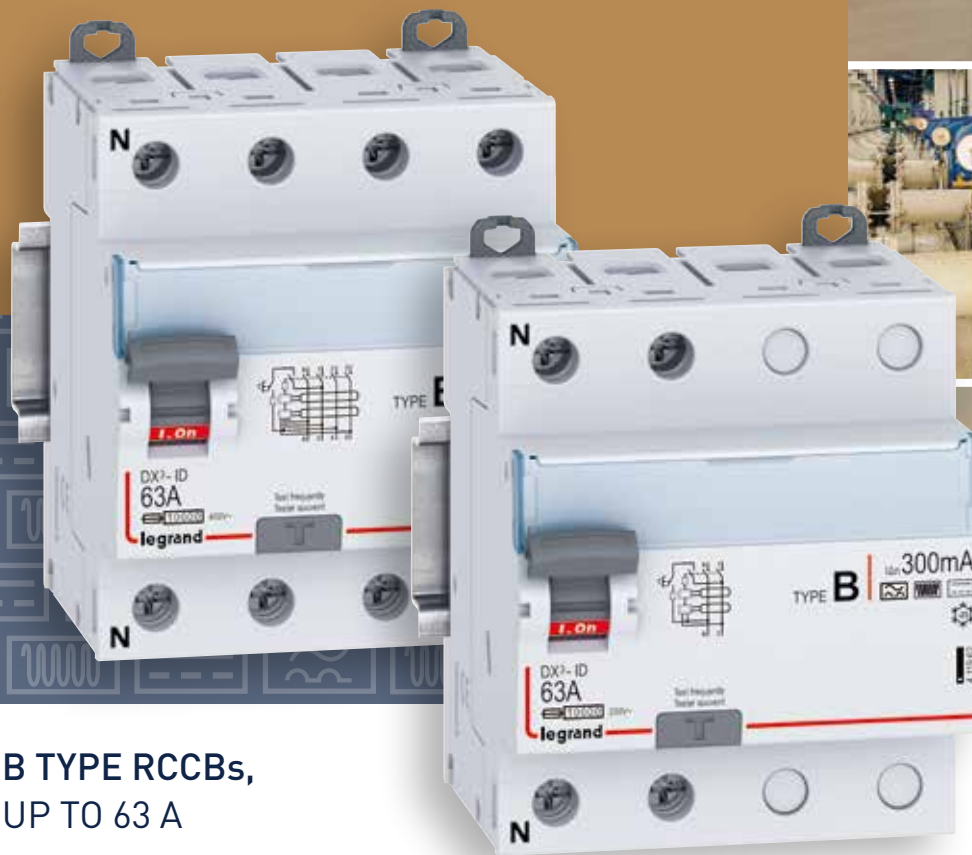


# DX<sup>3</sup> ID-B TYPE

Guaranteed safety  
for people and equipment



B TYPE RCCBs,  
UP TO 63 A



CATALOGUE  
PAGES  
INSIDE

THE GLOBAL SPECIALIST  
IN ELECTRICAL AND DIGITAL BUILDING INFRASTRUCTURES

 **legrand**<sup>®</sup>

# DX<sup>3</sup> ID-B TYPE

## RELIABLE PRODUCTS, WELL DESIGNED AND EASY TO WIRE UP

DX<sup>3</sup> ID - B Type RCCBs integrate seamlessly into the Legrand family of DIN rail mounting products. They have the same aesthetic appearance and are compatible with the same control and signalling auxiliaries.

Designed to bring users peace of mind, these products remain faithful to Legrand's philosophy: simple, intuitive, quick installation and, as ever, an uncompromising level of quality.



### DX<sup>3</sup> ID TYPE - B TYPE RANGE:

A COMPETITIVE NEW RANGE WHICH PROTECTS UP TO 63 A

Conforming to standards:  
EN/IEC 61008-1  
EN/IEC 62423



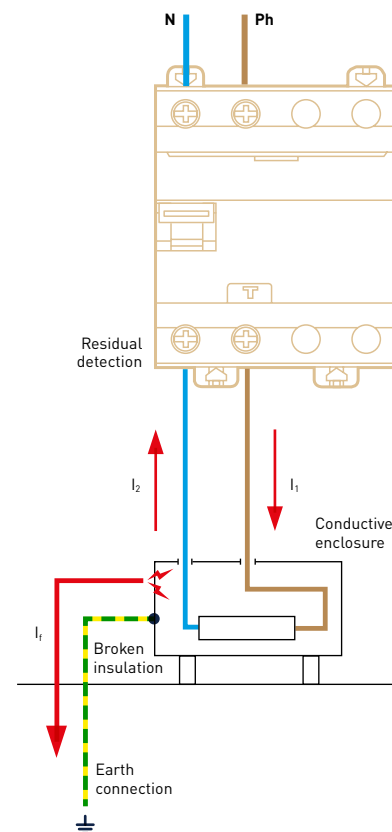
Cat. Nos	411956	411961	411957	411962	411966	411971	411967	411972
No. of poles	2				4			
No. of modules	4				4			
Nominal current I <sub>n</sub> (A)	40		63		40		63	
Sensitivity I <sub>Δ</sub> (mA)	30	300	30	300	30	300	30	300

## OPERATING PRINCIPLE OF RESIDUAL CURRENT DEVICES

An RCCB continuously measures the difference between the value of the incoming current (Phase) and the value of the outgoing current (Neutral). If a fault is present, the value of the incoming current is higher than that of the outgoing current. The difference between the two values constitutes the residual current (also called the fault current). The residual current triggers the RCD mechanism and the circuit is broken. The differential sensitivity corresponds to the maximum current threshold beyond which the RCCB trips.

## EVERY APPLICATION HAS ITS OWN RESIDUAL CURRENT PROTECTION TYPE

Type of fault current detected	Residual current protection type			
	AC Type 	A Type 	F Type 	B Type 
50/60 Hz AC residual currents	✓	✓	✓	✓
Residual currents with DC component	✗	✓	✓	✓
Enhanced immunity to unwanted tripping and high-frequency residual currents up to 1000 Hz	✗	✗	✓	✓
Rectified pulsed DC residual currents from one or more phases and smoothed DC residual currents	✗	✗	✗	✓



No fault :  $I_1 = I_2$   
 Fault present :  $I_1 \neq I_2$  where  $I_1 > I_2$   
 $I_1 - I_2 = I_f$  (fault current)

<b>AC type</b> 	Standard applications, in the majority of cases
<b>A type</b> 	Specific applications: dedicated lines. They are particularly suitable for the following dedicated line applications: <ul style="list-style-type: none"> <li>In residential properties, on specialised circuits: cooker, cooker hob, washing machine, in single-phase.</li> <li>Electric vehicles charging: mode 1 and mode 2 in single-phase and mode 3 (if 6 mA = protection device integrated in the charging station).</li> <li>Photovoltaic installation without storage with single insulation.</li> <li>In other installations, on circuits where class 1 equipment such as variable speed drives with frequency inverter may produce fault currents with DC components.</li> </ul>
<b>F type</b> 	These are products with enhanced immunity: they reduce cases of unwanted tripping and are recommended in the following special cases: <ul style="list-style-type: none"> <li>When loss of data would be detrimental: computer equipment power supply lines (data centers, banks, military instrumentation, airline reservation centre, etc)</li> <li>When loss of operation would be detrimental (automated machines, medical instrumentation, freezers, etc)</li> <li>Places where there is a high risk of lightning strike</li> <li>Sites with lines subject to a great deal of interference or with long wiring runs</li> <li>Circuits with a risk of appearance of high-frequency fault currents (up to 1000 Hz)</li> </ul>
<b>B type</b> 	These are products with enhanced immunity: they reduce cases of unwanted tripping and are recommended for: <ul style="list-style-type: none"> <li>Installations powered by single-phase or three-phase rectifiers or with potential presence of DC fault currents: variable speed drives, lift motors, medical instrumentation, etc</li> <li>Electric vehicles charging: mode 1 and mode 2 in polyphase and mode 3</li> <li>Three-phase photovoltaic installation with storage</li> </ul>

# RCCBs - DX<sup>3</sup>-ID

residual current circuit breakers 16 A to 100 A - A, F and B types



411570



411956



411761



411967

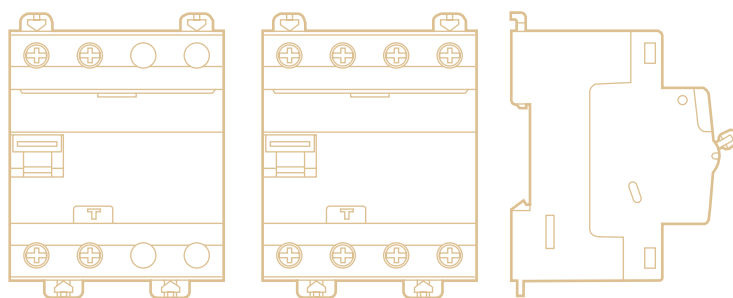
Technical characteristics **see [www.ecatalog.be](http://www.ecatalog.be)**

Conform to EN/IEC 61008 - 1  
 "Not approved for residential installations (see TX<sup>3</sup> range)"  
 Compatible with prong-type and fork type supply busbars  
 A type : detect sinusoidal AC and pulsating DC residual currents  
 F type (High immunity) : detect AC and pulsating DC residual currents  
 Enhanced immunity to unwanted tripping in disturbed environments  
 Detection of high frequency fault currents  
 B type : detect sinusoidal AC, pulsating DC and smooth DC residual currents  
 Enhanced immunity to unwanted tripping in disturbed environments  
 Can be equipped with DX<sup>3</sup> signalling and remote tripping auxiliaries and motorised controls

Conform to EN/IEC 61008 - 1  
 Neutral conductor on the right (except for type B)  
 Not approved for residential installations (See TX<sup>3</sup> range)  
 • A type : detect sinusoidal AC and pulsating DC residual currents  
 • B type : detect sinusoidal AC, pulsating DC and smooth DC residual currents  
 Enhanced immunity to unwanted tripping in disturbed environments  
 Can be equipped with DX3 signalling and remote tripping auxiliaries and motorised controls

Cat.Nos	2-pole 230 V~		
	<b>Type A</b>		
	Sensitivity (mA)	Nominal Rating In (A)	Number of modules
411550	10	16	2
411554	30	25	2
411555	30	40	2
411556	30	63	2
411557	30	80	2
411569	300	25	2
411570	300	40	2
411571	300	63	2
411572	300	80	2
411584	300 sélectif	63	2
	<b>Type F</b>		
411590	30	25	2
411591	30	40	2
411592	30	63	2
<b>N</b>	<b>Type B</b>		
411956	30	40	4
411957	30	63	4
411961	300	40	4
411962	300	63	4

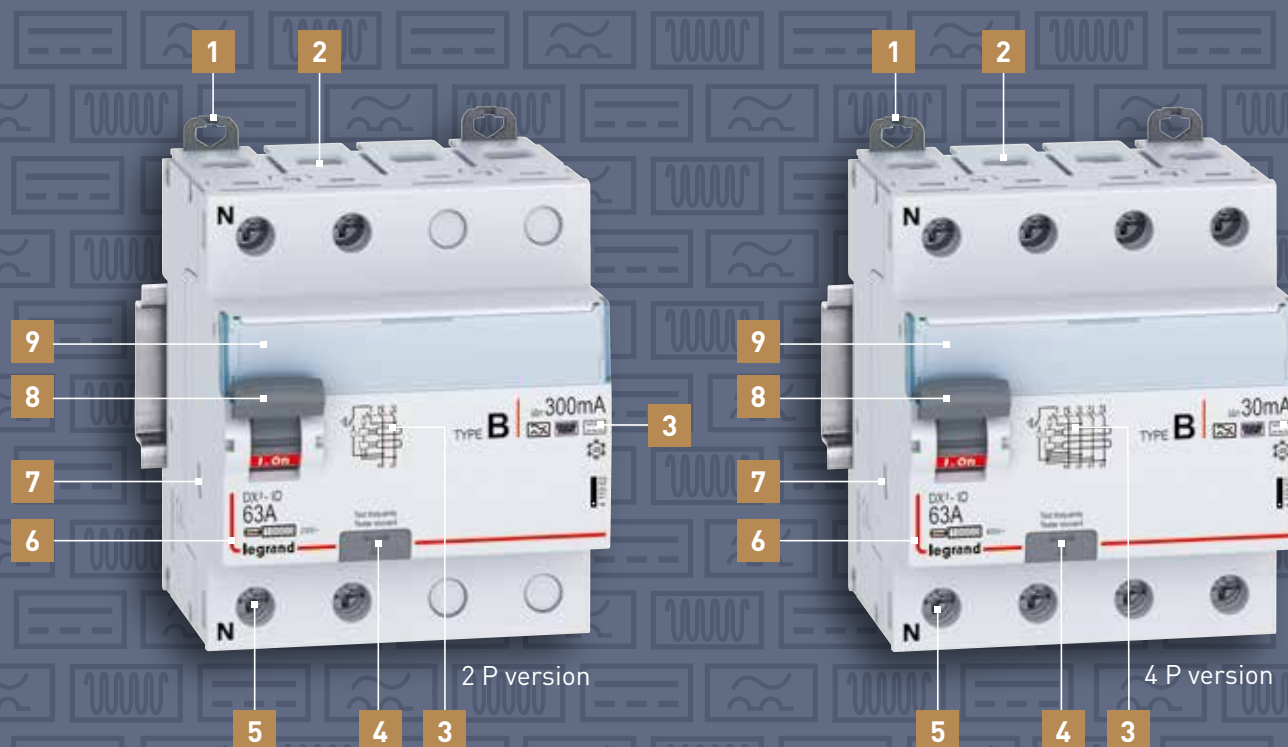
Cat.Nos	4-pole 400 V~		
	<b>Type A</b>		
	Sensibilité (mA)	In (A)	Number of modules
411760	30	40	4
411761	30	63	4
411762	30	80	4
411763	30	100	4
411770	100	40	4
411771	100	63	4
411772	100	80	4
411773	100	100	4
411780	300	40	4
411781	300	63	4
411782	300	80	4
411783	300	100	4
411800	300 sélectif	40	4
411801	300 sélectif	63	4
411790	500	40	4
411791	500	63	4
411792	500	80	4
411793	500	100	4
<b>N</b>	<b>Type B M</b>		
411966	30	40	4
411967	30	63	4
411971	300	40	4
411972	300	63	4



## SIMPLE, INTUITIVE AND QUICK INSTALLATION




- 1** Fixing claws for ease of mounting/demounting product on/off the DIN rail.
- 2** Cage terminals to ensure the longevity and quality of the connection. 50 mm<sup>2</sup> capacity (single-wire conductor). Can take terminal shield Cat.No 4 063 04 which makes it possible to seal the terminal screw heads and ensure they are inaccessible.
- 3** Clear marking for quick product identification. Includes: the product catalogue number, main technical characteristics (residual current protection type, sensitivity, minimum ambient operating temperature) and the electrical diagram with identification of the terminals.
- 4** Manual test button for residual current function.
- 5** Clamping screw for flat-blade (5.5 to 6.5 mm) or PZ2 Pozidriv screwdriver.
- 6** Marking for quick identification of the product and its main technical characteristics, including the range name, the rating, the nominal voltage and short-circuit resistance (I<sub>cn</sub>).
- 7** Zone reserved for fixing the control and signalling auxiliaries, common throughout the DX<sup>3</sup> range.
- 8** Grey handle (specific to the switch function) with colour-coded marking for quick identification of the contact status: - Red/I-on - Green/O-off.
- 9** Innovative label-holder for easy circuit identification: - Easy opening, enhanced dust protection, label remains firmly in place during transport.

## TYPE B RCCBs





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