

SM6-24 modular units

DMVL-A cubicle

SM6-24 range proposing a new unit with lateral vacuum circuit breaker (similar to DM1-A).

DMVL-A is an indoor function

- Rated voltage 24 kV
- Rated short-circuit breaking current from 12.5 kA to 20 kA
- Rated nominal current is 630 A.

Internal arc withstand

- Standard: 12.5 kA 1s, IAC: A-FL
- Enhanced: 16 kA 1s, IAC: A-FLR in accordance with IEC 62271-200.

Protection index

- Classes: PI (insulating partition)
- Loss of service continuity classes: LSC2A
- Units: IP2XC (IP3X, consult us)
- Between compartments: IP2X.

Electromagnetic compatibility

- Relays: 4 kV withstand capacity as per recommendation IEC 60801.4
- Compartments:
 - electrical field:
 - 40 dB attenuation at 100 MHz
 - 20 dB attenuation at 200 MHz
 - magnetic field:
 - 20 dB attenuation below 30 MHz.

Temperatures

The cubicles must be stored and installed in a dry area free from dust and with limited temperature variations.

- For stocking: from -40°C to +70°C
- For working: from -5°C to +40°C
- Other temperatures, consult us.

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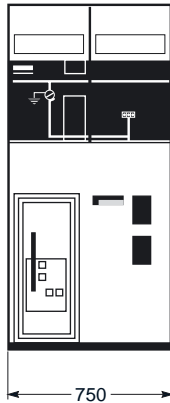
Conformity with standards

- IEC 60694: common specifications for high voltage switchgear and controlgear standards
- IEC 62271-100: high voltage AC circuit breaker
- IEC 62271-200 (previously IEC 60298): AC metal-enclosed switchgear and controlgear for rated voltages above 1 kV and up to and including 52 kV
- IEC 62271-102: high voltage alternating current disconnectors and earthing switches.

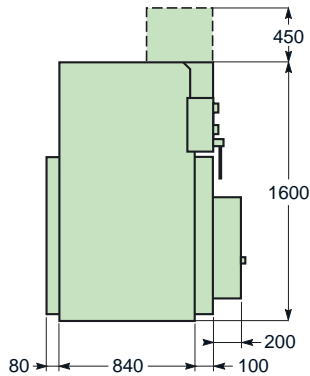
Certification

- By independent laboratories in accordance with ISO/IEC 17025 and EN 45011 standards
- Our factories implement a quality system certified to ISO 9001 and ISO 9002 standards by IQNET.

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General characteristics

Rated values

Voltage	kV	24
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Insulation level

Insulation voltage:

- power frequency withstand (50 Hz, 1 min)	U_d	kV rms	50
- lightning impulse withstand (1.2/50 μs)	U_p	kV peak	125

Isolation voltage:

- power frequency withstand (50 Hz, 1 min)	U_d	kV rms	60
- lightning impulse withstand (1.2/50 μs)	U_p	kV peak	145

Breaking capacity

Short-time withstand current	I_k/t_k	kA1 s	12,5 - 16 - 20
Rated current	I_r	A	630
Maximum breaking capacity		kA	20

Endurance

	Mechanical endurance	Electrical endurance
Disconnecter	IEC 62271-102	
Evolis circuit breaker	IEC 62271-100 10 000 operations	IEC 62271-100 10 000 breaks at I _n , p.f. = 0.7

Additional characteristics according to IEC 62271-100

Rated values

Voltage	U_r	kV rms	24
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Insulation voltage:

- power frequency withstand (50 Hz, 1 min)	U_d	kV rms	50
- lightning impulse withstand (1.2/50 μs)	U_p	kV peak	125

Frequency	f_r	Hz	50-60
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Short time withstand current	I_k/t_k	kA	I _{sc} /3 s
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Peak withstand current	I_p	kA peak	2.5 I _{sc} (50 Hz) 2.6 I _{sc} (60 Hz)
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Short circuit making capacity		kA peak	2.5 I _{sc} (50 Hz) 2.6 I _{sc} (60 Hz)
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Other characteristics

Operating sequence		O-0.3 s-CO-15 s-CO O-0.3 s-CO-3 min-CO O-3 min-CO-3 min-CO
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Operating times	Opening	ms	< 50
	Breaking	ms	< 60
	Closing	ms	< 65

Mechanical endurance	Class	M2
	Number of switching operations	10 000

Electrical endurance	Class	E2
	Number of switching operations at full I _{sc} value	100
		100

Capacitive current breaking capacity	Class	C1-C2 (for certain applications)
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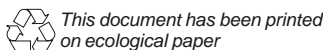
Operating conditions		-25°C to +40°C
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Average relative humidity	Over 24 h	< 95%
	Over 1 month	< 90%

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As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.



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