160A	3P+N	EDGP01603N	2	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP01603NL					
	200A	3P+N	EDGP02003N	4	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP02003NL					
	250A	3P+N	EDGP02503N	5	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP02503NL					
	400A	3P+N	EDGP04003N	6	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP04003NL					
	630A	3P+N	EDGP06303N	7	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP06303NL					
	800A	3P+N	EDGP08003N	7	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP08003NL					
	1000A	3P+N	EDGP10003N	7	Glass Fibre Reinforced Polyester	Light Grey RAL 7035	IP65	Gland Plates
		3P+NL	EDGP10003NL					



## Fixed Lid Accessories - Applicable for products on pages 8-11.

All accessories listed below are fully retrofittable. A single block can be installed on either side of the main assembly in all 3-pole Switch-Disconnecter interiors. The option to add auxiliary blocks or external fixing feet further enhances the flexibility of our product range.

CS Switch Accessories	
Description	Cat. No.
Auxiliary Contact- 2 Early break	SAUX2EB
Auxiliary Contact- 1 N/O + 1 N/C	SAUXCO
25A- 40A Compact Neutral (Unswitched)	SNLC40
63A Neutral (Unswitched)	SNL63
80A Neutral (Unswitched)	SNL80
100A Neutral (Unswitched)	SNL100
25A Neutral (Switched)	SSP25
32A- 40A Neutral (Switched)	SSP40
63A Neutral (Switched)	SSP63
80A Neutral (Switched)	SSP80
100A Neutral (Switched)	SSP100
GA Switch Accessories	
Description	Cat. No.
80A- 100A Auxiliary Contact- 1 Early break	SAUX1EBL
80A- 100A Auxiliary Contact- 1 N/O + 1 N/C	SAUXCOL
80A- 100A Neutral (Unswitched)	SNL100L
80A Neutral (Switched)	SSP80L
100A Neutral (Switched)	SSP100L
K Switch Accessories	
Description	Cat. No.
Auxiliary Contact- 1 N/O + 1 N/C	SAUXKCO
Fixing Feet (for sheet steel only)	
Description	Cat. No.
External Fixing Feet for 20A- 32A	EFA
External Fixing Feet for 40A- 63A	EFB
External Fixing Feet for 80A- 100A	EFC

### Auxiliary Contact Block

Data supplied against tests to IEC/BS EN 60947-5-1

Application	Sym.	Category	CS Type	GA Type	K Type
Thermal current	$I_{th}$		10A	10A	12A
Rated insulation voltage	$U_i$		690V	1000V	690V
Utilisation category	-	AC15	8A@110V 8A@240V 3A@400V 1A@690V	6A@110V 6A@230V 3A@400V	6A@110V 6A@230V 4A@400V
Max conditions	mm <sup>2</sup>		1.5	2.5	2.5
Tightening torque	Nm		0.6	0.8	0.6

## Hinged Door Accessories - Applicable for products on pages 19-20.

All accessories listed below are fully retrofittable. A single block can be installed on either side of the main assembly in all 3-pole Switch-Disconnecter interiors. The ability to add a range of auxiliary blocks enhances the flexibility of our product offerings.

All Fuse Combination Units are supplied complete with fully rated IEC/BS EN 60269 (BS88) fuse links. Replacement fuse links can be provided individually and may be fitted at a lower rating to suit specific loads. Please refer to the rating table below to ensure the correct size and tag format is maintained. Terminal protection is provided on all units for live incoming terminals. Spare terminal covers are available for replacement or for extending protection to outgoing terminals.















(note: covers are not available for 800A and 1000A Switch-Disconnectors)

Auxiliary Contacts		
Description		Cat. No.
Auxiliary Contact For 32A- 200A Switch Disconnectors		SAUXCO
Auxiliary Contact For 32A- 160A Fuse Combination Units		SAUXKITA
Auxiliary Contact For 250A Switch Disconnectors		SAUXKITB
Auxiliary Contact For 400A- 800A Switch Disconnectors & 200A- 400A Fuse Combination Units		SAUXKITC
Auxiliary Contact For 1000A Switch Disconnectors & 630A Fuse Combination Units		SAUXKITD
Fuse Links		
Description	Bussman Cat. No	Cat. No.
32A Fuse Link. BS Fuse Format A2, A3. Fuse Fixing CRS (mm) 73 nom.	AA032	SFL32
63A Fuse Link. BS Fuse Format A2, A3. Fuse Fixing CRS (mm) 73 nom.	BA063	SFL63
100A Fuse Link. BS Fuse Format A4. Fuse Fixing CRS (mm) 94 nom.	CE0100	SFL100
125A Fuse Link. BS Fuse Format A4. Fuse Fixing CRS (mm) 94 nom.	DE0125	SFL125
160A Fuse Link. BS Fuse Format B1, B2. Fuse Fixing CRS (mm) 111 nom.	DD160	SFL160
200A Fuse Link. BS Fuse Format B1-B2. Fuse Fixing CRS (mm) 111 nom.	DD200	SFL200
250A Fuse Link. BS Fuse Format B1-B2. Fuse Fixing CRS (mm) 111 nom.	ED250	SFL250
315A Fuse Link. BS Fuse Format B1-B4. Fuse Fixing CRS (mm) 111 nom.	ED315	SFL315
400A Fuse Link. BS Fuse Format B1-B4. Fuse Fixing CRS (mm) 111 nom.	ED400	SFL400
630A Fuse Link. BS Fuse Format C1-C3. Fuse Fixing CRS (mm) 133/184 nom.	FF630	SFL630
Terminal Covers		
Description		Cat. No.
Set of 4 Terminal Covers For 200A Switch Disconnectors & Fuse Combination Units (M8 Stud)		STS1
Set of 4 Terminal Covers For 250A- 400A Switch Disconnectors & Fuse Combination Units (M10 Stud)		STS2
Set of 4 Terminal Covers For 630A Fuse Combination Units (M12 Stud)		STS3
Set of 4 Terminal Covers For 630A Switch Disconnectors (M12 Stud)		STS4

# Technical Specification

Applicable for Applicable for pages 8-11 and 16-19





Data supplied against tests to IEC/BS EN 60947-3

Fixed Lid Enclosed Switchgear																			
Application	Sym.	Unit	Category	20A	25A		32A			40A			63A			80A		100A	
Interior switch		-		GX20	CS25	K25	CS32	K32	GX32	CS40R	GX40	K40	CS63	GN63	K63	CS80	GA080A	CS100	GA100A
Rated thermal current	I <sub>the</sub>	A		20	25	25	32	32	32	40	40	40	63	63	63	80	80	100	100
Rated insulation voltage	U <sub>i</sub>	V		690	690	690	690	690	690	690	690	690	690	690	690	690	1000	1000	1000
Rated impulse voltage	U <sub>imp</sub>	kV		6	6	4	6	4	6	6	6	4	6	6	6	6	8	8	8
Rated operational current	I <sub>e</sub>	A	400V AC23A (3 phase AC 50/60Hz)	15	25	25	32	32	32	32	35	40	54	60	63	63	80	100	100
Rated operational power	I <sub>e</sub>	kW	230V	2.2	3.7	3.9	4.8	5	4.8	6.0	6.0	6.0	9.4	-	9.4	-	-	-	-
	P <sub>e</sub>		400V	7.5	11	7.5	15	11	15	15	18.5	15	22	30	22	30	45	59	55
Rated short time withstand current	I <sub>cw</sub>	A	1 sec	250	500	500	600	500	800	600	800	800	1300	1600	800	1400	2500	2600	2500
Max. fuse size for short circuit protection	gG	kA	10kA	20	35	35	35	35	35	40	40	40	80	63	63	80	80	160	100
			25kA	16	32	32	32	32	35	32	35	32	63	63	50	63	80	160	100
			50kA	-	32	32	32	32	-	32	-	32	63	63	50	63	80	160	100
Recommended connecting capacity		-	Terminal type																
		mm <sup>2</sup>	Flexible cable	2.5 x 2	6	6	6	6	6 x 2	6	6 x 2	6	16	10	16	16	16	25	25
		mm <sup>2</sup>	Rigid cable	2.5 x 2	10	10	10	10	10 x 2	10	10 x 2	10	25	16	25	25	25	25	25
		Nm	Tightening torque	1.0	1.2	1.2	1.2	1.2	1.0	1.2	1.0	1.2	1.2	1.2	1.2	1.2	5-6	5	5-6
Operating Temp Range			Ambient	-5°C to +40°C															

Applicable for page 12 & 13

Data supplied against tests to IEC/BS EN 60947-3

1 = Pollution Degree 3  
2 = Pollution Degree 2

Single Array Switch Disconnecter Units													
Application	Category	Unit	EPV162	PVP164	EPV252	EPV253	PVP254	EPV322	EPV323	PVP324	EPV402	EPV403	PVP404
Rated thermal current	$I_{the}$	A	16		25			32			40		
Rated insulation voltage	$U_i$	V	1,000 <sup>1</sup>		1,000 <sup>1</sup>			1,000 <sup>1</sup>			1,000 <sup>1</sup>		
			1,500 <sup>2</sup>		1,500 <sup>2</sup>			1,500 <sup>2</sup>			1,500 <sup>2</sup>		
Rated impulse withstand volt.	$U_{imp}$	kV	8		8			8			8		
Rated operational current (DC21B)	$I_e$	300V (A)	16	16	25	25	25	32	32	32	40	40	40
		400V (A)	16	16	25	25	25	32	32	32	40	40	40
		600V (A)	16	16	25	25	25	32	32	32	-	40	40
		800V (A)	16	16	25	25	25	-	32	32	-	40	40
		1,000V (A)	16	16	16	25	25	-	32	32	-	-	40
		1,200V (A)	-	16	-	-	20	-	-	25	-	-	32
		1,500V (A)	-	16	-	-	16	-	-	20	-	-	25
Mechanical life		Ops	15,000		15,000			15,000			15,000		
Rated short-time withstand current	$I_{cw}$	1s	500		500			500			500		
Short circuit making capacity	$I_{cm}$	A	550		550			550			550		
Terminal type													
Terminal tightening torque		Nm	1.2		1.2			1.2			1.2		
Conductor size  r = rigid f = flexible	Max r/f	2x	mm2	10/6	10/6			10/6			10/6		
		2x	AWG	8/10	8/10			8/10			8/10		
	Min r/f	2x	mm2	1.5/1.5	1.5/1.5			1.5/1.5			1.5/1.5		
		2x	AWG	16/16	16/16			16/16			16/16		





# Technical Specification

Applicable for page 12

Data supplied against tests to IEC/BS EN 60947-3













1 = Pollution Degree 3

2 = Pollution Degree 2

Twin Array Switch Disconnecter Units						
Application	Category	Unit	PVP1622	PVP2522	PVP3222	PVP4022
Rated thermal current	$I_{the}$	A	16	25	32	40
Rated insulation voltage	$U_i$	V	1,000 <sup>1</sup>	1,000 <sup>1</sup>	1,000 <sup>1</sup>	1,000 <sup>1</sup>
			1,500 <sup>2</sup>	1,500 <sup>2</sup>	1,500 <sup>2</sup>	1,500 <sup>2</sup>
Rated impulse withstand volt.	$U_{imp}$	kV	8	8	8	8
Rated operational current (DC21B)	$I_e$	300V (A)	16	25	32	40
		400V (A)	16	25	32	40
		600V (A)	16	25	32	-
		800V (A)	16	25	-	-
		1,000V (A)	16	16	-	-
Mechanical life		Ops	15,000	15,000	15,000	15,000
Rated short-time withstand current	$I_{cw}$	1s	500	500	500	500
Short circuit making capacity	$I_{cm}$	A	550	550	550	550
Terminal type						
Terminal tightening torque		Nm	1.2	1.2	1.2	1.2
Conductor size  r = rigid f = flexible	Max r/f	2x mm2	10/6	10/6	10/6	10/6
		AWG	8/10	8/10	8/10	8/10
	Min r/f	2x mm2	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5
		AWG	16/16	16/16	16/16	16/16

Applicable for page 21




Data supplied against tests to IEC/BS EN 60947-3

GRP Switch Disconnectors (O-I)															
Application	Sym	Unit	Category	32	63	80	100	125	160	200	250	400	630	800	1000
Rated thermal current	I <sub>the</sub>	A		32	63	80	100	125	160	200	250	400	630	720	1000
Rated insulation voltage	U <sub>i</sub>	V		690	690	690	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U <sub>imp</sub>	kV		6	6	6	8	8	8	8	12	12	12	12	8
Rated operational current (AC)	I <sub>e</sub>	A	400V AC21A	32	63	80	100	125	160	200	250*	400*	630*	800*	1000*
			690V AC21A	32	63	80	100	125	160	200	250	400	630	800	1000
			400V AC22A	-	-	-	100	125	160	200	250*	400*	630*	800*	1000*
			690V AC22A	-	-	-	100	125	160	160	250	400	630	800	-
			400V AC23A	29	48	56	100	112	128	128	250*	400*	630*	720*	1000
			690V AC23A	17	33	33	-	-	-	-	250	350	350	350	-
Rated operational current (DC) (/poles in series)	I <sub>e</sub>	A	Up to 48V DC21A	32/1	63/1	80/1	-	-	-	-	250/2	400/2	630/1	800/1	1000/3
			220V DC21A	32/3	63/4	80/4	-	-	-	-	250/2	400/2	630/2	800/2	1000/3
			Up to 48V DC22A	-	-	-	-	-	-	-	250/2	400/1	630/1	800/1	-
			220V DC22A	-	-	-	-	-	-	-	250/2	400/2	630/2	800/2	-
			Up to 48V DC23A	-	-	-	-	-	-	-	250/2	400/1	630/1	800/1	-
			220V DC23A	-	-	-	-	-	-	-	250/2	400/2	630/2	630/2	-
Rated operational power	P <sub>e</sub>	kW	400/415V AC23A	15	25	30	59	63	75	75	132	200	315	355	400
			690V AC23A	15	30	30	51	55	55	55	200	315	355	355	-
Short circuit making capacity	I <sub>cm</sub>	kA	Peak value	1.4	2.9	3.0	3.7	4.0	5.0	5.0	35	65	80	80	105
Short circuit withstand (1sec)	I <sub>cw</sub>	kA	rms value	0.6	1.3	1.4	2.6	2.8	3.0	3.0	8	17	17	17	50
Min. mechanical endurance		-	Operations (10 <sup>3</sup> )	250	250	250	50	50	50	50	16	10	10	10	6
Min. electrical endurance		-	415V at 0.65 pf	-	-	-	-	-	-	-	1,000	1,000	500	500	500
Connecting capacity		-	Terminal type												
		mm <sup>2</sup>	Min/Max	2.5/10	2.5/25	2.5/25	-/70	-/70	-/70	-/95	120	2x150	2x185	2x240	2x300
		mm	Stud/Cu palm width	-	-	-	-	-	-	8x25	10x30	10x30	12x40	12x40	12x60
		Nm	Tightening torque	1.2	1.2	1.2	5	5	5	10	30	30	50	50	50

# Technical Specification

Applicable for page 13

Data supplied against tests to IEC/BS EN 60947-3















EMPV Switch Disconnectors (O-I)														
Application	Catagory	Unit	EMPV16				EMPV25				EMPV32			
Rated Thermal Current	$I_{the}$	A	16				25				32			
Rated Insulation Voltage	$U_i$	V	1000				1000				1000			
			1500				1500				1500			
Rated Impulse Withstand Voltage	$U_{imp}$	kV	8				8				8			
Rated Operational current	$I_e$		A2	A2+2	A4	A4B	A2	A2+2	A4	A4B	A2	A2+2	A4	A4B
		600V (A)	16	29	16	16	25	36	25	25	32	55	32	32
		1200V (A)	9	9	9	16	11	12	11	25	13	13	13	32
		1500V (A)	3	3	3	16	4	5	4	20	5	6	5	23
Mechanical life		Ops	20,000				20,000				20,000			
Rated short-time with-stand current	$I_{cw}$	1s	1KA	1.7KA	1KA	1.7KA	1KA	1.7KA	1KA	1.7KA	1KA	1.7KA	1KA	1.7KA
Terminal type														
Terminal Tightening Torque		Nm	1.7				1.7				1.7			
Conductor size r = Rigid f = Flexible	Max r/f	2x	mm <sup>2</sup>	10/6	10/6	10/6	10/6	10/6	10/6	10/6	10/6	10/6	10/6	10/6
			A WG	8/10	8/10	8/10	8/10	8/10	8/10	8/10	8/10	8/10	8/10	8/10
	Max r/f	2x	mm <sup>2</sup>	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5	1.5/1.5
			A WG	16/16	16/16	16/16	16/16	16/16	16/16	16/16	16/16	16/16	16/16	16/16



# Technical Specification

Applicable for pages 16-20.

Data supplied against tests to IEC/BS EN 60947-3. \* All AC21, AC22 & AC23 tests carried out at 415V.












Sheet Steel Switch Disconnectors (O-I)																	
Application	wSym	Unit	Category	32	63		80	100	125	160	200	250	400	630	800	1000	1250
				3P	3P	6P	3P	3P	3P	3P	3P/6P	3P/6P	3P	3P	3P	3P	3P
Rated thermal current	$I_{the}$	A		32	63	63	80	100	125	160	200	250	400	630	720	1000	1250
Rated insulation voltage	$U_i$	V		690	690	690	690	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	$U_{imp}$	kV		6	6	6	6	8	8	8	8	12	12	12	12	8	8
Rated operational current (AC)	$I_e$	A	400V AC21A	32	63	63	80	100	125	160	200	250*	400*	630*	800*	1000*	1250*
			690V AC21A	32	63	63	80	100	125	160	200	250	400	630	800	1000	1250
			400V AC22A	-	-	-	-	100	125	160	200	250*	400*	630*	800*	1000*	1250*
			690V AC22A	-	-	-	-	100	125	160	160	250	400	630	800	-	-
			400V AC23A	29	48	48	56	105	111	132	132	250*	400*	630*	720*	1000*	1000*
			690V AC23A	17	33	33	33	-	-	-	-	250	350	350	350	-	-
Rated operational current (DC) (/poles in series)	$I_e$	A	Up to 48V DC21A	32/1	63/1	63/1	80/1	-	-	-	-	250/2	400/2	630/1	800/1	1000/1	1250/1
			220V DC21A	-	-	-	-	-	-	-	-	250/2	400/2	630/2	800/2	1000/3	1250/3
			Up to 48V DC22A	-	-	-	-	-	-	-	-	250/2	400/1	630/1	800/1	-	-
			220V DC22A	-	-	-	-	-	-	-	-	250/2	400/2	630/2	800/2	-	-
			Up to 48V DC23A	-	-	-	-	-	-	-	-	250/2	400/1	630/1	800/1	-	-
			220V DC23A	-	-	-	-	-	-	-	-	250/2	400/2	630/2	630/2	-	-
Rated operational power	$P_e$	kW	400/415V AC23A	15	25	25	30	59	63	75	75	132	200	315	355	400	500
			690V AC23A	15	30	30	30	51	55	55	55	200	315	355	355	-	-
Short circuit making capacity	$I_{cm}$	kA	Peak value	1.4	2.9	2.9	3.0	3.7	4.0	5.0	5.0	35	65	80	80	105	105
Short circuit withstand (1sec)	$I_{cw}$	kA	rms value	0.6	1.3	1.3	1.4	2.6	2.8	3.0	3.0	8	17	17	17	50	50
Min. mechanical endurance		-	Operations ( $10^3$ )	250	250	500	250	50	50	50	50	16	10	10	10	6	6
Min. electrical endurance		-	415V at 0.65 pf	-	-	-	-	-	-	-	-	1,000	1,000	500	500	500	500
Connecting capacity		-	Terminal type														
		mm <sup>2</sup>	Min/Max	2.5 / 10	2.5 / 25	2.5 / 25	2.5 / 25	2.5 / 50	2.5 / 70	2.5 / 70	-/95	150	2 x 150	2 x 185	2 x 240	2 x 300	3 x 300
		mm	Stud/Cu palm width	-	-	-	-	-	-	-	-	8 x 25	10 x 30	10 x 30	12 x 40	12 x 40	12 x 60
		Nm	Tightening torque	1.2	1.2	1.2	1.2	5	5	5	10	30	30	50	50	50	50

# Technical Specification









Applicable for pages 20-21

Data supplied against tests to IEC/BS EN 60947-3. \* All AC21, AC22 & AC23 tests carried out at 415V.

Sheet Steel Fuse Combination Units (O-I)

Sheet Steel Fuse Combination Units (O-I)															
Application		Sym	Unit	Category	32	63	100	125	160	200	250	315	400	630	800
Rated thermal current		I <sub>the</sub>	A		32	63	100	125	160	200	250	315	400	630	800
Rated insulation voltage		U <sub>i</sub>	V		750	750	750	750	750	1000	1000	1000	1000	1000	1000
Rated impulse voltage		U <sub>imp</sub>	kV		12	12	12	12	12	12	12	12	12	12	12
Rated operational current	AC	I <sub>e</sub>	A	415V AC23A	32	63	100	125	160	200	250	315	400	630	720
	DC			220V DC23A	-	-	100/4	100/4	100/4	200/3	250/3	315/3	400/3	630/3	800/3
Rated making capacity (AC23A)			A	415V, 0.35 pf	320	630	1,000	1,250	1,600	2,000	2,500	3,150	4,000	6,300	8,000
Rated breaking capacity (AC23A)			A	415V, 0.35 pf	256	504	800	1,000	1,280	1,600	2,000	2,520	3,200	5,040	5,760
Rated conditional (fused) short circuit		kA	kA	S/C current rms	80	80	80	80	80	80	80	80	80	80	80
		A	A	back-up fuse gG	32	63	100	125	160	200	250	315	400	630	800
Min. mechanical endurance			-	Operations	25000	25000	15000	15000	15000	10000	10000	10000	10000	10000	10000
Min. electrical endurance			-	415V at 0.65 pf	1,500	1,500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BS fuse format					A3	A3	A4	A4	B1, B2	B1, B2	B1, B2	B1, B4	B1, B4	C1, C3	C1, C3
Connecting capacity			-	Terminal type											
			mm <sup>2</sup>	Min/Max	16	25	95	95	120	150	185	240	300	400	400
			mm	Stud/Cu palm width	-	-	8x20	8x20	8x20	10x25	10x25	10x25	10x25	12x50	12x50
			Nm	Tightening torque	2.5	2.5	10	10	10	30	30	30	30	50	50

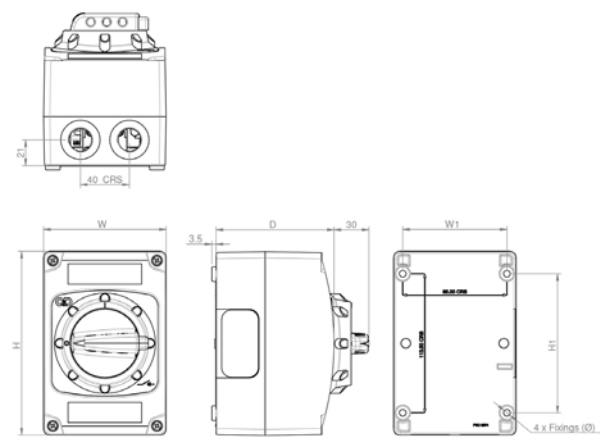
Sheet Steel Changeover Switch Disconnectors (I-O-II)

Application	Sym	Unit	Category	63	100	125	160	200	250	400	630
Rated thermal current	$I_{the}$	A		63	100	125	160	200	250	400	630
Rated insulation voltage	$U_i$	V		750	750	1000	1000	1000	1000	1000	1000
Rated impulse voltage	$U_{imp}$	kV		6	6	6	6	6	12	12	12
Rated operational current	$I_e$	A	415V AC22A	63	100	125	160	200	250	400	630
Rated making capacity (AC23A)		A	415V, 0.35 pf	630	630	1,250	1,600	2,000	2,500	4,000	6,300
Rated breaking capacity (AC23A)		A	415V, 0.35 pf	504	504	1,000	1,280	1,600	2,000	3,200	5,040
Short circuit current		kA	rms (with fuses)	80	80	80	80	80	100	100	80
Rated S/C making capacity		kA	Peak	15	15	20	20	20	30	40	50
Min. mechanical endurance		-	Operations	20,000	20,000	10,000	10,000	10,000	10,000	10,000	10,000
Min. electrical endurance		-	415V at 0.65 pf	2,500	1,500	1,000	1,000	1,000	1,000	1,000	500
Connecting capacity		-	Terminal type								
		mm <sup>2</sup>	Max	35	35	95	95	95	240	300	400
		mm	Stud/Cu palm width	6/12	6/12	8/22	8/22	8/22	10/25	10/25	12/50
		Nm	Tightening torque	3	3	10	10	10	30	30	50

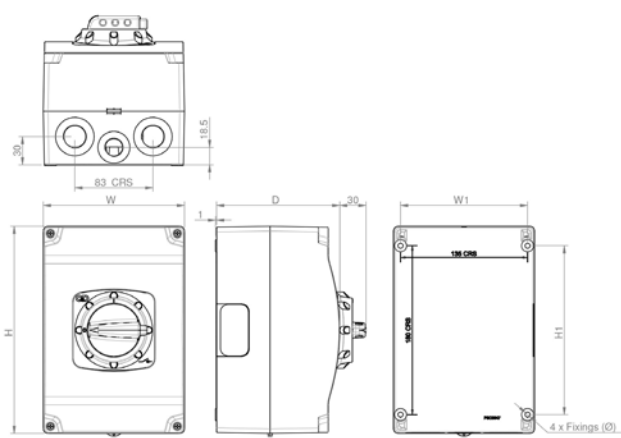
# Dimensions

## Die-Cast Aluminium

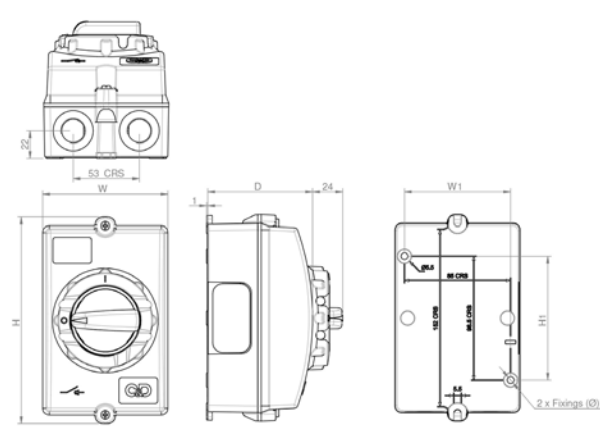
Size A



Size B



Size C

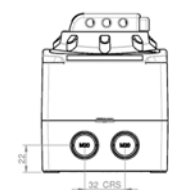


Encl. Size	Overall Dims.			Fixing Details		
	H	W	D	H1	W1	Ø
A	150	100	96	113.5	85	5.5
B	220	150	120	180	135	5.5
C	164	100	84.5	98.5	85	5.5

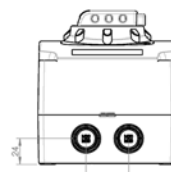
# Dimensions



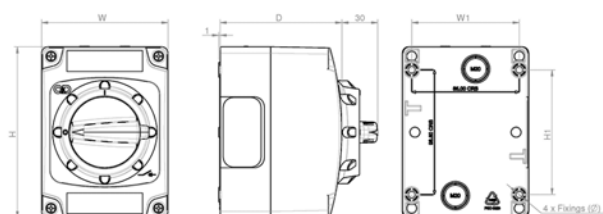
## Moulded Plastic



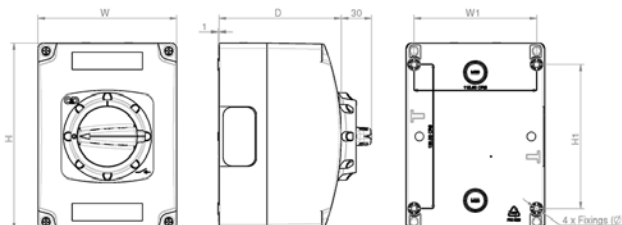
Size A



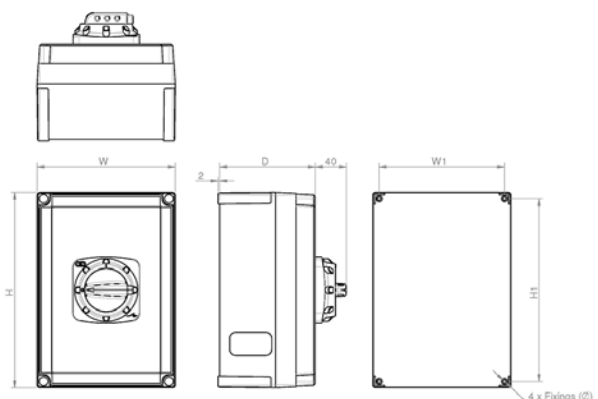
Size B



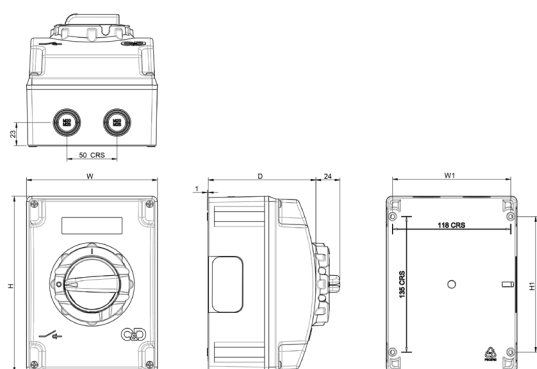
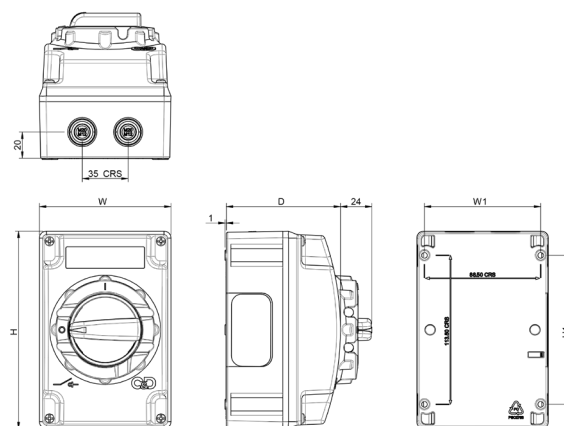
Sizes C & D



Size EA



Size EB

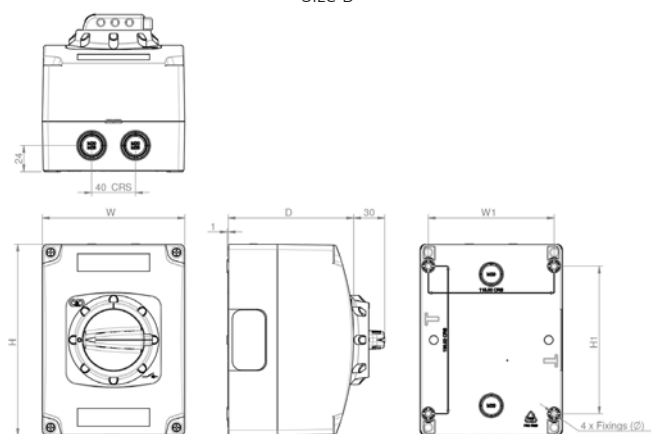


Encl. Size	Overall Dims.			Fixing Details		
	H	W	D	H1	W1	Ø
A	135	100	95	98.5	85	5.5
B	175	130	115	135	115	5.5
C	255	180	125	238.5	163.5	4.5
D	255	180	175	238.5	163.5	4.5
E	149	100	108.5	136.5 / 98.5	85	5.5
EA	150	100	87	113.5	88.5	
EB	130	175	107	135	118	

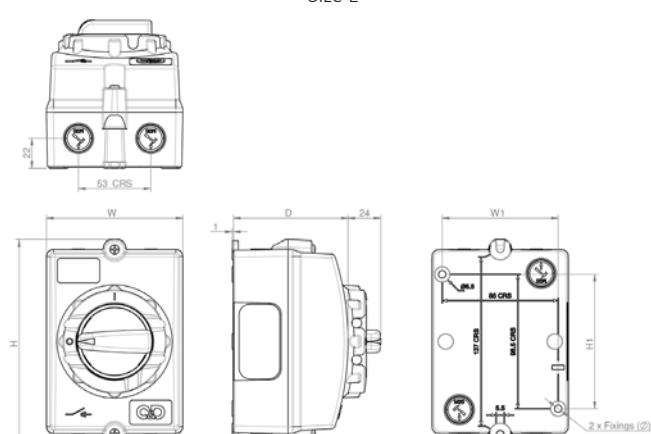
# Dimensions

## Photovoltaic (PV)

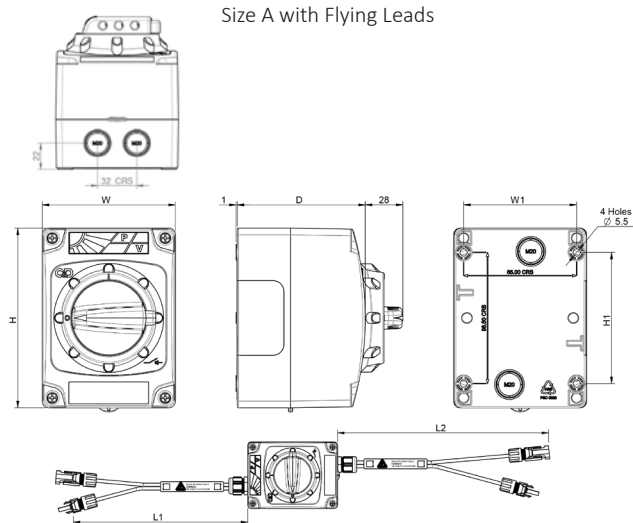
Size B



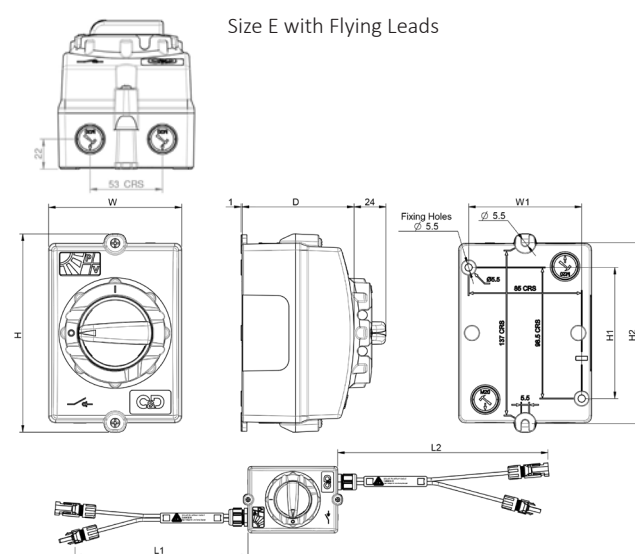
Size E



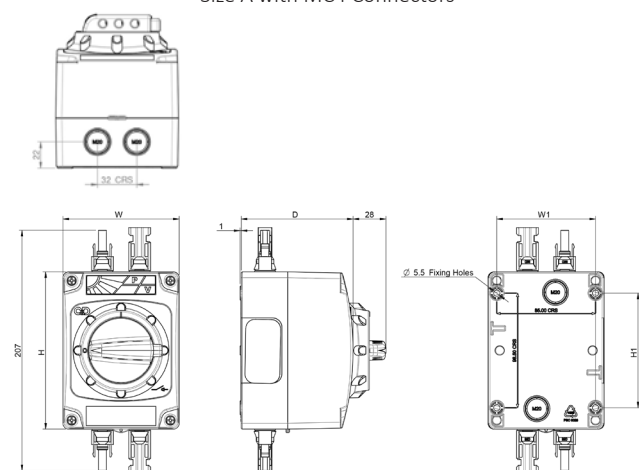
Size A with Flying Leads



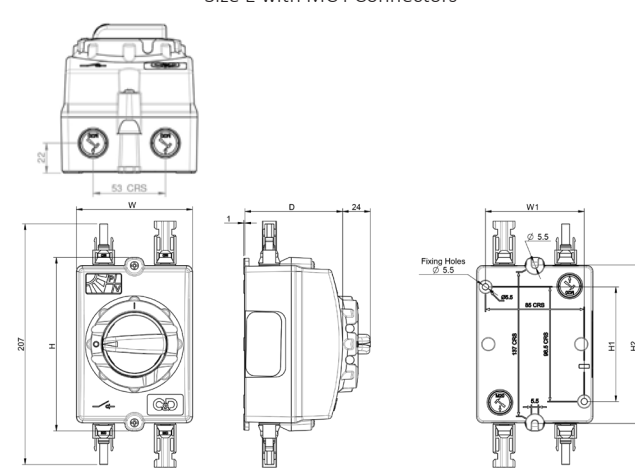
Size E with Flying Leads



Size A with MC4 Connectors



Size E with MC4 Connectors



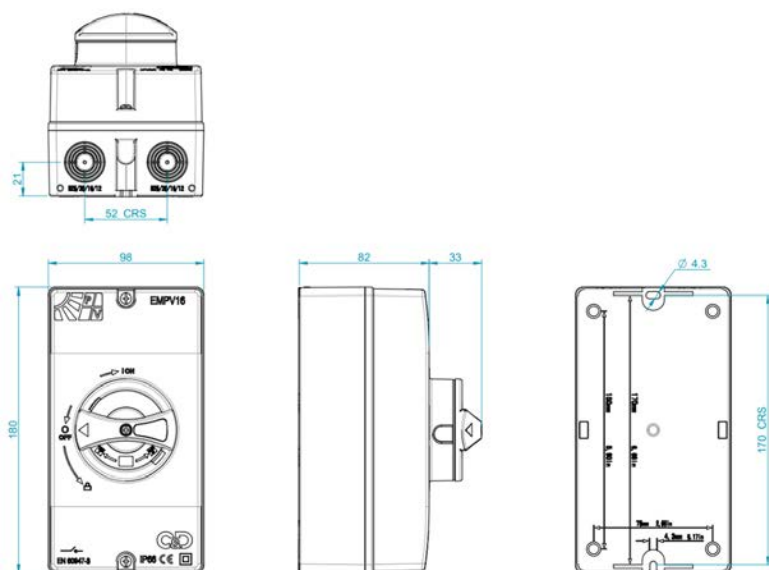
Encl. Size	Overall Dims.					Fixing Details		
	H	W	D	L1	L2	H1	W1	Ø
B	175	130	115	-	-	135	115	5.5
E	149	100	108.5	-	-	136 / 98.5	85	5.5
A with flying leads	135	100	96	300	500	98.5	85	5.5
E with flying leads	135	100	84	300	500	136 / 98.5	85	5.5
A with MC4	135	100	96	-	-	98.5	85	5.5
E with MC4	135	100	84	-	-	136 / 98.5	85	5.5



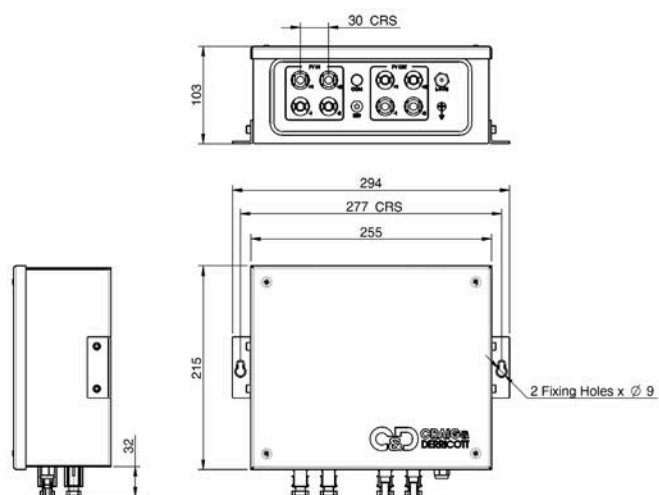
# Dimensions



## EMPV



## PVFS

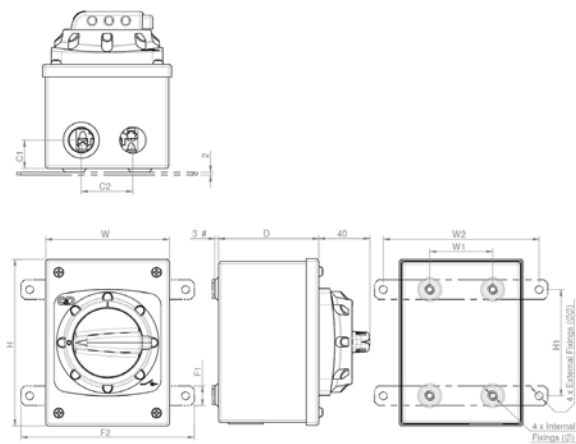


Dim (mm)	PVFS40-2	PVFS40-4	PVFS40-6	PVFS40-8
A	202	314	314	314
B	217	217	217	237
C	99	99	127	155
D	225	337	337	337
E	242	354	354	354

# Dimensions

## Sheet Steel & Stainless Steel

Size A- C



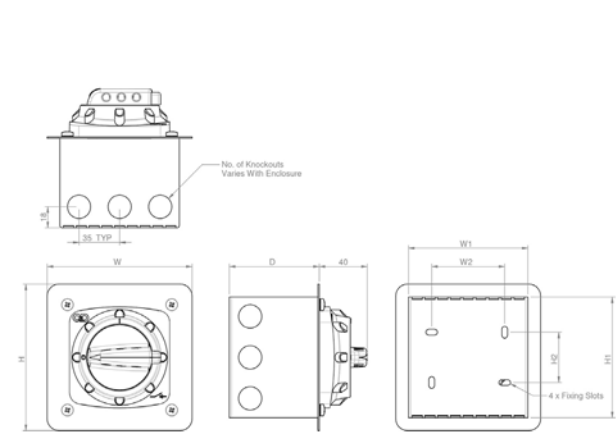
Encl. Size	Overall Dims.		
	H	W	D
A	135	100	80
B	175	130	100
C	310	200	100

Encl. Size	Fixing Details					
	W1	W2	F1	F2	Ø	ØØ
A	51	126	16	140	5.5	6.35
B	81	155	16	178	5.5	6.35
C	146	228	20	249	5.5	6.35

\*Stainless Steel enclosures are supplied without dimples to allow flush mounting

## Flush Mounting

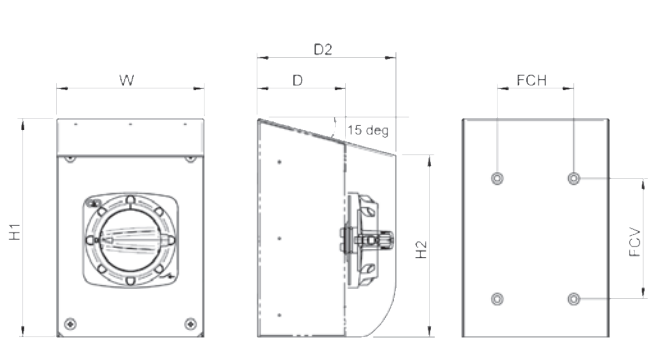
Size A- C



Encl. Size	Overall Dims.			Fixing Details			
	H	W	D	H1	H2	W1	W2
A	125	125	75	100	43	100	62
B	175	175	75	150	93	150	113
C	175	175	100	150	93	150	113
D	260	190	97-101	220	--	150	--
E	320	260	126-130	280	--	220	--

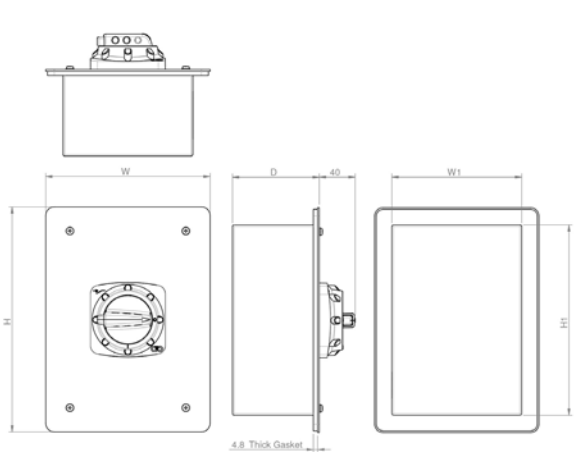
## Sloping Roof

Size A & B



Encl. Size	Overall Dims.			Fixing Details				
	H	W	D	H1	H2	W1	D1	Ø
A	200	135	127	165	110	70	80	5.5
B	240	185	147	200	130	90	100	5.5

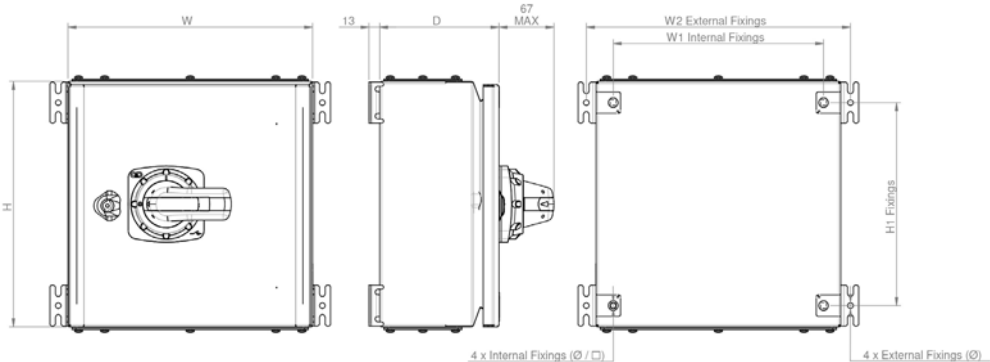
Size D & E



# Dimensions

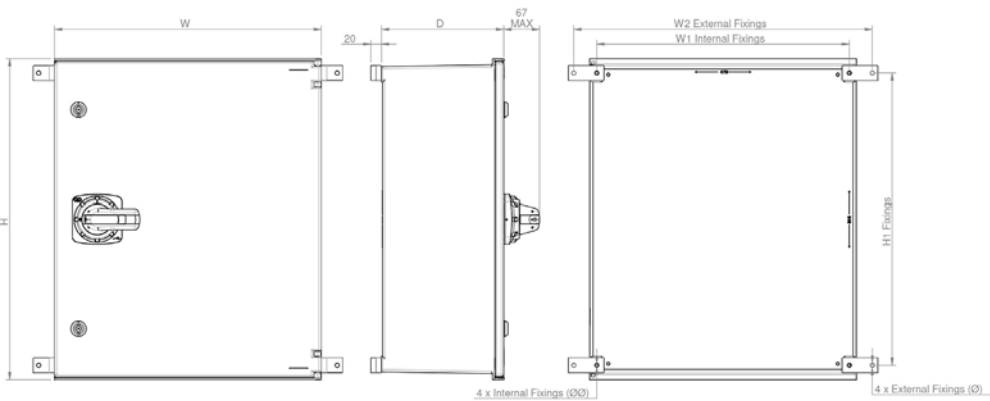


## Sheet Steel Hinged Door



Encl. Size	Overall Dims.			Fixing Details			
	H	W	D	H1	W1	W2	Ø
1	300	300	150	248	258	324	7
2	300	300	200	248	258	324	7
3	400	300	150	348	258	324	7
4	400	300	200	348	258	324	7
5	400	400	200	348	358	424	7
6	500	400	200	448	358	424	7
7	600	400	200	548	358	424	7
8	600	400	300	548	358	424	7
9	600	500	200	548	458	524	7
10	700	500	300	648	458	524	7
11	800	600	200	748	558	624	7
12	800	600	300	748	558	624	7
13	1000	600	300	948	558	624	7
14	1000	800	300	948	758	824	7

## GRP Hinged Door



Encl. Size	Overall Dims.			Fixing Details			
	H	W	D	H1	W1	W2	Ø
1	300	250	140	250	223	310	9
2	400	300	200	348	273	360	9
4	600	400	230	546	373	460	9
5	600	500	230	546	473	560	9
6	800	600	300	744	573	660	9
7	1056	852	350	940	750	885	8.5



# FIRE RATED SWITCHGEAR

Craig & Derricott offers one of the most extensive ranges of Fire Rated Switchgear on the market.

Available from 20A to 1250A, this switchgear is specifically designed to maintain power to critical equipment, such as smoke extraction and ventilation fans, enabling the safe evacuation of buildings, car parks, and public areas during a fire.

These Switch-Disconnectors are installed close to the extraction fans for isolation purposes and have been tested alongside the fan equipment to meet the stringent thermal requirements of BS EN 12101-3. Under this standard, different classes of duty define specific temperature gradients, maximum temperature limits, and duration of exposure:

- F400 products – withstand 400°C for 2 hours
- F200 products – withstand 200°C for 2 hours

## F200 Fire Rated Switchgear


The F200 Fire Rated product range is designed for installations where the supply must be maintained for 2 hours at 200°C.

Available from 20A to 200A, these units are supplied in IP66/IP65 die-cast aluminium or IP65 sheet steel enclosures. All units feature a standard Traffic Red (RAL 3020) polyester powder coat finish and are pad lockable in both the 'Off' and 'On' positions.

'N' = switched neutral (early make, late break) | 'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts

'T' = Increased terminal capacity

Switch Disconnectors (O-I)













Switch Disconnectors (O-I)										
Image	Rating	Format	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries		
	20A	6P	F2SDDR206	A	Die-Cast Aluminium	Traffic Red RAL 3020	IP66	1xM20 +1xM25 Top & Btm		
		6P+2EB Aux	F2SDDR206EB							
	25A	2P	F2SDDR252	A	Die-Cast Aluminium	Traffic Red RAL 3020	IP66	1xM20 +1xM25 Top & Btm		
		3P	F2SDDR253							
		3P+N	F2SDDR253N							
		3P+NL	F2SDDR253NL							
		3P+2EB Aux	F2SDDR253EB							
	32A	2P	F2SDDR322	A	Die-Cast Aluminium	Traffic Red RAL 3020	IP66	1xM20 +1xM25 Top & Btm		
		3P	F2SDDR323							
		3P+N	F2SDDR323N							
		3P+NL	F2SDDR323NL							
		40A	3P+2EB Aux	F2SDDR323EB	A	Die-Cast Aluminium	Traffic Red RAL 3020	IP66	1xM20 +1xM25 Top & Btm	
			2P	F2SDDR402						
			3P	F2SDDR403						
			3P+N	F2SDDR403N						
3P+NL			F2SDDR403NL							
40A		3P+2EB Aux	F2SDDR403EB	B	IP65			2xM25 Top & Btm		
		2P	F2SDDR402T							
		3P	F2SDDR403T							
		3P+N	F2SDDR403NT							
		3P+NL	F2SDDR403NLT							
		3P+2EB Aux	F2SDDR403EBT							
		6P	F2SDDR406							
63A		6P+2EB Aux	F2SDDR406EB	B	Die-Cast Aluminium			Traffic Red RAL 3020	IP65	2xM25 Top & Btm + 1xM20 Btm
		2P	F2SDDR632							2xM32 Top & Btm
	3P	F2SDDR633								
	3P+N	F2SDDR633N								
	3P+NL	F2SDDR633NL								
80A	3P+2EB Aux	F2SDDR633EB	B	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	2xM32 Top & Btm			
	3P	F2SDDR803								
	3P+NL	F2SDDR803N								
	63A	3P+2EB Aux	F2SDDR803NL	1	Sheet Steel	Traffic Red RAL 3020	IP65	Gland Plates Top & Btm		
		3P+N	F2SDRC00633N							
		3P+NL	F2SDRC00633NL							
	80A	6P	F2SDRC00636	1	Sheet Steel	Traffic Red RAL 3020	IP65	Gland Plates Top & Btm		
		3P+N	F2SDRC00803N							
		3P+NL	F2SDRC00803NL							
	100A	6P	F2SDRC00806	2	Sheet Steel	Traffic Red RAL 3020	IP65	Gland Plates Top & Btm		
		3P+N	F2SDRC01003N							
	125A	3P+NL	F2SDRC01003NL	2	Sheet Steel	Traffic Red RAL 3020	IP65	Gland Plates Top & Btm		
		3P+N	F2SDRC01253N							
	160A	3P+NL	F2SDRC01253NL	2	Sheet Steel	Traffic Red RAL 3020	IP65	Gland Plates Top & Btm		
		3P+N	F2SDRC01603N							
200A	3P+NL	F2SDRC01603NL	3	Sheet Steel	Traffic Red RAL 3020	IP65	Gland Plates Top & Btm			
	3P+N	F2SDRC02003N								





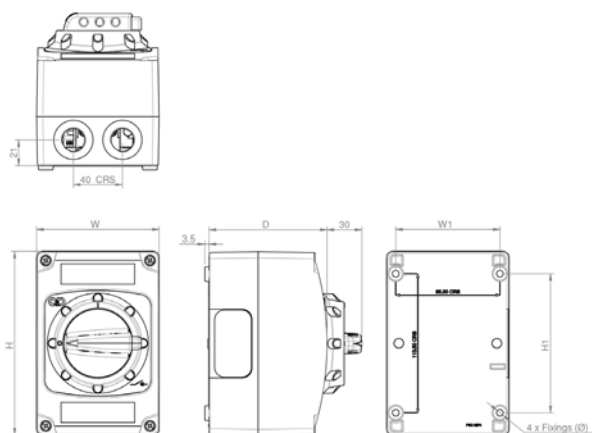
# Technical Specification

Data supplied against tests to IEC/BS EN 60947-3

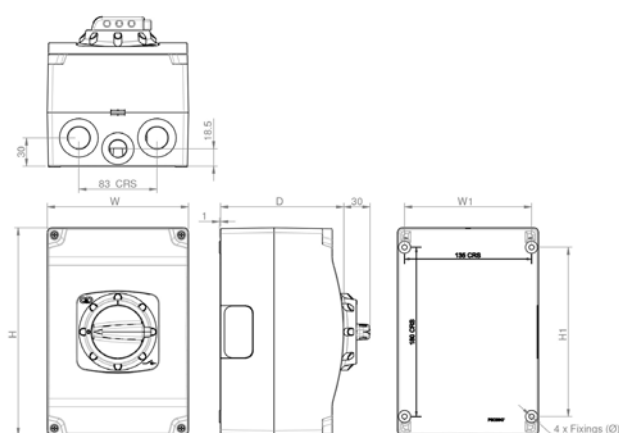
F200 Fire Rated Switchgear															
Application	Sym.	Unit	Category	20A	25A	32A	40A			63A	80A	100A	125A	160A	200A
Switch product range	-	-		GX20	CS25	CS32	GX40	CS40	CS40R	CS63	CS80	CS100	CS125	CS160	CS200
Rated thermal current	$I_{the}$	A		20	25	32	40	40	40	63	80	100	125	160	200
Rated insulation voltage	$U_i$	V		690	690	690	690	690	690	690	690	1000	1000	1000	1000
Rated impulse voltage	$U_{imp}$	kV		6	6	6	6	6	6	6	6	8	8	8	8
Rated operational power (3 phase AC)		kW	400V / 415V AC23	7.5	11	15	18.5	18.5	15	25	30	59	63	75	75
			690V AC23	7.5	15	15	15	22	15	30	30	51	55	55	55
Rated short time withstand current (1 sec)	$I_{cw}$	A		250	500	600	800	1100	600	1300	1400	2600	2800	3000	3000
Max. fuse size for short circuit protection (gG Characteristic)		kA	10kA	20	35	35	40	80	40	80	80	160	160	160	200
			25kA	16	32	35	35	80	32	63	63	160	160	160	160
			50kA	-	32	32	-	80	32	63	63	160	160	160	160
Recommended connecting capacity		-	Terminal type												
		mm <sup>2</sup>	Flexible cable	2.5 x 2	6	6	6 x 2	16	6	16	16	25	50	50	70
		mm <sup>2</sup>	Rigid cable	2.5 x 2	10	10	10 x 2	25	10	25	25	50	70	70	95
		Nm	Tightening torque	1.0	1.2	1.2	1.0	1.2	1.2	1.2	1.2	2/5	2/5	2/5	12

## Dimensions

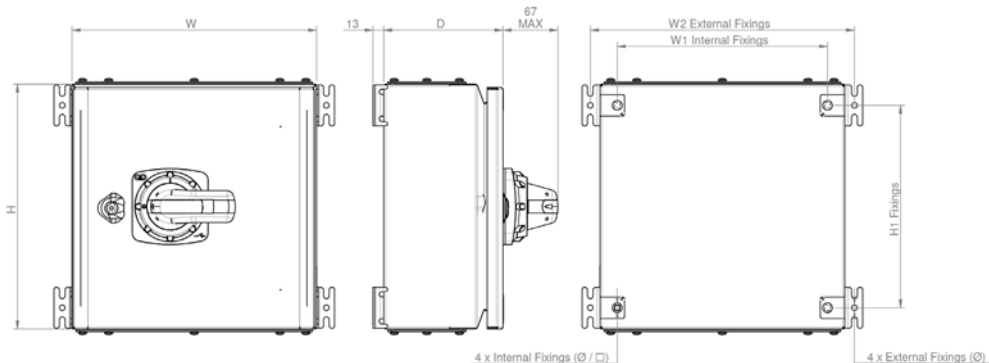
Size A



Size B



Sizes 1-3



Encl. Size	Overall Dims.			Fixing Details			
	H	W	D	H1	W1	W2	Ø
A	150	100	96	113.5	85	--	5.5
B	220	150	120	180	135	--	5.5
1	300	300	150	248	258	324	7
2	300	300	200	248	258	324	7
3	400	300	150	348	258	324	7

## F400 Fire Rated Switchgear

The F400 Fire Rated product range, rated from 20A to 1250A, is supplied in either IP65 die-cast aluminium enclosures or hinged door sheet steel enclosures, both finished in protective Traffic Red (RAL3020) powder coat. The 20A–63A die-cast aluminium units feature a black powder-coated aluminium handle, while the 63A and above sheet steel units are fitted with a highly durable aluminium operating handle. All units include standard padlocking capability in both the OFF and ON positions.






The interior switches are constructed from a high-temperature thermoset material, specifically designed for installations where supply must be maintained for 2 hours at 400°C. Units rated 32A and above are compatible with enhanced fire-rated cables.

Stainless Steel 316L enclosures are available on request for the hinged door sheet steel range; replace 'R' with 'S' in the catalogue number (e.g., F400SDS0633N).

Factory-fitted auxiliaries on the 20A–63A die-cast range and the 63A–125A hinged door sheet steel range are fully rated and F400 fire rated. Non-fire rated auxiliaries are available for 160A–1250A hinged door sheet steel units upon request; add '/AUX' to the catalogue number (e.g., F400SDR01604/AUX).

'N' = switched neutral (early make, late break) | 'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts
















When using enhanced fire-resistant power cables, please verify gland sizes to suit the selected product.

Switch Disconnectors (O-I)									
Image	Rating	Format	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	Cert. No.
	20A	2P	F400DDR00202	FA	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	1xM20+1xM25 Top & Btm	C9874/20
		3P	F400DDR00203						
		3P+NL	F400DDR00203NL						
		4P	F400DDR00204						
		3P+2EB	F400DDR00203EB						
		4P+2EB	F400DDR00204EB						
		6P	F400DDR00206						
		8P	F400DDR00208						
		6P+2EB	F400DDR00206EB					1xM20+1xM25 Top & Btm+1xM20 Rhs	
	25A	2P	F400DDR00252	FA	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	1xM20+1xM25 Top & Btm	C9874/20
		3P	F400DDR00253						
		3P+NL	F400DDR00253NL						
		4P	F400DDR00254						
		3P+2EB	F400DDR00253EB						
		4P+2EB	F400DDR00254EB						
		6P	F400DDR00256						
		8P	F400DDR00258						
		6P+2EB	F400DDR00256EB					1xM20+1xM25 Top & Btm+1xM20 Rhs	
	32A	2P	F400DDR00322	FA	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	1xM20+1xM25 Top & Btm	C9874/20
		3P	F400DDR00323						
		3P+NL	F400DDR00323NL						
		4P	F400DDR00324						
		3P+2EB	F400DDR00323EB						
		4P+2EB	F400DDR00324EB						
		6P	F400DDR00326						
		8P	F400DDR00328						
		6P+2EB	F400DDR00326EB					1xM20+1xM25 Top & Btm+1xM20 Rhs	
	40A	2P	F400DDR00402	FA	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	1xM20+1xM25 Top & Btm	C9874/20
		3P	F400DDR00403						
		3P+NL	F400DDR00403NL						
		4P	F400DDR00404						
		3P+2EB	F400DDR00403EB						
		4P+2EB	F400DDR00404EB						
		6P	F400DDR00406						
		8P	F400DDR00408						
		6P+2EB	F400DDR00406EB					1xM20+1xM25 Top & Btm+1xM20 Rhs	
	40A	2P	F400DDR0040T2	FB	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	2xM25 Top & Btm	C9874/20-2
		3P	F400DDR0040T3						
		3P+NL	F400DDR0040T3NL						
		3P+2EB	F400DDR0040T3EB						
		4P	F400DDR0040T4						
		4P+2EB	F400DDR0040T4EB						
		6P	F400DDR0040T6						
		8P	F400DDR0040T8						
		6P+2EB	F400DDR0040T6EB					2xM25 Top & Btm + 1xM20 Btm	

Switch Disconnectors (O-I)																	
Image	Rating	Format	Cat. No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	Cert. No.								
	63A	2P	F400DDR00632	FB	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	2xM32 Top & Btm	C9874/20-2								
		3P	F400DDR00633														
		3P+NL	F400DDR00633NL														
		3P+2EB	F400DDR00633EB														
		4P	F400DDR00634														
		4P+2EB	F400DDR00634EB														
		6P	F400DDR00636														
	63A	2P	F400SDR00632	F1	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-3								
		3P	F400SDR00633														
		3P+NL	F400SDR00633NL														
		3P+2EB	F400SDR00633EB														
		4P	F400SDR00634														
		4P+2EB	F400SDR00634EB														
		6P	F400SDR00636														
	80A	2P	F400SDR00638	F2	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-4								
		3P	F400SDR00803														
		3P+NL	F400SDR00803NL														
		3P+2EB	F400SDR00803EB														
		4P	F400SDR00804														
		4P+2EB	F400SDR00804EB														
		6P	F400SDR00806														
	80A	6P+2EB	F400SDR00806EB	F4	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-9								
		8P	F400SDR00808														
			125A							2P	F400SDR01252	F4	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-9
										3P	F400SDR01253						
										3P+NL	F400SDR01253NL						
										3P+2EB	F400SDR01253EB						
										4P	F400SDR01254						
6P	F400SDR01256																
6P+2EB	F400SDR01256EB																
	160A	3P	F400SDR01258	F5	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6								
		3P+NL	F400SDR01603NL														
		4P	F400SDR01604														
		6P	F400SDR01606														
	200A	3P	F400SDR01606	F7	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6								
		3P+NL	F400SDR02003														
		3P+NL	F400SDR02003NL														
	200A	4P	F400SDR02004	F5	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6								
		6P	F400SDR02006														
		250A	3P							F400SDR02006	F7	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6	
3P+NL	F400SDR02503																
3P+NL	F400SDR02503NL																
	315A	4P	F400SDR02504	F5	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6								
		6P	F400SDR02506														
		3P	F400SDR03153														
	315A	3P+NL	F400SDR03153NL	F6	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-7								
		4P	F400SDR03154														
		3P	F400SDR04003														
	400A	3P+NL	F400SDR04003NL	F6	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-7								
		4P	F400SDR04004														
		3P	F400SDR06303														
	630A	3P+NL	F400SDR06303NL	F8	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-7								
		4P	F400SDR06304														
1250A		3P	F400SDR12503							F9	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9813/19-3		
	3P+NL	F400SDR12503NL															

# Technical Specification

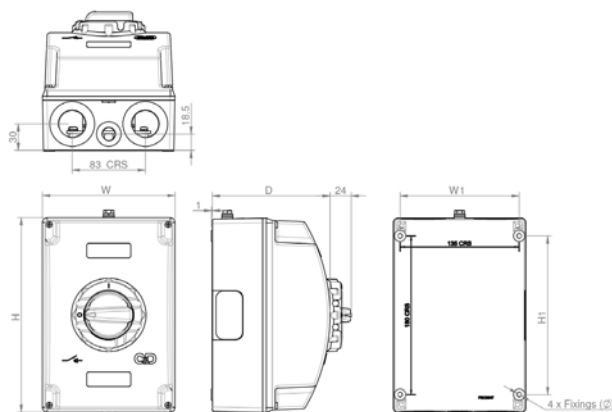
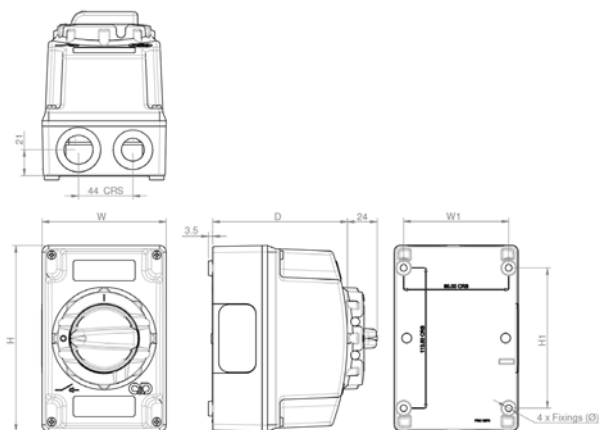
Data supplied against tests to IEC/BS EN 60947-3. \* 63A in Die-Cast Aluminium enclosure = 16mm<sup>2</sup>. 63A in Sheet Steel enclosure = 25mm<sup>2</sup>

F400 Fire Rated Switchgear																			
Application	Sym.	Unit	Category	20A	25A	32A	40A	40AT	63A	80A	125A	160A	200A	250A	315A	400A	630A	1250A	
Rated thermal current	I <sub>the</sub>	A		20	25	32	40	40	63	80	125	160	200	250	315	400	630	1250	
Rated insulation voltage	U <sub>i</sub>	V		690	690	690	690	690	690	690	690	1000	1000	1000	1000	1000	1000	1000	
Rated impulse voltage	U <sub>imp</sub>	kV		6	6	6	6	6	6	6	6	12	12	12	12	12	12	8	
Rated operational current (3 phase AC 50/60Hz)	I <sub>e</sub>	A	400V / 415V AC23A	20	25	32	32	40	63	80	100	160	200	250	315	400	630	1250	
			690V AC23A	-	-	-	-	-	-	-	-	160	200	250	315	350	350	-	
Rated operational power	P <sub>e</sub>	kW	415V	9.5	11	15	15	18.5	30	40	55	90	110	132	175	200	315	500	
Conditional short circuit current	Fuse gG	kA / Fuse	415V	50 / 32	50 / 32	50 / 32	50 / 32	50 / 40	50 / 63	50 / 150	50 / 150	50 / 160	50 / 200	50 / 250	50 / 315	50 / 400	50 / 630	50 / 1250	
		(A)	690V	40 / 32	40 / 32	40 / 32	40 / 32	-	-	50 / 63	50 / 63	50 / 160	50 / 200	50 / 250	50 / 315	50 / 400	50 / 630	50 / 1250	
Short circuit making capacity	I <sub>cm</sub>	kA	Peak value	-	-	-	-	-	-	-	-	35	35	35	65	65	80	105	
Short circuit withstand	I <sub>cw</sub>	kA	RMS value	-	-	-	-	-	-	1.5	1.5	8	8	8	17	17	17	50.0	
Recommended connecting capacity			Terminal type																
		mm <sup>2</sup>	Flexible cable	6	6	6	6	10	10	50	50	95	95	120	2 / 150	2 / 150	2 / 185	4 / 300	
		mm <sup>2</sup>	Rigid cable	10	10	10	10	16	16*	35	50	95	95	120	2 / 150	2 / 150	2 / 185	4 / 300	
		mm	Stud/Cu Palm Width	-	-	-	-	-	-	M10 / 21	M10 / 21	M10 / 30	M10 / 30	M10 / 30	M10 / 30	M10 / 30	M10 / 40	M10 / 40	M12 / 60
		Nm	Tightening torque	1.2	1.2	1.2	1.2	2	2	12	12	30	30	30	30	30	30	30	50

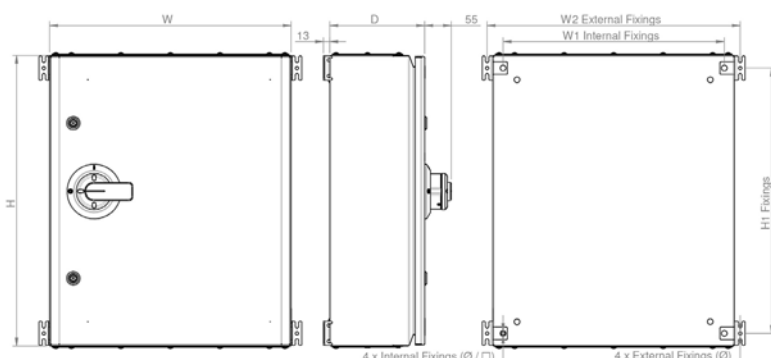
## Dimensions

Size FA

Size FB



Sizes F1- F9



Encl. Size	Overall Dims.			Fixing Details			
	H	W	D	H1	W1	W2	Ø
FA	150.25	100.25	122.5	113.5	85	--	5.5
FB	220	150	134	180	135	--	5.5
F1	300	300	150	248	258	324	7
F2	400	300	200	348	258	324	7
F4	500	300	250	448	258	324	7
F5	600	500	200	548	458	524	7
F6	800	600	200	748	558	624	7
F7	800	600	300	748	558	624	7
F8	1000	600	300	948	558	624	7
F9	1400	800	300	1288	--	824	7



## F400 Fire Rated Switchgear

To complement our fire rated switchgear range, we have introduced the F400 Cable Junction Box, available in two variants with 8-way or 12-way wire in / wire out terminals. The terminals are constructed from high-temperature grade ceramic material with stainless steel cable terminals for maximum reliability under fire conditions.

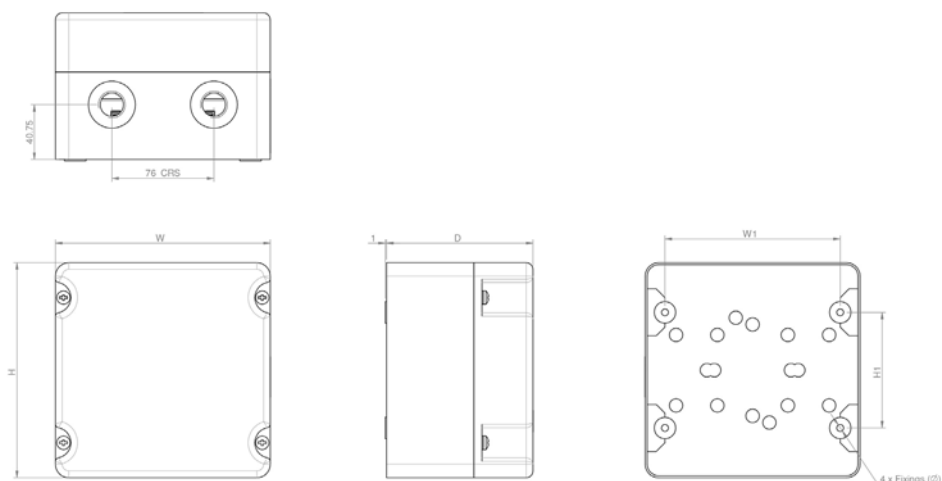
Each IP65 enclosure is manufactured from die-cast aluminium with a Traffic Red (RAL 3020) powder coat finish, featuring A2 stainless steel cover fixings and two M20 threaded cable entries. Internal wall-mounting fixings are supplied as standard and positioned outside the IP seal, with external wall-mounting fixing feet available on request (catalogue number F400EF).

All units have been tested to withstand 400°C for 2 hours, meeting the stringent thermal requirements of BS EN 12101-3.

Additional variants are available on request.

Junction Box									
Image	Rating	Format	Cat. No	Voltage	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max. Cable
	32A	8-Way	F400JBDR008	400V	A	Die-Cast Aluminium (LM6)	LU S1085 Compliant Paint Finish: Traffic Red (RAL 3020)	IP65	6mm
	32A	12-Way	F400JBDR012	400V	A	Die-Cast Aluminium (LM6)	LU S1085 Compliant Paint Finish: Traffic Red (RAL 3020)	IP65	6mm

## Dimensions



Encl. Size	Overall Dims.			Fixing Details			Cable Entries
	H	W	D	H1	W1	Ø	
A	160	160	110	86	130.5	5.5	2 x M20



# TFL / LU SWITCHGEAR

Following the London Kings Cross fire in 1987, the subsequent Fennell Inquiry led to the introduction of additional fire precautions for sub-surface railway stations. These requirements were initially enacted under Section 12 of the Fire Precautions Act 1971, commonly referred to as the Section 12 regulations. These regulations have since been revoked and partly superseded by the Fire Precautions (Sub-surface Railway Stations) (England) Regulations 2009.

This range of enclosed switchgear has been specifically designed for the isolation and distribution of electrical supplies in both sub-surface and surface railway station installations. The products are engineered to comply with the TFL (LU) fire regulations and international low-voltage switchgear standards.

Standards Applied: BS EN 60947-3, BS EN 12101-3, BS EN 60529, S1069, S1085, S1109, Directive 2006/42/EU, Directive 2014/35/EU, Directive 2014/30/EU.



# TFL (LU) Die-Cast Aluminium & Stainless Steel Enclosed Switchgear

This range of Switch-Disconnectors is available in 25A and 40A, with configurations from 2P up to 6P + 2EB auxiliary contacts. Units are supplied in either IP65 die-cast aluminium enclosures, finished in Light Grey (RAL 7035) LU SI085 compliant paint, or IP65 Grade 304 stainless steel enclosures with a natural brushed finish.

Each unit includes earthing points on both the lid and base, as well as an external stud for earth bonding. The die-cast handle is pad lockable in both the 'Off' and 'On' positions. Optional security head fixing screws and external mounting brackets are available on request. Engraved traffolyte labels in various colours can be supplied either attached to the side of the enclosure or loose for fitting adjacent to the isolator. To order spare switch interiors, add the suffix 'INT' to the part number (e.g., DCG252/LUL2/INT).

'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts

Data supplied against tests to IEC 60947-3

Switch Disconnectors (O-I)								
Image	Rating	Format	Cat. No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	25A	2P	DCG252/LUL2	FA	Die-Cast Aluminium	Light Grey (RAL 7035)	IP65	1xM20 + 1xM25 Top & Btm
		3P	DCG253/LUL2					
		3P+NL	DCG253NL/LUL2					
		3P+2EB Aux	DCG253EB/LUL2					
		4P	DCG254/LUL2					
		6P	DCG256/LUL2					
		6P+2EB Aux	DCG256EB/LUL2					1xM20 + 1xM25 Top & Btm 1xM20 RHS
	40A	2P	DCG402/LUL2	FB	Die-Cast Aluminium	Light Grey (RAL 7035)	IP65	2 x M25 Top & Btm
		3P	DCG403/LUL2					
		3P+NL	DCG403NL/LUL2					
		3P+2EB Aux	DCG403EB/LUL2					
		4P	DCG404/LUL2					
		6P	DCG406/LUL2					
		6P+2EB Aux	DCG406EB/LUL2					2 x M25 Top & Btm. 1 x M20 Btm
	25A	2P	DS252/LUL2	A	Stainless Steel Grade 304	Natural Brushed Finish	IP65	2 x M20
		3P	DS253/LUL2					
		3P+NL	DS253NL/LUL2					
		3P+2EB Aux	DS253EB/LUL2					
		4P	DS254/LUL2					
	40A	2P	DS402/LUL2	B	Stainless Steel Grade 304	Natural Brushed Finish	IP65	2 x M20 + 2 x M25
		3P	DS403/LUL2					
		3P+NL	DS403NL/LUL2					
		3P+2EB Aux	DS403EB/LUL2					
		4P	DS404/LUL2					

## Accessories

Fixing Screws	
Description	Cat. No.
Set Of 4 Off Security Lid Fixing Screws For Stainless Steel Enclosures	SS/SEC
Security Screwdriver Bit For Stainless Steel Enclosures	SS/SEC/TOOL
Set Of 4 Off Security Lid Fixing Screws For Die-Cast Aluminium Enclosures	DC/SEC
Security Screwdriver Bit For Die-Cast Aluminium Enclosures	DC/SEC/TOOL
External Fixing Feet	
Description	Cat. No.
External Fixing Feet For 25A Stainless Steel	EFA
External Fixing Feet For 40A Stainless Steel	EFB
External Fixing Feet For 25A Die-Cast Aluminium	EFD25
External Fixing Feet For 40A Die-Cast Aluminium	EFD40

## TFL (LU) Sheet Steel Enclosed Switchgear

This range of Switch-Disconnectors and Fuse Combination Units is supplied in IP65 hinged door sheet steel enclosures with a protective LU S1085 compliant grey (RAL 7035) powder coat finish. The units come standard in three-phase with switched neutral configuration and are generously sized to facilitate easy cable connections. Current ratings range from 40A to 800A for Switch-Disconnectors and 32A to 630A for Fuse Combination Units.

Each enclosure features removable top and bottom gland plates, and a metal anodised aluminium operating handle, lockable in both the ON and OFF positions. The handles are interlocked with the switching device in the ON position to prevent unsafe access. All handles accept three padlocks with a 6.3mm shackle, and an optional Castell lock is available on request (add suffix '/CL' to the catalogue number, e.g., DCG00403N/LUL2/CL).


The Switch-Disconnectors are F200 fire rated, designed to maintain supply for 120 minutes at 200°C.

'N' = switched neutral (early make, late break)

### Switch Disconnectors (O-I)

Image	Rating	Format	Cat No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	40A	3P+N	DCG00403N/LUL2	1	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	63A	3P+N	DCG00633N/LUL2	1	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	80A	3P+N	DCG00803N/LUL2	3	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	100A	3P+N	DCG01003N/LUL2	3	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	125A	3P+N	DCG01253N/LUL2	4	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	160A	3P+N	DCG01603N/LUL2	4	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	200A	3P+N	DCG02003N/LUL2	5	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	250A	3P+N	DCG02503N/LUL2	7	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	315A	3P+N	DCG03153N/LUL2	8	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	400A	3P+N	DCG04003N/LUL2	8	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	630A	3P+N	DCG06303N/LUL2	10	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	800A	3P+N	DCG08003N/LUL2	10	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates

### Fuse Combination Units (O-I)

	32A	3P+N	SFDCG00323N/LUL2	2	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	63A	3P+N	SFDCG00633N/LUL2	2	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	100A	3P+N	SFDCG01003N/LUL2	4	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	160A	3P+N	SFDCG01603N/LUL2	4	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	200A	3P+N	SFDCG02003N/LUL2	6	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	250A	3P+N	SFDCG02503N/LUL2	6	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	315A	3P+N	SFDCG03153N/LUL2	9	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	400A	3P+N	SFDCG04003N/LUL2	9	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates
	630A	3P+N	SFDCG06303N/LUL2	11	Sheet Steel	Light Grey (RAL 7035)	IP65	Gland Plates

## Accessories (+)

Add-on auxiliary blocks are available for all hinged door products. Each auxiliary is supplied as a 1 N/O + 1 N/C pair, with all N/O contacts configured for early break relative to the main poles when switching from ON to OFF.

### Auxiliary Contacts

Description	Cat. No.
Auxiliary Contact For 32A- 160A Fuse Combination Units	SAUXKITA
Auxiliary Contact For 40A- 200A Switch Disconnectors	SAUXCO
Auxiliary Contact For 200A- 400A Fuse Combination Units & 400A- 800A Switch Disconnectors	SAUXKITC
Auxiliary Contact For 250A Switch Disconnectors	SAUXKITB
Auxiliary Contact For 630A Fuse Combination Units	SAUXKITD

## TFL (LU) F400 Fire Rated Enclosed Switchgear






The F400 Fire Rated product range, rated from 20A to 630A, is supplied in either IP65 die-cast aluminium enclosures or hinged door sheet steel enclosures, finished in a protective LU S1085 compliant red (RAL 3020) powder coat. The 20A–40A die-cast aluminium units feature a black powder-coated die-cast aluminium handle, while the 63A and above sheet steel units are fitted with a highly durable aluminium operating handle. All units include standard padlocking in both OFF and ON positions.

The interior switches are constructed from a high-temperature thermoset material, specifically designed for installations where the supply must be maintained for 2 hours at 400°C. All units are compatible with enhanced fire-rated cables; when using such cables, please verify gland sizes to suit the product. All F400 units are also suitable for F300 applications.

Optional Stainless Steel 316L enclosures are available for the hinged door sheet steel range; to order, replace 'R' with 'S' in the catalogue number (e.g., F400SDS0633NL/LUL2).

Factory-fitted auxiliaries on the 20A–125A units are fully rated and F400 fire rated. Non-fire rated auxiliaries are available for the 160A–630A hinged door sheet steel units on request; add 'AUX' to the catalogue number (e.g., F400SDR01604/LUL2/AUX).

'NL' = unswitched neutral | 'EB' = 2 N/O early break auxiliary contacts

Switch Disconnectors (O-I)								
Image	Rating	Format	Cat. No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries
	20A	2P	F400DDR00202/LUL2	FA	Die-Cast Aluminium	Red (RAL 3020)	IP65	1xM20+1xM25 Top & Btm
		3P	F400DDR00203/LUL2					
		3P+NL	F400DDR00203NL/LUL2					
		3P+2EB Aux	F400DDR00203EB/LUL2					
		4P	F400DDR00204/LUL2					
		6P	F400DDR00206/LUL2					
		6P+2EB Aux	F400DDR00206EB/LUL2					1xM20+1xM25 Top & Btm+1xM20 Rhs
	25A	2P	F400DDR00252/LUL2	FA	Die-Cast Aluminium	Red (RAL 3020)	IP65	1xM20+1xM25 Top & Btm
		3P	F400DDR00253/LUL2					
		3P+NL	F400DDR00253NL/LUL2					
		3P+2EB Aux	F400DDR00253EB/LUL2					
		4P	F400DDR00254/LUL2					
		6P	F400DDR00256/LUL2					
		6P+2EB Aux	F400DDR00256EB/LUL2					1xM20+1xM25 Top & Btm+1xM20 Rhs
	40A	2P	F400DDR0040T2/LUL2	FB	Die-Cast Aluminium	Red (RAL 3020)	IP65	2xM25 Top & Btm
		3P	F400DDR0040T3/LUL2					
		3P+NL	F400DDR0040T3NL/LUL2					
		3P+2EB Aux	F400DDR0040T3EB/LUL2					
		4P	F400DDR0040T4/LUL2					
		6P	F400DDR0040T6/LUL2					
		6P+2EB Aux	F400DDR0040T6EB/LUL2					2xM25 Top & Btm + 1xM20 Btm
	63A	3P+NL	F400SDR00633NL/LUL2	F1	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
		3P+2EB Aux	F400SDR00633EB/LUL2					
	80A	3P+2EB Aux	F400SDR00803EB/LUL2	F2	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
		4P	F400SDR00804/LUL2					
	125A	3P	F400SDR01253/LUL2	F4	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
		3P+2EB Aux	F400SDR01253EB/LUL2					
		4P	F400SDR01254/LUL2					
	160A	4P	F400SDR01604/LUL2	F5	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
	200A	4P	F400SDR02004/LUL2	F5	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
	250A	4P	F400SDR02504/LUL2	F5	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
	315A	4P	F400SDR03154/LUL2	F6	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
	400A	4P	F400SDR04004/LUL2	F6	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates
	630A	4P	F400SDR06304/LUL2	F8	Sheet Steel	Red (RAL 3020)	IP65	Gland Plates

# TFL (LU) Form 4 Type 2 Automatic Transfer Switches (ATS) - Slenoid Type, Class PC

At the core of each system is a four-pole ABB TruONE Transfer Switch (ATS). Rated for 230V or 400V AC, the ATS provides all essential functions for automatically switching to a secondary power source in the event of primary supply failure. Units are rated from 32A to 250A with a frequency rating of 50/60Hz.

The single- or three-phase ATS units enable automatic connection of a secondary supply to a load when the primary supply fails.

The bypass function allows isolation of the ATS by routing the 'S1' supply—or in dual-line versions, the 'S2' supply—directly to the outgoing load. This enables essential maintenance without interrupting supply, in accordance with life-safety recommendations. Both the 'S1' and 'S2' supplies to the load can be maintained while service or repairs are carried out on the ATS unit.



Units are supplied in sheet steel enclosures up to IP65, finished in Light Grey (RAL 7035) paint. Each enclosure includes removable gland plate(s), with stainless steel options available on request.

Each ATS comes standard with incoming isolators for both primary and secondary supplies. Volt-free status relays are included, along with a Modbus communication module, allowing integration with the building management system (BMS) and/or life safety systems. LED indicators display the status of supplies, and a test switch with two keys is supplied for commissioning and functional testing. Mains return inhibit feature is accessible via the TruONE HMI.

Design and safety features:



- Incoming isolators and bypass arrangements are separated from each other and from the transfer switch using rigid metallic barriers, providing Form 4, Type 2 separation
- Bypass allows maintenance without supply interruption
- Fully compatible with life-safety and BMS systems



Applied standards: BS EN 60947-1, BS EN 60947-3, BS EN 60947-5-1, BS EN 60947-6-1, BS EN 61439-1, BS 8519, S1069, S1085, S1089, S1109, S1909

TFL/LU Single Line Maintenance Bypass ATS with Incoming Switches								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		Single Phase	Three Phase					
	32A	ATS0322A234	ATS0324A234	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	16mm² Btm
	45A	ATS0452A234	ATS0454A234	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	16mm² Btm
	63A	-	ATS0634A234	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	50mm² Btm
	100A	-	ATS1004A234	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	70mm² Btm
	160A	-	ATS1604A434	1800x1000x400	Sheet Steel	Light Grey (RAL 7035)	IP55	70mm² Top
	250A	-	ATS2504A434	1800x1000x400	Sheet Steel	Light Grey (RAL 7035)	IP55	150mm² Top
TFL/LU Dual Line Maintenance Bypass ATS with Incoming Switches								
	32A	ATS0322A244	ATS0324A244	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	16mm² Btm
	45A	ATS0452A244	ATS0454A244	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	16mm² Btm
	63A	-	ATS0634A244	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	50mm² Btm
	100A	-	ATS1004A244	1200x800x300	Sheet Steel	Light Grey (RAL 7035)	IP65	70mm² Btm
	160A	-	ATS1604A444	1800x1000x400	Sheet Steel	Light Grey (RAL 7035)	IP55	70mm² Top
	250A	-	ATS2504A444	1800x1000x400	Sheet Steel	Light Grey (RAL 7035)	IP55	150mm² Top

# Technical Specification

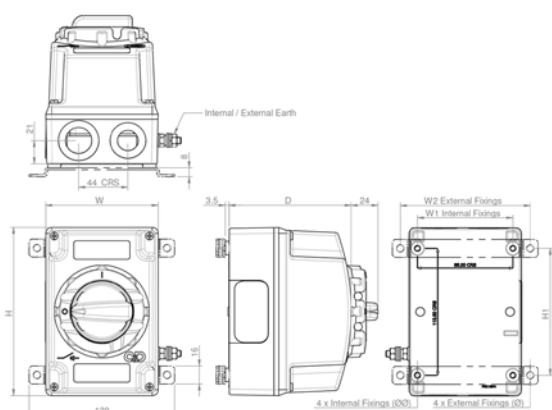
Data supplied against tests to IEC/BS EN 60947-3.

Die-Cast Aluminium Switchgear					
Application	Sym.	Unit	Category	25A	40Av
Rated thermal current	$I_{the}$	A		25	40
Rated insulation voltage	$U_i$	V		690	690
Rated impulse voltage	$U_{imp}$	kV		6	6
Rated operational current (3 phase AC 50/60Hz)	$I_e$	A	415V AC23A	25	40
Rated operational power	$P_e$	kW	415V	11	18.5
Conditional short circuit current	Fuse gG	kA / Fuse (A)	415V	50 / 32	50 / 40
Recommended connecting capacity			Terminal type		
		mm <sup>2</sup>	Flexible cable	6	10
		mm <sup>2</sup>	Rigid cable	10	16
		mm	Stud/Cu Palm Width	-	-
		Nm	Tightening torque	1.2	2

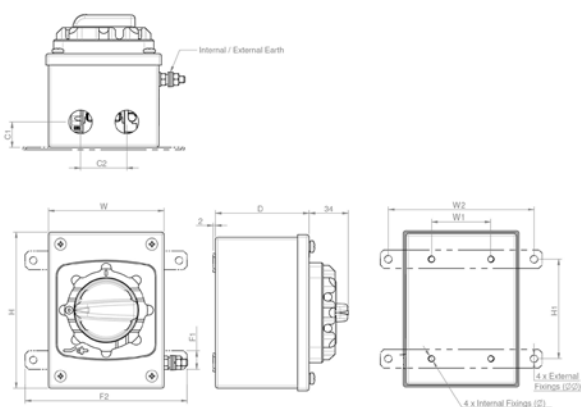
Stainless Steel Switchgear					
Application	Sym.	Unit	Category	25A	40A
Rated thermal current	$I_{the}$	A		25	40
Rated insulation voltage	$U_i$	V		690	690
Rated impulse voltage	$U_{imp}$	kV		6	6
Rated operational current (3 phase AC 50/60Hz)	$I_e$	A	400V AC23A	21	35
Rated operational power	$I_e$	kW	230V	3.7	6
	$P_e$		400V	11	18.5
Rated short time withstand current	$I_{cw}$	A	1 sec	500	1100
Max. fuse size for short circuit protection	gG	kA	10kA	35	80
			25kA	32	63
			50kA	32	63
Recommended connecting capacity		-	Terminal type		
		mm <sup>2</sup>	Flexible cable	6	16
		mm <sup>2</sup>	Rigid cable	10	25
		Nm	Tightening torque	1.2	1.2

## Dimensions

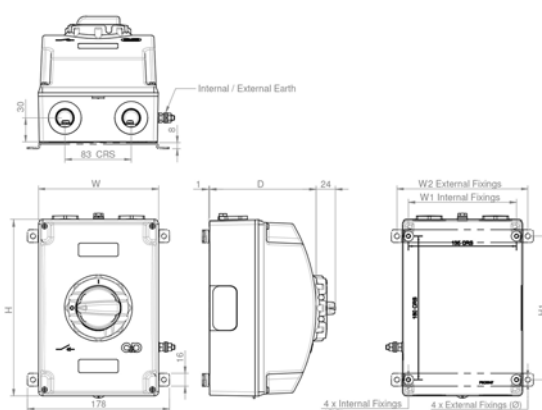
Size FA



Size A - B



Size FB


























Encl. Size	Overall Dims.			Fixing Details				
	H	W	D	H1	W1	W2	Ø	Ø Ø
FA	150	100	109	113.5	85	116	6.5	4
FB	220	150	133.5	180	135	164	6.5	4
A	135	100	81	86	52	126	6.5	5.5
B	175	130	99	126	81	155	6.5	5.5

# Technical Specification

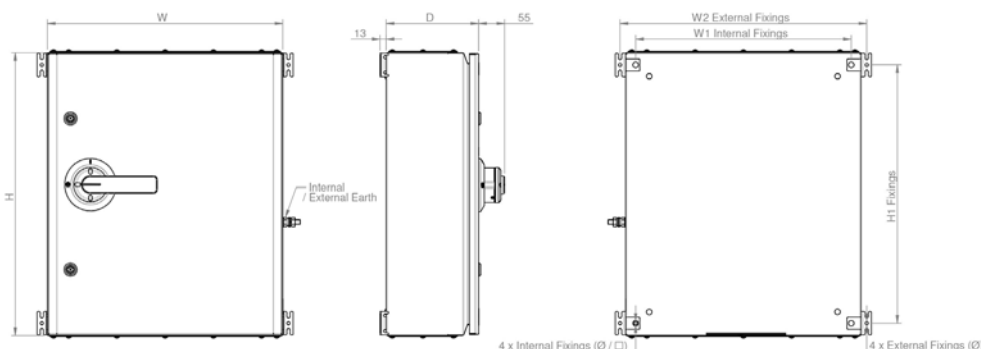
Sheet Steel

Data supplied against tests to IEC/BS EN 60947-3.

Sheet Steel Switch Disconnectors															
Application	Sym	Unit	Category	40	63	80	100	125	160	200	250	315	400	630	800
Rated thermal current	$I_{the}$	A		40	63	80	100	125	160	200	250	315	400	630	720
Rated insulation voltage	$U_i$	V		690	690	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	$U_{imp}$	kV		6	6	8	8	8	8	8	12	12	12	12	12
Rated operational current	$I_e$	A	400V AC23A	35	47.5	80	100	112	128	128	250	315	400	630	720
Rated operational power	$P_e$	kW	400 / 415V AC23A	18.5	25	59	59	63	75	75	132	160	200	315	355
Short circuit making capacity	$I_{cm}$	kA	Peak value	2.7	2.9	3.0	3.7	4.0	5.0	5.0	35	35	65	80	80
Short circuit withstand (1sec)	$I_{cw}$	kA	rms value	1.1	1.3	2	2.6	2.8	3.0	3.0	8	8	17	17	17
Min. mechanical endurance		-	Operations (10 <sup>3</sup> )	250	250	50	50	50	50	50	16	16	10	10	10
Min. electrical endurance		-	415V at 0.65 pf	-	-	-	-	-	-	-	1,000	1,000	1,000	500	500
Connecting capacity		-	Terminal type												
		mm <sup>2</sup>	Min/Max	2.5/25	2.5/25	-/50	-/50	-/70	-/95	-/95	120	2x150	2x150	2x185	2x240
		mm	Stud/Cu palm width	-	-	-	-	-	8x25	8x25	10x30	10x30	10x30	12x40	12x40
		Nm	Tightening torque	1.3	1.3	5	5	5	12	12	25	25	25	40	40

Sheet Steel Fuse Combination Units (O-I)															
Application		Sym	Unit	Category	32	63	100	125	160	200	250	315	400	630	800
Rated thermal current		I <sub>the</sub>	A		32	63	100	125	160	200	250	315	400	630	800
Rated insulation voltage		U <sub>i</sub>	V		750	750	750	750	750	1000	1000	1000	1000	1000	1000
Rated impulse voltage		U <sub>imp</sub>	kV		12	12	12	12	12	12	12	12	12	12	12
Rated operational current	AC	I <sub>e</sub>	A	415V AC23A	32	63	100	125	160	200	250	315	400	630	720
	DC		A	220V DC23A	-	-	100/4	100/4	100/4	200/3	250/3	315/3	400/3	630/3	800/3
Rated making capacity (AC23A)			A	415V, 0.35 pf	320	630	1,000	1,250	1,600	2,000	2,500	3,150	4,000	6,300	8,000
Rated breaking capacity (AC23A)			A	415V, 0.35 pf	256	504	800	1,000	1,280	1,600	2,000	2,520	3,200	5,040	5,760
Rated conditional (fused) short circuit		kA	kA	S/C current rms	80	80	80	80	80	80	80	80	80	80	80
		A	A	back-up fuse gG	32	63	100	125	160	200	250	315	400	630	800
Min. mechanical endurance			-	Operations	25000	25000	15000	15000	15000	10000	10000	10000	10000	10000	10000
Min. electrical endurance			-	415V at 0.65 pf	1,500	1,500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BS fuse format					A3	A3	A4	A4	B1, B2	B1, B2	B1, B2	B1, B4	B1, B4	C1, C3	C1, C3
Connecting capacity			-	Terminal type											
			mm <sup>2</sup>	Min/Max	16	25	95	95	120	150	185	240	300	400	400
			mm	Stud/Cu palm width	-	-	8x20	8x20	8x20	10x25	10x25	10x25	10x25	12x50	12x50
			Nm	Tightening torque	2.5	2.5	10	10	10	30	30	30	30	50	50

## Dimensions















Encl. Size	H	W	D	H1	W1	W2	Ø	Ø Ø
1	300	300	150	248	258	324	10.5	7
2	400	400	200	348	358	424	10.5	7
3	400	300	150	348	258	324	10.5	7
4	500	400	200	448	358	424	10.5	7
5	600	400	200	548	358	424	10.5	7
6	600	600	300	548	558	624	10.5	7
7	600	500	200	548	458	524	10.5	7
8	800	600	200	748	558	624	10.5	7
9	800	600	300	748	558	624	10.5	7
10	1000	600	300	948	558	624	10.5	7
11	1000	800	300	948	758	824	10.5	7



# Technical Specification

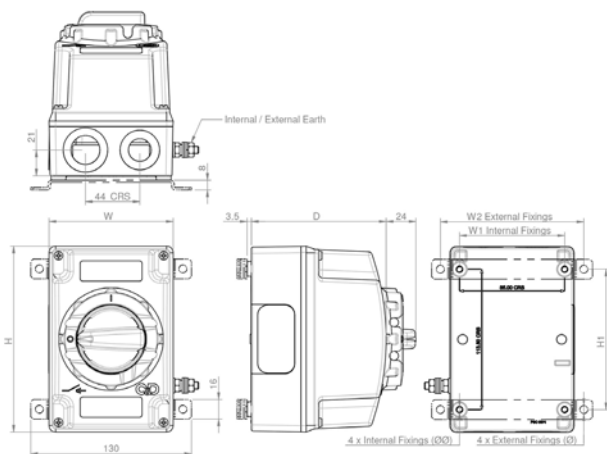
Fire Rated

Data supplied against tests to IEC/BS EN 60947-3.

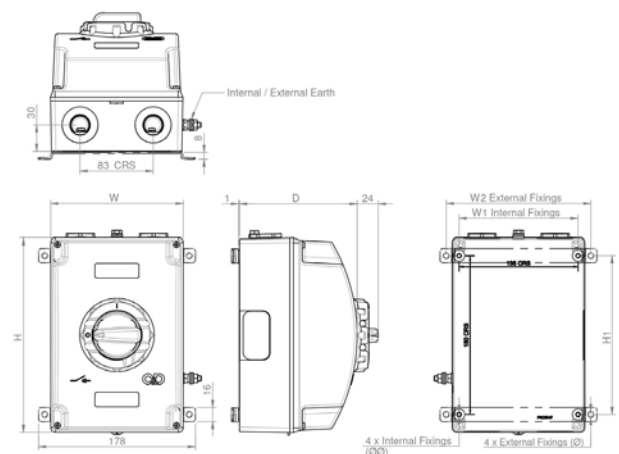
Fire Rated Switchgear															
Application	Sym.	Unit	Category	20A	25A	40A	63A	80A	125A	160A	200A	250A	315A	400A	630A
Rated thermal current	$I_{th}$	A		20	25	40	63	80	125	160	200	250	315	400	630
Rated Insulation voltage	$U_i$	V		690	690	690	690	690	690	1000	1000	1000	1000	1000	1000
Rated Impulse voltage	$U_{imp}$	kV		6	6	6	6	6	6	12	12	12	12	12	12
Rated operational current	$I_e$	A	415V AC23A	20	25	40	63	80	100	160	200	250	315	400	630
			690V AC23A	-	-	-	-	-	-	160	200	250	315	350	350
Rated operational power	$P_e$	kW	415V	9.5	11	18.5	30	40	55	90	110	132	200	200	315
Conditional short circuit current	Fuse gG	kA/Fuse (A)	415V	50/32	50/32	50/40	50/63	50/150	50/200	50/160	50/200	50/250	50/315	50/400	50/630
			690V	40/32	40/32	-	-	50/63	50/63	50/160	50/200	50/250	50/315	50/400	50/630
Short circuit making capacity	$I_{cm}$	kA	Peak value	-	-	-	-	-	-	35	35	35	65	65	80
Short circuit withstand	$I_{cw}$	kA	RMS value	-	-	-	-	1.5	1.5	8	8	8	17	17	17
Recommended connecting capacity			Terminal type												
			mm <sup>2</sup> Flexible cable	6	6	10	10	50	50	95	95	120	2/150	2/150	2/185
			mm <sup>2</sup> Rigid cable	10	10	16	25	35	50	95	95	120	2/150	2/150	2/185
			mm Stud/Cu Palm Width	-	-	-	-	M10/21	M10/21	M10/30	M10/30	M10/30	M10/30	M10/40	M10/40
			Nm Tightening torque	1.2	1.2	2	2	12	12	30	30	30	30	30	30

## Dimensions

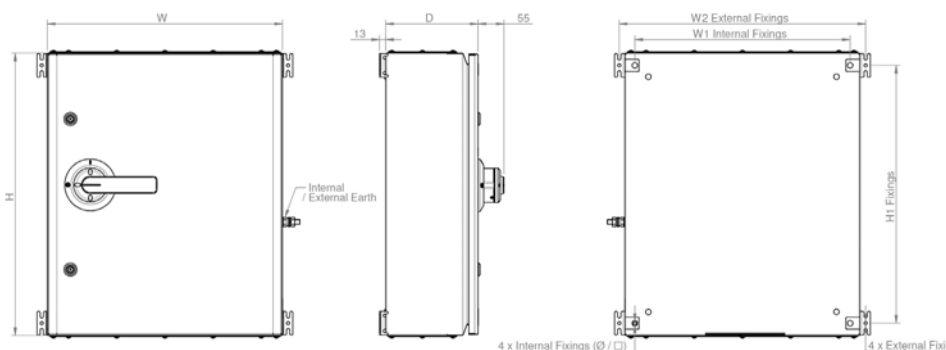
Size FA



Size FB



Sizes F1- F8



Encl. Size	H	W	D	H1	W1	W2	Ø	Ø Ø
FA	150	100	109	113.5	85	116	6.5	4
FB	220	150	133.5	180	135	164	6.5	4
F1	300	300	150	248	258	324	10.5	7
F2	400	300	200	348	258	324	10.5	7
F4	500	300	250	448	258	324	10.5	7
F5	600	500	200	548	458	524	10.5	7
F6	800	600	200	748	558	624	10.5	7
F8	1000	600	300	948	558	624	10.5	7



# EXPLOSION PROOF



With over 40 years of expertise in the design and manufacture of Ex (explosion-protected) products, Craig & Derricott is a trusted name in industrial safety solutions. Our current product range combines robust engineering with modern technical innovation, delivering high-quality, reliable products that meet today's demanding market requirements—all at a competitive price.

## Explosion Proof - Zone 1, 2, 21 and 22 Ex db eb tb

The EXZ1 range of enclosed Switch Disconnectors are supplied in glass reinforced polyester enclosures with sealing to IP65 ensuring the product will withstand being installed in the harshest of industrial environments.

The operating handles come standard in Red/Yellow and can be padlocked in the 'Off' position. All lids are mechanically interlocked with the isolating switch and are removable in the 'On' position only. If you would require a black handle instead please replace R in the Cat. No. with a B e.g. EXZISDB02530.

Available in ratings from 25A - 180A the isolating switch interiors are supplied in either 3 or 4 pole formats complete with 1 N/O (Early break) & 1 N/C (Late make) auxiliary contacts.


Optional Brass Earthing Plates are available on request to enable armoured cables to be earth bonded within the insulated enclosure a selection of pre-drilled earthing plates are available for each enclosure size.

All items have been approved with ATEX (CML 15ATEX1197X), IECEx (IECEx CML 15.0093X) and UKEX (CML 21UKEX1353X) certificates for use in Zones 1, 2, 21 & 22.

The equipment is designed and tested to comply with the following:-

- EN 60079-0 Electrical Atmospheres, Part 0 : Equipment - general requirements.
- EN 60079-1 Electrical Atmospheres, Part 1 : Equipment protection by flameproof enclosures 'd'.
- EN 60079-7 Electrical Atmospheres, Part 7 : Equipment protection by increased safety 'e'.
- EN 60947-1 Low-Voltage switchgear and controlgear - Part 1: general rules.
- EN 60947-3 Low-Voltage switchgear and controlgear - Part 3: switches, disconnectors, switch disconnectors and fuse combination units.
- EN 60529 Degrees of protection provided by enclosures. (IP Code)

### Key to Marking

-  Specific marking for Explosion protection  
 II Equipment group  
 2 Equipment category  
 G Environment e.g. Gas

Switch Disconnectors (O-I)									
Image	Rating	Format	Cat. No.	Encl. Size	Encl. Material	IP Rating	Opt. Brass Earthing Plate Cat. No.	Equipment Marking	Min & Max Temp.
	25A	3P+Aux	EXZ1SDR02530	A	Glass Reinforced Polyester	IP65	EXEP0254	25A  II 2 GD Ex db eb IIC T6 Gb Ex tb IIIC T80°C Db	-40°C to +40°C
		4P+Aux	EXZ1SDR02540					25A  II 2 GD Ex db eb IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +55°C
	40A	3P+Aux	EXZ1SDR04030	B	Glass Reinforced Polyester	IP65	EXEP0404	40A  II 2 GD Ex db eb IIC T6 Gb Ex tb IIIC T80°C Db	-40°C to +40°C
		4P+Aux	EXZ1SDR04040					40A  II 2 GD Ex db eb IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +55°C
	80A	3P+Aux	EXZ1SDR08030	C	Glass Reinforced Polyester	IP65	EXEP0804	80A  II 2 GD Ex db eb IIC T6 Gb Ex tb IIIC T80°C Db	-40°C to +40°C
		4P+Aux	EXZ1SDR08040					80A  II 2 GD Ex db eb IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +55°C
	180A	3P+Aux	EXZ1SDR18030	D	Glass Reinforced Polyester	IP65	EXEP1804	180A  II 2 GD Ex db eb IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +40°C
		4P+Aux	EXZ1SDR18040					180A  II 2 GD Ex db eb IIC T4 Gb Ex tb IIIC T130°C Db	-40°C to +55°C

## Explosion Proof - Zone 22

Using high-quality die-cast aluminium and hinged door sheet steel enclosures, the range covers 20A to 630A ratings. All units allow for the fitting of up to three padlocks in the 'Off' position and include fixings located outside the enclosure seal area as well as an external earth point.

While many people associate hazardous atmospheres with gases, mists, or vapours, there are industries where a conductive or non-conductive dust, mixed with air in the correct proportion, can become explosive. It is in these environments that Craig & Derricott ATEX Group II (Zone 22) equipment provides a reliable solution to help comply with Health & Safety regulations.




















### Certification and Approvals

- Certification Code  II 3D  
tc IIIB T85°C Dc
- Certification standard BS EN 60079-0, BS EN 60079-31, BS EN 60529, BS EN 60947-3, BS EN 60204-1

Switch Disconnectors (O-I)									
Image	Rating	Format	Cat. No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	
	20A	6P+2EB Aux	SDDG206EBZ22	A22	Die-Cast Aluminium	Light Grey RAL 7035	IP65	1 x M20 Top + 2 x M20 Bottom	
	25A	3P+2EB Aux	SDDG253EBZ22	A22	Die-Cast Aluminium	Light Grey RAL 7035	IP65	1 x M20 Top + 2 x M20 Bottom	
		32A	3P+2EB Aux	SDDG323EBZ22	A22	Die-Cast Aluminium	Light Grey RAL 7035	IP65	1 x M20 Top + 2 x M20 Bottom
			6P+2EB Aux	SDDG326EBZ22	B22				2 x M25 + 1 x M20 Bottom
		40A	3P+2EB Aux	SDDG403EBZ22	B22	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2 x M25 + 1 x M20 Bottom
			6P+2EB Aux	SDDG406EBZ22					
		63A	3P+2EB Aux	SDDG633EBZ22	B22	Die-Cast Aluminium	Light Grey RAL 7035	IP65	2 x M25 + 1 x M20 Bottom
	32A	3P+N	EDG00323NZ22	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG00323NLZ22						
	63A	3P+N	EDG00633NZ22	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG00633NLZ22						
		3P+2EB Aux	EDG00633EBZ22						
		6P	EDG00636Z22						
		6P+2EB Aux	EDG00636EBZ22						
	80A	3P+N	EDG00803NZ22	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG00803NLZ22						
		6P	EDG00806Z22						
	100A	3P+N	EDG01003NZ22	1	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG01003NLZ22						
		6P	EDG01006Z22	3					
	125A	3P+N	EDG01253NZ22	2	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG01253NLZ22						
		6P	EDG01256Z22	3					
	160A	3P+N	EDG01603NZ22	2	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG01603NLZ22						
		6P	EDG01606Z22	3					
	200A	3P+N	EDG02003NZ22	4	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG02003NLZ22						
		250A	3P+N	EDG02503NZ22	5	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates
3P+NL			EDG02503NLZ22						
400A		3P+N	EDG04003NZ22	6	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG04003NLZ22						
630A		3P+N	EDG06303NZ22	7	Sheet Steel	Light Grey RAL 7035	IP65	Gland Plates	
		3P+NL	EDG06303NLZ22						

# Technical Specification

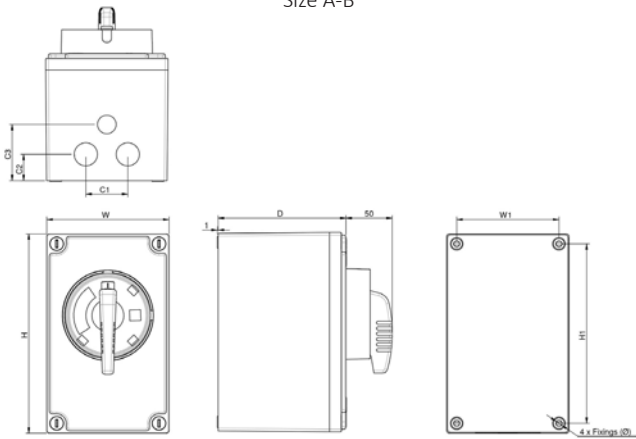
Data supplied against tests to IEC/BS EN 60947-3. \* All AC21, AC22 & AC23 tests carried out at 415V.

Zone 1, 2, 21 and 22 EX db eb														
Application	Sym.	Unit	Category	Main Contacts				Aux. Contacts						
				25A	40A	80A	180A	Category	Aux.					
Rated thermal current	I <sub>the</sub>	A		25	40	80	180		10					
Rated insulation voltage	U <sub>i</sub>	V		690	690	690	690		690					
Rated current	-	A	AC3 (230V)	25	40	80	180	AC15 (250V)	10					
			AC3 (400V)	25	40	80	180	AC15 (400V)	8					
			AC3 (500V)	20	40	80	150	DC13 (24V)	8					
			AC3 (690V)	16	32	63	125	DC13 (250V)	1					
Terminal capacity		mm <sup>2</sup>	-	2x4	2x10	2x25	2x95		2x1.5					
Tightening torque (Nm)			-	2.5	2.5	3.5	8.5		2.5					
Terminal type	-													
Zone 22 Die-Cast Aluminium														
Application		Sym.	Unit	Category	20A	25A	32A	40A	40A	63A				
Format		-	-	-	6P+2EB	3P+2EB	3P+6P	3P	6P	3P+6P				
Rated thermal current		I <sub>the</sub>	A	-	20	25	32	40	40	63				
Rated insulation voltage		U <sub>i</sub>	V	-	390	690	690	690	690	690				
Rated impulse voltage		U <sub>imp</sub>	kV	-	6	6	6.0	6.0	6.0	6.0				
Rated operational current		I <sub>e</sub>	A	400V AC23A (3 phase AC 50/60Hz)	15	25	32	40	40	54				
Rated operational power (3 phase AC)		I <sub>e</sub>	kW	230V	2.2	3.7	4.8	6.0	6.0	9.4				
		P <sub>e</sub>		400V	7.5	11	15	18.5	18.5	25				
Rated short time withstand current (1 sec)		I <sub>cw</sub>	A	-	250	500	600	600	600	1300				
Max. fuse size for short circuit protection (gG Characteristic)		-	kA	10kA	20	35	35	40	40	80				
				25kA	16	32	32	32	32	63				
				50kA	-	32	32	32	32	63				
Connecting capacity		-	-	Terminal type										
		-	mm <sup>2</sup>	Flexible cable	2.5 x 2	6	6	6	6	6	16			
		-	mm <sup>2</sup>	Rigid cable	2.5 x 2	10	10	10	10	10	25			
		-	Nm	Tightening torque	1.0	1.2	1.2	1.2	1.2	1.2	1.2			
Zone 22 Sheet Steel														
Application	Sym.	Unit	Category	32	63		80	100	125	160	200	250	400	630
				3P	3P	6P	3P	3P	3P	3P	3P	3P	3P	3P
Format	-	-	-	3P	3P	6P	3P	3P	3P	3P	3P	3P	3P	3P
Rated thermal current	I <sub>the</sub>	A		32	63	63	80	100	125	160	200	250	400	630
Rated insulation voltage	U <sub>i</sub>	V		690	690	690	690	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U <sub>imp</sub>	kV		6	6	6	6	8	8	8	8	12	12	12
Rated operational AC current	I <sub>e</sub>	A	400V- AC21A	32	63	63	80	100	125	160	200	250*	400*	630*
			690V- AC21A	32	63	63	80	100	125	160	200	250	400	630
			400V- AC22A	-	-	-	-	100	125	160	200	250*	400*	630*
			690V- AC22A	-	-	-	-	100	125	160	160	250	400	630
			400V- AC23A	29	48	48	56	105	111	132	132	250*	400*	630*
			690V- AC23A	17	33	33	33	-	-	-	-	250	350	350
Rated operational DC current	I <sub>e</sub>	A	Up to 48V- DC21A	32/1	63/1	63/1	80/1	-	-	-	-	250/2	400/2	630/1
			220V- DC21A	-	-	-	-	-	-	-	-	250/2	400/2	630/2
			Up to 48V- DC22A	-	-	-	-	-	-	-	-	250/2	400/1	630/1
			220V- DC22A	-	-	-	-	-	-	-	-	250/2	400/2	630/2
			Up to 48V- DC23A	-	-	-	-	-	-	-	-	250/2	400/1	630/1
			220V- DC23A	-	-	-	-	-	-	-	-	250/2	400/2	630/2
Rated operational power	P <sub>e</sub>	kW	400/415V- AC23A	15	25	25	30	59	63	75	75	132	200	315
			690V- AC23A	15	30	30	30	51	55	55	55	200	315	355
Short circuit making capacity	I <sub>cm</sub>	kA	Peak value	1.4	2.9	2.9	3	3.7	4	5	5	35	65	80
Short circuit withstand (1sec)	I <sub>cw</sub>	kA	rms value	0.6	1.3	1.3	1.4	2.6	2.8	3	3	8	17	17
Min. mechanical endurance		-	Operations (103)	250	250	500	250	50	50	50	50	16	10	10
Min. electrical endurance		-	415V- at 0.65 pf	-	-	-	-	-	-	-	-	1,000	1,000	500
Connecting capacity		-	Terminal type											
		mm <sup>2</sup>	Min/Max	2.5/10	2.5/25	2.5/25	2.5/25	-/35	-/70	-/70	-/95	120	2 x 150	2 x 185
		mm	Stud/Cu palm width	-	-	-	-	-	-	-	8 x 25	10 x 30	10 x 30	12 x 40
		Nm	Tightening torque	1.2	1.2	1.2	1.2	5	5	5	10	30	30	50

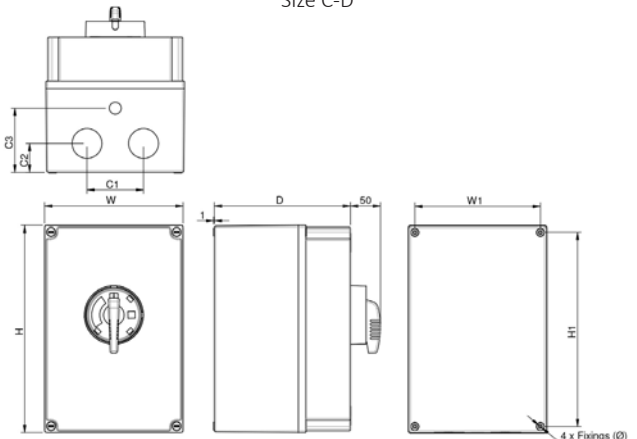
# Dimensions

## Explosion Proof EX db eb

Size A-B



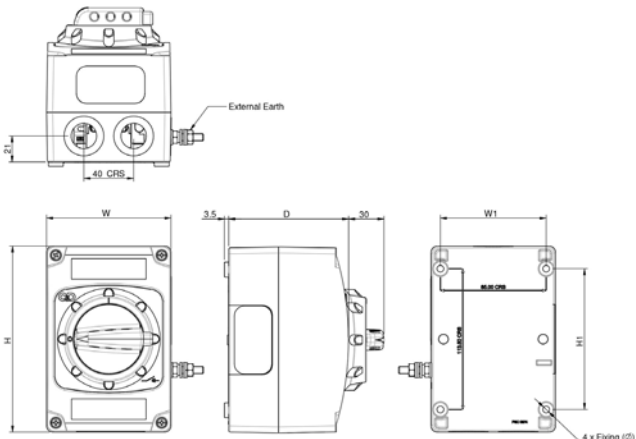
Size C-D



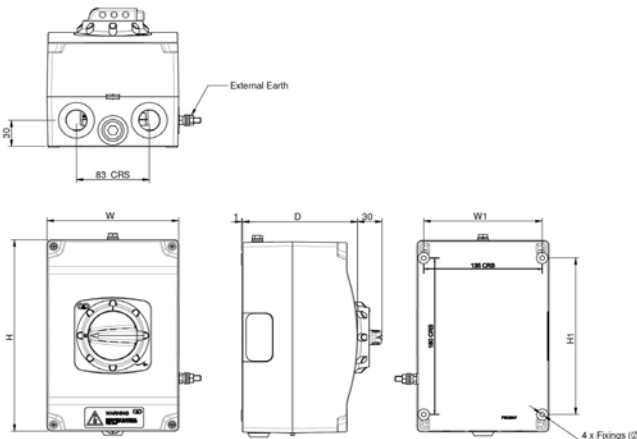
Encl. Size	Overall Dims.			Fixing Details			Cable Entries			
	H	W	D	H1	W1	Ø	C1	C2	C3	Entries
A	220	134	141	186	112	7	46	30	63	M20 + 2xM25
B	275	160	161	253	138	7	65.5	33	63	M20 + 2xM40
C	352	234	231	330	212	7	95.5	50	110	M20 + 2xM50
D	706	352	231	684	330	7	170	72	72	M20 + 2xM63

## Explosion Proof Zone 22

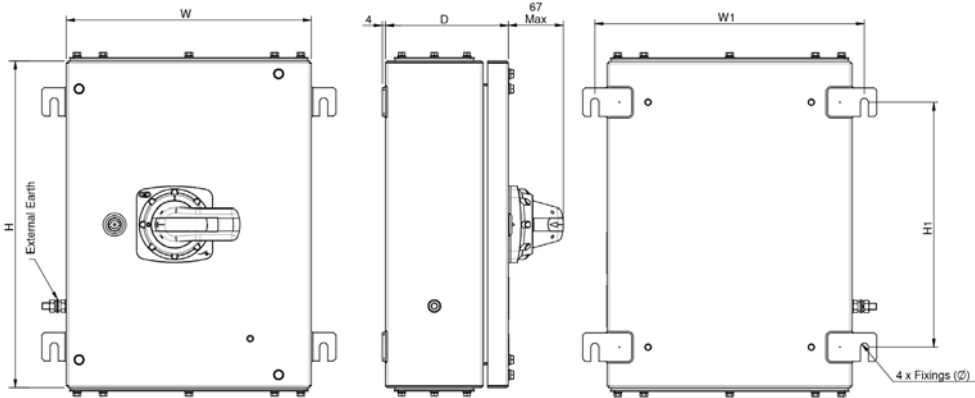
Size A22



Size B22



Sizes 1- 6



Encl. Size	Overall Dims.			Fixing Details		
	H	W	D	H1	W1	Ø
A22	150	100	96	113.5	85	5.5
B22	220	150	120	180	135	5.5
1	300	300	150	200	330	10
2	400	300	150	300	330	10
3	400	400	200	300	430	10
4	600	400	200	500	430	10
5	600	500	200	500	530	10
6	800	600	200	700	630	10





# AUTOMATIC TRANSFER SWITCHES

Automatic Transfer Switches (ATS) are vital wherever continuous power supply is critical—whether to safeguard people in workplaces and public environments, or to maintain essential operations within key processes. The changeover mechanism automatically transfers the load from the primary power source to the secondary supply in the event of a main power failure. The secondary source may be a generator or an alternative/standby power system.

Craig & Derricott provide a comprehensive range of Automatic Transfer Switches designed for reliability across all types of installations, including those supporting life safety equipment. As a leading manufacturer of Automatic Transfer Equipment, Craig & Derricott are dedicated to delivering dependable power continuity solutions. Our ATS units are engineered for use in a wide variety of applications such as hospitals, heritage properties, water treatment and distribution facilities, airports, data centres, retail complexes, commercial offices, residential developments, and rail infrastructure.

Our product range covers current ratings from 32A to 800A and includes models fully compliant with BS8519:2020 life safety standards.






## Loose Panel Automatic Transfer Switches (ATS)

This range of motorised panel Automatic Transfer Switches (ATS) is rated from 32A to 630A and is available in both SPN (230V) and TPN (400V) AC 50/60Hz configurations. Our ATS units are designed to ensure the safe and reliable automatic transfer of electrical loads from the primary supply to a standby generator or secondary power source. Applied standard: EN60947-6-1 PC type.

Each panel-mounted ATS unit is supplied as standard with the following features:

- LED status display and keypad – for configuration and monitoring.
- Lock-off actuator – for safe downstream maintenance.
- AC-33B utilisation category – suitable for mixed resistive and inductive loads.
- Generator start/stop delay – providing controlled transfer operation.
- Modbus communication – for integration with control and monitoring systems.
- Auxiliary power supply option (24V DC) – for enhanced system flexibility.


Loose Panel ATS							
Image	AC33 Rating	Cat. No.		Switch Size	Max Cable Size	Mounting CRS	Mounting Hole Dia.
		SPN	TPN				
	32-80A	ATS0802E	ATS0804E	230x125x130	35mm <sup>2</sup>	212x100	M4
	100-125A	ATS1252E	ATS1254E	245x130x122	50mm <sup>2</sup>	230x113	M4
	160-250A	ATS2502E	ATS2504E	295x175x175	120mm <sup>2</sup>	275x152	M6
	400-630A	ATS6302E	ATS6304E	430x272x228	2x240mm <sup>2</sup>	400x240	M8
Accessories							
Image	Description	Cat. No.		Size	Suitable for?		
	Remote Display Module	ATSDISPE		133x66x35	>80A		
		ATSDISPE/80		112x48x35	<80A		
	Terminal Shroud	ATS125SE		-	ATS1252E & ATS1254E		
		ATS250SE		-	ATS2502E & ATS2504E		
		ATS630SE		-	ATS6302E & ATS6304E		

## Standard Motorised Type Automatic Transfer Switches (ATS)

This range of motorised Automatic Transfer Switches (ATS) is rated from 32A to 630A and is available in both SPN (230V) and TPN (400V) AC 50/60Hz configurations. Our ATS units are engineered to provide safe and reliable automatic transfer of electrical loads from the primary supply to a standby generator or secondary power source. Each unit is housed in a light grey (RAL 7035) sheet steel enclosure with removable gland plates, providing an IP65 degree of protection against dust and water ingress. Applied standard: EN60947-6-1 PC type.

Each panel-mounted ATS is supplied as standard with the following features:

- LED status display and keypad – for configuration and monitoring.
- Lock-off actuator – for safe downstream maintenance.
- AC-33B utilisation category – suitable for mixed resistive and inductive loads.
- Generator start/stop delay functionality – ensuring controlled operation.
- Modbus communication – for integration with remote monitoring systems.
- Auxiliary power supply option (24V DC) – for enhanced installation flexibility.
- Status viewing window – ATS operating status visible through enclosure door.


Standard Motorised Type ATS								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
	32A	ATS0322E000	ATS0324E000	400x400x200	Sheet Steel	RAL 7035	IP66	35mm <sup>2</sup>
	45A	ATS0452E000	ATS0454E000	400x400x200	Sheet Steel	RAL 7035	IP66	35mm <sup>2</sup>
	63A	ATS0632E000	ATS0634E000	400x400x200	Sheet Steel	RAL 7035	IP66	35mm <sup>2</sup>
	80A	ATS0802E000	ATS0804E000	400x400x200	Sheet Steel	RAL 7035	IP66	35mm <sup>2</sup>
	100A	ATS1002E000	ATS1004E000	400x400x200	Sheet Steel	RAL 7035	IP66	35mm <sup>2</sup>
	125A	ATS1252E000	ATS1254E000	500x500x200	Sheet Steel	RAL 7035	IP66	50mm <sup>2</sup>
	160A	ATS1602E000	ATS1604E000	600x600x300	Sheet Steel	RAL 7035	IP66	95mm <sup>2</sup>
	250A	ATS2502E000	ATS2504E000	800x600x300	Sheet Steel	RAL 7035	IP66	95mm <sup>2</sup>
	400A	ATS4002E000	ATS4004E000	1000x600x300	Sheet Steel	RAL 7035	IP66	2x240mm <sup>2</sup>
	630A	ATS6302E000	ATS6304E000	1000x600x300	Sheet Steel	RAL 7035	IP66	2x240mm <sup>2</sup>

## Standard Motorised Form 3 Type Automatic Transfer Switches (ATS)

This range of Form 3 motorised Automatic Transfer Switches (ATS) is rated from 32A to 630A and is available in both SPN (230V) and TPN (400V) AC 50/60Hz configurations. Our ATS units are designed to provide safe and reliable automatic transfer of electrical loads from the primary supply to a standby generator or secondary power source. Each unit is housed in a light grey (RAL 7035) sheet steel enclosure with removable gland plates, offering up to IP65 protection against dust and water ingress. Applied standards: EN60947-6-1 PC type, BS EN/IEC 61439-2, BS EN/IEC 60947-3.

Each panel-mounted ATS is supplied as standard with the following features:

- LED status display and keypad – for configuration and monitoring.
- Lock-off actuator – for safe downstream maintenance.
- AC-33B utilisation category – suitable for mixed resistive and inductive loads.
- Generator start/stop delay functionality – ensuring controlled operation.
- Modbus communication – for integration with control and monitoring systems.
- BMS connectivity – enabling interface with building management systems.
- Auxiliary power supply option (24V DC) – for flexible installation.
- Incoming isolators and outgoing terminals – for safe and convenient wiring.
- Volt-free status relays and mimic Modbus terminals – for simplified connection and system feedback.


Form 3 Motorised Type ATS								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
	32A	ATS0322E500	ATS0324E500	500x500x200	Sheet Steel	RAL 7035	IP65	35mm <sup>2</sup>
	45A	ATS0452E500	ATS0454E500	500x500x200	Sheet Steel	RAL 7035	IP65	35mm <sup>2</sup>
	63A	ATS0632E500	ATS0634E500	600x600x200	Sheet Steel	RAL 7035	IP65	50mm <sup>2</sup>
	80A	ATS0802E500	ATS0804E500	600x600x200	Sheet Steel	RAL 7035	IP65	50mm <sup>2</sup>
	100A	ATS1002E500	ATS1004E500	600x600x200	Sheet Steel	RAL 7035	IP65	50mm <sup>2</sup>
	125A	ATS1252E500	ATS1254E500	600x600x200	Sheet Steel	RAL 7035	IP65	50mm <sup>2</sup>
	160A	ATS1602E500	ATS1604E500	800x600x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	250A	ATS2502E500	ATS2504E500	1000x800x300	Sheet Steel	RAL 7035	IP65	95mm <sup>2</sup>
	400A	ATS4002E500	ATS4004E500	1200x1000x300	Sheet Steel	RAL 7035	IP55	2x240mm <sup>2</sup>
	630A	ATS6302E500	ATS6304E500	1200x1000x300	Sheet Steel	RAL 7035	IP55	2x240mm <sup>2</sup>

## Single Line Bypass Motorised Form 3 Type ATS

This range of life safety Form 3 motorised Automatic Transfer Switches (ATS) with no-break single line bypass is rated from 32A to 630A and is available in both SPN (230V) and TPN (400V) AC 50/60Hz configurations. Our ATS units are engineered to provide safe and reliable automatic transfer of electrical loads from the primary supply to a standby generator or secondary power source. Each unit is housed in a light grey (RAL 7035) sheet steel enclosure with removable gland plates, offering up to IP65 protection against dust and water ingress. Applied standards: EN60947-6-1 PC type, BS EN/IEC 61439-2, BS EN/IEC 60947-3, BS 8519:2020, BS 9999:2017.

Each panel-mounted ATS is supplied as standard with the following features:

- LED status display and keypad – for configuration and monitoring.
- Lock-off actuator – for safe downstream maintenance.
- AC-33B utilisation category – suitable for mixed resistive and inductive loads.
- Generator start/stop delay functionality – ensuring controlled operation.
- Modbus communication – for integration with control and monitoring systems.
- BMS connectivity – enabling interface with building management systems.
- Auxiliary power supply option (24V DC) – for flexible installation.
- Incoming isolators and outgoing terminals – for safe and convenient wiring.
- Volt-free status relays and mimic Modbus terminals – for simplified connection and system feedback.
- Single line no-break bypass – allows maintenance, servicing, and repairs without interrupting the load.


Form 3 Single Line Bypass Motorised Type ATS								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
	32A	ATS0322E530	ATS0324E530	800x600x300	Sheet Steel	RAL 7035	IP65	35mm <sup>2</sup>
	45A	ATS0452E530	ATS0454E530	800x600x300	Sheet Steel	RAL 7035	IP65	35mm <sup>2</sup>
	63A	ATS0632E530	ATS0634E530	800x600x300	Sheet Steel	RAL 7035	IP65	50mm <sup>2</sup>
	80A	ATS0802E530	ATS0804E530	800x600x300	Sheet Steel	RAL 7035	IP65	50mm <sup>2</sup>
	100A	ATS1002E530	ATS1004E530	1000x600x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	125A	ATS1252E530	ATS1254E530	1000x600x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	160A	ATS1602E530	ATS1604E530	1000x600x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	250A	ATS2502E530	ATS2504E530	1200x800x300	Sheet Steel	RAL 7035	IP65	95mm <sup>2</sup>
	400A	ATS4002E630	ATS4004E630	1600x1000x400	Sheet Steel	RAL 7035	IP55	240mm <sup>2</sup>
	630A	ATS6302E630	ATS6304E630	1800x1000x400	Sheet Steel	RAL 7035	IP55	2x240mm <sup>2</sup>

## Riser Single Line Bypass Form 3 ATS

The Riser Single Line Bypass Form 3 Automatic Transfer Switch (ATS) is a compact, motorised unit designed for limited-space applications, rated from 32A to 63A and available in 230V (SPN) and 400V (TPN) variants. It automatically transfers electrical loads between a primary power source and a standby generator or secondary supply. The applied standards for the Riser Single Line Bypass Form 3 ATS are EN60947-6-1 PC type, BS EN/IEC 61439-2, BS EN/IEC 60947-3, BS 8519:2020, BS9999:2017, BS9991:2024, and BS EN/IEC 60529.

### Key Features

- LED status display and keypad for configuration
- Lock-off actuator for safe maintenance
- Generator start/stop delay and Modbus/BMS communication options
- 24V DC auxiliary power supply
- Single Line No-Break Bypass for maintenance and repair
- IP65-rated (RAL 7035) steel enclosure with removable gland plates
- FAT, RAM, and factory programming available on request


Riser Single Line Bypass Form 3 ATS								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
	32A	ATS0322E730	ATS0324E730	800x400x200	Sheet Steel	RAL 7035	IP65	25mm <sup>2</sup>
	45A	ATS0452E730	ATS0454E730	800x400x200	Sheet Steel	RAL 7035	IP65	25mm <sup>2</sup>
	63A	ATS0632E730	ATS0634E730	800x400x200	Sheet Steel	RAL 7035	IP65	25mm <sup>2</sup>

## Dual Line Bypass Motorised Form 3 Type ATS

This range of life safety form 3 motorised automatic transfer switches with SI no-break dual line bypass, are rated from 32A to 630A. These can be supplied in SPN (230V) and TPN (400V) AC 50/60Hz variants. Our ATS units are designed to allow safe automatic transfer of loads from a primary supply to a standby generator or secondary power supply. The 'SI' supply may be bypassed without a break in supply in accordance with life safety recommendations. Each ATS is supplied in a light grey (RAL7035) sheet steel enclosure with removable gland plates, offering up to IP65 protection degree from dust and water ingress. Applied Standards: EN60947-6-1 PC type, BS EN/IEC 61439-2, BS EN/IEC 60947-3, BS 8519:2020, BS9999:2017.




Each panel ATS switch comes standard with the following:

- LED status display and keypad – for ATS configuration.
- Lock off actuator for downstream maintenance.
- AC33B utilisation category.
- Generator Stop / Start delay functionality.
- Modbus communication.
- BMS connectivity.
- Aux power supply option 24V DC.
- Incoming isolators & outgoing terminals.
- Volt free status relays, mimic and Modbus terminals for easy connection.
- Dual Line Bypass for maintenance, servicing, and repairs (bypassing the primary or secondary supply)

Form 3 Dual Line Bypass Motorised Type ATS								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
	32A	ATS0322E540	ATS0324E540	800x600x300	Sheet Steel	RAL 7035	IP65	35mm <sup>2</sup>
	45A	ATS0452E540	ATS0454E540	800x600x300	Sheet Steel	RAL 7035	IP65	35mm <sup>2</sup>
	63A	ATS0632E540	ATS0634E540	1000x800x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	80A	ATS0802E540	ATS0804E540	1000x800x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	100A	ATS1002E540	ATS1004E540	1000x800x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	125A	ATS1252E540	ATS1254E540	1000x800x300	Sheet Steel	RAL 7035	IP65	70mm <sup>2</sup>
	160A	ATS1602E540	ATS1604E540	1200x1000x300	Sheet Steel	RAL 7035	IP65	95mm <sup>2</sup>
	250A	ATS2502E640	ATS2504E640	1600x1000x400	Sheet Steel	RAL 7035	IP55	185mm <sup>2</sup>
	400A	ATS4002E640	ATS4004E640	1800x1000x400	Sheet Steel	RAL 7035	IP55	240mm <sup>2</sup>
	630A	ATS6302E640	ATS6304E640	2000x1600x500	Sheet Steel	RAL 7035	IP55	2x240mm <sup>2</sup>

## Mimic Panels

Available to support the ATS units, we offer a range of remote status indication panels. These units are normally installed local to the buildings point of entry, allowing for an instant visual status of the ATS. Each unit is supplied with a brushed Stainless Steel (Grade 304) face plate, that can either be flush mounted to a 6/8way grid switch back box or provided with our surface mounting mild steel IP65 back box. All indication panels are made to meet standards: BS EN 60947-1. Other variants are available on request.

Mimic Panels							
Image	Associated ATS Type	Cat. No	Encl. Size	Fascia Plate Material	Indication Panel Back box Type	IP Rating	Max Cable Size
	Standard ATS	ATSIP0	156x156x45	Stainless Steel	No Back box	--	2.5mm <sup>2</sup>
		ATSIP0B0	156x156x45	Stainless Steel	Mild Steel Back box Black RAL 9005	IP65	2.5mm <sup>2</sup>
	ATS with Single Line Bypass	ATSIP1	156x156x45	Stainless Steel	No Back box	--	2.5mm <sup>2</sup>
		ATSIP1B0	156x156x45	Stainless Steel	Mild Steel Back box Black RAL 9005	IP65	2.5mm <sup>2</sup>
	ATS with Dual Line Bypass	ATSIP2	156x156x45	Stainless Steel	No Back box	--	2.5mm <sup>2</sup>
		ATSIP2B0	156x156x45	Stainless Steel	Mild Steel Back box Black RAL 9005	IP65	2.5mm <sup>2</sup>

## ATS Multi-Way Mimic Panels

Each Mimic panel comes with a range of standard features, including multicolour LED status indication for real-time visibility of power supply and ATS operation, an IP-rated enclosure, and seamless integration with standard ATS ranges. Installation is straightforward with a direct connection to the ATS, ensuring a quick and hassle-free setup. C&D Mimic Panels can also be customised to meet specific requirements and labelling conventions—contact the C&D sales team for more details or a quotation. Applied standards include BS EN/IEC 61439-2, BS EN/IEC 60529, and BS9999.

Standard (ST) Config



Single Line (SL) Config



Dual Line (SL) Config



### 1-Way Mimic Panel

400mmx400mmx200mm – IP65  
Max Cable Size 2.5mm<sup>2</sup> - Top & Bottom entry

ATSMIMST01   ATSMIMSL01   ATSMIMDL01

### 2-Way Mimic Panel

400mmx400mmx200mm – IP65  
Max Cable Size 2.5mm<sup>2</sup> - Top & Bottom entry

ATSMIMST02   ATSMIMSL02   ATSMIMDL02

### 3-Way Mimic Panel

400mmx400mmx200mm – IP65  
Max Cable Size 2.5mm<sup>2</sup> - Top & Bottom entry

ATSMIMST03   ATSMIMSL03   ATSMIMDL03

### 4-Way Mimic Panel

600mmx400mmx200mm – IP65  
Max Cable Size 2.5mm<sup>2</sup> - Top & Bottom entry

ATSMIMST04   ATSMIMSL04   ATSMIMDL04

### 5-Way Mimic Panel

800mmx400mmx200mm – IP65  
Max Cable Size 2.5mm<sup>2</sup> - Top & Bottom entry

ATSMIMST05   ATSMIMSL05   ATSMIMDL05

### 6-Way Mimic Panel

800mmx400mmx200mm – IP65  
Max Cable Size 2.5mm<sup>2</sup> - Top & Bottom entry

ATSMIMST06   ATSMIMSL06   ATSMIMDL06



## Life Safety Form 4 Type 2 Automatic Transfer Switches (ATS) with Single or dual Line Maintenance Bypass - Motorised Type, Class PC





At the core of each system is a four-pole ABB OTM changeover device. Rated for 230V or 400V AC, the life safety single-line or dual-line no-break bypass ATS uses a motorised changeover switch to meet all essential requirements for the automatic transfer of loads to a secondary power source. Units are rated from 32A to 63A with a frequency of 50/60Hz. The single-phase or three-phase ATS units allow automatic connection of a secondary electrical supply to a load in the event of primary supply failure.

The bypass function isolates the ATS by bypassing the 'S1' supply, or in dual-line versions, the 'S2' supply directly to the outgoing load, enabling essential maintenance. The 'S1' supply is bypassed with no interruption to the load, in line with life safety recommendations. A key advantage of this design is that both the 'S1' and 'S2' supplies can remain connected to the load while service or repairs are performed on the ATS unit.

All units are supplied in sheet steel enclosures with a light grey (RAL 7035) finish, offering up to IP65 protection, and include removable gland plates. Each ATS comes with a built-in controller that continuously monitors the voltage of two incoming AC sources, which may be generator, mains (utility), or a combination of both. In the event of an S1 failure, the controller automatically issues a start command to S2. The main LED indicators provide clear status of both supplies, and an auto/test switch is supplied with a set of two keys.

Incoming terminals or isolators are separated from each other and from the transfer switch by rigid metallic barriers, in compliance with Form 4, Type 2 separation requirements. Volt-free status relays are included to connect the ATS to a Building Management System (BMS) or other life safety systems. Each unit also includes mimic terminals for easy connection to a remote mimic panel. An optional Modbus communication module can be installed for full integration with BMS or life safety systems.

Applied standards: BS EN/IEC 60947-6-1, BS 8519:2020

Life Safety Single Line Bypass								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
Standard Life Safety Single Line Bypass ATS With Incoming Terminals								
	32A	ATS03229130	ATS03249130	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04529130	ATS04549130	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06329130	ATS06349130	1200x600x300	Sheet Steel	RAL 7035	IP65	50mm² Btm
Standard Life Safety Single Line Bypass ATS With Incoming Isolators								
	32A	ATS03229230	ATS03249230	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04529230	ATS04549230	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06329230	ATS06349230	1200x600x300	Sheet Steel	RAL 7035	IP65	50mm² Btm
Life Safety Dual Line Bypass								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
Standard Life Safety Dual Line Bypass ATS With Incoming Terminals								
	32A	ATS03229140	ATS03249140	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04529140	ATS04549140	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06329140	ATS06349140	1200x800x300	Sheet Steel	RAL 7035	IP65	50mm² Btm
Life Safety Dual Line Bypass ATS With Incoming Isolators								
	32A	ATS03229240	ATS03249240	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04529240	ATS04549240	800x600x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06329240	ATS06349240	1200x800x300	Sheet Steel	RAL 7035	IP65	50mm² Btm



# Life Safety Form 4 Type 2 Automatic Transfer Switches (ATS) with Single Line Maintenance Bypass - Solenoid Type Class PC

At the core of each system is a four-pole ABB TruOne changeover device. Rated for 230V or 400V AC, the life safety single-line no-break bypass ATS uses a solenoid changeover switch to meet all essential requirements for automatic transfer to a secondary power source. Units are rated from 32A to 800A with a frequency of 50/60Hz. Single-phase or three-phase ATS units enable the automatic connection of a secondary electrical supply to the load upon primary supply failure.

The bypass function isolates the ATS by bypassing the 'S1' supply directly to the outgoing load, allowing essential maintenance. The 'S1' supply is bypassed without interrupting the load, in accordance with life safety recommendations. The key advantage is that the 'S1' supply to the load can be maintained while service or repairs are carried out on the ATS unit.



All units are supplied in sheet steel enclosures with a light grey (RAL 7035) finish, providing up to IP65 protection. Each enclosure comes standard with removable gland plates.

Each ATS unit includes a built-in controller designed to monitor the voltage of two incoming AC sources, which may be generator, mains (utility), or a combination of both. The module continuously monitors S1 (Source 1) and, in the event of a failure, issues a start command to S2 (Source 2). LED indicator lights provide clear visual status of the incoming supplies. An auto/test switch is supplied with a set of two keys.

Incoming terminals or isolators are separated from each other and from the transfer switch by rigid metallic barriers, in compliance with Form 4, Type 2 separation. Volt-free status relays are included for connection to a Building Management System (BMS) or other life safety systems.

Each unit comes standard with mimic terminals for easy connection to a remote mimic panel. Optional communication modules such as Modbus or Ethernet can be fitted to enable integration with BMS or life safety systems.

Applied standards: BS EN/IEC 60947-6-1, BS 8519:2020

Life Safety Single Line Bypass								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
Life Safety Single Line Bypass ATS With Incoming Terminals								
	32A	ATS03225130	ATS03245130	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04525130	ATS04545130	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06325130	ATS06345130	1200x800x300	Sheet Steel	RAL 7035	IP65	50mm² Btm
	100A	ATS10025130	ATS10045130	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	125A	ATS12525130	ATS12545130	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	160A	ATS16025330	ATS16045330	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	250A	ATS25025330	ATS25045330	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	400A	ATS40025330	ATS40045330	1800x1000x400	Sheet Steel	RAL 7035	IP55	240mm² Top
	630A	ATS63025330	ATS63045330	2000x1200x400	Sheet Steel	RAL 7035	IP55	2x240mm² Top
	800A	ATS80025330	ATS80045330	2000x1200x400	Sheet Steel	RAL 7035	IP55	2x240mm² Top
Life Safety Single Line Bypass ATS With Incoming Isolators								
	32A	ATS03225230	ATS03245230	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04525230	ATS04545230	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06325230	ATS06345230	1200x800x300	Sheet Steel	RAL 7035	IP65	50mm² Btm
	100A	ATS10025230	ATS10045230	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	125A	ATS12525230	ATS12545230	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	160A	ATS16025430	ATS16045430	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	250A	ATS25025430	ATS25045430	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	400A	ATS40025430	ATS40045430	1800x1000x400	Sheet Steel	RAL 7035	IP55	240mm² Top
	630A	ATS63025430	ATS63045430	2000x1200x400	Sheet Steel	RAL 7035	IP55	2x240mm² Top
	800A	ATS80025430	ATS80045430	2000x1200x400	Sheet Steel	RAL 7035	IP55	2x240mm² Top

# Life Safety Form 4 Type 2 Automatic Transfer Switches (ATS) with Dual Line Maintenance Bypass - Solenoid Type Class PC

At the core of each system is a four-pole ABB TruOne changeover device. Rated for 230V or 400V AC, the life safety dual-line no-break bypass ATS employs a solenoid changeover switch to meet all essential requirements for automatically transferring loads to a secondary power source. Units are rated from 32A to 800A with a frequency of 50/60Hz. Single-phase or three-phase ATS units allow automatic connection of a secondary electrical supply to a load in the event of primary supply failure.

The bypass function isolates the ATS by bypassing either the 'S1' or 'S2' supply directly to the outgoing load, enabling essential maintenance. The 'S1' supply is bypassed without interruption to the load, in accordance with life safety recommendations. A key advantage of this design is that both the 'S1' and 'S2' supplies to the load can remain active while service or repairs are carried out on the ATS unit.



All units are supplied in sheet steel enclosures with a light grey (RAL 7035) finish, providing up to IP65 protection. Each enclosure comes standard with removable gland plates.

Each ATS includes a built-in controller that continuously monitors the voltage of two incoming AC sources, which may be generator, mains (utility), or a combination of both. The module monitors S1 (Source 1) and, in the event of a failure, issues a start command to S2 (Source 2). LED indicator lights provide clear visual status of both supplies. An auto/test switch is supplied with a set of two keys.

Incoming terminals or isolators are separated from each other and from the transfer switch by rigid metallic barriers, in compliance with Form 4, Type 2 separation. Volt-free status relays are included to connect the ATS to a Building Management System (BMS) or other life safety systems.

Each unit comes standard with mimic terminals for easy connection to a remote mimic panel. Optional communication modules (e.g., Modbus or Ethernet) can be installed to enable integration with BMS or life safety systems.

Applied standards: BS EN/IEC 60947-6-1, BS 8519:2020

Life Safety Dual Line Bypass								
Image	AC33 Rating	Cat. No.		Encl. Size	Encl. Material	Encl. Colour	IP Rating	Max Cable Size
		SPN	TPN					
Life Safety Dual Line Bypass ATS With Incoming Terminals								
	32A	ATS03225140	ATS03245140	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04525140	ATS04545140	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06325140	ATS06345140	1200x800x300	Sheet Steel	RAL 7035	IP65	50mm² Btm
	100A	ATS10025140	ATS10045140	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	125A	ATS12525140	ATS12545140	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	160A	ATS16025340	ATS16045340	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	250A	ATS25025340	ATS25045340	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	400A	ATS40025340	ATS40045340	1800x1000x400	Sheet Steel	RAL 7035	IP55	240mm² Top
	630A	ATS63025340	ATS63045340	2000x1200x400	Sheet Steel	RAL 7035	IP55	2x240mm² Top
	800A	ATS80025340	ATS80045340	2000x1200x400	Sheet Steel	RAL 7035	IP55	2x240mm² Top
Life Safety Dual Line Bypass ATS With Incoming Isolators								
	32A	ATS03225240	ATS03245240	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	45A	ATS04525240	ATS04545240	1200x800x300	Sheet Steel	RAL 7035	IP65	35mm² Btm
	63A	ATS06325240	ATS06345240	1200x800x300	Sheet Steel	RAL 7035	IP65	50mm² Btm
	100A	ATS10025240	ATS10045240	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	125A	ATS12525240	ATS12545240	1200x800x300	Sheet Steel	RAL 7035	IP65	70mm² Btm
	160A	ATS16025440	ATS16045440	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	250A	ATS25025440	ATS25045440	1800x1000x400	Sheet Steel	RAL 7035	IP55	185mm² Top
	400A	ATS40025440	ATS40045440	1800x1000x400	Sheet Steel	RAL 7035	IP55	240mm² Top
	630A	ATS63025440	ATS63045440	2000x1600x500	Sheet Steel	RAL 7035	IP55	2x240mm² Top
	800A	ATS80025440	ATS80045440	2000x1600x500	Sheet Steel	RAL 7035	IP55	2x240mm² Top



## Extension Boxes

Our range of extension boxes are designed to provide additional space for incoming cables, ensuring a more organised and efficient installation. Perfect for environments where cable management is crucial, these extension boxes offer flexibility, allowing you to easily accommodate larger or multiple cable entries without compromising the performance or integrity of your system. With durable construction and a streamlined design, our extension boxes help optimise your setup, making it easier to manage complex installations and maintain a clean, professional appearance.



## Horizontal ATS

Our versatile Automatic Transfer Switch (ATS) products now offer enhanced flexibility with the option to reconfigure all vertical units for horizontal mounting. Ideal for applications with space constraints or specific installation requirements, this design allows you to customise the placement of the incoming supply, choosing whether it is positioned to the left or right of the unit. This tailored approach ensures optimal fit and functionality, making it easier to integrate ATS solutions into your environment, no matter the layout or design limitations.



## SPDs

Protect your critical systems with our Automatic Transfer Switch (ATS) products, now available with integrated surge protection. Designed to safeguard the ATS components from voltage spikes and electrical surges, this protection is essential for ensuring the reliability and longevity of your equipment, particularly in life safety systems where continuous operation is paramount. In addition to securing the ATS, we also offer Surge Protection Device (SPD) assemblies for load protection, delivering comprehensive protection for your entire system.

## Enclosure Options



## Rain Hoods

Designed to provide superior weather protection for ATS assemblies intended for outdoor installation. These durable, corrosion-resistant covers shield against rain, dust, and harsh environmental conditions, ensuring long-term reliability. To maintain a secure and effective fit, our rain hoods must be specified at the time of ordering, as they are integrated into the assembly during manufacturing and cannot be retrofitted to existing units. For more details on available options, contact our team today.



## Bespoke Colour Options

Our standard range of Automatic Transfer Switch (ATS) products is supplied in RAL 7035 Grey or RAL 3020 Red, providing a durable and professional finish. However, we also offer custom colour options, including Signal Yellow, White Cream, Jet Black. Whether for safety, branding, or sitespecific requirements, we can provide an ATS solution that meets your exact colour needs without compromising on quality or performance.



## Stainless Steel

We also offer our range of Automatic Switch (ATS) products in both grade 304 and 316 Stainless Steel enclosures, providing superior durability and corrosion resistance for use in external or harsh environments. Ideal for applications exposed to challenging weather conditions, industrial settings, or locations requiring enhanced protection. As standard, all stainless steel ATSs come with an anticondensation heater, thermostat, and breather valve to maintain a stable environment within.

# Operational and Maintenance Protocols for ATS

Automatic Transfer Switches (ATS) play a crucial role in ensuring the safety, reliability, and legal compliance of power systems, especially in life-critical and high-occupancy buildings. Proper maintenance and servicing of ATS units are essential for meeting UK legislative requirements, enhancing system reliability, and protecting occupants.

## Key Standards & Legislative Obligations

### 1. Electricity at Work Regulations (EAWR) 1989

Regulation 4(2) requires the maintenance of electrical systems to prevent potential dangers. Given the critical role of ATS in life-safety applications, the absence of maintenance can result in severe safety hazards. Duty holders are responsible for assessing risks related to ATS equipment and implementing adequate inspection and maintenance routines to mitigate hazard.

### 2. Health and Safety at Work Act 1974

This Act mandates risk assessment and safe system maintenance. ATS systems, integral to life-safety equipment (e.g. fire alarms, emergency lighting), fall under this Act's scope. Facility managers must maintain ATS functionality to ensure emergency systems operate as expected.

### 3. Regulatory Reform (Fire Safety) Order 2005

Under this Order, the responsible person must ensure all fire safety-related equipment (including ATS), are maintained and in effective working order. This requirement, which applies when ATS supports fire alarms or emergency lighting, aims to safeguard building occupants by guaranteeing the reliability of critical systems during emergencies.

## Relevant Standards & Codes of Practice

BS EN 60947-6-1: Governs ATS performance, emphasizing safe switching between power sources and insulation protection.

BS 7671 (IET Wiring Regulations): Establishes installation and maintenance standards for ATS systems, promoting regular inspection and testing to ensure reliable emergency power.

BS 5839-1: Highlights the need for uninterrupted power to fire detection and alarm systems, underscoring ATS maintenance.

BS 9999:2017 & BS 9991:2024 (Fire Safety Code of Practice): Recommends ATS testing frequencies, such as weekly lift switch checks and monthly generator load tests, to ensure readiness.

BG 70/2021 – Life Safety and Firefighting Power Supplies: Stresses the importance of ATS systems for reliable power in life-safety systems, ensuring critical functions like fire pumps and evacuation lifts are operational during emergencies.

# ATS Commissioning

**Craig & Derricott offer an optional commissioning service on all of our Automatic Transfer Switches (ATS).**

We will provide a level of testing that will allow you to feel confident that each C&D ATS unit is working and capable of maintaining a fully operational state during its working life.

## Full commissioning service reporting

All Craig & Derricott commissioning services include a detailed report for your peace of mind (and possibly for your insurance), which will be provided within 14 days of the completed commissioning of your Automatic Transfer Switches.

## The commissioning service includes but is not limited to:

- BMS Contact Check/ volt free signal test
- Phase Rotation Check
- LED Illumination Check
- Operational Check
- Continuity Test
- Manual Changeover Test
- Automatic Changeover Test

All ATS equipment tested and registered with C&D will qualify for a 2 year extended warranty offer on the units. The 2-year warranty will commence from the date of commissioning if this date is within 12 months of the date of despatch.



**Scan the QR code to contact Jen Bratt**  
for more information

no admittance,  
trained Personnel  
only



# ATS Service Offering

C&D are pleased to offer a variety of on-site services for Automatic Transfer Switches (ATS). To ensure the necessary compliance with the Testing requirements for BSEN8519 2020, BSEN9999 & BG70 2021 Life Safety. Alongside the IEC60947-6-1 standard which applies to Transfer switching equipment. These C&D Services include but are not limited to the following.

## ATS Initial Visual Inspection

This will result in a detailed report and if required a quote for further recommended remedial works, regular servicing or repairs. Any ATS out with warranty will require this as a Prerequisite to annual service.

## ATS Training to meet the Testing requirements for BSEN8519 2020, BSEN9999 2017 , B59991 2024 & BG70 2021 Life safety

C&D will train competent persons so they can undertake the quarterly testing required by the standards. This can be provided free of charge, only if time allows this to be undertaken on the same day as a chargeable visit. Otherwise, the standard dayrate would apply.

## 1, 3 and 5 Year Service Contracts

As required annually for BSEN8519 2020, BSEN9999: 2017 & BG70 2021 Life Safety Standards. Available for ATS still within C&D warranty or serviced by C&D within the past year. This will result in a detailed report and if required a quote for further recommended works, regular servicing or repairs.

**An initial inspection will need to be performed before a service contract can be taken.**

**Note 1:** These services relate only to C&D manufactured ATS. Other manufacturers ATS will be considered but in these cases, we will need full information on the other product/s; Manufacturer, Model Number, Manufacturer's Instructions, Wiring schematic, Application, Date of Installation and any other relevant and available information.

**Note 2:** Insulation testing: Where possible and applicable C&D will carry out Phase to Earth insulation testing on the three phases and neutral. Where any ATS product pre-dates the BSEN8519 2020, BSEN9999 & BG70 2021 life safety standards, or does not comply with the standards (for example no by-pass has been provided), for safety reasons C&D will not carry out any insulation testing – as doing so would leave any associated and connected equipment inoperable during the test, this would represent an unacceptable safety risk. In these cases, C&D very strongly recommends that the installed ATS are brought up to the full requirements of the life safety standards.

**Note 3:** Where the C&D service activity may cause a disruption to supply this will only be carried out with the signed agreement of the building occupier/owner.

**Note 4:** If the C&D service activity cannot be completed within a single day, any works carried over to the second day will be chargeable at the full day rate.

**Note 5:** ATS servicing is still required during warranty period to comply with regulations.





## Recommended Maintenance Protocols for Reliable Operation

### Monthly Inspection

**Visual Inspection:** Look for physical wear, overheating, cable integrity, and any moisture or water ingress.

**Mechanical Operation:** Confirm smooth transition between primary and secondary positions.

### Quarterly Maintenance

**Visual Inspection:** Repeat checks for physical wear, overheating, cable integrity, and moisture.

**Internal Cleanliness:** Remove dust and ensure components are dry.

**Switch Testing:** Verify seamless transition between power sources.

**Terminal Checks:** Check for corrosion, with annual torque verification.

### Annual Servicing

**Full Load Testing:** Simulate a power failure to confirm transfer reliability to backup power sources.

**Electrical Testing:** Conduct insulation resistance and contact resistance tests.

**Software/Firmware Updates:** For programmable ATS units, verify control system updates for optimal reliability.

### Record keeping

Maintaining detailed records of all inspections, maintenance activities, and testing is critical. Keeping documentation for a minimum of three years is essential for compliance audits and valuable for troubleshooting.

### The Importance of Routine Maintenance

ATS systems are often safety-critical, particularly in settings like hospitals, emergency response centres, and high-occupancy buildings. Neglecting maintenance can lead to system failure during an emergency, creating serious safety hazards and potential legal liability under the Electricity at Work Regulations, Health and Safety at Work Act and Regulatory Reform (Fire Safety) Order. Regular testing, inspection, and maintenance not only extend the life of ATS units but ensure continuous compliance with British standards and regulations.

### Conclusion

Routine maintenance is particularly important for ATS systems in high-stakes environments such as hospitals and emergency response centres. Neglecting maintenance increases the risk of failure during emergencies, presenting safety hazards and potential legal liabilities under UK regulations. Regular inspection and maintenance not only extend the life of ATS units but ensure compliance with British standards and reinforce system reliability in life-safety applications.

**Craig & Derricott Ltd** offers comprehensive ATS servicing, inspection, testing, and service contracts, helping clients maintain ATS reliability and meet UK safety standards. Their expertise in life-safety ATS maintenance supports compliance and operational safety across a range of applications.





# PANEL SWITCHES

Craig & Derrickott has a range of products designed specifically for control panel and switchboard construction.

Most panels require a means of electrical isolation and the i-switch range can offer variants in the range of 25A - 1250A. All handle assemblies employ safety features with an override facility for testing or emergency situations.

A choice of shaft lengths, auxiliary contacts & shields provide the flexibility to suit most applications.

# Panel Isolators

Craig & Derrickott offer a comprehensive range of control panel isolation equipment designed for panel mounting.

## Compact Range (25A – 200A)

Each AC23A isolator features IP2X terminal protection and can be mounted on a DIN rail or base. All units are supplied with a door-interlocking operating handle and a standard 100mm shaft. The compact switch disconnectors allow the addition of auxiliary and neutral block options to the basic load break switch block. Incoming terminal covers are supplied on A3-sized frames.

## Standard Range (100A – 1250A)

Each AC23A isolator features IP2X terminal protection and can be either DIN rail or base mounted. All units include a door-interlocking operating handle and a standard 200mm shaft. Switch disconnectors in this range also allow the addition of auxiliary and neutral block options. All isolators are supplied with direct lug connections onto plated copper palms.

## Changeover Range (63A – 630A)

Each AC23A isolator features IP2X terminal protection and is supplied with a door-interlocking operating handle and a 200mm shaft. The compact switch range allows the addition of auxiliary and neutral block options to the basic load break switch block. All isolators are supplied with direct lug connections onto plated copper palms.

'B' = Black Handle. For Red Handle, replace B with R in the Cat. No. E.g. SD00253R

Compact Range						
Image	Rating	Format	Cat. No	Frame Size	Handle IP Rating	Std Shaft Length
	25A	3P	SD00253B	A0	IP65	100mm
		6P	SD00256B	A0-A0		
	32A	3P	SD00323B	A0	IP65	100mm
		6P	SD00326B	A0	IP65	100mm
	40A	3P	SD00403B	A0	IP65	100mm
		6P	SD00406B	A1-A1		
	63A	3P	SD00633B	A1	IP65	100mm
		6P	SD00636B	A1-A1		
	80A	3P	SD00803B	A1	IP65	100mm
		6P	SD00806B	A1	IP65	100mm
	100A	3P	SDC01003B	A2	IP65	100mm
		6P	SDC01006B	A2-A2		
	125A	3P	SDC01253B	A2	IP65	100mm
		6P	SDC01256B	A2-A2		
160A	3P	SDC01603B	A2	IP65	100mm	
	6P	SDC01606B	A2-A2			
200A	3P	SDC02003B	A3	IP65	100mm	
	6P	SDC02006B	A3	IP65	100mm	
Standard Range						
	100A	3P	SD01003B	B1	IP65	200mm
		4P	SD01004B			
	125A	3P	SD01253B	B1	IP65	200mm
		4P	SD01254B			
	160A	3P	SD01603B	B1	IP65	200mm
		4P	SD01604B			
	200A	3P	SD02003B	B2	IP65	200mm
		4P	SD02004B			
	250A	3P	SD02503B	B2	IP65	200mm
		4P	SD02504B			
	400A	3P	SD04003B	B3	IP65	200mm
		4P	SD04004B			
	630A	3P	SD06303B	B3	IP65	200mm
		4P	SD06304B			
800A	3P	SD08003B	B3	IP65	200mm	
	4P	SD08004B				
1000A	3P	SD10003B	B4	IP65	200mm	
	4P	SD10004B				
1250A	3P	SD12503B	B4	IP65	200mm	
	4P	SD12504B				
Changeover Range						
	63A	4P	SCOD00634B	C1C	IP65	200mm
	100A	4P	SCOD01004B	C1C	IP65	200mm
	125A	4P	SCOD01254B	C2C	IP65	200mm
	160A	4P	SCOD01604B	C2C	IP65	200mm
	200A	4P	SCOD02004B	C2C	IP65	200mm
	250A	4P	SCOD02504B	C2	IP65	200mm
	400A	4P	SCOD04004B	C3	IP65	200mm
	630A	4P	SCOD06304B	C3	IP65	200mm

# Panel Isolators

Craig & Derricott offer a versatile range of control panel isolation equipment for panel mounting.

## Fuse Combination Range (32A – 630A)

Each AC23A switch features IP2X terminal protection and is suitable for standard IEC/BS EN 60269 (BS88) fuse links. All units are supplied with a door-interlocking operating handle with an override facility and a standard 200mm shaft. The compact switch design allows the addition of auxiliary and neutral block options to the basic load break switch block. Incoming terminal covers are supplied on A3-sized frames.

## PV Range (16A – 40A)

Solar power provides a clean, environmentally friendly method of generating electricity through Photovoltaic (PV) cells, which capture sunlight and convert it to electricity. By combining cells into an array, various voltage and current configurations can be achieved. Once installed, the array continues to generate voltage and current, making it essential to isolate the array for fault protection or maintenance. Craig & Derricott have developed a range of DC Switch Disconnectors specifically to manage this application, ensuring safe isolation of PV arrays.

'B' = Black Handle. For Red Handle, replace B with R in the Cat. No. E.g. SDF00253R

\*1 Designed to isolate twin arrays

Fuse Combination Range						
Image	Rating	Format	Cat. No	Frame Size	Handle IP Rating	Std Shaft Length
	32A	3P+N	SDF00323NB	D1	IP65	200mm
		3P+NL	SDF00323NLB			
	63A	3P+N	SDF00633NB	D1	IP65	200mm
		3P+NL	SDF00633NLB			
	100A	3P+N	SDF01003NB	D2	IP65	200mm
		3P+NL	SDF01003NLB			
	125A	3P+N	SDF01253NB	D2	IP65	200mm
		3P+NL	SDF01253NLB			
	160A	3P+N	SDF01603NB	D3	IP65	200mm
		3P+NL	SDF01603NLB			
	200A	3P+N	SDF02003NB	D4	IP65	200mm
		3P+NL	SDF02003NLB			
	250A	3P+N	SDF02503NB	D4	IP65	200mm
		3P+NL	SDF02503NLB			
	315A	3P+N	SDF03153NB	D5	IP65	200mm
		3P+NL	SDF03153NLB			
400A	3P+N	SDF04003NB	D5	IP65	200mm	
	3P+NL	SDF04003NLB				
630A	3P+N	SDF06303NB	D6	IP65	200mm	
	3P+NL	SDF06303NLB				
Photovoltaic (PV) Range						
Image	Rating	Format	Cat. No	Max. DC Voltage	Handle IP Rating	Std Shaft Length
	16A	DC 2 P	SPV162	1,000V	IP65	200mm
		DC 4 P	SPV164	1,500V		
		Twin Array DC 2x 2 P	SPV1622*1	1,000V		
	25A	DC 2 P	SPV252	1,000V	IP65	200mm
		DC 3 P	SPV253	1,000V		
		DC 4 P	SPV254	1,000V		
		Twin Array DC 2x 2 P	SPV2522*1	1,500V		
	32A	DC 2 P	SPV322	600V	IP65	200mm
		DC 3 P	SPV323	1,000V		
		DC 4 P	SPV324	1,500V		
		Twin Array DC 2x 2 P	SPV322*1	600V		
	40A	DC 2 P	SPV402	300V/400V	IP65	200mm
		DC 3 P	SPV403	800V		
		DC 4 P	SPV404	1,500V		
		Twin Array DC 2x 2 P	SPV4022*1	300V/400V		

All of the accessories listed below are retrofit-capable. A single block can be installed on either side of the main assembly for all three-pole switch interiors.




















Fuse Links		
Description	Bussman Cat. No	Cat. No.
32A Fuse Link For BS Fuse Format A2- A3. Fuse Fixing CRS 73mm nom.	AA032	SFL32
63A Fuse Link For BS Fuse Format A2- A3. Fuse Fixing CRS 73mm nom.	BA063	SFL63
100A Fuse Link For BS Fuse Format A4. Fuse Fixing CRS 94mm nom.	CE0100	SFL100
125A Fuse Link For BS Fuse Format A4. Fuse Fixing CRS 94mm nom.	DE0125	SFL125
160A Fuse Link For BS Fuse Format B1- B2. Fuse Fixing CRS 111mm nom.	DD160	SFL160
200A Fuse Link For BS Fuse Format B1- B2. Fuse Fixing CRS 111mm nom.	DD200	SFL200
250A Fuse Link For BS Fuse Format B1- B2. Fuse Fixing CRS 111mm nom.	ED250	SFL250
315A Fuse Link For BS Fuse Format B1- B4. Fuse Fixing CRS 111mm nom.	ED315	SFL315
400A Fuse Link For BS Fuse Format B1- B4. Fuse Fixing CRS 111mm nom.	ED400	SFL400
630A Fuse Link For BS Fuse Format C1- C3. Fuse Fixing CRS 133/184mm nom.	FF630	SFL630
Auxiliary Contacts		
Description	Cat. No.	
Auxiliary Contact- 2 Early break for Compact Switch Range	SAUX2EB	
Auxiliary Contact- 1 N/O + 1 N/C for Compact Switch Range	SAUXCO	
25A- 40A Compact Neutral (Unswitched) for Compact Switch Range	SNLC40	
63A Neutral (Unswitched) for Compact Switch Range	SNL63	
80A Neutral (Unswitched) for Compact Switch Range	SNL80	
100A Neutral (Unswitched) for Compact Switch Range	SNL100	
125A Neutral (Unswitched) for Compact Switch Range	SNL125	
160A Neutral (Unswitched) for Compact Switch Range	SNL160	
200A Neutral (Unswitched) for Compact Switch Range	SNL200	
25A Neutral (Switched) for Compact Switch Range	SSP25	
40A Neutral (Switched) for Compact Switch Range	SSP40	
63A Neutral (Switched) for Compact Switch Range	SSP63	
80A Neutral (Switched) for Compact Switch Range	SSP80	
100A Neutral (Switched) for Compact Switch Range	SSP100	
125A Neutral (Switched) for Compact Switch Range	SSP125	
160A Neutral (Switched) for Compact Switch Range	SSP160	
200A Neutral (Switched) for Compact Switch Range	SSP200	
Auxiliary Contact For 100A- 160A for Standard Switch & Fuse Combination Units Range	SAUXKITA	
Auxiliary Contact For 200A- 250A for Standard Switch Range	SAUXKITB	
Auxiliary Contact For 400A- 800A for Standard Switch & Fuse Combination Units Range	SAUXKITC	
Auxiliary Contact For 1000A- 1250A for Standard Switch & Fuse Combination Units Range	SAUXKITD	
Terminal Covers		
Set of 4 Terminal Covers For 200A Standard Switch & Fuse Combination Units Range	STS1	
Set of 4 Terminal Covers For 250A- 400A Standard Switch & Fuse Combination Units Range	STS2	
Set of 4 Terminal Covers For 630A Fuse Combination Units Range	STS3	
Set of 4 Terminal Covers For 630A Standard Switch Range	STS4	
Handles (Capable of being locked with up to three individual padlocks)		
Handle assembly supplied with the 'A0' & 'A1' frame sizes.	SDH1	
Handle assembly supplied with the 'A2' & 'A3' frame sizes.	SDH2	
Handle assembly supplied with the 'C1C & C2C' frame sizes.	SDH3	
Handle assembly supplied with the 'C2' & 'C3' frame size.	SDH4	
Handle assembly supplied with the 'C2' & 'C3' frame size.	SDH6	
Handle assembly supplied with the 'C2' & 'C3' frame size.	SDH7	
Adjustable Shafts		
200mm Shaft for 25A-80A Compact Switch Range	SSH2	
400mm Shaft for 100A-160A Standard Switch Range & 32A-160A Fuse Combination Units Range	SSH13	
400mm Shaft for 200A-250A Standard Switch Range & 63A-100A Changeover Range	SSH14	
400mm Shaft for 400A-1250A Standard, Switch Range 200A-630A Fuse Combination Units & 250A-630A Changeover Range	SSH15	
200mm Shaft for 100A-200A Compact Switch Range	SSH17	
400mm Shaft for 125A-200A Changeover Range	SSH18	



# Technical Specification

Data is provided based on tests conducted in accordance with BS EN 60947-3.

\*All AC21, AC22, and AC23 tests were performed at 415V.



















Compact Range													
Application	Sym	Unit	Category	25	32	40	63	80	100	125	160	200	
Rated thermal current	I <sub>th</sub>	A		25	32	40	63	80	100	125	160	200	
Rated insulation voltage	U <sub>i</sub>	V		690	690	690	690	690	1000	1000	1000	1000	
Rated impulse voltage	U <sub>imp</sub>	kV		6	6	6	6	6	8	8	8	8	
Rated operational current (AC)	I <sub>e</sub>	A	400V AC21A	25	32	40	63	80	100	125	160	200	
			400V AC22A	-	-	-	-	-	100	125	160	200	
			400V AC23A	21	29	29	48	56	100	111	132	132	
Rated operational current (DC) ( /poles in series)	I <sub>e</sub>	A	Up to 48V DC21A	25/1	32/1	40/1	63/1	80/1	-	-	-	-	
			220V DC21A	25/3	32/3	40/3	63/4	80/4	-	-	-	-	
			Up to 48V DC22A	-	-	-	-	-	-	-	-	-	
			220V DC22A	-	-	-	-	-	-	-	-	-	
			Up to 48V DC23A	-	-	-	-	-	-	-	-	-	
			220V DC23A	-	-	-	-	-	-	-	-	-	
Rated operational power	P <sub>e</sub>	kW	400/415V AC23A	11	15	15	25	30	59	63	75	75	
Short circuit making capacity	I <sub>cm</sub>	kA	Peak value	1.2	1.4	1.4	2.9	3.0	3.7	4.0	5.0	5.0	
Short circuit withstand (1sec)	I <sub>cw</sub>	kA	rms value	0.5	0.6	0.6	1.3	1.4	2.6	2.8	3.0	3.0	
Min. mechanical endurance		-	Operations	250 x 10 <sup>3</sup>	250 x 10 <sup>3</sup>	250 x 10 <sup>3</sup>	250 x 10 <sup>3</sup>	250 x 10 <sup>3</sup>	50 x 10 <sup>3</sup>	50 x 10 <sup>3</sup>	50 x 10 <sup>3</sup>	50 x 10 <sup>3</sup>	
Min. electrical endurance		-	415V at 0.65 pf	-	-	-	-	-	-	-	-	-	
Connecting capacity		-	Terminal type										
		mm <sup>2</sup>	Min/Max	2.5/10	2.5/10	2.5/10	2.5/25	2.5/25	10/70	10/70	10/70	-	
		mm	Stud/Cu palm width	-	-	-	-	-	-	-	-	8/20	
		Nm	Tightening torque	1.2	1.2	1.2	1.2	1.2	5	5	5	10	
Standard Range													
Application	Sym	Unit	Category	100	125	160	200	250	400	630	800	1000	1250
Rated thermal current	I <sub>th</sub>	A		115	125	160	200	270	500	630	720	1000	1250
Rated insulation voltage	U <sub>i</sub>	V		750	750	750	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U <sub>imp</sub>	kV		8	8	8	12	12	12	12	12	8	8
Rated operational current (AC)	I <sub>e</sub>	A	400V AC21A	100*	125*	160*	200*	250*	400*	630*	800*	1000*	1250*
			400V AC22A	100*	125*	160*	200*	250*	400*	630*	800*	1000*	1250*
			400V AC23A	100*	125*	135*	200*	250*	400*	630*	720*	-	-
Rated operational current (DC) ( /poles in series)	I <sub>e</sub>	A	Up to 48V DC21A	100/2	125/2	160/2	200/2	250/2	400/2	630/1	800/1	1000/1	1250/1
			220V DC21A	100/3	125/3	160/3	200/2	250/2	400/2	630/2	800/2	1000/3	1250/3
			Up to 48V DC22A	100/2	125/2	160/2	200/2	250/2	400/1	630/1	800/1	-	-
			220V DC22A	100/3	125/3	160/3	200/2	250/2	400/2	630/2	800/2	-	-
			Up to 48V DC23A	100/2	125/2	160/2	200/2	250/2	400/1	630/1	800/1	-	-
			220V DC23A	100/3	125/3	160/3	200/2	250/2	400/2	630/2	630/2	-	-
Rated operational power	P <sub>e</sub>	kW	400/415V AC23A	37	45	75	110	132	200	315	355	400	500
Short circuit making capacity	I <sub>cm</sub>	kA	Peak value	7	7	7	35	35	65	80	80	105	105
Short circuit withstand (1sec)	I <sub>cw</sub>	kA	rms value	5	5	5	8	8	17	17	17	50	50
Min. mechanical endurance		-	Operations	20 x 10 <sup>3</sup>	20 x 10 <sup>3</sup>	20 x 10 <sup>3</sup>	16 x 10 <sup>3</sup>	16 x 10 <sup>3</sup>	10 x 10 <sup>3</sup>	10 x 10 <sup>3</sup>	10 x 10 <sup>3</sup>	6 x 10 <sup>3</sup>	6 x 10 <sup>3</sup>
Min. electrical endurance		-	415V at 0.65 pf	5,000	5,000	1,000	1,000	1,000	1,000	500	500	500	500
Connecting capacity		-	Terminal type										
		mm <sup>2</sup>	Min/Max	-	-	-	-	-	-	-	-	-	-
		mm	Stud/Cu palm width	8x25	8x25	8x25	8x25	10x30	10x40	12x40	12x40	12x60	12/60
		Nm	Tightening torque	10	10	10	10	30	30	50	50	50	50



# Technical Specification

Data is provided in accordance with BS EN 60947-3.





\*All AC21, AC22, and AC23 tests were conducted at 415V.

Changeover Range													
Application	Sym	Unit	Category	63	100	125	160	200	250	400	630		
Rated thermal current	I <sub>the</sub>	A		63	100	125	160	200	250	400	630		
Rated insulation voltage	U <sub>i</sub>	V		750	750	1000	1000	1000	1000	1000	1000		
Rated impulse voltage	U <sub>imp</sub>	kV		6	6	6	6	6	12	12	12		
Rated operational current	I <sub>e</sub>	A	415V AC22A	63	100	125	160	200	250	400	630		
Rated making capacity (AC23A)		A	415V, 0.35 pf	630	630	1,250	1,600	2,000	2,500	4,000	6,300		
Rated breaking capacity (AC23A)		A	415V, 0.35 pf	504	504	1,000	1,280	1,600	2,000	3,200	5,040		
Short circuit current		kA	rms (with fuses)	80	80	80	80	80	100	100	80		
Rated S/C making capacity		kA	Peak	15	15	20	20	20	30	40	50		
Min. mechanical endurance		-	Operations	20,000	20,000	10,000	10,000	10,000	10,000	10,000	10,000		
Min. electrical endurance		-	415V at 0.65 pf	2,500	1,500	1,000	1,000	1,000	1,000	1,000	500		
Connecting capacity		-	Terminal type										
		mm²	Max	35	35	95	95	95	240	300	400		
		mm	Stud/Cu palm width	6/12	6/12	8/22	8/22	8/22	10/25	10/25	12/50		
		Nm	Tightening torque	3	3	10	10	10	30	30	50		
Fuse Combination Range													
Application	Sym	Unit	Category	32	63	100	125	160	200	250	315	400	630
Rated thermal current	I <sub>the</sub>	A		32	63	100	125	160	200	250	315	400	630
Rated insulation voltage	U <sub>i</sub>	V		750	750	750	750	750	750	750	750	750	750
Rated impulse voltage	U <sub>imp</sub>	kV		12	12	12	12	12	12	12	12	12	12
Rated operational current	I <sub>e</sub>	A	415V AC23A	32	63	100	125	160	200	250	315	400	630
			220V DC23A	-	-	100	125	160	200	250	315	400	630
Rated making capacity (AC23A)		A	415V, 0.35 pf	320	630	1,000	1,250	1,600	2,000	2,500	3,150	4,000	6,300
Rated breaking capacity (AC23A)		A	415V, 0.35 pf	256	504	800	1,000	1,280	1,600	2,000	2,520	3,200	5,040
Rated conditional (Fused) short circuit		kA	S/C current rms	80	80	80	80	80	80	80	80	80	80
		A	back-up fuse	32	63	100	125	160	200	250	315	400	630
Min. mechanical endurance		-	Operations	25,000	25,000	15,000	15,000	15,000	10,000	10,000	10,000	10,000	6,000
Min. electrical endurance		-	415V at 0.65 pf	1,500	1,500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BS fuse format				A2	A2	A4	A4	B1, B2	B1, B2	B1, B2	B1, B4	B1, B4	C1, C3
Connecting capacity		-	Terminal type										
		mm²	Min/Max	16	25	95	95	120	150	185	240	300	400
		mm	Stud/Cu palm width	-	-	8x20	8x20	8x20	10x25	10x25	10x25	10x25	12x50
		Nm	Tightening torque	2.5	2.5	10	10	10	30	30	30	30	50

# Technical Specification

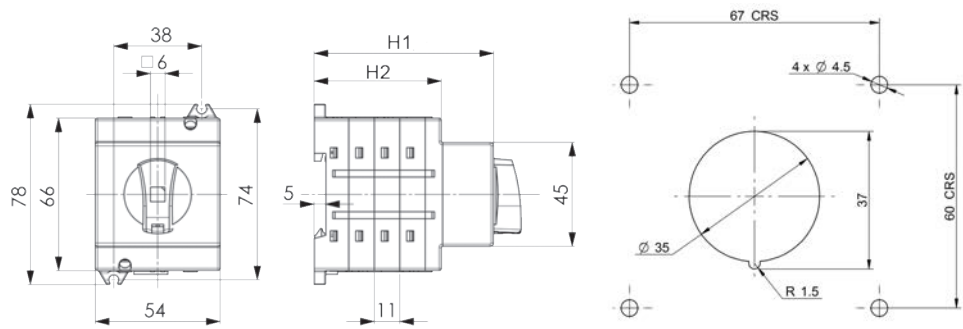
Data is provided based on tests conducted in accordance with BS EN 60947-3.  
\*All AC21, AC22, and AC23 tests were performed at 415V

1 = Pollution Degree 3  
2 = Pollution Degree 2

PV Switch Disconnecter Units																		
Application	Category	Unit	16A 2P	16A 4P	16A 2P x2	25A 2P	25A 3P	25A 4P	25 A 2P x2	32A 2P	32A 3P	32A 4P	32 A 2P x2	40A 2P	40A 3P	40A 4P	40 A 2P x2	
Rated thermal current	I <sub>the</sub>	A	16			25				32				40				
Rated insulation voltage	U <sub>i</sub>	V	1,000 <sup>1</sup>			1,000 <sup>1</sup>				1,000 <sup>1</sup>				1,000 <sup>1</sup>				
			1,500 <sup>2</sup>			1,500 <sup>2</sup>				1,500 <sup>2</sup>				1,500 <sup>2</sup>				
Rated impulse withstand volt.	U <sub>imp</sub>	kV	8			8				8				8				
Rated operational current (DC21B)	I <sub>e</sub>	300V (A)	16	16	16	25	25	25	25	32	32	32	32	40	40	40	40	
		400V (A)	16	16	16	25	25	25	25	32	32	32	32	40	40	40	40	
		600V (A)	16	16	16	25	25	25	25	32	32	32	32	-	40	40	-	
		800V (A)	16	16	16	25	25	25	25	-	32	32	-	-	40	40	-	
		1,000V (A)	16	16	16	16	25	25	16	-	32	32	-	-	-	40	-	
		1,200V (A)	-	16	-	-	-	20	-	-	-	25	-	-	-	32	-	
		1,500V (A)	-	16	-	-	-	16	-	-	-	20	-	-	-	25	-	
Mechanical life		Ops	15,000			15,000				15,000				15,000				
Rated short-time withstand current	I <sub>cw</sub>	1s	500			500				500				500				
Short circuit making capacity	I <sub>cm</sub>	A	550			550				550				550				
Terminal type																		
Terminal tightening torque		Nm	1.2			1.2				1.2				1.2				
Conductor size  r = rigid f = flexible	Max r/f	2x	mm2	10/6			10/6				10/6				10/6			
			AWG	8/10			8/10				8/10				8/10			
	Min r/f	2x	mm2	1.5/1.5			1.5/1.5				1.5/1.5				1.5/1.5			
			AWG	16/16			16/16				16/16				16/16			

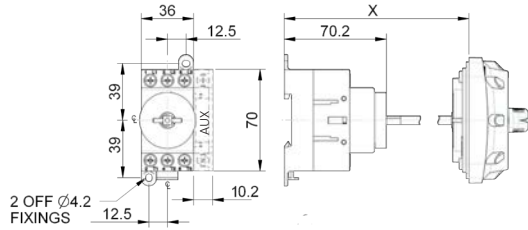
## Dimensions

### Photovoltaic (PV) Range

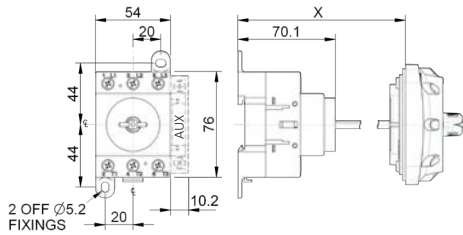


Rating	Format	H1	H2
16A	2P	50.5	28
	4P & Twin Array	72.5	50
25A	2P	50.5	28
	3P	61.5	39
	4P & Twin Array	72.5	50
32A	2P	50.5	28
	3P	61.5	39
	4P & Twin Array	72.5	50
40A	2P	50.5	28
	3P	61.5	39
	4P & Twin Array	72.5	50

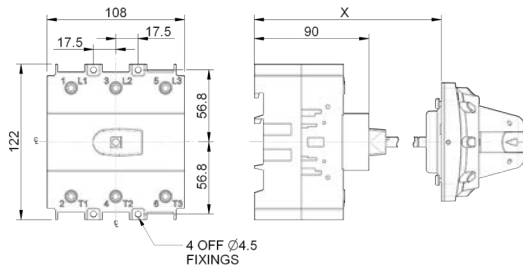
A0 Size (25A- 40A) - x1 = n/a | x2= 105-180 | x3 = 105-280



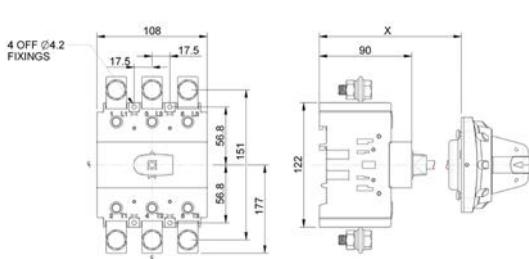
A1 Size (63A- 80A) - x1 = 98 | x2= 110-185 | x3 = 110-285



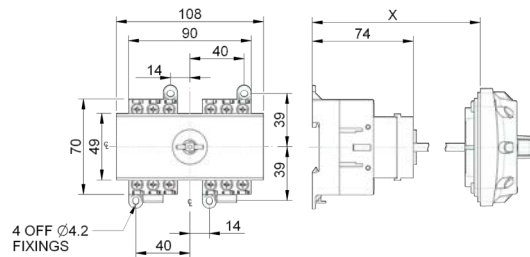
A2 Size (100A- 160A) - x1 = 121-166 | x2= n/a | x3 = 121-235



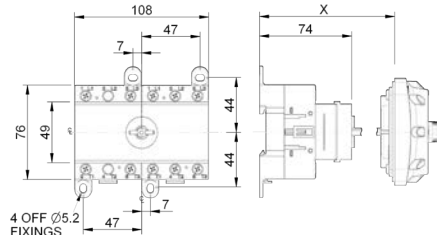
A3 Size (200A) - x1 = 121-166 | x2= n/a | x3 = 121-235



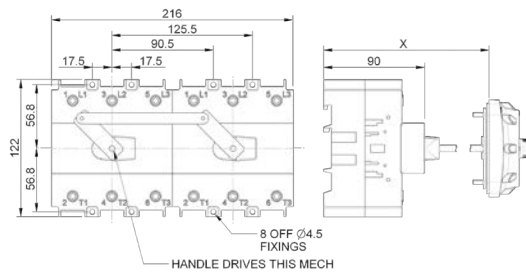
A0-A0 Size (6 pole 25A) - x1 = 98 | x2= 116-191 | x3 = 116-291



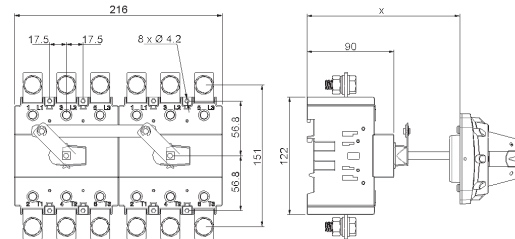
A1-A1 Size (6 pole 40A-80A) - x1 = 98 | x2= 116-191 | x3 = 116-291



A2-A2 Size (6 pole 100A-160A) - x1 = 121-166 | x2= n/a | x3 = 121-235



A3 Size (6 pole 200A) - x1 = 121-166 | x2= n/a | x3 = 121-235



### Compact Range

x1 = Min. & Max. (mm) (without extension shaft)

x2 = Min. & Max. (mm) with 100mm shaft extension

x3 = Min. & Max. (mm) with 200mm shaft extension

# Dimensions

Technical drawing of the 1000 Series Single-Door Cabinet, showing front and side views with dimensions in inches.

**Front View Dimensions:**

- Overall Width: A
- Overall Depth: B
- Top Panel Width: L
- Top Panel Depth: 29
- Top Panel Thickness:  $\varnothing$  T
- Top Panel Spacing: P
- Top Panel Thickness: Q
- Top Panel Thickness: 7
- Top Panel Thickness: 47
- Top Panel Thickness: 103
- Top Panel Thickness: 171.5
- Top Panel Thickness: 312
- Top Panel Thickness: 4
- Top Panel Thickness: 4 OFF  $\varnothing$  7 FIXINGS

**Side View Dimensions:**

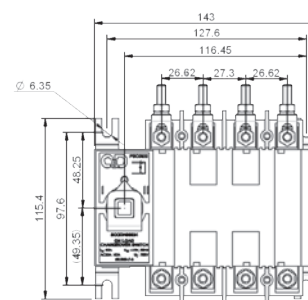
- Overall Width: X
- Overall Depth: 45
- Overall Depth: S
- Overall Depth: 12
- Overall Depth: 145

[illegible]

Standard Range  
x3 = Min. & Max. (mm)  
with 200mm shaft  
extension  
x4 = Min. & Max. (mm)  
with 400mm shaft  
extension

Rating	A		L		T
	3P	4P	3P	4P	
1000A	383	483	318	418	8
1250A	383	483	318	418	8

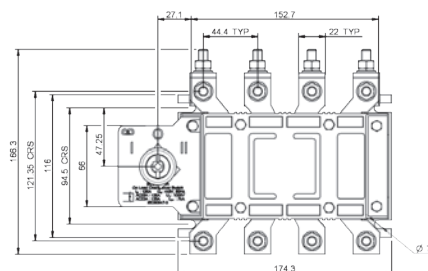
The technical drawing shows two views of the control panel. The top view is a front elevation with dimensions: total width 190.75, distance between main sections 145.2, distance from left edge to first section 128.9, distance between sections 91.3, and distance from left edge to second section 35.05. The bottom view is a side profile showing a depth of 66.8.



Technical drawing of the SS4-45 Twisted Shaft assembly. The drawing shows a side view of the shaft with various dimensions indicated. The dimensions are:

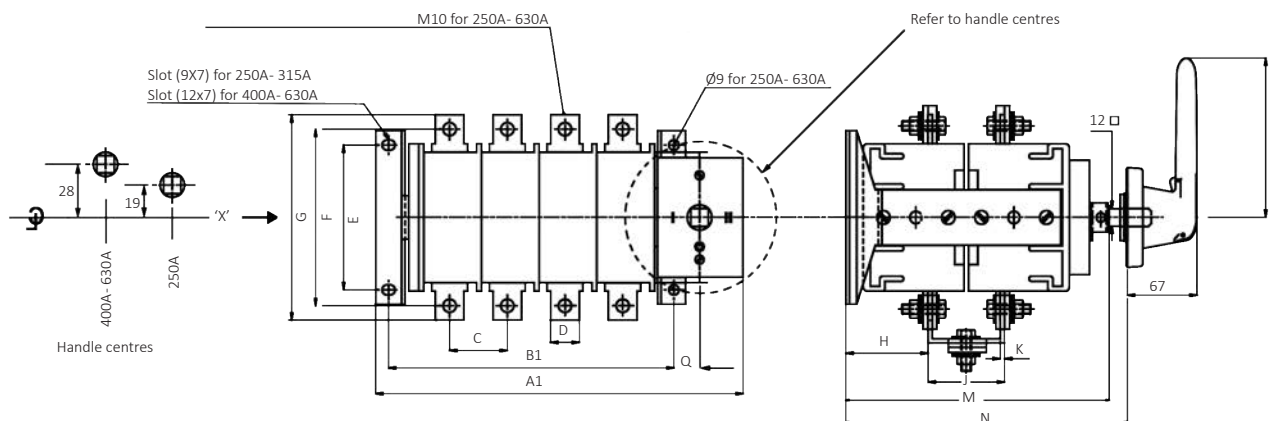
- 307.26 (Total length)
- 241.25 (Distance from left end to first bearing)
- 159.2 (Distance from left end to second bearing)
- 142.15 (Distance from left end to third bearing)
- 119.95 (Distance from left end to fourth bearing)
- 53.25 (Distance from left end to fifth bearing)

The shaft is labeled "SS4-45 Twisted Shaft". The drawing also shows the shaft's connection to the motor and the various bearings and seals used in the assembly.



## Changeover Range

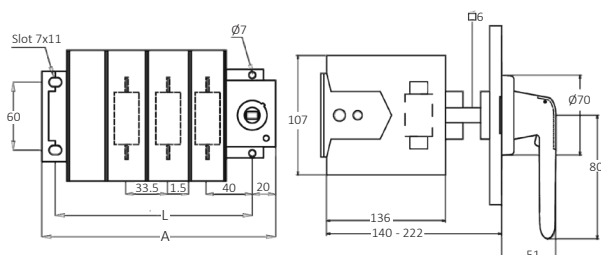
Frame Size C2/C3- 250A, 400A, 630A



Rating	A1	B1	C	D	E	F	G	H	J	K	M	N	P	Q	Frame Size
250A	309.5	252	61	25	124	138	163	65.5	81	4.0	242	255-355	145	18	C2
400A	352	276	70	25	150	180	205	85	96	4.0	262	300-400	220	26	C3
630A	352	276	70	40	150	185	223	84	98	5.0	262	300-400	220	26	C3

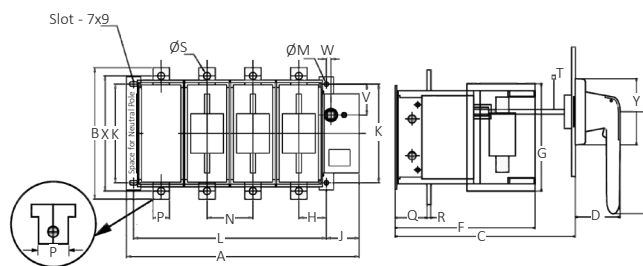
## Fuse Combination Range

32A - 63A



Format	A	L
3P+NL	168	138
3P+N	201	171
Frame Size D1		

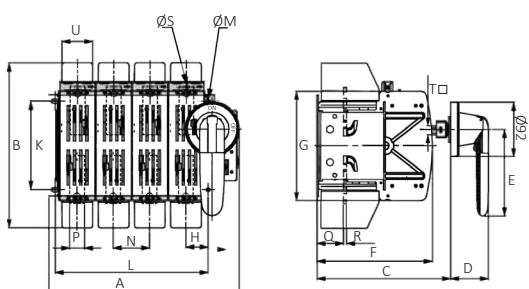
100A - 160A



Rating	A		B	C	D	E	F	G	H	J	K
	3P+NL	3P+N									
100-125A	190	230	142	135-225	67	80	134	98	44.5	20	60
160A	212	260	142	135-225	67	80	134	98	44.5	20	60

Rating	L		M	N	P	Q	R	S	T	V	W	X	Y
	3P+NL	3P+N											
100-125A	160	198	7	40	20	40	2	9	6	30	0	122	93
160A	182	230	7	48	20	40	3	9	6	30	0	122	93

200A - 630A



Rating	A		B	C	D	E	F	G	H	K	L		M	N	P	Q	R	S	T	U	Frame Size
	3P+NL	3P+N									3P+NL	3P+N									
200-250A	261	323	280	230-310	67	145	196	186	37	150	198	260	7	62	25	45	5	11	12	52	D4
315-400A	285	355	280	230-310	67	145	196	186	37	150	222	292	7	70	25	45	5	11	12	52	D5
630A	360	440	444	245-305	67	145	231	250	60	190	340	440	9	80	40	40	6	13	12	61	D6



# CONTROL STATIONS

Craig & Derricott have been at the forefront of electrical control gear design and manufacture for over 100 years. The i-push range has been carefully designed and developed to combine safety, functionality, and ease of installation, incorporating valuable feedback from both re-sellers and end-users. The i-push range includes several unique features, such as:

- Heavy Duty (HD) and Normal Duty (ND) actuators
- Pushbutton position indicators
- Security-fixing lids
- Protective guards

All models in the range are covered by one or more of the following international approvals:

Germany



Canada



Netherlands



ENEC



Norway



Finland



UL



Denmark



Sweden



Det Norske Veritas



USA



China



Europe






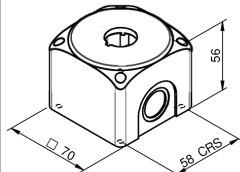

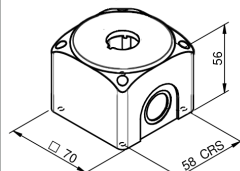

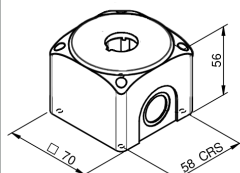

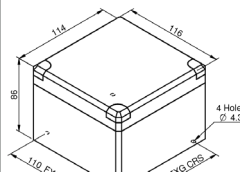

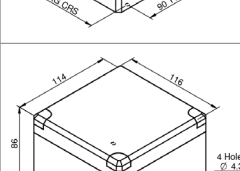

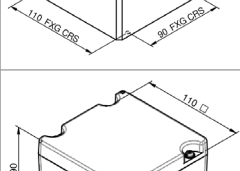

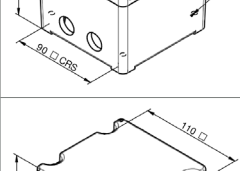
# Emergency Stop Control Stations

Emergency Stop Stations are designed and installed primarily to provide machine operators with a reliable method of shutting down equipment in the event of a hazardous situation.

Electrical machines often require Emergency Stops that comply with specific international standards, including IEC/EN 60204, IEC 60947-5-1, and IEC 60947-5-5. These standards have been applied in the design, testing, and installation of all Emergency Stop devices offered by Craig & Derricott.

The following options are available across the range:

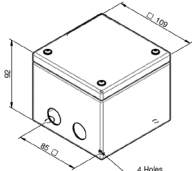
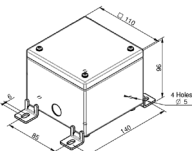
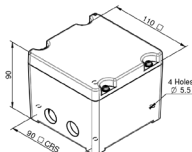
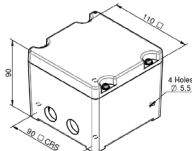
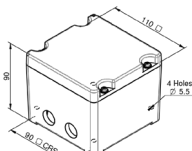
- Enclosure Formats: PA / PC Plastic, Glass-Filled Polyester, Die-Cast Aluminium, Stainless Steel, Sheet Steel, and Flush Mounting.
- Reset Methods: Twist-to-Reset, Pull-to-Reset, and Key Reset.
- Protection Devices: Raised Shroud and Flap Cover.
- Actuators: Heavy Duty (HD) and Normal Duty (ND).

Emergency Stop Control Stations				
Image	Cat. No.	Description		Dimensions
	EMSL/TNS/PS/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop, Twist-To-Reset None 1N/C (EMSL Base Mount) PC/PA IP66, IP67 & IP69K 2 x M20/M25/M16 4 x M4	ND 
	EMSL/T/PS/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Twist-To-Reset Emergency Stop Circular Yellow 1N/C (EMSL Base Mount) PC/PA IP66, IP67 & IP69K 2 x M20/M25/M16 4 x M4	ND 
	EMSL/K/PS/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Key Reset (2 Keys) Emergency Stop Circular Yellow 1N/C (EMSL Base Mount) PC/PA IP66, IP67 & IP69K 2 x M20/M25/M16 4 x M4	ND 
	EMSL/TS/P/NC	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Twist-To-Reset None Raised Shroud 1N/C (EMSL Lid Mount) PC IP65 Plain Sides 2 x M4	ND 
	EMSL/KS/P/NC	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Key Reset. (2 Keys) None Raised Shroud 1N/C (EMSL Lid Mount) PC IP65 Plain Sides 2 x M4	ND 
	EMSL/TS/MG/NC	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Twist-To-Reset None Raised Shroud 1N/C (EMSL Lid Mount) Die-Cast Aluminium IP65 2 x M20 4 x M5	ND 
	EMSL/KS/MG/NC	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Key Reset (2 Keys) None Raised Shroud 1N/C (EMSL Lid Mount) Die-Cast Aluminium IP65 2 x M20 4 x M5	ND 

# Emergency Stop Control Stations


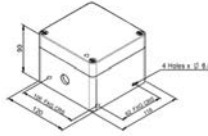

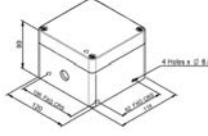

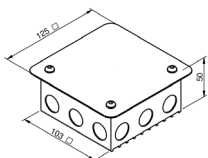

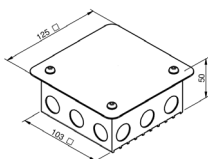

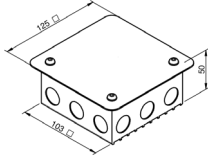

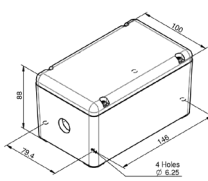

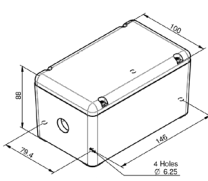
The EMSL/T/SS/NC69 is designed and sealed to withstand the intense forces generated by pressure washers. It has been tested to endure water jets at 80–100 bar and temperatures up to 80°C. The stainless-steel enclosure combined with IP69K protection makes this unit ideal for environments with strict hygiene and rigorous cleaning routines. It is supplied with external fixing feet for both vertical and horizontal mounting.

Emergency Stop Control Stations

Image	Cat. No.	Description		Dimensions
	EMSL/T/SS/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop, Twist-To-Reset Emergency Stop Circular Yellow 1N/C (EMSL Lid Mount) Stainless Steel IP65 2 x M20 4 x M6	ND 
	EMSL/K/SS/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Key Reset (2 Keys) Emergency Stop Circular Yellow 1N/C (EMSL Lid Mount) Stainless Steel IP65 2 x M20 4 x M6	ND 
	EMSL/T/F/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Twist-To-Reset Emergency Stop Circular Yellow 1N/C (EMSL Lid Mount) Stainless Steel IP65 9 x M20 knock-outs 4 x M5	ND 
	EMSL/K/F/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Key Reset (2 Keys) Emergency Stop Circular Yellow 1N/C (EMSL Lid Mount) Stainless Steel IP65 9 x M20 knock-outs 4 x M5	ND 
	EMSL/T/SS/NC69*	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop, Twist-To-Reset Emergency Stop circular Yellow 1N/C + safety contact (EMSL Lid Mount) Stainless Steel IP69K 1 x M20 4 x M6	ND 
	EMSH/P/MG/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Pull-To-Reset Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD 
	EMSH/T/MG/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Twist-To-Reset Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD 
	EMSH/K/MG/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Key Reset (2 Keys) Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD 
	EMSH/P/F1/MG/CO	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Pull-To-Reset Emergency Stop printed flap cover Padlocking flap cover 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD 

# Emergency Stop Control Stations

The assembly is supplied with an IP65 seal between the pushbutton and the faceplate. To maintain this protection during installation, it is the responsibility of the installer to apply a continuous bead of flexible sealant between the rear of the faceplate and the mounting surface, ensuring an effective seal even on uneven surfaces.


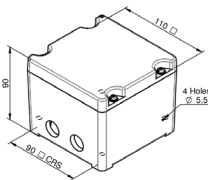

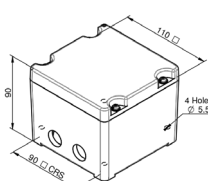

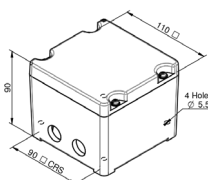

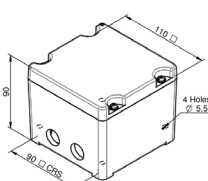

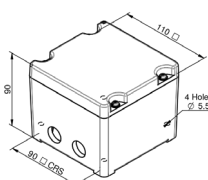
Emergency Stop Control Stations				
Image	Cat. No.	Description		Dimensions
	EMSH/T/GP/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Twist-To-Reset HD Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Glass Filled Reinforced Polyester IP65* 1 x M20 4 x M5	
	EMSH/K/GP/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Key Reset (2 Keys) HD Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Glass Filled Reinforced Polyester IP65* 1 x M20 4 x M5	
	EMSH/T/F/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Twist-To-Reset HD Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Stainless Steel IP65* 9 x M20 Knock-outs 4 x M5	
	EMSH/K/F/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Key Reset (2 Keys) HD Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Stainless Steel IP65* 9 x M20 Knock-outs 4 x M5	
	EMSH/P/F1/F/CO	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Emergency Stop Mushroom Pull-To-Reset HD Padlocking flap cover Emergency Stop pad printed flap cover 1N/C+1N/O (MT-16A) Stainless Steel IP65* 9 x M20 Knock-outs 4 x M5	
	SSTH/GS/P/F1/MG/CO	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	a/ Start, momentary HD b/ Emergency Stop, Pull-To-Reset a/ Start b/ Emergency Stop Printed flap cover Padlocking flap cover 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 1 x M20 4 x M5	
	ESSH/GS/P/MG/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	a/ Start, momentary HD b/ Emergency Stop, mushroom Pull-To-Reset a/ Start b/ Emergency Stop Circular Yellow 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 1 x M20 4 x M5	

# Emergency Power Off Control Stations

Emergency Power Off (EPO) control stations are suitable for applications where the full safety requirements of an Emergency Stop are not necessary. Typical applications include:

- Computer suites
- School workshops
- Water treatment plants
- Service and maintenance areas


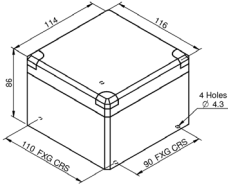

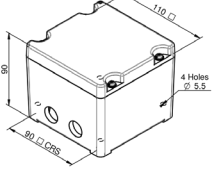

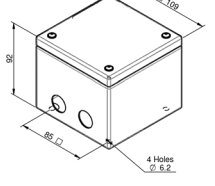

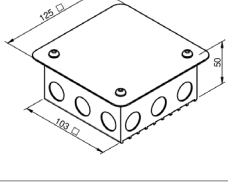

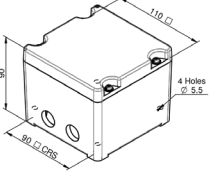

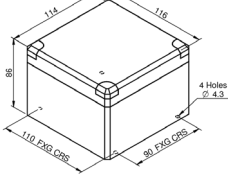

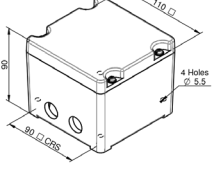
All units are housed in robust die-cast aluminium enclosures and are fitted with flap covers to prevent accidental operation.

Emergency Power Off Control Stations				
Image	Cat. No.	Description		Dimensions
	EPOL/T/F5/MG/NC	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Twist-To-Reset Emergency Power Off Printed Flap Cover Flap Cover Non-Locking 1N/C (EMSL Lid Mount) Die-Cast Aluminium IP65 2 x M20 4 x M5	ND 
	EPOL/K/F5/MG/NC	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Key-To-Reset (2 Keys) Emergency Power Off Printed Flap Cover Flap cover non-locking 1N/C (EMSL Lid Mount) Die-Cast Aluminium IP65 2 x M20 4 x M5	ND 
	EPOH/M/F5/MG/CO	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Mushroom Momentary Action Emergency Power Off printed flap cover Flap cover non-locking 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD 
	EPOH/P/F5/MG/CO	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Mushroom, Pull-To-Reset Emergency Power Off printed flap cover Flap cover non-locking 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD 
	EPOH/K/F5/MG/CO	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Mushroom Key Reset (2 Keys) Emergency Power Off printed flap cover Flap cover non-locking 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD 

# Stop, Start and Stop/Start Control Stations

Individual 'Stop', 'Start', and 'Stop/Start' stations are engineered for a wide variety of applications.

The range offers both surface and flush mounting options, with optional flap covers to provide extra protection against accidental operation.


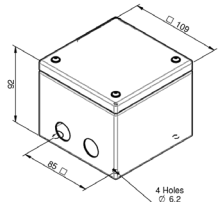

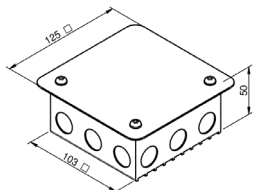

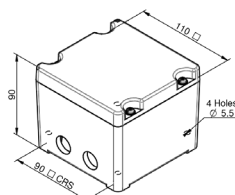

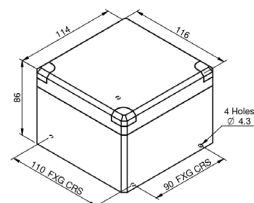

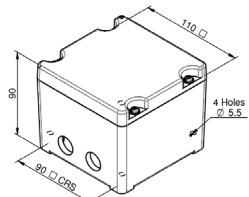

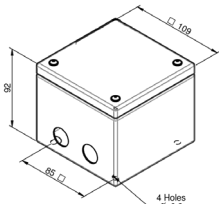

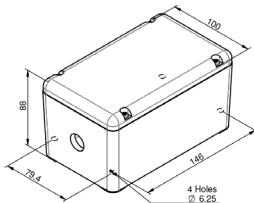
Stop Control Stations					
Image	Cat. No.	Description			Dimensions
	STOL/RS/P/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Stop 0 1N/C (EMSL Lid Mount) PC IP65 Plain Sides 2 x M4	ND	
	STOL/RS/MG/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Stop 0 1N/C (EMSL Lid Mount) Die-Cast Aluminium IP65 2 x M20 4 x M5	ND	
	STOL/RS/SS/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Stop 0 1N/C (EMSL Lid Mount) Stainless Steel IP65 2 x M20 4 x M6	ND	
	STOL/RS/F/NC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary 0 1N/C (EMSL Lid Mount) Stainless Steel IP65 9 x M20 Knock-outs 4 x M5	ND	
	STOH/P/F3/MG/CO	Actuator Legend Guard Contacts Enclosure Material IP Rating Entries Fixings	Mushroom Pull-To-Reset Stop printed flap cover Flap cover non-locking 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD	
Start Control Stations					
	STAL/GS/P/NO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start I 1N/O (EMSL Lid Mount) PC IP65 Plain Sides 2 x M4	ND	
	STAL/GS/MG/NO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start I 1N/O (EMSL Lid Mount) Die-Cast Aluminium IP65 2 x M20 4 x M5	ND	



# Stop, Start and Stop/Start Control Stations

Individual 'Stop', 'Start', and 'Stop/Start' stations are designed for a wide variety of applications.

The range offers both surface and flush mounting options, with optional flap covers to provide additional protection against accidental operation.

Start Control Stations					
Image	Cat. No.	Description			Dimensions
	STAL/GS/SS/NO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start I 1N/O (EMSL Lid Mount) Stainless Steel IP65 2 x M20 4 x M6	ND	
	STAL/GS/F/NO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start I 1N/O (EMSL Lid Mount) Stainless Steel IP65 9 x M20 Knock-outs 4 x M5	ND	
	STAH/GS/MG/CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start Start 1N/O (MT-16A) Die-Cast Aluminium IP65 2 x M20 4 x M5	HD	
Stop / Start Control Stations					
	SSTL/GS/RS/P/ NOC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start / Stop O & I I - 1N/O (EMSL Lid Mount) O - 1N/C (EMSL Lid Mount) PC IP65 Plain Sides 2 x M4	ND	
	SSTL/GS/RS/MG/ NOC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start / Stop O & I I - 1N/O (EMSL Lid Mount) O - 1N/C (EMSL Lid Mount) Die-Cast Aluminium IP65 2 x M20 4 x M5	ND	
	SSTL/GS/RS/SS/ NOC	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start O & I I - 1N/O (EMSL Lid Mount) O - 1N/C (EMSL Lid Mount) Stainless Steel IP65 2 x M20 4 x M6	ND	
	SSTH/GS/RS/MG/ CO	Actuator Legend Contacts Enclosure Material IP Rating Entries Fixings	Full guard, Momentary Start Start & Stop Start- 1N/O (MT-16A) Stop- 1N/C (MT-16A) Die-Cast Aluminium IP65 1 x M20 4 x M5	HD	


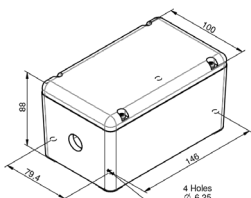

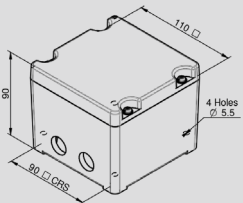

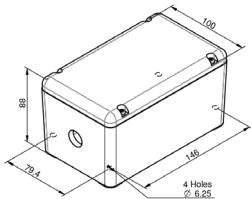

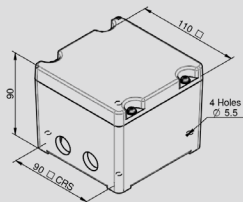

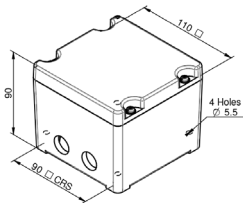

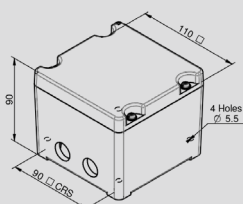


# Explosion Proof Control Stations

Since July 2006, UK regulations require companies to ensure that all equipment is suitable for the environment in which it is used. This is particularly critical in areas where a combustible atmosphere may be present, even for short periods (e.g., less than 10 hours per year). While combustible atmospheres are often associated with gases, mists, or vapours, many industries also face risks from non-conductive dust mixed with air in proportions that can become explosive. The Craig & Derricott ATEX Group II (Zone 22) range provides equipment specifically designed for these environments, helping organisations comply with Health & Safety regulations. All listed items are certified to the appropriate international standards for use in explosive atmospheres.


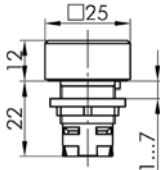
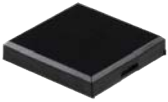
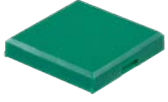

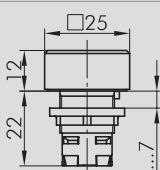
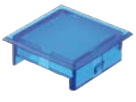



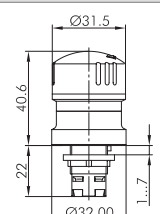

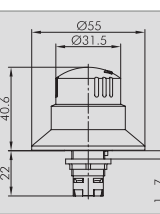

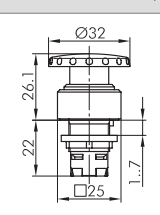

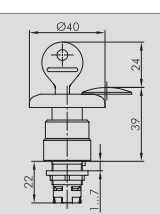
Certification data: Ex II 3D, EX tD A22 IP65 T85oC  
Complies in part or full with: BS EN 50014, BS EN 50281-1-1, BS EN 60529, BS EN 60947-3, BS EN 60204-1

This range is ideal for industries where dust hazards exist and strict compliance with safety regulations is required.

Explosion Proof Control Stations				
Image	Cat. No.	Description		Dimensions
	SSTH/GS/RS/MG/COZ	Actuator Legend Contacts Enclosure Material IP Rating EX Entries Fixings	Full guard, Momentary start / stop HD Start & Stop Start - 1N/O (MT-16A) Stop - 1N/C (MT-16A) Die-Cast Aluminium IP65 Zone 22 1 x M20 4 x M5	
	EMSH/T/MG/COZ	Actuator Legend Contacts Enclosure Material IP Rating EX Entries Fixings	Mushroom, Twist-To-Reset HD Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 Zone 22 2 x M20 4 x M5	
	ESSH/GS/P/MG/COZ	Actuator Legend Contacts Enclosure Material IP Rating EX Entries Fixings	a/ Start, Momentary HD b/ Emergency stop, Pull-To-Reset a/ Start b/ Circular Yellow Start - 1N/O (MT-16A) Emergency Stop - 1N/C (MT-16A) Die-Cast Aluminium IP65 Zone 22 1 x M20 4 x M5	
	EMSH/P/MG/COZ	Actuator Legend Contacts Enclosure Material IP Rating EX Entries Fixings	Mushroom, Pull-To-Reset HD Emergency Stop circular Yellow 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 Zone 22 2 x M20 4 x M5	
	EMSH/P/F1/MG/COZ	Actuator Legend Guard Contacts Enclosure Material IP Rating EX Entries Fixings	Emergency stop, Pull-To-Reset HD Emergency Stop Printed Flap Cover Padlocking Flap Cover 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 Zone 22 2 x M20 4 x M5	
	EMSH/K/MG/COZ	Actuator Legend Contacts Enclosure Material IP Rating EX Entries Fixings	Mushroom, Key Reset (2 Keys) HD Emergency Stop Circular Yellow 1N/C+1N/O (MT-16A) Die-Cast Aluminium IP65 Zone 22 2 x M20 4 x M5	

## 16 Series


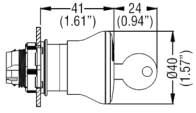

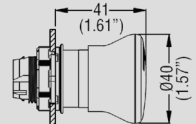

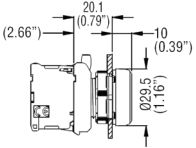

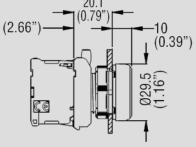

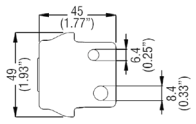

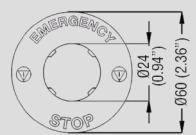

The 16 Series provides users with components that feature an attractive appearance and a compact panel footprint. The square format allows for easy alignment and enables components to be butted together to create a very compact multi-unit assembly. Despite their small size, these components are robustly designed to withstand the demands of typical industrial applications.

Image	Cat. No.	Description	Dims
	<b>QXT</b> <b>QXTDG</b>	Pushbutton Actuator 25mm x 25mm Momentary Action.  Body Colour Black Charcoal  (Contact block options AF, AT, AT2, ATL & ATL2) Requires flat colour cap & inscription plate	
	<b>T25FG...</b>	Flat Colour Caps Non Transparent - No Inscriptions WS - White, RT - Red, GN - Green, GB - Yellow, SW - Black, BL - Blue. (Add code letters to cat no e.g. T25FGRT)	
	<b>T25F...</b>	Flat Colour Caps Transparent - No Inscriptions WS - White, RT - Red, GN - Green, GB - Yellow, SW - Black, BL - Blue, KL - Clear (Add code letters to cat no e.g. T25FRT)	
	<b>QXN</b> <b>QXNDG</b>	Pilot Lamp 25mm x 25mm  Colour Black Charcoal  (Contact block options AL5) Requires Flat lens & Inscription Plate	
	<b>KF25...</b>	Pilot Lamp Lenses - Flat WS - Opal White, RT - Red, GN - Green, GB - Yellow, BL - Blue, KL - Clear (Add colour code to cat no e.g. KF25GB) For use with QXN..	
	<b>BSQXU</b>	Blank Inscription Plate	
	<b>BSQX...</b>	Printed Inscription Plate Hundreds of standard printed images and text available, Speak to our sales department for details.	
	<b>BSQXB</b>	Printed Inscription Plate Printed to customers own requirements. Suitable for QXT....	
	<b>RXUV</b>	Emergency Stop Actuator with Position Indicator Stayput Twist-To-Reset. Red Button, Yellow Surround and Green Position Indicator.  (Contact block options AT & AT2)  In accordance with EN 60068, EN ISO 13850, EN 60947-5-1 and EN 60947-5-5.	
	<b>RXBUV</b>	As the previous item but with anti-lock collar. Red actuator & Yellow body, Twist-To-Reset action.  (Contact block options AT & AT2)	
	<b>QXS</b> <b>QXSDG</b>	Stop actuator 25mm x 25mm Red actuator, momentary action.  Body Colour Black Charcoal  (Contact block options AT & AT2)	
	<b>QXVSCH</b> <b>QXVSCHDG</b>	Emergency Stop actuator 25mm x 25mm Red actuator, stayput Key Reset action.  Body Colour Black Charcoal  (Contact block options AT & AT2) Replacement Key- ES3A	

## 22 Series

Where robustness, long life, and reliability are essential in control panel design, the 22 Series components provide an ideal solution. In addition to their elegant appearance, these components are often used as replacement items where less durable alternatives have failed.

With a standard 22mm fixing, the range of actuators and contact block options is suitable for a wide variety of applications, including processing and manufacturing machinery, shipbuilding, rail rolling stock, cranes and hoists, elevators, and numerous other electromechanical systems.

Image	Cat. No.	Description	Dims
	22EMK/40	Emergency Stop Actuator with Position Indicator Stayput Key-To-Reset. Red button, Yellow surround and green position indicator.	
	22EMT/40	Emergency Stop Actuator with Position Indicator Stayput Twist-To-Reset. Red button, Yellow surround and green position indicator.	
	22PB/GN043	Ø22 Push Button Actuator- Green	
	22PB/RD041	Ø22 Push Button Actuator-Red	
	ACC/PLPS	Yellow Padlockable Shroud. Cannot be used with a legend plate.	
	ACC/ESP60	Yellow Emergency Stop Legend Plate. Cannot be used with a padlockable shroud.	
	MA3	Mounting Holder For 3 Contact Blocks  For 22 series only.	

## 32 Series


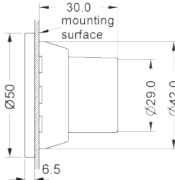

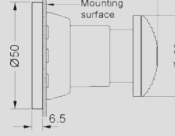

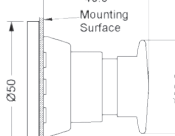

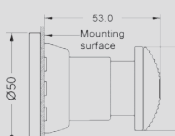

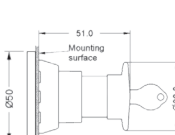

The 32 Series has long been regarded as the benchmark for strength and reliability in control gear components. All actuator bodies and locking rings are manufactured from aluminium with a silver anodised finish, ensuring durability and a premium appearance.

The range incorporates all the options required in today's safety-conscious environments, delivering ultimate reliability across its various components.


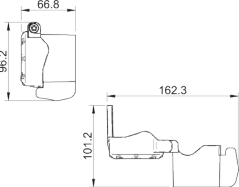

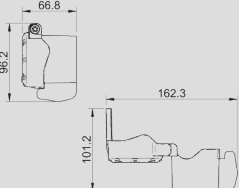

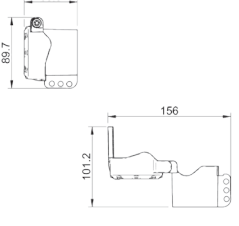

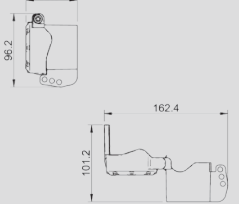

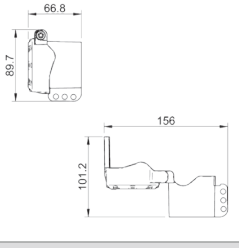

Several items are suitable for Emergency Stop applications, and the range includes high-capacity contact blocks designed to meet the latest safety standards.

\*Suitable for Emergency Stop use

\*\*Two DC800 series keys are supplied with each actuator as standard; alternative configurations are available on special order


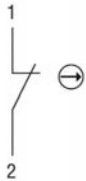


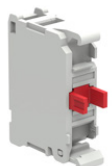
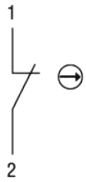



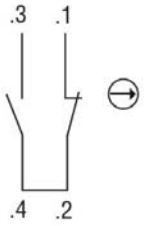
Image	Cat. No.	Description	Dims
	PR/SCH PG/SCH PY/SCH PZ/SCH PB/SCH PW/SCH	Full Guard Actuator- Momentary. Moulded Colour Cap:  Red Green Yellow Blue Black White	
	PMR/SCH PMB/SCH PMG/SCH PMY/SCH PMZ/SCH	Mushroom Actuator Ø38- Momentary. Moulded Button. Actuator Colour:  Red Black Green Yellow Blue	
	PMRH/SCH PMBH/SCH PMGH/SCH PMYH/SCH PMZH/SCH	Mushroom Actuator Ø38 - Stayput, Pull-To-Reset Moulded Button. Actuator Colour:  Red* Black Green Yellow Blue	
	PMR-U59/SCH	Mushroom Actuator Ø38 - Stayput, Twist-To-Reset. Moulded Free To Turn Button With Rear Reset Ring. Actuator Colour:  Red*	
	PMRA-U19 /SCH PMBA-U19 /SCH	Mushroom Actuator Ø38 - Stayput, Key Reset** Die-Cast Button. Actuator Colour:  Red* Black	
	PMARH- U51/SCH	Mushroom actuator Ø32 - Stayput, Pull-To-Reset Die-Cast Button. Actuator Colour:  Red*  (Designed specifically to work beneath flap covers to allow access for resetting)	

Up to five 16A-rated contact blocks can be mounted on the back of an actuator, providing flexibility without rating limitations. The range includes a variety of unique features and accessories, including the popular die-cast flap covers, which are available in multiple options to suit different levels of security and functionality. The 32 Series delivers a combination of versatility and robust strength.

Image	Dims	Description	Cat. No.
	U260-R	Non-lockable Die-Cast Aluminium Flap Cover. Grey Body With Red Flap.  Used to prevent accidental operation of a pushbutton or similar devices. Spring loaded so the flap is kept closed.  4 off M3.5 fixings on Ø49 PCD	
	U270-R	Non-lockable Die-Cast Aluminium Flap Cover. Grey Body With Red Flap.  Used to prevent accidental operation of a pushbutton or similar devices, cover is not spring loaded.  4 off M3.5 fixings on Ø49 PCD	
	U280-R	Padlockable Die-Cast Aluminium Flap Cover. Grey Body With Red Flap (Other colours available to special order).  Used to prevent unauthorised access to the actuator. Holes in the flap cover body are available to place up to three padlocks which will lock the cover closed. The cover cannot be opened until the last padlock has been removed.  4 off M3.5 fixings on Ø49 PCD	
	U290-R	Padlockable Die-Cast Aluminium Flap Cover. Grey Body With Red Flap (Other colours available to special order).  Used to prevent unauthorised Resetting of stayput actuators. The flap is depressed to actuate the unit with the padlock(s) in position. The actuator remains in the operated position until access is allowed by removal of the padlock(s).  4 off M3.5 fixings on Ø49 PCD	
	U310-R	Padlockable Die-Cast Aluminium Flap Cover. Grey body With Red Flap (Other colours available to special order).  Used as a hold button. The cover is depressed to operate the pushbutton, and it is manually held down whilst the padlock(s) are inserted. The pushbutton remains depressed until the padlock(s) are removed.  4 off M3.5 fixings on Ø49 PCD	
	-0001 -0002 -0010 -0016 -0129	Flap Cover Engraving  STOP EMERGENCY STOP EMERGENCY TRIP EMERGENCY POWER OFF PRESS FIRMLY FOR EMERGENCY STOP  Example:- U290-R-001  Other engravings can be accommodated, please contact our sales to discuss your requirements.	


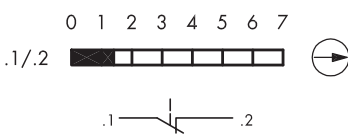

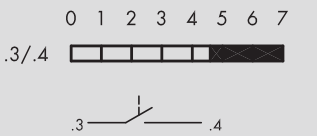

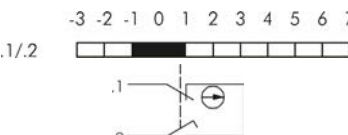
## EMSL Series

For use with the 22 Series Actuators. A clip-in module which can be supplied in N/O and N/C format. Each contact block has screw termination and designed for Direct snap-on mounting to control station base. Maximum tightening torque for screw terminals: 1Nm.

Image	Series	Cat. No.	Description	Contact Details
	EMSL	EMSL/NC	Base Mounted Normally Closed Contact Block <ul style="list-style-type: none"> <li>Screw termination</li> <li>Direct snap-on mounting to control station base</li> <li>Maximum tightening torque for screw terminals: 1Nm</li> </ul>	
	EMSL	EMSL/NO	Base Mounted Normally Open Contact Block <ul style="list-style-type: none"> <li>Screw termination</li> <li>Direct snap-on mounting to control station base</li> <li>Maximum tightening torque for screw terminals: 1Nm</li> </ul>	
	EMSL	CB1NC	Lid Mounted Normally Closed Contact Block <ul style="list-style-type: none"> <li>Screw termination</li> <li>Direct snap-on mounting to control station actuator</li> <li>Maximum tightening torque for screw terminals: 1Nm</li> </ul>	
	EMSL	CB1NO	Lid Mounted Normally Open Contact Block <ul style="list-style-type: none"> <li>Screw termination</li> <li>Direct snap-on mounting to control station actuator</li> <li>Maximum tightening torque for screw terminals: 1Nm</li> </ul>	
	EMSL	CB01NCSM	Lid mounted normally closed safety contact block available for Emergency Stop control stations. When inserted the Red plunger will be operated by the pushbutton actuator, the green plunger will retain a N/C contact when the block is pushed fully home and clicked in-place. Should for any reason the block become loose, the contact under the green plunger will open and initiate a stop function. <ul style="list-style-type: none"> <li>Screw termination</li> <li>Direct snap-on mounting to control station actuator</li> <li>Maximum tightening torque for screw terminals: 1Nm</li> </ul>	

## MT Series






For use with the 32 Series Actuators. The 32 Series components share common modules. All items are tested and approved to the latest international standards and offer excellent performance with extended life.

Image	Series	Cat. No.	Description	Contact Details
	MT	MTO	Modular Contact Block, Momentary. 1 N/C	
	MT	MTI	Modular Contact Block, Momentary. 1 N/O	
	MT	MTOSFE	Modular Contact Block, Momentary, for Emergency Stop Actuators. 1 N/C safety contact switching off in an emergency and 1 N/C series contact that opens should the contact block become detached from the actuator.  Not compatible with 32 Series Actuators.	






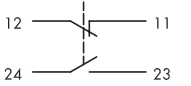
## MT Series

For use with the 32 Series Actuators. The 32 Series components share common modules. All items are tested and approved to the latest international standards and offer excellent performance with extended life.

Image	Series	Cat. No.	Description	Contact Details
	MT	ML	Lamp Module BA9s Max. 250V 2W	X1 —  — X2
	MT	MFL	Latching Module- BA9s When used as the centre element in the module holder, it provides a maintained unit with the adjacent momentary type modules. Max. 250V 2W	X1 —  — X2
	MT	MHR-5C	Holder for 5 Modules. Screw Fitting On Actuator. For '32 Series' only Not applicable with MTOSFE.	


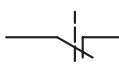
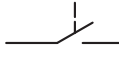
## ET Series

The 'ETR' block provides N/O + N/C contacts in one assembly.

Image	Series	Cat. No.	Description	Contact Details
	ET	ETR	Contact block, momentary action 1 N/O + 1 N/C	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> 12/11 24/23 </div> <div style="margin-right: 10px;">  </div> <div style="margin-right: 10px;">  </div> </div> <div style="margin-top: 10px;">  </div>


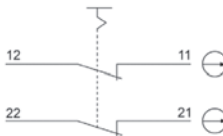
## S1 Series

The S1 contact block is designed to be stacked in pairs side-by-side and then back-To-back making a total of four changeover blocks on one Heavy Duty actuator. Three or four blocks will require extended fixing screws (U42)

Image	Series	Cat. No.	Description	Contact Details
	S1	S1	Contact block, momentary action C/O	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">NC</div> <div style="margin-right: 10px;">  </div> <div style="margin-right: 10px;">NC</div> </div> <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">NO</div> <div style="margin-right: 10px;">  </div> <div style="margin-right: 10px;">NO</div> </div>
	S1	U42	Assembly screw kit to enable 3 or 4 'S1' contacts to be mounted on a single Heavy Duty actuator.	

## Monobloc Series

The Monobloc assembly is designed for use in very restricted space. The contacts are assembled in the base of the actuator and cannot be supplied separately. To replace the contacts will require a new complete actuator.

Image	Series	Cat. No.	Description	Contact Details
	Mono Bloc	FRVKOO	Contact block, momentary action 2 N/C	

Other contact blocks and accessories are available on request, please contact our sales team for further details.

# Technical Specification

Electrical Ratings- BS EN 60947-5-1.

EMSL Series										
Application										
IEC/EN Operational characteristics (AC15)	V	12	24	48	120	240	400	480	500	600
	A	6	6	6	6	6	3	1.5	1.4	1.2
IEC/EN Operational characteristics (DC13)	V	12	24	48	125	250	-	440	500	600
	A	3	3	1.5	0.55	0.27	-	0.15	0.13	0.1
Short circuit protection fuse (max calibre)	10A gG/SC									
Contact resistance	≤20m Ω									
Terminals	Clamp screw with washer Faston 1x 6.35mm (0.25")   2x 2.8mm (0.11")									
Maximum conductor cross section for screw terminals	1 or 2 2.5mm <sup>2</sup> or AWG14 cables									
Mechanical & electrical endurance: Operating force	≤0.5kg / 1.1lb (auxiliary contacts)									
Mechanical & electrical endurance: Electrical life	1,000,000 cycles / 600,000 cycles									
Compliant with standard	IEC/EN 60947-1, IEC/EN 60947-5-1, UL508, CSA C22.2 n° 14.									

MT Series		
Application		
Storage Temperature		-50°C up to +85°C
Operating Temperature		-30°C up to +85°C
		For non-illuminated items
		-30°C up to +55°C
		Using incandescent lamps
		-30°C up to +65°C
		Using LED's
Operating Travel		6mm
Connections		Screw connections for 2 x 2.5mm <sup>2</sup> , IP2X.
Lamp Type/Socket		Incandescent lamps, LED's / BA9s
Contact Material		Silver-nickel alloy (Ag/Ni). Gold Plated Version available upon request.
Mechanical Life		1 million operations
Electrical Life		1 million cycles at rated load
Min. Current / Voltage		1 mA / 5V (Under laboratory conditions)
Contact Resistance (New State)		< 20mΩ
Bounce Time		< 10 mS
Positive Opening N/C Contact		To EN 60947-5-1 appendix K
Continuous thermal current (I <sub>th</sub> )		16A
Rated Insulation Voltage (U <sub>i</sub> )		600V
Utilisation Category	A.C.	AC15 A600
	D.C.	DC13 Q600
Rated Operational Voltage (U <sub>e</sub> )	A.C.	250V/440V
	D.C.	440V / 250V /125V / 60V / 24V
Rated Operational Current (I <sub>e</sub> )	A.C.	3A/1.6A
	D.C.	0.12A / 0.2A / 0.4A / 1A / 2A
Breaking Capacity (I <sub>e</sub> )	A.C.	10
	D.C.	1.1
Lamp Socket		BA9s
Lamp Voltage		Max. 250V (CSA max. 125V)
Lamp Output		Max. 2W
Definition		X1.. anode, X2.. cathode.

ET, S1 & Monobloc Series											
Series	Current	Utilisation Category	Rated Insulation Voltage (U <sub>i</sub> )	Rated Operational Voltage (U <sub>e</sub> ) / Current (I <sub>e</sub> )						Breaking Capacity	Continuous thermal current (I <sub>th</sub> )
ET	a.c.	AC15	400V	V	-	-	-	250	400	10Ie	10A
				A	-	-	-	5	3		
	d.c	DC13	400V	V	24	60	125	250	400	1.1Ie	10A
				A	2	1	0.4	0.2	0.12		
S1	a.c.	AC15	660V	V	-	-	-	-	400	-	10A
				A	-	-	-	-	5		
Monobloc	a.c.	AC15 B300	250V	V	-	-	120	240	-	-	10A
				A	-	-	5	5	-		



# ENCLOSED SAFETY SWITCHES

Enclosed safety (Grabwire) switches are the preferred solution for providing safety protection over extended distances. Before the development of Grabwire switches, machinery such as conveyors required multiple separate Emergency Stops, which often made it difficult to ensure that at least one stop was accessible from any point.

While conveyors are a common application, the ability to route the protection wire around bends and provide coverage over both horizontal and vertical runs makes Grabwire switches suitable for a wide variety of applications.

Reference standards:-

BS EN ISO 12100-1:2003 Pts. 1 & 2 | BS EN 418 | BS EN 60947-5-1 | BS EN 60529 |  
BS EN 60947-5-5 | BS EN 60204-1 | PD 5304.

## GW Range

The 'GW' range is a tensioned wire safety system designed for small to medium runs (up to 100m maximum between pairs). A Grabwire switch assembly provides continuous and uninterrupted safety coverage over long distances.

Before the development of Grabwire switches, machinery such as conveyors required multiple separate Emergency Stops, making it difficult to ensure that at least one stop was accessible from any point. While conveyors are a primary application, the ability to route the protection wire around bends and provide coverage over both horizontal and vertical runs makes this system suitable for many applications.

The minimum installation requires a Grabwire Switch at one end and an Anchor Box at the other. For full effectiveness, Grabwire switches are typically fitted at both ends of the pull wire, which would normally require electrical cabling between the units. The use of a non-electrical Anchor Box at one end eliminates the need for cabling between the end assemblies.

The Anchor Box contains a long spring that compresses when the pull wire is activated. At a predetermined point during compression, a latch engages, holding the spring in the shortened state. When the pull wire is released, it becomes slack, which is sensed by the switch at the opposite end, triggering the Stop signal. Although the Anchor Box contains no electrical contacts, the latch must be manually reset to restore the system.

Apart from the Grabwire switch itself, the only other item required for a basic setup is the connection kit, which includes all components necessary for installation.

Universal Grabwire  
Switch

+

Connection Kit

+

Universal Grabwire  
Switch or Anchor Box






				
Cat. No.	GWN1	GWN2	GWN2/SS	GWDE
Description	Universal single ended	Universal single ended	Universal single ended	Universal double ended
Max. span between pairs (L) (or between switch & anchor box)	50m	100m	100m	2 x 100m
Encl. Material	Die-Cast Aluminium (LM24)	Die-Cast Aluminium (LM24)	Stainless Steel 1.6 mm Grade 316	Sheet Steel 1.6 mm
Finish	Textured Powder Coat RAL 3020	Textured Powder Coat RAL 3020	Polished	Textured Powder Coat RAL 3020
Ingress Protection	IP65	IP65	IP65	IP65
Rope Tensioner	Included	Included	Included	Included
Earthing	M4 Internal & External	M5 Internal & External	M5 Internal & External	M5 Internal & External
Electrical Contacts	2 N/C (Safety) + 1 N/O	2 N/C (Safety) + 2 N/O	2 N/C (Safety) + 2 N/O	2 x {2 N/C (Safety) + 2 N/O}
Electrical Rating:- $I_{th} / U_i$	10A/415V	10A/415V	16A/600V	16A/600V
AC21/22/23A to BS EN 60947-3	-	-	16A at 415V	16A at 415V
AC15 to BS EN 60947-5-1	5A at 415V	5A at 415V	5A at 415V	5A at 415V
Optional Indicator Lamp	✓	✓	-	-
Setting-up indicator	✓	✓	✓	✓
Hand Reset knob	✓	✓	✓	✓
Universal (LH or RH) mounting	✓	✓	✓	✓

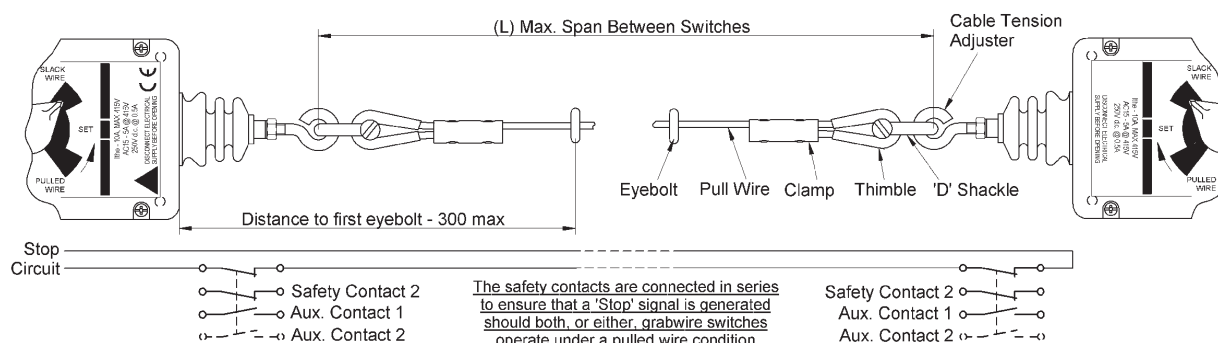
Image	Cat. No.	Description
	Basic - GK00* Up to 5m - GK5 Up to 10m - GK10 Up to 20m - GK20 Up to 50m - GK50 Up to 75m - GK75 Up to 100m - GK100	Each connection kit includes:- <ul style="list-style-type: none"> <li>Multi strand steel catenary cable with red PVC covering*</li> <li>Stainless Steel eyebolt supports. Sufficient to support the cable at 2M intervals. Supplied complete with two fixing nuts*</li> <li>2 x Stainless Steel thimbles</li> <li>2 x Stainless Steel 'D' shackles</li> <li>2 x Stainless Steel clamps</li> </ul>

## Installation Requirements

When planning a Grabwire installation, operator safety must always be the primary consideration. Carefully plan the route of the pull wire to ensure maximum accessibility for all potential users. Supports should be positioned at a maximum spacing of 2 metres, and Grabwire switches must be placed within easy reach for installation, monitoring, and manual reset after an incident.

The first eyebolt should be installed close to the switching body to ensure that, if the wire is pulled at an oblique angle, the force on the switch remains linear. While corners and bends can be included, they should be minimized. Additional systems may be required for complex or long runs. The ultimate goal is a free-running pull wire with minimal resistance.

Each run should be measured, and a Grabwire switch selected with a maximum span (L) greater than the measured distance. For runs exceeding 100 metres, multiple installations will be necessary. For very long distances, consider the 'LW' system. In environments that are continuously wet or subject to regular cleaning, select the stainless-steel Grabwire switch option.

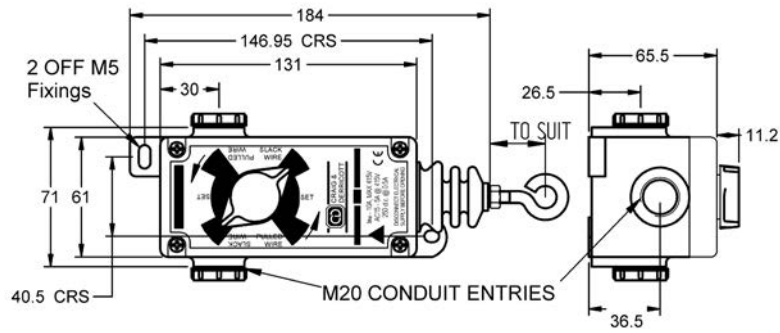


## Accessories +

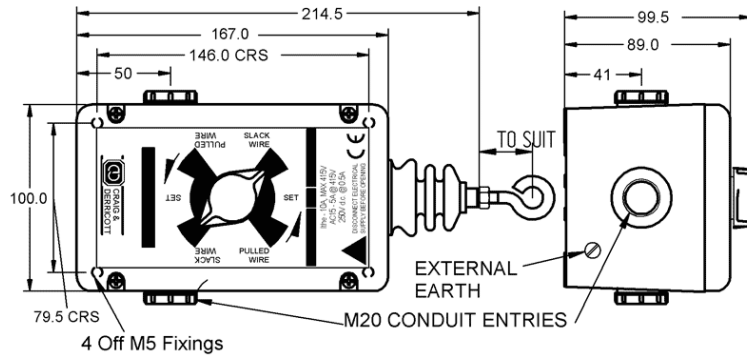
Image	Cat. No.	Description
	GW/AB	Non Switching Anchor Box with manual Reset
	GW024A GW110A	Indicator lamp, which when powered through one of the spare N/O contacts, will indicate which grabwire switch has been actuated. (Indicates on 'Pulled' or 'Slack Wire' conditions) Supplied complete with bulb. Other colours and supply voltages available to order.  24V (Amber) Annunciator Lamp 110V (Amber) Annunciator Lamp
	MR 0221	Stranded steel 'Pull wire' with red PVC covering. ( Ø5 approx O/D) Sold per Metre. Pull Wire (As supplied in the connecting kits)
	GWA 0070	Standard length 'eyebolt' for 'Pull wire' support. Supplied complete with 2 x locking nuts. Material - Stainless Steel, Size - M6, Overall length - 80, Thread length - 58  Standard M6 Eyebolt (As supplied in the connection kits)
	GWC 0270	Extended length 'eyebolt' for 'Pull wire' support. Supplied complete with 2 x locking nuts. Material - Stainless Steel, Size - M6, Overall length - 230, Thread length - 200  Extended M6 Eyebolt
	GWC 0163	Wrap around 'thimble' to terminate the 'Pull wire'. Material - Stainless Steel  Termination 'thimble' (As supplied in the connection kits)
	GWC 0166	'D Shackle' to connect the 'Pull wire' to the grabwire switches. Material- Stainless Steel  Connection 'D Shackle' (As supplied in the connection kits)
	GWC 0167	Cable clamp for securing the 'Pull wire' back upon itself once passed around the 'thimble'. Tightening via 2 x Allen screws. Material - Stainless Steel  Cable clamp (As supplied in the connection kits)
	GWC 0189	Allen Key for tightening 'Cable Clamp' above. Size- 2.5 A/F Allen Key (As supplied in the connection kits)



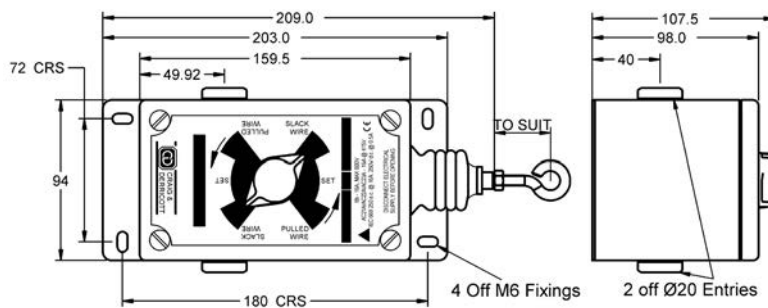
GWN1



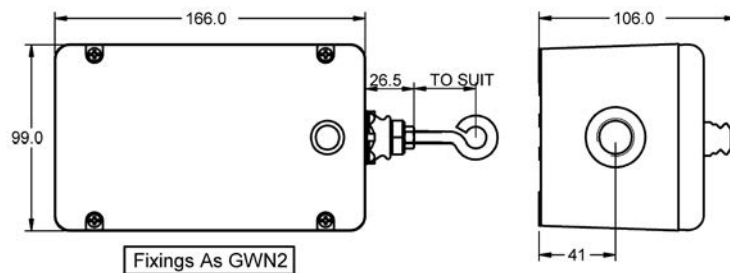
GWN2



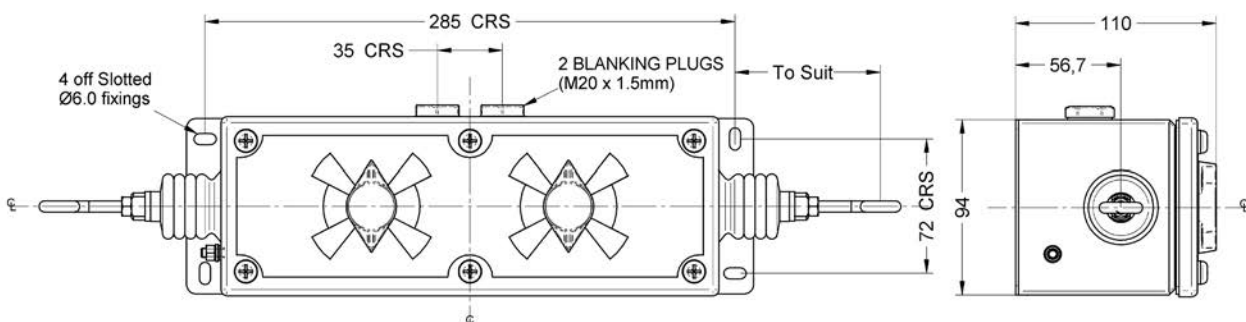
GWN2/SS



GW/AB Anchor Box



GWDE





## LW Range

The 'LW' range is specifically designed for long-distance protection, where a tensioned wire installation (GW series) may be costly or impractical. The system incorporates the following safety features:

- The trip switch interior to each grabwire assembly contains positive push-off contacts.
- The system will trip in the event of -
  1. a Grab-Line being Pulled in any direction.
  2. a Grab-Line being broken or the Grab-Line circuit interrupted.
  3. a short circuit condition occurring in the Grab-Line circuit.
  4. a loss of power to the Control Station.
- Once tripped, the system requires manual Resetting.
- Only a safe low voltage is applied to the Grab-Line circuit and Grab-Line switch assemblies.

The system is ideal for heavy-duty and exposed environments. Both the Control Station and Grab-Line switch assemblies are housed in robust enclosures with IP65 sealing, and stainless-steel components are used where necessary to ensure ongoing reliability.

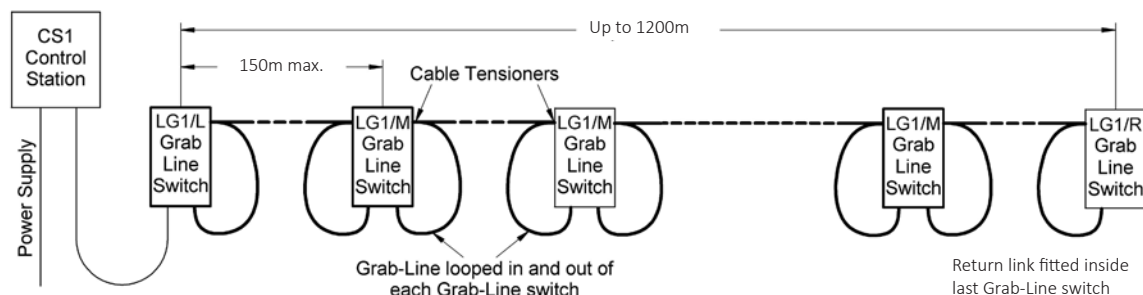
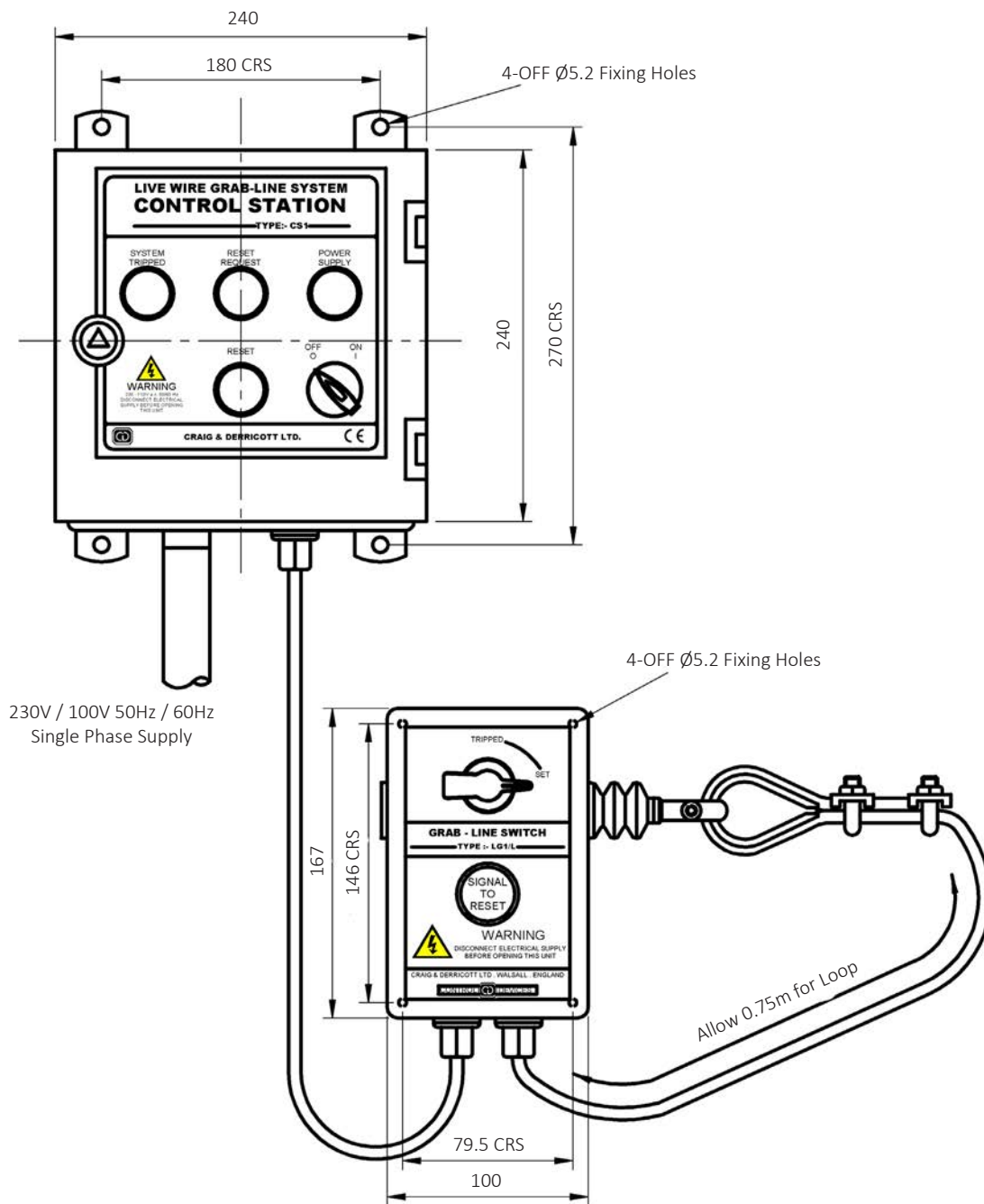


Image	Cat. No.	Description
	CS1	A control station assembly required for each installation. The Sheet Steel housed control station contains the following equipment: <ul style="list-style-type: none"> <li>• On/Off switch</li> <li>• 'Supply On' Indicator Lamp (Blue)</li> <li>• 'Reset' Pushbutton</li> <li>• 'Reset System' Indicator Lamp (White)</li> <li>• 'System Tripped' indicator Lamp (Red)</li> </ul>
	LG1/L	LH Grab-Line switch housed in heavy duty Die-Cast Aluminium enclosures. <ul style="list-style-type: none"> <li>• Manual 'Reset/Condition Indicator' knob</li> <li>• 'Signal to Reset' pushbutton</li> </ul>
	LG1/R	RH Grab-Line switch housed in heavy duty Die-Cast Aluminium enclosures. <ul style="list-style-type: none"> <li>• Manual 'Reset/Condition Indicator' knob</li> <li>• 'Signal to Reset' pushbutton</li> </ul>
	LG1/M	Mid Grab-Line switch housed in heavy duty Die-Cast Aluminium enclosures. <ul style="list-style-type: none"> <li>• Manual 'Reset/Condition Indicator' knob</li> <li>• 'Signal to Reset' pushbutton</li> </ul>
	GWC 0038A	Grab-Line cable (75m). Thick outer sheath of red PVC. Flexible steel wire armour
	GWC 0038B	Grab-Line cable (100m). Thick outer sheath of red PVC. Flexible steel wire armour
	GWC 0038C	Grab-Line cable (125m). Thick outer sheath of red PVC. Flexible steel wire armour
	GWC 0038D	Grab-Line cable (150m). Thick outer sheath of red PVC. Flexible steel wire armour
	GWA 0070	Stainless Steel Eyebolt with fixing nuts
	GWC 0031A	Grab-Line Thimble
	GWC 0032A	Grab-Line Clamp
	GWC 0033A	Grab-Line 'D' shackle
	GWC 0039	Cable gland

## LW Range



Application		
Input Voltage		110V (15W max.), 240V (15W max)
System Voltage		24V a.c. - 1/2 wave rectified
Control Circuit Relay	Contact Operation	Positively operated
	Rated Load	3A at 240V a.c.   3A (Resistive) at 24V d.c.
	Max. Switching Current	6A
	Max. Switching Voltage	250V a.c. & 24V d.c
	Minimum Permissible Load	5V d.c. - 10mA
	Mechanical / Electrical Life	10 x 10 <sup>6</sup> /10 x 10 <sup>3</sup>
	Contact Resistance	100 mΩ
Power Protection Fuse		2A
Safety Circuit Fuse		200mA
Max. Grab-Line Circuit Resistance		50 Ohms
Pull Force To Operate		Approx 5kg.
Full documentation and installation instructions are supplied with each control station		



# STANDARD ROTARY SWITCHES

Our hand-operated rotary switches provide a cost-effective solution for performing complex switching functions.

- No separate or costly power supply is required.
- Complete flexibility in configuring how contacts open and close.
- Indexing positions can range from 2 to 12.
- Contacts are available for low-energy or high-power applications, from a few milliamps up to 125A.
- A wide variety of operating handles can incorporate interlocking and other safety features.
- Contact configurations include early break, late break, make-before-break, and fleeting contact options.

For further details, visit our website: [www.craigandderricott.co.uk](http://www.craigandderricott.co.uk) to download the i-Select range PDF.



# CLASSIC ROTARY SWITCHES

Our hand-operated rotary switches offer a cost-effective solution for performing complex contact switching functions. Every piece of electrical equipment requires a safe method of disconnecting from the supply, and our classic rotary switch range reliably fulfils this requirement.

We offer four types of rotary switches: R6, R16, Mini-Rotary, and R40, available in the following configurations:

- Changeover
- Cumulative
- Heaters
- Metering
- Motor Control
- Multi-Position
- Off / On





# FLAGGED ISOLATORS

Craig & Derricott offer a range of hinged-door enclosed isolators and switch fuses, available in ratings from 32A to 400A as standard. Each unit is fitted with a flag indicator, visible through an 8mm-thick polycarbonate window in the enclosure door, providing clear confirmation of the switch contact status.

All assemblies are IP65 sealed and supplied with two changeover auxiliary blocks wired to terminals. Standard flag isolators feature silver-plated conductors, with an option for tin-plated conductors for installations in environments containing high levels of hydrogen sulphide or sulphur dioxide, to prevent the formation of silver whiskers.

Optional features include Grade 304 stainless-steel enclosures, Castell lock options, and EX Zone 22 versions upon request.



## Bespoke Design

For over 100 years, Craig & Derricott has built a reputation for well-engineered products offering the ultimate in reliability. In addition to our standard catalogue range, we provide a bespoke and special product service, known as mi-switch, which allows customers to specify exact requirements that can be manufactured to order.

Our dedicated team of specialist engineers draws upon extensive experience to deliver unique design solutions tailored to your specific needs. Rather than attempting to mix and match components, you can entrust your project to us, and we will create the ideal and most cost-effective solution.

To discuss your requirements, please contact us on +44 (0)1543 375 541, and our team will be happy to provide options for achieving your bespoke solution.



# Contact us!

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## Make a note...

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]



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