

compact electronic Residual Current Circuit Breaker with Overcurrent Protection

Switched neutral line



Special
earth fault
high-frequency
filter

AEG

ceRCBO

compact electronic RCBO Switched neutral line

Combining the features of Miniature Circuit Breaker & Residual Current Circuit Breaker

- ✓ Functionally dependent on line voltage, minimum supply voltage 85V
- ✓ Energy limiting class 3:
highest energy limiting performance for optimal protection of cable insulation and maximally reducing risk of fire and other damage
- ✓ The terminals accept not only wires but also time saving PIN busbars

General view



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Compact electronic Residual Current Circuit Breaker with Overcurrent Protection - Neutral Switch



Series DECA90NS / DEICA90NS

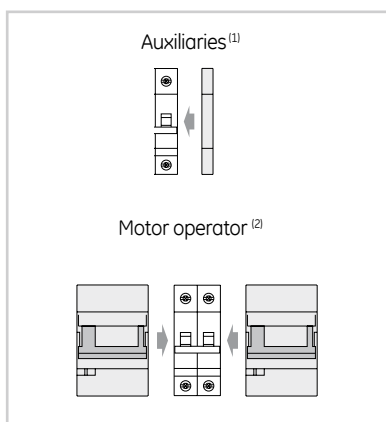
EN/ IEC 61009-1 ed3.2 (2013-09), BS EN 61009-1:2012
and AS/NZS 61009-1:20011

6000
3

Type A

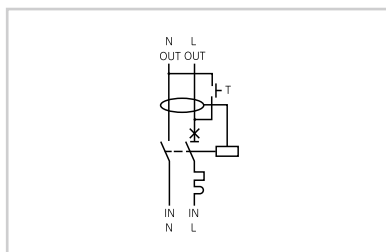


Add-on devices



- (1) Series CA UN auxiliary contact right side mounted is interface to make compatible all extensions CA, CB, Tele L, Tele U, PSB
(2) Tele MP can be mounted on both sides

Wiring



Switched neutral

Performance

Thermal setting I_n	(A)	6, 10, 13, 16, 20, 25, 32
Residual current	(mA)	30
Tripping characteristics		B, C
Rated voltage AC U_n	(V)	240
Minimum operating voltage U_b min.	(V)	85
Mechanical / electrical endurance		20.000/10.000
Tropicalisation acc. to EN/IEC 60068-2-30		95%RH at 55°C
terminal capacity flexible /rigid cable	(mm ²)	16 ⁽¹⁾ /25 ⁽²⁾
Poles		1P+N ⁽³⁾ (1 module)
Nuisance tripping resistance	(A)	250A
Ambient temperature	(°C)	5°C...60°C
Weight / mod.	(g)	125g

Short-circuit capacity

Acc. To EN/IEC 61009-1

Residual making and braking capacity	$I_{\Delta m}$ =3000A
Short-circuit capacity	I_{cn} = 6000 A at 240V
Energy limiting class	3

TERMINALS CAPACITY

- (1) Flexible copper wires from 1,5mm² up to 16mm²
(2) Rigid copper wires from 1mm² up to 25mm²
25mm² wires need be reshaped before the terminal can accept them.
(3) Switched Neutral on the left

Dimensions Page 8

Series DECA90NS

Type A - characteristic C - Domestic application



1P + N

		30 mA		
In (A)	Cat. No.	Ref. No.	Pack	
6	DECA90C06/030NS	694865	1	
10	DECA90C10/030NS	694866		
13	DECA90C13/030NS	694867		
16	DECA90C16/030NS	694868		
20	DECA90C20/030NS	694869		
25	DECA90C25/030NS	694870		
32	DECA90C32/030NS	694871		

Type A - characteristic B - Domestic application



1P + N

		30 mA		
In (A)	Cat. No.	Ref. No.	Pack	
6	DECA90B06/030NS	694858	1	
10	DECA90B10/030NS	694859		
13	DECA90B13/030NS	694860		
16	DECA90B16/030NS	694861		
20	DECA90B20/030NS	694862		
25	DECA90B25/030NS	694863		
32	DECA90B32/030NS	694864		

Series DEICA90NS

Type A - characteristic B - Industrial application



Switched neutral

1P + N

		30 mA		
In (A)	Cat. No.	Ref. No.	Pack	
6	DEICA90B06/030NS	694872	1	
10	DEICA90B10/030NS	694873		
16	DEICA90B16/030NS	694874		
20	DEICA90B20/030NS	694875		
25	DEICA90B25/030NS	694876		
32	DEICA90B32/030NS	694877		

Type A - characteristic C - Industrial application



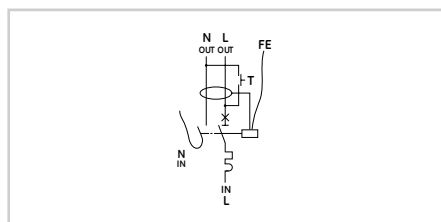
Switched neutral

1P + N

		30 mA		
In (A)	Cat. No.	Ref. No.	Pack	
6	DEICA90C06/030NS	694878	1	
10	DEICA90C10/030NS	694879		
16	DEICA90C16/030NS	694880		
20	DEICA90C20/030NS	694881		
25	DEICA90C25/030NS	694882		
32	DEICA90C32/030NS	694883		

Available for fork busbar system at bottom side

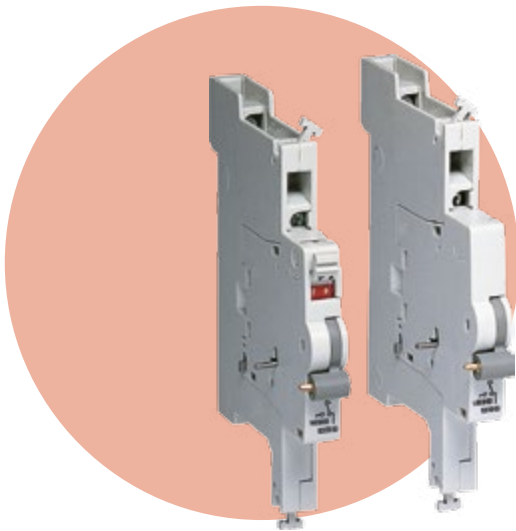
Wiring



Technical data

Series		DECA90NS / DEICA90NS	
Standards		EN/ IEC 61009-1 ed3.2 (2013-09), BS EN 61009-1:2012 and AS/NZS 61009-1:20011	
Magnetic tripping characteristics		C, B	
Residual tripping characteristics		A	
Tripping time at I Δn	Instantaneous	ms	<40
Rated current		A	6-32
Rated residual current I Δn		mA	30
Calibration temperature		°C	30
Number of poles (# mod.)			1P+N SWITCH (1 module)
Rated voltage Un	2P AC	V	240
Frequency		Hz	50
Maximum service voltage Ub max		V	265
Minimum service voltage Ub min		V	85
Minimum voltage for leakage protection		V	85
Power supply			Bottom
Energy limiting class			3
Residual making and breaking capacity (IΔm)			4500
Rated short-circuit capacity (Icn)		A	6000
Isolator application			Yes
Insulation degree	Insulation voltage	V(DC)	440
	Shock voltage (1,2/50us)	kV	6
	Insulation resistance	Mohm	1000
	Dielectric strength	V	2500
Shock resistance (in x, y, z direction) (EN/IEC 60077/16.3)			40g, 18 shocks 5 ms
Vibration resistance (in x, y, z direction) (EN/IEC 60068-2-6)			1.5g, 30 min, 0..80Hz
Endurance	electrical at Un,In		10.000
	mechanical		20.000
Protection degree EN60529 (outside/inside electrical enclosure with door)			IP20/IP40
Self-extinguish degree (according to UL94)			V2
Tropicalisation (according to EN/IEC 60068-2, DIN 40046)		°C/RH	55°C/95%
Pollution degree (acc. EN/IEC 60947-1)			3
Operating temperature		°C	-5..+60
Storage temperature		°C	-25..+70
Terminal capacity	rigid cable min/max (top)	mm ²	1/25
	flexible cable min/max (top)	mm ²	1,5/16
	rigid cable min/max (bottom)	mm ²	1/25
	flexible cable min/max (bottom)	mm ²	1,5/16
Torque top/bottom (max)		Nm	3
Add-on devices (side add-on)	Auxiliary contacts		yes CA UN
	Tele U		yes ⁽¹⁾
	Tele L		yes ⁽¹⁾
	Tele MP		yes ⁽¹⁾
	PBS		yes ⁽¹⁾
Maximum add-on combinations (on the right)			1x CA UN+3xCA H + 1x TeleL + 1x Tele U
Busbar systems	Pin (top/bottom)		Bottom
	Fork (top/bottom)		no/no / no/yes
Accessories			yes
Width per mod.		mm	18
Weight per mod.		gr	125
Package		pcs	1/12
Approvals			CEBEC; RCM
CE-marking			yes
(1) Requires CA UN auxiliary contact as interface			
Short circuit capacity		DECA90NS / DEICA90NS	
Series			
Short-circuit capacity acc. To EN/IEC 61009-1 (Icn) at 230Vac		A	3000
Service short-circuit capacity (Ics)		A	6000

Interface auxiliary contacts

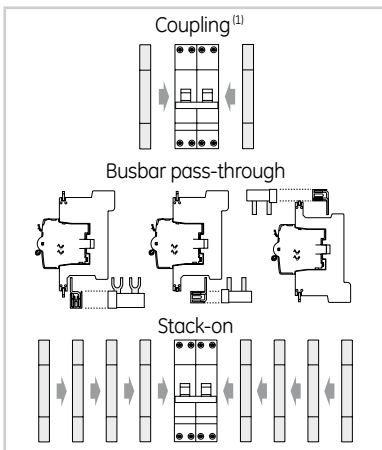


Series CA UN

EN/IEC 62019



Add-on devices



(1) 3P Unibis™ MCBs accept CA UN only on the left side

Function

- Especially designed for Unibis MCBs, Unibis RCBOs and ceRCBO, however also valid for all modular protection devices: MCBs and RCBOs up to 63A, RCCBs up to 100A and mains disconnect switches Series ASR.
- Can be coupled on both sides of MCBs(1), Unibis RCBOs, modular switches Series ASR and right side of ceRCBO.
- Version with golden contacts, available for low current as well as low voltage applications.
- Stack-on left or right up to 4 CA UN units.
- Permits the pass-through of busbars, pin and fork, top and bottom: just changing the position of the base of the auxiliaries.

Performance

Change-over contacts		1
Rated current I_n	(A)	5
Rated voltage AC U_n	(V)	240
Electrical endurance		10000
Terminal capacity flexible / rigid cable	(mm ²)	2,5
Weight	(g)	70
Torque	(Nm)	0,8

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 and Unibis RCBO ranges.

Example: to couple the undervoltage release Tele U to a Unibis* RCBO, the CA UN 672972 has to be added in between the RCBO 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 UN H (function H)

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

Signal or auxiliary contact CA UN S/H,

CA UN 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 MCBs, earth leakage tripping for RCDs or both for RCBOs.

- 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 UN

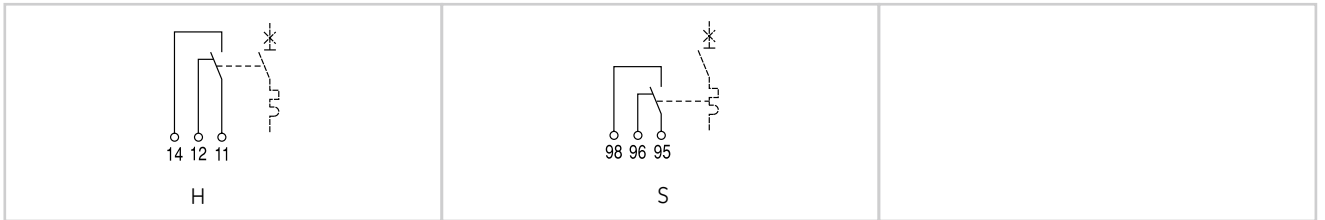
Interface auxiliary contacts



1/2 mod. H CA

Function	Cat. No.	Ref. No.	Pack
H	CA UN H	672977	1
S/H	CA UN S/H	672978	

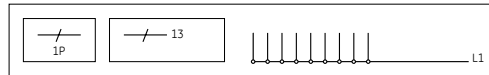
Wiring



Busbars

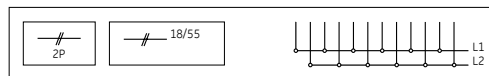
Insulated PIN type busbars for DECA90NS on bottom terminals

1-phase 90° for ceRCBO neutral switch



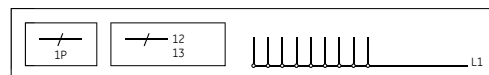
Section	Function	Ref. No.	Pack
10	13 x 1P - 90° - grey	646091	15
10	13 x 1P - 90° - blue	646092	

1-phase + N 90° for ceRCBO neutral switch



Section	Function	Ref. No.	Pack
10	18 x 1P+N / 2P	624796	20
10	55 x 1P+N / 2P - length 1m	624893 ⁽¹⁾	1/20

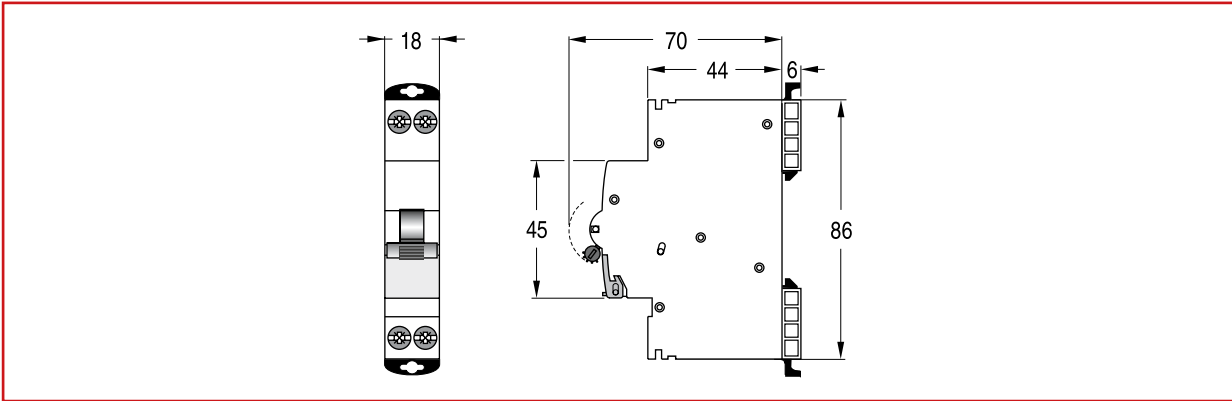
1-phase+N for ceRCBO neutral switch with supply terminals



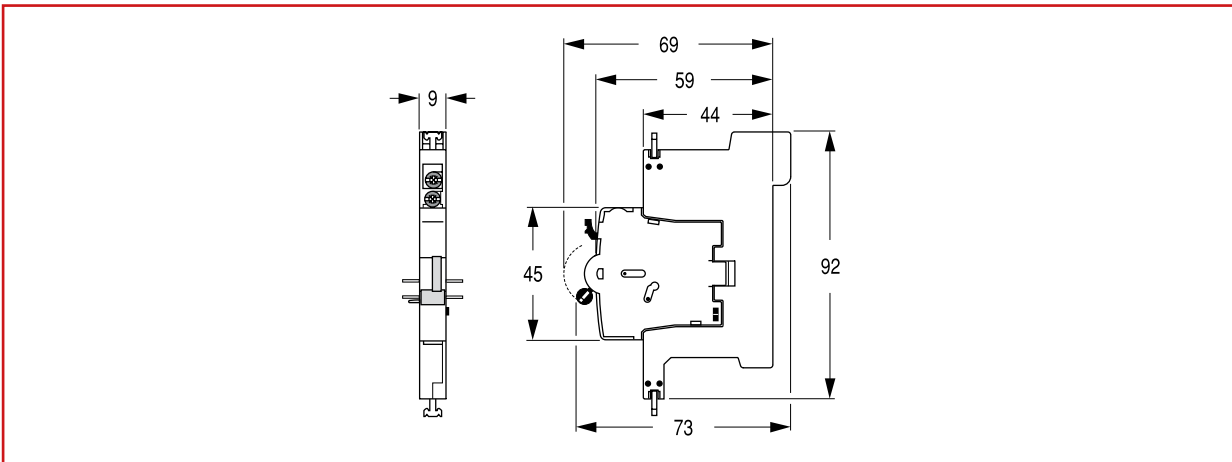
Section	Function	Ref. No.	Pack
10	S PHN 12 ceRCBO NS	624816	1/10
10	S PHN 13 ceRCBO NS	624828	

Dimensions

ceRCBO - Series DECA90NS / DEICA90NS



Interface auxiliary contacts - Series CA UN



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