RCCB & RCBO

Technical Specifications, Installation & Selection Manual

Selection guidance for residential, commercial, photovoltaic and EV charging applications.



Technical support

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Contents & operating mechanism

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RCCBs provide residual-current protection and require separate overload and short-circuit protection. See page 4 for the RCD family relationship.

Contents & operating mechanism

RCBO INDEX: ELECTROMAGNETIC FIRST, THEN ELECTRONIC

ELECTROMAGNETIC · M MODELS

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ELECTRONIC

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RCBOs combine residual-current, overload and short-circuit protection. Electromagnetic / electronic describes the residual-current detection and tripping function.

Applications, selection & budget

RCD = RESIDUAL CURRENT DEVICE; INCLUDES RCCBs AND RCBOs

RCCB

Residual-current protection; separate overload / short-circuit protection.

RCBO

Residual-current, overload and short-circuit protection combined.

Match the application, then compare like-for-like prices

Application	Selection	Budget
Homes & shops Sockets & appliances	Usually prefer Type A RCBOs. For additional shock protection, normally use ≤30 mA.	Use one per branch. Comparable electronic models usually cost less.
Kitchens, bathrooms & damp locations	Normally use ≤30 mA with correct earthing. Match the RCD type to the equipment.	Meet the protection needs before comparing prices.
Simple dedicated heaters / lamps	Consider Type AC only without rectifiers, drives or electronic controls, where local rules allow.	Type AC may cost less. Prefer A if electronics may be added.
Drives, heat pumps & industrial loads	Use A, F or B as specified by the equipment maker. Drive requirements vary.	Compare devices with the required waveform capability.
PV, storage & EV charging	Use B where required for smooth-DC faults, or a permitted coordinated DC-detection solution.	Compare the complete solution, including detection and protection devices.

Limits of Type AC

Type AC detects sinusoidal AC residual current, not pulsating DC. For electronics, rectifiers or drives, select A, F or B as required by the equipment.

Compare equivalent specifications

Electronic models usually cost less than comparable electromagnetic models; see the next page. Include the separate overload / short-circuit protection in an RCCB solution.

Select current rating for the load and cable. Have voltage, poles and fault capacity checked by qualified personnel. Prices depend on the complete model and quantity.

Electromagnetic and electronic types:

Principles, advantages and prices

BOTH DETECT RESIDUAL CURRENT; SIGNAL PROCESSING AND TRIP ENERGY DIFFER

Electromagnetic

Detect residual current — **Drive sensitive release** — **Open the contacts**

Electronic

Detect residual current — **Electronic processing** — **Trigger the release**

Comparison	Electromagnetic	Electronic
Principle	A sensing transformer drives a sensitive electromagnetic release. Typical voltage-independent designs obtain trip energy from the fault residual current.	Electronics process and amplify the sensing signal, then drive a release. The sensing circuit usually needs line or auxiliary power.
Benefits	Less dependence on line voltage for residual-current tripping; suitable where voltage-independent protection is specified.	Supports compact construction and added functions; useful for cost-sensitive projects with suitable supply conditions.
Relative cost	Magnetic materials, sensitive releases and calibration can make comparable products more expensive.	Mass-produced electronic circuits often offer a price advantage at equivalent specifications.
Check before buying	Verify the voltage-independence declaration and required waveform capability. Type B DC detection has its own operating conditions.	Check minimum operating voltage, behavior during supply faults, and declared temperature / immunity performance.
Examples here	RCCB: LDL1-63(H), LDL1-80(H). RCBO: LDL3-40M, LDL8-40M, LDL29-40M.	RCBO: LDL3-63, LDL5-63(H), LD-RCBO1(H), LDM12LE-63.

First select the required fault-waveform capability, then compare electromagnetic and electronic designs. Electronic does not mean poor quality; electromagnetic construction does not by itself prevent unwanted trips. Correct selection, wiring and testing remain necessary.

LDL1-63(H)

RCCB · WITHOUT OVERCURRENT PROTECTION



Electromagnetic

This label describes residual-current operation.

CURRENT

16-63A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61008-1
Poles / circuit arrangement	2P / 4P (L+N / L1+L2+L3+N)
Rated current In	16-63A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Conditional short-circuit current Inc	6,000A, 10,000A
Impulse withstand voltage Uimp	4,000V
Electrical endurance	2,000 Cycles
Mechanical endurance	4,000 Cycles

RCCBs have no integral overload or short-circuit protection. Use a suitable fuse or circuit-breaker.

LDL1-80(H)

RCCB · WITHOUT OVERCURRENT PROTECTION



Electromagnetic

This label describes residual-current operation.

CURRENT

25, 40, 63, 80 A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61008-1
Poles / circuit arrangement	2P / 4P (L+N / L1+L2+L3+N)
Rated current In	25, 40, 63, 80 A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Conditional short-circuit current Inc	6,000A, 10,000A
Impulse withstand voltage Uimp	4,000V
Electrical endurance	2,000 Cycles
Mechanical endurance	4,000 Cycles

INSTALLATION: 35 mm rail; 25 mm²; 2.5 N·m; IP20; -25°C ... +40°C

RCCBs have no integral overload or short-circuit protection. Use a suitable fuse or circuit-breaker. The overview lists 16–80 A; this page follows the dedicated 25/40/63/80 A sheet.

LDL1-125H

RCCB · WITHOUT OVERCURRENT PROTECTION



Electromagnetic

This label describes residual-current operation.

CURRENT

80-125A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

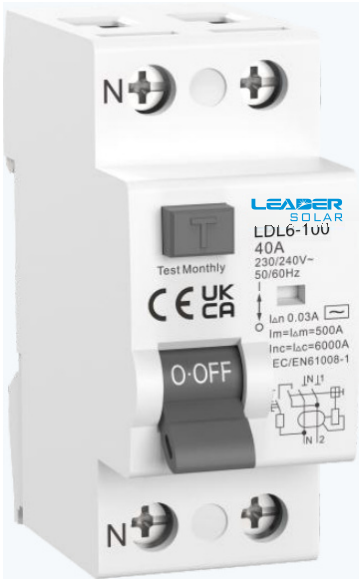
AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61008-1
Poles / circuit arrangement	2P / 4P (L+N / L1+L2+L3+N)
Rated current In	80-125A
Residual-current type	AC, A
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Conditional short-circuit current Inc	10,000A
Impulse withstand voltage Uimp	4,000V
Electrical endurance	2,000 Cycles
Mechanical endurance	4,000 Cycles

RCCBs have no integral overload or short-circuit protection. Use a suitable fuse or circuit-breaker.

LDL6-100(H)

RCCB · WITHOUT OVERCURRENT PROTECTION



Electromagnetic

This label describes residual-current operation.

CURRENT

16-100A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61008-1
Poles / circuit arrangement	2P / 4P (L+N / L1+L2+L3+N)
Rated current In	16-100A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Conditional short-circuit current Inc	6,000A, 10,000A
Impulse withstand voltage Uimp	4,000V
Electrical endurance	2,000 Cycles
Mechanical endurance	4,000 Cycles

RCCBs have no integral overload or short-circuit protection. Use a suitable fuse or circuit-breaker.

LDL1-63B

RCCB · WITHOUT OVERCURRENT PROTECTION



Electromagnetic

Electromagnetic operation; Type B DC sensing has specific operating conditions.

CURRENT

16-63A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

B

TECHNICAL DATA	RATING
Product standard	IEC/EN61008-1, IEC62423
Poles / circuit arrangement	2P / 4P (L+N / L1+L2+L3+N)
Rated current In	16-63A
Residual-current type	B
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Conditional short-circuit current Inc	10,000A
Impulse withstand voltage Uimp	4,000V
Electrical endurance	2,000 Cycles
Mechanical endurance	4,000 Cycles

RCCBs have no integral overload or short-circuit protection. Use a suitable fuse or circuit-breaker.

LDL6-100B

RCCB · WITHOUT OVERCURRENT PROTECTION



Electromagnetic

Electromagnetic operation; Type B DC sensing has specific operating conditions.

CURRENT

16-100A

VOLTAGE

1P+N: 240V~ 3P+N: 415V~

RCD TYPE

B

TECHNICAL DATA	RATING
Product standard	IEC61008-1, IEC62423
Poles / circuit arrangement	2P / 4P (L+N / L1+L2+L3+N)
Rated current In	16-100A
Residual-current type	B
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 240V~ 3P+N: 415V~
Rated frequency	50/60Hz
Conditional short-circuit current Inc	10,000A
Impulse withstand voltage Uimp	4,000V
Electrical endurance	2,000 Cycles
Mechanical endurance	4,000 Cycles

RCCBs have no integral overload or short-circuit protection. Use a suitable fuse or circuit-breaker.

LDL3-40M

RCBO · WITH OVERCURRENT PROTECTION



Electromagnetic

This label describes residual-current operation.

CURRENT

6-40A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N
Rated current In	6-40A
Residual-current type	AC, A
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

INSTALLATION: 35 mm rail; 25 mm²; 2.5 N·m; IP20; -5°C ... +40°C

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL8-40M

RCBO · WITH OVERCURRENT PROTECTION



Electromagnetic

This label describes residual-current operation.

CURRENT

6-40A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N
Rated current In	6-40A
Residual-current type	AC, A
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL29-40M

RCBO · WITH OVERCURRENT PROTECTION



Electromagnetic

This label describes residual-current operation.

CURRENT

6-40A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1 IEC/EN60898-1
Poles / circuit arrangement	1P+N
Rated current In	6-40A
Residual-current type	AC, A
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL3-40S

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-40A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N
Rated current In	6-40A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	4,500A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL3-63

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-63A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N
Rated current In	6-63A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

INSTALLATION: 35 mm rail; 25 mm²; 2.5 N·m; IP20; -5°C ... +40°C

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL5-63S

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-63A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N, 3P+N (N Pole on left)
Rated current In	6-63A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	4,500A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C, D
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL5-63(H)

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-63A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N, 3P+N
Rated current In	6-63A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A, 10,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C, D
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

INSTALLATION: 35 mm rail; 25 mm²; 2.5 N·m; IP20; -25°C ... +55°C

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL8-80

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-80A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N
Rated current In	6-80A
Residual-current type	AC, A
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL19-40

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-40A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N
Rated current In	6-40A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL29-40

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-40A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1 IEC/EN60898-1
Poles / circuit arrangement	1P+N
Rated current In	6-40A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL13-63

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-63A

VOLTAGE

230/240V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N
Rated current In	6-63A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	230/240V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

INSTALLATION: 35 mm rail; 25 mm²; 2.5 N·m; IP20; -5°C ... +40°C

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL15-63(H)

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6-63A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1
Poles / circuit arrangement	1P+N, 3P+N
Rated current In	6-63A
Residual-current type	AC, A
Rated residual operating current IΔn	10, 30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	6,000A, 10,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C, D
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDL5-63B / LDL15-63B

RCBO · WITH OVERCURRENT PROTECTION





Electronic

This label describes residual-current operation.

CURRENT

6-63A

VOLTAGE

1P+N: 230/240V~ 3P+N: 400/415V~

RCD TYPE

B

TECHNICAL DATA	RATING
Product standard	IEC/EN61009-1, IEC/EN62423
Poles / circuit arrangement	1P+N, 3P+N
Rated current In	6-63A
Residual-current type	B
Rated residual operating current IΔn	30, 100, 300mA
Break time at IΔn	≤0.1s
Rated operational voltage Ue	1P+N: 230/240V~ 3P+N: 400/415V~
Rated frequency	50/60Hz
Rated short-circuit capacity Icn	10,000A
Impulse withstand voltage Uimp	4,000V
Instantaneous overcurrent curve	B, C, D
Electrical endurance	4,000 Cycles
Mechanical endurance	10,000 Cycles

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LD-RCBO1(H)

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6, 10, 16, 20, 25, 32, 40, 63, 80 A

VOLTAGE

230/240 V~

RCD TYPE

AC, A

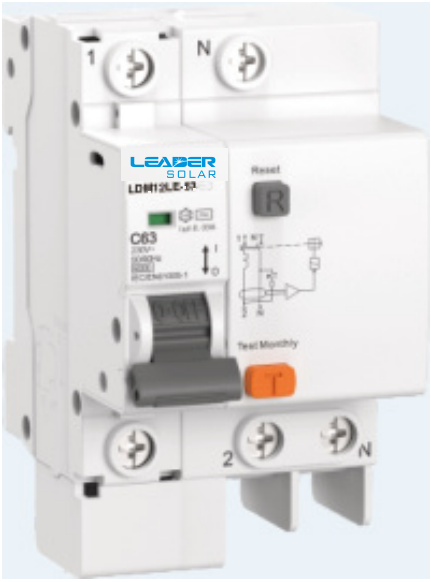
TECHNICAL DATA	RATING
Product standard	IEC/EN 61009-1
Poles / circuit arrangement	1P+N (2 modules, switched neutral)
Rated current In	6, 10, 16, 20, 25, 32, 40, 63, 80 A
Residual-current type	AC, A
Rated residual operating current IΔn	30, 100, 300 mA
Break time at IΔn	≤0.1 s
Rated operational voltage Ue	230/240 V~
Rated frequency	50/60 Hz
Rated short-circuit capacity Icn	6 kA / H: 10 kA
Impulse withstand voltage Uimp	4 kV
Instantaneous overcurrent curve	B, C
Electrical endurance	4,000 cycles
Mechanical endurance	10,000 cycles

INSTALLATION: 35 mm rail; 25 mm²; 2.5 N·m; IP20; -25°C ... +40°C

Confirm the actual nameplate, terminal diagram and supply specification. Representative artwork does not show every current/pole variant.

LDM12LE-63

RCBO · WITH OVERCURRENT PROTECTION



Electronic

This label describes residual-current operation.

CURRENT

6, 10, 16, 20, 25, 32, 40, 50, 63 A

VOLTAGE

1P+N / 2P: 230/240 V~; 3P / 3P+N / 4P: 400/415 V~

RCD TYPE

AC, A

TECHNICAL DATA	RATING
Product standard	IEC/EN 61009-1
Poles / circuit arrangement	1P+N, 2P, 3P, 3P+N, 4P
Rated current In	6, 10, 16, 20, 25, 32, 40, 50, 63 A
Residual-current type	AC, A
Rated residual operating current IΔn	30, 100, 300 mA
Break time at IΔn	≤0.1 s
Rated operational voltage Ue	1P+N / 2P: 230/240 V~; 3P / 3P+N / 4P: 400/415 V~
Rated frequency	50/60 Hz
Rated short-circuit capacity Icn	6 kA
Impulse withstand voltage Uimp	4 kV
Instantaneous overcurrent curve	B, C, D
Electrical endurance	4,000 cycles
Mechanical endurance	10,000 cycles

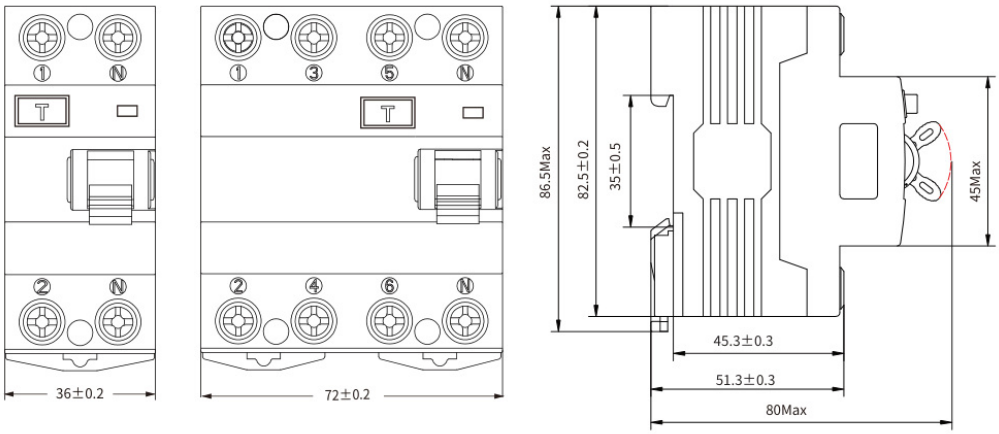
INSTALLATION: 35 mm rail; 16 mm² flexible / 25 mm² rigid; 2.5 N·m; IP20; -25°C ... +40°C

Neutral switching differs between 1P+N/3P/3P+N and 2P/4P; confirm the terminal diagram. Artwork is representative.

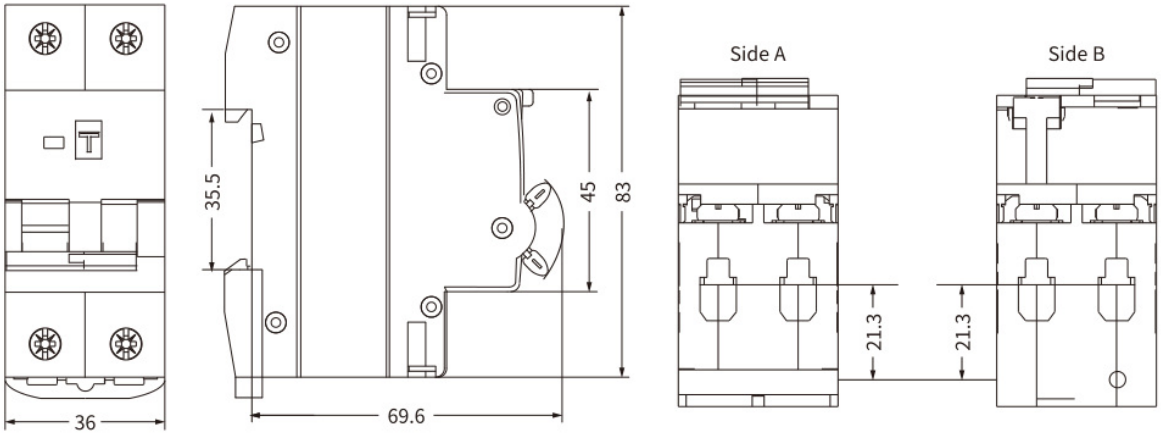
Representative outline dimensions

DIMENSIONS IN mm · ORIGINAL ENGINEERING ARTWORK

LDL1-80(H)



LD-RCBO1(H)



Use this page to check outline and installation space. Verify holes, rail position, wiring clearance and each pole variant against the latest exact-model drawing. The two figures are not to a common scale.

Installation 1: Preparation & wiring

ISOLATE → CHECK → INSTALL → TEST

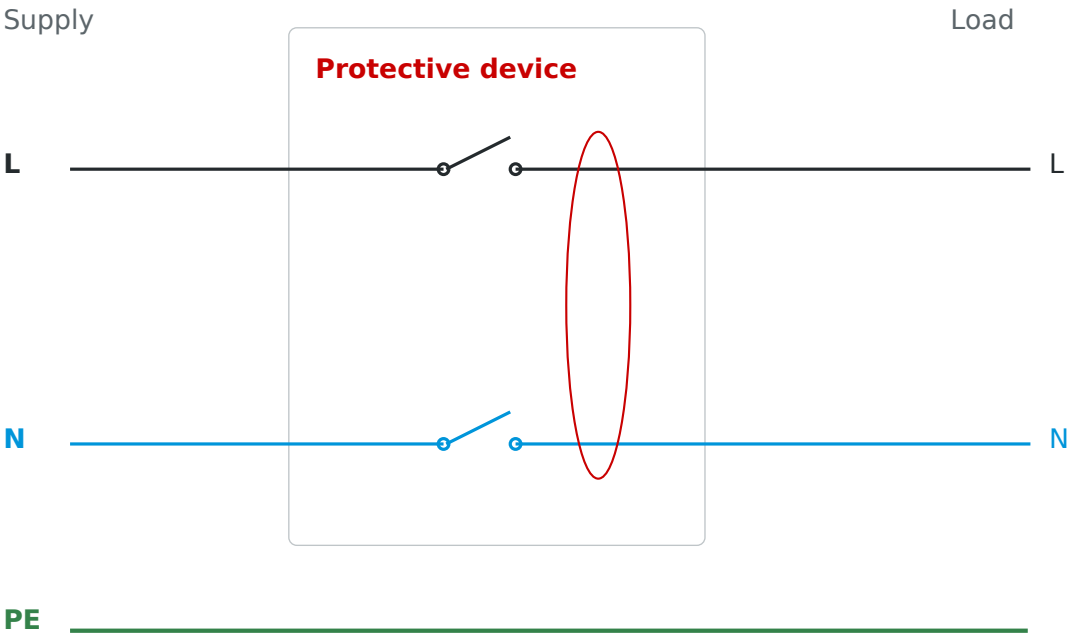
1 Isolate every source and prove dead

Disconnect the mains and all possible backfeeds. Prevent unintended reconnection. Prove dead before removing, fitting or wiring the device.

2 Check the device and installation location

Verify model, voltage, current, RCD type and sensitivity. Use a suitable enclosure. Rail, temperature and terminal requirements are on the next two pages.

ROUTE PHASE AND NEUTRAL THROUGH THE SAME DEVICE; KEEP PE SEPARATE



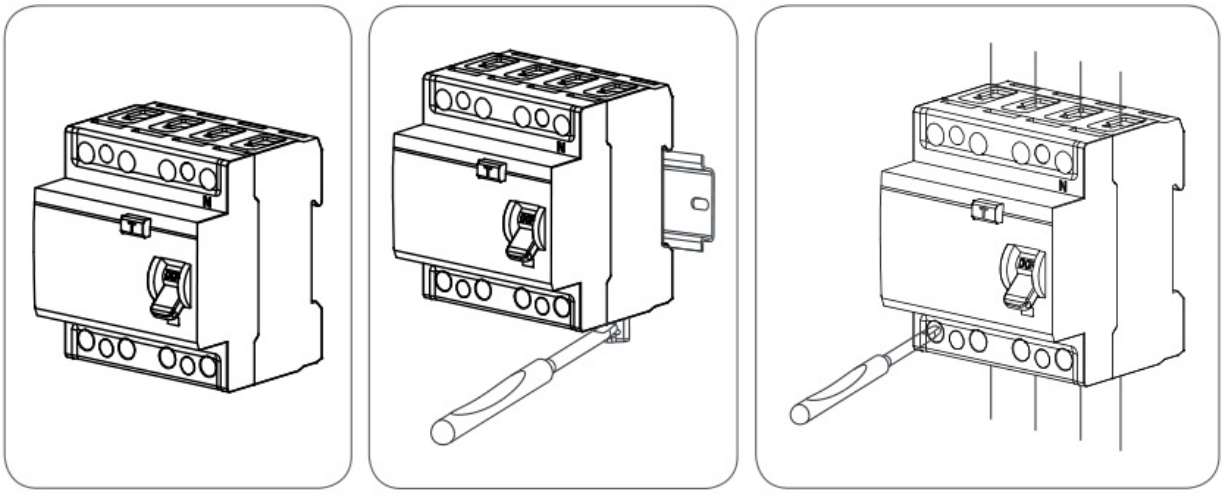
Functional arrangement; use actual terminal numbers

Connect neutral to N. Never connect PE to N. Do not share downstream neutrals with other protected circuits or join N to PE downstream.

Qualified electrical personnel must install and test the device. Follow the actual product terminal diagram for supply and load connections.

Installation 2: RCCB

APPLIES TO: LDL1-63 / LDL1-63H / LDL1-63B



Device & terminals **Rail latch** **Clamping the wire**

Item	Series requirements
Rail / cable	35 mm rail; maximum terminal conductor size 25 mm².
Strip / tighten	Strip 12.5 mm; maximum electrical connection torque 2.5 N·m.
Environment	-5 to +40°C; altitude ≤2000 m; 24-hour average temperature ≤+35°C.

1 Secure to the rail

Hook onto the rail and latch firmly. Pull gently to check. Before removal, isolate the supply, then release the bottom latch with a tool.

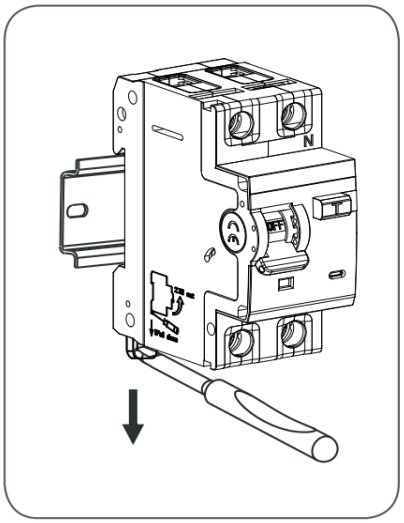
2 Wire to the terminal diagram and inspect

Insert conductors fully, then tighten. Connect neutral to N. Leave no loose strands or exposed copper. Proceed to the testing unit.

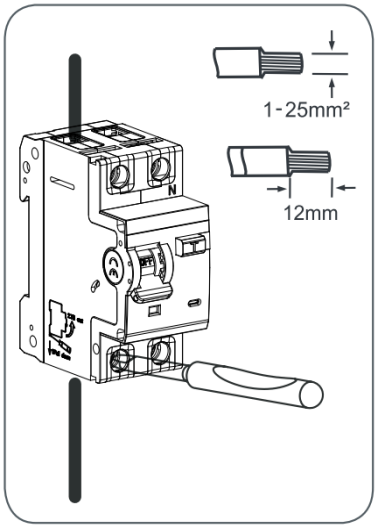
RCCBs have no integral overload or short-circuit protection: use a suitable fuse or circuit-breaker. These installation values apply only to the series listed above.

Installation 3: RCBO

APPLIES TO: LDL3-63 / 63H / 63M / 63MH



Bottom latch & rail



Strip and insert the wire

Item	Series requirements
Rail	35 mm rail.
Cable / stripping	Terminal drawing: 1-25 mm²; strip length 12 mm.
Tightening torque	2.0 N·m at both supply and load terminals, per the supplied manual wiring table.
Environment	-25 to +55°C; altitude ≤2000 m; 24-hour average temperature ≤+35°C.

1 Mount and wire

Secure to the rail. Connect phase and neutral to the actual terminal diagram. Insert stripped conductors fully and tighten to the specified torque.

2 Check before testing

Pull conductors gently to verify clamping. Check for exposed copper and wire debris. Confirm wiring, fit the protective cover, then proceed to powered testing.

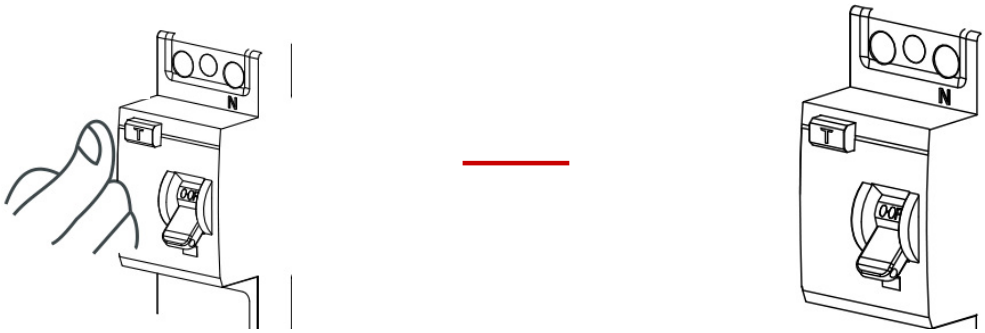
Select cable size for load, installation conditions and terminal capacity. These values apply only to the listed series. Follow the individual instructions for other RCBOs.

Testing: Energizing & the test button

COMPLETE DEAD CHECKS BEFORE POWERED TESTS

Dead checks	Confirm
Wiring / clamping	Correct phase, neutral, supply and load terminals. Conductors secure; no exposed copper, loose strands or debris.
Circuit / enclosure	N and PE separate. Suitable overcurrent protection fitted for RCCBs. Enclosure covers in place.

After energizing, follow these three steps



Press TEST — **Device trips**

1 Close the device

Supply the marked voltage and close the device.

2 Press the test button

Press T / TEST: the device should trip promptly. For the RCCB, repeat 3 times as its manual specifies, resetting and closing before each test.

3 Reset and record

Move the handle fully to OFF, then close to restore supply. Record model, location, date and result.

The button does not replace earthing and full installation verification. Measure trip current / time with a tester suitable for the RCD type. Never test by deliberate short circuit. Do not use a device that fails testing.

RCCB & RCBO

Select the device. Wire the circuit. Verify the protection.

Technical support

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