

New Changeover Switch

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State of the art Manufacturing Facilities



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



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New Changeover Switch

C&S introduces a new series of on-load changeover switches. The New Changeover Switch exhibits an impeccable performance engendered in it by the excellence in design and engineering.

Purpose

These changeover switches are used to control and disconnect any kind of circuit –disconnection feeders both resistive and inductive loads.

By means of manual operation, changeover performs circuit switching between two independent circuits –I & II.

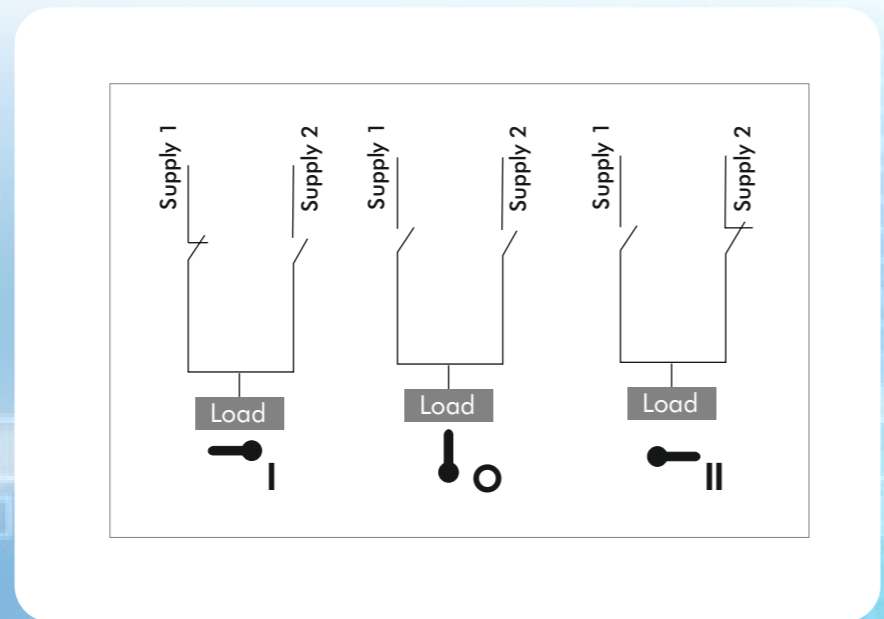
Positions

The changeover switch has three stable positions (I, O & II)

- **I** is connected to primary source of normal supply i.e. Transformer supply.
- **O** It is the neutral position between position I and II.
- **II** is connected to secondary source of alternate supply i.e. Generator supply.

Operation

- I** In this position the switch is in ON state with normal (transformer) supply available at the outgoing terminals.
- O** In this position the switch is in OFF state with both normal (transformer) and alternate (Generator) supplies isolated from the outgoing terminals.
- II** In this position the switch is in ON state with alternate (generator) supply available at the outgoing terminals.



Product Range

Frame	Rating
Frame 1	63A, 100A
Frame 2	125, 160, 200A

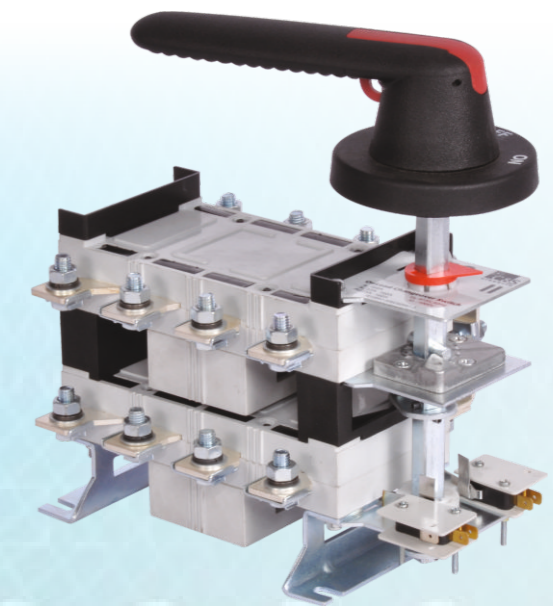
Versions

The New Changeover Switches are available in open execution as well as in sheet steel (SS) enclosure.

In open execution, the New Changeover Switch can be commissioned in panels. Apart from open execution the New Changeover Switch is also available in sheet steel enclosure with adequate space of cable terminations so that additional cable entry boxes are not required. The enclosures are available with the degree of protection s required by the application. Cable gland plates are also provided with the switch.



Frame 1



Frame 2

Features

Design

- Compact Construction
- Quick make Quick break mechanism
- Positive ON/OFF Indication, indicates true position of contacts
- High thermal and dynamic strength to withstand rated fused short circuit current level of 80kA rms.
- Available in Open execution and in sheet steel enclosure.
- Suitable for Capacitor Switching and as a main switch
- Silver plated copper current carrying parts
- Complete flexibility in termination
- Adjustable telescopic shaft

Operation

- Rated for AC23A utilization category
- Complies with latest requirements of IEC-60947-1&3. 13947-1&3 standards
- Provides switching control of two independent circuits (circuit I closing/ circuit II opening and vice versa).

Safety

- Safety of division: clearly apparent operation
- Handle with built in padlocking facility in all the three positions I O and II.
- Provision for defeating door interlock.



Conformity to Standard	IEC 60947-3/ IS13947-3	
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/ Cubical Service Temperature	°C	40
IP Level after Mounting	IP54	

Type

Current Rating at 40°C	Ith (A)	63A	80A	100A	125A	160A	200A	
No. of Poles	4P	4P	4P	4P	4P	4P		
Rated Insulation Voltage Ui	V	750	750	750	1000	750	1000	
Dielectric Strength of 50 Hz for 1 min	kV	4	4	4	5	5	5	
Rated Impulse voltage Uimp	kV	6	6	6	6	6	6	
Rated Operational Current Ie at 415 V	AC23A	A	63A	80A	100A	125A	160A	200A
Rated Making Capacity at 415V, 0.35 pf	AC23A	A rms	630	630	630	1250	1600	2000
Rated Breaking Capacity at 415V, 0.35 pf	AC23A	A rms	504	504	504	1000	1280	1600
Capacitor Rating at 415V, 3ph	Kvar	25	25	25	55	50	50	
Short Circuit Current with Fuses	kA rms	80	80	80	80	80	80	
Rated short circuit making capacity(peak)	kA	15	15	15	20	20	20	
Admissable Short time current for 1 sec	kA rms	5	5	5	7	7	7	
Electrical Endurance	Operations	2500	1500	1500	1000	1000	1000	
Mechanical Endurance	Operations	20000	20000	20000	10000	10000	10000	
Operating Force	Nm	3.5	3.5	3.5	9.5	9.5	9.5	
Connection								
Min. Cu cable/ Bus bar size	mm ²	16	25	25	50	70	95	
Min. Al cable/ Bus bar size	mm ²	25	2 x 25	2 x 25	70	95	150	

Accessories & Dimensions

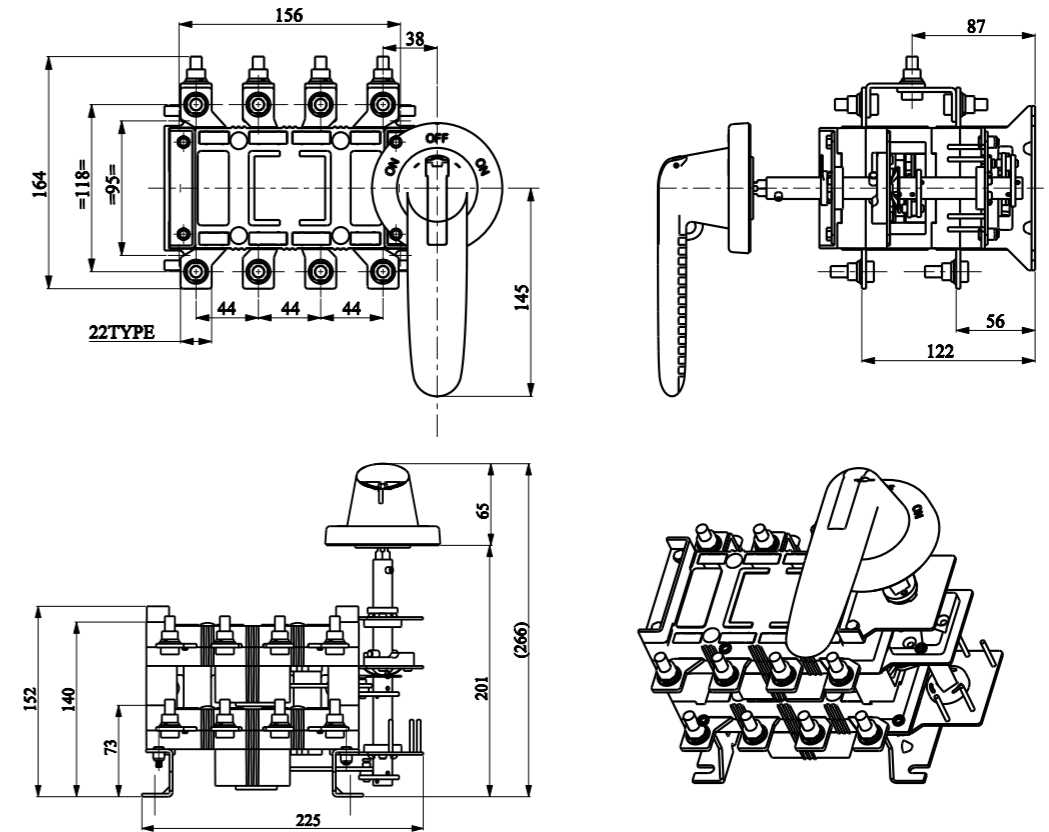
Accessories information

Accessories	Built in Design	Optional
Direct Handle Mounting kit		✓
Door Interlock for external padlocking IP55	Pad locking is available in all the 3 conditions and the panel door is free to open in the off condition even after pad locking.	
Bridging bars between up & down terminals on common side	✓	
CO' pre-break auxiliary		✓
Shaft Extension (125,160&200mm)	55mm	
Shaft Extension (63&100mm)	52mm	
CO' pre-break auxiliary contact upto 2NO-2NC		✓

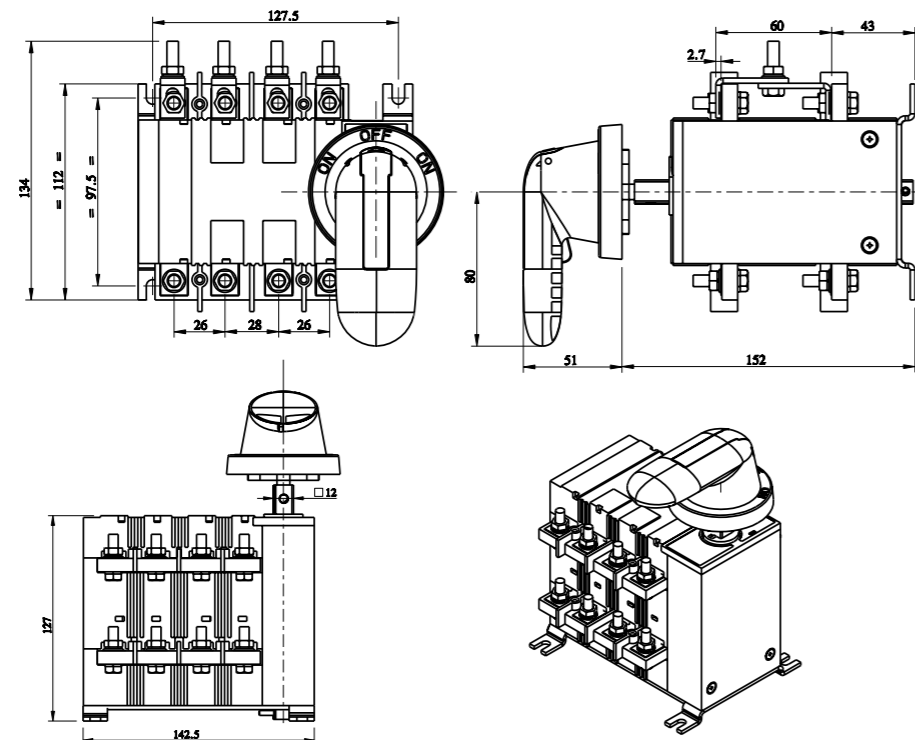
Ordering Reference Codes

Ampere Rating	Ref. Code Open-execution	Ref. Code with Enclosure
63 A	CSCS63NM4CO	E-CSCS63NM4CO
80 A	CSCS80NM4CO	E-CSCS80NM4CO
100 A	CSCS100NM4CO	E-CSCS100NM4CO
125 A	CSCS125NM4CO	E-CSCS125NM4CO
160 A	CSCS160NM4CO	E-CSCS160NM4CO
200 A	CSCS200NM4CO	E-CSCS200NM4CO

Dimensional Drawing - Frame 2 (125~200A)



Dimensional Drawing - Frame 1 (63~100A)



Dimensional Drawing - Enclosure

