

### State of the art Manufacturing Facilities



Haridwar, Noida Ph-I  
& Noida Ph-II Plant



CE RoHS  
Compliant

### C&S Electric Ltd.

Corporate Office : 222, Okhla Industrial Estate, Phase - III, New Delhi - 110 020  
Tel. : +91-11-3088 7520 - 29, Fax: +91-11-2684 7154, 2682 9053

International Business Division: Tel. : +91-11-4161 3503, 3088 7520-29, Fax: +91-11-2683 8291, 2684 7342  
email : exports@cselectric.co.in

Central Marketing Office: Tel. : +91-11-3088 7520-29, Fax: +91-11-2684 8241, 2684 7342  
email : cmo@cselectric.co.in, info@cselectric.co.in



## Changeover & Bypass Switches

## On Load Changeover Switches (with & without Fuses)

### Salient Features

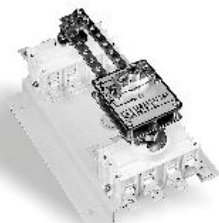
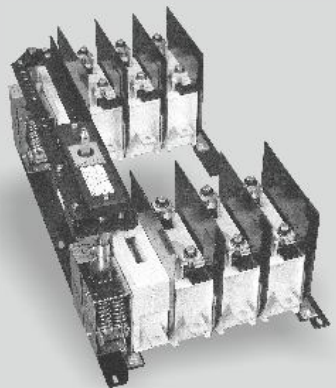
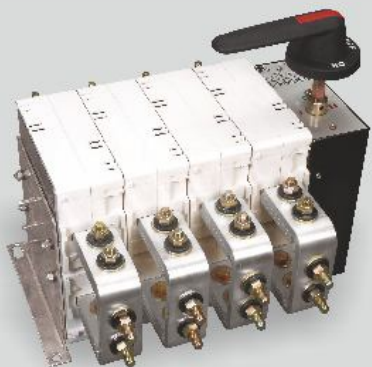
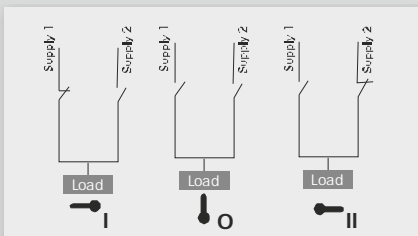
- Modular design in 3 & 4 pole (63A ~3150A), suitable for utilization category AC-23A
- Easy maintenance as each pole can be replaced easily due to modular construction, saving cost of entire Switch in case of single pole being burnt or damaged.
- Available in open execution & in sheet steel enclosure. Complies with the latest requirements of IEC-60947-1&3 / 13947-1&3 standards.
- Unique self cleaning contact construction with special knife type (200A~1800A), double break switching contacts (63~160A & 1000~1800A) & single break (200A~800A). Positive opening operation, with quick make - break and effective arc splitting plates guarantee reliability and long electrical life of the Switch.
- Excellent tracking resistance of isolation material in switch frame prevents flashover between phases even in the most trying & difficult locations.
- Adjustable telescopic shaft
- Compact construction
- Window for visual contact inspection
- Suitable for capacitor switching and as a Main switch
- Handle with in-built padlockable facility in-off position
- Provision for defeating door interlock
- Individual phase barrier can be incorporated without tools, between two terminals. Fully protected frame for safe operation in case of (200A~800A)

### Function

- These changeover switches are used to control & disconnect any kind of circuit-disconnection feeders both resistive & inductive loads
- By means of manual operation, changeover performs circuit switching between two independent circuits-I & II

### Accessories

- Auxiliary contact (early break type) 1NO + 1NC or 2NO+2NC is available
- Key & Castle lock facility



## Compact On-Load By Pass Switch

### Salient Features

- Range 63A ~ 1800A, 4 Pole.
- Complies with the latest requirement of IEC 60947-1&3 and IS/13947-1&3
- AC23A utilization ratings available.
- By-pass Switch is designed to customers specific need in IT industries and sites where UPS and Servo stabilizer provides main source of supply
- All other features are same as of On Load Changeover Switches

### Operation

C&S Compact On-Load By-pass switch is operated manually with single handle comfortably. It provides three stable positions:

Position	Operation
O	Loads are open circuited
I	Loads are connected to the stabilized supply
II	Loads are connected to the normal supply

### Auxiliary Contacts

Auxiliary contact (early break type) 1NO+1NC or 2NO+2NC

### Single Line Diagram

When By-pass switch is selected at position 'O' all the contacts of isolator are open circuited and provide total isolation.

In position 'I' both isolator I & III are closed and stabilized supply is connected to the load. At position II only isolator II is closed & isolators I & II are open thus bypassing UPS & connecting normal supply directly to load

### Switch Construction

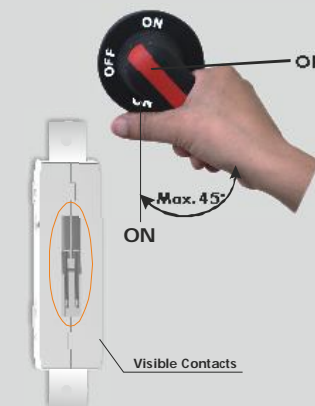
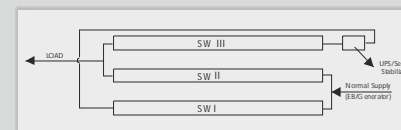
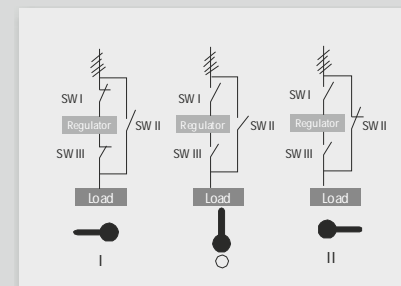
### Safety Built-in

C&S pioneered the concept of positive isolation in case of welding of contacts. In the event of extremely high current leading to welding of contacts, the handle will not turn beyond 45° from the ON position, clearly indicates that the supply is ON and contacts get welded.

Convenience of easy contacts visibility, permits contact inspection, without removing the switch from installation, thus saving down time.

Self extinguishing fibre glass re-inforced insulating body of poles has very high tracking index. Large gap between fixed and moving contacts in OFF position, make them suitable for isolation function.

Door interlocking prevents opening in the ON position, guarding the operator against any accidental mishap. As a standard upto 3 padlocks are provided in the OFF position to prevent closing the circuit during maintenance work. They can also be provided in the ON position. Using a suitable gasket alongwith handle enhances ingress protection level to IP 54.



# Technical Parameters

Common Characteristics		
Conformity to Standards	-	IS/IEC 60947-3
No. of Poles	-	3P / 4P
Rated Operational Voltage (U <sub>e</sub> )	V	415
Rated Operational Frequency	Hz	50 / 60
Suitability for Isolation	-	YES
Pollution Degree as per IEC / IS	-	3
Ambient / Cubicle Service Temperature	°C	40
IP Level after mounting	-	IP 54



## Technical Parameters Compact On Load Changeover Switch / Compact On-Load By Pass Switch

Charateristics				DM type									
				63	80	100	125	160	200	250	315	400	
Rated insulation and operational voltage AC-20 & DC-20	Pollution degree 3	50 /60 Hz	V	1000	1000	1000	1000	1000	1000	1000	1000	1000	
Dielectric strength	Pollution degree 3	50 /60 Hz	kV	3.5	3.5	3.5	6	6	10	10	10	10	
Rated impulse withstand voltage	Pollution degree 3	50 /60 Hz	kV	8	8	8	8	8	12	12	12	12	
Rated thermal current in ambient 40°C	In open air	-	A	63	80	100	125	160	250	315	350	400	
	In Enclosure	-	A	63	80	100	125	160	200	250	315	400	
Min. cable cross section	-	Cu	mm	16	25	35	50	70	95	120	185	2x150	
	Rated operational current AC -21 A	upto 415V	A	63	80	100	125	160	200	250	315	400	
440-690V		A	63	80	100	125	160	200	250	315	400		
Rated operational current AC -22 A	1000V	A						200	250	315	400		
	upto 415V	A	63	80	100	125	160	200	250	315	400		
	440-500V	A	63	80	100	125	160	200	250	315	400		
	690V	A	63	80	100	125	160	200	250	315	400		
Rated operational current AC -23 A	1000V	A						200	250	315	400		
	upto 415V	A	63	80	100	125	160	200	250	315	400		
	440V	A	63	70	70	70	100	200	250	315	400		
	500V	A	63	70	70	70	100	200	250	315	400		
	690V	A	63	50	50	50	63	200	250	315	350		
Rated operational current/poles in series DC - 21 A	1000V	A						125	125	125	125		
	48V	A	63/2	80/2	100/2	125/2	160/2	200/2	250/2	315/2	400/2		
	110V	A	63/3	80/3	100/3	125/3	160/3	200/2	250/2	315/2	400/2		
	220V	A	63/3	80/3	100/3	125/3	160/3	200/2	250/2	315/2	400/2		
	440V	A						200/3	250/3	315/3	400/3		
Rated operational current/poles in series DC - 22 A	750V	A						200/4	250/4	315/4	400/3		
	48V	A	63/2	80/2	100/2	125/2	160/2	200/2	250/2	315/2	400/2		
	110V	A	63/3	80/3	100/3	125/3	160/3	200/2	250/2	315/2	400/2		
	220V	A	63/3	80/3	100/3	125/3	160/3	200/2	250/2	315/2	400/2		
	440V	A						200/3	250/3	315/3	400/3		
Rated operational current/poles in series DC - 23 A	750V	A						200/4	250/4	315/4	400/3		
	48V	A	63/2	80/2	100/2	125/2	160/2	200/2	250/2	315/2	400/2		
	110V	A	63/3	80/3	100/3	125/3	160/3	200/2	250/2	315/2	400/2		
	220V	A	63/3	80/3	100/3	125/3	160/3	200/2	250/2	315/2	400/2		
	440V	A						200/3	250/3	315/3	400/3		
Rated operational power AC- 23 <sup>3</sup>	750V	A						200/4	250/4	315/4	400/3		
	220-240V	kW	15	18	18	22	45	55					
	400-415	kW	50	50	50	37	75	110	132	160	200		
	440V	kW	50	50	50	37	75	110	132	160	315		
	500 V	kW	50	50	50	37	75	132	160	200	315		
Rated breaking capacity in category AC -23	690 V	kW				45	75	170	200	250	315		
	upto 415V	A	504	640	800	1000	1280	1600	2000	2520	3200		
	440V	A	504	560	560	560	800	1600	2000	2520	3200		
	500V	A	504	560	560	560	800	1600	2000	2520	3200		
	690V	A	504	400	400	400	504	1600	2000	2520	2800		
Rated breaking capacity/poles in series in category DC -23	upto 48 V	A	250/2	320/2	400/2	500/2	640/2	800/2	1000/2	1260/2	1260/2		
	110V	A	250/3	320/3	400/3	500/3	640/3	800/2	1000/2	1260/2	1260/2		
	220V	A	250/3	320/3	400/3	500/3	640/3	800/2	1000/2	1260/2	1260/2		
	440V	A						800/3	1000/3	1260/3	1260/3		
	750V	A						800/4	1000/4	1260/4	1260/4		
Rated conditional Short Circuit current r.m.s		690V/500V	kA										
Rated conditional short circuit current r.m.s and corresponding cut off current of the fuse in single phase test according to IEC 269	Cut Off/Back up fuse Rating	50KA/415V	kA	6/63	8/80	10/100	13/125	18/160	25/200	27/250	30/315	36/400	
		50KA/500V	kA	6/63	8/80	10/100	13/125	18/160	25/200	27/250	30/315	36/400	
		50KA/690V	kA	8/63	10/80	12/100	10/125	10/160	25/200	27/250	30/315	36/400	
		80KA/500V	kA	42/400	60/630	70/800							
Rated short time withstand current	R.M.S. -Value low	690V 0.2 sec	kA						17.5	17.5	17.5	17.5	
		690V 0.25 sec	kA										
		690V 1 sec	kA	5	5	5	5	5	8	8	8	12	
Rated short circuit making capacity	Peak value lcm	690/500 V	kA	10	10	10	10	10	35	35	35		
Rated capacitor power	The capacitor rating are limited by the fuse link	400-415 V	kVA	50	50	50	50	60	90	110	140	180	
Power loss/ pole	at rated operational current		W	4	5	5	6.3	9	3.5	5.5	8.5	12	
Mechanical endurance	Divided by two for operational cycle		Oprs.	20000	20000	20000	20000	20000	16000	16000	16000	10000	
Electrical Endurance	At 0.65pf		Oprs.	5000	5000	5000	5000	500	5000	1000	1000	1000	
		Weight without accessories		kg	0.6	0.6	0.6	1.6	1.68	3	3	3	3.3
Terminal bolt size	Metric thread diameter x length	3 pole	kg	1	1	1	2	2.25	3.7	3.7	3.7	4	
		4 pole	kg										
Terminal tightening torque	counter torque required		Nm	8	8	8	8	8	30.44	30.44	30.44	30.44	
Operating Torque	3-pole switch disconnecter		Nm	2.5	2.5	2.5	2.5	2.5	8.2	8.2	8.2	8.2	

1. Ambient Temperature 60 C derating 20%. Mounting on "ceiling" derating 10%. Mounting on wall, horizontal fuses : derating 8%

2. Utilization category B

3. Some fuses links limit these figures further. Starting current characteristics must be considered separately.

# Technical Parameters

Common Characteristics		
Conformity to Standards	-	IS/IEC 60947-3
No. of Poles	-	3P / 4P
Rated Operational Voltage (Ue)	V	415
Rated Operational Frequency	Hz	50 / 60
Suitability for Isolation	-	YES
Pollution Degree as per IEC / IS	-	3
Ambient / Cubicle Service Temperature	°C	40
IP Level after mounting	-	IP 54



## Technical Parameters Compact On Load Changeover Switch / Compact On-Load By Pass Switch

Characteristic				K type					P/K type				
				400	630	800	1000	1250	1600	2500	3150		
Rated insulation and operational voltage AC-20 & DC-20	pollution degree 3	50 / 60 Hz	V	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Dielectric strength			kV	10	10	10	8	8	8	8	8	8	8
Rated impulse withstand voltage			kV	12	12	12	8	8	8	8	8	8	8
Rated thermal current in ambient 40°C	In open air		A	400	630	800	1000	1250	1600	2500	3150		
	In Enclosure		A	400	630	800	1000	1250	1600	2300	2600		
Min. cable cross section		Cu	mm <sup>2</sup>	2x150	2x185	2x240	2x(60x5)	2x(80x5)	2x(100x5)	4x(100x5)	3x(100x10)		
Rated operational current AC -21 A	upto 415V		A	400	630	800	1000	1250	1600	2500	3150		
	440-690V		A	400	630	800	1000	1250	1600	2500	3150		
	1000V		A	400	630	630	1000	1250	1600	1000	1000		
	upto 415V		A	400	630	800	1000	1250	1600	1600	1600		
Rated operational current AC -22 A	440-500V		A	400	630	800	1000	1250	1600	1600	1600		
	690V		A	400	630	800	1000	1250	1600	1600	1600		
	1000V		A	400	630	630	1000	1250	1600	1000	1000		
	upto 415V		A	400	630	720	1000	1000	1000	1000	1000		
Rated operational current AC -23 A	440V		A	400	590	670							
	500V		A	400	580	600							
	690V		A	350	350	350							
	1000V		A	125	150	150							
	48V		A	400/1	630/1	800/1	1000/1	1250/1	1600/1				
	110V		A	400/2	630/2	800/2	1000/2	1250/2	1600/2				
Rated operational current/poles in series DC - 21 A	220V		A	400/2	630/2	800/2	1000/3	1250/3	1600/3				
	440V		A	400/3	630/3	800/3							
	750V		A										
	48V		A	400/1	630/1	800/1							
	110V		A	400/2	630/2	800/2							
	220V		A	400/2	630/2	800/2							
Rated operational current/poles in series DC - 22 A	440V		A	400/3	630/3	800/3							
	750V		A										
	48V		A	400/1	630/1	800/1							
	110V		A	400/2	630/2	800/2							
	220V		A	400/2	630/2	800/2							
	440V		A	400/3	630/3	800/3							
Rated operational current/poles in series DC - 23 A	750V		A										
	48V		A	400/1	630/1	800/1							
	110V		A	400/2	630/2	800/2							
	220V		A	400/2	630/2	800/2							
	440V		A	400/3	630/3	800/3							
	750V		A										
Rated operational power AC- 23 <sup>3</sup>	220-240V	The KW - ratings are accurate for three-phase 1500 R.P.M. standard asynchronous motors	kW	132	180	200	250	250	250	250	250	250	250
	400-415		kW	200	315	355	400	400	400	400	400	400	400
	440V		kW	315	355	355	400	400	400	400	400	400	400
	500 V		kW	315	355	355	450	450	450	450	450	450	450
	690 V		kW	315	355	355							
	upto 415V		A	4000	5040	5760	8000	8000	8000	8000	8000	8000	8000
Rated breaking capacity in category AC -23	440V		A	4000	4720	5360							
	500V		A	4000	4640	4800							
	690V		A	2800	2800	2800							
	upto 48 V		A										
	110V		A										
	220V		A										
Rated breaking capacity/poles in series in category DC -23	440V		A										
	750V		A										
	690V/500V		kA				50	50	50	50/63	50/63		
	50KA/415V		kA	36/400	54/630	63/800	105	105	105	140	140		
	50KA/500V	Cut Off/Back up fuse Rating	kA	36/400	54/630	63/800	105	105	105	140	140		
	50KA/690V		kA	36/400	54/630	63/800	105	105	105	105	105		
Rated conditional Short Circuit current r.m.s	80KA/800V		kA	42/400	60/630	70/800							
	690V 0.2 sec	R.M.S. -Value low	kA		38	38							
	690V 0.25 sec		kA	31			56	56	56				
	690V 1 sec		kA	17	17	17	50	50	50				
	690/500 V	Peak value lcm	kA	65	80	80	105	105	105	105/140	105/140		
	400-415 V	The capacitor rating are limited by the fuse link	kVAr	250	300	330							
Rated short time withstand current			W	13	22	40	27	40	67	90	140		
			Oprs.	10000	10000	6000	6000	6000	1200	1200			
Rated short circuit making capacity	Divided by two for operational cycle												
Rated capacitor power	At 0.65pf		Oprs.	1000	500	500	500	500	100	100			
Power loss/ pole	with handle and shaft		kg	5.2	6.2	6.2	16.3	16.3	17.5	37	37		
			kg	6.4	7.6	7.6	20.5	20.5	22.5	47	47		
Mechanical endurance			mm	M10x40	M12x40	M12x40	M12x60	M12x60	M12x60	M12x60	M12x60	12x60	
Electrical Endurance	Metric thread diameter x length		Nm	30..44	50..75	50..75	50..75	50..75	50..75	50..75	50..75	50..75	
Weight without accessories	counter torque required		Nm	17	21	21	21	21	21	21	50	50	
Terminal bolt size	3-pole switch disconnecter												
Terminal tightening torque													
Operating Torque													

1. Ambient Temperature 60 C derating 20%. Mounting on "ceiling" derating 10%. Mounting on wall, horizontal fuses : derating 8%

2. Utilization category B

3. Some fuses links limit these figures further. Starting current characteristics must be considered separately.



## Compact On Load Switch Disconnecter Fuse Changeover

### Salient Features

- Suitable for utilization category AC-23A & comply to IEC 60947-1&3/IS13947-1&3
- Protection against over load & short circuit faults by fuse of HRC -80kA rms
- Compact & standardized size for range 125A-800A & spacesaving for panel builders
- Protection for two modes with backup fuse

### Function

- C&S Compact On Load Changeover is manually operated 4 Pole switch disconnecter fuse with position I-O-II with backup HRC fuses fitted in phases. The switch offers protection in position-I as well as in position-II to the load connected thru common outgoing.



## Technical Parameters Compact On-Load Switch Disconnecter Fuse Changeover

Parameters		125A	160A	200A	250A	315A	400A	630A	800A
On-Load Switch Disconnecter Fuse C/o without fuse		CSCF 125B4CO	CSCF 160B4CO	CSCF 200B4CO	CSCF 250B4CO	CSCF 315B4CO	CSCF 400B4CO	CSCF 630B4CO	CSCF 800B4CO
On-Load Switch Disconnecter Fuse C/o with fuse		CSCF 125B4COF	CSCF 160B4COF	CSCF 200B4COF	CSCF 250B4COF	CSCF 315B4COF	CSCF 400B4COF	CSCF 630B4COF	CSCF 800B4COF
Number of poles		4	4	4	4	4	4	4	4
Current rating at 45° C	Ith (A)	125	160	200	250	315	400	630	800
Rated insulation voltage Ui	V	1000	1000	1000	1000	1000	1000	1000	1000
Max. Rated Operational Voltage (Ue) max	V	690	690	690	690	690	690	690	690
Rated operational voltage Ue	V	415	415	415	415	415	415	415	415
Di-electric strength at 50Hz for 1 min.	KV	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Rated impulse voltage Uimp	KV	12	12	12	12	12	12	12	12
Rated operational current Ie at 415 V									
AC 22A	A	125	160	200	250	315	500	630	800
AC 23A	A	125	160	200	250	315	400	630	720
Rated making capacity at 415V, 0.35 pf									
AC 23A	A	1250	1600	2000	2500	3150	4000	6300	7200
Rated breaking capacity at 415V, 0.35 pf									
AC 23A	A	1000	1280	1600	2000	2520	3200	5040	5760
Capacitor rating at 415V, 3ph	kVAr	50	50	100	115	160	200	270	340
Short circuit current with fuses	kA r.m.s	80	80	80	80	80	80	80	80
Rated short circuit making capacity (peak)	kA	10	10	30	30	30	40	50	50
Short time current for 1 sec.	kA r.m.s	5	5	8	8	8	20	24	24
Electrical Endurance	Operations	1000	1000	1000	1000	1000	1000	1000	500
#Mechanical Endurance	Operations	10000	10000	10000	10000	10000	10000	10000	10000
Fuse Type BS Pattern		B2	B2	B2	B3	B3	B4	C2	C3

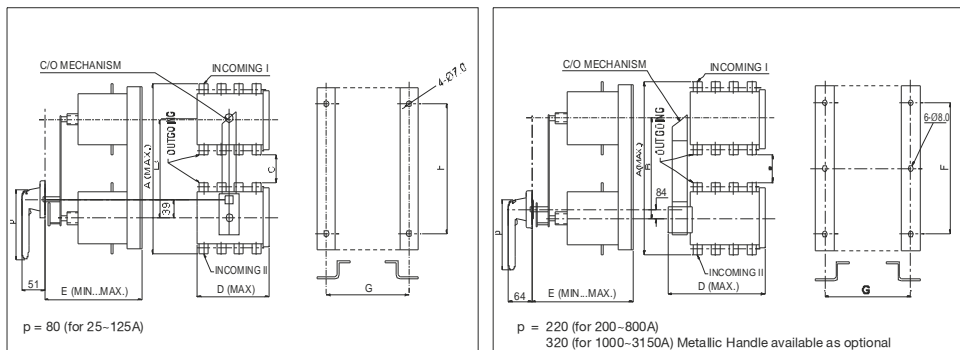
# Mechanical Endurance also includes Electrical Endurance

1. Ambient Temperature 60 C derating 20%. Mounting on "ceiling" derating 10%. Mounting on wall, horizontal fuses : derating 8%    2. Utilization category B

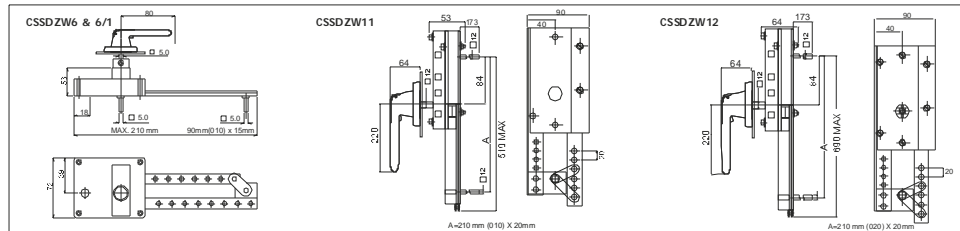
3. Some fuses links limit these figures further. Starting current characteristics must be considered separately.



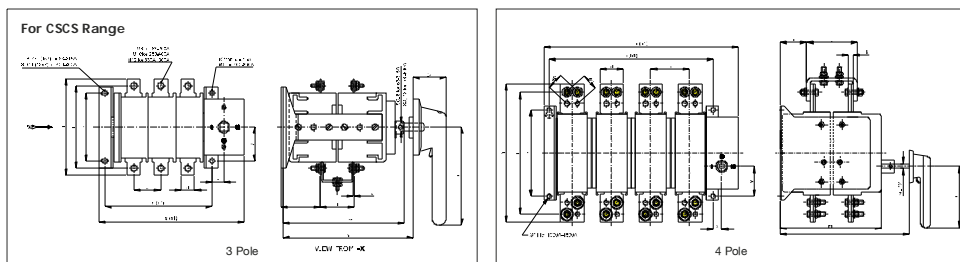
## Dimensional detail for CONVENTIONAL Changeover Switch Disconnecter



Type of C/o Switches	Dimension							Type of C/o Mechanism
	A	B	C	D	E	F	G	
CSSD 25 D4CO	187	120	52	95	180...210	120	86	CSSD ZW 6
CSSD40D4CO	187	120	52	95	180...210	120	86	CSSD ZW 6
CSSD63D4CO	277	180	83	145	180...210	180	145	CSSD ZW 6/1
CSSD125D4CO	277	180	83	145	180...210	180	145	CSSD ZW 6/1



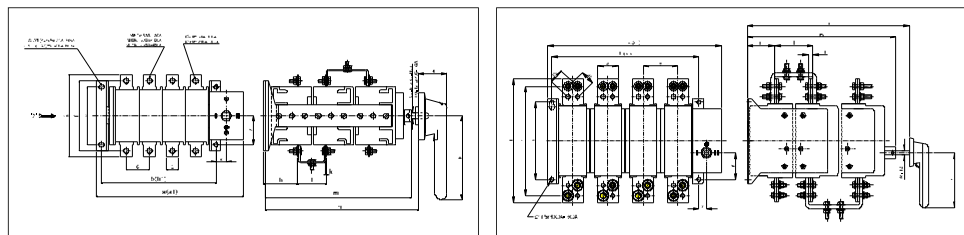
## Dimensional detail for Compact On Load Changeover Switches



Rating	a (3Pole)	b1(4Pole)	b(3Pole)	b1(4Pole)	c	d	e	f	g	h	i	k	m	n	p	x	y
63A	215.5	255.5	158.5	198.5	40	20	100	122	142	58	51	2.0	182.5	195-295	145	18	43
80A	215.5	255.5	158.5	198.5	40	20	100	122	142	58	51	2.0	182.5	195-295	145	18	43
100A	215.5	255.5	158.5	198.5	40	20	100	122	142	58	51	2.0	182.5	195-295	145	18	43
125A	215.5	255.5	158.5	198.5	40	20	100	122	142	57	53	2.0	182.5	195-295	145	18	43
160A	215.5	255.5	158.5	198.5	40	20	100	122	142	57	53	2.0	182.5	195-295	145	18	43
200A	248.5	309.5	191	252	61	20	124	138	163	65.5	81	4.0	242	255-355	145	18	43
250A	248.5	309.5	191	252	61	25	124	138	163	65.5	81	4.0	242	255-355	145	18	43
315A	248.5	309.5	191	252	61	25	124	138	163	65.5	81	4.0	242	255-355	145	18	43
400A	282	532	206	276	70	25	150	180	205	85	96	4.0	262	300-400	220	26	47
630A	282	532	206	276	70	25	150	180	205	85	96	4.0	262	300-400	220	26	47
800A	282	532	206	276	70	25	150	180	205	85	96	5.0	262	300-400	220	26	47
1000A	396	496	318	418	100	60	220	312	352	80	104	8	260	330-450	205*	22	76.5
1250A	396	496	318	418	100	60	220	312	352	80	104	8	260	330-450	205*	22	76.5
1600A	396	496	318	418	100	60	220	312	352	78	108	10	260	330-450	205*	22	76.5
2000A	436	556	358	478	120	60	220	312	352	80	104	8	552	590-690	275*	22	76.5
2500A	436	556	358	478	120	60	220	312	352	80	104	8	552	590-690	275*	22	76.5
3150A	436	556	358	478	120	60	220	312	352	78	108	10	552	590-690	275*	22	76.5

\* Metallic Handle

## Dimensional detail for Bypass Switches

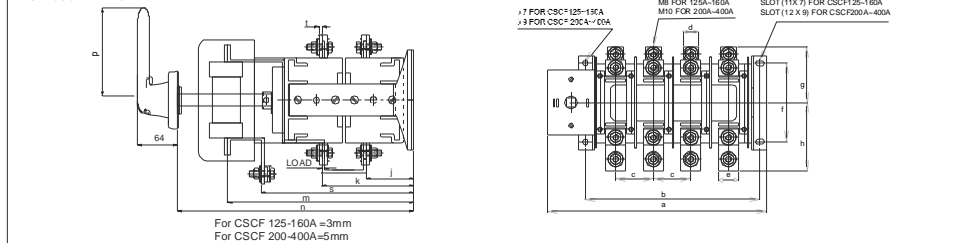


Rating	a (3Pole)	b1(4Pole)	b(3Pole)	b1(4Pole)	c	d	e	f	g	h	j	k	m	n	p	x	y
63A	215.5	255.5	158.5	198.5	40	20	100	122	142	58	51	2.0	255.5	268-368	145	18	43
80A	215.5	255.5	158.5	198.5	40	20	100	122	142	58	51	2.0	255.5	268-368	145	18	43
100A	215.5	255.5	158.5	198.5	40	20	100	122	142	57	53	2.0	255.5	268-368	145	18	43
125A	215.5	255.5	158.5	198.5	40	20	100	122	142	57	53	2.0	255.5	268-368	145	18	43
160A	215.5	255.5	158.5	198.5	40	20	100	122	142	57	53	2.0	255.5	268-368	145	18	43
200A	248.5	309.5	191	252	61	20	124	138	163	65.5	81	4.0	345	358-458	145	18	43
250A	248.5	309.5	191	252	61	25	124	138	163	65.5	81	4.0	345	358-458	145	18	43
315A	248.5	309.5	191	252	61	25	124	138	163	65.5	81	4.0	345	358-458	145	18	43
400A	282	532	206	276	70	25	150	180	205	85	96	4.0	392	430-530	220	26	47
630A	282	532	206	276	70	25	150	180	205	85	96	4.0	392	430-530	220	26	47
800A	282	532	206	276	70	25	150	180	205	85	96	5.0	392	430-530	220	26	47
1000A	396	496	318	418	100	60	220	312	352	80	104	8	390	460-560	205*	22	76.5
1250A	396	496	318	418	100	60	220	312	352	80	104	8	390	460-560	205*	22	76.5
1600A	396	496	318	418	100	60	220	312	352	78	108	10	390	460-560	205*	22	76.5

\* Metallic Handle

## Dimensional detail for Compact Switch Disconnecter Fuse Changeover Switches

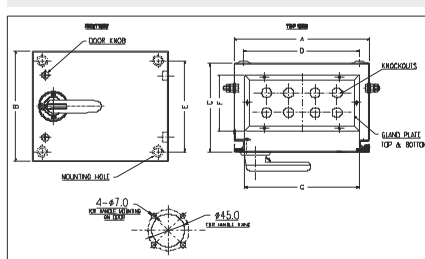
FOR CSCF RANGE



Rating	a	b	c	d	e	f	g	h	j	k	m	n	p	s	t
125A	280	223	48	20	25.4	100	71	87.5	57	113	217	290-310	145	170	2.0
160A	280	223	48	20	25.4	100	71	87.5	57	113	217	290-310	145	170	2.0
200A	310	252	61	25	30	124	81.5	99	65.5	151.5	284.5	340-370	145	226.5	4.0
250A	310	252	61	25	30	124	81.5	99	65.5	151.5	284.5	340-370	145	226.5	4.0
315A	310	252	61	25	30	124	81.5	99	65.5	151.5	284.5	340-370	145	226.5	4.0
400A	360	287	70	25	30	150	102.5	114	87	182	338	400-500	220	279	4.0
630A	478	402	100	40	40	150	111.5	117	85	186	350	400-500	220	282	4.0
800A	478	402	100	40	40	150	111.5	117	85	186	350	400-500	220	282	5.0

NOTE: • Dimensions of Changeover Switches with enclosure are available on request • Dimensions of Conventional Switch Disconnecter Fuse Changeover are available on request

## Dimensional detail for Enclosures



Size	Rating	A	B	C	D	E	F	G	Knockout Dia Numbers/Side
------	--------	---	---	---	---	---	---	---	---------------------------

Enclosure for CSCS Compact Onload Changeover									
B	CSCS 63-160A	325	275	1220	285	235	155	283	Ø38(8)
D2	CSCS 200-315A	400	350	275	360	310	210	358	Ø38(8)
E	CSCS 400-800A	500	400	300	460	360	235	458	Ø38(8)
I	CSCS 1000-1800A	600	550	300	560	510	235	558	Ø38(8)
K	CSCS 2000-3150A	800	600	700	760	560	635	758	Ø38(16)

Enclosure for CSBS Bypass Switches									
B	CSBS 63-160A	350	300	325	310	260	260	308	Ø38(8)
D2	CSBS 200-315A	400	350	375	360	310	310	358	Ø38(8)
I	CSBS 400-800A	500	400	425	460	360	360	458	Ø38(8)
K	CSBS 1000-1600A	600	550	425	560	510	360	558	Ø38(8)

Enclosure for CSCF Fuse Changeover Switches									
B	CSCF 125-160A	350	300	325	310	260	260	308	Ø38(8)
D2	CSCF 200-315A	500	350	375	460	310	310	458	-
E	CSCF 400-800A	600	400	500	560	360	435	558	-