How safe is your workspace?

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 94/9/EC** ("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 61241-0** Electrical apparatus for use in the presence of combustible dust - General requirements.
- **BS EN 61241-1** Electrical apparatus for use in the presence of combustible dust - Protection by enclosures 'tD'.
- **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.

ATEX Switch-Disconnectors 25A - 63A

Craig & Derricott has been manufacturing enclosed switchgear for more than 60 years. We have incorporated all of that experience in producing an outstanding product that has now been approved for use in explosive dust atmospheres.

Using high quality die cast aluminium and hinged lid sheet steel enclosures the range covers 20A - 63A ratings

Size A

Size B

Moulded Padlocking Handle & Base mounted interiors

Sizes C&D
Hinged lid sheet steel enclosure:-
Base mounted interior (63A)

Catalogue Numbers

Rating	Format	Cat. No.	Enclosure Size
20A	6P+2 EB Aux	SDDG206EBZ22	A
25A	3P+2 EB Aux	SDDG253EBZ22	A
32A	3P+2 EB Aux	SDDG323EBZ22	A
	6P+2 EB Aux	SDDG326EBZ22	B
40A	3P+2 EB Aux	SDDG403EBZ22	B
	6P+2 EB Aux	SDDG406EBZ22	B
63A	3P+2 EB Aux	SDDG633EBZ22	B
63A	3P+2 EB Aux	SDMG633EBZ22	C
	6P+2 EB Aux	SDMG636EBZ22	D

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Safety Features

Padlocking

All items allow for the fitting of up to three padlocks in the 'Off' position.

Design Features

Auxiliary Contacts

The 'EB' addition to the catalogue numbers denotes the inclusion of 2 off ***early break*** contacts.

In all cases these are factory fitted to the isolator interior.

Technical Specification

Data supplied against tests to BS EN 60947-3

				Rating					
				6P	3P	3P+6P	3P	6P	3P+6P
Application	Sym.	Unit	Category	20A	25A	32A	40A	40A	63A
Rated thermal current	I_{the}	A		20	25	32	40	40	63
Rated insulation voltage	U_i	V		690	690	690	690	690	690
Rated impulse voltage	U_{imp}	kV		6.0	6.0	6.0	6.0	6.0	6.0
Rated operational power (3 phase AC)		kW	380/440V - AC23	7.5	11	15	15	15	25
			500V - AC23	7.5	15	15	15	15	30
			690V - AC23	7.5	15	15	15	15	30
Rated short time withstand current (1 sec)	I_{cw}	A		250	500	600	600	600	1300
Max. fuse size for short circuit protection (gG Characteristic)		kA	10kA	20	35	35	40	40	80
			25kA	16	32	32	32	32	63
			50kA	-	32	32	32	32	63
Connecting capacity		-	Terminal type						
		mm²	Flexible cable	2.5 x 2	6	6	6	6	16
		mm²	Rigid cable	2.5 x 2	10	10	10	10	25
		Nm	Tightening torque	1.0	1.2	1.2	1.2	1.2	1.2

Certification Details 20A - 63A

Die cast Aluminium

Coding — **II 3D**
Ex tc IIIB T85°C dc

Complies in part or in full with standards:- — **BS EN 60079-0, BS EN 60079-31**
BS EN 60529, BS EN 60947-3, BS EN 60204-1

Sheet steel

Coding — **II 3D**
Ex tD A22 IP65 T85°C

Complies in part or in full with standards:- — **BS EN 60079-0, BS EN 61241-0, BS EN 61241-1**
BS EN 60529, BS EN 60947-3, BS EN 60204-1

(Must not be used in areas which exhibit conductive dust)

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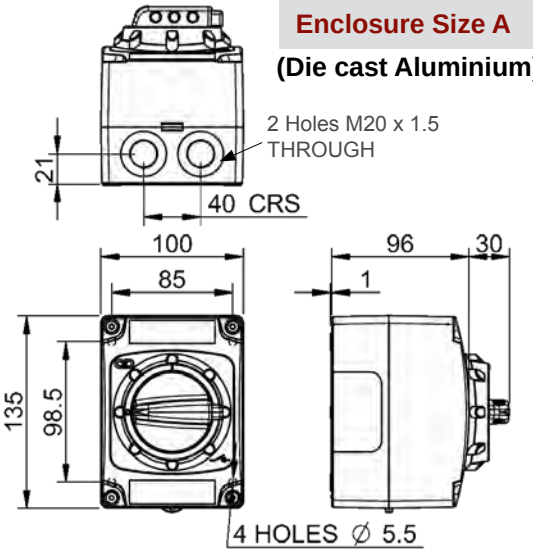
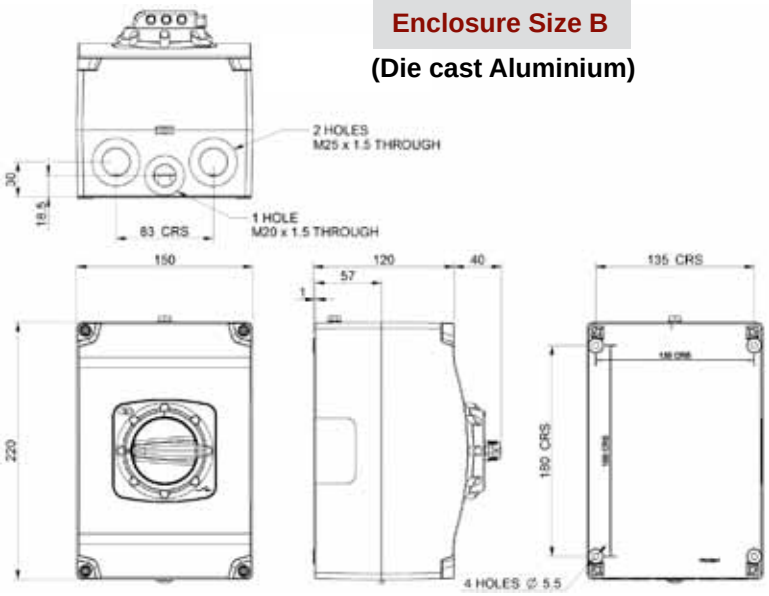
Dimensions

Enclosure Size A
(Die cast Aluminium)

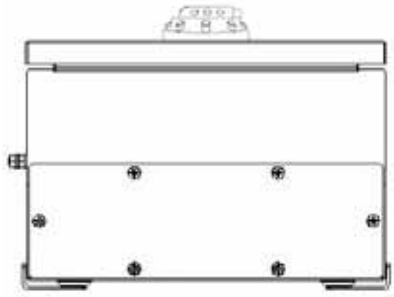


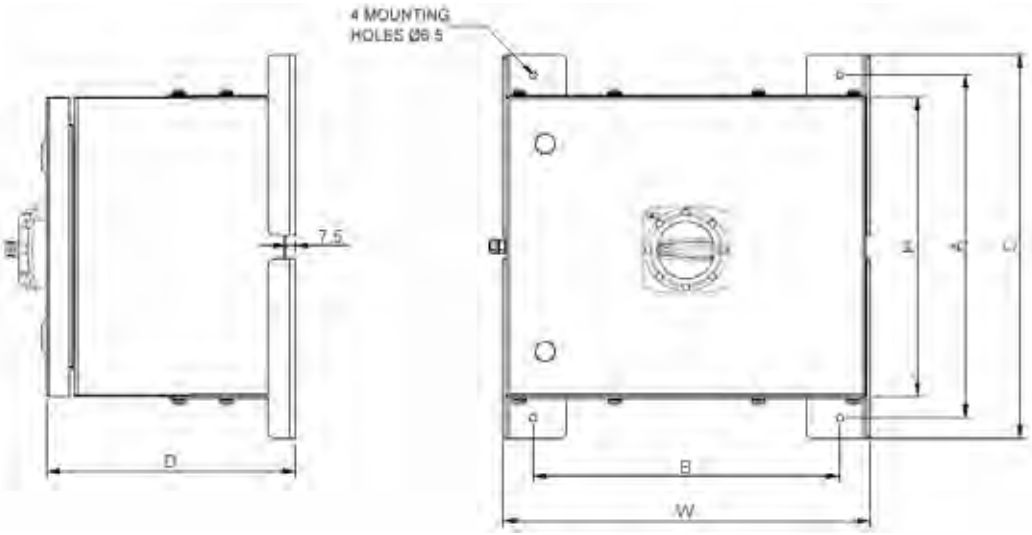
Enclosure Size B
(Die cast Aluminium)



Enclosure Sizes C & D
(Sheet Steel)

Dim	H	W	D	A	B	C
Size C	250	256	108	286	206	320
Size D	250	306	208	286	256	320





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