

# Enclosed switch & safety enclosure for local and safety breaking applications













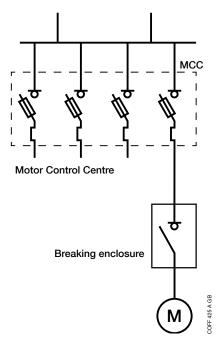
# Secure your installation

Local breaking enclosures are installed near to a motor or a machine in order to separate them from the power supply. During preventive maintenance or inspection procedures, these enclosures ensure operator safety against accidental start-up of electrical machines.



# Enclosed switch & safety enclosures provide the following functions:

- Isolation: positive break indication.
- Breaking for mechanical maintenance: on-load breaking and lockout.
- Breaking and emergency stop: on-load breaking.



### SOCOMEC, your best asset

### European manufacturing group

- Created in 1922.
- A workforce of almost 3000.
- Located on all five continents.

### A culture of independence

- Family shareholding.
- Control of the decision-making process.
- Respect of human values.

### The spirit of innovation

• Almost 10% of turnover is invested in R&D.

### A flexible manufacturing structure

- Competitive production sites.
- Lean Management.
- Lead times, quality and cost guaranteed.

### The vision of a specialist

- Expertise in core technologies.
- Product adaptations as per customer requirements.

### A focus on service

- Advice, technical assistance and call-out, training.
- Teams located across the globe.





# Local or safety breaking?

The wide range of local and safety enclosures offered by Socomec precisely meets the regulatory and normative requirements as well as all your operating constraints.

# Local breaking enclosures

Located within close proximity of the machine circuit, these enclosures provide very simple operation and are intended for use by qualified personnel, ensuring local breaking, lockout and access-prevention.



# Safety enclosures

#### Maximum safety at a glance

In addition to the functions of local breaking enclosures, safety enclosures provide visible and reliable position indication to ensure maximum safety.



# Why have a safety enclosure?



The user must be able to operate the electrical installation in complete safety.

This requirement is stated in standards HD 60364-4-46 and HD 60364-5-537, IEC 60204.

French legislation on worker protection and the European Low Voltage and Machinery Directives define mandatory isolating functions for mechanical maintenance, emergency shutdown and emergency stop.

Enclosed switch providing safety functions should therefore be installed on or near machinery. The visible break and mechanical indicator guarantee optimum safety isolation according to § 537.2 of standard HD 60364 which states: "The opening gap between the contacts of the device should be visible or clearly and definitely

indicated by markings corresponding to the 'Off' or 'Open' position. Such an indication should only occur when the gap between the opening contacts has been reached on each pole of the device".

# Safety functions

# Local breaking functions



# Triple padlocking

With the switch in its open position, padlocking of the handle with up to 3 padlocks prevents operation thereby providing safe maintenance lockout.





# Positive break indication

Handle markings clearly indicate the "open" or "closed" positions of the switch.



# Safety breaking functions



# Triple padlocking



# Visible contact position indication

Separation of the contacts is directly visible through the door's triplex glass window.

The positioning of the contacts on a sliding bar ensures the effective separation of the contacts.







# Positive break indication



# Flag indicator

Attached directly to the sliding contact bar, this indicator provides visible and reliable contact status at the enclosure door.

It gives foolproof indication of the true position of the contacts.









# **Double locking**

This inhibits the closing of the switch with the enclosure door open while also preventing the opening of the enclosure with the switch in its closed position. The system is tamper-proof and may, if necessary, be bypassed by authorised personnel with the use of a tool (IEC 61439-1).





# Close up on safety enclosures



#### Specific requirements

Socomec offers customisation and development of products to meet your every requirement. Contact your sales branch for more information.



# Operator safety

- Ease of operation without risk of error for unqualified operators.
- Provides protection to operators against accidental start-up of machines.
- Maximum security for all types of simple mechanical and electrical maintenance operations.



# Quick and easy implementation

- Easy installation: the space available within the enclosure facilitates connection.
- Robust: the product is designed for harsh industrial environments with mechanical risks or non-explosive dust hazards.

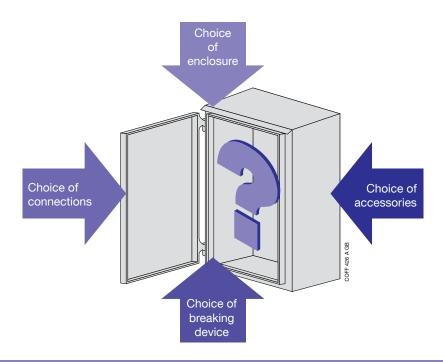


# Operating continuity

- Proximity breaking: only the targeted machine is switched off, the rest of the installation can continue operating.
- Reduced costs related to production downtime.

# Choosing the right type of enclosure

All Socomec safety enclosures are fitted with visible break load break switches with visible contact position indication. They include all electrical and mechanical safety devices: triple padlocking handle, double door lock and flag indicator.



| ENCLOSURE                                                    |                        |                      |                     |                  |
|--------------------------------------------------------------|------------------------|----------------------|---------------------|------------------|
| Environment                                                  | Sheet metal enclosures | Polyester enclosures | Steel enclosures(1) | ATEX enclosures* |
| Chemical                                                     |                        | •                    | •                   |                  |
| Mechanical hazard                                            | •                      |                      | •                   | •                |
| Dust                                                         | •                      |                      | •                   |                  |
| Risk of contamination                                        |                        | •                    | •                   |                  |
| Corrosive atmosphere                                         |                        | •                    | •                   |                  |
| Explosive atmosphere                                         |                        |                      |                     | •                |
| CONNECTIONS                                                  |                        |                      |                     |                  |
| TT: Top/top input/output cable entry                         |                        |                      |                     |                  |
| TB: Top/bottom input/output cable entry                      |                        |                      |                     |                  |
| BB: Bottom/bottom input/output cable entry                   |                        |                      |                     |                  |
| BREAKING DEVICE                                              |                        |                      |                     |                  |
| Ratings from 16 to 1600 A                                    |                        |                      |                     |                  |
| Number of poles: 3, 4, 6, 8 or X poles for adapted solutions |                        |                      |                     |                  |
| Operation: front or side                                     |                        |                      |                     |                  |
| ENCLOSURE ACCESSORIES                                        |                        |                      |                     |                  |
| Door lock                                                    |                        |                      |                     |                  |
| Pushbuttons                                                  |                        |                      |                     |                  |
| Auxiliary contacts                                           |                        |                      |                     |                  |
| Ventilation                                                  |                        |                      |                     |                  |
| Measuring devices                                            |                        |                      |                     |                  |
|                                                              |                        |                      |                     |                  |

<sup>(1)</sup> Available on request \* Only for safety enclosures

# Our solutions

### Local breaking enclosures





#### Load break switches

- Plastic, polyester or sheet metal
- Fitted with SIRCO M or SIRCO from 16 to 1250 A
- 3, 4, 6 and 8 poles
- Top/Bottom or Bottom/Bottom connection
- Front or side operation



### On-load fused disconnectors

- Plastic, polyester or sheet metal
- Fitted with Fuserbloc from 16 to 1250 A
- 3, 3+N, 4 poles
- Top/Bottom or Bottom/Bottom connection
- Front or side operation

### Safety enclosures





### Normal atmospheres

- Polyester or sheet metal enclosures
- Fitted with SIDER or SIRCO MV from 32 to 1600 A
- 3, 4 and 6 poles
- Top/Bottom or Bottom/Bottom connection
- Front or side operation

#### Explosive atmosphere (ATEX)

Zone 21 and 22 (dust) as per European Directive ATEX 94/9/CE Category 2

- Sheet metal enclosures
- Fitted with SIDER from 50 to 630 A
- 3, 4 and 6 poles
- Top/Bottom or Bottom/Bottom connection
- Side operation

#### Compliance with standards

- IEC 60364
- IEC 60947-3
- IEC 61439-2
- IEC 60204-1



# Supplementary products: Changeover enclosures

### Manual supply changeover

- Polyester or sheet metal enclosures
- Fitted with SIRCO M, SIRCO VM1 or SIRCOVER from 16 to 3200 A
- 3 or 4 poles
- Front operation





# Remote or automatic supply changeover

- Polycarbonate, polyester or sheet metal enclosures
- Fitted with ATyS M or ATyS from 16 to 3200 A
- 2 or 4 poles
- Many accessories
- Special versions for compliance with high-rise building (HRB) regulations





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