# **Metal Clad Switchgears**



SNC Series SNC 12 | SNC 24 | SNC 36





# Metal Clad Switchgears SNC Series

SNC Series Metal Clad Switchgears are switching and control switchgears manufactured up to 36 kV, 3150 A, 40 kA.

SNC Series Metal Clad Switchgears are manufactured in compliance with type tested design successfully passed the electrical and mechanical tests according to IEC 62271-200 and seismic tests IEC62271-210, EN60068, IEEE693, GR-63 Core Zone4 standards in the international accredited laboratories of Europe.

SNC Series Metal Clad Switchgears come in 2 types.

- SNC-1 Withdrawable Circuit Breaker
- SNC-2 Withdrawable Circuit Breaker and Withdrawable Voltage Transformer

#### Advantages

- 4/5 segregated compartments
- Fast and easy service with withdrawable VT (SNC-2 only)
- A wide range of brands is available for equipment (Relay, CB, ...)
- Accessibility to the cable connection compartment is available from the front or rear.
- Withdrawable type SF6 or vacuum circuit breaker
- Special color option for special applications
- Protection class is IP4X (doors are closed),
- IP3X (between compartments)
- Minimum area thanks to compact and small design
- Proven reliability with unique design
- Special manufacturing option against corrosion for tropical conditions
- 5 years warranty option
- Design with load break switch and vacuum contactor.

#### Safety

- AFLR Internal Arc Classification is
- LSC-2B Loss of Service Continuity Class
- PM Partition Class
- Personel safety with mechanical and electrical interlock Operational safety with special hinged door design
- Continuity of earthing system

#### • Optimum reliability thanks to 3 mm sheet steel construction

Service Conditions								
Application Area		Indoor						
Altitude		1000 m						
Ambient Temperature	Min.	-5°C						
	Max.	40°C						
	Average period of 24h	35°C						
Humidity	Max. (period of 24h)	95%						
	Max. (period of one month)	90%						
Ambient Pollution		Light						



#### Color

- RAL 9003 for front covers
- RAL 7015 for side covers

#### **Application Areas**

- Power Generation
- Transmission and Distribution
- Transformer Substations
- Heavy Industry
- Rolling Mills
- Pipelines
- Shipyards
- Emergency and Backup Power Facilities
- Mining
- Transportation

#### **Standards**

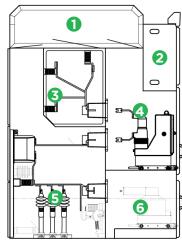
- IEC 62271-1
- IEC 62271-200
- IEC 62271-100
- IEC 62271-102
- IEC 62271-105
- IEC 61869-2
- IEC 61869-3
- IEC 60273
- IEC 60051
- IEC 60255
- IEC 62271-210
- EN 60068
- IEEE 693 -1
- GR-63-Core-Zone4

#### **Technical Specifications**

Descriptions			SNC 12	SNC 24	SNC 36
Rated voltage (rms)		kV	13.8	24	36
Power frequency withstand voltage 50 Hz, 1 mi (rms) between phases and phase ground			32	50	70
Lightning impulse withstand voltage 1.2/50 ms (peak) between phases and phase - ground			75/85	125	170
Rated frequency			50-60		
Rated (rms) current	Busbars	Α	630 3150	630 3150	630 2500
	(with forced ventilation)	А	4000	-	-
	CB & Disconnector	А	630 3150	630 3150	630 2500
	(with forced ventilation)	А	4000	-	-
	Load Break Switch	А	630 1250	630 1250	630 1250
	Vacuum Contactor	А	400	800	-
	(for capacitive load)	А	250	200	-
Rated short time withstand (rms) current	CB & Disconnector	kA	16 40	16 31.5	16 31.5
	Load Break Switches	kA	16 20	16 20	16 20
	Vacuum Contactor	kA	8	8	-
Short circuit withstand time			3	3	3
Rated short time withstand (peak) current	CB & Disconnector	kA	40 100	40 100	40 80
	Load Break Switches	kA	40 50	40 50	40 50
	Vacuum Contactor	kA	20	20	-
Internal arc fault	Current	kA	40	31.5	31.5
	Duration	S	1	1	1
Earthing switch Rated short time withstand current		kA	16 40	16 31.5	16 31.5
Short circuit withstand time			3	3	3

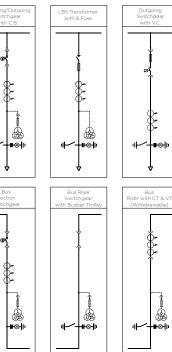
Type Voltage	Voltago	Current	Width	Depth		Hoight
	voitage			SNC-1	SNC-2	Height
SNC 12 13.8 kV	630/1250 A	650 mm	1400 mm	1750 mm	2445 mm	
	1600/2000 A	800 mm				
	2500/3150 A	1000 mm				
SNC 24 24 kV	630/1250 A	800 mm	1750 mm	1750 mm	2570 mm	
	1600 2500 A	1000 mm				
SNC 36	36 kV	630 2500 A	1100 mm	2350 mm	2350 mm	2820 mm

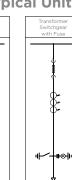
### **Typical Feeder Unit**



- 1- Pressure Relief Channel
- 2- LV Compartment
- 3- Busbar Compartment
- 4- Circuit Breaker Compartment
- 5- Cable Compartment
- 6- Withdrawable VT Compartment (Optional)

## Single Line Diagram of Typical Units



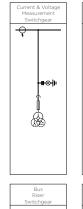


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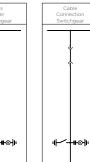
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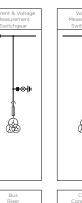
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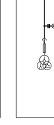
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