

# Acti9 iC60 RCBOs (DIN RAIL Option)

Catalogue 2025



[se.com](http://se.com)

**Schneider**  
Electric

# Protection Earth leakage protection

## Acti9 Residual current device iC60 RCBO 6000 A



AS/NZS 61009.1  
IEC 61009-1, IEC 61009-2-1



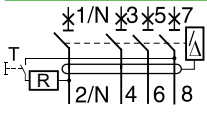
As per the above standards:

The iC60 RCBO residual current device provides:

- protection of final circuits against overcurrents and short-circuits.
- protection for people against electric shocks by direct contacts.
- earth fault indication by a red mechanical indicator in front face.

The A-SI type provides increased immunity from electrical interference.



iC60 RCBO 6000 400 - 415 V AC			
Type	A 	A-SI 	Width in 9-mm modules
Curve	C	C	
Sensitivity (I $\Delta$ n)	30 mA	30 mA	
4P			8
	Rating (In)	10 A A9D67410	A9D77410
		16 A A9D67416	A9D77416
		20 A A9D67420	A9D77420
		25 A A9D67425	A9D77425
		32 A A9D67432	A9D77432
Voltage rating (Ue)	400 - 415 V AC		
Operating frequency	50 Hz		
Auxiliaries and accessories	Catalog module CA902045E		

# Protection

## Earth leakage protection

# Acti9 Residual current device iC60 RCBO

## 10000 A



AS/NZS 61009.1  
IEC 61009-1, IEC 61009-2-1



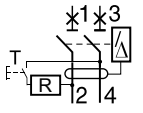
As per the above standards:  
The iC60 RCBO residual current device provides:

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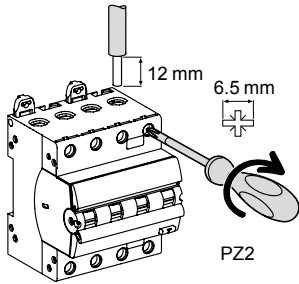


## Catalog numbers

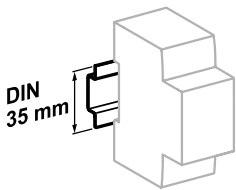
iC60 RCBO 10000 230 - 240 V AC				
Type	A 	A-SI 	Width in 9-mm modules	
Curve	C	C		
2P	Sensitivity (I $\Delta$ n)	30 mA	30 mA	
	Rating (In)	10 A	A9D17210	A9D27210
		16 A	A9D17216	A9D27216
		20 A	A9D17220	A9D27220
		25 A	A9D17225	A9D27225
		32 A	A9D17232	A9D27232
Voltage rating (Ue)		230 - 240 V AC		
Operating frequency		50 Hz		
Auxiliaries and accessories		Catalog module CA902045E		

# Acti9 Residual current device iC60 RCBO (cont.)

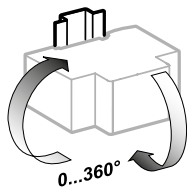
## Connection



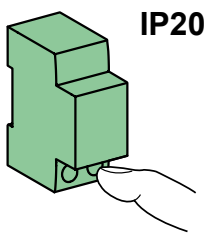
Rating	Tightening torque	Copper cables		Multi cables configuration	
		Rigid	Flexible or with ferrule	Rigid	Flexible
10 to 32 A	2 N.m	1 to 35 mm <sup>2</sup>	1 to 25 mm <sup>2</sup>	2 x 16 mm <sup>2</sup>	2 x 16 mm <sup>2</sup>



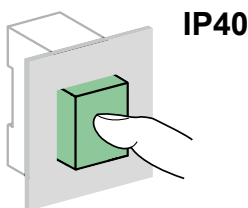
Clip on DIN rail 35 mm.



Indifferent position of installation.





IP20

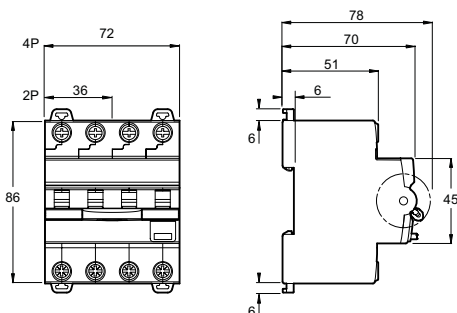


IP40

## Technical characteristics

Main characteristics	6000 A	10000 A
Insulation voltage (U <sub>i</sub> )	500 V	
Rated impulse withstand voltage (U <sub>imp</sub> )	4 kV	
Rated residual operating current (I <sub>Δn</sub> )	30 mA	
Earth leakage protection type	A, A-SI	
Thermal tripping	Reference temperature	30°C
Magnetic tripping	Curve C	Between 5 and 10 I <sub>n</sub>
Limitation class	2P	3
	4P	3
Surge current withstand (8/20 μs) without tripping	A Type	250 Å
	A-SI Type	3 kÅ
<b>According to IEC/EN 61009-1 and IEC/EN 61009-2-1</b>		
Rated breaking capacity (I <sub>cn</sub> )	6000 A	10000 A
Service breaking capacity (I <sub>cs</sub> )	1 x I <sub>cn</sub>	0,75 x I <sub>cn</sub>
Rated residual breaking and making capacity phase/earth (I <sub>Δm</sub> )	6000 A	6000 A
Behaviour in case of voltage drop		Residual current protection down to 0 V according to IEC/EN 61008-1 § 3.3.4
<b>According to IEC/EN 60947-2</b>		
Ultimate breaking capacity (I <sub>cu</sub> )	6 kA	15 kA
Service breaking capacity (I <sub>cs</sub> )	100 % of I <sub>cu</sub>	50 % of I <sub>cu</sub>
<b>Additional characteristics</b>		
Degree of protection	Device only	IP20
	Device in modular enclosure	IP40
Endurance (O-C)	Electrical	10,000 cycles
	Mechanical	20,000 cycles
Overvoltage category (IEC 60364)	III	
Operating temperature		-25°C to +60°C
Storage temperature	-40°C to +70°C	
Range of test button operating voltage	2P	195.5...264 V AC
	4P	195.5...264 V AC
Tropicalization	Treatment 2 (relative humidity 95 % to 55°C)	

## Dimensions (mm)

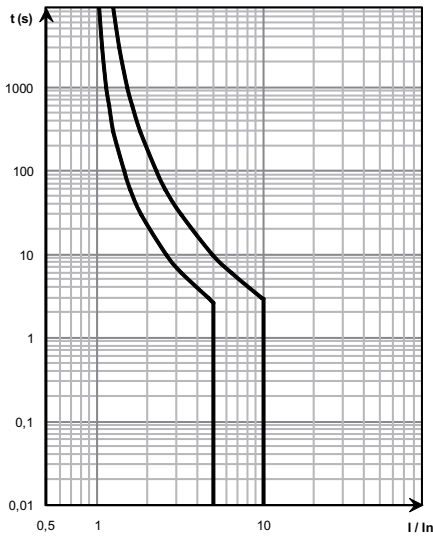


## Weight (g)

Residual current device	
Type	iC60 RCBO
2P	234
4P	445

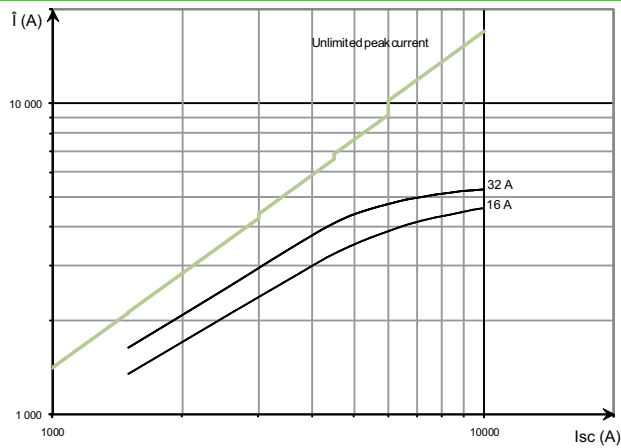
# Acti9 Residual current device iC60 RCBO (cont.)

## Tripping curves

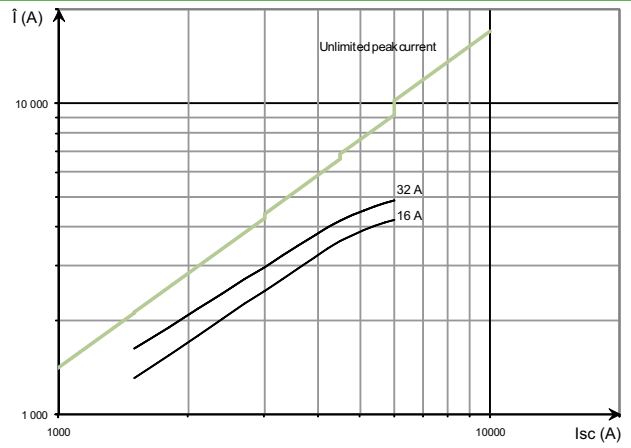


C curve

## Peak limitation curves

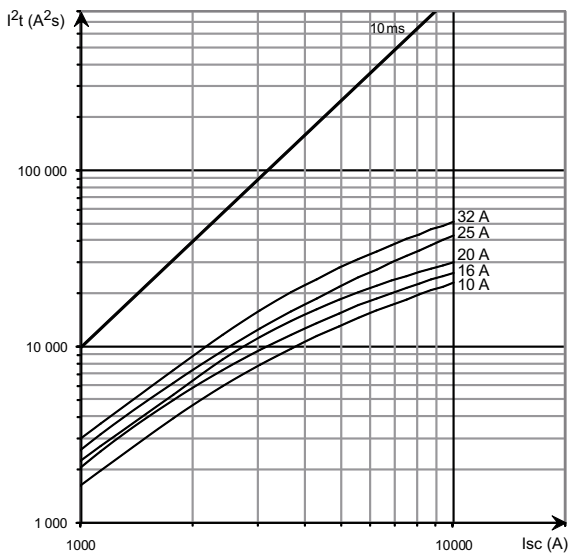


iC60 RCBO 10000 A - 2P - 230 V

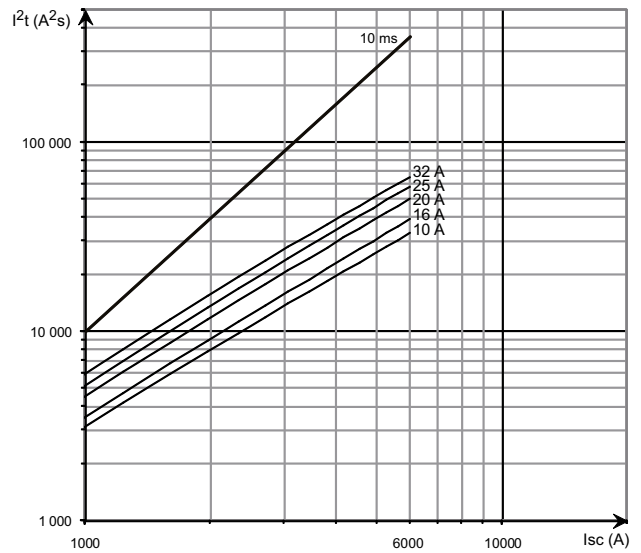


iC60 RCBO 6000 A - 4P - 400 V

## Energy curves



iC60 RCBO 10000 A - 2P - 230 V



iC60 RCBO 6000 A - 4P - 400 V

## Acti9 Residual current device iC60 RCBO (cont.)

Power loss per pole					
Rating (In)	10 A	16 A	20 A	25 A	32 A
R (mΩ)	20.6	8.9	6.8	4.6	3.6
P (W)	2.06	2.28	2.72	2.88	3.67

Temperature derating (A)										
Rating (In)	Temperature									
	-25°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C
10 A	13	12.7	12.35	12	11.8	10.8	10	9.6	9.1	8.6
16 A	21.1	20.6	20	19.1	18.2	17.2	16	15.2	14.3	13.4
20 A	26.2	25.5	24.4	24	22.8	21.4	20	19.5	14.3	18.4
25 A	32.4	31.6	30.7	29.9	28.5	26.8	25	24	23	22
32 A	42.3	41.1	40	38.8	36.5	34.2	32	30.8	29.5	28.8

# FAQs on load balancing

## 1. Can I use iC60 4P RCBO to protect 3 Phase motor (balanced load)?

- **Yes**, incoming supply neutral **MUST** be connected to terminal 1 if supplied from top or terminal 2 if supplied from bottom.
- Ensure all unused terminals are closed and safe from foreign objects.

Refer schematic 1

## 2. Can I use iC60 4P RCBO to protect 2 Phase balanced loads? ( $U_e = 400/415 \text{ V AC}$ )

- **Yes**, however the incoming supply neutral **MUST** be connected to terminal 1 if supplied from top or terminal 2 if supplied from bottom and one of the Phases **MUST** be connected to terminal 7 or terminal 8.
- Ensure all unused terminals are closed and safe from foreign objects.

Refer schematic 2

## 3. Can I use iC60 4P RCBO to protect Single Phase hot water system with Non-Simultaneous Off-Peak booster element? ( $U_e = 230/240 \text{ V AC}$ )

- **Yes**, however the normal supply **MUST** be connected to terminal 7 if supplied from top or terminal 8 if supplied from bottom for test button to operate. Off-peak supply may be connected to terminals 3, 4, 5 or 6.
- Ensure all unused terminals are closed and safe from foreign objects.

Refer schematic 3

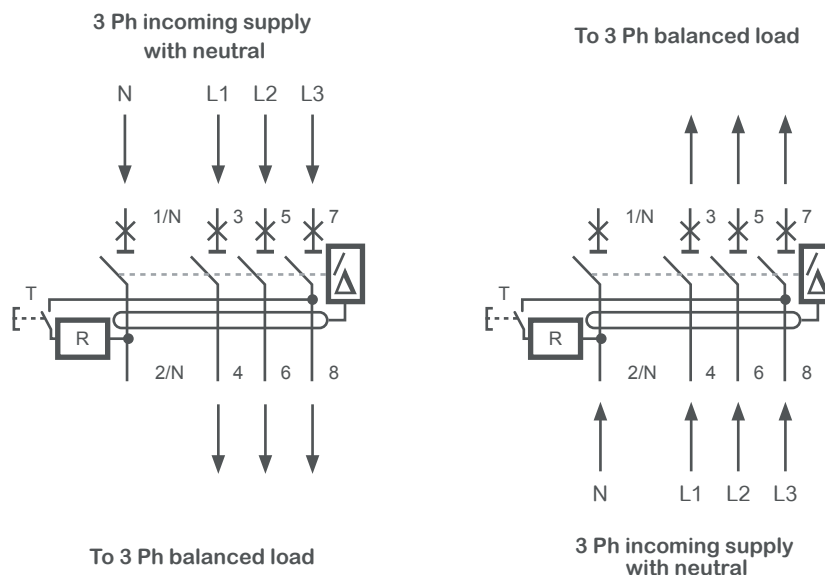
## 4. Are iC60 2P/4P RCBO's bi-directional?

- **Yes**, due to the **Voltage Independent** technology used for residual current detection, iC60 2P/4P RCBO's are suitable for supply connections to be either top or bottom of device.

# Ways to represent the connection:

## Three Phase balanced load connection:

- Supply neutral **MUST** be connected
- Ensure unused terminal is closed and clear of foreign objects

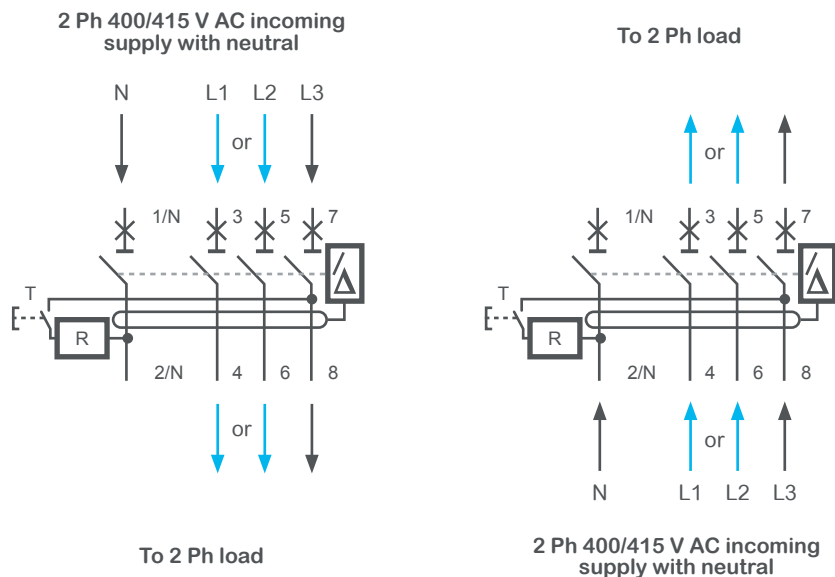


Schematic 1

# Ways to represent the connection:

## Two Phase load connection:

- Supply neutral **MUST** be connected
- Phases **MUST** be connected to terminal 7/8 and terminals 3/4 or 5/6
- Ensure unused terminals are closed and clear of foreign objects

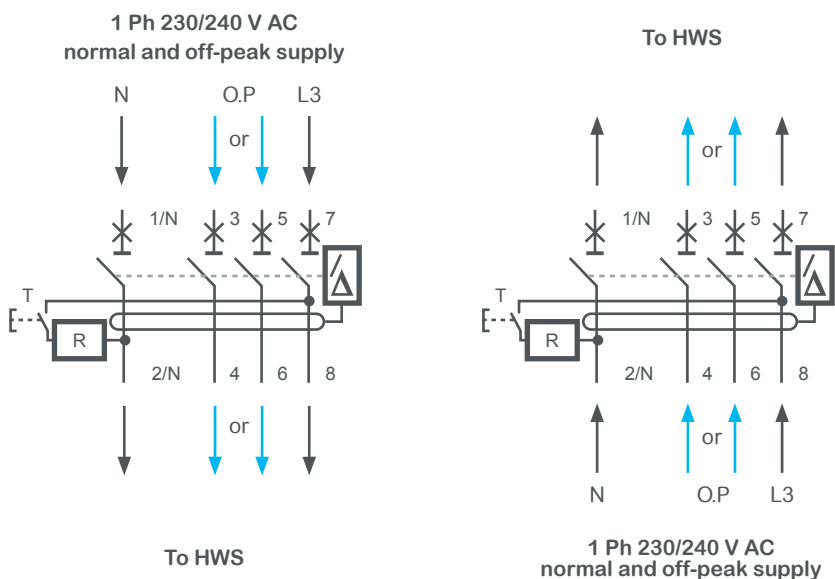


Blue arrow represents optional connection

**Schematic 2**

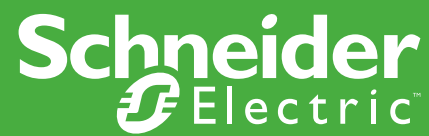
## Single Phase hot water connection with Non-Simultaneous elements:

- **NORMAL** supply **MUST** be connected to terminal 7/8 and **OFF-PEAK** supply connected to terminals 3/4 or 5/6
- Ensure unused terminals are closed and clear of foreign objects



Blue arrow represents off-peak supply

**Schematic 3**



**Schneider Electric (Australia) Pty. Ltd.**

Head Office  
2 Banfield Road, Macquairie Park, NSW, 2113  
New South Wales  
Phone: 13 73 28 (13SEAU)

**Customer Service**

telephone: 13 73 28 (13SEAU)  
e-mail: [customercare.au@se.com](mailto:customercare.au@se.com)  
website AU: [www.se.com/au](http://www.se.com/au)  
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