

Fire Rated Isolators



Enclosed isolators for high temperature use.

- 20A - 125A ratings
- BS EN 12101-3:2002 tested
- 'F400' rated throughout
- IP65 Metal enclosures
- Padlocking in 'OFF' & 'ON'
- Red paint finish (RAL 3020)



General Description

Craig & Derricott have been designing electrical switchgear for more than 65 years and it's from this expertise that a development for the ventilation industry has led to the extensive 'High Temperature Isolator' range. Contact stability at extended temperatures, typically 400°C for 2 hours (F400), is the basis of the design.

The critical role these switches perform is to maintain the power to vital equipment such as smoke extraction fans, allowing the safe evacuation of business, car-parks or public areas. Often these devices are mounted local to the extraction fans and, as an assembly, it is essential that they comply with the stringent thermal requirements of BS EN 12101-3: 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 their supports under high temperature conditions.

“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 - to do this effectively he will need continuous power.

Technical Data

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

Application	Sym.	Unit	Category	20A	32A	63A	125A
Rated thermal current	I_{the}	A		20	32	63	125
Rated insulation voltage	U_i	V		690	690	690	690
Rated impulse voltage	U_{imp}	kV		6.0	6.0	6.0	6.0
Rated operational power (3 phase AC)		A/kW	415V - AC23A	20/9.5	32/15	40/18.5	100/55
			690V - AC23B	20/9.5	20/9.5	20/9.5	-
			660V - AC23B	-	-	-	30/22
Conditional Short Circuit Current	Fuse gG	kA/ Fuse(A)	415V	50/32	50/32	50/63	50/200
			690V	40/32	40/32	40/63	50/63
Recommended connecting capacity		-	Terminal type				
			mm ² Flexible cable	2.5	6	16	50
			mm ² Rigid cable	2.5	10	25	50
			Nm Tightening tor.	1.2	1.2	3.0	10.0

Specification

Within BS EN 12101-3: 2003 (Smoke and heat controls) there are several classes of duty which define a specific temperature gradient, upper temperature limit and time period.

F200 200°C for 120 min. **F300** 300°C for 60 min. **F400** 400°C for 120 min.

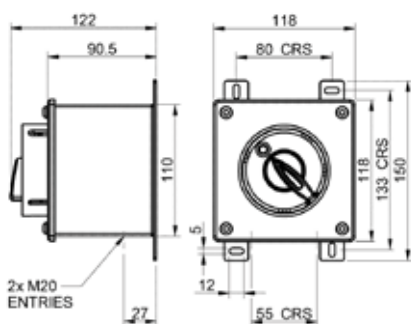
The specification calls for dynamic tests designed to check the performance of the complete ventilation system. The critical function of the associated isolator is required to maintain the essential supply for the duration of the test.



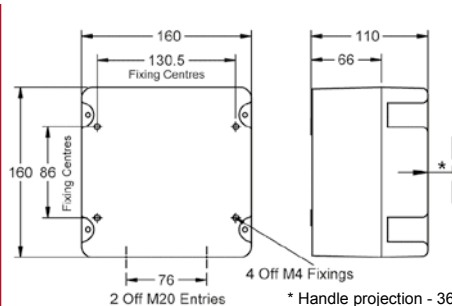
Catalogue References.

Rating	Format	Assembly Form	Catalogue No. (Finished Red)	Temp. Class.	Encl. size
20A	2P	Lid mounted in sheet steel enclosure	FSDMR0202	F400	A
	3P		FSDMR0203		
	3P+2EB Aux		FSDMR0203EB		
	3P+N		FSDMR0203N		
	4P		FSDMR0204		
6P	FSDMR0206				
32A	2P	Lid mounted in die-cast aluminium enclosure	FSDDR0322	F400	B
	3P		FSDDR0323		
	3P+2EB Aux		FSDDR0323EB		
	3P+N		FSDDR0323N		
	4P		FSDDR0324		
	6P		FSDDR0326		
6P+2EB Aux	FSDDR0326EB				
63A	2P	Base mounted in hinged lid sheet steel enclosure	FSDMR0632	F400	C
	3P		FSDMR0633		
	3P+2EB Aux		FSDMR0633EB		
	3P+N		FSDMR0633N		
	4P		FSDMR0634		
	6P		FSDMR0636		
6P+2EB Aux	FSDMR0636EB				
125A	2P	Base mounted in hinged lid sheet steel enclosure	RS1BD11/HPHT	F400	D
	3P		RS1BT21/HPHT		
	3P+2EB Aux		RS1BT31/2EB/HPHT		
	3P+N		RS1BT21/HPHT/NL		
	4P		RS1BQ21/HPHT		
	6P		RS1BY31/HPHT		
6P+2EB Aux	RS1BY41/2EB/HPHT				

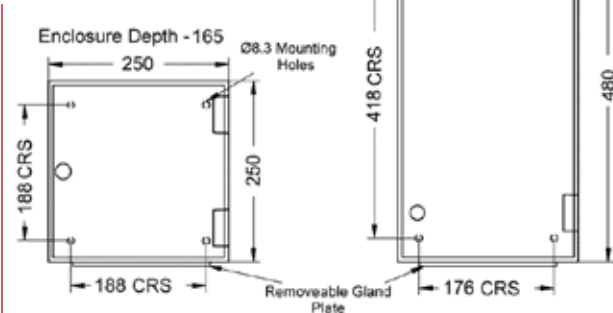
Dimension Drawings



Enclosure A



Enclosure B



Enclosure C

Enclosure D