

FLEXYS system

Components for switchboards
from 630 to 4000 A



SOCOMEK: the industrial systems specialist

As the European leader in switching, controlling and managing power, SOCOMEC develops, industrialises and markets the most specialised products.

Based on its CADRYS cabinets, SOCOMEC presents the new FLEXYS system, dedicated to high safety operating industrial applications.

FLEXYS: performance

Tested according to IEC 60439 at 50 kA (80 kA, please consult us), the FLEXYS system comply with the requirements of the UTE 63429 Guide, depending on its configuration, to the following Service Indices:



> During use

- IS 1xx : with a general break.
- IS 2xx : with individual breaks per output.
- IS 3xx : with individual breaks per output equipped with FUSERBLOC Test.



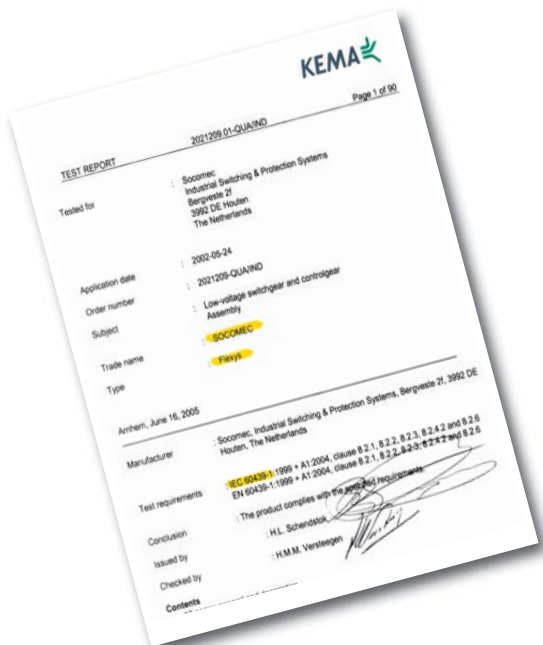
> During maintenance

- IS x1x : with a fixed frame.
- IS x2x : with output functional units fitted with Plug-in FUSERBLOCs that can be replaced in less than an hour without shutting down the system.



> Upgradeable

- IS xx1 : with a fixed frame.
- IS xx2 : with preconfigured output functional units allowing upgrades without shutting down the system.
- IS xx3 : with Plug-in FUSERBLOC functional units allowing installation without shutting down the system.



Dedicated FUSERBLOC Plug-In functional unit

INCREASED COMPACTNESS

Up to 12 x 160 A outputs can be placed in a single 600 mm column. The upstream connection is made with flexible clips. The downstream connection is side mounted. This optimises vertical space.



FLEXYS 032 A

SIMPLIFIED CONNECTION

On the user side, wide terminals ease connection up to 2 heavy-gauge cables per pole, and allow installing of a clip on cover.



FLEXYS 028 A

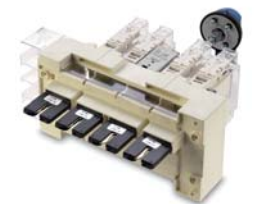
INTEGRATED MANAGEMENT

The “measuring” version of the FUSERBLOC Plug-In integrates voltage and current sockets.



HIGH LEVEL OF SERVICE

The Plug-in FUSERBLOC concept makes possible to meet standards up to IS323 according to the UTE 63429 Guide, thanks to the test function and upstream Plug-in connections.



FLEXYS 031 A

IMPROVED SECURITY

The FUSERBLOC solution affords the user the overall reliability gained from FUSE technology.



FUSERBLOC 161 A

FLEXYS system

A **flexible** and **upgradeable** electrical distribution system

Simple

The system is easy to install thanks to a small number of components for multiple uses.

Robust

For industrial applications or severe operating conditions.

Compact

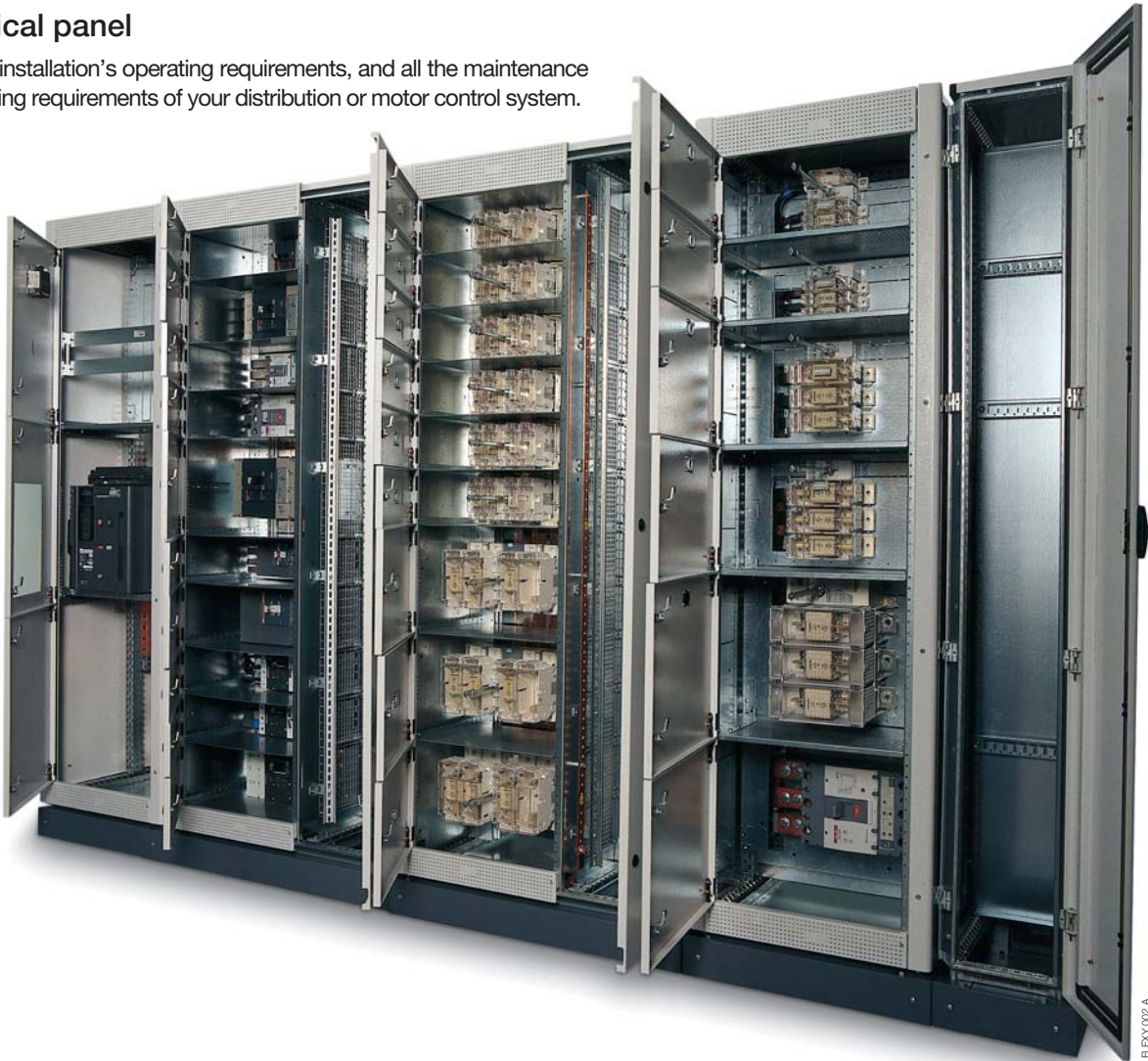
Assembly of up to 12 x 160 A outputs or 6 x 400 A outputs in a 600 mm column.

Open

The FLEXYS system is open and remains compatible with other systems.

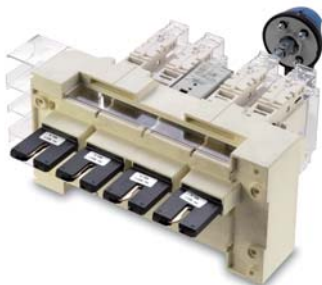
> Electrical panel

For all your installation's operating requirements, and all the maintenance and upgrading requirements of your distribution or motor control system.



> Motor output

Three-pole or four-pole functional unit with Plug-In FUSERBLOC for motor output.



FLEXYS 031 A

> Distribution output

Four-pole functional unit with Plug-in FUSERBLOC, equipped with its measuring and management system for the distribution output.



DIRS 742 A - FLEXYS 025 A

CHARACTERISTICS OF THE FUNCTIONAL UNITS

POWER DISTRIBUTION FU (LV CONTROL PANEL, PCC, DISTRIBUTORS)

Operating current	160 A	250 A	400 A
Number of poles	3/4 P	3/4 P	3/4 P
Fuse size (DIN)	T00	T1	T2
Fuse size (BS)	A4*	B1-3	B1-4
Operating voltage (V)	400	400	400
Number of outputs per column, 2000 mm height	12	9	6
Module height (mm)	150	200	300
Width (mm)	600	600	600
Depth (mm)	300	300	300
Cable connection	left/right	left/right	left/right
Max. connection cross section (mm ²)	95 (2X)	120 (2X)	240 (2X)

MOTOR CONTROL FU (MCC)

Operating current	32 A	63 A	125 A	160 A	250 A	400 A
Operational power in AC-23 at 400 V (kW)	15	30	55	75	110	200
Number of poles	3 P	3 P	3 P	3 P	3 P	3 P
Fuse size (DIN)	T00C	T00C	T00	T00	T1	T2
Fuse size (BS)	A2-3	A2-3	A4*	A4*	B1-3	B1-4
Operating voltage (V)	400	400	400	400	400	400
Number of outputs per column, 2000 mm height	12	12	9	4	3	3
Module height (mm)	150	150	200	400	600	600
Width (mm)	600	600	600	600	600	600
Depth (mm)	300	300	300	300	300	300
Cable connection on the FUSERBLOC	top/bottom	top/bottom	top/bottom	top/bottom	top/bottom	top/bottom
Max. connection cross section (mm ²)	25	25	95 (2X)	95 (2X)	120 (2X)	240 (2X)

* For fuse size A4: max Ø 31 mm.

FLEXYS SYSTEM: GENERAL CHARACTERISTICS

ELECTRICAL DATA

Isolation voltage (U _i)	1000 V
Service voltage (U _s)	400 V
Main busbar rated current (I _n)	up to 4000 A
Main busbar short time current (I _{st})	up to 80 kA/1 s
Secondary busbar rated current (I _n)	up to 2000 A
Secondary busbar short time current (I _{st})	up to 80 kA/1 s

TYPE OF PANEL

Applicable standard	IEC 60439-1
Service Index	up to IS 323
Forms	from 1 to 4
Cable connection	front, top and bottom
IP rating	IP31, IP43
Standard colour	RAL 7035

DIMENSIONS

Height (mm)	2000
Depth (mm)	600, 800
Width (mm)	300, 400, 600, 800, 900, 1000, 1200

MECHANICAL COMPONENTS

Frames	structure, profiles
Busbars	supports, insulators, rigid copper bars, distributors
Trims	fronts, flaps, doors, panels
Equipment	rails, plates, internal chassis
Compartments	screens, internal partitions, cable routing plates



FLEXYS system, front view.



Rear view of the busbar systems.

FLEXYS system

Guaranteed reliable breaking and protection from **power distribution** to **motor protection**

FUSERBLOC: PROTECTED BREAKING

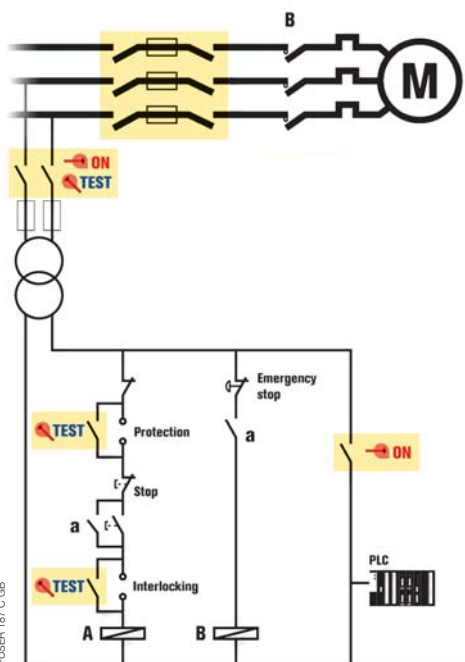
> Breaking

- The equipment ensures a high level of breaks under load for all types of loads, particularly in difficult environments.
- The breaking feature provides an isolation function for operations.
- The upstream and downstream breaking of the fuses ensures that, as well as the safety of operators downstream of the installation, fuses can be replaced safely. These items, once removed, will extend safety via a visible break.

> Testing

High levels of service

- To test the control circuits without powering on.
- The test function simplifies the implementation of control circuits and makes possible to save time when restarting an installation.
- A third position (Test) on the control handle allows the auxiliary circuits to be tested without powering on.



FUSES: EFFECTIVE PROTECTION

> Protection

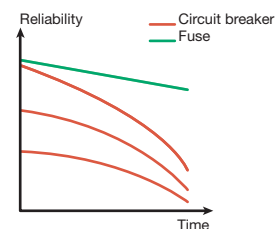
The protection afforded by the fuses is identified by:

- high break capacity
- very high capacity for limiting current and thermal constraints
- very high capacity for confining arcing
- total reliability over time.

> High break capacity

All fuses on the market have a break capacity of at least 100 kA eff (200 kA for URs), there is no need to calculate the short circuit current to find the product with optimum N, H or L characteristics.

The break capacity of the fuse is rarely affected by the operating voltage, unlike air circuit breaker technology.

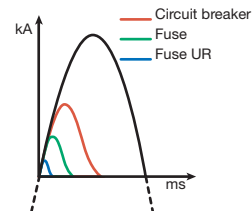


FUSER 487 D GB

> Very high capacity for limiting current and thermal constraints

The thermal and mechanical effects of short circuits can be considerable.

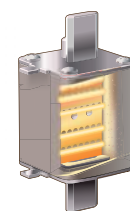
The speed of the fuse's break capacity ensures a much better limitation of the faulty current than most other technologies.



FUSER 489 D GB

> A very high capacity for confining arcing

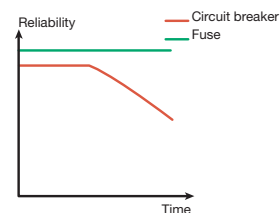
Unlike air circuit breaker technology, with its ceramic casing filled with sand, the fuse will absorb the energy generated when the arc is created by preventing the release of burning ionising gas and the projection of material.



FUSB 161 A

> Total reliability

The absence of any moving parts and the physical operating principle of the HPC fuse guarantee its reliability and ensure no maintenance is needed throughout the installation's service life.



FUSER 480 E GB

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