

RCBOs prohibition

Q&A

A RCBO is a combination residual current device (RCD) and circuit breaker (CB).

- [ESV's list of approved RCBOs](#)

1. What is a compact RCBO?

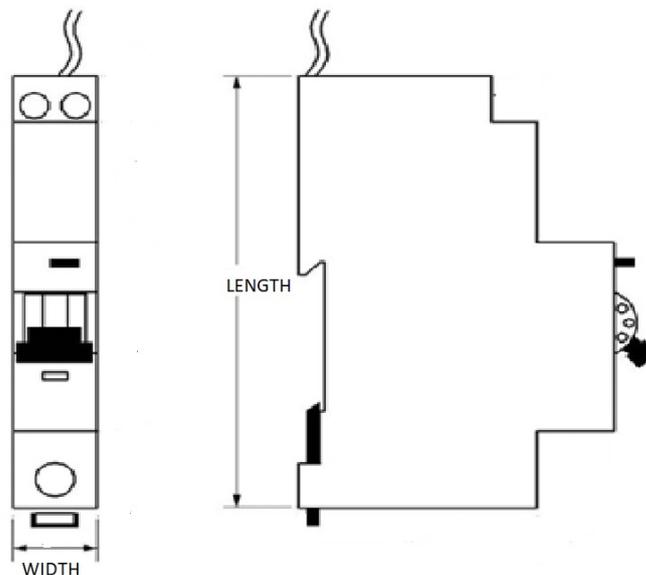
Any DIN Rail mountable RCD with integral overcurrent protection that either—

- a. meets the following criteria, namely:
 - i. it is less than 110 mm in length (excluding any external clips); and
 - ii. it has a rated short circuit breaking capacity of less than 10 kilo amps; or
- b. is marked or marketed as being for household or residential use.

2. What types of RCBOs are not prohibited?

The prohibition does not apply to RCBOs that:

- are greater than 110mm in length (refer to the diagram below)
- have a short circuit breaking capacity of 10kA or greater.



3. Is the prohibition applicable in other states or territories?

No, the prohibition is only applicable in Victoria.

4. Why have other states and territories not prohibited RCBOs?

ESV only has jurisdiction in Victoria and cannot mandate additional requirements in other states and territories.

ESV's investigation into RCBOs was instigated by a fatality in August 2016 in which it was found that a commonly used RCBO failed to operate. ESV's investigation found that the RCD function of certain RCBO's can be rendered permanently inoperable in the following circumstances.

- The device is installed or wired in the opposite orientation to the one indicated by the manufacturer.
- The RCBO is installed and wired in the correct orientation, however there is a defect in the installation downstream from the device and there is 240V present on the load terminals when the device is in the 'off' position.

The prohibition addresses this issue by ensuring that only RCBOs that do not have this design issue may be supplied in Victoria.

5. I am installing RCBOs in a commercial or industrial installation – does the prohibition apply to me?

Yes. If the RCBO meets the criteria of a compact RCBO as defined above and is not on ESV's list of approved RCBO's, it cannot be installed in a commercial or industrial installation.

6. I have installed RCBOs before the prohibition date. Can I issue a COES, invoice my customer or receive payment after the prohibition date?

Yes, if the RCBO was installed before the prohibition date. However, we recommend that RCBOs compliant with our requirements are installed.

7. Can I replace a defective RCBO with the same brand and model (as a repair), which is not on the approved list?

No, only RCBOs on ESV's list of approved RCBOs can be installed after the date of prohibition.

8. If a prohibited RCBO is provided to me by the consumer, can I install it?

After 3 July 2019, it is an offence for any person to supply a consumer in Victoria with a prohibited RCBO. If a consumer requests the installation of a prohibited RCBO they already have in their possession, you may do so without committing an offence.

Installation of a prohibited RCBO is not recommended. Should a prohibited RCBO fail to operate causing death or injury, the installing contractor and electrician may be at risk of being sued for negligence.

If a consumer has purchased an RCBO in Victoria after 3 July 2019, then the supplier has committed an offence.

If you suspect that prohibited RCBO's have been illegally supplied to a consumer, you should report this to ESV for investigation.

9. The switchboard I am working on is not suited to other brands of RCBOs, what can I do?

Only RCBOs listed on ESV's website can be installed. Therefore, alternative measures and/or products may need to be considered.

10. Can I use my current stock of RCBOs despite not being listed on ESV's list of approved RCBO's?

No. Only RCBO's on ESV's list of approved RCBOs can be installed after the date of prohibition.

11. I quoted a project with a brand of RCBO that is not on ESV's list of approved RCBOs. Can I obtain an exemption from ESV to install the RCBOs I quoted to use?

No. The prohibition is on the supply of RCBOs.

An electrician cannot supply or install RCBOs that are not on ESV's list of approved RCBO's after the date of prohibition.

12. A client has specified that I use a particular brand of RCBO that is not on ESV's list of approved RCBOs. Can they obtain exemption from ESV to allow me to install the specified RCBOs?

No. The prohibition prevents an electrician from the supply or installation of an RCBO that is not on ESV's list of approved RCBOs.

13. Are two pole RCBOs included in the prohibition?

All RCBOs that meet the definition of a compact RCBO are prohibited, except those on ESV's list of approved RCBOs.

Definition of a compact RCBO

Any DIN Rail mountable RCD with integral overcurrent protection that either:

- a. meets both of the following criteria, namely:
 - i. it is less than 110 mm in length (excluding any external clips); and
 - ii. it has a rated short circuit breaking capacity of less than 10 kilo amps; or
- b. is marked or marketed as being for household or residential use.

14. Can I perform my own test on a RCBO not listed on ESV's approved RCBOs to determine if it meets ESV's requirements?

No. In order for an RCBO to be included on ESV's list of approved RCBOs, the manufacturer must prove their product meets ESV's requirements.

15. How do I test an installed RCBO to ensure it will work satisfactorily?

Push the RCBO's test button and hold it for at least five seconds, even if the switch turns off. Turn the RCBO back on and press the test button again. The RCBO should turn off.

If the RCBO does not switch off, the RCBO is defective and should be replaced.

16. Subsequent to the date of prohibition, can I sign a 'safe' prescribed COES for the installation of a switchboard with RCBOs that are not on ESV's list of approved RCBOs?

Yes, provided the RCBOs fitted were installed prior to the prohibition date.

17. I recently audited an installation where RCBOs fitted were not on ESV's list of approved RCBOs. I have determined that the RCBOs were installed after the date of prohibition. What should I do?

You will need to notify the owner/occupier that the RCBOs fitted are not on ESV's list of approved RCBO's. You will also need to notify the REC in writing of the defect.

What is the defect code?

111006 – Technical defect.

18. Does the prohibition apply to RCBOs that are in other pieces of equipment?

The prohibition applies to all applicable RCBOs, even if they are integrated in other electrical equipment such as preassembled switchboards.

19. Can I sell a premises second hand equipment or hire equipment that have RCBOs that are not on the approved list, but are part of the prohibition?

ESV will not enforce the prohibition against consumers and business owners in relation to RCBOs already installed in their premises or equipment e.g. sale of houses, second hand boats, caravans, or hire of temporary switch boards or other equipment.

20. Why is ESV not recalling the RCBOs?

A recall would require the removal of all RCBOs from all installations in the state; this would be a disproportionate response to the risk.

Instead, ESV is opting to prohibit the supply of further product and so stop the potential problem from growing, while encouraging the testing of in-service RCBOs to confirm that they still work. This has the added advantage of detecting any RCBOs that may be faulty for other reasons.

21. What should I do if I find a RCBO that does not operate?

The homeowner should be notified, and the unit should be replaced as soon as possible.

The faulty RCBO along with the following details should be sent to ESV at the below address.

Details to accompany the RCBO

- Description of the fault
- Approximate age of the RCBO, if possible
- Address of the installation
- Your contact details

Send required details to:

Attention: Electrical Equipment Safety
RCBO Compliance
Energy Safe Victoria
Level 5, 4 Riverside Quay
SOUTHBANK VIC 3006

More information

For more information, contact ESV Electrical Technical helpline on (03) 9203 9700 (option 2) or email ElectricalInstallationEnquiries@energysafe.vic.gov.au