

Technical Data Sheet

F400 Fire Rated Switchgear

CDPD160
Issue 12

F400 Fire Rated Switchgear

The 20A to 1250A F400 Fire Rated product range is supplied in either an IP65 Die-Cast Aluminium enclosure or a hinged door Sheet Steel enclosure, coated in a protective Traffic Red (RAL3020) powder coat finish. The Die-Cast Aluminium products, 20A-63A, are fitted with a black powder coated Die-Cast Aluminium handle while the Sheet Steel enclosed products, 63A and above, are fitted with a highly durable aluminium operating handle. All units from this range feature the ability to be padlocked in both the OFF and ON positions as standard.

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. Units rated 32A and above are suitable for enhanced fire rated cables. Stainless Steel 316L enclosures are available on request for the hinged door Sheet Steel product range. Replace 'R' with 'S' in the catalogue number, e.g. F400SDS0633N.

Factory fitted auxiliaries on the 20A-63A Die-Cast range, and 63A-125A hinged door Sheet Steel range are fully rated and fire rated to F400. Non-fire rated auxiliaries are available for the 160A-1250A hinged door Sheet Steel products on request, add '/AUX' to the catalogue number, e.g. F400SDR01604/AUX

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

When using enhanced fire resistant power cables, please check gland sizes to suit the required product.









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

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	40A	2P	F400DDR0040T2	FB	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	2xM25 Top & Btm	C9874/20-2					
		3P	F400DDR0040T3											
		3P+NL	F400DDR0040T3NL											
		3P+2EB	F400DDR0040T3EB											
		4P	F400DDR0040T4											
		4P+2EB	F400DDR0040T4EB											
		6P	F400DDR0040T6											
		8P	F400DDR0040T8											
		6P+2EB	F400DDR0040T6EB					2xM25 Top & Btm + 1xM20 Btm						
	63A	2P	F400DDR00632	FB	Die-Cast Aluminium	Traffic Red RAL 3020	IP65	2xM32 Top & Btm	C9874/20-2					
		3P	F400DDR00633											
		3P+NL	F400DDR00633NL											
		3P+2EB	F400DDR00633EB											
		4P	F400DDR00634											
		4P+2EB	F400DDR00634EB											
		6P	F400DDR00636											
		8P	F400DDR00638											
	63A	2P	F400SDR00632	F1	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-3					
		3P	F400SDR00633											
		3P+NL	F400SDR00633NL											
		3P+2EB	F400SDR00633EB											
		4P	F400SDR00634											
		4P+2EB	F400SDR00634EB											
		6P	F400SDR00636											
		8P	F400SDR00638											
		6P+2EB	F400SDR00636EB											
	80A	2P	F400SDR00802	F2	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-4					
		3P	F400SDR00803											
		3P+NL	F400SDR00803NL											
		3P+2EB	F400SDR00803EB											
				4P					F400SDR00804	F4				C9874/20-9
		4P+2EB	F400SDR00804EB											
		6P	F400SDR00806											
		8P	F400SDR00808											
		6P+2EB	F400SDR00806EB											
	125A	2P	F400SDR01252	F4	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-9					
		3P	F400SDR01253											
		3P+NL	F400SDR01253NL											
		3P+2EB	F400SDR01253EB											
		4P	F400SDR01254											
		6P	F400SDR01256											
		6P+2EB	F400SDR01256EB											
		8P	F400SDR01258											
	160A	3P	F400SDR01603	F5	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6					
		3P+NL	F400SDR01603NL											
		4P	F400SDR01604											
		6P	F400SDR01606											
	200A	3P	F400SDR02003	F5	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6					
		3P+NL	F400SDR02003NL											
		4P	F400SDR02004											
		6P	F400SDR02006											
	250A	3P	F400SDR02503	F5	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874/20-6					
		3P+NL	F400SDR02503NL											
		4P	F400SDR02504											
		6P	F400SDR02506											

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Image	Rating	Format	Cat. No.	Encl. Size	Encl. Material	Encl. Colour	IP Rating	Cable Entries	Cert.No.
	315A	3P	F400SDR03153	F6	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874 /20-7
		3P+NL	F400SDR03153NL						
		4P	F400SDR03154						
	400A	3P	F400SDR04003	F6	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874 /20-7
		3P+NL	F400SDR04003NL						
		4P	F400SDR04004						
	630A	3P	F400SDR06303	F8	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9874 /20-7
		3P+NL	F400SDR06303NL						
		4P	F400SDR06304						
	1250A	3P	F400SDR12503	F9	Sheet Steel	Traffic Red RAL 3020	IP65	Removable Gland Plates Top & Btm	C9813/19-3
		3P+NL	F400SDR12503NL						

Technical Specification

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

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

* 63A in Die-Cast Aluminium enclosure = 16mm². 63A in Sheet Steel enclosure = 25mm²

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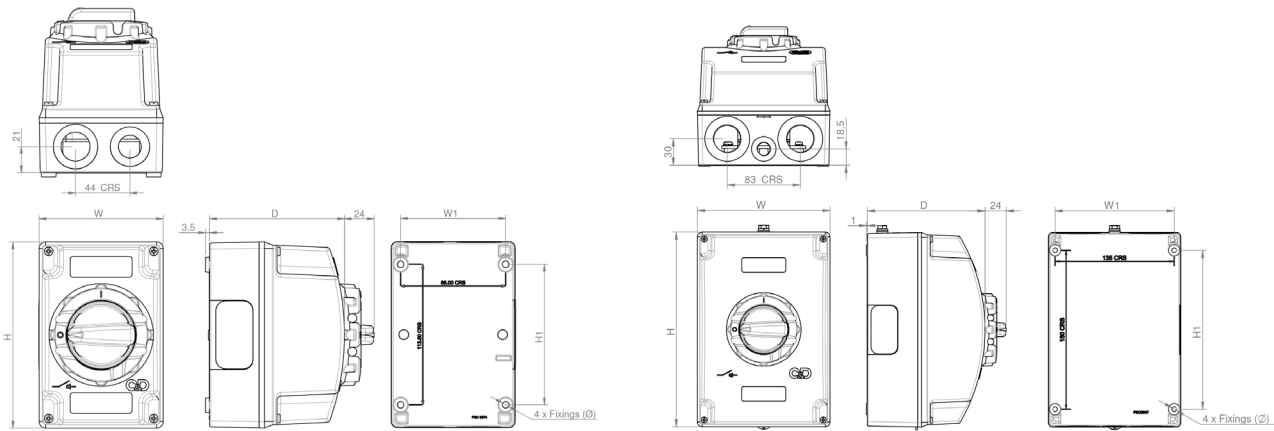
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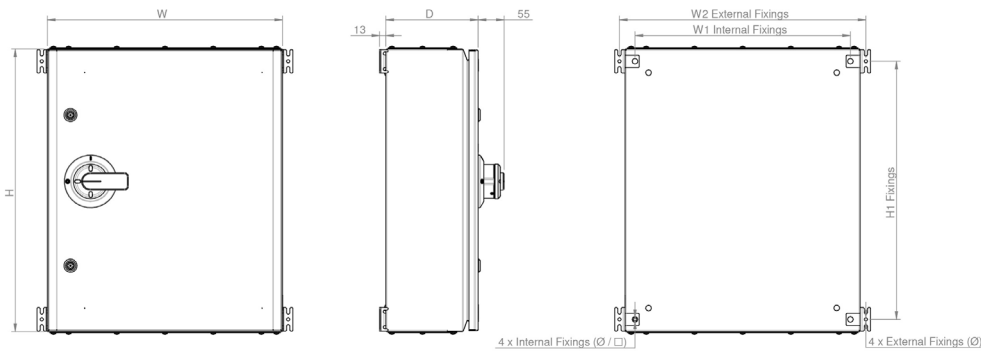
Dimensions

Size FA

Size FB



Sizes F1- F9



Encl. Size	Overall Dims.			Fixing Details			
	H	W	D	H1	W1	W2	Ø
FA	150.25	100.25	122.5	113.5	85	--	5.5
FB	220	150	134	180	135	--	5.5
F1	300	300	150	248	258	324	7
F2	400	300	200	348	258	324	7
F3	500	300	200	448	258	324	7
F4	500	300	250	448	258	324	7
F5	600	500	200	548	458	524	7
F6	800	600	200	748	558	624	7
F7	800	600	300	748	558	624	7
F8	1000	600	300	948	558	624	7
F9	1400	800	300	1288	--	824	7