

General Description

Craig & Derricott has been producing switch disconnectors for more than 30 years. Combining our switching expertise with the specific requirements of the ventilation industry, led to the development of our 'High Temperature Isolation' range. Excellent switching characteristics with high temperature environment contact stability makes this the ideal product range.

The critical role these switches perform is to maintain the power to the ventilation equipment, allowing safe evacuation of a business or public area. Often, these devices are mounted local to the extraction fans. As an assembly, it is essential they comply with the stringent thermal requirements of BS EN 12101 - 2003.

The complete range are housed in metal enclosures, the user can therefore be assured that there will be no distortion affecting the connecting cables and its supports.



"Smoke kills more people than fire. A well known fact, and it's the job of the ventilation designer to ensure this doesn't happen - and to do this effectively he will need continuous power"

Electrical Characteristics

Rating (A)

Application	Sym.	Unit	Category	20A	32A	63A	125A	200A	400A
Enclosure material/size (See page 2)				Sheet St. (A)	Die-cast (B)	Sheet St. (C)	Sheet St. (D)	Sheet St. (E)	Sheet St. (F)
Rated thermal current	I_{th}	A		20.0	32.0	63.0	125.0	200	400
Rated Insulation voltage	U_i	V		690	690	690	690	1000	1000
Rated operational current (AC)	I_e	A	400/415V - AC21A	20.0	32.0	63.0	125.0	200.0	400.0
			400/415V - AC22A	20.0	32.0	63.0	125.0	200.0	400.0
			400/415V - AC23A	20.0	32.0	-	100.0	200.0	400.0
Rated operational power (AC)		kW	3 x 400/415V - AC23A	10.0	15.0	18.6	55.0 (AC23B)	110.0	200.0
Conditional short circuit current	I_{cc}	kA		50.0*	50.0*	50.0*	50.0*	-	-
Short circuit making capacity	I_{cm}	kA	Peak value	-	-	-	-	35	65
Short circuit withstand (1 sec)	I_{cw}	kA	RMS value	-	-	-	-	8	17
Minimum mechanical endurance			Cycles	$>0.5 \times 10^5$	$>0.5 \times 10^6$	$>0.5 \times 10^6$	$>0.5 \times 10^6$	$>16 \times 10^3$	$>10 \times 10^3$
Connecting capacity		-	Terminal type						
		mm ²	Flexible cable	6.0	6.0	25.0	50.0	M8x25	M10x40
		mm ²	Stranded cable	6.0	6.0	25.0	50.0	M8x25	M10x40

* Max size BS 88 fuse in circuit 20A - 32A, 32A - 32A, 63A - 63A, 125/200A - 125A



20A item housed in red finished sheet steel enclosure. The circular locking handle allows for the insertion of up to 3 padlocks in the 'On' & 'Off' position.

32A item enclosed within a heavy duty die-cast aluminium enclosure. Can be supplied padlockable in both 'On' & 'Off' positions to special order.



Specifications

Within BS EN 12101-3 :2002 (Smoke and heat control systems.) which is the specification for powered smoke and heat exhaust ventilators, there are several classes of duty. These define specifically the temperature gradient and upper limit for the test as well as the time period over which the test will last. Within the range of this equipment are the following classes:-

F200	200°C for 120 minutes
F300	300°C for 60 minutes
F400	400°C for 120 minutes

The specification calls for dynamic tests designed to check the performance of complete ventilation assemblies. The attached isolator is required to maintain the essential supply throughout the duration of the test. To ensure the capability of this equipment Craig & Derricott test laboratory has taken the temperature and time limits up to 300°C for 5 hours successfully on selected items.

Catalogue References

Rating	Format	Assembly Format	Cat Ref (Finished Red)	Temp. Class (See above)	Enclosure Size
20A	2P	Lid mounted in sheet steel enclosure	RD2011/CP/SEHT	F400	Size A
	3P		RT2021/CP/SEHT		
	3P + 2EB Aux		RT2031/2EB/CP/SEHT		
	3P + NL		RT2021/CP/SEHT/NL		
	4P		RQ2021/CP/SEHT		
	6P		RY2031/CP/SEHT		
32A	2P	Lid mounted in die-cast aluminium enclosure	RD3011/HPHT	F400	Size B
	3P		RT3021/HPHT		
	3P + 2EB Aux		RT3031/2EB/HPHT		
	3P + NL		RT3021/HPHT/NL		
	4P		RQ3021/HPHT		
	6P		RY3031/HPHT		
	6P + 2EB Aux		RY3041/2EB/HPHT		
63A	2P	Base mounted in sheet steel enclosure	RDB6321/HPHT	F400	Size C
	3P		RTB6341/HPHT		
	3P + 2EB Aux		RTB6351/2EB/HPHT		
	3P + NL		RTB6341/HPHT/NL		
	4P		RQB6341/HPHT		
	6P		RYB6361/HPHT		
	6P + 2EB Aux		RYB6371/2EB/HPHT		
125A	2P	Base mounted in sheet steel enclosure	RS1BD11/HPHT	F400	Size D
	3P		RS1BT21/HPHT		
	3P + 2EB Aux		RS1BT31/2EB/HPHT		
	3P + NL		RS1BT21/HPHT/NL		
	4P		RS1BQ21/HPHT		
	6P		RS1BY31/HPHT		
	6P + 2EB Aux		RS1BY41/2EB/HPHT		
200A	TP&SN		SDG02003N/HPHT	F300	Size E
400A	TP&SN		SDG04003N/HPHT	F300	Size F

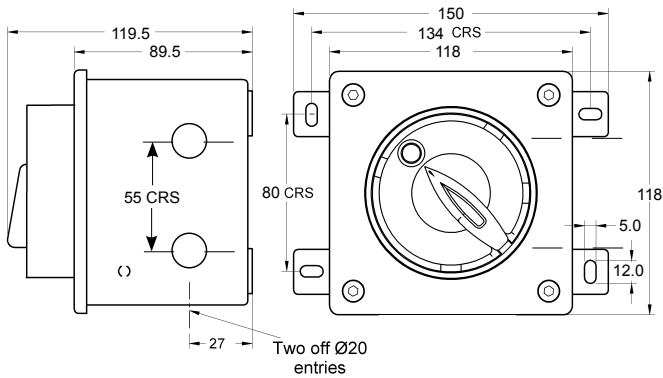


32A die-cast and 20A & 125A sheet steel examples

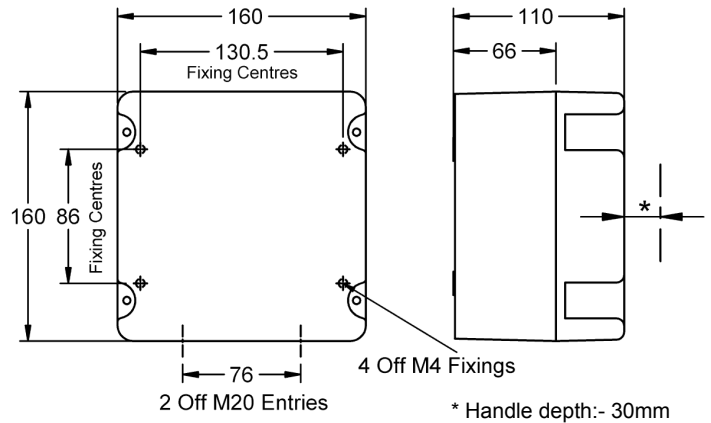
Universal features

- Positive mode contacts.
- Sealing to IP65
- Padlockable in the 'Off' position
- Finished in RAL 3020 (Traffic Red) textured powder coat finish (200A/400A - Grey RAL7035)
- Cable entries:-
 - 20A 2 x Ø20 plain holes
 - 32A 2 x M20
 - 63A - 400A Undrilled bottom gland plate

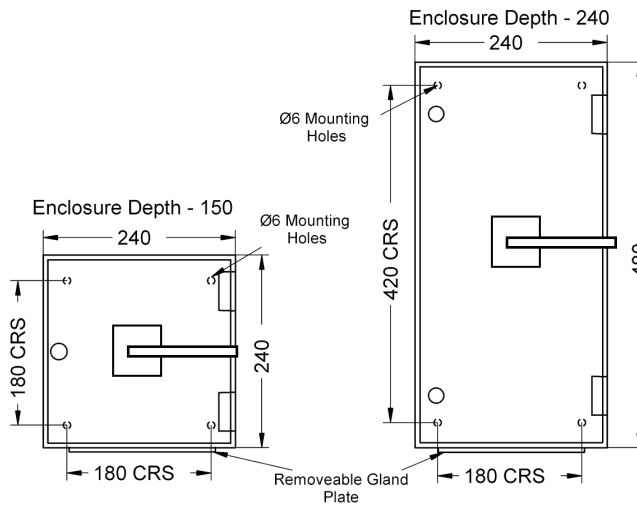
Enclosure Dimensions



Enclosure Size 'A'



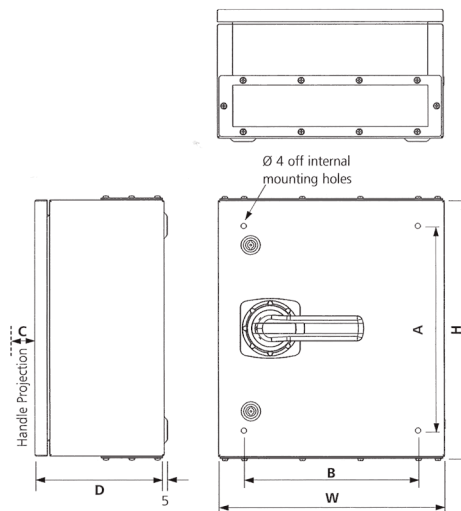
Enclosure Size 'B'



Enclosure 'C'

Enclosure 'D'

Dim	Encl. E	Encl. F
H	550	750
W	450	450
D	250	275
A	470	670
B	370	370
C	67	67
Ø	8.5	8.5



Enclosures 'E & F'