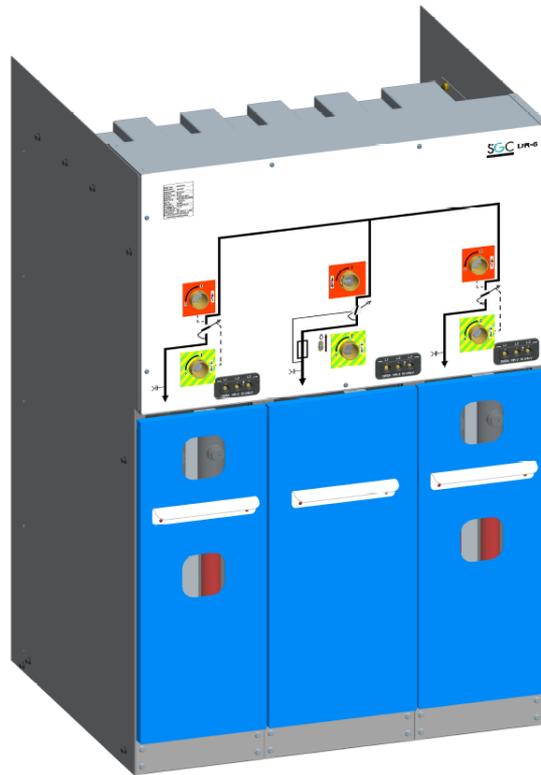


DR-6C

MEDIUM VOLTAGE SWITCHGEAR

COMPACT RING MAIN UNIT



User Manual: DR-6C / DR-6+ C



THE SPECIALIST IN MEDIUM VOLTAGE SWITCHGEAR

DW645314

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PREFACE

About this manual

This document is intended as a reference for qualified and trained operators to operate the medium voltage switchgear in a safe and economical way.

This document uses the term “medium voltage switchgear” to denote a random, but in actual practice, existing combination of DR6 functions that, mutually coupled and connected, constitute a client-specific transformation or distribution station. See: “General description”.

The chapters and sections are numbered. The page numbers (consisting of the chapter number and the page number) and the document code can be found at the bottom of every page.

In the documentation the words “left”, “right”, “front” and “behind” are used to indicate a specific part of the medium voltage switchgear. The starting point is always the position of the operator, standing in front of the medium voltage switchgear, facing the switchgear.

Pictograms and safety symbols in and on the medium voltage switchgear

Depending on the version, the following pictograms are used on the medium voltage switchgear:



WARNING

Danger of high Voltage

Access to this cubicle is only allowed after this cubicle and both the directly adjacent cubicles (previous and next one) are de-energized.



WARNING

Drilling prohibited.

Drilling is strictly prohibited on surfaces bearing this pictogram.

Pictograms in the documentation

The following pictograms apply to the medium voltage switchgear user documents:



CAUTION!

A procedure that can, if not carried out with the proper care, result in damage to the medium voltage switchgear, the surrounding area or the environment.



WARNING

Danger of high Voltage



CAUTION!

Clamping danger



Notes, suggestions and advice.



Render this cubicle, the next one and the previous cubicle, voltage-free, before carrying out the work described.



Open the load break switch and the earthing switch before carrying out the work described in the manual.



Consult the indicated information sources first.



Protect the medium voltage switchgear from water and damp.

Related documentation

The following technical documentation for medium voltage switchgear is available:

- Transport manual DR-6C/DR-6+C
- Installation manual DR-6C/DR-6+C

Service and technical support

For information concerning specific settings, maintenance or repair work which are not covered in the manual, please contact SGC - SwitchGear Company nv.

- When contacting SGC - SwitchGear Company nv, always provide the following information:
 - Cubicle designation and characteristics
 - Serial number of the cubicles

General safety directions and instructions

SGC - SwitchGear Company nv does not accept any liability for damage or injury caused by not (strictly) following the safety directions and instructions, or by negligence during the installation, use, maintenance, or the repair of the medium voltage switchgear and its (possibly) accompanying options.

Depending on any specific user circumstances, or installed options, extra safety instructions may be required. Please contact SGC - SwitchGear Company nv immediately if you encounter a potential danger during the operation of the medium voltage switchgear.

The owner/operator of the medium voltage switchgear is fully responsible at all times for following the locally applicable safety directions and guidelines.

User manual

- Anyone who uses or operates the medium voltage switchgear, must be familiar with the contents of the user manual, and follow the directions contained within very closely. The owner/operator must educate the users in accordance with the user manual and obey all directions and instructions.
- Never change the order of the required actions.
- Always keep the user manual in the vicinity of the medium voltage switchgear.

Pictograms and safety symbols

The pictograms, symbols and instructions applied to the medium voltage switchgear are a part of the safety equipment. They may therefore not be covered or removed, and must be present and clearly readable throughout the entire lifespan of the medium voltage switchgear.

- Replace or repair unreadable or damaged pictograms, symbols and instruction immediately. Therefore contact SGC - SwitchGear Company nv.

Operators

The execution of the work described (transport, installation, use and maintenance) is strictly reserved for trained and qualified operators, who are familiar with the dangers that can occur when operating medium voltage switchgears. Temporary staff and personnel in training may not operate the medium voltage switchgear under any circumstances.

Technical specifications

- Technical specifications may not be changed.
- Modification of the medium voltage switchgear (or parts thereof) is not permitted.

Transport, storage, installation, operation and maintenance

- See corresponding documents:
 - “Safety guidelines – transport”
 - “Safety guidelines – storage”
 - “Safety guidelines – installation”
 - “Safety guidelines – operation”
 - “Safety guidelines – maintenance”

Intended use

The medium voltage switchgear is designed exclusively for use as transformation or distribution stations, in accordance to the specifications and conditions provided by SGC - SwitchGear Company nv. Any other or further use is not in accordance with the intended use.¹

SGC - SwitchGear Company nv does not accept any liability for damage(s) or injuries resulting from deviation(s) of the intended use.

The medium voltage switchgear complies with the current norms and guidelines. See: Technical Brochure

- Only use the medium voltage switchgear in technically perfect condition, in accordance with the intended use described above.



Leave the sealed connections intact, at all times. Breaking the sealed connections irrevocably voids any guarantee claims.

¹ The “Intended use” as defined in EN 292-1 “is the use for which the technical product is suited as specified by the manufacturer including his directions in the sales brochure.” In case of doubt, it is the use that can be deduced from the construction, the model and the function of the technical product that is considered normal use. Operating the product within the limits of its intended use also involves observing the instructions in the user manual.

1 GENERAL INSTALLATION & SAFETY INSTRUCTIONS

1.1.1 General



Installation of the medium voltage switchgear is restricted to qualified and trained operators with strictly observance of the locally applicable safety instructions and guidelines.

The connection and commissioning must be done by qualified and authorized staff employed by the power supplying company.

- See also: "General safety prescriptions and instructions".
- Never leave tools or other material in, or on top of the medium voltage switchgear.
- Install the medium voltage switchgear exclusively in spaces that fully comply with the following recommendations (according to IEC 62271-200):

1.1.2 Recommendations – installation room

Recommendations regarding the installation room parameters are subdivided in recommendations concerning:

- floor surface
- environmental conditions
- ventilation
- free height of the installation area
- sizes of the entrance doors of the installation area
- free passage in front of the cubicles
- internal arc protection

1.1.2.1 Floor surface

The surface on which the medium voltage switchgear must be installed, needs to be firm and completely level. The maximum permissible difference in level is **2 mm/m**.

1.1.2.2 Environmental conditions

DR-6C cubicles have been designed for **indoor** installation, provided that the following environmental conditions are met:

description	values
environmental temperature	min. -15 °C - max. +45 °C
relative air humidity (%)	min. 10% - max. 70% (without condensation)
installation altitude (m.a.s.l.)	max. 1.000 m above sea level

Table 1: Environmental conditions

Consequently this means:

- Avoid installation in dusty areas.
- Avoid installation in areas with a high relative air humidity.
- Avoid installation in areas subject to lightning strikes.
- Avoid installation in surroundings where cubicles may be exposed to corrosive gases or fluids.



Contact SGC – SwitchGear Company nv when cubicles must be installed in areas where the required environmental conditions cannot be guaranteed.

1.1.2.3 Ventilation

- Ensure proper ventilation of the installation area.
- Protect the ventilation ducts so that small animals or vermin do not have access to the installation area.

Particularly when the medium voltage switchgear contains one or more transformer cubicles, special attention should be given towards ventilation. Consult the table below when calculating the required ventilation. The table indicates the power losses of the cast resin transformers.

Transformer Capacity (KVA)	P (W)
100	1.605
160	2.175
250	2.850
315	3.412
400	4.012
500	4.837
630	5.745
800	6.787
1.000	7.875
1.250	10.350
1.600	12.450
2.000	16.125

Table 2: Overview of capacity losses in cast resin transformers

1.1.2.4 Free height of the installation area

The free height of the installation room has to be **at least 2.000 mm**. Local power supply companies may however, require a larger minimum free height. An ideal, and generally accepted, value is 2500 mm.



Dry transformers with a capacity of ≥ 1250 KVA require a minimal height of at least **2.500 mm**.

1.1.2.5 Sizes of the entrance doors to the installation area

The provided dimensions apply to all doors that offer access to the installation room. These minimum requirements also apply if the installation room is not directly accessible from the outside.

description	value
Height of the access door	min. 2.200 mm
Width of the access door	min. 100 mm + width of the widest cubicle

Table 3: Dimensions of the access doors



If the medium voltage switchgear does not contain any transformer cubicle(s), a minimal door height of **2.000 mm** will be sufficient. If a transformer cubicle is included, the dimensions of the transformer always need to be taken into account. For the correct dimensions of the different cubicles, please see: "Dimensions & Weights".

If the medium voltage switchgear is to be installed in basements, an entrance hatch is required, whose length as well as width is at least 400 mm larger than the dimensions of the largest cubicle or transformer.

1.1.2.6 Free passage in front of the cubicles

The free passage in front of the cubicles depends on the assembly of the medium voltage switchgear.



If the medium voltage switchgear does not contain any transformer cubicle(s), the minimum free passage is **800 mm**. Medium voltage switchgear with a transformer cubicle having a capacity of ≥ 1.000 KVA requires a free passage of at least **2.000 mm**.

1.1.2.7 Internal arc protection

To prevent major material damage and serious physical injury or electrocution in the (unlikely) event of an internal arc, the following installation instructions apply:

- Between the rear side of the cubicles and the wall of the installation room, the necessary free space needs to be provided, as displayed in Figure 1. This layout corresponds with an assembly where the side plates of the cubicles reach the rear side of the installation room. As a result, the free space behind the cubicles is closed off.

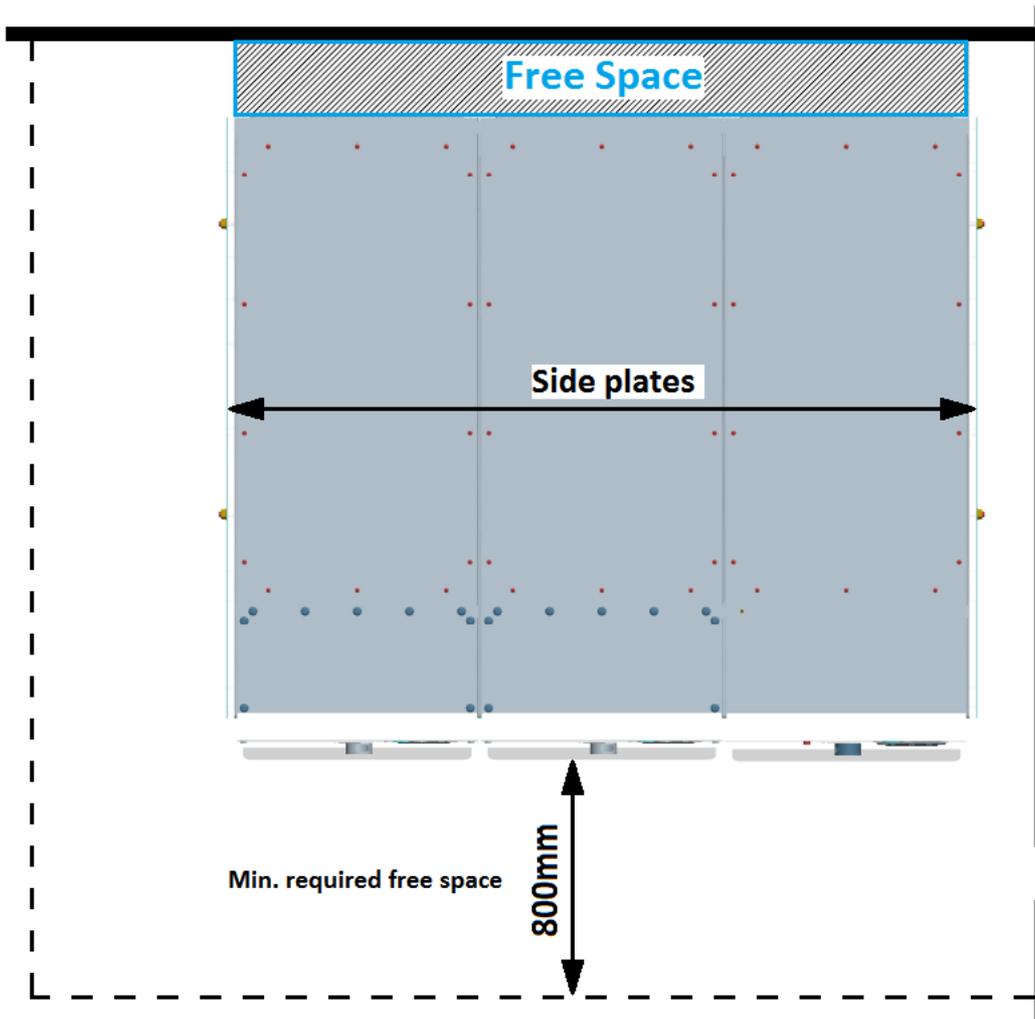


Figure 1: Top view of installed cubicles



A transformer cubicle can always be positioned with its rear side against the wall.

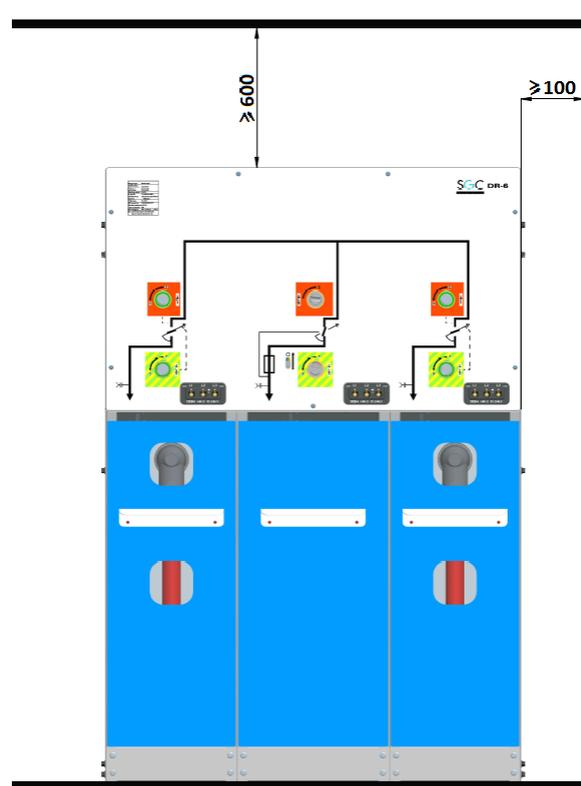


Figure 2: Minimal free height for DR-6 installation



Anchor each cubicle of the medium voltage switchgear to the floor as described in the Installation Manual DW646112.

In medium voltage switchgears installed in accordance with the installation manual, the (unlikely) internal arc will always be limited to the compartment of origin.

2 USE

2.1 Safety instructions – use

- See also "GENERAL INSTALLATION & SAFETY ".Use of the medium voltage switchgear is restricted to qualified and trained operators, while observing the locally applicable safety instructions and guidelines.Ensure that when using the medium voltage switchgear the door is always properly closed and locked with a reliable padlock. When a door is open, switching is not possible.

2.2 Identification of the cubicles

Every DR-6C medium-voltage cubicle is equipped with a identification plate and a stamped serial number.

2.2.1 Type plate

The synoptic diagram is equipped with an identificationplate, in the top-left corner.

The type plate registers the following data:

- A: Cubicle type
- B: Serial number and production year of the medium-voltage switchgear
- C: Voltage
- D: Other technical specifications

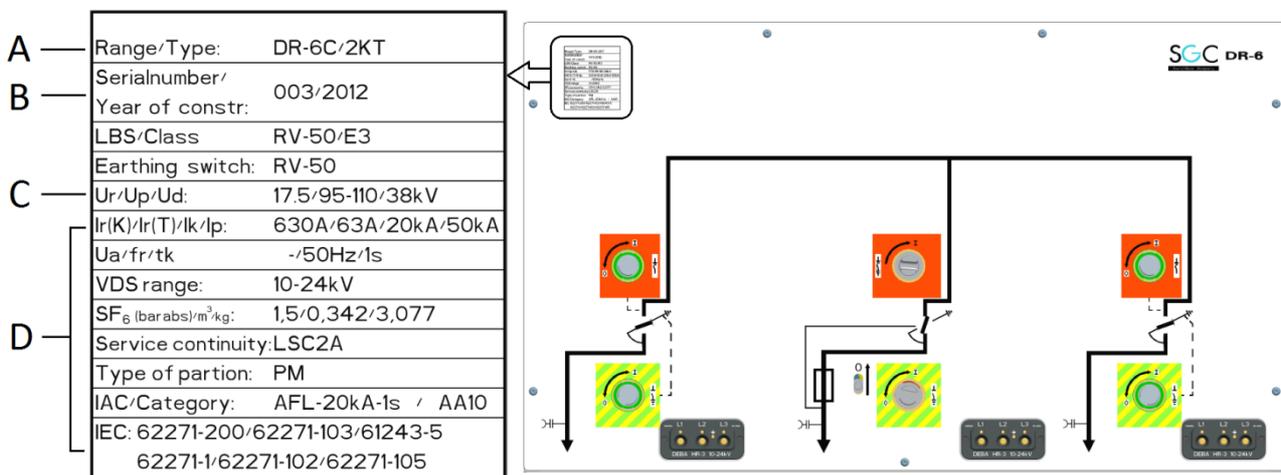


Figure 3: Type plate on the synoptic diagram

2.2.2 Serial number

The stamped serial number can be found on the left lateral side of the medium-voltage cubicle. The serial number is visible after disassembling the end panel.

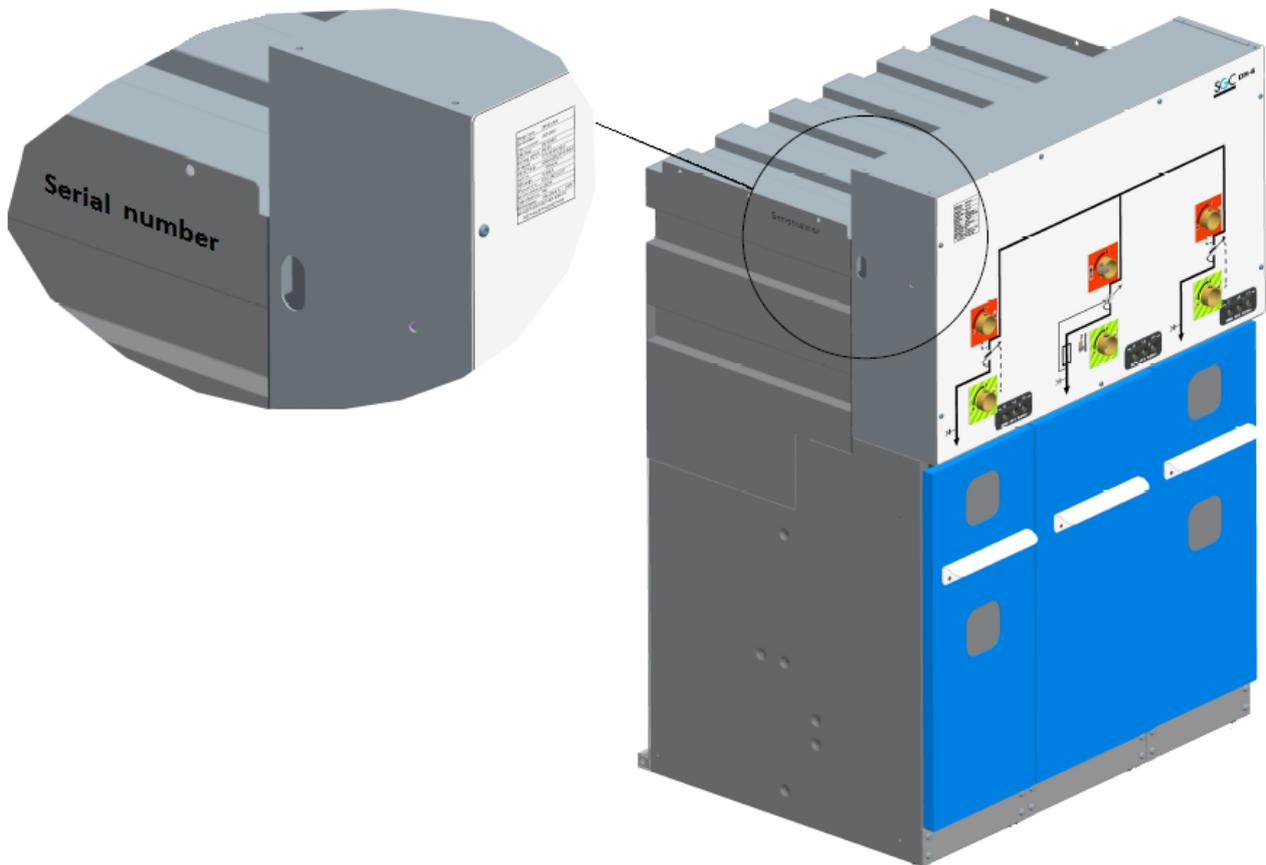


Figure 4: Serial number stamped in the medium-voltage cubicle

2.3 Operation

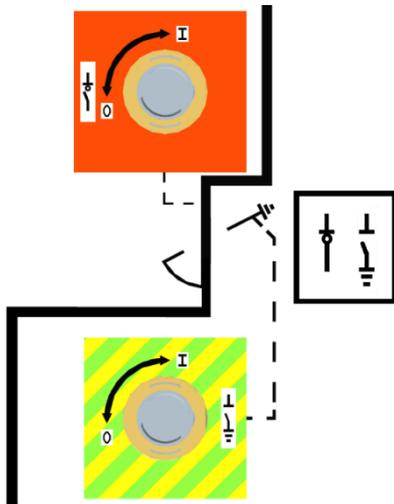
Depending on the version, the medium-voltage switchgear is equipped with (a number of) the following controls and indicators:

- synoptic diagram (see "Synoptic diagram")
- operational lever
- load break switch
- earthing switch
- capacitive voltage indicators
- low-voltage switch



The function of these controls and indicators, as well as their operation, is described by their actual operation.

2.3.1 Operating the combination load break switch – earthing switch



During normal operation, the position is as follows:

- load break switch CLOSED
- earthing switch OPEN

The indicator on the synoptic diagram is placed vertically, see Figure 5.

In this position the earthing switch is automatically locked. It is impossible to close the earthing switch.

Figure 5: Load break switch closed earthing switch open

2.3.1.1 Opening the load break switch and closing the earthing switch

- Place the operational lever on the operational axis of the load break switch.
- Turn the operational axis **counterclockwise** (1) until the load break switch audibly opens. The indicator on the synoptic diagram is no longer in the vertical position, the earthing switch is automatically unlocked (2).
- Place the operational lever on the operational axis of the earthing switch.
- Turn the operational axis **clockwise** (3) until the earthing switch audibly closes. The indicator on the synoptic diagram is now in earthed position (4).
If necessary, the door can now be opened.

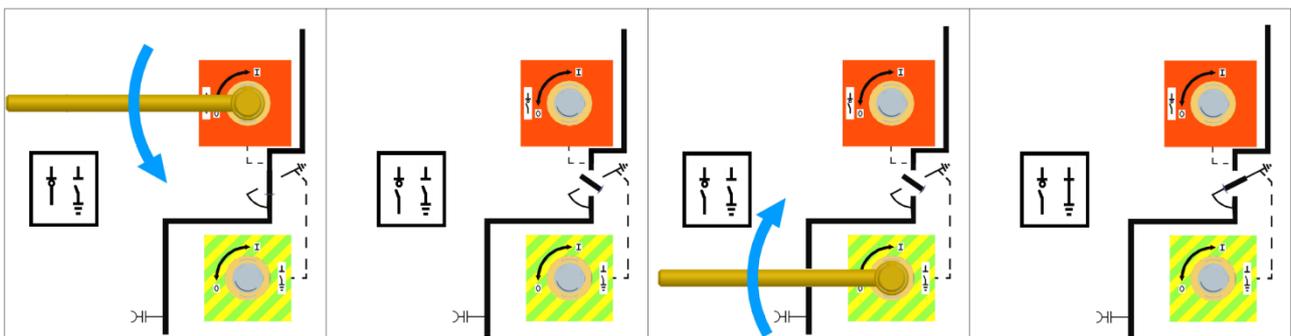


Figure 6: Opening the load break switch, closing the earthing switch



Turning counterclockwise = opening switch
Turning clockwise = closing switch

2.3.1.2 Opening the earthing switch and closing the load break switch

- Ensure that the door of the cable compartment is closed. See: “Refitting the door”.
- Place the operational lever on the operational axis of the earthing switch.
- Turn the operational axis **counterclockwise** (1) until the earthing switch audibly opens. The indicator on the synoptic diagram is in the neutral position (2).
- Place the operational lever on the operational axis of the load break switch.
- Turn the operational axis **clockwise** (3) until the load break switch audibly closes. The indicator on the synoptic diagram will move to a vertical position (4). The cubicle is now ready to be put into service.

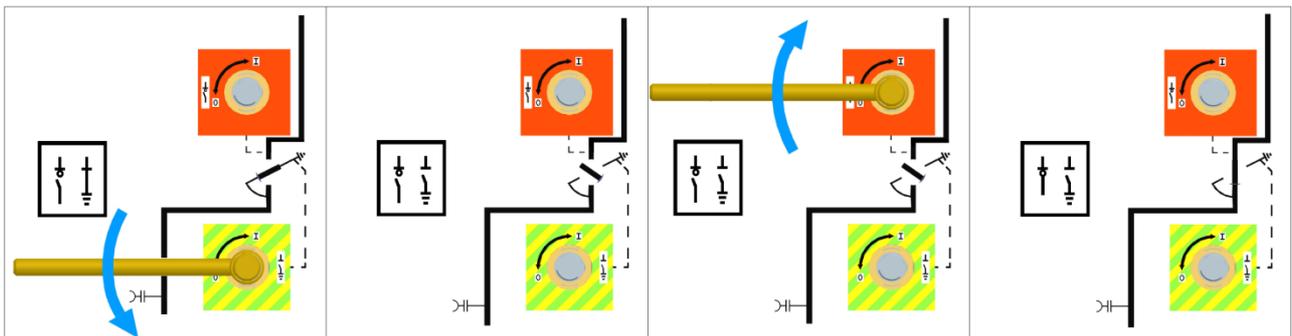


Figure 7: Opening the earthing switch, closing the load break switch



Turning counterclockwise = opening switch
Turning clockwise = closing switch

2.3.2 Reading the capacitive voltage indicators

The capacitive voltage indicators (A) offer the possibility to measure the phase sequence during the first operation. See: “Measuring the phase sequence”.

With the voltage indicators it can also be established whether fuses have tripped (in DR-6 T cubicles) and whether (with the load break switch in the position OPEN) there is still voltage present in the cables.

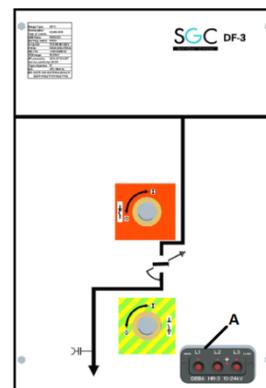


Figure 8: Reading capacitive voltage indicators

2.3.3 Operating the combination load break switch – fuse

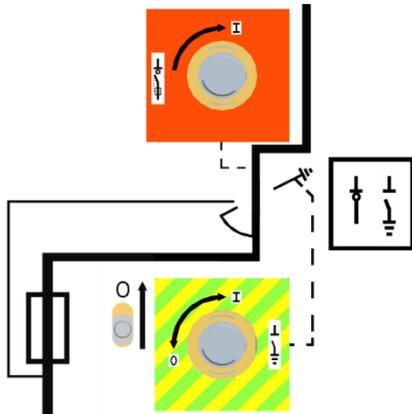


Figure 9: Combination load break switch – fuse protection closed earthing switch open

During normal operation, the position is as follows:

- load break switch is CLOSED
- earthing switch is OPEN

The indicator on the synoptic diagram is placed vertically, see Figure 5.

In this position the earthing switch is automatically locked. It is impossible to close the earthing switch.

2.3.3.1 Opening the load break switch and closing the earthing switch

- Make an upward movement with the operational button (1) until the load break switch audibly opens. The indicator on the synoptic diagram is no longer in the vertical position, the earthing switch is automatically unlocked (2).



Check using the capacitive voltage indicators whether (with the load break switch in the OPEN position) there is still voltage on the cables. The capacitive voltage indicators have to be OFF.

- Place the operational lever on the operational axis of the earthing switch.
- Turn the operational axis **clockwise** (3) until the earthing switch audibly closes. The indicator on the synoptic diagram is in the earthing position (4).
If necessary, the door can now be opened.

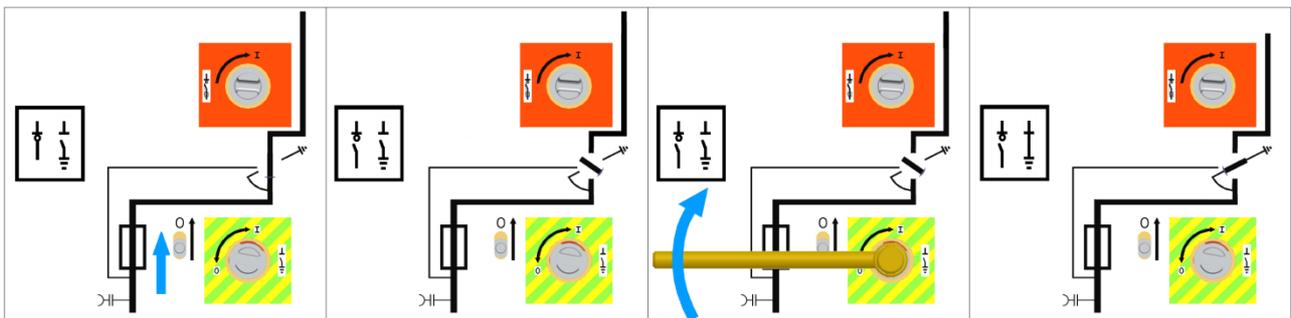


Figure 10: Opening combination load break switch-fuse, closing earthing switch



Turning counterclockwise = opening switch
Turning clockwise = closing switch

2.3.3.2 Opening the earthing switch and closing the load break switch

- Ensure that the door to the cable compartment is closed. See: “Placing the door back”.
- Place the operational lever on the operational axis of the earthing switch.
- Turn the operational axis **counterclockwise** (1) until the earthing switch audibly opens. The indicator on the synoptic diagram is in the neutral position (2).
- Place the operational lever on the operational axis of the load break switch.
- Turn the operational axis **clockwise** (3) until the load break switch audibly closes. The indicator on the synoptic diagram will move to a vertical position (4). The cubicle is now ready to be put into use.

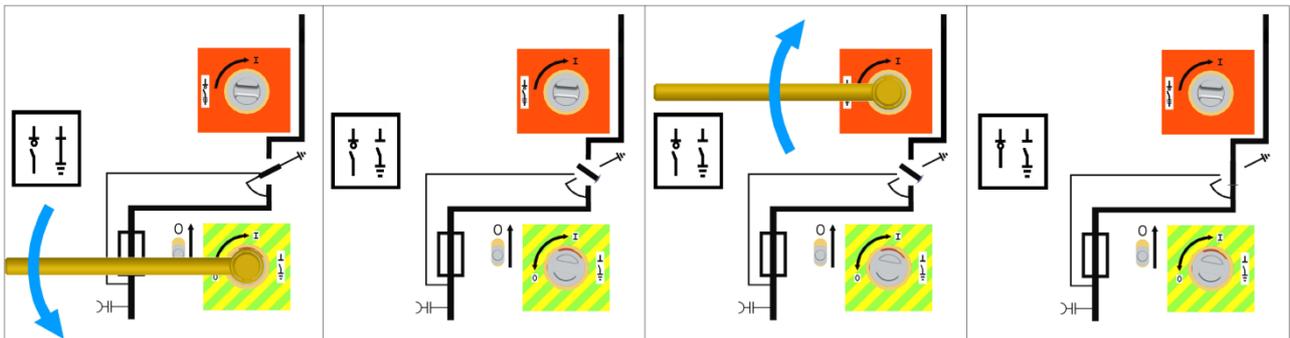


Figure 11: Opening earthing switch, closing combination load break switch-fuse protection

-  Turning counterclockwise = opening switch
- Turning clockwise = closing switch

2.4 Interlocks

The interlocks below are provided by default on products in the DR-6 range. If other specifications are required, additional interlocks can be examined on simple request.

2.4.1 Interlocks between load break switch and earthing switch



Load break switch in closed position

The earthing switch is automatically locked in this position. It is impossible to close the earthing switch.

Load break switch open, earthing switch open

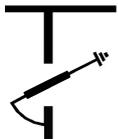
In the neutral position, it is possible to switch either the earthing switch or the load break switch.

Earthing switch in closed position

The load break switch is automatically locked in this position. It is not possible to close the load break switch.

2.4.2 Door interlock

2.4.2.1 Accessing the cable compartment



Access towards the cable compartment is only possible if the load break switch is in the OPEN position and the earthing switch is in the CLOSED position.

2.4.2.2 Refitting the door



Fore refitting the door, the load break switch must be in the OPEN position and the earthing switch in the CLOSED position.

- Carefully check whether there are any tools or fixing materials left in the cable compartment.
- Check all connections.
- Attach the door (B) to the cable compartment:
 - Grasp the door with both hands using the handle(D).
 - Carefully position the door in the supports.
 - Push the door downward.
- Lock the door with a reliable padlock (C) on the locking latch (A).

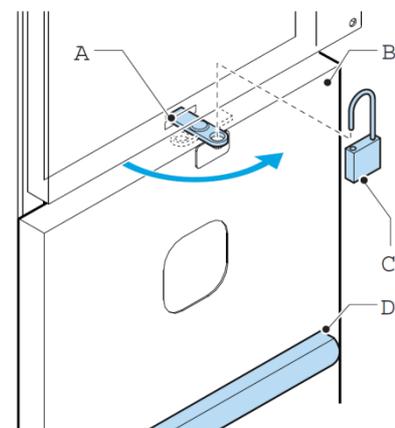


Figure 12: Placing the door back



A specially appointed, qualified operator must retain the keys.

2.5 Measuring the phase sequence



The phase sequence is usually measured between K functions. The phase sequence can be measured easily using the voltage indicators (A) on the front panel.

- Measure using a voltage meter/phase sequence indicator (B) between the **corresponding** phases. A phase sequence indicator (RM086000) is optionally available.



If no voltage can be measured, the phase sequence is correct. Measuring the voltage between two **different** phases allows you to check the measurement. Obviously a voltage should be measured in this case.

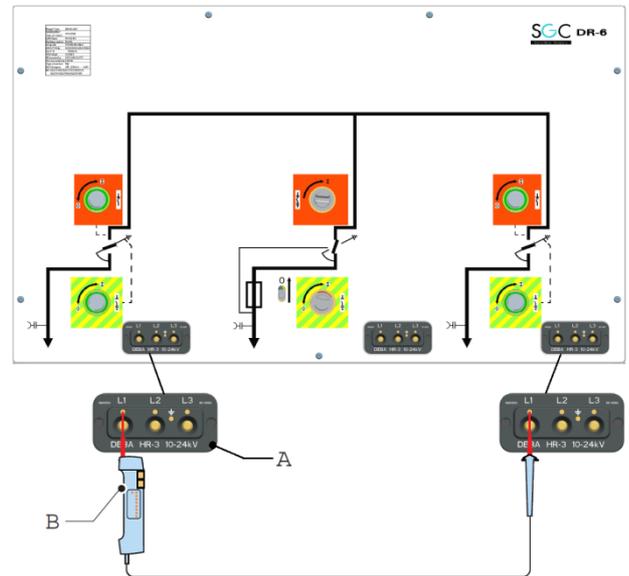


Figure 13: Measuring phase sequence

2.6 Disassembly of the front panel

Disassemble the front panel (C) by:

- Unscrewing the seven hexagonal tap bolts (A).
- Removing the spring washers (B)
- Removing the front panel (C).

The low-voltage compartment are now accessible.

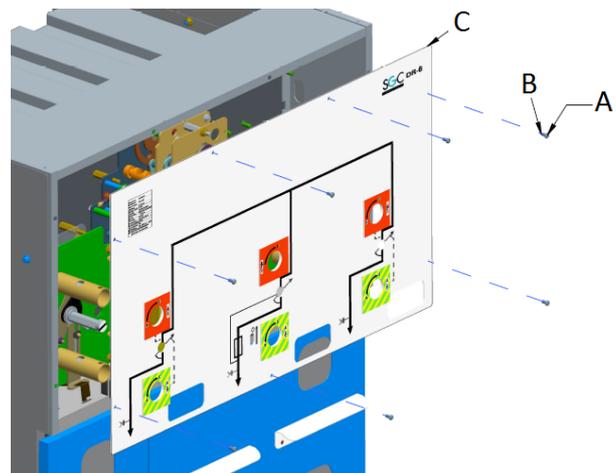


Figure 14: Disassembly front panel DR-6

3 MAINTENANCE

3.1 Safety guidelines - maintenance

- See also "GENERAL INSTALLATION & SAFETY INSTRUCTIONS". The maintenance actions described are restricted to qualified and trained operators. Always observe the local applicable safety instructions and guidelines.
- All other, not indicated maintenance tasks are restricted to trained and qualified service personnel (employed by the power supply company).
- Ensure that the whole medium voltage switchgear is de-energized before you carry out the maintenance actions described.
- Only put the medium voltage switchgear back into operation after all the front panels and doors that have been removed have been refitted and the work carried out has been carefully checked.
- Never leave tools or fitting material in or on top of the medium voltage switchgear.

3.2 Maintenance – general

DR-6C cubicles have been designed to operate flawlessly, with minimum maintenance. To ensure this, a few simple maintenance and cleaning actions are required. If proper caution is exercised, and if the prescribed actions are performed accurately, any problem will usually be discovered and corrected before they lead to a serious problem. Since maintenance intervals depend on specific operating circumstances, and as a result vary strongly, no maintenance intervals are provided.

Exceptions to this are the following tasks:

Interval	Task
Every two years	Switching the switch(es) in DR-6C cubicles with switching function <ul style="list-style-type: none"> • See "§2.3 Operation".
Every two years	De-energize the entire medium-voltage switchgear <ul style="list-style-type: none"> • See " Safety guidelines – maintenance ".
Every ten years	Replacing the fuses in T functions <ul style="list-style-type: none"> • See "§3.2.3 Replacing the fuse protectors (T-function)".



Important notice concerning DR-6C medium-voltage switchgear.

DR-6C medium-voltage switchgear requires minimum maintenance. It is of the “sealed for life type” and does not require an intervention when it comes to sealing, during the entire life cycle of the switchgear.

The integrated RV-50 load break switches are developed according to IEC 62271-102 standards and have a mechanical life cycle of 1000 operations. The maintenance intervals can vary depending on the use of the load break switch. Nevertheless, a number of scheduled maintenance tasks are still required, as described in the previous table.

3.2.1 General control operations

- Regularly perform a thorough, general visual inspection.
- Check whether the cables are still connected properly.

3.2.1.1 Cleaning DR-6C cubicles

Contamination of the DR-6C cubicles can initially be limited by respecting the recommendations regarding the installation area. See: “Recommendations – installation area”.

3.2.1.2 Cleaning the exterior

- First read the safety guidelines. See: “Safety guidelines – maintenance”.
- Clean the exterior with non-fluffy cloth and a non-corrosive cleaning agent.
- Rub the cleaned surfaces thoroughly dry.

3.2.1.3 Condensation

SGC - SwitchGear Company nv’s equipment is tested according to IEC 60932, procedure A, level 2. These tests serve to verify the proper functioning of the equipment in the presence of condensation.

To avoid condensation, it is recommended to:

- Properly ventilate the room
- Properly heat the room
- Ensure a proper degree of humidity

If despite these measures, condensation does still appear, SGC - SwitchGear Company nv can optionally install heating resistors (30 W) in each cubicle.

3.2.1.4 *Cleaning the interior*

The entire interior of the DR-6C cubicles needs to be kept free from dust, moisture, and other contaminations. This applies in particular to the cable compartment.

 A clean and dust-free interior facilitates dielectric characteristics and limits the leakage current to a minimum.

- De-energize the entire medium-voltage switchgear. See "Safety guidelines – maintenance"
- Disassemble the front panel. See "Disassembly of the front panel"
- Remove the door. See "Accessing the cable compartment".
- Clean the interior (including the cables) with a non-fluffy cloth and a non-corrosive cleaning agent.
- Rub the cleaned surfaces thoroughly dry to prevent surface oxidation, copper oxidation and corrosion of the fitting materials.
- Check all bolt-nut connections.
- Fit the front panel.
- Refit the door.

3.2.2 **Switching the switches**

Switches that are used rarely or never, need to be switched **at least every two years** to check the functioning of the mechanical components. See "Operation".

3.2.3 Replacing the fuse protectors (T-function)

The fuses in DR-6C T-function must be replaced **at least every 10 operational years**, or sooner if a repair task is necessary in this function (e.g. after one of the fuses was tripped.)



Always replace **all three** HRC fuses at the same time, even when only one of them is tripped.

- De-energize the entire medium-voltage switchgear .
See "Safety guidelines – maintenance ".
- Remove the door. See "Accessing the cable compartment".
- Unlock the fuse slide by:
 - Upward movement of the fuse slide handle until it is in a vertical position (Figure 15-2 and Figure 15-3).
 - Let the fuse handle return to a horizontal position (Figure 15-4).
 - The fuse slide (Figure 15-4) can now be removed from the fuse box.

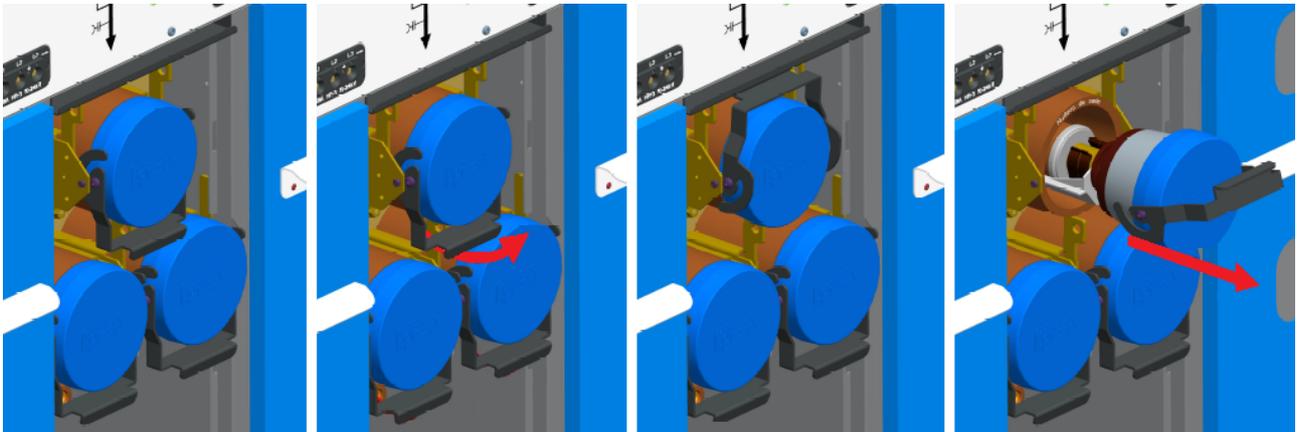


Figure 15: Opening fuse slide

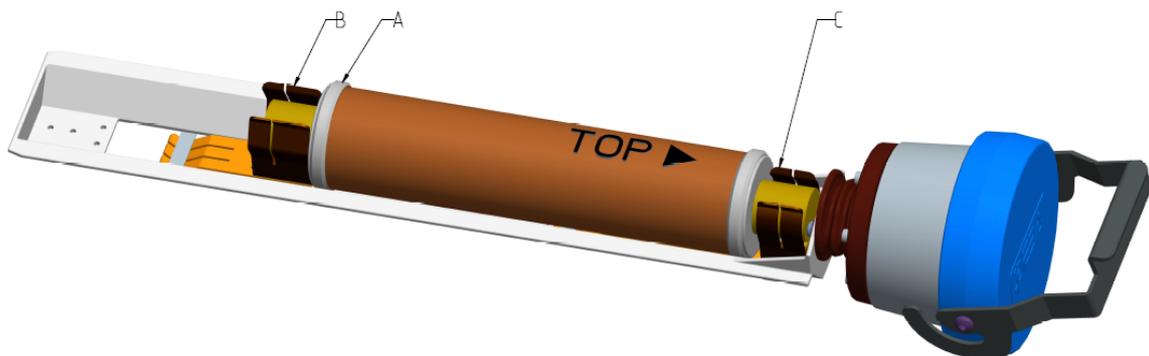


Figure 16: Fuse slide DR-6C

- Remove the three fuses (A) from the fuse slide:
 - Lift the fuse (A) from the rear spring clamp (B).
 - Remove the fuse with a twist from the front spring clamp (C).



Support the fuse slide during assembling & disassembling of the fuse to prevent damage.

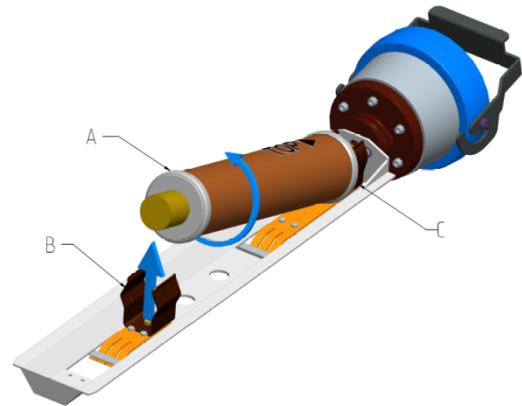


Figure 17: Replacing fuse

- Manually check the trip mechanism: the levers (D+E) cannot get stuck or show any defects.

- Install the new fuse.



Ensure that the strikers are on top. The arrow (F) should point towards the front.

- Place the fuse protector in the rear spring clamp (B).
- Push the fuse protector with a twist in the front spring clamp (C). Avoid any damage and distortion to the spring clamp. Support the fuse slide during assembly of the new fuse to avoid damage.

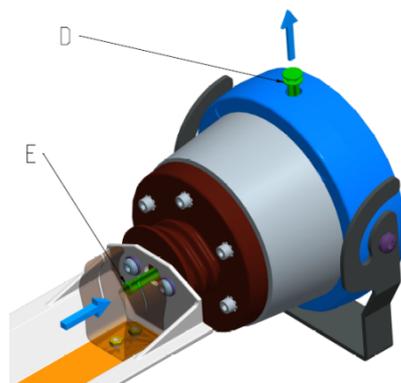


Figure 18: Checking tripping mechanism

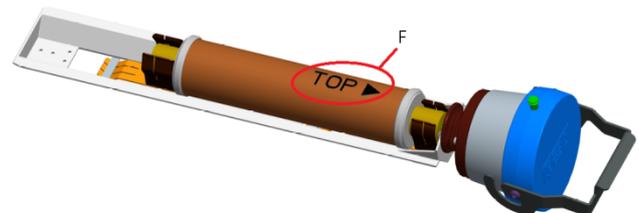


Figure 19: New fuse with striker pointing towards the handle

- Refit the door of the cable compartment. See "§2.4.2.1 Accessing the cable compartment".
- Lock the door with a reliable padlock.
- Put the medium-voltage switchgear back into operation.

3.3 Unpacking

The DR-6C cubicles are by default wrapped in protective foil and secured on a euro pallet. The most appropriate place to unpack the cubicle is of course the final installation area.

- Cut the straps used to secure the cubicle onto the pallet.
- Carefully remove the protective foil.
- Examine the delivery note to ensure that the cubicle is complete.
- Check the cubicle for possible (transport) damage.
- Carefully lift the cubicle off the pallet.

 If any parts are missing or damaged, contact the conveyor or SGC - SwitchGear Company nv. Seriously damaged cubicles must always be returned to SGC - SwitchGear Company nv.

By request, cubicles are equipped with lifting lugs. If those are used, use suitable lifting & hoisting machinery, in perfect condition and with sufficient hoisting capacity only.  Observe the applicable safety precautions. The handling and operating of hoisting or lifting machinery is restricted to experienced staff within the visible and shouting range of the operator of the hoisting or lifting machinery.

- Remove the pallet.
- Remove the door.
 - Turn the locking latch (middle, top of the door).
 - Grab the handle to the door with both hands.
 - Carefully lift the door out.

 DR-6C cubicles are equipped with a load break switch and an earthing switch are by default delivered in the position: “load break switch open – earthing switch closed”. In this position, the door is always removable.

- Place the removed door where there is no risk of damage.
- Repeat the steps above for each functional unit.

After the used packing material has been disposed in accordance with the applicable directives, the installation of the cubicles can begin.

4 DR-6C CUBICLES AND THE ENVIRONMENT

4.1 Packing materials

Packing materials consist mainly of:



- (Untreated) wood
- Plastic strips
- Plastic film

Contact the local public cleaning department for the details of recycling or an environmentally friendly way of processing the packing materials
Tender the packing material as instructed (separated)..



In Belgium, Euro-pallets need to be returned to SGC - SwitchGear Company nv after the installation of the cubicles.

4.2 Disposal of the cubicles

With regards to reusing electrical components, SF₆-gas (sulphur hexafluoride) filled switchgear material can be returned to SGC - SwitchGear Company nv at the end of its life span or when damaged.

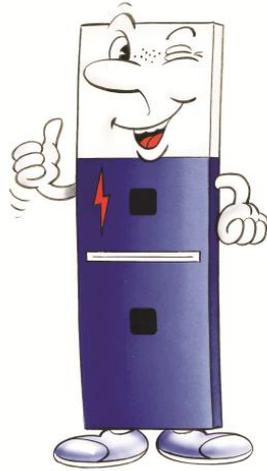
On consultation, complete DR-6cubicles can also be returned. If this is not possible, the cubicles must be processed in an environmentally friendly way. Contact the local sanitation services for possible recycling and tender the material in the prescribed manner (separated).

4.3 Recuperation of SF₆ gas

The recuperation of SF₆-gas in medium-voltage cubicles of the DR-6C type, concerns the gas-filled compartment with integrated load break switch RV-50. The stainless steel tank contains a gaseous volume of 0,342m³ with a pressure of 1.5 bar absolute at 20°C. Taking into account the dimensions and the volume of the gas, users are advised to have the recycling of gas-filled components done, at the end of the life-cycle, by a specialized company.

In this case, the user will take into account the local regulations with regards to transport. Insofar as possible, the user will denote the predictable state of decomposition of the gas, in order to be able to provide adequate treatment.

At end of the lifespan (usually 30 years), the decomposition degree of the gas will be considered as minor (see Table 1 – section 6 IEC 61634). The customer can also consult SGC - SwitchGear Company nv in order to recycle or recuperate the SF₆ gas.



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