

# Redline

Edition 2010

Modular DIN-rail devices  
and residential enclosures

Just feel protected



GE imagination at work

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Add-on devices for MCB's and RCD's

Add-on-devices

A

B

C

D

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X



Common add-on devices suitable for all MCB's and RCD's

Function			Type
H		<b>Auxiliary Contact H</b> For monitoring the status of the protection device ( Open/Closed) independently, if it has been actuated manually or automatically.	CA
S		<b>Signal or Auxiliary Contact S/H</b> For signalling the automatic tripping of the protection devices: Overload or short-circuit for MCB's Earth leakage tripping for RCD's	CA
S/H+H		<b>Signal or Auxiliary Contact S/H + Auxiliary Contact H</b> Two change-over contacts that include both functions as described above (S/H+H)	CB
PBS		<b>Panel Board Switch</b> For opening the main device when the panel frame is removed	PBS
TL		<b>Shunt Trip (Distance tripping by emission)</b> For opening the device when it is fed locally or remotely	Tele L
TU		<b>Undervoltage Release</b> For opening the device when the voltage goes lower than a certain value	Tele U
TM		<b>Motor Operator</b> Allows to switch on/off the devices from a distance	Tele MP



### Coupling of add-on devices on MCB's, RCCB's and modular switches

Cat. No.	Description	Function	EPC	G30	G45	G60	G100	GT10	GT25	EP100 UC EP100T EPP100	BP	DM	Series G + Diff-o- Click	ASTER
CA H	Auxiliary contact	H	L-R <sup>(2)</sup>	L-R	L-R	L-R	L-R	L-R	L-R	L-R	R	R	L	L-R
CA S/H	Signal or auxiliary contact	S/H	L-R <sup>(2)</sup>	L-R	L-R	L-R	L-R	L-R	L-R	L-R	R	R	L	L-R
CA S/H-G	Signal or auxiliary contact, gold contact	S/H	L-R <sup>(2)</sup>	L-R	L-R	L-R	L-R	L-R	L-R	L-R	R	R	L	L-R
CA UN H	Auxiliary contact	H	L-R <sup>(1)</sup>	-	-	-	-	-	-	-	-	-	-	-
CA UN S/H	Signal or auxiliary contact	S/H	L-R <sup>(1)</sup>	-	-	-	-	-	-	-	-	-	-	-
CB SH/HH-R	Signal or auxiliary + auxiliary contact	S/H+H	-	R	R	R	R	R	R	R	R	R	-	-
CB SH/HH-L	Signal or auxiliary + auxiliary contact	S/H+H	-	L	L	L	L	L	L	L	-	-	L	-
PBS	Panel board switch	PBS	L-R <sup>(2)</sup>	L-R	L-R	L-R	L-R	L-R	L-R	L-R	-	-	L-R	-
Tele L	Shunt trip	TL	L-R <sup>(2)</sup>	L-R	L-R	L-R	L-R	L-R	L-R	L-R	R	R	L	-
Tele U	Undervoltage release	TU	L-R <sup>(2)</sup>	L-R	L-R	L-R	L-R	L-R	L-R	L-R	R	R	L	-
Tele MP	Motor operator	TM	L-R	L-R	L-R	L-R	L-R	L-R	L-R	L-R	R	R	L	-

(1) Except 3P Unibis™ that only accept CA UN on the **left** side

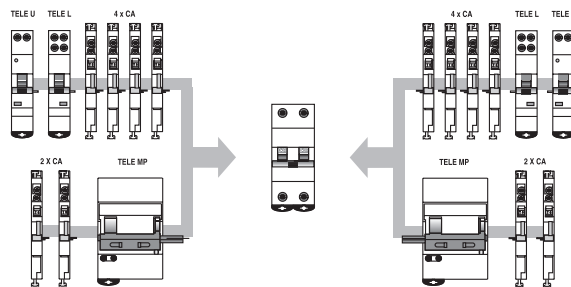
L = Coupling on the left

R = Coupling on the right

(2) Except Tele MP, all add-on devices on EPC need one CA UN as interface

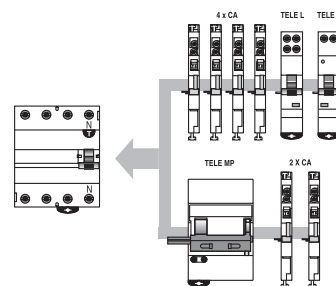
For detailed information, see website

#### Miniature Circuit Breakers Series G/EP Series EPC<sup>(3)</sup>

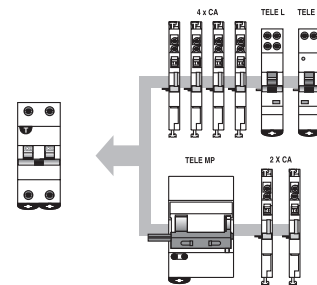


(3) Except for Tele MP the first auxiliary contact on MCB should always be CA UN

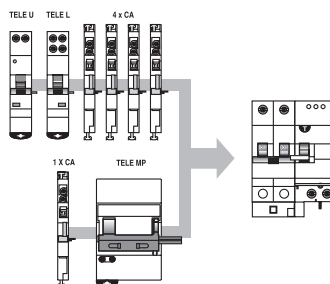
#### Residual Current Circuit Breakers (RCCB) Series BP



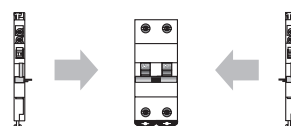
#### Residual Current Circuit Breakers (RCBO) with Overcurrent Protection Series DM



#### Miniature Circuit Breakers Series G + Diff-o-Click



#### Modular switches Aster

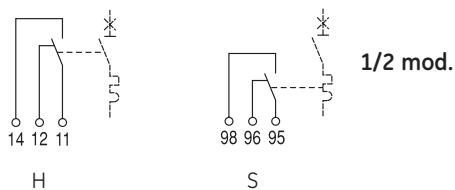
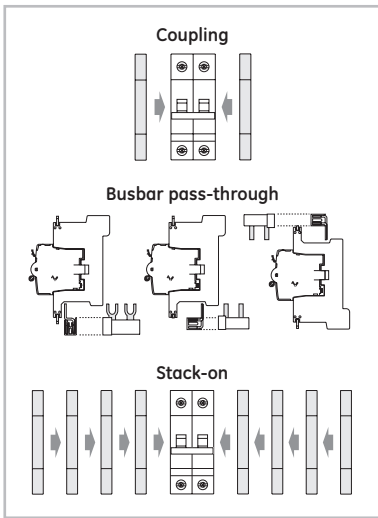




### Applications



### Approvals



## Auxiliary

### Series CA

### EN/IEC 62019

- Common for all modular protection devices: MCB's and RCBO's up to 63 A, RCCB's up to 100A and mains disconnect switches type ASTER (ASTM).
- Can be coupled on both sides of MCB's and modular switches type ASTM.
- Version with golden contacts, available for low current as well as low voltage applications.
- Stack-on left and right up to 4 CA units.
- Permits the pass-through of busbars, pin & fork, top and bottom, just changing the position of the base of the auxiliaries.

### Performance

Change-over contacts	1
Rated current I <sub>n</sub>	(A) 5
Rated voltage AC U <sub>n</sub>	(V) 240
Electrical endurance	10000
Terminal capacity flexible/rigid cable	(mm <sup>2</sup> ) 2.5
Weight	(g) 70

### Utilisation

The auxiliary contacts are units to be added on to protection devices. They allow information to be monitored from a distance about the protection devices.

#### Auxiliary contact CA H (function H)

Provides the status of the protection device, OPEN/CLOSED.

#### Signal or auxiliary contact CA S/H, CA S/H G (function S/H)

This auxiliary can act as an auxiliary contact (function H) or as a signal contact (function S).

The user can change the function at the moment of installation.

Used as signal contact (function S) it provides the information about the automatic tripping of the protection devices: overload or short-circuit for MCB's, earth leakage tripping for RCD's.

- The device has a test button on the front to simulate the function (acting as a function H or S)
- Reset button for the contacts (function S)
- Tripping signal on the front (function S)

### Series CA

Function	Cat. No.	Ref. No.	Pack.	
H	CA H	672567	40	
S/H	CA S/H	672568	40	
S/H	CA S/H G	672569	40	golden contacts



## Auxiliary

### Series CB

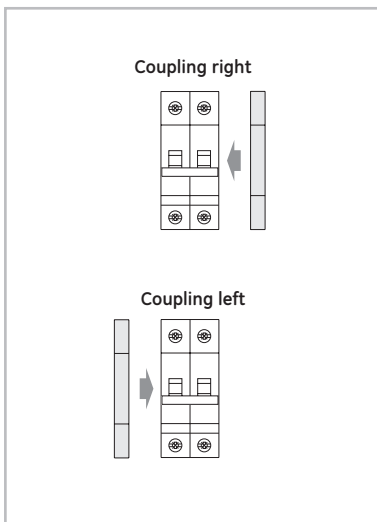
### EN/IEC 62019



### Applications



### Approvals



### Performance

Change-over contacts	2
Rated current I <sub>n</sub>	(A) 5
Rated voltage AC U <sub>n</sub>	(V) 240
Electrical endurance	10000
Terminal capacity flexible/rigid cable	(mm <sup>2</sup> ) 2.5
Weight	(g) 80

### Utilisation

#### Bottom auxiliary contact (function H)

Provides the status of the protection device, OPEN/CLOSED.

#### Top signal or auxiliary contact (function S/H).

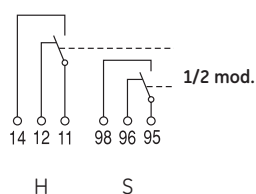
This auxiliary can act as an auxiliary contact (function H) or as a signal contact (function S)

The user can make the change of the function at the moment of installation.

Used as signal contact (function S) it provides information about automatic tripping of the protection devices: overload or short-circuit for MCB's, earth leakage tripping for RCD's.

- The device has a test button on the front to simulate the function (acting as a function H or S)
- Reset button for the contacts (function S)
- Tripping signal on the front (function S)

### Series CB



Function	Cat. No	Ref. No.	Pack.
SH/HH	CB SH/HH-R <sup>(1)</sup>	672570	40
SH/HH	CB SH/HH-L <sup>(2)</sup>	672571	40

(1) R= coupling on the right  
(2) L= coupling on the left



Series CB

A

B

C

D

E

F

G

X



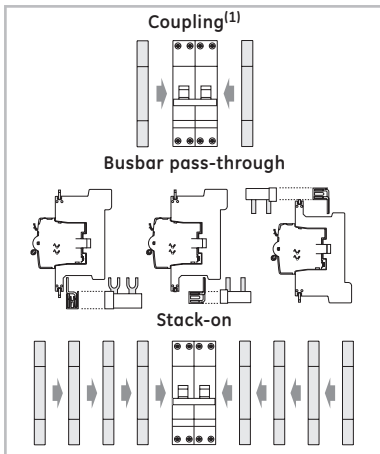
### Applications



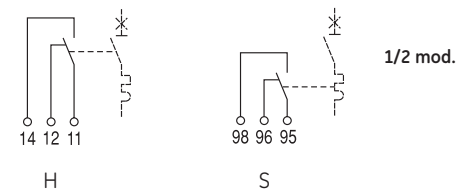
### Approvals / Marking



### Add-on devices



- (1) 3P Unibis™ MCB'S accept CA only on the left side
- (2) Only first auxiliary contact on MCB must be CA UN type as interface, than every extension can be stack-on mounted



## Auxiliary

### Series CA - Unibis™ Interface EN/IEC 62019

- Common for all modular protection devices: MCB's and RCBO's up to 63 A, RCCB's up to 100A and mains disconnect switches type ASTER (ASTM).
- Can be coupled on both sides of MCB's<sup>(1)</sup> and modular switches type ASTM.
- Version with golden contacts, available for low current as well as low voltage applications.
- Stack-on left or right up to 4 CA units.
- Permits the pass-through of busbars, pin & fork, top and bottom, just changing the position of the base of the auxiliaries.

### Performances

Change-over contacts	1
Rated current I <sub>n</sub>	(A) 5
Rated voltage AC U <sub>n</sub>	(V) 240
Electrical endurance	10000
Terminal capacity flexible/rigid cable	(mm <sup>2</sup> ) 2.5
Weight	(g) 70

### Application

The auxiliary contact Unibis™ has a double function:

1. The standard function as auxiliary monitoring contact for which it has been developed.
2. The interface function, which allows the use of all auxiliaries in combination with the Unibis™ MCB range.

Example: to couple the undervoltage release Tele U to a Unibis™ MCB, the CA 672972 has to be added in between the MCB and the Tele U as interface.

The auxiliary contacts are units to be added on to protection devices. They allow information to be monitored from a distance about the protection devices.

#### Auxiliary contact CA H (function H)

Provides the status of the protection device, OPEN/CLOSED.

#### Signal or auxiliary contact CA S/H, CA S/H G (function S/H)

This auxiliary can act as an auxiliary contact (function H) or as a signal contact (function S).

The user can change the function at the moment of installation.

Used as signal contact (function S) it provides the information about the automatic tripping of the protection devices: overload or short-circuit for MCB's, earth leakage tripping for RCD's.

- The device has a test button on the front to simulate the function (acting as a function H or S)
- Reset button for the contacts (function S)
- Tripping signal on the front (function S)

### Series CA - Unibis™ Interface

Function	Cat. No	Ref. No.	Pack.	
H	CA UN H	672972	1/40	
S/H	CA UN S/H	672973	1/40	
S/H	CA UN S/H G	672974	1/40	golden contacts

New



More technical data ● website  
Dimensions ● pg C.12

## Motor Operator

### Tele MP

- Common device for all modular protection devices.
- Can be coupled on both sides of MCB's and modular switches, on the right hand side of RCCB's and RCBO's.
- Stack-on left and right sides up to 4 modules. One of them can be coupled between the main device and the motor operator.
- Can be locked in off position with a lock.
- Manual operating is possible.

The Tele MP allows to remotely open or close any MCB, RCCB, RCBO or modular switch by means of a push-button or any other automatic management processor (PLC..).

In case of mounting a Tele MP and a Undervoltage Tele U together: when the Tele U trips, a manual reset of the Tele U is locally needed due to safety reasons.

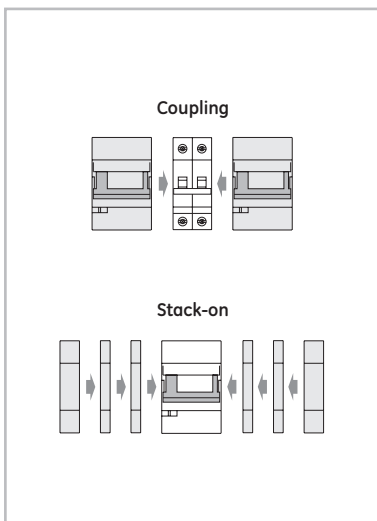


### Applications



### Standard

EN/IEC 60947-2

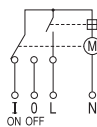


### Performance

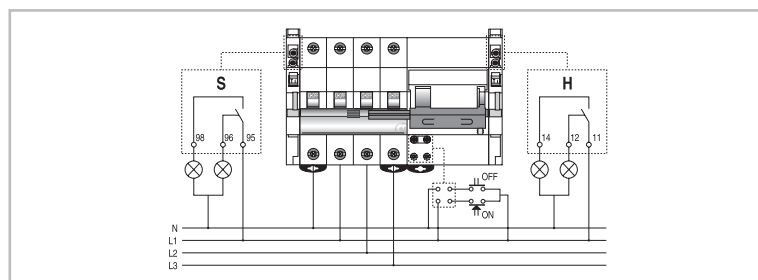
Rated voltage AC Un	(V)	240
Minimum voltage	(V)	200
Impulse to switch on	(ms)	50
Impulse to switch off	(ms)	50
Closing time	(s)	0.5
Opening time	(s)	0.2
Electrical endurance		10000
Terminal capacity flexible/rigid cable	(mm <sup>2</sup> )	2.5
Weight	(g)	380

### Tele MP - Motor operator

	Voltage	Cat. No.	Ref. No.	Pack.
3 mod.	AC 230V	TELE MP	672580	1



### Application example



More technical data ● website  
Dimensions ● pg C.12







## Shunt trip, Undervoltage release, Panel board switch

- Common device for all modular protection devices.
- Can be coupled on both sides of MCB's, on the right side of RCCB's and RCBO's.
- Permit the pass-through of busbars, pin & fork, at top or bottom terminals.
- Stack-on left and right side up to 4 modules.

## Shunt Trip Tele L

The Tele L allows to remotely switch off any MCB, RCCB or RCBO by means of push-buttons or any other automatic management processor. A built-in contact in series with the coil prevents burn-out damage if the voltage remains.


## Performance

<b>Rated voltage</b>	(V)	110/415, 110/125 DC
	(V)	24/60, 24/48 DC
<b>Tripping time</b>	(ms)	<10
<b>Electrical endurance</b>		10000
<b>Terminal capacity flexible/rigid cable</b>	(mm <sup>2</sup> )	2.5
<b>Weight</b>	(g)	125
<b>Inrush current (Tele 2)</b>	at 110V AC	0.4A
	at 230V AC	0.9A
	at 415V AC	1.5A

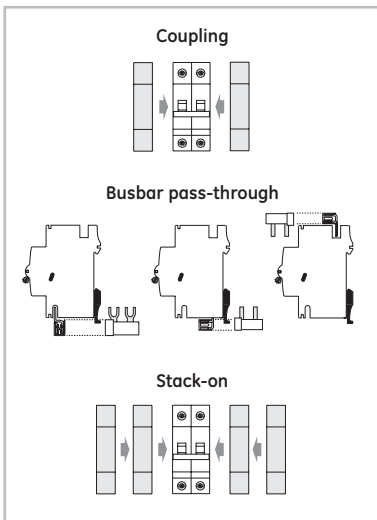
## Applications



## Approvals

EN/IEC 60947-2  (1)

(1) For TELE L-1 and TELE L-2



## Undervoltage Release Tele U



The Tele U releases the main MCB, RCCB, RCBO and modular switch in case the power supply drops below 0.5xUn. Time delay adjusting up to 300 ms.

## Performance

<b>Rated voltage AC Un</b>	(V)	240
<b>Rated voltage DC/AC Un</b>	(V)	12, 24, 48 DC/AC
<b>Tripping voltage</b>	(V)	≤0.5xUn±10%
<b>Resetting voltage</b>	(V)	>0.5xUn±10%
<b>Tripping time</b>	(ms)	Adjustable 0...300
<b>Electrical endurance</b>		2000
<b>Terminal capacity flexible/rigid cable</b>	(mm <sup>2</sup> )	2.5
<b>Weight</b>	(g)	125

## Panel Board Switch PBS

The panel board switch PBS is a mechanical switch. When the panel frame releases the PBS switch, it will trip the protection devices (MCB's or RCD's). Consequently the distribution board will become isolated.

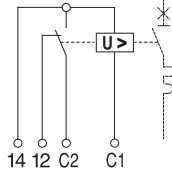
More technical data  website  
Dimensions  pg C.12



**Tele L - Shunt trip** 



1P  
1 mod.

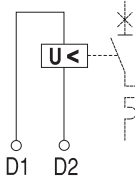


Voltage	Cat. No.	Ref. No.	Pack.
AC 24-60V DC 24-48V	TELE L-1	672573	1
AC 110-415V DC 110-125V	TELE L-2	672574	1

**Tele U - Undervoltage release**



1P  
1 mod.

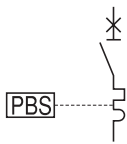


Voltage	Cat. No.	Ref. No.	Pack.
AC 240V	TELE U-230	672575	1
AC/DC 12V	TELE U-12	672576	1
AC/DC 24V	TELE U-24	672577	1
AC/DC 48V	TELE U-48	672578	1

**PBS - Panel board switch**



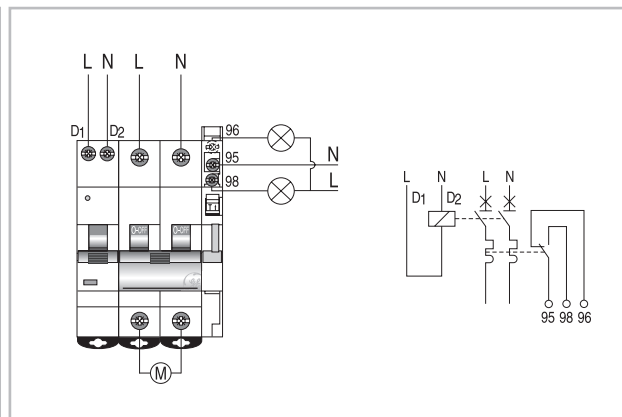
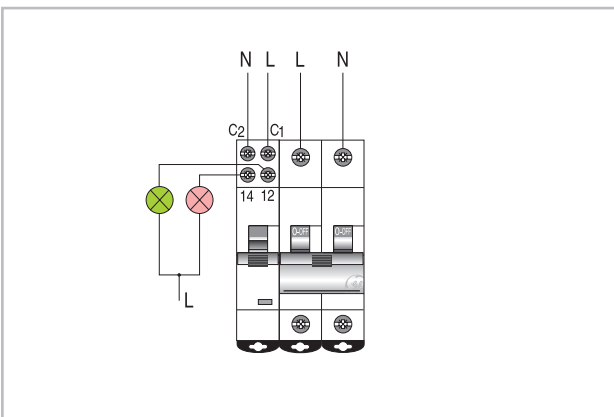
1P  
1/2 mod.



Cat. No.	Ref. No.	Pack.
PBS	672572	1

**Tele L**

**Tele U**



Tele L - Tele U - PBS

A

B

C

D

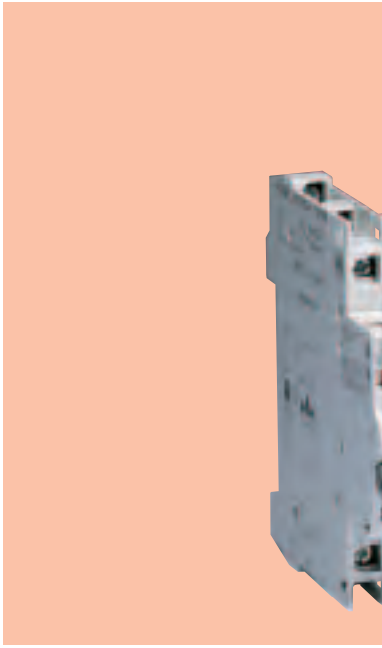
E

F

G

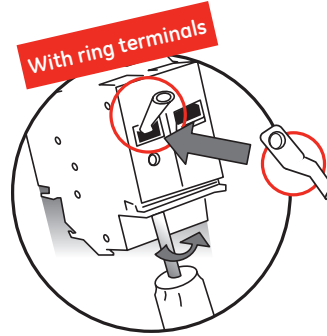
X





## Auxiliary contacts

### Series CBT



The miniature circuit breakers in RAIL-design have been developed with regard to shakes, shocks and vibrations

### Features

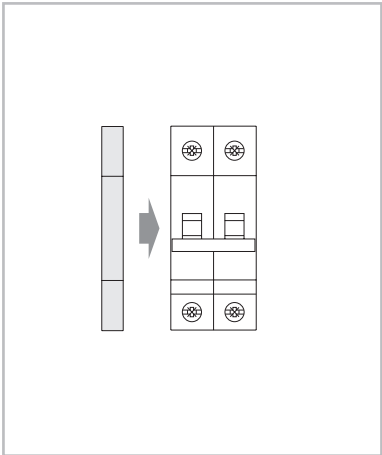
- Three versions: 1NO+1NF, 2NF, 2 NO
- CBT accepts ring terminals on wires
- Certified acc. new CEI UNI 11170 (higher protection against fires)
- Certified acc. to NF 16-101, smoke index F1
- Shock and vibrations tests acc. to IEC 61373

### Standards / Marking

EN 60898, EN 60947-2, UNI CEI 11170, EN 61373

### Approval

Trenitalia n° 371441.01



### Technical data

Number of change-over contacts	2
Thermal setting I <sub>n</sub>	(A) 5 (230V~), 4 (24V---), 1 (160V---)
Rated voltage U <sub>n</sub>	(V) 230~160---
Endurance electrical	10.000
Terminal capacity flexible/rigid cable	(mm <sup>2</sup> ) 2.5
Unloosable screws	Pozidrive 2

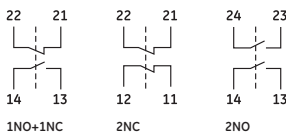
#### Bottom auxiliary contact (function H)

Provides the status of the protection device, OPEN/CLOSED.

More technical data ● website  
Dimensions ● pg C.12

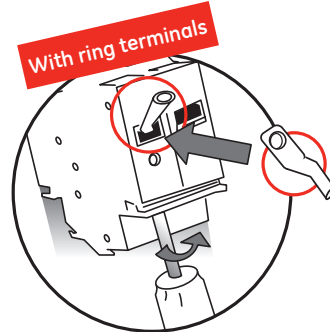
### Series CBT

Contact combination	Cat. No.	Ref. No.	Pack.
1NO+1NC	CBT H NO-NC	667249	1
2NC	CBT H 2NC	667250	1
2NO	CBT H 2NO	667251	1



## Shunt trip (Distance tripping by emission)

### Series Tele LT



The miniature circuit breakers in RAIL-design have been developed with regard to shakes, shocks and vibrations

### Features

- Tele LT accepts ring terminals on wires
- Certified acc. new CEI UNI 11170 (higher protection against fires)
- Certified acc. to NF 16-101, smoke index F1
- Shock and vibrations tests acc. to IEC 61373

### Technical data

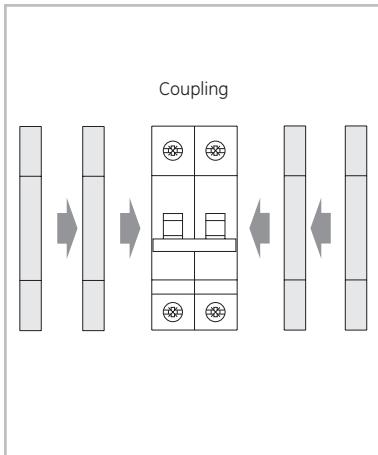
<b>Rated voltage</b>	(V) 110/415 ~ 110/128/150 ---
	(V) 24/60 ~ 24/48 ---
<b>Tripping time</b>	(ms) <10
<b>Electrical endurance</b>	10.000
<b>Terminal capacity flexible/rigid cable</b>	(mm <sup>2</sup> ) 2.5
<b>Unloosable screws</b>	Pozidrive 2
<b>U<sub>min</sub></b>	(V) 0,70 x Un
<b>U<sub>max</sub></b>	(V) 1.25 x Un

### Standards / Marking

EN 60898, EN 60947-2, UNI CEI 11170, EN 61373

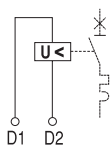
### Approval

Trenitalia n° 371441.01



More technical data ● website  
Dimensions ● pg C.12

### Tele LT



1/2 mod.

Voltage	Cat. No.	Ref. .No.	Pack.
CA 110/415 V ~ CC 110/128/150 V =	TELE LT-1	667252	1
CA 24/60 V ~ CC 24/48 V =	TELE LT-2	667253	1

Series CBT

A

B

C

D

E

F

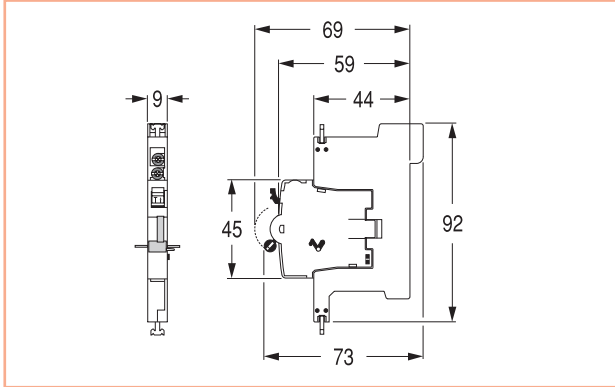
G

X

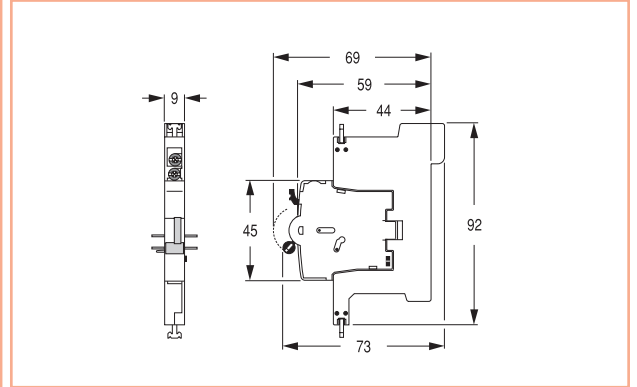


**Dimensional drawings**

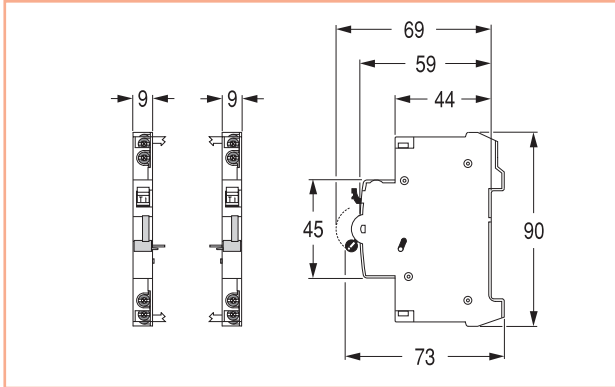
**Auxiliary - Series CA**



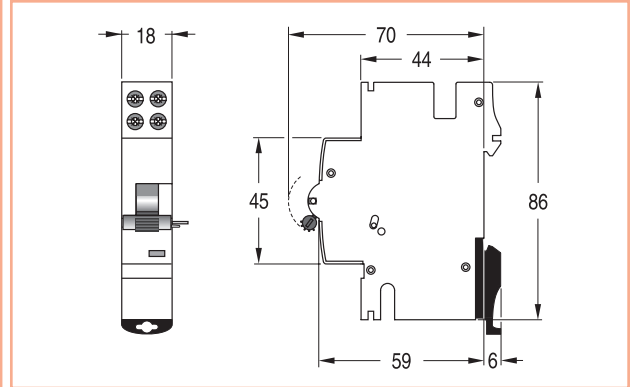
**Auxiliary interface - Series CA - Unibis™**



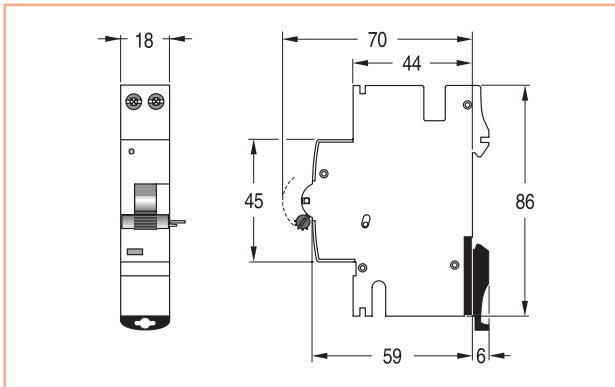
**Auxiliary - Series CB / CBT**



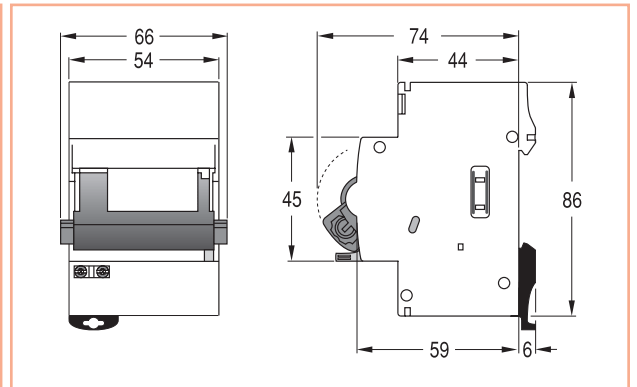
**Shunt Trip - Tele L / Tele LT**



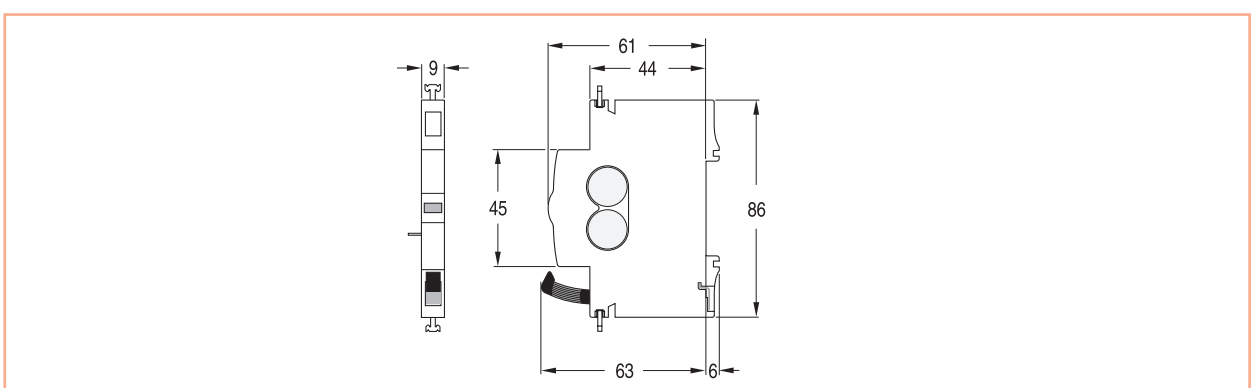
**Undervoltage Release - Tele U**



**Motor operator - Tele MP**



**Panel board switch - PBS**



Add-on-devices

A

B

C

D

E

F

G

X



# GE Consumer & Industrial Power Protection

Power Protection, a division of GE Consumer & Industrial, is a first class European supplier of low-voltage products including wiring devices, residential and industrial electrical distribution components, automation products, enclosures and switchboards. Demand for the company's products comes from, wholesalers, installers, panel-board builders, contractors, OEMs and utilities worldwide.

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