

# MEVOCO

MEDIUM VOLTAGE COMPONENTS

THE ONE STOP SHOP FOR MEDIUM VOLTAGE COMPONENTS



## Medium voltage components

Quality, reliability and safety.

Mevoco spearheads a drive for the development of medium voltage components that excel in quality and safety. Mevoco's range of products includes load break switches, circuit breakers, voltage detectors, a relay, and an arc-killer.

[www.mevoco.be](http://www.mevoco.be)

# MEVOCO

MEDIUM VOLTAGE COMPONENTS

## Premium Quality

At Mevoco, quality starts from the smallest part, to the largest, finished component. By putting quality first at every step of the manufacturing process, we ensure a finished product that excels in both performance and reliability. Our ISO certification guarantees that each and every component shares that commitment to quality.

## Safety at work

We strive to develop and manufacture components that save lives. All of our components have been engineered from the ground up with operator safety in mind. That is why every single component is manually tested to ensure safe operation. Safer components are more effective components, which in turn, offer cost advantages in the long run.

## Easy operation

Mevoco has devoted special care to the easy operation of our components. Our products are designed to prevent operator errors and to focus on clear and effortless operation. Mevoco makes switching safe, easy, and self-explanatory.

## Superior reliability

Quality components that are safe and easy to use simply become robust products. That is why our components display exceptional reliability. Whether you use a switch for the first time, or repeatedly, our components will perform perfectly ever time.



## THE ONE STOP SHOP FOR MEDIUM VOLTAGE COMPONENTS

Mevoco spearheads a drive for the development of medium voltage components that **excel in quality and safety**. Mevoco's range of products includes load break switches, circuit breakers, voltage detectors, a relay, and an arc-killer.

Among its innovations, Mevoco created the **Arc-killer SV-25**, a patented mechanism that **dramatically improves safety in medium voltage cubicles**. It maximizes not only operator safety, but it reduces material damage as well.

The story lies at the heart of a vision for safer medium voltage components. Mevoco is located in Belgium, at the heart of an international transportation network. It ships products worldwide.



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# Our Products

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# RV 44

## Load break switch

### Secured integration for safe and responsible electrical distribution

The development of the **RV 44 Load Break Switch** became the foundation of the revolutionary modular switchgear - the DF-2 family, manufactured by SGC - SwitchGear Company. An **epoxy casted housing, a patented interrupting concept, extreme reliability and safety provisions** characterize the RV 44 Load Break Switch.

#### Flexible operations

The patented concept combines an optimized gas rotation with a high precision of the mobile contacts to ensure:

- Efficient arc interrupting
- Limited erosion of the contact points
- High dielectrical withstand voltage

#### Safety at work

The Load Break Switch is filled with SF<sub>6</sub> gas, having exceptional isolating and arc interrupting characteristics. Optimal security is ensured by means of a "sealed for life" concept.

#### Easy operation

The Load Break Switch is a two-position switch preventing any incorrect operation. Depending on the model, the Load Break Switch can be manually, coil or motor operated.

#### Earthing switch

A single drive mechanism is used for the operation of the combination RV 44 Load Break Switch and EM98 Earthing Switch. An interlock provides high safety by preventing any incorrect operation.

#### Fuse combination

By using a fuse combination, the Load Break Switch can be extended with the fuse holders and an auxiliary earthing switch.

#### Sealed for life

Mevoco's RV 44 load break switch is sealed for life, which ensures:

- Permanent safety and reliability
- Sealed with double O rings to ensure perfect sealing
- Helium leak tested



#### Advantages

- Maintenance friendly and fully integrated switch.
- Operation of the switch in one single mechanical drive with one operating shaft.
- Operating shafts are mechanically interlocked, preventing any incorrect operation.
- Possible combination of other Mevoco mechanical drives and options.

Discover more about the RV 44  
Visit [www.mevoco.be](http://www.mevoco.be) or e-mail us at  
[info@mevoco.be](mailto:info@mevoco.be)

# RV 53

## Load break switch

### Secured integration for safe and responsible electrical distribution

Mevoco's RV 53 Load Break Switch is an innovation that builds on the original design qualities of the RV 44, while integrating an earthing switch to create a **three position switch** (ON/OFF/EARTH).

#### Flexible operations

The patented concept combines an optimized gas rotation with a high precision of the mobile contacts to ensure:

- Efficient arc interrupting
- Limited erosion of the contact points
- High dielectrical withstand voltage

#### Safety at work

The Load Break Switch is filled with SF<sub>6</sub> gas, having exceptional isolating and arc interrupting characteristics. Optimal security is ensured by means of a "sealed for life" concept.

#### Easy operation

The Load Break Switch is a three-position switch (ON/OFF/EARTH) preventing any incorrect operation. Depending on the model, the Load Break Switch can be manually, coil or motor operated.

#### Earthing switch

A single drive mechanism is used for the operation of the combination RV 53 Load Break Switch and Earthing Switch. An interlock provides high safety by preventing any incorrect operation.

#### Fuse combination

By using a fuse combination, the Load Break Switch can be extended with the fuse holders and an auxiliary earthing switch.

#### Sealed for life

Mevoco's RV 53 load break switch is sealed for life, which ensures:

- Permanent safety and reliability
- Sealed with double O rings to ensure perfect sealing
- Helium leak tested



#### Advantages

- Maintenance friendly and fully integrated switch.
- Operation of the switch in one single mechanical drive with one operating shaft.
- Operating shafts are mechanically interlocked, preventing any incorrect operation.
- Possible combination of other Mevoco mechanical drives and options.

Discover more about the RV 53  
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# RV 50

## Load break switch

### Secured integration for safe and responsible electrical distribution

The three-position switch RV 50 (ON/OFF/EARTH) is tested in accordance with IEC standards.



The concept ensures a natural interlock (ON/OFF/EARTH) of the cubicle's primary functions. A short arc time is achieved by optimizing the speed of the mechanical drive and a patented interruption concept. Combined with optimal SF<sub>6</sub> –gas rotation and high-quality electrical contacts, the RV 50 excels at swift arc interruption.

The RV 44 experience is translated here to obtain the best results. The switch is E3/M1 class (100 CO and 1000 mechanical operations) according to IEC 62271-102.



# RV 54

## Load break switch (submersible)

### Secured integration for safe and responsible electrical distribution

The three-position switch RV 54 (ON/OFF/EARTH) is tested in accordance with IEC standards.



Its ability to be **totally immersed** (tested on water column 3 m) makes the RV 54 perfectly usable in installations where there is flooding risk. The load break switch is ideal for separating and sectioning off power to selected parts of your network.

Technical characteristics :

- rated current : 900 A
- breaking current : 900 A
- hold current of 40 k/2 sec
- create flow of 104kAIC (5x C)



Discover more about the RV 50 and RV 54  
Visit [www.mevoco.be](http://www.mevoco.be) or e-mail us at  
[info@mevoco.be](mailto:info@mevoco.be)

# VA(S)-2(RP)

## Circuit breakers

### Reliable protection of your distribution network

Mevoco's new generation VA(S)-2 vacuum circuit breaker proves that Mevoco is once again a safe and reliable partner for medium voltage components.

#### VA(S)-2 Concept

The Mevoco vacuum circuit breaker, like all the other components of the product range, is based on the DF-2 modular switchgear concept, synonymous with high reliability and safety. The VA(S)-2 concept offers security and reliability with a large spectrum of possibilities in the range of 12 to 24 kV.

The Mevoco vacuum circuit breaker is available in two main versions:

- VA(S)-2 with lateral arrangement;
- VA(S)-2RP with lateral arrangement and integrated digital protection relay.

#### Characteristics of the VA(S)-2

- Epoxy casted housing with protected ventilation openings, developed to be used in the more severe climate conditions (IEC 60932 method A – Level 2)
- State of the art vacuum interrupters
- Spring drive mechanism
- Developed and manufactured in line with the ISO9001 standards
- IEC Type tested at KEMA, according the latest IEC 62271-100

#### Characteristics of the VA(S)-2RP

- Replace a MV circuit breaker with a direct relay protection
- Multifunctional digital protection with a large spectrum of functionalities
- Without auxiliary source. Energy is provided by the CT's that can be mounted on the left or on the right side of the circuit breaker.
- Opening release mechanically winded up at the end of the opening cycle of the circuit breaker



#### Key Features

- Complete switching device for distribution switchgear
- Made for integration in SGC switchgears
- Available in a wide spectrum of possibilities
- Vacuum interrupters of the latest generation
- Great withstand to extreme temperatures
- Mechanical spring drive with exceptional longevity
- Maintenance-free

# RP600

## Digital protection relay

### Easy, effortless, and quick programming

Today's network components require maximum reliability, ease of use, and maintenance freedom. Mevoco's protection relay RP600 provides an answer to these requirements.

#### User-friendly

The relay functions are easily accessible and programmable with the help of a laptop or with the support of a menu oriented interface. The RP600 is not only easy to use, it is also designed specifically to easily integrate with Mevoco's next generation vacuum circuit breaker VA(S)-2. On request, this relay is also available as a freestanding version to be integrated in medium voltage switchgear from any manufacturer brand.

#### Programming is easy

The use of a keyboard provides access to the different menus. The functions are registered under the keys 1 to 9, the cancellation key (X), the confirmation key and some other functions are accessible through the arrow keys (2,4,6 and 8).

The relay can only be programmed with an auxiliary supply. By using the confirmation key in the selected menu, it is possible:

- to wipe the fault currents in the memory (with confirmation).
- to define the standard values (with confirmation).
- to activate the programming (with confirmation).

Every action can be interrupted at any time by pressing the cancellation key. When the programming is activated, the "warning" LED is on and the characters "Ep" appear in the bottom left corner of the display.

It is possible in the "programming function" to modify the different parameters. Using the arrow keys, select the required menu and confirm by using the "confirm" key. The value will now start to flash and allow the registration of a new value.

If the parameter is not a value, then the arrow keys allow you to select the language, the ratio and the curve. When all the values are programmed and confirmed, they will be placed in the system's memory.



#### Advantages

- Ready to connect to a laptop (RS-232 connection)
- User interface with large display
- Easy and quick programming thanks to a menu oriented interface
- Wide range of protection functions and extended functionalities
- Self-powered and self-steered curves metering
- Possibility of 8 different curves (protection functions)
- Equipped with 4 outgoing contact points and 2 free programmable outgoing points
- Extended fault registration by the use of an auxiliary supply

Discover more about the RP600  
Visit [www.mevoco.be](http://www.mevoco.be) or e-mail us at  
[info@mevoco.be](mailto:info@mevoco.be)

# HR-2

## Non-integrated voltage detector

Safe, clear, and secure indication of voltage.



The HR-2 type voltage detector (VDS) is in accordance with the European IEC standard 61243-5. The voltage detector is of the high-impedance type and is designed to be linked to a capacitive insulator with a tension detection between 70 and 90 V and a current of 2,5  $\mu$ A at 50 Hz. The indication is continuous and the lamp can be tested in a standard AC outlet 230 VCA (pole distance 19 mm)

There is a measuring point in order to enable parallel measurement without the need to remove lamp. In order to obtain a perfect reading every time, connectors are "gold-coated" 0,15  $\mu$ m.



### Technical Specifications HR-2

According to	IEC 61243-5 / IEC 60536
Ignition voltage	70 - 90 V
Rated frequency	50 Hz
Impedance	36 - 43,2 MOhm + 20%
Ambient temperature	-25°C +55°C
Housing	Black Polycarbonate
Protection degree	IP 65
Weight	70 g.
Filling mass	Silicone Rhodorsil 170
Ordering number	T0202020

# HR-3

## Integrated voltage detector

Safe, clear, and secure indication of voltage.



The HR-3 type voltage detector (VDS) is in accordance with the European IEC standard 61243-5. The voltage detector is of the high-impedance type and is designed to be linked to a capacitive insulator with a tension detection between 70 and 90 V and a current of 2,5  $\mu$ A at 50 Hz. The indication is continuous and the lamp can be tested in a standard AC outlet 230 VCA (pole distance 19 mm).

There is a measuring point in order to enable parallel measurement without the need to remove lamp. In order to obtain a perfect reading every time, connectors are "gold-coated" 0,15  $\mu$ m.



### Technical Specifications HR-3

According to	IEC 61243-5 / IEC 60536
Ignition voltage	70 - 90 V
Rated frequency	50 Hz
Impedance	36 - 43,2 MOhm + 20%
Ambient temperature	-25°C +55°C
Housing	Black Polycarbonate
Protection degree	IP 65
Weight	70 g.
Filling mass	Silicone Rhodorsil 170
Ordering number	RM052190

# SV-25

## Arc-killer

Extinguishes an arc in fewer than 50 ms.

The **SV-25 arc-killer** is a patented innovation by Mevoco that extinguishes an internal arc in fewer than 50 ms. The arc-killer's **lightning-fast response** guarantees not only **complete operator safety**, it also **prevents damage** to the installation room. What's more, it ensures that your production is quickly up and running again in case of any potential damage: only parts will need to be replaced instead of an entire cubicle.



### In the blink of an eye

Our SV-25 Arc-killer activates under 50 ms, six times faster than the blink of a human eye. This lightning-fast response prevents any serious damage from occurring to the operator, the room, and the building. Time is energy and by killing an arc quickly, large build-ups of energy are cut off immediately, which results in complete safety for the operator and the installation room



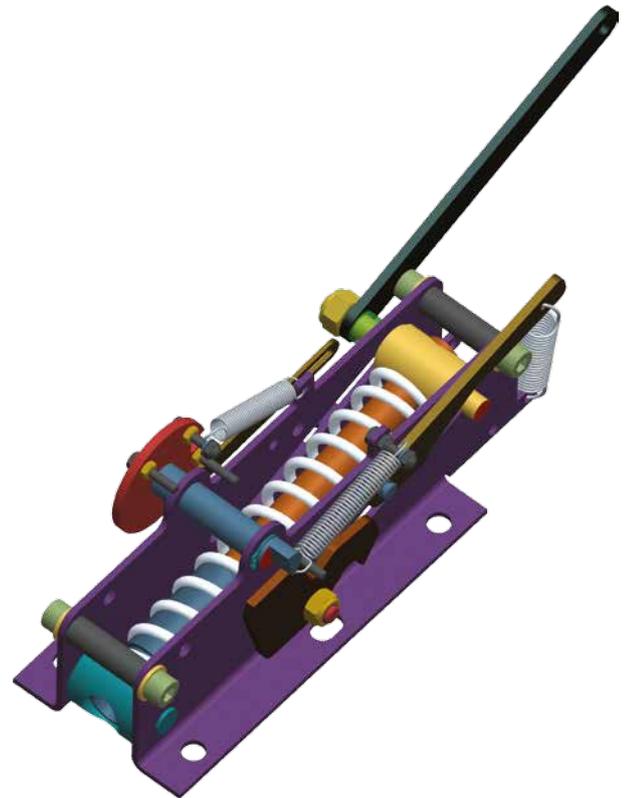
### Back operational in no time

Despite every best effort, accidents can and do happen. But the arc-killer's unique safety mechanism goes beyond safety: it reduces time and cuts costs in case of an internal arc fault. Since potential arcs are extinguished in the blink of an eye, the arc does not destroy the cubicle. In a worst case scenario, one or more components need to be re-conditioned. It allows you to be back up and running within hours, in comparison with traditional cubicles, where the entire cubicle needs to be replaced, which means substantial production downtime and considerable costs.



### Patented solution

Mevoco's SV-25 arc-killer is a patented solution. After years of research and development, Mevoco is proud to provide a patented solution. The arc-killer represents Mevoco's continued quest for quality, reliability, and safety.



### Advantages

- Complete operator safety
- Complete installation room safety
- Less strict installation room demands
- Super-swift arc-killing mechanism (<50 ms)
- Patented solution
- Quickly back up and running in case of arc-fault

Discover more about the SV-25  
Visit [www.mevoco.be](http://www.mevoco.be) or e-mail  
us at [info@mevoco.be](mailto:info@mevoco.be)

# SV-50

## Arc-killer

Extinguishes an arc in fewer than 50 ms.

The **SV-50 arc-killer** is a patented innovation by Mevoco that extinguishes an internal arc in fewer than 50 ms. The arc-killer's **lightning-fast response** guarantees not only **complete operator safety**, it also **prevents damage** to the installation room. What's more, it ensures that your production is quickly up and running again in case of any potential damage: only the affected RMU will need to be replaced instead of an entire installation.



### In the blink of an eye

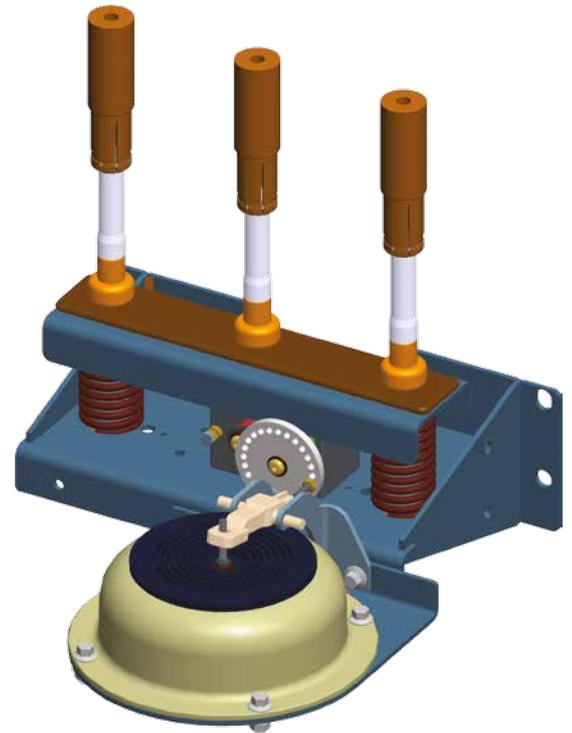
Our SV-50 Arc-killer activates under 50 ms, six times faster than the blink of a human eye. This lightning-fast response prevents any serious damage from occurring to the operator, the room, and the building.

Time is energy and by killing an arc quickly, large build-ups of energy are short circuited, which results in complete safety for the operator and the installation room



### Patented solution

Mevoco's SV-50 arc-killer is a patented solution. After years of R&D, Mevoco is proud to provide a patented solution. The arc-killer represents Mevoco's continued quest for quality, reliability, and safety.



### Advantages

- Complete operator safety
- Complete installation room safety
- Less strict installation room demands
- Super-swift arc-killing mechanism (<50 ms)
- Patented solution

Discover more about the SV-50  
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## Our products



**RV 44**  
Load break switch



**RV 50**  
Load break switch



**RV 53**  
Load break switch



**RV 54**  
Load break switch  
(submersible)



**HR-2**  
(Non-)integrated  
voltage detector



**HR-3**  
Integrated  
voltage-detector



**VA(S)-2(RP)**  
Vacuum circuit  
breaker



**RP600**  
Digital Protection Relay



**SV-25**  
Arc-killer



**SV-50**  
Arc-killer