

# Medium voltage compact switchgears

rated voltage 12 and 25 kV  
rated current 400 and 630 A



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ISO 9001  
ISO 14001  
BUREAU VERITAS  
Certification



## General

The new air-insulated DRIESCHER medium voltage compact switchgears are ideal for application in secondary substations without control aisles.

They meet the user's specific requirements to the full and ensure a satisfactory power distribution.

These new air-insulated medium voltage compact switchgears have been designed to meet demands for flexibility, maximum levels in quality and safety as well as maximum operating convenience in the network control.

- Compact dimensions
- No need for gaseous or solid insulators
- Environmental compatibility, also in the event of a malfunction; there are no toxic reaction products under the influence of accidental arcs
- Future-oriented design with subassemblies which are predominantly recyclable, hazardous substances are avoided.
- No special surge voltage protector equipment and cable sealing ends.
- Maximum safety
- Easy handling
- Minimum amount of maintenance

## Operating conditions

The air-insulated compact switchgears are installed in closed electrical operating areas to which only trained personnel and appropriately instructed persons have access.

The equipment can be used at altitudes of up to 1000 m above sea level.

For installations above an altitude of 1000 m the rated insulating level of the switchgear must be corrected accordingly.

The switch panels are designed for use under normal operating conditions in compliance with the standard EN 62271-1.

## Technical standards

The design of the air-insulated switchgears corresponds to the specifications of the EN 62271-200. The resistance to accidental arcs of the switch panels has been determined at 16, 20 and 25 kA; 1 s, by an independent testing institute.

The installed switchgear equipment is designed in compliance with EN 62271-1.

## Technical data

rated voltage	12 kV	25 kV
rated frequency	50 Hz	
rated lightning impulse withstand voltage	75 kV	125 kV
rated short-time withstand voltage	28 kV	50 kV
rated short-circuit duration	1 s	
rated current – panels with load disconnecter H 27	400 and 630 A	
rated short-time current – panels with load disconnecter H 27	20 kA	
rated peak current – panels with load disconnecter H 27	50 kA	
degree of protection	IP 3X	

## Description of the compact switchgear

### Design

The air-insulated medium-voltage compact switchgears comprise at least one outgoing feeder cable and one transformer feeder.

The compact switchgears frame is made of a screwed, hot-galvanized composite structure.

The entire compact switchgear is metal-encapsulated to guarantee optimal protection to persons and plant.

The compact switchgears are fitted at the front with single-wing sheet steel doors which have inserted compound glass windows for visual inspection of the Load disconnectors.

Every compact switchgear has a screwed on rear panel of galvanized sheet steel with separate assembly openings.

Connecting cables are conducted from the bottom into the switch panels where they are mounted on adjustable rails.

## Equipment

The cable panels are equipped with an in-line Load disconnector H 27 EK.

A fuse Load disconnector H 27 SEA or H 27 SuT is installed in the transformer feeder panel. The HVHBC fuse mounting contacts have been turned through 90° to optimally use the available space (fuses can be pulled out towards the front).

The compact switchgears can, of course, also be equipped with an earthing switch as well as with current and voltage transformers.

The optimal interlocking of the devices practically rules out any incorrect operation.

Earthing switches or spherical fixed points are available for earthing and short-circuiting.

When work is being carried out protective plates can be inserted in the open isolating distance of the switching devices in question, with the door closed.

Pressure relief is in downward direction.

The doors and covers of the switchgear are painted in structural paint (selectable in different colours to meet the customer's request).

All switch panels are designed for central locking with double-bit key. Additional locking means, with profile cylinder or padlock, are available on request.

## Available auxiliary equipment

- Cable panel with surge voltage protector
- Installation of test sockets for capacitive voltage tapping
- Attachment of a fuse box
- Cable panel with Load disconnector 400 A and 630 A
- Transformer panel with Load disconnector 400 A and 630 A
- Additional locking features with profile cylinder and lockable operating mechanisms
- Base
- Installation of various short-circuit display systems
- Panel illumination
- Delivery is possible with voltage display and transformer system DEHNcap/AWS for measuring phase-to-earth and phase-to-phase voltages for control and protection

## Required plant accessories

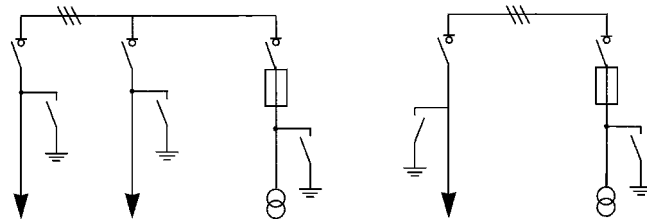
- 1 manual operating lever
- 1 door key with double-bit DIN 43668, size 5
- 1 FRP withdraw able plate, red, Type 1165

## Weights

Type	Voltage	Weight approx. kg
D 12 - 127014	12 kV	390
D 12 - 147014	12 kV	480
D 24 - 121114	25 kV	630
D 24 - 171114	25 kV	590
D 24 - 211114	25 kV	960

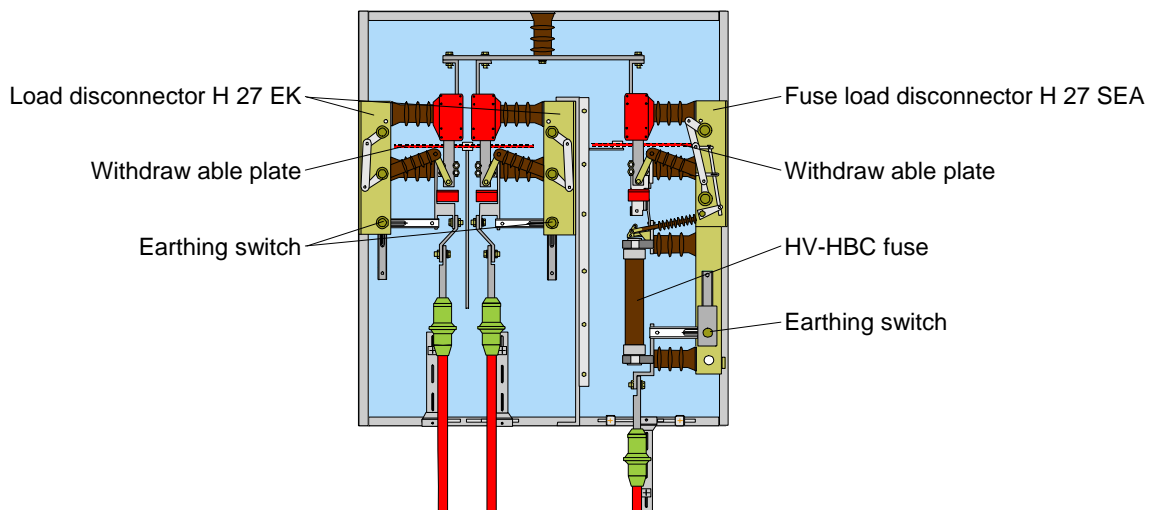
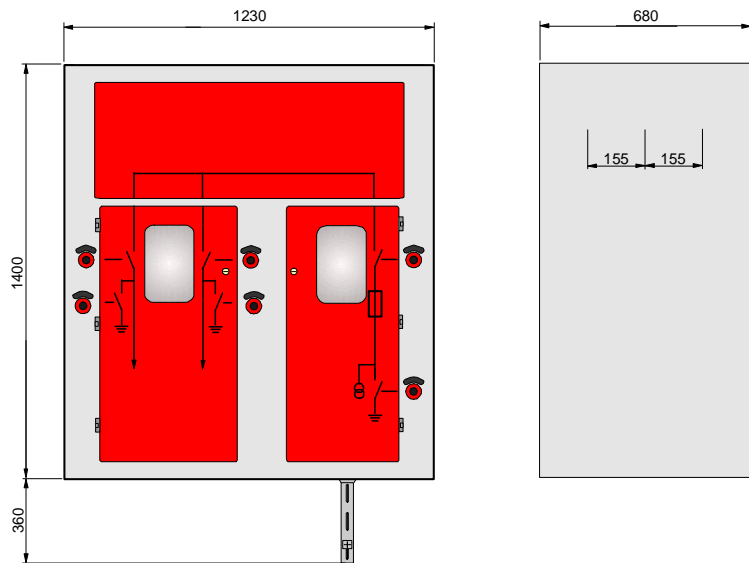
## Medium voltage compact switchgears - 12 kV

Rated voltage: 12 kV  
 Rated current: 630 A  
 Rated isolation level: 75 kV



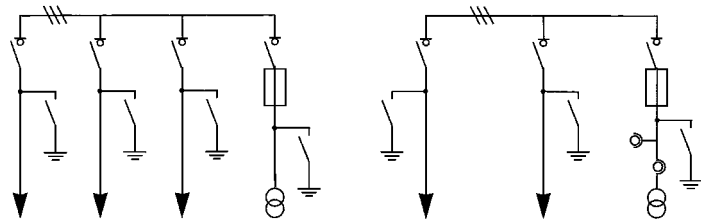
Type D 12 - 127014				
<b>Load disconnecter</b>	H 27 EK	H 27 SEA	H 27 EK	H 27 SEA
<b>Earthing switch</b>		•		•
<b>Current transformer</b>		-		-
<b>Voltage transformer</b>		-		-

- Optional
- Not possible



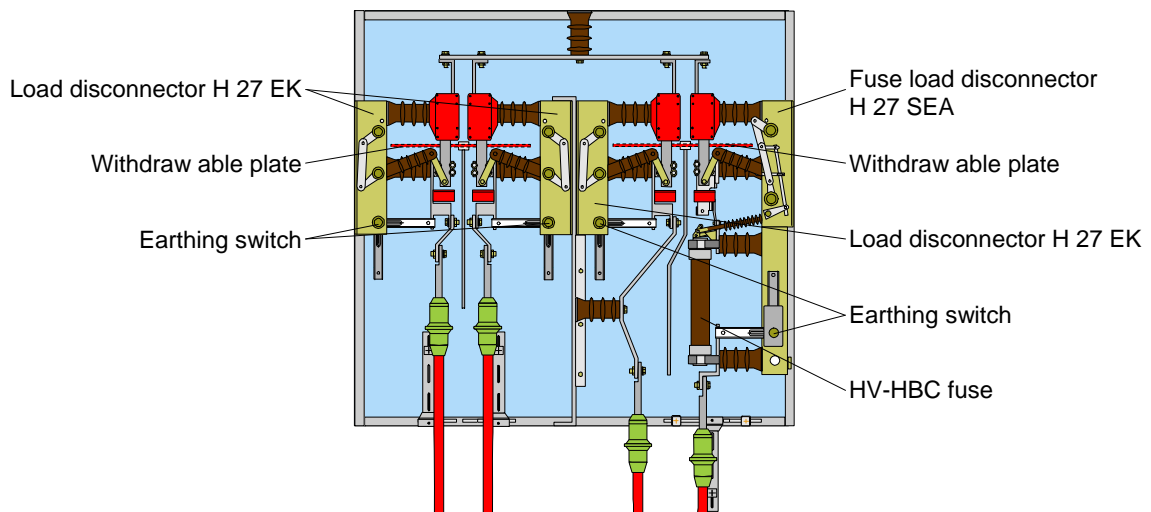
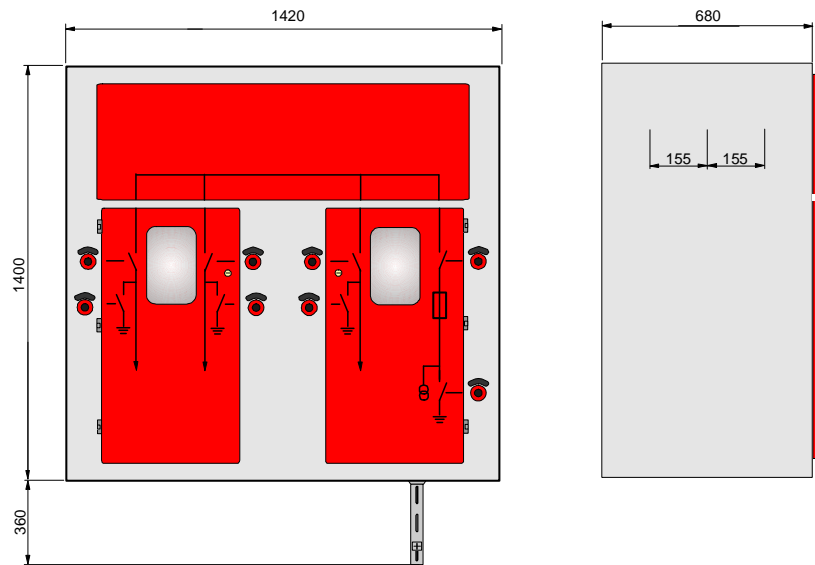
## Medium voltage compact switchgears - 12 kV

Rated voltage: 12 kV  
 Rated current: 630 A  
 Rated isolation level: 75 kV



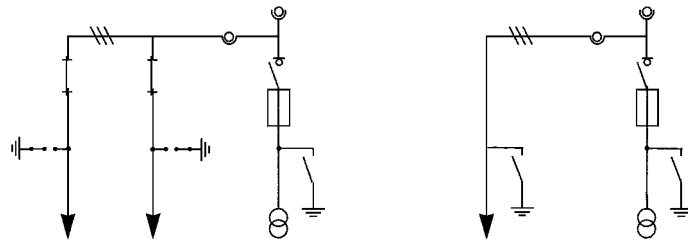
Type D 12 - 147014				
Load disconnector	H 27 EK	H 27 SEA	H 27 EK	H 27 SEA
Earthing switch		•		•
Current transformer		-		•
Voltage transformer		-		•

- Optional
- Not possible



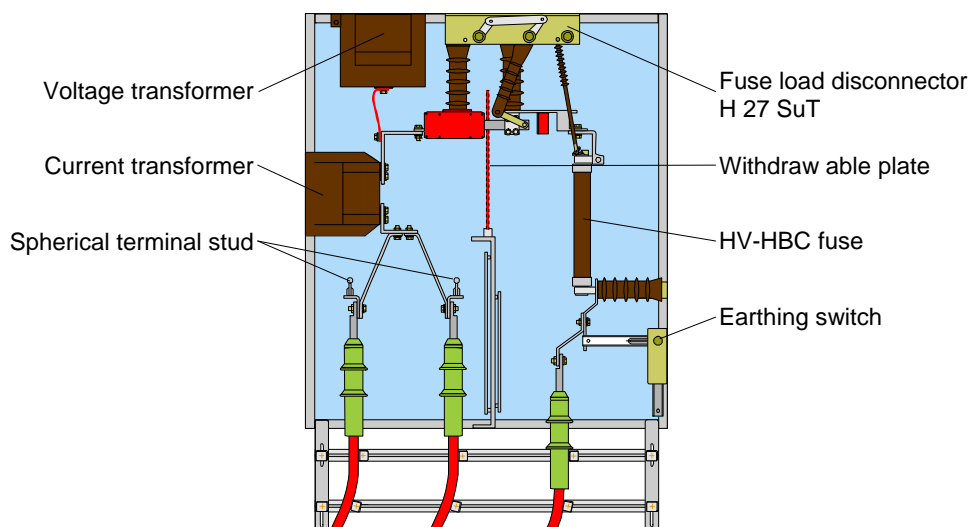
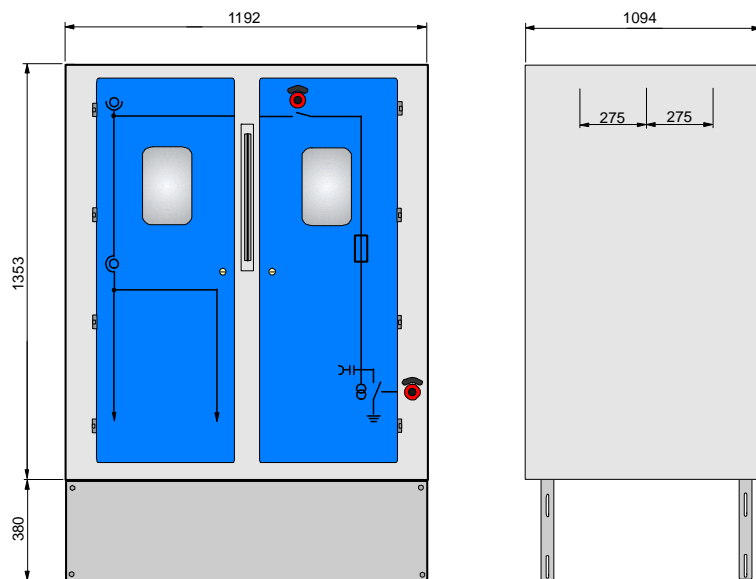
## Medium voltage compact switchgears - 25 kV

Rated voltage: 25 kV  
 Rated current: 400 / 630 A  
 Rated isolation level: 125 kV



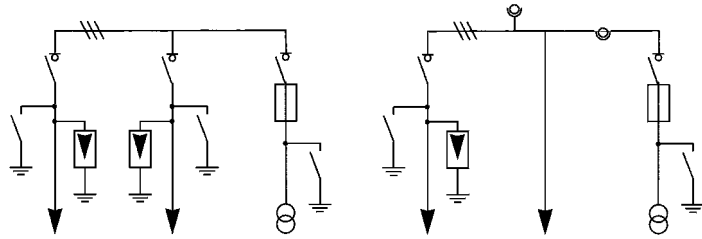
Type D 24 - 121114				
Load disconnecting switch	H 27 EK	H 27 SuT	H 27 EK	H 27 SuT
Earthing switch		•		•
Current transformer		•		•
Voltage transformer		•		•

- Optional
- Not possible



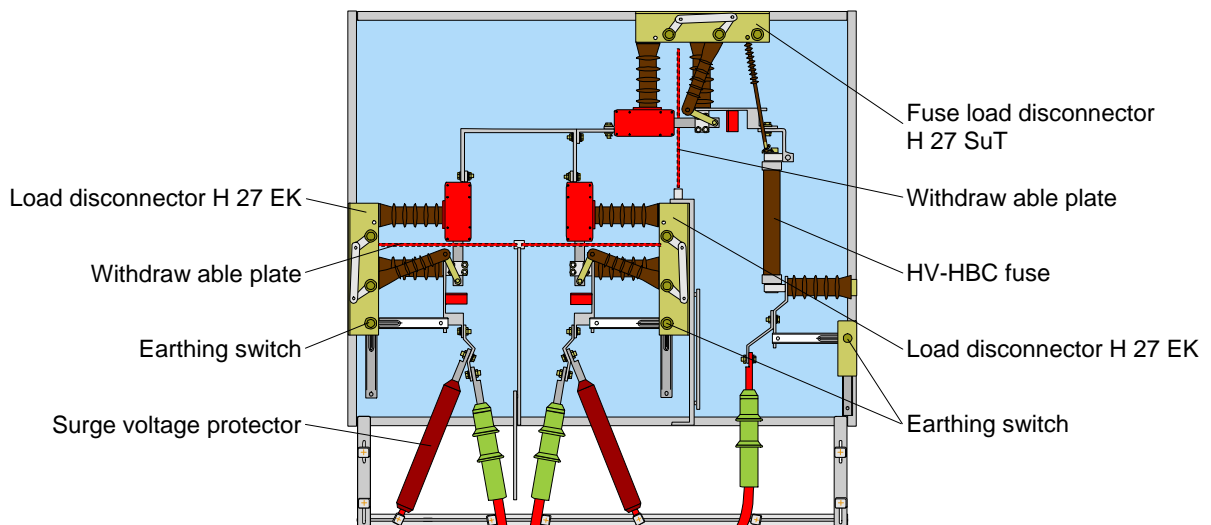
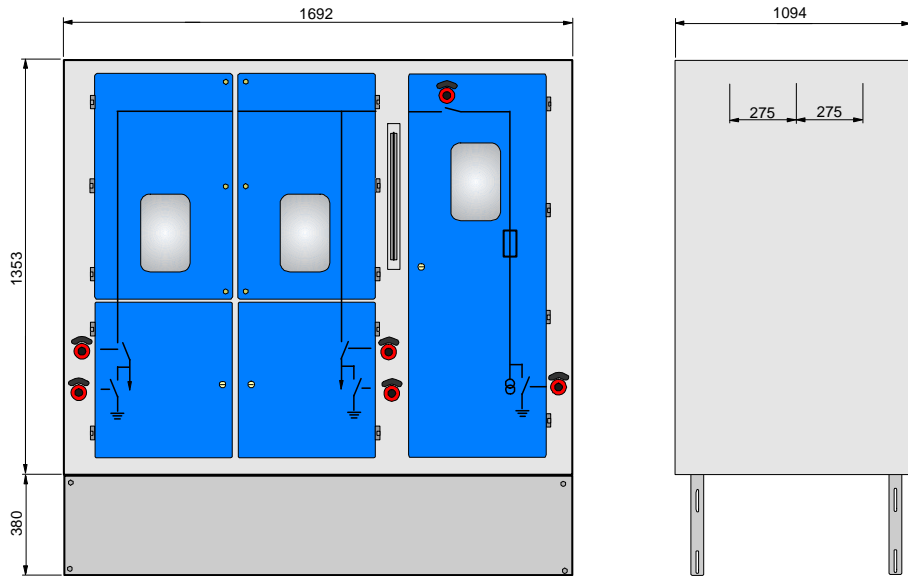
## Medium voltage compact switchgears - 25 kV

Rated voltage: 25 kV  
 Rated current: 400 / 630 A  
 Rated isolation level: 125 kV



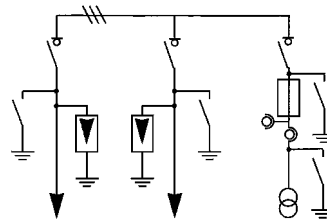
<b>Type D 24 - 171114</b>				
<b>Load disconnector</b>	H 27 EK	H 27 SuT	H 27 EK	H 27 SuT
<b>Earthing switch</b>		•		•
<b>Current transformer</b>		-		•
<b>Voltage transformer</b>		-		•

- Optional
- Not possible



## Medium voltage compact switchgears - 25 kV

Rated voltage: 25 kV  
 Rated current: 400 / 630 A  
 Rated isolation level: 125 kV



<b>Type D 24 - 211114</b>		
<b>Load disconnecter</b>	H 27 EK	H 27 SEA
<b>Earthing switch</b>		•
<b>Current transformer</b>		•
<b>Voltage transformer</b>		•

- Optional
- Not possible

