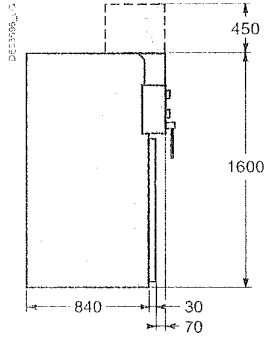


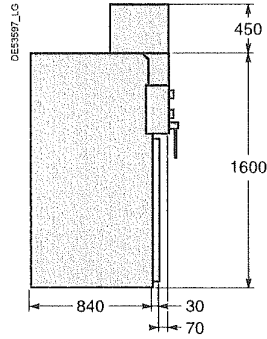
Units dimensions for SM6-24

Basic internal arc
12.5 kA 1s, IAC: A-FL

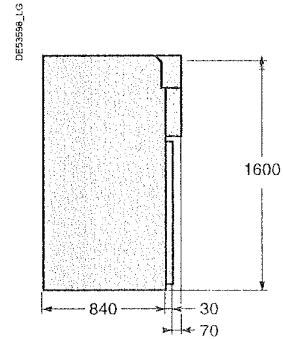
IM, IMB, PM, QM, QMB, SM, IMC, QMC, CM, CM2



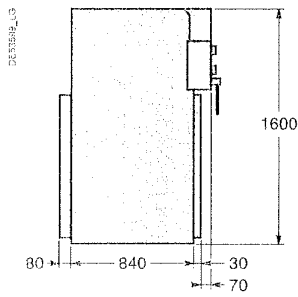
NSM-cables, NSM-busbars, CRM, CVM



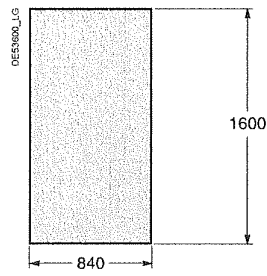
GBM, GAM2



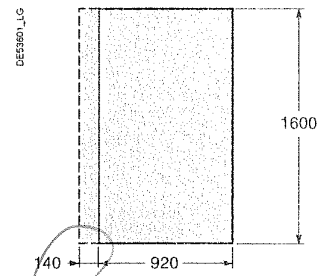
GAM



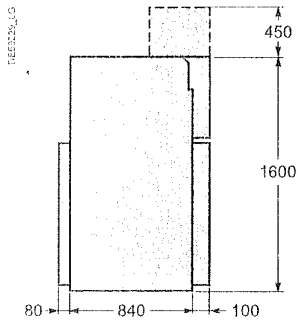
GIM



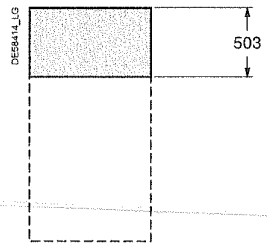
GEM



GBC-A, GBC-B, IMM



EMB

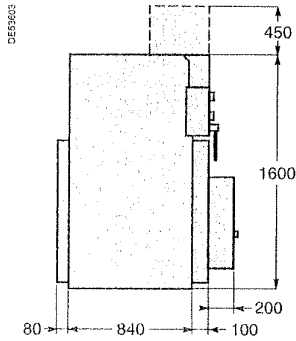


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HYDROTECHNIK

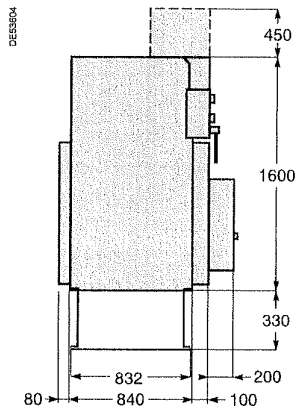
Units dimensions for SM6-24

Basic internal arc
12.5 kA 1s, IAC: A-FL

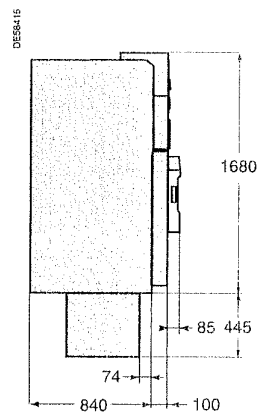
DMVL-A, DMVL-D, DM1-A, DM1-D, DM1-W, DM1-Z,
DM1-S, DM2 630 A, DM1-M



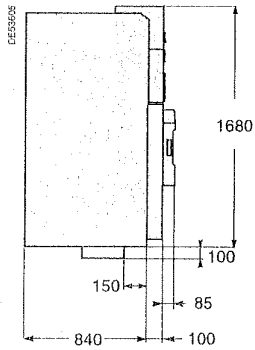
DM1-A, DM1-W 1250 A



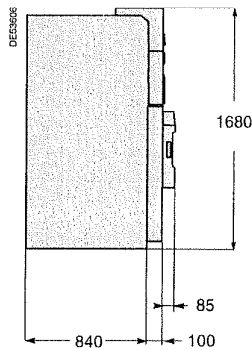
DMV-A 1250 A



DMV-A 630 A



DMV-D



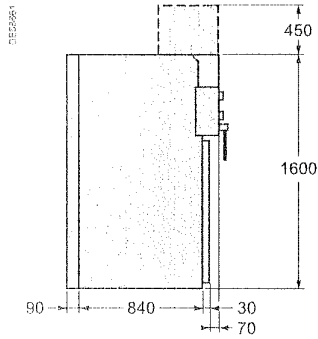
ВСТУПИЛО С ОРИГІНАЛОМ
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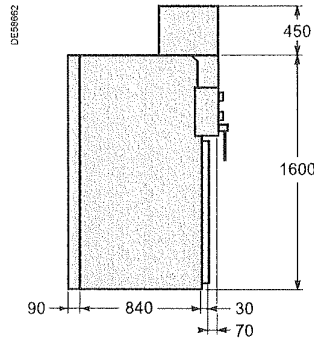
Units dimensions for SM6-24

Advance internal arc
12.5 kA 1s, IAC: A-FLR, 16 and 20 kA 1s,
IAC: A-FL/A-FLR

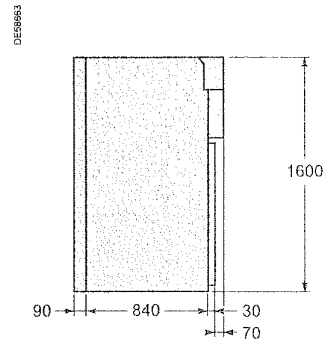
IM, IMB, PM, QM, QMB, SM, IMC, QMC, CM, CM2



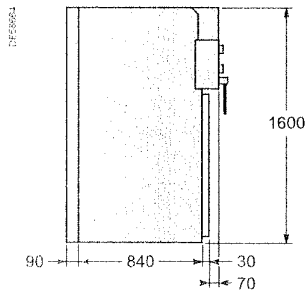
NSM-cables, NSM-busbars, CVM



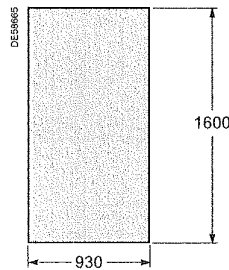
GBM, GAM2



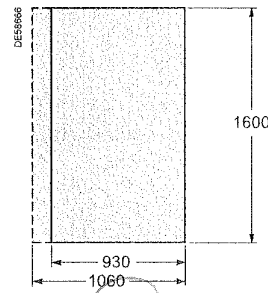
GAM



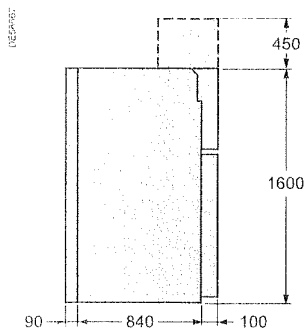
GIM



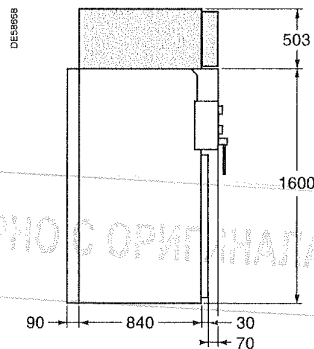
GEM



GBC-A, GBC-B, IMM



IM with EMB option



ВЯНО С ОРГАНАЛА

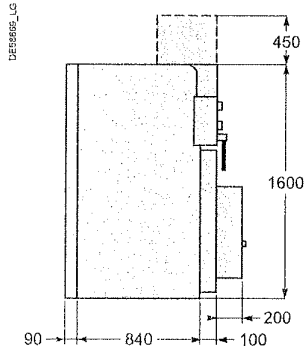


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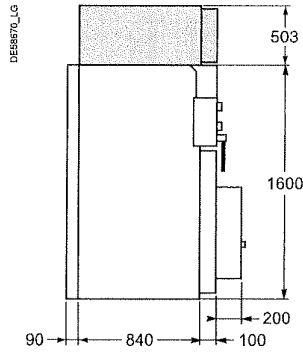
Units dimensions for SM6-24

Advance internal arc
12.5 kA 1s, IAC: A-FLR,
16 and 20 kA 1s, IAC: A-FL/A-FLR

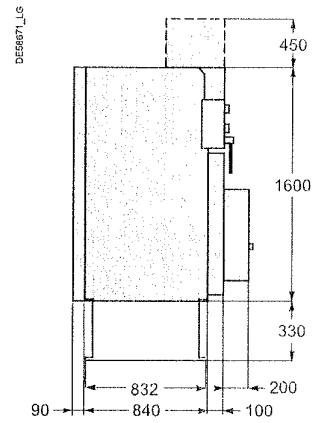
DMVL-A, DMVL-D, DM1-A, DM1-D, DM1-W, DM1-Z,
DM1-S, DM2 630 A, DM1-M



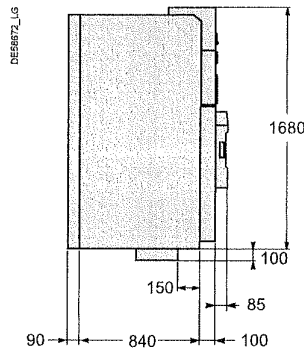
DM1-A 630 A with EMB option



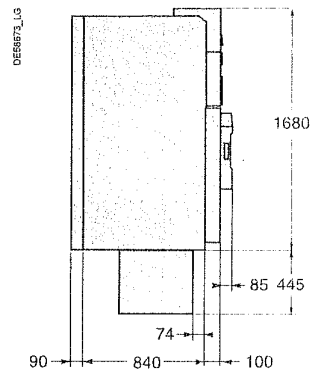
DM1-A, DM1-W 1250 A



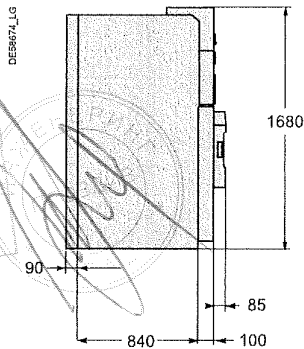
DMV-A 630 A



DMV-A 1250 A



DMV-D



ВАЖНО С ОРИГИНАЛОМ

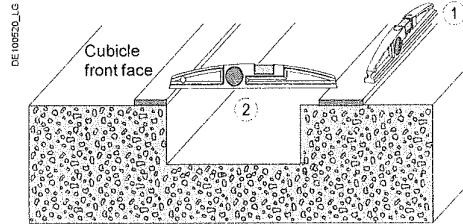
Civil engineering for SM6-24

Ground preparation

To obtain the internal arc performance, ground implementation must comply with the following requirements:

- Straightness: 2 mm / 3 m (Rep.1)
- Flatness: 3 mm maximum (Rep.2)

All the elements allowing the evacuation of the gas (duct, casing, etc.) must be able to bear a load of 250 kg/m².



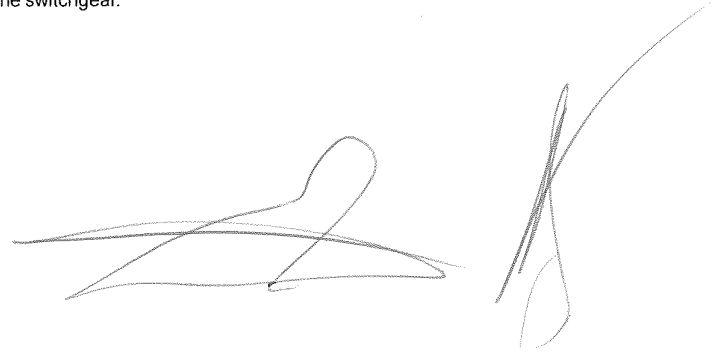
Fixing of units

With each other

The units are simply bolted together to form the MV switchboard (bolts supplied). Busbar connections are made using a torque wrench set to 28 mN.

On the ground

- For switchboards comprising up to three units, the four corners of the switchboard must be secured to the ground with using:
 - M8 bolts (not supplied) screwed into nuts set into the ground using a sealing pistol
 - screw rods grouted into the ground.
- For switchboards comprising more than three units, each unit may be fixed to the ground
- In circuit-breaker or contactor units, fixing devices are installed on the opposite side of the switchgear.



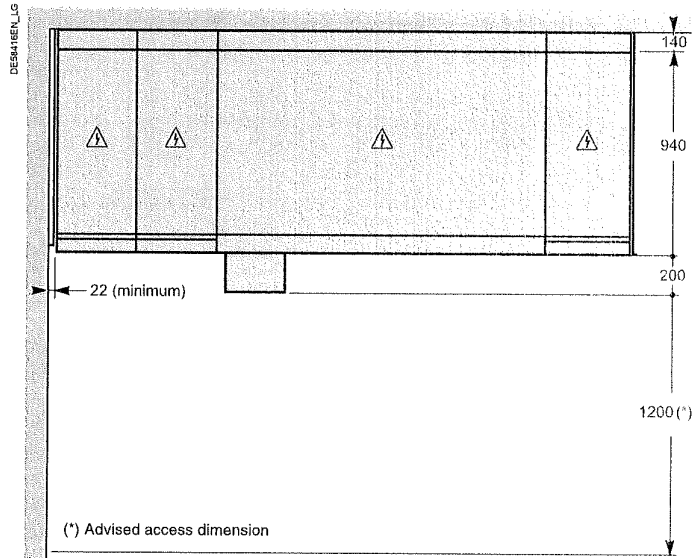
ВЯРНО С ОРИГИНАЛА



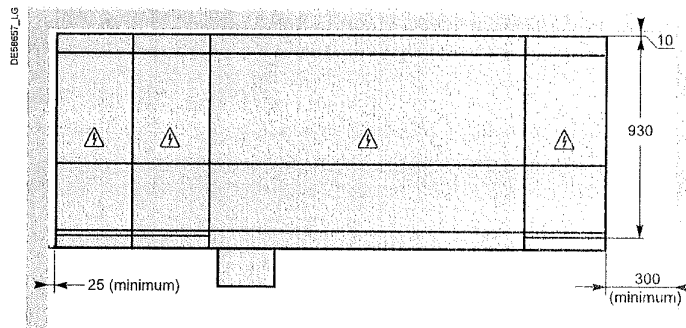
Layout examples for SM6-24

Position of cubicles in a substation

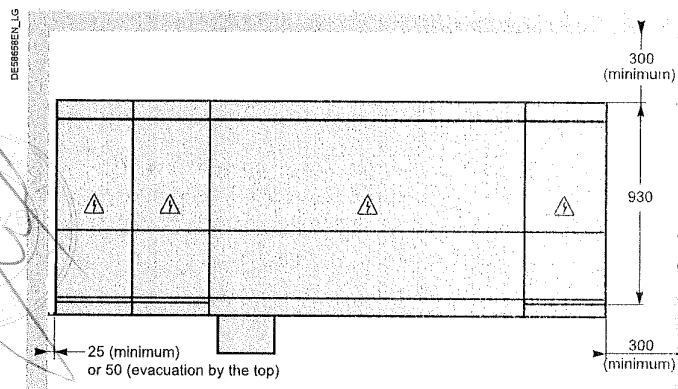
**Installation of a switchboard classified IAC 12.5 kA 1s: A-FL
Conventional substation (Masonry)**



**Installation of a switchboard classified IAC 16/20 kA 1s: A-FL
with downwards exhaust**



**Installation of a switchboard classified IAC: A-FLR
with downwards exhaust**



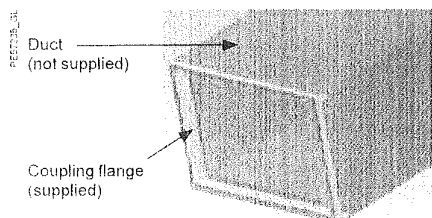
Layout examples for SM6-24

Evacuation duct

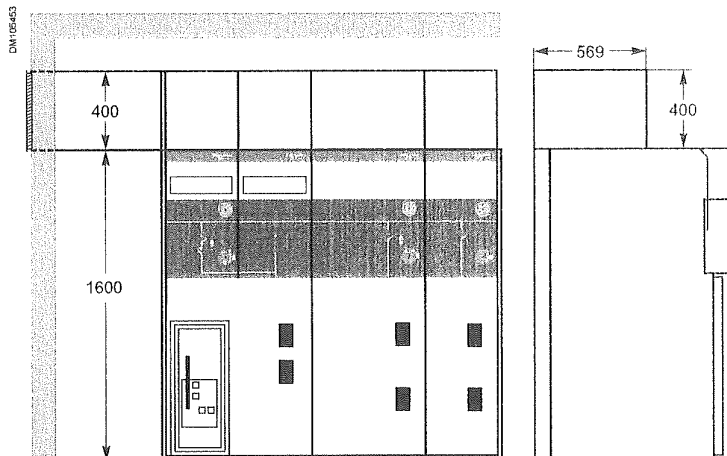
To enable the evacuation of gases by the top, users must install a conduit fixed to the coupling flange at right or left of the switchboard. For IP3X protection performance, a flap must be installed with this coupling flange on the lateral side of the cubicle duct. The end of the duct must block water, dust, moisture, animals, etc. from entering and at the same time enable the evacuation of gases into a dedicated area through a device situated at the outer end of the duct (not supplied).

Evacuation duct example

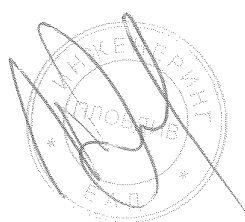
The evacuation duct must be made of metal sheet of sufficient thickness to withstand pressure and hot gases.



Installation of a switchboard classified IAC: A-FL & A-FLR with upwards exhaust left side (ceiling height ≥ 2150 mm)



ВЯРНО С ОРИГИНАЛА



Dimensions and weights for SM6-36

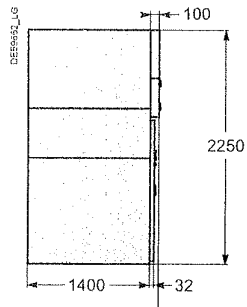
Dimensions and weights

Unit type	Height (mm)	Width (mm)	Depth (1)	Weight (kg)
IM, SM	2250	750	1400 ⁽²⁾	310
IMC, IMB	2250	750	1400 ⁽²⁾	420
QM, PM, QMB	2250	750	1400 ⁽²⁾	330
QMC	2250	1000	1400 ⁽²⁾	420
DM1-A	2250	1000	1400 ⁽²⁾	600
DM1-D	2250	1000	1400 ⁽²⁾	560
GIM	2250	250	1400	90
DM2	2250	1500	1400 ⁽²⁾	900
CM, CM2	2250	750	1400 ⁽²⁾	460
GBC-A, GBC-B	2250	750	1400 ⁽²⁾	420
GBM	2250	750	1400 ⁽²⁾	260
GAM2	2250	750	1400 ⁽²⁾	250
GAM	2250	750	1400 ⁽²⁾	295
GFM	2250	250	1400	100

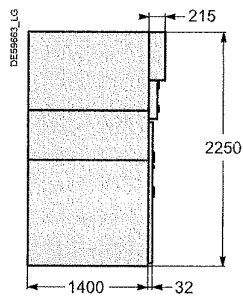
- (1) The depth measures are given for the floor surface.
 (2) The depth in these units are 1615 mm with the enlarged low voltage compartment.
 (3) The depth in these units are 1500 mm with the standard low voltage compartment.

Dimensions

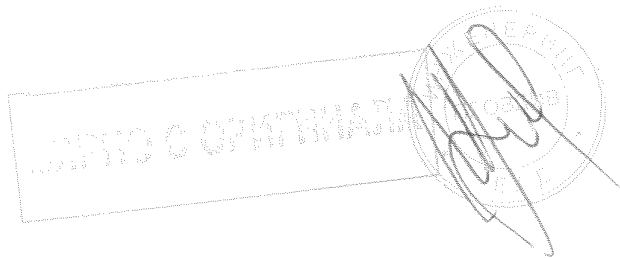
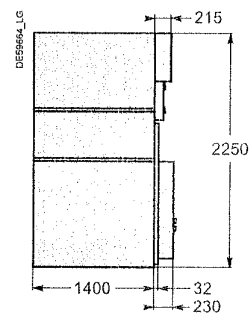
IM, SM, IMC, QM, PM, IMB,
GBM, GAM, GAM2, GBC-A, GBC-B
QMB, QMC units



CM, CM2 units



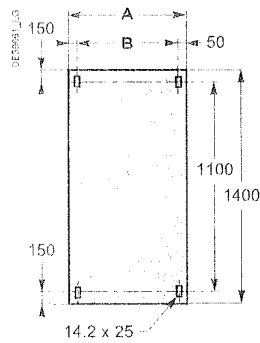
DM1-A, DM1-D, DM2 units



Civil engineering for SM6-36

Ground preparation

Units may be installed on ordinary concrete grounds, with or without trenches depending on the type and cross-section of cables.
Required civil works are identical for all units.



Fixing of units

With each other

The units are simply bolted together to form the MV switchboard (bolts supplied).
Busbar connections are made using a torque wrench set to 28 mN.

On the ground

- for switchboards comprising up to three units, the four corners of the switchboard must be secured to the ground using:
 - bolts (not supplied) screwed into nuts set into the ground using a sealing pistol
 - screw rods grouted into the ground
- for switchboards comprising more than three units, the number and position of fixing points depends on local criteria (earthquake withstand capacities, etc.)
- position of fixing holes depends on the width of units.

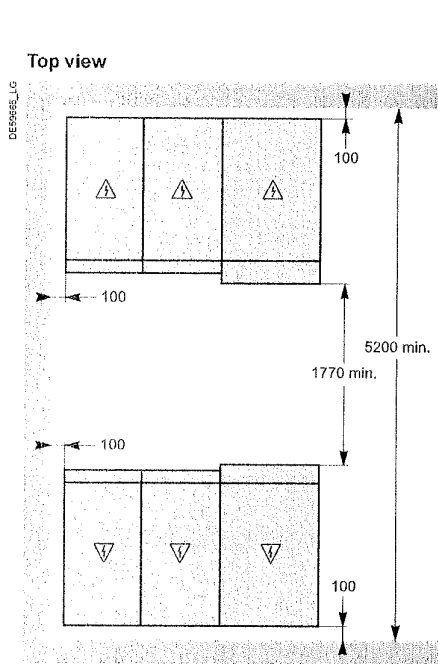
Unit type	Width	Height
IM, IMC, IMB, QM, PM, SM, CM, CM2, TM GBC-A, GBC-B, GBM, GAM2, IMB, GAM, QMB	750	650
DM1-A, DM1-D, QMC	1000	900
DM2	1500	1400
GIM	250	150

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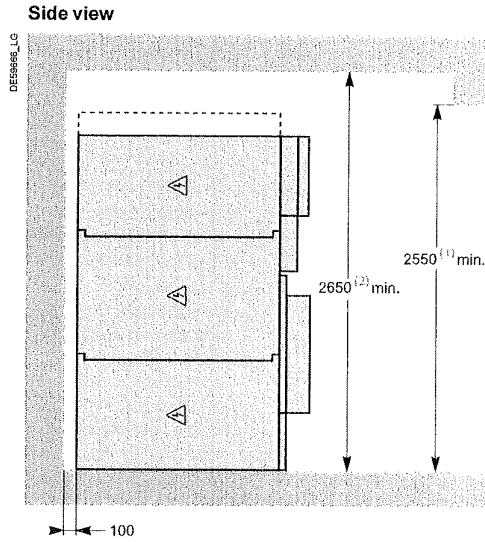
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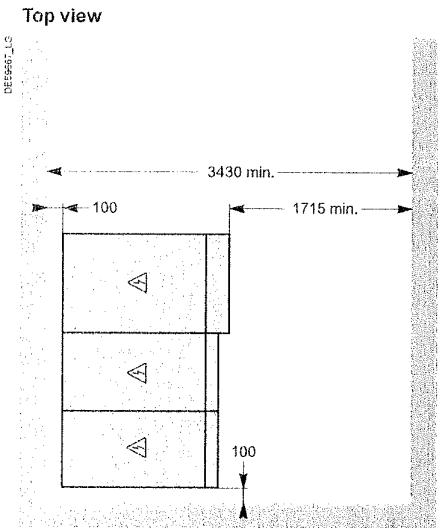
Layout examples for SM6-36



Conventional substation (Masonry)

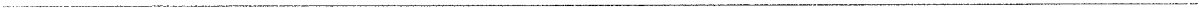


Minimum required dimensions (mm)
 (1) In case of upper incoming option: it must be 2730 mm (no internal arc withstand performance available)
 (2) In case of upper incoming option: it must be 2830 mm (no internal arc withstand performance available)



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[Handwritten signature]



A handwritten signature consisting of several overlapping loops and a long horizontal stroke.

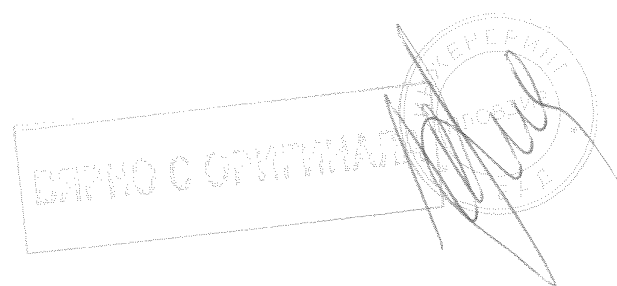
A handwritten signature with a large, sweeping loop at the top and a long horizontal base.

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A handwritten signature with a large, sweeping loop at the top and a long horizontal base.



Schneider Electric services

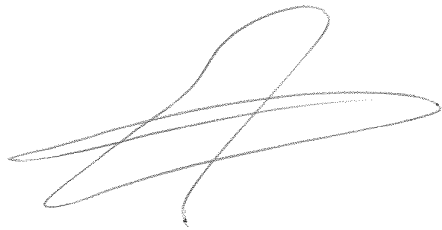


A handwritten signature in black ink, appearing to be "Sis".

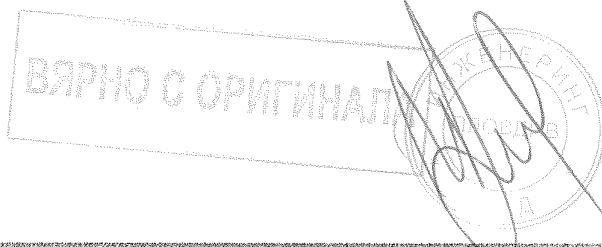
Schneider Electric services

Contents

ProDiag Breaker	130
ProDiag Corona	131
ProDiag Fuse	132

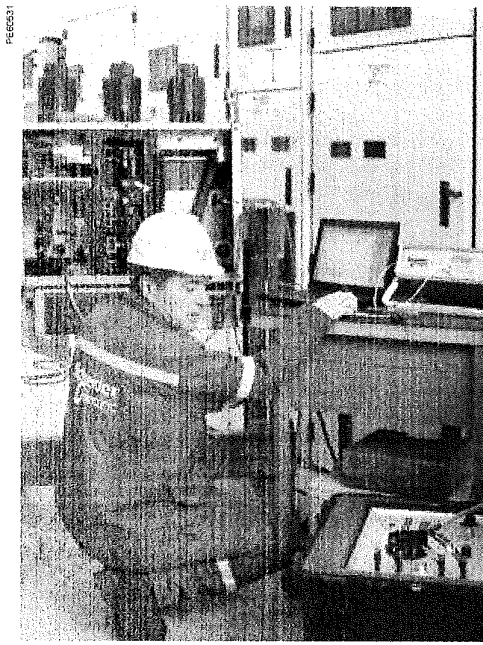


ВЯРНО С ОРИГИНАЛА



ProDiag Breaker

Diagnosis of MV and LV Circuit Breakers



What is ProDiag Breaker?

ProDiag Breaker is a Schneider Electric diagnosis tool. ProDiag Breaker compares the mechanical and electrical parameters measured during the full operation of circuit breakers with the data collected from our production facilities. This allows detecting possible failure in advance. It measures, records and displays on a screen the key electrical parameters in MV and LV circuit breakers, relating to opening, closing and springloading operations. All this data is automatically compared with the criteria for the circuit breaker designated in the software, which indicates which values are within the acceptable range, which are on the limit and which are outside it. Two tests are always performed on each circuit breakers, one at minimum voltage and one at nominal voltage. A written report is generated and provided by Schneider Electric so that the customer can use it as a tool to define the necessary corrective action (maintenance, repair or replacement).

ProDiag Breaker is part of ProDiag preventive maintenance plan

Evaluation of circuit breakers using ProDiag Breaker includes:

- Evaluation of the operating mechanism.
- Measurement and comparison of the actual contact resistance with that specified by the manufacturer.
- Measurement and comparison of the insulation resistance.
- Evaluation of the general circuit breaker conditions based on the captured data.

Moreover, analysis of the ProDiag Breaker time/ travel curve combined with the current curve of the coil and phase contact detects possible faults, such as:

- Worn out latches and operating mechanisms.
- Faulty coils.
- Mechanical wear and tear and hardening of lubricating grease.
- Defective shock absorbers.
- Defective simultaneous contact operation (opening/closing).

Some maintenance programmes involve dismantling the circuit breaker mechanism to check its condition. ProDiag Breaker using signals captured from the circuit breaker operation, reduces maintenance costs compared with programs which check the circuit breakers manually.

Where can ProDiag Breaker reduce costs?

- ProDiag Breaker significantly reduces the time taken to identify potential faults in a circuit breaker, using operational analysis rather than inspection and mechanical re-sets.
- The software analyses the captured data and identifies the specific problem area.
- A device's normal operating life is increased by timely diagnostics of when and what repairs are necessary.
- The tool comprises both hardware and software, resulting in a highly efficient predictive maintenance program.

ProDiag Breaker Objectives

Your priority is to enhance the reliability of your installation:

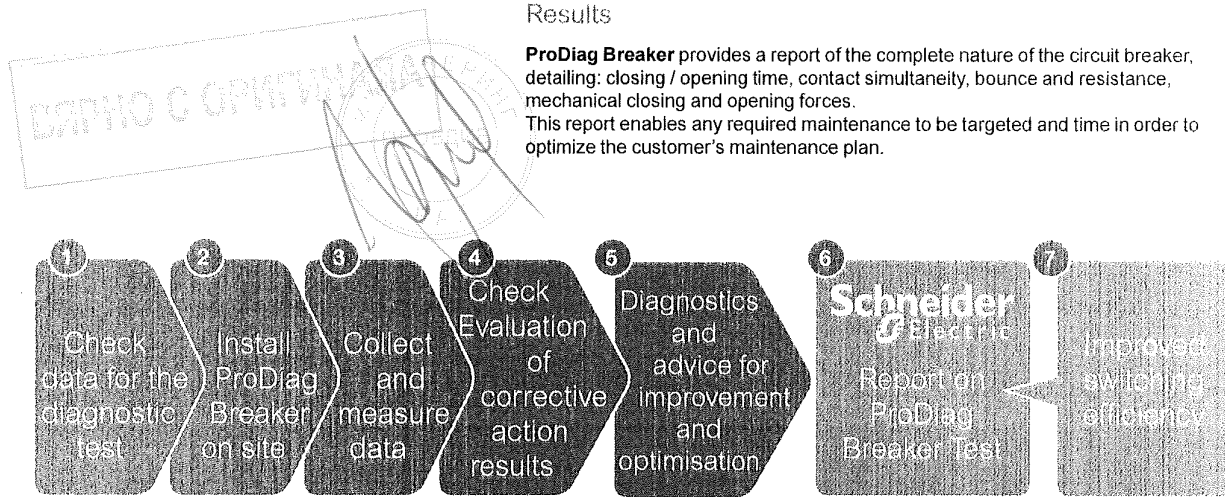
- to ensure its continuity of service,
- to minimize the time for maintenance & repair
- to perform maintenance

Only on the equipment requiring it and only when necessary (conditional preventive maintenance)

Results

ProDiag Breaker provides a report of the complete nature of the circuit breaker, detailing: closing / opening time, contact simultaneity, bounce and resistance, mechanical closing and opening forces.

This report enables any required maintenance to be targeted and time in order to optimize the customer's maintenance plan.



ProDiag Corona

Diagnostics of partial discharges



What is ProDiag Corona?

ProDiag Corona is a Schneider Electric diagnosis tool.

ProDiag Corona detects partial discharges in Medium Voltage cubicles.

- Partial Discharge occurs across part of the insulation between two conducting electrodes, without completely bridging the gap.
- Partial discharge can happen under normal working conditions as a result of insulation breakdown due to premature aging caused by thermal or electrical over-stressing of the high voltage system.

ProDiag Corona analyses the primary electrical signal through VIS (Voltage Indicator System) fixed on the switchboards. Measurements are taken by an electronic sensor and the data is transmitted to the ProDiag Corona software in order to evaluate the level of criticality of the controlled equipment.

A written report is generated, which will be handed over by Schneider Electric so that the customer can use it as a tool to define the necessary corrective action, whether maintenance, repair or replacement.

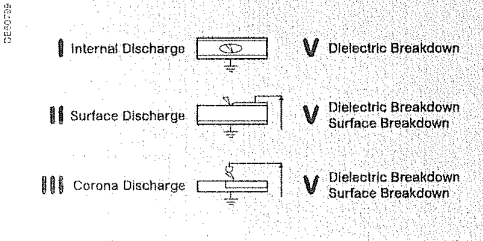
ProDiag Corona is not a certification tool.

ProDiag Corona executes the assessment of the energized equipment, without any shutdown and then without disruption for the users.

This system allows you to control all types of the most common partial discharges:

- Internal partial discharges
- Surface partial discharge
- Corona effect

ProDiag Corona diagnostic can be realized on most Medium Voltage equipment on the market equipped with VIS.



Where can ProDiag Corona reduce costs?

ProDiag Corona significantly reduces the time taken to identify potential faults in a switch, without electrical shutdown.

A device's normal operating life is increased by timely diagnostics of when and what repairs are necessary. **ProDiag Corona** is a trouble shooting anticipation tool which can avoid internal arc risks and untimely tripping.

- The tool comprises both hardware and software, resulting in a highly efficient preventive maintenance program.

ProDiag Corona objectives

Your priority is to have fast Electrical equipment inspection without shutdown

Safety (Human Life and asset)

- Enhance the reliability of your installation
- Optimisation of installation life duration & costs

Risks prevention from:

- Partial discharges and internal arc
- Dielectric degradation
- Electrical Fire

Results

ProDiag Corona provides a report of the complete electrical room, detailing: ventilation, air filtration, due point calculation, level of criticability of each set of equipment, constructor recommendations on any potential maintenance, repair & rehabilitation.

This report enables any required maintenance to be targeted and timed to optimize the customer's maintenance plan.

ProDiag Corona is performed thanks to XDP2 testing equipment from NDB technology.

ВЕРНО С ОРИГИНАЛОМ

ProDiag Fuse

Proprietary and standards diagnostics tools



Customer needs

Electrical power installations protected by MV switchgear with fuse protection should be regularly checked (for correct assembly, electrical parameters, etc.) to confirm that their characteristics correspond to the original specification. Regular diagnosis of fuse performance (electrical parameters, resistance) according to the manufacturer's recommendations is necessary to secure

the ED installation and its service continuity, which are important for customers.

The ProDiag Fuse diagnostic solution can be used on MV switchgear protected by fuses that have not received any maintenance intervention in the last four years (under normal operating conditions, and less if operating in severe environments or depending on their criticality in the installation).

The purpose of ProDiag Fuse (a proprietary hardware-software solution) is to mitigate the risks on MV switchgear and equipment by fuses of faults or drifts causing unwanted effects. The result of fuse ageing is the destruction of filaments that can lead to thermal runaway, partial damage, complete destruction of MV switchgear and equipment, or even destruction of the electrical room.

Customer benefits

ProDiag Fuse helps customers visualise, discover, and understand MV switchgear fuse ageing and wear and tear as compared to the original fuse manufacturers' technical specification.

ProDiag Fuse monitors the performance of MV switchgear fuses. Thanks to ProDiag Fuse, maintenance managers can implement, manage, and enrich their maintenance plans. Schneider Electric FSRs conclude their on-site interventions with an exhaustive report on the MV switchgear fuses conformity/non-conformity. If a MV fuse is declared non-conforming, Schneider Electric suggests a corrective plan that includes fuse replacement to regain original performance in safety and service continuity.

Customers can augment their preventive maintenance plans with this corrective action at the most convenient time for each ED device.

"Unique value for customer vs standard market tools"

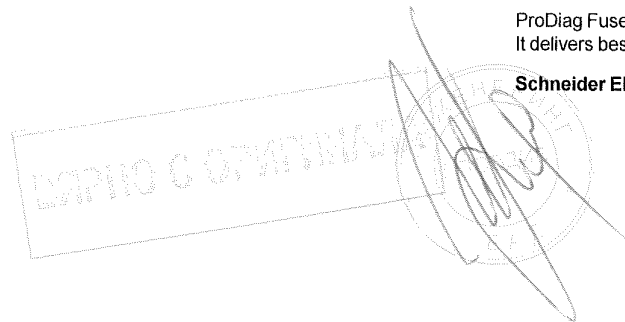
Electrical parameter measurements (resistance, etc.) on MV switchgear fuses at customer sites are taken by a test tool and transmitted to the Schneider Electric FSRs' ProDiag Fuse software. Data are compared to those of a fuse manufacturers' technical database.

The aim is to determine whether recorded measurements are within the acceptable range, at the limit, or fall outside it, as criteria for MV switchgear fuse conformity.

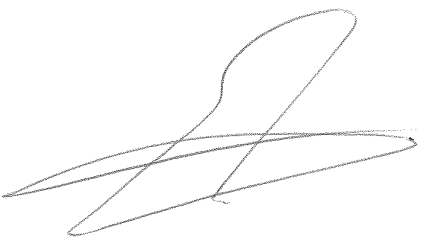
As an ED equipment manufacturer, Schneider Electric is uniquely positioned to develop and invest in specific tests tools, proprietary software, and testing methodology to collect reliable measurements from MV switchgear fuses.

ProDiag Fuse measures a larger number of parameters than standard market tools. It delivers best-in-class MV switchgear fuse diagnostics.

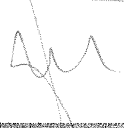
Schneider Electric scope: Schneider Electric fuses and main market fuses players.



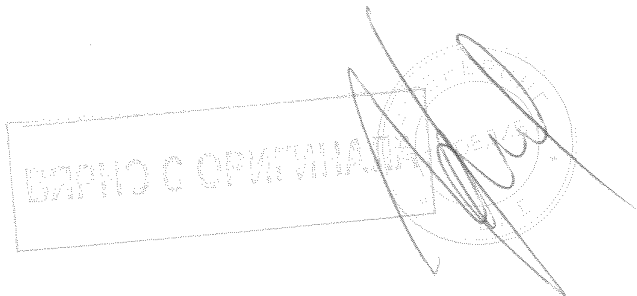
176



ВЯРНО С ОРГИНАЛА



Appendices & Order Form



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Appendices & Order form

Contents

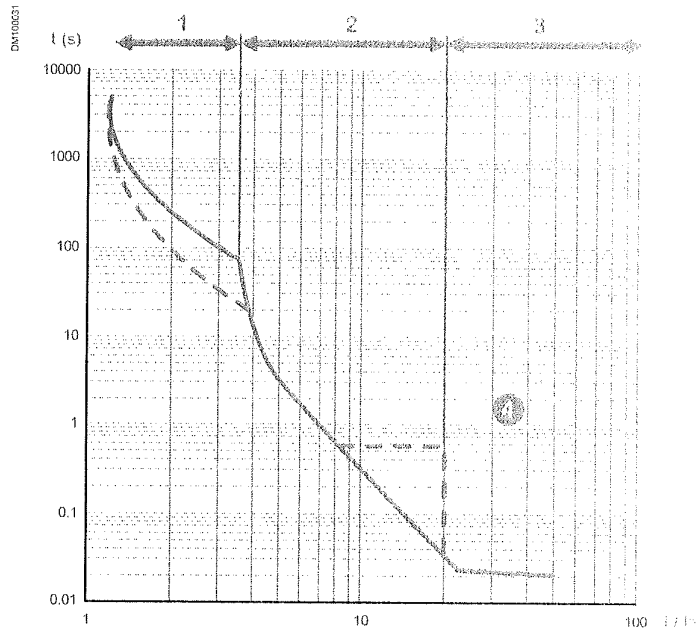
Appendices	136
VIP 40 and VIP 45 tripping curve	136
VIP 400 tripping curves	137
Fusarc CF fuses	139
Solefuse fuses	140
Order form	141
SM6 - Switching	141
Switching	141
Automatic Transfer System	143
SM6 - Protection	144
Circuit breaker	144
Fuse switch	146
Vacuum contactor (Direct Motor Starter) for 24 kV	148
SM6 - Metering	149
SM6 - Other functions	150
SF1 - Lateral disconnectable or withdrawable	151
SFset - Lateral disconnectable for SM6-24	152
Evolis - Frontal fixed version for SM6-24 (up to 17.5 kV)	153
Evolis - Lateral disconnectable version for SM6-24 (up to 17.5 kV)	154

ВЯРНО С ОРИГИНАЛА

VIP tripping curves


VIP 40 and VIP 45 tripping curve

Phase overcurrent protection (ANSI 50-51)



1. Overload
2. Secondary short-circuit
3. Primary short-circuit
4. Activation of discrimination with a Low Voltage circuit breaker

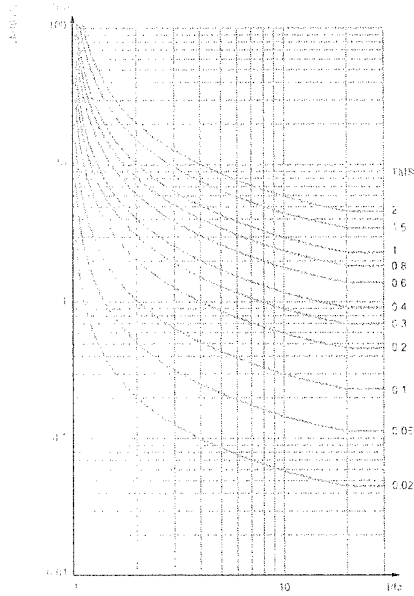
ВАРНО С ОРБИТНАТА



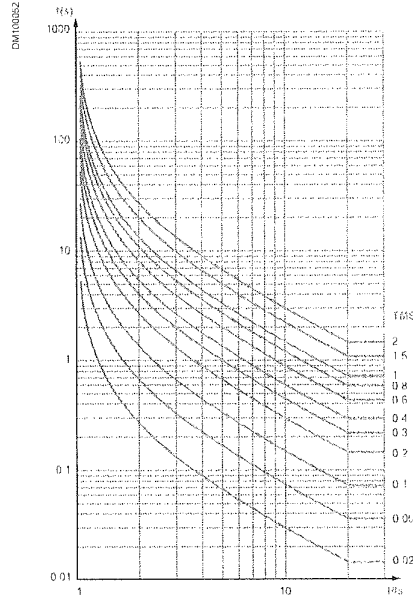
VIP tripping curves

VIP 400 tripping curves

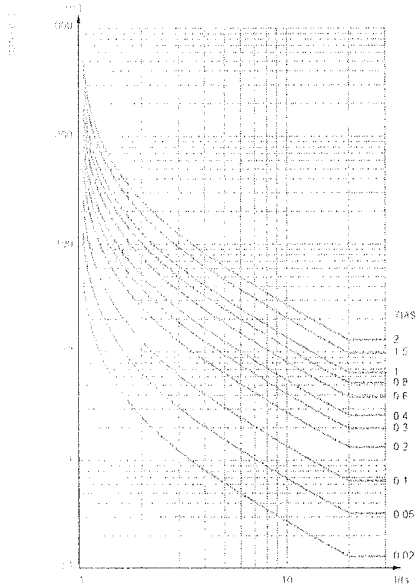
**IEC Standard Inverse Time Curve
(IEC/SIT or IEC/A)**



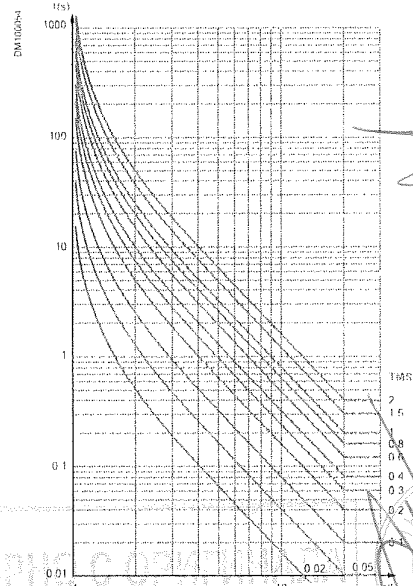
**IEC Very Inverse Time Curve
(IEC/MIT or IEC/B)**



**IEC Long Time Inverse Curve
(IEC/LTI)**



**IEC Extremely Inverse Time Curve
(IEC/EIT or IEC/C)**

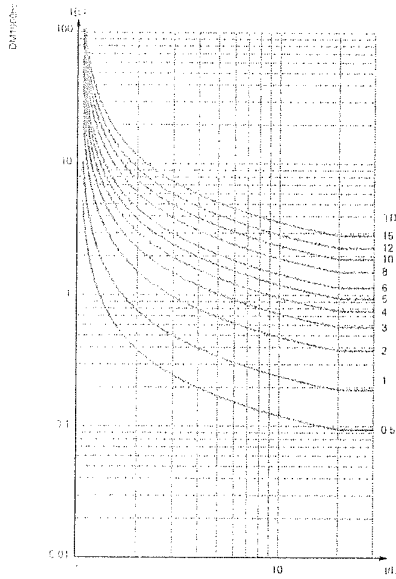


ВЯРНІ С ОДЖИТІМ
СЕРВІС
LEAD

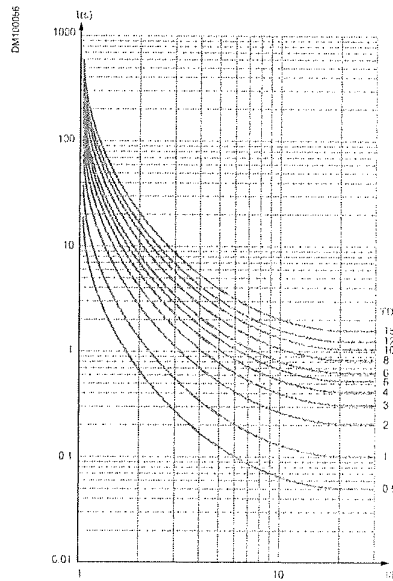
VIP tripping curves

VIP 400 tripping curves

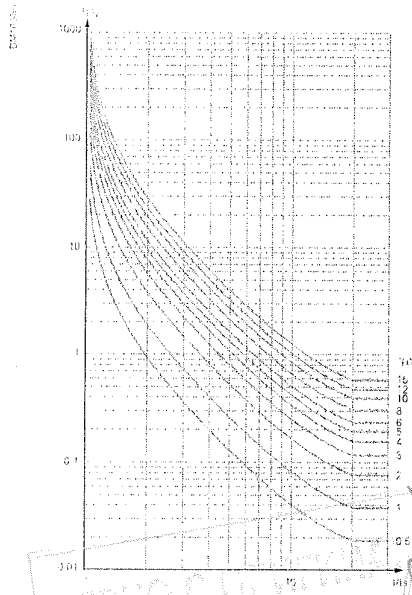
**IEEE Moderately Inverse Curve
(IEEE/MI or IEC/D)**



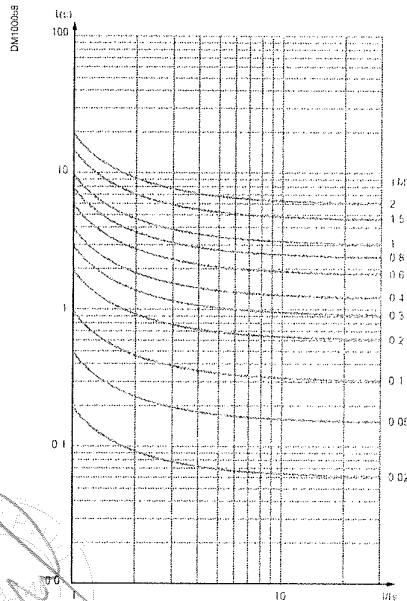
**IEEE Very Inverse Curve
(IEEE/VI or IEC/E)**



**IEEE Extremely Inverse Curve
(IEEE/EI or IEC/F)**



RI Curve



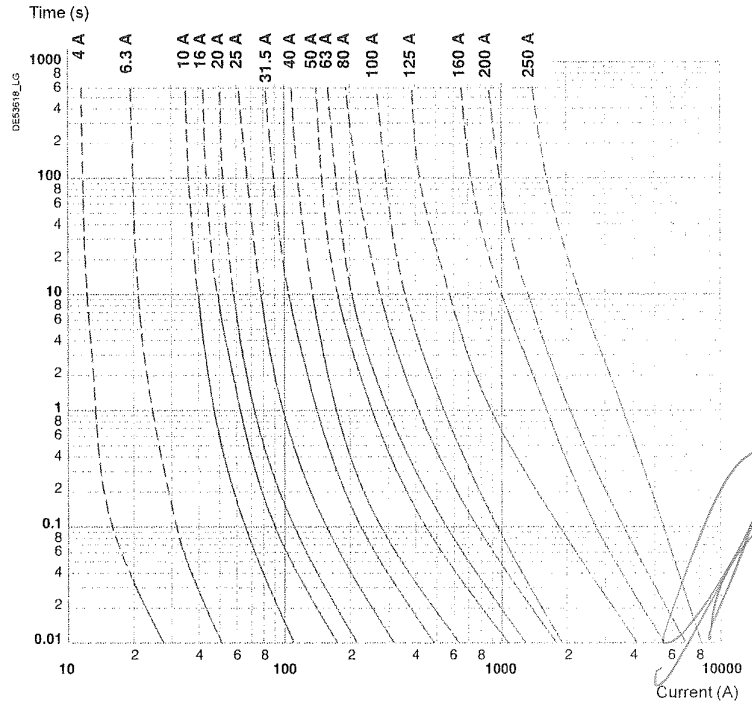
Stamp: **DRPINO S. C. S. R. L.**
Circular stamp: **DRPINO S. C. S. R. L.**
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Handwritten signature: *[Signature]*

Fusarc CF fuses

Fuse and limitation curves

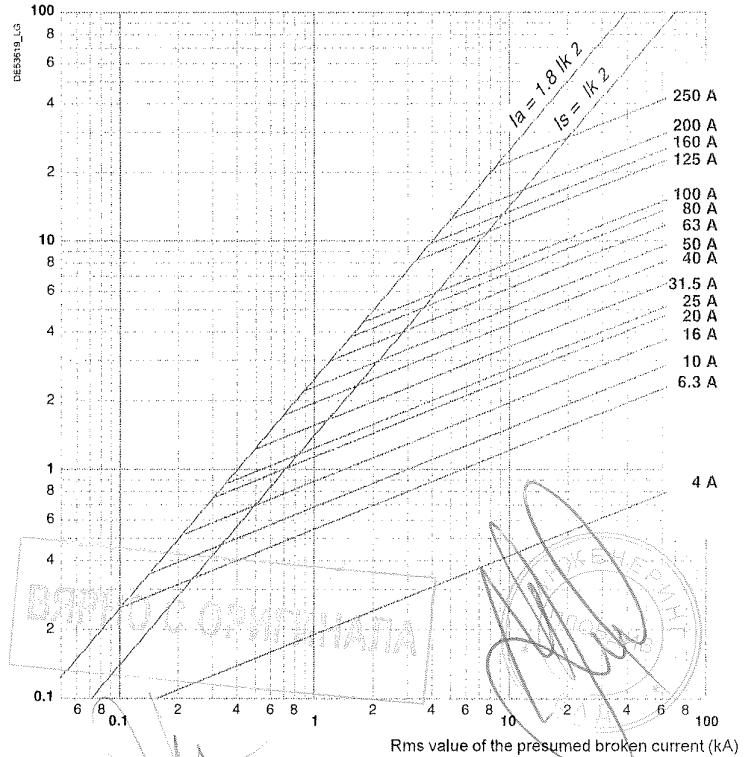
Fuse curve 3.6 - 7.2 - 12 - 17.5 - 24 - 36 kV



Limitation curve 3.6 - 7.2 - 12 - 17.5 - 24 - 36 kV

Maximum value of the limited broken current (kA peak)

The diagram shows the maximum limited broken current value as a function of the rms current value which could have occurred in the absence of a fuse.



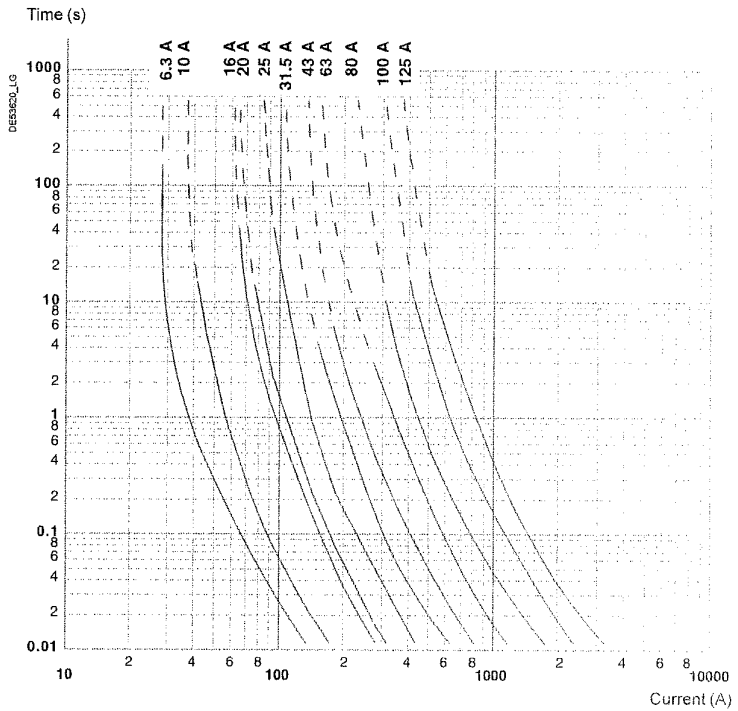
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Solefuse fuses

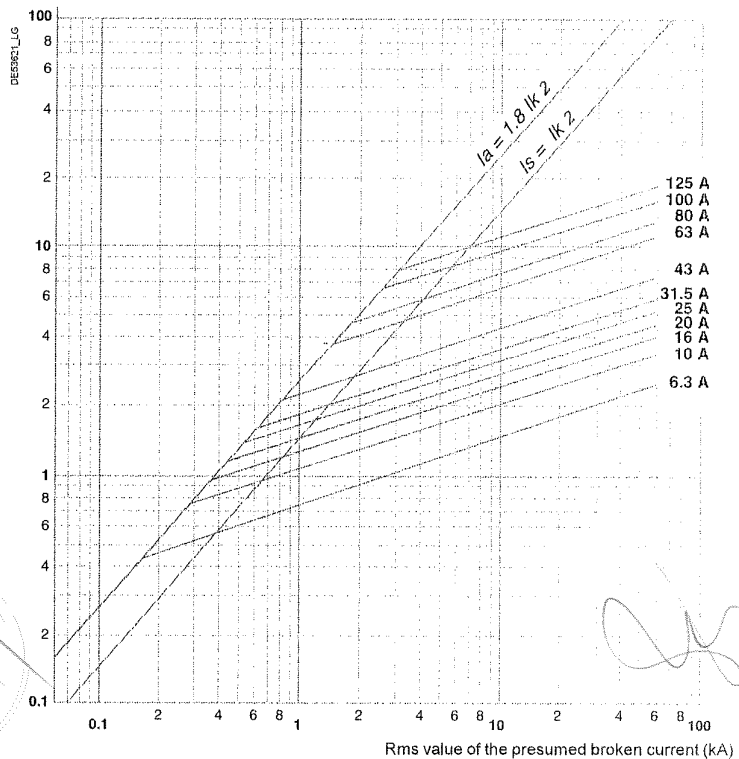
Fuse and limitation curves

Fuse curve 7.2 - 12 - 17.5 - 24 kV

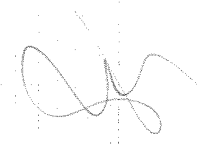
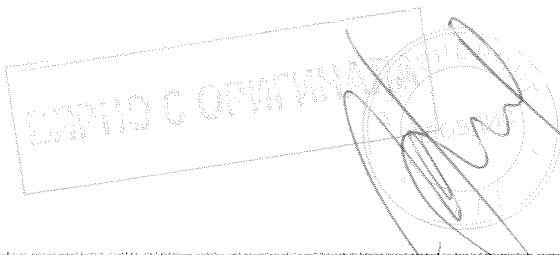


Limitation curve 7.2 - 12 - 17.5 - 24 kV

Maximum value of the limited broken current (kA peak)



The diagram shows the maximum limited broken current value as a function of the rms current value which could have occurred in the absence of a fuse.



SM6

Switching

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Cubicle		quantity	<input type="text"/>
Rated voltage Ur		(kV)	<input type="text"/>
Service voltage		(kV)	<input type="text"/>
Short-circuit current Isc		(kA)	<input type="text"/>
Rated current Ir		(A)	<input type="text"/>
Internal arc withstand		12.5 kA 1s for SM6-24 <input type="checkbox"/>	16 kA 1s for SM6-36 <input type="checkbox"/>
Internal arc classification		A-FL	
Gaz exhaust direction		Downwards	
Type of cubicle			
24 kV	SM 375 <input type="checkbox"/>	IM 375 <input type="checkbox"/>	IMC 500 <input type="checkbox"/>
	SM 500 (for 1250 A) <input type="checkbox"/>	IM 500 <input type="checkbox"/>	IMM <input type="checkbox"/>
36 kV	SM 750 <input type="checkbox"/>	IM 750 <input type="checkbox"/>	IMC 750 <input type="checkbox"/>
			IMB 375 <input type="checkbox"/>
Position in the switchboard		First on left <input type="checkbox"/>	Middle <input type="checkbox"/>
			Last on right <input type="checkbox"/>
Direction of lower busbars for IMB			
Left (impossible as first cubicle of switchboard) <input type="checkbox"/>		Right <input type="checkbox"/>	
Cable connection by the bottom (1x single core, cable maxi 240 mm ²)		36 kV <input type="checkbox"/>	
Options			
Common options			
Replacement of CIT by		C11 <input type="checkbox"/>	C12 <input type="checkbox"/>
Motorization		Standard <input type="checkbox"/>	Severe and communication <input type="checkbox"/>
Thermal monitoring		SM-24 <input type="checkbox"/>	
Arc detection		SM-24 <input type="checkbox"/>	
Electrical driving motorization and/or coil voltage (not applicable on SM cubicle)	24 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	120/127 Vac (50 Hz) <input type="checkbox"/>
	32 Vdc <input type="checkbox"/>	120-125 Vdc <input type="checkbox"/>	220/230 Vac (50 Hz) <input type="checkbox"/>
	48 Vdc <input type="checkbox"/>	137 Vdc <input type="checkbox"/>	120/127 Vac (60 Hz) <input type="checkbox"/>
	60 Vdc <input type="checkbox"/>	220 Vdc <input type="checkbox"/>	220/230 Vac (60 Hz) <input type="checkbox"/>
Signalling contact		1 C on SW and 1 O & 1 C on ES (not applicable on SM cubicle)	
		2 O & 2 C on SW <input type="checkbox"/>	
		2 O & 3 C on SW and 1 O & 1 C on ES <input type="checkbox"/>	
Interlocking			
		Tubular key type <input checked="" type="checkbox"/>	Flat key type <input type="checkbox"/>
For all cubicle (except SM) A4 <input type="checkbox"/>		A3 SM6-SM6 <input type="checkbox"/>	P1 SM6-SM6 <input type="checkbox"/>
Localisation of 2nd lock for A3		On switch <input type="checkbox"/>	On earthing switch <input type="checkbox"/>
Localisation of 2nd lock for A4		Cubicle no. <input type="text"/>	
SM cubicle only		P2 SM6-SM6 <input type="checkbox"/>	P3 SM6-SM6 <input type="checkbox"/>
Replacement of 630 A upper busbar by 1250 A (not possible for IMB)			
Digital ammeter or fault current indicator		AMP 21D <input type="checkbox"/>	Flair 23DV zero sequence <input type="checkbox"/>
		Flair 21D <input type="checkbox"/>	Flair 22D <input type="checkbox"/>
			Flair 23DM <input type="checkbox"/>
Visibility of main contacts			
Pressure indicator device		Analogic manometer without visibility of main contacts	
Pressure switch <input type="checkbox"/>		Analogic manometer with visibility of main contacts <input type="checkbox"/>	

ВЯРНО С ОРИГИНАЛА

SM6

Switching

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Options

SM6-24 options

Remote control signalling
 2 lights 2 lights and 2 PB 2 lights and 2 PB + 1 switch

Voltage of the lights (must be the same than electrical driving mechanism)
 24 V 48 V 110/125 V 220 V

Roof configuration (A, B or C only one choice possible)

A - Cable connection by the top (cable maxi 240 mm² with VPIS)
 Single core 2 x single core

B - Low voltage control cabinet (h = 450 mm) With unpunched door

C - Wiring duct

Cable connection by the bottom (not applicable on IMB, cable maxi 240 mm²)
 Three core Single core 2 x single core

50 W heating element

Surge arresters for IM 500
 7.2 kV 10 kV 12 kV 17.5 kV 24 kV

Operation counter

CTs for IMC (quantity) 1 2 3

Busbar field distributors for severe conditions (only for 630 A)

Internal arc version (not possible with "top incomer" option) 16 kA 1 s 20 kA 1 s

Internal arc classification A-FLR

Gaz exhaust direction Upwards

Thermal monitoring

Arc detection

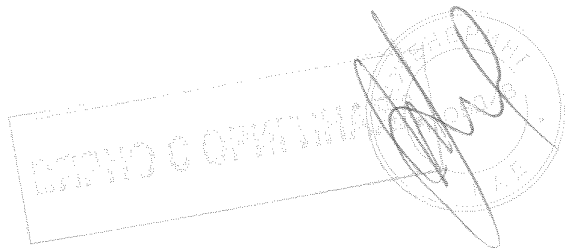
Seismic performance

SM6-36 options

Cable connection by the top
 (single core cable maxi 240 mm² with VPIS)

Cable connection by the bottom
 (2 x single core, cable maxi 240 mm², not applicable on IMC)

Surge arresters
 (not applicable on IMB, IMC cubicles) 36 kV



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SM6

Switching

Automatic Transfer System

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Basic cubicle		Quantity	<input type="text"/>
Rated voltage Ur		(kV)	<input type="text"/>
Service voltage		(kV)	<input type="text"/>
Short-circuit current Isc		(kA)	<input type="text"/>
Rated current Ir		(A)	<input type="text"/>
Internal arc withstand	12.5 kA 1s for SM6-24	16 kA 1s for SM6-36	<input type="text"/>
Internal arc classification	A-FLR		
Gaz exhaust direction	Downwards		
Type of cubicle/upper busbar for 24 kV			
Ir = 630 A, Ir busbar = 400 A	NSM busbar	<input type="checkbox"/>	NSM cable <input type="checkbox"/>
Ir = 630 A, Ir busbar = 630 A	NSM busbar	<input type="checkbox"/>	NSM cable <input type="checkbox"/>
Ir = 630 A, Ir busbar = 1250 A			NSM cable <input type="checkbox"/>
Position in the switchboard	First on left	<input type="checkbox"/>	Middle <input type="checkbox"/> Last on right <input type="checkbox"/>
Direction of lower busbars for GBC-A (see page 151)			
Direction of lower busbar for IMM			
	Left	<input type="checkbox"/>	Right <input type="checkbox"/>
Incoming bottom busbar for NSM busbar			
	Left	<input type="checkbox"/>	Right <input type="checkbox"/>
Cable connection by the bottom (cable maxi 240 mm ²) for NSM cable			
Three core on both	<input type="checkbox"/>	Single core on both	<input type="checkbox"/> 2 x single core on both <input type="checkbox"/>
Stand by source			
Utility with paralleling	<input type="checkbox"/>	Generator without paralleling	<input type="checkbox"/>
Utility without paralleling	<input type="checkbox"/>		
Control unit HMI language			
French	<input type="checkbox"/>	English	<input type="checkbox"/> Spanish <input type="checkbox"/> Portuguese <input type="checkbox"/> Chinese <input type="checkbox"/>
Options			
Common options			
Signalling contact	1C on SW and 1O & 1C on ES <input type="checkbox"/>		
Operation counter	<input type="checkbox"/>		
Interlocking SM6-SM6			
	Tubular key type	<input checked="" type="checkbox"/>	Flat key type <input type="checkbox"/>
1 x P1	Right cubicle	<input type="checkbox"/>	Left cubicle <input type="checkbox"/>
2 x P1	Right and left cubicle <input type="checkbox"/>		
1 x A3	Right cubicle	<input type="checkbox"/>	Left cubicle <input type="checkbox"/>
	On switch	<input type="checkbox"/>	On earthing switch <input type="checkbox"/>
2 x A3	Right cubicle	<input type="checkbox"/>	On earthing switch <input type="checkbox"/>
	On switch	<input type="checkbox"/>	On earthing switch <input type="checkbox"/>
	Left cubicle	<input type="checkbox"/>	On earthing switch <input type="checkbox"/>
	On switch	<input type="checkbox"/>	
Control and monitoring			
Protocol type	DNP3	<input type="checkbox"/>	IEC 101/204 <input type="checkbox"/> Modbus (by default) <input type="checkbox"/>
Modem type	FFSK	<input type="checkbox"/>	RS485 <input type="checkbox"/> RS232 (by default) <input type="checkbox"/>
	PSTN	<input type="checkbox"/>	GSM <input type="checkbox"/> FSK <input type="checkbox"/>
SM6-24 options			
2 heating elements <input type="checkbox"/>			
Busbar field distributors for severe conditions (only for 630 A)			
Internal arc version (not possible with "top in comer" option)	16 kA 1s	<input type="checkbox"/>	20 kA 1s <input type="checkbox"/>
Internal arc classification	A-FLR		
Gaz exhaust direction	Upwards		
Arc detection	<input type="checkbox"/>		
Thermal monitoring	<input type="checkbox"/>		



SM6

Protection

Circuit breaker

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Basic cubicle Quantity

Common 24/36 kV

Rated voltage Ur (kV)

Service voltage (kV)

Short-circuit current I_{sc} (kA)

Rated current I_r (A)

Internal arc withstand 12.5 kA 1s for SM6-24 16 kA 1s for SM6-36

Internal arc classification A-FL

Gas exhaust direction Downwards

24 kV For SF ₆ circuit breaker	DM1-A 750 <input type="checkbox"/>	DM1-D left 750 <input type="checkbox"/>	DM1-D right 750 <input type="checkbox"/>
	DM1-S 750 <input type="checkbox"/>	DM1-Z 750 <input type="checkbox"/>	DM1-W 750 <input type="checkbox"/>
	DM1-M right <input type="checkbox"/>	DM2 left 750 <input type="checkbox"/>	DM2 right 750 <input type="checkbox"/>
For SF ₆ set circuit breaker	DM1-D left 750 <input type="checkbox"/>		DM1-D right 750 <input type="checkbox"/>
For Evolis frontal 630 A CB	DMV-A <input type="checkbox"/>	DMV-D right <input type="checkbox"/>	
For Evolis lateral 630 A CB	DMVL-A <input type="checkbox"/>		DMVL-D <input type="checkbox"/>

36 kV For SF ₆ circuit breaker	DM1-A 1000 <input type="checkbox"/>	DM1-D left 1000 <input type="checkbox"/>	DM1-D right 1000 <input type="checkbox"/>
		DM2 left 1500 <input type="checkbox"/>	DM2 right 1500 <input type="checkbox"/>

Position in the switchboard First on left Middle Last on right

Circuit breaker See specific order form

Current transformers (CT) and LPCTs See specific order form

Protection relay (see specific order form) Sepam relay

Cable connection by the bottom (1x single core, cable maxi 240 mm²) 36 kV

Basic SM6-24

Busbar (I_r ≥ I_r cubicle)

For DM1-M	630 A <input type="checkbox"/>		
For DM1-A, DM1-S, DM1-W, DMVL-A, DMVL-D, DM1-D, DM2	400 A <input type="checkbox"/>	630 A <input type="checkbox"/>	1250 A <input type="checkbox"/>
For DM1-A, DM1-D, DM1-W, DM1-Z	1250 A <input type="checkbox"/>		
For DMV-A, DMV-D	630 A <input type="checkbox"/> 1250 A <input type="checkbox"/>		

Protection

For DM1-S	VIP45 <input type="checkbox"/>	VIP400 <input type="checkbox"/>
	VIP400 with CGas <input type="checkbox"/>	VIP400 with CGbs <input type="checkbox"/>
For DM1-S	Sepam series 10 with CRa <input type="checkbox"/>	Sepam series 10 with CRb <input type="checkbox"/>
	Sepam series 20/40 <input type="checkbox"/>	
For DMV-A, DMV-D		

Control for DMV-A and DMV-D

Local (shunt trip coil compulsory)	<input type="checkbox"/>	
Remote (opening coil and closing coil compulsory)	<input type="checkbox"/>	
Local and remote (opening coil and closing compulsory)	<input type="checkbox"/>	
Voltage of the auxiliaries	48/60 Vdc <input type="checkbox"/>	110/125 or 220/250 Vdc <input type="checkbox"/>
		110/130 or 220/240 Vac (50 Hz) <input type="checkbox"/>
Voltage of signalling	48/60 Vdc <input type="checkbox"/>	110/125 Vdc <input type="checkbox"/>
		220/250 Vdc <input type="checkbox"/>
	110/130 Vac (50 Hz) <input type="checkbox"/>	220/240 Vac (50 Hz) <input type="checkbox"/>

Cable connection by the bottom

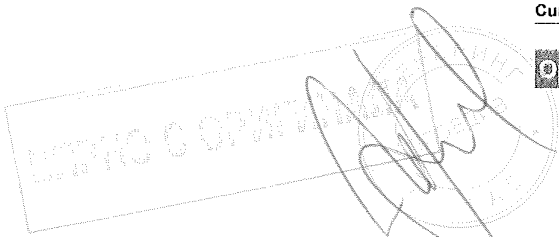
For DM1-A, DM1-W, DMVL-A	3 x single core cable maxi 240 mm ² <input type="checkbox"/>	6 x single core cable maxi 240 mm ² <input type="checkbox"/>
--------------------------	---	---

Current sensors CT LPCT ring type for DM1-A 630 A
LPCT MV type for DM1-D

Basic SM6-36

Current sensors CT LPCT ring type for DM1-A 630 A

Options See following page



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SM6

Protection Circuit breaker

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Options			
Common options			
Interlocking	Tubular key type <input checked="" type="checkbox"/>	Flat key type <input type="checkbox"/>	
	Not applicable on DM2	A1 <input type="checkbox"/>	C1 <input type="checkbox"/> C4 <input type="checkbox"/>
Signalling contact	2 O & 2 C on SW (not applicable with VTs)		
	2 O & 3 C on SW and 1 O & 1 C on ES (not applicable with VTs)		
	1 O & 2 C on SW (available only on cubicle with VTs)		
VTs (not applicable for DM1-S)	See specific order form		

SM6-24 options			
Roof configuration (not applicable on DMV-A, DMV-D)			
(A, B or C only one choice possible)			
A - Cable connection by the top (cable maxi 240 mm ² with VPIS)			
	DM2	Single core <input type="checkbox"/>	2 x single core <input type="checkbox"/>
		1 set <input type="checkbox"/>	2 sets <input type="checkbox"/>
B - Low voltage control cabinet			
	DM2	1 cabinet <input type="checkbox"/>	2 cabinets <input type="checkbox"/>
C - Wiring duct			
	DM2	1 set <input type="checkbox"/>	2 sets <input type="checkbox"/>
	Other cubicles	1 set <input type="checkbox"/>	
Surge arrester			
50 W heating element			
Replacement of 630 A upper busbars 400-630 A by 1250 A			
Busbar field distributors for severe conditions (only for 630 A)			
Internal arc version (not possible with "top incomer" option)	16 kA 1 s <input type="checkbox"/>	20 kA 1 s <input type="checkbox"/>	
Internal arc classification			A-FLR <input type="checkbox"/>
Gaz exhaust direction			Upwards <input type="checkbox"/>
DM1-A without LPCT, DM1-S, DM1-W, DM1-M			Thermal monitoring <input type="checkbox"/>
Arc detection			
Seismic performance			

SM6-36 options			
Cable connection by the top (single core cable maxi 240 mm ² with VPIS)			<input type="checkbox"/>
Cable connection by the bottom (for DM1-A only)			
		3 x 2 x single core cable maxi 240 mm ²	<input type="checkbox"/>
Surge arrester			36 kV <input type="checkbox"/>
Sepam relay protection			See specific order form

ВЕРНО С ОРИГИНАЛА

SM6

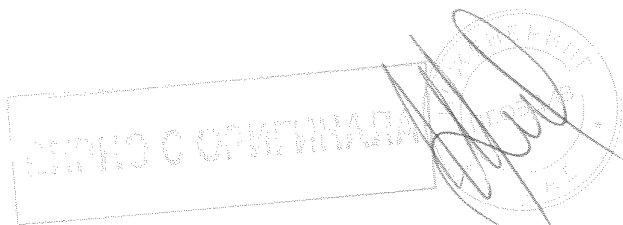
Protection

Fuse switch

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Basic cubicle		Quantity	<input type="text"/>
Rated voltage Ur		(kV)	<input type="text"/>
Service voltage		(kV)	<input type="text"/>
Short-circuit current I _{sc}		(kA)	<input type="text"/>
Rated current Ir		(A)	<input type="text"/>
Internal arc withstand	12.5 kA 1s for SM6-24 <input type="checkbox"/>	16 kA 1s for SM6-36 <input type="checkbox"/>	
Internal arc classification			A-FL
Gaz exhaust direction			Downwards
Type of cubicle			
SM6-24	QM 375 <input type="checkbox"/>	QMB 375 <input type="checkbox"/>	QMC 625 <input type="checkbox"/>
	QM 500 <input type="checkbox"/>		PM 375 <input type="checkbox"/>
SM6-36	QM 750 <input type="checkbox"/>	QMB 750 <input type="checkbox"/>	QMC 1000 <input type="checkbox"/>
			PM 750 <input type="checkbox"/>
Position in the switchboard	First on left <input type="checkbox"/>	Middle <input type="checkbox"/>	Last on right <input type="checkbox"/>
Current transformers for QMC 24 kV (to see price structure)			
Quantity of CTs	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
Direction of lower busbars for QMB			
	Left <input type="checkbox"/>	Right <input type="checkbox"/>	
Cable connection by the bottom (1x single core, cable maxi 240 mm ²)			36 kV <input type="checkbox"/>

Options	
Common options	
Fuses (see fuse price structure)	Service voltage ≤ 12 kV <input type="checkbox"/>
Replacement of mechanism	CIT by CI1 (only for PM) <input type="checkbox"/>
Motorization	Standard <input type="checkbox"/> Severe and communication <input type="checkbox"/>
Electrical driving motorization	24 Vdc <input type="checkbox"/> 110 Vdc <input type="checkbox"/> 120/127 Vac (50 Hz) <input type="checkbox"/>
	32 Vdc <input type="checkbox"/> 120-125 Vdc <input type="checkbox"/> 220/230 Vac (50 Hz) <input type="checkbox"/>
	48 Vdc <input type="checkbox"/> 137 Vdc <input type="checkbox"/> 120/127 Vac (60 Hz) <input type="checkbox"/>
	60 Vdc <input type="checkbox"/> 220 Vdc <input type="checkbox"/> 220/230 Vac (60 Hz) <input type="checkbox"/>
Shunt trip	
Opening (on CI1) <input type="checkbox"/>	Closing and opening (on CI2) <input type="checkbox"/>
24 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/> 120/127 Vac (50 Hz) <input type="checkbox"/>
32 Vdc <input type="checkbox"/>	120-125 Vdc <input type="checkbox"/> 220/230 Vac (50 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	137 Vdc <input type="checkbox"/> 120/127 Vac (60 Hz) <input type="checkbox"/>
60 Vdc <input type="checkbox"/>	220 Vdc <input type="checkbox"/> 220/230 Vac (60 Hz) <input type="checkbox"/>
	380 Vac (50/60 Hz) <input type="checkbox"/>
Auxiliary contact signalling	
	1 C on SW and 1 O & 1 C on ES <input type="checkbox"/>
	2 O & 2 C on SW <input type="checkbox"/> 2 O & 3 C on SW and 1 O & 1 C on ES <input type="checkbox"/>
Interlocking	
A1 <input type="checkbox"/> C1 <input type="checkbox"/> C4 <input type="checkbox"/>	Tubular key type <input checked="" type="checkbox"/> Flat key type <input type="checkbox"/>
Replacement of 630 A upper busbar by 1250 A (not possible for QMB) <input type="checkbox"/>	
Blown fuse signalling contact (for QM, QMB, QMC) <input type="checkbox"/>	
Visibility of main contacts	
Pressure indicator device	Analogic manometer without visibility of main contacts <input type="checkbox"/>
	Analogic manometer with visibility of main contacts <input type="checkbox"/>



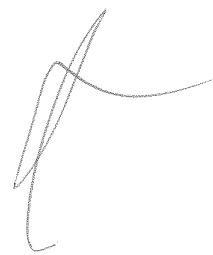
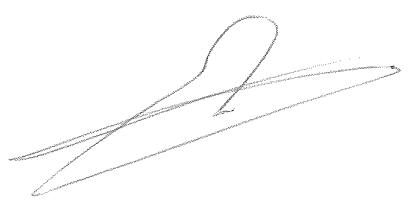
SM6

Protection

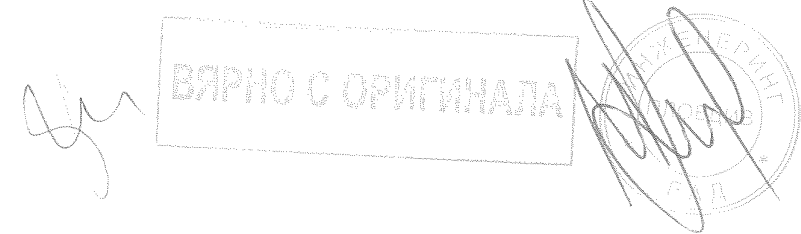
Fuse switch

Only one of the boxes (ticked or filled) by the needed value) have to be considered between each horizontal line.

Options	
SM6-24 options	
Replacement of mechanism	C11 by C12 (only for QM) <input type="checkbox"/>
Remote control signalling (for QM only)	
2 lights	<input type="checkbox"/>
2 lights and 2 PB	<input type="checkbox"/>
2 lights and 2 PB + 1 switch	<input type="checkbox"/>
Voltage of the lights (must be the same than electrical driving mechanism)	
24 V	<input type="checkbox"/>
48 V	<input type="checkbox"/>
110/125 V	<input type="checkbox"/>
220 V	<input type="checkbox"/>
Blown fuse signalling contact (mechanical indication PM, electrical for the other cubicles)	
Roof configuration (A, B or C only one choice possible)	
A - Cable connection by the top (cable maxi 240 mm ² with VPIS)	
Single core	<input type="checkbox"/>
2 x single core	<input type="checkbox"/>
B - Low voltage control cabinet (h = 450 mm)	
With unpunched door	<input type="checkbox"/>
C - Wiring duct	
50 W heating element	
Operation counter	
Digital ammeter (not applicable for QMB)	AMP21D <input type="checkbox"/>
Busbar field distributors for severe conditions (only for 630 A)	
Internal arc version (not possible with "top incomer" option)	16 kA 1 s <input type="checkbox"/>
	20 kA 1 s <input type="checkbox"/>
Internal arc classification	A-FLR <input type="checkbox"/>
Gaz exhaust direction	Upwards <input type="checkbox"/>
QM, QMC, PM	Thermal monitoring <input type="checkbox"/>
Arc detection	
Seismic performance	
SM6-36 options	
Replacement of mechanism	<input type="checkbox"/>
CIT by C12 (only for PM)	
Cable connection by the top (single core cable maxi 240 mm ² with VPIS)	<input type="checkbox"/>



ВЕРНО С ОРИГИНАЛА



SM6


Protection

Vacuum contactor (Direct Motor Starter) for SM6-24

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Basic cubicle		<input type="checkbox"/>
Rated voltage Ur	(kV)	7.2 <input type="checkbox"/>
Service voltage	(kV)	<input type="checkbox"/>
Short-circuit current Isc (6.3 kA without fuse)	(kA)	<input type="checkbox"/>
Rated current Ir (max. 400 A without fuse)	(A)	<input type="checkbox"/>
Internal arc withstand	12.5 kA 1s for SM6-24 <input type="checkbox"/>	16 kA 1s for SM6-36 <input type="checkbox"/>
Internal arc classification	A-FL	
Gaz exhaust direction	Downwards	
Thermal monitoring	<input type="checkbox"/>	
Arc detection	<input type="checkbox"/>	
Position in the switchboard	First on left <input type="checkbox"/>	Middle <input type="checkbox"/> Last on right <input type="checkbox"/>
Busbar Ir	400 A <input type="checkbox"/>	630 A <input type="checkbox"/> 1250 A <input type="checkbox"/>
Phase current sensors	1 CT <input type="checkbox"/>	2 CT <input type="checkbox"/> 3 CT <input type="checkbox"/>
	3 LPCT ring type <input type="checkbox"/>	
Key interlockings for 52 type	Tubular key type <input checked="" type="checkbox"/>	Flat key type <input type="checkbox"/>
Options		
MV fuses	25 A <input type="checkbox"/>	31.5 A <input type="checkbox"/> 40 A <input type="checkbox"/> 50 A <input type="checkbox"/> 63 A <input type="checkbox"/>
	80 A <input type="checkbox"/> 100 A <input type="checkbox"/>	125 A <input type="checkbox"/> 160 A <input type="checkbox"/> 200 A <input type="checkbox"/> 250 A <input type="checkbox"/>
Busbar field distributors for severe conditions (only for 630 A)	<input type="checkbox"/>	
Key interlockings for C1 type	Tubular key type <input checked="" type="checkbox"/>	Flat key type <input type="checkbox"/>
Voltage transformer (quantity)	1 <input type="checkbox"/>	2 <input type="checkbox"/> 3 <input type="checkbox"/>
Internal arc version (not possible with "top in comer" option)	16 kA 1 s <input type="checkbox"/>	20 kA 1 s <input type="checkbox"/>
Internal arc classification	A-FLR	
Gaz exhaust direction	Upwards	

Contactor			
Vacuum contactor	Magnetic hold <input type="checkbox"/>	Mechanical latching <input type="checkbox"/>	
Open release	48 Vdc	125 Vdc <input type="checkbox"/>	250 Vdc <input type="checkbox"/>
Closing coil	110 Vac/dc	120 Vac/dc <input type="checkbox"/>	125 Vac/dc <input type="checkbox"/>
	220 Vac/dc	240 Vac/dc <input type="checkbox"/>	250 Vac/dc <input type="checkbox"/>

ВЕРНО С ОПИТУВАНАТА


SM6

Metering

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

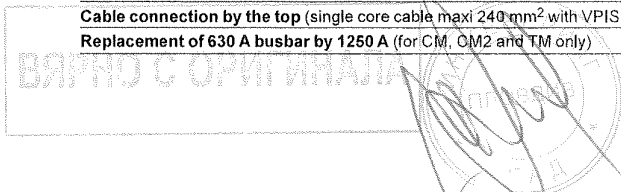
Basic cubicle	Quantity	<input type="text"/>
Common SM6-24/SM6-36		
Rated voltage Ur	(kV)	<input type="text"/>
Service voltage	(kV)	<input type="text"/>
Short-circuit current I _{sc}	(kA)	<input type="text"/>
Rated current I _r	(A)	<input type="text"/>
Internal arc withstand	12.5 kA 1s for SM6-24 <input type="checkbox"/> 16 kA 1s for SM6-36 <input type="checkbox"/>	
Internal arc classification	A-FL	
Gaz exhaust direction	Downwards	
Type of cubicle/upper busbar for SM6-24		
I _r = 630 A, I _r busbar = 400 A	CM <input type="checkbox"/> CM2 <input type="checkbox"/> TM <input type="checkbox"/>	GBC-A <input type="checkbox"/> GBC-B <input type="checkbox"/>
I _r = 630 A, I _r busbar = 630 A	CM <input type="checkbox"/> CM2 <input type="checkbox"/> TM <input type="checkbox"/>	GBC-A <input type="checkbox"/> GBC-B <input type="checkbox"/>
I _r = 630 A, I _r busbar = 1250 A	CM <input type="checkbox"/> CM2 <input type="checkbox"/> TM <input type="checkbox"/>	GBC-A <input type="checkbox"/> GBC-B <input type="checkbox"/>
I _r = 1250 A, I _r busbar = 1250 A	GBC-A <input type="checkbox"/> GBC-B <input type="checkbox"/>	
Type of cubicle for SM6-36	CM 750 <input type="checkbox"/> CM2 750 <input type="checkbox"/> TM 750 <input type="checkbox"/>	GBC-A 750 <input type="checkbox"/> GBC-B 750 <input type="checkbox"/>
Position in the switchboard	First on left <input type="checkbox"/> Middle <input type="checkbox"/> Last on right <input type="checkbox"/>	
Direction of lower busbars for GBC-A	Left <input type="checkbox"/> Right <input type="checkbox"/>	
Signalling contact (for CM, CM2 and TM only)	1 O and 1 C on SW <input type="checkbox"/>	
Fuses (for CM, CM2 and TM only)		
Cable connection by the bottom (1x single core, cable maxi 240 mm ²)	SM6-36 <input type="checkbox"/>	

Basic SM6-24		
VTs for GBC (to see price structure)	Phase/phase <input type="checkbox"/>	Phase/earth <input type="checkbox"/>
CTs for GBC (to see price structure)	Quantity 1 <input type="checkbox"/>	2 <input type="checkbox"/> 3 <input type="checkbox"/>
Ratio choice for GBC		
Protections	1 secondary <input type="checkbox"/> 2 secondaries <input type="checkbox"/>	1 high secondary <input type="checkbox"/> 1 low secondary <input type="checkbox"/>

Basic SM6-36	Voltage transformers	See specific order form
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Options		
SM6-24 options		
Roof configuration (A, B or C only one choice possible)		
A - Cable connection by the top (cable maxi 240 mm ² with VPIS)		
	Single core <input type="checkbox"/>	2 x single core <input type="checkbox"/>
B - Low voltage control cabinet (h = 450 mm)	With unpunched door <input type="checkbox"/>	
C - Wiring duct	<input type="checkbox"/>	
50 W heating element for CM, CM2, TM	<input type="checkbox"/>	
Busbar field distributors for severe conditions (only for 630 A and CM, CM2 and TM cubicles)	<input type="checkbox"/>	
Blown fuse auxiliary contact (for CM, CM2 and TM only)	1 O and 1 C <input type="checkbox"/>	
Internal arc version (not possible with "top incomer" option)	16 kA 1s <input type="checkbox"/>	20 kA 1s <input type="checkbox"/>
Internal arc classification	A-FLR	
Gaz exhaust direction	Upwards <input type="checkbox"/>	
Thermal monitoring	<input type="checkbox"/>	
Arc detection	<input type="checkbox"/>	

SM6-36 options		
Current transformers and voltage transformers for GBC	See specific order form	
Cable connection by the top (single core cable maxi 240 mm ² with VPIS)	<input type="checkbox"/>	
Replacement of 630 A busbar by 1250 A (for CM, CM2 and TM only)	<input type="checkbox"/>	



SM6

Other functions

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Basic cubicle		Quantity	<input type="text"/>
Rated voltage Ur		(kV)	<input type="text"/>
Service voltage		(kV)	<input type="text"/>
Short-circuit current I _{sc}		(kA)	<input type="text"/>
Rated current I _r		(A)	<input type="text"/>
Internal arc withstand	12.5 kA 1s for SM6-24 <input type="checkbox"/>	16 kA 1s for SM6-36 <input type="checkbox"/>	
Internal arc classification	A-FL		
Gaz exhaust direction	Downwards		
Type of cubicle/upper busbar for SM6-24			
I _r = 630 A, I _r busbar = 400 A	GAM 500 <input type="checkbox"/>	GAM2 375 <input type="checkbox"/>	GBM 375 <input type="checkbox"/>
I _r = 630 A, I _r busbar = 630 A	GAM 500 <input type="checkbox"/>	GAM2 375 <input type="checkbox"/>	GBM 375 <input type="checkbox"/>
I _r = 1250 A, I _r busbar = 1250 A	GAM 500 <input type="checkbox"/>		GBM 375 <input type="checkbox"/>
Type of cubicle for SM6-36	GAM 750 <input type="checkbox"/>	GAM2 750 <input type="checkbox"/>	GBM 750 <input type="checkbox"/>
Position in the switchboard	First on left <input type="checkbox"/>	Middle <input type="checkbox"/>	Last on right <input type="checkbox"/>
Direction of lower busbars for GBM			
Left (impossible on the first cubicle of the switchboard) <input type="checkbox"/> Right <input type="checkbox"/>			
Cable connection by the bottom (1x single core, cable maxi 240 mm ²)			
			SM6-36 <input type="checkbox"/>

Options	
SM6-24 options	
Roof configuration (A, B or C only one choice possible)	
A - Cable connection by the top (cable maxi 240 mm ² with VPIS)	
Single core <input type="checkbox"/>	2 x single core <input type="checkbox"/>
B - Low voltage control cabinet (h = 450 mm) With unpunched door <input type="checkbox"/>	
C - Wiring duct <input type="checkbox"/>	
Wiring duct for GBM <input type="checkbox"/>	
ES auxiliary contact (only on GAM 500) 1 O and 1 C <input type="checkbox"/>	
Surge arresters for GAM 500, 630 A	
7.2 kV <input type="checkbox"/>	10 kV <input type="checkbox"/>
12 kV <input type="checkbox"/>	17.5 kV <input type="checkbox"/>
SM6-24 <input type="checkbox"/>	
Interlocking on GAM 500	
Tubular key type <input checked="" type="checkbox"/>	Flat key type <input type="checkbox"/>
A3 SM6-SM6 <input type="checkbox"/>	
Heating element (on GAM 500 630 A and on GAM2) <input type="checkbox"/>	
Digital ammeter or Fault current indicator	
AMP 21D (except GBM) <input type="checkbox"/>	Flair 23DV zero sequence <input type="checkbox"/>
Flair 21D <input type="checkbox"/>	Flair 22D <input type="checkbox"/>
Flair 23DV <input type="checkbox"/>	
Internal arc version (not possible with "top incomer" option) 16 kA 1s <input type="checkbox"/>	
20 kA 1s <input type="checkbox"/>	
Internal arc classification A-FLR <input type="checkbox"/>	
Gaz exhaust direction Upwards <input type="checkbox"/>	
Thermal monitoring <input type="checkbox"/>	
Arc detection <input type="checkbox"/>	
SM6-36 options	
Cable connection by the top (single core cable maxi 240 mm ² with VPIS) <input type="checkbox"/>	
Replacement of 630 A busbar by 1250 A (for GAM2 only) <input type="checkbox"/>	
Surge arresters for GAM2 <input type="checkbox"/>	

ВСТАНОВКА С ОПИТОМ

SF1

Lateral disconnectable or withdrawable

Only one of the boxes (ticked or filled) by the needed value) have to be considered between each horizontal line.

Basic circuit breaker		Availability	<input type="checkbox"/>
Rated voltage U_r		(kV)	<input type="checkbox"/>
Service voltage		(kV)	<input type="checkbox"/>
Impulse voltage U_p		(kVbil)	<input type="checkbox"/>
Short-circuit current I_{sc}		(kA)	<input type="checkbox"/>
Rated current I_r		(A)	<input type="checkbox"/>
Frequency	60 Hz	<input type="checkbox"/>	50 Hz <input type="checkbox"/>
Mechanism position	Disconnectable	A1	<input type="checkbox"/>
	Withdrawable	B1	<input type="checkbox"/>

Colour for push buttons and indicators
 Push buttons open/close: Red/black
 Indicator open/close: Black/white
 Operating mechanism charged/discharged: White/yellow

Circuit breaker options

1st opening release (see possible choices combination table below)

Shunt opening release YO1

24 Vdc	<input type="checkbox"/>	60 Vdc	<input type="checkbox"/>	220 Vdc	<input type="checkbox"/>	220 Vac (50 Hz)	<input type="checkbox"/>
30 Vdc	<input type="checkbox"/>	110 Vdc	<input type="checkbox"/>	48 Vac (50 Hz)	<input type="checkbox"/>	120 Vac (60 Hz)	<input type="checkbox"/>
48 Vdc	<input type="checkbox"/>	125 Vdc	<input type="checkbox"/>	110 Vac (50 Hz)	<input type="checkbox"/>	240 Vac (60 Hz)	<input type="checkbox"/>

Undervoltage release YM

24 Vdc	<input type="checkbox"/>	60 Vdc	<input type="checkbox"/>	220 Vdc	<input type="checkbox"/>	220 Vac (50 Hz)	<input type="checkbox"/>
30 Vdc	<input type="checkbox"/>	110 Vdc	<input type="checkbox"/>	48 Vac (50 Hz)	<input type="checkbox"/>	120 Vac (60 Hz)	<input type="checkbox"/>
48 Vdc	<input type="checkbox"/>	125 Vdc	<input type="checkbox"/>	110 Vac (50 Hz)	<input type="checkbox"/>	240 Vac (60 Hz)	<input type="checkbox"/>

Mitop	Without contact	<input type="checkbox"/>	With contact	<input type="checkbox"/>
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2nd opening release (see possible choices combination table below)

Shunt opening release YO2

24 Vdc	<input type="checkbox"/>	60 Vdc	<input type="checkbox"/>	220 Vdc	<input type="checkbox"/>	220 Vac (50 Hz)	<input type="checkbox"/>
30 Vdc	<input type="checkbox"/>	110 Vdc	<input type="checkbox"/>	48 Vac (50 Hz)	<input type="checkbox"/>	120 Vac (60 Hz)	<input type="checkbox"/>
48 Vdc	<input type="checkbox"/>	125 Vdc	<input type="checkbox"/>	110 Vac (50 Hz)	<input type="checkbox"/>	240 Vac (60 Hz)	<input type="checkbox"/>

Undervoltage release YM

24 Vdc	<input type="checkbox"/>	60 Vdc	<input type="checkbox"/>	220 Vdc	<input type="checkbox"/>	220 Vac (50 Hz)	<input type="checkbox"/>
30 Vdc	<input type="checkbox"/>	110 Vdc	<input type="checkbox"/>	48 Vac (50 Hz)	<input type="checkbox"/>	120 Vac (60 Hz)	<input type="checkbox"/>
48 Vdc	<input type="checkbox"/>	125 Vdc	<input type="checkbox"/>	110 Vac (50 Hz)	<input type="checkbox"/>	240 Vac (60 Hz)	<input type="checkbox"/>

Mitop	Without contact	<input type="checkbox"/>	With contact	<input type="checkbox"/>
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Remote control

Electrical motor M	24...32 Vdc	<input type="checkbox"/>	110...127 Vdc/ac	<input type="checkbox"/>
	48...60 Vdc/ac	<input type="checkbox"/>	220...250 Vdc/ac	<input type="checkbox"/>

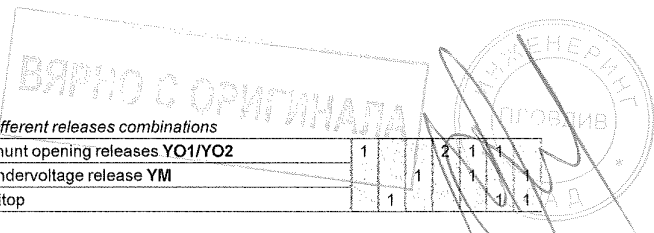
Shunt closing release YF

24 Vdc	<input type="checkbox"/>	60 Vdc	<input type="checkbox"/>	220 Vdc	<input type="checkbox"/>	220 Vac (50 Hz)	<input type="checkbox"/>
30 Vdc	<input type="checkbox"/>	110 Vdc	<input type="checkbox"/>	48 Vac (50 Hz)	<input type="checkbox"/>	120 Vac (60 Hz)	<input type="checkbox"/>
48 Vdc	<input type="checkbox"/>	125 Vdc	<input type="checkbox"/>	110 Vac (50 Hz)	<input type="checkbox"/>	240 Vac (60 Hz)	<input type="checkbox"/>

Leaflets language	French	<input type="checkbox"/>	English	<input type="checkbox"/>
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Different releases combinations

Shunt opening releases YO1/YO2	1	1	2	1	1
Undervoltage release YM		1		1	1
Mitop	1			1	1



SFset

Lateral disconnectable for SM6-24

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Basic circuit breaker		Quantity	<input type="text"/>
Rated voltage U_r		(kV)	<input type="text"/>
Service voltage		(kV)	<input type="text"/>
Impulse voltage U_p		(kVbil)	<input type="text"/>
Short-circuit current I_{sc}		(kA)	<input type="text"/>
Rated current I_r	630 A maximum		
Frequency	60 Hz <input type="checkbox"/>	50 Hz <input type="checkbox"/>	
Mechanism position	A1 <input type="checkbox"/>	B1 <input type="checkbox"/>	

Colour for push buttons and indicators
 Push buttons open/close: Red/black
 Indicator open/close: Black/white
 Operating mechanism charged/discharged: White/yellow

Control unit and sensors	
VIP400	<input type="checkbox"/>
CSa4 200A	<input type="checkbox"/>
CSb4 630A	<input type="checkbox"/>

Circuit breaker options

2nd opening release (see possible choices combination table below)

Shunt opening release YO2

24 Vdc <input type="checkbox"/>	60 Vdc <input type="checkbox"/>	220 Vdc <input type="checkbox"/>	220 Vac (50 Hz) <input type="checkbox"/>
30 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	48 Vac (50 Hz) <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>	240 Vac (60 Hz) <input type="checkbox"/>

Undervoltage release YM

24 Vdc <input type="checkbox"/>	60 Vdc <input type="checkbox"/>	220 Vdc <input type="checkbox"/>	220 Vac (50 Hz) <input type="checkbox"/>
30 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	48 Vac (50 Hz) <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>	240 Vac (60 Hz) <input type="checkbox"/>

Remote control

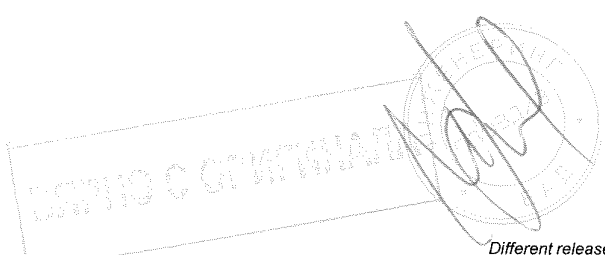
Electrical motor M	24...32 Vdc <input type="checkbox"/>	110...127 Vdc/ac <input type="checkbox"/>
	48...60 Vdc/ac <input type="checkbox"/>	220...250 Vdc/ac <input type="checkbox"/>

Shunt closing release YF

24 Vdc <input type="checkbox"/>	60 Vdc <input type="checkbox"/>	220 Vdc <input type="checkbox"/>	220 Vac (50 Hz) <input type="checkbox"/>
30 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	48 Vac (50 Hz) <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>	240 Vac (60 Hz) <input type="checkbox"/>

Pocket battery module

Leaflets language	French <input type="checkbox"/>	English <input type="checkbox"/>
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Different releases combinations

Mitop	1	1	1
Shunt opening release YO2	1		
Undervoltage release YM			1

Evolis

Frontal fixed version
for SM6-24 (up to 17.5 kV)

Only one of the boxes (ticked or filled) by the needed value) have to be considered between each horizontal line.

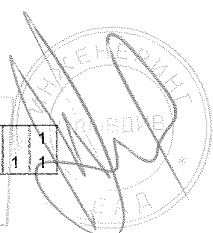
Basic fixed circuit breaker		Quantity
Rated voltage U_r (kV)	12 <input type="checkbox"/> 17.5 <input type="checkbox"/>	
Service voltage	(kV) <input type="checkbox"/>	
Short-circuit current I_{sc}	25 kA	
Rated normal current I_r (A)	630 <input type="checkbox"/> 1250 <input type="checkbox"/>	
Phase distance	185 mm	

Circuit breaker options			
Opening release (see possible choices in combination table below)			
Shunt opening release MX			
24 Vac <input type="checkbox"/>	24...30 Vdc <input type="checkbox"/>	100...130 Vdc/ac <input type="checkbox"/>	
48 Vac <input type="checkbox"/>	48...60 Vdc <input type="checkbox"/>	200...250 Vdc/ac <input type="checkbox"/>	
Low energy release Mitop			
1 AC fault signalling SDE and reset 200...250 Vac are included			<input type="checkbox"/>
Remote control (operation counter already included)			
Electrical motor MCH			
24...30 Vdc <input type="checkbox"/>	100...125 Vdc <input type="checkbox"/>	200...250 Vdc <input type="checkbox"/>	
48...60 Vdc/ac <input type="checkbox"/>	100...130 Vac <input type="checkbox"/>	200...240 Vac <input type="checkbox"/>	
Shunt closing release XF			
24 Vac <input type="checkbox"/>	24...30 Vdc <input type="checkbox"/>	100...130 Vdc/ac <input type="checkbox"/>	
48 Vac <input type="checkbox"/>	48...60 Vdc <input type="checkbox"/>	200...250 Vdc/ac <input type="checkbox"/>	
Operation counter CDM			
Additional auxiliary contacts OF (4 AC)		1 <input type="checkbox"/>	2 <input type="checkbox"/>
Ready to close contact PF (1 AC)			
Locking of the circuit breaker in the open position			
By padlock <input type="checkbox"/>			
or by locks and keys			
Tubular key type <input checked="" type="checkbox"/>		Fiat key type <input type="checkbox"/>	
If locks		1 lock <input type="checkbox"/>	2 identical locks <input type="checkbox"/> 2 different locks <input type="checkbox"/>
Disabling of O/C circuit breaker push buttons			

[Handwritten signature]

[Handwritten signature]

Different releases combinations			
Shunt opening release MX	1 <input type="checkbox"/>	1 <input type="checkbox"/>	
Mitop	1 <input type="checkbox"/>	1 <input type="checkbox"/>	



Evolis

Lateral disconnectable version
for SM6-24 (up to 24 kV)

Only one of the boxes (ticked or filled by the needed value) have to be considered between each horizontal line.

Basic circuit breaker

Rated voltage Ur 24 (kV)

Service voltage (kV)

Impulse voltage Up (kVbil)

Rated normal current Ir 630 A maximum

Phase distance 250 mm

Mechanism position B1

Colour for push buttons and indicators

Push buttons open/close: Red/black

Indicator open/close: Black/white

Operating mechanism charged/discharged: White/yellow

Circuit breaker options

1st opening release (see possible choices combination table below)

Shunt opening release YO1

24 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125-127 Vdc <input type="checkbox"/>	220-230 Vac (50 Hz) <input type="checkbox"/>
	220 Vdc <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>

Undervoltage release YM

24 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125-127 Vdc <input type="checkbox"/>	220-230 Vac (50 Hz) <input type="checkbox"/>
	220 Vdc <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>

2nd opening release (see possible choices combination table below)

Shunt opening release YO2

24 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125-127 Vdc <input type="checkbox"/>	220-230 Vac (50 Hz) <input type="checkbox"/>
	220 Vdc <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>

Undervoltage release YM

24 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125-127 Vdc <input type="checkbox"/>	220-230 Vac (50 Hz) <input type="checkbox"/>
	220 Vdc <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>

Low energy release Mitop

Remote control (operation counter already included)

Electrical motor M	24...32 Vdc <input type="checkbox"/>	110...127 Vdc/ac <input type="checkbox"/>
	48...60 Vdc/ac <input type="checkbox"/>	220...250 Vdc/ac <input type="checkbox"/>

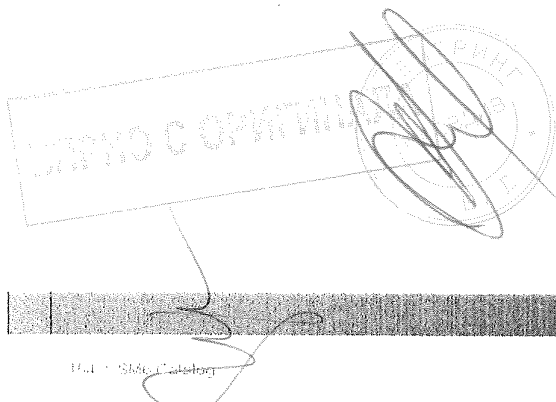
Shunt closing release YF

24 Vdc <input type="checkbox"/>	110 Vdc <input type="checkbox"/>	110 Vac (50 Hz) <input type="checkbox"/>
48 Vdc <input type="checkbox"/>	125-127 Vdc <input type="checkbox"/>	220-230 Vac (50 Hz) <input type="checkbox"/>
	220 Vdc <input type="checkbox"/>	120 Vac (60 Hz) <input type="checkbox"/>

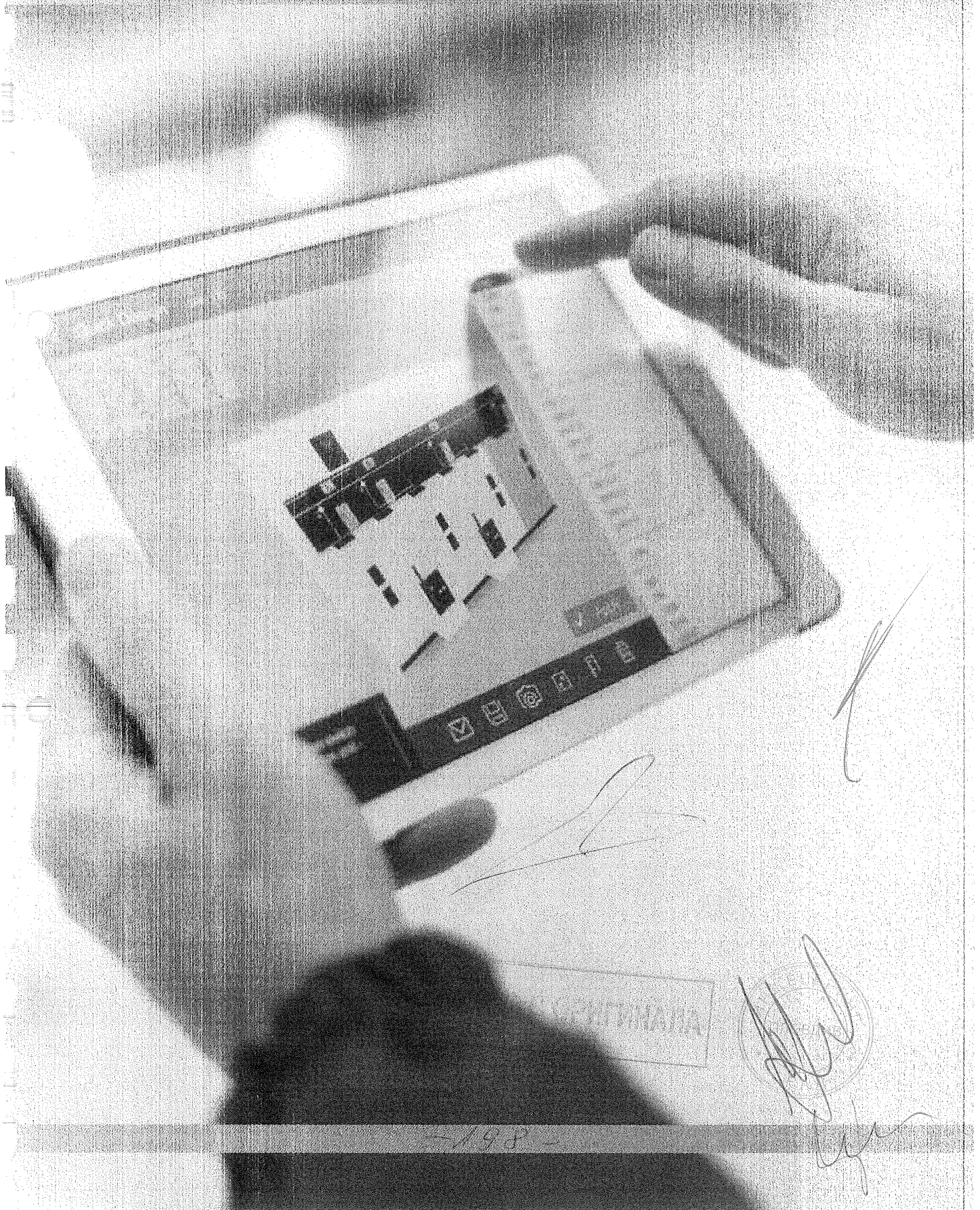
Operation counter (already included if remote control supplied)

Different releases combinations

Shunt opening releases YO1	1	1	1	1	
Shunt opening releases YO2		1			
Undervoltage release YM		1		1	
Mitop				1	1



SM6 all-in-one



-198-

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24, February, 2017
AMTED398078EN

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На основание чл.36а ал.3 от
ЗОП