

Technical Data Sheet

Loose Panel Isolators Range

CDPD195
Issue 2

General Description

Craig & Derricott offer a range of control panel isolation equipment for panel mounting.

The compact range is available 25A to 200A. Each AC23A isolator has IP2X terminal protection and can be either DIN rail or base mounted. All come supplied with a door interlocking operating handle and a standard length shaft of 100mm. A compact range of switch disconnectors with the capacity to add auxiliary and neutral block options to the basic load break switch block. Incoming terminal covers are supplied on size A3 frames.

The standard range is available 100A to 1250A. Each AC23A isolator has IP2X terminal protection and can be either DIN rail or base mounted. All come supplied with a door interlocking operating handle and a standard length shaft of 200mm. A range of switch disconnectors with the capacity to add auxiliary and neutral block options to the basic load break switch block. All isolators are supplied with direct lug connections onto plated copper palms.

'B' = Black Handle. For Red Handle, replace B with R in the Cat. No. E.g. SD00253R

Compact Range						
Image	Rating	Format	Cat. No	Frame Size	IP Rating	Std Shaft Length
	25A	3P	SD00253B	A0	IP65	100mm
		6P	SD00256B	A0-A0		
	32A	3P	SD00323B	A0	IP65	100mm
	40A	3P	SD00403B	A0	IP65	100mm
		6P	SD00406B	A1-A1		
	63A	3P	SD00633B	A1	IP65	100mm
		6P	SD00636B	A1-A1		
	80A	3P	SD00803B	A1	IP65	100mm
	100A	3P	SDC01003B	A2	IP65	100mm
		6P	SDC01006B	A2-A2		
	125A	3P	SDC01253B	A2	IP65	100mm
		6P	SDC01256B	A2-A2		
	160A	3P	SDC01603B	A2	IP65	100mm
		6P	SDC01606B	A2-A2		
	200A	3P	SDC02003B	A3	IP65	100mm
Standard Range						
	100A	3P	SD01003B	B1	IP65	200mm
		4P	SD01004B			
	125A	3P	SD01253B	B1	IP65	200mm
		4P	SD01254B			
	160A	3P	SD01603B	B1	IP65	200mm
		4P	SD01604B			
	200A	3P	SD02003B	B2	IP65	200mm
		4P	SD02004B			
	250A	3P	SD02503B	B2	IP65	200mm
		4P	SD02504B			
	400A	3P	SD04003B	B3	IP65	200mm
		4P	SD04004B			
	630A	3P	SD06303B	B3	IP65	200mm
		4P	SD06304B			
	800A	3P	SD08003B	B3	IP65	200mm
		4P	SD08004B			
	1000A	3P	SD10003B	B4	IP65	200mm
		4P	SD10004B			
	1250A	3P	SD12503B	B4	IP65	200mm
		4P	SD12504B			

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Craig & Derricott offer a range of control panel isolation equipment for panel mounting.

The fuse combination range is available 32A to 630A. Each AC23A switch has IP2X terminal protection and are suitable for standard IEC/BS EN 60269 (BS88) fuse links. All come supplied with a door interlocking operating handle with an override facility and a standard length shaft of 200mm. A compact range of switches with the capacity to add auxiliary and neutral block options to the basic load break switch block. Incoming terminal covers are supplied on size A3 frames.

The changeover range is available 63A to 630A. Each AC23A isolator has IP2X terminal protection and is supplied with a door interlocking operating handle and a standard length shaft of 200mm. A compact range of switches with the capacity to add auxiliary and neutral block options to the basic load break switch block. All isolators are supplied with direct lug connections onto plated copper palms.

'B' = Black Handle. For Red Handle, replace B with R in the Cat. No. E.g. SDF00253R

Fuse Combination Range						
Image	Rating	Format	Cat. No	Frame Size	IP Rating	Std Shaft Length
	32A	3P+N	SDF00323NB	D1	IP65	200mm
		3P+NL	SDF00323NLB			
	63A	3P+N	SDF00633NB	D1	IP65	200mm
		3P+NL	SDF00633NLB			
	100A	3P+N	SDF01003NB	D2	IP65	200mm
		3P+NL	SDF01003NLB			
	125A	3P+N	SDF01253NB	D2	IP65	200mm
		3P+NL	SDF01253NLB			
	160A	3P+N	SDF01603NB	D3	IP65	200mm
		3P+NL	SDF01603NLB			
	200A	3P+N	SDF02003NB	D4	IP65	200mm
		3P+NL	SDF02003NLB			
	250A	3P+N	SDF02503NB	D4	IP65	200mm
		3P+NL	SDF02503NLB			
	315A	3P+N	SDF03153NB	D5	IP65	200mm
		3P+NL	SDF03153NLB			
400A	3P+N	SDF04003NB	D5	IP65	200mm	
	3P+NL	SDF04003NLB				
630A	3P+N	SDF06303NB	D6	IP65	200mm	
	3P+NL	SDF06303NLB				
Changeover Range						
	63A	4P	SCOD00634B	C1C	IP65	200mm
	100A	4P	SCOD01004B	C1C	IP65	200mm
	125A	4P	SCOD01254B	C2C	IP65	200mm
	160A	4P	SCOD01604B	C2C	IP65	200mm
	200A	4P	SCOD02004B	C2C	IP65	200mm
	250A	4P	SCOD02504B	C2	IP65	200mm
	400A	4P	SCOD04004B	C3	IP65	200mm
	630A	4P	SCOD06304B	C3	IP65	200mm

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Solar power is an environmentally friendly method of producing electricity and is achieved using Photovoltaic (PV) cells that capture sunlight and convert it to electricity. By combining cells into an array, different voltages and current combinations can be achieved. Once installed an array will continue to generate voltage and current and it is therefore essential to isolate the array in the event of a fault or for maintenance purposes. To enable this Craig & Derricott have developed a range of DC Switch Disconnectors to manage this specific application.

*1 Designed to isolate twin arrays

Photovoltaic (PV) Range						
Image	Rating	Format	Max. DC Voltage	Cat. No	IP Rating	Std Shaft Length
	16A	DC 2P	1,000V	SPV162	IP65	200mm
		DC 4P	1,500V	SPV164		
		Twin Array DC 2x 2P	1,000V	SPV1622*1		
	25A	DC 2P	1,000V	SPV252	IP65	200mm
		DC 3P	1,000V	SPV253		
		DC 4P	1,000V	SPV254		
		Twin Array DC 2x 2P	1,500V	SPV2522*1		
	32A	DC 2P	600V	SPV322	IP65	200mm
		DC 3P	1,000V	SPV323		
		DC 4P	1,500V	SPV324		
		Twin Array DC 2x 2P	600V	SPV3222*1		
	40A	DC 2P	300V/400V	SPV402	IP65	200mm
		DC 3P	800V	SPV403		
		DC 4P	1,500V	SPV404		
		Twin Array DC 2x 2P	300V/400V	SPV4022*1		

Panel Isolator Accessories

All of the accessories listed below can be retrofitted. One block can be fitted either side of the main assembly on all of the 3 pole switch interiors.

Auxiliary Contacts	
Description	Cat. No.
Auxiliary Contact- 2 Early break for Compact Switch Range	SAUX2EB
Auxiliary Contact- 1 N/O + 1 N/C for Compact Switch Range	SAUXCO
25A- 40A Compact Neutral (Unswitched) for Compact Switch Range	SNLC40
63A Neutral (Unswitched) for Compact Switch Range	SNL63
80A Neutral (Unswitched) for Compact Switch Range	SNL80
100A Neutral (Unswitched) for Compact Switch Range	SNL100
125A Neutral (Unswitched) for Compact Switch Range	SNL125
160A Neutral (Unswitched) for Compact Switch Range	SNL160
200A Neutral (Unswitched) for Compact Switch Range	SNL200
25A Neutral (Switched) for Compact Switch Range	SSP25
40A Neutral (Switched) for Compact Switch Range	SSP40
63A Neutral (Switched) for Compact Switch Range	SSP63
80A Neutral (Switched) for Compact Switch Range	SSP80
100A Neutral (Switched) for Compact Switch Range	SSP100

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Panel Isolator Accessories

All of the accessories listed below can be retrofitted. One block can be fitted either side of the main assembly on all of the 3 pole switch interiors.

Auxiliary Contacts	
Description	Cat. No.
125A Neutral (Switched) for Compact Switch Range	SSP125
160A Neutral (Switched) for Compact Switch Range	SSP160
200A Neutral (Switched) for Compact Switch Range	SSP200
Auxiliary Contact For 100A- 160A for Standard Switch & Fuse Combination Units Range	SAUXKITA
Auxiliary Contact For 200A- 250A for Standard Switch Range	SAUXKITB
Auxiliary Contact For 400A- 800A for Standard Switch & Fuse Combination Units Range	SAUXKITC
Auxiliary Contact For 1000A- 1250A for Standard Switch & Fuse Combination Units Range	SAUXKITD
Terminal Covers	
Set of 4 Terminal Covers For 200A Standard Switch & Fuse Combination Units Range	STS1
Set of 4 Terminal Covers For 250A- 400A Standard Switch & Fuse Combination Units Range	STS2
Set of 4 Terminal Covers For 630A Fuse Combination Units Range	STS3
Set of 4 Terminal Covers For 630A Standard Switch Range	STS4

Technical Specification

Data supplied against tests to BS EN 60947-3. *All AC21, AC22 & AC23 tests carried out at 415V.

Compact Range												
Application	Sym	Unit	Category	25	32	40	63	80	100	125	160	200
Rated thermal current	I_{th}	A		25	32	40	63	80	100	125	160	200
Rated insulation voltage	U_i	V		690	690	690	690	690	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6	6	6	6	6	8	8	8	8
Rated operational current (AC)	I_e	A	400V AC21A	25	32	40	63	80	100	125	160	200
			400V AC22A	-	-	-	-	-	100	125	160	200
			400V AC23A	21	29	29	48	56	100	111	132	132
Rated operational current (DC) (/poles in series)	I_e	A	Up to 48V DC21A	25/1	32/1	40/1	63/1	80/1	-	-	-	-
			220V DC21A	25/3	32/3	40/3	63/4	80/4	-	-	-	-
			Up to 48V DC22A	-	-	-	-	-	-	-	-	-
			220V DC22A	-	-	-	-	-	-	-	-	-
			Up to 48V DC23A	-	-	-	-	-	-	-	-	-
			220V DC23A	-	-	-	-	-	-	-	-	-
Rated operational power	P_e	kW	400/415V AC23A	11	15	15	25	30	59	63	75	75
Short circuit making capacity	I_{cm}	kA	Peak value	1.2	1.4	1.4	2.9	3.0	3.7	4.0	5.0	5.0
Short circuit withstand (1sec)	I_{cw}	kA	rms value	0.5	0.6	0.6	1.3	1.4	2.6	2.8	3.0	3.0
Min. mechanical endurance		-	Operations	250 x 10 ³	250 x 10 ³	250 x 10 ³	250 x 10 ³	250 x 10 ³	50 x 10 ³	50 x 10 ³	50 x 10 ³	50 x 10 ³
Min. electrical endurance		-	415V at 0.65 pf	-	-	-	-	-	-	-	-	-
Connecting capacity		-	Terminal type									
	mm ²	Min/Max		2.5/10	2.5/10	2.5/10	2.5/25	2.5/25	10/70	10/70	10/70	-
	mm	Stud/Cu palm width		-	-	-	-	-	-	-	-	8/20
	Nm	Tightening torque		1.2	1.2	1.2	1.2	1.2	5	5	5	10

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Data supplied against tests to BS EN 60947-3. *All AC21, AC22 & AC23 tests carried out at 415V.

Standard Range													
Application	Sym	Unit	Category	100	125	160	200	250	400	630	800	1000	1250
Rated thermal current	I _{th}	A		115	125	160	200	270	500	630	720	1000	1250
Rated insulation voltage	U _i	V		750	750	750	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U _{imp}	kV		8	8	8	12	12	12	12	12	8	8
Rated operational current (AC)	I _e	A	400V AC21A	100*	125*	160*	200*	250*	400*	630*	800*	1000*	1250*
			400V AC22A	100*	125*	160*	200*	250*	400*	630*	800*	1000*	1250*
			400V AC23A	100*	125*	135*	200*	250*	400*	630*	720*	-	-
Rated operational current (DC) (/poles in series)	I _e	A	Up to 48V DC21A	100/2	125/2	160/2	200/2	250/2	400/2	630/1	800/1	1000/1	1250/1
			220V DC21A	100/3	125/3	160/3	200/2	250/2	400/2	630/2	800/2	1000/3	1250/3
			Up to 48V DC22A	100/2	125/2	160/2	200/2	250/2	400/1	630/1	800/1	-	-
			220V DC22A	100/3	125/3	160/3	200/2	250/2	400/2	630/2	800/2	-	-
			Up to 48V DC23A	100/2	125/2	160/2	200/2	250/2	400/1	630/1	800/1	-	-
			220V DC23A	100/3	125/3	160/3	200/2	250/2	400/2	630/2	630/2	-	-
Rated operational power	P _e	kW	400/415V AC23A	37	45	75	110	132	200	315	355	400	500
Short circuit making capacity	I _{cm}	kA	Peak value	7	7	7	35	35	65	80	80	105	105
Short circuit withstand (1sec)	I _{cw}	kA	rms value	5	5	5	8	8	17	17	17	50	50
Min. mechanical endurance		-	Operations	20 x 10 ³	20 x 10 ³	20 x 10 ³	16 x 10 ³	16 x 10 ³	10 x 10 ³	10 x 10 ³	10 x 10 ³	6 x 10 ³	6 x 10 ³
Min. electrical endurance		-	415V at 0.65 pf	5,000	5,000	1,000	1,000	1,000	1,000	500	500	500	500
Connecting capacity		-	Terminal type										
		mm ²	Min/Max	-	-	-	-	-	-	-	-	-	-
		mm	Stud/Cu palm width	8x25	8x25	8x25	8x25	10x30	10x40	12x40	12x40	12x60	12/60
		Nm	Tightening torque	10	10	10	10	30	30	50	50	50	50
Fuse Combination Range													
Application	Sym	Unit	Category	32	63	100	125	160	200	250	315	400	630
Rated thermal current	I _{the}	A		32	63	100	125	160	200	250	315	400	630
Rated insulation voltage	U _i	V		750	750	750	750	750	750	750	750	750	750
Rated impulse voltage	U _{imp}	kV		12	12	12	12	12	12	12	12	12	12
Rated operational current	I _e	A	415V AC23A	32	63	100	125	160	200	250	315	400	630
			220V DC23A	-	-	100	125	160	200	250	315	400	630
Rated making capacity (AC23A)		A	415V, 0.35 pf	320	630	1,000	1,250	1,600	2,000	2,500	3,150	4,000	6,300
Rated breaking capacity (AC23A)		A	415V, 0.35 pf	256	504	800	1,000	1,280	1,600	2,000	2,520	3,200	5,040
Rated conditional (Fused) short circuit		kA	S/C current rms	80	80	80	80	80	80	80	80	80	80
		A	back-up fuse	32	63	100	125	160	200	250	315	400	630
Min. mechanical endurance		-	Operations	25,000	25,000	15,000	15,000	15,000	10,000	10,000	10,000	10,000	6,000
Min. electrical endurance		-	415V at 0.65 pf	1,500	1,500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BS fuse format				A2	A2	A4	A4	B1, B2	B1, B2	B1, B2	B1, B4	B1, B4	C1, C3
Connecting capacity		-	Terminal type										
		mm ²	Min/Max	16	25	95	95	120	150	185	240	300	400
		mm	Stud/Cu palm width	-	-	8x20	8x20	8x20	10x25	10x25	10x25	10x25	12x50
		Nm	Tightening torque	2.5	2.5	10	10	10	30	30	30	30	50

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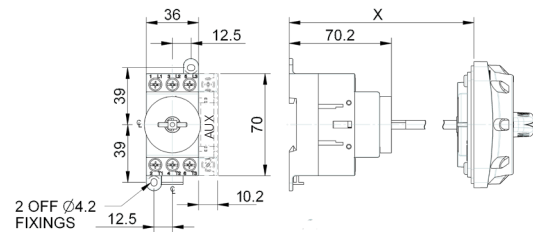
Data supplied against tests to BS EN 60947-3. *All AC21, AC22 & AC23 tests carried out at 415V.

Changeover Range											
Application	Sym	Unit	Category	63	100	125	160	200	250	400	630
Rated thermal current	I_{the}	A		63	100	125	160	200	250	400	630
Rated insulation voltage	U_i	V		750	750	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6	6	6	6	6	12	12	12
Rated operational current	I_e	A	415V AC22A	63	100	125	160	200	250	400	630
Rated making capacity (AC23A)		A	415V, 0.35 pf	630	630	1,250	1,600	2,000	2,500	4,000	6,300
Rated breaking capacity (AC23A)		A	415V, 0.35 pf	504	504	1,000	1,280	1,600	2,000	3,200	5,040
Short circuit current		kA	rms (with fuses)	80	80	80	80	80	100	100	80
Rated S/C making capacity		kA	Peak	15	15	20	20	20	30	40	50
Min. mechanical endurance		-	Operations	20,000	20,000	10,000	10,000	10,000	10,000	10,000	10,000
Min. electrical endurance		-	415V at 0.65 pf	2,500	1,500	1,000	1,000	1,000	1,000	1,000	500
Connecting capacity		-	Terminal type								
		mm ²	Max	35	35	95	95	95	240	300	400
		mm	Stud/Cu palm width	6/12	6/12	8/22	8/22	8/22	10/25	10/25	12/50
		Nm	Tightening torque	3	3	10	10	10	30	30	50

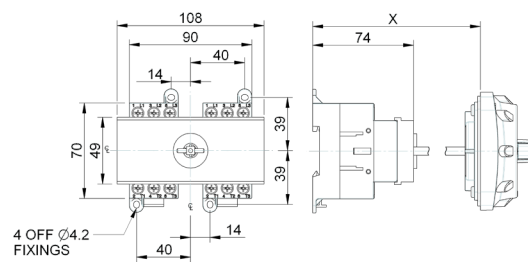
Dimensions

Compact Range

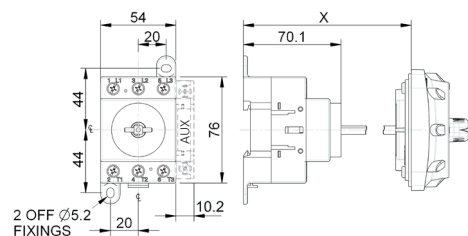
A0 Size (25A- 40A) - x1 = n/a | x2= 105-180 | x3 = 105-280



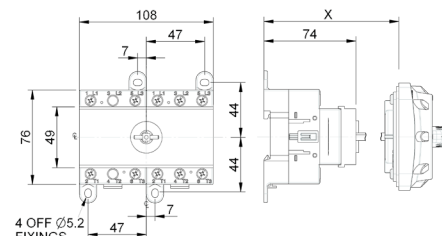
A0-A0 Size (6 pole 25A) - x1 = 98 | x2= 116-191 | x3 = 116-291



A1 Size (63A- 80A) - x1 = 98 | x2= 110-185 | x3 = 110-285



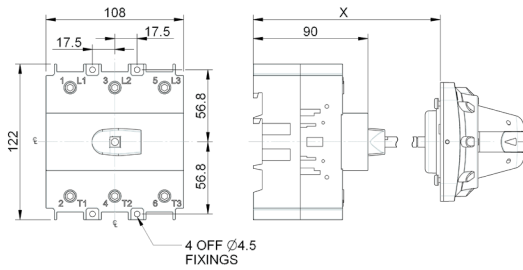
A1-A1 Size (6 pole 40A-80A) - x1 = 98 | x2= 116-191 | x3 = 116-291



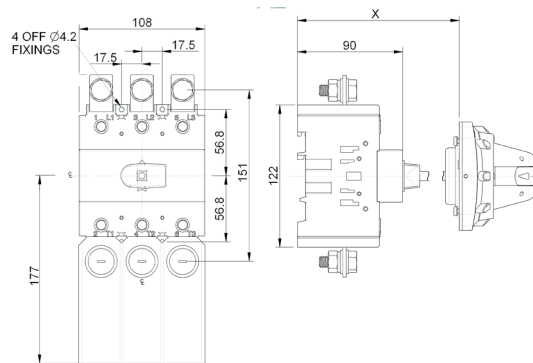
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A2 Size (100A- 160A) - x1 = 121-166 | x2= n/a | x3 = 121-235

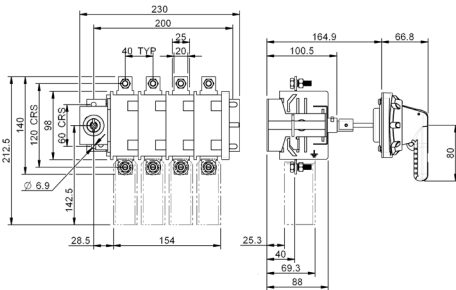


A3 Size (200A) - x1 = 121-166 | x2= n/a | x3 = 121-235

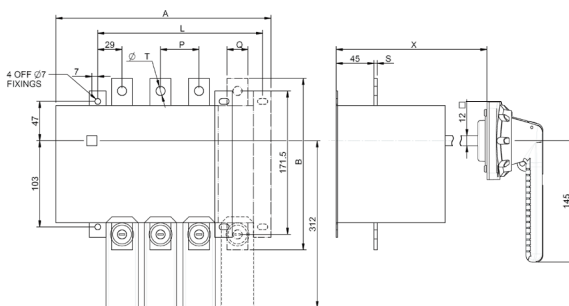


Standard Range

B1 Size (100A- 160A) - x3 = 156-251 | x4= 156-351

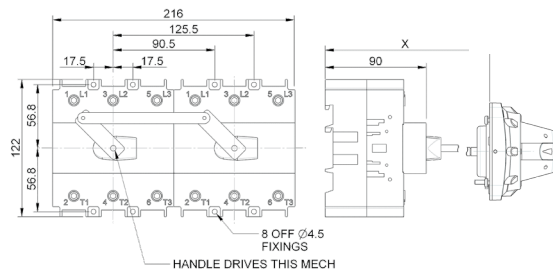


B3 Size (315A- 800A) - x3 = 163-257 | x4= 163-357

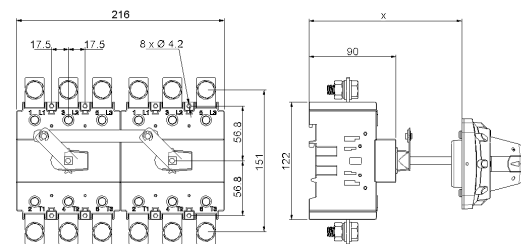


Rating	A		B	L		P	Q	S	T
	3P	4P		3P	4P				
400A	211	257	205	151	197	46	25	4	11
600A	244	306	223	183	245	62	40	5	13.5
800A	260	330	223	199	269	70	40	5	13.5

A2-A2 Size (6 pole 100A-160A) - x1 = 121-166 | x2= n/a | x3 = 121-235



A3 Size (6 pole 200A) - x1 = 121-166 | x2= n/a | x3 = 121-235



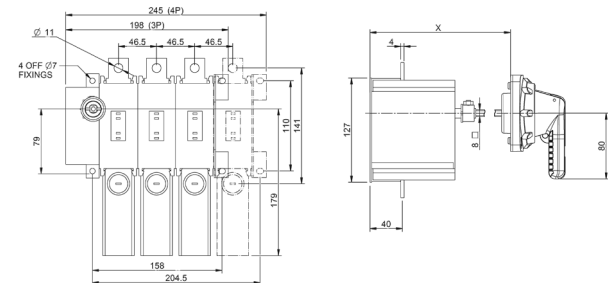
Compact Range

x1 = Min. & Max. (mm) (without extension shaft)

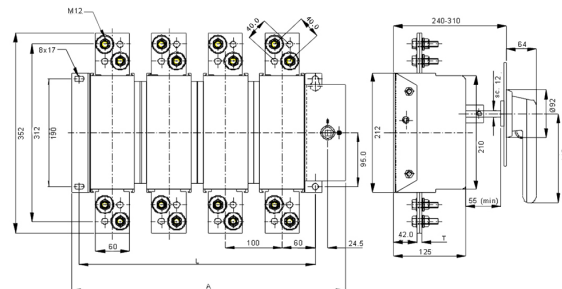
x2 = Min. & Max. (mm) with 100mm shaft extension

x3 = Min. & Max. (mm) with 200mm shaft extension

B2 Size (200A- 250A) - x3 = 158-254 | x4= 158-354



B4 Size (1000A-1250A)



Standard Range

x3 = Min. & Max. (mm) with
200mm shaft extension

x4 = Min. & Max. (mm) with
400mm shaft extension

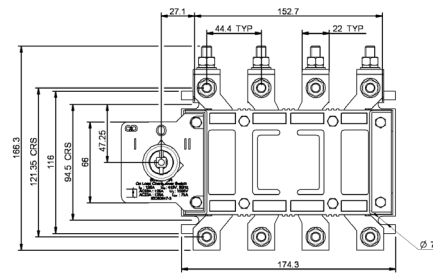
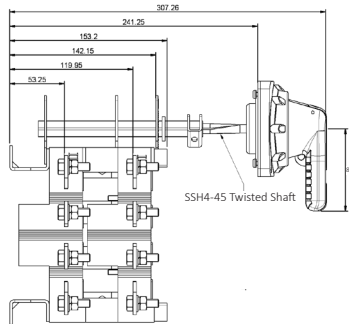
Rating	A		L		T
	3P	4P	3P	4P	
1000A	383	483	318	418	8
1250A	383	483	318	418	8

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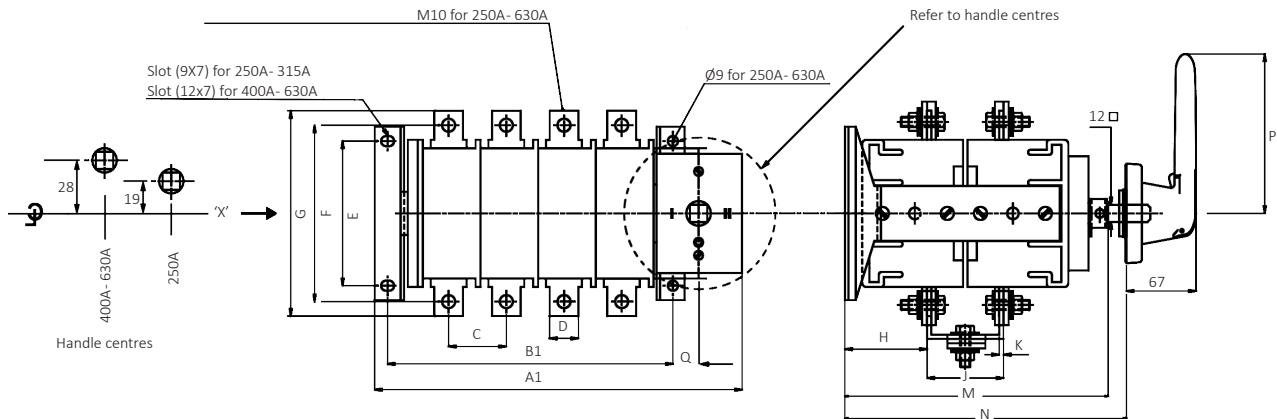
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Frame Size C2C- 125A, 160A & 200A

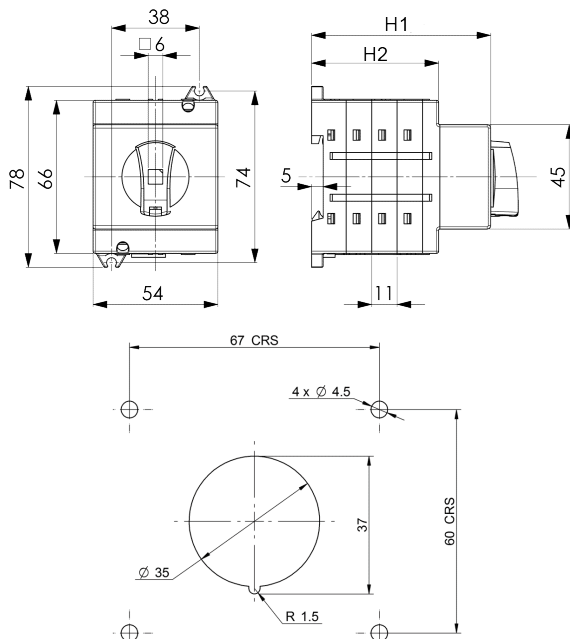


Frame Size C2/C3- 250A, 400A, 630A



Rating	A1	B1	C	D	E	F	G	H	J	K	M	N	P	Q	Frame Size
250A	309.5	252	61	25	124	138	163	65.5	81	4.0	242	255-355	145	18	C2
400A	352	276	70	25	150	180	205	85	96	4.0	262	300-400	220	26	C3
630A	352	276	70	40	150	185	223	84	98	5.0	262	300-400	220	26	C3

Photovoltaic Range



Rating	Format	H1	H2
16A	2P	50.5	28
	4P & Twin Array	72.5	50
25A	2P	50.5	28
	3P	61.5	39
32A	4P & Twin Array	72.5	50
	2P	50.5	28
40A	3P	61.5	39
	4P & Twin Array	72.5	50