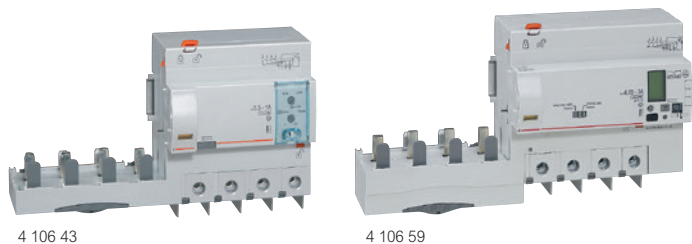


## Add-on modules DX<sup>3</sup>

for 1.5 module/pole DX<sup>3</sup> MCBs



Technical characteristics **see e-catalogue**

Conform to IEC 61009-1

- AC type : detect AC components faults
- Hpi type **Hpi**: detect faults with AC and DC components, increased immunity to false tripping

For mounting on the right-hand side of 1.5 module per pole DX<sup>3</sup> MCBs

Pack	Cat.Nos	2-pole - 230 V $\sim$			
1	4 105 76	<b>Hpi Type</b> <b>Hpi</b>	Sensitivity (mA)	Nominal rating In (A)	Number of modules
	4 105 77		30	63	2
1	4 105 83	<b>Hpi Type</b> <b>Hpi adjustable</b>	from 300 to 1000	63	4
	4 105 84		from 300 to 1000	125	4
1	4 106 05	<b>Hpi Type</b> <b>Hpi</b>	Sensitivity (mA)	Nominal rating In (A)	Number of modules
	4 106 06		30	63	3
	4 106 08		300	63	3
1	4 106 11	<b>Hpi Type</b> <b>Hpi adjustable</b>	from 300 to 1000	63	6
	4 106 12		from 300 to 1000	125	6
1	4 106 24	<b>AC Type</b>	Sensitivity (mA)	Nominal rating In (A)	Number of modules
	4 106 28		30	125	6
			300	125	6
1	4 106 36	<b>Hpi Type</b> <b>Hpi</b>	30	63	3
	4 106 37		30	125	6
	4 106 40		300	63	3
1	4 106 43	<b>Hpi Type</b> <b>Hpi adjustable</b>	from 300 to 1000	63	6
	4 106 44		from 300 to 1000	125	6
1	4 106 57	<b>4-pole 400 V<math>\sim</math> - Metering</b>	LCD display		
	4 106 58		For displaying active energy, instantaneous power and current per phase (A) consumption		
			<b>Hpi type</b> <b>Hpi</b> <b>with integrated energy meter</b>	Sensitivity (mA)	Nominal rating (A)
1	4 106 57		30 à 3000	63	7.5
	4 106 58		30 à 3000	125	7.5
1	4 106 59	<b>4-pole 400 V<math>\sim</math> - Measurement</b>	LCD display		
			For displaying current per phase, voltage, frequency, active and reactive power, power factor, active and reactive energy consumption and harmonics		
			<b>Hpi type</b> <b>Hpi</b> <b>with integrated measurement unit</b>	Sensitivity (mA)	Nominal rating (A)
1	4 106 59		30 à 3000	125	7.5

## Add-on modules DX<sup>3</sup>

### Compatibility MCBs/add-on modules

Breaking capacity	Curve	Number of poles	Add-on module for 1 module/pole MCBs	Add-on module for 1.5 module/pole MCBs
6000 / 10 kA	B, C, D	2P, 3P, 4P	All range	-
10000 / 16 kA	B, C, D	2P, 3P, 4P	In ≤ 63 A	In ≥ 80 A
		3P, 4P	In ≤ 25 A	In ≥ 32 A
25 kA	B, C, Z	2P	In ≤ 32 A	In ≥ 40 A
		3P, 4P	In ≤ 10 A	In ≥ 12,5 A
	D	2P	In ≤ 25 A	In ≥ 32 A
36kA, 50 kA	B, C, D	2P, 3P, 4P	-	All range

### Adjustable add-on modules, Hpi type

Easy to access settings on front panel with sealable transparent cover  
Sensitivity: 300, 500 and 1000 mA  
Time delay: instantaneous, selective (60 ms) or delayed (150 ms)



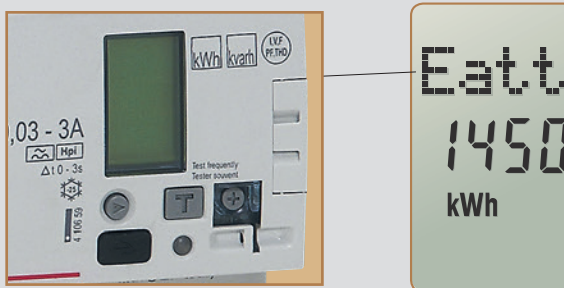
### Hpi add-on modules with integrated metering unit or measurement control unit

Conform to standards EN 61009-1, EN 60947-2 and 61557-12 (PMD/DD/K55)

Electronic settings on the front panel  
Sensitivity: 30, 300, 1000, 3000 mA  
Time delay: instantaneous, or delayed (300 ms, 1 s, 3 s)

For integration in the EMDX<sup>3</sup> display and supervision system with interface Cat.No 4 210 75 (p. 85), to feed back information and the status of the remote MCB.

Precision: EN 61557-12 Class 1

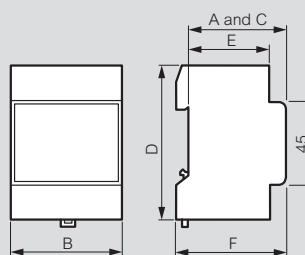
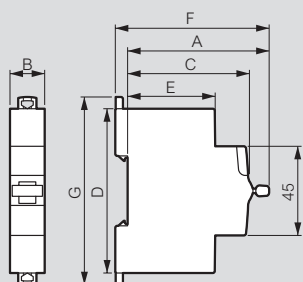


Eatt  
1450  
kWh

For detailed dimensions, **see e-catalogue**



## Dimensions of din-rail equipment



Product	A		B				C	D	E	F	G
	1P	1P+ N	2P	3P	4P						
<b>RX<sup>3</sup> MCBs</b>	71.7	17.7	35.4	35.4	53.1	70.8	61	83	44	77.8	88.9
<b>RX<sup>3</sup> RCCBs</b>	71.7			35.6		71.2	61	83	44	77.8	88.9
<b>TX<sup>3</sup> MCBs</b>	71.7	17.7	35.4	35.4	53.1	70.8	61	83	44	77.8	88.9
<b>TX<sup>3</sup> RCCBs</b>	71.7			35.6		71.2	61	83	44	77.8	88.9
<b>Isolating switches DX<sup>3</sup></b>	71.7	17.8		17.8/ 35.4	35.6/ 53.1	70.8	61	83	44	77.8	94.8
<b>Remote trip head isolating switches DX<sup>3</sup> up to 63A - 1 mod/pole</b>	71.7			35.4	53.1	70.8	61	83	44	77.9	94.8
<b>Remote trip head isolating switches DX<sup>3</sup> 100/125A - 1.5 mod/pole</b>	73				80.1	106.8	61	96	47	79	104.3
<b>DX<sup>3</sup> RCCBs</b>	71.7			35.6		71.2	61	83	44	77.8	94.8
<b>1P DX<sup>3</sup> RCBOs (up to 45A)</b>	68	17.7					60	115	48	74	126.8
<b>1P+N DX<sup>3</sup> RCBOs (up to 40A) &amp; 4P (up to 32A)</b>	71.7		35.6			71.2	61	83	44	77.8	94.8
<b>2P &amp; 4P DX<sup>3</sup> RCBOs (40A to 63A)</b>	72			71.2		124.6	61	96	44	78.2	107.8
<b>1P+N DX<sup>3</sup> MCBs 1 mod</b>	71.7		17.8				61	83	44	77.8	94.8
<b>DX<sup>3</sup> MCBs - 1 mod/pole</b>	71.7	17.7	35.4	35.4	53.1	70.8	61	83	44	77.8	94.8
<b>DX<sup>3</sup> MCBs - 1,5 mod/pole</b>	73.1	26.7		53.4	80.1	106.8	61	100	47	79	104.3
<b>DX<sup>3</sup> add-on modules up to 63A - 1 mod/pole</b>	72			35.6	53.4	53.4	61	96	44	78.2	107.8
<b>DX<sup>3</sup> add-on modules up to 63A - 1.5 mod/pole</b>	72			35.6	53.4	53.4	61	96	47	78.2	116.7
<b>DX<sup>3</sup> add-on modules 80 to 125A - 1.5 mod/pole</b>	72			71.2	106.8	106.8	61	114	47	78.2	129
<b>DX<sup>3</sup> auxiliaries</b>	71.5			8.8 / 17.7			61	83	44	77.7	84.5
<b>DX<sup>3</sup> remote control</b>	74.3			17.7 / 35.4			61	83	44	80.5	98.8
<b>DX<sup>3</sup> Stop&amp;Go automatic resetting</b>	74.3			35.4			61	83	44	80.5	113.7
<b>Change-over switches</b>	68	17.7		35.6			60	83	44	74	94
<b>CX<sup>3</sup> latching relays</b>	64	17.8		17.8	35.6	35.6	61	84.5	44	70.2	94.8
<b>CX<sup>3</sup> contactors up to 25A</b>	66.3/ 61	17.8		17.8	35.6	35.6	61	84.5	44	72.6/ 67.3	94.8
<b>CX<sup>3</sup> contactors 40A &amp; 63A</b>	62			35.6	53.4	53.4	60	83	44	68	94
<b>Auxiliaries for CX<sup>3</sup> contactors and latching relays</b>	61			9/17.8			61	84.5	44	67	84.5
<b>Push-buttons / control switches</b>	68			17.7			60	83	44	74	94
<b>Indicators</b>	68			17.7			60	83	44	69	94
<b>Bells and buzzers</b>	60			17.7			60	76	44	66	85
<b>Light sensitive switches</b>											
<b>Cat.Nos 0 037 21, 4 126 23</b>	60			35.6			60	85	37.5	66	70
<b>Socket outlets</b>	60			44.5			60	83	44	66	92
<b>Time delay relays</b>	60			17.7			60	83	44	66	94
<b>Remote control dimmers</b>											
<b>Cat.No 0 036 58</b>	60			36			60	83	44	66	94
<b>Cat.No 0 036 60</b>	60			72			60	83	44	66	94
<b>Cat.No 0 036 71</b>	60			108			60	83	44	66	94

Description	A	B	C	D	E	F
<b>Programmable time switches</b>						
<b>0 037 05</b>	60	17.8	60	83	44	66
<b>4 127 80/90/94</b>	60	17.8	60	83	44	66
<b>4 127 95, 4 128 12/13</b>	60	53	60	83	44	66
<b>4 126 31/33/41</b>	60	35.6	60	83	44	66
<b>4 126 54/57</b>	60	35.6	60	83	44	66
<b>0 047 70</b>	60	90	60	83	44	66
<b>Transformers and power supplies</b>						
<b>0 042 10/30/31</b>	60	72	60	83	44	66
<b>4 130 91</b>	60	35.8	60	83.5	44	66
<b>4 130 92/93/96</b>	60	71.5	60	83.5	44	66
<b>4 130 98</b>	60	89	60	94	44	66
<b>0 047 91/92</b>	60	105	60	95	44	66
<b>4 131 05/06/07/08</b>	60	89	60	95	44	66
<b>0 047 93</b>	60	70	60	95	44	66
<b>Residual current relay</b>						
<b>0 260 88</b>	60	35.5	60	89	44	66

## RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

Cat.Nos: 4 106 57 to 4 106 59



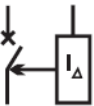
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### 1. DESCRIPTION - USE

RCD add-on modules with metering/measuring unit for MCBs. DX<sup>3</sup> ≤125A, 1,5 modules per pole width, breaking capacity 10000A/16kA, 25kA, 36kA or 50kA.

They protect people against direct and indirect electric shocks and installations against insulation faults. They enable, in addition, the measurement of the main electrical quantities (depending on the version: voltage, current, residual current, power, energy, frequency, power factor, THD, the history of causes of recent trips).

#### Symbol:



#### Technology:

. Electronic residual current operating.

### 2. RANGE

#### Number of poles:

. 4 poles.

#### Width:

. Four poles – 7,5 modules (7,5 x 17,8 mm = 133,5 mm).

#### Rated Currents, In:

. In 63A (cat. no 4 106 57):  
. In 125 A (cat. nos 4 106 58 / 59) :

#### Type:

. A-Hpi: sinusoidal AC fault currents with or without DC component and immunity against unwanted tripping (Hpi type are also A types).

#### Sensitivities and Tripping time:

. 30 mA instantaneous.  
. Adjustable sensitivity: 300ma, 1A or 3A with instantaneous or delayed tripping of 300ms, 1s or 3s.

### 2. RANGE (continued)

#### Features:

. Basic functions common to all devices:  
Remote report of the data

. Specific functions of the add-on module with metering unit (cat. N° 4 106 57 / 58):

Currents L1 L2 L3 N (in A)  
Residual current (in mA or A)  
Instantaneous total active power L1 L2 L3 (in W or kW)  
Total energy consumption (in kWh)

. Specific functions of the add-on module with measuring unit (cat. N° 4 106 59):

Currents L1 L2 L3 N (in A)  
Residual current (in mA or A)  
Voltages  
Powers  
Energies  
Frequency  
THD  
Power factor (cos φ)  
Cause of last trip

#### Rated Voltage / Frequency:

. 230 / 400 V~, 50 Hz standard tolerances.  
. 240 / 415 V~, 50 Hz standard tolerances.

#### Maximum operating voltage:

. 440 V ~, 50 Hz with standard tolerances.

#### Minimum operating voltage:

. 170 V ~, 50 Hz with standard tolerances.

# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

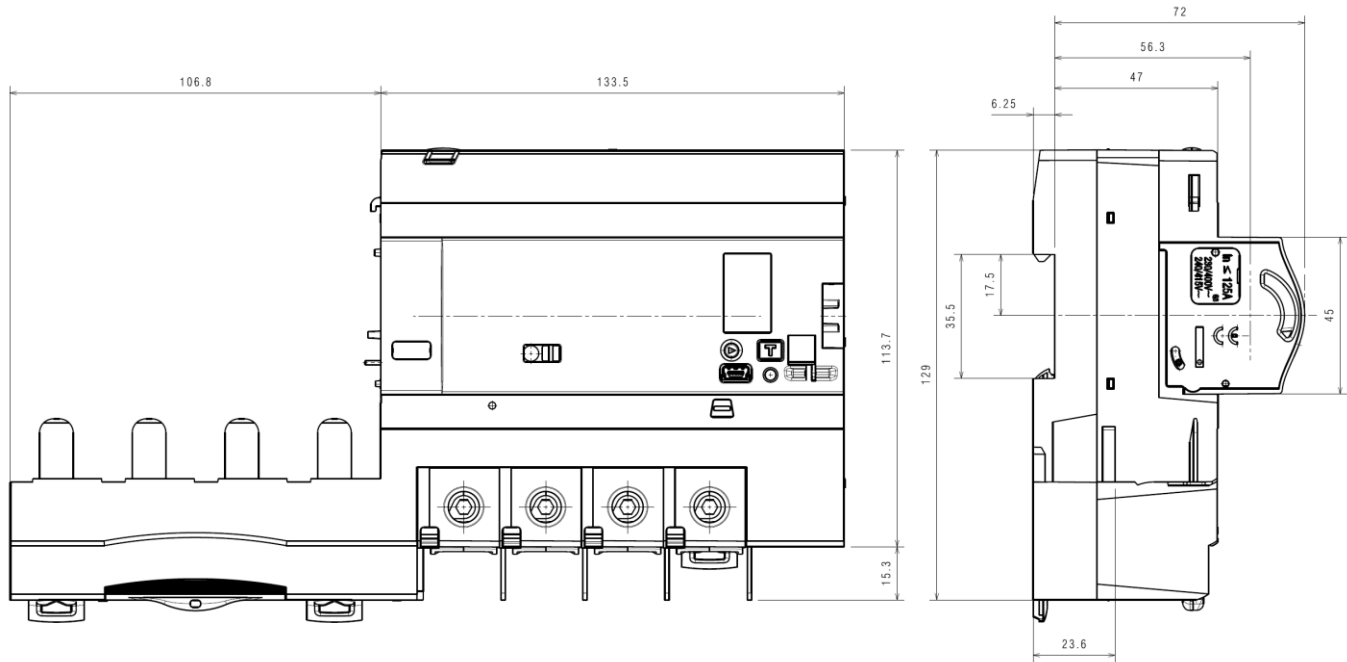
Cat.Nos: 4 106 57 to 4 106 59

## 2. RANGE (continued)

Compatibility with MCBs DX<sup>3</sup>:

	Breaking Capacity	Curve	4 106 57	4 106 58	4 106 59
DX <sup>3</sup>	10000A / 16kA	B, C, D	--	$80A \leq I_n \leq 125A$	$80A \leq I_n \leq 125A$
	25kA	B, C,	$32A \leq I_n \leq 63A$	$32A \leq I_n \leq 125A$	$32A \leq I_n \leq 125A$
	25kA	D, MA	$12,5A \leq I_n \leq 63A$	$12,5A \leq I_n \leq 125A$	$12,5A \leq I_n \leq 125A$
	36kA	C	$10A \leq I_n \leq 63A$	$10A \leq I_n \leq 80A$	$10A \leq I_n \leq 80A$
	50kA	B, C, D, MA	$10A \leq I_n \leq 63A$	$10A \leq I_n \leq 63A$	$10A \leq I_n \leq 63A$

## 3. OVERALL DIMENSIONS



# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

Cat.Nos: 4 106 57 to 4 106 59

## 4. FIXING - CONNECTION

### Assembling:

. On the right side of the MCBs. DX<sup>3</sup> ≤125A, 1.5 modules per pole width, breaking capacity 10000A/16kA, 25kA, 36kA or 50kA.. Associated to the circuit breaker by plastic clamps and tightening of connections in the downstream terminals of the MCB. Can be mounted on the right of the MCBs 1.5 modules per pole up to 63A breaking capacity 16kA, 25 kA and 50 kA, in this case the rated current of the add-on module is 63 A.

### Mounting:

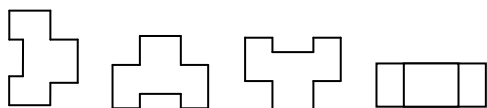
. On symmetrical IEC/EN 60715 rail or DIN 35 rail.

### Power supply:

. From the top trough the associated MCB or from the bottom directly on the add-on module.

### Operating position:

. Vertical Horizontal Upside down On the side



### Screw terminals:

- . Terminals protected against accidental contact (IP20).
- . The screw terminals are separated by built-in shields.
- . Cage terminals, with release and captive screw
- . Add-on module In 63A:  
Terminal depth: 19 mm.  
Stripping length : 17 mm  
Screw head: mixed, slotted and Pozidriv n°2.  
Recommended tightening torque: 3 Nm.
- . Add-on module In 125A:  
Terminal depth: 19 mm.  
Stripping length : 17 mm  
Screw head: Allen screw 4 mm.  
Recommended tightening torque: 5,5 Nm.

### Connectable section:

63A

. In the power terminals

	Copper cable	
	Without ferrule	With ferrule
Rigid cable	1 x 50 mm <sup>2</sup>	-
Flexible cable	1 x 35 mm <sup>2</sup>	1 x 35 mm <sup>2</sup>

125A

. In the power terminals

	Copper cable	
	Without ferrule	With ferrule
Rigid cable	1 x 70 mm <sup>2</sup>	-
Flexible cable	1 x 50 mm <sup>2</sup>	1 x 50 mm <sup>2</sup>

## 4. FIXING - CONNECTION (continued)

125A

In the automatic terminals

	Copper cable	
	Without ferrule	With ferrule
Rigid cable	0,75 mm <sup>2</sup> + 2,5 mm <sup>2</sup>	-
Flexible cable	0,75 mm <sup>2</sup> + 2,5 mm <sup>2</sup>	0,75 mm <sup>2</sup> + 1,5 mm <sup>2</sup>

### Recommended tools:

- . For fixing on the DIN rail: flat screwdriver 5.5 mm (from 4 to 6 mm).
- . For the terminals 63A: Pozidriv n°2 screwdriver or flat screwdriver 5,5 mm (6,5 mm maxi).
- . For the terminals 125A: Allen wrench 4 mm.

### Manual actuation of the add-on module:

- . By the 2-positions ergonomic handle of the associated MCB.
  - I / ON : Closed circuit.
  - O / OFF : Open circuit.

### Contacts status display:

- . By marking of the associated MCB. handle:
  - “O-Off” white on a green background = contacts opened.
  - “I-On” white on a red background = contacts closed.

### Report of the contacts position:

- . The MCB contacts position is available through the communication.  
Possible positions : Closed / Open / Manual or on short-circuit trip / trip caused by a residual current fault

### Display of fault trip caused by a residual current:

- . Yellow mechanical signaller into the window on front-side marking zone.

### Signalling the state of the device:

- . Signalling by bi colour LED:
  - Green fixed: normal operation.
  - Green flashing: settings in progress.
  - Red fixed: value of the residual current (I<sub>Δ</sub>) exceeds 45% of the set value.
  - Red flashing: value of the residual current (I<sub>Δ</sub>) exceeds 60% of the set value.
  - Red / Green alternate flashing: Self-protection due to overheating.

### Labelling:

- . Circuit identification by insertion of a label in the label holder of the associated MCB.

### Battery type:

- . Lithium CR1616. Qty:2

### Battery voltage:

- . 3 V d.c.

### Battery current:

- . 50 mAh.

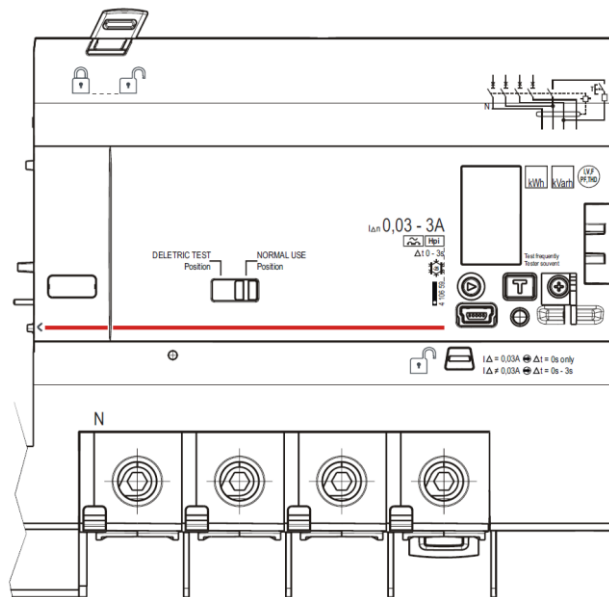
# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

Cat.Nos: 4 106 57 to 4 106 59

## 5. GENERAL CHARACTERISTICS

### Front face marking:

- By permanent ink pad printing.



### "Test" key operating voltages:

U min	170 V ~
U max	440 V ~

### Residual breaking capacity I<sub>Δm</sub>:

- In accordance with standard IEC/EN 61009-1 and IEC/EN 60947-2 (I<sub>Δm</sub>: short-circuit to ground)
- I<sub>Δm</sub> = 60% of I<sub>cu</sub> of the associated MCB.

### Neutral system:

- IT - TT - TN.

### Insulation rated voltage:

- U<sub>i</sub> = 500 V according to IEC/EN 61009-1 and IEC/EN 60947-2.

### Pollution degree:

- 3.

### Dielectric strength:

- 2500 V.

### Impulse-withstand rated voltage:

- U<sub>imp</sub> = 6 kV (wave 1.2 / 50 μs).

### Operation at different frequencies respect to the nominal frequency:

- The only operating frequency is the nominal frequency.

## 5. GENERAL CHARACTERISTICS (continued)

### Protection against unwanted tripping:

- Damped recurrent wave - 0.5 μs/100kHz : 200A for all sensitivity.
- Wavw 8/20 μs:

Sensitivity	30 mA	300 mA	1 A	3 A
Corrent	3000 A	5000 A	5000 A	5000 A

### Protection class:

- Protection index of terminals against solid and liquid bodies (wired device): IP 20 (in accordance with standards IEC/EN 60529 and NF C 20-010).
- Protection index of the front face against direct contacts: IP 40 (in accordance with standards IEC/EN 60529 and NF C 20-010).
- Class II compared to conductive parts.
- Protection index against mechanical shocks: IK 01 (accordance with standards IEC / EN 50102 et NF C 20-015).

### Mechanical and electrical endurance (associated to a MCB)

- 20000 operations without load
- 10000 operations with load.
- 1000 tripping operations by the Test key.
- 1000 tripping operations for fault residual current.

### Power dissipated and impedance per pole at In:

In≤63A

In	Four-Pole	
	Z(mΩ)	P(W)
6	0.55	0.02
10	0.55	0.06
16	0.55	0.14
20	0.55	0.22
25	0.55	0.34
32	0.55	0.56
40	0.55	0.88
50	0.55	1.38
63	0.55	2.18

In≤125A

In	Four-Pole	
	Z(mΩ)	P(W)
80 A	0.245	1.57
100 A	0.245	2.45
125 A	0.245	3.83

**Note:** to obtain total power dissipated by the assembly Add-on module + MCB, these powers should be added to those of the associated MCB.

# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

Cat.Nos: 4 106 57 to 4 106 59

## 5. GENERAL CHARACTERISTICS (continued)

### Consumption:

- Max. 1 VA.

### Plastics:

- Polycarbonate parts.

### Resistance to abnormal heat and to fire:

- Fire retardant and self-extinguishing materials.
- Heat and fire resistant according to EN 61009, glow-wire test at 960°C for external parts made of insulating material necessary to retain in position current-carrying parts and parts of protective circuit (650°C for all other external parts made of insulating material).

### Calorific value:

	Four-pole
MJ	8,53

### Volume and quantity when packed:

- Four poles 4,6 dm<sup>3</sup> per device.

### Average weight per device:

- Four pole 63A: 0,7 kg
- Four pole 125A: 1 kg

### Ambient operating temperature:

- Min. = -25°C. Max. = +60°C

### Ambient storage temperature:

- Min. = -40°C. Max. = +70°C

### Specific use:

- Appropriate to be used in humid environment and polluted by chlorine (pool-type)

### Derating according ambient temperature:

- Reference temperature: 40 °C in accordance with standard IEC/EN 60947-2.
- No derating of the add-on module depending on the ambient temperature between - 25 ° C and +40 ° C.
- Derating between + 40 ° C to + 76 ° C :

Temperature	40 °C	50 °C	60 °C
% of I <sub>n</sub>	100 %	95 %	90 %

### Resistance to sinusoidal vibrations:

- According to IEC 60068-2-35.
- Axis : x, y, z.
- Frequency range: 5÷100 Hz ; duration 90 minutes
- Displacement (5÷13,2 Hz) : 1mm.
- Acceleration (13,2÷100 Hz) : 0,7g (g=9,81 m/s<sup>2</sup>)

## 5. GENERAL CHARACTERISTICS (continued)

### Influence of the altitude :

	2000 m	3000 m	4000 m	5000 m
Dielectric strength	3000 V	2500 V	2000 V	1500 V
Max operating voltage	400 V	400 V	400 V	400 V
Derating at 40°C	none	none	none	none

### Measured quantities and measurement accuracy class:

- Currents (accuracy class 1) :  
phase: I<sub>1</sub>, I<sub>2</sub>, I<sub>3</sub> ;  
neutral: I<sub>N</sub>.
- Voltage (accuracy class 0,5) :  
phase/phase: U<sub>12</sub>, U<sub>23</sub>, U<sub>31</sub> ;  
phase/neutral: V<sub>1N</sub>, V<sub>2N</sub>, V<sub>3N</sub>.
- Frequency (accuracy 0,1%)
- Power:  
instantaneous total active power;  
instantaneous total reactive power.
- Power factor (cos φ).
- Energy :  
total active energy, positive and negative (accuracy class 1);  
total reactive energy, positive and negative (accuracy class 2).
- THD :  
THD of Voltages: V<sub>1</sub>, V<sub>2</sub>, V<sub>3</sub>;  
THD of currents: I<sub>1</sub>, I<sub>2</sub>, I<sub>3</sub>, I<sub>N</sub>.

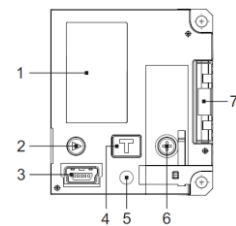
### Historical:

- Historical of causes of recent trips :  
trip due to residual current fault (value of the residual current)  
overheating (temperature value)  
trip by test key

### Display card:

- The display is the user interface. It consist of:

- Backlight LCD display;
- Navigation key;
- USB Port;
- RCD Test key;
- Bi-colour LED;
- Setting key;
- Battery compartment




# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

Cat.Nos: 4 106 57 to 4 106 59

## 5. GENERAL CHARACTERISTICS (continued)

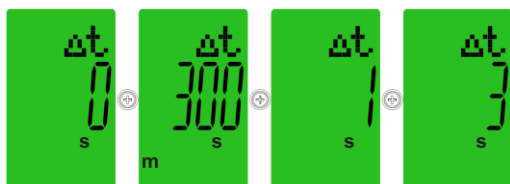
### Programming pages:

- The settings are implemented by pressing the key .
- The adjustable parameters are the values of the residual current and the tripping time:


Rated residual current (possible settings 30mA, 300mA, 1A, 3A):



Tripping time (possible settings 0s, 300ms, 1s, 3s):



### Display pages:

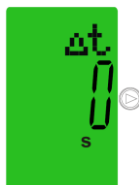
- The display of the pages is realised via the navigation button .
- (According to the version "metering unit" or "measuring unit" some pages are not available).

- Display of set parameters:

Rated residual current (set value)



Tripping time (set value)

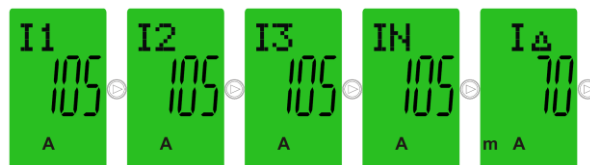


## 5. GENERAL CHARACTERISTICS (continued)

### Display pages - Measured quantities:

- Display of measured quantities:

Current (phases / neutral / residual current)



Phase Voltages



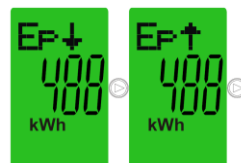
Power (active and reactive) and Power Factor



Frequency



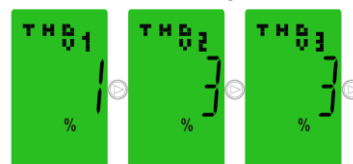
Active energy (positive and negative)



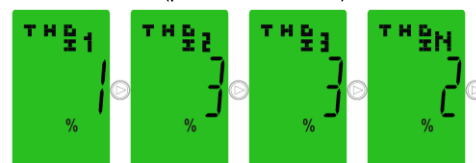
Reactive energy (positive and negative)



THD of the Phase Voltages



THD of Currents (phase and neutral)

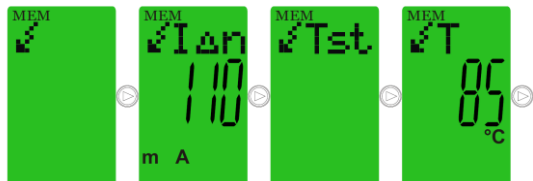




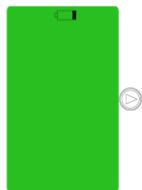
## 5. GENERAL CHARACTERISTICS *(continued)*

### Display pages - Measured quantities *(continued)*:

- . Historical of causes of recent trips :
  - no tripping
  - trip due to residual current fault (value of the residual current)
  - trip by test key
  - overheating (temperature value)

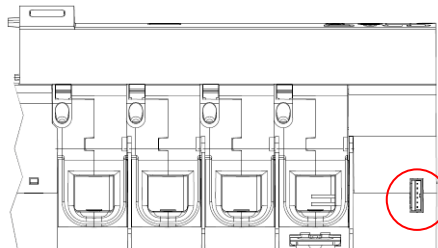


- . Exhausted batteries (the symbol  appears on all pages):



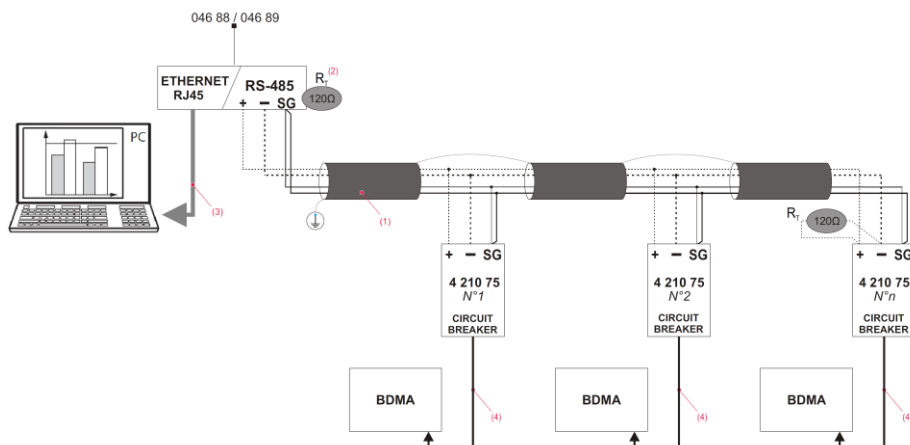
### Integration of the add-on module in the remote display and monitoring system:

- . The communication port is located on the lower side of the device.



The port enables the integration of the device in the monitoring system via the RS485 communication interface (ref 4 210 75) and the Gateway RS485/IP.

### Wiring diagram:



(1)RS485:

Prescribed use of Cable Belden 9842 (or equivalent) for a maximum bus length of 1000m or category 6 Cable (FTP or UTP) for a maximum length of 50m;

(2)Termination Resistor RT integrated.

(3)Ethernet:

Category 6 Cable (FTP or UTP).

(4)Cable supplied with the module 4 210 75.

# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

Cat.Nos: 4 106 57 to 4 106 59

## 6. COMPLIANCE AND APPROVALS

### In accordance with standards:

- . IEC/EN 61009-1.
- . IEC/EN 60947-2.
- . IEC 60051
- . IEC 61557-12.
- . IEC 62053
- . Compliance with Directives 2014/35/UE (LVC), subsequent modifications and additions.
- . Compliance with Directives 2014/30/UE (EMC), subsequent modifications and additions.

### Environment respect – Compliance with CEE directives:

- . Compliance with Directive 2011/65/UE called "RoHS" provides the banishment of hazardous substances, subsequent modifications and additions.
- . Compliance with Directives 91/338/CEE of 18/06/91 and decree 94-647, subsequent modifications and additions.

### Plastic materials :

- . Halogen-free plastic materials.
- . Marking of parts according to ISO 11469 and ISO 1043.

### Packaging:

- . Design and manufacture of packaging in accordance with decree 98-638 and Directive 94/62/EC, subsequent modifications and additions.

### Compliance with IEC 61557-12

PMD Characteristics		
Type of characteristic	Specification values	Other complementary characteristics
Power quality assessment function	-	-
Classification of PMD	DD	-
Temperature	K55	-
Humidity + Altitude	Conditions standards	-
Active power or active energy function performance class	1	-

# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

Cat.Nos: 4 106 57 to 4 106 59

## 6. COMPLIANCE AND APPROVALS (continued)

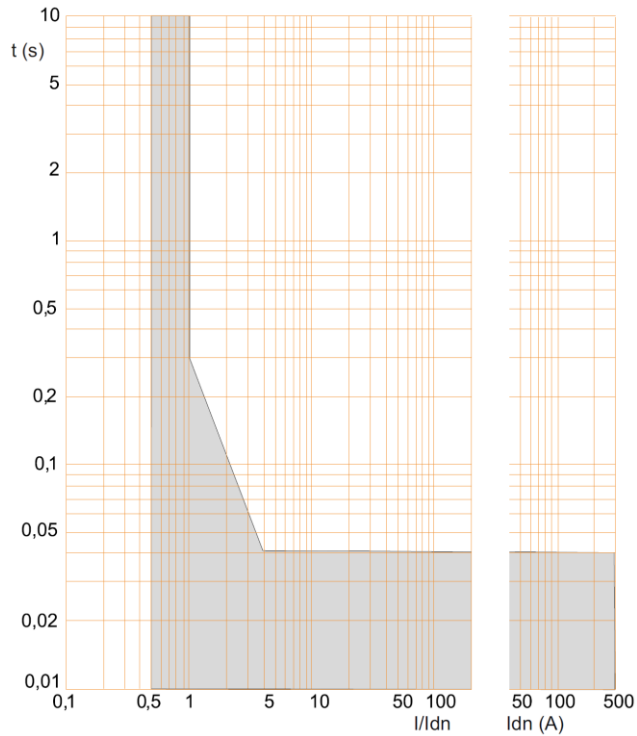
### Compliance with IEC 61557-12

Symbol for functions	Measurement range	Function performance class according to IEC 61557-12	Other complementary characteristics
	<b>63 A 125 A</b>		<b>63 A 125 A</b>
<b>P</b>	0,0125...75 kW 0,025...150 kW	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A UN=400 V, f <sub>N</sub> =50 Hz
<b>Q<sub>A</sub>, Q<sub>V</sub></b>	0,0125...75 kvar 0,025...150 kvar	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A UN=400 V, f <sub>N</sub> =50 Hz
<b>S<sub>A</sub>, S<sub>V</sub></b>	-	-	-
<b>E<sub>a</sub></b>	0...9999 MWh	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A UN=400 V, f <sub>N</sub> =50 Hz
<b>E<sub>rA</sub>, E<sub>rV</sub></b>	0...9999 Mvarh	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A UN=400 V, f <sub>N</sub> =50 Hz
<b>E<sub>apA</sub>, E<sub>apV</sub></b>	-	-	-
<b>f</b>	45...65 Hz	0.1	-
<b>I</b>	1,25...75 A 2,5...150 A	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A UN=400 V, f <sub>N</sub> =50 Hz
<b>I<sub>N</sub>, I<sub>Nc</sub></b>	1,25...75 A 2,5...150 A	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A UN=400 V, f <sub>N</sub> =50 Hz
<b>U</b>	88...550 V	0.5	-
<b>P<sub>FA</sub>, P<sub>FV</sub></b>	-	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A UN=400 V, f <sub>N</sub> =50 Hz
<b>P<sub>st</sub>, P<sub>It</sub></b>	-	-	-
<b>U<sub>dip</sub></b>	-	-	-
<b>U<sub>swt</sub></b>	-	-	-
<b>U<sub>tr</sub></b>	-	-	-
<b>U<sub>int</sub></b>	-	-	-
<b>U<sub>nba</sub></b>	-	-	-
<b>U<sub>nb</sub></b>	-	-	-
<b>U<sub>h</sub></b>	-	-	-
<b>THD<sub>u</sub></b>	-	-	-
<b>THD-R<sub>u</sub></b>	88...550 V	0.5	-
<b>I<sub>h</sub></b>	-	-	-
<b>THD<sub>i</sub></b>	1,25...75 A 2,5...150 A	1	I <sub>b</sub> =20 A, I <sub>max</sub> =75 A I <sub>b</sub> =40 A, I <sub>max</sub> =150 A
<b>THD-R<sub>i</sub></b>	-	-	-
<b>Msv</b>	-	-	-

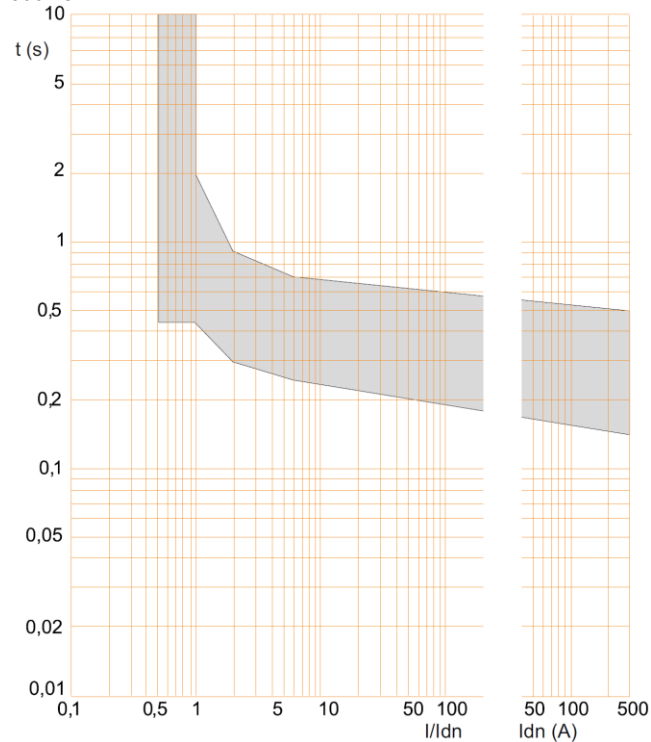
7. CURVES

**Residual current operating characteristic**

- . Average tripping time depending on the intensity of the fault current.
- . Sensitivities 30mA, 300mA, 1000mA and 3000mA instantaneous.

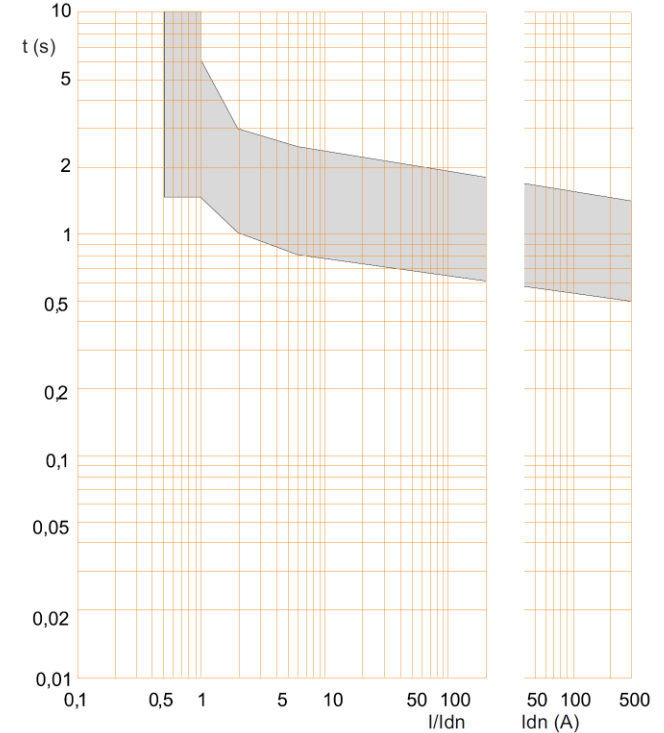


- . Sensitivities 300mA, 1000mA and 3000mA with a time delay of 300ms.

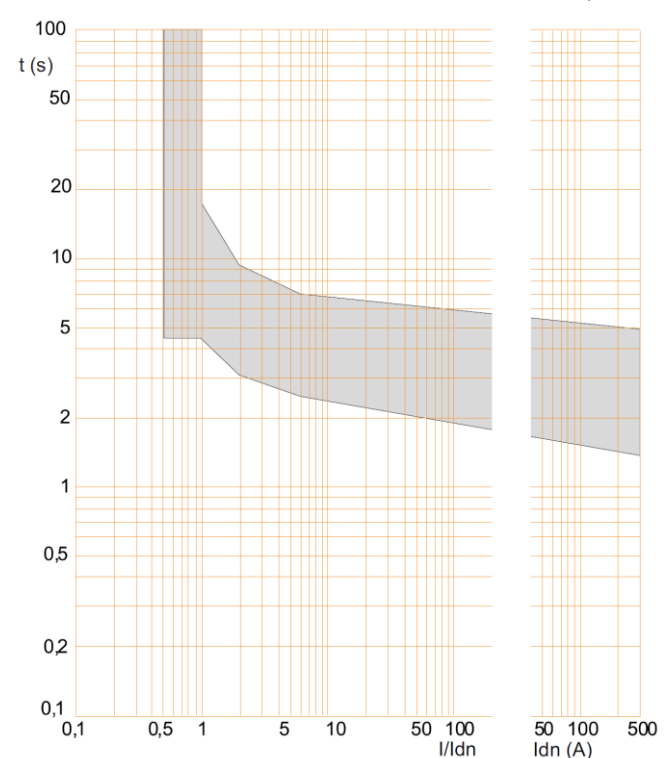


7. CURVES (continued)

- . Sensitivities 300mA, 1000mA and 3000mA with a time delay of 1s.



- . Sensitivities 300mA, 1000mA and 3000mA with a time delay of 3s.



# RCD add-on module DX<sup>3</sup> 63A - 125A with metering/measuring unit

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## 8. AUXILIARIES AND ACCESSORIES

### Installation software:

. XL Pro<sup>3</sup>.

### Wiring accessories:

. Terminal for Aluminium cable 95mm<sup>2</sup>(406311).

. Terminal for Aluminium cable 50mm<sup>2</sup>(406310).