



CATALOGUE 2019.1



...delivering excellent customer
service and high quality products...



INTRODUCTION

ISO 9001:2015 British manufacturer Craig & Derricott have been designing, manufacturing & supplying low voltage electrical control and switchgear for over 70 years.

Today our customers extend around the world and operate in a wide variety of markets and sectors including Railway, Construction, Ventilation (Fire rated), Explosion proof, Medical, Military, Panel Building and Power & Distribution.

Simply visit our website to find the contact details for your local Area Sales Manager who will be pleased to offer advice.

www.craigandderricott.com

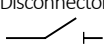
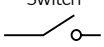
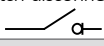
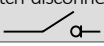
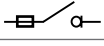


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Product Guide

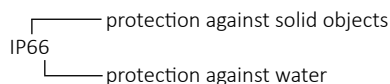
Comparing to European standards (BS EN 60947-3) :-

Definition	'Trade' Description	Technical Description
Disconnector Sym.  Switch Sym.  Switch-disconnector Sym. 	Isolator	A 'Disconnector' is a mechanical switch which in the 'Open' position, complies with requirements specified for the isolating function. A 'Disconnector' or 'Isolator' is an off-load device and marked 'Isolate elsewhere before opening' they have an AC20/DC20 utilisation category. A 'Switch' is a mechanical switching device capable of making, carrying and breaking current under normal circuit conditions, which may include specified operating overload conditions. They also carry, for a specified time, currents under specified abnormal circuit conditions, such as those of short circuit (i.e. Utilisation category AC23A duty). A 'Switch-disconnector' meets both of these criteria and with a Red/Yellow padlockable handle may also be called a 'Safety Isolator'.
Changeover Switch-disconnector Sym. 	Changeover Switch	A ' Changeover ' device is used to connect to one of two sources and in this isolation application will require a central 'Off' position. In all other respects it conforms to the 'Switch-disconnector' requirements.
Fuse Combination Unit Sym. 	Switch-Disconnector Fuse	A ' Switch-Disconnector Fuse ' is a combination of a mechanical switching device with fuses in a composite assembly.

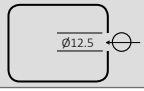
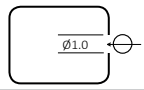
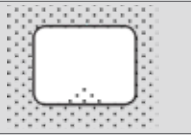
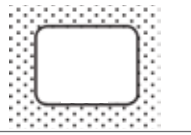
Ingress Protection

When choosing a control device, apart from the electrical performance, consideration must be given to the environmental conditions in which the device will be placed. The item may be subjected to dust or dirt or it may come in contact with varying degrees of moisture. Indoor conditions will vary considerably but items may well be placed outdoors where the full influence of rain, ice & snow will be present. Protecting items to varying degrees is detailed in BS EN 60529:1992.

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



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.

Corrosive Environment

When choosing an enclosure, care must be taken to select the most suitable material taking into account the location, level of pollution, temperature, UV levels, vibration and humidity.

Typical enclosure materials include Aluminium, powder coated Mild Steel or Stainless Steel.

Enclosures that are sealed to IP65 are commonly mistaken as being suitable for all outside environments. A powder coated mild steel or Aluminium enclosure will degrade and corrode under certain environmental conditions.

Installing enclosures in an external environment may also result in condensation forming on the inside of the enclosure, resembling water ingress. This is caused by a difference in temperature between inner and outer surfaces of the enclosure and the most common solution is to fit an anti-condensation heater or ventilation plug within the enclosure.

When the product is subject to chemical cleaning a stainless steel enclosure is recommended although the correct grade of stainless steel must be selected. If in doubt, please consult our technical department on sales@craigandderricott.com or +44(0)1543 375 541.



FIXED LID SWITCHGEAR

Craig & Derricott has been at the forefront of switchgear design and manufacture for more than 70 years, and in that time the requirements of the installer & end user have always been paramount in the design concept. This attitude has culminated in the design of the 'i-switch' range where a wider choice of products has been offered to the customer, all of which are simple to install and provide the user with a product that is safe and effective in use.

The 'i-switch' range provides the user with a wide choice of products to safely disconnect an item of electrical equipment from the supply and are primarily designed to comply with the following minimum requirements:-

- Provide an effective clearance between the supply and the load appropriate to the voltage applied.
- Provide a means of locking in the 'Off' position. (Padlocking)
- Provide a true indication of the contact state.
- Provide a safe disconnection from the supply even under fault conditions.

All of Craig & Derricott's products meet, and often exceed, the above requirements making each one a product of choice in today's market.



Die-Cast Aluminium Fixed Lid Enclosed Switchgear

A range of die-cast aluminium enclosed isolation equipment with sealing up to IP66 available in Light Grey (RAL 7035) or Traffic Red (RAL3020) powder coated finish. These UV resistant units can be placed in environments where resistance to impacts, moisture and dust/dirt are a concern. All units have a padlockable handle which allows 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. 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. Compliant to IEC / BS EN 60947-3.

*Cable entries: Size A: 20A- 40A: Suffix X: 2 x M25 on bottom face | Suffix Y: 2 x M25 on top & bottom faces.
 Size B: 40A- 63A : Suffix X: 2 x M32 & 1 x M16 on bottom face | Suffix Y: 2 x M32 & 1 x M16 on top & bottom faces.
 Size B: 80A : Suffix X: 2 x M32 & 1 x M20 on bottom face | Suffix Y: 2 x M32 & 1 x M20 on top & bottom faces.

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

Add suffix '/10' to the Cat. No. for padlocking in the 'On' position e.g. SDDG253/10

Add suffix '/CO' to a Cat. No. to include 1 set of Auxiliary contacts e.g. SDDG633NY/CO

Add suffix '/2CO' to a Cat. No. with a CS interior switch to include 2 sets of Auxiliary contacts e.g. SDDG253Y/2CO

Add suffix 'EB' to a Cat. No. with a CS interior switch for 1 set of 2 Early Break Auxiliary contacts eg. SDDG253NLEBY

Remove suffix 'X' or 'Y' to any 25A- 32A Cat. No. for M20 knock-outs impressions on the enclosure e.g. SDDG253N

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts

'X' = Bottom cable entries only | 'Y' = Top and bottom cable entries | 'T' = Increased terminal capacity

Switch-Disconnectors (O-I)									
Image	Rating	Switch Type	Format	Bottom cable entries only Cat. No.*	Top & Bottom cable entries Cat. No.*	IP Rating	Encl. Size	Encl. Material	
	20A	GX20	6P	SDDG206X	SDDG206Y	IP66	A	Die cast aluminium alloy Light Grey RAL 7035	
			6P+2EB Aux	SDDG206EBX	SDDG206EBY				
	25A	CS25	2P	SDDG252X	SDDG252Y	IP66	A	Die cast aluminium alloy Light Grey RAL 7035	
			3P	SDDG253X	SDDG253Y				
			3P+N	SDDG253NX	SDDG253NY				
			3P+NL	SDDG253NLX	SDDG253NLY				
			3P+2EB Aux	SDDG253EBX	SDDG253EBY				
	32A	CS32	2P	SDDG322X	SDDG322Y	IP66	A	Die cast aluminium alloy Light Grey RAL 7035	
			3P	SDDG323X	SDDG323Y				
			3P+N	SDDG323NX	SDDG323NY				
			3P+NL	SDDG323NLX	SDDG323NLY				
			3P+2EB Aux	SDDG323EBX	SDDG323EBY				
		40A	CS40R	2P	SDDG402X	SDDG402Y	IP66	A	Die cast aluminium alloy Light Grey RAL 7035
				3P	SDDG403X	SDDG403Y			
				3P+N	SDDG403NX	SDDG403NY			
				3P+NL	SDDG403NLX	SDDG403NLY			
3P+2EB Aux			SDDG403EBX	SDDG403EBY					
GX40			6P	SDDG406X	SDDG406Y	IP65	B		
			6P+2EB Aux	SDDG406EBX	SDDG406EBY				
			CS40	2P	SDDG402TX			SDDG402TY	
		3P		SDDG403TX	SDDG403TY				
3P+N		SDDG403NTX		SDDG403NTY					
3P+NL		SDDG403NLTX		SDDG403NLTY					
3P+2EB Aux		SDDG403EBTX	SDDG403EBTY						
63A		CS63	2P	SDDG632X	SDDG632Y	IP65	B	Die cast aluminium alloy Light Grey RAL 7035	
	3P		SDDG633X	SDDG633Y					
	3P+N		SDDG633NX	SDDG633NY					
	3P+NL		SDDG633NLX	SDDG633NLY					
	3P+2EB Aux		SDDG633EBX	SDDG633EBY					
	6P		SDDG636X	SDDG636Y					
	6P+2EB Aux		SDDG636EBX	SDDG636EBY					
80A	CS80	2P	SDDG802X	SDDG802Y	IP65	B	Die cast aluminium alloy Light Grey RAL 7035		
		3P	SDDG803X	SDDG803Y					
		3P+N	SDDG803NX	SDDG803NY					
		3P+NL	SDDG803NLX	SDDG803NLY					
	GA080A	3P	SDDG803TX	SDDG803TY					
		3P+N	SDDG803NTX	SDDG803NTY					
		3P+NL	SDDG803NLTX	SDDG803NLTY					

Stainless Steel Fixed Lid Enclosed Switchgear

A range of isolation equipment housed in Grade 304 stainless steel enclosures sealing to IP66. All units have a padlockable handle which allow 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.

As a standard feature the units have the ability to add a selection of auxiliary blocks providing additional contacts and a choice of Neutral assemblies. External mounting feet in stainless steel are offered as an accessory sized to match each enclosure. The range is supplied with a handle manufactured from a material suitable to withstand cleaning products containing sodium hydroxide. A defeatable door interlock handle (H2) option which provides an override facility allowing the lid to be removed in the 'On' position for testing purposes can be ordered on request.

Stainless Steel Grade 316 enclosures are available on request. Cable Entries: Size A: 2 x M20 | Size b: 2 x M20 + 2 x M25

Add suffix '/10' to the Cat. No. for padlocking in the 'On' position e.g. SDDG253/10

Add suffix '/CO' to any 25A- 63A switch-disconnector Cat. No. to include 1 set of Auxiliary contacts e.g. SDS253/CO

Add suffix '/2CO' to any 25A- 63A switch-disconnector 2P or 3P Cat. No. to include 2 sets of Auxiliary contacts e.g. SDS253/2CO

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts

Switch-Disconnectors (O-I)											
Image	Rating	Switch Type	Format	Standard Handle Cat. No.	H2 Handle Cat. No.	IP Rating	Encl. Size	Encl. Material	Encl. Colour	Cable Entries	
	20A	GX20	6P	SDS206	SDS206/H2	IP66	A	Stainless Steel Grade 304	Brushed Satin Finish	2 x M20	
			6P+2EB Aux	SDS206EB	SDS206EB/H2						
	25A	CS25	2P	SDS252	SDS252/H2	IP66	A	Stainless Steel Grade 304	Brushed Satin Finish	2 x M20	
			3P	SDS253	SDS253/H2						
			3P+NL	SDS253NL	SDS253NL/H2						
			3P+N	SDS253N	SDS253N/H2						
			3P+2EB Aux	SDS253EB	SDS253EB/H2						
	32A	CS32	2P	SDS322	SDS322/H2	IP66	A	Stainless Steel Grade 304	Brushed Satin Finish	2 x M20	
			3P	SDS323	SDS323/H2						
			3P+NL	SDS323NL	SDS323NL/H2						
			3P+N	SDS323N	SDS323N/H2						
			3P+2EB Aux	SDS323EB	SDS323EB/H2						
		40A	CS40R	2P	SDS402	SDS402/H2	IP66	B	Stainless Steel Grade 304	Brushed Satin Finish	2 x M20 + 2 x M25
				3P	SDS403	SDS403/H2					
				3P+NL	SDS403NL	SDS403NL/H2					
3P+N				SDS403N	SDS403N/H2						
3P+2EB Aux				SDS403EB	SDS403EB/H2						
GX40			6P	SDS406	SDS406/H2						
			6P+2EB Aux	SDS406EB	SDS406EB/H2						
63A		CS63	2P	SDS632	SDS632/H2	IP66	B	Stainless Steel Grade 304	Brushed Satin Finish	2 x M20 + 2 x M25	
			3P	SDS633	SDS633/H2						
			3P+NL	SDS633NL	SDS633NL/H2						
			3P+N	SDS633N	SDS633N/H2						
			3P+2EB Aux	SDS633EB	SDS633EB/H2						
Changeover Switch-Disconnectors (I-O-II)											
		20A	GX20	2P	SCODS202	SCODS202/H2	IP66	A	Stainless Steel Grade 304	Brushed Satin Finish	2 x M20
				3P	SCODS203	SCODS203/H2					
	4P			SCODS204	SCODS204/H2						
	40A	GX40	2P	SCODS402	SCODS402/H2	IP66	B	Stainless Steel Grade 304	Brushed Satin Finish	2 x M20 + 2 x M25	
			3P	SCODS403	SCODS403/H2						
			4P	SCODS404	SCODS404/H2						

Accessories

The external fixing feet listed below can be supplied on request.

Image	Description	Cat. No.
	Grade 304 stainless steel external fixing feet for 20A- 32A	EFA
	Grade 304 stainless steel external fixing feet for 40A- 63A	EFB

Stainless Steel Sloping Roof Fixed Lid Enclosed Switchgear

A range of isolation equipment housed in Grade 316 stainless steel enclosures, supplied with a specially designed stainless steel 'sloping roof'. These units are ideally suited for hygienic environments with their associated severe cleaning routines. The design has been created to minimise areas where dirt can accumulate and incorporates a flush rear surface and universal fixing that include IP66 sealings.

All units are supplied with a handle manufactured from a material suitable to withstand cleaning products containing sodium hydroxide. All units have a padlockable handle which allow 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.

Optional pre-drilled bottom entries can be supplied. For 2xM20 in Size A Enclosures add suffix **'/M20'** to the Cat. No. e.g. SDSSSR253/M20 | For 2xM25 in Size B Enclosures add suffix **'/M25'** to the Cat. No. e.g. SDSSSR253/M25.

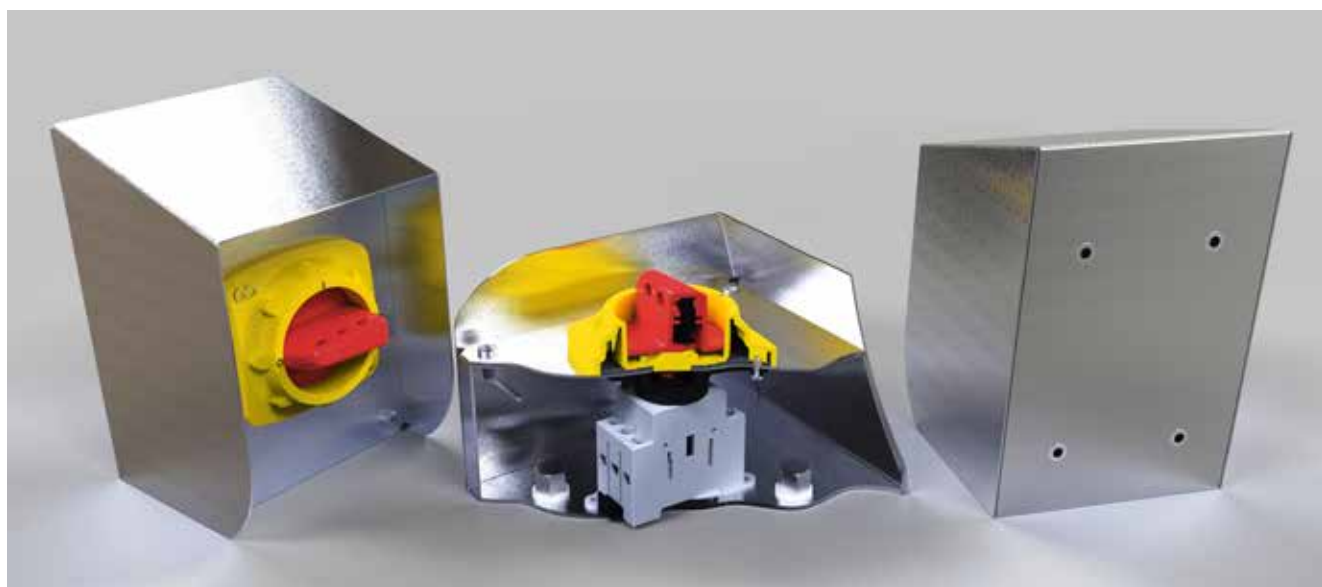
Add suffix **'/10'** to a Cat. No. for padlocking in both the 'Off' & 'On' positions e.g. SDSSR323NL/10

Add suffix **'/CO'** to a Cat. No. to include 1 set of Auxiliary contacts e.g. SDSSR253/CO

Add suffix **'/2CO'** to any 25A- 80A switch-disconnector 2P or 3P Cat. No. to include 2 sets of Auxiliary contacts e.g. SDSSR253/2CO

'N' = switched neutral (Early make, late break) | 'EB' = Early break auxiliary contacts

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



Section view showing the enclosures flush rear face with 'sealed' fixings that ensure the IP66 seal is maintained.

Flush Mounting Enclosed Switchgear

A range of flush mounting isolation equipment ranging 20A to 63A, supplied with a sheet steel back box and stainless steel fascia plate sealed up to IP65. All units are supplied with a handle manufactured from a material suitable to withstand cleaning products containing sodium hydroxide. Suitable for installation in kitchens, laboratories, food processing areas, hospitals and many other areas.

Black handles are available on request. Add suffix '/BLK' to a Cat. No. e.g. SDFL324/BLK.

Installation

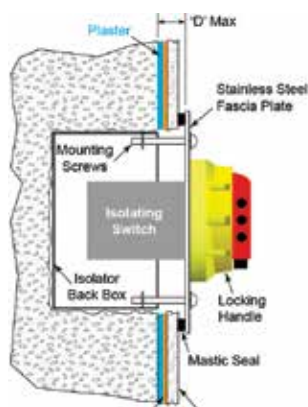
Whilst the joint between the isolating switch and the stainless steel fascia plate is factory sealed to IP65 min, when installed, the fascia to mounting surface seal is the responsibility of the installer. To maintain the sealing overall, an efficient bond must be made using some form of gasketing material. This is particularly vital on tiled surfaces where grout lines can channel moisture down the wall. A continuous bead of moisture resistant mastic is a simple way of providing a seal, and can improve the appearance of the final assembly on an uneven surface.



Switch-Disconnectors (O-I)										
Image	Rating	Switch Type	Format	Standard Cat. No.	IP65 Back Box Cat. No.	IP Rating	Encl. Size	Fascia plate Material	Back Box Material	Cable Entries
	20A	GX20	2P	SDFL202	SDFL202/65	Isolating switch to stainless steel fascia plate IP65	A	Brushed Stainless Steel Grade 304	Galvanised Sheet Steel	2 x 2.5 Knockouts in back box
			3P	SDFL203	SDFL203/65					
			4P	SDFL204	SDFL204/65					
	32A	GX32	2P	SDFL322	SDFL322/65	Isolating switch to stainless steel fascia plate IP65	B	Brushed Stainless Steel Grade 304	Galvanised Sheet Steel	2 x 10 Knockouts in back box
			3P	SDFL323	SDFL323/65					
			4P	SDFL324	SDFL324/65					
	40A	GX40	2P	SDFL402	SDFL402/65	Isolating switch to stainless steel fascia plate IP65	B	Brushed Stainless Steel Grade 304	Galvanised Sheet Steel	2 x 10 Knockouts in back box
			3P	SDFL403	SDFL403/65					
			4P	SDFL404	SDFL404/65					
	63A	GN63	2P	SDFL632	SDFL632/65	Isolating switch to stainless steel fascia plate IP65	C	Brushed Stainless Steel Grade 304	Galvanised Sheet Steel	2 x 16 Knockouts in back box
			3P	SDFL633	SDFL633/65					
			4P	SDFL634	SDFL634/65					
	80A	CS80	2P	-	SDFLL0802	Isolating switch to stainless steel fascia plate IP65	D	Brushed Stainless Steel Grade 304	Galvanised Sheet Steel	None
			3P	-	SDFLL0803					
			4P	-	SDFLL0804					

Standard Flush Mounted

20A- 63A

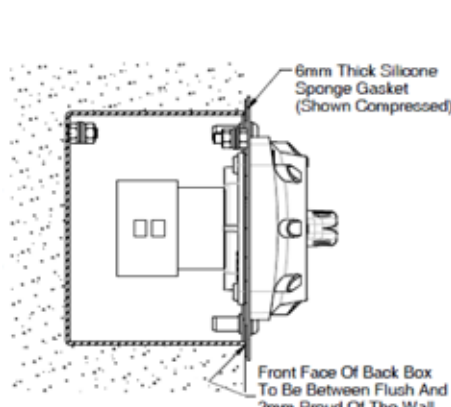


Typical Installation

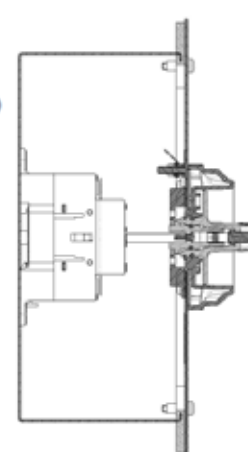
'D' max = 20mm with standard length mounting screws

IP65 Back Box Flush Mounted

20A- 63A



80A



Sheet Steel Fixed Lid Enclosed Switchgear

A range of sheet steel enclosed isolation equipment sealing to IP66, providing the user with a robust and cost effective assembly. Each UV resistant unit is supplied with a polyester powder coated finish in Light Grey (RAL 7035). External mounting feet in stainless steel are offered as an accessory sized to match each enclosure. Earth continuity terminals are provided in the base and lid of each enclosure. A selection of auxiliary blocks can be provided as additional contacts as well as a choice of Neutral assemblies. Cable Entries: Size A: 2 x M20 | Size B: 2 x M20 + 2 x M25.

All units have a padlockable handle which allow 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

A defeatable door interlock handle (shown in image) option which provides an override facility allowing the lid to be removed in the 'On' position for testing purposes can be ordered on request. Add '/H2' to a Cat. No. e.g. SDMG403/H2

Add suffix '/10' to a Cat. No. for padlocking in both the 'Off' & 'On' positions e.g. SDMG323NL/10.

Add suffix '/CO' to a Cat. No. to include 1 set of Auxiliary contacts e.g. SDMG253/CO



'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts | 'H2' = Defeatable handle

Switch-Disconnectors (O-I)									
Image	Rating	Switch Type	Format	Standard Handle Cat. No.	IP Rating	Encl. Size	Encl. Material	Encl. Colour	Cable Entries
	20A	GX20	6P	SDMG206	IP66	A	Sheet Steel	Light Grey RAL 7035	2 x M20
			6P+2EB Aux	SDMG206EB					
	25A	CS25	2P	SDMG252	IP66	A	Sheet Steel	Light Grey RAL 7035	2 x M20
			3P	SDMG253					
			3P+NL	SDMG253NL					
			3P+N	SDMG253N					
			3P+2EB Aux	SDMG253EB					
	32A	CS32	2P	SDMG322	IP66	A	Sheet Steel	Light Grey RAL 7035	2 x M20
			3P	SDMG323					
			3P+NL	SDMG323NL					
			3P+N	SDMG323N					
			3P+2EB Aux	SDMG323EB					
	40A	CS40R	2P	SDMG402	IP66	B	Sheet Steel	Light Grey RAL 7035	2 x M20 + 2 x M25
			3P	SDMG403					
			3P+NL	SDMG403NL					
			3P+N	SDMG403N					
			3P+2EB Aux	SDMG403EB					
		GX40	6P	SDMG406					
			6P+2EB Aux	SDMG406EB					
	63A	CS63	2P	SDMG632	IP66	B	Sheet Steel	Light Grey RAL 7035	2 x M20 + 2 x M25
			3P	SDMG633					
			3P+NL	SDMG633NL					
			3P+N	SDMG633N					
			3P+2EB Aux	SDMG633EB					
	80A	GA080A	2P	SDMG802	IP66	C	Sheet Steel	Light Grey RAL 7035	-
			3P	SDMG803					
			3P+NL	SDMG803NL					
			3P+N	SDMG803N					
			3P+1EB Aux	SDMG803EB					
	100A	GA100A	2P	SDMG1002	IP66	C	Sheet Steel	Light Grey RAL 7035	-
			3P	SDMG1003					
			3P+NL	SDMG1003NL					
			3P+N	SDMG1003N					
			3P+1EB Aux	SDMG1003EB					
Changeover Switch-Disconnectors (I-O-II)									
	20A	GX20	2P	SCODMG202	IP66	A	Sheet Steel	Light Grey RAL 7035	2 x M20
			3P	SCODMG203					
			4P	SCODMG204					
	40A	GX40	2P	SCODMG402	IP66	B	Sheet Steel	Light Grey RAL 7035	2 x M20 + 2 x M25
			3P	SCODMG403					
			4P	SCODMG404					

Moulded Plastic Fixed Lid Enclosed Switchgear

A range of moulded plastic enclosed isolation equipment with sealing up to IP66. All units have a padlockable handle which allow for the insertion of up to three padlocks in the 'Off' position thus preventing the isolator being switched to the 'On' position. Each unit is UV resistant.

The units have the ability to add a selection of auxiliary blocks providing additional contacts and a choice of Neutral assemblies. All units are interlocked in the ON position preventing the lid from being removed.

Compliant to IEC / BS EN 60947-3.

Add suffix '/10' to the Cat. No. for padlocking in the 'On' position e.g. SDP253/10

Add suffix '/CO' to a Cat. No. to include 1 set of Auxiliary contacts e.g. SDMG253/CO

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts

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

Accessories

All of the accessories listed below can be retrofitted. One block can be fitted either side of the main assembly on all of the 3 pole Switch-Disconnectors interiors. Applicable to type 'CS' interiors only. External fixing feet listed below can be supplied on request.

Description	Cat. No.
Auxiliary Contact- 2 Early Break	SAUX2EB
Auxiliary Contact- 1 N/O + 1 N/C	SAUXCO
80A- 100A Auxiliary Contact- 1 Early Break	SAUX1EBL
80A- 100A Auxiliary Contact- 1 N/O + 1 N/C	SAUXCOL
25A- 40A Compact Neutral (Unswitched)	SNLC40
63A Neutral (Unswitched)	SNL63
80A Neutral (Unswitched) for CS switches	SNL80
100A Neutral (Unswitched) for CS switches	SNL100
80A- 100A Neutral (Unswitched) for GA switches	SNL100L
125A Neutral (Unswitched)	SNL125
160A Neutral (Unswitched)	SNL160
200A Neutral (Unswitched)	SNL200
25A Neutral (Switched)	SSP25
40A Neutral (Switched)	SSP40
63A Neutral (Switched)	SSP63
80A Neutral (Switched) for CS switches	SSP80
100A Neutral (Switched) for CS switches	SSP100
80A Neutral (Switched) for GA switches	SSP80L
100A Neutral (Switched) for GA switches	SSP100L
125A Neutral (Switched)	SSP125
160A Neutral (Switched)	SSP160
200A Neutral (Switched)	SSP200
External Fixing Feet for 20A- 32A	EFA
External Fixing Feet for 40A- 63A	EFB

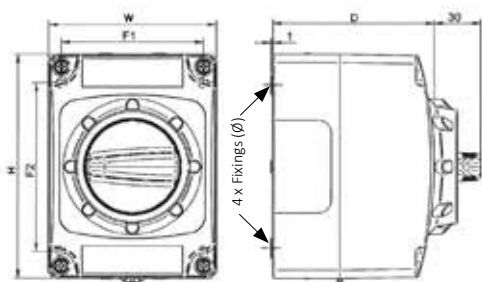
Technical Specification

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

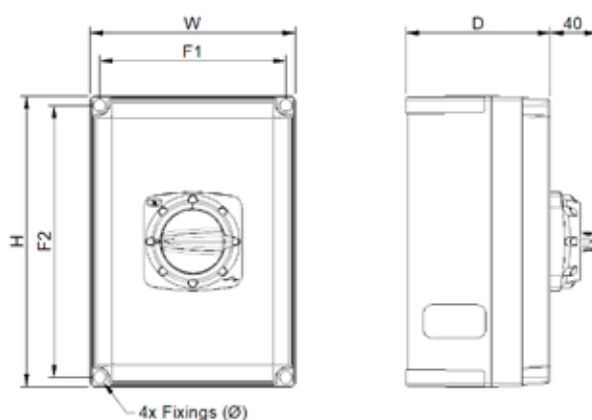
Application	Sym.	Unit	Category	20A	25A	32A	40A	63A	80A	100A					
Interior Switch	-	-		GX20	CS25	GX32	CS32	GX40	CS40R	GN63	CS63	CS80	GA080A	CS100	GA100A
Rated thermal current	I _{the}	A		20	25	32	32	40	40	63	63	80	80	100	100
Rated insulation voltage	U _i	V		690	690	690	690	690	690	690	690	690	1000	1000	1000
Rated impulse voltage	U _{imp}	kV		6	6	6	6	6	6	6	6	6	8	8	8
Rated operational power (3 phase AC)		kW	380/440- AC23	7.5	11	15	15	18.5	15	30	25	30	45	59	55
			500V- AC23	7.5	15	15	15	15	15	30	30	37	-	63	-
			690V- AC23	7.5	15	15	15	15	15	30	30	30	45	51	45
Rated short time withstand current (1 sec)	I _{cw}	A		250	500	800	600	800	600	1600	1300	1400	2500	2600	250
Max. fuse size for short circuit protection (gG Characteristic)		kA	10kA	20	35	35	35	40	40	63	80	80	80	160	100
			25kA	16	32	35	32	35	32	63	63	63	80	160	100
			50kA	-	32	-	32	-	32	63	63	63	80	160	100
Recommended connecting capacity		-	Terminal type												
		mm ²	Flexible cable	2.5 x 2	6	6 x 2	6	6 x 2	6	10	16	16	35	50	50
		mm ²	Rigid cable	2.5 x 2	10	10 x 2	10	10 x 2	10	16	25	25	35	25	50
		Nm	Tightening torque	1.0	1.2	1.0	1.2	1.0	1.2	1.2	1.2	1.2	5-6	5	5-6

Moulded Plastic Switchgear

Sizes A & B



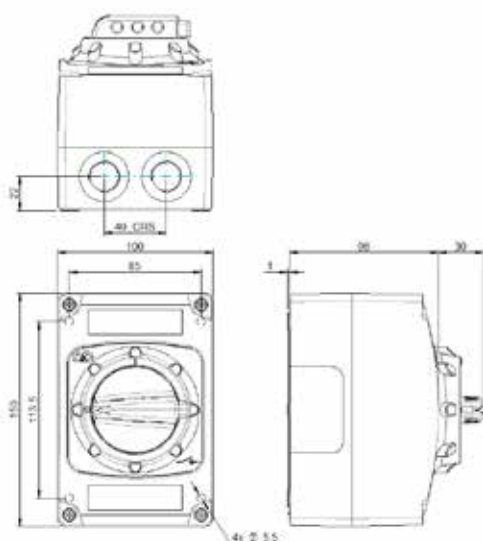
Sizes C



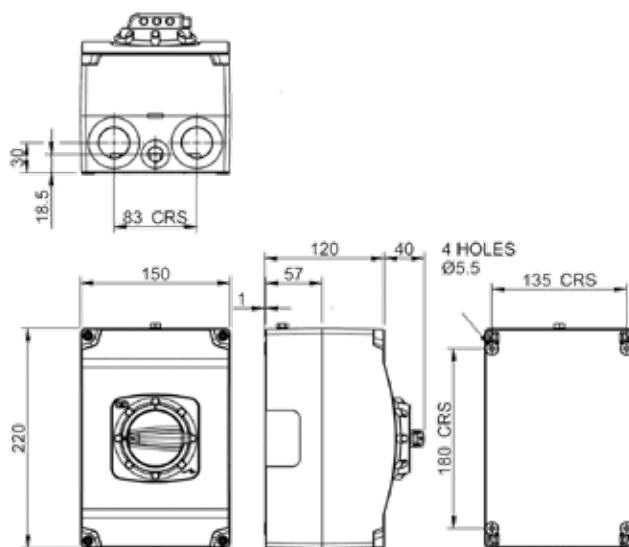
Encl. Size	Overall Dims.			Fixing details			Knockouts		
	H	W	D	F1	F2	Ø	Top	Btm	Back
A	135	100	95	85	98.5	5.5	2x M20	2x M20	2x M20
B	175	130	115	115	135	5.5	2x Combination M20 / M25		2x M20
C	255	180	125	163.5	238.5	4.5	Plain sided		

Die-Cast Aluminium Switchgear

Size A

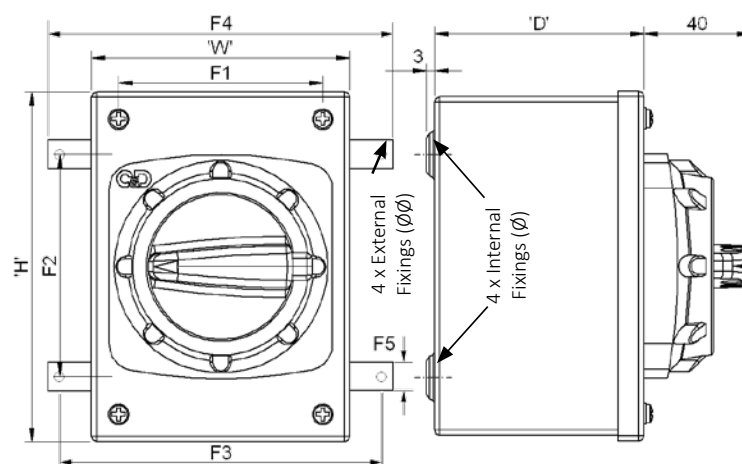


Size B



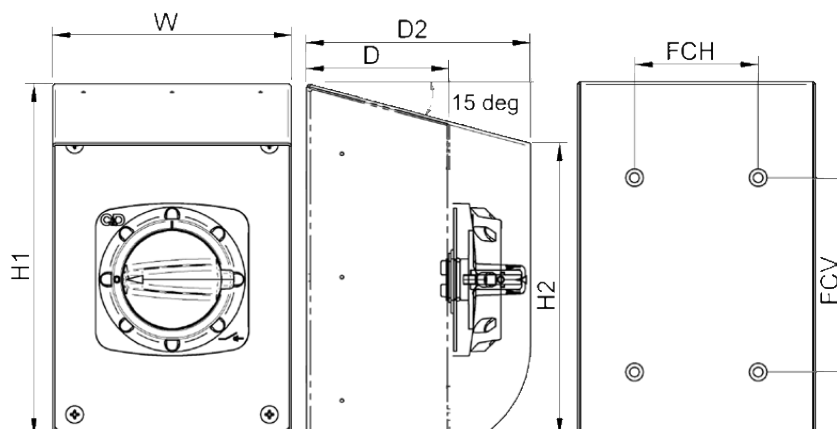
Rating	Cat. No.	Cable Entries	
		Enclosure A	Enclosure B
20A - 32A	Suffix Y	2 x M25 on top & bottom	-
	Suffix X	2 x M25 on bottom	-
40A	Suffix Y	2 x M25 on top & bottom	2 x M32 & 1x M16 on top & bottom
	Suffix X	2 x M25 on bottom	2 x M32 & 1x M16 on bottom
63A	Suffix Y	-	2 x M32 & 1x M16 on top & bottom
	Suffix X	-	2 x M32 & 1x M16 on bottom
80A CS80	Suffix Y	-	2 x M32 & 1x M16 on top & bottom
	Suffix X	-	2 x M32 & 1x M16 on bottom
80A GA080A	Suffix Y	-	2 x M32 & 1x M20 on top & bottom
	Suffix X	-	2 x M32 & 1x M20 on bottom

Sheet Steel & Stainless Steel Switchgear



Encl. Size	Overall Dims.			Internal Fixings			External EFA/EFB Fixings			
	H	W	D	F1	F2	ø	F3	F4	F5	øø
Size A	135	100	80	51	86	5.5	126	140	16	6.35
Size B	175	130	100	81	126	5.5	155	178	16	6.35
Size C	310	200	100	146	256	6.5	228	249	20	6.35

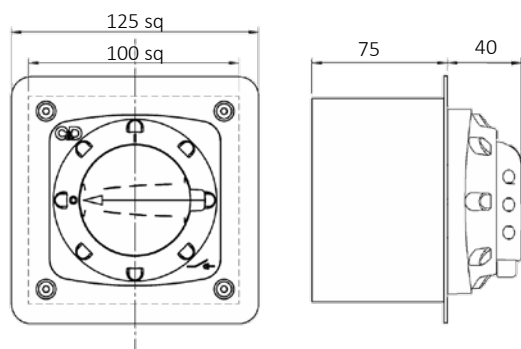
Stainless Steel Sloping Roof Switchgear



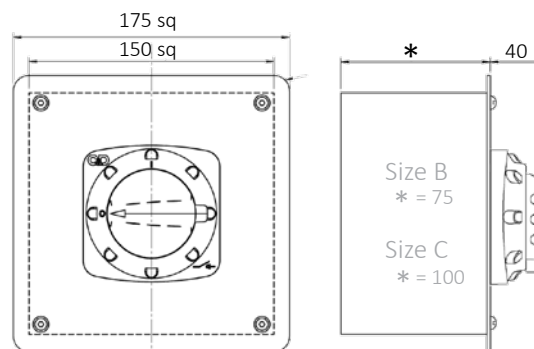
Encl. Size	Overall Dims.					Internal Fixings		
	H1	H2	W	D	D2	FCH	FCV	ø
Size A	200	165	135	80	127	70	110	5.5
Size B	240	200	185	100	147	90	130	5.5

Flush Mounting Switchgear

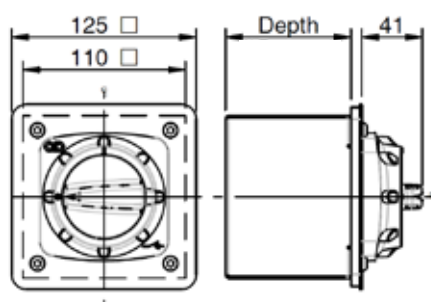
Standard Size A



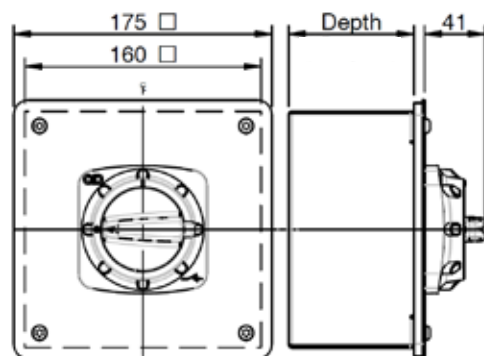
Standard Size B (* = 75) / Size C (* = 100)



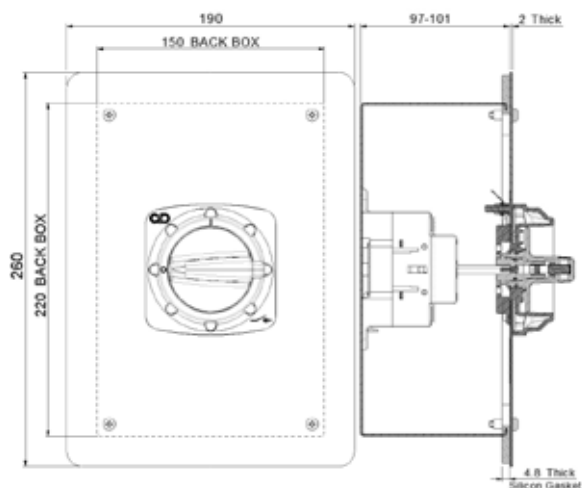
IP65 Back Box Size A



IP65 Back Box Size B / Size C



IP65 Back Box Size D



Rating	Depth
20A	83-85
32A	83-85
40A	83-85
63A	108-110

HINGED DOOR SWITCHGEAR

Supplied in 'hinged door' Light Grey (RAL 7035) powder coated sheet steel enclosures, this range of switchgear is suitable for most industrial applications.

Available as 'Switch-Disconnectors', 'Fuse Combination Units' and 'Changeover Switch-Disconnectors' all items are supplied in generously sized IP65 enclosures which helps to avoid the need for extension boxes. All units have a padlockable handle which allow for the insertion of up to three padlocks in the 'Off' position thus preventing the isolator being switched to the 'On' position. (Locking in 'On' position on request). The door interlock handle can be defeated to enable emergency opening or for testing purposes (100A and above)

Both red (RAL 3020) painted Sheet Steel and Stainless Steel (Grade 304 & 316) enclosures are available on request for the more severe environments. Contact us on +44 (0) 1543 363 916 for more information.



SDMGH Range- Sheet Steel Hinged Door Switch-Disconnectors

A range of 'hinged door' Light Grey (RAL 7035) powder coated IP65 sheet steel isolation equipment. All enclosures have a fitted DIN rail inside and earth continuity terminals are provided in the base and lid of each unit. All units are provided with removable bottom gland plates.

The range has a padlockable handle which allow for the insertion of up to three padlocks in the 'Off' position thus preventing the isolator being switched to the 'On' position. This door interlock handle provides an override facility allowing the lid to be removed in the 'On' position for testing purposes. Compliant to IEC / BS EN 60947-3.

Add suffix **'/10'** to a Cat. No. for padlocking in both the 'Off' and 'On' positions e.g. SDMGH253N/10

Add suffix **'/CO'** to a Cat. No. to include 1 set of Auxiliary contacts e.g. SDMGH253N/CO

'N' = switched neutral | 'NL' = Unswitched neutral (100% rated 32A-200A, 50% rated 250A-1000A) | 'EB' = Early break auxiliary contacts

'H2' = defeatable handle

Switch-Disconnectors (O-I)							
Image	Rating	Switch Type	Format	Cat. No.	IP Rating	Encl. Size	Encl. Material
	20A	GX20	6P	SDMGH206/H2	IP65	A	Sheet Steel Light Grey RAL 7035
			6P+2EB Aux	SDMGH206EB/H2			
	25A	CS25	2P	SDMGH252/H2	IP65	A	Sheet Steel Light Grey RAL 7035
			3P	SDMGH253/H2			
			3P+NL	SDMGH253NL/H2			
			3P+N	SDMGH253N/H2			
			3P+2EB Aux	SDMGH253EB/H2			
	32A	CS32	2P	SDMGH322/H2	IP65	A	Sheet Steel Light Grey RAL 7035
			3P	SDMGH323/H2			
			3P+NL	SDMGH323NL/H2			
			3P+N	SDMGH323N/H2			
			3P+2EB Aux	SDMGH323EB/H2			
	40A	CS40R	2P	SDMGH402/H2	IP65	A	Sheet Steel Light Grey RAL 7035
			3P	SDMGH403/H2			
			3P+NL	SDMGH403NL/H2			
			3P+N	SDMGH403N/H2			
			3P+2EB Aux	SDMGH403EB/H2			
		GX40	6P	SDMGH406/H2			
			6P+2EB Aux	SDMGH406EB/H2			
	63A	CS63	2P	SDMGH632/H2	IP65	A	Sheet Steel Light Grey RAL 7035
			3P	SDMGH633/H2			
			3P+NL	SDMGH633NL/H2			
			3P+N	SDMGH633N/H2			
			3P+2EB Aux	SDMGH633EB/H2			
	80A	CS80	2P	SDMGH802/H2	IP65	B	Sheet Steel Light Grey RAL 7035
			3P	SDMGH803/H2			
			3P+NL	SDMGH803NL/H2			
			3P+N	SDMGH803N/H2			
			3P+2EB Aux	SDMGH803EB/H2			

Accessories

Add-on auxiliary blocks are available for all hinged door products. All auxiliaries are supplied as 1 N/O+1 N/C pair. All N/O auxiliary contacts are early break with respect to the main poles when switching from 'On' to 'Off'.

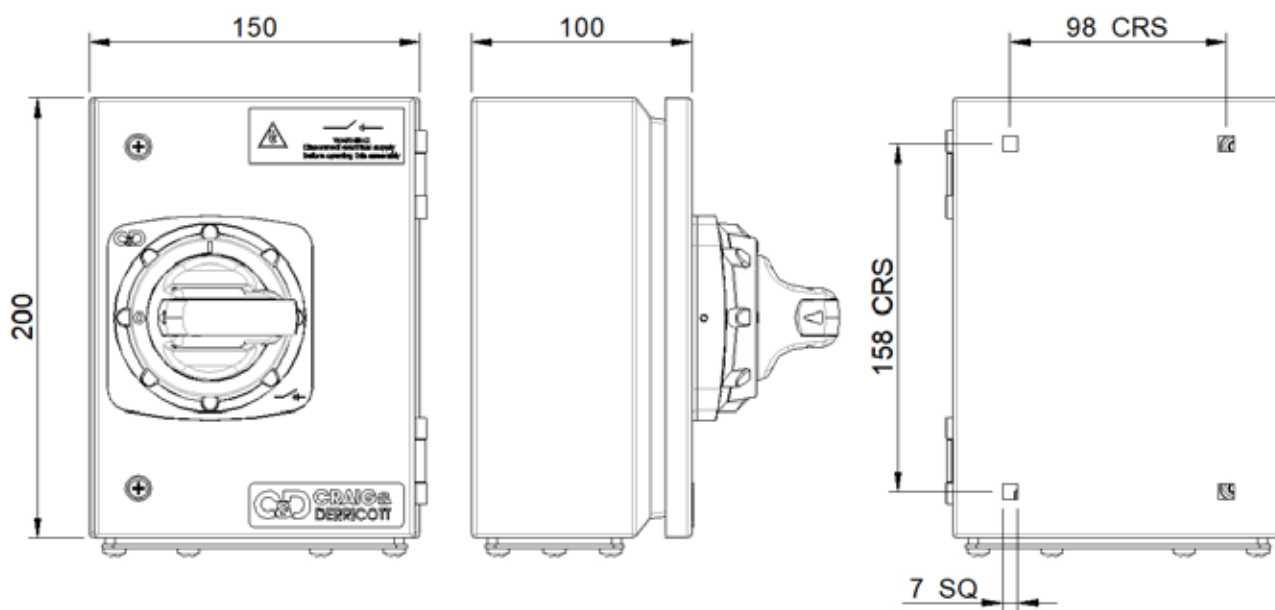
Description	Cat. No.
Auxiliary Contact- 2 Early Break	SAUX2EB
Auxiliary Contact- 1 N/O + 1 N/C	SAUXCO
25A- 40A Compact Neutral (Unswitched)	SNLC40
63A Neutral (Unswitched)	SNL63
80A Neutral (Unswitched) for CS switches	SNL80
25A Neutral (Switched)	SSP25
40A Neutral (Switched)	SSP40
63A Neutral (Switched)	SSP63
80A Neutral (Switched) for CS switches	SSP80
External Fixing Feet for 20A- 32A	EFA
External Fixing Feet for 40A- 63A	EFB

Technical Specification

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

Application	Sym	Unit	Category	20A	25A	32A	40A	63A	80A	
Interior Switch	-	-		GX20	CS25	CS32	GX40	CS40	CS63	CS80
Rated thermal current	I _{the}	A		20	25	32	40	40	63	80
Rated insulation voltage	U _i	V		690	690	690	690	690	690	690
Rated impulse voltage	U _{imp}	kV		6	6	6	6	6	6	6
Rated operational power (3 phase AC)	P _e	kW	380/440- AC23	7.5	11	15	18.5	18.5	25	30
			500V- AC23	7.5	15	15	15	22	30	37
			690V- AC23	7.5	15	15	15	22	30	30
Rated short time withstand current (1 sec)	I _{cw}	A		250	500	600	800	1100	1300	1400
Max. fuse size for short circuit protection (gG Characteristic)		kA	10kA	20	35	35	40	80	80	80
			25kA	16	32	32	35	80	63	63
			50kA	-	32	32	-	80	63	63
Recommended connecting capacity		-	Terminal type							
		mm ²	Flexible cable	2.5 x 2	6	6	6 x 2	16	16	16
		mm ²	Rigid cable	2.5 x 2	10	10	10 x 2	25	25	25
		Nm	Tightening torque	1.0	1.2	1.2	1.0	1.2	1.2	1.2

Dimensions



Encl Size	Dimensions				
	H	W	D	X	Y
A	200	150	100	98	158
B	250	200	100	148	208

SDGT Range- Sheet Steel Hinged Door Switch-Disconnectors

The range of switch disconnectors are designed and tested in accordance with BS EN60947-3 and IEC 60947-3. The hinged door IP65 enclosures are supplied in powder coated mild steel (RAL7035) . The enclosure will accept suitable cable sizes for each switch rating without the need for extension boxes. The range has a padlockable handle which allow for the insertion of up to three padlocks in the 'Off' position thus preventing the isolator being switched to the 'On' position. The door interlock handle can be defeated to enable emergency opening or for testing purposes. Optional accessories are available for typical installation requirements and applications.

Both red (RAL 3020) painted Sheet Steel and Stainless Steel (Grade 304 & 316) enclosures are available on request for the more severe environments.

Replace 'G' with 'R' in a Cat. No. for a Red enclosure e.g. SDRT00633N

Replace 'G' with 'S' in a Cat. No. for a Stainless Steel enclosure e.g. SDST00633N

Contact our sales team on 01543 375 541 for further information. Compliant to IEC / BS EN 60947-3.

Add suffix '/10' to a Cat. No. for padlocking in both the 'Off' and 'On' positions e.g. SDGT00633N/10

Add suffix '/CO' to a Cat. No. to include 1 set of Auxiliary contacts e.g. SDGT00633N/CO

Add suffix '/2CO' to a Cat. No. to include 2 sets of Auxiliary contacts 200A and above only e.g. SDGT02003N/2CO

'N' = switched neutral | 'NL' = Unswitched neutral (100% rated)

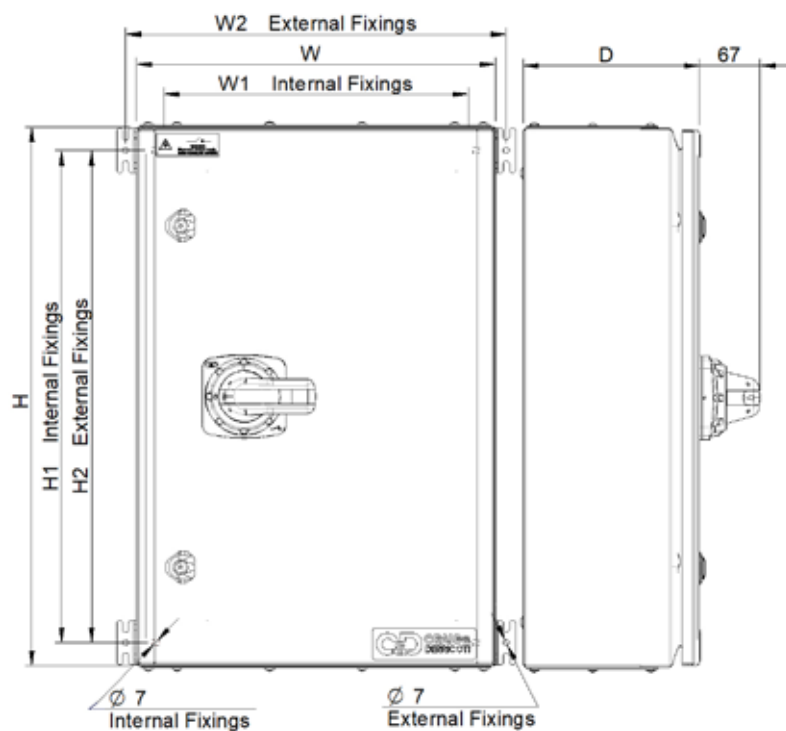
Switch-Disconnectors (O-I)							
Image	Rating	Switch Type	Format	Cat. No.	IP Rating	Encl. Size	Encl. Material
	63A	CS63	3P+N	SDGT00633N	IP65	1	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT00633NL			
			6P	SDGT00636			
	80A	CS80	3P+N	SDGT00803N	IP65	1	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT00803NL			
			6P	SDGT00806			
	100A	CS100	3P+N	SDGT01003N	IP65	3	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT01003NL		5	
			6P	SDGT01006			
	125A	CS125	3P+N	SDGT01253N	IP65	6	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT01253NL		7	
			6P	SDGT01256			
	160A	CS160	3P+N	SDGT01603N	IP65	6	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT01603NL		7	
			6P	SDGT01606			
	200A	S5	3P+N	SDGT02003N	IP65	8	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT02003NL			
	250A	S5	3P+N	SDGT02503N	IP65	10	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT02503NL			
	315A	S5	3P+N	SDGT03153N	IP65	12	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT03153NL			
	400A	S5	3P+N	SDGT04003N	IP65	12	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT04003NL			
	630A	S5	3P+N	SDGT06303N	IP65	13	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT06303NL			
	800A	S5	3P+N	SDGT08003N	IP65	14	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT08003NL			
	1000A	S5	3P+N	SDGT10003N	IP65	15	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT10003NL			
	1250A	S5	3P+N	SDGT12503N	IP65	15	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT12503NL			
	1600A	S5	3P+N	SDGT16003N	IP65	15	Sheet Steel Light Grey RAL 7035
			3P+NL	SDGT16003NL			

Accessories

Add-on auxiliary blocks are available for all hinged door products. All auxiliaries are supplied as 1 N/O+1 N/C pair. All N/O auxiliary contacts are early break with respect to the main poles when switching from 'On' to 'Off'.

Auxiliary Contacts	
Description	Cat. No.
Auxiliary Contact for 63A- 160A Switch-Disconnectors	SAUXCO
Auxiliary Contact for 200A- 1600A 3P Switch-Disconnectors 1NO+1NC	SAUXKITA1
Auxiliary Contact for 200A- 1600A 3P Switch-Disconnectors 2NO+2NC	SAUXKITA2
Auxiliary Contact for 200A- 1000A 6P Switch-Disconnectors 1NO+1NC	SAUXKITB1
Auxiliary Contact for 200A- 1000A 6P Switch-Disconnectors 2NO+2NC	SAUXKITB2

Dimensions



Encl. Size	H	W	D	H1	H2	W1	W2
1	300	300	150	248	248	258	324
2	300	300	200	248	248	258	324
3	400	300	150	348	348	258	324
4	400	300	200	348	348	258	324
5	400	400	200	348	348	358	424
6	500	400	150	448	448	358	424
7	500	400	200	448	448	358	424
8	600	400	200	548	548	358	424
9	600	400	300	548	548	358	424
10	600	500	200	548	548	458	524
11	700	500	300	648	648	458	524
12	800	600	200	748	748	558	624
13	800	600	300	748	748	558	624
14	1000	600	300	948	948	558	624
15	1000	800	300	948	948	758	824

Technical Specification

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

Switch-Disconnectors (O-I) 63A- 160A													
Application	Sym	Unit	Category		63A	80A	100A	125A	160A				
Rated thermal current	I _{the}	A			63	80	100	125	160				
Rated insulation voltage	U _i	V			690	690	1000	1000	1000				
Rated impulse voltage	U _{imp}	kV			6	6	8	8	8				
Rated operational current (AC)	I _e	A	400V- AC21A		63	80	100	125	160				
			690V- AC21A		63	80	100	125	160				
			400V- AC23A		48	56	100	112	128				
			690V- AC23A		33	33	-	-	-				
Rated operational power	P _e	kW	400/415V- AC23A		25	30	59	63	75				
			690V- AC23A		30	30	51	55	55				
Short circuit making capacity	I _{cm}	kA	Peak value		2.9	3.0	3.7	4.0	5.0				
Short circuit withstand (1sec)	I _{cw}	kA	rms value		1.3	1.4	2.6	2.8	3.0				
Min. mechanical endurance		-	Operations (10 ³)		250	250	50	50	50				
Connecting capacity		-	Terminal type										
		mm ²	Min/Max		2.5/25	2.5/25	-/50	-/70	-/70				
		Nm	Tightening torque		1.2	1.2	5	5	5				
Switch-Disconnectors (O-I) 200A- 1600A													
Application	Sym	Unit	Category		200	250	315	400	630	800	1000	1250	1600
Rated thermal current	I _{th}	A	40°C		200	250	315	400	630	800	1000	1250	1600
			50°C		200	250	315	400	630	800	1000	1250	1600
			60°C		140	175	220	280	440	560	700	1000	1440
Rated insulation voltage	U _i	V			1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated dielectric strength	50Hz 1min	V			4000	5000	5000	5000	8000	8000	10000	10000	10000
Rated impulse withstand voltage	U _{imp}	kV			8	8	8	8	12	12	12	12	12
Rated operational current (AC)*(1)	I _e	A	AC21A	Ue 400V	200	250	315	400	630	800	1000	1250	1600
				Ue 500V	200	250	315	400	630	800	1000	1250	1600
			AC23A	Ue 400V	160	250	315	400	630	800	1000	1000	1000
				Ue 500V	125	200	250	315	500	800	800	800	900
AC rated operational power*(2)	P _e	kW	AC23A	3x400V	88	138	174	221	349	443	554	554	554
				3x690V	76	152	152	152	301	478	478	-	-
Short-circuit making capacity (peak value)*(3)	I _{cm}	kA	Peak		13	20	20	20	26	60	60	60	75
Short-time withstand current (1 sec)	I _{cw}	kA	rms		7	12	12	12	16	25	25	50	50
Conditional short-circuit current (rms value) *(4)		kA	rms		100	100	100	100	100	72	-	-	-
Maximum cut-off current (peak value)		kA	Peak		20	33	33	33	39	55	-	-	-
Maximum power dissipation (I ² t)			A ² s (x103)		198	1000	1000	1000	1600	4900	-	-	-
Minimum number of mechanical operations		Cycles			30000	20000	20000	20000	10000	10000	10000	10000	4500
Minimum number of electrical operations		Cycles	AC23	400V	1000	1000	1000	1000	1000	500	500	500	500
Rigid cable (Cu)		mm ²			120	185	185	240	2x240	2x240	-		
Bar Thickness / width		mm			5/30	7/25	7/25	7/40	2x5/40	2x10/50	2x7/80	2x7/80	2x7/80
Bolt size / palm width		mm			M10/26	M10/25	M10/25	M10/35	M10/40	M14/40	M16/60	M16/80	M14/80
Tightening torque		Nm			13	18	18	24	24	45	80	80	55
Terminal type					Crimp	Crimp	Crimp	Crimp	Crimp	Crimp	Crimp	Crimp	Crimp

*(1) Other voltages and / or utilization category's please consult

*(2) Average value: power values vary between motor manufactures.

*(3) Without limiting protective device (short-circuit maintained 50-- 100ms)

*(4) With a protective device limiting the cut-off current and joule integral to the indicated values.

Glass Fibre Reinforced Polycarbonate (GRP) Hinged Door Switch-Disconnectors

A range of 'hinged door' Light Grey (RAL 7035) Glass Fibre Reinforced Polycarbonate (GRP) isolation equipment, supplied in IP65 generously sized boxes which helps to avoid the need for extension boxes. All enclosures have the switches mounted on a removable galvanised chassis plate.

The range has a padlockable handle which allows for the insertion of up to three padlocks in the 'Off' position thus preventing the isolator being switched to the 'On' position. The door interlock handle can be defeated to enable emergency opening or for testing purposes (100A and above).

Features

- High impact resistance. Able to withstand contact up to IK 10
- Non corrosive for use in extremely harsh and demanding environments offering a long-lifetime and excellent security
- UV (UL 508: 720hours) stabilized polycarbonate ensuring high performance in outdoor installations
- Chemical resistant
- Raw material flammability rating UL 94-5VA

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-1000A)

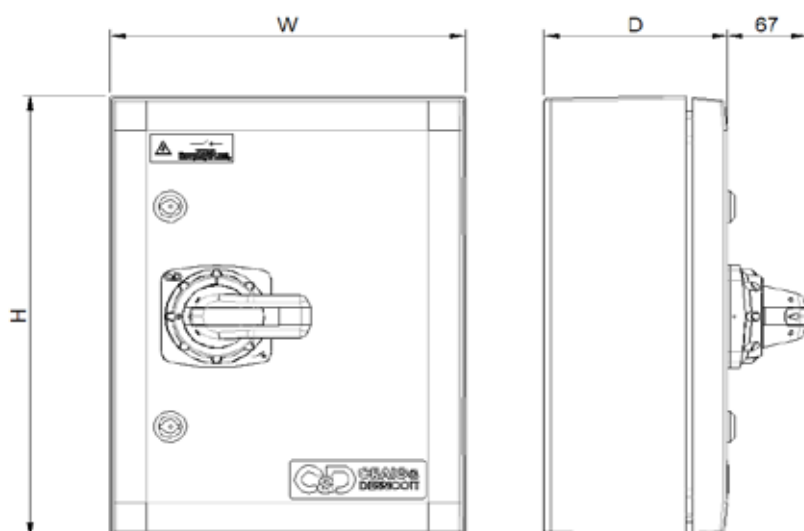
Switch-Disconnectors (O-I)						
Image	Rating	Format	Cat. No.	IP Rating	Encl. Size	Encl. Material
	32A	3P+N	SDGP00323N	IP65	1	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP00323NL	IP65		
	63A	3P+N	SDGP00633N	IP65	1	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP00633NL	IP65		
	80A	3P+N	SDGP00803N	IP65	1	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP00803NL	IP65		
	100A	3P+N	SDGP01003N	IP65	2	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP01003NL	IP65		
	125A	3P+N	SDGP01253N	IP65	2	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP01253NL	IP65		
	160A	3P+N	SDGP01603N	IP65	2	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP01603NL	IP65		
	200A	3P+N	SDGP02003N	IP65	5	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP02003NL	IP65		
	250A	3P+N	SDGP02503N	IP65	5	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP02503NL	IP65		
	400A	3P+N	SDGP04003N	IP65	7	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP04003NL	IP65		
	630A	3P+N	SDGP06303N	IP65	8	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP06303NL	IP65		
	800A	3P+N	SDGP08003N	IP65	8	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP08003NL	IP65		
	1000A	3P+N	SDGP10003N	IP65	8	Glass Fibre Reinforced Polycarbonate Light Grey RAL 7035
		3P+NL	SDGP10003NL	IP65		

Accessories

Add-on auxiliary blocks are available for all hinged door products. All auxiliaries are supplied as 1 N/O+1 N/C pair. All N/O auxiliary contacts are early break with respect to the main poles when switching from 'On' to 'Off'.

Auxiliary Contacts	
Description	Cat. No.
Auxiliary Contact for 32A- 200A Switch-Disconnectors	SAUXCO
Auxiliary Contact for 250A Switch-Disconnectors	SAUXKITB
Auxiliary Contact for 400A- 800A Switch-Disconnectors	SAUXKITC
Auxiliary Contact for 1000A Switch-Disconnectors	SAUXKITD

Dimensions



Encl. Size	H	W	D
1	300	200	150
2	400	300	150
3	400	300	210
4	500	400	210
5	600	400	210
6	700	500	300
7	800	600	300
8	1035	835	300

Technical Specification

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

Application	Sym	Unit	Category	32	63	80	100	125	160	200	250	400	630	800	1000
				3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P
Rated thermal current	I_{the}	A		32	63	80	100	125	160	200	250	400	630	720	1000
Rated insulation voltage	U_i	V		690	690	690	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6	6	6	8	8	8	8	12	12	12	12	8
Rated operational current (AC)	I_e	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_e	A	Up to 48V- DC21A	32/1	63/1	80/1	-	-	-	-	250/2	400/2	630/1	800/1	1000/1
			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_e	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_{cm}	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_{cw}	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 (10^3)	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 ²	Min/Max	2.5 / 10	2.5 / 25	2.5 / 25	-/70	-/70	-/70	-/95	120	2 x 150	2 x 185	2 x 240	60 x 5
		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	5	5	5	10	35	35	50	50	50

E SERIES SWITCHGEAR

Craig & Derricott have introduced a new addition to the family know as the “E” Series providing switch-disconnectors in new style moulded plastic and die-cast aluminium enclosures aimed at customers who are looking for more cabling space at a more competitive cost.

A range of sheet steel hinged door isolation equipment continues the “E” series of part numbers with ratings of 32-1000A. This range provides IP65 sealing as standard on all ratings and is available in grey (RAL 7035). An optional red enclosure (RAL 3020) is available to order. All enclosures are supplied with an external fixing bracket kit which provides the installer with more fitting options and all of our designs feature generous cabling space so that the costly addition of cable spreader boxes can be avoided.



Die-Cast Aluminium Fixed Lid Enclosed Switchgear

A more economical range of die-cast aluminium enclosed isolation equipment with sealing up to IP66 available in Light Grey (RAL 7035) powder coated finish. These units can be placed in environments where resistance to impacts, moisture and dust/dirt are a concern.

All units have a padlockable handle which allows 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.

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. Compliant to IEC / BS EN 60947-3.

*Cable entries:

Size C: 20A- 40A:

Suffix X: 2 x M25 on bottom face

Suffix Y: 2 x M25 on top & bottom faces

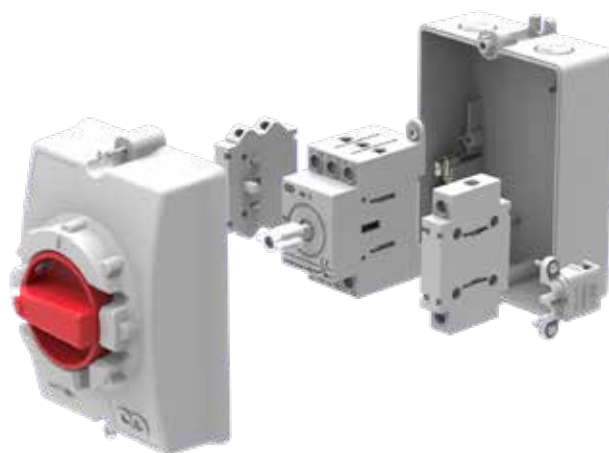
Size B: 40A- 63A:

Suffix X: 2 x M32 & 1 x M16 on bottom face

Suffix Y: 2 x M32 & 1 x M16 on top & bottom faces

Add suffix '/10' to a Cat. No. for padlocking in the 'On' position
e.g. SDDG253/10

Add suffix '/CO' to a Cat. No. to include 1 set of Auxiliary contacts
e.g. SDDG253/CO



'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts
'X' = Bottom (2xM25) cable entries only | 'Y' = Top and bottom (4xM25) cable entries

Switch-Disconnectors (O-I)								
Image	Rating	Switch Type	Format	Bottom cable entries only Cat. No.*	Top & Bottom cable entries Cat. No.*	IP Rating	Encl. Size	Encl. Material
	20A	GX20	6P	EDDG206X	EDDG206Y	IP66	C	Die cast aluminium alloy Light Grey RAL 7035
			6P+2EB Aux	EDDG206BX	EDDG206EBY			
	25A	CS25	2P	EDDG252X	EDDG252Y	IP66	C	Die cast aluminium alloy Light Grey RAL 7035
			3P	EDDG253X	EDDG253Y			
			3P+N	EDDG253NX	EDDG253NY			
			3P+NL	EDDG253NLX	EDDG253NLY			
			3P+2EB Aux	EDDG253EBX	EDDG253EBY			
	32A	CS32	2P	EDDG322X	EDDG322Y	IP66	C	Die cast aluminium alloy Light Grey RAL 7035
			3P	EDDG323X	EDDG323Y			
			3P+N	EDDG323NX	EDDG323NY			
			3P+NL	EDDG323NLX	EDDG323NLY			
			3P+2EB Aux	EDDG323EBX	EDDG323EBY			
	40A	CS40R	2P	EDDG402X	EDDG402Y	IP66	C	Die cast aluminium alloy Light Grey RAL 7035
			3P	EDDG403X	EDDG403Y			
			3P+N	EDDG403NX	EDDG403NY			
			3P+NL	EDDG403NLX	EDDG403NLY			
			3P+2EB Aux	EDDG403EBX	EDDG403EBY			
		GX40	6P	EDDG406X	EDDG406Y	IP65	B	
			6P+2EB Aux	EDDG406BX	EDDG406EBY			
	63A	CS63	2P	EDDG632X	EDDG632Y	IP65	B	Die cast aluminium alloy Light Grey RAL 7035
			3P	EDDG633X	EDDG633Y			
			3P+N	EDDG633NX	EDDG633NY			
			3P+NL	EDDG633NLX	EDDG633NLY			
			3P+2EB Aux	EDDG633EBX	EDDG633EBY			
			6P	EDDG636X	EDDG636Y			
			6P+2EB Aux	EDDG636BX	EDDG636EBY			
	80A	CS80	2P	EDDG802X	EDDG802Y	IP65	B	Die cast aluminium alloy Light Grey RAL 7035
			3P	EDDG803X	EDDG803Y			
			3P+N	EDDG803NX	EDDG803NY			
			3P+NL	EDDG803NLX	EDDG803NLY			
		GA080A	3P	EDDG803TX	EDDG803TY			
			3P+N	EDDG803NTX	EDDG803NTY			
			3P+NL	EDDG803NLTX	EDDG803NLTY			

Sheet Steel Hinged Door Switchgear

A range of 'hinged door' Light Grey (RAL 7035) powder coated sheet steel isolation equipment. Supplied in IP65 generously sized boxes which helps to 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 allow for the insertion of up to three padlocks in the 'Off' position thus preventing the isolator being switched to the 'On' position. The door interlock handle can be defeated to enable emergency opening or for testing purposes (100A and above). Compliant to IEC / BS EN 60947-3.

Fuse combination units and changeovers are available on request. Contact your Area Sales Manager for more information.

Both red (RAL 3020) painted Sheet Steel and Stainless Steel (Grade 304 & 316) enclosures are available on request for the more severe environments.

Replace 'G' with 'R' in a Cat. No. for a Red enclosure e.g. ED**R**00323N

Replace 'G' with 'S' in a Cat. No. for a Stainless Steel enclosure e.g. ED**S**00323N

Add suffix '/CO' to a Cat. No. to include 1 set of Auxiliary contacts e.g. EDG00323N/CO

'N' = switched neutral | 'NL' = Unswitched neutral (100% rated 32A-200A, 50% rated 250A-1600A) | 'EB' = Early break auxiliary contacts

Switch-Disconnectors (O-I)							
Image	Rating	Switch Type	Format	Cat. No.	IP Rating	Encl. Size	Encl. Material
	32A	CS32	3P+N	EDG00323N	IP65	1	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG00323NL			
	63A	CS63	3P+N	EDG00633N	IP65	1	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG00633NL			
	80A	CS80	3P+N	EDG00803N	IP65	1	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG00803NL			
	100A	CS100	3P+N	EDG01003N	IP65	1	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG01003NL			
	125A	CS125	3P+N	EDG01253N	IP65	3	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG01253NL			
	160A	CS160	3P+N	EDG01603N	IP65	3	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG01603NL			
	200A	CS200	3P+N	EDG02003N	IP65	7	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG02003NL			
	250A	B2	3P+N	EDG02503N	IP65	9	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG02503NL			
	400A	B3	3P+N	EDG04003N	IP65	11	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG04003NL			
	630A	B3	3P+N	EDG06303N	IP65	13	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG06303NL			
	800A	B3	3P+N	EDG08003N	IP65	13	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG08003NL			
	1000A	B4	3P+N	EDG10003N	IP65	14	Sheet Steel Light Grey RAL 7035
			3P+NL	EDG10003NL			

Accessories

Add-on auxiliary blocks are available for all hinged door products. All auxiliaries are supplied as 1 N/O+1 N/C pair. All N/O auxiliary contacts are early break with respect to the main poles when switching from 'On' to 'Off'.

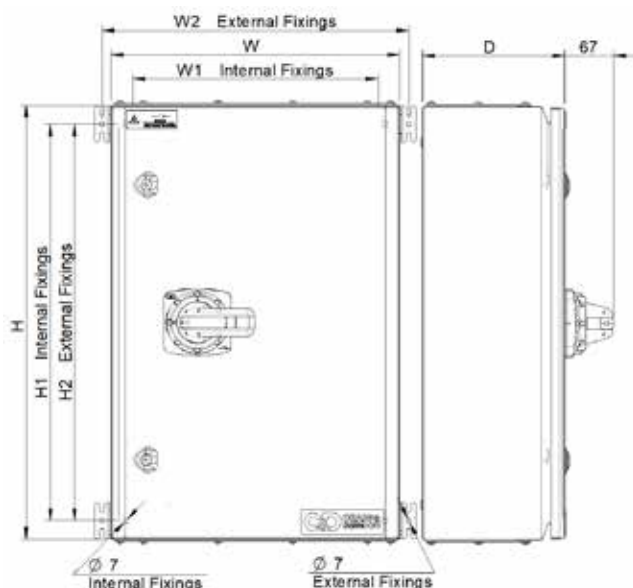
Description	Cat. No.
Auxiliary Contact for 32A- 200A Switch-Disconnectors	SAUXCO
Auxiliary Contact for 32A- 63A Switch-Disconnectors	SAUX2EB
Auxiliary Contact for 63A- 160A Switch-Disconnectors	SAUXKITA
Auxiliary Contact for 250A Switch-Disconnectors	SAUXKITB
Auxiliary Contact for 400A- 800A Switch-Disconnectors	SAUXKITC
Auxiliary Contact for 1000A Switch-Disconnectors	SAUXKITD

Technical Specification

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

EDG Range- Switch-Disconnectors (O-I)															
Application	Sym	Unit	Category	32	63	80	100	125	160	200	250	400	630	800	1000
				3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P	3P
Rated thermal current	I_{the}	A		32	63	80	100	125	160	200	250	400	630	720	1000
Rated insulation voltage	U_i	V		690	690	690	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6	6	6	8	8	8	8	12	12	12	12	8
Rated operational current (AC)	I_e	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_e	A	Up to 48V- DC21A	32/1	63/1	80/1	-	-	-	-	250/2	400/2	630/1	800/1	1000/1
			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_e	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_{cm}	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_{cw}	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 (10^3)	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 ²	Min/Max	2.5/10	2.5/25	2.5/25	-/50	-/70	-/70	-/95	120	2x150	2x185	2x240	60x5
		mm	Stud/Cu palm width	-	-	-	-	-	-	8x25	10x30	10x30	12x40	12x40	12x60
		Nm	Tightening torque	1.2	1.2	1.2	5	5	5	10	35	35	50	50	50

Dimensions- Sheet Steel Hinged



Encl. Size	H	W	D	H1	H2	W1	W2
1	300	300	150	248	248	258	324
2	300	300	200	248	248	258	324
3	400	300	150	348	348	258	324
4	400	300	200	348	348	258	324
5	400	400	200	348	348	358	424
6	500	400	200	448	448	358	424
7	600	400	200	548	548	358	424
8	600	400	300	548	548	358	424
9	600	500	200	548	548	458	524
10	700	500	300	648	648	458	524
11	800	600	200	748	748	558	624
12	800	600	300	748	748	558	624
13	1000	600	300	948	948	558	624
14	1000	800	300	948	948	758	824

Moulded Plastic Enclosed Switchgear

A more economical range of moulded plastic enclosed isolation equipment with sealing up to IP66. All units have a padlockable handle which allow for the insertion of up to three padlocks in the 'Off' position thus preventing the isolator being switched to the 'On' position. The units have the ability to add a selection of auxiliary blocks providing additional contacts and a choice of Neutral assemblies. All units are interlocked in the ON position preventing the lid from being removed. Compliant to IEC / BS EN 60947-3.

Add suffix '/10' to a Cat. No. for padlocking in the 'On' position e.g. EDP253/10

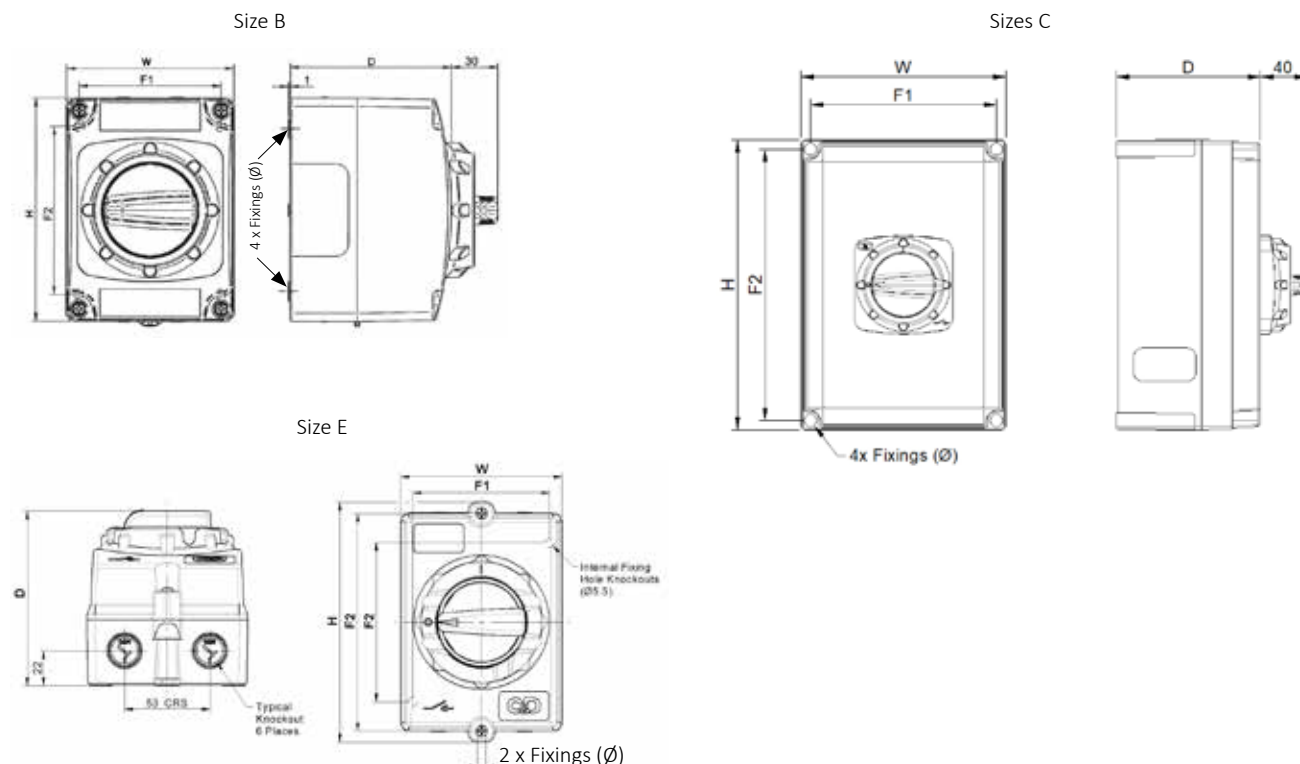
Add suffix '/CO' to a Cat. No. to include 1 set of Auxiliary contacts e.g. EDP253/CO

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts



Switch-Disconnectors (O-I)									
Image	Rating	Switch Type	Format	Cat. No.	IP Rating	Encl. Size	Encl. Material	Encl. Colour	Cable Entries
	20A	GX20	6P	EDP206	IP66	E	PA / ABS	Light Grey RAL 7035	2 x M20 knock-outs top & bottom.
			6P+2EB Aux	EDP206EB					
	25A	CS25	2P	EDP252	IP66	E	PA / ABS	Light Grey RAL 7035	2 x M20 knock-outs top & bottom.
			3P	EDP253					
			3P+NL	EDP253NL					
			3P+N	EDP253N					
			3P+2EB Aux	EDP253EB					
	32A	CS32	2P	EDP322	IP66	E	PA / ABS	Light Grey RAL 7035	2 x M20 knock-outs top & bottom.
			3P	EDP323					
			3P+NL	EDP323NL					
			3P+N	EDP323N					
			3P+2EB Aux	EDP323EB					
	40A	CS40R	2P	EDP402	IP65	B	PC / ABS	Light Grey RAL 7035	2 x M20/25 knock-outs top & bottom. Back face - 2 x M20 knock-outs
			3P	EDP403					
		GX40	6P	EDP406					
			6P+2EB Aux	EDP406EB					
	63A	CS63	2P	EDP632	IP65	B	PC / ABS	Light Grey RAL 7035	2 x M20/25 knock-outs top & bottom. Back face - 2 x M20 knock-outs
			3P	EDP633					
			3P+NL	EDP633NL					
			3P+N	EDP633N					
			3P+2EB Aux	EDP633EB					
	80A	CS80	2P	EDP802	IP65	C	PA / PC	Light Grey RAL 7035	Blank sides
			3P	EDP803					
			3P+NL	EDP803NL					
			3P+N	EDP803N					
			3P+2EB Aux	EDP803EB					

Dimensions - Moulded Plastic



Encl. Size	Overall Dims.			Fixing details			Knockouts		
	H	W	D	F1	F2	Ø	Top	Btm	Back
B	175	130	115	115	135	5.5	2x Combination M20 / M25		2x M20
C	255	180	125	163.5	238.5	4.5	Plain sided		
E	149	100	108.5	85	136.5 / 98.5	5.5	2 x M20	2 x M20	2 x M20

Technical Specification

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

Application	Sym.	Unit	Category	20A	25A	32A	40A	63A	80A	
Interior Switch	-	-		GX20	CS25	CS32	GX40	CS40R	CS63	CS80
Rated thermal current	I _{the}	A		20	25	32	40	40	63	80
Rated insulation voltage	U _i	V		690	690	690	690	690	690	690
Rated impulse voltage	U _{imp}	kV		6	6	6	6	6	6	6
Rated operational power (3 phase AC)		kW	380/440- AC23	7.5	11	15	18.5	15	25	30
			500V- AC23	7.5	15	15	15	15	30	37
			690V- AC23	7.5	15	15	15	15	30	30
Rated short time withstand current (1 sec)	I _{cw}	A		250	500	600	800	600	1300	1400
Max. fuse size for short circuit protection (gG Characteristic)		kA	10kA	20	35	35	40	40	80	80
			25kA	16	32	32	35	32	63	63
			50kA	-	32	32	-	32	63	63
Recommended connecting capacity		-	Terminal type							
		mm ²	Flexible cable	2.5x2	6	6	6 x 2	6	16	16
		mm ²	Rigid cable	2.5x2	10	10	10 x 2	10	25	25
		Nm	Tightening torque	1.0	1.2	1.2	1.0	1.2	1.2	1.2

FIRE RATED SWITCHGEAR

Craig & Derricott offer one of the most extensive ranges of Fire Rated Switchgear in the market, available in 20A to 800A.

This equipment is used to maintain power to vital equipment such as smoke extraction / ventilation fans allowing the safe evacuation of businesses, car parks and public areas in the event of a fire. These switch-disconnectors are installed near to the extraction fan for isolation purposes, and have been tested in conjunction with the fan equipment to meet the stringent thermal requirements of BSEN 12101-3. Within BS EN 12101-3 (smoke and heat controls) there are different classes of duty which define a specific temperature gradient, upper temperature limit and time period.

- F400 products can withstand 400°C for 2 hours
- F300 products can withstand 300°C for 2 hours
- F200 products can withstand 200°C for 2 hours



F400 Fire Rated Switchgear

The F400 Fire Rated products range from 20A to 630A, supplied in IP65 die-cast aluminium or sheet steel enclosures with a Traffic Red (RAL 3020) powder coat finish. Units rated 63A and above are fitted with highly durable anodised aluminium metal handles. All enclosures come standard with padlocking in both 'Off' and 'On'. The interior switches are constructed from a high temperature grade thermoset material, designed specifically for installations where the supply must be maintained for 2 hours at 400°C.

Stainless Steel Grade 316L enclosures are available on request for 63A- 630A. Replace 'R' with 'S' in the Cat. No. E.g. FSDD0203NL.

Non-fire rated auxiliaries are available on request for 160A- 630A. Add '/AUX' to the Cat. No. E.g. FSDMR01603NL/AUX

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts

Image	Rating	Format	Cat. No.	IP Rating	Fire Rating	Encl. Size	Encl. Material
	20A	2P	FSDMR0202	IP65	F400	A	Red Sheet Steel
		3P	FSDMR0203				
		3P+1E/B Aux	FSDMR0203/1EB				
		3P+2E/B Aux	FSDMR0203EB				
		3P+NL	FSDMR0203NL				
		4P	FSDMR0204				
		4P+1E/B Aux	FSDMR0204/1EB				
		4P+2E/B Aux	FSDMR0204EB				
		6P	FSDMR0206				
		6P+2E/B Aux	FSDMR0206EB				
	25A	2P	FSDMR0252	IP65	F400	A	Red Sheet Steel
		3P	FSDMR0253				
		3P+NL	FSDMR0253NL				
		4P	FSDMR0254				
	20A	2P	FSDDR0202	IP65	F400	E	Red Die-Cast Aluminium
		3P	FSDDR0203				
		3P+1E/B Aux	FSDDR0203/1EB				
		3P+2E/B Aux	FSDDR0203EB				
		3P+NL	FSDDR0203NL				
		4P	FSDDR0204				
		4P+1E/B Aux	FSDDR0204/1EB				
		4P+2E/B Aux	FSDDR0204EB				
		6P	FSDDR0206				
		6P+2E/B Aux	FSDDR0206EB				
	32A	2P	FSDDR0322	IP65	F400	B	Red Die-Cast Aluminium
		3P	FSDDR0323				
		3P+1E/B Aux	FSDDR0323/1EB				
		3P+2E/B Aux	FSDDR0323EB				
		3P+NL	FSDDR0323NL				
		4P	FSDDR0324				
		4P+1E/B Aux	FSDDR0324/1EB				
		4P+2E/B Aux	FSDDR0324EB				
		6P	FSDDR0326				
		6P+2E/B Aux	FSDDR0326EB				
	40A	2P	FSDDR0402	IP65	F400	B	Red Die-Cast Aluminium
		3P	FSDDR0403				
		3P+NL	FSDDR0403NL				
		4P	FSDDR0404				
	63A	2P	FSDMR0632	IP65	F400	C	Red Sheet Steel
		3P	FSDMR0633				
		3P+1E/B Aux	FSDMR0633/1EB				
		3P+2E/B Aux	FSDMR0633EB				
		3P+NL	FSDMR0633NL				
		4P	FSDMR0634				
		4P+1E/B Aux	FSDMR0634/1EB				
		4P+2E/B Aux	FSDMR0634EB				
		6P	FSDMR0636				
		6P+2E/B Aux	FSDMR0636EB				
	80A	2P	FSDMR0802	IP65	F400	3A	Red Sheet Steel
		3P	FSDMR0803				
		3P+1E/B Aux	FSDMR0803/1EB				
		3P+2E/B Aux	FSDMR0803EB				
		3P+NL	FSDMR0803NL				
		4P	FSDMR0804				

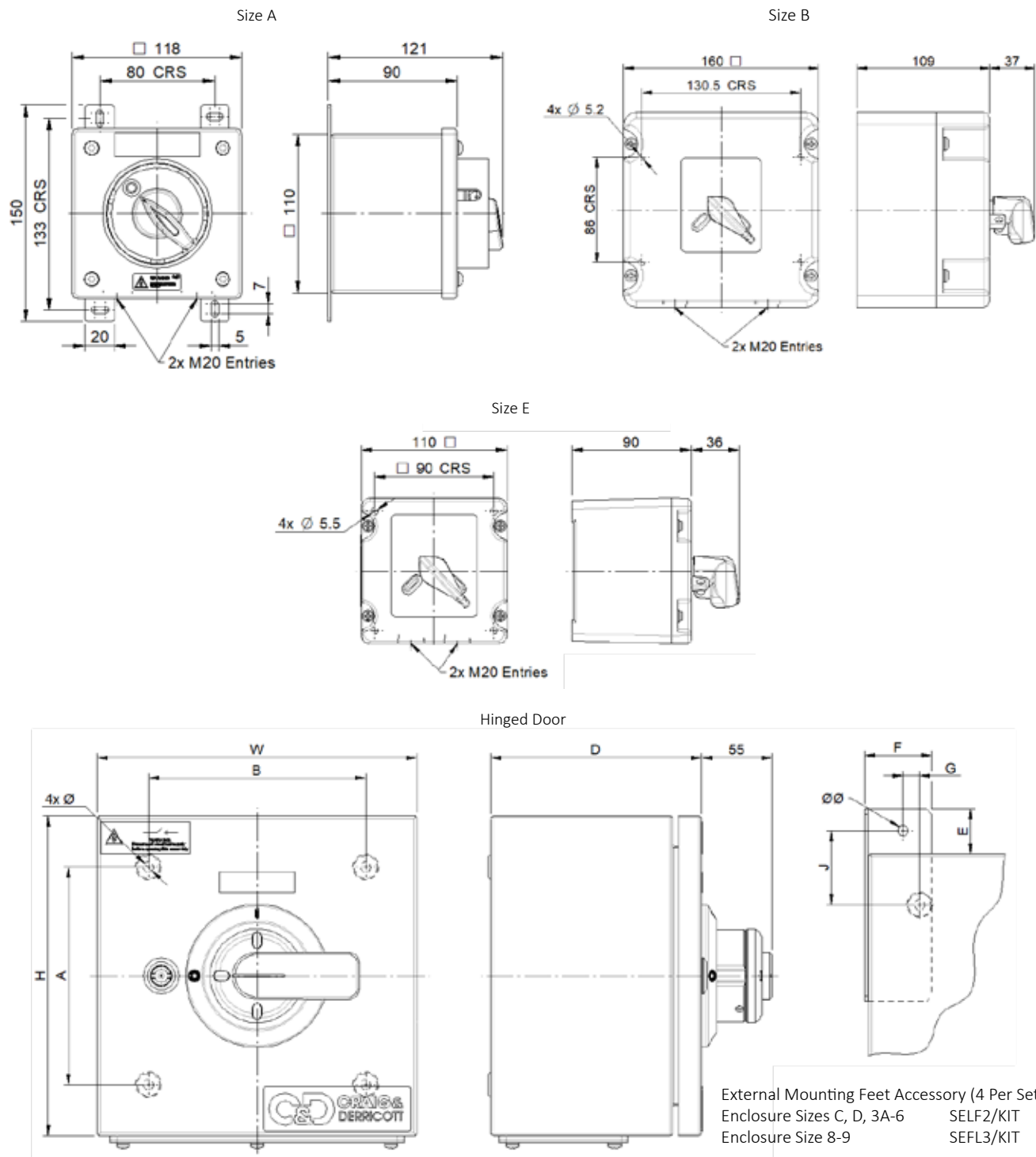
Image	Rating	Format	Cat. No.	IP Rating	Fire Rating	Encl. Size	Encl. Material
	80A	4P+1E/B Aux	FSDMR0804/1EB	IP65	F400	D	Red Sheet Steel
		4P+2E/B Aux	FSDMR0804EB				
		6P	FSDMR0806				
		6P+2E/B Aux	FSDMR0806EB				
	125A	2P	FSDMR01252	IP65	F400	D	Red Sheet Steel
		3P	FSDMR01253				
		3P+NL	FSDMR01253NL				
		3P+1E/B Aux	FSDMR01253/1EB				
		3P+2E/B Aux	FSDMR01253EB				
		4P	FSDMR01254				
		4P+1E/B Aux	FSDMR01254/1EB				
		4P+2E/B Aux	FSDMR01254EB				
		6P	FSDMR01256				
		6P+2E/B Aux	FSDMR01256EB				
	160A	3P	FSDMR01603	IP65	F400	5	Red Sheet Steel
		3P+NL	FSDMR01603NL			7	
		4P	FSDMR01604				
		6P	FSDMR01606				
	200A	3P	FSDMR02003	IP65	F400	5	Red Sheet Steel
		3P+NL	FSDMR02003NL			7	
		4P	FSDMR02004				
		6P	FSDMR02006				
	250A	3P	FSDMR02503	IP65	F400	5	Red Sheet Steel
		3P+NL	FSDMR02503NL			7	
		4P	FSDMR02504				
		6P	FSDMR02506				
	315A	3P	FSDMR03153	IP65	F400	6	Red Sheet Steel
		3P+NL	FSDMR03153NL			9	
		4P	FSDMR03154				
		6P	FSDMR03156				
	400A	3P	FSDMR04003	IP65	F400	6	Red Sheet Steel
		3P+NL	FSDMR04003NL			9	
		4P	FSDMR04004				
		6P	FSDMR04006				
	630A	3P	FSDMR06303	IP65	F400	8	Red Sheet Steel
		3P+NL	FSDMR06303NL			9	
		4P	FSDMR06304				
		6P	FSDMR06306				

Technical Specification

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

Application	Sym.	Unit	Category	20A	25A	32A	40A	63A	80A	125A	160A	200A	250A	315A	400A	630A
Rated thermal current	I_{the}	A		20	25	32	40	63	80	125	160	200	250	315	400	630
Rated insulation voltage	U_i	V		690	690	690	690	690	690	690	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6.0	6.0	6.0	6.0	6.0	6.0	6.0	12.0	12.0	12.0	12.0	12.0	12.0
Rated operational power (3 phase AC)	I_e / P_e	A/kW	415V- AC23A	20 /9.5	25 /11	32 /15	32 /15	40 /18.5	80 /40	100 /55	160 /90	200 /110	250 /132	315 /200	400 /200	630 /315
			690V- AC23A	-	-	-	-	-	-	-	160 /150	200 /190	250 /200	315 /315	350 /315	350 /355
			690V- AC23B	20 /9.5	20 /9.5	20 /9.5	-	20 /9.5	-	-	-	-	-	-	-	-
			660V- AC23B	-	-	-	-	-	30 /22	30 /22	-	-	-	-	-	-
Conditional Short Circuit Current	Fuse gG	kA / Fuse (A)	415V	50 /32	50 /32	50 /32	50 /32	50 /63	50 /150	50 /200	50 /160	50 /200	50 /250	-	-	-
			690V	40 /32	40 /32	40 /32	40 /32	40 /63	50 /63	50 /63	50 /160	50 /200	50 /250	50 /315	50 /400	100 /630
Short circuit withstand (1 sec)	I_{cw}	kA	RMS value	-	-	-	-	-	1.5	1.5	8.0	8.0	8.0	17.0	17.0	17.0
Recommended connecting capacity		-	Terminal type													
		mm²	Flexible cable	≤ 4.0	≤ 4.0	6	6	16	50	50	95	95	120	2 /150	2 /150	2 /185
		mm²	Rigid cable	≤ 4.0	≤ 4.0	10	10	25	35	50	95	95	120	2 /150	2 /150	2 /185
		Nm	Tightening torque	1.2	1.2	1.2	1.2	3	12	12	35	35	35	35	35	50

Dimensions



Dimensions	Enclosure Size							
	C	3A	D	5	6	7	8	9
Height (H)	250	350	480	550	750	750	900	900
Width (W)	250	300	240	450	450	600	600	600
Depth (D)	165	175	238	250	275	300	300	400
Vertical Fixing CRS (A)	188	270	400	470	670	670	820	820
Horizontal Fixing CRS (B)	188	220	160	370	370	520	520	520
Fixing Hole Size (Ø)	8.5	8.5	8.5	8.5	8.5	8.5	10.5	10.5
Foot Projection (E)	35	35	35	35	35	35	35	35
Foot Width (F)	58	58	58	58	58	58	58	58
Hole Centres (G)	13	13	13	13	13	13	13	13
Hole Centres (J)	58	58	58	58	58	58	58	58
Fixing Hole Size (ØØ)	8.5	8.5	8.5	8.5	8.5	8.5	10.5	10.5



F300 Fire Rated Switchgear

The F300 Fire Rated products range from 20A to 800A, supplied in IP65 die-cast aluminium or sheet steel enclosures with a Traffic Red (RAL 3020) powder coat finish. All enclosures come standard with padlocking in both 'Off' and 'On'. The interior switches are constructed from a high temperature grade thermoset material, designed specifically for installations where the supply must be maintained for 60 mins at 300°C. Craig & Derricott's F300 products will withstand 300°C for 120 min.

Stainless Steel Grade 316L enclosures are available on request for 63A- 630A. Replace 'R' with 'S' in the Cat. No. E.g. F3SDS0203NL.

Non-fire rated auxiliaries are available on request for 160A- 630A. Add '/AUX' to the Cat. No. E.g. F3SDR01603NL/AUX

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts

Image	Rating	Format	Cat. No.	IP Rating	Fire Rating	Encl. Size	Encl. Material
	20A	2P	F3SDR0202	IP65	F300	A	Red Sheet Steel
		3P	F3SDR0203				
		3P+1E/B Aux	F3SDR0203/1EB				
		3P+2E/B Aux	F3SDR0203EB				
		3P+NL	F3SDR0203NL				
		4P	F3SDR0204				
		4P+1E/B Aux	F3SDR0204/1EB				
		4P+2E/B Aux	F3SDR0204EB				
		6P	F3SDR0206				
	6P+2E/B Aux	F3SDR0206EB					
25A	2P	F3SDR0252	IP65	F300	A	Red Sheet Steel	
	3P	F3SDR0253					
	3P+NL	F3SDR0253NL					
	4P	F3SDR0254					
 	20A	2P	F3DDR0202	IP65	F300	E	Red Die-Cast Aluminium
		3P	F3DDR0203				
		3P+1E/B Aux	F3DDR0203/1EB				
		3P+2E/B Aux	F3DDR0203EB				
		3P+NL	F3DDR0203NL				
		4P	F3DDR0204			B	
		4P+1E/B Aux	F3DDR0204/1EB				
		4P+2E/B Aux	F3DDR0204EB				
		6P	F3DDR0206				
	6P+2E/B Aux	F3DDR0206EB					
	32A	2P	F3DDR0322	IP65	F300	B	Red Die-Cast Aluminium
		3P	F3DDR0323				
		3P+1E/B Aux	F3DDR0323/1EB				
		3P+2E/B Aux	F3DDR0323EB				
		3P+NL	F3DDR0323NL				
		4P	F3DDR0324				
		4P+1E/B Aux	F3DDR0324/1EB				
		4P+2E/B Aux	F3DDR0324EB				
6P		F3DDR0326					
6P+2E/B Aux	F3DDR0326EB						
40A	2P	F3DDR0402	IP65	F300	B	Red Die-Cast Aluminium	
	3P	F3DDR0403					
	3P+NL	F3DDR0403NL					
	4P	F3DDR0404					
	63A	2P	F3SDR0632	IP65	F300	C	Red Sheet Steel
		3P	F3SDR0633				
		3P+1E/B Aux	F3SDR0633/1EB				
		3P+2E/B Aux	F3SDR0633EB				
		3P+NL	F3SDR0633NL				
		4P	F3SDR0634				
		4P+1E/B Aux	F3SDR0634/1EB				
		4P+2E/B Aux	F3SDR0634EB				
		6P	F3SDR0636				
6P+2E/B Aux	F3SDR0636EB						
	80A	2P	F3SDR0802	IP65	F300	3A	Red Sheet Steel
		3P	F3SDR0803				
		3P+1E/B Aux	F3SDR0803/1EB				
		3P+2E/B Aux	F3SDR0803EB				
		3P+NL	F3SDR0803NL				
		4P	F3SDR0804				

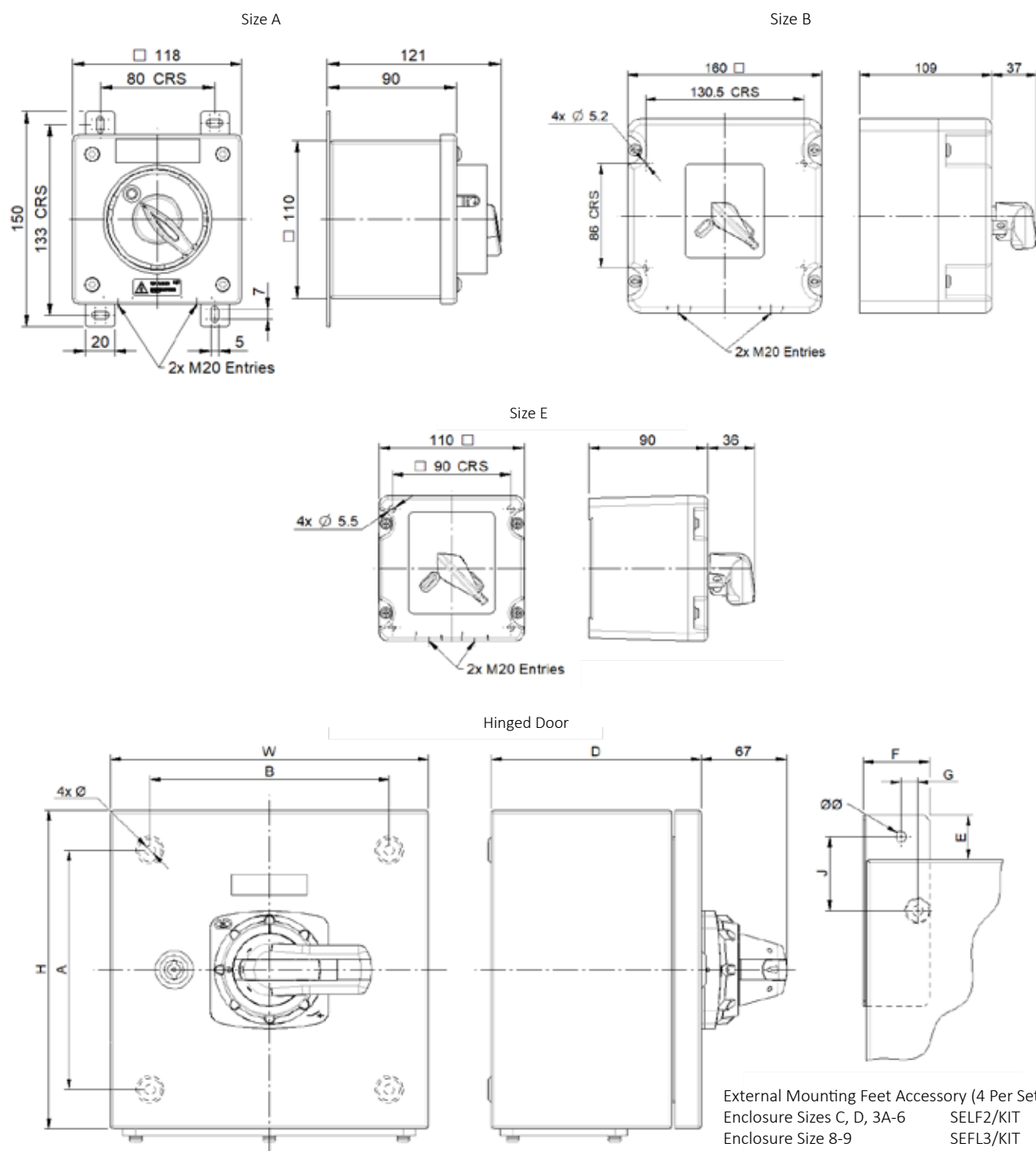
Image	Rating	Format	Cat. No.	IP Rating	Fire Rating	Encl. Size	Encl. Material
	80A	4P+1E/B Aux	F3SDR0804/1EB	IP65	F300	3A	Red Sheet Steel
		4P+2E/B Aux	F3SDR0804EB				
		6P	F3SDR0806				
		6P+2E/B Aux	F3SDR0806EB				
	125A	2P	F3SDR01252	IP65	F300	D	Red Sheet Steel
		3P	F3SDR01253				
		3P+NL	F3SDR01253NL				
		3P+1E/B Aux	F3SDR01253/1EB				
		3P+2E/B Aux	F3SDR01253EB				
		4P	F3SDR01254				
		4P+1E/B Aux	F3SDR01254/1EB				
		4P+2E/B Aux	F3SDR01254EB				
		6P	F3SDR01256				
		6P+2E/B Aux	F3SDR01256EB				
	160A	3P	F3SDR01603	IP65	F300	5	Red Sheet Steel
		3P+NL	F3SDR01603NL			7	
		4P	F3SDR01604				
		6P	F3SDR01606				
	200A	3P	F3SDR02003	IP65	F300	5	Red Sheet Steel
		3P+NL	F3SDR02003NL			7	
		4P	F3SDR02004				
		6P	F3SDR02006				
	250A	3P	F3SDR02503	IP65	F300	5	Red Sheet Steel
		3P+NL	F3SDR02503NL			7	
		4P	F3SDR02504				
		6P	F3SDR02506				
	315A	3P	F3SDR03153	IP65	F300	6	Red Sheet Steel
		3P+NL	F3SDR03153NL			9	
		4P	F3SDR03154				
		6P	F3SDR03156				
	400A	3P	F3SDR04003	IP65	F300	6	Red Sheet Steel
		3P+NL	F3SDR04003NL			9	
		4P	F3SDR04004				
		6P	F3SDR04006				
	630A	3P	F3SDR06303	IP65	F300	8	Red Sheet Steel
		3P+NL	F3SDR06303NL			9	
		4P	F3SDR06304				
		6P	F3SDR06306				

Technical Specification

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

Application	Sym.	Unit	Category	20A	25A	32A	40A	63A	80A	125A	160A	200A	250A	315A	400A	630A
Rated thermal current	I_{the}	A		20	25	32	40	63	80	125	160	200	250	315	400	630
Rated insulation voltage	U_i	V		690	690	690	690	690	690	690	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6.0	6.0	6.0	6.0	6.0	6.0	6.0	12.0	12.0	12.0	12.0	12.0	12.0
Rated operational power (3 phase AC)	I_e / P_e	A/kW	415V- AC23A	20 /9.5	25 /11	32 /15	32 /15	40 /18.5	80 /40	100 /55	160 /90	200 /110	250 /132	315 /200	400 /200	630 /315
			690V- AC23A	-	-	-	-	-	-	-	160 /150	200 /190	250 /200	315 /315	350 /315	350 /355
			690V- AC23B	20 /9.5	20 /9.5	20 /9.5	-	20 /9.5	-	-	-	-	-	-	-	-
			660V- AC23B	-	-	-	-	-	30 /22	30 /22	-	-	-	-	-	-
Conditional Short Circuit Current	Fuse gG	kA / Fuse (A)	415V	50 /32	50 /32	50 /32	50 /32	50 /63	50 /150	50 /200	50 /160	50 /200	50 /250	-	-	-
			690V	40 /32	40 /32	40 /32	40 /32	40 /63	50 /63	50 /63	50 /160	50 /200	50 /250	50 /315	50 /400	100 /630
Short circuit withstand (1 sec)	I_{cw}	kA	RMS value	-	-	-	-	-	1.5	1.5	8.0	8.0	8.0	17.0	17.0	17.0
Recommended connecting capacity		-	Terminal type													
		mm ²	Flexible cable	≤ 4.0	≤ 4.0	6	6	16	50	50	95	95	120	2 /150	2 /150	2 /185
		mm ²	Rigid cable	≤ 4.0	≤ 4.0	10	10	25	35	50	95	95	120	2 /150	2 /150	2 /185
		Nm	Tightening torque	1.2	1.2	1.2	1.2	3	12	12	35	35	35	35	35	50

Dimensions



Dimensions	Enclosure Size							
	C	3A	D	5	6	7	8	9
Height (H)	250	350	480	550	750	750	900	900
Width (W)	250	300	240	450	450	600	600	600
Depth (D)	165	175	238	250	275	300	300	400
Vertical Fixing CRS (A)	188	270	400	470	670	670	820	820
Horizontal Fixing CRS (B)	188	220	160	370	370	520	520	520
Fixing Hole Size (Ø)	8.5	8.5	8.5	8.5	8.5	8.5	10.5	10.5
Foot Projection (E)	35	35	35	35	35	35	35	35
Foot Width (F)	58	58	58	58	58	58	58	58
Hole Centres (G)	13	13	13	13	13	13	13	13
Hole Centres (J)	58	58	58	58	58	58	58	58
Fixing Hole Size (ØØ)	8.5	8.5	8.5	8.5	8.5	8.5	10.5	10.5

F200 Fire Rated Switchgear

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

Ranging from 20A to 200A, these units are supplied in IP66/65 die-cast aluminium or IP65 sheet steel enclosures. All units come standard in a Traffic Red (RAL 3020) polyester powder coat finish, with padlocking in both 'Off' and 'On' position. Units supplied in die-cast aluminium enclosures come standard with bottom cable entries only. For top and bottom cable entries, please replace 'X' with 'Y' in the catalogue number i.e. F2SDDR206Y.

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB' = Early break auxiliary contacts

'T' = Increased terminal capacity

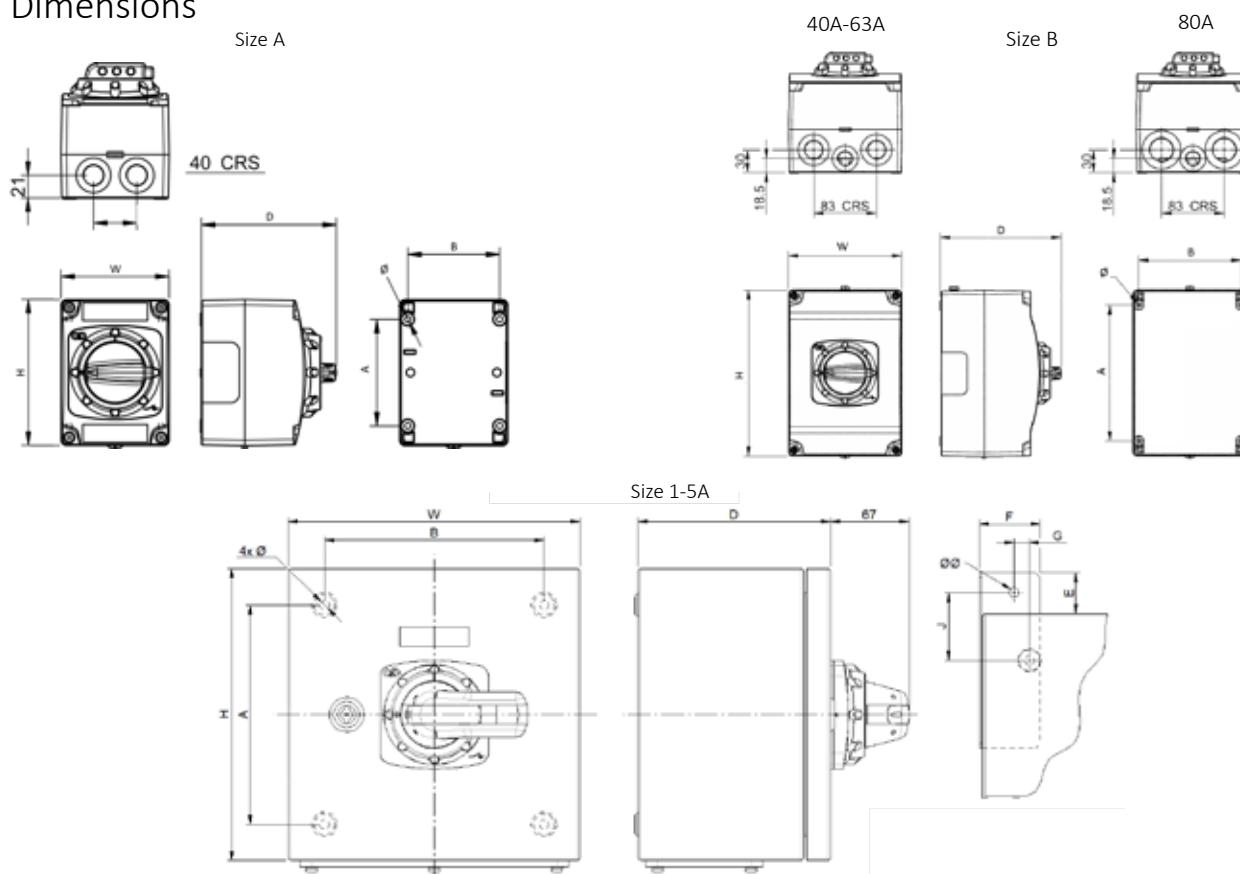
Image	Rating	Format	Cat. No.	IP Rating	Fire Rating	Encl. Size	Encl. Material
	20A	6P	F2SDDR206X	IP66	F200	A	Red Die-Cast Aluminium
		6P+2EB Aux	F2SDDR206EBX				
	25A	2P	F2SDDR252X	IP66	F200	A	Red Die-Cast Aluminium
		3P	F2SDDR253X				
		3P+2EB Aux	F2SDDR253EBX				
		3P+N	F2SDDR253NX				
		3P+NL	F2SDDR253NLX				
	32A	2P	F2SDDR322X	IP66	F200	A	Red Die-Cast Aluminium
		3P	F2SDDR323X				
		3P+2EB Aux	F2SDDR323EBX				
		3P+N	F2SDDR323NX				
		3P+NL	F2SDDR323NLX				
	40A	2P	F2SDDR402X	IP65	F200	A	Red Die-Cast Aluminium
		3P	F2SDDR403X				
		3P+2EB Aux	F2SDDR403EBX				
		3P+N	F2SDDR403NX				
		3P+NL	F2SDDR403NLX				
	40A	6P	F2SDDR406X	IP65	F200	B	
		6P+2EB Aux	F2SDDR406EBX				
		2P	F2SDDR402TX				
		3P	F2SDDR403TX				
		3P+2EB Aux	F2SDDR403EBTX				
		3P+N	F2SDDR403NTX				
		3P+NL	F2SDDR403NLTX				
	63A	2P	F2SDDR632X	IP65	F200	B	
		3P	F2SDDR633X				
		3P+2EB Aux	F2SDDR633EBX				
		3P+N	F2SDDR633NX				
3P+NL		F2SDDR633NLX					
80A	3P	F2SDDR803X	IP65	F200	B		
	3P+N	F2SDDR803NX					
	3P+NL	F2SDDR803NLX					
	63A	3P+N	F2SDRC00633N	IP65	F200	1	Red Sheet Steel
		3P+NL	F2SDRC00633NL			2	
		6P	F2SDRC00636				
	80A	3P+N	F2SDRC00803N	IP65	F200	1	Red Sheet Steel
		3P+NL	F2SDRC00803NL			2	
		6P	F2SDRC00806				
	100A	3P+N	F2SDRC01003N	IP65	F200	3A	Red Sheet Steel
		3P+NL	F2SDRC01003NL				
	125A	3P+N	F2SDRC01253N	IP65	F200	4A	Red Sheet Steel
		3P+NL	F2SDRC01253NL				
	160A	3P+N	F2SDRC01603N	IP65	F200	4A	Red Sheet Steel
		3P+NL	F2SDRC01603NL				
	200A	3P+N	F2SDRC02003N	IP65	F200	5A	Red Sheet Steel
		3P+NL	F2SDRC02003NL				

Technical Specification

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

F200 - Switch-Disconnectors (O-I)															
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	380 / 440-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 ²	Flexible cable	2.5 x 2	6	6	6 x 2	16	6	16	16	50	50	50	70
		mm ²	Rigid cable	2.5 x 2	10	10	10 x 2	25	10	25	25	70	70	70	95
		Nm	Tightening torque	1.0	1.2	1.2	1.0	1.2	1.2	1.2	1.2	5	5	5	12

Dimensions



Encl. Size	H	W	D	A	B	Ø	E	F	G	J	Ø Ø	Cable Entries
A	150	100	126	98.5	85	5.5	-	-	-	-	-	2 x M25 on bottom
B	220	150	160	180	83	5.5	-	-	-	-	-	2 x M32 & 1x M16 on bottom
1	250	250	100	170	170	6.5	35	53	18	58	6.5	-
2	250	300	200	170	220	6.5	35	58	18	58	6.5	-
3A	350	300	175	270	220	8.5	35	58	13	58	8.5	-
4A	400	300	175	320	220	8.5	35	58	13	58	8.5	-
5A	550	400	175	470	320	8.5	35	58	13	58	8.5	-

EXPLOSION PROOF SWITCHGEAR

Craig & Derricott has been associated with the design and manufacture of Ex products for more than 30 years. The current product range has been developed to meet the technical requirements of today's market and a great deal of the design consideration has been given to bringing a quality product to the market at a competitive price.



Explosion Proof - Zone 1, 2, 21 and 22 EXe

The 'EXZ1' range of enclosed switch-disconnectors are supplied in Exe enclosures manufactured from glass reinforced polyester 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. EXZ1SDR02530.

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.

Key to Marking

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

Image	Rating	Format	Handle Colour	Cat. No.	Optional Brass Earthing Plate Cat. No.	IP Rating	Equipment Marking	Min & Max Temp.	Encl. Size
	25A	3P+Aux	Red / Yellow	EXZ1SDR02530	EXEP0253	IP65	25A II2GD  Ex d e IIC T6 Gb Ex tb IIIC T80°C Db	-40°C to +40°C	A
		4P+Aux	Red / Yellow	EXZ1SDR02540	EXEP0254	IP65	25A II2GD  Ex d e IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +55°C	
	40A	3P+Aux	Red / Yellow	EXZ1SDR04030	EXEP0403	IP65	40A II2GD  Ex d e IIC T6 Gb Ex tb IIIC T80°C Db	-40°C to +40°C	B
		4P+Aux	Red / Yellow	EXZ1SDR04040	EXEP0404	IP65	40A II2GD  Ex d e IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +55°C	
	80A	3P+Aux	Red / Yellow	EXZ1SDR08030	EXEP0803	IP65	80A II2GD  Ex d e IIC T6 Gb Ex tb IIIC T80°C Db	-40°C to +40°C	C
		4P+Aux	Red / Yellow	EXZ1SDR08040	EXEP0804	IP65	80A II2GD  Ex d e IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +55°C	
	180A	3P+Aux	Red / Yellow	EXZ1SDR18030	EXEP1803	IP65	180A II2GD  Ex d e IIC T5 Gb Ex tb IIIC T95°C Db	-40°C to +40°C	D
		4P+Aux	Red / Yellow	EXZ1SDR18040	EXEP1804	IP65	180A II2GD  Ex d e IIC T4 Gb Ex tb IIC T130°C Db	-40°C to +55°C	

Certification

All items have been approved with 'ATEX' (CML 15ATEX1197X) and 'IECEX' (IECEX CML 15.0093X) 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 switch gear and control gear- Part 1:general rules.
- EN 60947-3 Low-Voltage switch gear and control gear- Part 3:switches, disconnectors, switch-disconnectors and fuse combination units.
- EN 60529 Degrees of protection provided by enclosures. (IP Code)

Technical Specification

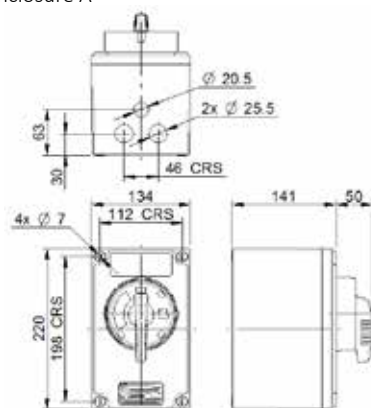
Data supplied against tests to IEC/BS EN 60947-3



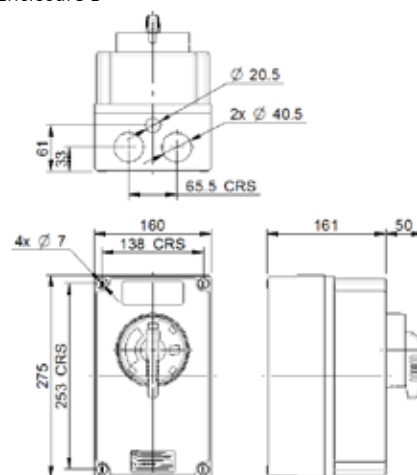
Zone 1, 2, 21 and 22 EX 'e'									
Application	Sym.	Unit	Category	Main Contacts				Aux. Contacts	
				25A	40A	80A	180A	Category	Aux.
Rated thermal current	I_{the}	A		25	40	80	180		10
Rated insulation voltage	U_i	V		690	690	690	690		690
Rated current		A	AC3 (230V)	25	40	80	180	AC15 (250V)	10
			AC3 (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 ²	-	2x4	2x10	2x25	2x95		2x1.5
Tightening Torque (Nm)			-	2.5	2.5	3.5	8.5		2.5
Terminal Type	-								

Dimensions

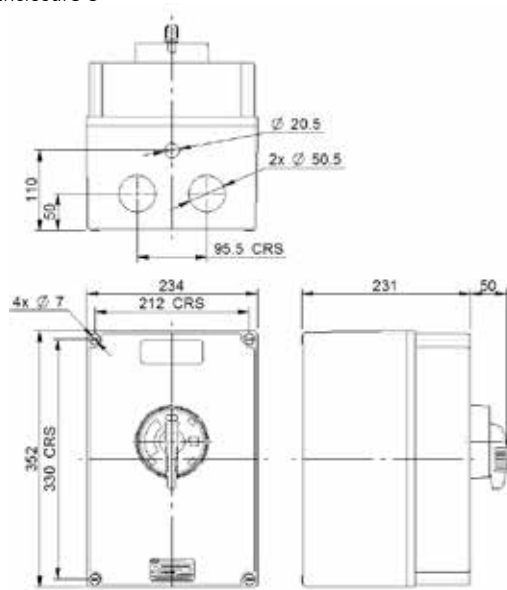
Enclosure A



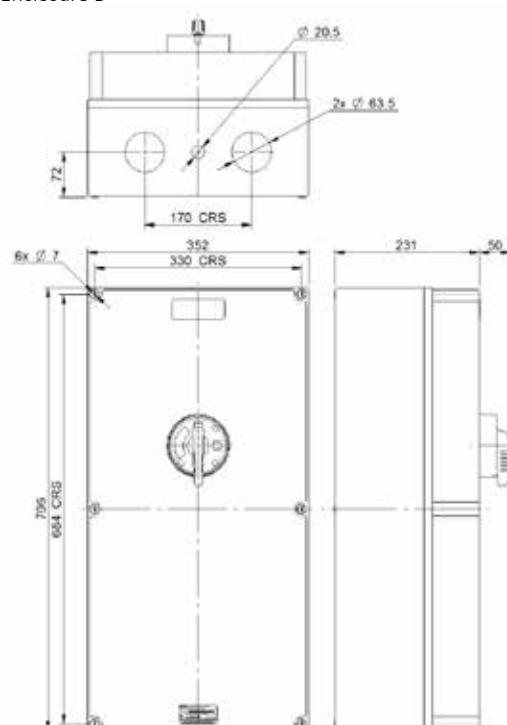
Enclosure B



Enclosure C



Enclosure D



Explosion Proof - Zone 1, 2, 21 and 22 EXd

A range of Switch-Disconnectors housed in IP65 heavy duty cast enclosures- ATEX certified for use in Cat II, Zones 1, 2, 21 & 22 environments.

Construction

High quality heavy duty cast enclosures are used throughout the range. (Cast Iron 16A- 63A, Cast Aluminium 80A - 250A). The enclosures are supplied with large cable entries which can be fitted with approved reducers to suit individual cable requirements. Specific entry requirements can be accommodated- please specify when ordering.

All load switching interiors are supplied as either 3P+N (switched neutral) or 6P and have AC23A ratings to BS EN 60947-3. Auxiliary contacts are available for applications such as SCADA packages. Finish- RAL 7035 Two pack grey epoxy coating over etching primer.

Image	Rating	Format	Cat. No.	IP Rating	External Earth	Supplied Bottom Entries*	Encl. Size	Encl. Material	Temperature Class	
									40°C	60°C
	16	3P+N+2E/B	DGC0164EBZ1	IP65	M6	3 x M20	G21	Cast Iron	T6	T5
	25	3P+N+2E/B	DGC0254EBZ1	IP65	M6	4 x M20	G21	Cast Iron	T6	T5
	20	6P + 2E/B	DGC0206EBZ1	IP65	M6	2 x M25 + 1 x M20	G21	Cast Iron	T6	T5
	40	3P+N+2E/B	DGC0404EBZ1	IP65	M8	2 x M25 + 1 x M20	G22	Cast Iron	T6	T5
		6P + 2E/B	DGC0406EBZ1	IP65			G22	Cast Iron	T6	T5
	63	3P+N+2E/B	DGC0634EBZ1	IP65	M8	2 x M25 + 1 x M20	G22	Cast Iron	T6	T5
	80	3P+N+2E/B	DGC0804EBZ1	IP65	M8	3 x M32 + 1 x M20	G24	Cast Aluminium	T6	T6
	100	3P+N+2E/B	DGC1004EBZ1	IP65	M8	3 x M32 + 1 x M20	G25	Cast Aluminium	T6	T6
	125	3P+N+2E/B	DGC1254EBZ1	IP65	M8	3 x M40 + 1 x M20	G25	Cast Aluminium	T6	T6
	160	3P+N+2E/B	DGC1604EBZ1	IP65	M8	3 x M40 + 1 x M20	G25	Cast Aluminium	T6	T6
	200	3P+N+2E/B	DGC2004EBZ1	IP65	M10	3 x M50 + 1 x M20	G28	Cast Aluminium	T6	T6
	250	3P+N+2E/B	DGC2504EBZ1	IP65	M10	3 x M50 + 1 x M20	G28	Cast Aluminium	T6	T6

* Other entry configurations available on request.

Certification and Approvals

- Certification Code  Ex II 2 GD Ex d IIB
 Ex tD A21 IP6X
- Certification No. ITS 09 ATEX 16433X, ITS 09 ATEX 16436U
- Certification standard EN 60079-0, EN 60079-1, EN 61241-0 & EN 61241-1

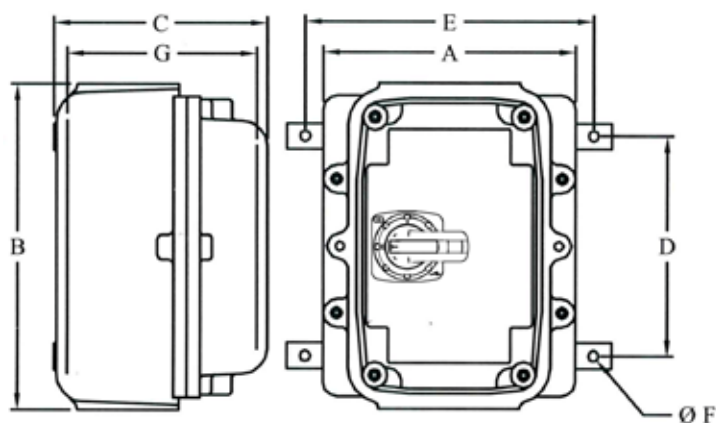
Technical Specification

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



Zone 1, 2, 21 and 22 EX 'd'														
Application	Sym.	Unit	Category	16A	20A	25A	40A	40A	63A	80A	100A	125A	160A	250A
Format	-	-	-	3P	6P	3P	3P	6P	3P	3P	3P	3P	3P	3P
Enclosure	-	-	-	G21	G21	G21	G22	G22	G22	G24	G25	G25	G25	G28
Rated thermal current	I_{the}	A	-	16	20	25	40	40	63	80	100	125	160	250
Rated Insulation voltage	U_i	V	-	690	690	690	690	690	690	690	750	750	750	1000
Rated impulse voltage	U_{imp}	kV	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0	8.0	8.0	12.0	12.0
Rated operational power (3 phase AC)	-	kW	380/440V-AC23	7.5	7.5	11	15	18.5	25.0	30.0	37.0	45.0	45.0	132.0
			500V- AC23	9.0	7.5	15	15.0	15	30.0	37.0	-	-	-	-
			690V- AC23	9.0	7.5	15	15.0	15	30.0	30.0	37.0	45.0	45.0	200.0
Rated short time withstand current (1 sec)	I_{cw}	A	-	400	250	500	600	800	1300	1400	2500	2500	5000	8000
Max. fuse size for short circuit protection (gG characteristic)	I_n	A	10kA	35	20	35	40	40	80	80	-	-	-	-
			25kA	32	16	32	32	35	63	63	-	-	-	-
			50kA	32	-	32	32	-	63	63	-	-	-	-
Connecting capacity	-	-	Terminal type											
	-	mm ²	Flexible cable	6.0	2x2.5	6.0	6.0	2x6.0	16.0	16.0	-	-	-	-
	-	mm ²	Rigid cable	10.0	2x2.5	10.0	10.0	2x10	25.0	25.0	-	-	-	-
	-	mm	Stud Cu palm width	-	-	-	-	-	-	-	8x20	8x20	8x20	10x30
	-	Nm	Tightening torque	1.2	1.2	1.2	1.2	1.2	1.2	1.2	6.0	8.0	8.0	30-44

Dimensions



Encl	Material	Dimensions							Weight (kg)
		A	B	C	D	E	F	G	
G21	Fe	180	155	145	130	195	7.0	100	9
G22	Fe	205	220	156	160	230	9.0	117	19
G24	Al	321	361	228	291	320	11.0	179	21
G25	Al	366	406	218	250	370	11.0	177	25
G28	Al	586	690	294	480	580	14.0	216	96

N.B. Enclosures can be close coupled at either end (To special order)

Explosion Proof - Zone 22

Craig & Derricott has been manufacturing enclosed switchgear for more than 70 years. Using high quality die cast aluminium and hinged door sheet steel enclosures the range covers 20A- 63A ratings.

All items allow for the fitting of up to three padlocks in the 'Off' position. Units are inclusive of fixings outside of the enclosure seal area and an external earth point.

* Other ratings are available upon request.

Explosion Proof - Zone 22- How it works

From July 2006 the onus was placed upon companies to ensure that all equipment within their organisations is suitable for the environment in which it is being used. This was aimed particularly at areas where there may be a possibility of a combustible atmosphere being present, even for short periods i.e. Less than 10 hours/year.

People normally think of such atmospheres as being gases, mists or vapours, however there are various industries where a conductive or non-conductive dust mixed with air in the right proportion can become explosive. It is these areas where the Craig & Derricott ATEX Group II (Zone 22) equipment can be used to help you comply with Health & Safety regulations.

Typical industries where such atmospheres may be generated:-

- Grain Mills
- Powder Coating Plant
- Textiles
- Chemicals
- Cargo Handling
- Woodworking
- Pharmaceuticals
- Waste Processing

There are different degrees of protection against explosive dusts, and Zone 22 is defined as:-

"A place in which an explosive atmosphere, in the form of a cloud of combustible dust in air, is not likely to occur in normal operation but, if it does occur, will persist for a short period only."

Applicable Regulations / Specifications

- Directive 2014/34/EU ("Manufacturers Directive") Sets out the route equipment manufacturers must take to get their products certified for use in hazardous environments.
- Directive 1999/92/EC ("Users Directive") Defines the classifications for protection zones, and the approach users must take to ensure that the correct equipment is matched to specific hazardous environments.

Both of the above are classed as 'ATEX' directives and are concerned solely with ensuring safety in the workplace.

- DSEAR Dangerous Substances and Explosive Atmospheres Regulations 2002.
- BS EN 60079-0 Explosive atmospheres- Part 0: Equipment- General requirements.
- BS EN 60079-31 Explosive atmospheres- Part 31: Equipment dust ignition protection by enclosure "t".
- BS EN 60529 Specification for degrees of protection provided by enclosures. (IP code)
- BS EN 60947-3 Specification for low-voltage switchgear and control gear.
- BS EN 60204-1 Safety of machinery. Electrical equipment of machines- General requirements.

Image	Rating	Format	Cat. No.	IP Rating	Supplied Bottom Entries	Encl. Size	Encl. Material	
	20A	6P+2/EB	SDDG206EBZ22	IP65	1 x M20 top + 2 x M20 bottom	A22	Die-Cast Aluminium	
	25A	2P+2/EB	SDDG252EBZ22	IP65	1 x M20 top + 2 x M20 bottom	A22	Die-Cast Aluminium	
		3P+2/EB	SDDG253EBZ22					
		32A	3P+2/EB	SDDG323EBZ22	IP65	1 x M20 top + 2 x M20 bottom	A22	Die-Cast Aluminium
3P+NL+2/EB			SDDG323NLEBZ22	A22				
6P+2/EB			SDDG326EBZ22	2 x M25 + 1 x M20 bottom		B22		
		40A	3P+2/EB	SDDG403EBZ22	IP65	2 x M25 + 1 x M20 bottom	B22	Die-Cast Aluminium
	6P+2/EB		SDDG406EBZ22					
		63A	3P+2/EB	SDDG633EBZ22	IP65	2 x M25 + 1 x M20 bottom	B22	Die-Cast Aluminium
			3P+2/EB	SDMG633EBZ22			N/A	C22
6P+2/EB			SDMG636EBZ22	D22				

Certification and Approvals

Die cast Aluminium / Sheet Steel

- 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

ENCLOSED SWITCHGEAR FOR LU

Following the London Kings Cross fire of 1987, the resulting Fennell enquiry prompted the introduction of additional fire precautions for 'Sub-surface Railway Stations'. These additional requirements were introduced under section 12 of the Fire Precautions Act 1971, and since then have been known simply as Section 12 regs. These regulations have been revoked and partly replaced with:- 'The Fire Precautions (Sub-surface Railway Stations) (England) Regulations 2009.

With this isolation range, the overall consideration has been to meet, and where possible exceed, the Section 12 requirements. This has been achieved by the careful selection of individual component materials and the use of only recognised and approved paint finishes.

This range of enclosed Switch Disconnectors have all been designed for the isolation and distribution of electrical supplies, for use on sub-surface and surface railway station installations. They meet the stringent requirements of LUL-TFL fire regulations and international low voltage switchgear standards as listed below.



Die-Cast Aluminium London Underground Switchgear

London Underground approved for use isolators available in 25A & 40A ranging from 2P to 6P. Designed in Die-Cast Aluminium (LM6) enclosures finished in LU 1-085 Compliant Paint Finish. Available in either Light Grey (RAL 7035) or Traffic Red (RAL 3020).

Sealed to IP65, these switch-disconnectors are supplied with pre-finished steel mounting brackets for ease of installation. Each unit is supplied with captive lid fixing screws with a security head and earthing points on both lid and base plus external earth stud. The cast lever handle is padlockable in both 'Off' and 'On' positions. Engraved traffolyte labels in various colours can be supplied attached to the side of the enclosure or supplied loose for fitting adjacent to the isolator.

Switch-Disconnectors								
Image	Rating	Switch Type	Format	Cat. No.	IP Rating	Encl. Size	Encl. Material	Encl. Colour
	25A	GN25	2P	DCG252LUL10	IP65	A	Die-Cast Aluminium (LM6)	LU S1085 Compliant Paint Finish: Light Grey (RAL 7035)
			3P	DCG253LUL10	IP65			
			3P+2EB Aux	DCG253EBLUL10	IP65			
			4P	DCG254LUL10	IP65			
			6P	DCG256LUL10	IP65			
			6P+2EB Aux	DCG256EBLUL10	IP65			
	25A	GN25	2P	DCR252LUL10	IP65	A	Die-Cast Aluminium (LM6)	LU S1085 Compliant Paint Finish: Traffic Red (RAL 3020)
			3P	DCR253LUL10	IP65			
			3P+2EB Aux	DCR253EBLUL10	IP65			
			4P	DCR254LUL10	IP65			
			6P	DCR256LUL10	IP65			
			6P+2EB Aux	DCR256EBLUL10	IP65			
	40A	R32	2P	DCG402LUL10	IP65	B	Die-Cast Aluminium (LM6)	LU S1085 Compliant Paint Finish: Light Grey (RAL 7035)
			3P	DCG403LUL10	IP65			
			3P+2EB Aux	DCG403EBLUL10	IP65			
			4P	DCG404LUL10	IP65			
			6P	DCG406LUL10	IP65			
			6P+2EB Aux	DCG406EBLUL10	IP65			
	40A	R32	2P	DCR402LUL10	IP65	B	Die-Cast Aluminium (LM6)	LU S1085 Compliant Paint Finish: Traffic Red (RAL 3020)
			3P	DCR403LUL10	IP65			
			3P+2EB Aux	DCR403EBLUL10	IP65			
			4P	DCR404LUL10	IP65			
			6P	DCR406LUL10	IP65			
			6P+2EB Aux	DCR406EBLUL10	IP65			

Rating	Description	Catalogue No.
25A	Set of 4 off security lid fixing screws	MR/SEC/FIX
	Security screwdriver bit	MR/SEC/ALLEN KEY
40A	Set of 4 off security lid fixing screws	R40/SEC/FIX
	Security screwdriver bit	R40/SEC/ALLEN

To order spare switch interiors, add suffix 'INT' to the part number i.e. DCG252LUL10INT

Stainless Steel London Underground Switchgear

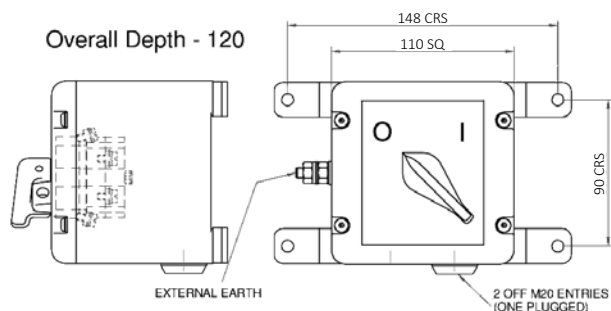
London Underground approved for use lid mounted switch-disconnectors designed to prove the user with an assembly that can be installed for indoor or outdoor use, in the harshest of environments.

Available in 25A & 40A ranging from 2P to 6P, these isolators are supplied in 18 gauge stainless steel Grade 304 enclosure in a natural brushed finish with mounting brackets for easy installation. Sealed to IP65, each unit is supplied with captive lid fixing screws with a security head and earthing points on both lid and base plus external earth stud. The cast lever handle is padlockable in both 'Off' and 'On' positions. Engraved traffolyte labels in various colours can be supplied attached to the side of the enclosure or supplied loose for fitting adjacent to the isolator.

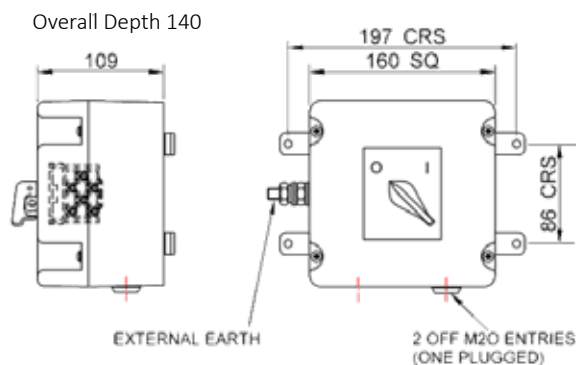
Switch-Disconnectors							
Image	Rating	Switch Type	Format	Cat. No.	IP Rating	Encl. Size	Encl. Material
	25A	GN25	2P	DS252LUL10	IP65	C	Stainless Steel Grade 304 in a natural brushed finish (Non Glare)
			3P	DS253LUL10	IP65		
			3P+2EB Aux	DS253EBLUL10	IP65		
			4P	DS254LUL10	IP65		
			6P	DS256LUL10	IP65		
			6P+2EB Aux	DS256EBLUL10	IP65		
	40A	GN40	2P	DS402LUL10	IP65	D	Stainless Steel Grade 304 in a natural brushed finish (Non Glare)
			3P	DS403LUL10	IP65		
			3P+2EB Aux	DS403EBLUL10	IP65		
			4P	DS404LUL10	IP65		
			6P	DS406LUL10	IP65		
			6P+2EB Aux	DS406EBLUL10	IP65		

LU Die-Cast Aluminium Switchgear Dimensions

Size A

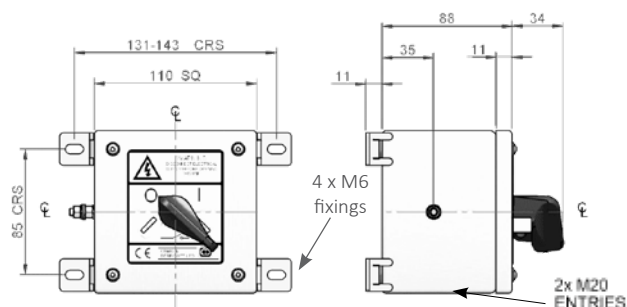


Size B

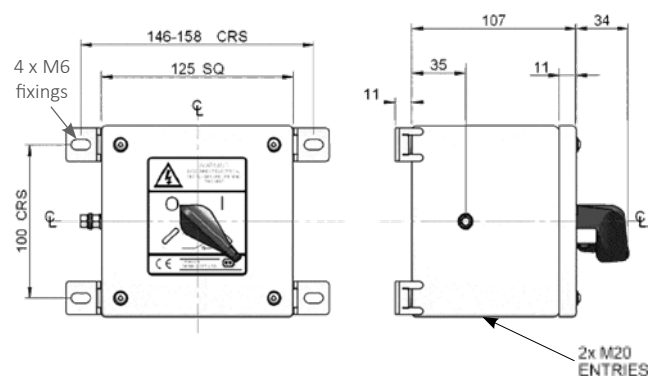


LU Stainless Steel Switchgear Dimensions

Size C



Size D



Technical Specification

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

Application	Sym	Unit	Category	GN25	R32	GN40
Rated thermal current	I_{the}	A		25	40	40
Rated insulation voltage	U_i	V		690	690	690
Rated impulse voltage	U_{imp}	kV		6	6	6
Rated operational voltage		V		480	415	480
Rated operational power		kW	AC23A @ 380V/440V	11	15	18.5
Max fuse size for short circuit protection	I_n	(gG/gI)	25kA	25	40	40
			50kA	-	40	40
Mechanical life			Switching cycles	5×10^6	10^6	5×10^6
Terminal screw size				M3.5	M4	M4
Terminal capacity		2xmm ²	max rigid/flexible	4/4	6/6	10/6
		2xAWG		10/12	10/10	8/10
		2xmm ²	min rigid/flexible	0.5/0.5	1/1	1.5/1.5
		2xAWG		20/20	18/18	16/16

Sheet Steel London Underground Switchgear

Craig and Derricott's range of IP65 sheet steel hinged door are available as switch-disconnector assemblies in the range of 40A-800A and Fuse combination unit assemblies in the range of 32A- 630A.

Each unit is supplied as a three phase with switched neutral and is generously proportioned to allow simple cable connection, with removable gland plates on both top and bottom faces and a metal operating handle lockable in the Off and On position. Fuse combination unit assemblies are designed to accept 'bolted tag' BS 88 cartridge fuses.

The range comes standard with a LU S1085 compliant semi-gloss polyester powder coated finish in Light Grey (RAL 7035). This finish is UV resistant and offers paint protection suitable for outdoor applications but not coastal exposed or corrosive environments. Traffic Red (RAL 3020) enclosures are made to order and available on request.

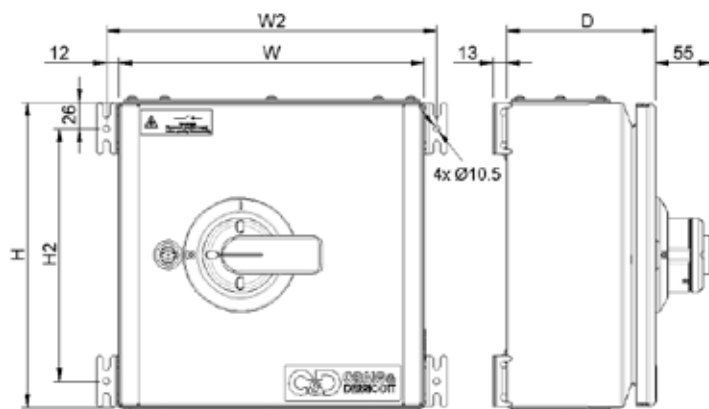
All units are fitted with an IP65 aluminium red & yellow anodised handle which comes interlocked in the On position and is supplied standard as lockable in both the Off and On position. Each handle can accept up to 3 padlocks with a 6.3mm shackle with three different lengths available. An optional castell lock is available on request.

The switch-disconnector range is fire rated to F200, designed specifically for installations where the supply must be maintained for 120 mins at 200°C.

Switch-Disconnectors								
Image	Rating	Switch Type	Format	Light Grey Cat. No.	Traffic Red Cat. No.	IP Rating	Encl. Size	Encl. Material
	40A	CS40	3P+N	DCG00403N/LUL2	DCR00403N/LUL2	IP65	1	Sheet Steel LU S1085 Compliant Paint Finish: Light Grey (RAL 7035)
	63A	CS63	3P+N	DCG00633N/LUL2	DCR00633N/LUL2	IP65	1	
	80A	CS100	3P+N	DCG00803N/LUL2	DCR00803N/LUL2	IP65	3	
	100A	CS100	3P+N	DCG01003N/LUL2	DCR01003N/LUL2	IP65	3	
	125A	CS125	3P+N	DCG01253N/LUL2	DCR01253N/LUL2	IP65	4	
	160A	CS160	3P+N	DCG01603N/LUL2	DCR01603N/LUL2	IP65	4	
	200A	CS200	3P+N	DCG02003N/LUL2	DCR02003N/LUL2	IP65	5	
	250A	B2	3P+N	DCG02503N/LUL2	DCR02503N/LUL2	IP65	7	
	315A	B3	3P+N	DCG03153N/LUL2	DCR03153N/LUL2	IP65	8	
	400A	B3	3P+N	DCG04003N/LUL2	DCR04003N/LUL2	IP65	8	
	630A	B3	3P+N	DCG06303N/LUL2	DCR06303N/LUL2	IP65	10	
	800A	B3	3P+N	DCG08003N/LUL2	DCR08003N/LUL2	IP65	10	
Fuse Combination Units								
	32A	D1	3P+N	SFDCG00323N/LUL2	SFDCR00323N/LUL2	IP65	2	Sheet Steel LU S1085 Compliant Paint Finish: Light Grey (RAL 7035)
	63A	D1	3P+N	SFDCG00633N/LUL2	SFDCR00633N/LUL2	IP65	2	
	100A	D2	3P+N	SFDCG01003N/LUL2	SFDCR01003N/LUL2	IP65	4	
	160A	D3	3P+N	SFDCG01603N/LUL2	SFDCR01603N/LUL2	IP65	4	
	200A	D4	3P+N	SFDCG02003N/LUL2	SFDCR02003N/LUL2	IP65	6	
	250A	D4	3P+N	SFDCG02503N/LUL2	SFDCR02503N/LUL2	IP65	6	
	315A	D5	3P+N	SFDCG03153N/LUL2	SFDCR03153N/LUL2	IP65	9	
	400A	D5	3P+N	SFDCG04003N/LUL2	SFDCR04003N/LUL2	IP65	9	
	630A	D6	3P+N	SFDCG06303N/LUL2	SFDCR06303N/LUL2	IP65	11	

For Castell lock option, add suffix '/CL' to the Cat. No. e.g. DCG00403N/LUL2/CL

Dimensions



Encl. Size	Dimensions (mm)				
	H	W	D	H2	W2
1	300	300	150	248	324
2	400	400	200	348	324
3	400	300	150	348	324
4	500	400	200	448	424
5	600	400	200	548	424
6	600	600	300	548	424
7	600	500	200	548	524
8	800	600	200	748	624
9	800	600	300	748	624
10	1000	600	300	948	624
11	1000	800	300	948	624

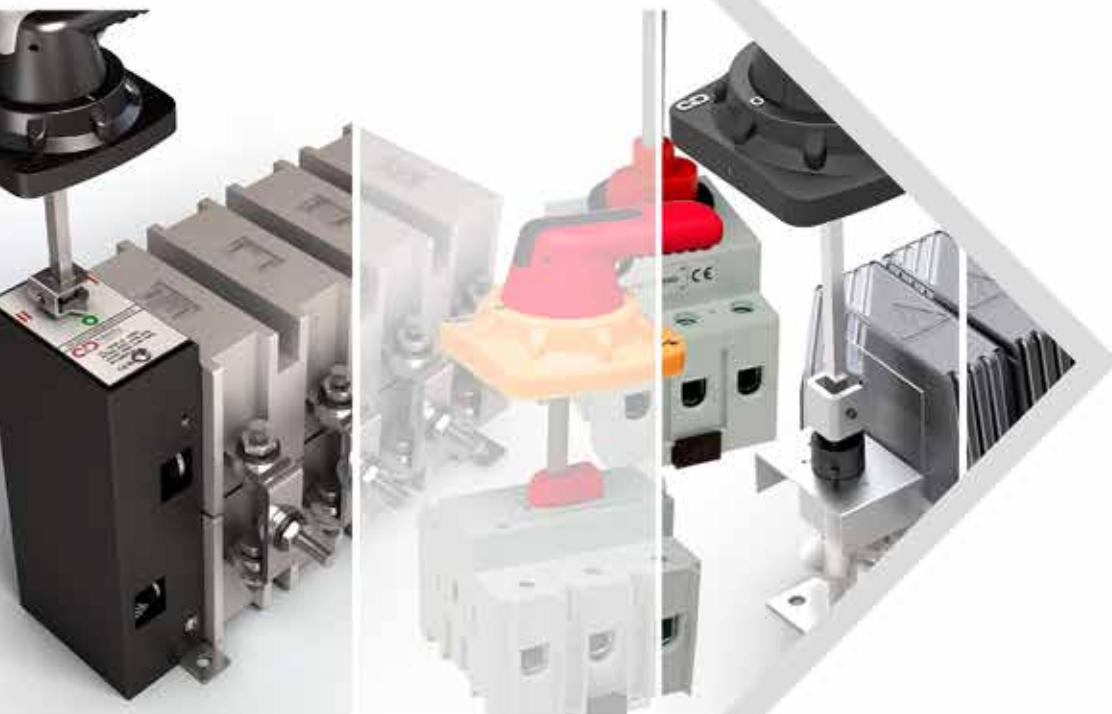
Technical Specification

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

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 (AC)	I _e	A	400V- AC23A	35.1	48	56	100	112	128	128	250	315	400	630	720
Rated operational power	P _e	kW	400 / 415V- AC23A	8.5	25	30	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 (10³)	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												
		mm²	Min/Max	2.5/25	2.5/25	-/70	-/70	-/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
Fuse Combination Units															
Application	Sym	Unit	Category	32	63	100	125	160	200	250	315	400	630		
Rated thermal current	I _{the}	A		32	63	100	125	160	200	250	315	400	630		
Rated insulation voltage	U _i	V		750	750	750	750	750	750	750	750	750	750		
Rated impulse voltage	U _{imp}	kV		12	12	12	12	12	12	12	12	12	12		
Rated operational current (AC)	I _e	A	415V- AC23A	32	63	100	125	160	200	250	315	400	630		
Rated operational current (DC)			220V- DC23A	-	-	100	125	160	200	250	315	400	630		
Rated operational power @ 0.75pf	P _e	kW	400/415- AC23A	17.2	33.9	53.9	67.3	86.2	107.8	134.7	169.8	215.6	339.6		
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	240	240	300	300	400		
		mm	Stud/Cu palm width	-	-	8x20	8x20	8x20	10x25	10x25	10x25	10x25	12x50		
		Nm	Tightening torque	2.5	2.5	10	12	16	25	30	35	45	50		

PANEL ISOLATORS

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.



Compact Range

Craig & Derricott has ranges of compact control panel isolation equipment for panel mounting ranging from 25A to 200A. All come supplied with operating handle and a standard length shaft.

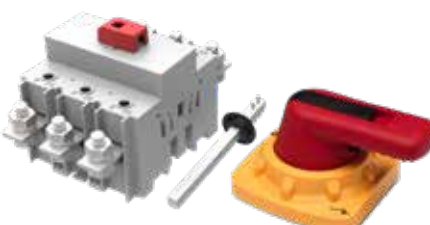
A compact range of Switch-Disconnectors with the capacity to add auxiliary and neutral block options to the basic load break switch block.

Features

- IP2X terminal protection.
- Door interlock handles with override facility
- DIN rail or base mounting.
- Add-on auxiliary/neutral blocks.

The Cat. No.s below include:

- On-load AC23A Switch-disconnector.
- 100mm standard length shaft assembly.
- IP65 minimum door interlock handle.(Black)
- Terminal covers (A2 & A3 frame sizes only).

Image	Rating	Format	Red Handle Cat. No.	Black Handle Cat. No.	Frame Size
	20A	6P	SD00206R	SD00206B	A0
	25A	2P	SD00252R	SD00252B	A0
		3P	SD00253R	SD00253B	
		3P+N	SD00253NR	SD00253NB	
		3P+NL	SD00253NLR	SD00253NLB	
	32A	3P	SD00323R	SD00323B	A0
		3P+N	SD00323NR	SD00323NB	
		3P+NL	SD00323NLR	SD00323NLB	
		6P	SD00326R	SD00326B	
	40A	3P	SD00403R	SD00403B	A0
		3P+N	SD00403NR	SD00403NB	
		3P+NL	SD00403NLR	SD00403NLB	
		6P	SD00406R	SD00406B	
	63A	3P	SD00633R	SD00633B	A1
		3P+N	SD00633NR	SD00633NB	
		3P+NL	SD00633NLR	SD00633NLB	
		6P	SD00636R	SD00636B	
	80A	3P	SD00803R	SD00803B	A1
		3P+N	SD00803NR	SD00803NB	
		3P+NL	SD00803NLR	SD00803NLB	
		6P	SD00806R	SD00806B	
	100A	3P	SDC01003R	SDC01003B	A2
		3P+N	SDC01003NR	SDC01003NB	
		3P+NL	SDC01003NLR	SDC01003NLB	
		6P	SDC01006R	SDC01006B	
	125A	3P	SDC01253R	SDC01253B	A2
		3P+N	SDC01253NR	SDC01253NB	
		3P+NL	SDC01253NLR	SDC01253NLB	
		6P	SDC01256R	SDC01256B	
		6P+2EB Aux	SDC01256EBR	SDC01256EBB	
	160A	3P	SDC01603R	SDC01603B	A2
		3P+N	SDC01603NR	SDC01603NB	
		3P+NL	SDC01603NLR	SDC01603NLB	
		6P	SDC01606R	SDC01606B	
		6P+2EB Aux	SDC01606EBR	SDC01606EBB	
	200A	3P	SDC02003R/ETC	SDC02003B/ETC	A3
		3P+N	SDC02003NR/ETC	SDC02003NB/ETC	
		6P	SDC02006R/ETC	SDC02006B/ETC	

'R' = Red / Yellow Handle

'B' = Black Handle

'N' = Switched neutral (Early make, late break)

"NL" = Unswitched neutral

"ETC" = Excluding Terminal Covers

Compact Range Accessories

All of the accessories listed below can be retrofitted.

Contact Blocks- One block can be fitted either side of the main assembly on all of the 3 pole Switch-Disconnecter interiors.									
Description		Cat. No.		Description		Cat. No.			
Auxiliary Contact- 2 Early Break		SAUX2EB		25A Neutral (Switched)		SSP25			
Auxiliary Contact- 1 N/O + 1 N/C		SAUXCO		40A Neutral (Switched)		SSP40			
25A- 40A Compact Neutral (Unswitched)		SNLC40		63A Neutral (Switched)		SSP63			
63A Neutral (Unswitched)		SNL63		80A Neutral (Switched)		SSP80			
80A Neutral (Unswitched)		SNL80		100A Neutral (Switched)		SSP100			
100A Neutral (Unswitched)		SNL100		125A Neutral (Switched)		SSP125			
125A Neutral (Unswitched)		SNL125		160A Neutral (Switched)		SSP160			
160A Neutral (Unswitched)		SNL160		200A Neutral (Switched)		SSP200			
200A Neutral (Unswitched)		SNL200							
Extended Shafts- Longer version can easily be adjusted to suit specific panel depths.									
Description		Cat. No.		Description		Cat. No.			
Extended Shaft 200mm (L) for frame size A0 & A1		SSH2		Extended Shaft 200mm (L) for frame size A2 & A3		SSH17			
Handles- available in red/yellow or black.									
Description		Cat. No.		Description		Cat. No.			
Handle assembly for frame size A0 & A1		SDH1		Handle assembly for frame size A2 & A3		SDH3			

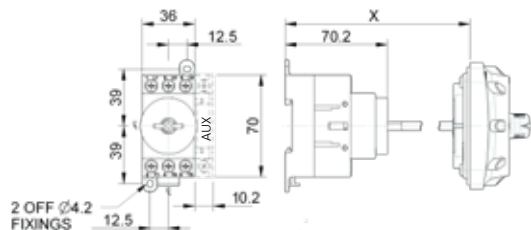
Technical Specification

Data supplied against tests to BS EN 60947-3.

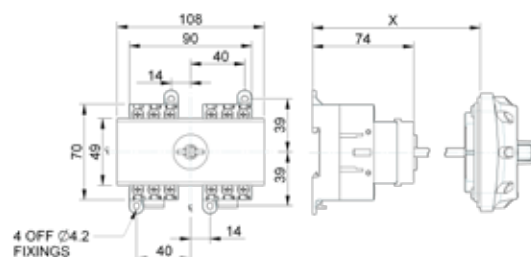
Application	Sym	Unit	Category	25	32	40	63	80	100	125	160	200
Rated thermal current	I_{th}	A		25	32	40	63	80	100	125	160	200
Rated insulation voltage	U_i	V		690	690	690	690	690	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6	6	6	6	6	8	8	8	8
Rated operational current (AC)	I_e	A	400V- AC21A	25	32	40	63	80	100	125	160	200
			690V- AC21A	25	32	40	63	80	100	125	160	200
			400V- AC22A	-	-	-	-	-	100	125	160	200
			690V- AC22A	-	-	-	-	-	100	125	160	160
			400V- AC23A	21	29	29	48	56	100	112	128	128
			690V- AC23A	17	17	17	33	33	53	-	-	-
Rated operational current (DC) (/poles in series)	I_e	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_e	kW	400/415V- AC23A	11	15	15	25	30	59	63	75	75
			690V- AC23A	15	15	15	30	30	51	55	55	55
Short circuit making capacity	I_{cm}	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_{cw}	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 ³	250 x 10 ³	250 x 10 ³	250 x 10 ³	250 x 10 ³	50 x 10 ³	50 x 10 ³	50 x 10 ³	50 x 10 ³
Min. electrical endurance		-	415V- at 0.65 pf	-	-	-	-	-	-	-	-	-
Connecting capacity		-	Terminal type									
		mm ²	Min/Max	2.5/6	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	12

Compact Range Dimensions

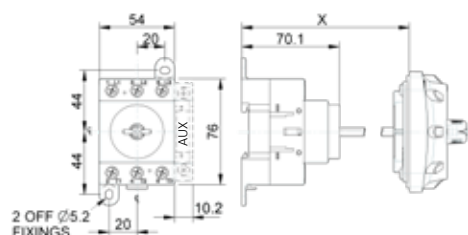
A0 Size (25A- 40A) - x1 = n/a | x2= 105-180 | x3 = 105-280



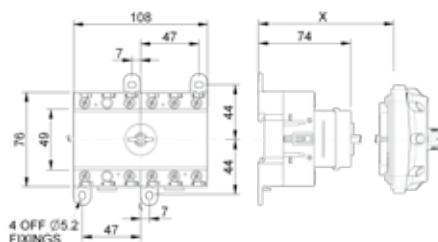
A0-A0 Size (6 pole 25A) - x1 = 98 | x2= 116-191 | x3 = 116-291



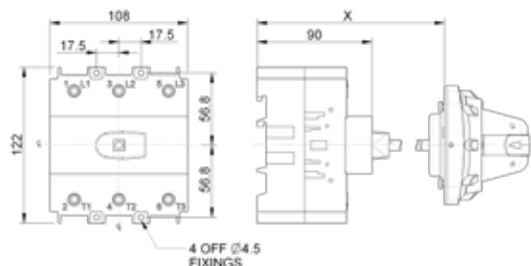
A1 Size (63A- 80A) - x1 = 98 | x2= 110-185 | x3 = 110-285



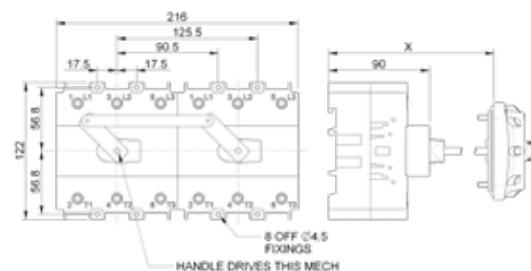
A1-A1 Size (6 pole 40A-80A) - x1 = 98 | x2= 116-191 | x3 = 116-291



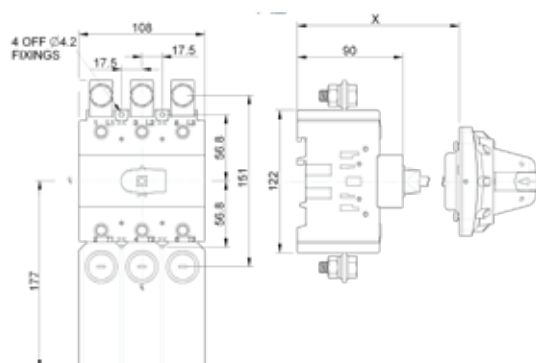
A2 Size (100A- 160A) - x1 = 121-166 | x2= n/a | x3 = 121-235



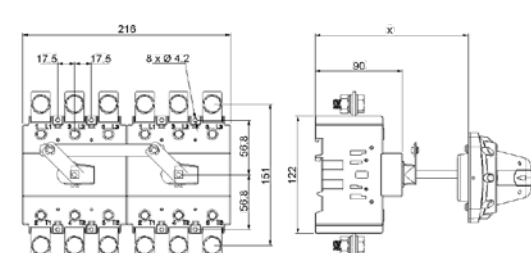
A2-A2 Size (6 pole 100A-160A) - x1 = 121-166 | x2= n/a | x3 = 121-235



A3 Size (200A) - 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

Standard Range

A robust range of load break switches to ensure simple installation in applications such as power distribution boards. The compact design also suits OEM's and stand alone enclosure installations. A range of accessories extends the versatility.

Features:-

- On-load AC23A ratings.
- Five frame sizes covering 200A- 1600A.
- Direct lug connections onto plated Copper palms.
- IP65 sealing door interlocking handles.

'R' = Red / Yellow Handle

'B' = Black Handle

"N" = Switched Neutral (Early Make, Late Break)

"NL" = Unswitched Neutral Link (Fully Rated)

Image	Rating	Format	Red Handle Cat. No.	Black Handle Cat. No.	Frame Size
	200A	3P	SDT02003R	SDT02003B	T0
		3P+N	SDT02003NR	SDT02003NB	
		3P+NL	SDT02003NLR	SDT02003NLB	
		6P	SDT02006R	SDT02006B	T0-T0
	250A	3P	SDT02503R	SDT02503B	T1
		3P+N	SDT02503NR	SDT02503NB	
		3P+NL	SDT02503NLR	SDT02503NLB	
		6P	SDT02506R	SDT02506B	T1-T1
	315A	3P	SDT03153R	SDT03153B	T1
		3P+N	SDT03153NR	SDT03153NB	
		3P+NL	SDT03153NLR	SDT03153NLB	
		6P	SDT03156R	SDT03156B	T1-T1
	400A	3P	SDT04003R	SDT04003B	T1
		3P+N	SDT04003NR	SDT04003NB	
		3P+NL	SDT04003NLR	SDT04003NLB	
		6P	SDT04006R	SDT04006B	T1-T1
	630A	3P	SDT06303R	SDT06303B	T2
		3P+N	SDT06303NR	SDT06303NB	
		3P+NL	SDT06303NLR	SDT06303NLB	
		6P	SDT06306R	SDT06306B	T2-T2
	800A	3P	SDT08003R	SDT08003B	T2
		3P+N	SDT08003NR	SDT08003NB	
		3P+NL	SDT08003NLR	SDT08003NLB	
	1000A	3P	SDT10003R	SDT10003B	T4
		3P+N	SDT10003NR	SDT10003NB	
		3P+NL	SDT10003NLR	SDT10003NLB	
	1250A	3P	SDT12503R	SDT12503B	T4
		3P+N	SDT12503NR	SDT12503NB	
		3P+NL	SDT12503NLR	SDT12503NLB	
	1600A	3P	SDT16003R	SDT16003B	T4
		3P+N	SDT16003NR	SDT16003NB	
		3P+NL	SDT16003NLR	SDT16003NLB	

Standard Range Accessories

All of the accessories listed below can be retrofitted.

Description	Cat. No.
200A- 1600A 3P/4P Auxiliary Contact 1NO+1NC	SAUXTKITA1
200A- 1600A 3P/4P Auxiliary Contact 2NO+2NC	SAUXTKITA2
200A- 1600A 6P Auxiliary Contact 1NO+1NC	SAUXKITB1
200A- 1600A 6P Auxiliary Contact 2NO+2NC	SAUXKITB2
387mm ² Extension Shaft for 200A	TSSH0
536mm ² Extension Shaft for 250A- 400A	TSSH1
535mm ² Extension Shaft for 630A- 800A	TSSH2-3
635mm ² Extension Shaft for 1000A- 1600A	TSSH4

Description	Cat. No.
250A- 400A 3P/4P Protective Plate (1 unit)	STSCA1
200A 6P Terminal Shrouds	STSTB0
400A 6P Terminal Shrouds	STSTB1B
250A- 315A 3P/4P/6P Terminal Shrouds	STSTA1
630A 3P/4P Protective Plate (1 unit)	STSCA2
630A 3P/4P/6P Terminal Shrouds	STSTA2
800A 3P/4P/6P Terminal Shrouds	STSTA3
1000A- 1600A 3P/4P/6P Terminal Shrouds	STSTA4

Technical Specification

Data supplied against tests to BS EN 60947-3.

[illegible]

* (1) Other voltages and / or utilization category's please consult

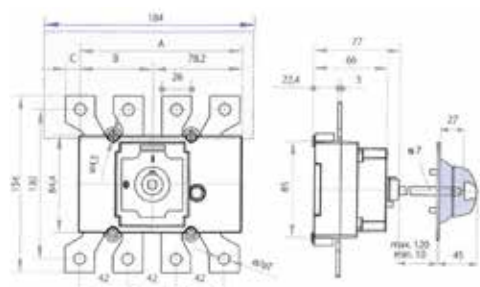
* (2) Average value: power values vary between motor manufactures.

*(3) Without limiting protective device (short-circuit maintained 50 - 100ms)

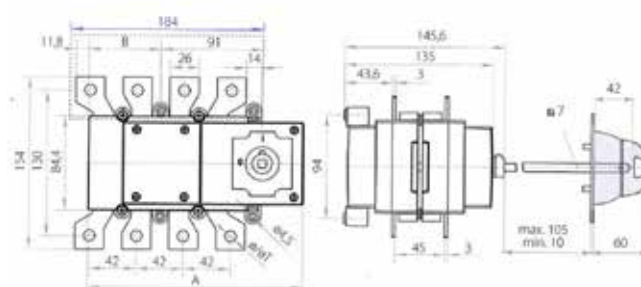
* (4) With a protective device limiting the cut-off current and joule integral to the indicated values.

Standard Range Dimensions

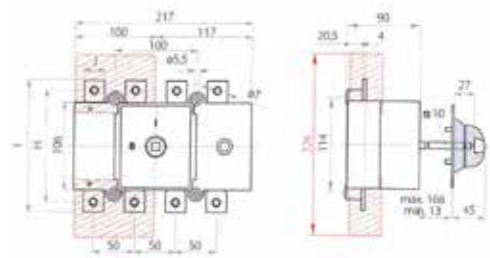
B0 Size (200A)



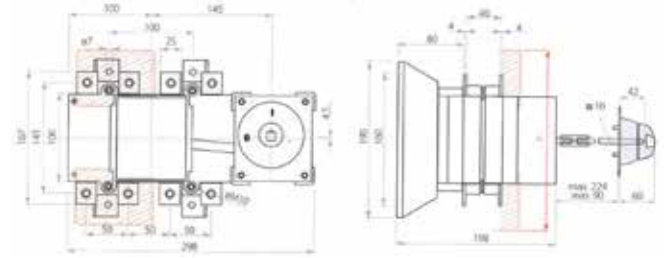
BO-BO Size (6 pole 200A)



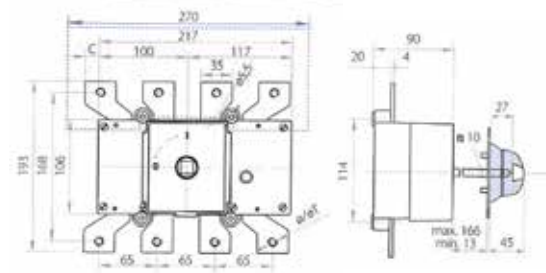
T1 Size (250A-315A)



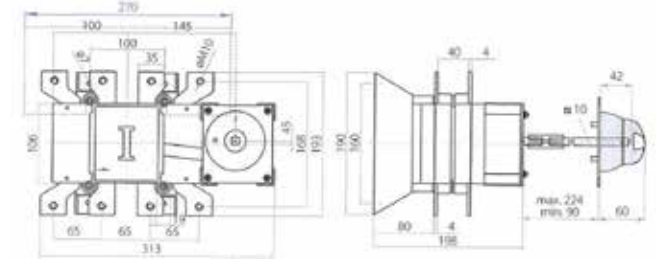
T1-T1 Size (6 pole 250A-315A)



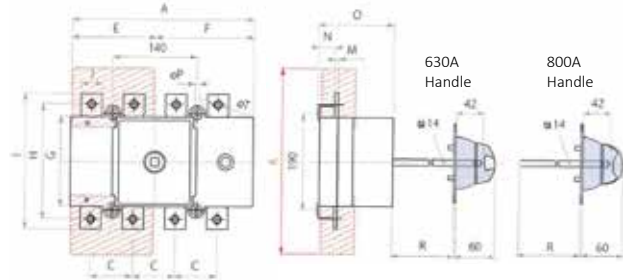
T1 Size (400A)



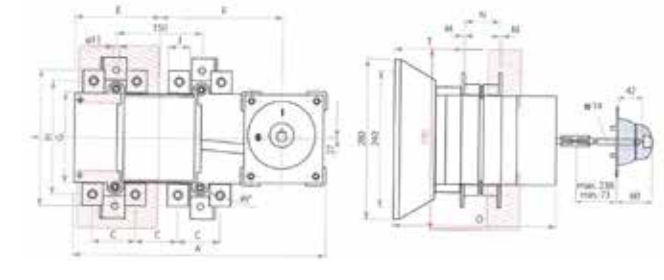
T1-T1 Size (6 pole 400A)



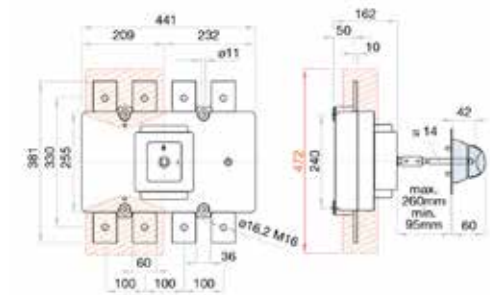
T2 Size (630A-800A)



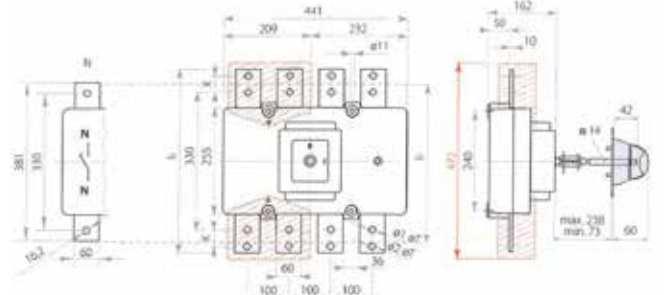
T2-T2 Size (6 pole 630A)



T4 Size (1000A-1250A)



T4 Size (1600A)



Rating		A	B	C	E	F	G	H	I	J	K	M	N	R		O	X	Ø1	ØT	Ø2	ØP
														Max	Min						
200A	3P	131	53	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	M10	-	-
200A	4P	142	64	11.8	-	-	-	-	-	-	-	-	-	-	-	10	-	-	M10	-	-
200A	6P	181	52	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	M10	-	-
250A-315A	3P	-	-	-	-	-	-	143	167	25	-	-	-	-	-	-	-	-	M10	-	-
400A	4P	-	-	15	-	-	-	-	-	-	-	-	-	-	-	10	-	-	M10	-	-
630A	3P	275	-	65	130	145	160	190-205	220-235	25-30	290	5	30	119	13	121	-	-	M10	-	6.5
630A	4P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M10	-	-
630A	6P	373	-	65	130	164	160	190-205	220-235	40	340	8	39	105	13	137	-	-	M10	-	-
800A	3P	325	-	75	150	175	190	250	290	40	340	8	39	105	13	137	-	-	M14	-	9
1000A	3P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M16	-	-
1250A	3P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	M16	-	-
1600A	3P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	14.1	14.1	M14	14.1	-

Changeover Range

A compact range of load break Changeover Switches suitable for a wide range of applications.

Features

- Compact 'piggy-back' design.
- On-load AC23A ratings.
- Supplied as four pole format.
- Windows for visual contact inspection.

The Cat. No.s below include:-

- On-load AC23A changeover four pole switch.
- 200mm standard length shaft assembly.
- IP65 door interlocking handle.

Image	Rating	Format	Cat. No.	Frame Size
	63A	4P	SCOD00634B	C1C
	100A	4P	SCOD01004B	C1C
	125A	4P	SCOD01254B	C2C
	160A	4P	SCOD01604B	C2C
	200A	4P	SCOD02004B	C2C
	250A	4P	SCOD02504B	C2
	400A	4P	SCOD04004B	C3
	630A	4P	SCOD06304B	C3

Changeover Range Accessories

All of the accessories listed below can be retrofitted.

Description	Cat. No.
400mm Extension Shaft for 63A- 100A	SSH14
400mm Extension Shaft for 125A- 200A	SSH18
400mm Extension Shaft for 250A- 630A	SSH15

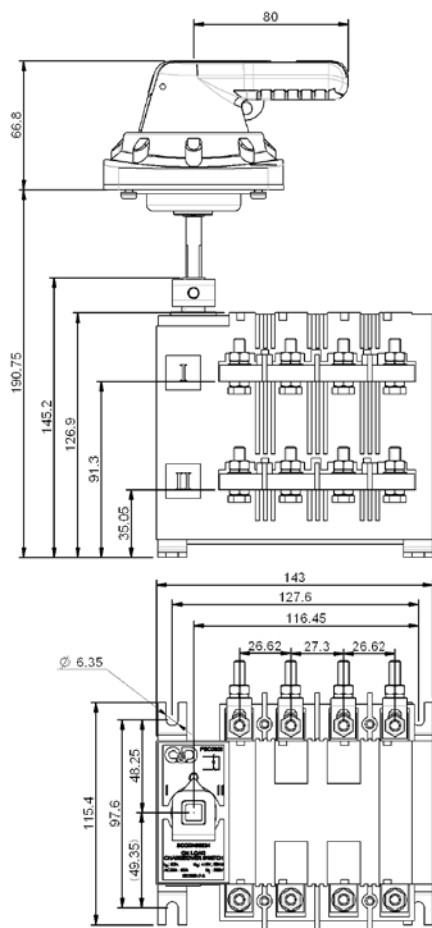
Description	Cat. No.
Handle assembly for frame size C1C & C2C	PSA0515
Handle assembly for frame size C2 & C3	SDH6/BLK

Technical Specification

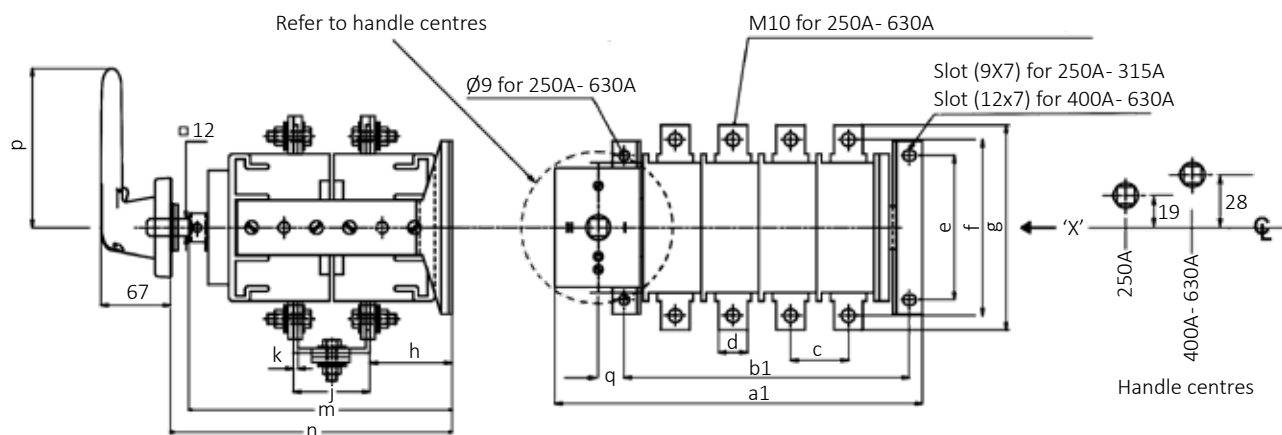
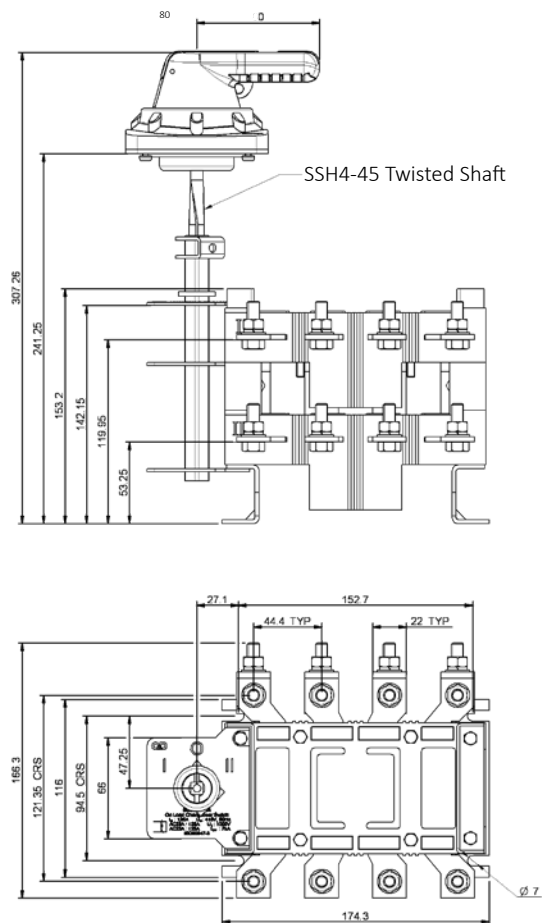
Data supplied against tests to BS EN 60947-3.

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 ²	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	45	50

Frame Size C1C- 63A & 100A Ratings



Frame Size C2C- 125A, 160A & 200A Ratings



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

CONTROL STATIONS

Craig & Derricott have been at the forefront of electrical control gear design and manufacture for more than 70 years. The i-push range has been designed and developed to incorporate safety, functionality and ease of installation incorporating suggestions from re-sellers and end-users. The 'i-push' range contains many unique features:-

- Heavy & Normal Duty actuators
- Pushbutton position indicators
- Security fixing lids
- Protective guards
- Ingress protection
- Flap covers
- Safety contact
- Bespoke assemblies



Emergency Stop

Emergency Stop stations are designed and installed primarily to provide machine operators with a means of shutting down in the event of a dangerous occurrence taking place.

Electrical machines often require Emergency Stops which are required to meet specific requirements and International standards (IEC/EN60204, BS EN ISO 13850, IEC 60947-5-1, IEC 60947-5-5). These standards were applied to the design, testing and installation of such devices offer by Craig & Derricott.

The following pages contain the following options:-

- Enclosure formats - PA / PC Plastic, Glass Filled Polyester, Die-cast Aluminium, Stainless Steel, Sheet Steel & Flush Mounting.
- 'Reset' Methods - Twist-to-Reset, Pull-to-Reset & Key Reset
- Protection Devices - Raised Shroud & Flap Cover

Image	Description		Cat. No.
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop, twist-to-reset None 1N/C (EMSL-10A) D12 PC IP66, IP67 & IP69K	EMSL/TNS/PS/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop circular yellow 1N/C (EMSL-10A) D12 PC IP66, IP67 & IP69K	EMSL/T/PS/NC
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop circular yellow Raised shroud 1N/C (EMSL-10A) D12 PC IP66, IP67 & IP69K	EMSL/TS/PS/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop circular yellow 1N/C (EMSL-10A) D12 PC IP66, IP67 & IP69K	EMSL/K/PS/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop circular yellow 1N/C (MT-16A) D2 PC IP65	EMS/T/P/NC
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop circular yellow Raised shroud 1N/C (MT-16A) D2 PC IP65	EMS/TS/P/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop anti-lock yellow collar 1N/C (MT-16A) D2 PC IP65	EMS/K/P/NC
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Raised shroud Emergency Stop circular yellow 1N/C (MT-16A) D2 PC IP65	EMS/KS/P/NC

Image	Description		Cat. No.
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop printed yellow collar 1N/C + 1N/O (ET-10A) D0 Die-Cast Aluminium IP65	EMS/T/MGS/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop printed yellow collar 1N/C + 1N/O (ET-10A) D0 Die-Cast Aluminium IP65	EMS/K/MGS/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Raised shroud Emergency Stop circular yellow 1N/C (MT-16A) D5 Die-Cast Aluminium IP65	EMS/KS/MG/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom twist-to-reset Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D5 Die-Cast Aluminium IP65	EMSH/T/MG/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D5 Die-Cast Aluminium IP65	EMSH/P/MG/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop circular yellow 1N/C (MT-16A) D5 Die-Cast Aluminium IP65	EMSH/K/MG/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop printed yellow collar 1N/C (MT-16A) D5 Die-Cast Aluminium IP65	EMS/T/MG/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop printed yellow collar 1N/C (MT-16A) D5 Die-Cast Aluminium IP65	EMS/K/MG/NC
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Raised shroud Emergency Stop circular yellow 1N/C (MT-16A) D5 Die-Cast Aluminium IP65	EMS/TS/MG/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D5 Die-Cast Aluminium IP65	EMSH/P/MR/CO

Image	Description		Cat. No.
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D5 Die-Cast Aluminium IP65	EMSH/K/MR/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop Printing flap cover Padlocking flap cover 1N/C + 1N/O (MT-16A) D5 Die-Cast Aluminium IP65	EMSH/P/F1/MR/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop Printing flap cover Padlocking flap cover 1N/C + 1N/O (MT-16A) D5 Die-Cast Aluminium IP65	EMSH/P/F1/MG/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom twist-to-reset Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D4 Glass Filled Polyester IP65	EMSH/T/GP/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D4 Glass Filled Polyester IP65	EMSH/P/GP/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D4 Glass Filled Polyester IP65	EMSH/K/GP/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop Printing flap cover Padlocking flap cover 1N/C + 1N/O (MT-16A) D4 Glass Filled Polyester IP65	EMSH/P/F1/GP/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop printed yellow collar 1N/C (MT-16A) D9 Stainless Steel IP65	EMS/T/SS/NC
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop printed yellow collar 1N/C (MT-16A) D9 Stainless Steel IP65	EMS/K/SS/NC

Image	Description		Cat. No.
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop circular yellow 1N/C + safety contact (MTOSFE) D10 Stainless Steel IP69K	EMS/T/SS/NC69
Sealed to withstand the forces associated with pressure washers. Tested to withstand a hose delivering water at a pressure between 80-100 bar at a temperature of 80°C. The combination of a stainless steel enclosure and sealing to IP69K make these items ideally suited to environments where strict hygiene cleaning routines are enforced. Supplied with external fixing feet for vertical or horizontal mounting.			
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Emergency Stop printed yellow collar 1N/C + 1N/O (ET-10A) D11 Stainless Steel IP65*	EMS/T/F/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop printed yellow collar 1N/C + 1N/O (ET-10A) D11 Stainless Steel IP65*	EMS/K/F/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom twist-to-reset Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D11 Stainless Steel IP65*	EMSH/T/F/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop circular yellow 1N/C + 1N/O (MT-16A) D11 Stainless Steel IP65*	EMSH/P/F/CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating	Emergency Stop key reset (supplied with 2 keys) Emergency Stop printed yellow collar 1N/C + 1N/O (MT-16A) D11 Stainless Steel IP65*	EMSH/K/F/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Stop mushroom pull-to-reset Emergency Stop Printing flap cover Padlocking flap cover 1N/C + 1N/O (MT-16A) D11 Stainless Steel IP65*	EMSH/P/F1/F/CO
	Actuator Fitting Contacts Dimensions Enclosure Material IP Rating	Emergency Stop twist-to-reset Pattress box or trucking 2xN/C with faston terminals (Monobloc-5A) D8 Sheet Steel IP65	EMS/T/FS/NC

*As supplied there is an IP65 seal between the Pushbutton and the face plate. To maintain this seal when installing the complete assembly the onus is upon the installer to use a continuous bead of flexible sealant to provide an effective seal between the rear of the face plate and what may be an uneven mounting surface.

Emergency Power Off

'Emergency Power Off' or 'EPO' control stations can be used where the safety requirements associated with Emergency Stops are not required.

Typical uses would include:-

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

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

Image	Description		Cat. No.
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Power Off twist-to-reset Emergency Power Off printed flap cover Flap cover non-locking 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65	EPO/T/F5/MG/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Power Off key-to-reset (Supplied with 2 keys) Emergency Power Off printed flap cover Flap cover non-locking 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65	EPO/K/F5/MG/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Power Off twist-to-reset Emergency Power Off printed flap cover Flap cover non-locking 1N/C+1N/O (ET-10A) D0 Die-cast Aluminium IP65	EPO/T/F5/MGS/CO
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating	Emergency Power Off key-to-reset (Supplied with 2 keys) Emergency Power Off printed flap cover Flap cover non-locking 1N/C+1N/O (ET-10A) D0 Die-cast Aluminium IP65	EPO/K/F5/MGS/CO

Explosion Proof

In the UK from July 2006 the onus was placed upon companies to ensure that all equipment within their organisations is suitable for the environment in which it is being used. This was aimed primarily at areas where there may be a possibility of a combustible atmosphere being present, even for short periods i.e. less than 10 hours/year.

People normally associate such atmospheres as being gases, mists or vapours. However there are many industries where a non-conductive dust mixed with air in the right proportion can become potentially explosive. It is these areas where the Craig & Derricott ATEX Group II (Zone 22 equipment) can be used to help you comply with Health & Safety regulations. All listed items shown here have been certified to the appropriate international standards for explosive atmospheres.

Certification data:

Ex II 3D, EX tD A22 IP65 T85°C

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

Image	Description		Cat. No.
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	Full guard, momentary stop Stop 1N/C+1N/O (MT-16A) D2 Die-cast Aluminium IP65 Zone 22	STOH/RS/MG/COZ
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	Full guard, momentary start Start 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65 Zone 22	STAH/GS/MG/COZ
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	Mushroom, pull-to-reset Emergency Stop circular yellow 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65 Zone 22	EMSH/P/MG/COZ
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	Mushroom, key reset (Supplied with 2x DC800 keys) Emergency Stop circular yellow 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65 Zone 22	EMSH/K/MG/COZ
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	Mushroom, twist-to-reset Emergency Stop circular yellow 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65 Zone 22	EMSH/T/MG/COZ
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	Mushroom, momentary stop Stop 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65 Zone 22	STOH/M/MG/COZ
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	Full guard, momentary start / stop Start & Stop Start- 1N/O (MT-16A) Stop- 1N/C (MT-16A) D7 Die-cast Aluminium IP65 Zone 22	SSTH/GS/RS/MG/COZ

Image	Description		Cat. No.
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating EX	a/ Start, momentary b/ Emergency stop, pull-to-reset. a/ Start b/ Circular yellow Start- 1N/O (MT-16A) Em. Stop- 1N/C (MT-16A) D7 Die-cast Aluminium IP65 Zone 22	ESSH/GS/P/MG/COZ
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating EX	Emergency stop, pull-to-reset. Emergency Stop Printed flap cover Padlocking flap cover 1N/C+1N/O (MT-16A) D5 Die-cast Aluminium IP65 Zone 22	EMSH/P/F1/MG/COZ
	Actuator Legend Guard Contacts Dimensions Enclosure Material IP Rating EX	a/ Start, momentary b/ Emergency stop, pull-to-reset. a/ Start b/ Emergency Stop Printed flap cover Padlocking flap cover Start- 1N/O (MT-16A) Stop- 1N/C (MT-16A) D7 Die-cast Aluminium IP65 Zone 22	SSTH/GS/P/F1/MG/COZ

F200 Fire Rated

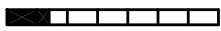
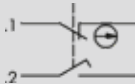
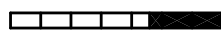
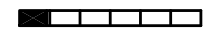
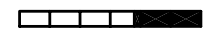
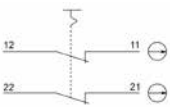
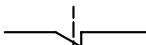
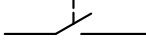
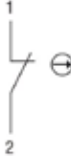
A series of F200 fire rated control stations supplied in an IP65 polyester powder painted (Red RAL 3020) die cast aluminium enclosure. Each unit comes with 2 normally open and 2 normally closed contact block. The actuation is via a mushroom pushbutton when pressed.

Each unit has been designed to withstand 200°C for 120mins. Standards applied in part or full to: IEC60947-5-1, EN 12101-3 and EN60529.

Image	Description		Cat. No.
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating Fire	Momentary mushroom reset Reset circular white 2N/C + 2N/O (S1) D5 Die-Cast Aluminium IP65 F200 Rated	F2/RES/M/MR/2CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating Fire	Emergency Stop mushroom twist-to-reset Emergency Stop circular yellow 2N/C + 2N/O (S1) D5 Die-Cast Aluminium IP65 F200 Rated	F2/EMS/T/MR/2CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating Fire	Emergency Stop mushroom pull-to-reset Emergency Stop circular yellow 2N/C + 2N/O (S1) D5 Die-Cast Aluminium IP65 F200 Rated	F2/EMS/P/MR/2CO
	Actuator Legend Contacts Dimensions Enclosure Material IP Rating Fire	Emergency Stop mushroom key-to-reset Emergency Stop circular yellow 2N/C + 2N/O (S1) D5 Die-Cast Aluminium IP65 F200 Rated	F2/EMS/K/MR/2CO

Accessories

Contact blocks are available to replace or extend the arrangements supplied as standard.

MT Series		
A clip-in module which can be supplied in N/O, N/C & safety formats. The clip-in housing allows for a total of three blocks per actuator.		
Image	Description	Cat. No.
	Normally Closed (N/C) contact block. Momentary action. 0 1 2 3 4 5 6 7 .1/.2   .1 ——— .2	MTO
	Safety Contact for Emergency Stops. -3 -2 -1 0 1 2 3 4 5 6 7 .1/.2  	MTOSFE
	Normally Open (N/O) contact block. Momentary action. 0 1 2 3 4 5 6 7 .3/.4   .3 ——— .4	MTI
ET Series		
The ETR block provides N/O + N/C contacts in one assembly.		
Image	Description	
	Contact Block, Momentary Action 1 N/O + 1 N/C 0 1 2 3 4 5 6 12/11   12 ——— 11 24/23  24 ——— 23	ETR
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	Description	
	Contact Block, Momentary Action 2 N/C 	FRVKOO
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	Description	
	Contact Block, Momentary Action C/O NC  NC NO  NO	S1
	Assembly screw kit to enable 3 or 4 S1 contacts to be mounted on a single Heavy Duty actuator.	U42
EMSL Series		
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	Description	
	Base mounted normally closed contact block 	EMSL/NC
	Base mounted normally open contact block 	EMSL/NO

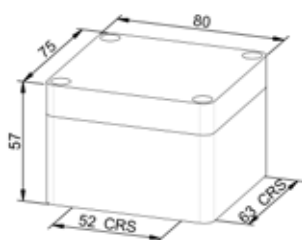
Technical Specification

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

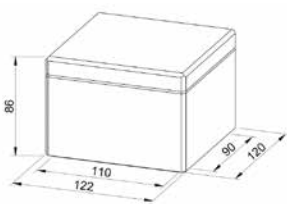
Series	Current	Utilisation Category	Rated Insulation Voltage (U_i)	Rated Operational Voltage (U_e) / Current (I_e)										Breaking Capacity	Continuous thermal current (I_{th})
MT	a.c.	AC15 A600	600V	V	-	-	-	-	250	440	-	-	-	10le	16A
				A	-	-	-	-	3	1.6	-	-	-		
	d.c.	DC13 Q600	600V	V		24	60	125	250	440				1.1le	16A
				A		2	1	0.4	0.2	0.12					
ET	a.c.	AC15	400V	V	-	-	-	-	250	400	-	-	-	10le	10A
				A	-	-	-	-	5	3	-	-	-		
	d.c.	DC13	400V	V	-	24	60	125	250	400	-	-	-	1.1le	10A
				A	-	2	1	0.4	0.2	0.12	-	-	-		
Mono bloc	a.c.	AC15 B300	250V	V	-	-	-	120	240	-	-	-	-	-	10A
				A	-	-	-	5	5	-	-	-	-		
S1	a.c.	AC15	660V	V	-	-	-	-	-	400	-	-	-	-	10A
				A	-	-	-	-	-	5	-	-	-		
EMSL	a.c.	AC15	690V	V	12	24	48	120	240	400	480	500	600	10le	10A
				A	6	6	6	6	6	3	1.5	1.4	1.2		
	d.c.	DC13	690V	V	12	24	48	125	250	440	-	500	600	1.1le	10A
				A	3	3	1.5	0.55	0.27	0.15	-	0.13	0.1		

Dimensions

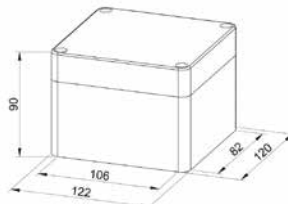
Dims as shown are for the enclosures only used in the various assemblies.



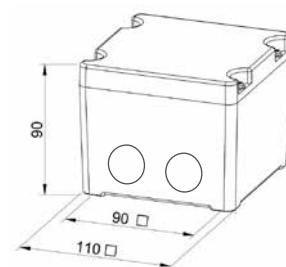
Enclosure D0
Material Die-Cast Aluminium
Colour Grey (RAL 7001)
Entries Plain sides
Fixings 2 x M4



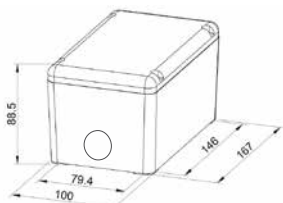
Enclosure D2
Material Polycarbonate
Colour Grey (RAL 7035)
Entries Plain sides
Fixings 2 x M4



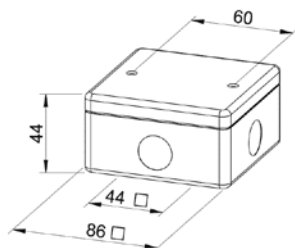
Enclosure D4
Material Glass reinforced Polyester
Colour Grey (RAL 7001)
Entries Plain sides
Fixings 4 x M5



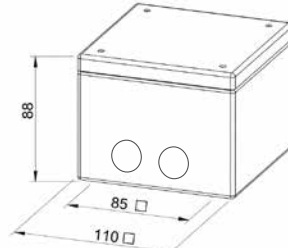
Enclosure D5
Material Die-Cast Aluminium
Colour Grey (RAL 7035)
Red (RAL 3020)
Entries 2 x M20
Fixings 4 x M5



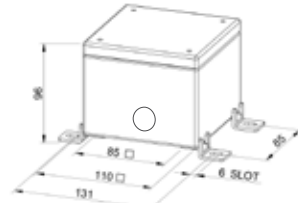
Enclosure D7
Material Die-Cast Aluminium
Colour Grey (RAL 7035)
Entries 1 x M20
Fixings 4 x M5



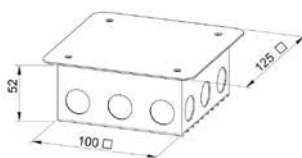
Enclosure D8
Material Steel
Colour Silver
Entries 5 x M20 knockouts
Fixings 4 off 5 x 10 slots



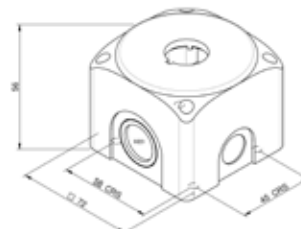
Enclosure D9
Material Stainless Steel (Grade 304)
Colour Brushed
Entries 2 x M20
Fixings 4 x M6



Enclosure D10
Material Stainless Steel (Grade 304)
Colour Brushed
Entries 1 x M20
Fixings 4 x M6



Enclosure D11
Material Fascia Plate - Stainless Steel
Back Box - Galvanised
Steel
Colour Fascia Plate - Brushed
Entries 9 x M20 knockouts
Fixings 4 x M5



Enclosure D12
Material Polycarbonate
Colour Yellow/Black
Entries 2 x M20/M25/
PG13.5/PG16
2 x M16/PG11
Fixings 4xM4

BESPOKE PRODUCTS

Craig & Derrickott offer a bespoke and special product service known as mi-switch, enabling customers to specify exact requirements which can be made to order.

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