Metal Clad Switchgears

SMC Series

SMC 12 | SMC 24 | SMC 36 | SMC 40.5 | SMC 46

Switching Life to Infinity

aktif ELEKTROTEKNİK

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SMC Series

SMC Metal Clad Switchgears are Air Insulated Switchgears and Controlgears manufactured for heavy-duty conditions. SMC Series Metal Clad Switchgears have been manufactured since 1989 and redesigned to meet the revised/up-to-date and they are manufactured up to 46 kV, 4000 A, 31.5 kA/3s electrical features.

SMC Series Metal Clad Switchgears have fully type tested design that taken from international accredited laboratories according to IEC 62271-200 standard and Aktif has ISO 9001, ISO 14001 and ISO 45001 quality certificates.

- **SMC-0 :** Front Accesibility
- **SMC-1 :** Rear Accesibility

Application Areas

- Power Generation
- Transmission and Distribution
- Renewable Power Plants
- Transformer Substations
- Heavy Industry
- Rolling Milis
- Pipelines
- Shipyards
- Mining
- Transportaion

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

Color

- RAL 9003 for front cover
- RAL 7015 for side cover

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

Advantages

- Optional front accessible design
- Suitable for heavy duty applications
- 4 segregated compartments
- Fast and easy service with withdrawable Vacuum / SF6 Curciut Breakers alternatives
- Special color option for special applications
- Protection class is IP 4X (doors are closed), IP 3X (between compartments)
- Minimum area thanks to compact and small design
- Fully-tested products
- MV cable entry from the bottom, LV cable entry from bottom, top and side
- Special manufacturing option against corrosion for tropical conditions
- 5 years warranty option

Safety

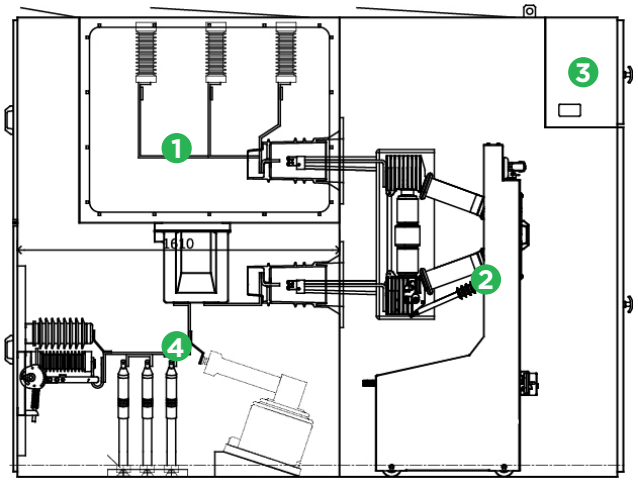
- Classified LSC-2B, PM
- Internal arc classification IAC AFLR
- Operational safety with special hinged door design
- Optimum reliability thanks to 3 mm sheet steel construction
- Personel safety with mechanical and electrical interlock
- Continuity of earthing system
- 3 mm sheet steel construction

Technical Specifications

Descriptions			SMC 12	SMC 24	SMC 36	SMC 40.5	SMC 46
Rated voltage (rms)		kV	12	24	36	40.5	46
Operating voltage (rms)		kV	12	24	36	40.5	44
Power frequency withstand voltage 50 Hz (1 min)		kV	28	50	70	90	95
Lightning impulse withstand voltage 1.2/50 ms (peak)		kV	75	125	170	190	200
Rated frequency		Hz	50 / 60				
Rated current (rms)	Busbars	A	630 ... 3150	630 ... 3150	630 ... 3150	630 ... 2500	630 ... 2500
	(with forced ventilation)	A	4000	4000	4000	-	-
	CB & Disconnector	A	630 ... 3150	630 ... 3150	630 ... 3150	630 ... 2500	630 ... 2500
	(with forced ventilation)	A	4000	4000	4000	-	-
	Load Break Switch	A	630/1250	630/1250	630/1250	-	-
	Vacuum Contactor	A	400	400	-	-	-
	(for capacitive load)	A	250	200	-	-	-
Rated short time withstand current (rms)	CB & Disconnector	kA	16 ... 31.5	16 ... 31.5	16 ... 31.5	16 ... 31.5	16 ... 31.5
	Load Break Switch	kA	16/20	16/20	16/20	-	-
	Vacuum Contactor	kA	8	8	-	-	-
Short circuit current withstand time		s	3	3	3	3	3
Rated short time withstand current (peak)	CB & Disconnector	kA	40 ... 80	40 ... 80	40 ... 80	40 ... 80	40 ... 80
	Load Break Switch	kA	40/50	40/50	40/50	-	-
	Vacuum Contactor	kA	20	20	-	-	-
Internal arc fault	Current	kA	31.5	31.5	31.5	31.5	31.5
	Duration	s	1	1	1	1	1
Earthing switch	Rated short time withstand current	kA	16 ... 40	16 ... 40	16 ... 31.5	16 ... 31.5	31.5
	Short circuit withstand time	s	3	3	3	3	3

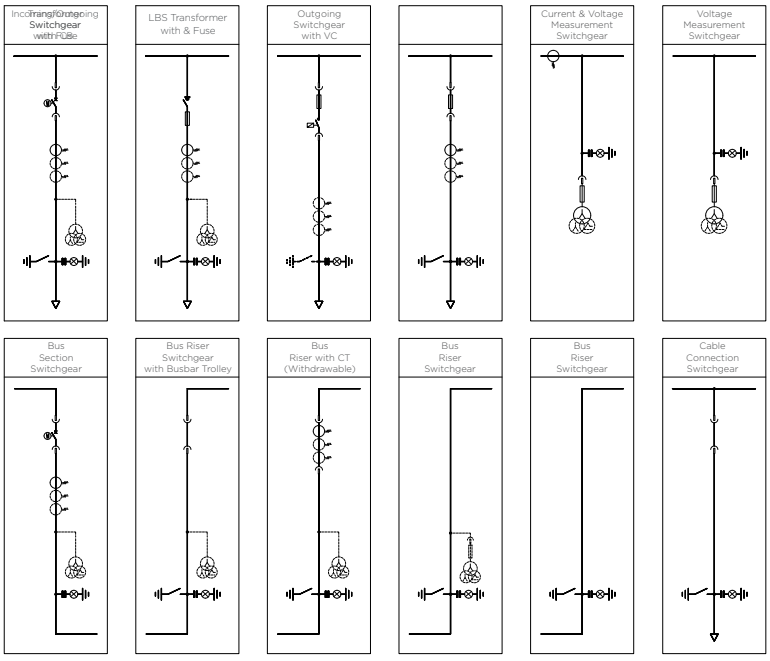
Type	Voltage	Current	Width (mm)		Depth (mm)		Height (mm)
			VCB	SF6 CB	VCB	SF6 CB	
SMC 12	12 kV	≤ 1600 A	800	1100	2000	2250	2100
		2000/2500 A	1000				
		3150 A	1100				
SMC 24	24 kV	≤ 1600 A	1100	1100	2000	2250	2100
		2000/2500 A	1100				
		3150 A	-		-		
SMC 36	36 kV	≤ 2500 A	1200	1400	3000	3000	2300
		3150 A	1400		3550		2550
		4000 A		-		-	
SMC 40.5 / 46	40.5 kV / 46 kV	≤ 2500 A	1500	-	2710	-	2550

Typical Feeder Unit



1 - Busbar Compartment
2 - Circuit Breaker Compartment
3 - LV Compartment
4 - Cable Compartment

Single Line Diagram of Typical Units



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