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RX RCCBs Vivienda
2P up to 40A

Cat.Nos: 4 320 56 - 4 320 57 - 4 320 59 - 4 320 60
4 320 78 - 4 320 79

CONTENTS **PAGE**

1. Use 1
2. Range 1
3. Technical characteristics 1
4. Dimensions and weights 2
5. Fixing and connection 2
6. Auxiliaries and accessories 3
7. Marking 3
8. Standards and regulations 3
9. Safety 3
10. Other information 4

1. USE

Legrand RX residual current circuit breaker (RCCB) with positive contact indication is used for control, protection and isolation of electrical circuits, protecting people from direct and indirect contact and protecting installations from insulation faults.
When the handle is at the bottom position, the residual current is released.

2. RANGE

RCCBs with screw terminals, 1 module per pole.

Cat.No	In (A)	Type	Sensitivity
4 320 56	25	AC	30 mA
4 320 57	40		
4 320 59	25	A	
4 320 60	40		
4 320 78	25	F	
4 320 79	40		

3. TECHNICAL CHARACTERISTICS

■ 3.1 Technology

Electromagnetic residual current function with current-sensing relaytechnology.

■ 3.2 Electrical characteristics

Polarity	2P
Rated current (In)	25 A/40 A
Rated Voltage and Frequency	230 V~/240 V~ Can be used at 60Hz
Residual current types	AC (sinusoidal differential alternating currents) A (residual currents with a DC component) F (immunity against false tripping)
Sensitivity	30 mA
Maximum operating voltage	230 V~
Test operating voltage	30 mA-AC type: from 180 V to 250 V~ 30 mA-A type: from 180 V to 250 V~ 30 mA-F type: from 180 V to 250 V~
Rated breaking and making capacity: In accordance with EN/IEC 61008-1	In = 25 A/40 A, Im = 500 A
Width	2 modules (2 x 17.8 mm)
Rated conditional short-circuit current	Inc = 6 kA, in accordance with EN/IEC 61008-1
Rated conditional short-circuit residual current	IΔc = 6 kA, in accordance with EN/IEC 61008-1
Rated residual breaking capacity	IΔm = 1000 A, in accordance with EN/IEC 61008-1
Isolation distance (distance between the contacts) Handle in open position - O-OFF	Greater than 4.5 mm
Rated insulation voltage Ui	250 V
Insulation resistance	2 MΩ
Degree of pollution	2
Dielectric strength	2000 V, 50 Hz
Impulse withstand voltage Uimp	4 kV
Protection from false tripping	0.5 µs/100 kHz damped recurring wave = 200 A, 8/20 µs wave: A/AC type = 250 A
Electrical endurance: Conforms to standard NF EN 61008-1	10 000 operations with load (at In x cos φ 0.9), 2 000 residual current trip operations using the test button or the fault current
DC operation	Cannot be used with DC
Neutral earthing system	IT, TT and TN
Mechanical endurance: Conforms to standard NF EN 61008-1	20 000 operations without load

■ 3.3 Power dissipated by the device

RCCB		Power dissipated by the device (In)		
Rating	**Sensitivity**	**AC type**	**A type**	**F type**
25 A	30 mA	1.6 W	1.5 W	0.5 W
40 A	30 mA	4 W	4 W	1.2 W

3. TECHNICAL CHARACTERISTICS *(continued)*

■ 3.4 Mechanical characteristics

Enclosure heat and fire resistance
Resistance to incandescent wire tests at 960 °C, in accordance with standard IEC/EN 61008-1.
Classification V2, in accordance with standard UL94.

Plastic materials
Parts made of polyamide and P.B.T. Zero halogen plastic materials.
Labelling compliant with ISO 11469 and ISO 1043.

Precious metal
Silver: < 0.04 g per pole.
No gold.

Protection classes:
Terminals protected against direct contact: IP20 (with faceplate)
Front side protected against direct contact: IP40
Class II in relation to metallic conductive parts
Protection against impacts: IK04

Device's upper heating value
Estimated heating value of a 25 A or 40 A 30 mA AC device: 2.41 MJ

Sinusoidal vibration resistance
In accordance with IEC 68.2.6:

Axis	x, y, z
Frequency range	10 to 55 Hz
Acceleration	3 g (1 g = 9.81 m.s^{-2})

■ 3.5 Climatic characteristics

Ambient temperature:
Operating: - 25 °C / + 60 °C
Storage: - 40 °C / + 70 °C
Appropriate to operate in humid atmosphere and polluted by a chlorined environment (pool-type).

■ 3.6 Derating

Temperature derating
Reference temperature: 30 °C in accordance with EN/IEC 60947-2.

	Ambient Temperature/In (°C)								
In (A)	- 25	- 10	0	10	20	30	40	50	60
25 A	25	25	25	25	25	25	25	25	25
40 A	40	40	40	40	40	40	40	25	25

Derating of RCCBs function of the number of devices placed side by side
When several RCCBs are installed side by side and operate simultaneously, the heat dissipation of one pole is limited.
This results in an increased operating temperature for the RCCBs which may cause false tripping. Applying the following coefficients to the operating currents is recommended.

Number of circuit breakers side by side	Coefficient
2-3	0.9
4-5	0.8
6-9	0.7
≥ 10	0.6

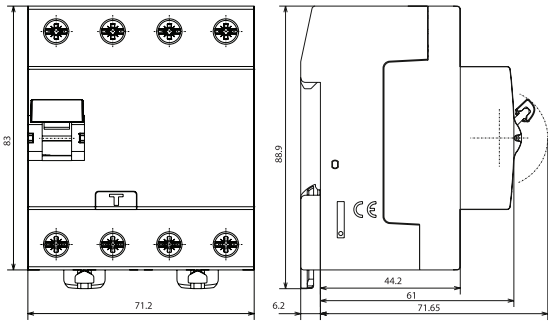
These values are provided by recommendation IEC 61439-1 and the standards NF C 63421 and EN 61439-1.

In order to avoid having to use these coefficients there must be good ventilation and the devices must be kept apart using the spacing elements Cat.No 4 063 07 (0.5 module).

Influence of the altitude

	2000 m	3000 m	4000 m	5000 m
Dielectric strength	2000 V	2000 V	2000 V	1500 V
Maxi. operational Voltage	230 V	230 V	230 V	230 V
Derating at 30 °C	none	none	none	none

4. DIMENSIONS AND WEIGHTS



Weight per device:

Cat.Nos	Weight (kg)
4 320 56	0,19
4 320 57	0,19
4 320 59	0,20
4 320 60	0,20
4 320 78	0,21
4 320 79	0,21

Packaged volume and quantity:

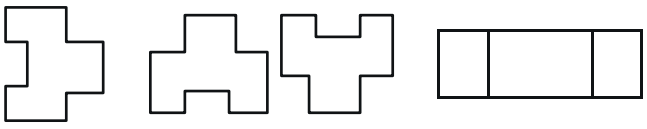
	Volume (dm^3)	Packaging
For all catalogue numbers	0.35	per unit

5. FIXING AND CONNECTION

■ 5.1 Fixing

On symmetrical rail EN/IEC 60715 or DIN 35 symmetrical rail.
Mounting options:

Vertical Horizontal Flat



Recommended tool for rail mounting: Flat screwdriver 5.5 mm (6.5 mm maximum).

5. FIXING AND CONNECTION *(continued)*

■ 5.2 Connection

Power supply	Top or bottom terminals
Type of terminals	Inputs and outputs via Screw terminals,Cage terminals with disengageable or captivescrews, Terminals fitted with flaps preventing a cable being placed under the terminal, with the terminal partly open or closed
Terminal depth	14 mm
Terminal capacity	60 mm²
Terminal arrangement	Terminals protected against direct finger contact IP20, wired device
	Alignment and spacing of the terminals permitting shutters with the other products via toothed supply busbars
Screw head	Mixed head, slotted head and Philips/Pozidriv no. 2
Tools required	Pozidriv n° 2 / Philips n° 2 screwdriver, 5.5 mm/6.5 mm maximum blade screwdriver recommended
Tightening torque	Recommended 2.5 Nm,(mini. 1.2 Nm maxi. 3.5 Nm)

Here are the sections accepted by the screw terminal for connecting copper conductors:

	Without ferrule	With ferrule
Rigid cable	1 x 0.75 to 50 mm² or 2 x 0.75 to 16 mm²	-
Flexible cable	1 x 0.75 to 35 mm² or 2 x 0.75 to 16 mm²	1 x 0.75 to 25 mm²

6. AUXILIARIES AND ACCESSORIES

Wiring accessories

Sealable screw cover	Cat. No. 4 063 04
Terminal for aluminium cable with max. 50 mm² cross-section	Cat. No. 4 063 10

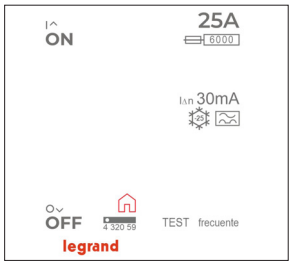
Sealing
Possible in "Open" position (OFF) or "Close" position (ON)

Locking

- 5 mm padlock	Cat. No. 4 063 13
- 6 mm padlock	Cat. No. 0 227 97
- Padlock support	Cat. No. 4 063 03

7. MARKING

Marking on the "front side": by permanent ink pad printing.



Please note: The information provided in this section is for reference only. Actual data and marking layout may vary depending on the product version

8. STANDARDS AND REGULATIONS

Compliance with standards:
- EN/IEC 61008-1
- EN/IEC 60529 (IP)

RoHS
Compliance with the 2011/65/EU Directive (RoHS), as modified by the 2015/863/EU Delegated Directive, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

REACH
The substances identified as SVHC (Substances of Very High Concern) according to the REACH Regulation (1907/2006), if present in the products at a concentration above 0.1% weight by weight, are declared inside the European SCIP database. At the date of publication of this document none of the substance listed in the annex XIV is found in this product.

WEEE
WEEE Directive (2012/19/EU): the sale of this product includes a contribution to the appointed environmental bodies of each European country in charge of handling, at the end of their life, the products falling within the scope of the EU Directive on Electrical and Electronic Equipment Waste

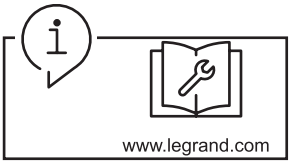
Packaging:
Design and manufacture of packaging compliant with European Directive 94/62/CE.

Usage in special conditions:
Category C compliant (testing temperature of -25°C to +70°C, resistant to salt spray) in accordance with the classification defined in Appendix Q of standard IEC/EN 60947-1.

9. SAFETY

For your safety your electrical installation is equipped with residual current protection and this must be tested periodically.
In the absence of any national regulations on the time period required for this, Legrand recommends that this test be carried out every month: press the «T» test button, the device should trip.
Please call an electrician immediately if this does not happen as your installation's safety level has been reduced.
The presence of residual current protection does not remove the need to observe all the precautions associated with using electrical energy.

10. OTHER INFORMATION



Instruction use: all mounting information available on e-catalogue

PEP: available on e-catalog

XLPro Calcul: Calculation notes creation software, addressed to installers, design office and maintenance operators. Definition of the electrical characteristics of a low voltage installation in compliance with the applicable standards.

XLPro^3 Tool Selectivity and backup / Legrand Selectivity and backup: Software dedicated to installers, panelbuilders and design offices. Definition of the selectivity and backup values of an association of electrical devices and obtention of the tripping curves of the selected products.

XLPro Panels: Distribution panel design software, addressed to panelbuilders and electrical panel designers. Design of the electrical distribution of the panel, production of electrical diagrams, establishment of products and overall costing of the project.

For further technical information, please contact Legrand technical support.

Unless otherwise indicated, data reported in this document refers exclusively to test conditions according to product standards.

For different conditions of use of the product, inside electrical equipment or in any different installation context, refer to the regulatory requirements of the equipment, local regulations and design specifications of the system.