Technical Data Sheet

Fire Rated - F200 Enclosed Switch-Disconnectors

CDPD105
Issue 3

General Description

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' positions.

'N' = switched neutral (Early make, late break) | 'NL' = Unswitched neutral | 'EB = Early break auxiliary contacts
'T'= Increased terminal capacity

Image	Rating	Format	Cat. No.	Cable Entries	Encl. Size	Encl. Material	IP Rating	Encl. Colour
	20A	6P	F2SDDR206	1xM20+1M25 Top & Btm	A	Die-Cast Aluminium	IP66	Traffic Red Ral 3020
		6P+2EB Aux	F2SDDR206EB	1xM20 Top & Btm + 1xM205Top & Btm +1xM20 RHS				
	25A	2P	F2SDDR252	1xM20+1M25 Top & Btm	A	Die-Cast Aluminium	IP66	Traffic Red Ral 3020
		3P	F2SDDR253					
		3P+2EB Aux	F2SDDR253EB					
		3P+N	F2SDDR253N					
		3P+NL	F2SDDR253NL					
	32A	2P	F2SDDR322	1xM20 +1xM25 Top & Btm	A	Die-Cast Aluminium	IP66	Traffic Red Ral 3020
		3P	F2SDDR323					
		3P+2EB Aux	F2SDDR323EB					
		3P+N	F2SDDR323N					
		3P+NL	F2SDDR323NL					
	40A	2P	F2SDDR402	1xM20 +1xM25 Top & Btm	A	Die-Cast Aluminium	IP66	Traffic Red Ral 3020
		3P	F2SDDR403					
		3P+2EB Aux	F2SDDR403EB					
		3P+N	F2SDDR403N					
		3P+NL	F2SDDR403NL					
		2P	F2SDDR402T	2xM25 Top & Btm	B		IP65	
		3P	F2SDDR403T					
		3P+2EB Aux	F2SDDR403EBT					
		3P+N	F2SDDR403NT					
		3P+NL	F2SDDR403NLT					
		6P	F2SDDR406					
		6P+2EB Aux	F2SDDR406EB	2xM25 Top & Btm + 1xM20 Btm				
	63A	2P	F2SDDR632	2xM32 Top & Btm	B	Die-Cast Aluminium	IP65	Traffic Red Ral 3020
		3P	F2SDDR633					
		3P+2EB Aux	F2SDDR633EB					
		3P+N	F2SDDR633N					
		3P+NL	F2SDDR633NL					
	80A	3P	F2SDDR803	2xM32 Top & Btm	B	Die-Cast Aluminium	IP65	Traffic Red Ral 3020
		3P+N	F2SDDR803N					
		3P+NL	F2SDDR803NL					
	63A	3P+N	F2SDRC00633N	Gland Plates Top & Btm	1	Sheet Steel	IP65	Traffic Red Ral 3020
		3P+NL	F2SDRC00633NL					
		6P	F2SDRC00636					
	80A	3P+N	F2SDRC00803N	Gland Plates Top & Btm	1	Sheet Steel	IP65	Traffic Red Ral 3020
		3P+NL	F2SDRC00803NL					
		6P	F2SDRC00806					
	100A	3P+N	F2SDRC01003N	Gland Plates Top & Btm	2	Sheet Steel	IP65	Traffic Red Ral 3020
		3P+NL	F2SDRC01003NL					
	125A	3P+N	F2SDRC01253N	Gland Plates Top & Btm	2	Sheet Steel	IP65	Traffic Red Ral 3020
		3P+NL	F2SDRC01253NL					
	160A	3P+N	F2SDRC01603N	Gland Plates Top & Btm	2	Sheet Steel	IP65	Traffic Red Ral 3020
		3P+NL	F2SDRC01603NL					
	200A	3P+N	F2SDRC02003N	Gland Plates Top & Btm	3	Sheet Steel	IP65	Traffic Red Ral 3020
		3P+NL	F2SDRC02003NL					

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Technical Data Sheet

Fire Rated - F200 Enclosed Switch-Disconnectors

CDPD105
Issue 3

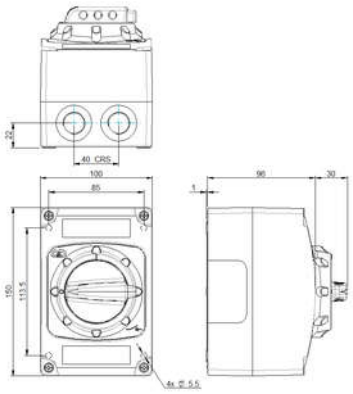
Technical Specification

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

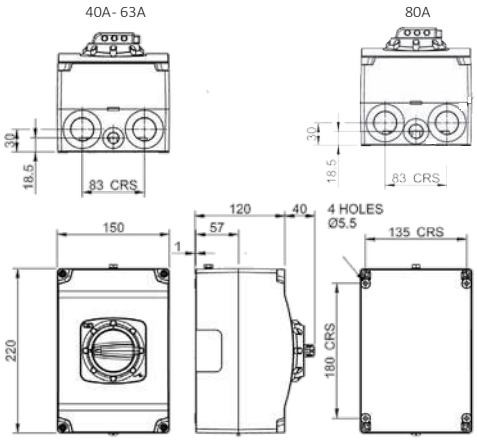
Application	Sym.	Unit	Category	20A	25A	32A	40A			63A	80A	100A	125A	160A	200A
Switch product range	-	-		GX20	CS25	CS32	GX40	CS40	CS40R	CS63	CS80	CS100	CS125	CS160	CS200
Rated thermal current	I_{the}	A		20	25	32	40	40	40	63	80	100	125	160	200
Rated insulation voltage	U_i	V		690	690	690	690	690	690	690	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	25	50	50	70
		mm^2	Rigid cable	2.5 x 2	10	10	10 x 2	25	10	25	25	50	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	10

Dimensions

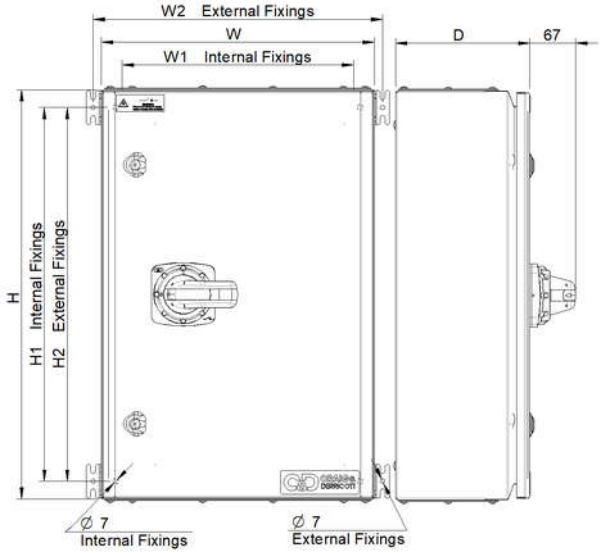
Size A



Size B



Size 1-3



Encl.	H	W	D	H1	H2	W1	W2
1	300	300	150	248	248	258	324
2	400	300	150	348	348	258	324
3	600	400	200	548	548	358	424

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Technical Data Sheet

F400 Fire Rated Enclosed Switch-Disconnectors (Suitable for F300 applications)

CDPD160
Issue 11

General Description

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.
All F400 products are suitable for F300 applications.

F400

Image	Rating	Format	Cat. No.	Cable Entries	Encl. Size	Encl. Material	IP Rating	Encl. Colour	Cert. No.
	20A	2P	F400DDR00202	1xM20+1xM25 Top & Btm	FA 150 x 100 x 122.5	Die-Cast Aluminium	IP65	Traffic Red RAL 3020	C9874/20
		3P	F400DDR00203						
		3P+NL	F400DDR00203NL						
		4P	F400DDR00204						
		3P+2EB	F400DDR00203EB						
		4P+2EB	F400DDR00204EB						
		6P	F400DDR00206						
		8P	F400DDR00208						
		6P+2EB	F400DDR00206EB	1xM20+1xM25 Top & Btm + 1xM20 Rhs					
	25A	2P	F400DDR00252	1xM20+1xM25 Top & Btm	FA 150 x 100 x 122.5	Die-Cast Aluminium	IP65	Traffic Red RAL 3020	C9874/20
		3P	F400DDR00253						
		3P+NL	F400DDR00253NL						
		4P	F400DDR00254						
		3P+2EB	F400DDR00253EB						
		4P+2EB	F400DDR00254EB						
		6P	F400DDR00256						
		8P	F400DDR00258						
		6P+2EB	F400DDR00256EB	1xM20+1xM25 Top & Btm + 1xM20 Rhs					
	32A	2P	F400DDR00322	1xM20+1xM25 Top & Btm	FA 150 x 100 x 122.5	Die-Cast Aluminium	IP65	Traffic Red RAL 3020	C9874/20
		3P	F400DDR00323						
		3P+NL	F400DDR00323NL						
		4P	F400DDR00324						
		3P+2EB	F400DDR00323EB						
		4P+2EB	F400DDR00324EB						
		6P	F400DDR00326						
		8P	F400DDR00328						
		6P+2EB	F400DDR00326EB	1xM20+1xM25 Top & Btm +1xM20 Rhs					

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CDPD160
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Image	Rating	Format	Cat. No.	Cable Entries	Encl. Size	Encl. To	IP Rating	Encl. Colour	Cert. No.
	40A	2P	F400DDR00402	1xM20+1xM25 Top & Btm	FA 150 x 100 x 122.5	Die-cast Aluminum	IP65	Traffic Red RAL 3020	C9874/20
		3P	F400DDR00403						
		3P+NL	F400DDR00403NL						
		4P	F400DDR00404						
		3P+2EB	F400DDR00403EB						
		4P+2EB	F400DDR00404EB						
		6P	F400DDR00406						
		8P	F400DDR00408						
		6P+2EB	F400DDR00406EB	1xM20+1xM25 Top & Btm + 1xM20 Rhs					
	40A	2P	F400DDR0040T2	2xM25 Top & Btm	FB 220 x 150 x 134	Die-Cast Aluminium	IP65	Traffic Red RAL 3020	C9874/ 20-2
		3P	F400DDR0040T3						
		3P+2EB	F400DDR0040T3EB						
		3P+NL	F400DDR0040T3NL						
		4P	F400DDR0040T4						
		4P+2EB	F400DDR0040T4EB						
		6P	F400DDR0040T6						
		8P	F400DDR0040T8						
		6P+2EB	F400DDR0040T6EB	2xM25 Top & Btm + 1xM20 Btm					
	63A	2P	F400DDR00632	2xM32 Top & Btm	FB 220 x 150 x 134	Die-Cast Aluminium	IP65	Traffic Red RAL 3020	C9874/ 20-2
		3P	F400DDR00633						
		3P+2EB	F400DDR00633EB						
		3P+NL	F400DDR00633NL						
		4P	F400DDR00634						
		4P+2EB	F400DDR00634EB						
		6P	F400DDR00636						
		8P	F400DDR00638						

20A to 40A Die cast FA unit with lid removed. Illustrating Base mounted switch disconnector for easy cabling.



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F400 Fire Rated Enclosed Switch-Disconnectors (Suitable for F300 applications)

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Image	Rating	Format	Cat. No.	Cable Entries	Encl. Size	Encl. Material	IP Rating	Encl. Colour	Cert. No.
	63A	2P	F400SDR00632	Removable Gland Plates Top & Btm	F1 - 300 x 300 x 150	Sheet Steel	IP65	Traffic Red RAL 3020	C9874/ 20-3
		3P	F400SDR00633						
		3P+2EB	F400SDR00633EB						
		3P+NL	F400SDR00633NL						
		4P	F400SDR00634						
		4P+2EB	F400SDR00634EB						
		6P	F400SDR00636						
		8P	F400SDR00638						
		6P+2EB	F400SDR00636EB						
	80A	2P	F400SDR00802	Removable Gland Plates Top & Btm	F2 - 400 x 300 x 200	Sheet Steel	IP65	Traffic Red RAL 3020	C9874/ 20-4
		3P	F400SDR00803						
		3P+NL	F400SDR00803NL						
		3P+2EB	F400SDR00803EB						
		4P	F400SDR00804						
		4P+2EB	F400SDR00804EB						
		6P	F400SDR00806						
		6P+2EB	F400SDR00806EB		F4 - 500 x 300 x 250				C9874/ 20-9
		8P	F400SDR00808						
	125A	2P	F400SDR01252	Removable Gland Plates Top & Btm	F4 - 500 x 300 x 250	Sheet Steel	IP65	Traffic Red RAL 3020	C9874/ 20-9
		3P	F400SDR01253						
		3P+NL	F400SDR01253NL						
		3P+2EB	F400SDR01253EB						
		4P	F400SDR01254						
		6P	F400SDR01256						
		6P+2EB	F400SDR01256EB						
		8P	F400SDR01258						
	160A	3P	F400SDR01603	Removable Gland Plates Top & Btm	F5 - 600 x 500 x 200	Sheet Steel	IP65	Traffic Red RAL 3020	C9874 /20-6
		3P+NL	F400SDR01603NL						
		4P	F400SDR01604						
		6P	F400SDR01606		F7 - 800 x 600 x 300				
	200A	3P	F400SDR02003	Removable Gland Plates Top & Btm	F5 - 600 x 500 x 200	Sheet Steel	IP65	Traffic Red RAL 3020	C9874 /20-6
		3P+NL	F400SDR02003NL						
		4P	F400SDR02004						
		6P	F400SDR02006		F7 - 800 x 600 x 300				
	250A	3P	F400SDR02503	Removable Gland Plates Top & Btm	F5 - 600 x 500 x 200	Sheet Steel	IP65	Traffic Red RAL 3020	C9874 /20-6
		3P+NL	F400SDR02503NL						
		4P	F400SDR02504						
		6P	F400SDR02506		F7 - 800 x 600 x 300				
	315A	3P	F400SDR03153	Removable Gland Plates Top & Btm	F6 - 800 x 600 x 200	Sheet Steel	IP65	Traffic Red RAL 3020	C9874 /20-7
		3P+NL	F400SDR03153NL						
		4P	F400SDR03154						
	400A	3P	F400SDR04003	Removable Gland Plates Top & Btm	F6 - 800 x 600 x 200	Sheet Steel	IP65	Traffic Red RAL 3020	C9874 /20-7
		3P+NL	F400SDR04003NL						
		4P	F400SDR04004						
	630A	3P	F400SDR06303	Removable Gland Plates Top & Btm	F8 - 1000 x 600 x 300	Sheet Steel	IP65	Traffic Red RAL 3020	C9874 /20-7
		3P+NL	F400SDR06303NL						
		4P	F400SDR06304						
	1250A	3P	F400SDR12503	Removable Gland Plates Top & Btm	F9 - 1400 x 800 x 300	Sheet Steel	IP65	Traffic Red RAL 3020	C9813/19-3
		3P+NL	F400SDR12503NL						

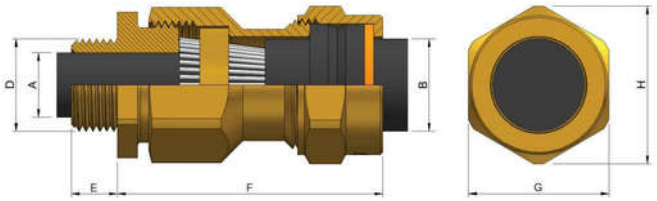
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CDPD160
Issue 11

Enhanced Performance Fire Resistance Cable Gland Sizes									
Size	Under Armour max ø (A)	Overall ø (B)		Armour wire ø	Entry thread (D)	Thread length	Protrusion length (F)	Hexagon	
		min	max					A/F (G)	A/C (H)
16	8.6	8.0	13.2	0.9	M16x1.5	10	44	20.8	23.8
20SS	8.6	8.0	13.2	0.9	M20x1.5	10	44	23.4	26.7
20S	11.6	8.0	15.8	0.9	M20x1.5	10	46	25.7	29.2
20	13.9	11.7	20.8	0.9/1.25	M20x1.5	10	46	30.5	34
25	19.9	17.0	27.2	1.25/1.6	M25x1.5	10	51	37.6	42.2
32	26.2	23.5	33.5	1.6/2.0	M32x1.5	10	56	47.3	53.6
40	32.1	29	39.9	1.6/2.0	M40x1.5	15	59	56.4	61.5
50S	38.1	38	46.2	2.0/2.5	M50x1.5	15	64	65.5	72.1
50	44.0	39.5	52.6	2.0/2.5	M50x1.5	15	64	70.1	77.2
63	55.9	51.3	65.3	2.5	M63x1.5	15	67	80	87.4
75	67.9	62.5	78	2.5	M75x1.5	15	76	98.8	109.2
85	74	68	88	3.15	M85x2.0	20	110	115	126



Technical Specification

Application	Sym.	Unit	Category	20A	25A	32A	40A	40A T	63A	80A	125A
Rated thermal current	It_{he}	A		20	25	32	40	40	63	80	125
Rated Insulation voltage	U_i	V		690	690	690	690	690	690	690	690
Rated Impulse voltage	U_{imp}	kV		6	6	6	6	6	6	6	6
Rated operational current (3 phase AC 50/60Hz)	I_e	A	415V- AC23A	20	25	32	32	40	63	80	100
			690V- AC23A	-	-	-	-	-	-	-	-
			690V- AC23B	20	20	20	-	-	-	-	-
			660V- AC23B							30	30
Rated operational power	P_e	kW	415V	9.5	11	15	15	18.5	30	40	55
Conditional short circuit current	Fuse gG	kA / Fuse (A)	415V	50 / 32	50 / 32	50 / 32	50 / 32	50 / 40	50 / 63	50 / 150	50/200
			690V	40 / 32	40 / 32	40 / 32	40 / 32	-	-	50 / 63	50/63
Short circuit making capacity (1 sec)	I_{cm}	kA	Peak value	-	-	-	-	-	-	-	-
Short circuit withstand (1 sec)	I_{cw}	kA	RMS value	-	-	-	-	-	-	1.5	1.5
Recommended connecting capacity			Terminal type								
		mm²	Flexible cable	6	6	6	6	10	10	50	50
		mm²	Rigid cable	10	10	10	10	16	16*	35	50
		mm	Stud/Cu Palm Width	-	-	-	-	-	-	M10 / 21	M10/21
		Nm	Tightening torque	1.2	1.2	1.2	1.2	2	2	12	12

* 63A in die-cast aluminium enclosure = 16mm². 63A in sheet steel enclosure = 25mm²

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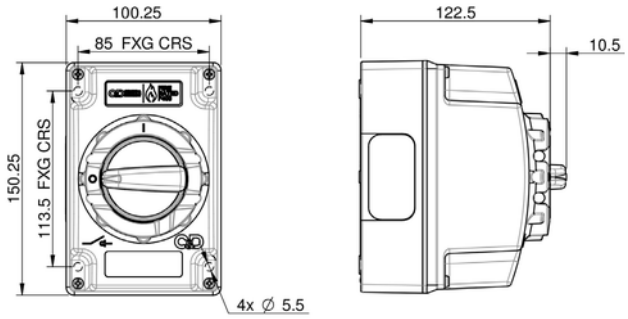
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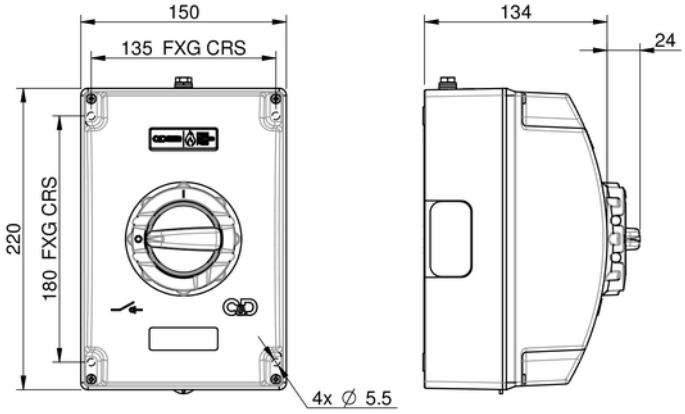
Application	Sym.	Unit	Category	160A	200A	250A	315A	400A	630A	1250A
Rated Thermal current	It_{he}	A		160	200	250	315	400	630	1250
Rated Insulation voltage	U_i	V		1000	1000	1000	1000	1000	1000	1000
Rated Impulse voltage	U_{imp}	kV		12	12	12	12	12	12	8
Rated operational Current (3 phase AC 50/60Hz)	I_e	A	415V- AC23A	160	200	250	315	400	630	1250
			690V- AC23A	160	200	250	315	350	350	-
Rated operational power	P_e	kW	415V	90	110	132	200	315	355	500
Conditional Short Circuit Current	Fuse gG	kA / Fuse (A)	415V	50 / 160	50 / 200	50 / 250	50 / 315	50 / 400	50 / 630	50/1250
			690V	50 / 160	50 / 200	50 / 250	50 / 315	50 / 400	50 / 630	50/1250
Short circuit making capacity (1 sec)	I_{cm}	kA	Peak value	35	35	35	65	65	80	105
Short circuit withstand (1sec)	I_{cw}	kA	RMS value	8	8	8	17	17	17	50.0
Recommended connecting capacity			Terminal type							
		mm²	Flexible cable	95	95	120	2 / 150	2 / 150	2 / 185	4 / 300
		mm²	Rigid cable	95	95	120	2 / 150	2 / 150	2 / 185	4 / 300
		mm	Stud/Cu Palm Width	M10 / 30	M10 / 30	M10 / 30	M10 / 30	M10 / 40	M10 / 40	M12 / 60
		Nm	Tightening torque	30	30	30	30	30	30	50

Dimensions

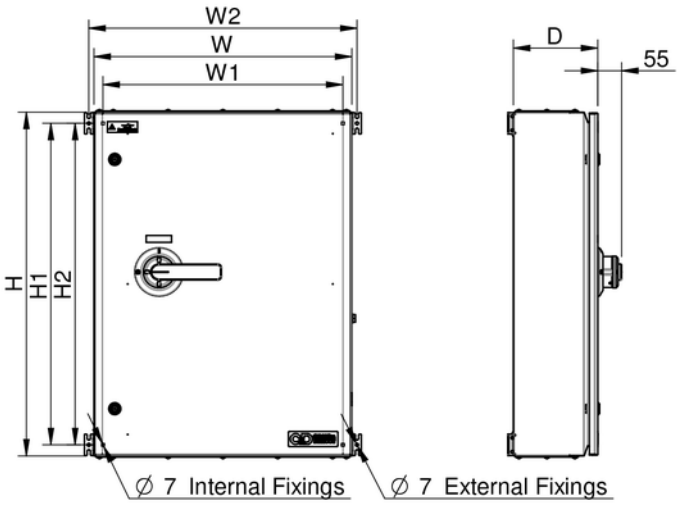
Enclosure FA



Enclosure FB



Enclosures F1- F8



Dims	Enclosure Size								
	F1	F2	F3	F4	F5	F6	F7	F8	F9
H	300	400	500	500	600	800	800	1000	1400
W	300	300	300	300	500	600	600	600	800
D	150	200	200	250	200	200	300	300	300
H1	248	348	448	448	548	748	748	948	1288
W1	258	258	258	258	458	558	558	558	-
H2	248	348	448	448	548	748	748	948	1288
W2	324	324	324	324	524	624	624	624	844

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