

FuPact

Catalog 2020

Fusegear range from 32 to 1250 A





Green Premium™



More than 75% of our product sales offer superior transparency on the material content, regulatory information and environmental impact of our products:

- RoHS compliance
- REACH substance information
- Industry leading # of PEP's*
- Circularity instructions



Discover what we mean by green
Check your products!

The Green Premium program stands for our commitment to deliver customer valued sustainable performance. It has been upgraded with recognized environmental claims and extended to cover all offers including Products, Services and Solutions.

CO₂ and P&L impact through... Resource Performance

Green Premium brings improved resource efficiency throughout an asset's lifecycle. This includes efficient use of energy and natural resources, along with the minimization of CO₂ emissions.

Cost of ownership optimization through... Circular Performance

We're helping our customers optimize the total cost of ownership of their assets. To do this, we provide IoT-enabled solutions, as well as upgrade, repair, retrofit, and remanufacture services.

Peace of mind through... Well-being Performance

Green Premium products are RoHS and REACH compliant. We're going beyond regulatory compliance with step-by-step substitution of certain materials and substances from our products.

Improved sales through... Differentiation

Green Premium delivers strong value propositions through third-party labels and services. By collaborating with third-party organizations we can support our customers in meeting their sustainability goals such as green building certifications.

*PEP: Product Environmental Profile (i.e. Environmental Product Declaration)

Life Is On



An alternative approach to electrical protection



The essentials of electrical protection

Schneider Electric is committed to bringing you one of the most flexible and comprehensive fuse device offer on the market. We bring you essential functions combined with advanced features such as measurement and turnable hooks to deliver a “best in class” solution that provides electrical protection for your industrial applications with single and double breaking switch fuses.

Fuse devices are designed to perform three functions for electrical protection:

- Switch function for circuit on-load control
- Fuse function against short-circuits and overloads
- Isolation from the power circuit.

A complete solution

Schneider Electric offers complete electrical protection for distribution systems including fuse devices that fully integrate in Schneider's functional enclosures (Prisma) and busbar trunking systems (Canalis)

Simple and flexible

- Easy to install and flexible in terms of footprint, cable connections, and product position. Includes mounting plates or can be mounted directly onto busbars or DIN rail.
- Easy to operate and simple to maintain

Fully compatible

Fusegear solutions have been designed to be used with all fuse-links and complying with standard:

- IEC 60269-1 and -2

Fully certified

Fuse offer complies with international standards, certifications and markings:

- IEC 60947-1 and -3
- CCC certificates
- EAC certificates



FuPacT ISFL
160 to 1250 A

FuPacT ISFT
100 to 630 A

Single breaking offer: Fuse switch disconnectors

Functions:

- Short-circuit and overload protection
- Isolation
- On-load switching of circuits



- High level of reliability against short-circuits
- High flexibility on busbar systems thanks to its turnable hooks
- Opening and closing operations are dependent on the operator's action

Components that work great together by design

All Schneider Electric components, from electrical devices and busbars, to splitter blocks and switchboards, work together for optimal performance. Their electrical and mechanical functions and communications features integrate seamlessly.

Our range of fuse devices provides:

- Protection for people and property
- Energy quality and availability
- Performance and high uptime
- Easy operation, thanks to standard operating process and simple maintenance.

Combine efficiency and intelligent control thanks to the fuse monitor

Available for the ISFL and ISFT FuPacT ranges, the fuse monitor is more than just an accessory. Its protection and monitoring functions makes it indispensable:

- A monitor solution for the range
- Automatic reset of the fuse monitor once blown fuse is replaced
- Auxiliary contacts for different functions: alarm, tripping of a remote device
- No need of striker fuses, leading to a significant cost reduction



FuPacT GS
32 to 1250 A

Double breaking offer: Switch disconnecter fuses

Functions:

- Short-circuit and overload protection
- Isolation
- On-load switching of circuits



- High level of protection thanks to upstream and downstream double breaking
- Fast opening and closing
- Opening and closing operations occur independently of the operator's action



SINGLE BREAKING FUSE SOLUTIONS
FuPacT ISFT - FUSE SWITCH DISCONNECTORS

FuPacT ISFT devices

FuPacT ISFT helps you remain competitive in today's market. Its features offer more flexibility in terms of mounting and cabling.

FuPacT ISFT is also the smallest product of the market at just 53 mm width for NH 000 fuse-links (100 A).

Fuse switch disconnectors can be mounted and fixed effortlessly!

- **Less stock:** FuPacT ISFT range includes turnable hooks to enable downstream or upstream distribution with the same product.
- **Save time:** less assembling steps. The product can be fixed very quickly for a faster mounting.
- **Enhanced safety:** the product offers optimized user protection against arc flash.

Snap-on busbar cover

- Avoid any risk of coming into contact with busbars

Turnable hooks

- Allows top or bottom cable outlet
- Faster and flexible mounting on the busbar
- Adapted to 60 mm busbar systems

Designed for secondary switchboards

Integrated and extended hand protection

- Prevents fuse-link contact
- Protection against electric arcs

Device locking

- Devices can be sealed and locked

Slidable windows

- Enabling independent testing of individual fuse-links



The smallest product on the market ISFT 100N (100 A)



Less space needed (53 mm width instead of standardized 106 mm)

FuPacT ISFT and ISFL combine efficiency and intelligent control and reduce costs:

The fuse monitor provides:

- Precise location and fast correction of short-circuit and overload faults
- No need of striker-type fuses
- Auxiliary contacts for different functions: alarm, tripping of a remote device, etc.
- Automatic reset of the fuse monitor after blown fuse is replaced





SINGLE BREAKING FUSE SOLUTIONS
FuPacT ISFL - FUSE SWITCH DISCONNECTORS

More flexibility with FuPacT ISFL

FuPacT ISFL is one of the most efficient vertical fuse switch disconnectors ever designed with a compact form and a modular system.

Thanks to its size, FuPacT ISFL doesn't require extra space for current transformer installation. Its interface is standardized for all types of measurement devices.

Measuring device

- Energy consumption control is feasible by the easy installation of a measuring device

Easy to hook

- Turnable contact hooks available for FuPacT ISFL 160 A 3-pole (60 mm busbars)
- Fast mounting with reduced manual operations
- Adapted to all busbar systems: 60/100/185 mm, present in main switchboards

Designed for main switchboards

Fuse monitor

- Precise location and fast correction of short-circuit and overload faults

- Fast connection with variable box terminals

FuPacT ISFL is available in two different versions

- 1-pole switchable dedicated to 185 mm busbars
- 3-pole switchable available for 60/100/185 mm busbars

Same length and depth
for size 00 (160 A)
to size 3 (630 A)



DOUBLE BREAKING FUSE SOLUTIONS
FuPacT GS - SWITCH DISCONNECTOR FUSES

High performance thanks to FuPacT GS

FuPacT GS offer provides protection for personnel thanks to its double isolation, upstream and downstream when the switch is open.

It also provides high system availability in buildings, infrastructure and even in industrial plants. It is compatible with fuse-links BS, NFC and NH.

3 ways to command FuPacT GS:
front and lateral extended handle for all ratings
and direct handle from 32 to 400 A

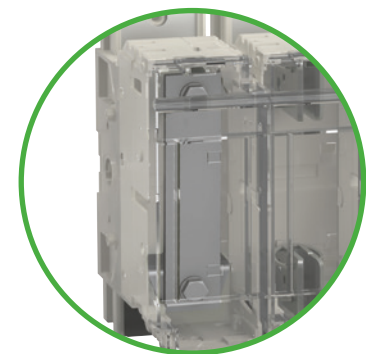


Transparent fuse covers
for an easy reading of the fuse type



• Front extended handle

Common auxiliary contacts
from 32 to 1250 A
and auxiliary contacts
with pre-cut function



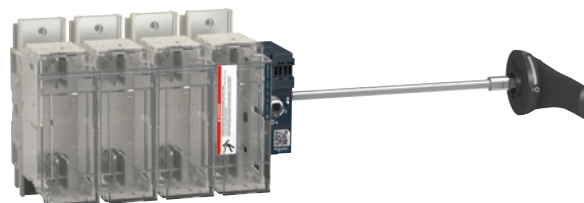
External neutral module
for direct neutral, not switch,
in the same form factor as poles



• Direct extended handle



Handle with 3 positions
ON, OFF, TEST



• Lateral handle

Improve your power distribution with FuPacT GS

- Distribution switchboards.
- Disconnection, isolation, locking and primary control of incoming circuits.
- Categories AC21/AC22 for electrical distribution, AC23 for motor feeders.

+ Power and control your industrial motors with FuPacT GS

- Motor starters: DOL, Star-Delta, softstarters.
- Variable speed starters with frequency converters.
- Machine types: HVAC units, industrial cranes, hoists.
- Industries: paper, steel, ports, automotive, power, mining, rail, oil & gas.

Fuse-link offer

Schneider Electric provides a fuse-link offer with NH fuses to a complete solution for our customers.

We offer fuse-links with different curves, available without strikers:



- **Fuse-links type aM**

Protection of equipment with current peaks like motor applications.



- **Fuse-links type gG**

Protection of circuits without significant electrical distribution current peaks.

Functional installation

in Prisma product range

Easy implementation

FuPacT fusegear can be installed on mounting plates or mounted directly on the busbar from 60 to 185 mm.
Easy installation with special components for each type of mounting and clear instructions in accordance with standard working practices.

Multiple combinations in switchboard

FuPacT ISFL devices can be installed in the same rows with all the different ratings.
Same accessories are existing to have the same length and new products have been developed to have same length and depth.
Depending on the rating, 6 to 9 devices can be installed per row.



Simplified distribution in switchboard

FuPacT ISFT100 and 160 can be supplied via feeding busbars connected to the main busbars.
All FuPacT ISFT range (except 630 A rating) can be supplied directly by busbars with connection by hook-on.

Full functional-unit performance

Prisma offers a complete set of mounting plates, front plates and prefabricated connection accessories for FuPacT that helps ensure performance and ease of installation.

General contents

FuPacT

Presentation

2

FuPacT ISFT

A

FuPacT ISFL

B

FuPacT GS

C

Catalog numbers

D

> Complementary
technical information



LVPED318033EN

> Prisma P



DESW016EN

> Prisma G



DESW015EN

General description of FuPacT fusegear

2

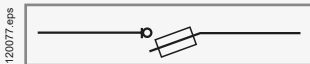


ISF● fuse-switch disconnectors

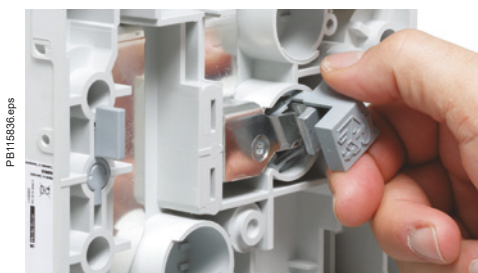
FuPacT ISF● (ISFT and ISFL)

ISFT horizontal fuse-switch disconnectors and ISFL vertical fuse-switch disconnectors have the following functions:

- on-load switching of circuits. The speed and force of the operation of this type of fusegear are dependent on the action of the operator
- the fuse-link blades form the moving contacts of the switch
- the fuse-links are mounted in a fuse-carrier assembly
- via the handle, the fuse-carriers operate the main moving contacts
- isolation when the fuse-carrier assembly is in the open position (OFF)
- protection against short-circuits and overloads on distribution circuits. This function is provided by DIN blade-type industrial fuse-links (NH).
- possibility for ISFL vertical fuse-switch disconnectors to have a 1-pole or 3-pole variant.
- Turnable contact hooks which is advantage in terms of installation. Possibility to have an upstream or downstream distribution with the same product.



ISF● fuse-switch disconnectors



ISFT with turnable hooks

FuPacT GS (GSC, GSD and GSB)

FuPacT GS switch-disconnector fuses provide the following functions:

- on-load switching of circuits. The speed and force of the operation of this type of fusegear are independent of the action of the operator (fast opening and closing).
- isolation with positive contact indication when the switch is in the open position (OFF). The fuse-link is completely isolated from the power circuit (double breaking technology).
- protection against short-circuits and overloads on distribution circuits. This function is provided by industrial fuse-links (NFC, DIN, BS) used in conjunction with the switch-disconnector fuse device.
- safety or emergency stop (red/yellow rotary handle option).



GS● switch-disconnector fuses

FuPacT operating modes

The FuPacT range integrates control, isolation and fuse-carrier functions in a single device. These functions can also be implemented by combining separate components.



FuPacT GS switch-disconnector fuses



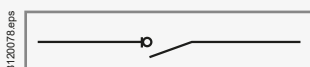
INS switch-disconnectors

Solutions combining separate components

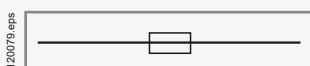
It is also possible to protect distribution circuits and/or motors by combining switch-disconnectors with fuse-links mounted on separate fuse-carriers.

The functions provided by each component are:

- on-load switching of circuits (opening and closing) and isolation (switch-disconnector).
- protection against overloads and short-circuits (fuse).
- the combination can implement Compact INS or INV switch-disconnectors from 40 to 2500 A.



Control



Protection



Fuse-link

General description of FuPacT fusegear

Compliance with standards

FuPacT fusegear complies with international standards and recommendations:

- IEC 60947-1: general rules
- IEC 60947-3: switches, disconnectors
- IEC 60947-5.1 and following: control-circuit devices and switching elements; automatic control components.

These standards and recommendations are applied in most countries.

FuPacT fusegear and auxiliaries comply with International standards (IEC 60947-1 and IEC 60947-3).

FuPacT GS and FuPacT ISF● are designed for use with industrial fuse-links complying with the following standards:

- IEC 60269
- BS 88 (only for FuPacT GS)
- DIN 43620 / VDE 0636.

FuPacT GS switch-disconnector fuses are suitable for the control of machine-tools:

- they comply with the requirements of the new machine directive IEC 60204 (EN 60204)
- they comply with French standard NF C 79-130 and the recommendations issued by the CNOMO organisation.

Climatic environment

FuPacT fusegear meets climatic requirements as defined in the following standards:

- IEC 60068-2-30: damp-heat tests under off-load conditions, 95 % relative humidity at 55 °C (hot and humid climate conditions)
- IEC 60068-2-52: salt-mist tests, KB severity 2 tests
- IEC 60068-2-56: damp-heat tests under on-load conditions for 48 hours, environment category C2 following Schneider quality specifications.

The fusegear can therefore be used in all climates.

Degree of pollution

FuPacT fusegear is certified for operation in pollution-degree 3 environments as defined by IEC 60947 standard applying to industrial environments.

Ambient temperature

The FuPacT range can be used between -20 °C and +70 °C. Above 40 °C, you will have to take account of the derating indicated in the documentation.

The devices must be commissioned at the ambient temperature indicated above.

The FuPacT range must be stored in its original packaging at a temperature between -50 °C and +85 °C.

Degree of protection

For FuPacT fusegear with terminal shield, the degree of protection against direct contact complies with standard IEC 60529 (IP index of protection) and IEC 62262:

- with direct rotary handle: IP20/IK07
- with extended rotary handle (FuPacT GS): IP65/IK10
- with extended rotary handle and padlocks: IP65/IK08.

Positive contact indication

IEC 60947-3 standard defines isolation with positive contact indication as follows:

- the isolation position corresponds to the O (OFF) position
- the operating handle cannot indicate the OFF position unless the main contacts are not totally opened
- locking in the OFF position is not possible unless the main contacts are actually open.

GS● switch-disconnector fuses are suitable for isolation with positive contact indication.

Installation of an extended handle on GS● fusegear does not alter the suitability for isolation.

The isolation with positive contact indication function is certified by testing:

- the mechanical reliability of the position-indication system
- the absence of leakage currents
- overvoltage withstand capacity between upstream and downstream connections.

| Fupact ISFT160 | | Ith 160A 40°C | |
|-----------------|-------------|---------------|-------|
| Ui 1000V | Uimp 8kV | | |
| IEC 60947-3 | 50/60 Hz | | |
| Ue (V) / Ie (A) | AC21B | AC22B | AC23B |
| 380/415V | 160 | 160 | - |
| 500V | 160 | 160 | - |
| 690V | 160 | - | - |
| | DC21B | DC22B | |
| 220V / nb pole | 160/3 | 160/3 | - |
| 440V / nb pole | 125/3 | - | - |
| | Max(A) 160 | Max(W) 12 | |
| HD 60269-2 | DIN 43620-1 | | |

ISFT label



Fusegear with terminal shields IP20 and IK07



Fusegear in an enclosure or cabinet (extended handle);
GS● only.
IP65 and IK10.



Positive contact indication

A

D



ISFT100N



ISFT100



ISFT160



ISFT250
ISFT400
ISFT630

FuPacT ISFT

Functions and characteristics

Fuse switch-disconnector selection

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Accessories and auxiliaries

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FuPacT ISFT

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Fuse switch-disconnector selection

FuPacT ISFT100N to ISFT630

A



ISFT100N



ISFT100



ISFT160



ISFT250-400-630

Fuse switch-disconnectors

Number of poles / type of fuse-link IEC 60269-2-1 Section 1

Electrical characteristics as defined by IEC 60947-1 / IEC 60947-3

| | | | |
|------------------------------------|------------------------------------|------------------------|----------|
| Conventional thermal current (A) | In free air | I_{th} | at 40 °C |
| | Maximum fuse power dissipation (W) | | |
| | In enclosure | I_{the} | at 40 °C |
| Maximum fuse power dissipation (W) | | | |

Rated insulation voltage (V) **U_i** AC 50/60 Hz / DC

Rated impulse withstand voltage (kV) **U_{imp}**

Rated operational voltage (V) **U_e** AC 50/60 Hz
DC

Rated operational voltage AC20 and DC20 (V) **U_e**

Rated operational current (A) **I_e** AC 50/60 Hz

220/240 V

380/415 V

440/480 V ^[1]

500 V

660/690 V

DC/poles in series

220 V /no. of poles

440 V /no. of poles

Rated duties Uninterrupted duty

| | | |
|--|--|-------|
| Rated short-circuit breaking capacity (kA rms)/Rated short-circuit making capacity (kA peak)/Fuse-link I _n (A) ^[2] | I_{cn}/I_{cm}/I_n | 415 V |
| | | 500 V |
| | | 690 V |

Endurance (category B) (CO cycles)

Mechanical

Electrical AC

AC22B 415 V

AC23B 415 V

AC22B 500V

AC21B 500V

AC22B 690V

AC21B 690 V

Suitability for isolation

Positive contact indication

Pollution degree

Control

Direct front rotary handle (operator-dependent opening and closing)

| | |
|---------|-----------|
| Locking | Padlocks |
| | Lead seal |

Indication auxiliaries

Auxiliary contacts

Fuse monitor

Installation and connection accessories

| | |
|-----------------------------|------------|
| Possible mounting positions | Horizontal |
| | Vertical |

Bare cable connectors

| | |
|------------------|-----------------------|
| Other connectors | For bare Cu/Al cables |
| | For flexible bars |

Distribution connectors

Lugs for copper cables

Incoming connector for feeding busbars

Terminal shields

Dimensions and weight

Overall dimensions H x W x D (mm) 3P

Approximate weight without fuse-links (kg) 3P

[1] Suitable for 480 V NEMA.

[2] Fuse-switch disconnectors with fuse-links.

[3] AC23B 160A

[4] AC23B 250 A.

[5] AC23B 400 A.

[6] AC23B 630 A.

Fuse switch-disconnector selection

FuPacT ISFT100N to ISFT630



| ISFT100N | | ISFT100 | | ISFT160 | | ISFT250 | | ISFT400 | | ISFT630 | |
|---------------------|--------------|------------------|--------------|----------------------|--------------------|-----------------------|--------------------|------------------------|--------------------|-------------------------|--------------------|
| 3P/DIN (NH) | | 3P/DIN (NH) | | 3P/DIN (NH) | | 3P/DIN (NH) | | 3P/DIN (NH) | | 3P/DIN (NH) | |
| 100 | | 100 | | 160 | | 250 | | 400 | | 630 | |
| 9 | | 9 | | 12 | | 23 | | 34 | | 48 | |
| 100 | | 100 | | 160 | | 250 | | 400 | | 630 | |
| 9 | | 9 | | 12 | | 23 | | 34 | | 48 | |
| 1000 | | 690 | | 1000 | | 1000 | | 1000 | | 1000 | |
| 6 | | 6 | | 8 | | 8 | | 8 | | 8 | |
| 690 | | 690 | | 690 | | 690 | | 690 | | 690 | |
| 440 | | 440 | | 440 | | 440 | | 440 | | 440 | |
| 800 | | 800 | | 800 | | 800 | | 800 | | 800 | |
| AC21B | AC22B | AC21B | AC22B | AC21B | AC22B | AC21B | AC22B | AC21B | AC22B | AC21B | AC22B |
| 100 | 100 | 100 | 100 | 160 | 160 ^[3] | 250 | 250 ^[4] | 400 | 400 ^[5] | 630 | 630 ^[6] |
| 100 | 100 | 100 | 100 | 160 | 160 ^[3] | 250 | 250 ^[4] | 400 | 400 ^[5] | 630 | 630 ^[6] |
| 100 | 100 | 100 | - | 160 | 160 | 250 | 250 | 400 | 400 | 630 | 630 |
| 100 | 100 | 100 | - | 160 | 160 | 250 | 250 | 400 | 400 | 630 | 630 |
| 100 | - | 100 | - | 160 | - | 250 | 250 | 400 | 400 | 630 | 630 |
| DC21B | DC22B | DC21B | DC22B | DC21B | DC22B | DC21B | DC22B | DC21B | DC22B | DC21B | DC22B |
| 100/3 | 100/3 | 100/3 | - | 160/3 | 160/3 | 250/3 | 250/3 | 400/3 | 400/3 | 630/3 | 630/3 |
| 100/3 | 100/3 | 100/3 | - | 125/3 | - | 250/3 | - | 400/3 | - | 630/3 | - |
| ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| 80/5.1kA peak/100 A | | 80/ 3 kA /100 A | | 80/ 5 kA peak /160 A | | 80/ 15 kA peak /250 A | | 80/ 22.1 kA peak /400A | | 80/ 25.2 kA peak /630 A | |
| 80/5.1kA peak/100 A | | 50/ 3 kA /100 A | | 80/ 5 kA peak /160 A | | 80/ 15 kA peak /250 A | | 80/ 22.1 kA peak /400A | | 80/ 25.2 kA peak /630 A | |
| 80/5.1kA peak/100 A | | 50/ 3 kA / 100 A | | 80/ 5 kA peak /160 A | | 80/ 15 kA peak /250 A | | 50/ 22.1 kA peak /400A | | 80/ 25.2 kA peak /630 A | |
| 2000 | | 2000 | | 1600 | | 1600 | | 1000 | | 1000 | |
| 300 | | 300 | | 200 | | 200 | | 200 | | 200 | |
| 300 | | - | | 200 | | 200 | | 200 | | 200 | |
| 300 | | - | | 200 | | 200 | | 200 | | 200 | |
| - | | 300 | | - | | - | | - | | - | |
| - | | - | | - | | 200 | | 200 | | - | |
| 300 | | 300 | | 200 | | 200 | | 200 | | 200 | |
| ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| 3 | | 3 | | 3 | | 3 | | 3 | | 3 | |
| ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| - | | - | | - | | - | | - | | - | |
| ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| - | | - | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| - | | - | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| - | | - | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| - | | ⊙ | | ⊙ | | - | | - | | - | |
| - | | - | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| - | | ⊙ | | ⊙ | | - | | - | | - | |
| ⊙ | | - | | ⊙ | | ⊙ | | ⊙ | | ⊙ | |
| 216 x 53 x 80 | | 141 x 89 x 71 | | 206 x 106 x 80 | | 306 x 184 x 110 | | 306 x 210 x 130 | | 306 x 250 x 130 | |
| 0.54 | | 0.46 | | 0.60 | | 2.00 | | 2.00 | | 3.50 | |

Fuse switch-disconnector selection

FuPacT ISFT100N to ISFT630

A



PE115837.eps

ISFT100N



PE115838.eps

ISFT100



PE115839.eps

ISFT160



PE115835.eps

ISFT630

Fuse switch-disconnectors

Type of fuse-link

- DIN/NH000
- DIN/NH00
- DIN/NH1
- DIN/NH2
- DIN/NH3

Installation and connection

- Symmetrical rail
- Direct connection on backplate
- Hook-on connection to 60 mm busbars
- Tightening torque (Nm)

Temperature derating (with gG fuse-link) ^{[1][2]}

| | | |
|--|---------|-------|
| "Vertical mounting" fuse-links in vertical position | Ith (A) | 40 °C |
| | | 45 °C |
| | | 50 °C |
| | | 55 °C |
| | | 60 °C |
| | | 65 °C |
| "Horizontal mounting" fuse-links in horizontal position | Ith (A) | 70 °C |
| | | 40 °C |
| | | 45 °C |
| | | 50 °C |
| Degree of protection (from the front face and inclosed position) | | 55 °C |
| | | 60 °C |
| | | 65 °C |
| | | 70 °C |
| Degree of protection (from the front face and inclosed position) | | IP3X |
| Mechanical shock | | IK07 |

- [1] Derating data is based on:
- the maximum rating for fuse-links intended for the device,
 - maximum power dissipation.
- [2] For installation on a ceiling, derate an additional 10 %.

Functions and characteristics

Fuse switch-disconnector selection

FuPacT ISFT100N to ISFT630

| | ISFT100N | ISFT100 | ISFT160 | ISFT250 | ISFT400 | ISFT630 |
|--|--------------|---------|---------|---------|---------|---------|
| | ○ | ○ | - | - | - | - |
| | - | - | ○ | - | - | - |
| | - | - | - | ○ | - | - |
| | - | - | - | - | ○ | - |
| | - | - | - | - | - | ○ |
| | ○ | ○ | - | - | - | - |
| | ○ | ○ | ○ | ○ | ○ | ○ |
| | ○ | - | ○ | ○ | ○ | - |
| | see page B-4 | | | | | |
| | 100 | 100 | 160 | 250 | 400 | 630 |
| | 95 | 95 | 152 | 238 | 380 | 599 |
| | 90 | 90 | 144 | 225 | 360 | 567 |
| | 85 | 85 | 136 | 213 | 340 | 536 |
| | 80 | 80 | 128 | 200 | 320 | 504 |
| | 75 | 75 | 120 | 188 | 300 | 473 |
| | 70 | 70 | 112 | 175 | 280 | 441 |
| | 100 | 100 | 160 | 250 | 400 | 630 |
| | 95 | 95 | 152 | 238 | 380 | 599 |
| | 90 | 90 | 144 | 225 | 360 | 567 |
| | 85 | 85 | 136 | 213 | 340 | 536 |
| | 80 | 80 | 128 | 200 | 320 | 504 |
| | 75 | 75 | 120 | 188 | 300 | 473 |
| | 70 | 70 | 112 | 175 | 280 | 441 |
| | ○ | ○ | ○ | ○ | ○ | ○ |
| | ○ | ○ | ○ | ○ | ○ | ○ |



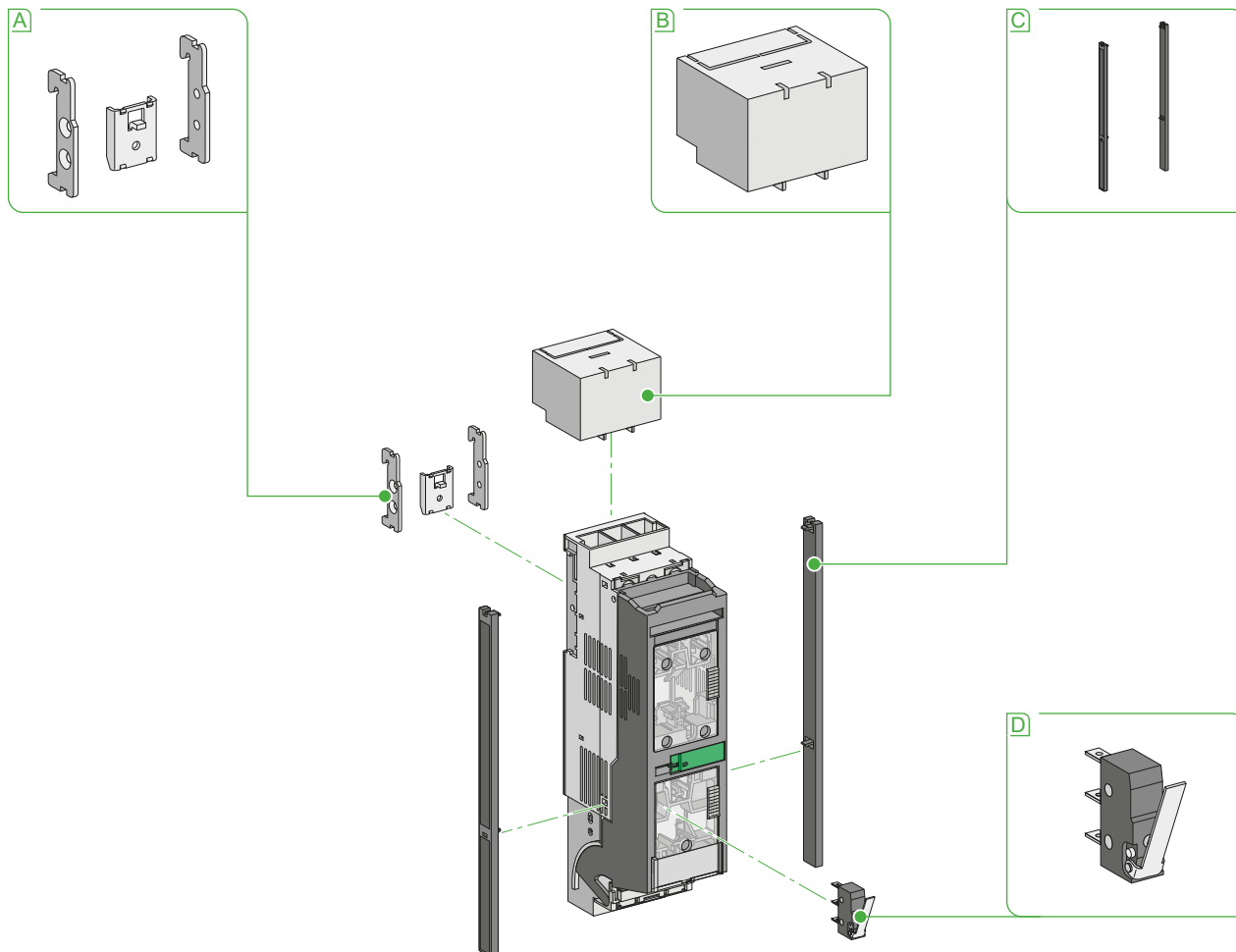
Accessories and auxiliaries

FuPacT ISFT100N

FuPacT ISFT100N

DB40852.ai

A



A DIN rail fixing kit

B Terminal cover

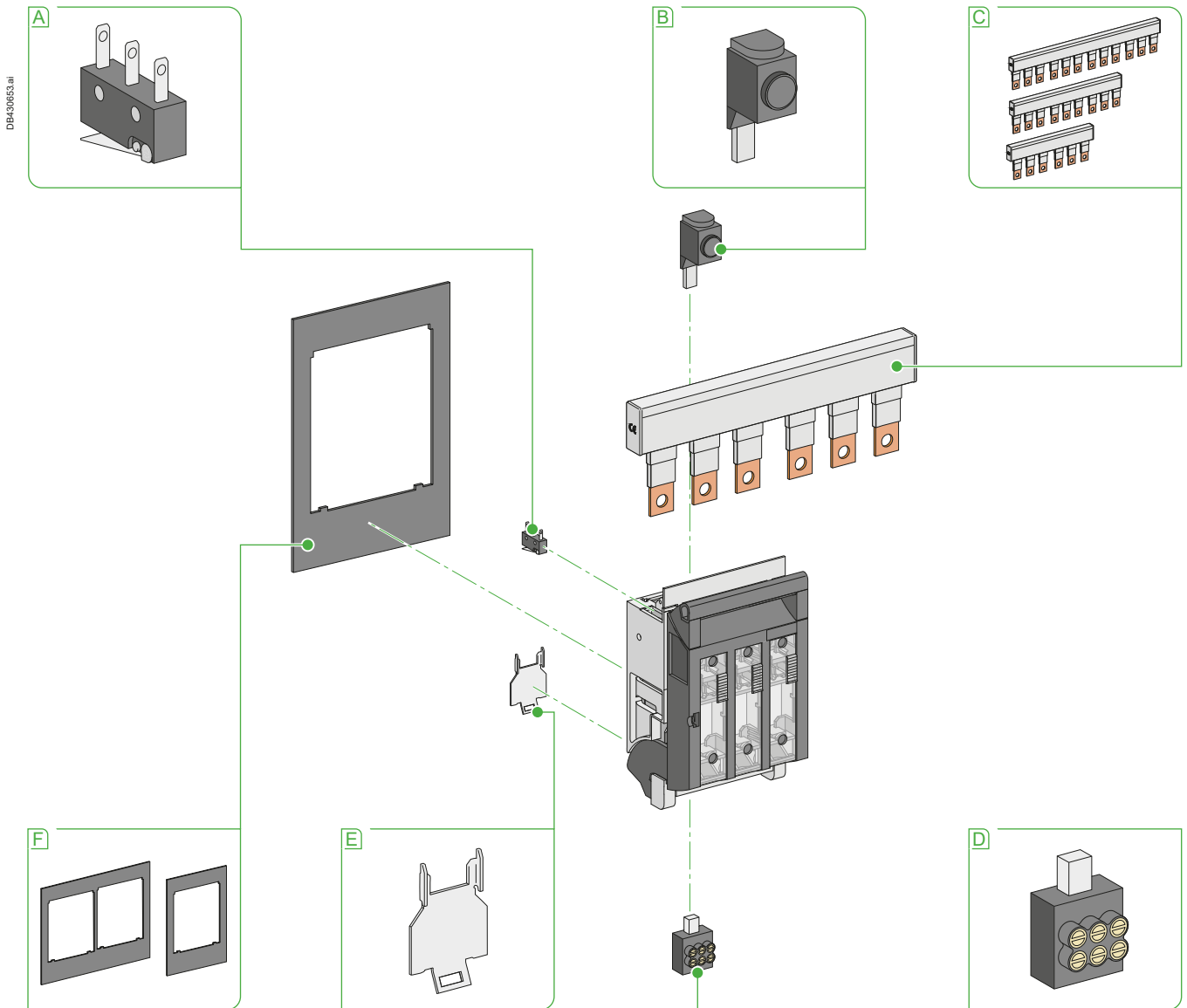
C Laterally attachable support profile

D NO + NC auxiliary changeover contacts

Functions and characteristics

Accessories and auxiliaries

FuPacT ISFT100



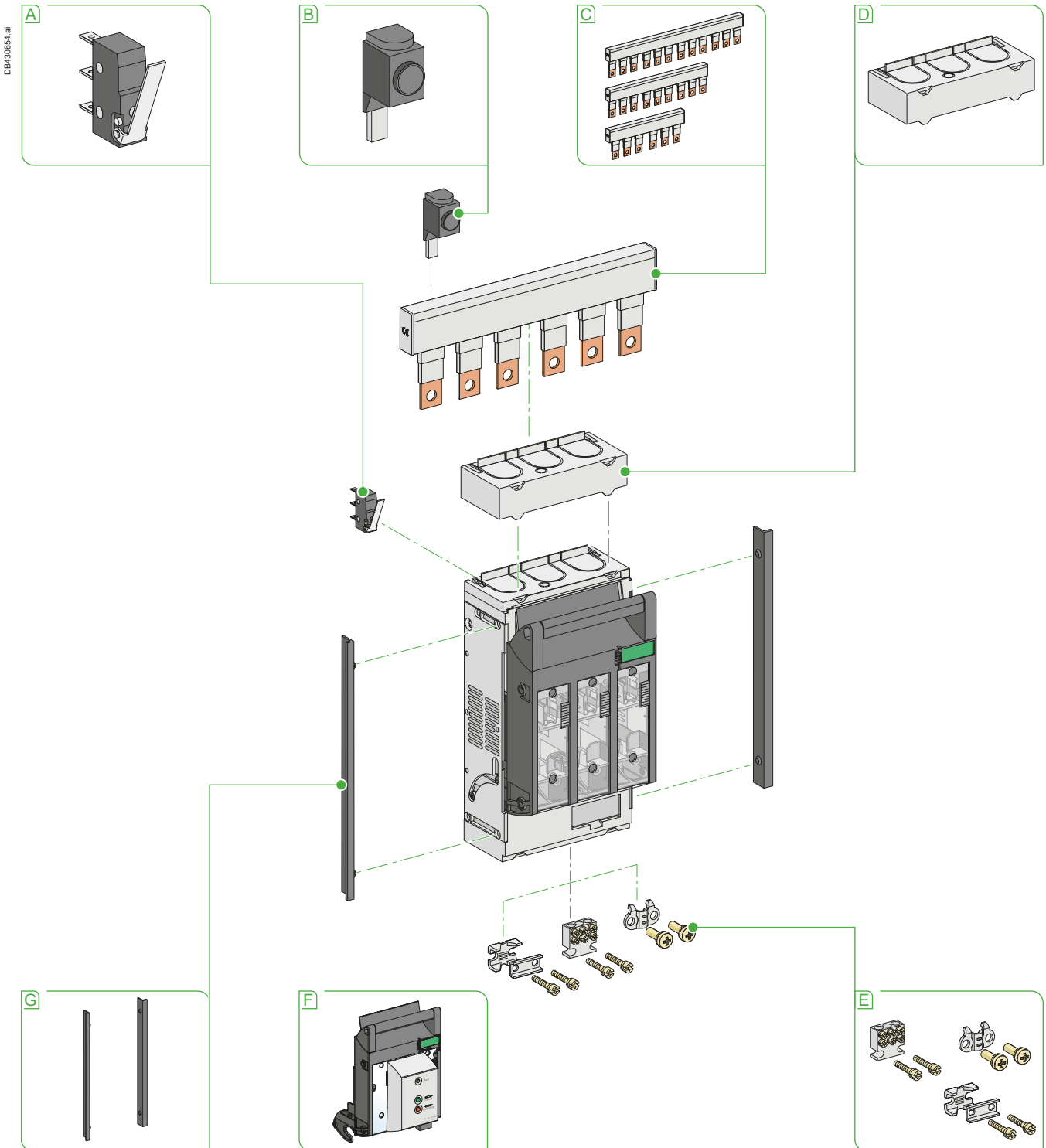
- A** NO + NC auxiliary changeover contacts
- B** Incoming connector for feeding busbars

- C** Feeding busbars to supply :
 - 2 devices
 - 3 devices
 - 4 devices
- D** Distribution connector

- E** Accessory for mounting on DIN rail
- F** Escutcheons for:
 - 1 device
 - 2 devices

Accessories and auxiliaries

FuPacT ISFT160



- A** NO + NC auxiliary changeover contacts
- B** Incoming connector for feeding busbars
- C** Feeding busbars to supply :
 - 2 devices
 - 3 devices
 - 4 devices

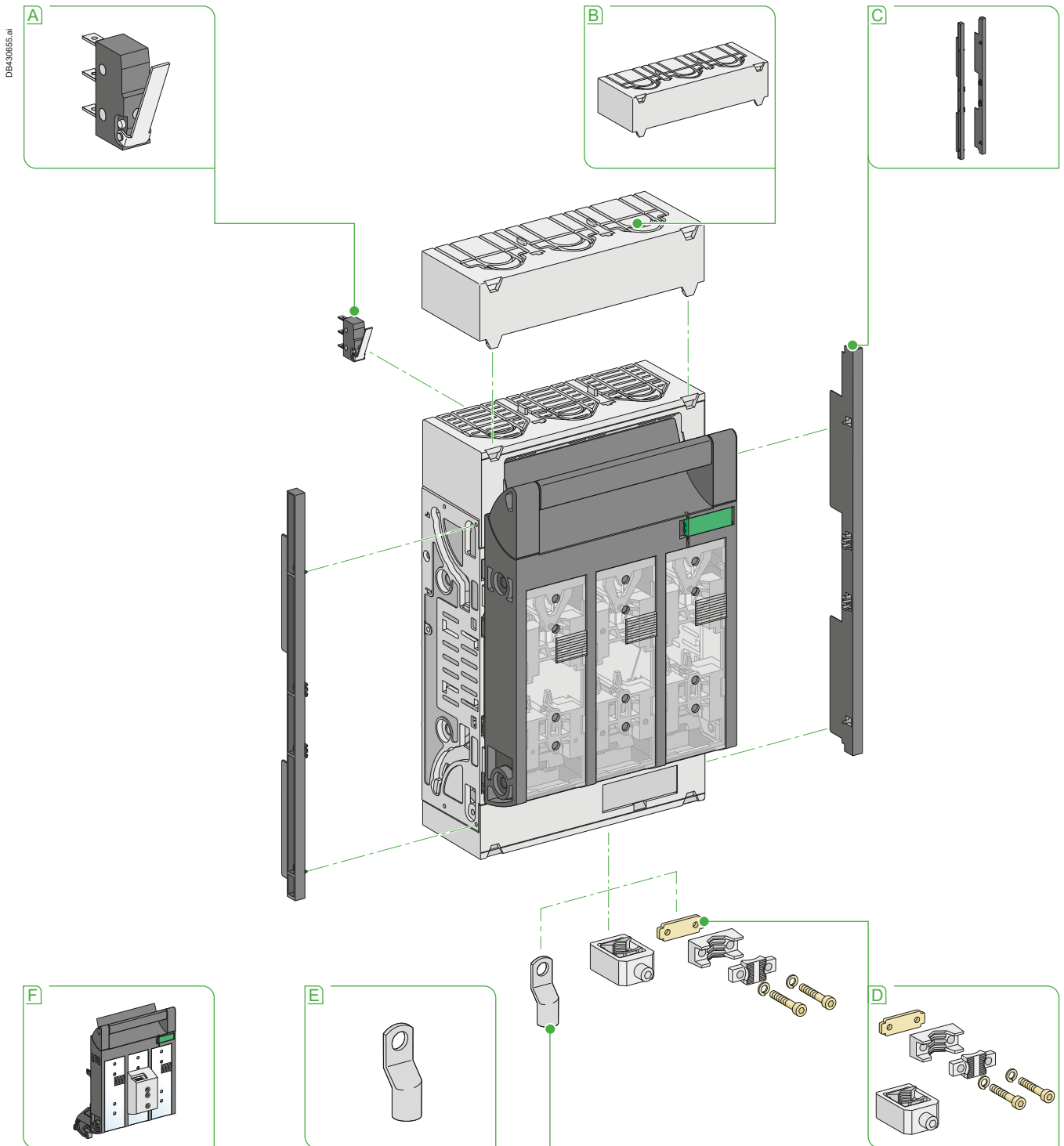
- E** Connectors for :
 - bare cable
 - distribution
 - flexible bar
- F** Fuse monitor
- G** Laterally attachable support profile

D Long terminal shield

Functions and characteristics

Accessories and auxiliaries

FuPacT ISFT250 to ISFT630



- A** NO + NC auxiliary changeover contacts
- B** Long terminal shield
- C** Laterally attachable support profile

- D** Connectors for bare cable
- E** Lug for copper cable
- F** Fuse monitor

General characteristics: ISFT

FuPacT ISFT100N to ISFT630

PB115835.eps



PB115837.eps



PB117723_L54.eps



PB115845.eps



FuPacT ISFT offers innovative solutions

The FuPacT ISFT is a modern approach to power distribution with modular switchgear that is simple to install and reliable.

On the FuPacT ISFT the entire covers can easily be removed while the switching cover remains closed, thus eliminating the need for elaborate trim frames and extensions.

Integrated hand protection and a sliding viewing window enable voltage tests to be conducted on contact blades or strap handles. FuPacT ISFT offers two types of cable connection: cable lug or clamp connector for copper or aluminum conductors. All FuPacT ISFT can be sealed and fitted with a locking mechanism. FuPacT ISFT also provides a patented system of turnable hooks for converting the outgoing arrangement from top to bottom and vice versa. The fuse-switch-disconnectors can be attached, positioned and tightened effortlessly.

Smallest 100 A solution on market: ISFT100N

FuPacT ISFT offers two sizes for 100 A rating.

- Basic (without connection on busbar system), with a width of 106 mm.
- Narrow, which is the smallest 100 A solution on the market (connection on busbar system possible), with a width of 53 mm.

Objectives of this product is to reduced installation space and to propose two 100 A (106 mm width) replace one 160 A product (106 mm width also).

FuPacT ISFT for mounting on base plates

The disconnectors for mounting on base plates, sizes 000, 00, 1, 2 and 3, come with a number of predrilled fastening holes that allow these models to be used on base plates or on profiles. With the appropriate accessories, the sizes 000 and 00 can be mounted on DIN rail.

Accessories

Support Profile Laterally attachable

This accessory allows to enlarge the cut-out tolerances of the cover plates while also supporting these plates.

- Latchable bracket on the side.
- Allows greater cutting tolerances.

Switching cover position indicator:

- 1 close contact and 1 open contact.

Intelligent measurement

Electronic Fuse-Monitoring - Everything under control

Thanks to the electronic Fuse Monitor, technician could receive an information to localize a short circuit or overload. Maintenance will be more reactive to change fuse which is broken.

FuPacT ISFT range from size 00 to 3 has an electronic fuse monitor. The electronic fuse monitor is directly attached to the switching cover. This installation depth is 28 mm.

A light-emitting diode starts blinking red the moment the fuses fail. A test button and a 4-pole connector for remote indication are attached to the housing.

Note: for more technical informations, see [page A-22](#).

Functions and characteristics

General characteristics: ISFT

FuPacT ISFT100N to ISFT630

Safety

FuPacT ISFT provides:

- Protection against accidental contact in the standard model:
 - terminal housing closed
 - simple break-out for all versions
 - terminal shield needed for specific application (> 500 V)
 - IP3X
 - life part are covered.
- Switching with integrated and extended hand protection feature:
 - prevents fuse-unit contact
 - protection against electric arc.
- Voltage test thanks to independent slidable windows
- Snap-on busbar cover to protect against direct contact.
- Locking cover with sealing facility:
 - locking mechanism for switching cover for non-instructed individuals
 - switching cover is sealable.

Fast connection thanks to box terminals

For FuPacT 160 A size 00

- Advantageous box terminals:
 - Cu conductor from 2,5 to 95 mm²
 - no cable lug needed.
- Or universal screw terminal for M8 cable lug.

Options

- Prism clamp 6...70 mm² Cu/Al.
- Terminal 3 x 16 mm².

For FuPacT 250 to 630 A sizes 1–3

- The standard version:
 - size 1 and 2 for M10 cable lug
 - size 3 for M12 cable lug.
- Easy to change the various types of connection.

Options

- Prism clamp for Cu.
- Prism clamp for Cu/Al (1x cable).
- Prism clamp for Cu/Al (2x cables).

Turnable contact hooks

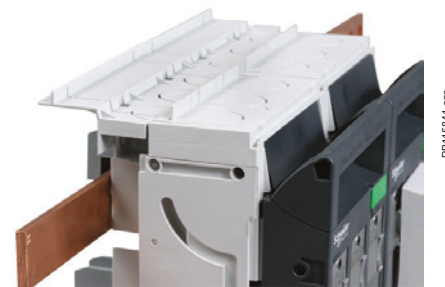
FuPacT ISFT is the first horizontal fuse switch-disconnector to propose turnable contacts hooks. This makes it easier to mount FuPacT ISFT on the busbar in addition to being more flexible. Due to its symmetry, FuPacT ISFT can be turned around at any time. Terminal top or bottom can be chosen freely. Thus, only one version needs to be stored.

- One universal solution for top or bottom cable outlet.
- Reduced stock.
- Universal to busbar thickness.
- More installation flexibility.

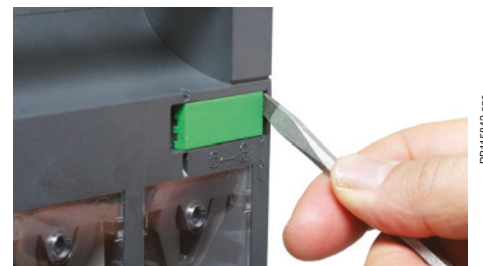


PB115840.eps

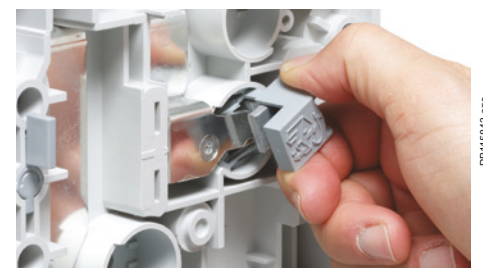
A



PB115841.eps



PB115842.eps



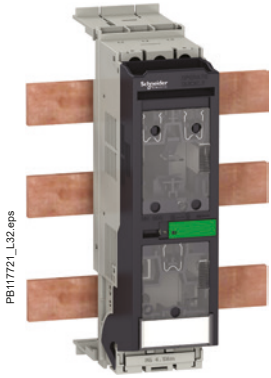
PB115843.eps

ISFT installation

FuPacT ISFT100N to ISFT630

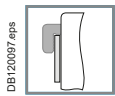
ISFT fusegear is installed on a mounting plate, DIN rail or on busbars, depending on the power rating. Connections are made via cables or directly to the busbars via hook-on.

A



PE117721_L32.eps

ISFT100N (hook-on connection)



DB120057.eps

Hook-on connection to busbars: the device tightly hooks on to the busbars via three hooks that allows for both electrical connection and performant mechanical mounting. The connection systems can also be reversed to supply distribution circuits via the upstream terminals.

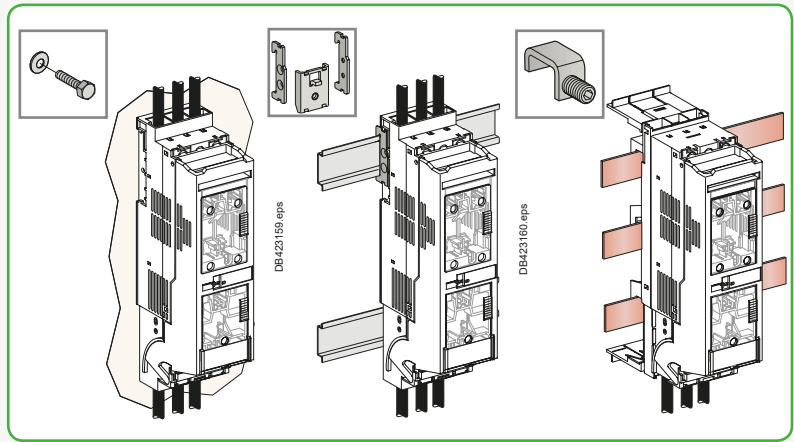
This system allows direct contact of the power circuit to the busbars (no cables, no bars, no drilling, etc.) and usual connections for downstream distribution (bare cable connectors, lugs, bars, distribution connectors, etc.).

ISFT100N fusegear

Installation on a mounting plate, on busbars 60 mm or DIN rail on busbars with:

- cables or flexible bars
- hook-on connection to 60 mm busbars.

Upstream or downstream connection of distribution circuits requires cables or flexible bars.



DB423158.eps

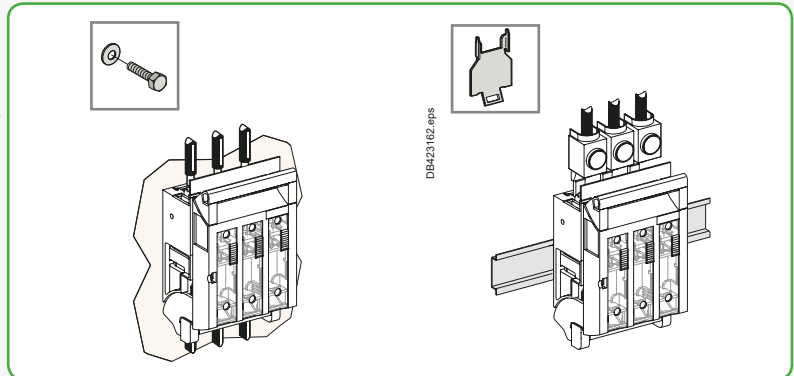
DB423159.eps

DB423160.eps

ISFT100 fusegear

Installation on a mounting plate or symmetrical DIN rail.

Power and distribution circuit connections require cables and built-in connectors.



DB423161.eps

DB423162.eps

Functions and characteristics

ISFT installation

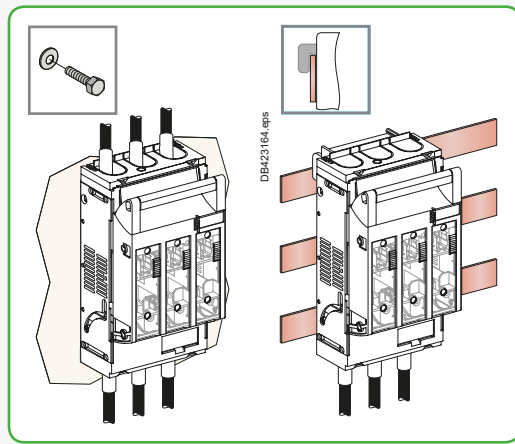
FuPacT ISFT100N to ISFT630

ISFT160 fusegear

Installation on a mounting plate or on busbars with:

- cables or flexible bars
- hook-on connection to 60 mm busbars

Downstream connection of distribution circuits requires cables or flexible bars.



DB423163.eps

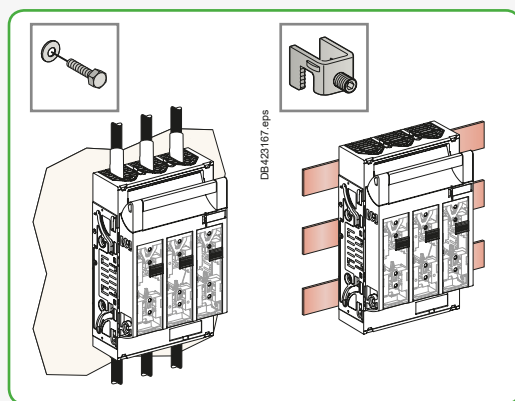
DB423164.eps

ISFT250 to ISFT630 fusegear

Installation on a mounting plate or on busbars with:

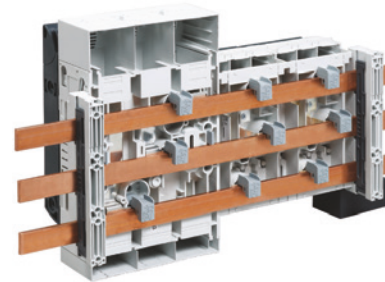
- cables or flexible bars
- hook-on connection to 60 mm busbars (except ISFT630)

Downstream connection of distribution circuits requires cables or flexible bars.



DB423166.eps

DB423167.eps



Hook-on connection (ISFT250 and 2 x ISFT160)

PB115844.eps



Connection and accessories

FuPacT ISFT100N to ISFT630 - Connection

FuPacT fuse-switch disconnectors can supply distribution circuits via either the upstream or downstream terminals. Devices intended for connection to busbars are configured as standard for distribution via the downstream terminals.

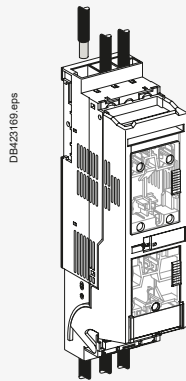
A

ISFT fusegear is equipped with connectors or terminals for front connection of:

- bare cables for ISFT100N to ISFT160 devices
- cables with lugs for ISFT160 to 630 devices
- flexible bars for ISFT160 to 630 devices.

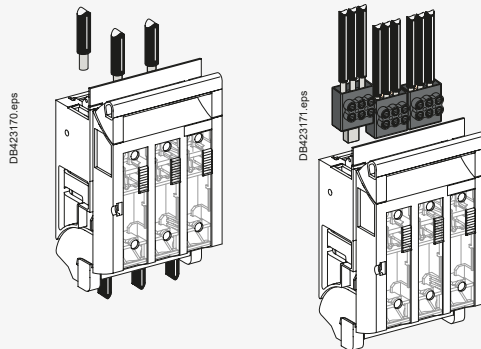
| | ISFT100N | ISFT100 | ISFT160 | ISFT250 | ISFT400 | ISFT630 |
|-----------------------|---------------------------|---------------------------|----------------------------|---------------------------|----------------------------|----------------------------|
| Cables | | | | | | |
| Connector | 2.5 to 50 mm ² | 1.5 to 50 mm ² | - | | | |
| Lug to terminal | - | - | 120 to 185 mm ² | | 120 to 300 mm ² | |
| Connector to terminal | - | - | 2.5 to 95 mm ² | 6 to 150 mm ² | 6 to 240 mm ² | |
| box clamp re/se | | | 6 to 50 mm ² | 35 to 150 mm ² | 95 to 300 mm ² | |
| rm/sm | | | 6 to 25 mm ² | 50 to 150 mm ² | 120 to 300 mm ² | |
| Pressure Plate | | | | | | |
| Connector | - | - | 6 to 70 mm ² | 70 to 150 mm ² | 120 to 240 mm ² | 150 to 300 mm ² |

ISFT100N fusegear



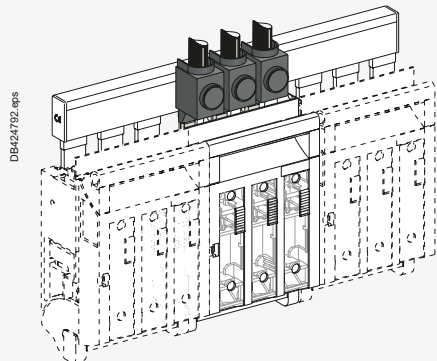
DB423169.eps

ISFT100 fusegear

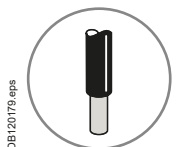


DB423170.eps

DB423171.eps



DB424732.eps



DB120179.eps



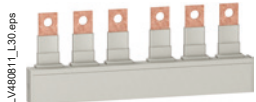
62315a_2.eps

Distribution connector



62316a_2.eps

Incoming connector for feeding busbar

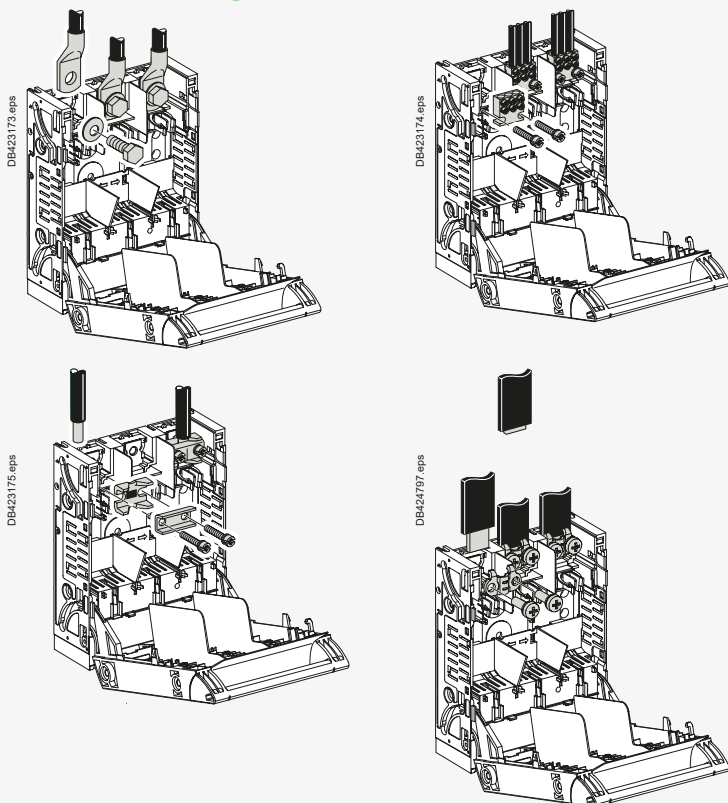


LV489811_L30.eps

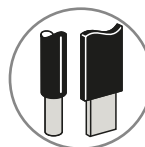
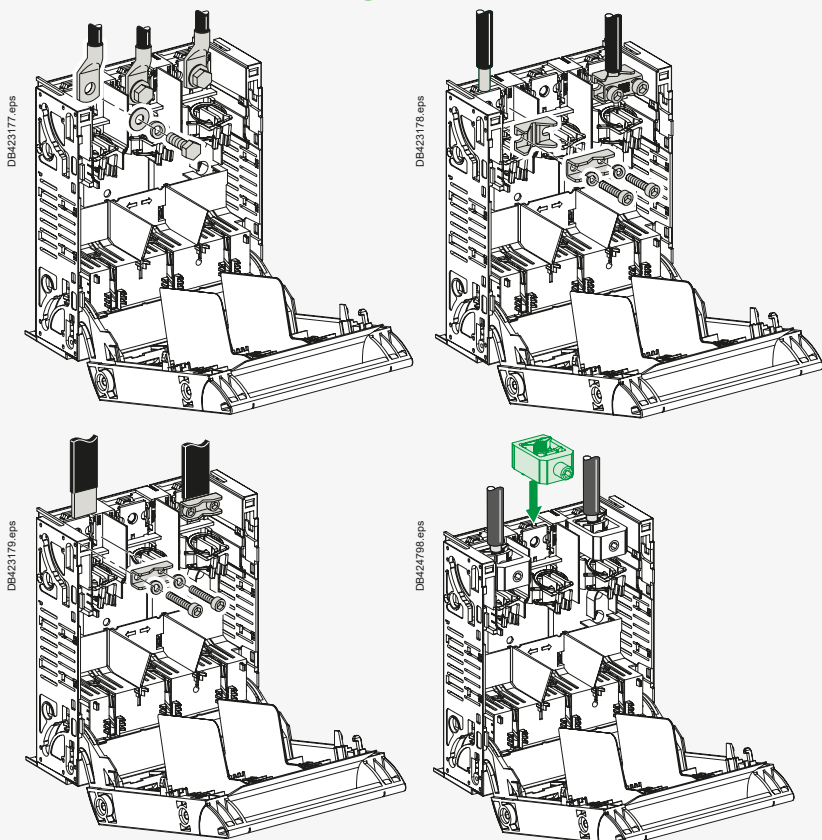
Feeding busbar

Connection and accessories FuPacT ISFT100N to ISFT630 - Connection

ISFT160 fusegear



ISFT250/400/630 fusegear



DB120162.eps



62330a_1-2_eps

Lug for copper cables



LV480814_L17R.eps

Distribution connector



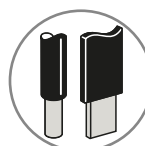
LV480916_L15.eps

Connector for bare Cu/Al cables



LV480915_L19.eps

Connector for flexible bars



DB120162.eps



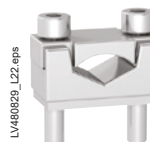
62330a_1-2_eps

Lug for copper cables



LV480823_L19.eps

Connector for bare Cu/Al cables



LV480929_L22.eps

Connector for flexible bars

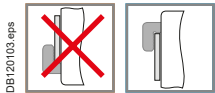


Connection and accessories

FuPacT ISFT160 to ISFT630 - Reverse distribution

FuPacT fuse-switch disconnectors designed for connection to busbars supply distribution circuits via the downstream terminals as standard. In the case of ISFT160 to ISFT630 devices, simple installation operations allow power to be supplied to the distribution circuits from upstream. In the case of ISFT100N devices, the method of distribution cannot be reversed simply by changing the direction of the mounting. There are separate references for each particular case.

A



DB120103.eps

Hook-on connection: the orientation of the hooks on the busbars is always the same, whether the distribution circuits are connected to the upstream or downstream terminals. The fuse-switch disconnectors must physically hang on the busbars.



DB120104.eps

Symmetrical slots on the side of the base make it possible to raise and lower the cover that forms the fuse-carrier.

To reverse supply, depending on the model, simply turn 180°:

- either the base with its connection kit
- or the connection kit alone.

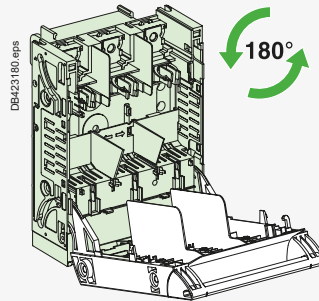
For fusegear with a fuse monitor, the fuse monitor cover must be changed given that different versions are used depending on whether supply is via the upstream or downstream terminals.

Operation to reverse supply (upstream/downstream terminals)

| | 180° rotation | | Change Fuse monitor cover |
|--------------------|------------------|------------------|---------------------------|
| | Base | Turnable hooks | |
| | DB401353.eps | DB401355.eps | DB425101.eps |
| ISFT160 to 400 | yes | yes | yes |
| ISFT630 | yes | no | yes |
| ISFT160 | yes | - | yes |
| ISFT250 | yes | - | yes |

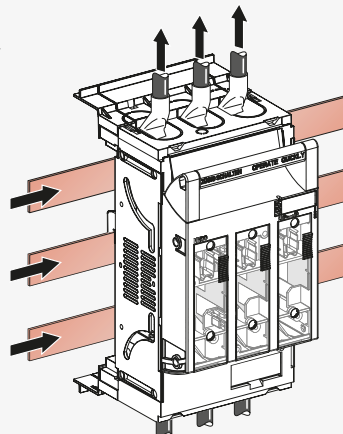
Fusegear with hook-on connection

ISFT160/400



DB423180.eps

Turnable hooks



DB425098.eps

Connection and accessories

FuPacT ISFT100 and ISFT160 - Connection, coupling

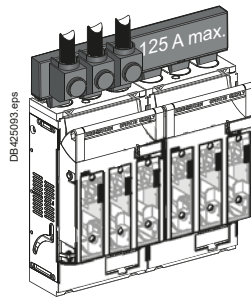
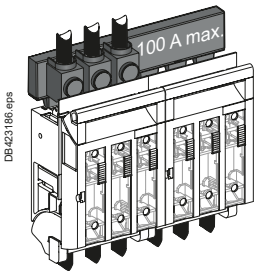
It is possible to supply several ISFT100 and ISFT160 fusegears by using feeding busbars via a single incomer.

Supplying a several of devices via feeding busbars

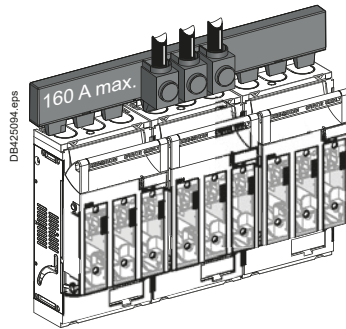
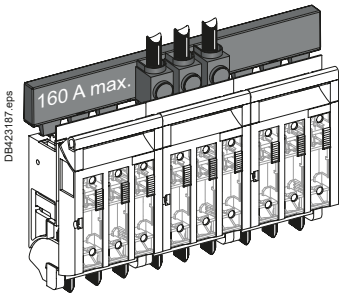
Incoming connectors are used for the upstream power cables.
 Power is distributed to the other devices via feeding busbars or a combination of feeding busbars.
 Downstream connection of distribution circuits is done via cables.

ISFT100 **ISFT160**

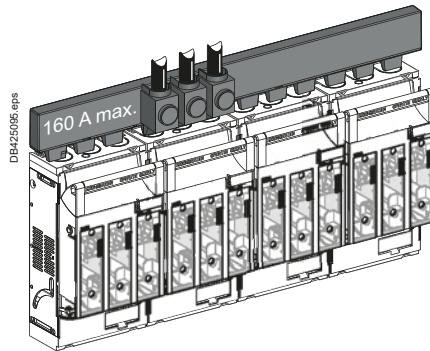
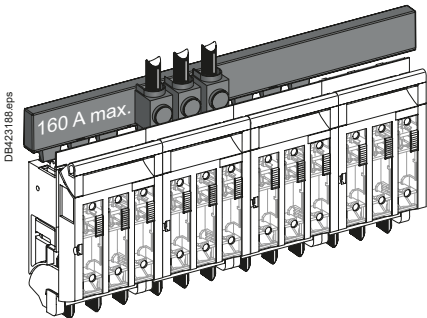
2 devices



3 devices



4 devices



Combinations:

- 2 devices:
 - 1 incomer for 2 outgoing
- 3 devices ^[1]:
 - 1 incomer for 3 outgoing
- 4 devices ^[1]:
 - 1 incomer for 4 outgoing.

If the feed is connected at the center of the busbar, the total outgoing current of each busbar branch must not exceed the maximum busbar current per phase.

[1] For combinations of more than 2 ISFT100 devices, it is recommended to connect incoming power to the second device to reduce temperature rise.

Feeding busbars

| | |
|---------------------------|---|
| Maximum operating voltage | 690 VAC |
| Insulation coordination | overvoltage category III / pollution degree 2 |
| Busbar cross-section | 35 mm ² |

The maximum current per phase when the feed is connected to a busbar extremity is 125 A.
 The maximum current per phase when the feed is connected at any busbar position is 160 A.

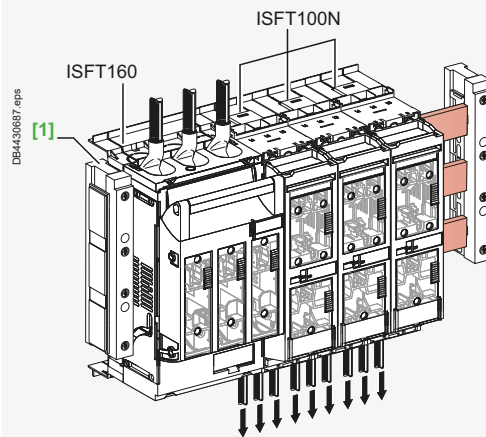
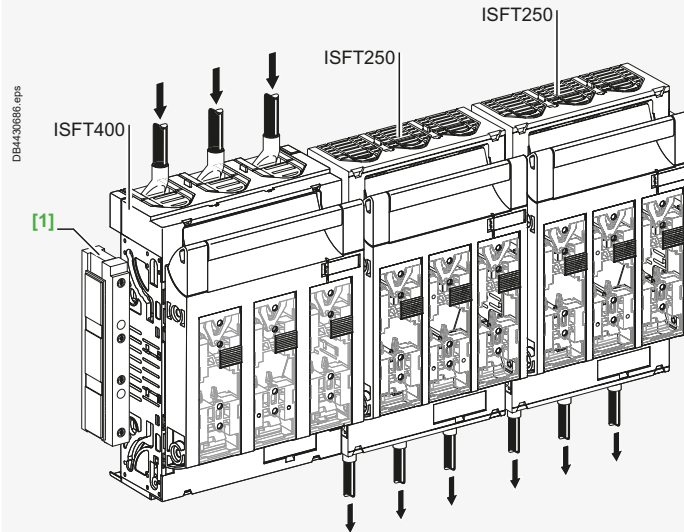


Connection and accessories

FuPacT ISFT100N, ISFT160 to ISFT400 - Different installation systems

A

Many connection and supply possibilities Supplying a set of busbars from an incoming device

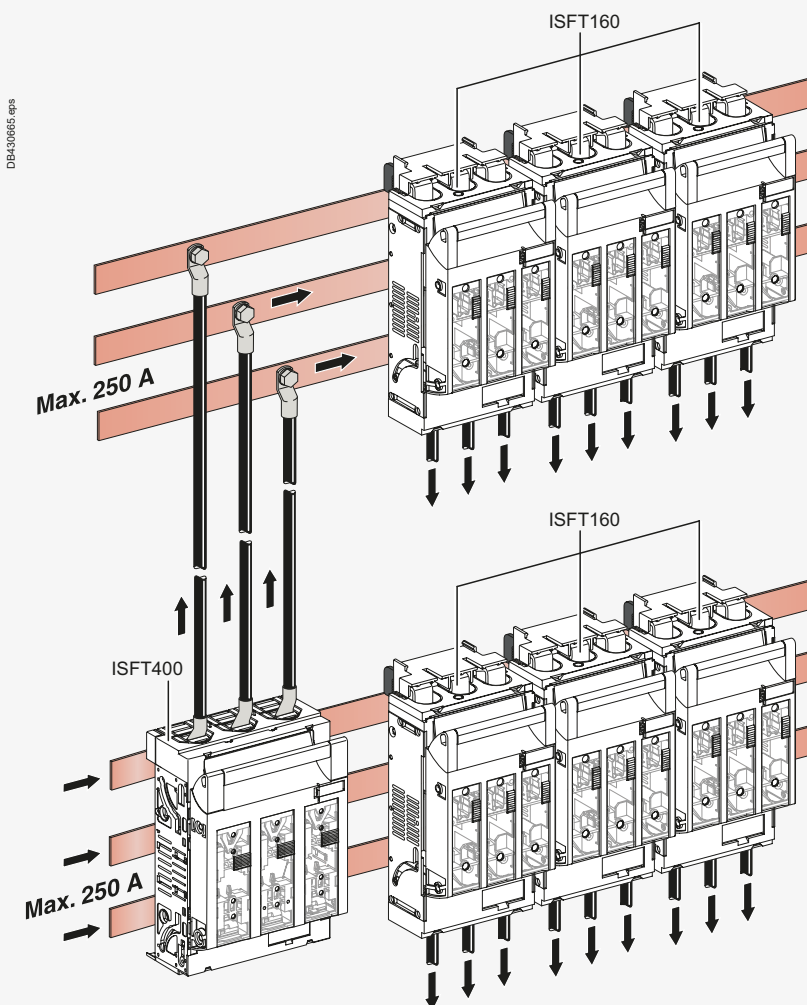
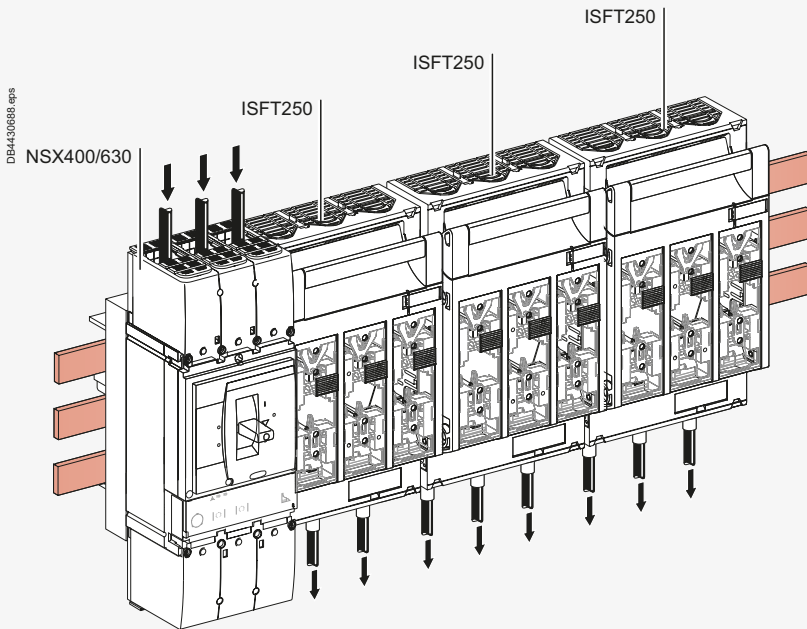


[1] Linergy BZ busbar system: for more technical informations, see [page D-6](#).

Connection and accessories

FuPacT ISFT100N, ISFT160 to ISFT400 - Different installation systems

Supplying a set of busbars from an incoming device



Fuse monitor

FuPacT ISFT160 to ISFT630

PE115445.eps



ISFT160 fuse monitor

A

Functions

This device provides remote indication of the status of standard fuses (without strikers). It serves to:

- it signals a blown fuse
- it helps prevent the risks of abnormal voltages on the neutral.

Standards

- Compliance with international standard IEC 60947-5-1.
- Compliance with:
 - EN 50204
 - EN 61000 for electromagnetic compatibility (EMC).

Description

- Characteristics:
 - operation with DIN fuses.
 - degree of protection: IP20.
- May be used on capacitor bank circuits.
- Simplified power supply:
 - does not require a specific power supply
 - operates with unbalanced phases
 - supplied via connection to the fuse terminals on the fusegear devices
 - operational voltage: 400...690 V AC, ±10 %, 50/60 Hz.
- Tested for electromagnetic compatibility (EMC).
- Mounting:
 - connected to the fuse-carrier assembly forming the cover.
- The package consists of:
 - a fuse-carrier/handle and fuse monitor sub-assembly supplied as a kit composed of:
 - fuse monitor equipped with one NO contact and one NC contact
 - fuse-carrier with the handle
 - the customer must remove his fuse-carrier/handle assembly from his product and replace it with this kit.
- Characteristics:
 - IP20 degree of protection
 - product with fuse monitor must be integrated inside switchboards and not in front face in case of customers wants to have a complete class II insulation. Class II insulation with switchboard in front face is effective only when FuPacT ISFT is in closed position and with a door or a protection behind the fuse monitor.

Operation

Reset

The device is automatically reset when the fuse-links are replaced.

Indications

- Normal operation:
 - the green LED is ON when voltage is present at the fuse terminals
 - the contacts are in the rest position.
- Operation when a fuse blows:
 - the green LED goes off and the red LED goes on
 - the contacts are actuated:
 - the NO contact is for remote fault indication
 - the NC contact may be used, for example, to control an undervoltage device in order to shut down equipment that may be sensitive to single-phasing.

> FuPacT ISFT160 to 630 fuse monitor
Instruction sheet



NVE88766

Electrical characteristics

Power circuit

| | |
|---|-------------------------------------|
| Rated operational voltage | 400 to 690 V AC 50/60 Hz $\pm 10\%$ |
| Consumption | < 3 VA |
| Rated frequency | 50/60 Hz |
| Measurement impedance | > 1000 Ω/V |
| Rated impulse withstand voltage (1.2 / 50 μs) | 8 kV |

Auxiliary contact output terminals

| | | |
|----------------------|----------|------------------------------------|
| Terminal indications | NO | 13 - 14 |
| | NC | 21 - 22 |
| Cable capacity | Flexible | $\leq 1.5 \text{ mm}^2 \text{ Cu}$ |
| | Rigid | $\leq 2.5 \text{ mm}^2 \text{ Cu}$ |

Output contact characteristics (1NO + 1NC)

| | |
|--|---------------|
| Conventional thermal current I _{th} (A) | 5 |
| Rated insulation voltage (V) | 250 |
| Minimum load | 10 mA at 24 V |

Characteristics

| Utilisation category (IEC 60947-5-1) | | AC | | DC | |
|--|-----------|---------|------|------|------|
| | | AC12 | AC15 | DC12 | DC13 |
| Operational current (A) | 24 V | - | 3 | - | 2 |
| | 48 V | - | 3 | - | - |
| | 110 V | - | 3 | - | - |
| | 220/240 V | - | 3 | - | - |
| | 250 V | - | 3 | - | - |
| | 380/415 V | - | - | - | - |
| | 440 V | - | - | - | - |
| 660/690 V | - | - | - | - | |
| Rated operational voltage / max. breaking voltage (V AC) | | 250/440 | | | |
| Breaking capacity (VA) | | 2000 | | | |

General characteristics

| | | |
|--|------------------------------------|---------------------------------|
| Operating temperature range (°C) | -25...+55 ($\leq 500 \text{ V}$) | -25...+45 ($> 500 \text{ V}$) |
| Storage and transport temperature range (°C) | -40...+70 | |
| Fuse blowing detection time (s) | < 2 | |
| Overvoltage category / degree of pollution | IEC 60947-1 | 3 |
| Dielectric test voltage (between power circuit and output terminals) | 5 kV rms / 1 min 50 Hz | |

Electromagnetic compatibility - emission

| | |
|-------------------|----------------------|
| Conducted | EN 55022 Class B |
| Radiated | EN 55022 Class B |
| Harmonic currents | EN 61000-3-2 Class A |

Electromagnetic compatibility - immunity

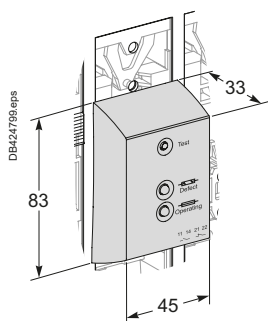
| | |
|---|-----------------------------------|
| Electrostatic discharge (ESD) | EN 61000-4-2 category B level 2/3 |
| Radiated field susceptibility (RF) | EN 61000-4-3 category A level 3 |
| Surge immunity test | EN 61000-4-5 level 4 |
| Conducted low energy susceptibility (EFT) | EN 61000-4-4 category B level 3 |
| Conducted high energy susceptibility (RF) | EN 61000-4-6 category A level 3 |
| Radio-frequency interference (GSM) | ENV 50204 category A |

Magnetic field immunity

| | |
|------------|----------------------|
| Continuous | EN 61000-4-8 level 5 |
|------------|----------------------|

Mechanical characteristics

| | |
|----------------------------------|------|
| Degree of protection | IP20 |
| Weight (fuse monitor alone) (kg) | 0.2 |
| Dimensions | |



Insulation

FuPacT ISFT100N to ISFT630




Some accessories for insulation are used to prevent direct contact with the main circuits. For ISFT100, we have single and double escutcheon (with 1 free slot). These escutcheons, which could be used in combination, allow one type of cut-out on the front panel of switchboard. But in case of feeding busbars, The use of escutcheon is not compliant with feeding busbars. For ISFT100N and ISFT160 to 630, side profiles (or laterally attachable) provide vertical IP level across the door. The switchboard manufacturer must provide the horizontal IP. For those products, it's mandatory to use terminal shield when voltage is upper or equal to 500 V.

A

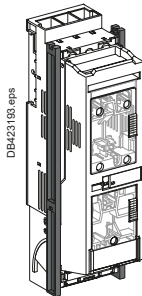
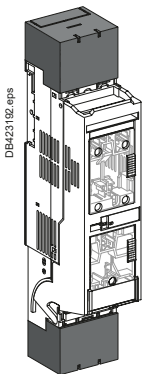
Insulation of live parts

Escutcheon

Clipped on the device, escutcheons provide IP20 and IK07 degrees of protection.

| Type | Escutcheon type | | | Terminal shield |
|----------|---|---|---|-----------------|
| |  |  |  | |
| ISFT100N | ● | - | - | ● |
| ISFT100 | - | ● | ● | - |
| ISFT160 | ● | | | ● |
| ISFT250 | ● | | | ● |
| ISFT400 | ● | | | ● |
| ISFT630 | ● | | | ● |

ISFT100N fusegear - Terminal shield and escutcheon

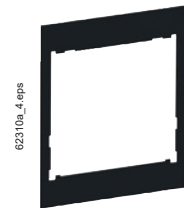
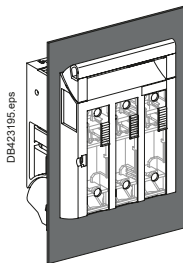


Escutcheon



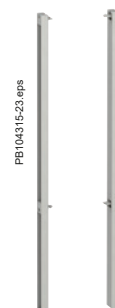
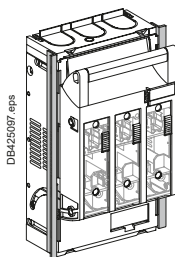
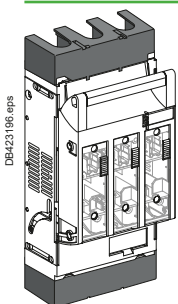
Terminal shields

ISFT100 fusegear - Escutcheon



Escutcheon

ISFT160 to ISFT630 fusegear - Terminal shields and escutcheon



Laterally attachable support profile

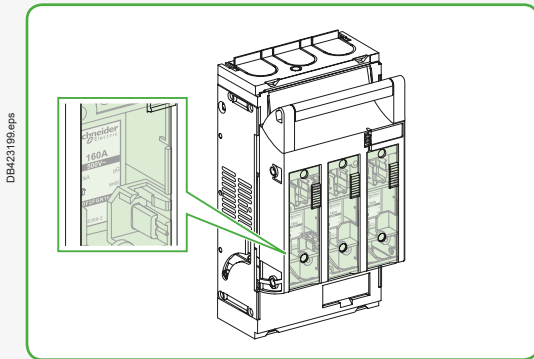
Functions and characteristics

Fuse-link monitoring and testing

FuPacT ISFT160 to ISFT630

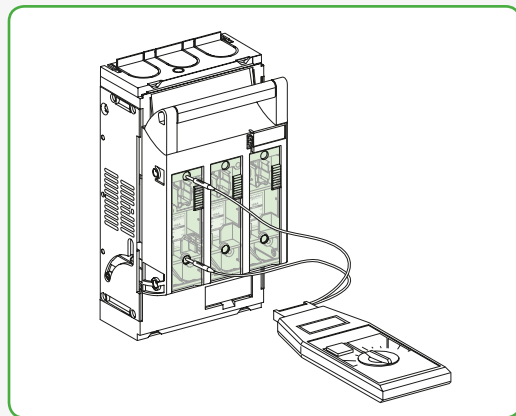
Monitoring

ISFT 160 to 630 fuse-switch disconnectors are equipped with independent large windows so that the fuse-link technical characteristics are clearly visible.



ISFT160

Testing



Independent sliding covers on the front panel provide access to the fuse-link status test points while maintaining the IP20 protection index.

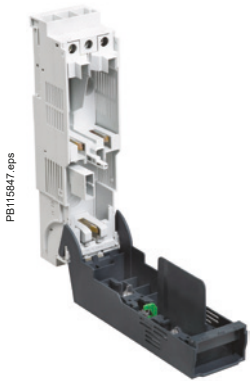


Control, locking and operation

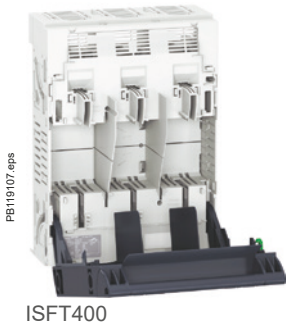
FuPacT ISFT100N to ISFT630

The main moving contacts are controlled by the pivoting fuse-carrier assembly forming the cover for the ISFT devices
 In open position, the fuse-switch disconnecter fuse-carrier assembly provides isolation with visible break.

A



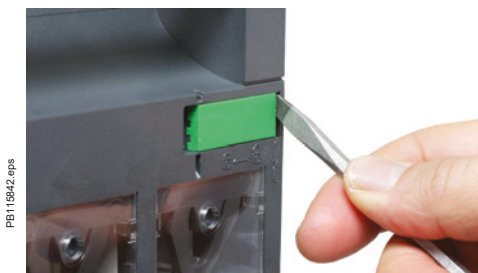
ISFT100N.



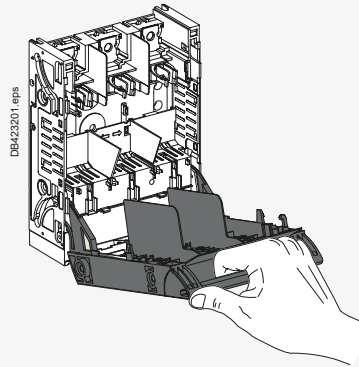
ISFT400

Access to the fuse-links:
 ■ may be provided by lead seals on the ISFT devices

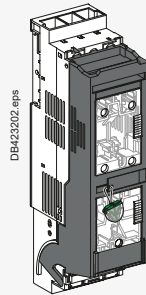
To lock the fuse-switch disconnecter in closed (ON) position, the fuse-carrier is equipped as standard with a locking part.



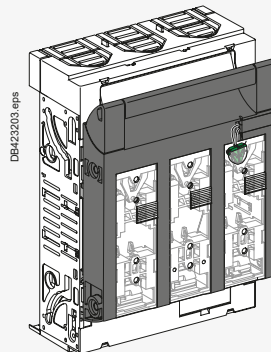
Control



Locking



Lead-seal locking for the ISFT100N



Lead-seal locking for the ISFT100 to ISFT630 devices

Locking in open (OFF) position isolation as defined by IEC 60947-3.

| Type | Function | Means | Accessory |
|--------------------|--|-----------|-----------|
| ISFT100N | Device locking in closed (ON) position | Lead seal | Built-in |
| ISFT100 | | | |
| ISFT160 | | | |
| ISFT250 to ISFT630 | | | |

Functions and characteristics

Control, locking and operation

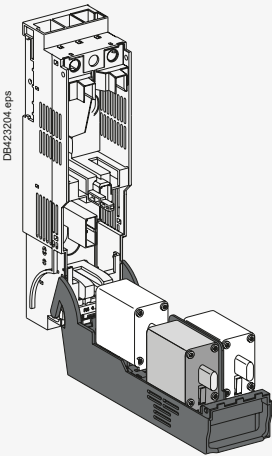
FuPacT ISFT100N to ISFT630

For ISFT fusegear devices, the fuse-carrier cover is used both to control the device and to protect the fuse-link.

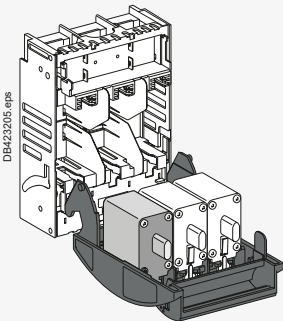
- ISFT100N: the pivoting fuse-carrier assembly accepts two fuse-links side by side and a third situated under the first two fuse-links.
- ISFT100 to ISFT630: the pivoting fuse-carrier assembly accepts the three fuse-links side by side.

Fuse-carriers

Compatibility between ISFT fuse-switch disconnectors and fuse-links (NH)



Pivoting fuse-carrier assembly for the ISFT100N



Pivoting fuse-carrier assembly for the ISFT100 to ISFT630 devices

| Type of DIN fuse-link | NH000 | NH00 | NH1 | NH2 | NH3 |
|-----------------------|-------|------|-----|-----|-----|
| ISFT100N | ● | - | - | - | - |
| ISFT100 | ● | - | - | - | - |
| ISFT160 | - | ● | - | - | - |
| ISFT250 | - | - | ● | - | - |
| ISFT400 | - | - | - | ● | - |
| ISFT630 | - | - | - | - | ● |

Insertion and removal of fuse-links

Fuse-links are held in place by clips behind the front panel of the fuse-carriers, thus making removal possible without touching the fuse-links.



Auxiliary contacts and indications

FuPacT ISFT100N to ISFT630



The optional auxiliary contacts carry out indication functions. They provide remote indication of the fuse-switch disconnecter status. They may also be used to indicate and carry out automatic functions such as electrical interlocking.

Standards: compliance with international recommendation IEC60947-5-1.
Description: NC/NO changeover contact.

Functional table of contact status

| Auxiliary changeover contact | | |
|------------------------------|--|----------------|
| | | Maximum number |
| ISFT100N | | 1 |
| ISFT100 | | 2 |
| ISFT160 | | 2 |
| ISFT250 | | 2 |
| ISFT400 | | 2 |
| ISFT630 | | 2 |

| Auxiliary changeover contact for ISFT100N and ISFT160 | | | | | |
|---|-----------|----------------|------|------|------|
| Conventional thermal current I _{th} (A) | | 2 | | | |
| Rated insulation voltage (V) | | 250 | | | |
| Minimum load | | 100 mA at 24 V | | | |
| | | AC | | DC | |
| Load | | AC12 | AC15 | DC12 | DC13 |
| Rated operational current (A) | 24 V | 6 | - | 3 | - |
| | 48 V | 6 | - | 1 | - |
| | 110 V | 6 | - | 0.5 | - |
| | 220/240 V | 6 | - | 0.25 | - |

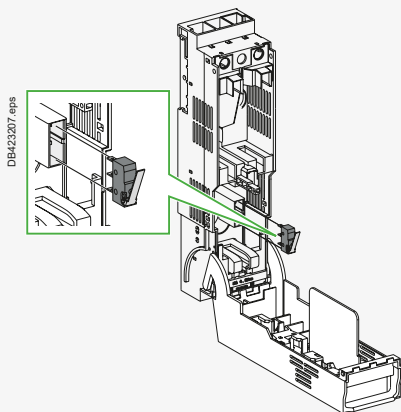
| Auxiliary changeover contact for ISFT100 and ISFT250 to 630 | | | | | |
|---|-----------|----------------|------|------|------|
| Conventional thermal current I _{th} (A) | | 2 | | | |
| Rated insulation voltage (V) | | 250 | | | |
| Minimum load | | 100 mA at 24 V | | | |
| | | AC | | DC | |
| Load | | AC12 | AC15 | DC12 | DC13 |
| Rated operational current (A) | 24 V | 2 | - | 0.2 | - |
| | 48 V | 2 | - | 0.2 | - |
| | 110 V | 2 | - | 0.2 | - |
| | 220/240 V | 2 | - | 0.2 | - |

Auxiliary contacts and indications

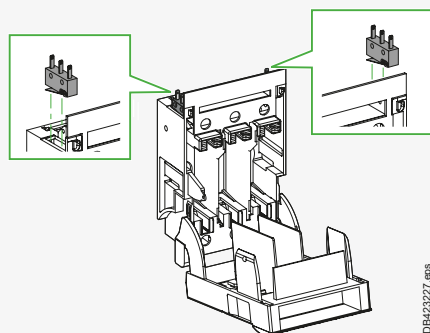
FuPacT ISFT100N to ISFT630

Position of auxiliary contacts for ISFT devices

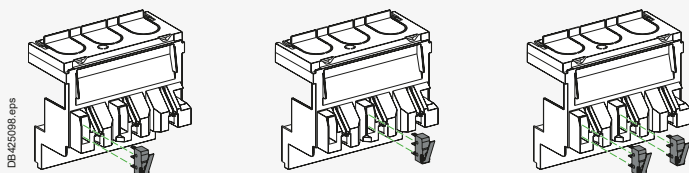
ISFT100N



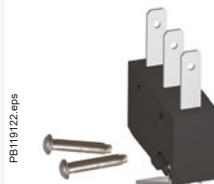
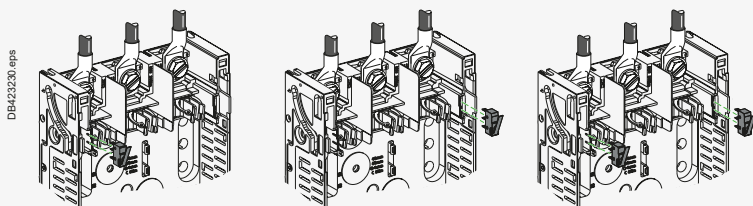
ISFT100



ISFT160



ISFT250/400/630



Auxiliary contact for ISFT100



Auxiliary contact for ISFT100N/160



Auxiliary contact for ISFT250/400/630



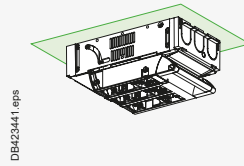
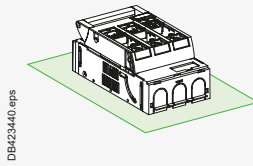
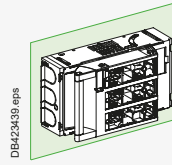
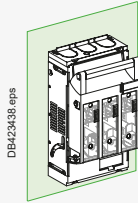
Possible installation positions and mounting

FuPacT ISFT100N to ISFT630

A

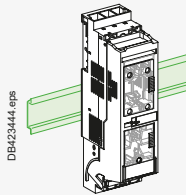
Possible installation positions

ISFT100N to ISFT630



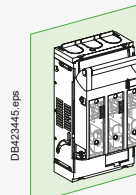
Possible mounting

ISFT100N and ISFT100



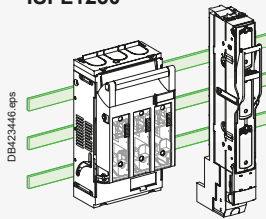
DIN rail

ISFT100N to ISFT630



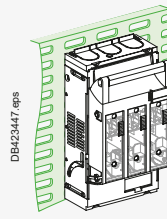
Plain mounting plate

ISFT100N ISF●160 to ISF●630 ISFL1250



Secured to busbars

ISFT100N to ISFT630



Slotted mounting plate



Reverse supply

FuPacT fusegear may be supplied equally well via the upstream or downstream terminals, without any reduction in performance.

Conductor materials and electrodynamic forces

FuPacT fusegear may be connected using either bare copper, tinned copper or tinned aluminium conductors (flexible or rigid bars, cables).
 In the event of a short-circuit, thermal and electrodynamic forces are exerted on the conductors. The conductors must therefore be adequately sized and suitably supported.
 Note that the terminals of electrical devices (switch-disconnectors, contactors, circuit breakers, etc.) should not be considered to contribute to the support of the conductors.

Cable ties and flexible bars

The table below indicates the maximum distances between cable ties depending on the prospective short-circuit current.
 Care must be taken not to exceed a distance of 400 mm between ties mechanically fixed to the switchboard frame.

| Type of tie | "Panduit" type | | | "Sarel" type | | | | |
|---------------------------------|------------------|-----|----|------------------|-----|-----|----|------------------|
| | Width: 4.5 mm | | | Width: 9 mm | | | | |
| | Max. load: 22 kg | | | Max. load: 90 kg | | | | |
| | Color: white | | | Color: black | | | | |
| Max. distance between ties (mm) | 200 | 100 | 50 | 350 | 200 | 100 | 70 | 50 (double ties) |
| Short-circuit current (kA rms) | 10 | 15 | 20 | 20 | 27 | 35 | 45 | 100 |

Note: for cables $\geq 50 \text{ mm}^2$, 9 mm wide ties must be used.

Tightening torque for ISFT with screw connection

| | Type | Torque (Nm) |
|------|---|-------------|
| ISFT | ISFT100N mounted on backplate with connection terminals | 4.5 |
| | ISFT100N with hook-on connection to 60 mm busbars | 4.5 |
| | ISFT100 mounted on backplate with connection terminals | 3 |
| | ISFT160 mounted on backplate with connection terminals | 12 |
| | ISFT160 with hook-on connection to 60 mm busbars | 12 |
| | ISFT250 mounted on backplate with connection terminals | 20 |
| | ISFT250 with hook-on connection to 60 mm busbars | 20 |
| | ISFT400 mounted on backplate with connection terminals | 20 |
| | ISFT400 with hook-on connection to 60 mm busbars | 20 |
| | ISFT630 mounted on backplate with connection terminals | 20 |

Implementation and power dissipation

FuPacT ISFT

Power dissipated by ISFT fuse-switch disconnectors

Power dissipated per pole

| | Rating (A) | Switchgear | | | Fuse-link Max. power dissipated | | Total Total power dissipated per pole (W) | |
|---|--------------------------|------------|---|--|---------------------------------------|-------|---|----|
| | | Model | Resistance per pole ($\mu\Omega$) | Power dissipated per pole (W) | Rat. (A) | P (W) | | |
| Fixed front-connected device (without conversion kit) | 100 | ISFT100N | 0.33 | 3.3 | 100 | 7.5 | 11 | |
| | 100 | ISFT100 | 0.150 | 3.6 | 100 | 7.5 | 11 | |
| | 160 | ISFT100 | 0.151 | 3.8 | 160 | 8.2 | 12 | |
| | 160 | ISFT160 | 0.117 | 3.0 | 160 | 12 | 15 | |
| | 250 | ISFT 250 | 0.056 | 6 | 250 | 23 | 29 | |
| | 400 | ISFT400 | 0.046 | 10 | 400 | 34 | 44 | |
| | 630 | ISFT630 | 0.045 | 19 | 630 | 48 | 67 | |
| With conversion kit | 60 mm hook-on connection | 100 | ISFT100N | 0.37 | 3.7 | 100 | 7.5 | 11 |
| | 60 mm hook-on connection | 160 | ISFT160 | 0.220 | 5.6 | 160 | 12 | 17 |
| | 60 mm hook-on connection | 250 | ISFT250 | 0.086 | 6.7 | 250 | 23 | 30 |
| | 60 mm hook-on connection | 400 | ISFT400 | 0.075 | 5.3 | 400 | 34 | 46 |



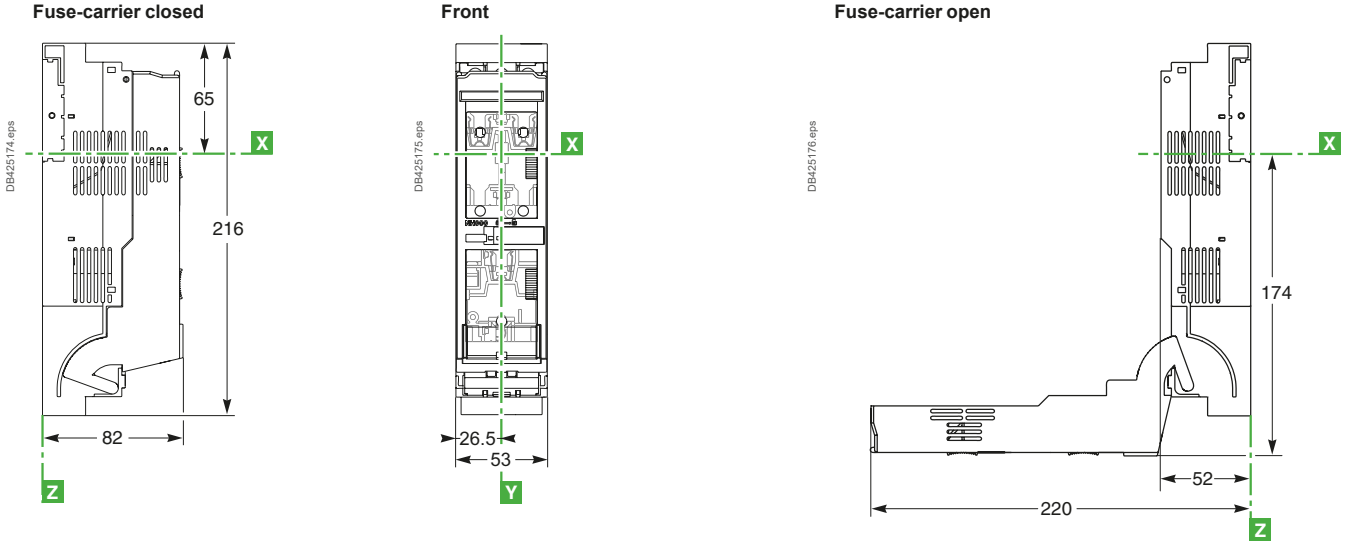
Dimensions and connection

FuPacT ISFT100N

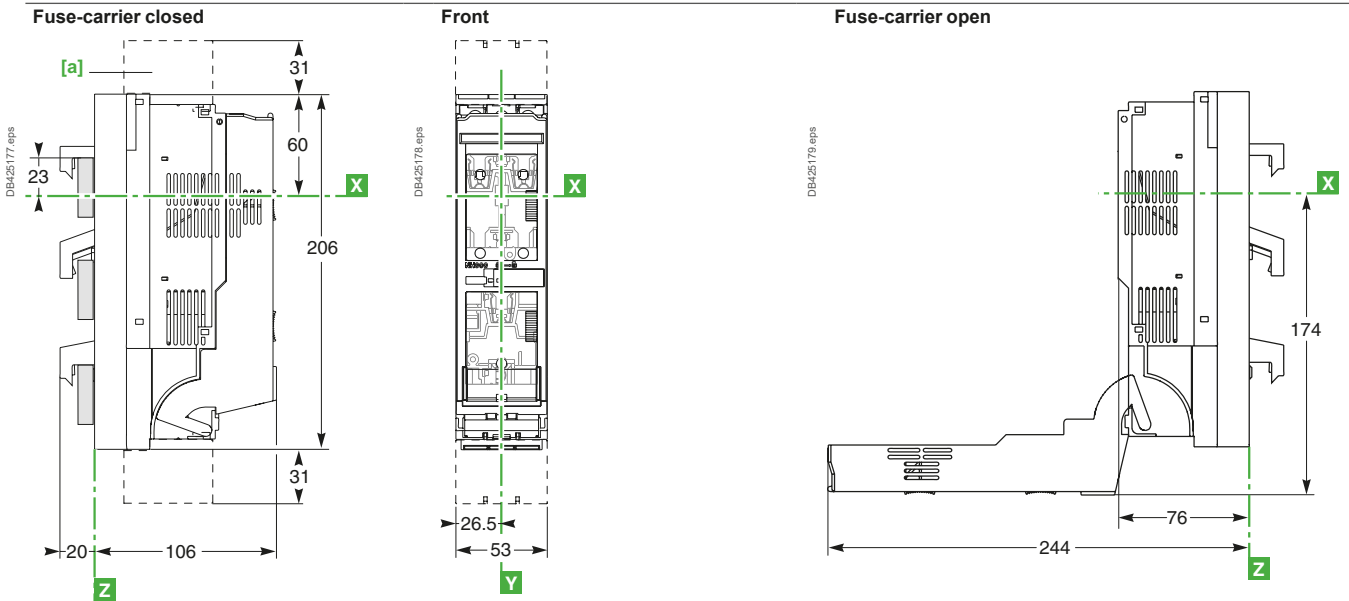
Dimensions and mounting

Dimensions

Device to be installed on a backplate or DIN rail



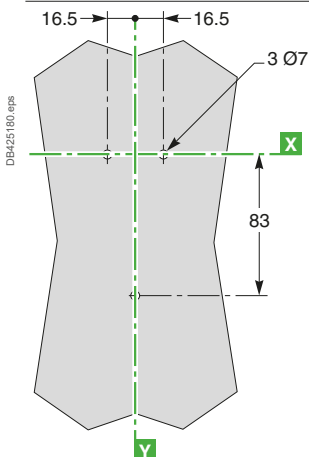
Device to be installed on a busbar



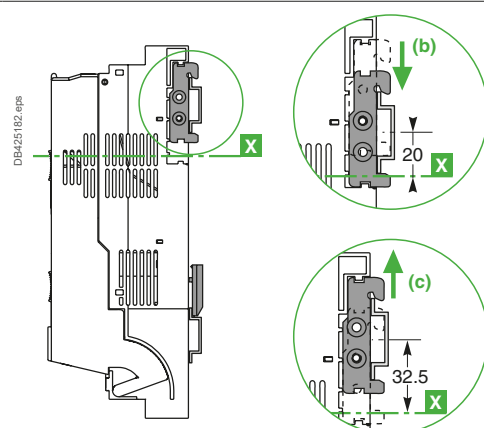
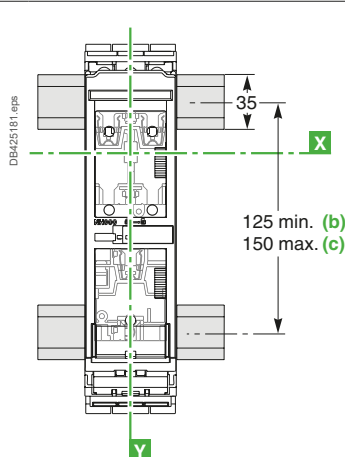
[a] Terminal shields.

Mounting

On backplate



On DIN rail



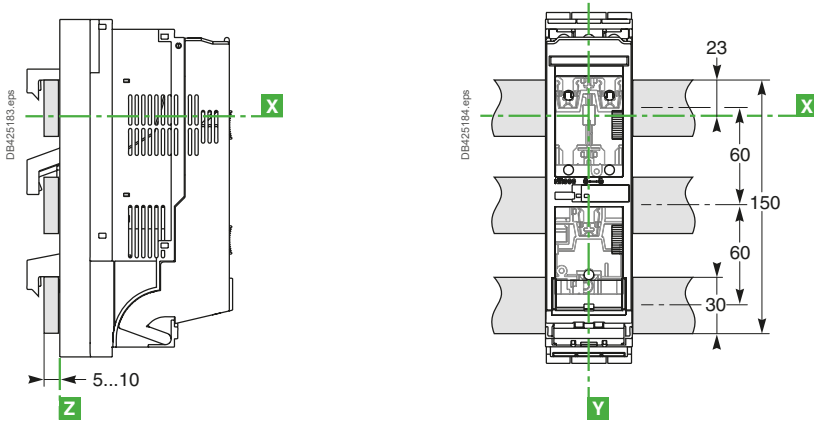
FuPacT ISFT100N

Front panel cut-outs - Connection and accessories

Mounting (cont.)

On 60 mm busbars

A

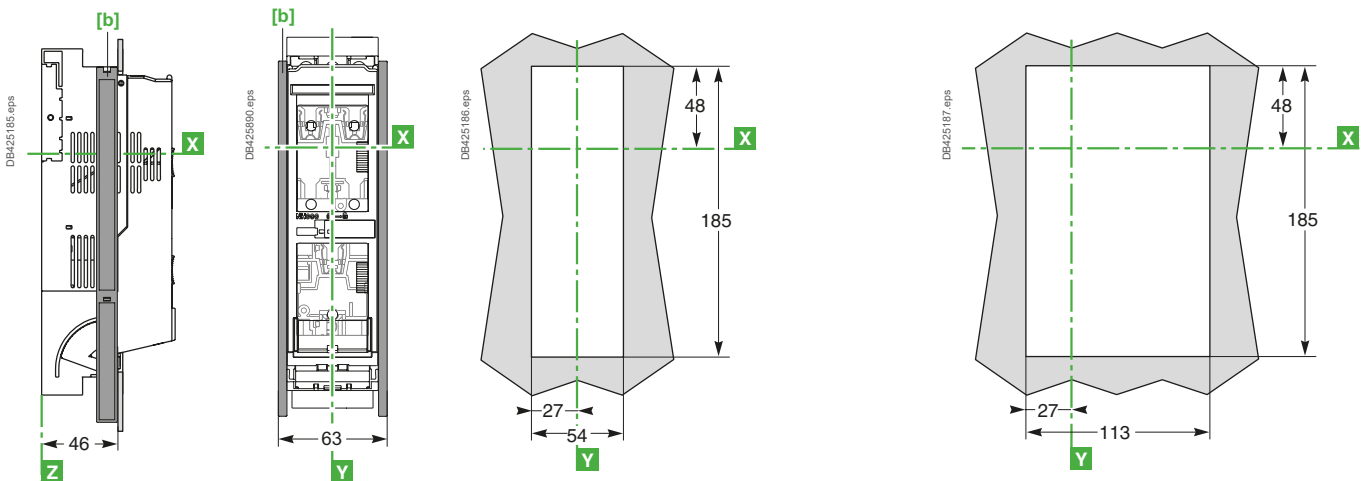


Front panel cut-outs

Device to be installed on a backplate or DIN rail

Cut-out for 1 device [1]

Cut-out for 2 devices [2]

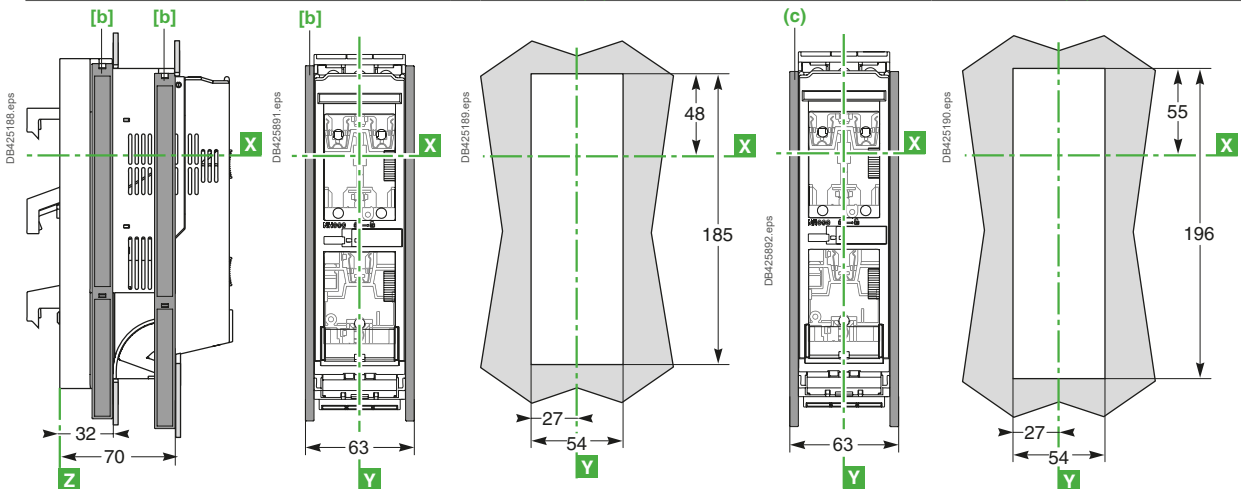


[1] With or without side profile, see page A-24. - [2] With side profile, see page A-24. -

Device to be installed on a busbar

Cut-out (c) for 1 device

Cut-out (d) for 1 device



Front connection of cables

FuPacT ISFT100N devices are equipped as standard with connectors for bare copper cables from 2.5 to 50 mm² for mounting on backplates.

Standard device

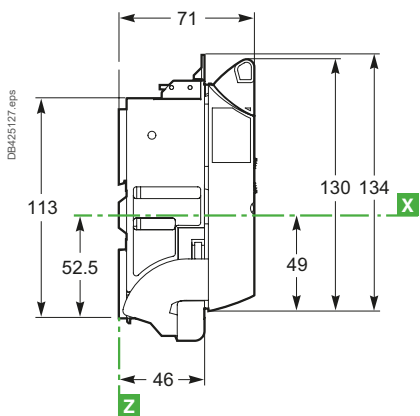
| | | |
|--|--------------------------|--------------------|
| | FuPacT connectors L (mm) | 18 |
| | S (mm ²) | 2.5 to 50 rigid |
| | Cu/Al | 2.5 to 35 flexible |
| | Torque (Nm) | 3 |

[b] Laterally attachable support profile.

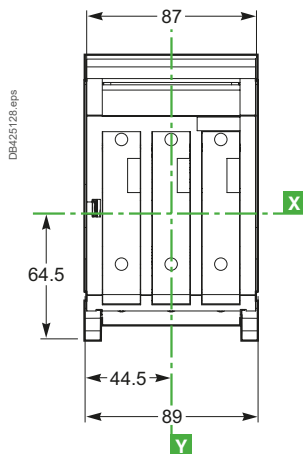
Dimensions

Device to be installed on a backplate or DIN rail

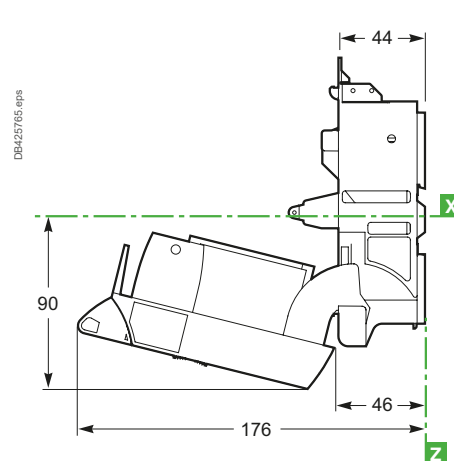
Fuse-carrier closed



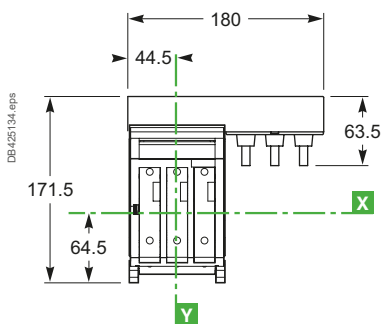
Front



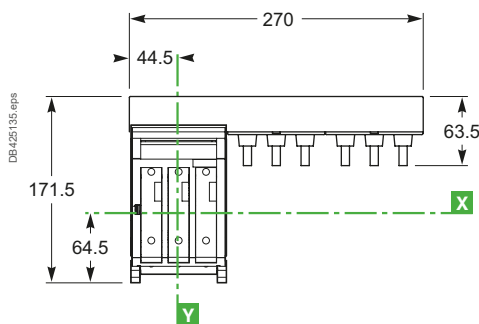
Fuse-carrier open



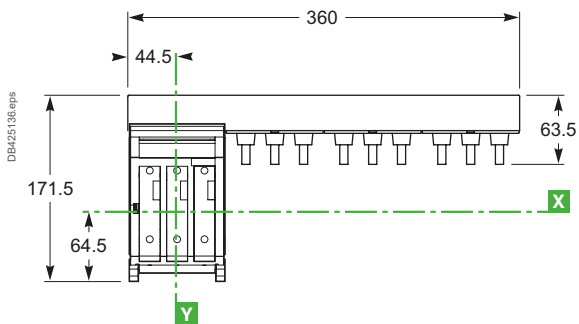
Feeding busbar for 2 ISFT100 devices



Feeding busbar for 3 ISFT100 devices



Feeding busbar for 4 ISFT100 devices



FuPacT ISFT100

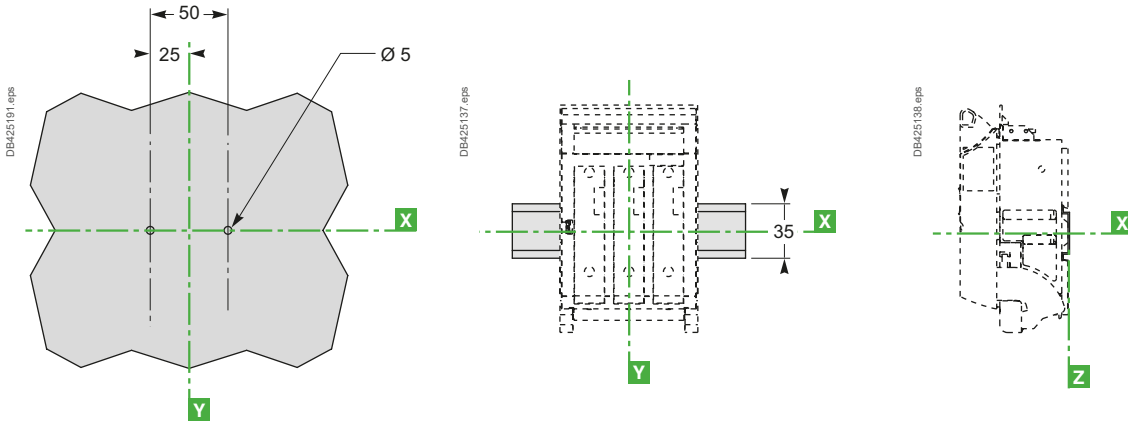
Mounting and front panel cut-outs

Mounting

On backplate

On a symmetrical DIN rail

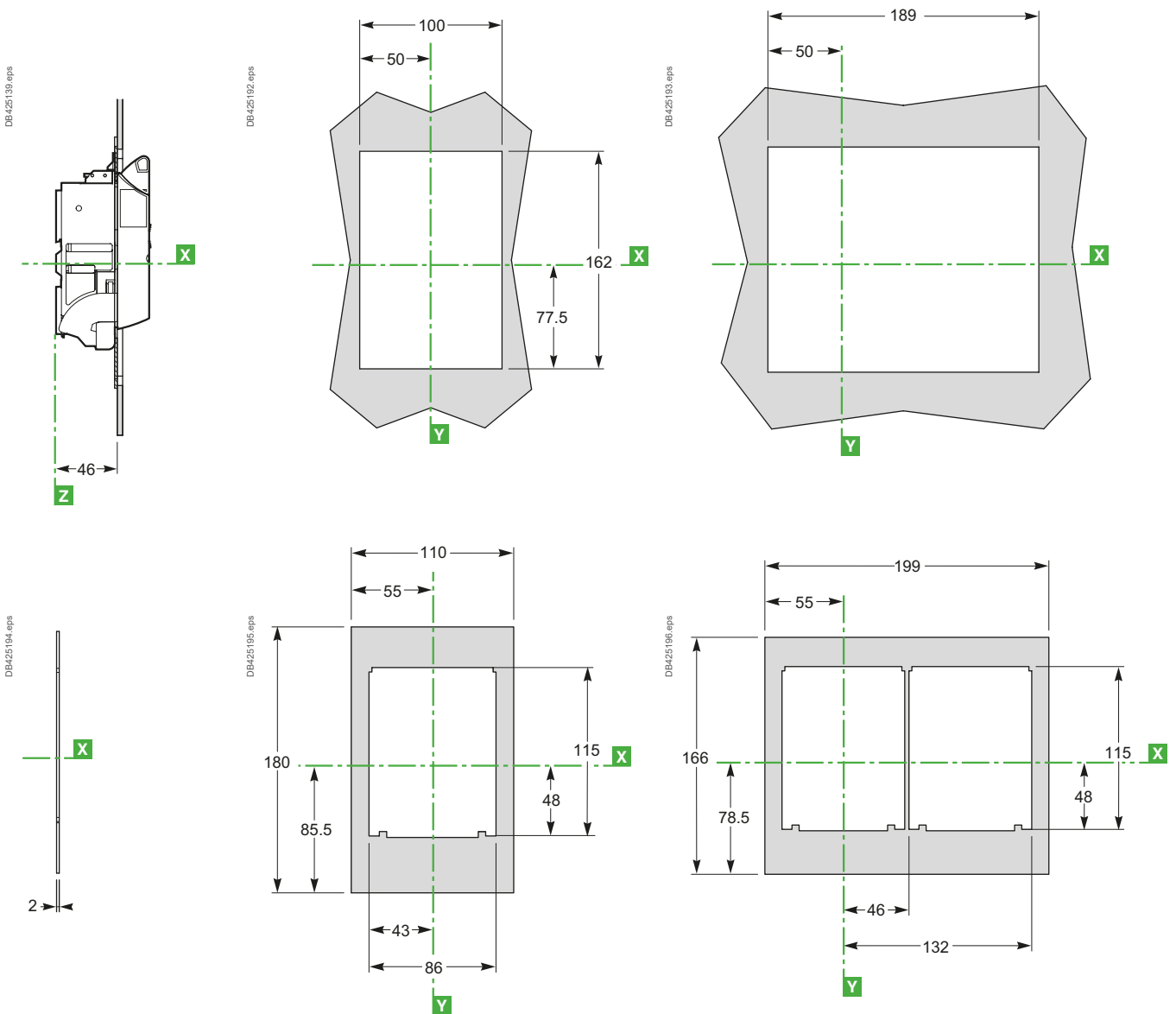
A



Front panel cut-outs

Cut-out for 1 device

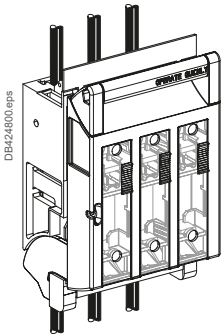
Cut-out for 2 devices



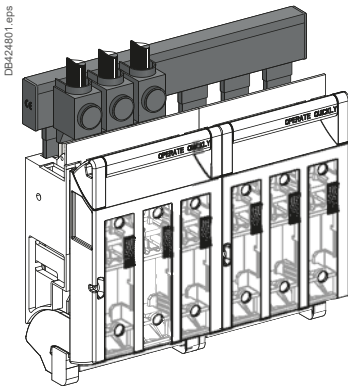
Dimensions and connection

FuPacT ISFT100

Connection and accessories



Connection via bare cable connectors



Connection via feeding busbars

Front connection via bare cable connectors

FuPacT ISFT100 devices are equipped as standard with connectors for bare copper or aluminium cables from 1.5 to 50 mm² for mounting on backplates.

Standard device

| | | | |
|--|--------------------------|----------------------|-----------------------------------|
| | FuPacT connectors | L (mm) | 18 |
| | | S (mm ²) | 1.5 to 50 rigid |
| | | Cu/Al | 1.5 to 35 flexible ^[1] |
| | | Torque (Nm) | 3 |

3 x 10 mm² distribution connector

| | | | |
|--|--------------------------|----------------------|----------------------------------|
| | FuPacT connectors | L (mm) | 18 |
| | | S (mm ²) | 1.5 to 10 rigid |
| | | Cu/Al | 1.5 to 6 flexible ^[1] |
| | | Torque (Nm) | 2 (cables) 3 (connectors) |

^[1] Connection of 2.5 to 4 mm² flexible cables requires crimped or auto-crimping ferrules.

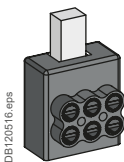
Front connection via feeding busbars

This accessory simplifies connection of cables and can be used to supply two to four FuPacT ISFT100 devices.

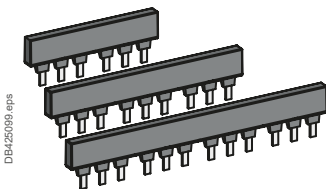
- Tightening torque 3 Nm.

Incoming connector for feeding busbars

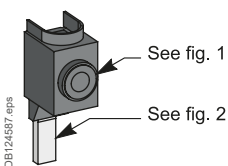
| | | | |
|--|--------------------------|----------------------|-------------------------------|
| | FuPacT connectors | L (mm) | 18 |
| | | S (mm ²) | 25 to 95 rigid |
| | | Cu/Al | 25 to 70 flexible |
| | | Torque (Nm) | 10 (cables) 3 (connectors) |



Distribution connector



Feeding busbars



Incoming connector for feeding busbars

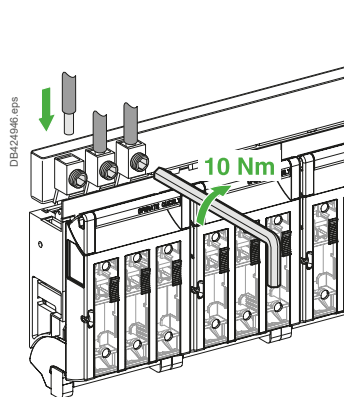


Figure 1

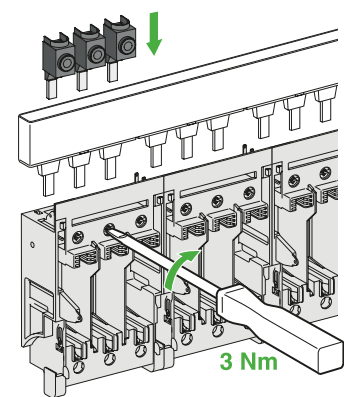
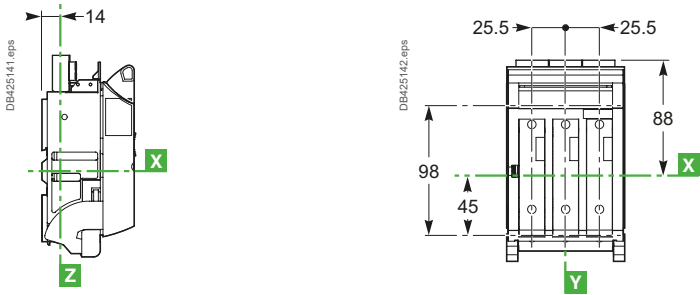


Figure 2

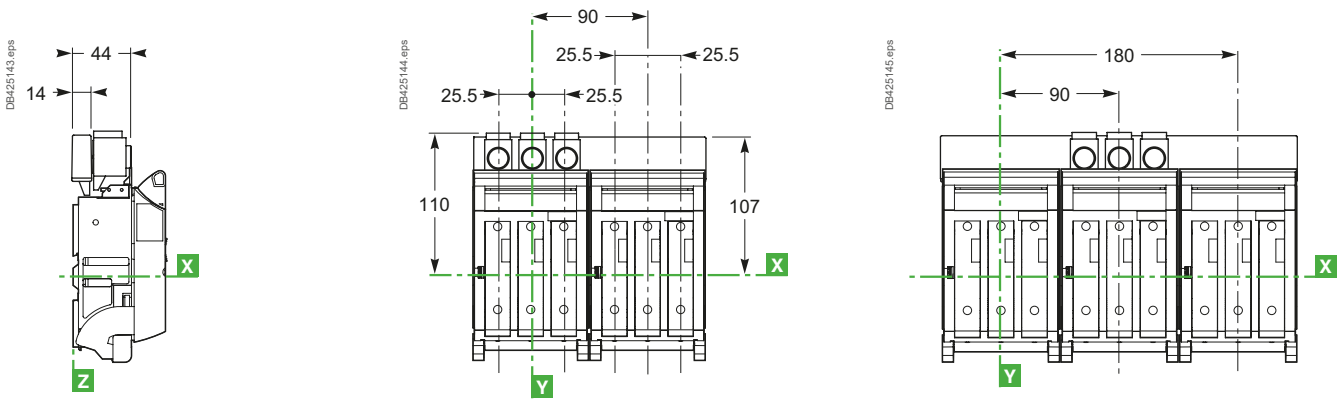
FuPacT ISFT100

Connection and accessories

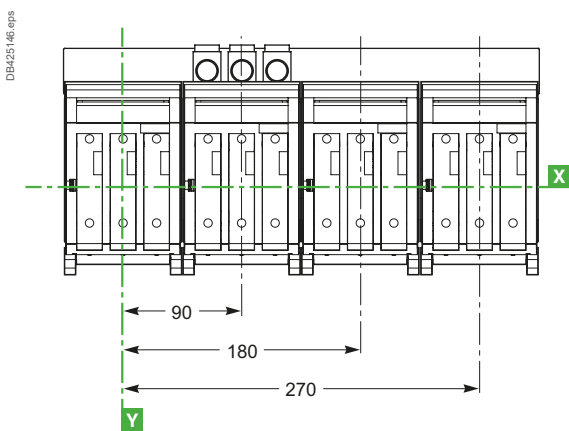
Basic device with distribution connector option



Feeding busbars for two or three ISFT100 devices (with 25 to 95 mm² incoming connector)

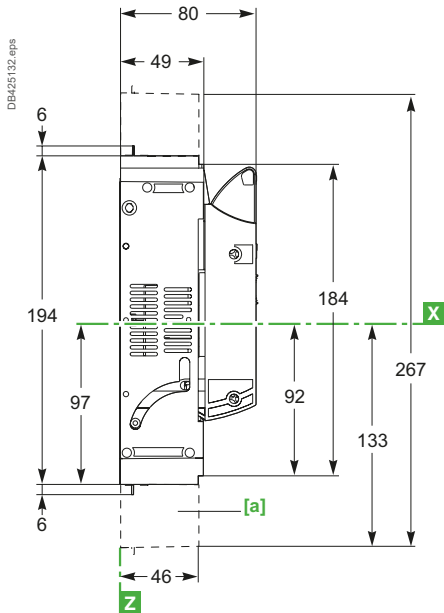


Feeding busbars for four ISFT100 devices (with 25 to 95 mm² incoming connector)



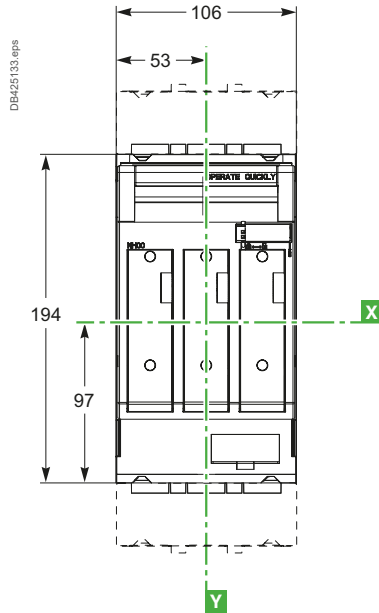
Dimensions

Fuse-carrier closed

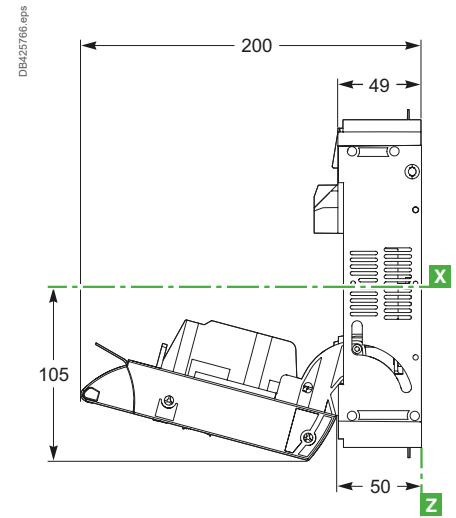


[a] Terminal shields.

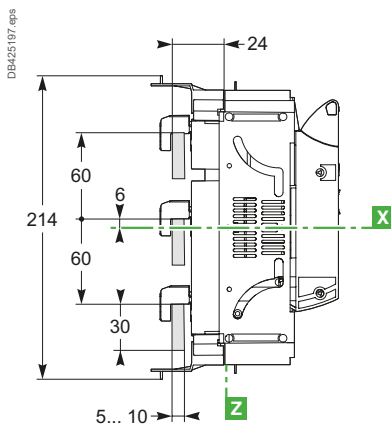
Front



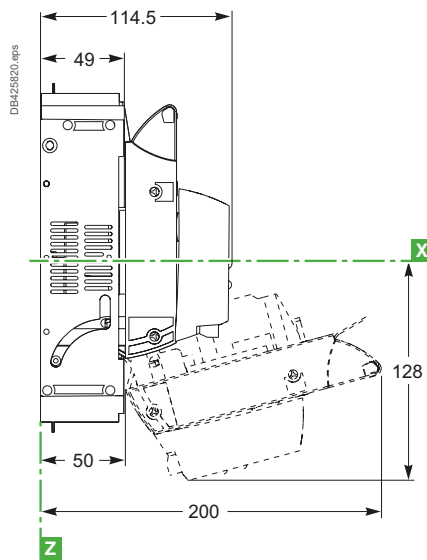
Fuse-carrier open



With hook-on



With fuse monitor

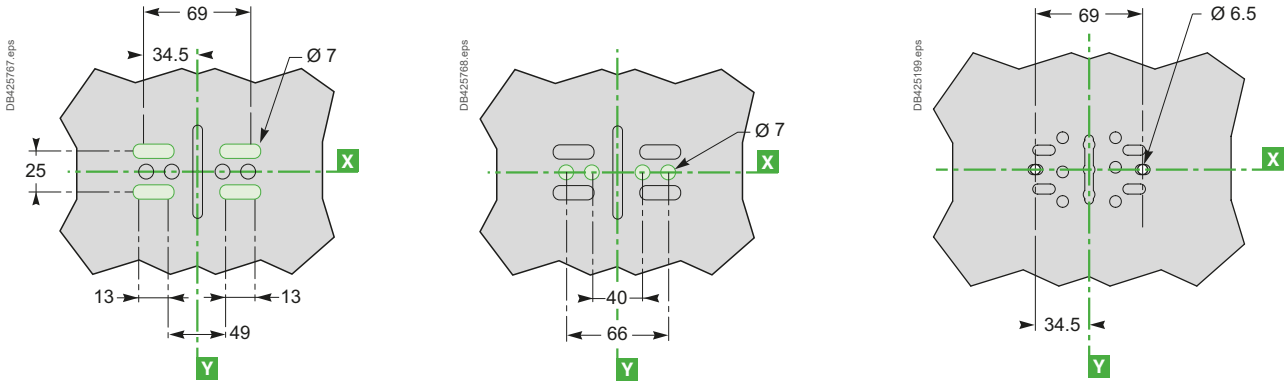


FuPacT ISFT160

Mounting and front panel cut-outs

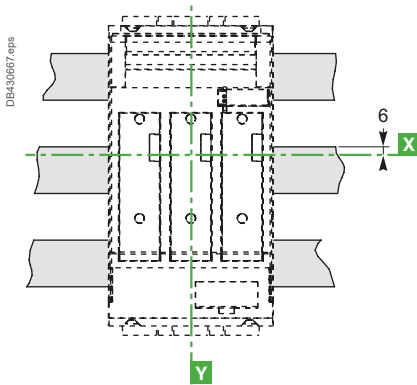
Mounting

On backplate

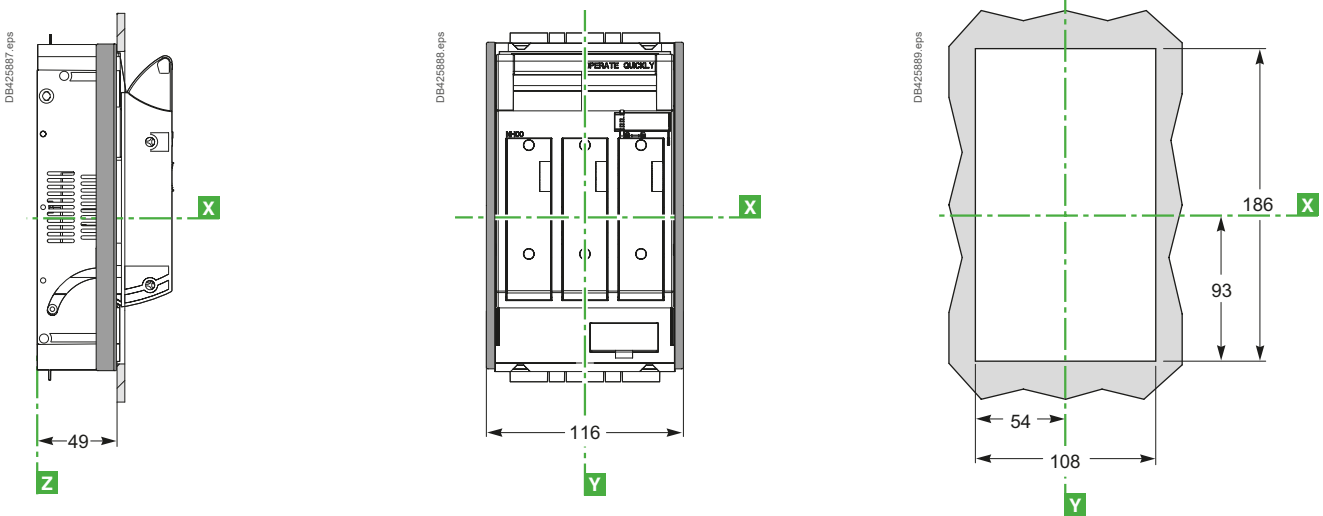


On 60 mm busbars

With hook-on



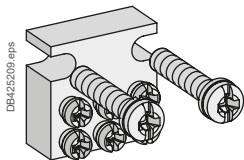
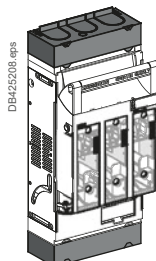
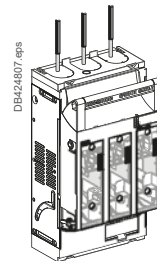
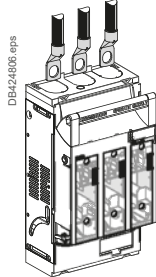
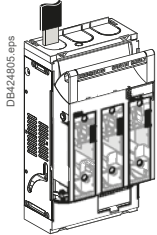
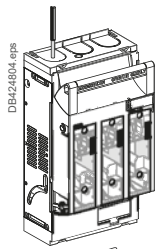
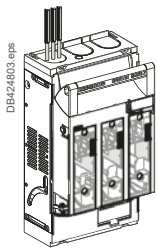
Front panel cut-outs



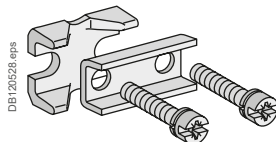
Dimensions and connection

FuPacT ISFT160

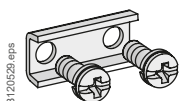
Connection and accessories



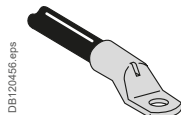
Distribution connector



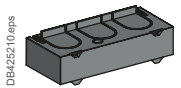
V-type connector for bare Cu/Al cables



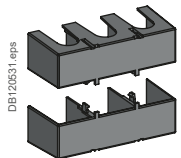
Connector for flexible bars



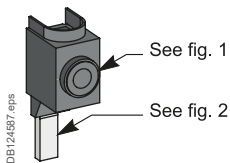
Lug for copper cables



Short terminal shield



Long terminal shields

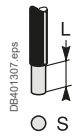


Incoming connector for feeding busbars

Front connection to standard M8 terminals

FuPacT ISFT160 devices are also equipped with 12 mm wide terminals with holes for M8 screws for the connection methods presented below.

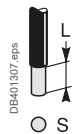
3 x 16 mm² distribution connector



| | |
|----------------------|-----------------------------------|
| L (mm) | 25 |
| S (mm ²) | 1.5 to 16 rigid |
| Cu/Al | 1.5 to 10 flexible ^[1] |
| Torque (Nm) | 2 (cables) |
| | 4 (connectors) |

Used with long terminal shields

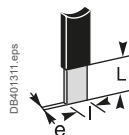
V-type connector for bare Cu/Al cables



| | |
|----------------------|-----------------------------------|
| L (mm) | 25 |
| S (mm ²) | 1.5 to 95 rigid |
| Cu/Al | 1.5 to 70 flexible ^[1] |
| Torque (Nm) | 4 |

Used with short terminal shields

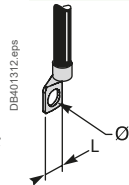
Connector for flexible bars



| | |
|-------------|----|
| L (mm) | 20 |
| l (mm) | 12 |
| e (Nm) | 6 |
| Torque (mm) | 4 |

Used with short terminal shields

Lug for 95 to 185 mm² copper cables



| | |
|-------------|------|
| L (mm) | < 12 |
| Ø (mm) | 8.2 |
| Torque (Nm) | 14 |

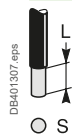
Used with long terminal shields

^[1] Connection of 2.5 to 4 mm² flexible cables requires crimped or auto-crimping ferrules.

Direct front connection to connectors

FuPacT ISFT160 devices are equipped as standard with connectors for bare copper or aluminium cables from 1.5 to 50 mm² for mounting on backplates.

Standard device



| | | |
|--------------------------|----------------------|--------------------|
| FuPacT connectors | L (mm) | 25 |
| | S (mm ²) | 1.5 to 95 rigid |
| | Cu/Al | 1.5 to 70 flexible |
| | Torque (Nm) | 4 |

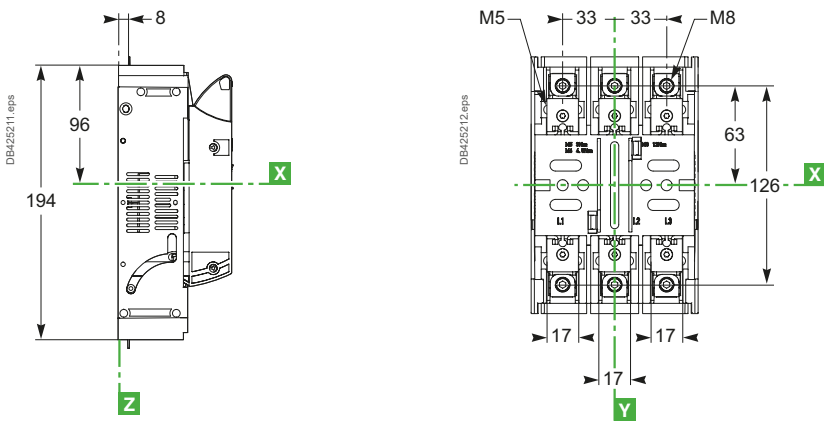
Used with short terminal shields

FuPacT ISFT160

Connection and accessories

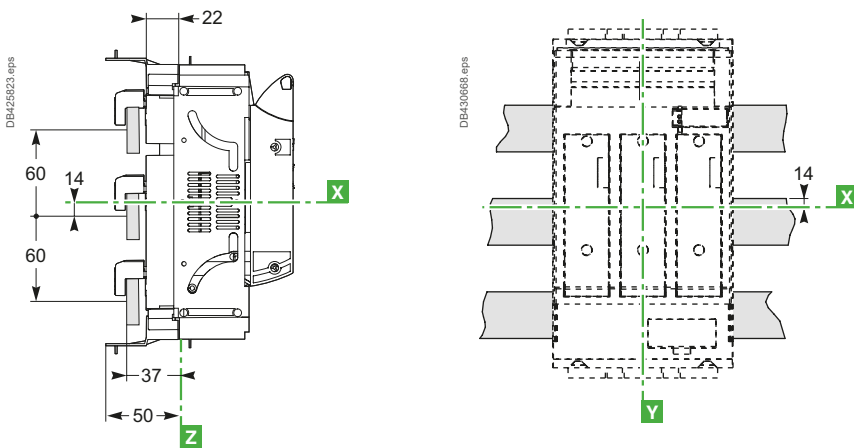
Connections for mounting on a backplate

A



Connections for mounting on 60 mm busbars

Hook-on connection



Dimensions and connection

FuPacT ISFT250 to 630

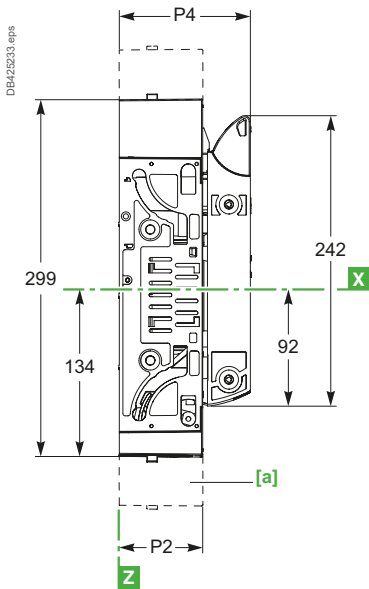
Dimensions and mounting

Dimensions

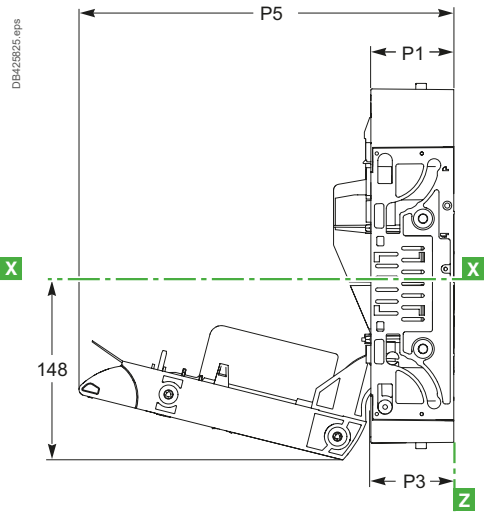
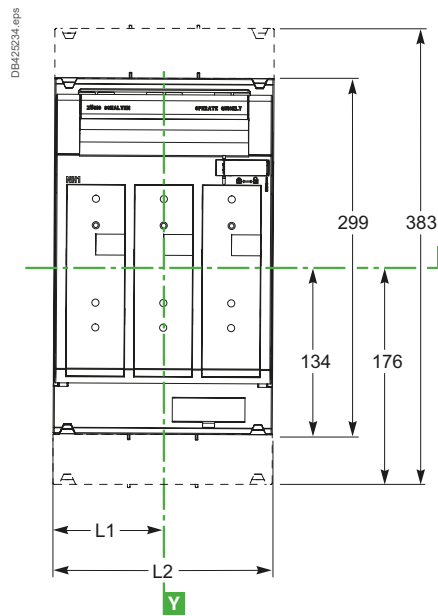
Fuse-carrier closed

Front

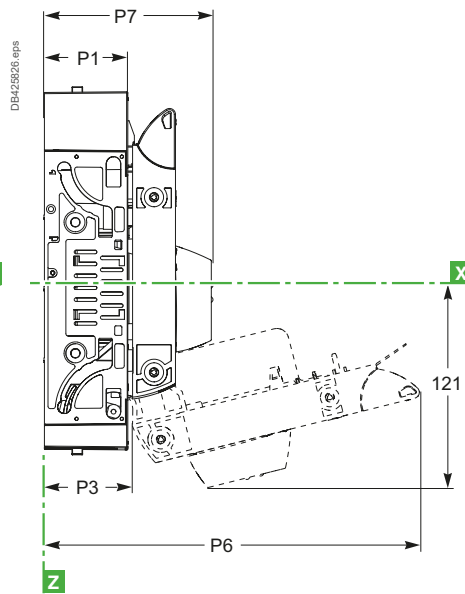
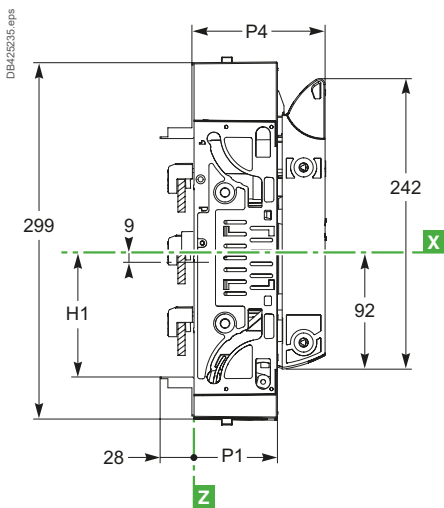
Fuse-carrier open



[a] Terminal shields.



With hook-on for ISFT250/400/630 With fuse monitor for ISFT250/400/630



| Type | L1 | L2 | P1 | P2 | P3 | P4 | P5 | P6 | P7 |
|---------|-----|-----|----|----|----|-----|-----|-----|-----|
| ISFT250 | 92 | 184 | 70 | 70 | 74 | 112 | 293 | 316 | 142 |
| ISFT400 | 105 | 210 | 90 | 90 | 94 | 131 | 331 | 319 | 162 |
| ISFT630 | 125 | 250 | 90 | 90 | 94 | 131 | 332 | 319 | 162 |



FuPacT ISFT250 to 630

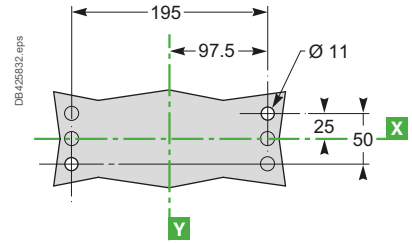
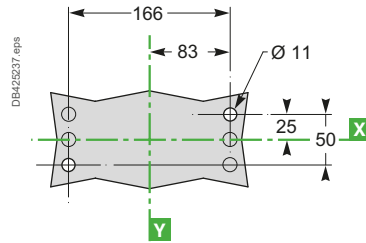
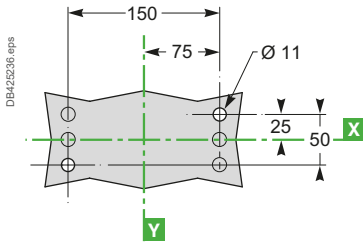
Mounting and front panel cut-outs

Mounting

On a backplate for ISFT250

On a backplate for ISFT400

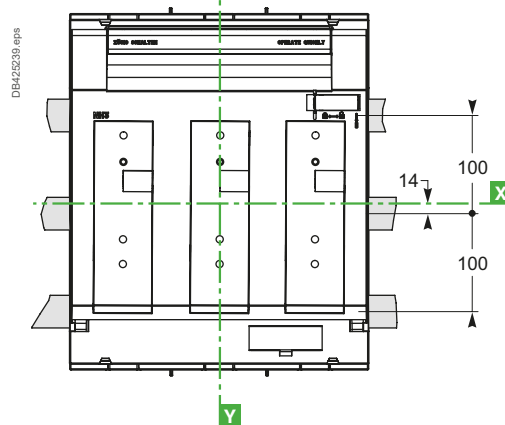
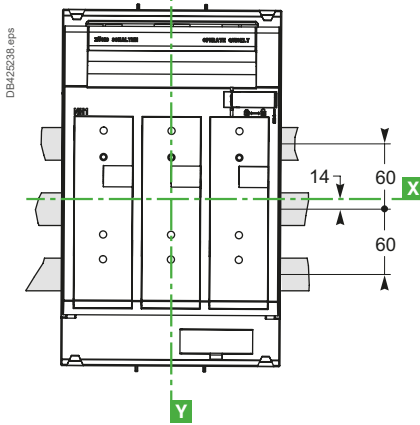
On a backplate for ISFT630



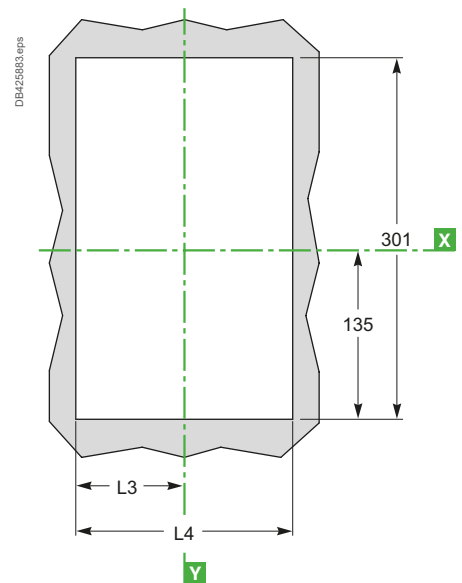
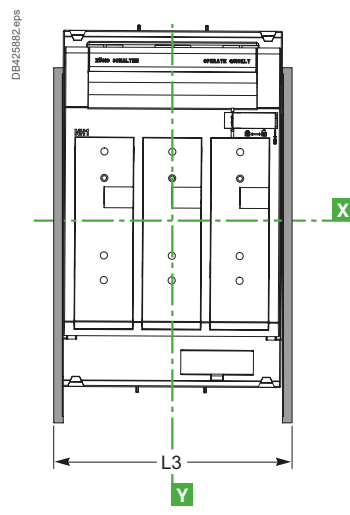
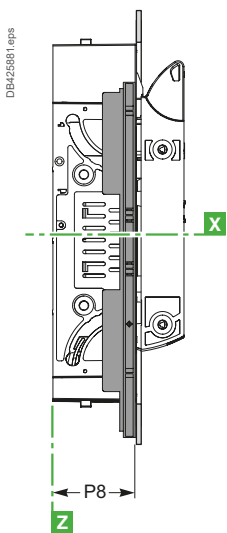
On busbars

With hook-on for ISFT250

With hook-on for ISFT400/630



Front panel cut-outs

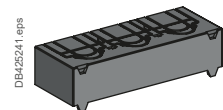
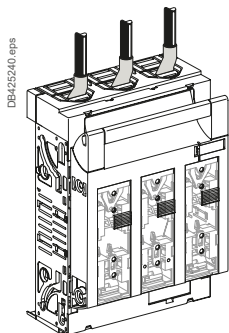


| Type | L4 | L5 | P8 |
|---------|-----|-----|----|
| ISFT250 | 93 | 186 | 70 |
| ISFT400 | 106 | 212 | 90 |
| ISFT630 | 126 | 252 | 90 |

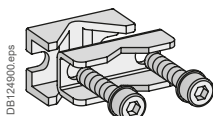
Dimensions and connection

FuPacT ISFT250 to 630

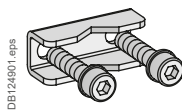
Connection and accessories



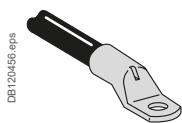
Terminal shields



V-type connector



Connector for flexible bars



Lug for copper cables

Front connection to standard M10 terminals

FuPacT ISFT250 to 630 devices are equipped as standard with terminals comprising holes for M10 screws for the connection methods presented below.

V-type connector for bare Cu/Al cables

| | | ISFT250 | ISFT400/630 |
|--|----------------------|----------|-------------|
| | L (mm) | 20 | 25 |
| | S (mm ²) | 6 to 150 | 6 to 240 |
| | Cu/Al | | |
| | Torque (Nm) | 14 | 14 |

Connector for flexible bars

| | | ISFT250 | ISFT400/630 |
|--|----------------------|---------|-------------|
| | L (mm) | 20 | 30 |
| | l (mm ²) | 16 | 21 |
| | e (mm) | 15 | 15 |
| | Torque (Nm) | 14 | 14 |

Lug for 100 to 185 mm² copper cables

| | | ISFT250 to 630 |
|--|-------------|----------------|
| | L (mm) | ≤ 16 |
| | Ø (mm) | 10.2 |
| | Torque (Nm) | 32 |

Lug for 240 to 300 mm² copper cables

| | | ISFT400/630 |
|--|-------------|-------------|
| | L (mm) | ≤ 21 |
| | Ø (mm) | 10.2 |
| | Torque (Nm) | 32 |

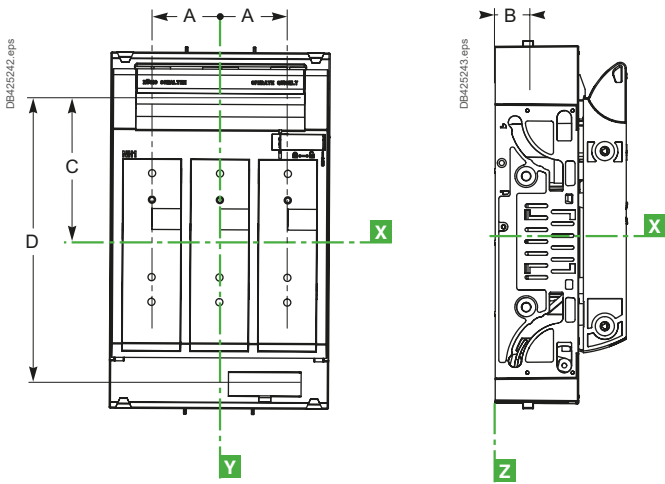


Dimensions and connection

FuPacT ISFT250 to 630

Connection and accessories

Connections for mounting on a backplate

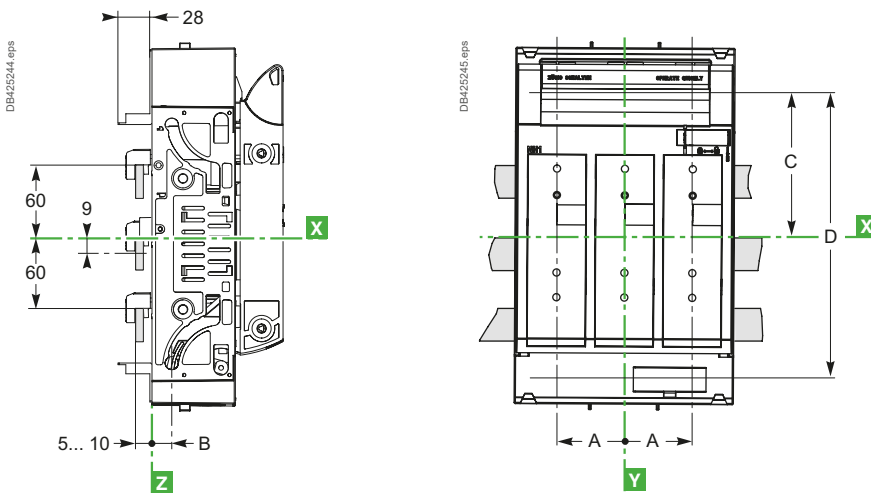


A

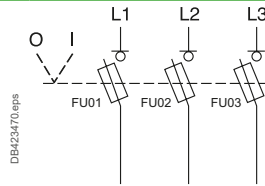
| Type | A | B | C | D |
|---------|----|------|-------|-----|
| ISFT250 | 57 | 33 | 93 | 186 |
| ISFT400 | 65 | 36.5 | 104.5 | 209 |
| ISFT630 | 80 | 36.5 | 104.5 | 209 |

Connections for mounting on 60 mm busbars

Hook-on connection for ISFT250/400

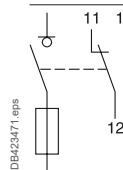


Power

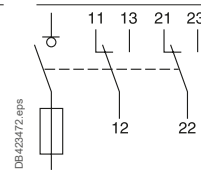


Auxiliary contacts

ISFT100N

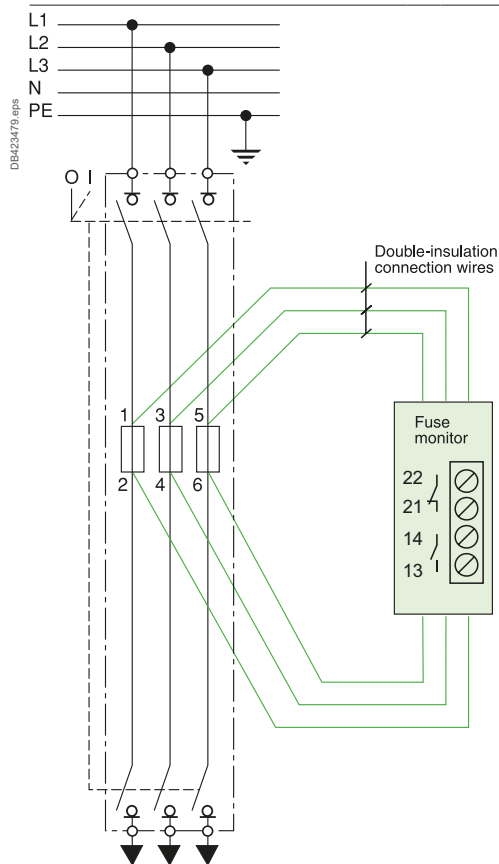


ISFT100 to 630



Blown fuse

ISFT160 to 630 Electronic fuse Monitor



D



B



ISFL160



ISFL250/400/630/1250

FuPacT ISFL

Functions and characteristics

| | |
|--|------|
| Fuse switch-disconnector selection | B-4 |
| FuPacT ISFL160 to ISFL1250 | B-4 |
| Accessories and auxiliaries..... | B-8 |
| FuPacT ISFL160 - 3P | B-8 |
| FuPacT ISFL250 to ISFL630 | B-10 |
| FuPacT ISFL1250 | B-11 |
| General characteristics: ISFL..... | B-12 |
| FuPacT ISFL160 to ISFL1250 | B-12 |
| ISFL installation..... | B-14 |
| FuPacT ISFL160 | B-14 |
| FuPacT ISFL250 to ISFL1250 | B-15 |
| Connection and accessories | B-16 |
| FuPacT ISFL160 to ISFL1250 - Connection..... | B-16 |
| FuPacT ISFL160 to ISFL630 - Connection, coupling | B-18 |
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| | |
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FuPacT ISFL

Installation recommendations

| | |
|--|------|
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B

Other chapters

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| FuPacT ISFT | A-1 |
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FuPacT ISFL

Dimensions and connection

| | |
|---|------|
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| | |
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| | |
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Fuse switch-disconnector selection

FuPacT ISFL160 to ISFL1250

B



Fuse switch-disconnectors

Number of poles / type of fuse-link IEC60 269-2-1 Section 1

Electrical characteristics as defined by IEC 60947-1 / IEC 60947-3 and EN 60947-1 / EN 60947-3

| | | | |
|---|--------------|------------------------|------------------------------------|
| Conventional thermal current (A) | In free air | I_{th} | at 40 °C |
| | | | Maximum fuse power dissipation (W) |
| | In enclosure | I_{the} | at 40 °C |
| | | | Maximum fuse power dissipation (W) |
| Rated insulation voltage (V) | | U_i | AC 50/60 Hz / DC |
| Rated impulse withstand voltage (kV) | | U_{imp} | |
| Rated operational voltage (V) | | U_e | AC 50/60 Hz |
| Rated operational voltage AC20 and DC20 (V) | | U_e | |
| Rated operational current (A) | | I_e | AC 50/60 Hz |
| | | | 220/240 V |
| | | | 380/415 V |
| | | | 440/480 V ^[1] |
| | | | 500 V |
| | | | 660/690 V |
| | | | DC/poles in series |
| | | | 125 V /nbr of poles |
| | | | 220 V /nbr of poles |
| | | | 440 V /nbr of poles |

| | | |
|--|--|---|
| Rated duties | Uninterrupted duty | |
| Rated short-circuit breaking capacity (kA _{rms})/ Rated short-circuit making capacity (kA peak)/ Fuse-link I _n (A) ^[2] | I_{cn}/I_{cm}/I_n | 415 V 500 V 690 V |
| Endurance (category B) (CO cycles) | Mechanical | |
| | Electrical AC | AC23B 415 V AC22B 500 V AC21B 690 V |

Suitability for isolation
Positive contact indication
Pollution degree

Control

Direct handle (operator-dependent opening and closing)
Locking Padlocks
Lead seal

Indication auxiliaries

Auxiliary contacts
Current transformer

Installation and connection accessories

Possible mounting position Horizontal
Vertical
Connector For bare Cu/Al cables
For flexible bars
Lugs for Cu/Al cables
Terminal shields

Dimensions and weight

| | |
|--|----|
| Overall dimensions H x W x D (mm) | 3P |
| Approximate weight without fuse-links (kg) | 3P |

[1] Suitable for 480 V NEMA.
[2] Fuse-switch disconnectors with fuse-links.
[3] Only for ISF160 with direct connection to the busbars.
[4] AC22B 690 V.

Fuse switch-disconnector selection

FuPacT ISFL160 to ISFL1250

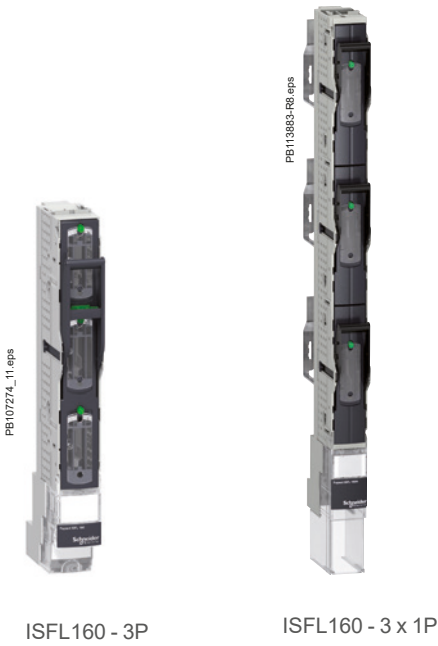
| ISFL160 | | ISFL250 | | | ISFL400 | | | ISFL630 | | | ISFL1250 | |
|-----------------------|--------------|-----------------------|--------------|--------------|-----------------------|--------------|--------------|-----------------------|--------------|--------------|-----------------|--------------|
| 3 x 1P or 3P/DIN (NH) | | 3 x 1P or 3P/DIN (NH) | | | 3 x 1P or 3P/DIN (NH) | | | 3 x 1P or 3P/DIN (NH) | | | 3P/DIN (NH) | |
| 160 | | 250 | | | 400 | | | 630 | | | 1250 | |
| 12 | | 23 | | | 34 | | | 48 | | | 2 x 48 | |
| 160 | | 250 | | | 400 | | | 630 | | | 1250 | |
| 12 | | 23 | | | 34 | | | 48 | | | 2 x 48 | |
| 1000 | | 1000 | | | 1000 | | | 1000 | | | 1000 | |
| 8 | | 8 | | | 8 | | | 8 | | | 8 | |
| 690 | | 690 | | | 690 | | | 690 | | | 690 | |
| 800 | | 800 | | | 800 | | | 800 | | | 800 | |
| AC22B | AC23B | AC21B | AC22B | AC23B | AC21B | AC22B | AC23B | AC21B | AC22B | AC23B | AC21B | AC22B |
| 160 | 160 | 250 | 250 | 250 | 400 | 400 | 400 | 630 | 630 | 630 | 1250 | 1250 |
| 160 | 160 | 250 | 250 | 250 | 400 | 400 | 400 | 630 | 630 | 630 | 1250 | 1250 |
| 160 | - | 250 | 250 | - | 400 | 400 | - | 630 | 630 | - | 1250 | 1250 |
| 160 | - | 250 | 250 | - | 400 | 400 | - | 630 | 630 | - | 1250 | 1250 |
| 100 | - | 250 | - | - | 400 | - | - | 630 | - | - | 1250 | - |
| DC21B | DC22B | DC21B | DC22B | | DC21B | DC22B | | DC21B | DC22B | | DC21B | DC22B |
| - | - | - | - | | - | - | | - | - | | - | - |
| - | - | - | - | | - | - | | - | - | | - | - |
| - | - | - | - | | - | - | | - | - | | - | - |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| 100 / 210 / 160 | | 120 / 250 / 250 | | | 120 / 250 / 400 | | | 120 / 250 / 630 | | | 120 / 250 / 630 | |
| 100 / 210 / 160 | | 120 / 250 / 250 | | | 120 / 250 / 400 | | | 120 / 250 / 630 | | | 120 / 250 / 630 | |
| 100 / 210 / 160 | | 100 / 210 / 200 | | | 100 / 210 / 315 | | | 100 / 210 / 500 | | | 100 / 210 / 500 | |
| 1400 | | 1400 | | | 800 | | | 800 | | | 800 | |
| 200 | | 200 | | | 200 | | | 200 | | | 200 | |
| 200 ^[4] | | 200 | | | 200 | | | 200 | | | 200 | |
| 200 | | 200 | | | 200 | | | 200 | | | 200 | |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| 3 | | 3 | | | 3 | | | 3 | | | 3 | |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| - | | - | | | - | | | - | | | - | |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| ⊙ ^[3] | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| ⊙ | | - | | | - | | | - | | | - | |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| ⊙ | | ⊙ | | | ⊙ | | | ⊙ | | | ⊙ | |
| ⊙ | | - | | | - | | | - | | | - | |
| ⊙ | | - | | | - | | | - | | | - | |
| included | | included | | | included | | | included | | | included | |
| 405 x 50 x 123 | | 741 x 100 x 190 | | | 741 x 100 x 190 | | | 741 x 100 x 190 | | | 834 x 200 x 190 | |
| 1.30 | | 4.70 | | | 5.00 | | | 5.60 | | | 15.20 | |

B

Fuse switch-disconnector selection

FuPacT ISFL160 to ISFL1250

B



ISFL160 - 3P

ISFL160 - 3 x 1P



ISFL250 - 3P

ISFL250 - 3 x 1P

Fuse switch-disconnectors

Type of fuse-link

- DIN NH000
- DIN NH00
- DIN NH1
- DIN NH2
- DIN NH3

Installation and connection

- ISFL160 for 60 mm busbar hook-on contact mounting with multiple use terminal (screw M8)
- ISFL160 for 60 mm busbar hook-on contact mounting with box terminal 95 mm²
- ISFL160 for 100 mm busbar hook-on contact mounting with multiple use terminal (screw M8)
- ISFL160 for 100 mm busbar hook-on contact mounting with box terminal 95 mm²
- Conversion kit for 185 mm busbar direct contact mounting (for 1 or 2 x ISFL160)
- ISFL160 for 185 mm busbar 1-pole switchable direct mounting
- ISFL160 for 185 mm busbar 1-pole switchable hook-on mounting

Terminal tightening torque (Nm)

Temperature derating (with gG fuse-link)^[1]

| "Vertical mounting" fuse-links in vertical position | I _{th} (A) | 40 °C |
|--|---------------------|-------|
| | | 45 °C |
| | | 50 °C |
| | | 55 °C |
| | | 60 °C |
| | | 65 °C |
| | | 70 °C |
| "Horizontal mounting" fuse-links in horizontal position | I _{th} (A) | 40 °C |
| | | 45 °C |
| | | 50 °C |
| | | 55 °C |
| | | 60 °C |
| | | 65 °C |
| | | 70 °C |

[1] Derating data is based on:
 - the maximum rating for fuse-links intended for the device
 - maximum power dissipation.

Fuse switch-disconnector selection

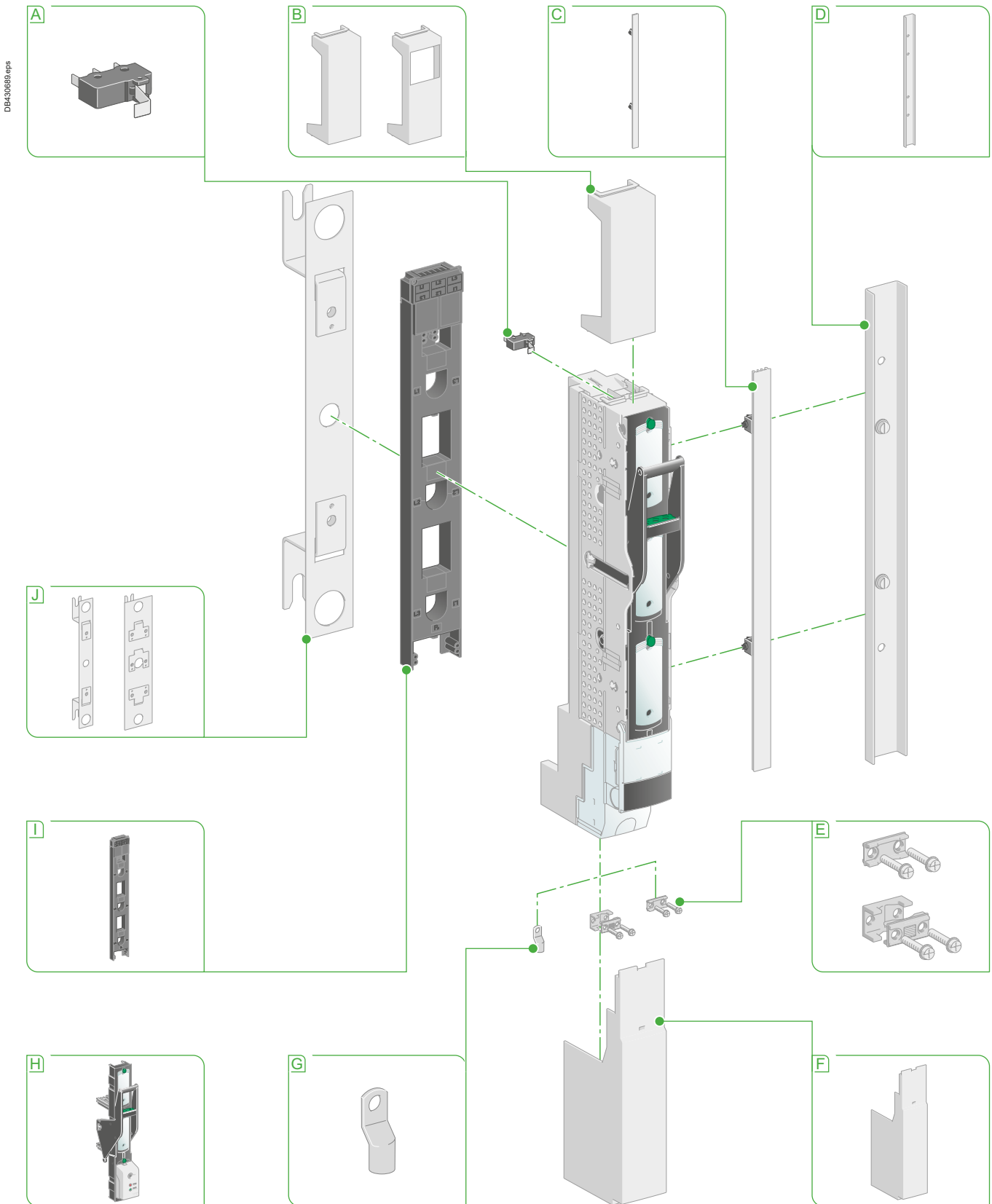
FuPacT ISFL160 to ISFL1250

| | ISFL160 | ISFL250 | ISFL400 | ISFL630 | ISFL1250 |
|--|--------------|---------|---------|---------|----------|
| | ○ | - | - | - | - |
| | ○ | - | - | - | - |
| | - | ○ | - | - | - |
| | - | - | ○ | - | - |
| | - | - | - | ○ | ○ |
| | ○ | - | - | - | - |
| | ○ | - | - | - | - |
| | ○ | - | - | - | - |
| | ○ | - | - | - | - |
| | ○ | ○ | ○ | ○ | ○ |
| | ○ | ○ | ○ | ○ | ○ |
| | see page B-4 | | | | |
| | 160 | 250 | 400 | 630 | 1250 |
| | 150 | 240 | 380 | 600 | 1200 |
| | 145 | 225 | 360 | 570 | 1130 |
| | 135 | 215 | 340 | 535 | 1070 |
| | 130 | 200 | 320 | 500 | 1000 |
| | 120 | 190 | 300 | 475 | 940 |
| | 110 | 175 | 280 | 440 | 880 |
| | 160 | - | - | - | - |
| | 150 | - | - | - | - |
| | 145 | - | - | - | - |
| | 135 | - | - | - | - |
| | 130 | - | - | - | - |
| | 120 | - | - | - | - |
| | 110 | - | - | - | - |

B

Accessories and auxiliaries

FuPacT ISFL160 - 3P



A NO + NC auxiliary changeover contacts

B Length adapter

C Side cover for front panel cut-out

D Blank panel cover for free slot

E Connectors for :
 ■ bare cable
 ■ flexible bars

F Length adapter

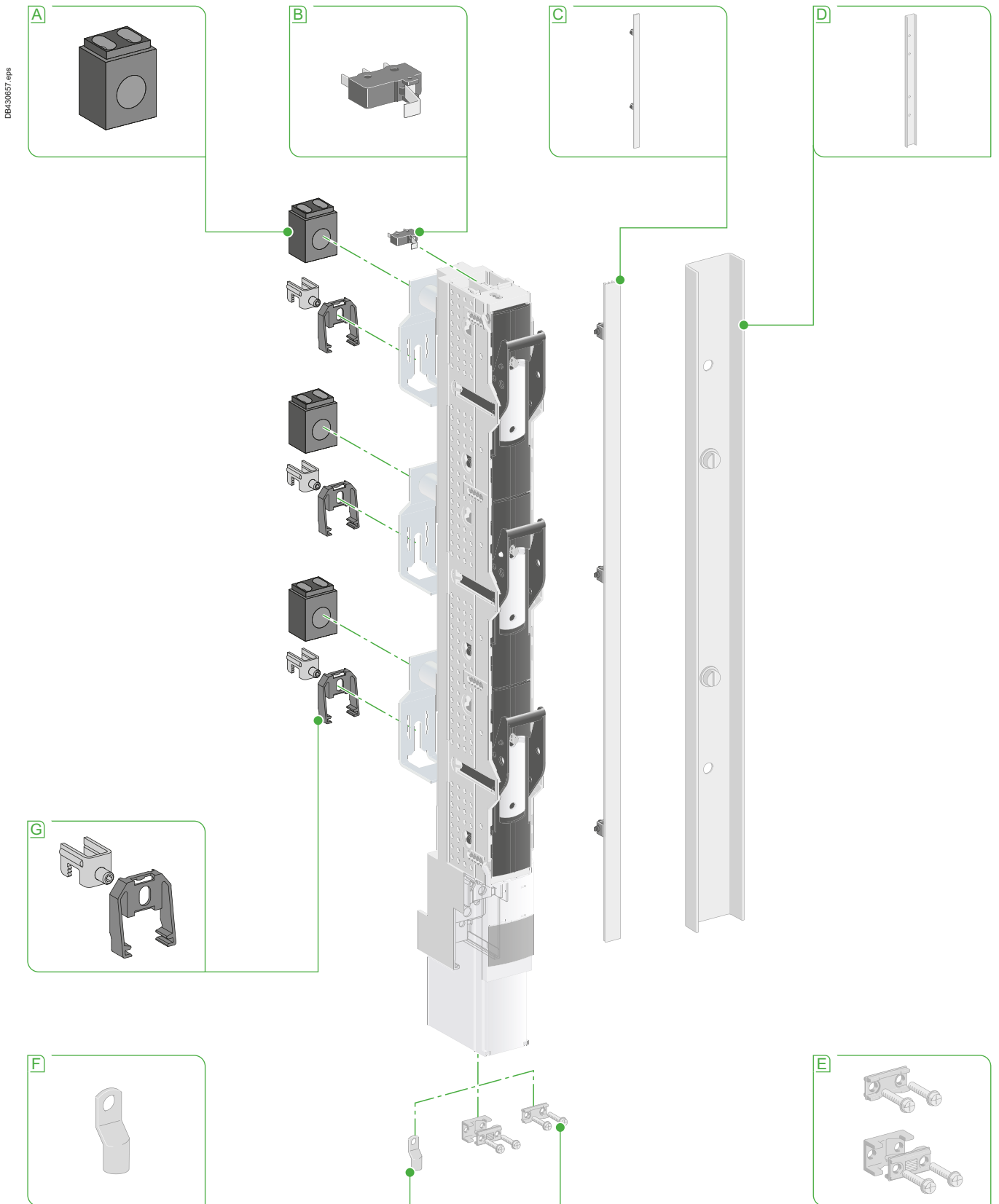
G Lug for copper cable

H Fuse monitor

I Current transformer

J Conversion kit for direct connection to 185 mm busbars

Accessories and auxiliaries FuPacT ISFL160 - 3 x 1P

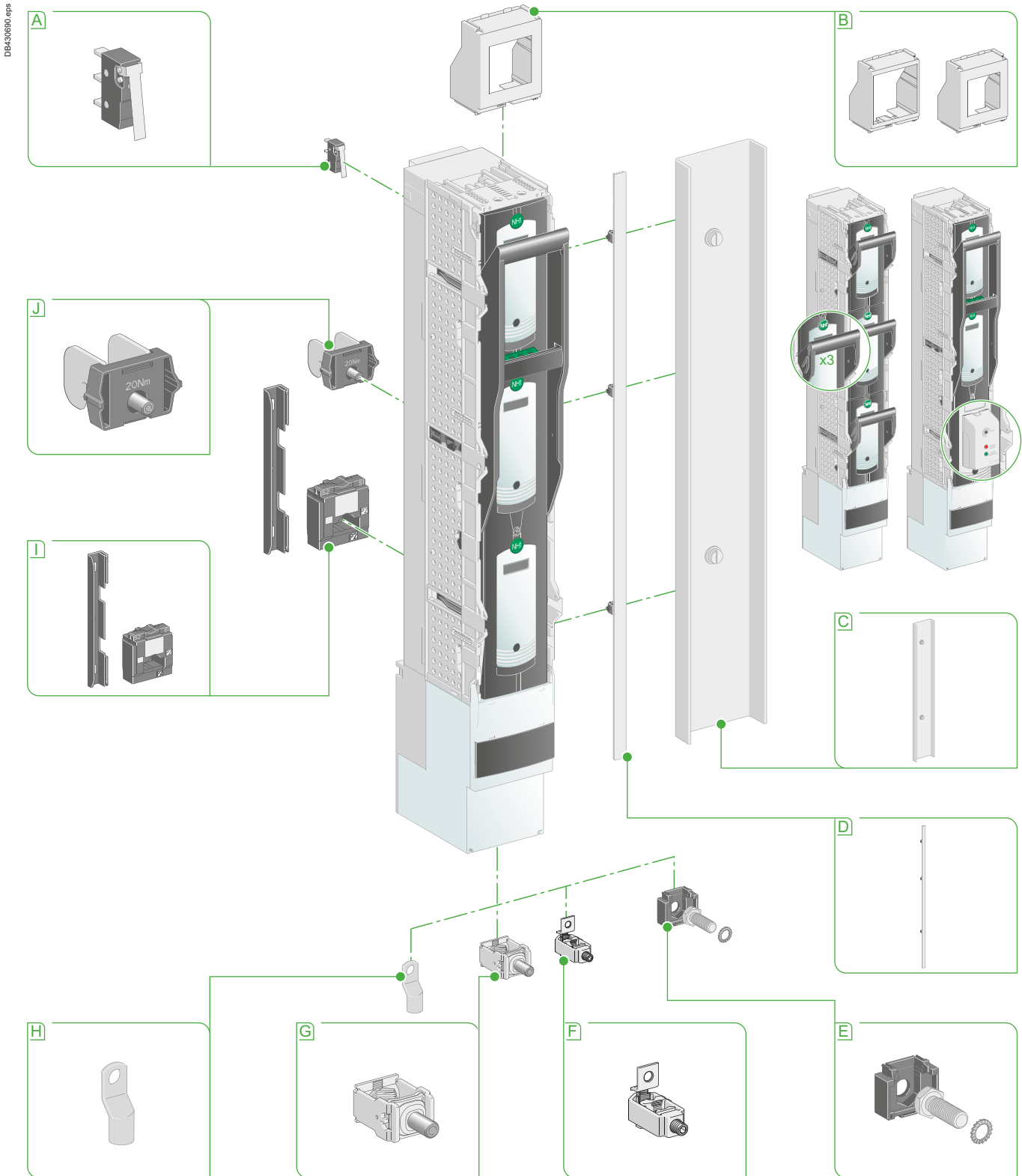


- A** Current transformer
- B** NO + NC auxiliary changeover contacts
- C** Side cover for front panel cut-out
- D** Blank panel cover for free slot

- E** Connectors for :
 - bare cable
 - flexible bars
- F** Lug for copper cable
- G** Hooks

Accessories and auxiliaries

FuPacT ISFL250 to ISFL630



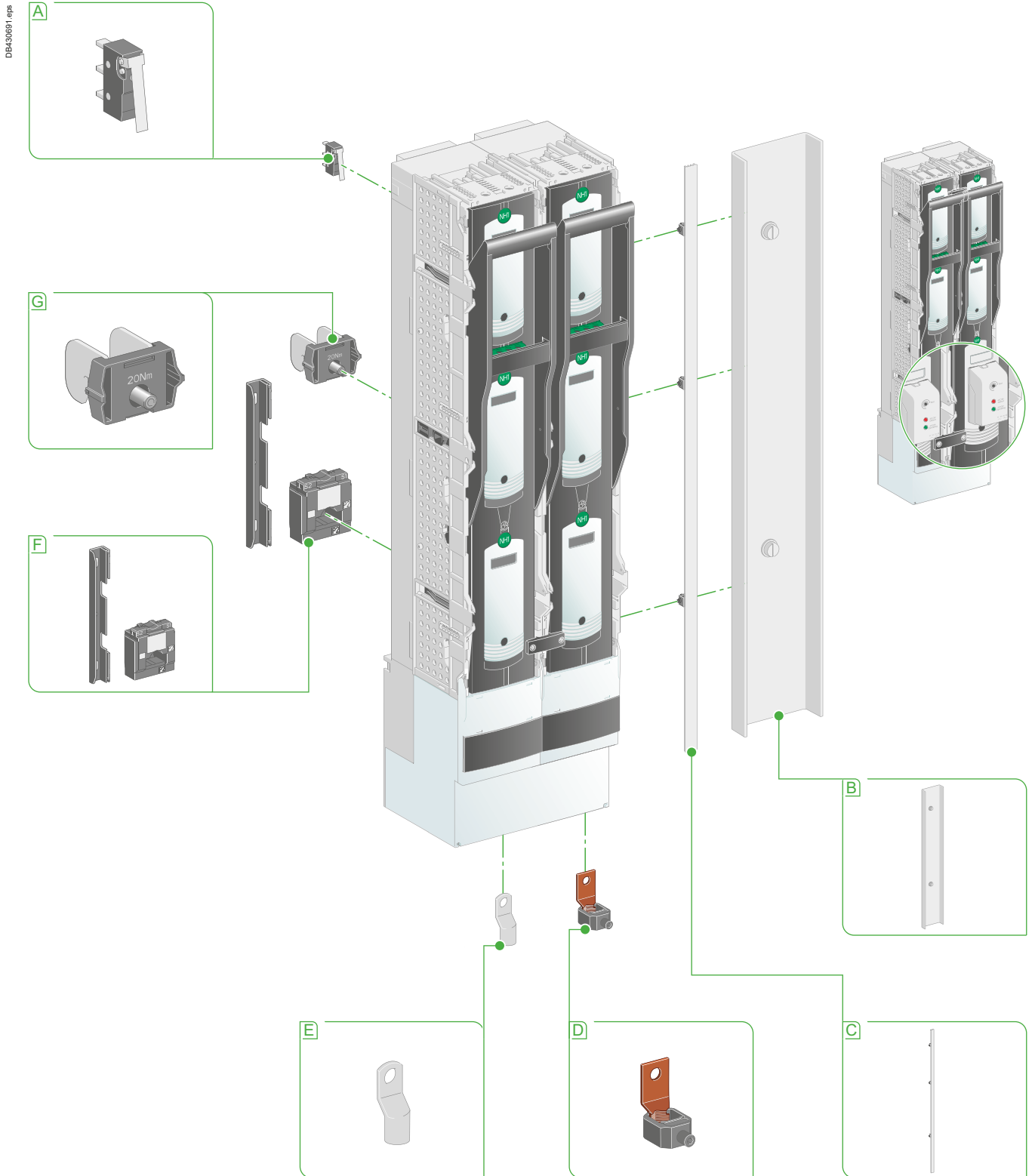
- A** NO + NC auxiliary changeover contacts
- B** Empty plastic box
- C** Blank panel cover for free slot
- D** Side cover for front panel cut-out

- E** Screws with plastic support
- F** Connector for Cu/Al bare cables 2 x 50 to 185 mm²
- G** Connector for Cu/Al bare cables 1 x 35 to 300 mm²

- H** Lug for copper cable
- I** Current transformer
- J** Hooks

Accessories and auxiliaries

FuPacT ISFL1250



- A** NO + NC auxiliary changeover contacts
- B** Blank panel cover for free slot
- C** Side cover for front panel cut-out
- D** Connector 4 x 240 mm²
- E** Lug for copper cable
- F** Current transformer
- G** Hooks

General characteristics: ISFL

FuPacT ISFL160 to ISFL1250



ISFL turnable hooks

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B

With FuPacT ISFL, you have one of the most efficient vertical NH fuse switch-disconnectors ever designed with compact dimensions, a modular system and an elegant design. Your benefit are as follows:

Future proof

The trend is moving from simple power distribution stations to more intelligent power distribution stations. FuPacT ISFL is made for the future: with interfaces for measurement and control equipment which can be integrated in a space-saving manner.

Reduced heat development

Safeguarding high currents requires one thing above all: keeping a cool head. This is where FuPacT ISFL leads the pack. They feature one of the lowest heat development values of all products available on the market. This pays off for your entire facility: reduced energy loss, improved operating safety and durability.

Faster mounting

All installation and connecting components of the FuPacT ISFL were optimized and the number of assembling steps was reduced. This puts your switch "on the track" even more quickly.

Safety in mind

The switch gears are very user friendly and provide optimal user protection due to parallel switching. Two disconnected positions per phase produce two smaller electrical arcs. This causes only half the arc voltage.

Turnable contact hooks

FuPacT ISFL fuse-switches, vertical design, 00/60 are the first of its kind to feature turnable contact hooks. This makes it much easier to mount the NH Fuse-Switch on the busbar in addition to being much more flexible. Due to its symmetry, the NH Fuse-Switch can be turned around at any time. Terminal top or bottom can be chosen freely. Thus, only one version needs to be placed on stock.

Fast connection – with variable box terminals

High currents require large cable cross-sections. At the same time, modern switchboard cabinets are becoming more and more compact. They accommodate three cables of up to 95 mm² in the smallest possible. No one else can do that with a FuPacT ISFL 160 A. This is possible only due to the stepped and slightly offset arrangement of the box terminals. Captive screws enable a quick and reliable securing of the cable.

Optimized back-up with space-saving current-transformer installation

Do you wish to measure currents in addition to safeguarding them? We have redefined space for you. Our new current transformers can be installed behind the FuPacT ISFL, vertical design, without an alteration of installation depth. After removing the break-out-pieces from the socket, the current transformers is simply plugged on – ready for use. With or without a current transformer, the FuPacT ISFL always has the same installation depth, so no adaptors are required.

General characteristics: ISFL

FuPacT ISFL160 to ISFL1250

The elegant solution

To obtain the same installation depth with surrounding devices, the FuPacT ISFL vertical design, size 00/185 does not only come with conventional adapters but also features raised busbar connections. This makes it easy to mount the fuse-switch adjacent to devices of size 1 to 3. Simply hook the elevated feeding bracket onto the pre-mounted bolts or attach it with the contact hooks. There is no need for drilling. This allows the same installation depth for all sizes, giving the front face a clear uniform look.

No trouble with large cross-sections

Standard universal terminals allow the direct connection of cable lugs as well as cables with cross-sections up to 300 mm². Easy-to-install terminal hardware gives you great flexibility. No other small-sized FuPacT ISFL can do that.

Appealing at first sight

Rotating nameplates turn your installation possibilities into a real eye-catcher. No matter if the terminal is located on top or at the bottom, technical data and installation labels of all FuPacT ISFL are always correctly aligned.

Turn-off-position – up to three padlocks

Even fuse-protection-devices need to be protected: from electricity-theft, manipulation and unauthorized use. This is why every 3-pole FuPacT ISFL, vertical design, may be locked with up to three locks. This is possible in both, the closed and the secure padlock position.

Intelligent measurement

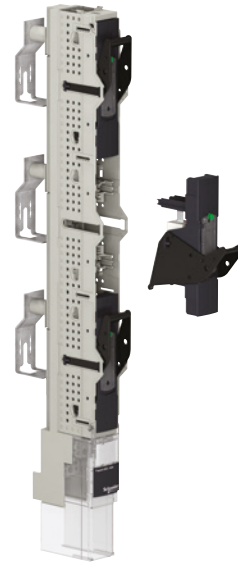
The future belongs to more intelligent switchboards. FuPacT ISFL is well prepared for the future: it offer standardized interface for measurement devices.

Contemporary power management

FuPacT ISFL measuring devices offers a large selection of measuring and monitoring options: from basic current measurements and power metering, harmonic wave analysis to remote management and alarm relays, and many more. All electrical parameters are visualized on an LCD and can be centralized. EM measuring devices are normally installed separately in the switchboard. FuPacT ISFL offer an integrated solution which can simply be plugged on.

Electronic Fuse-Monitoring - Everything under control

You know what happens and where it happens almost instantly to a notification, technician receives the information required to precisely locate and quickly correct short-circuits and overloads. Your technician will be faster to analyze and change fuse which is broken.



FuPacT ISFL160 - 3 x 1P



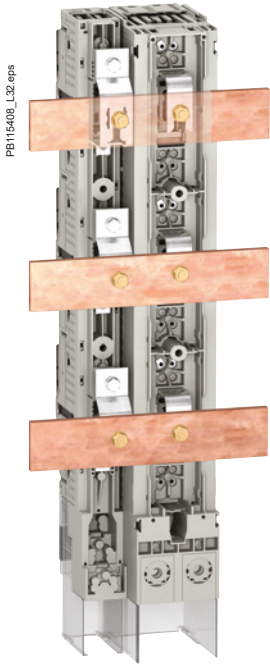
FuPacT ISFL630 with fuse monitor

ISFL installation

FuPacT ISFL160

FuPacT ISFL fusegear is installed vertically and connected directly to the busbars. The connection is bolted or could be made by the hook-on connection.

B



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Direct connection to the busbars (ISFL160 and ISFL400)

ISFL160 fusegear

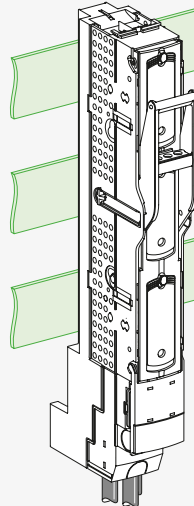
Connection to busbars.

The power circuit is connected:

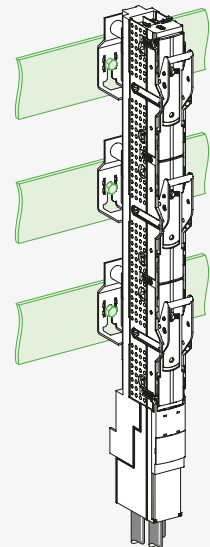
- directly to the 100 mm busbars for 3-pole version or to the 185 mm busbars for 1-pole version
 - using a hook-on connection to 60 mm busbars (3-pole version)
 - via a conversion kit for connection to 185 mm busbars (3-pole version)
 - via a conversion kit for two devices and for connection to 185 mm busbars.
- Downstream connection of distribution circuits requires cables (3-pole version).



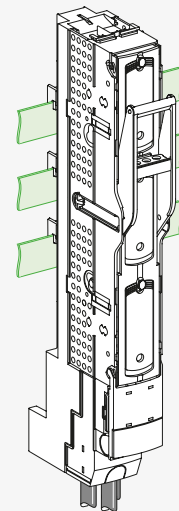
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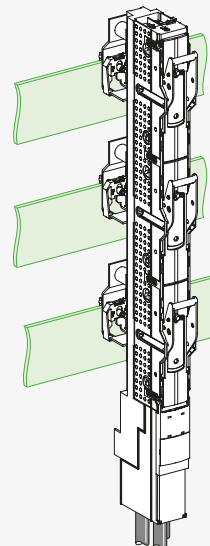
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DB423384.eps



DB423385.eps



ISFL installation

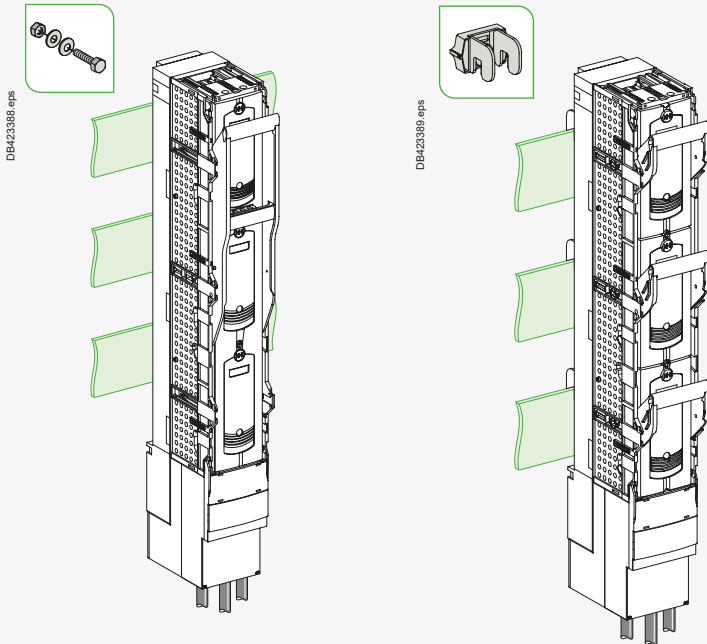
FuPacT ISFL250 to ISFL1250

ISFL250/400/630 fusegear

Connection to busbars.

The power circuit is connected:

- directly to the 185 mm busbars for 1-pole and 3-pole version
- using a hook-on connection to 185 mm busbars

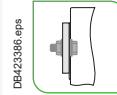
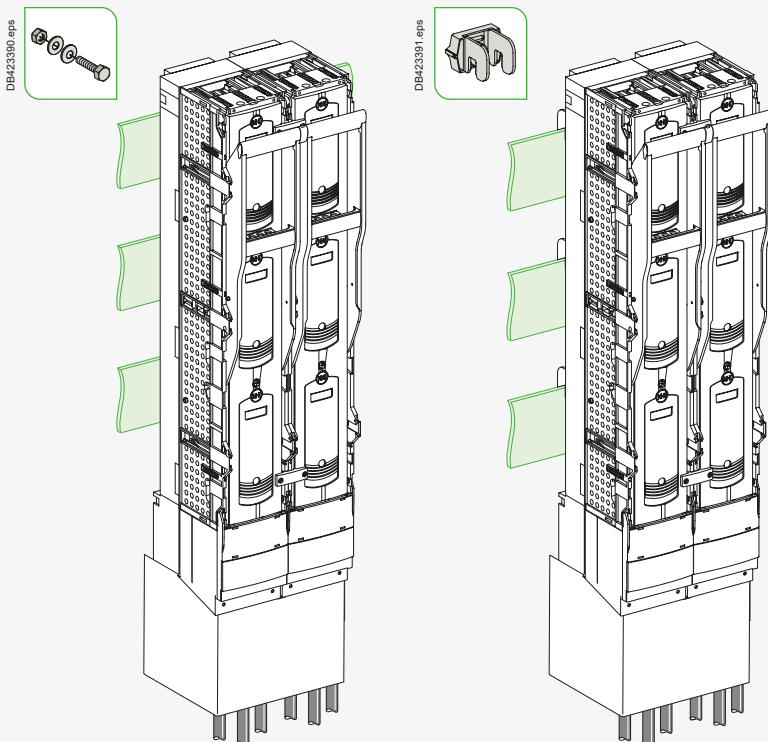


ISFL1250 fusegear

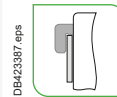
Connection to busbars.

The power circuit is connected:

- directly to the 185 mm busbars for 3-pole version
- using a hook-on connection to 185 mm busbars



Direct connection to the busbars: the device is bolted to the busbars with one connection point per phase that allows for both electrical connection and robust mechanical mounting.



Hook-on connection to busbars: the device tightly hooks on to the busbars via three hooks that allows for both electrical connection and robust mechanical mounting.

These two systems allow for or enable direct contact of the power circuit to the busbars and usual connections for downstream distribution (bare cable connectors, lugs, bars, distribution connectors, etc.).

The two connection systems can also be reversed to supply distribution circuits via the upstream terminals.



Connection and accessories

FuPacT ISFL160 to ISFL1250 - Connection

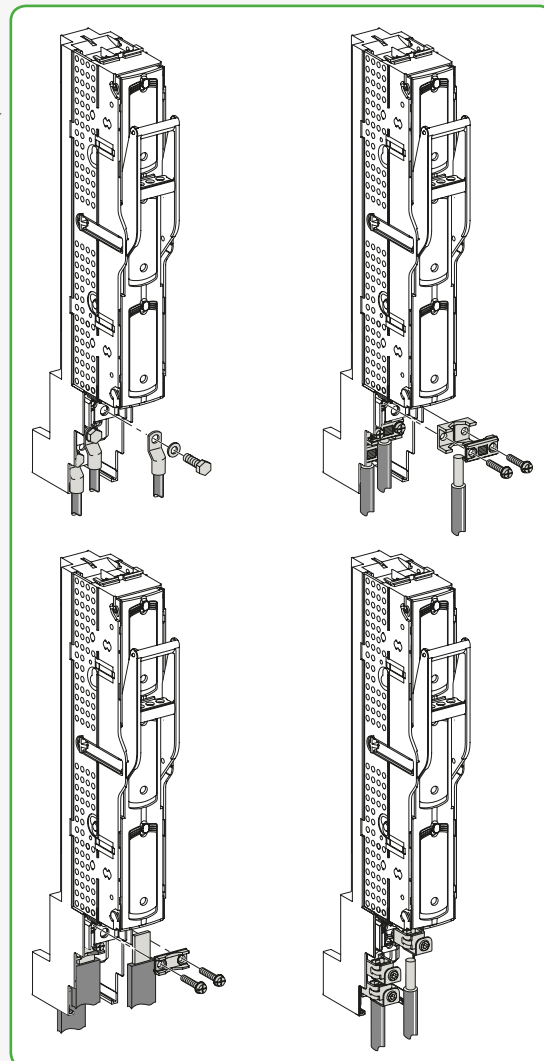
FuPacT ISFL fuse-switch disconnectors can supply distribution circuits via either the upstream or downstream terminals. Devices intended for connection to busbars are configured as standard for distribution via the downstream terminals.

ISFL fusegear is equipped with connectors or terminals for front connection of:

- cables with lugs for the ISFL160 and ISFL1250 devices
- flexible bars for the ISFL160 devices
- bare cables for ISFL160 to 630 devices.

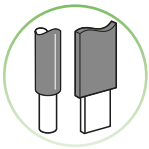
| | ISFL160 | ISFL250 | ISFL400 | ISFL630 | ISFL1250 |
|-----------------------------|---------------------------|-------------------------------|---------|---------|----------|
| Cables | | | | | |
| Lug | 95 mm ² | - | - | - | - |
| Cable connector to terminal | 1.5 to 95 mm ² | 1 x 35 to 300 mm ² | - | - | - |
| | - | 2 x 50 to 185 mm ² | - | - | - |
| Flexible bars | | | | | |
| Connector | 12 x 6 mm | - | - | - | - |

ISFL160 fusegear ^[1]



[1] Connections and accessories are identical for ISFL single phase.

B



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Lug for copper cables



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Connector for bare Cu/Al cables



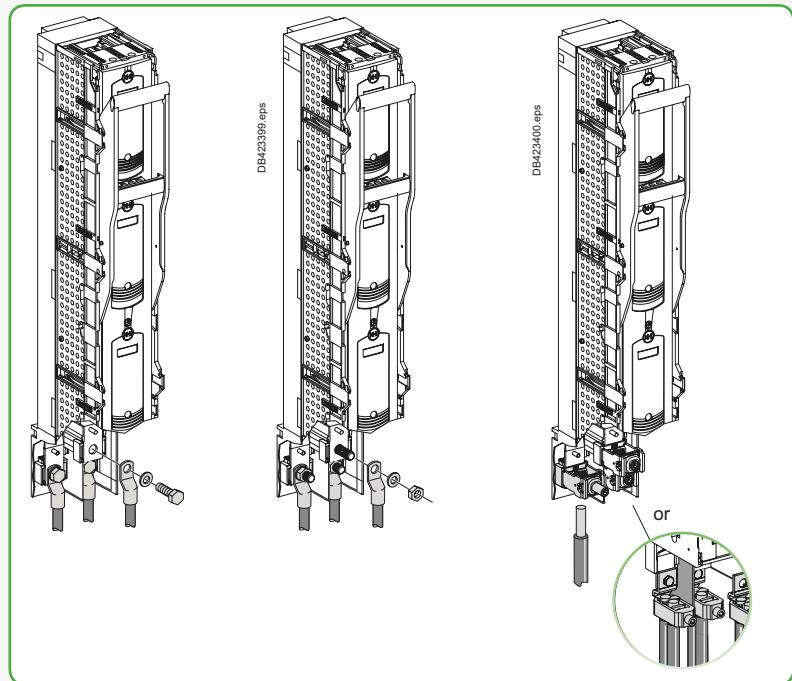
66324a_3.eps

Connector for flexible bars

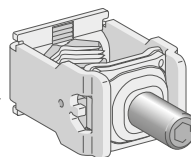
Connection and accessories

FuPacT ISFL160 to ISFL1250 - Connection

ISFL250/400/630 fusegear [1]



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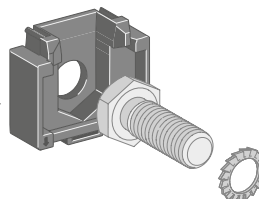
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Connector for Cu/Al bare cable 1 x 35 to 300 mm²



PB101086-22.eps

Connector for Cu/Al bare cable 2 x 50 to 185 mm²



DB402726.eps

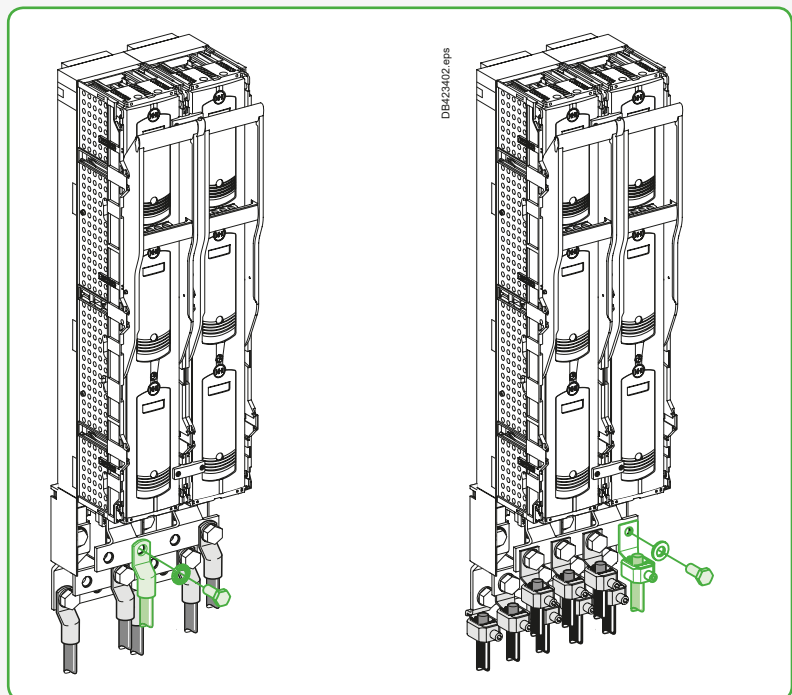
Connector for cables with lugs



PB115880_08.eps

Connector 4 x 240 mm²

ISFL1250 fusegear



[1] Connections and accessories are identical for ISFL single phase.

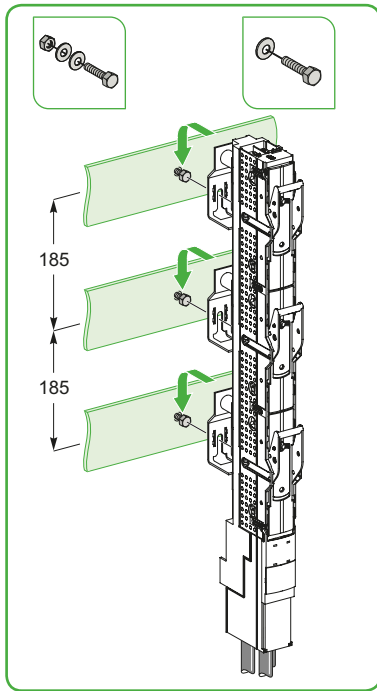


Connection and accessories

FuPacT ISFL160 to ISFL630 - Connection, coupling

Two conversion kits are available for ISFL160 3-pole switchable to adapt the 100 mm standard fixing centres to 185 mm fixing centres.

Direct connection to 185 mm busbars



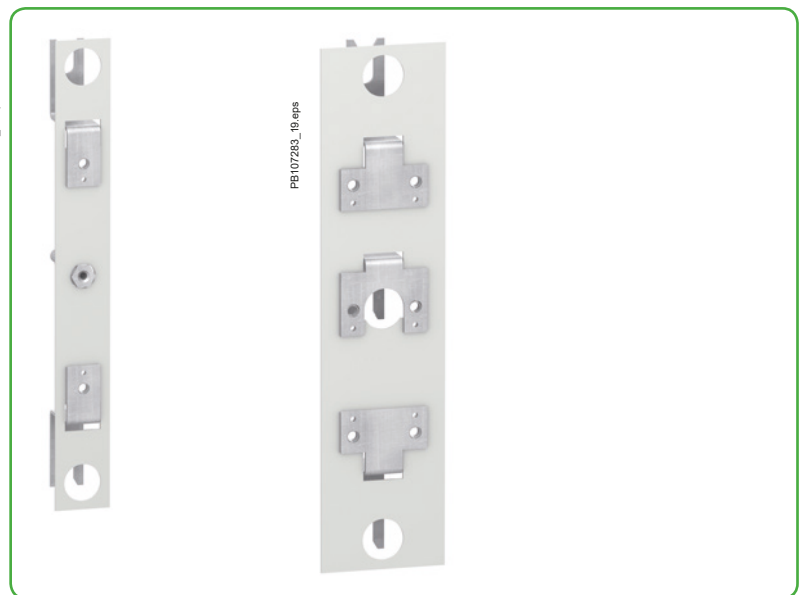
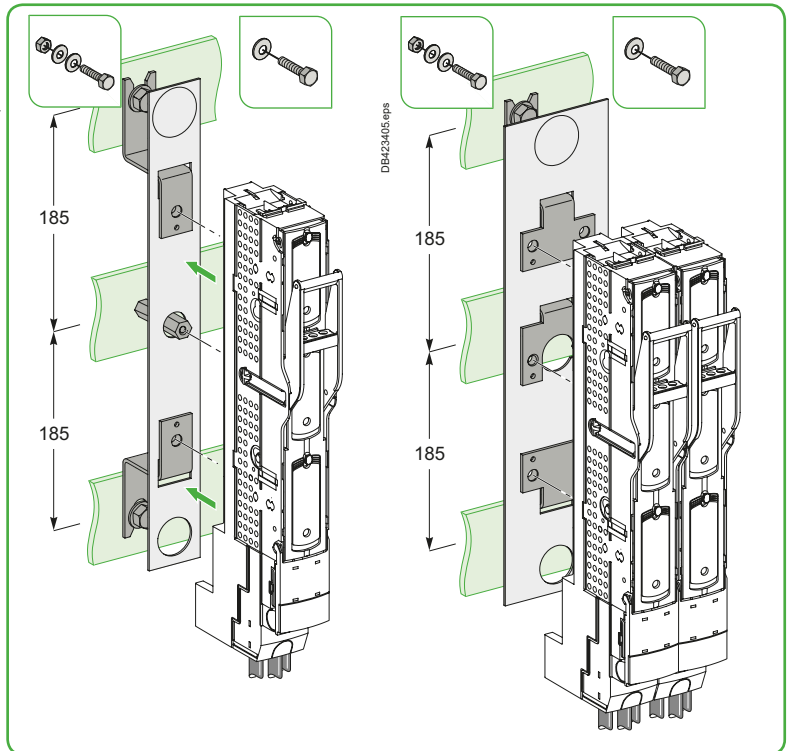
ISFL160 1P

Conversion from 100 to 185 mm

The kit connects to the busbars via a hook-on connection.

Conversion kit for 185 mm busbars includes electrical and mechanical connections to the busbars (set of nuts and bolts).

Electrical and mechanical connection of the device to 100/185 mm conversion kit is ensured by three screws.



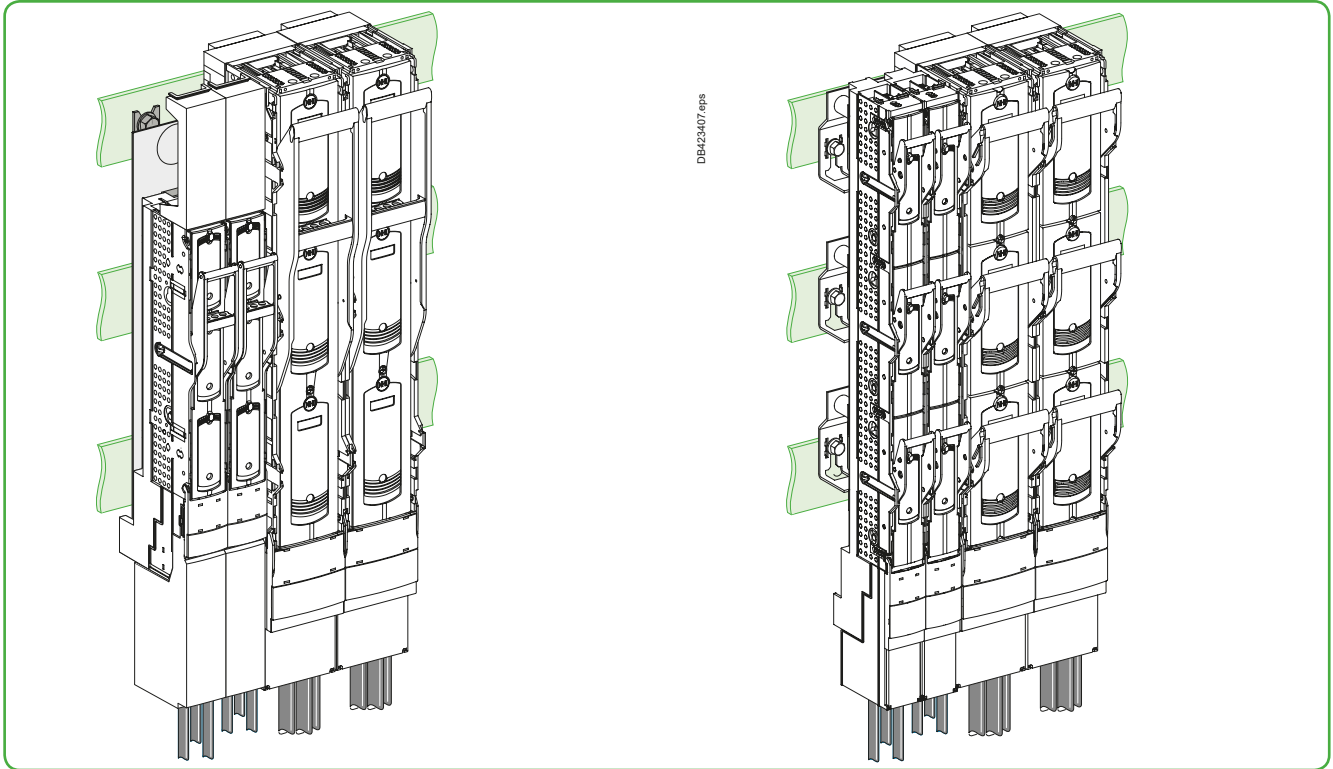
ISFL160 (185 mm kit)

B

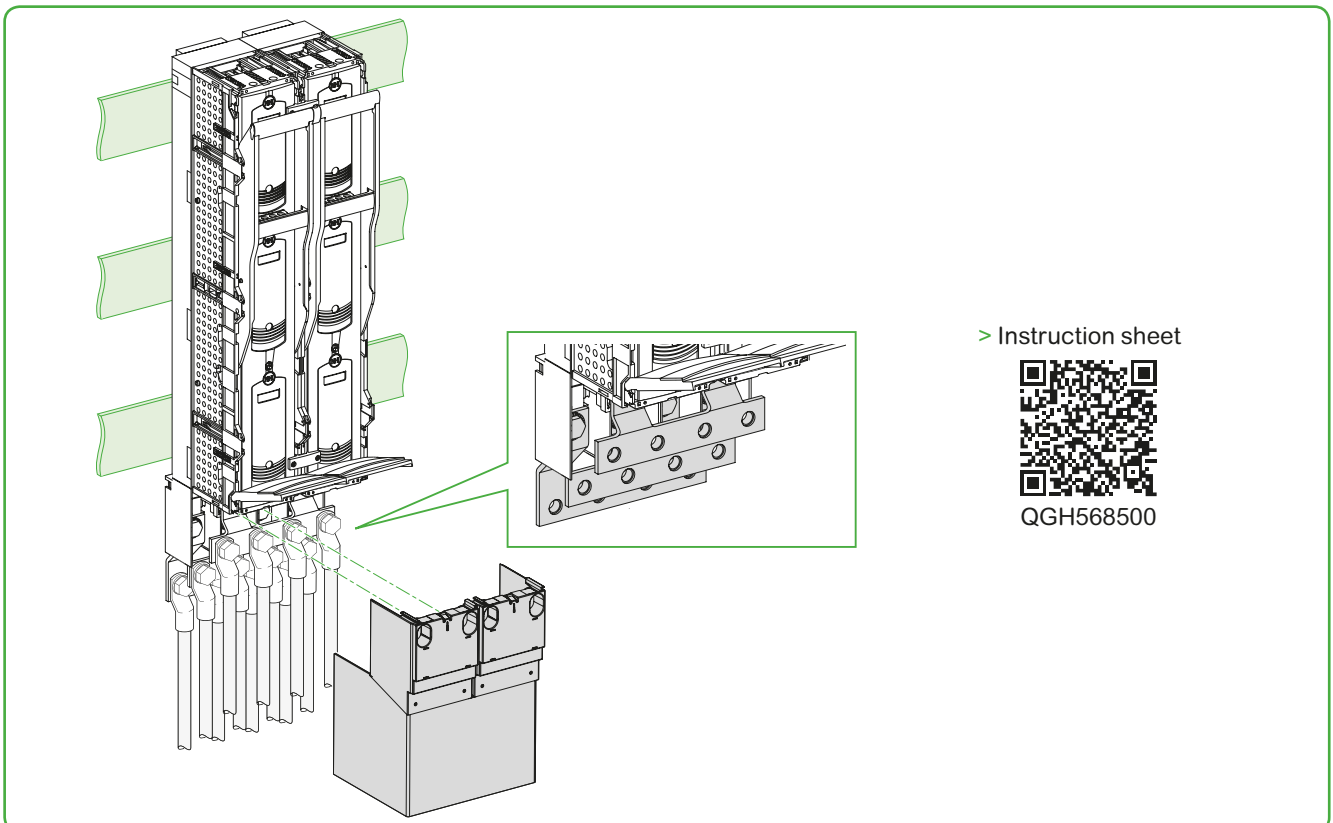
Connection and accessories

FuPacT ISFL160 to ISFL630 - Connection, coupling

Installation of devices with different ratings on a given set of busbars



Coupling kit from ISFL250 to ISFL630

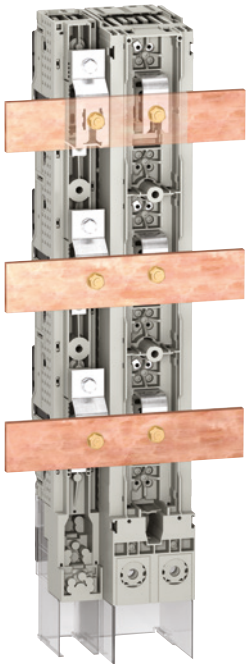


B

Connection and accessories

FuPacT ISFL160 to ISFL630 - Reverse distribution

PB115408_L32.eps



Direct connection on 185 mm busbar (ISFL160 with ISFL630)

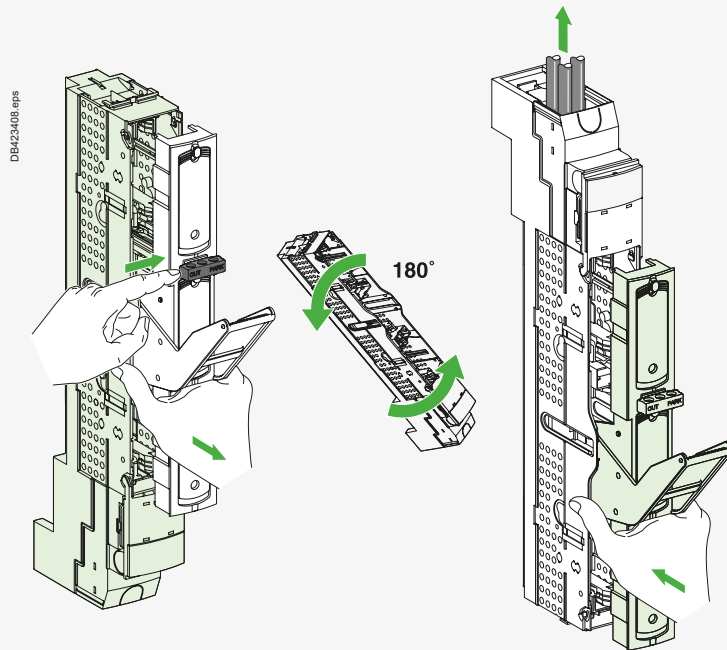
B

ISFL160 fusegear devices with hook-on connection to 60 mm bars are available in two versions:

- connection using M8 screws
- connection using a 95 mm² terminal.

For each of these versions, the distribution reversal mode is achieved by rotating the hooks located at the rear, which gives the possibility of upstream distribution. The fuse-carrier assembly does not change position. All the various connection modes could be reversed also.

ISFL160 fusegear with turnable hooks [1]



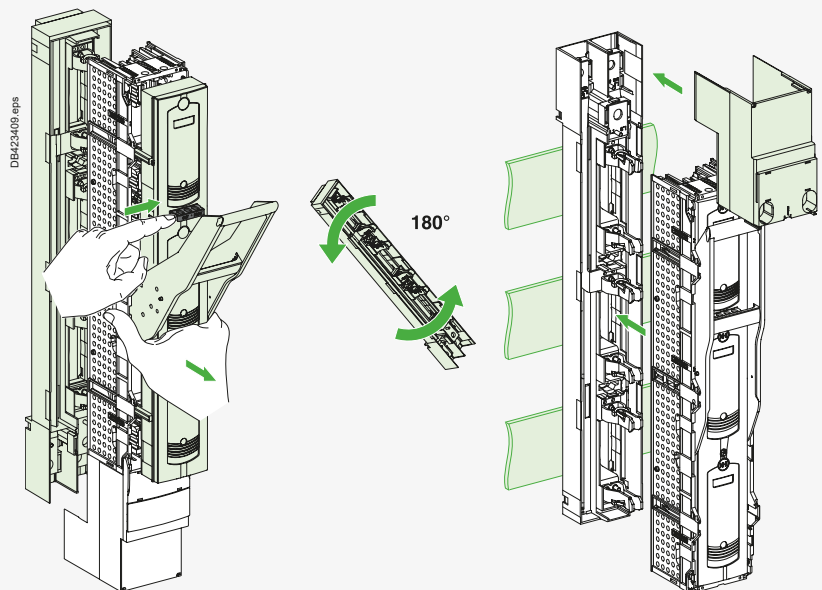
ISFL160 release tab

- To remove the fuse-carrier assembly from the base, put the device in open position and press the release tab down.
- To lock the fuse-carrier assembly, replace it in open (OFF) position on the base and push the release tab up.

ISFL250/400/630 release tab

- To remove the fuse-carrier assembly from the base or install it on the base, check that the device is in open position and press the release tab down.
- To lock the device in open (OFF) position, push the release tab up.

ISFL250/400/630 fusegear [1]



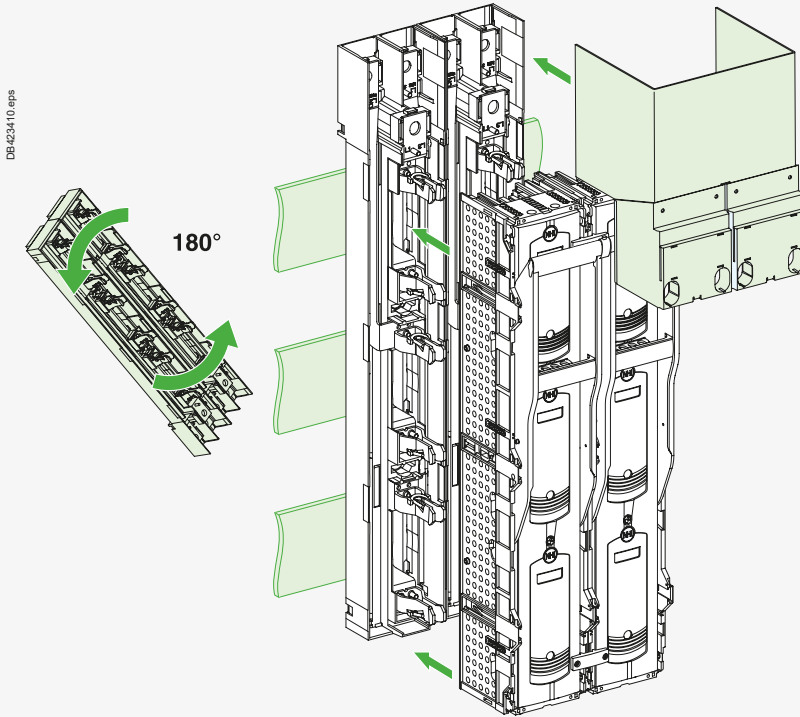
[1] For ISFL 1-pole switchable: identical reversed distribution could be done.

Connection and accessories

FuPacT ISFL1250 - Reverse distribution

ISFL1250 fusegear devices can be reversed to allow an upstream distribution.

ISFL1250 fusegear

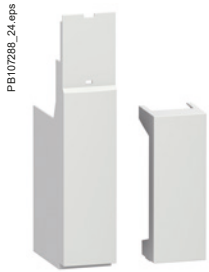


B

Insulation

FuPacT ISFL160 to ISFL630

B



Length adapter

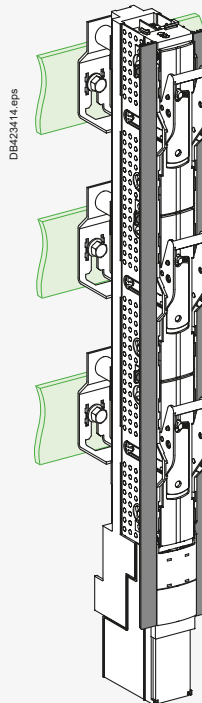
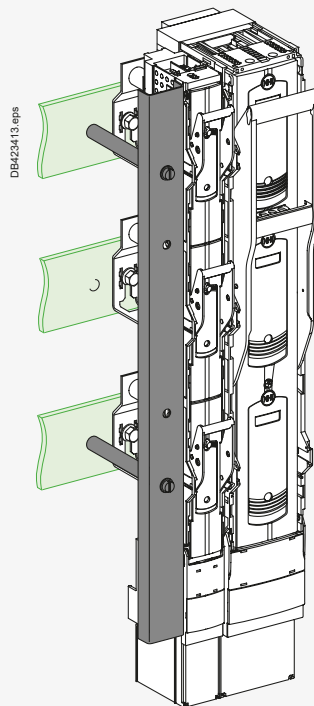
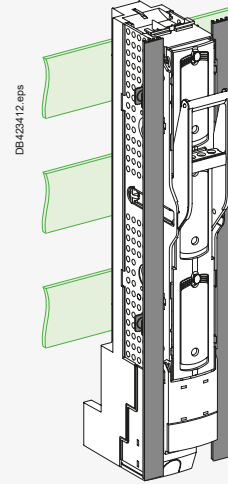
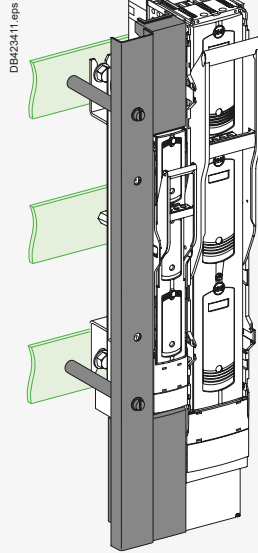


Sideframe door cut out



Sidewise angle bracket for side frame

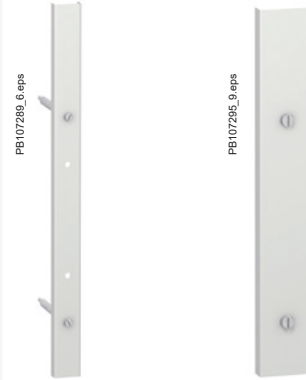
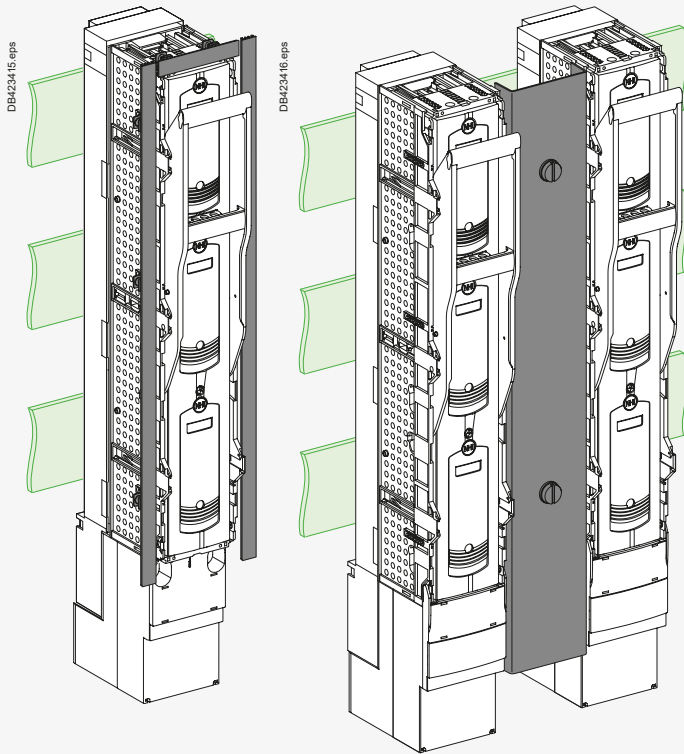
ISFL160 fusegear



Insulation

FuPacT ISFL250 to ISFL1250

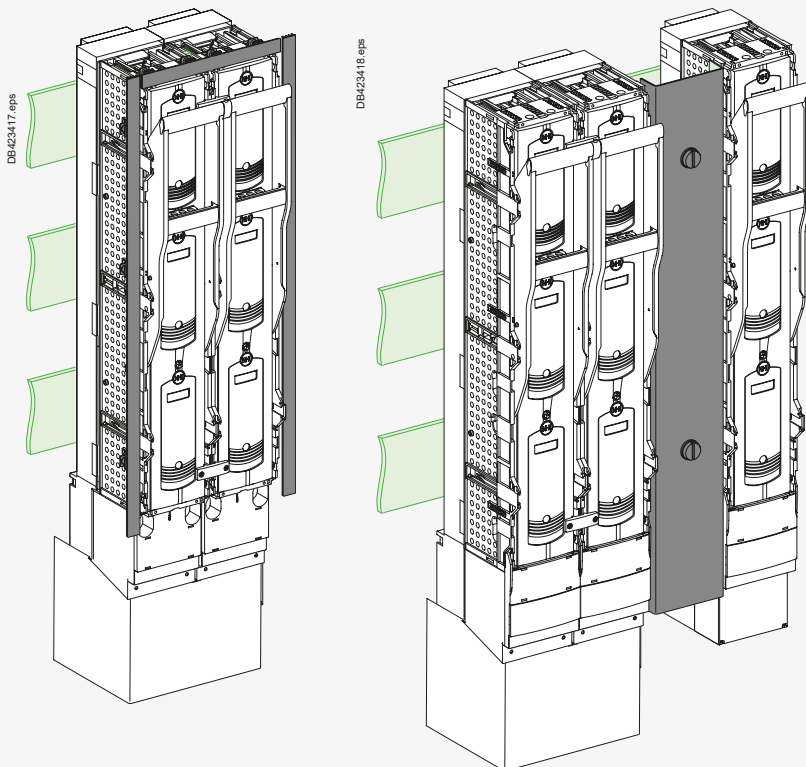
ISFL250/400/630 fusegear^[1]



Blank panel cover

[1] Accessories are identical for ISFL 1-pole switchable.

ISFL1250 fusegear



B

Fuse monitor

FuPacT ISFL160 to ISFL1250

PB107276_11.eps



PB107276_20.eps



PB119108.eps



Functions

The device provides remote indication of the standard fuse status (without strikers). It is used to:

- signal a blown fuse
- protect motors from overloads caused by single-phase operation.

Standards

- Compliance with international standard IEC 60947-5-1.
- Compliance with:
 - EN 50204
 - EN 61000 for electromagnetic compatibility (EMC).

Description

- Fuse monitor function only for 3P.
- Operation with DIN fuses.
- May be used on capacitor bank circuits.
- Simplified power supply:
 - does not require a specific power supply
 - operates with unbalanced phases
 - supplied via connection to the fuse terminals on the switch-disconnector fuse
 - operational voltage 400...690 V AC, ±10 %, 50/60 Hz.
- Tested for electromagnetic compatibility (EMC).
- ISFL160:
 - it is a fuse-carrier/handle and fuse monitor sub-assembly supplied as a kit composed of:
 - fuse monitor equipped with one NO contact and one NC contact
 - fuse-carrier with the handle
- ISFL250 to 1250:
 - order directly the fuse monitor mounted on the product
- Characteristics:
 - IP20 degree of protection
 - To have a complete class II insulation, install the product with a fuse monitor inside a switchboard and not on the front face.

Class II insulation with switchboard on front face is ensured only when FuPacT ISFL is in closed position.

Note: lugs for connection to the fuse-carrier are not supplied.

Operation

Reset

The device is automatically reset when the fuse-links are replaced.

Indications

- Normal operation:
 - the green LED is ON when voltage is present at the fuse terminals
 - the contacts are in the rest position
- Operation when a fuse is blown:
 - the green LED goes off and the red LED goes on
 - the contacts are actuated:
 - the NO contact is for remote fault indication
 - the NC contact may be used, for example, to control an undervoltage device in order to shut down equipment that may be sensitive to single-phasing.

Fuse monitor

FuPacT ISFL160 to ISFL1250

B

Electrical characteristics

Power circuit

| | | |
|--|--------|-------------------------------------|
| Rated operational voltage | (Ue) | 400 to 690 V AC 50/60 Hz \pm 10 % |
| Consumption | | < 3 VA |
| Rated frequency | | 50/60 Hz |
| Measurement impedance | | > 1000 Ω /V |
| Rated impulse withstand voltage (1.2 / 50 μ s) | (Uimp) | 8 kV |

Auxiliary contact output terminals

| | | |
|----------------------|----------|-------------------------------|
| Terminal indications | NO | 13 - 14 |
| | NC | 21 - 22 |
| Cable capacity | Flexible | \leq 1.5 mm ² Cu |
| | Rigid | \leq 2.5 mm ² Cu |

Output contact characteristics (1NO + 1NC)

| | |
|--------------------------------------|---------------|
| Conventional thermal current Ith (A) | 5 |
| Rated insulation voltage (V) | 250 |
| Minimum load | 10 mA at 24 V |

Characteristics

| Utilisation category (IEC 60947-5-1) | | AC | | DC | |
|--|-----------|---------|------|------|------|
| | | AC12 | AC15 | DC12 | DC13 |
| Operational current (A) | 24 V | - | 3 | - | 2 |
| | 48 V | - | 3 | - | - |
| | 110 V | - | 3 | - | - |
| | 220/240 V | - | 3 | - | - |
| | 250 V | - | 3 | - | - |
| | 380/415 V | - | - | - | - |
| | 440 V | - | - | - | - |
| 660/690 V | - | - | - | - | |
| Rated operational voltage / max. breaking voltage (V AC) | | 250/440 | | | |
| Breaking capacity (VA) | | 2000 | | | |

General characteristics

| | | |
|--|---------------------------|---------------------|
| Operating temperature range (°C) | -25...+55 (\leq 500 V) | -25...+45 (> 500 V) |
| Storage and transport temperature range (°C) | -40...+70 | |
| Fuse blowing detection time (s) | < 2 | |
| Overvoltage category / degree of pollution | IEC 60947-1 | 3 |
| Dielectric test voltage (between power circuit and output terminals) | 5 kV rms / 1 min 50 Hz | |

Electromagnetic compatibility - emission

| | |
|-------------------|----------------------|
| Conducted | EN 55022 Class B |
| Radiated | EN 55022 Class B |
| Harmonic currents | EN 61000-3-2 Class A |

Electromagnetic compatibility - immunity

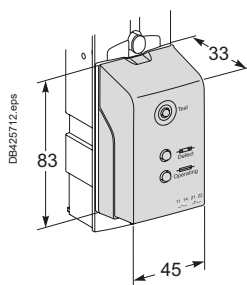
| | |
|---|-----------------------------------|
| Electrostatic discharge (ESD) | EN 61000-4-2 category B level 2/3 |
| Radiated field susceptibility (RF) | EN 61000-4-3 category A level 3 |
| Surge immunity test | EN 61000-4-5 level 4 |
| Conducted low energy susceptibility (EFT) | EN 61000-4-4 category B level 3 |
| Conducted high energy susceptibility (RF) | EN 61000-4-6 category A level 3 |
| Radio-frequency interference (GSM) | ENV 50204 category A |

Magnetic field immunity

| | |
|------------|----------------------|
| Continuous | EN 61000-4-8 level 5 |
|------------|----------------------|

Mechanical characteristics

| | |
|----------------------------------|------|
| Degree of protection | IP20 |
| Weight (fuse monitor alone) (kg) | 0.2 |
| Dimensions | |



Measurement accessory

FuPacT ISFL160 to ISFL1250

The current transformers (CTs) produce a current (1 - 5 A) on the secondary winding that is proportional to the current measured on the primary winding. They can therefore be used in conjunction with measurement devices (ammeters, energy meters), load-shedding devices, control relays, etc.

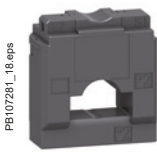
B



Single block current transformer for ISFL160 (1 or 3 CTs)



Current transformer for ISFL160 (1-pole version)



Current transformer for ISFL250/400/630/1250

Operation and implementation

FuPacT ISFL160 to 1250 fusegear can be equipped with tube-unit current transformers (CT).

CT modules are available in two versions:

- 3-pole module with one or three CTs for ISFL160 fusegear (3-pole version), 1 rating 150 A.
- single-pole module with one CT for ISFL160 (1-pole version) /250/400/630/1250 fusegear, 4 ratings from 150 to 600 A.

The CT modules are clipped onto the back of the switchgear.

The modules can be connected:

- via terminal blocks for the 3-pole modules (ISFL160) with output current of 1 A.
- via cables directly connected with output current of 5 A.
- via lugs for the single-pole modules (ISFL160 (1 pole version)/250/400/630/1250).

Selection table

| ISFL160 class 1 1-pole version | | | | |
|---|-------|--------------|--|--------------|
| Ip/5 | Ip/1 | Power (VA) | | |
| 150/5 | - | 5 | | |
| ISFL160 accuracy class 1 3-pole version | | | ISFL250 to 1250 class 1 1 and 3-pole version | |
| Ip/5 | Ip/1 | Power (VA) 1 | Ip/5 | Power (VA) 1 |
| 150/5 | - | 1.5 | 150/5 | 2.5 |
| | 150/1 | 2.5 | 250/5 | 5 |
| | | | 400/5 | 5 |
| | | | 600/5 | 5 |

Environment

- Compliance with standards: IEC 60044-1, NFC 42502, VDE 0414, BS 7626 and IEC 60038-1.
- Degree of protection: IP20.
- Operating temperature range: -25 °C to +70 °C, relative humidity 95 %.
- Storage temperature range: -40 °C to +80 °C.

Technical characteristics

CT electrical characteristics:

- maximum operational voltage: 800 V
- secondary current: 5 A and 1 A
- frequency: 50 to 60 Hz
- continuous overload current: 1.2 In
- safety factor: Fs ≤ 5.

Transformation ratio:

- Ip/5 A.

Select the ratio just above the measured current (In).

Example: In = 550 A → select a ratio of 600/5.

CT accuracy class:

- the accuracy class depends on the transformer rating and the consumption of the measurement system. Consumption must take into account the devices and cables
- for a given accuracy class, measurement system consumption must not exceed the transformer rating.

Reminder:

Transformer secondary must be short-circuited before any work.

Measurement accessory FuPacT ISFL160 to ISFL1250

CT accuracy class

| Measurement system | |
|---------------------------|-------------------|
| Schneider Electric device | Consumption in VA |
| 72 x 72 mm ammeter | 1.1 |
| Analogue ammeter | 1.1 |
| Digital IM ammeter | 0.5 |
| Digital ammeter | 0.3 |
| PM/CM Power Meter | 0.15 |
| PM9 | 0.55 |

| Primary copper cross-section in mm ² | Rating in VA per meter of double wire at 20 °C |
|---|--|
| 1 | 1 |
| 1.5 | 0.685 |
| 2.5 | 0.41 |
| 4 | 0.254 |
| 6 | 0.169 |
| 10 | 0.0975 |

For each ten-degree increase in temperature, the power drawn by the cables increases by 4 %.

Example of measurement system consumption at 40 °C

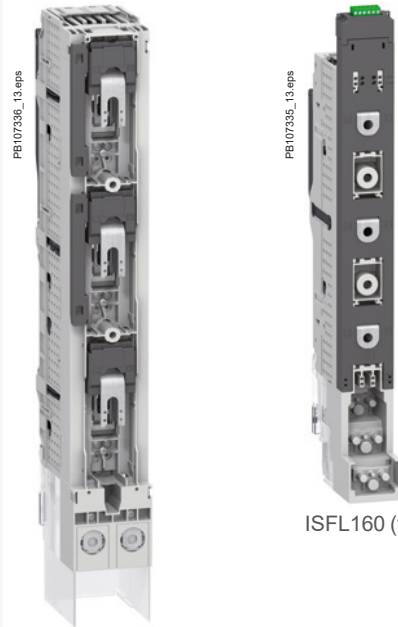
| | |
|--|-----------|
| 4 m of 2.5 mm ² double wire | 1.7 VA |
| PM | + 0.15 VA |
| Total consumption | = 1.85 VA |

CT accuracy class

The accuracy class of the CT is determined:

- using the selection table
- by the fact that consumption must be < the transformer rating:
 - class 1 for a CT with a ratio of 150/5
 - class 0.5 for a CT with a ratio of 200/5.

If measurement accuracy must be within 0.5 %, it is necessary to select a CT with a transformation ratio of 200/5.



ISFL160 (with CT)

ISFL250/400/630 (with CT)



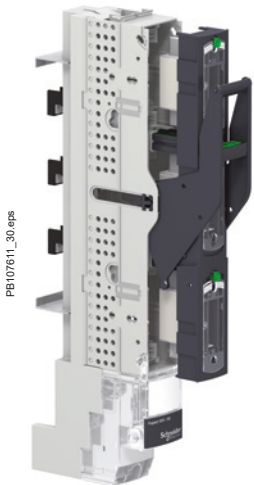
ISFL250 (with CT)



Fuse-link monitoring and testing

FuPacT ISFL160 to ISFL1250

B

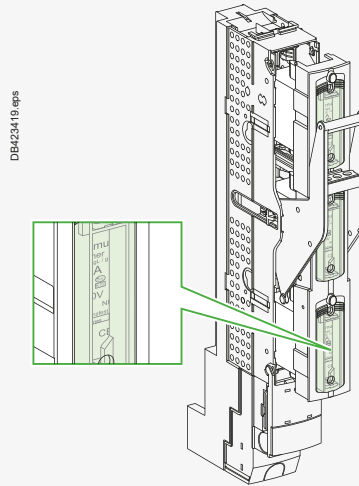


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ISFL160

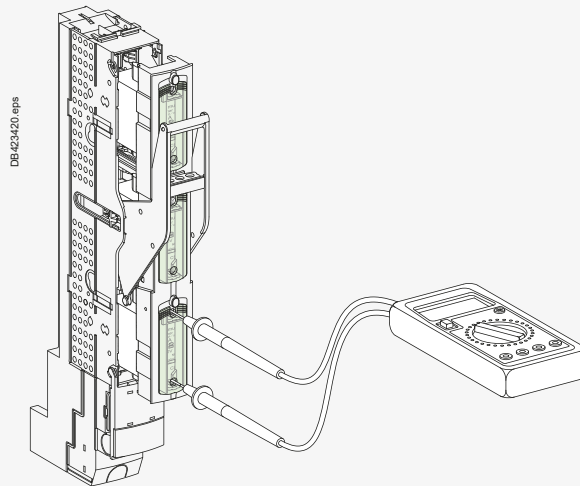
Monitoring

ISFL fuse-switch disconnecters are equipped with large windows so that the fuse-link technical characteristics are clearly visible.



DB423419_eps

Testing



DB423420_eps

Sliding covers on the front panel provide access to the fuse-link status test points while maintaining the IP20 protection index.

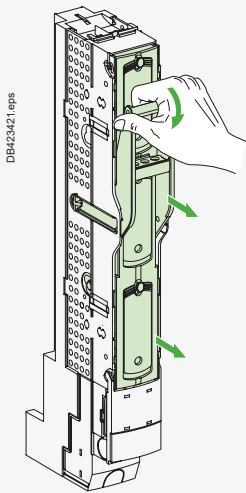
Note: monitoring and testing functions are the same for ISFL 1 pole switchable.

Control, locking and operation

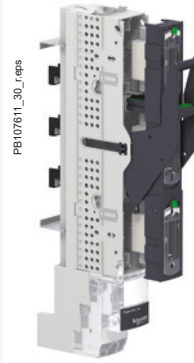
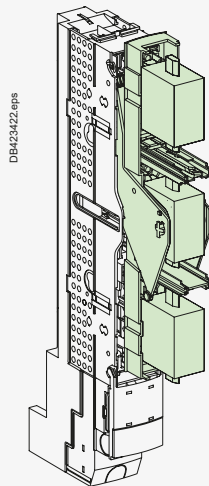
FuPacT ISFL160 to ISFL1250

The main moving contacts are controlled by the drawout fuse-carrier assembly for the ISFL devices. In open position, the fuse-switch disconnecter fuse-carrier assembly provides isolation with visible break.

Control

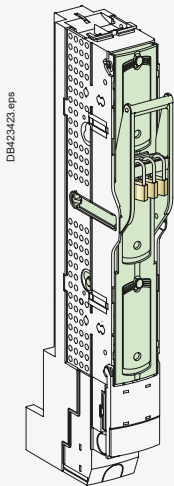


Removed sub-assembly [1]

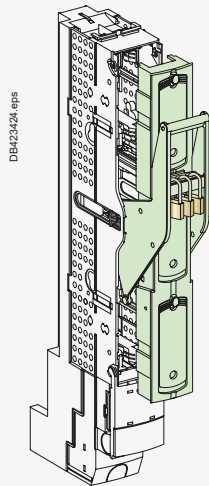
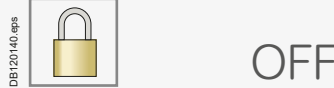


ISFL160

Locking ON [2]



Locking OFF [2]



To indicate isolation at a glance during maintenance operations for example, put the ISFL fuse switch-disconnector in the "PARK" position by pressing the lock on the front of the **product**.

In this position, the handle is free and the fuses are physically separated from the contacts.

The **product** can then be padlocked (3 x Ø6 mm padlocks for ISFL160 and Ø8 mm for other ISFL).

Press the lock again to close the product when the padlocks have been removed. Another solution is to remove the upper sub-assembly by pressing the lock in the "OUT" position. **Then**, the sub-assembly must be reversed and put directly on the product.

Access to the fuse-links:

- is automatically blocked on the ISFL devices when the fusegear is closed
- may be restricted using padlocks on the ISFL devices.

To lock the fuse-switch disconnecter in closed (ON) or open (OFF) position, the fuse-carrier is equipped with lead-seal or padlocking accessories (not supplied).

Padlocking for the ISFL160 to ISFL630 devices

[2] Except for ISFL160 - 1P to ISFL630 - 1P.

Locking in open (OFF) position provides isolation as defined by IEC 60947-3.

| Type | Function | Means | Accessory |
|---------------------|--|-------------------|-----------|
| ISFL160 | Device locking in closed (ON) or open (OFF) position | Padlocks 3 max Ø6 | Built-in |
| ISFL250 to ISFL1250 | | Padlocks 3 max Ø8 | |

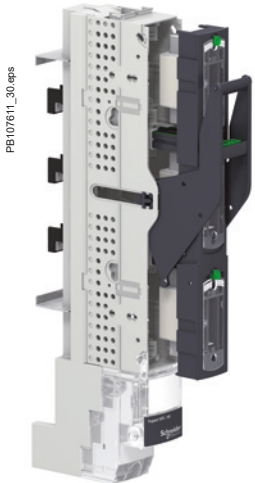


Control, locking and operation

FuPacT ISFL160 to ISFL1250

For FuPacT ISFL fusegear devices, the fuse-carrier assembly is used both to control the device and to mechanically protect the fuse-link.

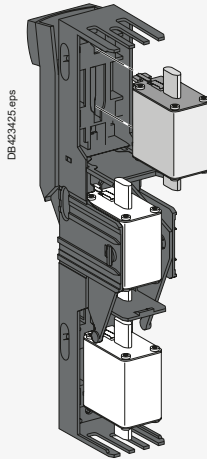
B



ISFL160

Fuse-carriers ^[1]

Compatibility between ISFL fuse-switch disconnectors and fuse-links (NH)

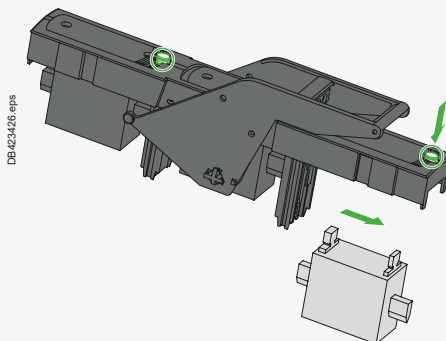


Drawout fuse-carrier assembly for the ISFL 160 to 1250 devices

| Type of DIN fuse-link | NH000 | NH00 | NH1 | NH2 | NH3 |
|-----------------------|-------|------|-----|-----|-----|
| ISFL160 | ● | ● | - | - | - |
| ISFL250 | - | - | ● | - | - |
| ISFL400 | - | - | - | ● | - |
| ISFL630 | - | - | - | - | ● |
| ISFL1250 | - | - | - | - | ● |

Insertion and removal of fuse-links

Fuse-links are held in place by clips behind the front panel of the fuse-carriers, thus making removal possible without touching the fuse-links.



ISFL 160 and ISFL250 to ISFL1250

[1] Control, locking and operation are the same for ISFL 1-pole switchable.

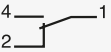
Auxiliary contacts and indications

FuPacT ISFL160 to ISFL1250

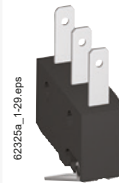
The optional auxiliary contacts carry out indication functions. They provide remote indication of the fuse-switch disconnecter status. They may also be used to indicate and carry out automatic functions such as electrical interlocking.

Standards: compliance with international recommendation IEC60947-5-1.
Description: NC/NO changeover contact.

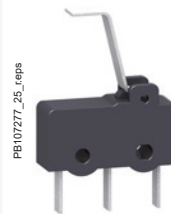
Functional table of contact status

| Auxiliary changeover contact | | |
|------------------------------|---|----------------|
| |  | Maximum number |
| ISFL160 | | 2 |
| ISFL250 | | 4 |
| ISFL400 | | 4 |
| ISFL630 | | 4 |
| ISFL1250 | | 8 |

| Auxiliary changeover contact for ISFL160 to 1250 | | | |
|--|----------------|------|------|
| Rated thermal current I _{th} (A) | 2 | | |
| Rated insulation voltage (V) | 250 | | |
| Minimum load | 100 mA at 24 V | | |
| | | AC12 | DC12 |
| Operational current (A) | 24 V | 2 | 0.2 |
| | 48 V | 2 | 0.2 |
| | 110 V | 2 | 0.2 |
| | 220/240 V | 2 | 0.2 |



Auxiliary contact for ISFL160



ISFL250/400/630/1250

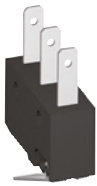


Auxiliary contacts and indications

FuPacT ISFL160 to ISFL630

B

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Auxiliary contact for ISFL160

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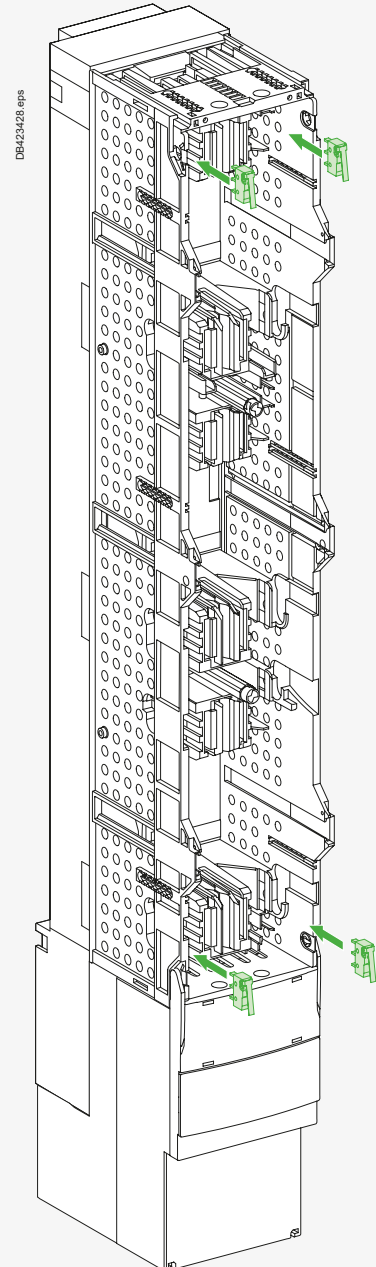
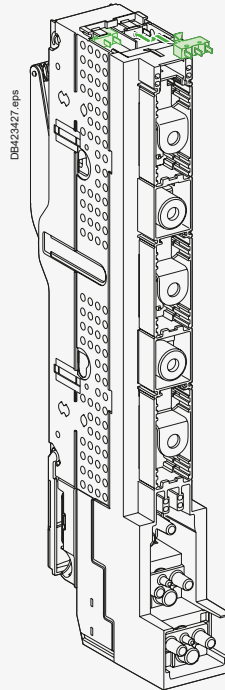


ISFL250/400/630/1250

Position of auxiliary contacts for ISFL devices

ISFL160

ISFL250/400/630



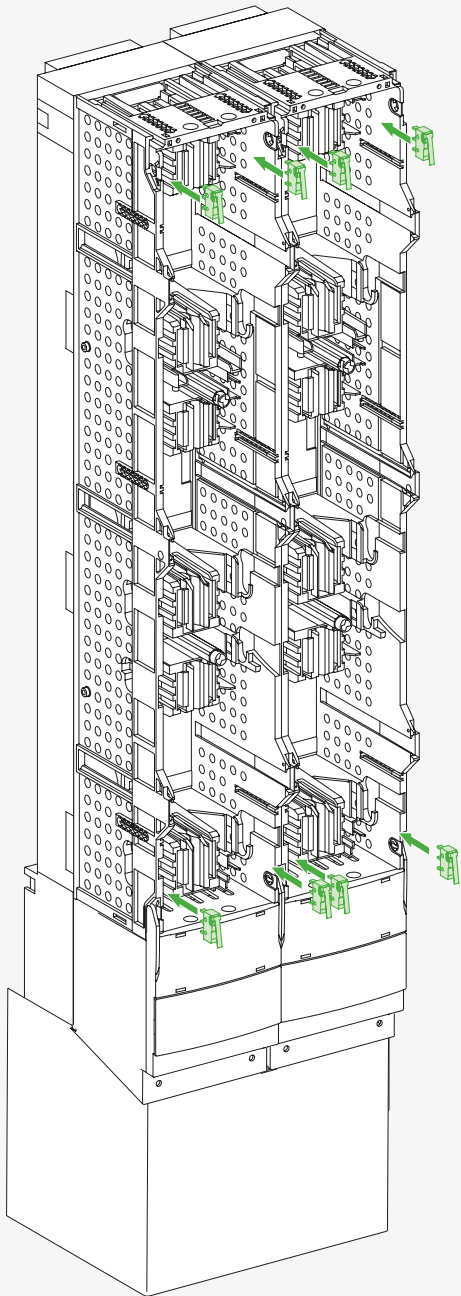
Auxiliary contacts and indications

FuPacT ISFL1250

Position of auxiliary contacts for ISFL devices

ISFL1250

DB423429eps



PB107277_25_eps



ISFL250/400/630/1250

B

Intelligent measurement

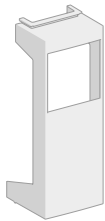
FuPacT ISFL160 to ISFL630



PB104892_eps

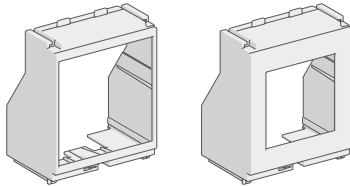


PB104891_eps



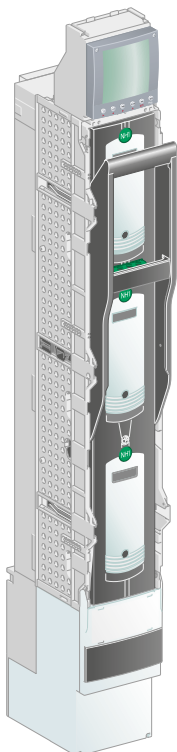
DB404267_eps

Empty plastic box for ISFL 160



DB404268_eps

Empty plastic box for ISFL250/400/630



DB404269_eps

ISFL250-630 + Empty box with power meter

The future belongs to more intelligent switchboards. The new ISFL generation, vertical design, are well prepared for the future: they offer standardized interfaces for all types of measurement devices.

Schneider Electric is offering a complete and large offer of metering devices: PowerLogic range.

PowerLogic series meter - Power Meter

The Power Meter serie offers many high-performance capabilities needed to meter and monitor an electrical installation in a compact unit.

All models include an easy-to-read display that presents measurements for all three phases and neutral at the same time, total harmonic distortion (THD) metering, and alarming.

Some models offer an incremental choice of custom logging and power quality analysis capabilities.

Expand any model with field-installable option modules that offer a choice of additional digital inputs and outputs, analog inputs and outputs, and ethernet port.

Flexible measurement options - the amperemeter

Additional measurement options are possible using an amperemeter which is adjusted onto the new amperemeter-bracket. The installation is incredibly simple and the returns extremely versatile.

How to install device

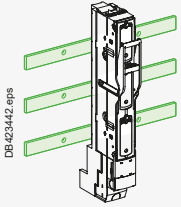
- For ISFL160, you can use an empty box to include measurement device:
 - plastic box
 - dimension 46 x 46 mm for the cut-out
 - length: the same as the length adaptor to be able to put the ISFL160 beside ISFL250 to ISFL630
 - fixation by mounting it directly to the top of the product.
- For ISFL250 to 630, you can use empty boxes to include measurement devices:
 - plastic box
 - dimension 72 x 72 mm and 96 x 96 mm for the cut-out
 - fixation by mounting it directly to the top of the product.

Possible installation positions and mounting

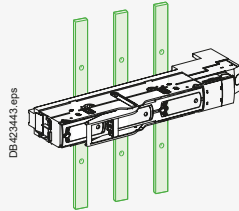
FuPacT ISFL160 to ISFL1250

Possible installation positions

ISFL160 to 1250

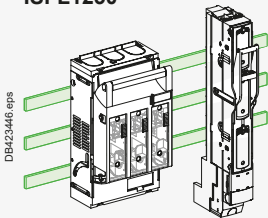


ISFL160 to 630



Possible mounting

ISFT100N
ISF●160 to ISF●630
ISFL1250



Securely tightened

B

Implementation and power dissipation

FuPacT ISFL

B

Reverse supply

FuPacT fusegear may be supplied equally well via the upstream or downstream terminals, without any reduction in performance.

Conductor materials and electrodynamic forces

FuPacT fusegear may be connected using either bare copper, tinned copper or tinned aluminium conductors (flexible or rigid bars, cables).

In the event of a short-circuit, thermal and electrodynamic forces are exerted on the conductors. The conductors must therefore be adequately sized and suitably supported.

Note that the terminals of electrical devices (switch-disconnectors, contactors, circuit breakers, etc.) should not be considered to contribute to the support of the conductors.

Cable ties and flexible bars

The table below indicates the maximum distances between cable ties depending on the prospective short-circuit current.

Do not to exceed a distance of 400 mm between ties strongly fixed to the switchboard frame.

| Type of tie | "Panduit" type | | | "Sarel" type | | | | |
|---------------------------------|---|-----|----|---|-----|-----|----|------------------|
| | Width: 4.5 mm Max. load: 22 kg Color: white | | | Width: 9 mm Max. load: 90 kg Color: black | | | | |
| Max. distance between ties (mm) | 200 | 100 | 50 | 350 | 200 | 100 | 70 | 50 (double ties) |
| Short-circuit current (kA rms) | 10 | 15 | 20 | 20 | 27 | 35 | 45 | 100 |

Note: for cables $\geq 50 \text{ mm}^2$, 9 mm wide ties must be used.

Tightening torque for ISFL with screw connection

| | Type | Torque (Nm) |
|--|--|-------------|
| ISFL | ISFL160 1-pole version with direct connection to 185 mm busbars | 14 |
| | ISFL160 1-pole version with hook-on connection to 185 mm busbars | 14 |
| | ISFL160 3-pole version with direct connection to 100 mm busbars | 14 |
| | ISFL160 3-pole version with hook-on connection to 60 mm busbars | 6 |
| | ISFL160 3-pole version with direct connection to 185 mm busbars with kit | 14 |
| | ISFL160 3-pole version with connectors for flexible bars | 4 |
| | ISFL160 3-pole version with connectors for bare Cu/Al cables | 4 |
| | ISFL250 1-pole and 3-pole version with direct connection to 185 mm busbars | 32 |
| | ISFL400 1-pole and 3-pole version with direct connection to 185 mm busbars | 32 |
| | ISFL630 1-pole and 3-pole version with direct connection to 185 mm busbars | 32 |
| ISFL1250 3-pole version with direct connection to 185 mm busbars | 32 | |

Implementation and power dissipation

FuPacT ISFL

Power dissipated by ISFL fuse-switch disconnectors

Power dissipated per pole

| | Rating (A) | Switchgear Model | | Resistance per pole ($\mu\Omega$) | Power dissipated per pole (W) | Fuse-link Max. power dissipated | | Total Total power dissipated per pole (W) |
|---|---------------|------------------|--------|---|--|---------------------------------------|-------|---|
| | | | | | | Rat. (A) | P (W) | |
| Device bolted directly to busbars (without conversion kit) | 160 | ISFL160 | 1-pole | 0.268 | 6.7 | 160 | 12 | 19 |
| | | | 3-pole | | | | | |
| | 250 | ISFL250 | 1-pole | 0.144 | 9.0 | 250 | 32 | 32 |
| | | | 3-pole | | | | | |
| | 400 | ISFL400 | 1-pole | 0.117 | 18.7 | 400 | 45 | 53 |
| | | | 3-pole | | | | | |
| 630 | ISFL630 | 1-pole | 0.093 | 37 | 630 | 48 | 85 | |
| | | 3-pole | | | | | | |
| 1250 | ISFL1250 | 3-pole | 0.093 | 37 | 630 | 48 | 85 | |
| | | | | | | | | |
| With conversion kit | 160 | ISFL160 | | 0.230 | 5.9 | 160 | 12 | 18 |

FuPacT ISFL160 3 x 1P

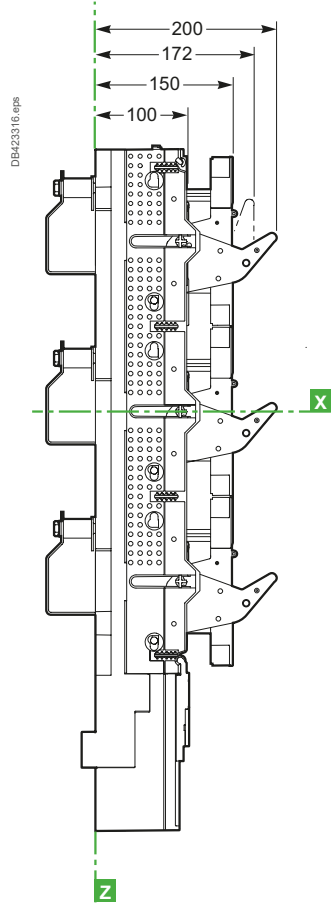
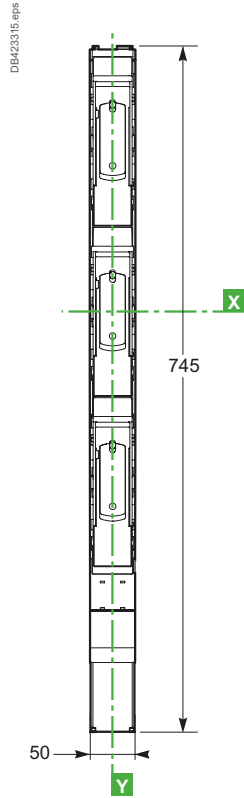
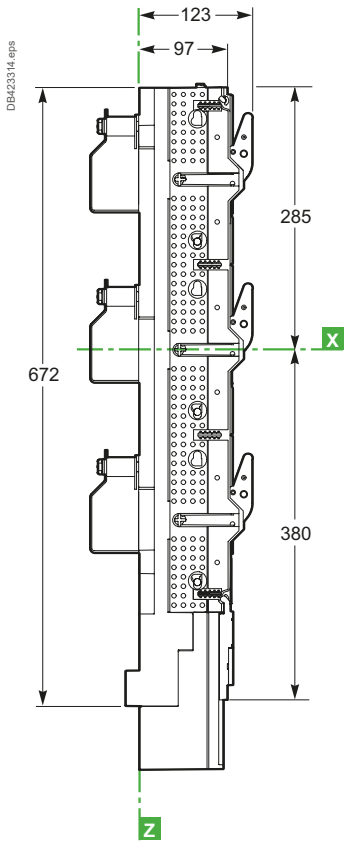
Dimensions and mounting

Dimensions

Fuse-carrier closed

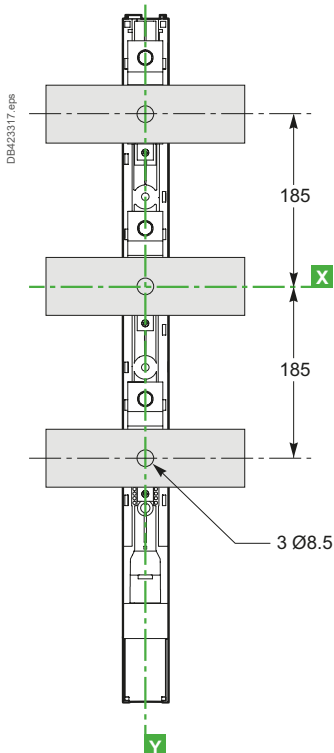
Front

Open and locked



Mounting

For 185 mm busbars

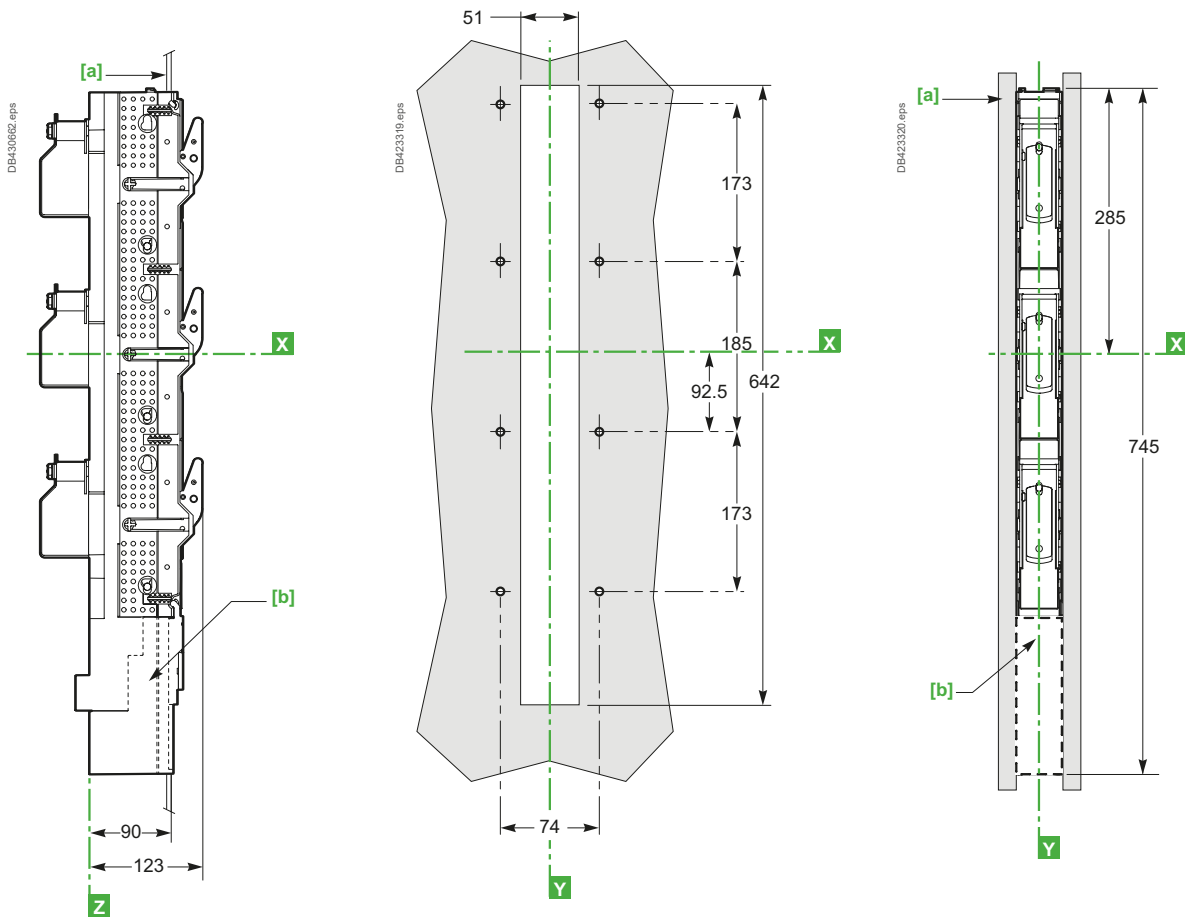


Dimensions and connection

FuPacT ISFL160 3 x 1P

Dimensions and mounting

For 1 device with side cover and/or 1 free slot



- [a] Side cover for front panel cut-out.
- [b] Terminal shields.

B

FuPacT ISFL160 1 x 3P

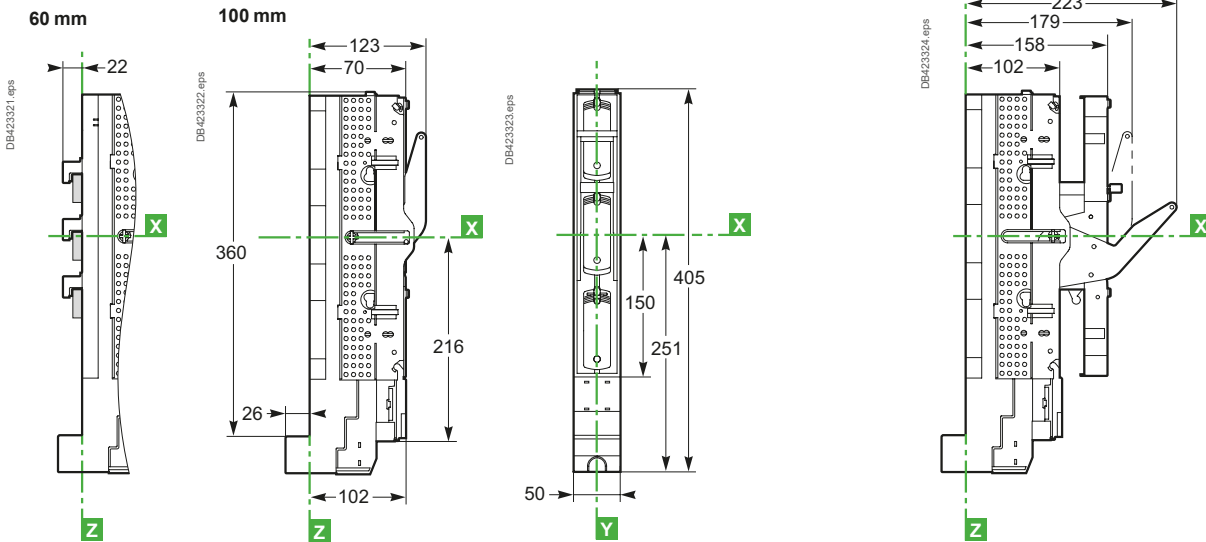
Dimensions and mounting

Dimensions

Fuse-carrier closed

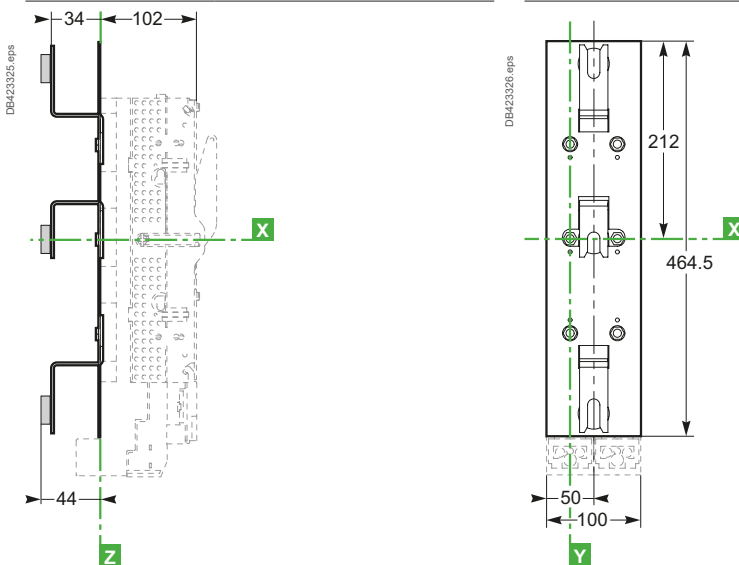
Front

Open and locked



With 185 mm connection kit

With 185 mm connection kit for 2 ISFL devices

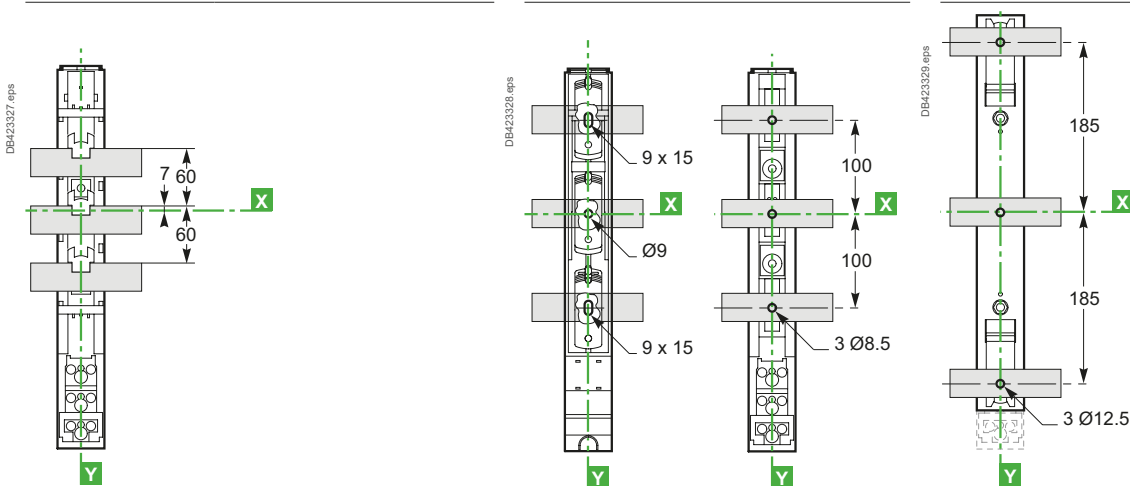


Mounting

For 60 mm busbars

For 100 mm busbars

With connection kit for 185 mm busbars

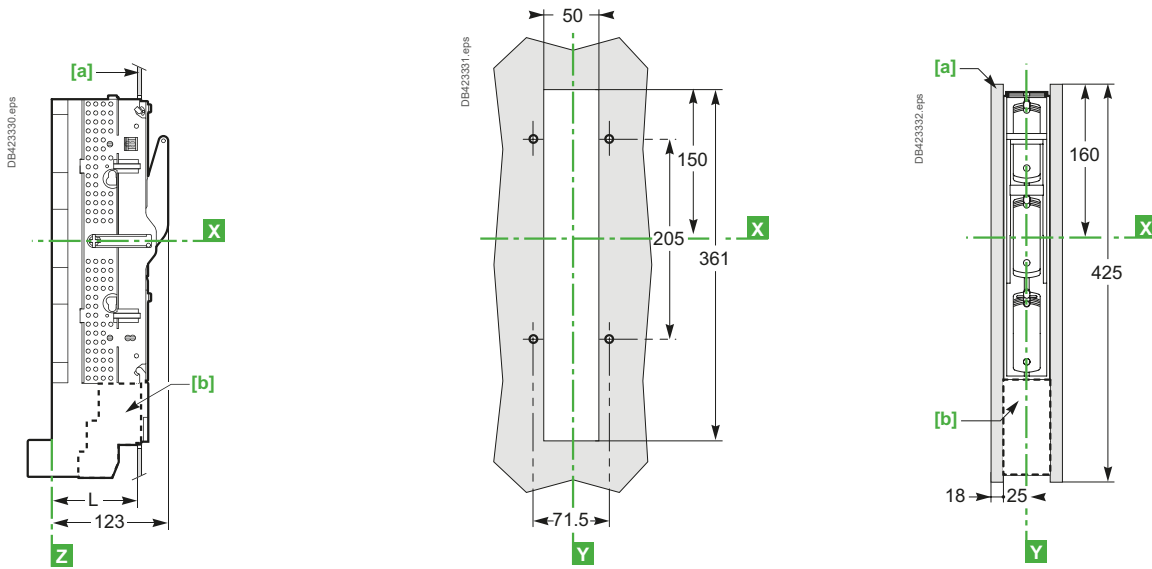


Dimensions and connection

FuPacT ISFL160 1 x 3P

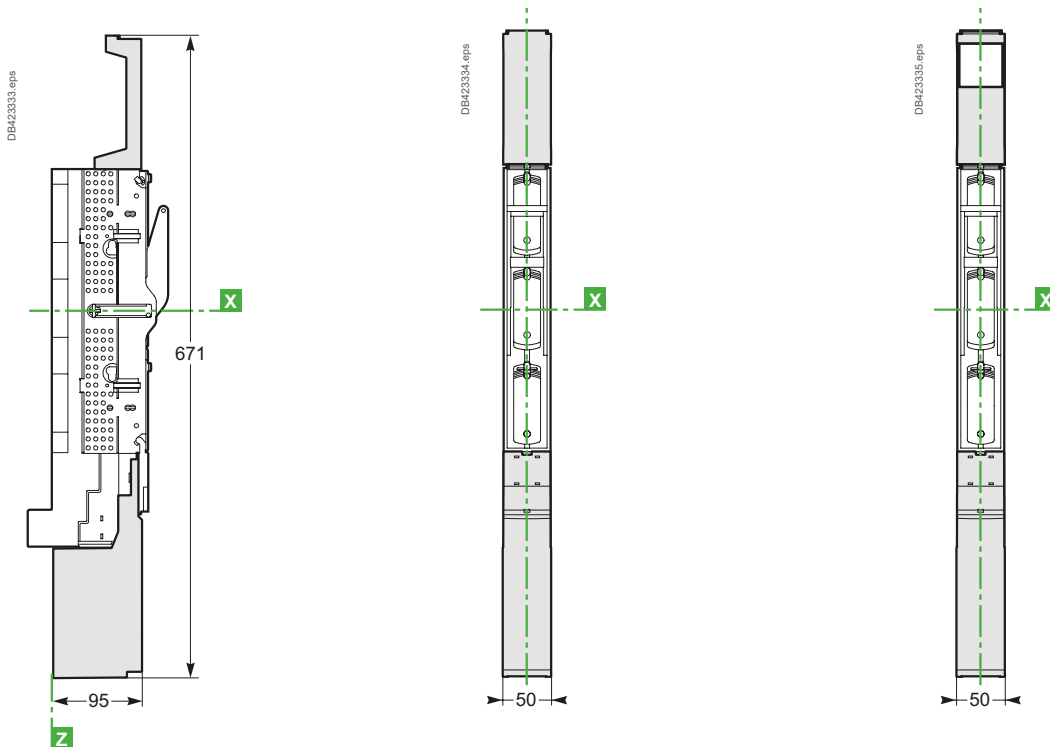
Dimensions and mounting

For 1 device with side cover and/or 1 free slot



[a] Side cover for front panel cut-out.
 [b] Terminal shields.

With length adapter



B

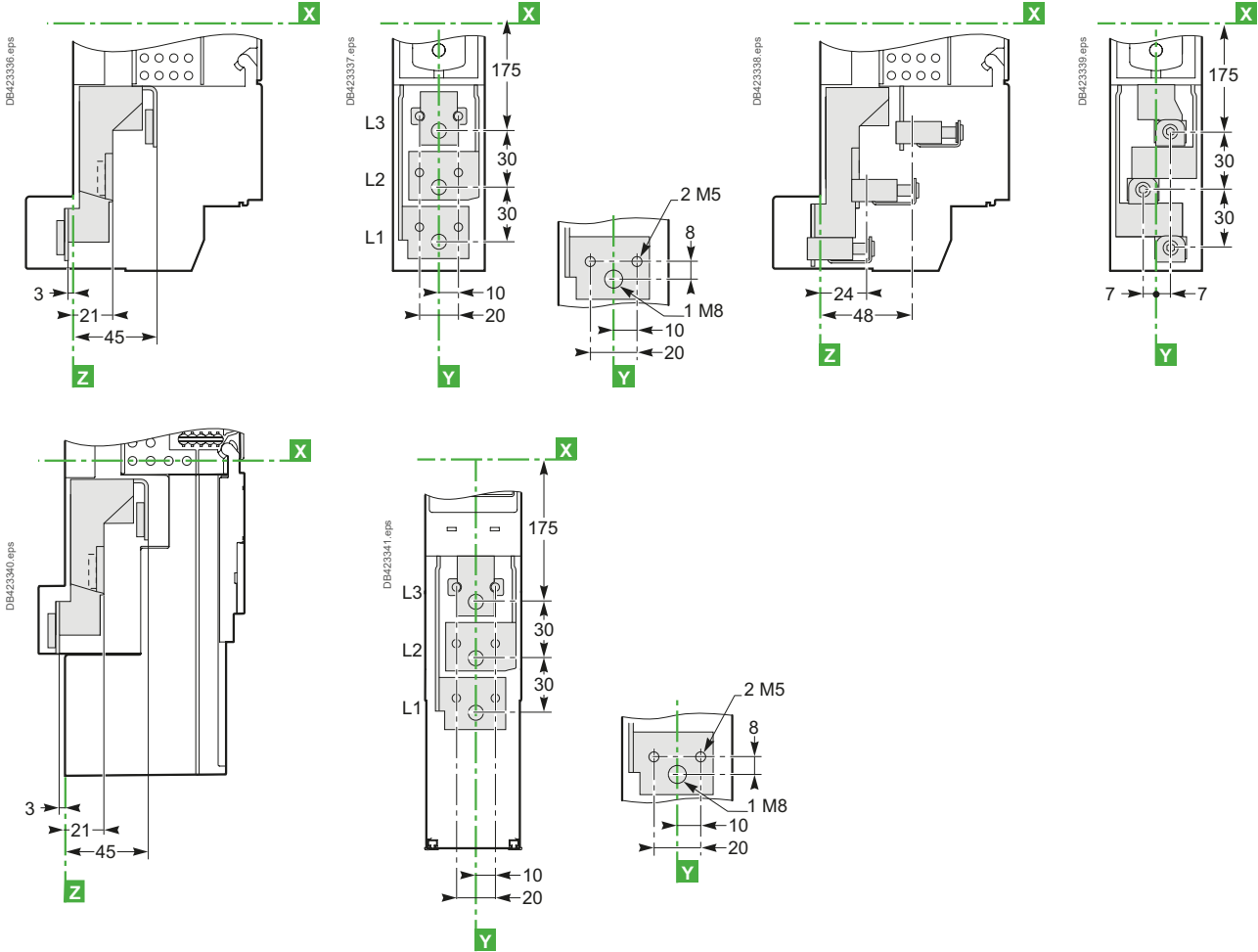
FuPacT ISFL160 1 x 3P

Connection and accessories

Connection

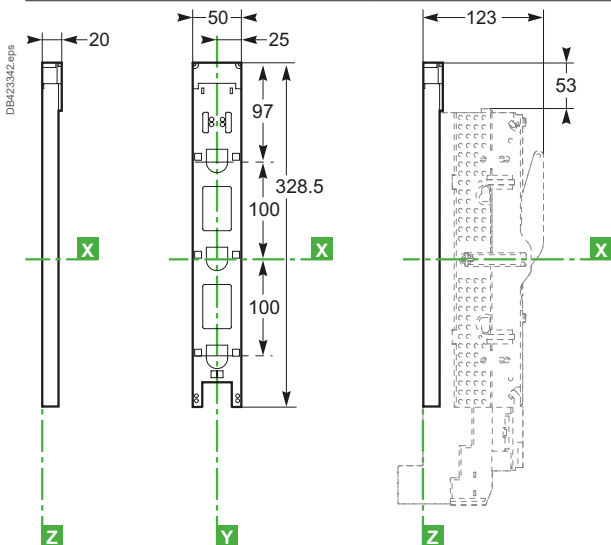
Connection via lugs/flexible bars

Connection via connectors



Current transformer

Direct connection to 100 mm busbars



Dimensions and connection

FuPacT ISFL250 to 630 1 x 3P

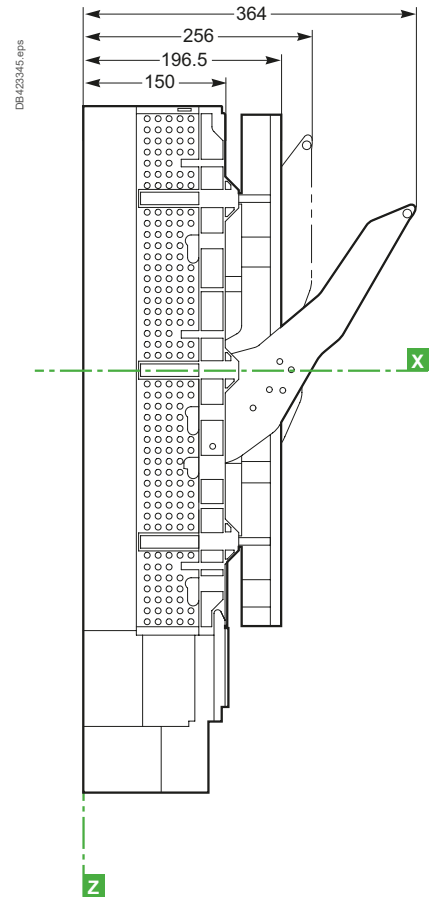
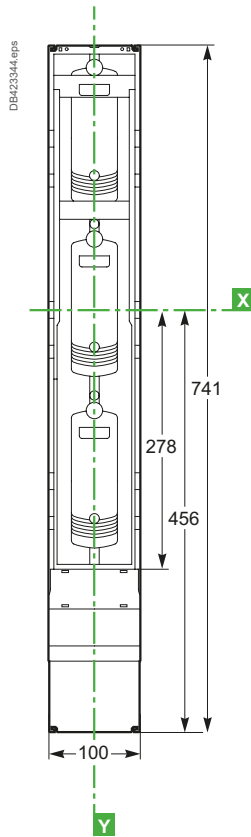
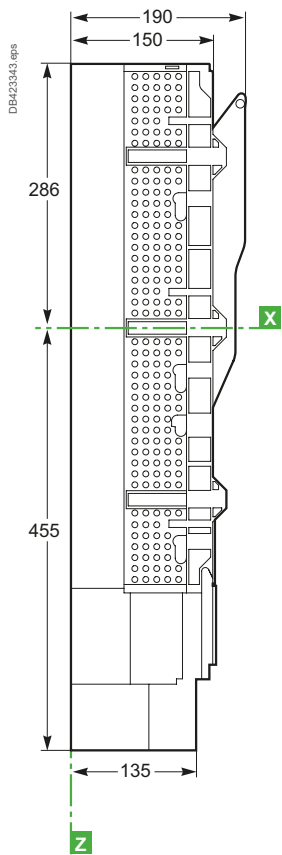
Dimensions and mounting

Dimensions

Fuse-carrier closed

Front

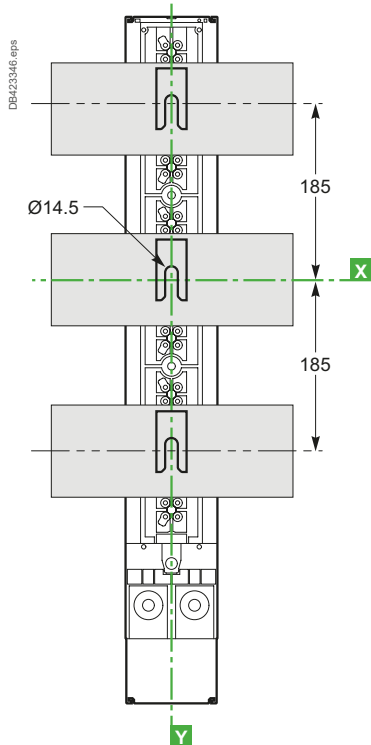
Open and locked



B

Mounting

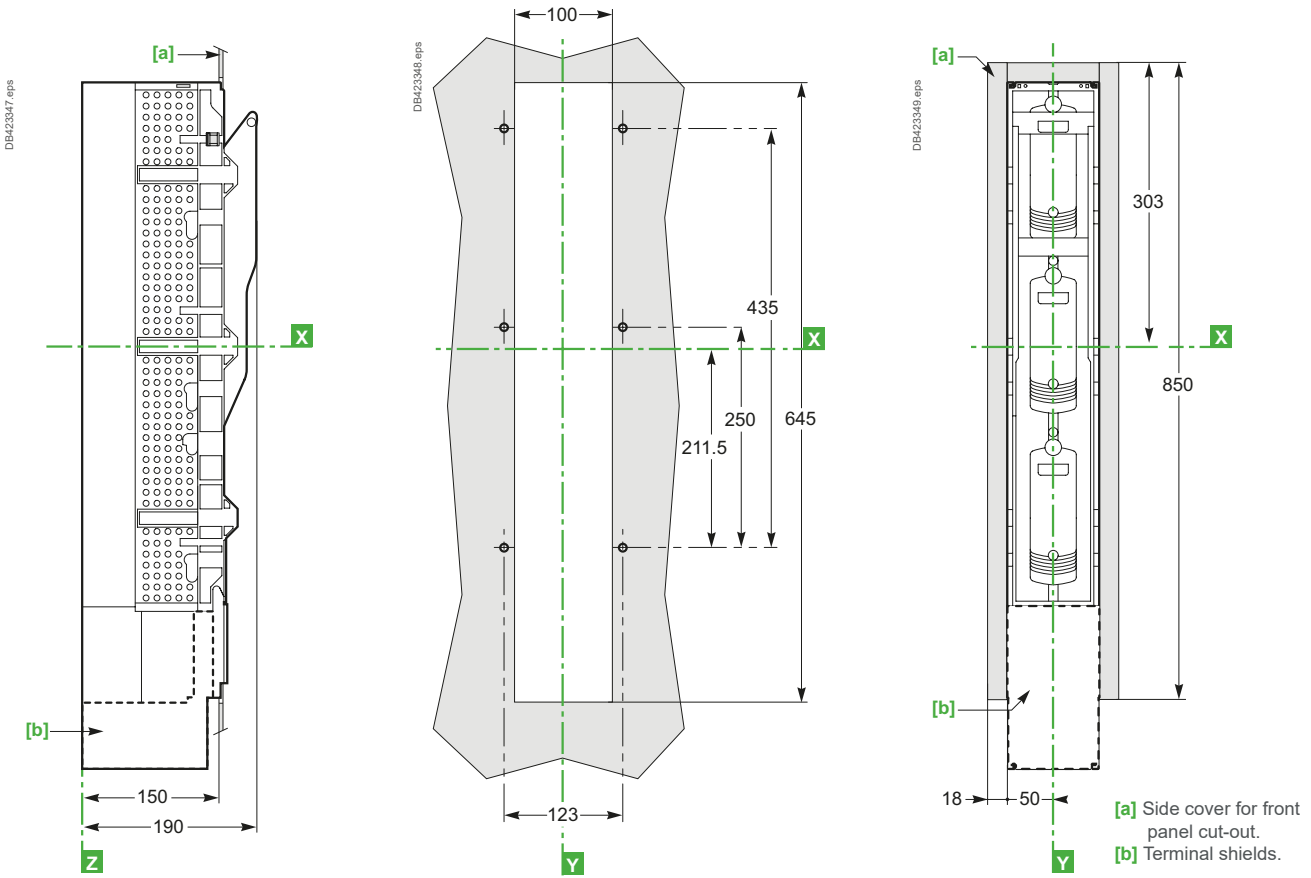
For 185 mm busbars



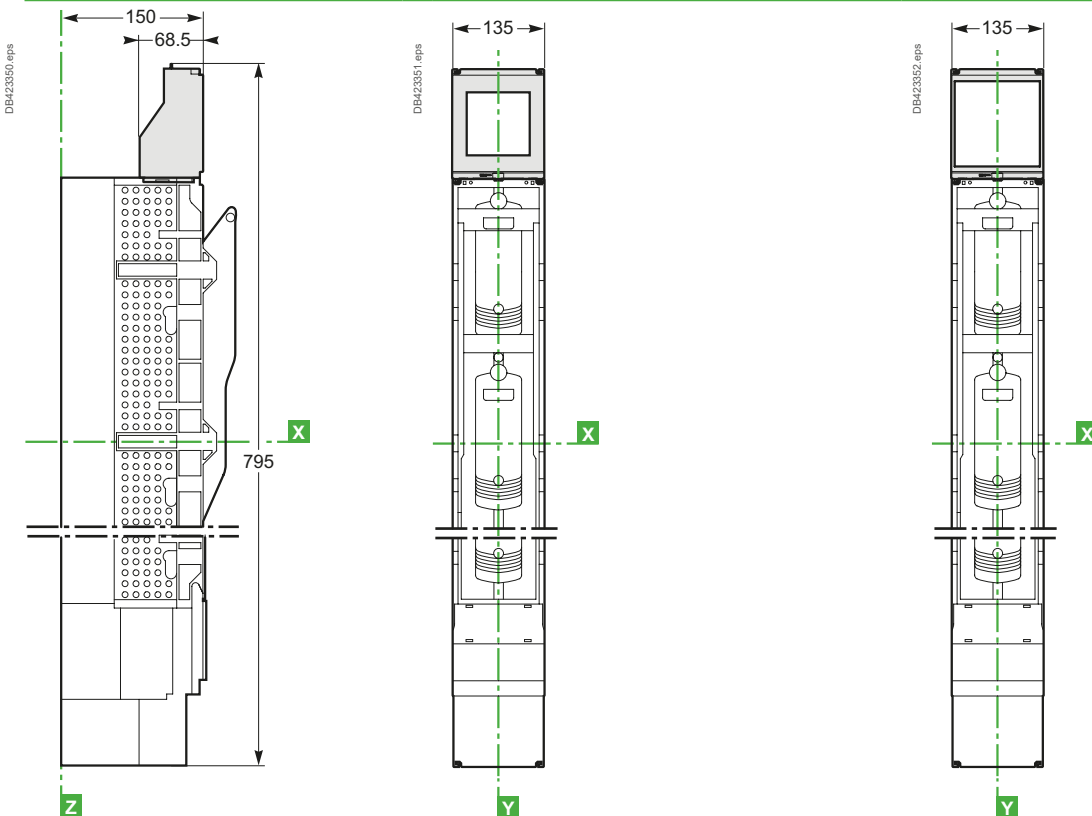
FuPacT ISFL250 to 630

Dimensions and mounting

Device with side cover



With measurement device



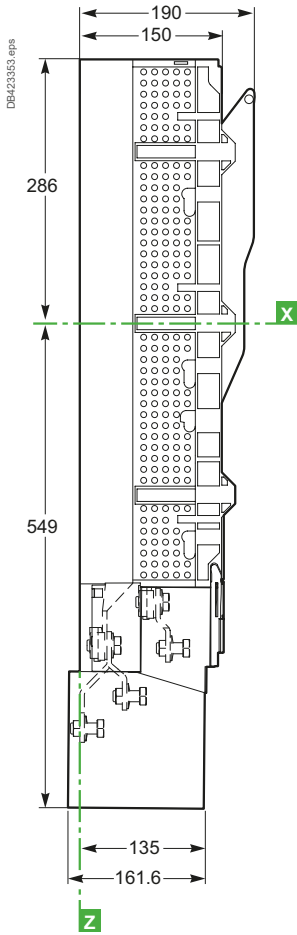
Dimensions and connection

FuPacT ISFL1250

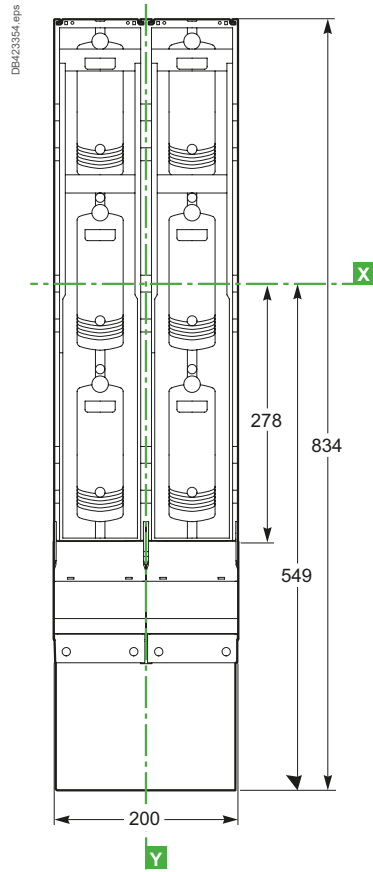
Dimensions and mounting

Dimensions

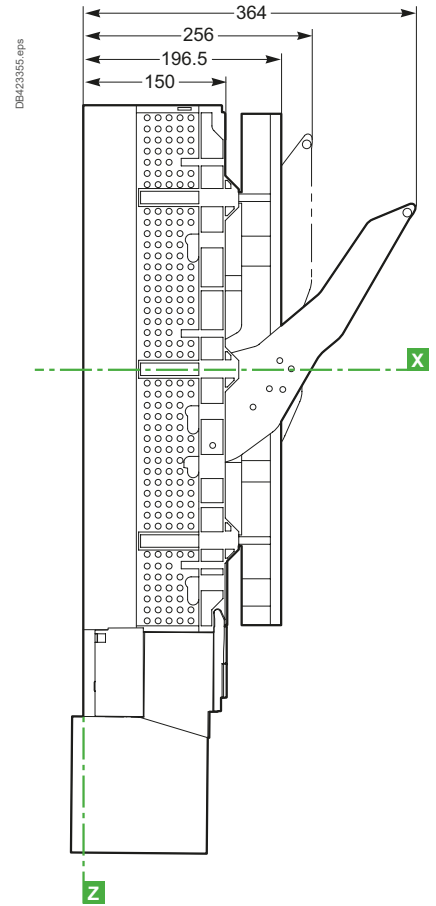
Fuse-carrier closed



Front



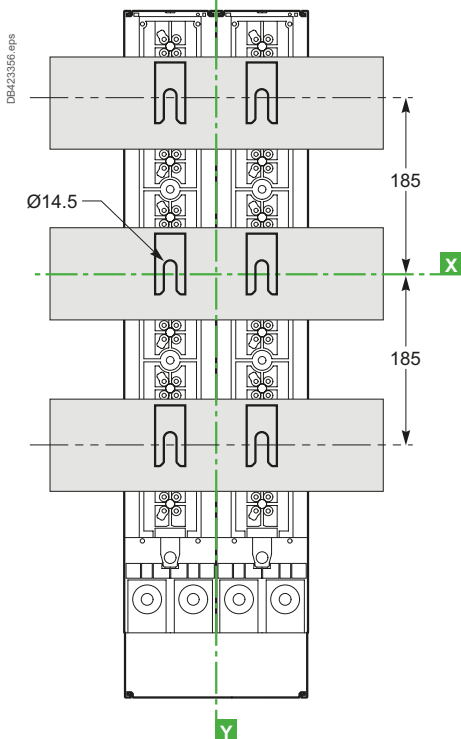
Open and locked



B

Mounting

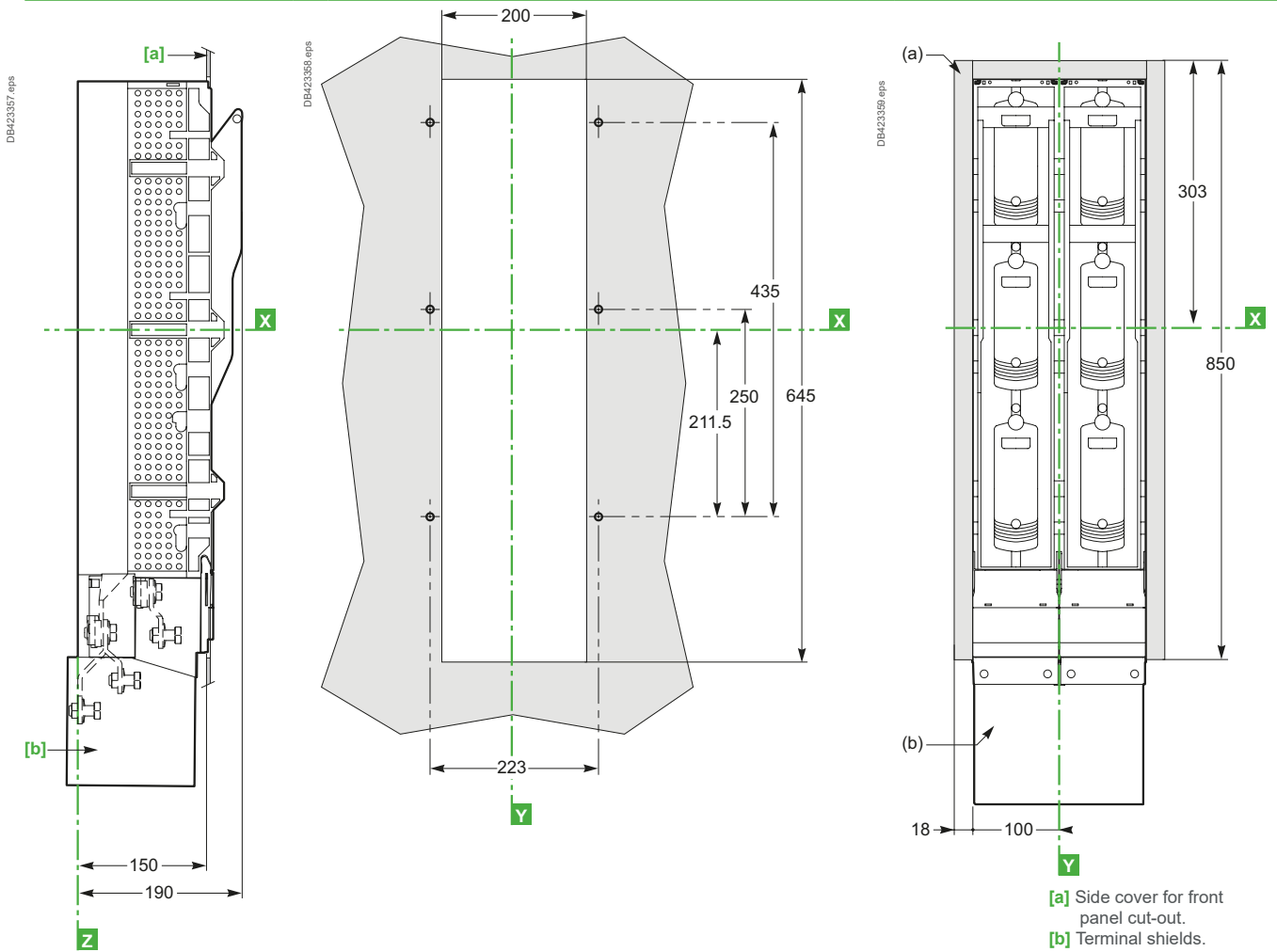
For 185 mm busbars



FuPacT ISFL1250

Dimensions and mounting

Device with side cover

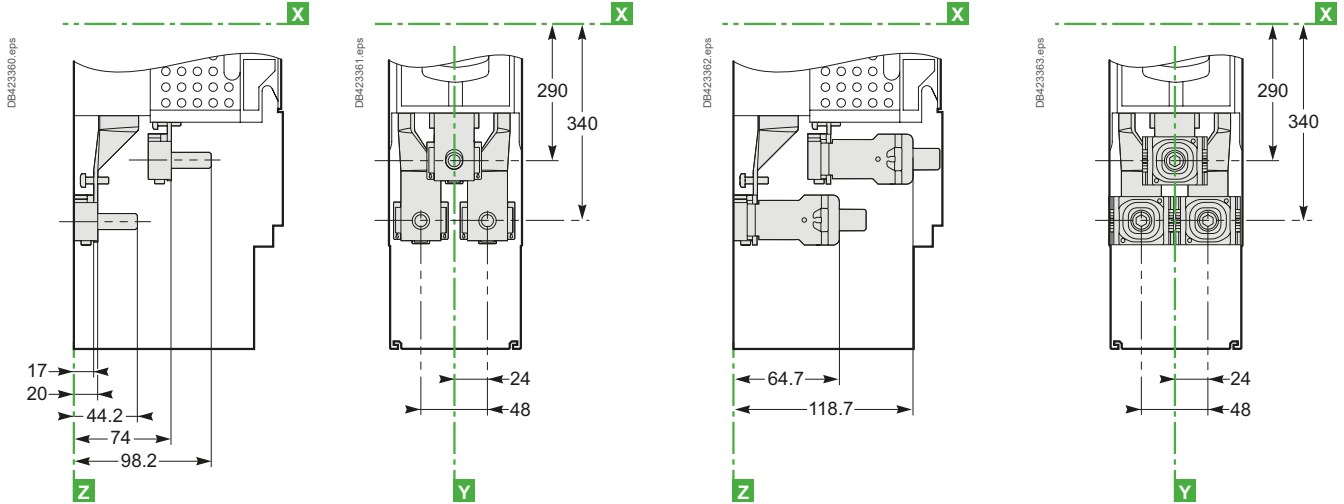


B

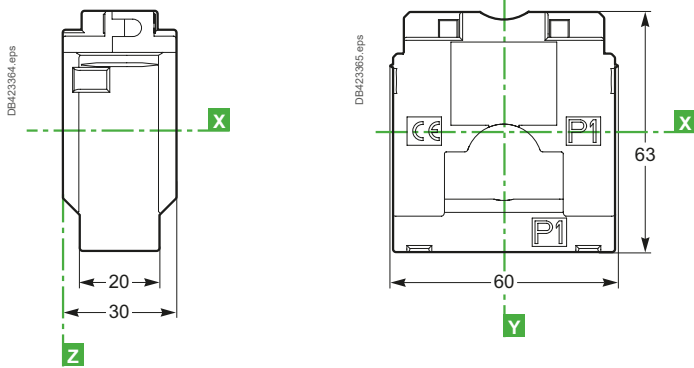
Connection

Connection via lugs/flexible bars

Connection via connectors

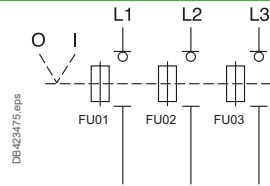


Current transformer



B

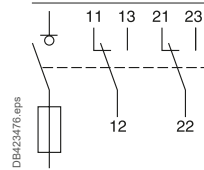
Power



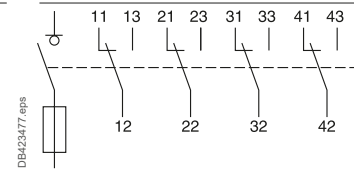
Auxiliary contacts

B

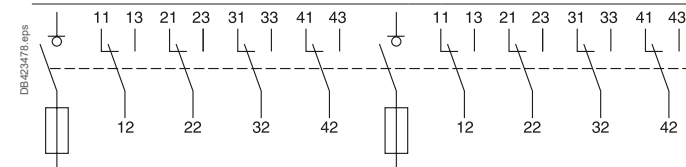
ISFL160



ISFL250 to 630

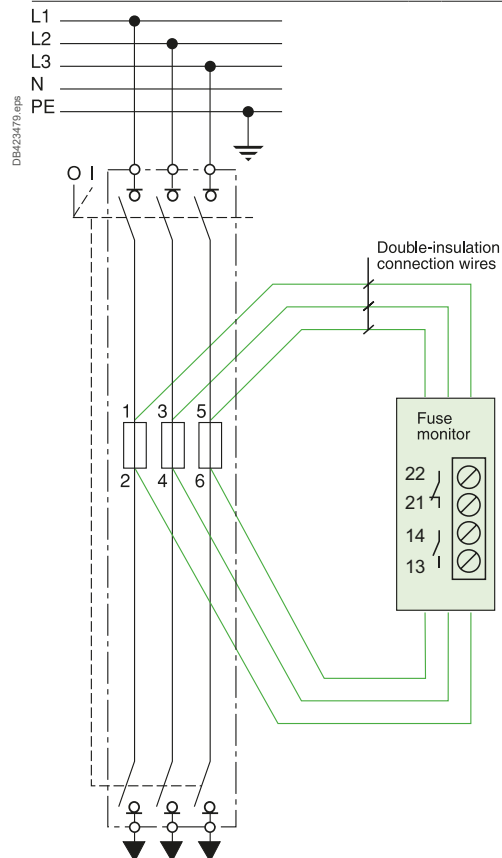


ISFL1250



Blown fuse

ISFL160 to 1250 fuse monitor



FuPacT GS

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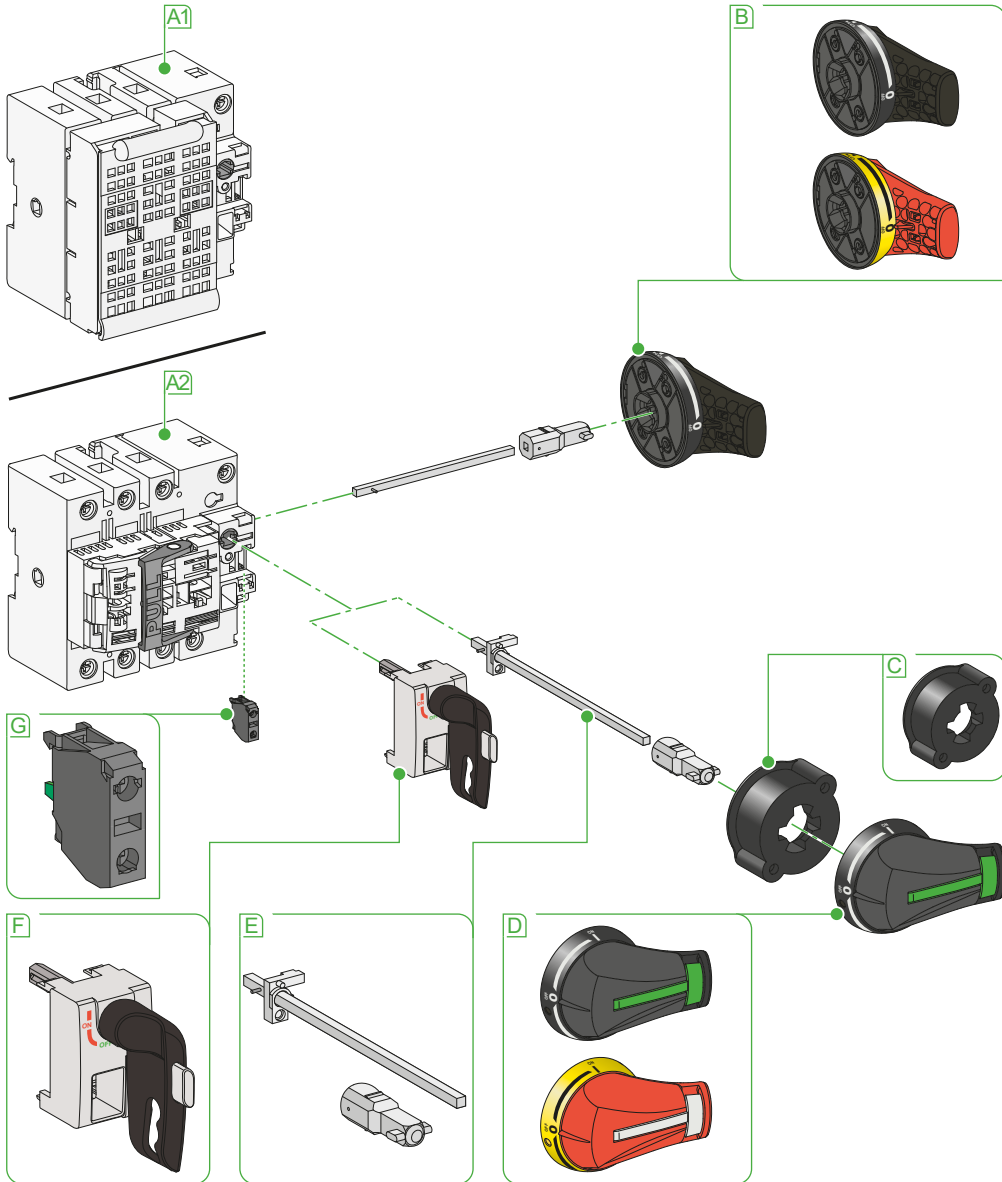
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Offer panorama FuPacT GS 32 A

DB496384.ai



- A** Switch disconnecter fuse 3P or 4P (neutral switched, not protected)
1- GSB 32 A
2- GSC 32 A

- B** Extended lateral handles

- C** Guide cone

- D** Extended front handles

- E** Shaft

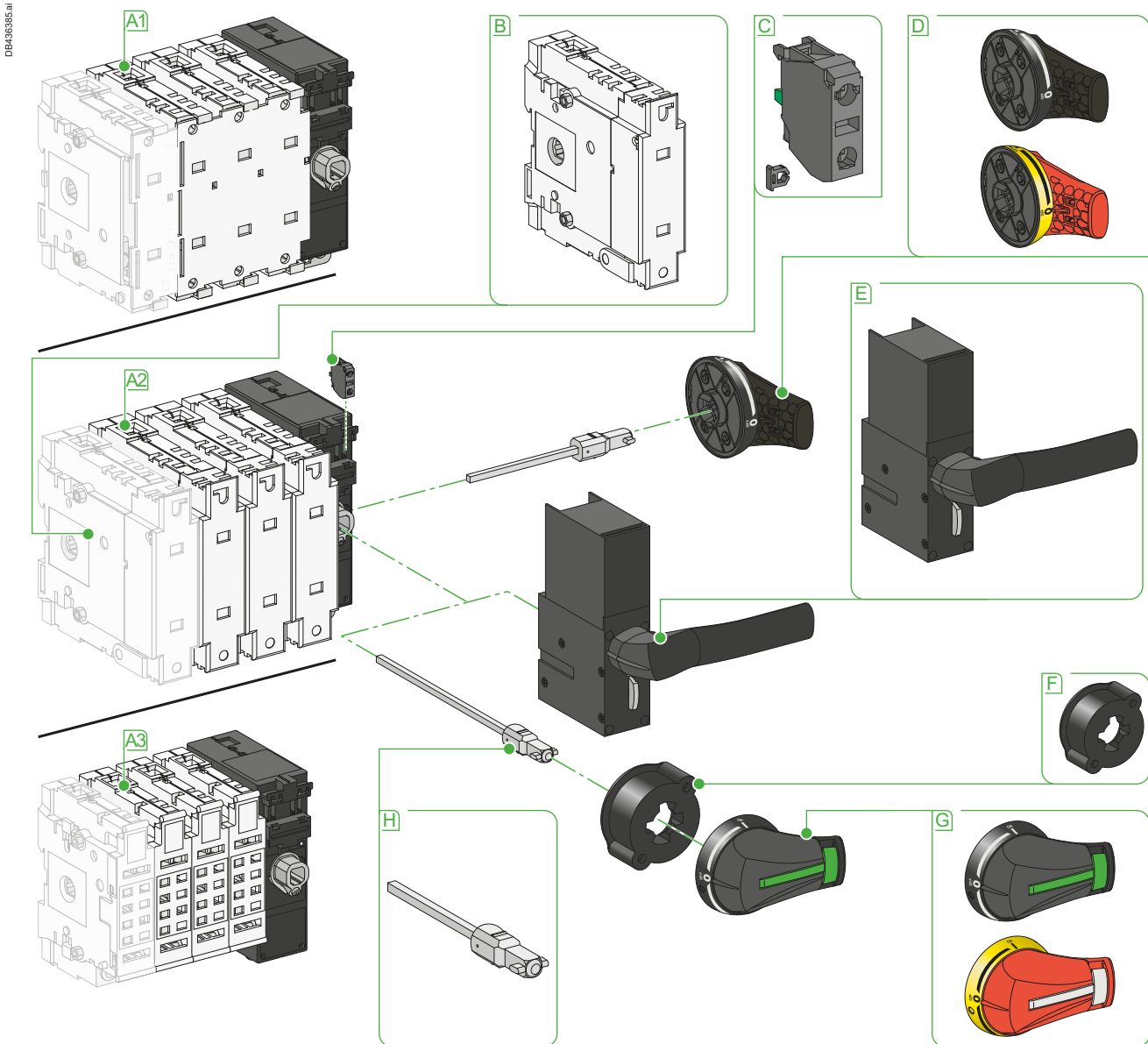
- F** Direct handle

- G** NO or NC auxiliary contacts

Presentation

Offer panorama

FuPacT GS 50/63 A



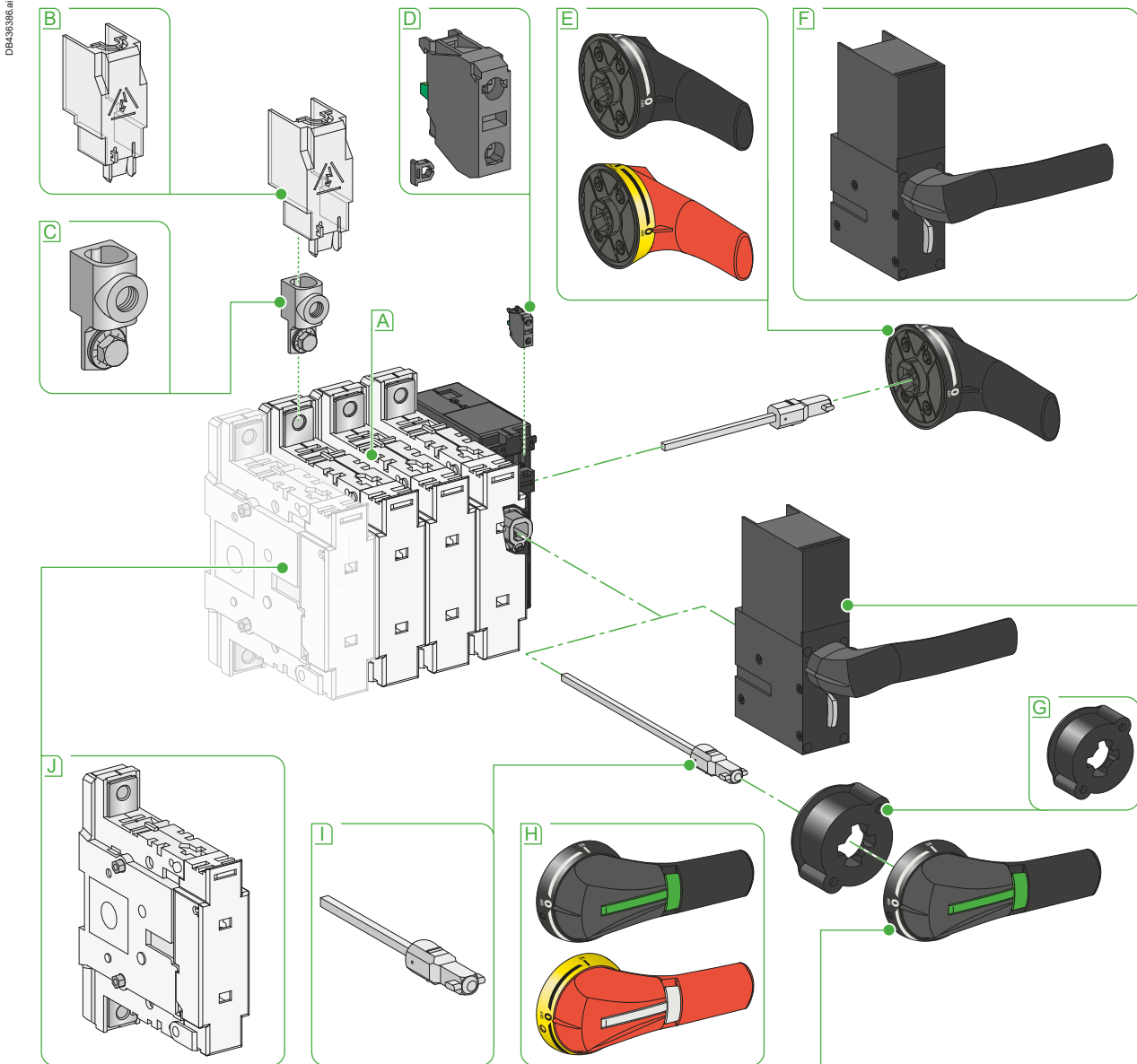
- A** Switch disconnector fuse 3P or 4P
 - 1- GSB 63 A
 - 2- GSC 50 A
 - 3- GSD 63 A
- B** External neutral module

- C** NO or NC auxiliary contacts
- D** Extended lateral handles
- E** Direct handle
- F** Guide cone

- G** Extended front handles
- H** Shaft

Offer panorama

FuPacT GS 100-160 A



- A** Switch disconnecter fuse 3P or 4P
 - GSB 100/160 A
 - GSC 125 A
 - GSD 125/160 A

- B** Terminal shield

- C** Bare cable connector
- D** NO or NC auxiliary contacts

- E** Extended lateral handles

- F** Direct handle

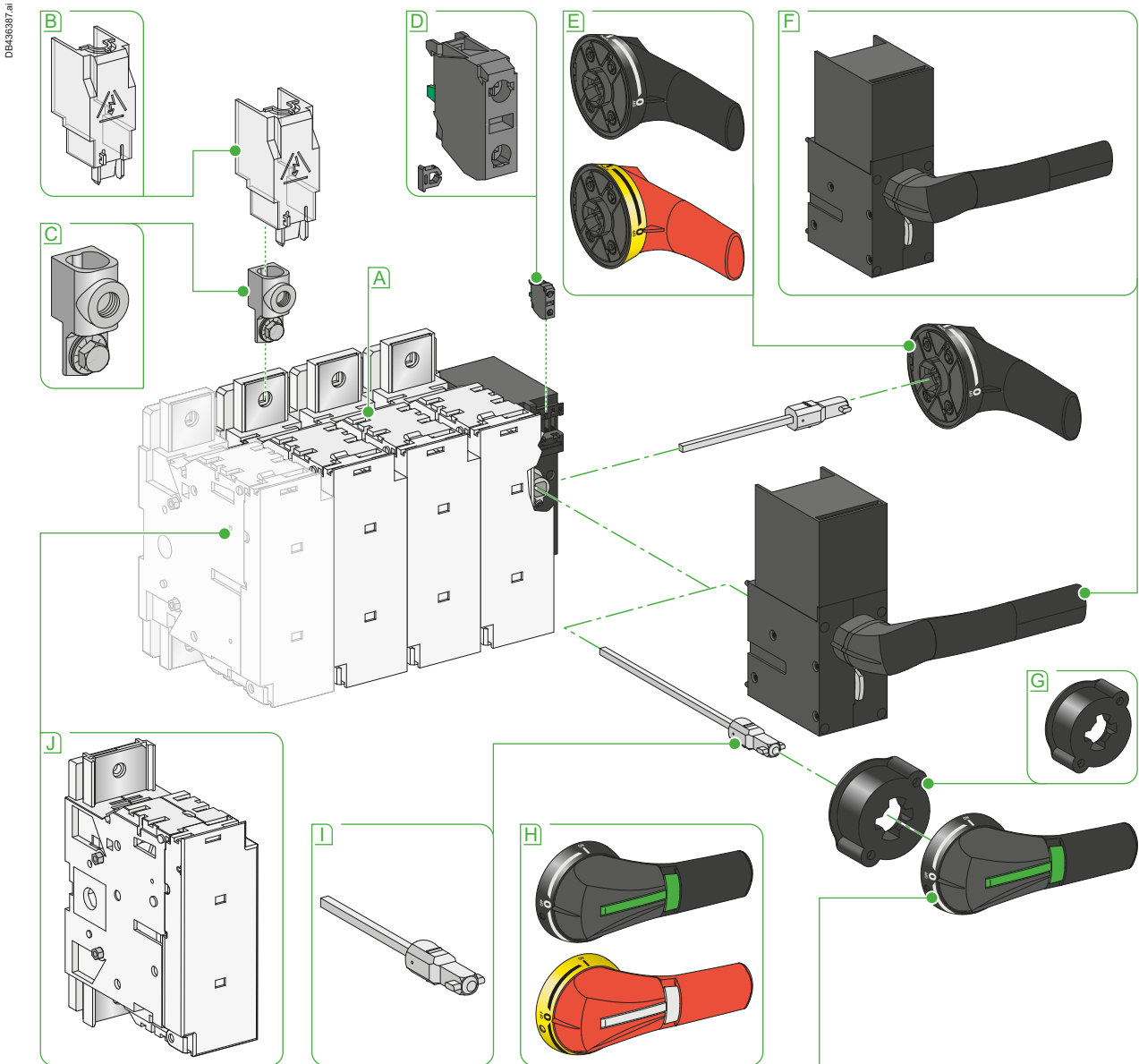
- G** Guide cone

- H** Extended front handles

- I** Shaft

- J** External neutral module

Presentation
 Offer panorama
 FuPacT GS 200/400 A



- A** Switch disconnecter fuse 3P or 4P
 - GSB 200/250/400 A
 - GSD 250/400 A
- B** Terminal shield
- C** Bare cable connector

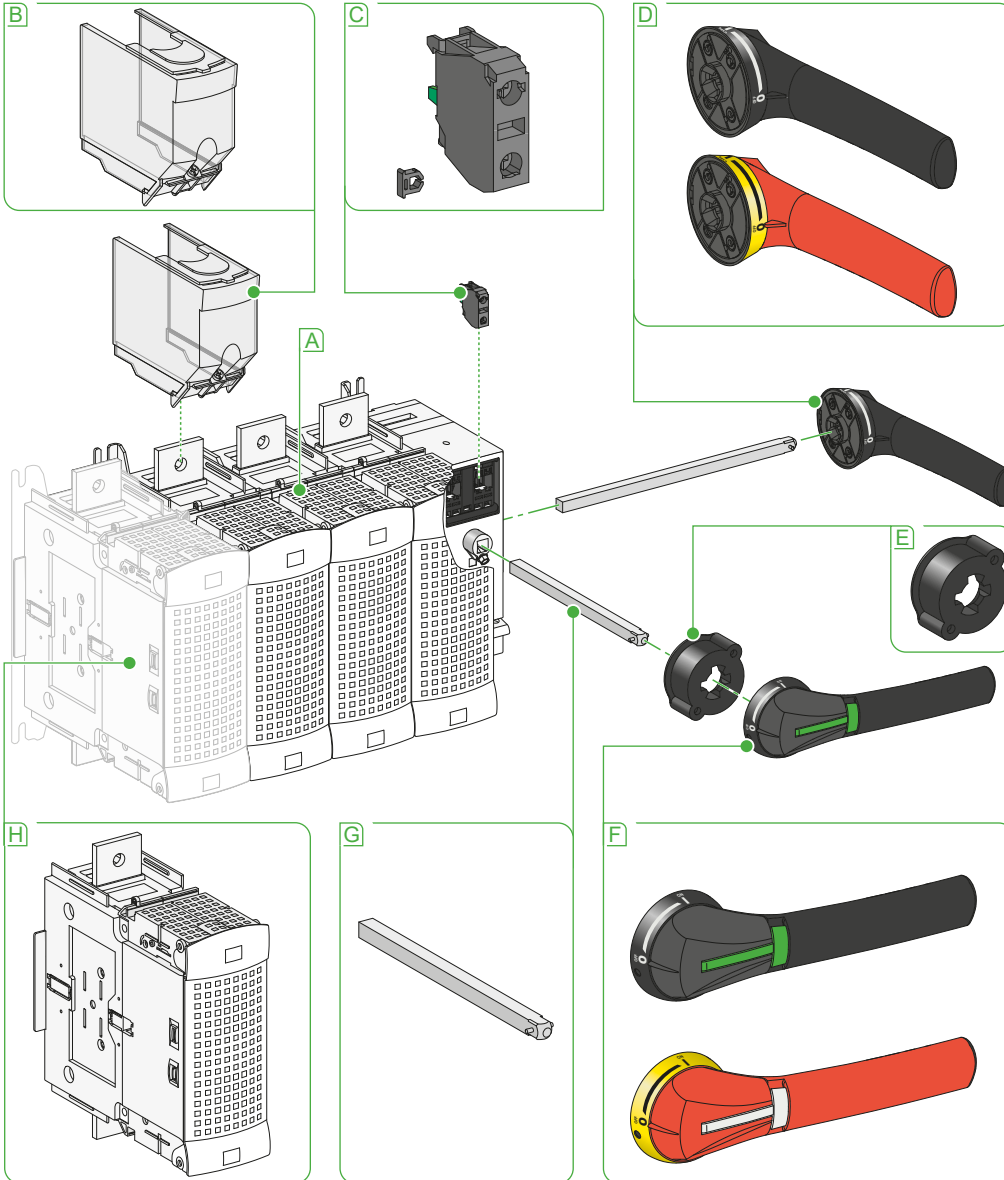
- D** NO or NC auxiliary contacts
- E** Extended lateral handles
- F** Direct handle
- G** Guide cone

- H** Extended front handles
- I** Shaft
- J** External neutral module

Offer panorama

FuPacT GS 630/800 A

DB496388.ai



A Switch disconnecter fuse 3P or 4P
 ■ GSB 630/800 A
 ■ GSD 630/800 A

B Terminal shield

C NO or NC auxiliary contacts

D Extended lateral handles

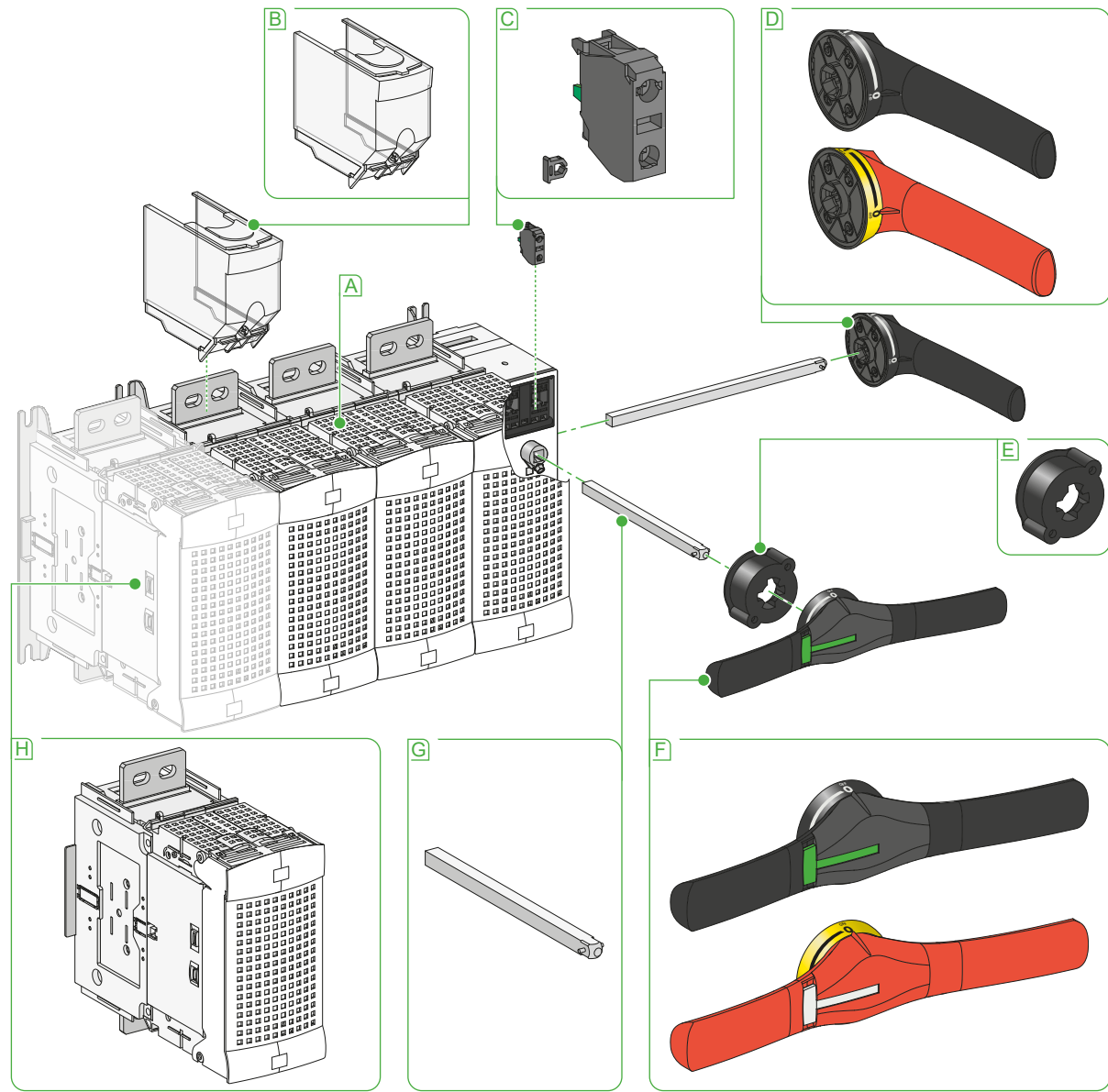
E Guide cone

F Extended front handles

G Shaft

H External neutral module

DB436385.ai



- A** Switch disconnecter fuse 3P or 4P
 - GSB 1250 A
 - GSD 1250 A
- B** Terminal shield

- C** NO or NC auxiliary contacts
- D** Extended lateral handles
- E** Guide cone

- F** Extended front handles
- G** Shaft
- H** External neutral module

IEC switch-disconnector-fuses for use with NFC or DIN fuses

From 32 to 1250 A

Switch-disconnector-fuse characteristics

| Type | | GSC32 | GSC50 | GSD63 | | |
|--|---|-----------------------------------|------------|-------|-------|------|
| Environment | | | | | | |
| Conforming to standards | Switch-disconnector-fuses | IEC 60947-3 | | | | |
| | Fuses | IEC60269/NFC63320 & IEC60269/BS88 | | | | |
| Product certifications | | IEC and CCC | | | | |
| Degree of protection conforming to IEC 60529 | On Front panel, with terminal covers | IP 20 | | | | |
| Ambient air temperature around the device | Storage | °C | -50 ...+85 | | | |
| | Operation | °C | -20...+70 | | | |
| Flame resistance conforming to IEC 60695-2-1 | Body | °C | 960 | | | |
| | Fuse cover | °C | - | 850 | | |
| Pole characteristics following IEC 60947-1 / IEC 60947-3 et EN 60947-1 / EN 60947-3 | | | | | | |
| Number of poles / Number of fuses | 3 poles / 3 fuses | | ■ | ■ | | |
| | 3 poles / Neutral switched NOT Protected | | ■ | - | | |
| | 4 poles / 4 fuses | | - | ■ | | |
| Type of fuses | Fuse size | | 10x38 | 14x51 | | |
| Conventional thermal current | At ambient temperature (I _{th}) at 35°C | A | 32 | 50 | 63 | |
| | Maximum admissible power dissipated by the fuse | W | 2.9 | 4.6 | 6.0 | |
| | Maximum power dissipated by a pole | W | 1.2 | 4.6 | 4.4 | |
| Derating | in the open air or in cubicle | at 40°C | A | 30 | 48 | 60 |
| | | at 50°C | A | 27 | 43 | 54 |
| | | at 60°C | A | 24 | 37 | 47 |
| | | at 70°C | A | 20 | 31 | 39 |
| Rated insulation voltage (U _i) | 50/60 Hz | V | 800 | 800 | 800 | |
| Rated impulse withstand voltage (U _{imp}) | | kV | 8 | 8 | 8 | |
| Rated operating voltage - AC (U _e) | 50/60 Hz | V | 690 | 690 | 690 | |
| Rated operating voltage - AC 20 (U _e) | | V | 800 | 800 | 800 | |
| Rated operational current at 50/60 Hz | Cat. AC-22A/B ^[1] | 220/240 V | A | 32 | 50 | 63 |
| | | 380/415 V | A | 32 | 50 | 63 |
| | | 660/690 V | A | 32 | 50 | 63 |
| Rated operational current at 50/60 Hz | Cat. AC-23A/B ^[1] | 220/240 V | A | 32 | 50 | 63 |
| | | 380/415 V | A | 32 | 50 | 63 |
| | | 660/690 V | A | 32 | 50 | 63 |
| Rated operational power | Cat. AC-23A/B ^[1] | 380/415 V | kW | 15 | 25 | 30 |
| | | 660/690 V | kW | 25 | 45 | 55 |
| Breaking capacity with fuses (I _q) | 400 V | kA rms | - | - | - | |
| | 415 V | kA rms | 100 | 100 | 100 | |
| | 500 V | kA rms | - | - | - | |
| | 690 V | kA rms | 100 | 100 | 100 | |
| Mechanical durability | in cycle 0/C | | 10000 | 10000 | 10000 | |
| Durability in cycle 0/F | Category | | Category A | | | |
| | Mechanical | in cycle 0/C | | 8500 | 8500 | |
| | Electrical | AC22A 415 V | | 1500 | 1500 | 1500 |
| | | AC22A 690 V | | 1500 | 1500 | 1500 |
| | | AC23A 415 V | | 1500 | 1500 | 1500 |
| AC23A 690 V | | | 1500 | 1500 | 1500 | |
| Sectioning ability | | | Yes | Yes | Yes | |
| Fully apparent cut | | | No | No | No | |
| Degree of pollution | | | III | III | III | |

[1] Category "A": frequent operating cycles, category "B": infrequent operating cycles.

| | GSC125 | GSD125 | GSD160 | GSD250 | GSD400 | GSD630 | GSD800 | GSD1250 |
|-----------------------------------|--------|--------|--------|------------|--------|--------|--------|---------|
| IEC 60947-3 | | | | | | | | |
| IEC60269/NFC63320 & IEC60269/BS88 | | | | | | | | |
| IEC and CCC | | | | | | | | |
| IP 20 | | | | | | | | |
| -50 ...+85 | | | | | | | | |
| -20...+70 | | | | | | | | |
| 960 | | | | | | | | |
| 850 | | | | | | | | |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| - | - | - | - | - | - | - | - | - |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 22x58 | NH 00 | NH 00 | NH 1 | NH 2 | NH 3 | NH 3 | NH 3 | NH 4 |
| 125 | 125 | 160 | 250 | 400 | 630 | 800 | 800 | 1250 |
| 10.4 | 12.0 | 12.0 | 23.0 | 33.0 | 60.0 | 65.0 | 65.0 | 110.0 |
| 8.6 | 8.6 | 10.4 | 19 | 24.4 | 61 | 68 | 68 | 154 |
| 119 | 119 | 152 | 238 | 382 | 600 | 762 | 762 | 1195 |
| 107 | 107 | 136 | 213 | 345 | 537 | 682 | 682 | 1079 |
| 93 | 93 | 119 | 186 | 305 | 469 | 595 | 595 | 955 |
| 78 | 78 | 100 | 156 | 262 | 393 | 499 | 499 | 819 |
| 800 | 800 | 800 | 800 | 800 | 1000 | 1000 | 1000 | 1000 |
| 8 | 8 | 8 | 8 | 8 | 12 | 12 | 12 | 12 |
| 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 | 690 |
| 800 | 800 | 800 | 800 | 800 | 1000 | 1000 | 1000 | 1000 |
| 125 | 125 | 160 | 250 | 400 | 630 | 800 | 800 | 1250 |
| 125 | 125 | 160 | 250 | 400 | 630 | 800 | 800 | 1250 |
| 125 | 125 | 160 | 250 | 400 | 630 | 800 | 800 | - |
| 125 | 125 | 160 | 250 | 400 | 630 | 800 | 800 | 1250 |
| 125 | 125 | 160 | 250 | 400 | 630 | 800 | 800 | 1250 |
| 100 | 125 | - | 250 | 315 | - | - | - | - |
| 70 | 70 | 80 | 132 | 220 | 355 | 450 | 450 | 750 |
| 110 | 110 | 110 | 220 | 295 | 295 | 600 | 600 | 900 |
| - | - | - | - | - | - | - | - | - |
| 50 | 50 | 50 | 50 | 100 | 100 | 100 | 100 | 100 |
| - | - | - | - | - | - | - | - | - |
| 100 | 50 | 50 | - | - | - | - | - | - |
| 10000 | 10000 | 10000 | 10000 | 8000 | 5000 | 5000 | 5000 | 5000 |
| Category A | | | | Category B | | | | |
| 7000 | 7000 | 7000 | 7000 | 800 | 800 | 500 | 500 | 500 |
| 1000 | 1000 | 1000 | 1000 | 200 | 200 | 100 | 100 | 100 |
| 1000 | 1000 | 1000 | 1000 | 200 | 200 | 100 | 100 | 100 |
| 1000 | 1000 | 1000 | 1000 | - | - | - | - | 100 |
| 1000 | 1000 | 1000 | 1000 | - | - | - | - | - |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| No | No | No | No | No | No | No | No | No |
| III | III | III | III | III | III | III | III | III |



IEC switch-disconnector-fuses for use with NFC or DIN fuses

From 32 to 1250 A

Switch-disconnector-fuse characteristics

| Type | | GSC32 | GSC50 | GSD63 | |
|--|----|-------------------------|---------------|----------------|-----------------|
| Installation and connection | | | | | |
| Upstream / Downstream connection | | ■ | ■ | ■ | |
| Rear connection | | – | – | – | |
| Connexion material and surface treatment | | White zinc plated steel | Tinned copper | | |
| Control auxiliaries | | | | | |
| Direct front rotary handle | | ■ | ■ | ■ | |
| Front extended handle | | ■ | ■ | ■ | |
| Laterale extend handle | | ■ | ■ | ■ | |
| Padlocking | | ■ | ■ | ■ | |
| Signaling auxiliaries | | | | | |
| Auxiliary contact with pre-cut information | | ■ | ■ | ■ | |
| Test position | | ■ | ■ | ■ | |
| Installation and connection accessories | | | | | |
| Internal neutral link | | – | ■ | ■ | |
| External neutral module | | – | ■ | ■ | |
| Terminal covers | | – | – | – | |
| Cable connector | | – | – | – | |
| Dimensions and weights | | | | | |
| Overall dimensions W x H x D | 3P | mm | 96 x 98 x 65 | 121 x 118 x 87 | 136 x 162 x 116 |
| | 4P | mm | 96 x 98 x 65 | 148 x 118 x 87 | 168 x 162 x 116 |
| Approximate weight without fuses and accessories | 3P | kg | 0.5 | 0.8 | 1.0 |
| | 4P | kg | 0.5 | 1.0 | 1.3 |
| Operating torque (typical for a 3-pole) | | Nm | 8.7 | 8.7 | 8.7 |

GS1 AM110 and GS1 AM101 early break and signaling contact characteristics

| | | |
|---|----------------------------|---|
| Conventional thermal current (I _{th}) for ambient temperature ≤ 40 °C | A | 10 |
| Rated operational current (I _e) | Cat. AC-15 | 120 V: 6 - 240 V: 3 - 400 V: 1.8 - 480 V: 1.5 |
| | Cat. DC-13 | 24 V: 2.8 - 48 V: 1.4 - 125 V: 0.55 - 250 V: 0.27 - 400 V: 0.15 |
| Durability | Number of operating cycles | Mechanical: 5000000 Electrical: cat. AC-15: 1000000 |
| Cabling | Cable (c.s.a. min/max) | mm ² Min: 1 x 0.22 - max: 2 x 2.5 |

| | GSC125 | GSD125 | GSD160 | GSD250 | GSD400 | GSD630 | GSD800 | GSD1250 |
|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | - | - | - | - | - | ■ | ■ | ■ |
| Tinned copper | | | | | | | | |
| | ■ | ■ | ■ | ■ | ■ | - | - | - |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | - | - | - |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | - | - | - |
| | 148 x 162 x 116 | 148 x 162 x 116 | 148 x 162 x 116 | 234 x 195 x 146 | 252 x 205 x 149 | 364 x 300 x 250 | 364 x 300 x 250 | 442 x 300 x 289 |
| | 184 x 162 x 116 | 184 x 162 x 116 | 184 x 162 x 116 | 294 x 195 x 146 | 318 x 205 x 149 | 458 x 300 x 250 | 458 x 300 x 250 | 562 x 300 x 289 |
| | 1.5 | 1.5 | 1.8 | 3.2 | 4.8 | 16.0 | 17.0 | 25.0 |
| | 2.0 | 2.0 | 2.3 | 4.5 | 6.1 | 20.0 | 21.5 | 30.0 |
| | 8.7 | 8.7 | 9.7 | 13 | 17 | 56 | 56.7 | 62 |



IEC switch-disconnector-fuses for use with BS fuses

From 32 to 1250 A

Switch-disconnector-fuse characteristics

| Type | | GSB32 | GSB63 | GSB100 | | |
|--|---|-----------------------------------|---------------|--------|-------|-----|
| Environment | | | | | | |
| Conforming to standards | Switch-disconnector-fuses | IEC 60947-3 | | | | |
| | Fuses | IEC60269/NFC63320 & IEC60269/BS88 | | | | |
| Product certifications | | IEC and CCC | | | | |
| Degree of protection conforming to IEC 60529 | On Front panel, with terminal covers | IP 20 | | | | |
| Ambient air temperature around the device | Storage | °C | -50 ...+85 | | | |
| | Operation | °C | -20...+70 | | | |
| Flame resistance conforming to IEC 60695-2-1 | Body | °C | 960 | | | |
| | Fuse cover | °C | - | 850 | | |
| Pole characteristics following IEC 60947-1 / IEC 60947-3 et EN 60947-1 / EN 60947-3 | | | | | | |
| Number of poles / Number of fuses | 3 poles / 3 fuses | | ■ | ■ | ■ | |
| | 3 poles / Neutral switched NOT Protected | | ■ | - | - | |
| | 4 poles / 4 fuses | | - | ■ | ■ | |
| Type of fuses | Fuse size | | A1 | A2-A3 | A4 | |
| Conventional thermal current | At ambient temperature (Ith) at 35°C | A | 32 | 63 | 100 | |
| | Maximum admissible power dissipated by the fuse | W | 2.9 | 3.8 | 8.4 | |
| | Maximum power dissipated by a pole | W | 1.2 | 4.4 | 3.7 | |
| Derating | in the open air or in cubicle | at 40°C | A | 30 | 60 | 95 |
| | | at 50°C | A | 27 | 54 | 85 |
| | | at 60°C | A | 24 | 47 | 74 |
| | | at 70°C | A | 20 | 39 | 62 |
| Rated insulation voltage (Ui) | 50/60 Hz | V | 800 | 800 | 800 | |
| Rated impulse withstand voltage (Uimp) | | kV | 8 | 8 | 8 | |
| Rated operating voltage - AC (Ue) | 50/60 Hz | V | 690 | 690 | 690 | |
| Rated operating voltage - AC 20 (Ue) | | V | 800 | 800 | 800 | |
| Rated operational current at 50/60 Hz | Cat. AC-22A/B ^[1] | 220/240 V | A | 32 | 63 | 100 |
| | | 380/415 V | A | 32 | 63 | 100 |
| | | 660/690 V | A | 32 | 63 | 100 |
| Rated operational current at 50/60 Hz | Cat. AC-23A/B ^[1] | 220/240 V | A | 32 | 63 | 100 |
| | | 380/415 V | A | 32 | 63 | 100 |
| | | 660/690 V | A | 32 | 63 | 100 |
| Rated operational power | Cat. AC-23A/B ^[1] | 380/415 V | kW | 15 | 30 | 51 |
| | | 660/690 V | kW | - | 55 | 90 |
| Breaking capacity with fuses (Iq) | | 400 V | kA rms | - | - | - |
| | | 415 V | kA rms | 100 | 100 | 50 |
| | | 500 V | kA rms | - | - | - |
| | | 690 V | kA rms | 80 | 100 | 50 |
| Mechanical durability | in cycle 0/C | | 10000 | 10000 | 10000 | |
| Durability in cycle 0/F | Category | | Category A | | | |
| | Mechanical | in cycle 0/C | 8500 | 8500 | 8500 | |
| | Electrical | AC22A 415 V | 1500 | 1500 | 1500 | |
| | | AC22A 690 V | 1500 | 1500 | 1500 | |
| | | AC23A 415 V | 1500 | 1500 | 1500 | |
| AC23A 690 V | 1500 | 1500 | 1500 | | | |
| Sectioning ability | | | Yes | Yes | Yes | |
| Fully apparent cut | | | No | No | No | |
| Degree of pollution | | | III | III | III | |

[1] Category "A": frequent operating cycles, category "B": infrequent operating cycles.

| | GSB160 | GSB200 | GSB250 | GSB400 | GSB630 | GSB800 | GSB1250 |
|-----------------------------------|--------|---------|------------|--------|--------|--------|---------|
| IEC 60947-3 | | | | | | | |
| IEC60269/NFC63320 & IEC60269/BS88 | | | | | | | |
| IEC and CCC | | | | | | | |
| IP 20 | | | | | | | |
| -50 ...+85 | | | | | | | |
| -20...+70 | | | | | | | |
| 960 | | | | | | | |
| 850 | | | | | | | |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| - | - | - | - | - | - | - | - |
| ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| A4 | B1-B2 | B1...B3 | B1...B4 | C2 | C3 | D1 | |
| 160 | 200 | 250 | 400 | 630 | 800 | 1250 | |
| 15.3 | 14.3 | 19.7 | 29.6 | 55 | 70 | 100 | |
| 10.4 | 8.8 | 13.8 | 24.4 | 61 | 68 | 154 | |
| 152 | 190 | 238 | 382 | 600 | 762 | 1195 | |
| 136 | 170 | 213 | 345 | 537 | 682 | 1079 | |
| 119 | 149 | 186 | 305 | 469 | 595 | 955 | |
| 100 | 125 | 156 | 262 | 393 | 499 | 819 | |
| 800 | 800 | 800 | 800 | 1000 | 1000 | 1000 | |
| 8 | 8 | 8 | 8 | 12 | 12 | 12 | |
| 690 | 690 | 690 | 690 | 690 | 690 | 690 | |
| 800 | 800 | 800 | 800 | 1000 | 1000 | 1000 | |
| 160 | 200 | 250 | 400 | 630 | 800 | 1250 | |
| 160 | 200 | 250 | 400 | 630 | 800 | 1250 | |
| 160 | 200 | 250 | 400 | 630 | 800 | 1250 | |
| 160 | 200 | 250 | 400 | 630 | 800 | 1250 | |
| 160 | 200 | 250 | 400 | 630 | 800 | 1250 | |
| - | 160 | 250 | 315 | - | - | - | |
| 80 | 100 | 132 | 220 | 355 | 450 | 750 | |
| 110 | 150 | 220 | 295 | 295 | 400 | 900 | |
| - | - | - | - | - | - | - | |
| 50 | 50 | 100 | 50 | 100 | 100 | 100 | |
| - | - | - | - | - | - | - | |
| 50 | - | - | - | 80 | 80 | 80 | |
| 10000 | 10000 | 10000 | 8000 | 5000 | 5000 | 5000 | |
| Category A | | | Category B | | | | |
| 7000 | 7000 | 7000 | 800 | 800 | 500 | 500 | |
| 1000 | 1000 | 1000 | 200 | 200 | 100 | 100 | |
| 1000 | 1000 | 1000 | 200 | 200 | 100 | 100 | |
| 1000 | 1000 | 1000 | - | - | - | 100 | |
| 1000 | 1000 | 1000 | - | - | - | - | |
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| No | No | No | No | No | No | No | |
| III | III | III | III | III | III | III | |



IEC switch-disconnector-fuses for use with BS fuses

From 32 to 1250 A

Switch-disconnector-fuse characteristics

| Type | | GSB32 | GSB63 | GSB100 | |
|--|----|-------------------------|---------------|-----------------|-----------------|
| Installation and connection | | | | | |
| Upstream / Downstream connection | | ■ | ■ | ■ | |
| Rear connection | | – | – | – | |
| Connexion material and surface treatment | | White zinc plated steel | Tinned copper | | |
| Control auxiliaries | | | | | |
| Direct front rotary handle | | ■ | ■ | ■ | |
| Front extended handle | | ■ | ■ | ■ | |
| Laterale extend handle | | ■ | ■ | ■ | |
| Padlocking | | ■ | ■ | ■ | |
| Signaling auxiliaries | | | | | |
| Auxiliary contact with pre-cut information | | ■ | ■ | ■ | |
| Test position | | ■ | ■ | ■ | |
| Installation and connection accessories | | | | | |
| Internal neutral link | | – | – | – | |
| External neutral module | | – | ■ | ■ | |
| Terminal covers | | – | – | ■ | |
| Cable connector | | – | – | ■ | |
| Dimensions and weights | | | | | |
| Overall dimensions W x H x D | 3P | mm | 96 x 98 x 83 | 136 x 162 x 116 | 148 x 162 x 116 |
| | 4P | mm | 96 x 98 x 83 | 168 x 162 x 116 | 184 x 162 x 116 |
| Approximate weight without fuses and accessories | 3P | kg | 0.5 | 1.0 | 1.5 |
| | 4P | kg | 0.5 | 1.3 | 2.0 |
| Operating torque (typical for a 3-pole) | | Nm | 8.7 | 8.7 | 9.7 |

GS1 AM110 and GS1 AM101 early break and signaling contact characteristics

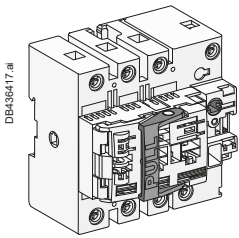
| | | | |
|---|----------------------------|-----------------|---|
| Conventional thermal current (I _{th}) for ambient temperature ≤ 40 °C | | A | 10 |
| Rated operational current (I _e) | Cat. AC-15 | A | 120 V: 6 - 240 V: 3 - 400 V: 1.8 - 480 V: 1.5 |
| | Cat. DC-13 | A | 24 V: 2.8 - 48 V: 1.4 - 125 V: 0.55 - 250 V: 0.27 - 400 V: 0.15 |
| Durability | Number of operating cycles | | Mechanical: 5000000 Electrical: cat. AC-15: 1000000 |
| Cabling | Cable (c.s.a. min/max) | mm ² | Min: 1 x 0.22 - max: 2 x 2.5 |

| | GSB160 | GSB200 | GSB250 | GSB400 | GSB630 | GSB800 | GSB1250 |
|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | - | - | - | - | ■ | ■ | ■ |
| Tinned copper | | | | | | | |
| | ■ | ■ | ■ | ■ | - | - | - |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | - | - | - |
| | - | - | - | - | - | - | - |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| | ■ | ■ | ■ | ■ | - | - | - |
| | 190 x 162 x 136 | 234 x 195 x 146 | 234 x 195 x 146 | 252 x 205 x 149 | 364 x 300 x 250 | 364 x 300 x 250 | 442 x 300 x 289 |
| | 240 x 162 x 136 | 294 x 195 x 146 | 294 x 195 x 146 | 318 x 205 x 149 | 458 x 300 x 250 | 458 x 300 x 250 | 562 x 300 x 289 |
| | 2.3 | 3.2 | 3.2 | 4.8 | 16.0 | 17.0 | 25.0 |
| | 2.3 | 4.5 | 4.5 | 6.1 | 20.0 | 21.5 | 30.0 |
| | 9.7 | 13 | 13 | 17 | 56 | 56.7 | 62 |

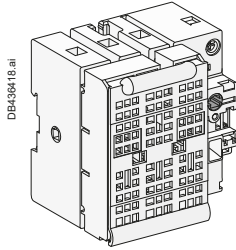


Presentation of the FuPacT GS range

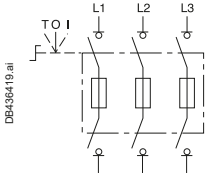
FuPacT GSB and GSC 32



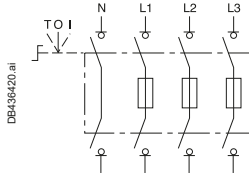
FuPacT GSC32



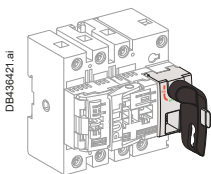
FuPacT GSB32



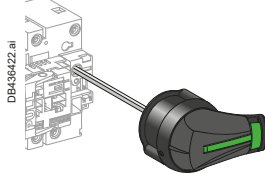
3 poles, 3 fuse-links



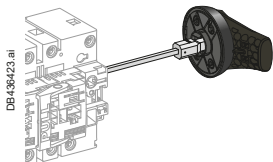
4 poles, 3 fuse-links



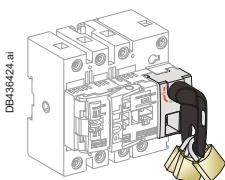
Direct handle



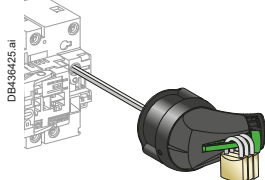
Extended front handles



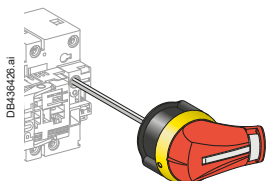
Extended lateral handles



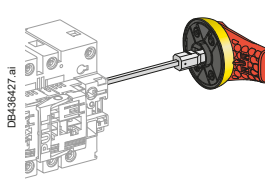
3 padlocks on direct handle



3 padlocks on extended handle



Extended front handles, red handle on yellow front



Extended lateral handles, red handle on yellow front

Functions

The FuPacT GSB32 and GSC32 switch disconnecter fuses are used with fuses that protect electrical circuits against overloading and short circuits.

They provide a circuit cut-off function by means of a double break upstream and downstream of the fuses.

They also provide a switch function allowing circuits to be cut-off when under load.

Format and installation

The FuPacT GSC32 and GSB32 devices are compact and monobloc (96 mm wide), thereby optimizing the space used.

The dimensions of the 3- and 4-pole devices are identical.

The devices are installed either on a DIN rail or by means of mounting screws on a plate. The mounting points are incorporated into the products. There is no need to add accessories to fasten the products to a plate.

Number of poles

The devices are available as 3- or 4-pole versions cut-off by the open/close control. The 3P devices are fitted with 3 fuse holders, cut-off upstream and downstream of the fuse.

The 4P devices are fitted with 3 fuse holders, cut-off upstream and downstream of the fuse and a neutral connection, cut-off, UNPROTECTED.

Controlling the devices

■ The devices can be controlled in three ways:

- By direct control using reference GS1AH103. This control is fitted directly to the device.
- By extended frontal control with a handle installed on the door of the electrical cabinet.
- By extended lateral control with a handle installed on the side of the electrical cabinet.

■ The control rods are available in 3 lengths: 200 , 320 or 400 m.

Note: They must be ordered separately.

■ Several types of IP65 control handle are available and must be ordered separately

- For frontal installation, black or yellow/red with or without test position
- For lateral installation, black or yellow/red without test position

■ The front handles allow the door to be interlocked with the control rod of the device. This prevents the opening of the door cabinet if the device is in the ON position.

■ The lateral controls do not allow the door and the control rod to be interlocked. They must not be used as a frontal control.

Lockout system

The function whereby the devices can be locked in the OFF position is available on the direct control handle and the extended control handles.

It allows up to 3 padlocks to be fitted on each handle.

Using the devices as emergency switch disconnecter fuse

The FuPacT switch disconnecter fuse can be used as emergency cut-off devices.

For this application, they must be easily visible, accessible and identifiable (see standards and rules: VDE 0660, VDE 0113, CNOMO, etc.).

For the purposes of easy identification, the emergency cut-off switch disconnecters fuse use special colors, as stipulated by the standards and different from those of the standard version:

- yellow for the front face of the device or the control plate
- red for the handle.

The performance characteristics of the FuPacT emergency cut-off switch disconnecter fuse are the same as those of the standard version.

Presentation of the FuPacT GS range

FuPacT GSB and GSC 32

Connecting the devices

The FuPacT GSC32 and GSB32 devices are fitted with screw terminals which can accommodate conductors of 2.5 to 16 mm² cross section.

Fuse type and installation

- GSC 32 supports NF 10*38 cylindrical fuses compliant with IEC60269/NFC63320 standards.
- GSB 32 supports BS A1 fuses compliant with IEC60269/BS88 standards.

Note: The fuses are not supplied with the devices.

- For GSC 32, the fuses are installed in the cover, opened prior to installation.
- For GSB 32, the fuses are installed in the device on the mountings provided for this purpose. Manual tightening is strongly advised in order to comply with the recommended tightening torques (consult the instruction sheet).

Cone guide

This accessory allows the control rod to be re-centred with regard to the hole drilled in the door. It is fitted to the door and serves to offset a drilling discrepancy or a bowing of the long rods of ± 10 mm

Auxiliary contacts/Pre cut-off

The GSC32 and GSB32 devices can be fitted with 4 auxiliary contacts enabling the mechanical position of the device to be indicated. 2 auxiliary contacts are fitted directly to the device (see manual) and 2 others can be stacked on top of the first ones.

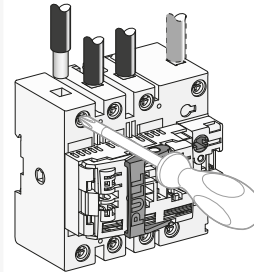
The NO or NC auxiliary contacts thus allow the ON, OFF and TEST positions of the device to be indicated.

The TEST position is indicated if a handle WITH TEST position is used.

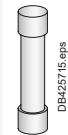
The auxiliary contacts also serve to indicate the pre cut-off of the device, as soon as the handle is activated but before the poles are opened.

This allows a charge to be stopped before cutting the main power supply.

- References GS1AM110 and GS1AM101 have 1 auxiliary contact (NO or NC) + 2 plastic tappets.
- References ZBE101 and ZBE102 are the auxiliary contacts alone.
- Reference LV481110 is a packet of 10 plastic tappets.

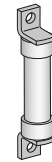


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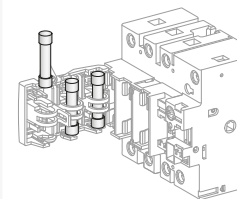
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NFC fuse

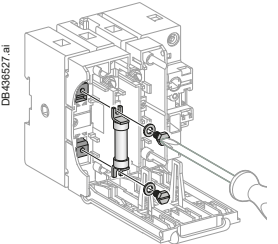


DB436429.ai

BS fuse



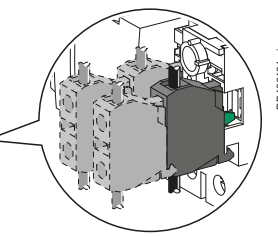
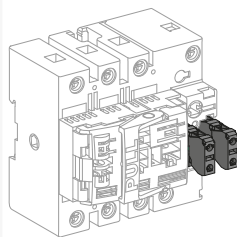
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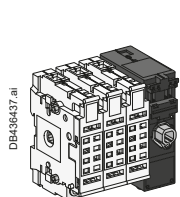


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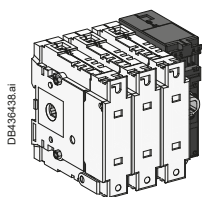
Detailed presentation

Presentation of the FuPacT GS range

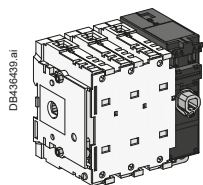
FuPacT GSC 50, GSB and GSD 63



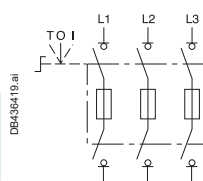
FuPacT GSC 50



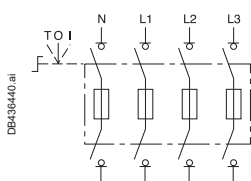
FuPacT GSD 63



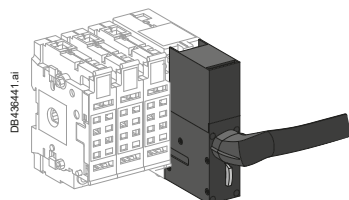
FuPacT GSB 63



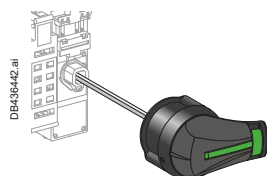
3 poles, 3 fuse-links



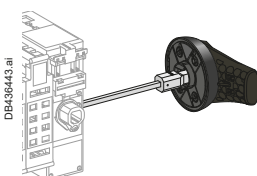
4 poles, 4 fuse-links



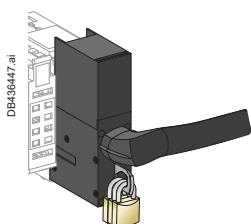
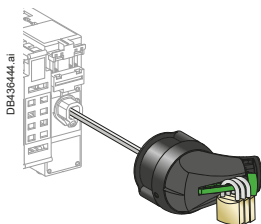
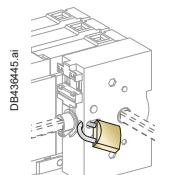
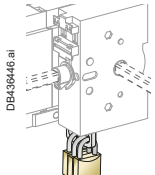
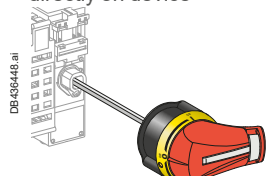
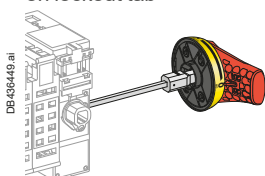
Direct handle



Extended front handles



Extended lateral handles

3 padlocks
on direct handle3 padlocks
on extended handlesingle padlock
directly on device3 padlocks
on lockout tabExtended front handles,
red handle on yellow frontExtended lateral handles,
red handle on yellow front

Functions

The FuPacT GSC50, GSB63 and GSD63 switch disconnecter fuses are used with fuses that protect electrical circuits against overloading and short circuits.

They provide a circuit cut-off function by means of a double break upstream and downstream of the fuses.

They also provide a switch function allowing circuits to be cut-off when under load.

Format and installation

The FuPacT GSC 50, GSD 63 and GSB 63 devices are compact, optimizing the space used. They consist of poles assembled and tested in factory as well as a housing for the control mechanism.

The transparent covers make it possible to see the presence or absence of fuses and their rating.

The devices are installed either on a DIN rail or by means of mounting screws on a plate. The mounting points are incorporated into the products. There is no need to add accessories to fasten the products to a plate.

Number of poles

The devices are available as 3- or 4-pole versions cut-off by the open/close control. The 3P devices are fitted with 3 fuse holders, cut-off upstream and downstream of the fuse.

The 4P devices are fitted with 4 fuse holders, cut-off upstream and downstream of the fuse. One of the poles may be fitted with a neutral link (see internal neutral links).

Controlling the devices

- The devices can be controlled in three ways:
 - By direct control using reference LV481701. This control is fitted directly to the housing of the device control mechanism.
 - By extended frontal control with a handle installed on the door of the electrical cabinet.
 - By extended lateral control with a handle installed on the side of the electrical cabinet.

- The control rods are available in 3 lengths: 200, 320 or 400 mm.

Note: They must be ordered separately.

- Several types of IP65 control handle are available and must be ordered separately.
 - In the event of frontal installation, black or yellow/red, with or without test position.
 - For lateral installation, black or yellow/red, without test position.

- The front handles allow the door to be interlocked with the control rod of the device. This prevents the opening of the door cabinet if the device is in the ON position.

- The lateral controls do not allow the door and the control rod to be interlocked. They must not be used as a frontal control.

Lockout system

The function whereby the devices can be locked in the OFF position is available on the direct control handle and the extended control handles.

It allows up to 3 padlocks to be fitted on each handle.

It is also possible to padlock the devices directly, either on the control unit using a single padlock or a multi-padlock lockout accessory or on the lockout tab located on the lower face of the control unit. This can accommodate up to 3 padlocks.

Using the devices as emergency switch disconnecter fuse

The FuPacT switch disconnecter fuse can be used as emergency cut-off devices.

For this application, they must be easily visible, accessible and identifiable (see standards and rules: VDE 0660, VDE 0113, CNOMO, etc.).

For the purposes of easy identification, the emergency cut-off switch disconnecter fuse use special colors, as stipulated by the standards and different from those of the standard version:

- yellow for the front face of the device or the control plate
- red for the handle.

The performance characteristics of the FuPacT emergency cut-off switch disconnecter fuse are the same as those of the standard version.

Presentation of the FuPacT GS range

FuPacT GSC 50, GSB and GSD 63

Connecting the devices

The FuPacT GSC 50, GSD 63 and GSB 63 devices are fitted with screw terminals which can accommodate conductors of:

- 10 to 25 mm² for the GSC 50
- 16 to 25 mm² for the GSD 63 and GSB 63.

Fuse type and installation

- GSC 50 supports NF 14*51 cylindrical fuses compliant with IEC60269/NFC63320 standards
- GSD 63 supports DIN 000 fuses compliant with IEC60269/NFC63320 standards
- GSB 63 supports BS A2 and A3 fuses compliant with IEC60269/BS88 standards

Note: The fuses are not supplied with the devices.

- For GSC 50 and GSD 63, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then inserting the fuses in the fuse holders.
- For GSB 63, the fuses are installed by removing the transparent protective cover, with the power supply switched off, then installing the fuses on the mounting provided for this purpose. Manual tightening is strongly advised in order to comply with the recommended tightening torques (consult the device manual).

External neutral module and internal neutral link

The NFC 50A and DIN 63A (LV481911 and LV481913) neutral links create a neutral connection in the device. The links are fitted instead of a fuse.

The external neutral modules are poles fitted with a removable neutral connection which is NOT CUT (no mechanism).

They are installed directly on the left-hand side of the product on the 3-pole device.

Cone guide

This accessory allows the control rod to be re-centred with regard to the hole drilled in the door. It is fitted to the door and serves to offset a drilling discrepancy or a bowing of the long rods of ±10 mm.

Auxiliary contacts / Pre cut-off

The FuPacT GSC 50, GSB 63 and GSD 63 devices can be fitted with 4 auxiliary contacts enabling the mechanical position of the device to be indicated. 2 auxiliary contacts are fitted directly to the device (see manual) and 2 others can be stacked on top of the first ones.

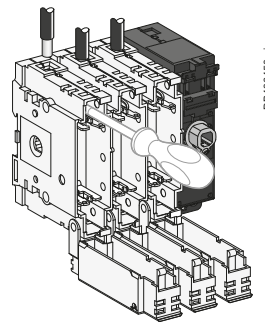
The NO or NC auxiliary contacts thus allow the ON, OFF and TEST positions of the device to be indicated

The TEST position is indicated if a handle WITH TEST position is used

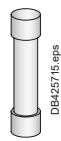
The auxiliary contacts also serve to indicate the pre cut-off of the device, as soon as the handle is activated but before the poles are opened.

This allows a charge to be stopped before cutting the main power supply.

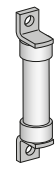
- References GS1AM110 and GS1AM101 have 1 auxiliary contact (NO or NC) + 2 plastic tappets.
- References ZBE101 and ZBE102 are the auxiliary contacts alone
- Reference LV481110 is a packet of 10 plastic tappets



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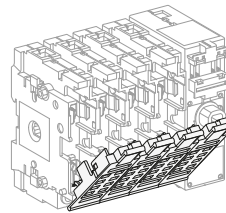
NFC fuse



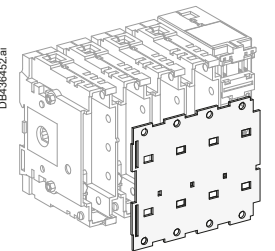
BS fuse



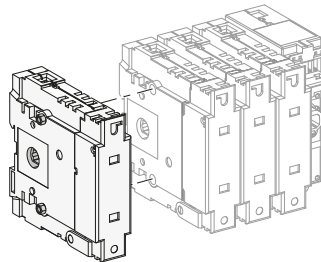
DIN fuse



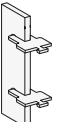
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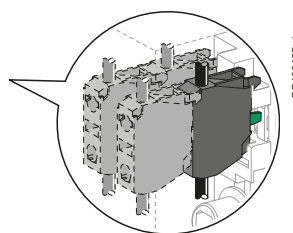
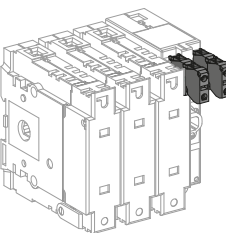
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DIN link



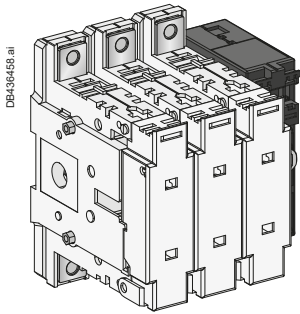
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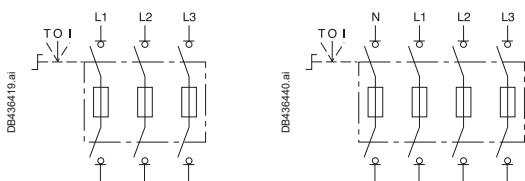
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Presentation of the FuPacT GS range

FuPacT GSB 100, GSC and GSD 125, GSB and GSD 160

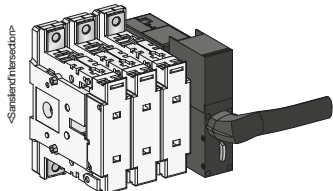


FuPacT GSB 100

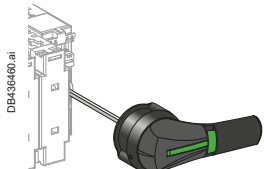


3 poles, 3 fuse-links

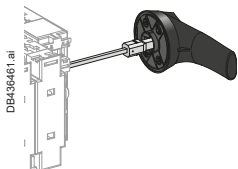
4 poles, 4 fuse-links



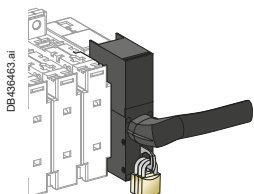
Direct handle



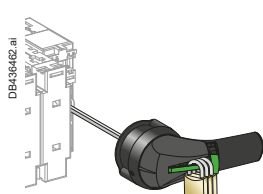
Extended front handles



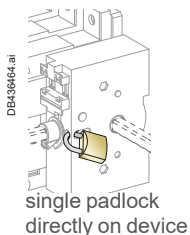
Extended lateral handles



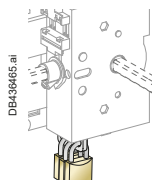
3 padlocks on direct handle



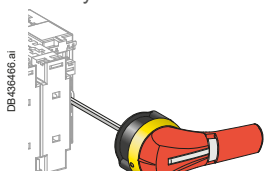
3 padlocks on extended handle



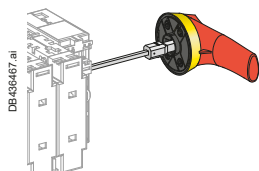
single padlock directly on device



3 padlocks on lockout tab



Extended front handles, red handle on yellow front



Extended lateral handles, red handle on yellow front

Functions

The FuPacT GSB 100, GSC and GSD 125, GSD and GSB 160 switch disconnecter fuses are used with fuses that protect electrical circuits against overloading and short circuits.

They provide a circuit cut-off function by means of a double break upstream and downstream of the fuses.

They also provide a switch function allowing circuits to be cut-off when under load.

Format and installation

The FuPacT GSB 100, GSC and GSD 125, GSD and GSB 160 devices are compact, optimizing the space used.

They consist of poles assembled and tested in factory as well as a housing for the control mechanism.

The transparent covers make it possible to see the presence or absence of fuses and their rating.

The devices are installed on a plate. The mounting points are incorporated into the products. There is no need to add accessories to fasten the products to a plate.

Number of poles

The devices are available as 3- or 4-pole versions cut-off by the open/close control. The 3P devices are fitted with 3 fuse holders, cut-off upstream and downstream of the fuse.

The 4P devices are fitted with 4 fuse holders, cut-off upstream and downstream of the fuse. One of the poles may be fitted with a neutral links.

Controlling the devices

- The devices can be controlled in three ways:
 - By direct control using reference LV481701. This control is fitted directly to the housing of the device control mechanism.
 - By extended frontal control with a handle installed on the door of the electrical cabinet.
 - By extended lateral control with a handle installed on the side of the electrical cabinet.
- The control rods are available in 3 lengths: 200, 320 or 400 m.
- **Note:** They must be ordered separately.
- Several types of IP65 control handle are available and must be ordered separately.
 - In the event of frontal installation, black or yellow/red, with or without test position.
 - For lateral installation, black or yellow/red, without test position.
- The front handles allow the door to be interlocked with the control rod of the device. This prevents the opening of the door cabinet if the device is in the ON position.
- The lateral controls do not allow the door and the control rod to be interlocked. They must not be used as a frontal control.

Lockout system

The function whereby the devices can be locked in the OFF position is available on the direct control handle and the extended control handles.

It allows up to 3 padlocks to be fitted on each handle.

It is also possible to padlock the devices directly, either on the control unit using a single padlock or a multi-padlock lockout accessory or on the lockout tab located on the lower face of the control unit. This can accommodate up to 3 padlocks.

Using the devices as emergency switch disconnecter fuse

The FuPacT switch disconnecter fuse can be used as emergency cut-off devices.

For this application, they must be easily visible, accessible and identifiable (see standards and rules: VDE 0660, VDE 0113, CNOMO, etc.).

For the purposes of easy identification, the emergency cut-off switch disconnecter fuse use special colors, as stipulated by the standards and different from those of the standard version:

- yellow for the front face of the device or the control plate
- red for the handle.

The performance characteristics of the FuPacT emergency cut-off switch disconnecter fuse are the same as those of the standard version.

Presentation of the FuPacT GS range

FuPacT GSB 100, GSC and GSD 125, GSB and GSD 160

Connecting the devices

The FuPacT GSB 100, GSC and GSD 125, GSD and GSB 160 devices are fitted with tin-plated terminal to connect conductors fitted with cable lugs.

Connection accessories can be used to connect directly conductors without cable lugs. The accessories are fitted to the terminal and accommodate the bare conductors.

- FuPacT GSB 100, GSC and GSD 125, GSD and GSB 160: GS1AW33 (set of 3) or GS1AW34 (set of 4).

In order to protect the direct contact connections, terminal covers may be used.

- For FuPacT GSB 100, GSC and GSD 125: GS1AP33 (set of 3) or GS1AP34 (set of 4).
- For FuPacT GSD and GSB 160: GS1AP43 (set of 3) or GS1AP44 (set of 4).

Fuse type and installation

- GSB 100 support BS A4 fuses compliant with IEC60269/BS88 standards.
- GSC 125 support NF 22*58 cylindrical fuses compliant with IEC60269/NFC63320 standards.
- GSD 125 and GSD 160 support DIN 00 fuses compliant with IEC60269/NFC63320 standards.
- GSB 160 support BS A4 fuses compliant with IEC60269/BS88 standards.

Note: The fuses are not supplied with the devices.

- For all FuPacT GSC and GSD 125, GSD 160, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then inserting the fuses in the fuse holders.
- For the FuPacT GSB 100, GSB 160, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then installing the fuses in the housings provided for this purpose. Manual tightening is strongly advised in order to comply with the recommended tightening torques (consult the device manual).

External neutral module and internal neutral link

The NFC 125A and DIN 125A (LV481912 and LV481913) neutral links create a neutral connection in the device. The links are fitted instead of a fuse.

The external neutral modules are poles fitted with a removable neutral connection which is NOT CUT (no mechanism).

They are installed directly on the left-hand side of the product on the 3-pole device.

Cone guide

This accessory allows the control rod to be re-centred with regard to the hole drilled in the door. It is fitted to the door and serves to offset a drilling discrepancy or a bowing of the long rods of ± 10 mm.

Auxiliary contacts / Pre cut-off

The FuPacT GSB 100, GSC and GSD 125, GSD and GSB 160 devices can be fitted with 4 auxiliary contacts enabling the mechanical position of the device to be indicated.

2 auxiliary contacts are fitted directly to the device (see manual) and 2 others can be stacked on top of the first ones.

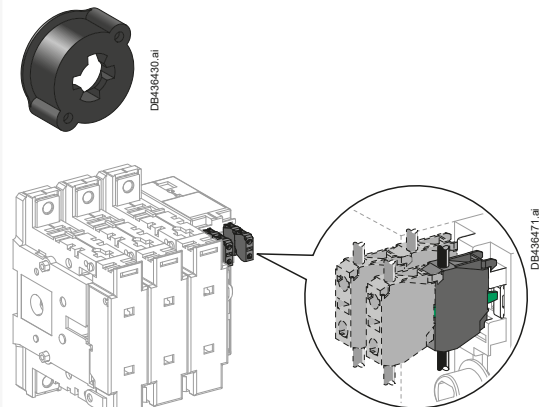
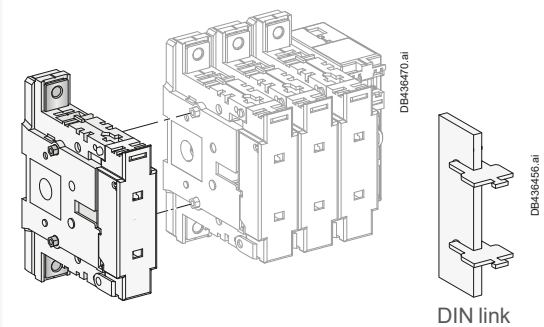
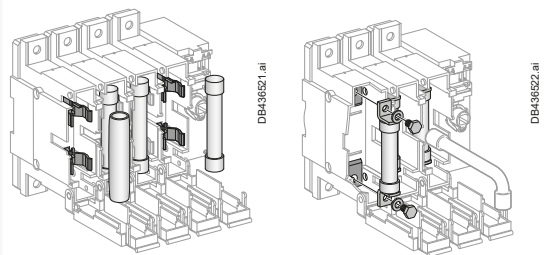
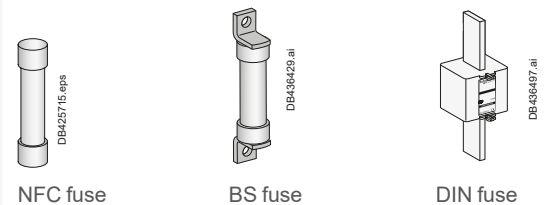
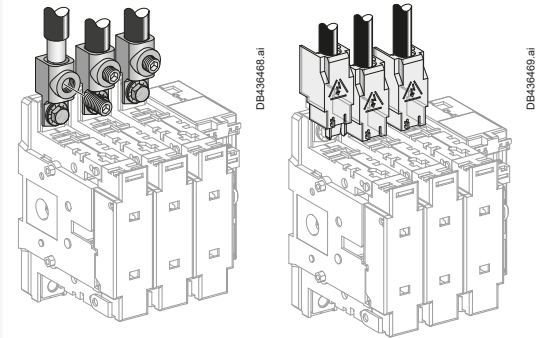
The NO or NC auxiliary contacts thus allow the ON, OFF and TEST positions of the device to be indicated

The TEST position is indicated if a handle WITH TEST position is used

The auxiliary contacts also serve to indicate the pre cut-off of the device, as soon as the handle is activated but before the poles are opened.

This allows a charge to be stopped before cutting the main power supply.

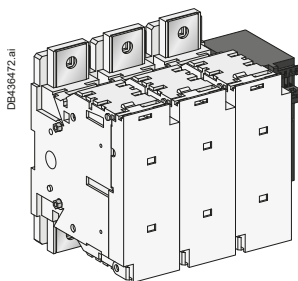
- References GS1AM110 and GS1AM101 have 1 auxiliary contact (NO or NC) + 2 plastic tappets.
- References ZBE101 and ZBE102 are the auxiliary contacts alone.
- Reference LV481110 is a packet of 10 plastic tappets.



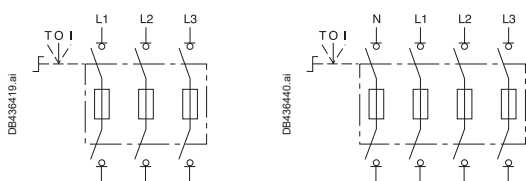
Detailed presentation

Presentation of the FuPacT GS range

FuPacT GSB 200, GSB and GSD 250, GSB and GSD 400

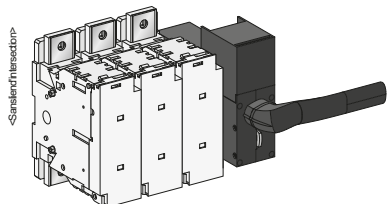


FuPacT GSB 250

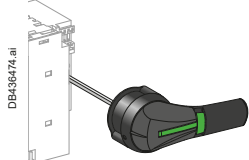


3 poles, 3 fuse-links

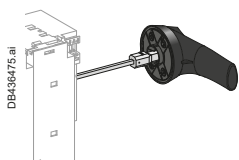
4 poles, 4 fuse-links



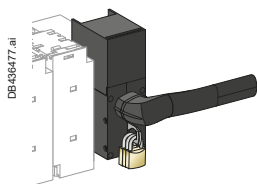
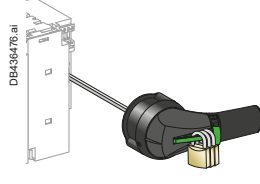
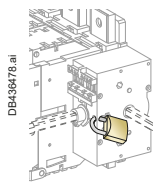
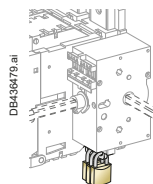
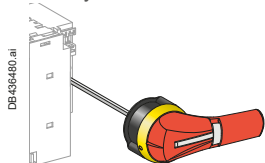
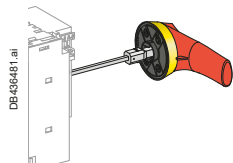
Direct handle



Extended front handles



Extended lateral handles

3 padlocks
on direct handle3 padlocks
on extended handlesingle padlock
directly on device3 padlocks
on lockout tabExtended front handles,
red handle on yellow frontExtended lateral handles,
red handle on yellow front

Functions

The FuPacT GSB 200, GSD and GSB 250, GSD and GSB 400 switch disconnecter fuses are used with fuses that protect electrical circuits against overloading and short circuits.

They provide a circuit cut-off function by means of a double break upstream and downstream of the fuses.

They also provide a switch function allowing circuits to be cut-off when under load.

Format and installation

The FuPacT GSB 200, GSD and GSB 250, GSD and GSB 400 devices are compact, optimizing the space used.

They consist of poles assembled and tested in factory as well as a housing for the control mechanism.

The transparent covers make it possible to see the presence or absence of fuses and their rating.

The devices are installed on a plate. The mounting points are incorporated into the products. There is no need to add accessories to fasten the products to a plate.

Number of poles

The devices are available as 3- or 4-pole versions cut-off by the open/close control. The 3P devices are fitted with 3 fuse holders, cut-off upstream and downstream of the fuse.

The 4P devices are fitted with 4 fuse holders, cut-off upstream and downstream of the fuse. One of the poles may be fitted with a neutral links.

Controlling the devices

■ The devices can be controlled in three ways:

- By direct control using reference LV481702. This control is fitted directly to the housing of the device control mechanism.
- By extended frontal control with a handle installed on the door of the electrical cabinet.
- By extended lateral control with a handle installed on the side of the electrical cabinet.

■ The control rods are available in 3 lengths: 200, 320 or 400 mm.

Note: They must be ordered separately.

■ Several types of IP65 control handle are available and must be ordered separately.

- In the event of frontal installation, black or yellow/red, with or without test position.
- For lateral installation, black or yellow/red, without test position.

■ The front handles allow the door to be interlocked with the control rod of the device. This prevents the opening of the door cabinet if the device is in the ON position.

■ The lateral controls do not allow the door and the control rod to be interlocked. They must not be used as a frontal control.

Lockout system

The function whereby the devices can be locked in the OFF position is available on the direct control handle and the extended control handles.

It allows up to 3 padlocks to be fitted on each handle.

It is also possible to padlock the devices directly, either on the control unit using a single padlock or a multi-padlock lockout accessory or on the lockout tab located on the lower face of the control unit. This can accommodate up to 3 padlocks.

Using the devices as emergency switch disconnecter fuse

The FuPacT switch disconnecter fuse can be used as emergency cut-off devices.

For this application, they must be easily visible, accessible and identifiable (see standards and rules: VDE 0660, VDE 0113, CNOMO, etc.).

For the purposes of easy identification, the emergency cut-off switch disconnecters fuse use special colors, as stipulated by the standards and different from those of the standard version:

- yellow for the front face of the device or the control plate
- red for the handle.

The performance characteristics of the FuPacT emergency cut-off switch disconnecter fuse are the same as those of the standard version.

Presentation of the FuPacT GS range

FuPacT GSB 200, GSB and GSD 250, GSB and GSD 400

Connecting the devices

The FuPacT GSB200, GSD and GSB 250, GSD and GSB 400 devices are fitted with tin-plated terminal to connect conductors fitted with cable lugs.

Connection accessories can be used to connect directly conductors without cable lugs. The accessories are fitted to the terminal and accommodate the bare conductors.

- FuPacT GSB 200: GS1AW43 (set of 3) or GS1AW44 (set of 4).
- FuPacT GSD and GSB 250: GS1AW43 (set of 3) or GS1AW44 (set of 4).
- FuPacT GSD and GSB 400: LV481203 (set of 3) or LV481204 (set of 4).

In order to protect the direct contact connections, terminal covers may be used.

For FuPacT GSB 200, GSD and GSB 250, GSD and GSB 400:

- GS1AP43 (set of 3)
- GS1AP44 (set of 4)

Fuse type and installation

- GSB 200 supports BS B1 and B2 fuses compliant with IEC60269/BS88 standards.
- GSD 250 supports DIN 1 fuses compliant with IEC60269/NFC63320 standards.
- GSB 250 supports BS B1, B2 and B3 fuses compliant with IEC60269/BS88 standards.
- GSD 400 supports DIN 2 fuses compliant with IEC60269/NFC63320 standards.
- The GSB 400 support BS B1, B2, B3 and B4 fuses compliant with IEC60269/BS88 standards.

Note: The fuses are not supplied with the devices.

- For all FuPacT GSD 250 and GSD 400, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then inserting the fuses in the fuse holders.
- For the FuPacT GSB 200, GSB 250 and GSB 400, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then installing the fuses in the housings provided for this purpose. Manual tightening is strongly advised in order to comply with the recommended tightening torques (consult the device manual).

External neutral module and internal neutral link

The DIN 250 and DIN 400A (LV481915 and LV481916) neutral links create a neutral connection in the device. The links are fitted instead of a fuse.

The external neutral modules are poles fitted with a removable neutral connection which is NOT CUT (no mechanism).

They are installed directly on the left-hand side of the product on the 3-pole device.

Cone guide

This accessory allows the control rod to be re-centred with regard to the hole drilled in the door. It is fitted to the door and serves to offset a drilling discrepancy or a bowing of the long rods of ± 10 mm.

Auxiliary contacts / Pre cut-off

The FuPacT GSB 200, GSD and GSB 250, GSD and GSB 400 devices can be fitted with 8 auxiliary contacts enabling the mechanical position of the device to be indicated. 4 auxiliary contacts are fitted directly to the device (see manual) and 4 others can be stacked on top of the first ones.

Note: if using an LV481702 direct control fitted with its auxiliary contacts protective cover, the number of contacts that can be used is reduced to 4.

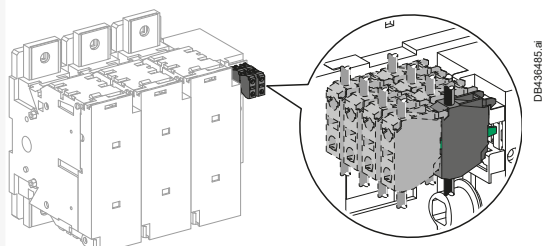
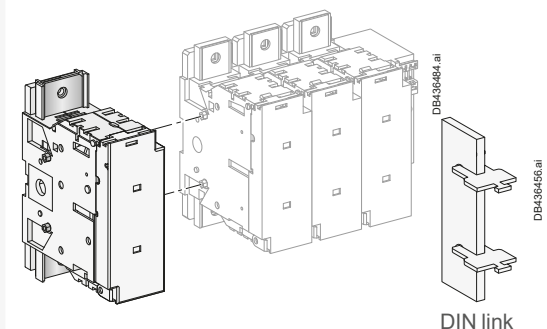
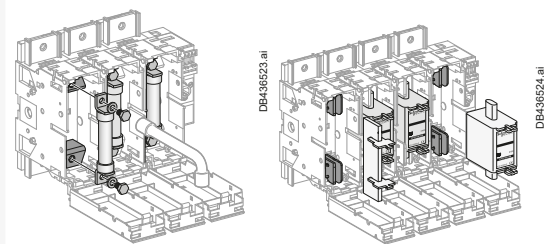
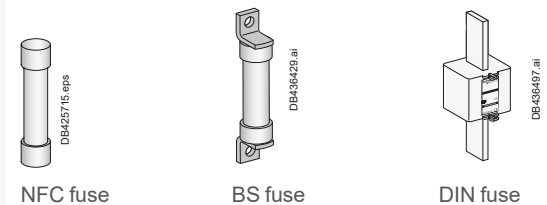
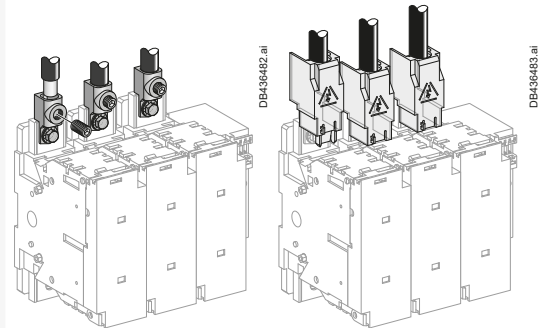
The NO or NC auxiliary contacts thus allow the ON, OFF and TEST positions of the device to be indicated.

The TEST position is indicated if a handle WITH TEST position is used

The auxiliary contacts also serve to indicate the pre cut-off of the device, as soon as the handle is activated but before the poles are opened.

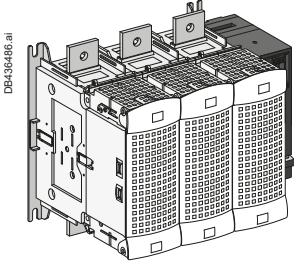
This allows a charge to be stopped before cutting the main power supply.

- References GS1AM110 and GS1AM101 have 1 auxiliary contact (NO or NC) + 2 plastic tappets.
- References ZBE101 and ZBE102 are the auxiliary contacts alone.
- Reference LV481110 is a packet of 10 plastic tappets.

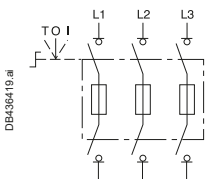


Presentation of the FuPacT GS range

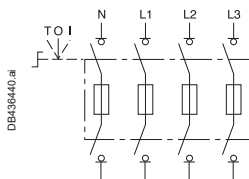
FuPacT GSB and GSD 630, GSB and GSD 800



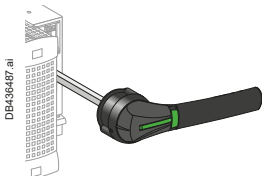
FuPacT GSB 630



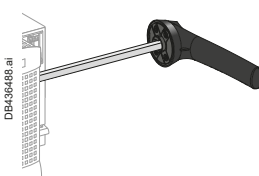
3 poles, 3 fuse-links



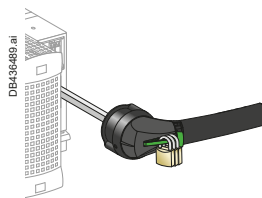
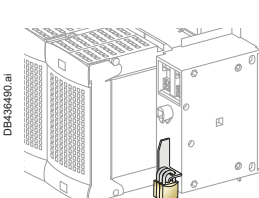
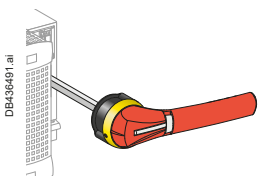
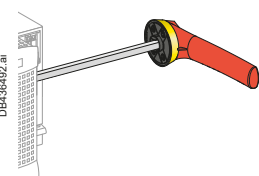
4 poles, 4 fuse-links



Extended front handles



Extended lateral handles

3 padlocks
on extended handle3 padlocks directly
on the deviceExtended front handles,
red handle on yellow frontExtended lateral handles,
red handle on yellow front

Functions

The FuPacT GSD and GSB 630, GSD and GSB 800 switch disconnecter fuses are used with fuses that protect electrical circuits against overloading and short circuits. They provide a circuit cut-off function by means of a double break upstream and downstream of the fuses.

They also provide a switch function allowing circuits to be cut-off when under load.

Format and installation

The GSD and GSB 630, GSD and GSB 800 devices are compact, optimizing the space used.

They consist of poles assembled and tested in factory as well as a housing for the control mechanism.

The transparent covers make it possible to see the presence or absence of fuses and their rating.

The devices are installed on a plate. The mounting points are incorporated into the products. There is no need to add accessories to fasten the products to a plate.

Note: The weight of the devices may require the intervention of 2 people when installing on a plate.

Number of poles

The devices are available as 3- or 4-pole versions cut-off by the open/close control. The 3P devices are fitted with 3 fuse holders, cut-off upstream and downstream of the fuse.

The 4P devices are fitted with 4 fuse holders, cut-off upstream and downstream of the fuse. One of the poles may be fitted with a neutral bar.

Controlling the devices

■ The devices can be controlled in two ways:

- By extended frontal control with a handle installed on the door of the electrical cabinet.
- By extended lateral control with a handle installed on the side of the electrical cabinet.

■ The control rods are available in 3 lengths: 200, 320 or 400 mm.

Note: They must be ordered separately.

■ Several types of IP65 control handle are available and must be ordered separately

- For frontal installation, black or yellow/red without test position.
- For lateral installation, black or yellow/red without test position.

■ The front handles allow the door to be interlocked with the control rod of the device. This prevents the opening of the door cabinet if the device is in the ON position.

■ The lateral controls do not allow the door and the control rod to be interlocked. They must not be used as a frontal control.

Lockout system

The function whereby the devices can be locked in the OFF position is available on the direct control handle and the extended control handles.

It allows up to 3 padlocks to be fitted on each handle

It is also possible to padlock the devices on the control unit directly using the padlocking lug accessible on the front panel of the control unit. This lug can accommodate up to 3 padlocks.

Using the devices as emergency switch disconnecter fuse

The FuPacT switch disconnecters fuse can be used as emergency cut-off devices.

For this application, they must be easily visible, accessible and identifiable (see standards and rules: VDE 0660, VDE 0113, CNOMO, etc.).

For the purposes of easy identification, the emergency cut-off switch disconnecter fuse use special colors, as stipulated by the standards and different from those of the standard version:

- yellow for the front face of the device or the control plate
- red for the handle.

The performance characteristics of the FuPacT emergency cut-off switch disconnecter fuse are the same as those of the standard version.

Presentation of the FuPacT GS range

FuPacT GSB and GSD 630, GSB and GSD 800

Connecting the devices

The FuPacT GSD and GSB 630, GSD and GSB 800 devices are fitted with tin-plated terminal to connect directly conductors fitted with cable lugs or bars.

To facilitate rear connections, the connection terminal can be rotated.

In order to protect the direct contact connections, terminal covers may be used.

For FuPacT GSD and GSB 630, GSD and GSB 800:

- GS2AP73 (set of 3)
- GS2AP64 (set of 4).

Fuse type and installation

- GSD 630 and GSD 800 supports DIN 3 fuses compliant with IEC60269/ NFC63320 standards.
- GSB 630 and GSB 800 supports BS C2 and C3 fuses respectively compliant with IEC60269/BS88 standards.

Note: The fuses are not supplied with the devices.

- For FuPacT GSD 630 and 800, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then inserting the fuses in the fuse holders.
- For FuPacT GSB 630 and GSB 800, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then installing the fuses in the housings provided for this purpose. Manual tightening is strongly advised in order to comply with the recommended tightening torques (consult the device manual).

External neutral module and internal neutral bar

The DIN 630 and DIN 800A (LV481917) neutral links create a neutral connection in the device. The links are fitted instead of a fuse.

The external neutral modules are poles fitted with a removable neutral connection which is NOT CUT (no mechanism).

They are installed directly on the left-hand side of the product on the 3-pole device.

Cone guide

This accessory allows the control rod to be re-centred with regard to the hole drilled in the door. It is fitted to the door and serves to offset a drilling discrepancy or a bowing of the long rods of ± 10 mm.

Auxiliary contacts / Pre cut-off

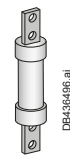
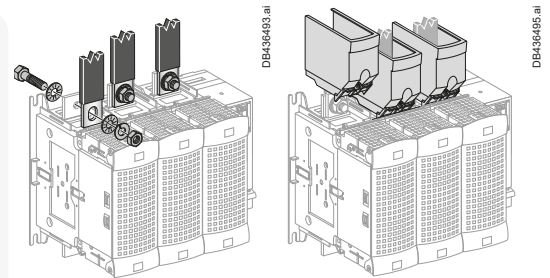
FuPacT GSD and GSB 630, GSD and GSB 800 devices can be fitted with 8 auxiliary contacts enabling the mechanical position of the device to be indicated. 4 auxiliary contacts are fitted directly to the device (see manual) and 4 others can be stacked on top of the first ones.

The NO or NC auxiliary contacts thus allow the ON and OFF positions of the device to be indicated.

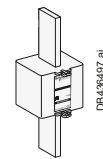
The auxiliary contacts also serve to indicate the pre cut-off of the device, as soon as the handle is activated but before the poles are opened.

This allows a charge to be stopped before cutting the main power supply.

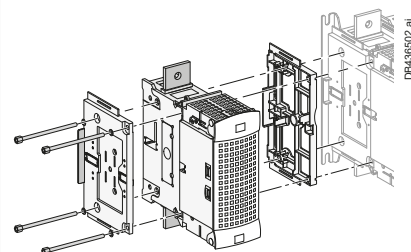
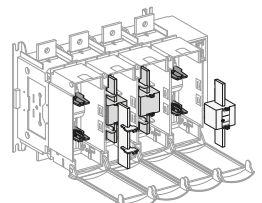
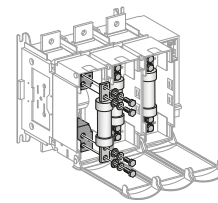
- References GS1AM110 and GS1AM101 have 1 auxiliary contact (NO or NC) + 2 plastic tappets.
- References ZBE101 and ZBE102 are the auxiliary contacts alone.
- Reference LV481110 is a packet of 10 plastic tappets.



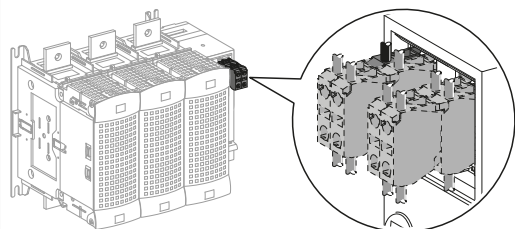
BS fuse



DIN fuse

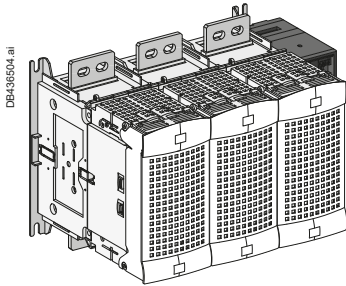


DIN link



Presentation of the FuPacT GS range

FuPacT GSB and GSD 1250



FuPacT GSB 1250

Functions

The FuPacT GSD and GSB 1250 A switch disconnecter fuses are used with fuses that protect electrical circuits against overloading and short circuits.

They provide a circuit cut-off function by means of a double break upstream and downstream of the fuses.

They also provide a switch function allowing circuits to be cut-off when under load.

Format and installation

The GSD and GSB 1250 A devices are compact, optimizing the space used.

They consist of poles assembled and tested in factory as well as a housing for the control mechanism

The transparent covers make it possible to see the presence or absence of fuses and their rating

The devices are installed on a plate. The mounting points are incorporated into the products. There is no need to add accessories to fasten the products to a plate.

Note: The weight of the devices may require the intervention of 2 people when installing on a plate.

Number of poles

The devices are available as 3- or 4-pole versions cut-off by the open/close control.

The 3P devices are fitted with 3 fuse holders, cut-off upstream and downstream of the fuse.

The 4P devices are fitted with 4 fuse holders, cut-off upstream and downstream of the fuse. One of the poles may be fitted with a neutral bar.

Controlling the devices

■ The devices can be controlled in two ways:

- By extended frontal control with a handle installed on the door of the electrical cabinet.
- By extended lateral control with a handle installed on the side of the electrical cabinet.

■ The control rods are available in 3 lengths: 200, 320 or 400 m.

Note: They must be ordered separately.

■ Several types of IP65 control handle are available and must be ordered separately

- For frontal installation, black or yellow/red without test position
- For lateral installation, black or yellow/red without test position

■ The frontal handles for the FuPacT GSD and GSB 1250 A devices are relatively wide dual-branch handles. Remember to provide for an installation allowing the control to be activated easily.

■ The front handles allow the door to be interlocked with the control rod of the device. This prevents the opening of the door cabinet if the device is in the ON position.

■ The lateral controls do not allow the door and the control rod to be interlocked. They must not be used as a frontal control.

Lockout system

The function whereby the devices can be locked in the OFF position is available on the direct control handle and the extended control handles.

It allows up to 3 padlocks to be fitted on each handle.

It is also possible to padlock the devices on the control unit directly using the padlocking lug accessible on the front panel of the control unit. This lug can accommodate up to 3 padlocks.

Using the devices as emergency switch disconnecter fuse

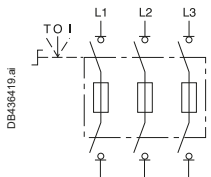
The FuPacT switch disconnecters fuse can be used as emergency cut-off devices.

For this application, they must be easily visible, accessible and identifiable (see standards and rules: VDE 0660, VDE 0113, CNOMO, etc.).

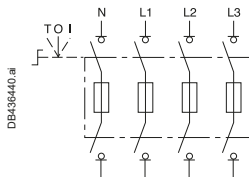
For the purposes of easy identification, the emergency cut-off switch disconnecter fuse use special colors, as stipulated by the standards and different from those of the standard version:

- yellow for the front face of the device or the control plate
- red for the handle.

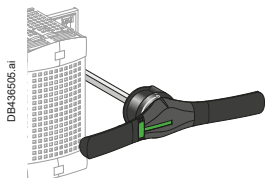
The performance characteristics of the FuPacT emergency cut-off switch disconnecter fuse are the same as those of the standard version.



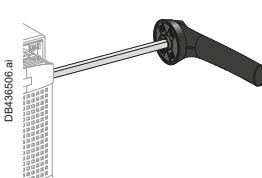
3 poles, 3 fuse-links



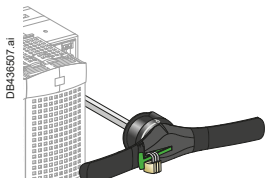
4 poles, 4 fuse-links



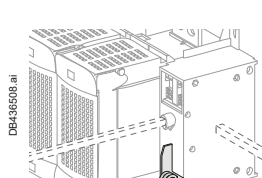
Extended front handles



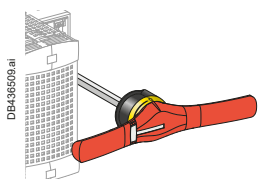
Extended lateral handles



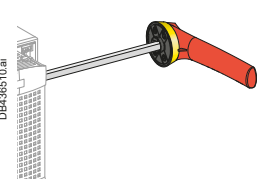
3 padlocks on extended handle



3 padlocks directly on the device



Extended front handles, red handle on yellow front



Extended lateral handles, red handle on yellow front

Presentation of the FuPacT GS range

FuPacT GSB and GSD 1250

Connecting the devices

The FuPacT GSD and GSB 1250 A devices are fitted with tin-plated terminal to connect directly conductors fitted with cable lugs or bars.

To facilitate rear connections, the connection terminal can be rotated.

In order to protect connections from direct contact, terminal covers may be used.

For FuPacT GSD and GSB 1250 A:

- GS2AP83 (set of 3)
- GS2AP84 (set of 4).

Fuse type and installation

- The GSD 1250 supports DIN 4 fuses compliant with IEC60269/NFC63320 standards
- The GSB 1250 devices support BS D1 fuses compliant with IEC60269/BS88 standards.

Note: The fuses are not supplied with the devices.

- For FuPacT GSD 1250, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then inserting the fuses in the fuse holders. The fuse holder terminal must be tightened for correct installation of the fuses
- For FuPacT GSB 1250, the fuses are installed by rotating the transparent protective cover, with the power supply switched off, then installing the fuses in the housings provided for this purpose. Manual tightening is strongly advised in order to comply with the recommended tightening torques (consult the device manual).

External neutral module and internal neutral link

The DIN 1250A (LV481918) neutral links create a neutral connection in the device. The links are fitted instead of a fuse.

The external neutral modules are poles fitted with a removable neutral connection which is NOT CUT (no mechanism).

They are installed directly on the left-hand side of the product on the 3-pole device.

Cone guide

This accessory allows the control rod to be re-centred with regard to the hole drilled in the door. It is fitted to the door and serves to offset a drilling discrepancy or a bowing of the long rods of ± 10 mm.

Auxiliary contacts / Pre cut-off

FuPacT GSD and GSB 1250A devices can be fitted with 8 auxiliary contacts enabling the mechanical position of the device to be indicated.

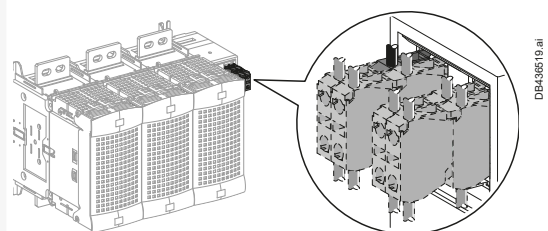
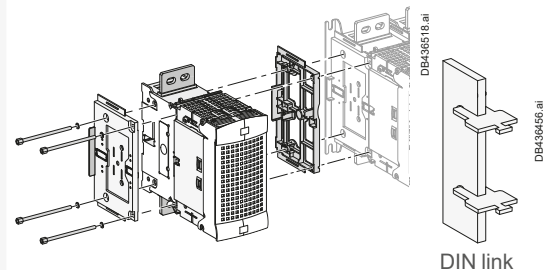
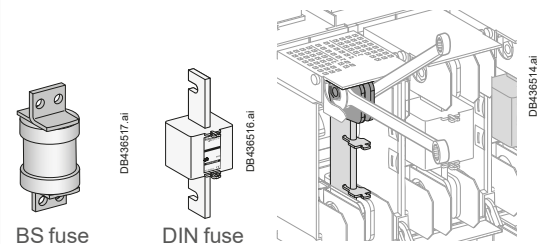
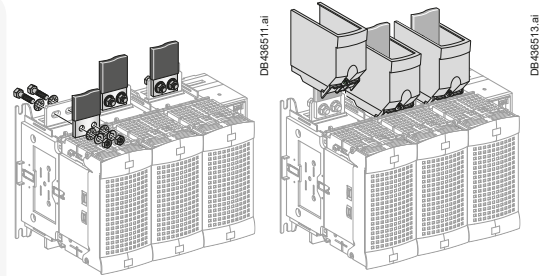
4 auxiliary contacts are fitted directly to the device (see manual) and 4 others can be stacked on top of the first ones.

The NO or NC auxiliary contacts thus allow the ON and OFF positions of the device to be indicated

The auxiliary contacts also serve to indicate the pre cut-off of the device, as soon as the handle is activated but before the poles are opened.

This allows a charge to be stopped before cutting the main power supply.

- References GS1AM110 and GS1AM101 have 1 auxiliary contact (NO or NC) + 2 plastic tappets.
- References ZBE101 and ZBE102 are the auxiliary contacts alone.
- Reference LV481110 is a packet of 10 plastic tappets.

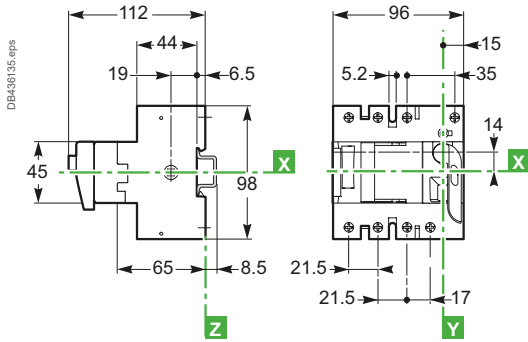


FuPacT GS 32 A

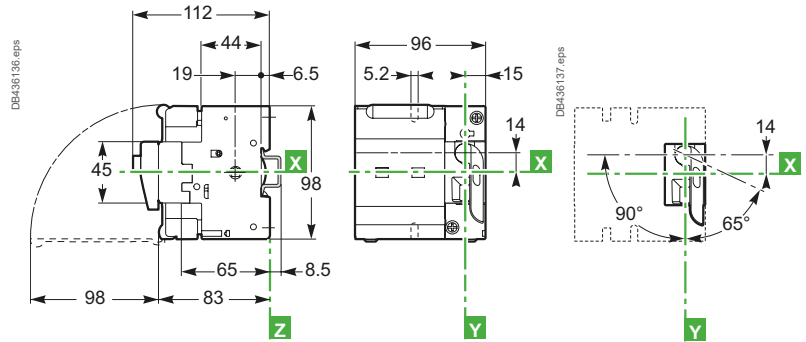
Dimensions

Dimensions

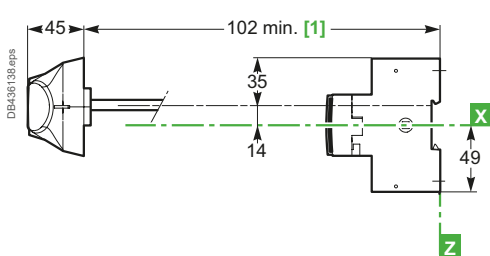
GSC 32 A with direct front handle



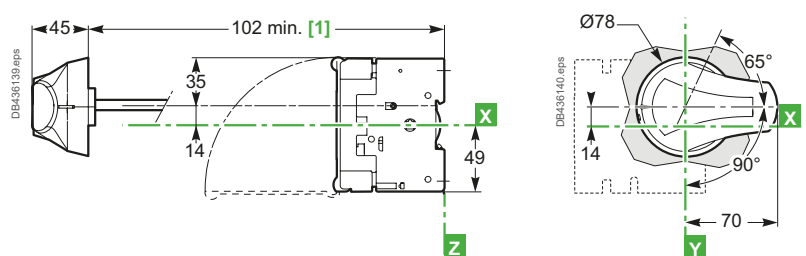
GSB 32 A with direct front handle



GSC 32 A with extended front handle

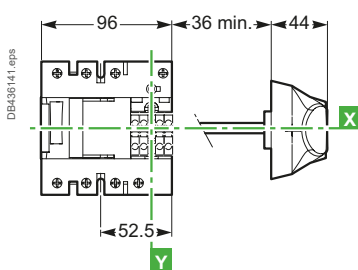


GSB 32 A with extended front handle

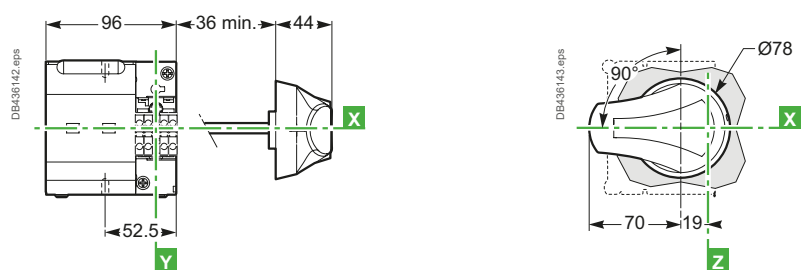


[1] With 1 or 2 auxiliary contacts GS1 AM1●●: 130 mm.
With 3 or 4 auxiliary contacts GS1 AM1●●: 155 mm.

GSC 32 A with extended lateral handle



GSB 32 A with extended lateral handle



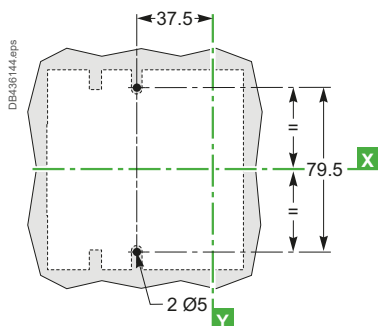
Dimensions and connection

FuPacT GS 32 A

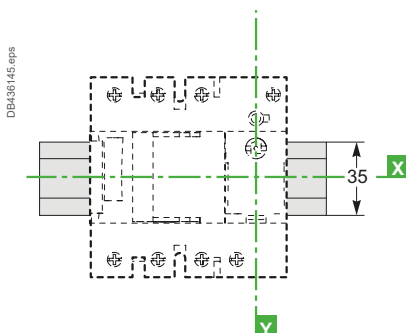
Mounting and front panel cut-outs

Mounting

On the backplate

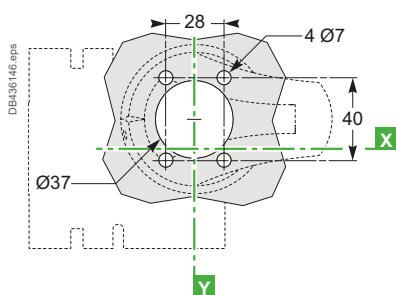


On DIN rail

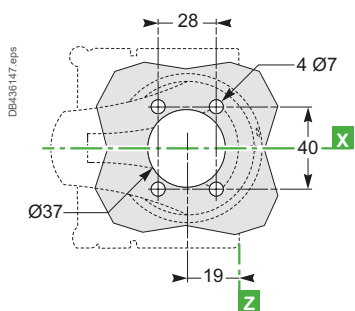


Front panel cut-outs

Extended front handle

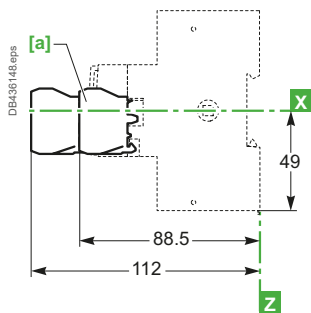


Extended lateral handle



Accessories

Auxiliary contacts



[c] 1 to 4 auxiliary contacts GS1 AM1●●.



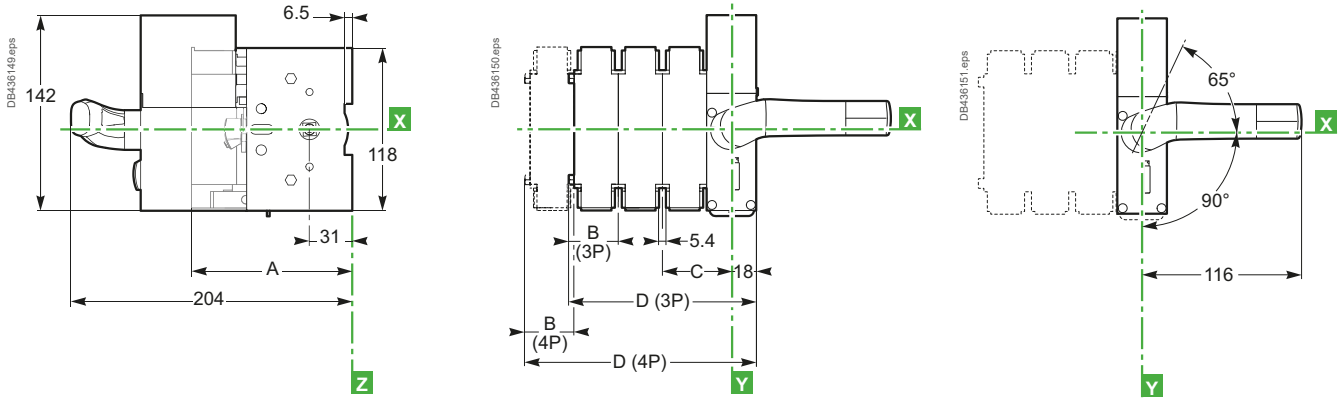
Dimensions and connection

FuPacT GS 50/63 A

Dimensions

Dimensions

Direct front handle

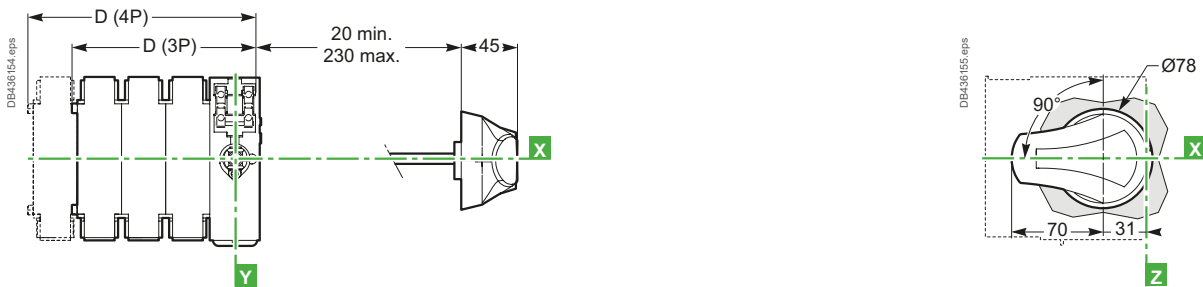


Extended front handle



[1] FuPacT GS 50 A : 1 auxiliary contact GS1 AM1●●: E + 23.5 mm, 2 auxiliary contacts GS1 AM1●●: E + 47 mm.

Extended lateral handle



| Type | | A | B | C | D | E min. | F | G | H | I |
|--------------|----|-------|----|----|-----|--------|----|-------|-----|----|
| GSC 50 A | 3P | 87 | 31 | 45 | 121 | 100 | 27 | 110.5 | 134 | 31 |
| | 4P | 87 | 31 | 45 | 148 | 100 | 54 | 110.5 | 134 | - |
| GSB/GSD 63 A | 3P | 116.5 | 36 | 50 | 136 | 139 | 32 | 108.5 | 132 | 36 |
| | 4P | 116.5 | 36 | 50 | 168 | 139 | 64 | 108.5 | 132 | - |

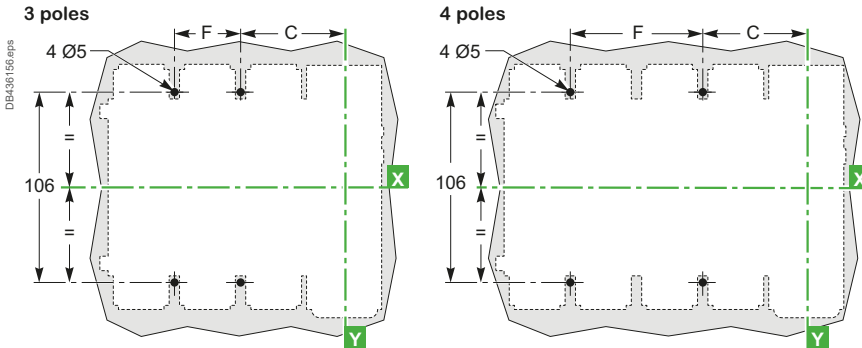
Dimensions and connection

FuPacT GS 50/63 A

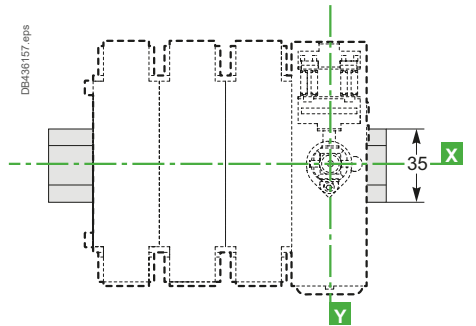
Mounting and front panel cut-outs

Mounting

On the backplate

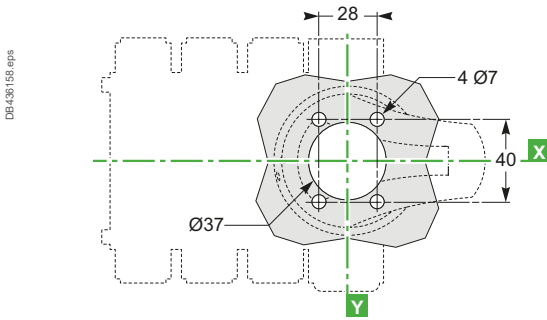


On DIN rail

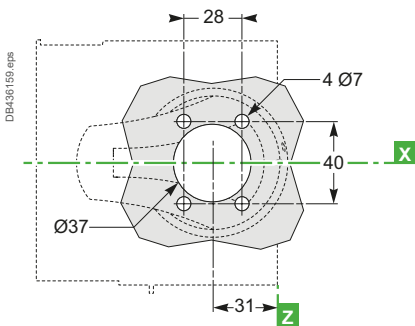


Front panel cut-outs

Extended front handle

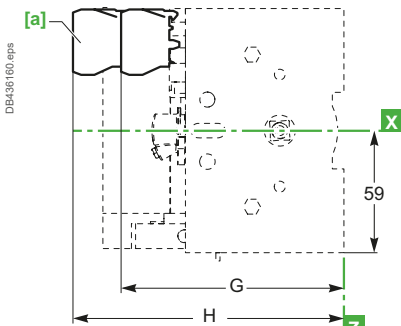


Extended lateral handle

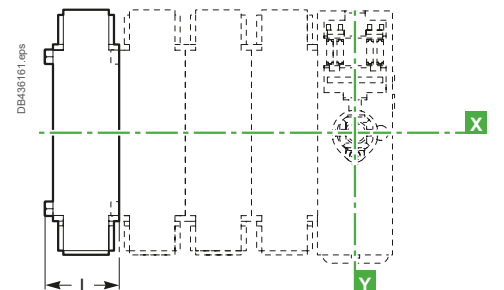


Accessories

Auxiliary contacts



External neutral module



[c] 1 to 4 auxiliary contacts GS1 AM1●●.

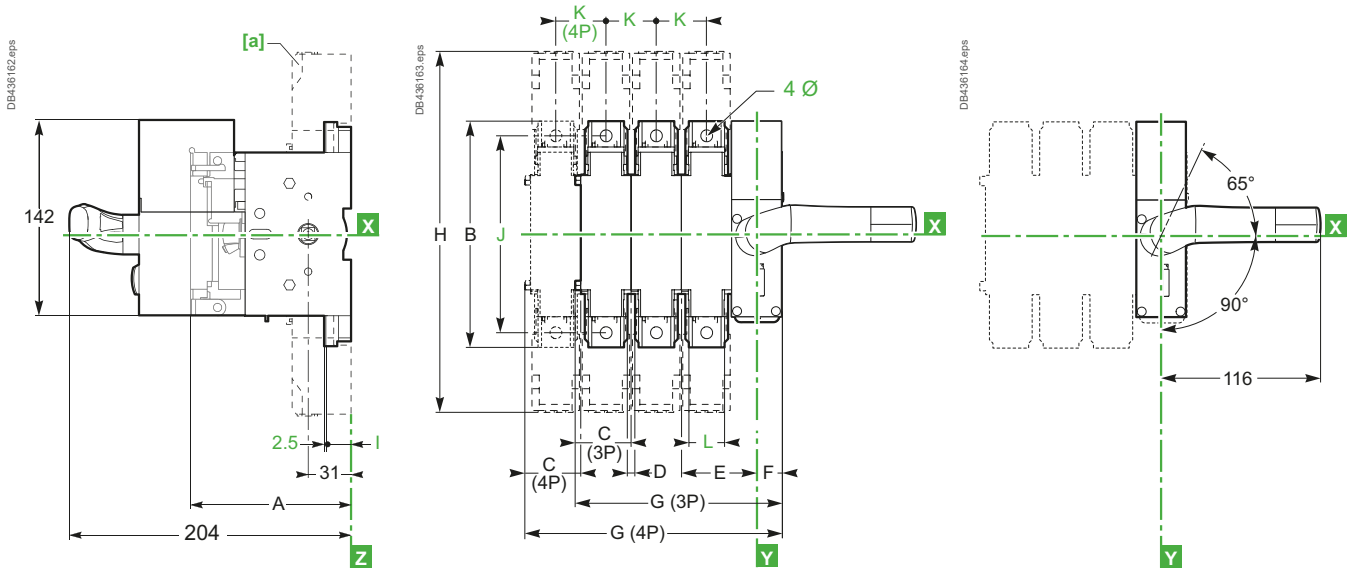
| Type | | A | B | C | D | E min. | F | G | H | I |
|--------------|----|-------|----|----|-----|--------|----|-------|-----|----|
| GSC 50 A | 3P | 87 | 31 | 45 | 121 | 100 | 27 | 110.5 | 134 | 31 |
| | 4P | 87 | 31 | 45 | 148 | 100 | 54 | 110.5 | 134 | - |
| GSB/GSD 63 A | 3P | 116.5 | 36 | 50 | 136 | 139 | 32 | 108.5 | 132 | 36 |
| | 4P | 116.5 | 36 | 50 | 168 | 139 | 64 | 108.5 | 132 | - |

FuPacT GS 100/160 A

Dimensions

Dimensions

Direct front handle

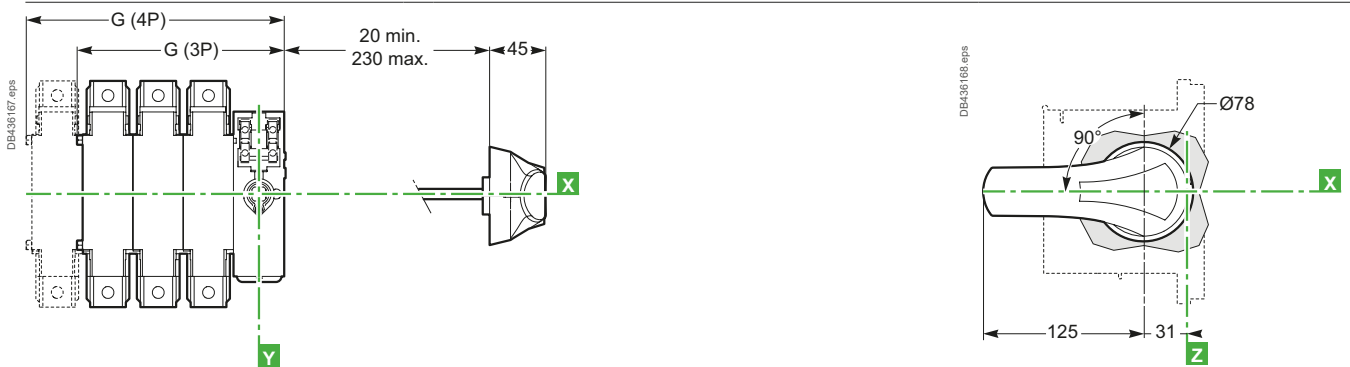


[a] Terminal cover.

Extended front handle



Extended lateral handle



| Type | | A | B | C | D | E min. | F | G | H | I | J | K | L | Ø | M min. | N |
|-----------|----|-------|-----|----|-----|--------|----|-----|-----|------|-----|----|----|-----|--------|----|
| GSB 100 A | 3P | 116 | 162 | 40 | 5.4 | 54 | 18 | 148 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| | 4P | 116 | 162 | 40 | 5.4 | 54 | 18 | 184 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| GSC 125 A | 3P | 116 | 162 | 40 | 5.4 | 54 | 18 | 148 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| | 4P | 116 | 162 | 40 | 5.4 | 54 | 18 | 184 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| GSD 125 A | 3P | 126.5 | 162 | 40 | 5.4 | 54 | 18 | 148 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| | 4P | 126.5 | 162 | 40 | 5.4 | 54 | 18 | 184 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| GSD 160 A | 3P | 126.5 | 162 | 40 | 5.4 | 54 | 18 | 148 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| | 4P | 126.5 | 162 | 40 | 5.4 | 54 | 18 | 184 | 268 | 19.5 | 141 | 36 | 20 | 8.5 | 135 | 81 |
| GSB 160 A | 3P | 136.5 | 162 | 54 | 5.4 | 64 | 18 | 190 | 268 | 19.5 | 141 | 50 | 20 | 8.5 | 145 | 81 |
| | 4P | 136.5 | 162 | 54 | 5.4 | 64 | 18 | 240 | 268 | 19.5 | 141 | 50 | 20 | 8.5 | 145 | 81 |

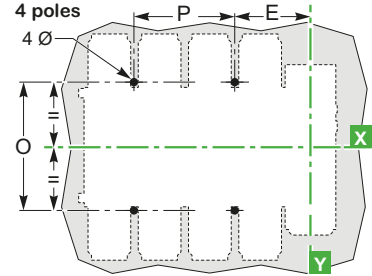
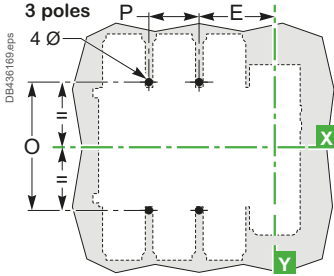
Dimensions and connection

FuPacT GS 100/160 A

Mounting and front panel cut-outs

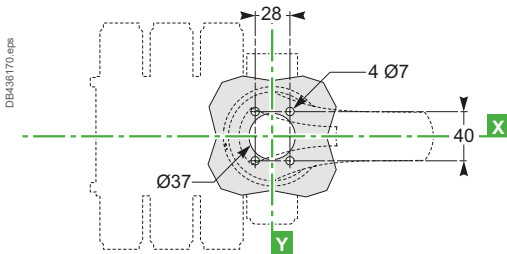
Mounting

On the backplate

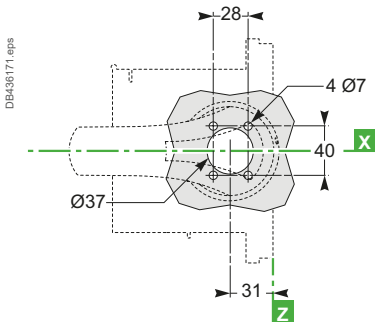


Front panel cut-outs

Extended front handle

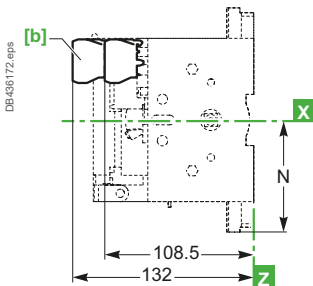


Extended lateral handle



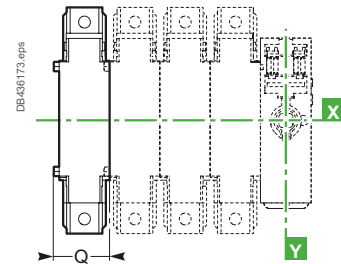
Accessories

Auxiliary contacts



[b] 1 to 4 auxiliary contacts GS1 AM1●●.

External neutral module



| Type | | E | O | P | Ø | Q |
|-----------|----|----|-----|-----|---|----|
| GSB 100 A | 3P | 54 | 127 | 36 | 5 | 40 |
| | 4P | 54 | 127 | 72 | 5 | - |
| GSC 125 A | 3P | 54 | 127 | 36 | 5 | 40 |
| | 4P | 54 | 127 | 72 | 5 | - |
| GSD 125 A | 3P | 54 | 127 | 36 | 5 | 40 |
| | 4P | 54 | 127 | 72 | 5 | - |
| GSD 160 A | 3P | 54 | 127 | 36 | 5 | 40 |
| | 4P | 54 | 127 | 72 | 5 | - |
| GSB 160 A | 3P | 64 | 140 | 50 | 5 | 54 |
| | 4P | 64 | 140 | 100 | 5 | - |

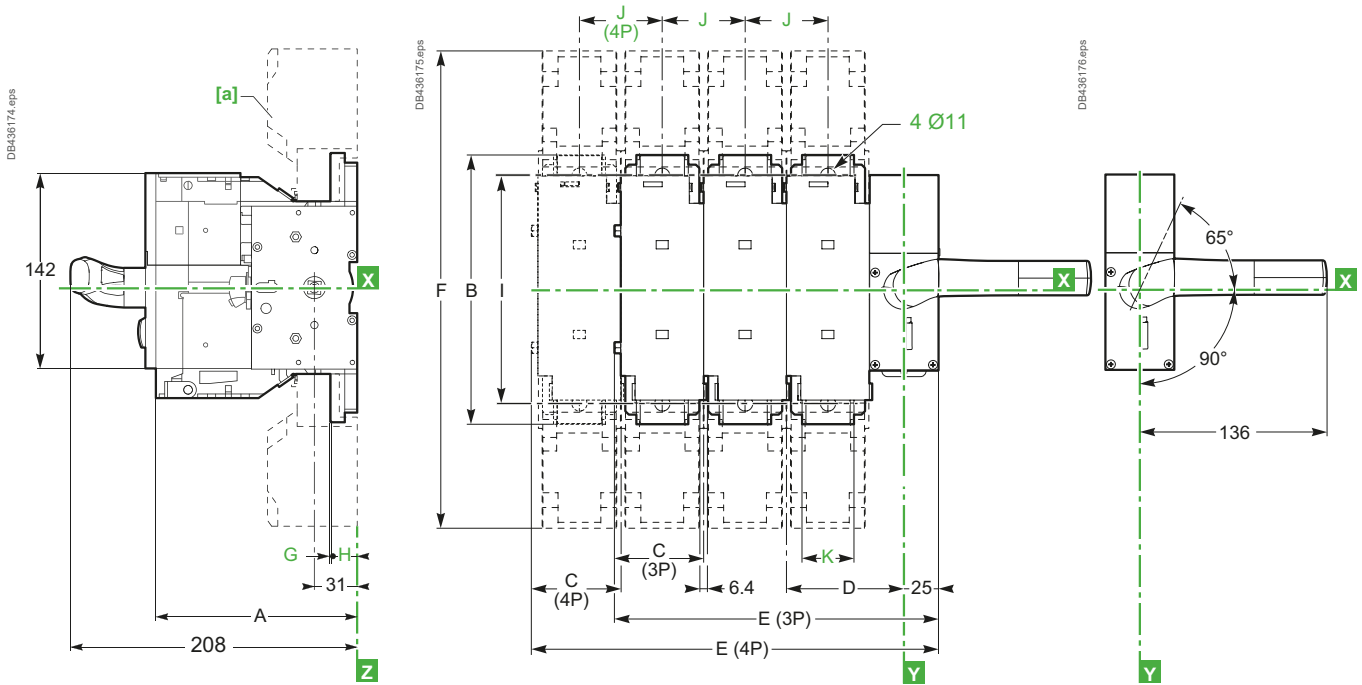


FuPacT GS 200/400 A

Dimensions

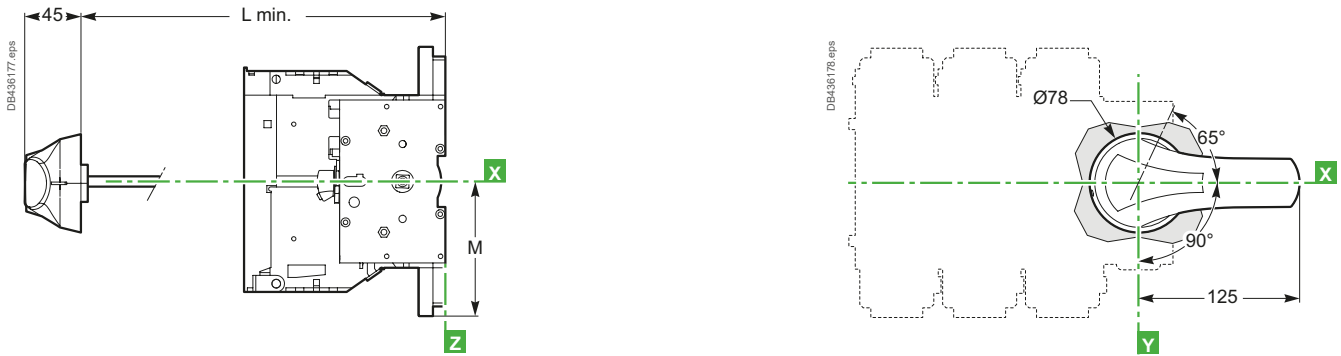
Dimensions

Direct front handle

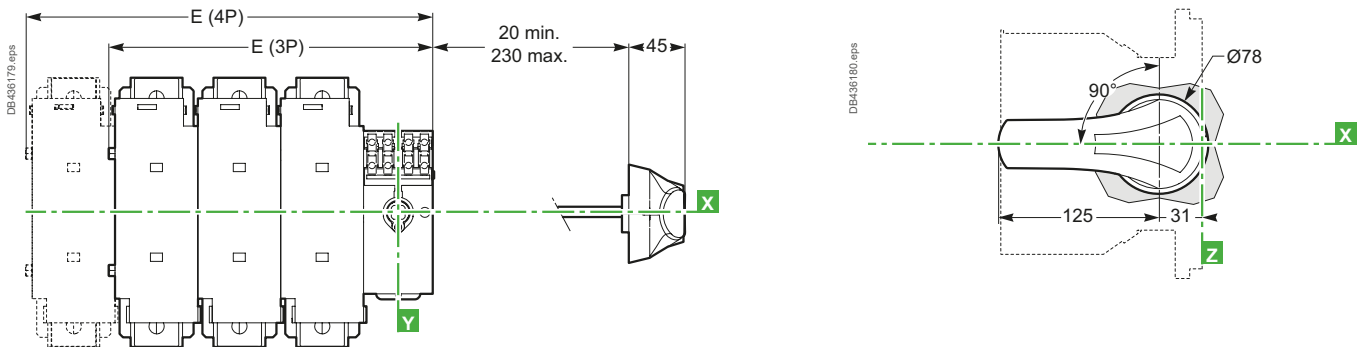


[a] Terminal cover.

Extended front handle



Extended lateral handle



| Type | | A | B | C | D | E | F | G | H | I | J | K | L min. | M | N | O | P |
|-----------|----|-----|-----|----|----|-----|-----|-----|------|-----|----|----|--------|-------|-----|-----|----|
| GSB 200 A | 3P | 146 | 195 | 64 | 86 | 234 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 60 | 64 |
| | 4P | 146 | 195 | 64 | 86 | 294 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 120 | - |
| GS 250 A | 3P | 146 | 195 | 64 | 86 | 234 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 60 | 64 |
| | 4P | 146 | 195 | 64 | 86 | 294 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 120 | - |
| GS 400 A | 3P | 149 | 205 | 70 | 91 | 252 | 355 | 3 | 20 | 175 | 66 | 50 | 157 | 102.5 | 172 | 66 | 70 |
| | 4P | 149 | 205 | 70 | 91 | 318 | 355 | 3 | 20 | 175 | 66 | 50 | 157 | 102.5 | 172 | 132 | - |

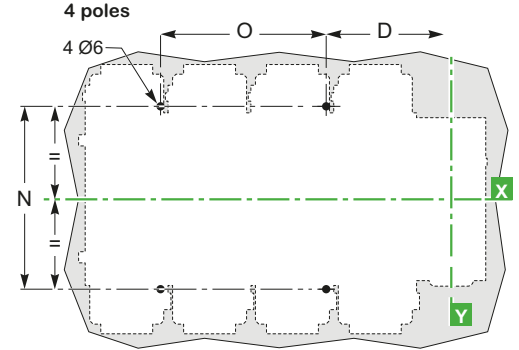
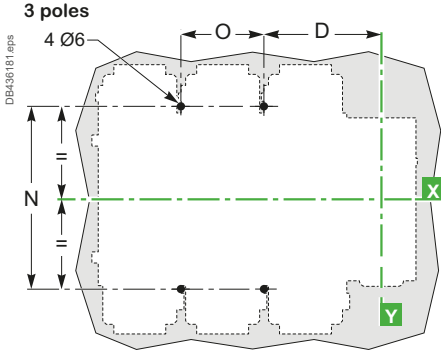
Dimensions and connection

FuPacT GS 200/400 A

Mounting and front panel cut-outs

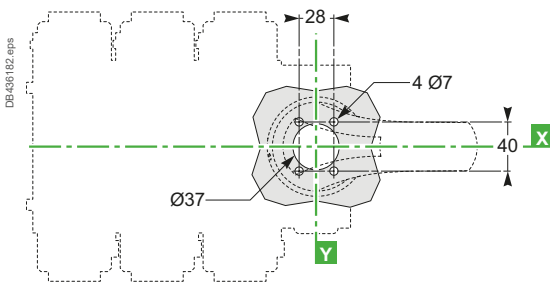
Mounting

On the backplate

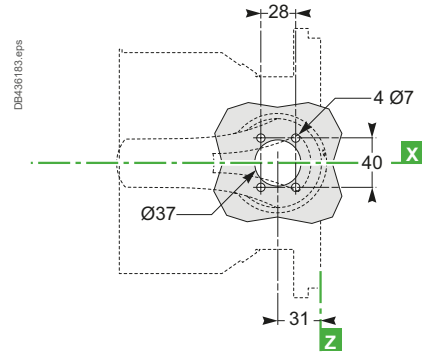


Front panel cut-outs

Extended front handle

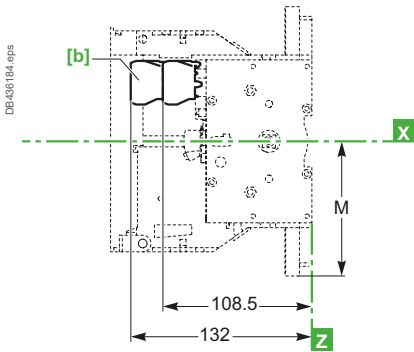


Extended lateral handle



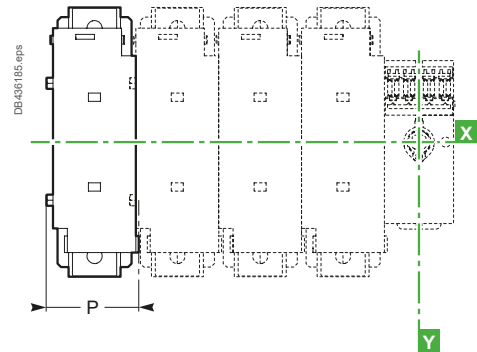
Accessories

Auxiliary contacts



[b] 1 to 8 auxiliary contacts GS1 AM1●●.
1 to 4 auxiliary contacts GS1 AM1●● with direct front handle.

External neutral module



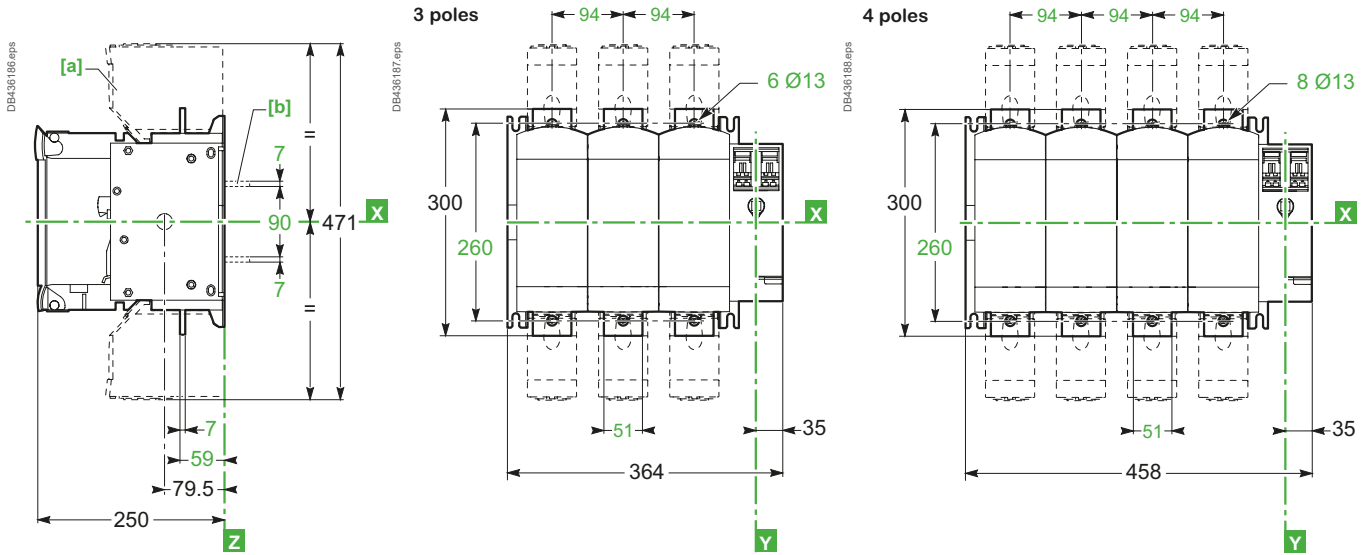
| Type | | A | B | C | D | E | F | G | H | I | J | K | L min. | M | N | O | P |
|-----------|----|-----|-----|----|----|-----|-----|-----|------|-----|----|----|--------|-------|-----|-----|----|
| GSB 200 A | 3P | 146 | 195 | 64 | 86 | 234 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 60 | 64 |
| | 4P | 146 | 195 | 64 | 86 | 294 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 120 | - |
| GS 250 A | 3P | 146 | 195 | 64 | 86 | 234 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 60 | 64 |
| | 4P | 146 | 195 | 64 | 86 | 294 | 345 | 2.5 | 19.5 | 166 | 60 | 32 | 154 | 97.5 | 162 | 120 | - |
| GS 400 A | 3P | 149 | 205 | 70 | 91 | 252 | 355 | 3 | 20 | 175 | 66 | 50 | 157 | 102.5 | 172 | 66 | 70 |
| | 4P | 149 | 205 | 70 | 91 | 318 | 355 | 3 | 20 | 175 | 66 | 50 | 157 | 102.5 | 172 | 132 | - |

FuPacT GS 630/800 A

Dimensions

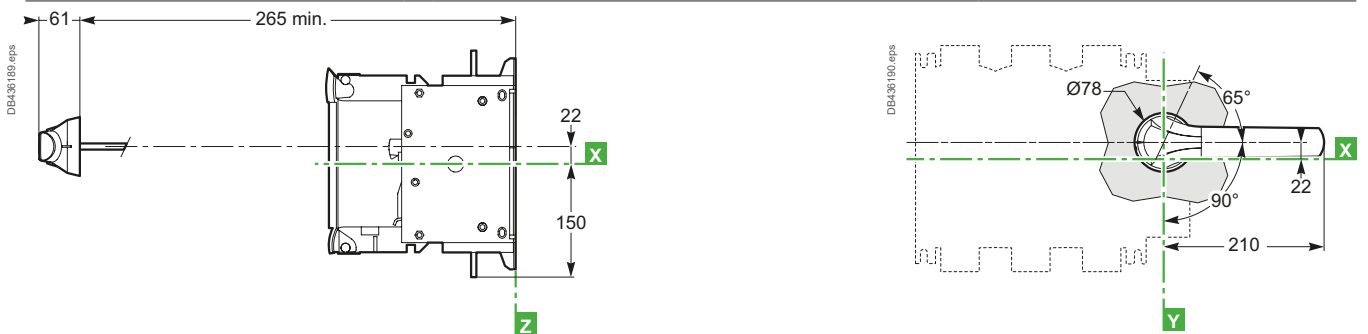
Dimensions

GSB 630 A / GSD 630 A / GSB 800 A / GSD 800 A

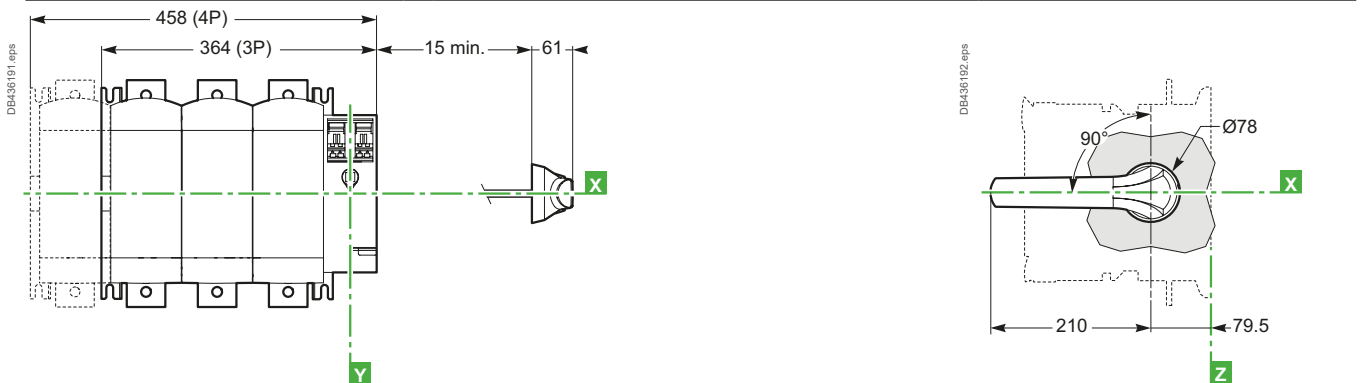


[a] Terminal cover.
[b] Rear access connector plates.

Extended front handle



Extended lateral handle



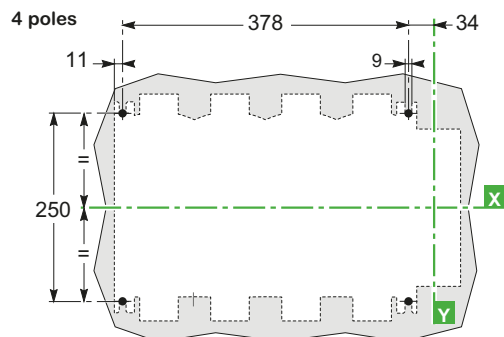
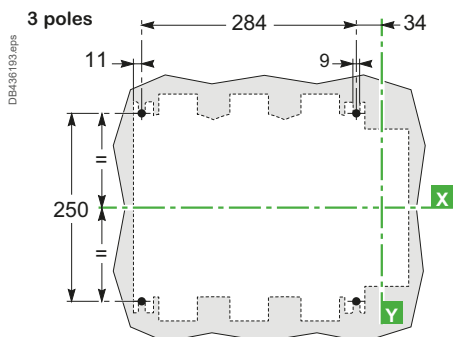
Dimensions and connection

FuPacT GS 630/800 A

Mounting and front panel cut-outs

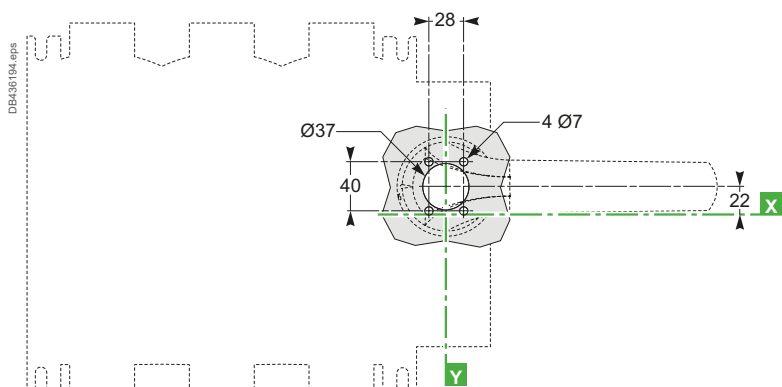
Mounting

On the backplate

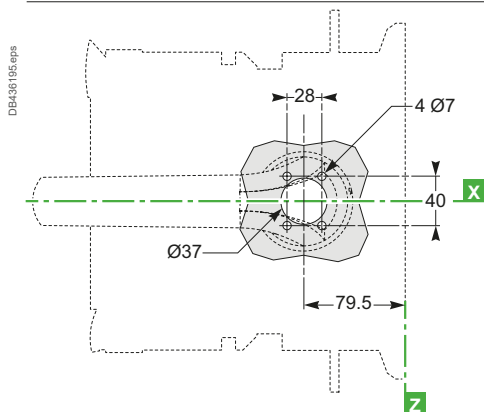


Front panel cut-outs

Extended front handle

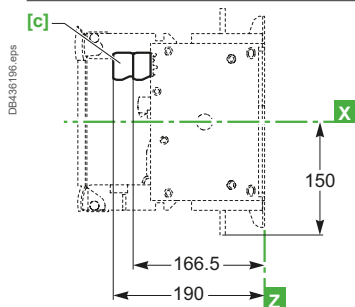


Extended lateral handle



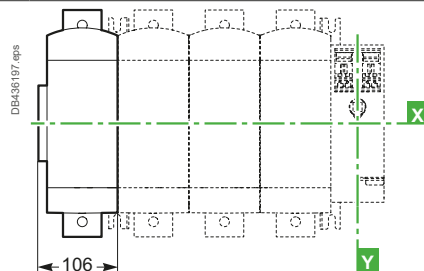
Accessories

Auxiliary contacts



[c] 1 to 8 auxiliary contacts GS1 AM1●●.

External neutral module

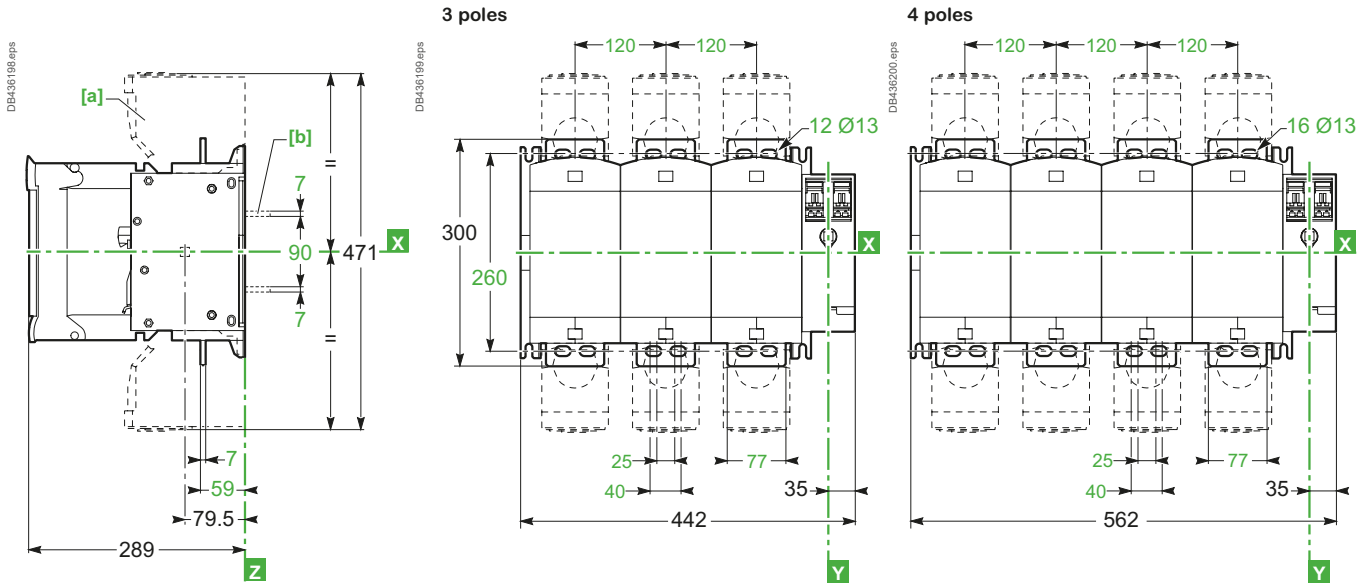


FuPacT GS 1250 A

Dimensions

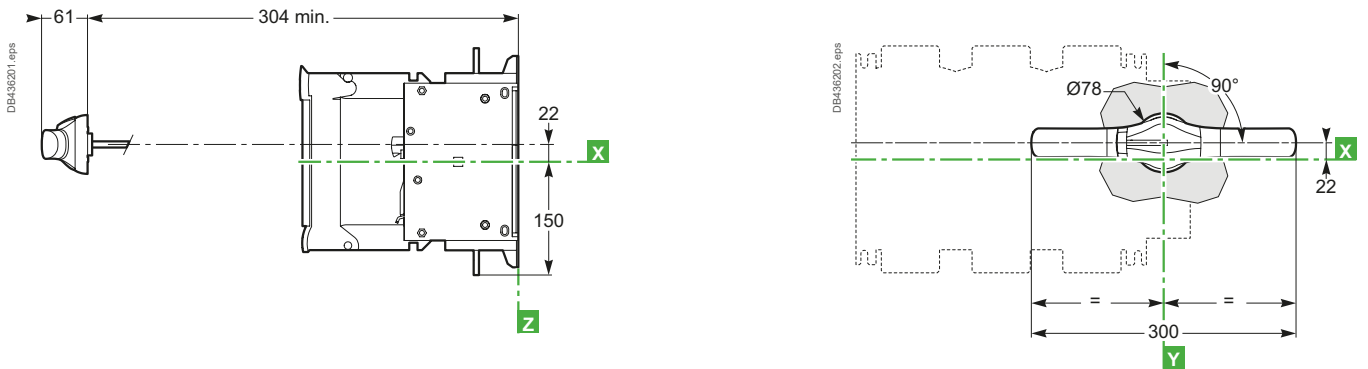
Dimensions

GSB 1250 A / GSD 1250 A

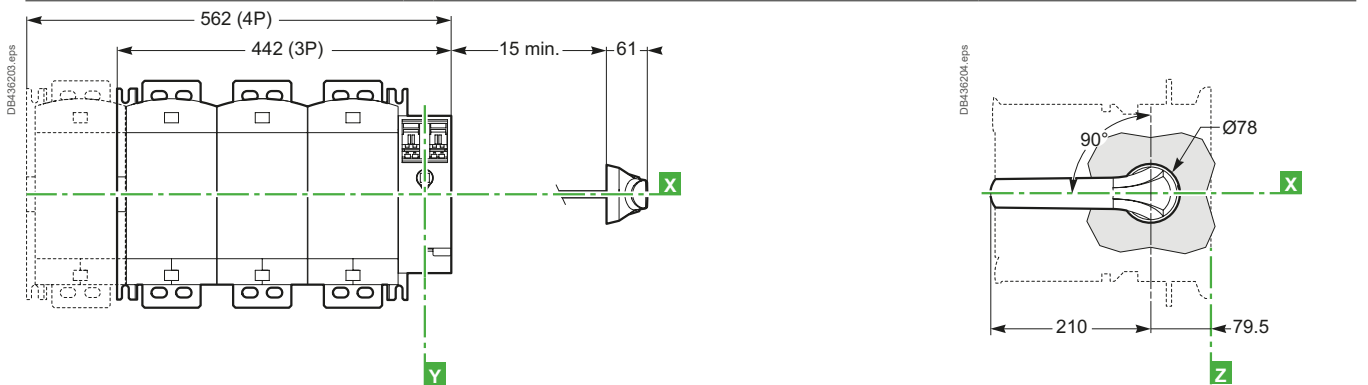


[a] Terminal cover.
[b] Rear access connector plates.

Extended front handle



Extended lateral handle



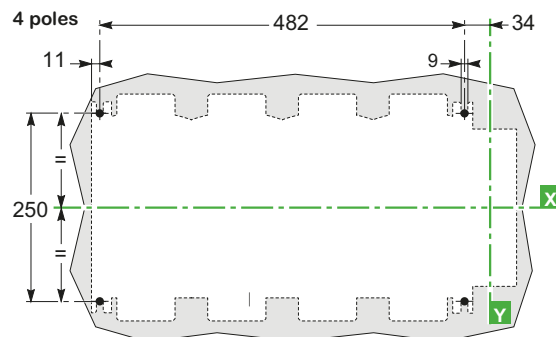
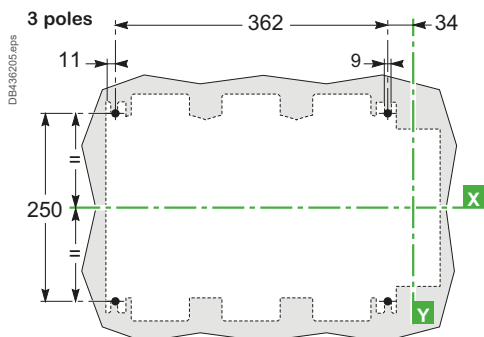
Dimensions and connection

FuPacT GS 1250 A

Mounting and front panel cut-outs

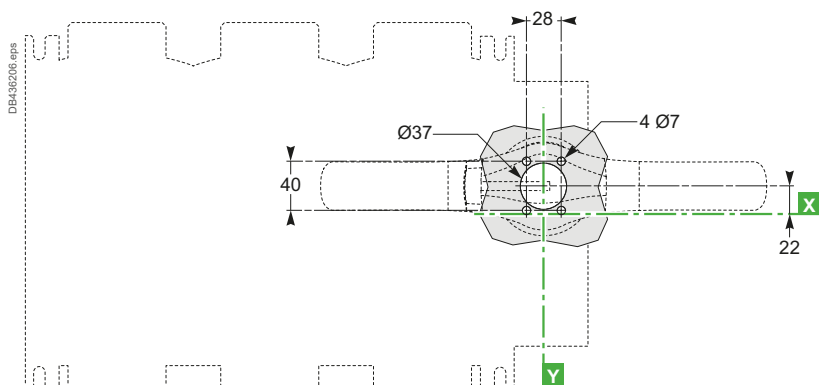
Mounting

On the backplate

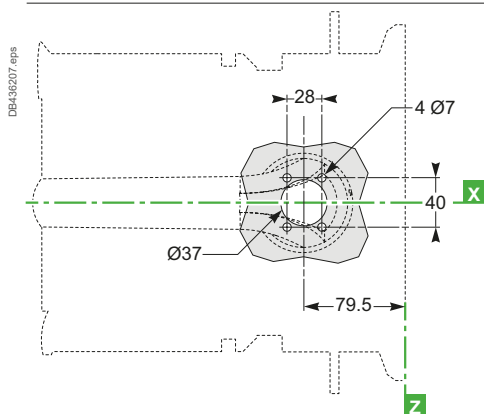


Front panel cut-outs

Extended front handle

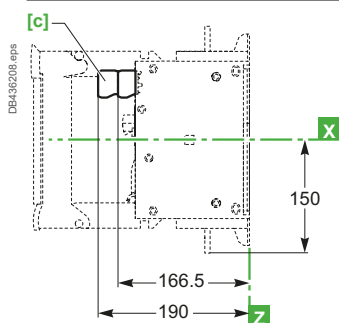


Extended lateral handle



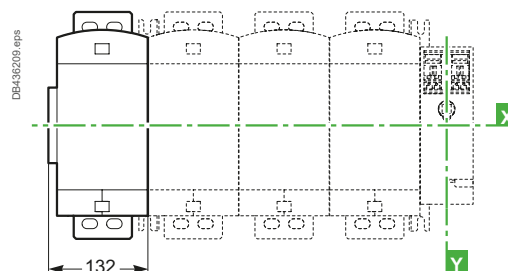
Accessories

Auxiliary contacts



[c] 1 to 8 auxiliary contacts GS1 AM1●●.

External neutral module

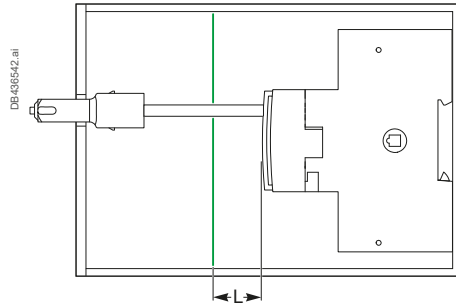


FuPacT GS 32 to 1250 A

Class II installation

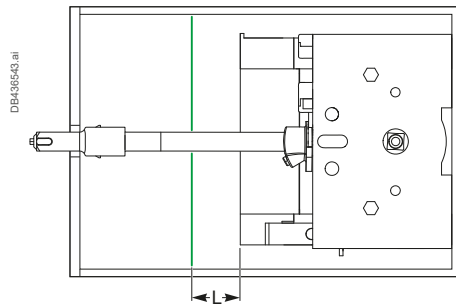
Minimum Air distance to respect between the protective screen and the plastic covers of fuses in a Class II installation

GS 32 A



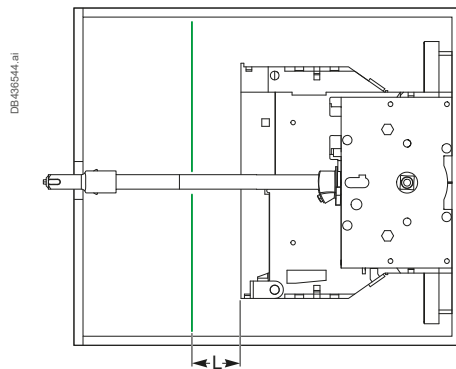
| Reference | L min. |
|-----------|--------|
| LV481503 | 35 |
| LV481504 | |
| LV481603 | |
| LV481604 | |

GS 50 A / GS 63 A / GS 100 A / GS 125 A / GS 160 A



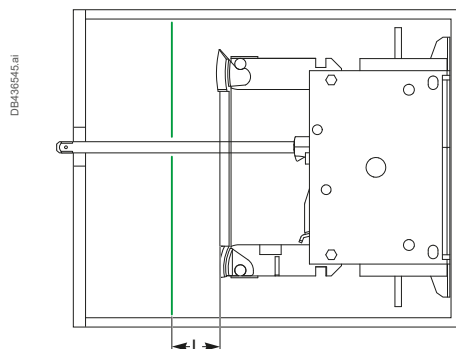
| Reference | L min. |
|-----------|--------|
| LV481513 | 40 |
| LV481514 | |
| LV481403 | |
| LV481404 | |
| LV481613 | |
| LV481614 | |
| LV481623 | 35 |
| LV481624 | |
| LV481413 | |
| LV481414 | |
| LV481523 | |
| LV481524 | |
| LV481633 | |
| LV481634 | |
| LV481423 | |
| LV481424 | |

GS 200 A / GS 250 A / GS 400 A



| Reference | L min. |
|-----------|--------|
| LV481643 | 32 |
| LV481644 | |
| LV481653 | |
| LV481654 | |
| LV481663 | |
| LV481664 | |
| LV481433 | |
| LV481434 | |
| LV481443 | |
| LV481444 | |

GS 630 A / GS 800 A / GS 1250 A



| Reference | L min. |
|-----------|--------|
| LV481453 | 30 |
| LV481454 | |
| LV481463 | |
| LV481464 | |
| LV481673 | |
| LV481674 | |
| LV481683 | |
| LV481684 | |
| LV481693 | |
| LV481694 | |
| LV481473 | |
| LV481474 | |

Catalog numbers

| | |
|---|------|
| ISFT100N | D-2 |
| Devices and accessories | D-2 |
| ISFT100 | D-3 |
| Devices and accessories | D-3 |
| ISFT160 | D-4 |
| Devices and accessories | D-4 |
| ISFT250 to ISFT630 | D-5 |
| Devices and accessories | D-5 |
| ISFL160 | D-6 |
| Devices and accessories | D-6 |
| ISFL250 to ISFL1250 | D-8 |
| Devices and accessories | D-8 |
| GSC32 - GSC50 - GSC125 | D-10 |
| Devices | D-10 |
| Accessories | D-11 |
| GSD 63 to 1250 | D-12 |
| Devices | D-12 |
| Accessories | D-13 |
| GSB 32 to 1250 | D-14 |
| Devices | D-14 |
| Accessories | D-15 |
| FuPacT protection components | D-16 |
| Cartridge fuses type aM..... | D-16 |
| Cartridge fuses type gG..... | D-17 |



| | |
|--------------------------|-----|
| Other chapters | |
| Presentation..... | 2 |
| FuPacT ISFT | A-1 |
| FuPacT ISFL | B-1 |
| FuPacT GS | C-1 |

Catalog numbers

ISFT100N

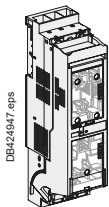
Devices and accessories

ISFT100N 3P fixed front-connected

Basic device for mounting on a backplate

Connection via 2.5 to 50 mm² cable connectors

LV480750



Basic device for mounting on busbars

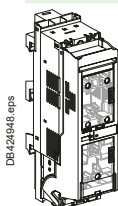
Hook-on connection to 60 mm busbars

Upstream distribution

LV480751

Downstream distribution

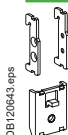
LV480752



Accessories

DIN rail fixing kit

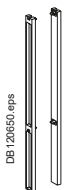
LV480753



Support profile laterally attachable

Set of 2

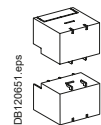
LV480754



Terminal shield

Set of 2

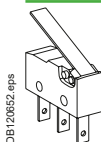
LV480756



Electrical auxiliaries

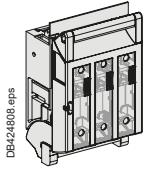
Auxiliary changeover contact NO + NC

LV480755



ISFT100 3P fixed front-connected

Basic device for mounting on a backplate

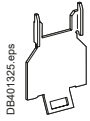


Connection via 1.5 to 50 mm² cable connectors

LV480800

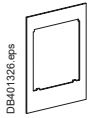
Accessories

Mounting accessories



Accessory for mounting on a DIN rail

49877



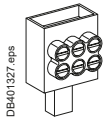
Escutcheon (not compatible with feeding busbars)

For 1 device
 For 2 devices

49878

49879

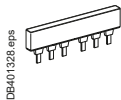
Connection accessories



Distribution connector 3 x 16 mm²

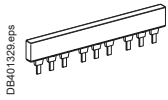
Set of 3

49860



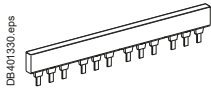
Feeding busbar to supply 2 devices

49861



Feeding busbar to supply 3 devices

49862



Feeding busbar to supply 4 devices

49863

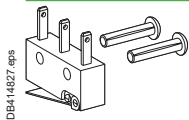


Incoming connector (25 to 95 mm²) for feeding busbars

Set of 3

49865

Electrical auxiliaries



Auxiliary changeover contact NO + NC

49885

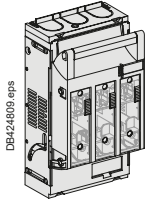


ISFT160

Devices and accessories

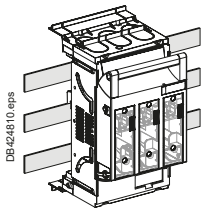
ISFT160 3P fixed front-connected

Basic device for mounting on a backplate



| | |
|--|----------|
| M8 terminals | LV480801 |
| 2,5 to 95 mm ² cable connectors (box clamp) | LV480802 |

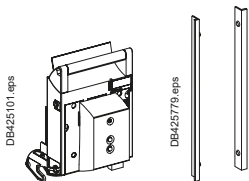
Basic device for mounting on busbars with turnable hooks



| | |
|---------|----------|
| ISFT160 | LV480803 |
|---------|----------|

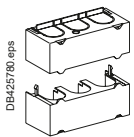
Accessories

Mounting accessories



| | |
|-------------------------------------|----------|
| Handle with electronic fuse monitor | LV480810 |
|-------------------------------------|----------|

| | |
|--------------------------------------|----------|
| Support profile laterally attachable | LV480817 |
|--------------------------------------|----------|

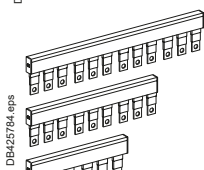


| | |
|------------------|----------|
| Terminal shields | LV480819 |
|------------------|----------|

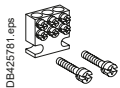
Connection accessories



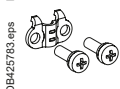
| | |
|--------------------|----------|
| Incoming connector | LV480818 |
|--------------------|----------|



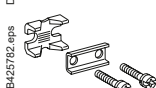
| | | |
|-----------------|---------------|----------|
| Feeding busbars | for 2 devices | LV480811 |
| | for 3 devices | LV480812 |
| | for 4 devices | LV480813 |



| | |
|--|----------|
| Distribution connector 3 x 16 mm ² for 1,5 to 50 mm ² cable connectors | LV480814 |
|--|----------|

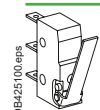


| | |
|--|----------|
| Pressure plate for multiple-use terminal from 6 to 50mm ² | LV480815 |
|--|----------|



| | |
|---|----------|
| Pressure plate with contact prism for multiple-use terminal with Cu/Alu conductors from 6 to 70 mm ² | LV480816 |
|---|----------|

Electrical auxiliaries



| | |
|------------------------------------|----------|
| Auxiliary changeover contact NO+NC | LV480755 |
|------------------------------------|----------|

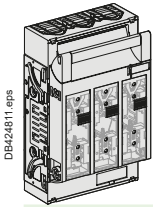
Catalog numbers

ISFT250 to ISFT630

Devices and accessories

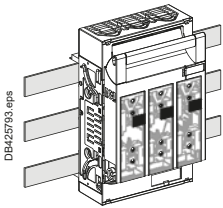
ISFT250 to ISFT630 3P fixed front-connected

Basic device for mounting on a backplate



| | |
|---------|----------|
| ISFT250 | LV480804 |
| ISFT400 | LV480806 |
| ISFT630 | LV480808 |

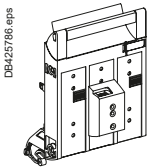
Basic device for mounting on busbars with turnable hooks



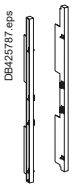
| | |
|---------|----------|
| ISFT250 | LV480805 |
| ISFT400 | LV480807 |

Accessories

Mounting accessories

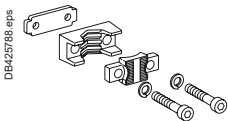


| | | |
|-------------------------------------|---------|----------|
| Handle with electronic fuse monitor | ISFT250 | LV480821 |
| | ISFT400 | LV480825 |
| | ISFT630 | LV480828 |

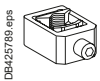


| | |
|--------------------------------------|----------|
| Support profile laterally attachable | LV480832 |
|--------------------------------------|----------|

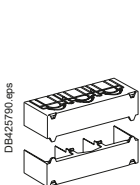
Connection accessories



| | | | |
|---|---------------------------------|---------|----------|
| Pressure plate with contact prism for multiple-use terminal with Cu/Al conductors | from 70 to 150 mm ² | ISFT250 | LV480822 |
| | from 120 to 240 mm ² | ISFT400 | LV480826 |
| | from 150 to 300 mm ² | ISFT630 | LV480829 |



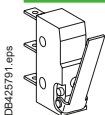
| | |
|---|----------|
| ISFT250 box clamp from 35 to 150 mm ² 35...150 mm ² re/rm 50 to 150 mm ² se/sm | LV480823 |
|---|----------|



| | |
|--|----------|
| ISFT400 and ISFT 630 box clamp 95...300 mm ² re/rm 120 to 300 mm ² se/sm | LV480830 |
|--|----------|

| | | |
|------------------|---------|----------|
| Terminal shields | ISFT250 | LV480824 |
| | ISFT400 | LV480827 |
| | ISFT630 | LV480831 |

Electrical auxiliaries



| | |
|--------------------------------------|----------|
| Auxiliary changeover contact NO + NC | LV480833 |
|--------------------------------------|----------|




ISFL160

Devices and accessories


ISFL160 1-pole switchable fixed front-connected

Basic device for mounting on busbars

| | | | |
|---|--|--|-----------------|
|  | Direct connection to 185mm busbars (M12) | | LV480900 |
| | | | |

ISFL160 3-pole switchable fixed front-connected





Basic device for mounting on busbars

| | | | |
|---|--|------------------------------|-----------------|
|  | Direct hook-on connection to 60 mm busbars | Screws M8 | LV480850 |
| | | Terminals 95 mm ² | LV480851 |
| | Direct connection to 100 mm busbars | Screws M8 | LV480852 |
| | | Terminals 95 mm ² | LV480853 |




Conversion kit for connection to busbars (for ISFL160 direct connection)

| | | | |
|---|---|--|-----------------|
|  | Direct connection to 185 mm busbars | | LV480854 |
| | Direct connection to 185 mm busbars for 2 ISFL160 devices | | LV480855 |

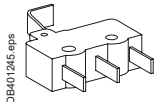
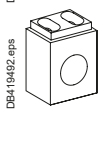

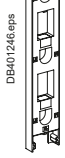
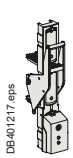
Accessories

| | | | |
|---|--|----------|-----------------|
|  | Sideframe door cut out - 850 mm | | LV480868 |
| | Sidewise angle bracket for side frame (x4) | | LV480869 |
|  | Length adaptor | | LV480870 |
| | Empty plastic box (46 x 46 mm) | | LV480878 |
|  | Bank panel cover | | LV480871 |
|  | Contact hooks for ISFL 1-pole switchable | Set of 3 | LV480905 |

Connection (accessories for standard M8 terminals)

| | | | |
|---|---|----------|-----------------|
|  | Lugs for 95 mm ² copper cables | Set of 3 | 28951 |
| | | | |
|  | Connectors for Cu/Al bare cables 1.5 x 95 mm ² | Set of 3 | LV480861 |
| | Connectors for flexible bars 12 x 6 mm | Set of 3 | LV480862 |
|  | | | |

Electrical auxiliaries

| | | |
|---|--|----------------------|
|  | Auxiliary changeover contact NO + NC | LV480873 |
|  | 1 current transformer for ISFL 1-pole switchable 150/5 A class 1 5 VA | Set of 1 LV480904 |
|  | Single block with 3 current transformer for ISFL 3-pole switchable 150/5 A class 1 1.5 VA | Set of 1 LV480881 |
| | 150/1 A class 1 2.5 VA | Set of 1 LV480882 |
|  | Single block with current transformer for ISFL 3-pole switchable 150/5 A class 1 1.5 VA | Set of 1 LV480883 |
| | 150/1 A class 1 2.5 VA | Set of 1 LV480884 |
|  | Fuse monitor for ISFL 3-pole switchable | LV480877 |



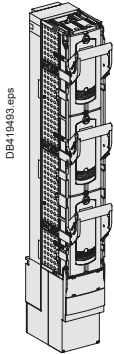
Catalog numbers

ISFL250 to ISFL1250

Devices and accessories

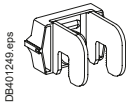
ISFL250 to ISFL630 1-pole switchable

Basic device for mounting on busbars



Direct connection to 185 mm busbars (screw M12)

| | |
|---------|----------|
| ISFL250 | LV480901 |
| ISFL400 | LV480902 |
| ISFL630 | LV480903 |

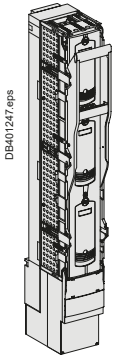


Hooks for mounting without drilling

LV480859

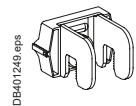
ISFL250 to ISFL630 3-pole switchable

Basic device for mounting on busbars



Direct connection to 185 mm busbars

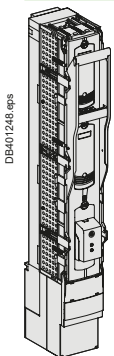
| | |
|----------|----------|
| ISFL250 | LV480856 |
| ISFL400 | LV480857 |
| ISFL630 | LV480858 |
| ISFL1250 | LV480875 |



Hooks for mounting without drilling

LV480859

With fuse monitor



Fuse monitor (direct connection to 185 mm busbars)




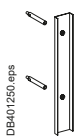
| | |
|----------|----------|
| ISFL250 | LV480863 |
| ISFL400 | LV480864 |
| ISFL630 | LV480865 |
| ISFL1250 | LV480876 |

Catalog numbers

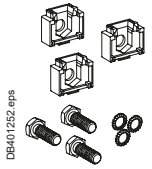
ISFL250 to ISFL1250

Devices and accessories

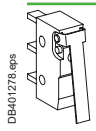
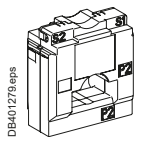
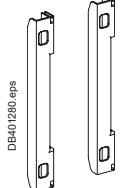
Accessories

| | | | | |
|---|---|---------------------------------------|----------|--------------------------------|
|  | Sideframe door cut out - 850 mm | | | LV480868 |
| |  | Sidewise angle bracket for side frame | Set of 4 | LV480869 |
|  | Empty plastic box (72 x 72 mm) | | | LV480879 ^[1] |
| | Empty plastic box (96 x 96 mm) | | | LV480880 ^[1] |
|  | Blank panel cover | | | LV480872 |

Connection (accessories for standard M12 terminals)

| | | | | |
|---|-----------------------------|--|----------|--------------------------------|
|  | Connectors | For Cu/Al bare cable 1 x 35 to 300 mm ² | Set of 3 | LV480867 ^[1] |
| | | For Cu/Al bare cable 2 x 50 to 185 mm ² | Set of 3 | 49895 ^[1] |
| | | For Cu/Al cable 4 x 240 mm ² | Set of 3 | LV480890 ^[2] |
|  | Screws with plastic support | | Set of 3 | LV480866 ^[1] |
|  | Coupling kit ISFL250-630 | | | LV480891 ^[1] |
|  | | | | |

Electrical auxiliaries

| | | | | |
|---|--------------------------------------|-------------------------|----------|-----------------|
|  | Auxiliary changeover contact NO + NC | | | LV480874 |
|  | Current transformer | 150/5 class 1 2.5 VA | Set of 1 | LV480885 |
| | | 250/5 class 1 5 VA | Set of 1 | LV480886 |
| | | 400/5 class 1 5 VA | Set of 1 | LV480887 |
| | | 600/5 class 1 5 VA | Set of 1 | LV480888 |
|  | Click-lock cable transformers | | Set of 1 | LV480889 |

^[1] Except for ISFL1250.

^[2] Only for ISFL1250.



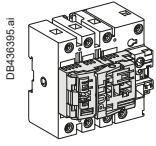
Catalog numbers

GSC32 - GSC50 - GSC125

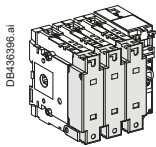
Devices

GSC32 - GSC50 - GSC125

Basic Device : Front or lateral control

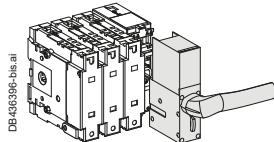
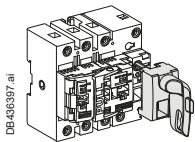


| Switch/Type of fuse | 3P/3F | 4P/3F+N |
|--------------------------------|-----------------|-----------------|
| GSC32 / NFC (10 x 38), 32 A | | |
| | LV481503 | LV481504 |



| Switch/Type of fuse | 3P/3F | 4P/4F |
|----------------------------------|-----------------|-----------------|
| GSC50 / NFC (14 x 51), 50 A | | |
| GSC125 / NFC (22 x 58), 125 A | | |
| | LV481513 | LV481514 |
| | LV481523 | LV481524 |

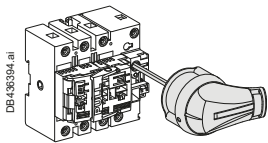
Direct handle with Test position



| | 32 A | 50 and 125 A |
|-------|-----------------|---------------------|
| Front | GS1AH103 | LV481701 [1] |

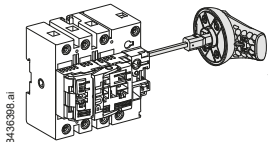
Extended Rotary Handle IP 65

Front handle



| | 32 and 50 A | 125 A |
|---|------------------|------------------|
| Front Black Handle | GS2AH510 | GS2AH530 |
| Front Red/Yellow Handle | GS2AH520 | GS2AH540 |
| Front Black Handle + test position | GS2AHT510 | GS2AHT530 |
| Front Red/Yellow Handle + test position | GS2AHT520 | GS2AHT540 |

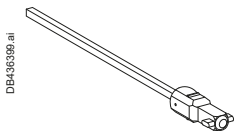
Lateral handle



| | 32 and 50 A | 125 A |
|---------------------------|-----------------|-----------------|
| Lateral Black Handle | GS2AH210 | GS2AH230 |
| Lateral Red/Yellow Handle | GS2AH220 | GS2AH240 |

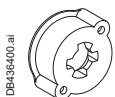
Accessories

Shaft



| | 32 and 50 A | 125 A |
|--------------|----------------|----------------|
| 200 mm shaft | GS2AE82 | GS2AE22 |
| 320 mm shaft | GS2AE8 | GS2AE2 |
| 400 mm shaft | GS2AE81 | GS2AE21 |

Guide cone

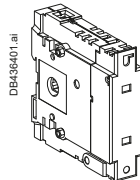
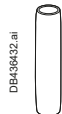


| | 32 to 1250 A |
|--|-----------------|
| | GS2AEH12 |

[1] Available Q4 2020.

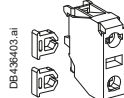


Accessories - GSC32 - GSC50 - GSC125

Connection


| | | | |
|---|-------------------------|------------|-----------------|
|  | External neutral module | For GSC50 | LV481900 |
| | | For GSC125 | LV481902 |
|  | Internal neutral link | For GSC50 | LV481911 |
| | | For GSC125 | LV481912 |

Electrical auxiliaries (Compatible with all GSC products)


Auxiliary contacts

| | | | |
|--|---|--|-----------------|
|  | 1 NO contact with 2 accessories | | GS1AM110 |
| | 1 NC contact with 2 accessories | | GS1AM101 |
|  | Set of 5 NO contacts | | ZBE101 |
| | Set of 5 NC contacts | | ZBE102 |
|  x10 | Set of 10 accessories for auxiliary contact | | LV481110 |

Cable connectors

| | | | |
|---|------------|----------------------|----------------------|
|  | For GSC125 | 3P (set of 3) | 4P (set of 4) |
| | | GS1AW33 | GS1AW34 |

Terminal shield

| | | | |
|---|------------|----------------------|----------------------|
|  | For GSC125 | 3P (set of 3) | 4P (set of 4) |
| | | GS1AP33 | GS1AP34 |

Note: FuPacT GS and its accessories are not compatible with the FuPacT INF former range.

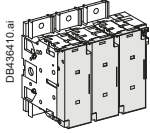
Catalog numbers

GSD 63 to 1250

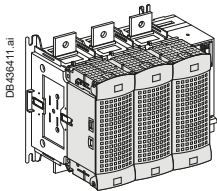
Devices

GSD63 - GSD125 - GSD160 - GSD250 - GSD400 - GSD630 - GSD800 - GSD1250

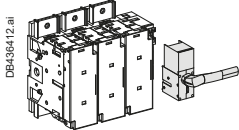
Basic Device : Front or lateral control



| Switch/Type of fuse | 3P/3F | 4P/4F |
|-------------------------|----------|----------|
| GSD63/DIN 000 63 A | LV481403 | LV481404 |
| GSD125/DIN 00 125 A | LV481413 | LV481414 |
| GSD160/DIN 00 160 A | LV481423 | LV481424 |
| GSD250/DIN 1 250 A | LV481433 | LV481434 |
| GSD400/DIN 2 400 A | LV481443 | LV481444 |
| GSD630/DIN 3 630 A | LV481453 | LV481454 |
| GSD800/DIN 3 800 A | LV481463 | LV481464 |
| GSD1250/DIN 4 1250 A | LV481473 | LV481474 |

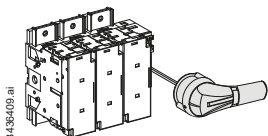


Direct handle with Test position

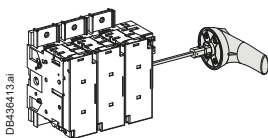


| | 63 to 160 A | 250 to 400 A | 630 to 800 A | 1250 A |
|-------|-------------------------|-------------------------|--------------|--------|
| Front | LV481701 ^[1] | LV481702 ^[1] | - | - |

Extended Rotary Handle IP 65



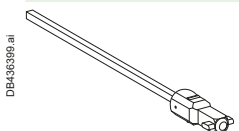
| Front handle | 63 A | 125 to 400 A | 630 to 800 A | 1250 A |
|--|-----------|--------------|--------------|----------|
| Front Black Handle | GS2AH510 | GS2AH530 | GS2AH550 | GS2AH570 |
| Front Red/Yellow Handle | GS2AH520 | GS2AH540 | GS2AH560 | GS2AH580 |
| Front Black Handle + test position | GS2AHT510 | GS2AHT530 | - | - |
| Front Red/Yellow Handle + test position | GS2AHT520 | GS2AHT540 | - | - |



| Lateral handle | 63 A | 125 to 400 A | 630 to 1250 A |
|---------------------------|----------|--------------|---------------|
| Lateral Black Handle | GS2AH210 | GS2AH230 | GS2AH250 |
| Lateral Red/Yellow Handle | GS2AH220 | GS2AH240 | GS2AH260 |

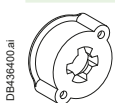
Accessories

Shaft



| | 63 to 400 A | 630 to 1250 A |
|--------------|-------------|---------------|
| 200 mm shaft | GS2AE22 | GS2AE52 |
| 320 mm shaft | GS2AE2 | GS2AE5 |
| 400 mm shaft | GS2AE21 | GS2AE51 |

Guide cone



| | |
|--|--------------|
| | 63 to 1250 A |
| | GS2AEH12 |

^[1] Available Q4 2020.

Note: FuPacT GS and its accessories are not compatible with the FuPacT INF former range.

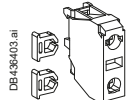
Accessories - GSD63 - GSD125 - GSD160 - GSD250 - GSD400 - GSD630 - GSD800 - GSD1250

Connection


| | | | |
|---|-------------------------|----------------------|----------|
|  | External neutral module | For GSD63 | LV481901 |
| | | For GSD100 to GSD160 | LV481902 |
| | | For GSD200 to GSD250 | LV481904 |
| | | For GSD400 | LV481905 |
| | | For GSD630 to GSD800 | LV481906 |
| | | For GSD1250 | LV481907 |
|  | Internal neutral link | For GSD63 to GSD160 | LV481913 |
| | | For GSD250 | LV481915 |
| | | For GSD400 | LV481916 |
| | | For GSD630 to GSD800 | LV481917 |
| | | For GSD1250 | LV481918 |

Electrical auxiliaries (Compatible with all GSD products)

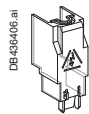
Auxiliary contacts

| | | |
|---|---|----------|
|  | 1 NO contact with 2 accessories | GS1AM110 |
| | 1 NC contact with 2 accessories | GS1AM101 |
|  | Set of 5 NO contacts | ZBE101 |
| | Set of 5 NC contacts | ZBE102 |
|  | Set of 10 accessories for auxiliary contact | LV481110 |

Cable connectors

| | | | |
|---|----------------------|--------------------------|--------------------------|
|  | For GSD100 to GSD160 | 3P (set of 3) GS1AW33 | 4P (set of 4) GS1AW34 |
| | For GSD200 to GSD250 | GS1AW43 | GS1AW44 |
| | For GSD400 | LV481203 | LV481204 |

Terminal shield ^[1]

| | | | |
|---|-----------------------|--------------------------|--------------------------|
|  | For GSD125 to GSD160 | 3P (set of 3) GS1AP33 | 4P (set of 4) GS1AP34 |
| | For GSD250 to GSD400 | GS1AP43 | GS1AP44 |
| | For GSD630 to GSD 800 | GS2AP73 | GS2AP64 |
| | For GSD1250 | GS2AP83 | GS2AP84 |

[1] The use of terminal shields is mandatory at 690 V AC.

Note: FuPacT GS and its accessories are not compatible with the FuPacT INF former range.

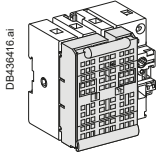
Catalog numbers

GSB 32 to 1250

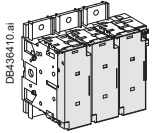
Devices

GSB32 - GSB63 - GSB100 - GSB160 - GSB200 - GSB250 - GSB400 - GSB630 - GSB800 - GSB1250

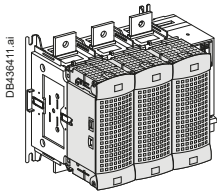
Basic Device : Front or lateral control



| Switch/Type of fuse | 3P/3F | 4P/3F+N |
|----------------------|-----------------|-----------------|
| GSB32 - BS A1 32A | DB436419.ai | DB436420.ai |
| | LV481603 | LV481604 |

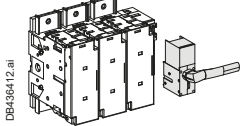


| Switch/Type of fuse | 3P/3F | 4P/4F |
|---------------------------------|-----------------|-----------------|
| GSB63 - BS A2/A3 63A | DB436419.ai | DB436440.ai |
| GSB100 - BS A4 100A | LV481623 | LV481624 |
| GSB160 - BS A4 160A | LV481633 | LV481634 |
| GSB200 - BS B1/B2 200A | LV481643 | LV481644 |
| GSB250 - BS B1/B2/B3 250A | LV481653 | LV481654 |
| GSB400 - BS B1/B2/B3/B4 400A | LV481663 | LV481664 |



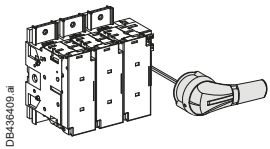
| | | |
|--------------------------|-----------------|-----------------|
| GSB630 - BS C2 630A | LV481673 | LV481674 |
| GSB800 - BS C3 800A | LV481683 | LV481684 |
| GSB1250 - BS D1 1250A | LV481693 | LV481694 |

Direct handle with Test position

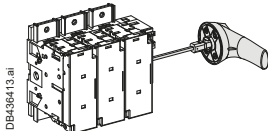


| | 32 A | 63 to 160 A | 200 to 400 A |
|-------|-----------------|---------------------|---------------------|
| Front | GS1AH103 | LV481701 [1] | LV481702 [1] |

Extended Rotary Handle IP 65



| Front handle | 32 to 63 A | 125 to 400 A | 630 to 800 A | 1250 A |
|--|------------------|------------------|-----------------|-----------------|
| Front Black Handle | GS2AH510 | GS2AH530 | GS2AH550 | GS2AH570 |
| Front Red/Yellow Handle | GS2AH520 | GS2AH540 | GS2AH560 | GS2AH580 |
| Front Black Handle + test position | GS2AHT510 | GS2AHT530 | - | - |
| Front Red/Yellow Handle + test position | GS2AHT520 | GS2AHT540 | - | - |



| Lateral handle | 63 A | 125 to 400 A | 630 to 1250 A |
|---------------------------|-----------------|-----------------|-----------------|
| Lateral Black Handle | GS2AH210 | GS2AH230 | GS2AH250 |
| Lateral Red/Yellow Handle | GS2AH220 | GS2AH240 | GS2AH260 |

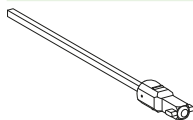
[1] Available Q4 2020.

Note: FuPacT GS and its accessories are not compatible with the FuPacT INF former range.

Accessories

Shaft

DB436399.ai



| | 32 A | 63 to 400 A | 630 to 1250 A |
|--------------|---------|-------------|---------------|
| 200 mm shaft | GS2AE82 | GS2AE22 | GS2AE52 |
| 320 mm shaft | GS2AE8 | GS2AE2 | GS2AE5 |
| 400 mm shaft | GS2AE81 | GS2AE21 | GS2AE51 |

Guide cone

DB436400.ai

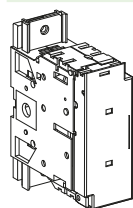


| | 63 to 1250 A |
|--|--------------|
| | GS2AEH12 |

Accessories - GSB32 - GSB63 - GSB100 - GSB160 - GSB200 - GSB250 - GSB400 - GSB630 - GSB800 - GSB1250

Connection

DB436414.ai

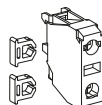


| External neutral module | | |
|-------------------------|---------------------|----------|
| | For GSB63 | LV481901 |
| | For GSB100 | LV481902 |
| | For GSB160 | LV481903 |
| | For GSB200 - GSB250 | LV481904 |
| | For GSB400 | LV481905 |
| | For GSB630 - GSB800 | LV481906 |
| | For GSB1250 | LV481907 |

Electrical auxiliaries (Compatible with all GSB products)

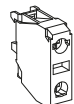
Auxiliary contacts

DB436403.ai



| | |
|---------------------------------|----------|
| 1 NO contact with 2 accessories | GS1AM110 |
| 1 NC contact with 2 accessories | GS1AM101 |

DB436402.ai



| | |
|----------------------|--------|
| Set of 5 NO contacts | ZBE101 |
| Set of 5 NC contacts | ZBE102 |

DB436404.ai



| | |
|---|----------|
| Set of 10 accessories for auxiliary contact | LV481110 |
|---|----------|

Cable connectors

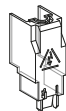
DB436405.ai



| | 3P (set of 3) | 4P (set of 4) |
|----------------------|---------------|---------------|
| For GSB100 to GSB160 | GS1AW33 | GS1AW34 |
| For GSB200 to GSB250 | GS1AW43 | GS1AW44 |
| For GSB400 | LV481203 | LV481204 |

Terminal shield ^[1]

DB436406.ai



| | 3P (set of 3) | 4P (set of 4) |
|-----------------------|---------------|---------------|
| For GSB125 to GSB160 | GS1AP33 | GS1AP34 |
| For GSB200 to GSB400 | GS1AP43 | GS1AP44 |
| For GSB630 to GSB 800 | GS2AP73 | GS2AP64 |
| For GSB1250 | GS2AP83 | GS2AP84 |

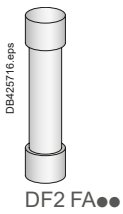
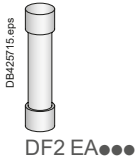
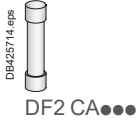
[1] The use of terminal shields is mandatory at 690 V AC.

Note: FuPacT GS and its accessories are not compatible with the FuPacT INF former range.

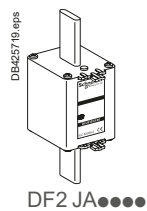
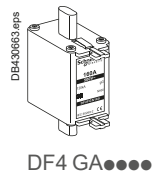
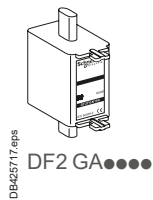
FuPacT protection components

Cartridge fuses type aM

For protection of equipment with current peaks



| Fuse type | Maximum rated voltage | Rating | Set of | Fuses without striker | |
|------------------------|-----------------------|--------|--------|-----------------------|--------|
| | | | | Unit reference | Weight |
| | V | A | | | kg |
| Cylindrical 10 x 38 | ~ 500 | 20 | 10 | DF2CA20 | 0.010 |
| | | 25 | 10 | DF2CA25 | 0.010 |
| | | 32 | 10 | DF2CA32 | 0.010 |
| Cylindrical 14 x 51 | ~ 690 | 20 | 10 | DF2EA20 | 0.020 |
| | | 25 | 10 | DF2EA25 | 0.020 |
| | | 32 | 10 | DF2EA32 | 0.020 |
| | | 40 | 10 | DF2EA40 | 0.020 |
| | | 50 | 10 | DF2EA50 | 0.020 |
| Cylindrical 22 x 58 | ~ 690 | 20 | 10 | DF2FA20 | 0.045 |
| | | 25 | 10 | DF2FA25 | 0.045 |
| | | 32 | 10 | DF2FA32 | 0.045 |
| | | 40 | 10 | DF2FA40 | 0.045 |
| | | 50 | 10 | DF2FA50 | 0.045 |
| | | 63 | 10 | DF2FA63 | 0.045 |
| | | 80 | 10 | DF2FA80 | 0.045 |
| | | 100 | 10 | DF2FA100 | 0.045 |
| | | 125 | 10 | DF2FA125 | 0.045 |



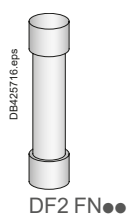
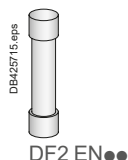
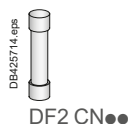
| Fuse type | Maximum rated voltage | Rating | Set of | Fuses without striker | |
|-----------------|-----------------------|--------|--------|-----------------------|------------------|
| | | | | Unit reference | Weight |
| | V | A | | | kg |
| Blade NH 000 | ~ 690 | 25 | 3 | DF2FGA25 | 0.160 |
| | | 32 | 3 | DF2FGA32 | 0.160 |
| | | 40 | 3 | DF2FGA40 | 0.160 |
| | | 50 | 3 | DF2FGA50 | 0.160 |
| | | 63 | 3 | DF2FGA63 | 0.160 |
| Blade NH 00 | ~ 690 | 80 | 3 | DF2FGA80 | 0.160 |
| | | 100 | 3 | DF2FGA100 | 0.160 |
| | | 125 | 3 | DF2FGA125 | 0.160 |
| Blade NH 0 | ~ 690 | 50 | 3 | DF2GA1051 | 0.230 |
| | | 63 | 3 | DF2GA1061 | 0.230 |
| | | 80 | 3 | DF2GA1081 | 0.230 |
| | | 100 | 3 | DF2GA1101 | 0.230 |
| | | 125 | 3 | DF2GA1121 | 0.230 |
| | | 160 | 3 | DF2GA1161 | 0.230 |
| | | 200 | 3 | DF2GA1201 | 0.230 |
| | | ~ 500 | 200 | 3 | DF2GA1201 |
| Blade NH 1 | ~ 690 | 160 | 3 | DF2HA1161 | 0.400 |
| | | 200 | 3 | DF2HA1201 | 0.400 |
| | | 250 | 3 | DF2HA1251 | 0.400 |
| | | ~ 500 | 315 | 3 | DF2HA1311 |
| Blade NH 2 | ~ 690 | 250 | 3 | DF2JA1251 | 0.560 |
| | | 315 | 3 | DF2JA1311 | 0.560 |
| | | 400 | 3 | DF2JA1401 | 0.560 |
| | | ~ 500 | 500 | 3 | DF2JA1501 |
| Blade NH 3 | ~ 690 | 400 | 1 | DF2KA1401 | 0.850 |
| | | 500 | 1 | DF2KA1501 | 0.850 |
| | | ~ 500 | 630 | 1 | DF2KA1631 |

[1] Set of 3.

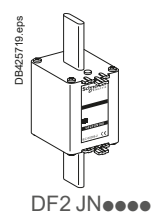
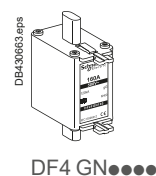
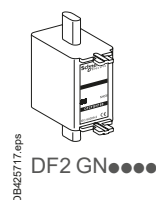
FuPacT protection components

Cartridge fuses type gG

For protection of circuits without significant current peaks



| Fuse type | Maximum rated voltage | Rating | Set of | Fuses without striker | |
|------------------------|-----------------------|-----------------|--------|-----------------------|--------|
| | | | | Unit reference | Weight |
| | V | A | | | kg |
| Cylindrical 10 x 38 | ~ 500 | 20 | 10 | DF2CN20 | 0.010 |
| | ~ 400 | 25 | 10 | DF2CN25 | 0.010 |
| | | 32 | 10 | DF2CN32 | 0.010 |
| Cylindrical 14 x 51 | ~ 690 | 20 | 10 | DF2EN20 | 0.020 |
| | | 25 | 10 | DF2EN25 | 0.020 |
| | ~ 500 | 32 | 10 | DF2EN32 | 0.020 |
| | | 40 | 10 | DF2EN40 | 0.020 |
| | | 50 | 10 | DF2EN50 | 0.020 |
| | | 63 | 10 | DF2EN63 | 0.045 |
| Cylindrical 22 x 58 | ~ 690 | 20 | 10 | DF2FN20 | 0.045 |
| | | 25 | 10 | DF2FN25 | 0.045 |
| | ~ 500 | 32 | 10 | DF2FN32 | 0.045 |
| | | 40 | 10 | DF2FN40 | 0.045 |
| | | 50 | 10 | DF2FN50 | 0.045 |
| | | 63 | 10 | DF2FN63 | 0.045 |
| | | 80 | 10 | DF2FN80 | 0.045 |
| 100 | 10 | DF2FN100 | 0.045 | | |



| Fuse type | Maximum rated voltage | Rating | Set of | Fuses without striker | |
|-----------------|-----------------------|--------|--------|-----------------------|--------|
| | | | | Unit reference | Weight |
| | V | A | | | kg |
| Blade NH 000 | ~ 690 | 25 | 3 | DF2FGN25 | 0.160 |
| | | 32 | 3 | DF2FGN32 | 0.160 |
| | | 40 | 3 | DF2FGN40 | 0.160 |
| | | 50 | 3 | DF2FGN50 | 0.160 |
| | | 63 | 3 | DF2FGN63 | 0.160 |
| | | 80 | 3 | DF2FGN80 | 0.160 |
| | | > 500 | 9 | DF2FGN100 | 0.160 |
| Blade NH 00 | ~ 690 | 125 | 3 | DF2FGN125 | 0.160 |
| | ~ 500 | 160 | 3 | DF2FGN160 | 0.160 |
| Blade NH 0 | ~ 690 | 50 | 3 | DF2GN1051 | 0.230 |
| | | 63 | 3 | DF2GN1061 | 0.230 |
| | | 80 | 3 | DF2GN1081 | 0.230 |
| | | 100 | 3 | DF2GN1101 | 0.230 |
| | | 125 | 3 | DF2GN1121 | 0.230 |
| | | 160 | 3 | DF2GN1161 | 0.230 |
| | | ~ 500 | 125 | 3 | - |
| | 160 | 3 | - | - | |
| Blade NH 1 | ~ 690 | 160 | 1 | DF2HN1161 | 0.400 |
| | | 200 | 1 | DF2HN1201 | 0.400 |
| | ~ 500 | 250 | 3 | DF2HN1251 | 0.400 |
| Blade NH 2 | ~ 690 | 250 | 3 | DF2JN1251 | 0.560 |
| | | 315 | 3 | DF2JN1311 | 0.560 |
| | ~ 500 | 400 | 3 | DF2JN1401 | 0.560 |
| Blade NH 3 | ~ 690 | 500 | 3 | - | - |
| | ~ 500 | 500 | 1 | DF2KN1501 | 0.850 |
| | | 630 | 1 | DF2KN1631 | 0.850 |

[1] Set of 3.





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