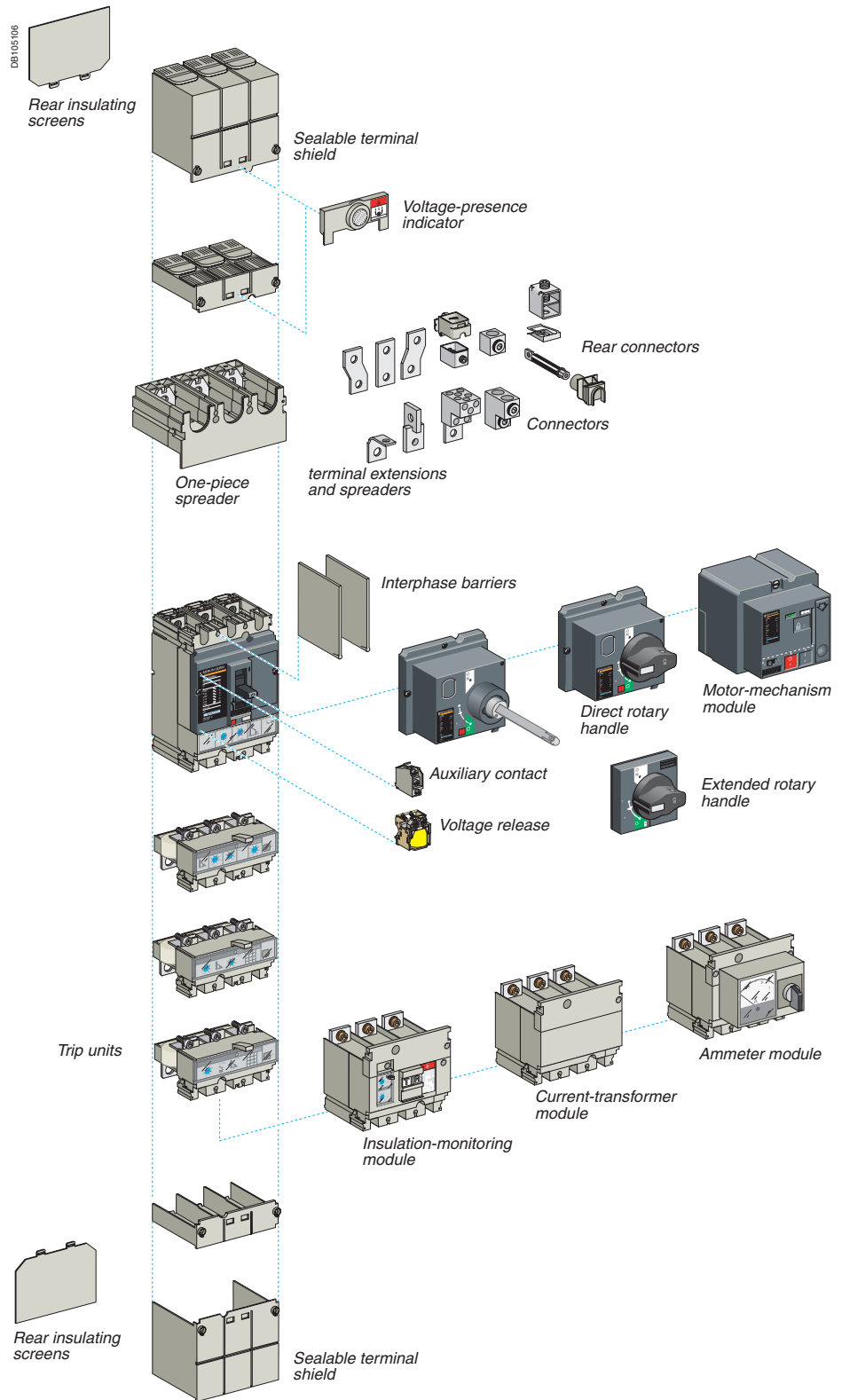
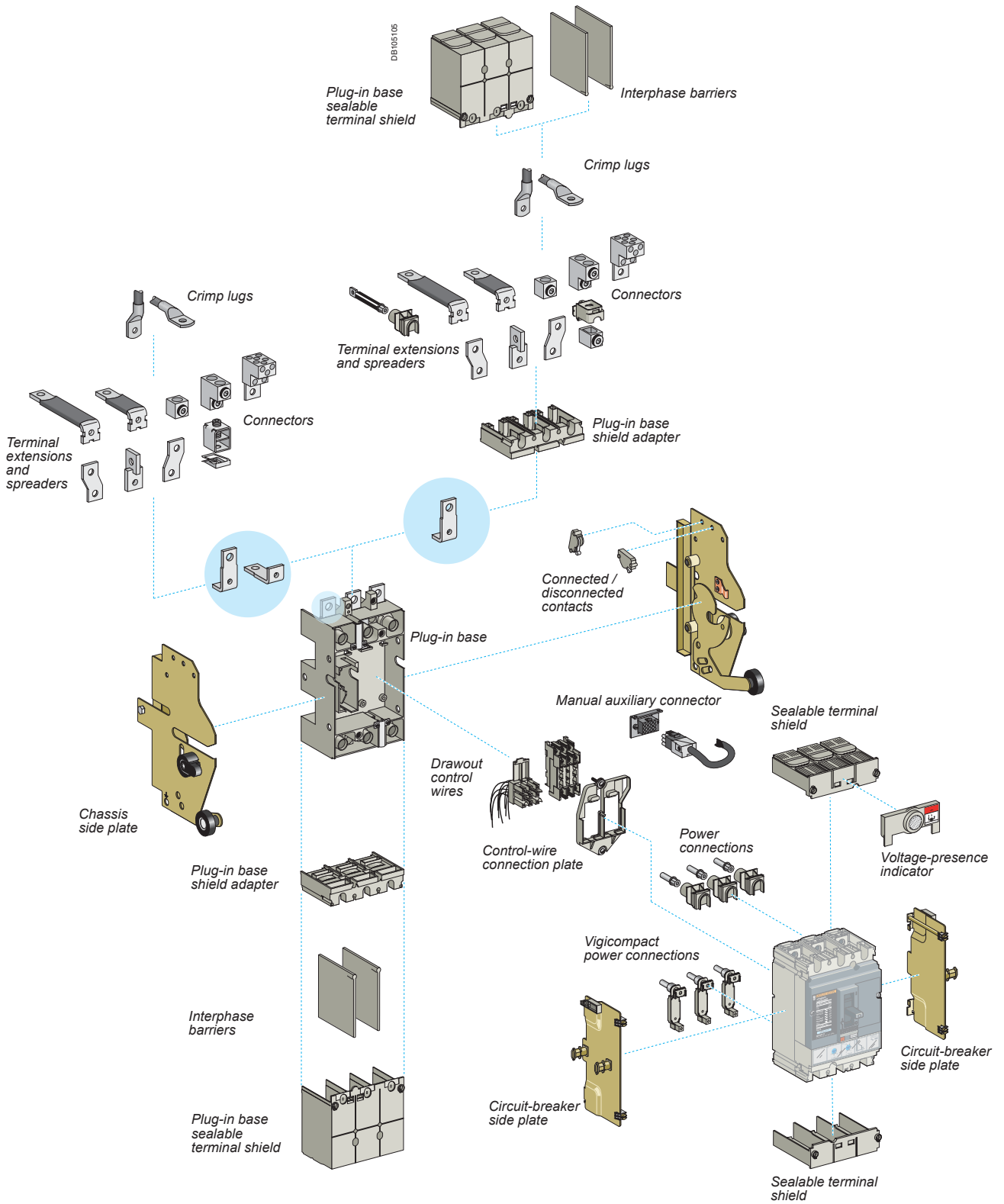


Electrical and mechanical accessories

Compact NS100 to 630 (fixed version)



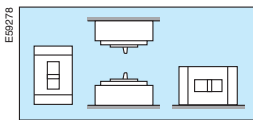
Compact NS100 to 630 (plug-in and withdrawable versions)



These withdrawable circuit breakers can be equipped with the same rotary handles, motor mechanisms and measurement and indication modules as the fixed versions.



Fixed Compact NS250H

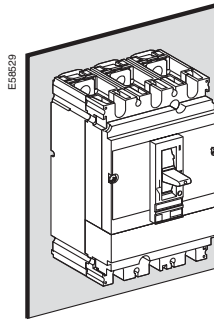


Installation positions

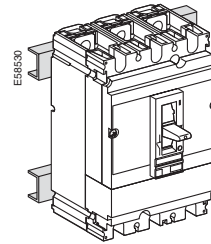
Installation

Fixed circuit breakers

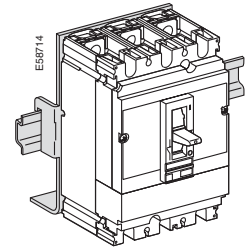
Compact circuit breakers may be mounted vertically, horizontally or flat on their back without any derating of characteristics. They are designed for easy installation in the various types of switchboards of each market and country.



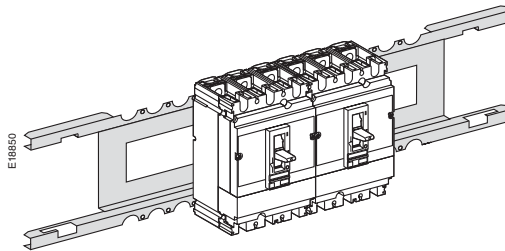
Mounting on a backplate (solid or slotted)



Mounting on rails



Mounting on DIN rail (with adapter)



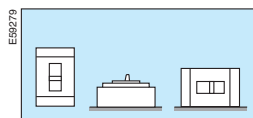
Mounting on a Prisma functional mounting plate.

The plug-in configuration makes it possible to:

- extract and/or rapidly replace the circuit breaker without having to touch connections
- allow for the addition of future circuits at a later date.

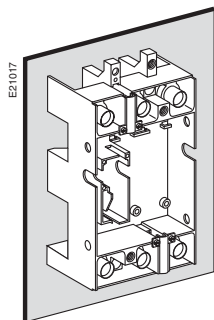


Compact NS250H on a plug-in base

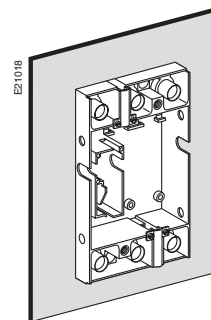


Installation positions

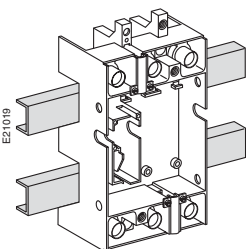
Circuit breaker on a plug-in base



Mounting on a backplate



Mounting through a front panel



Mounting on rails

Protection against direct contacts with power circuits

- circuit breaker plugged in = IP4
- circuit breaker removed = IP2
- circuit breaker removed, base equipped with shutters = IP4

Parts of a plug-in configuration

- Compact circuit breaker
- set of power connectors added to the circuit breaker
- plug-in base for mounting on a backplate or on rails
- insulating screen, for use when the circuit breaker is installed on a backplate with front connections
- safety trip, installed on the circuit breaker, that causes automatic tripping if the circuit breaker is ON, before engaging or withdrawing it. The safety trip does not prevent circuit breaker operation, even when it has been removed.
- mandatory short terminal shields.

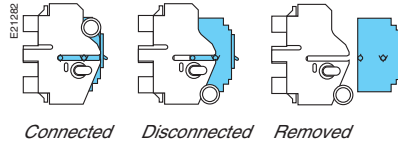
Accessories

Insulating accessories can be used to:

- protect against direct contact
- increase insulation between phases.

- *disconnected position - the power circuits are disconnected, but the circuit breaker is still on the chassis and may still be operated (ON, OFF, push-to-trip).*
- *the circuit breaker may be locked using 1 to 3 padlocks (shackle diameter 5 to 8 mm), to prevent connection.*
- *the auxiliaries can be tested (with manual auxiliary connector).*

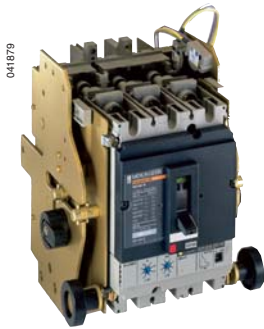
Circuit breaker on a withdrawable chassis



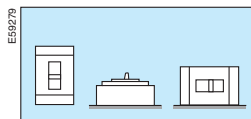
The chassis is made up of two side plates installed on the base and two other plates mounted on the circuit breaker.

Accessories

- auxiliary contacts for installation on the fixed part, indicating the “connected” and “disconnected” positions
- toggle collar for circuit breakers with a toggle mounted through a front panel, intended to maintain the degree of protection whatever the position of the circuit breaker (supplied with a toggle extension)
- keylock which, depending on the bolt fitted, can be used to:
 - prevent insertion for connection
 - lock the circuit breaker in the connected or disconnected positions.
- telescopic shaft for extended rotary handles.



Compact NS250H on a withdrawable chassis

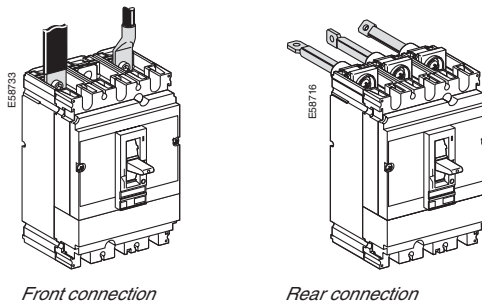


Installation positions

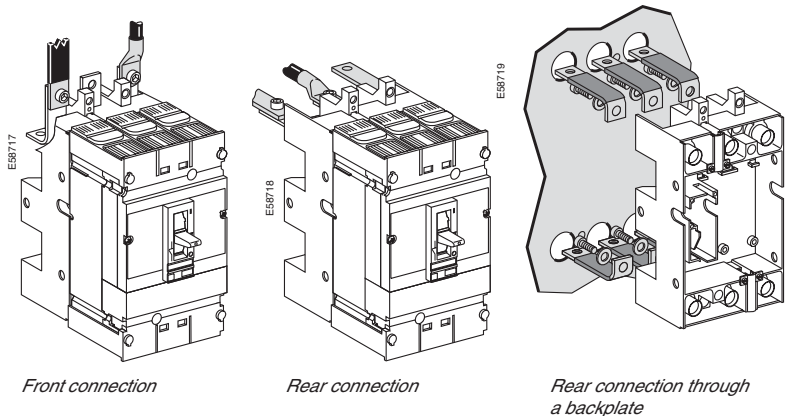
Front and rear connections

Fixed, plug-in and withdrawable Compact devices may all be equipped with front and rear connections.

Fixed device



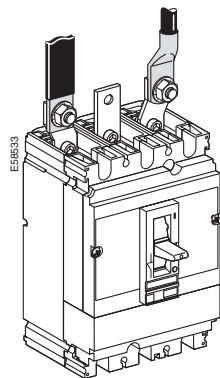
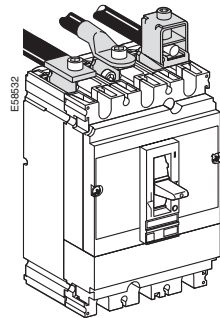
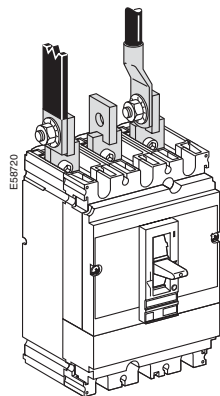
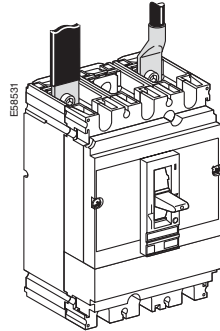
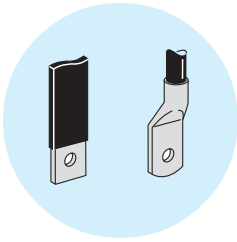
Plug-in and withdrawable devices



Electrical and mechanical accessories

Compact NS100 to 630 (cont.)

ES4496



Connection of fixed devices

Front connection of bars or cables with lugs

The Compact NS100 to NS630 devices are equipped as standard with terminals comprising snap-in nuts with screws (M8 for NS100 to 250, M10 for NS400 to 630) for direct connection to insulated bars or cables with lugs.

Additional terminal extensions (right-angle, edgewise, spreaders) are available for all connection requirements. Spreaders (52.5 or 70 mm pitch) may be fitted on the Compact NS400 to 630.

Lugs

Lugs are different for copper and aluminium cables. They are supplied with interphase barriers and are compatible with the long terminal shields.

■ the small lugs for copper cables may be used for cables with the following cross-sectional areas:

- 120, 150 or 185 mm² (NS100 to 250)
- 240 or 300 mm² (NS400 to 630).

Crimping by hexagonal barrels or punching.

■ the small lugs for aluminium cables may be used for cables with the following cross-sectional areas:

- 150 or 185 mm² (NS100 to 250)
- 240 or 300 mm² (NS400 to 630).

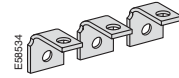
Crimping by hexagonal barrels.

Spreaders

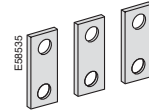
Spreaders increase the pitch of the terminals.

They are not compatible with terminal shields on the Compact NS100 to 250.

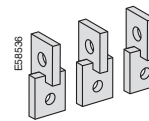
The one-piece spreader increases the pitch, thus making it possible to use the connection accessories of a larger device (e.g. a Compact NS100 to 250 can be fitted with the accessories of a Compact NS400 to 630). The one-piece spreader also provides protection against direct contact (see page 550E2700/9).



Right-angle terminal extensions



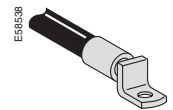
Straight terminal extensions for NS100 to 250



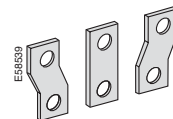
Edgewise terminal extensions for NS400 to 630



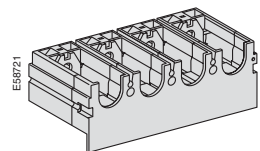
Small lug for copper cables



Small lug for aluminium cables

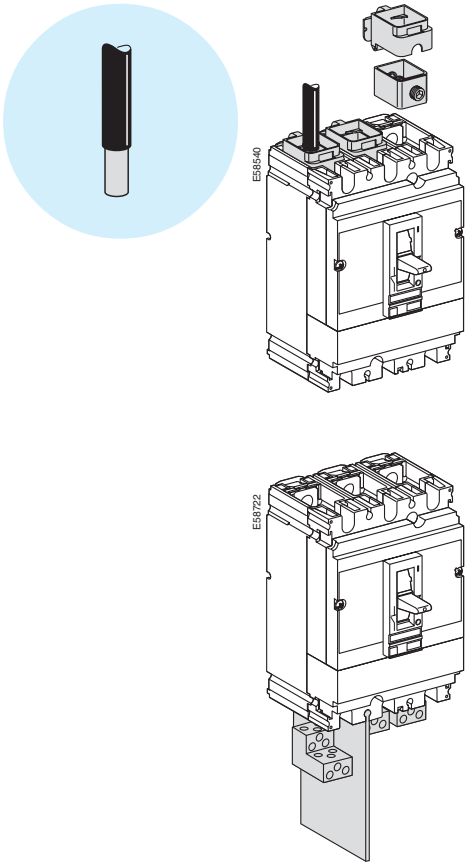


Spreaders



One-piece spreader

E54467



Front connection of bare cables

Bare-cable connectors for Compact NS devices may be used for both copper and aluminium cables.

1-cable connectors for Compact NS100 to 250

The connectors snap directly on to the device terminals or clip onto right-angle and straight terminal extensions as well as spreaders.

1-cable and 2-cable connectors for Compact NS400 to 630

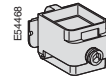
The connectors are screwed to device terminals or right-angle terminal extensions.

Distribution connectors for Compact NS100 to 250

These connectors are screwed directly to device terminals. Interphase barriers are supplied with distribution connectors, but may be replaced by long terminal shields. Each connector can receive six cables with cross-sectional areas ranging from 1.5 to 35 mm² each.

Polybloc distribution block for Compact NS100 to 630

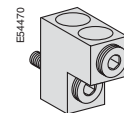
The Polybloc connects directly to the device terminals and is used to connect up to six or nine flexible or rigid cables with cross-sectional areas not exceeding 10 mm², to each pole. Connection is made to spring terminals without screws.



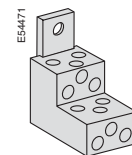
1-cable connector for NS100 to 250



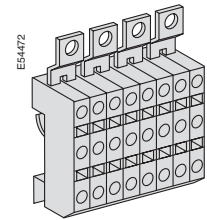
1-cable connector for NS400 to 630



2-cable connector for NS400 to 630

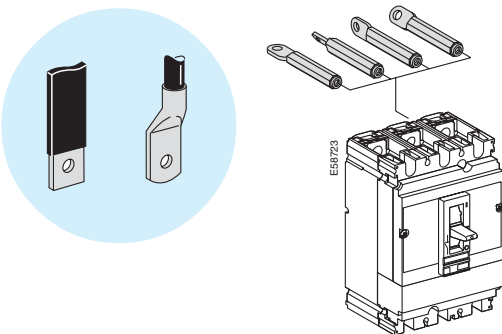


Distribution connector for NS100 to 250



Polybloc distribution block for NS100 to 250

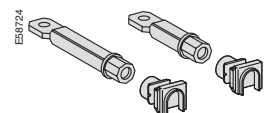
E54466



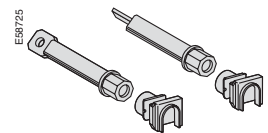
Rear connection

Rear connections for bars or cables with lugs are available in two lengths. Bars may be positioned flat, on edge or at 45° angles depending on how the rear connections are positioned.

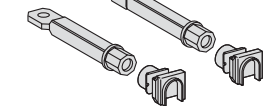
The rear connections are simply fitted to the device connection terminals. All combinations of rear connection lengths and positions are possible on a given device. The device is mounted on a backplate. For the connection of cables without lugs, the 1-cable connectors for Compact NS100 to 250 may be simply clipped onto the rear connections.



Two lengths

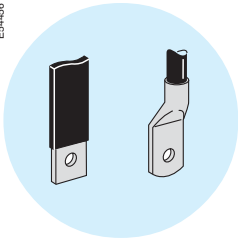


Four positions



Connection of bare cables to NS100 to 250.

E54466



Connection of plug-in devices

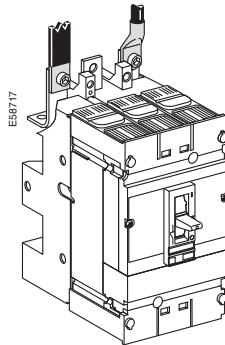
Connection of bars or cables with lugs

The plug-in base is equipped with terminals which, depending on their orientation, serve for front and rear connection. For rear connection of a base mounted on a backplate, the terminals must be replaced by insulated, long right-angle terminal extensions.

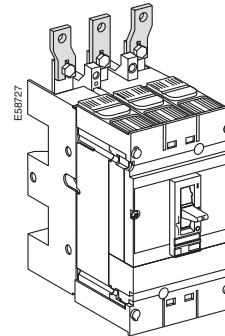
For Compact NS630 devices, connection most often requires the 52.5 or 70 mm pitch spreaders.

Connection accessories

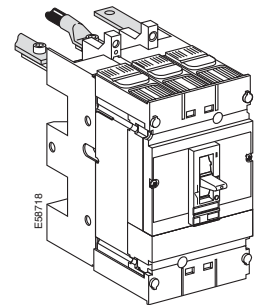
See the "Connection of fixed devices" section.



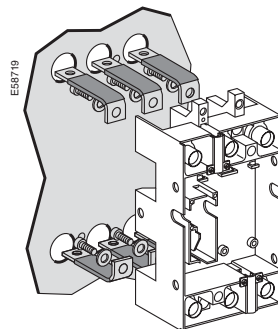
Front connection



Front connection with spreaders

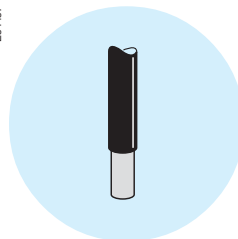


Rear connection



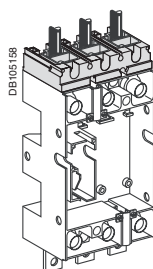
Rear connection of a base mounted on a backplate

E54467

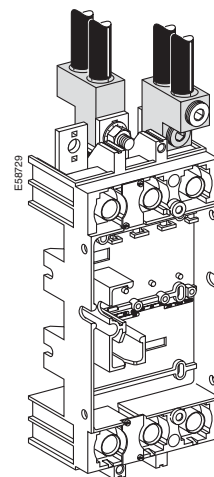


Connection of bare cables

All terminals may be equipped with bare-cable connectors. See the "Connection of fixed devices" section.



Plug-in base for Compact NS100 to 250 equipped with 1-cable connectors



Plug-in base for Compact NS400 to 630 equipped with 2-cable connectors

056384



One-piece spreader

One-piece spreader

Connection of large cables may require an increase in the distance between the device terminals. The one-piece spreader is an accessory that can also be fitted on Interpact INS switch-disconnectors. It offers the following features:

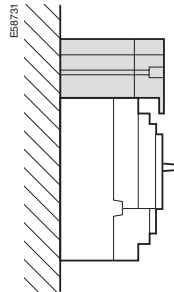
- increases the pitch of the circuit-breaker terminals to correspond to that of the next largest frame size
- compatible with all the connection accessories available for the next largest frame size (connectors, terminal extensions, etc.)
- enhances insulation between phases in comparison with standard spreaders.

	NS100 to 250	NS400 to 630
Pitch without spreaders (mm)	35	45
Pitch with standard spreaders (mm)	45	52.5 or 70
Pitch with one-piece spreader (mm)	45	-

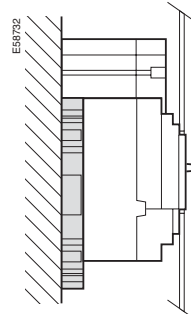
Mounting

When equipped with a one-piece spreader, Compact NS circuit breakers may be installed either at the back of a switchboard or on the front panel with a raiser.

- devices with different frame sizes can thus be aligned in the switchboard
- the same mounting plate can be used for all devices (including Interpact INS switch-disconnectors).

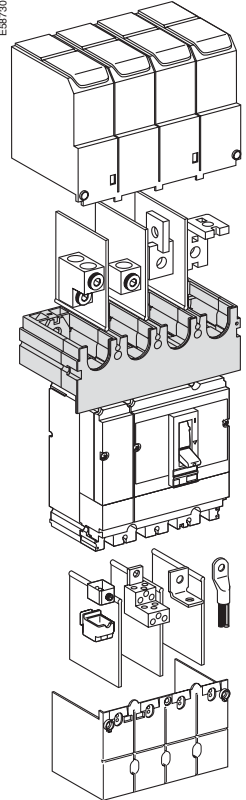


Mounting at the back of a switchboard

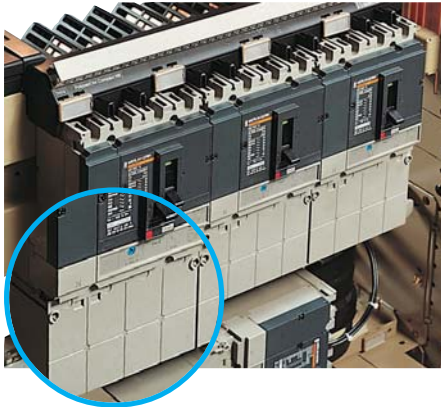


Mounting behind the front panel with a raiser

E89730



Connection and insulation accessories are identical to those for Interpact INS switch-disconnectors



Compact NS equipped with terminal shields.

Insulation of live parts

Terminal shields

Terminal shields are sealable insulating accessories used for protection against direct contact with power circuits (degree of protection IP40, IK07). They are supplied with sealing accessories.

Terminal-shield selection

- fixed circuit breaker, front connection - long terminal shields
- fixed circuit breaker, rear connection - short terminal shields
- for voltages ≥ 500 V, terminal shields are mandatory
- for voltages > 600 V, special connection kit with terminal shields and insulating screens
- for Compact NS400 to 630 with spreaders, special terminal shields for spreaders
- for withdrawable circuit breaker (plug-in and chassis type), short terminal shields on the device are mandatory. Terminal shields on the base are possible.

Long terminal shields for plug-in bases are used to:

- protect against direct contact with power circuits (degree of protection IP40, IK07)
- increase insulation between phases.

Insulating accessories for plug-in bases include:

- an adapter offering the same connection possibilities as the circuit breaker
- long terminal shields for the plug-in base.

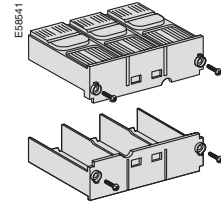
Interphase barriers

Safety accessories for maximum insulation at the power-connection points:

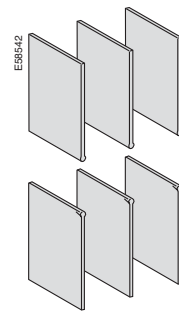
- they clip easily onto the circuit breaker
- not compatible with terminal shields
- special version for plug-in bases.

Rear insulating screens

Safety accessories for insulation between connections and the backplate. Compatible with terminal shields or interphase barriers.



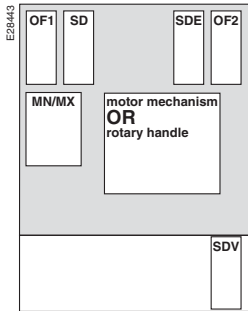
Terminal shields



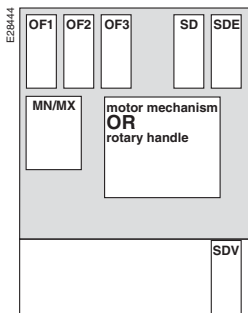
Interphase barriers



Rear insulating screens



Compact NS100/160/250

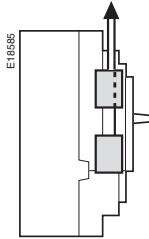


Compact NS400 to 630

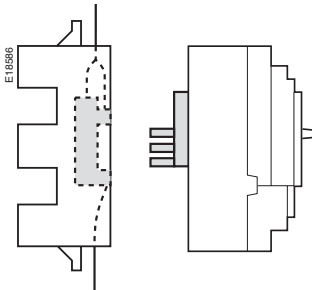
Connection of electrical auxiliaries

Fixed configuration

Auxiliary circuits exit the device through a knock-out in the front cover.



Plug-in and withdrawable configurations



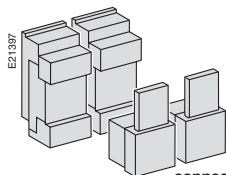
Automatic auxiliary connectors

Auxiliary circuits exit the circuit breaker via one to three automatic auxiliary connectors (nine wires each). These are made up of:

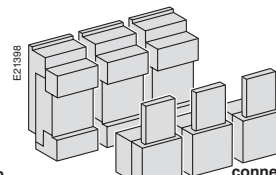
- a moving part, connected to the circuit breaker via a support (one support per circuit breaker)
- a fixed part, mounted on the plug-in base, equipped with connectors for bare cables up to 2.5 mm².

Selection of automatic auxiliary connectors.

For Compact NS400 to 630, connection wires for the options installed with trip unit STR53UE also exit via the automatic auxiliary connectors.

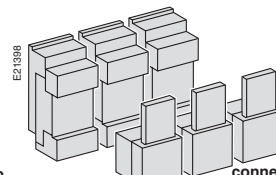


connector 1
OF1
SD
MN/MX

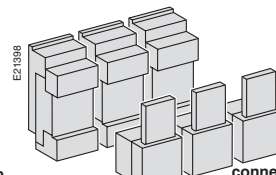


connector 2
OF2/SDV
SDE/MT
MT

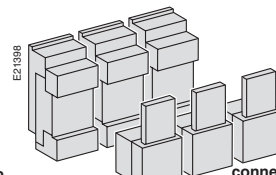
Compact NS100 to 250



connector 1
OF1
SD
MN/MX



connector 2
OF2
SDE/MT
MT

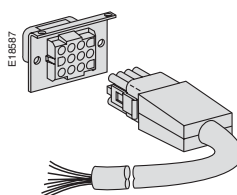


connector 3
OF3/SDV
COM
T

Compact NS400 to 630

Manual auxiliary connector for withdrawable configurations

Withdrawable circuit breakers may be equipped with one to three plugs with nine wires each. In "disconnected" position, the auxiliaries remain connected and can therefore be tested by operating the circuit breaker.



Nine-wire manual auxiliary connector

Each auxiliary is equipped with a terminal block with numbered terminals for connection of wires up to:

- 1.5 mm² for auxiliary contacts and voltage releases
- 2.5 mm² for the motor-mechanism module.



Changeover contacts

All the auxiliary contacts opposite are also available in "low-level" versions capable of switching very low loads (e.g. for the control of PLCs or electronic circuits).

Indication contacts

Common-point changeover contacts are used to remote circuit-breaker status information and can thus be used for indications, electrical locking, relaying, etc. They comply with the IEC 60947-5 international recommendation.

Functions

- OF (ON/OFF) - indicates the position of the circuit breaker contacts
- SD (trip indication) - indicates that the circuit breaker has tripped due to:
 - an overload
 - a short-circuit
 - an earth-leakage fault
 - operation of a voltage release
 - operation of the "push to trip" button
 - disconnection when the device is ON.
- Returns to de-energised state when the circuit breaker is reset.
- SDE (fault indication) - indicates that the circuit breaker has tripped due to:
 - an overload
 - a short-circuit
 - an earth-leakage fault.

Returns to de-energised state when the circuit breaker is reset.

- SDV (Earth-leakage fault indication) - indicates that the circuit breaker has tripped due to an earth fault.

Returns to de-energised state when the circuit breaker is reset.

- CAM (early-make or early-break function) - indicates the position of the rotary handle. Used in particular for advanced opening of safety trip devices (early break) or to energise a control device prior to circuit-breaker closing (early make)
- CE / CD (connected/disconnected position) - microswitch type carriage switches for withdrawable circuit breakers

Installation

- OF, SD, SDE and SDV functions - a single type of contact provides all these different indication functions, depending on where it is inserted in the device. The contacts clip into slots behind the front cover of the circuit breaker (or the Vigi module for the SDV function).

The SDE function on a circuit breaker equipped with a thermal-magnetic trip unit requires the SDE actuator.

- CAM function - the contact fits into the rotary-handle unit (direct or extended).
- CE / CD (connected/disconnected) function - two parts must be fitted on the fixed and moving parts of the chassis.

Electrical characteristics of auxiliary contacts

Contacts	Standard	Low level
Rated thermal current (A)	6	5
Minimum load	100 mA at 24 V	1 mA at 4 V DC
Utilisation cat. (IEC 60947-5-1)	AC12 AC15 DC12 DC14	AC12 AC15 DC12 DC14
Operational current (A)	24 V 48 V 110 V 220/240 V 250 V 380/440 V 480 V 660/690 V	5 3 5 1 5 3 2.5 0.2 5 2.5 0.6 0.05 5 2 - - 5 - 0.3 0.03 5 1.5 - - 5 1 - - - - - -



Compact NS250L with a direct rotary handle



Compact NS250L with an extended rotary handle

Rotary handles

There are two types of rotary handle:

- direct rotary handle
- extended rotary handle.

There are two models:

- standard with a black handle
- VDE with a red handle and yellow front for machine-tool control.

Direct rotary handle

Degree of protection IP40, IK07.

The direct rotary handle maintains:

- visibility of and access to trip unit settings
- suitability for isolation
- indication of the three positions O (OFF), I (ON) and tripped
- access to the "push to trip" button
- circuit breaker locking capability in the OFF position by one to three padlocks, shackle diameter 5 to 8 mm (not supplied).

It replaces the circuit-breaker front cover.

Accessories transform the standard direct rotary handle for the following situations:

- motor control centre (MCC) switchboards:
 - door opening disabled when the circuit breaker is ON
 - circuit-breaker closing is disabled if the door is open
- a higher degree of protection (IP43, IK07)
- machine-tool control, complying with CNOMO E03.81.501, IP54, IK08.

Extended rotary handle

Degree of protection IP 55, IK08.

This handle makes it possible to operate circuit breakers installed at the back of switchboards, from the switchboard front.

It maintains:

- suitability for isolation
- indication of the three positions O (OFF), I (ON) and tripped
- access to trip unit settings, when the switchboard door is open
- circuit breaker locking capability in the OFF position by one to three padlocks, shackle diameter 5 to 8 mm (not supplied).

The door cannot be opened if the circuit breaker is ON or locked.

The extended rotary handle is made up of:

- a unit that replaces the front cover of the circuit breaker (secured by screws)
- an assembly (handle and front plate) on the door that is always secured in the same position, whether the circuit breaker is installed vertically or horizontally
- an extension shaft that must be adjusted to the distance. The min/max distance between the back of circuit breaker and door is:
 - 185 to 600 mm for Compact NS100 to 250
 - 210 to 625 mm for Compact NS400 to 630.

For withdrawable configurations, the extended rotary handle is also available with a telescopic shaft with two stable positions.

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MX or MN voltage release

Remote tripping

MX or MN voltage releases are used to trip the circuit breaker.

MN undervoltage release

This release trips the circuit breaker when the control voltage drops below a tripping threshold:

- tripping threshold between 0.35 and 0.7 times the rated voltage
- circuit breaker closing is possible if the voltage exceeds 0.85 times the rated voltage.

For a lower value, circuit breaker closing cannot be guaranteed.

Circuit breaker tripping by an MN release meets the requirements of standard IEC 60947-2.

Time-delay unit for an MN release

Eliminates nuisance tripping due to transient voltage dips lasting 200 ms.

It is used in conjunction with:

- a 250 V DC MN release, control voltage 220/240 V AC
- a 48 V DC MN release, control voltage 48 V AC.

MX shunt release

Trips the circuit breaker when the control voltage rises above $0.7 \times U_n$.

Control signals can be of the impulse type (≥ 20 ms) or maintained.

Operation

When the circuit breaker has been tripped by an MN or MX release, it must be reset locally.

MN or MX tripping takes priority over manual closing.

In the presence of a standing trip order, closing of the contacts, even temporary, is not possible.

Mechanical characteristics

- endurance is equal to 50 % of the mechanical endurance of the circuit breaker
- the releases clip in behind the front cover
- connection using wires up to 1.5 mm^2 , to integrated terminal blocks.

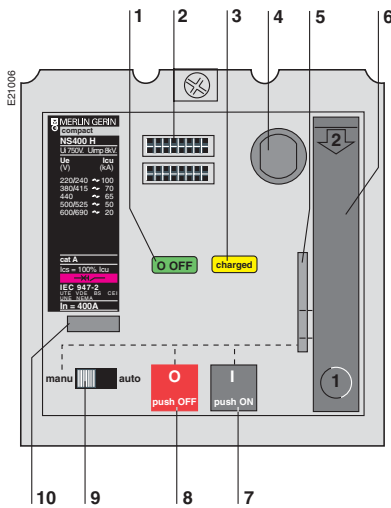
Electrical characteristics

- consumption:
 - pick-up (MX): $< 10 \text{ VA}$
 - seal-in (MN and MNR): $< 5 \text{ VA}$.
- response time: $< 50 \text{ ms}$.

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Compact NS250H with motor mechanism



- 1 contact position indicator (suitability for isolation)
- 2 outgoing-circuit identification labels
- 3 spring status indicator (charged, discharged)
- 4 locking device (keylock)
- 5 locking device (OFF position), using 1 to 3 padlocks, shackle diameter 5 to 8 mm, not supplied
- 6 manual spring-charging lever
- 7 I (ON) pushbutton
- 8 O (OFF) pushbutton
- 9 manual/auto mode selection switch. The position of this switch can be indicated remotely
- 10 operations counter (Compact NS400/630)

Motor-mechanism module

When equipped with a motor-mechanism module, Compact NS circuit breakers feature very high mechanical endurance as well as easy and sure operation:

- all circuit-breaker indications and information remain visible and accessible, including trip-unit settings and indications
- suitability for isolation is maintained and padlocking remains possible
- double insulation of the front face.

Applications

- local motor-driven operation, centralised operation, automatic distribution control
- normal/standby source changeover or switching to a replacement source to optimise energy costs
- load shedding and reconnection to optimise energy costs
- synchrocoupling.

Automatic operation

- circuit-breaker ON and OFF controlled by two impulse-type or maintained control signals
- automatic spring charging following voluntary tripping (by MN or MX), with standard wiring
- mandatory manual reset following tripping due to an electrical fault.

Manual operation

- transfer to manual mode using a switch (9) with possibility of remote mode indication
- circuit-breaker ON and OFF controlled by 2 pushbuttons
- recharging of stored-energy system by pumping the lever 9 times
- padlocking in OFF position.

Installation and connection

All installation (fixed, plug-in/withdrawable) and connection possibilities are maintained.

Motor-mechanism module connections are made behind its front cover to integrated terminals, for cables up to 2.5 mm².

Accessories

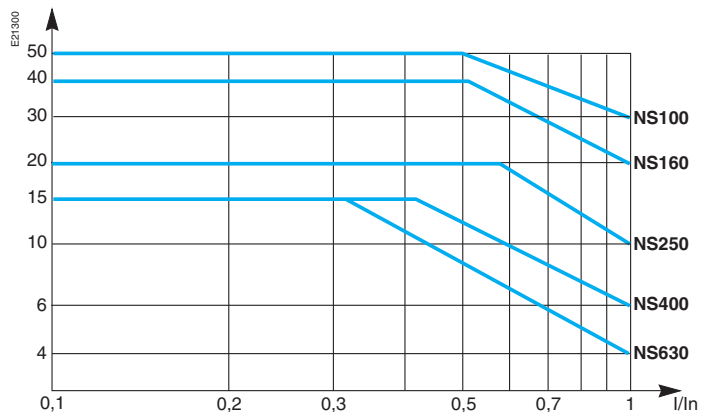
- keylock for locking in OFF position
- operations counter for the Compact NS400 and NS630, indicating the number of ON and OFF cycles. The counter must be installed on the front of the motor-mechanism module.

Characteristics

Motor mechanism		MT100 to MT630	
Response time (ms)	opening	< 600	
	closing	< 80	
Rate	cycles/minute max.	4	
Control voltage (V)	DC	24/30 - 48/60 110/130 - 250	
	AC 50/60 Hz	48 (50 Hz) - 110/130 220/240 - 380/440	
Consumption ⁽¹⁾	DC (W)	opening	≤ 500
		closing	≤ 500
	AC (VA)	opening	≤ 500
		closing	≤ 500

Electrical endurance

Circuit breaker + motor-mechanism module, in thousands of operations (IEC 60947-2), at 440 V.



(1) For NS100/250, motor "vibratory" type consider inrush current as 2 I_n during 10 ms cycling.



Compact NS630L with voltage-presence indicator



Compact NS630H with current-transformer module



Compact NS250L with ammeter module

Indications and measurement

Voltage presence indicator

The indicator detects and indicates that circuit breaker terminals are supplied with power.

Installation

- in the long or short terminal shields, via the knockouts
- not compatible with the motor-mechanism module
- upstream or downstream of the circuit breaker
- degree of protection IP40, IK04.

Electrical characteristics

Operates on all networks with voltages ranging from 220 to 550 V AC.

Current-transformer module

This module enables direct connection of a measurement device such as an ammeter or a Digipact power meter (not supplied).

Installation

- directly on the downstream circuit-breaker terminals
- degree of protection IP40, IK04
- class II insulation between front and the power circuits
- connection to 6 integrated connectors for cables up to 2.5 mm².

Electrical characteristics

- transformer with 5 A secondary winding.
- accuracy class 3 for the following output-power consumptions:
 - rating 100 A: 1.6 VA
 - rating 150 A: 3 VA
 - rating 250 A: 5 VA
 - rating 400/630A: 8 VA.

Current-transformer module with voltage measurement outputs

For direct connection of a digital power monitoring unit: Power Meter PM500, PM700, PM800, etc. (not supplied).

Installation

- mounts directly on the downstream terminals of the circuit breaker
- degree of protection: IP40 and IK04
- class II insulation of front with respect to the power circuits
- built-in connectors for cables from 1.5 to 2.5 mm².

Electrical characteristics

- rated operational voltage U_e: 530 V
- frequencies of measured values: 50...60 Hz
- three CTs with 5 A secondary windings for the rated primary current I_N
 - class 0.5 to 1 for rated power consumption values at the output:
 - 125 A, 150 A and 250 A ratings: class 1 for 1.1 VA
 - 400/600 A rating: class 0.5 for 2 VA
 - use a cable of 2.5 mm² section up to 2.5 m long.
- four voltage measurement outputs including protection with automatic reset.
- voltage measurement output impedance 3500 Ohm ±25 %, maximum current 1 mA.

Ammeter and I_{max} ammeter modules

Ammeter module

Measures and displays (dial-type ammeter) the current of each phase (selection of phases by 3-position switch in front).

I_{max} ammeter module

Measures and displays (dial-type ammeter) the maximum current flowing in the middle phase. The I_{max} value can be reset on the front.

Installation

- identical for both types of ammeter module
- directly on the downstream circuit-breaker terminals
- ammeter clips into module in any of four 90° positions, i.e. can be installed of devices mounted both vertically and horizontally
- degree of protection IP40, IK04
- class II insulation between front and the power circuits.

Electrical characteristics

- ammeter module: accuracy class 4.5
- I_{max} ammeter module: accuracy ±6 %
- maximum currents are displayed only if they last at least 15 minutes.



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Insulation-monitoring module

This module detects and indicates an insulation drop on a load circuit (TN-S or TT systems).

Operation is identical to that of a Vigi module, but without circuit-breaker tripping.

Indication by a red LED in front.

An auxiliary contact may be installed for remote insulation-drop indications.

Installation

- directly on the downstream circuit-breaker terminals
- degree of protection: IP40, IK04
- double insulation of the front face.

Electrical characteristics

- settings: 100, 200, 500 and 1000 mA
- accuracy: -50 +0 %
- time delay following drop: 5 to 10 seconds
- AC-system voltage: 200 to 440 V AC and 440 to 550 V AC.

Compact NS250H with insulation-monitoring module



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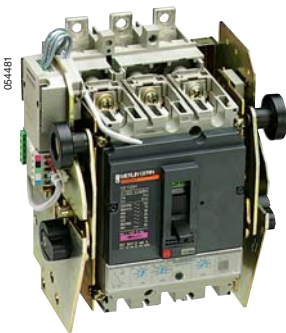
Communicating auxiliaries

Communicating versions of the auxiliary contacts and the motor-mechanism module also exist for integration in a Digipact communications system. They simply replace the standard electrical auxiliaries.

Using the STR53UE and STR43ME trip units equipped with the COM communications option, it is possible to transmit data to Digipact modules:

- settings
- rms values of phase and neutral currents
- current of the most heavily loaded phase
- overload alarm in progress
- tripping cause (overload, short-circuit, etc.).

Compact NS equipped with communicating auxiliary contacts and motor-mechanism module



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Withdrawable Compact NS equipped with communicating auxiliary contacts

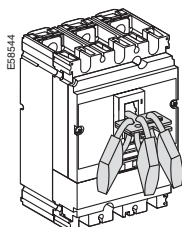
Electrical and mechanical accessories

Compact NS100 to 630 (cont.)

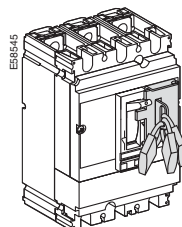
Locking systems

Locking in the OFF position guarantees isolation as per IEC 60947-2. Padlocking systems can receive up to three padlocks with shackle diameters ranging from 5 to 8 mm (padlocks not supplied).

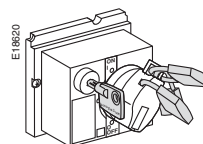
Control device	Function	Means	Required accessories
Toggle	lock in OFF position	padlock	removable device
	lock in OFF or ON position	padlock	fixed device
Direct rotary handle	lock in OFF position	padlock keylock	locking device + keylock
MCC rotary handle	lock in OFF position	padlock	
Rotary handle	lock in OFF position	padlock	
Extended rotary handle	lock in OFF position, door opening prevented	keylock	keylock
Motor mechanism	lock in OFF position, motor mechanism locked out	padlock keylock	locking device (keylock incorporated)



Locking of the toggle using a removable device



Locking of the toggle using a fixed device



Locking of the rotary handle using a padlock + a keylock.



Heavy-duty insulating individual enclosure for Compact NS

Individual enclosures

Compact NS and Vigicompact NS devices with two, three or four poles may be installed in individual enclosures.

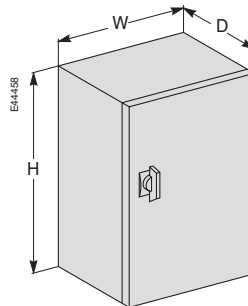
All fixed, front connections are possible, except right-angle and edgewise terminal extensions. Spreaders may be installed in the enclosures intended for Interpact Compact and Vigicompact NS250 to 630 devices.

There are two models of enclosures:

- heavy-duty metal individual enclosure, with:
 - metal enclosure
 - door with keylock and cut-out for rotary handle
 - direct rotary handle (CNOMO, IP55, IK08)
 - device mounting plate
 - removable plate (without holes) for cable entry through bottom
- heavy-duty insulating individual enclosure, with:
 - polyester insulating enclosure
 - transparent cover, screwed, lead sealable, with cut-out for rotary handle
 - extended rotary handle
 - device mounting plate
 - removable plates (without holes) for cable entry through bottom and/or top.

Dimensions (H x W x D in mm)

- metal enclosures:
 - Compact and Vigicompact NS100 to 160: 450 x 350 x 250
 - Compact and Vigicompact NS250: 650 x 350 x 250
 - Compact NS400: 650 x 350 x 250
 - Compact NS630 and Vigicompact NS400 to 630: 850 x 350 x 250
- insulating enclosures:
 - Compact and Vigicompact NS100 to 160: 360 x 270 x 235
 - Compact NS250: 540 x 270 x 235
 - Compact NS400 to 630: 720 x 360 x 235
 - Vigicompact NS250 to 630: 720 x 360 x 235

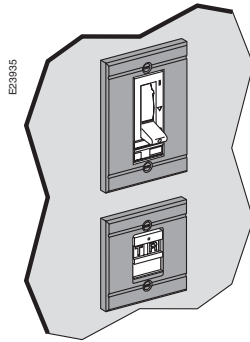


Electrical and mechanical accessories

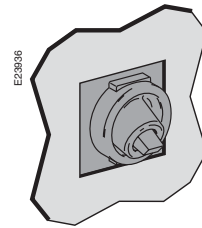
Compact NS100 to 630 (cont.)

Escutcheons

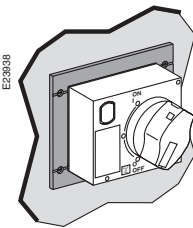
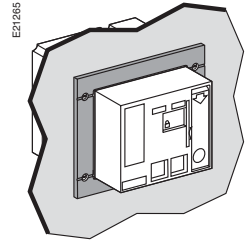
Escutcheons are an optional feature mounted on the switchboard door. They increase the degree of protection to at least IP40, IK07.



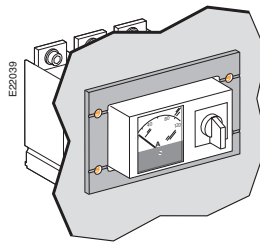
Front-panel escutcheons for toggle and Vigi module (NSA160). Secures to the panel, from the front.



Toggle cover
 ■ degree of protection IP43, IK07
 ■ fits on the front of the circuit breaker.



Front-panel escutcheon for rotary handle.
 Secures to the panel by four screws, from the front.
 For circuit breaker with motor mechanism and Vigi module, use the protection collar for front panel mounting (see below).



Front-panel escutcheons for ammeter module. Secures to the panel by four screws, from the front.

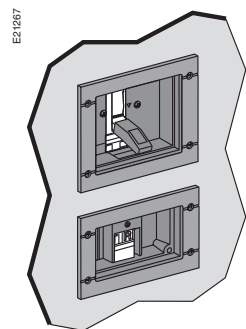
Protection collar for toggle and Vigi module on withdrawable devices

Protection collars maintain the degree of protection, whatever the position of the device (connected, disconnected).

- front-panel escutcheons are mandatory (same as those for rotary handles and ammeter modules)
 - collars are mounted on the device using two screws
 - escutcheons are attached to the switchboard
 - a toggle extension is supplied with the collar.
- For the insulation-monitoring module, use the same elements as for the Vigi module.

Front-panel escutcheons for motor mechanism, rotary handles, ammeter modules

Same as for fixed devices.

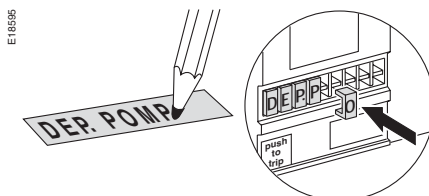


Outgoing-circuit identification

Compact NS100 to 630 devices come with clip-in labels for hand-written indications.

It is also possible to use pre-printed Telemecanique labels part number AB1-**:

- Compact NS100 to 250: 8 digits
- Compact NS400 to 630: 16 digits.

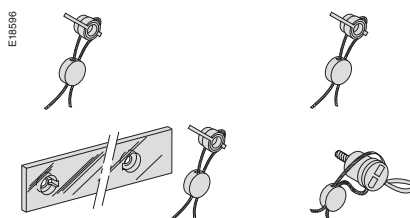


Identification accessories

Sealing accessories

This option includes the elements required to fit lead seals to prevent:

- front removal
- rotary-handle removal
- opening of the motor-mechanism module
- access to auxiliaries
- access to trip-unit settings
- trip-unit removal
- access to earth-leakage protection settings
- terminal-shield removal
- access to power connections.



Sealing accessories