## Low Voltage Circuit Protection \& Switchgear


$I_{n} / I_{\Delta n}(A) \quad$ Item no.

10 kA, 2-pole
To a certain extent surge-current-proof 250A non-delayed, pulse current sensitive, Type A

## Characteristic B

| $10 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-10/2/B/003-A |
| :--- | :--- |
| $16 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-16/2/B/003-A |
| $20 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-20/2/B/003-A |
| $25 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-25/2/B/003-A |
| Characteristic C |  |
| $10 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-10/2/C/003-A |
| $16 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-16/2/C/003-A |
| $20 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-20/2/C/003-A |
| $25 \mathrm{~A} / 30 \mathrm{~mA}$ | AFDD-25/2/C/003-A |

$I_{\mathrm{n}} / \mathrm{I}_{\Delta \mathrm{n}}(\mathrm{A}) \quad$ Item no.

6 kA, 2-pole
To a certain extent surge-current-proof 250A;
non-delayed, pulse current sensitive, Type A

## Characteristic B

| 32A / 30mA | AFDD-32/2/B/003-A |
| :--- | :--- |
| 40A / 30mA | AFDD-40/2/B/003-A |
| Characteristic C | AFDD-32/2/C/003-A |
| 32A / 30mA | AFDD-40/2/C/003-A |
| 40A / 30mA | Item no. |
| Accessories | EVG-2PHAS/4AFDD |
| Commoning busbar <br> for 4 x AFDD devices | ZP-IHK |
| Auxiliary switch with <br> 1NO+1NC contacts | ZP-NHK |
| Auxiliary switch with <br> 2CO contacts | ZP-ASA/.. |
| Shunt trip release |  |
| Switching interlock | IS/SPE-1TE |

## IEC DIN MCB

## xPole Arc Fault Detection Device

The AFDD+ provides a full protection solution against electrical ignited fires
The AFDD+ provides a full protection solution in one device that enhances consumers' peace of mind against fires ignited by electrical installations, while adding additional comfort. This all-in-one device gives the consumer full protection in their home and enables the installer to offer and install products that comply with evolving new codes and standards.

- Electric fire protective device according to IEC/EN-62606
- Line-voltage-independent RCBO (combined switch) according to IEC/EN 61009
- 2-pole: Both clearances between open contacts are protected
- Tripped indication: CB, RCD or AFDD
- LED indication for arc faults
- Compatible with standard busbar
- Twin-purpose terminal above and below
- Busbar positioning optionally above or below
- Free terminal space despite installed busbar
- Guide for secure terminal connection
- Switching toggle (MCB component) in colour designating the rated current
- Contact position indicator red - green
- Comprehensive range of accessories suitable for subsequent installation
- The test key "T" must be pressed every 6 month. The system operator must be informed of this obligation and his responsibility in a way that can be proven (self-adhesive RCD-label enclosed). The test interval of 6 month is valid for residential and similar applications. Under all other conditions (e.g. damp or dusty environments), it's recommended to test in shorter intervals (e.g. monthly)
- Pressing the test key " $T$ " serves the only purpose of function testing the residual current device (RCD). This test does not make earthing resistance measurement (RE), or proper checking of the earth conductor condition redundant, which must be performed separately
- Type A: Protects against special forms of residual pulsating DC which have not been smoothed
- Approval number NSW27674

EARTH FAULT
detected via balance transformer

SHORT CIRCUIT \& OVERCURRENT
thermal and magnetic detection

digital arc fault detection

# Low Voltage Circuit Protection \& Switchgear 

## IEC DIN MCB

xPole Arc Fault Detection Device
The following types of fault can lead to severe hazard and danger.

## Overcurrents

A moderate increase in current which does not immediately damage the wiring but results in a thermal overload over time. May increase over a period or almost instantaneously jump to a steady state current.

Typical causes

- Insulation defects
- Breakdown between phases
- Breakdown between phase and neutral


## Short circuit currents

Faults with very low impedance and very high currents which can be up to 20 times the nominal current.
Typical causes
Phase and neutral shortcircuiting over very low impedance, due to:

- Insulation breakdown
- Mechanical damage to wiring
- Water


## Fault currents

High or low impedance faults between phase and earth. They can result in very low leakage and fault currents, either much lower than nominal current or in very high currents.
Typical causes
Changes in insulation and insulation resistance, due to:

- Humidity
- Aging
- Mechanical stress
- Dust
- Dirt etc.


## Arc fault currents

Typically at nominal current or just below, and therefore difficult to detect. Small arcs can grow over time as insulation is increasingly damaged. Identified by high frequency electrical noise and breakdown of the fault current close to the zero crossing of the driving voltage.

Typical causes
Broken or damaged wires leading to an arc continually or intermittently burning and damaging insulation.


Overcurrents


Short circuit currents


Fault currents


Serial arc faults
Originate from a fault within the phase or neutral.


Parallel arc faults
Originate from a fault between phase and neutral.

Extended protection for people, property and assets
Protection against electrical hazards has evolved and improved to arrive at today's state-of-the-art EATON solutions.

## Money-saving

Billions of dollars are lost because of fires. The AFDD+ makes a definite and significant contribution to reducing this loss, by offering installers for the first time a single compact device which not only increases safety but also reduces the risk of fire hazards.

## Time-saving

Easy to operate and with no assembly required, the EATON AFDD+ is a fully integrated device, resistant to nuisance tripping, with sensitivity above the requirements of the product standard.
In case of an earth fault, having all protection in one device makes fault finding easier. And, as the AFDD+ provides tripping reason indicators, you, as a professional electrician, know immediately what to look for.

## End User Convenience

In the case of any (earth) fault, only the circuit that caused the fault will trip so other circuits will remain powered.

## Market-leading

EATON's long experience in developing electronic protection devices ensures the company's leading position in providing reliable and safe electronic protection devices - of which the AFDD+ is the latest in a long line.

## Comprehensive protection in final end circuits

The AFDD+ provides complete protection in final sub circuits in one compact device

## Low Voltage Circuit Protection \& Switchgear

IEC DIN MCB


## IEC DIN MCB

xPole IEC DIN MCB, RCCB \& RCBO products
IS Main switches/isolating switches

| Rated uninterrupted current | Poles | Item no. |
| :--- | :--- | :--- |
| lu, $A$ |  |  |
| 40 | 1 | IS-40/1 |
| 63 | 1 | IS-63/1 |
| 80 | 1 | IS-80/1 |
| 100 | 1 | IS-100/1 |
| 125 | 2 | IS-125/1 |
| 40 | 2 | IS-40/2 |
| 63 | 2 | IS-63/2 |
| 80 | 2 | IS-80/2 |
| 100 | 2 | IS-100/2 |
| 125 | 3 | IS-125/2 |
| 40 | 3 | IS-40/3 |
| 63 | 3 | IS-63/3 |
| 80 | 3 | IS-80/3 |
| 100 | 3 | IS-100/3 |
| 125 | 4 | IS-125/3 |
| 40 | 4 | IS-40/4 |
| 63 | 4 | IS-63/4 |
| 80 | 4 | IS-80/4 |
| 100 | 4 | IS-100/4 |
| 125 | IS-125/4 |  |


|S-63/1


IS-63/4


PLS4-C50/1-AU


PLS4-C6/2-AU


PLS4-C10/3-AU

## Low Voltage Circuit Protection \& Switchgear

## IEC DIN MCB

xPole IEC DIN MCB, RCCB \& RCBO products

## PLS6 Miniature Circuit Breakers (MCB)

- High-quality miniature circuit breakers for commercial \& industrial applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- 48 VDC rating (per pole, max. 2 poles)
- Terminal capacity $1-25 \mathrm{~mm}^{2}$
- Rated currents up to 63 A
- Tripping characteristics B, C
- Rated breaking capacity 6 kA according to IEC/EN 60898-1
- Australian Standards AS/NZS60898 Approval Number NSW16860


PLS6-C63/2-AU


PLS6-C25/3-AU


PLN6-B6/1N

| Rated current In, A | 1-Pole Item no. | 2-Pole Item no. | 3-Pole Item no. | 4-Pole Item no. |
| :---: | :---: | :---: | :---: | :---: |
| 6 kA , trip curve B: Rated current up to 63 A, Rated breaking capacity 6 kA to IEC/EN 60898 |  |  |  |  |
| 6 | PLS6-B6/1-AU | PLS6-B6/2-AU | PLS6-B6/3-AU | PLS6-B6/4-AU |
| 10 | PLS6-B10/1-AU | PLS6-B10/2-AU | PLS6-B10/3-AU | PLS6-B10/4-AU |
| 16 | PLS6-B16/1-AU | PLS6-B16/2-AU | PLS6-B16/3-AU | PLS6-B16/4-AU |
| 20 | PLS6-B20/1-AU | PLS6-B20/2-AU | PLS6-B20/3-AU | PLS6-B20/4-AU |
| 25 | PLS6-B25/1-AU | PLS6-B25/2-AU | PLS6-B25/3-AU | PLS6-B25/4-AU |
| 32 | PLS6-B32/1-AU | PLS6-B32/2-AU | PLS6-B32/3-AU | PLS6-B32/4-AU |
| 40 | PLS6-B40/1-AU | PLS6-B40/2-AU | PLS6-B40/3-AU | PLS6-B40/4-AU |
| 50 | PLS6-B50/1-AU | PLS6-B50/2-AU | PLS6-B50/3-AU | PLS6-B50/4-AU |
| 63 | PLS6-B63/1-AU | PLS6-B63/2-AU | PLS6-B63/3-AU | PLS6-B63/4-AU |
| 6 kA, trip curve C: Rated current up to 63 A, Rated breaking capacity 6 kA to IEC/EN 60898 |  |  |  |  |
| 1 | PLS6-C1/1-AU | PLS6-C1/2-AU | PLS6-C1/3-AU | PLS6-C1/4-AU |
| 2 | PLS6-C2/1-AU | PLS6-C2/2-AU | PLS6-C2/3-AU | PLS6-C2/4-AU |
| 3 | PLS6-C3/1-AU | PLS6-C3/2-AU | PLS6-C3/3-AU | PLS6-C3/4-AU |
| 4 | PLS6-C4/1-AU | PLS6-C4/2-AU | PLS6-C4/3-AU | PLS6-C4/4-AU |
| 6 | PLS6-C6/1-AU | PLS6-C6/2-AU | PLS6-C6/3-AU | PLS6-C6/4-AU |
| 10 | PLS6-C10/1-AU | PLS6-C10/2-AU | PLS6-C10/3-AU | PLS6-C10/4-AU |
| 16 | PLS6-C16/1-AU | PLS6-C16/2-AU | PLS6-C16/3-AU | PLS6-C16/4-AU |
| 20 | PLS6-C20/1-AU | PLS6-C20/2-AU | PLS6-C20/3-AU | PLS6-C20/4-AU |
| 25 | PLS6-C25/1-AU | PLS6-C25/2-AU | PLS6-C25/3-AU | PLS6-C25/4-AU |
| 32 | PLS6-C32/1-AU | PLS6-C32/2-AU | PLS6-C32/3-AU | PLS6-C32/4-AU |
| 40 | PLS6-C40/1-AU | PLS6-C40/2-AU | PLS6-C40/3-AU | PLS6-C40/4-AU |
| 50 | PLS6-C50/1-AU | PLS6-C50/2-AU | PLS6-C50/3-AU | PLS6-C50/4-AU |
| 63 | PLS6-C63/1-AU | PLS6-C63/2-AU | PLS6-C63/3-AU | PLS6-C63/4-AU |

## PLN6 Miniature Circuit Breakers (MCB)

- Top-quality miniature circuit breakers 1P+N with a width of 1 module unit requiring little space for installation
- Contact position indicator red - green
- Guide for secure terminal connection
- Comprehensive range of accessories for subsequent installation
- Rated currents up to 40 A
- Tripping characteristics B, C
- Rated breaking capacity 6 kA according to IEC/ EN 60898
- Terminal capacity $1-16 \mathrm{~mm} 2$
- Australian Standards AS/NZS60898 Approval Number NSW25330

| Rated current In, $\mathbf{A}$ | 1+N-Pole item no. | Rated current In, $\mathbf{A}$ | 1+N-Pole item no. |
| :--- | :--- | :--- | :--- |
| 6 kA, trip curve B |  | 6 kA , trip curve C |  |
| 6 | PLN6-B6/1N | 6 | PLN6-C6/1N |
| 10 | PLN6-B10/1N | 10 | PLN6-C10/1N |
| 13 | PLN6-B13/1N | 13 | PLN6-C13/1N |
| 16 | PLN6-B16/1N | 16 | PLN6-C16/1N |
| 20 | PLN6-B20/1N | 20 | PLN6-C20/1N |
| 25 | PLN6-B25/1N | 25 | PLN6-C25/1N |
| 32 | PLN6-B32/1N | 32 | PLN6-C32/1N |
| 40 | PLN6-B40/1N | 40 | PLN6-C40/1N |

## IEC DIN MCB

xPole IEC DIN MCB, RCCB \& RCBO products

## PLSM Miniature Circuit Breakers (MCB)

- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Terminal capacity $1-25 \mathrm{~mm} 2$
- 48 VDC rating (per pole, max. 2 poles)
- Rated currents up to 63 A
- Tripping characteristics B, C, D
- Rated breaking capacity 10 kA according to IEC/EN 60898-1
- Australian Standards AS/NZS60898 Approval Number NSW16860


PLSM-C32/1-AU

| Rated current <br> In, A | 1-Pole <br> Item no. | 2-Pole <br> Item no. | 3-Pole <br> Item no. | 4-Pole <br> Item no. |
| :--- | :--- | :--- | :--- | :--- |

10 kA, trip curve B: Rated current up to 63 A, Rated breaking capacity 10 kA to IEC/EN 60898, Colour-coded toggle switch indicates current rating

| 1 | PLSM-B1/1-AU | PLSM-B1/2-AU | PLSM-B1/3-AU | PLSM-B1/4-AU |
| :--- | :--- | :--- | :--- | :--- |
| 2 | PLSM-B2/1-AU | PLSM-B2/2-AU | PLSM-B2/3-AU | PLSM-B2/4-AU |
| 3 | PLSM-B3/1-AU | PLSM-B3/2-AU | PLSM-B3/3-AU | PLSM-B3/4-AU |
| 4 | PLSM-B4/1-AU | PLSM-B4/2-AU | PLSM-B4/3-AU | PLSM-B4/4-AU |
| 6 | PLSM-B6/1-AU | PLSM-B6/2-AU | PLSM-B6/3-AU | PLSM-B6/4-AU |
| 10 | PLSM-B10/1-AU | PLSM-B10/2-AU | PLSM-B10/3-AU | PLSM-B10/4-AU |
| 16 | PLSM-B16/1-AU | PLSM-B16/2-AU | PLSM-B16/3-AU | PLSM-B16/4-AU |
| 20 | PLSM-B25/1-AU | PLSM-B25/2-AU | PLSM-B25/3-AU | PLSM-B25/4-AU |
| 32 | PLSM-B40/1-AU | PLSM-B40/2-AU | PLSM-B40/3-AU | PLSM-B40/4-AU |
| 40 | PLSM-B50/1-AU | PLSM-B50/2-AU | PLSM-B50/3-AU | PLSM-B50/4-AU |
| 63 | PLSM-B63/1-AU | PLSM-B63/2-AU | PLSM-B63/3-AU | PLSM-B63/4-AU |

10 kA, trip curve C: Rated current up to 63 A, Rated breaking capacity 10 kA to IEC/EN 60898,
Colour-coded toggle switch indicates current rating

| 1 | PLSM-C1/1-AU | PLSM-C1/2-AU | PLSM-C1/3-AU | PLSM-C1/4-AU |
| :--- | :--- | :--- | :--- | :--- |
| 2 | PLSM-C2/1-AU | PLSM-C2/2-AU | PLSM-C2/3-AU | PLSM-C2/4-AU |
| 3 | PLSM-C3/1-AU | PLSM-C3/2-AU | PLSM-C3/3-AU | PLSM-C3/4-AU |
| 4 | PLSM-C4/1-AU | PLSM-C4/2-AU | PLSM-C4/3-AU | PLSM-C4/4-AU |
| 6 | PLSM-C6/1-AU | PLSM-C6/2-AU | PLSM-C6/3-AU | PLSM-C6/4-AU |
| 10 | PLSM-C10/1-AU | PLSM-C10/2-AU | PLSM-C10/3-AU | PLSM-C10/4-AU |
| 20 | PLSM-C20/1-AU | PLSM-C20/2-AU | PLSM-C20/3-AU | PLSM-C20/4-AU |
| 25 | PLSM-C32/1-AU | PLSM-C32/2-AU | PLSM-C32/3-AU | PLSM-C32/4-AU |
| 42 | PLSM-C50/1-AU | PLSM-C50/2-AU | PLSM-C50/3-AU | PLSM-C50/4-AU |
| 50 | PLSM-C63/1-AU | PLSM-C63/2-AU | PLSM-C63/3-AU | PLSM-C63/4-AU |
| 63 |  |  |  |  |

10 kA, trip curve D: Rated current up to 40 A, Rated breaking capacity 10 kA to IEC/EN 60898,
Colour-coded toggle switch indicates current rating

| 1 | PLSM-D1/1-AU | PLSM-D1/2-AU | PLSM-D1/3-AU | PLSM-D1/4-AU |
| :--- | :--- | :--- | :--- | :--- |
| 2 | PLSM-D2/1-AU | PLSM-D2/2-AU | PLSM-D2/3-AU | PLSM-D2/4-AU |
| 3 | PLSM-D3/1-AU | PLSM-D3/2-AU | PLSM-D3/3-AU | PLSM-D3/4-AU |
| 4 | PLSM-D4/1-AU | PLSM-D4/2-AU | PLSM-D4/3-AU | PLSM-D4/4-AU |
| 6 | PLSM-D6/1-AU | PLSM-D6/2-AU | PLSM-D6/3-AU | PLSM-D6/4-AU |
| 10 | PLSM-D10/1-AU | PLSM-D10/2-AU | PLSM-D10/3-AU | PLSM-D10/4-AU |
| 16 | PLSM-D16/1-AU | PLSM-D16/2-AU | PLSM-D16/3-AU | PLSM-D16/4-AU |
| 20 | PLSM-D20/1-AU | PLSM-D20/2-AU | PLSM-D20/3-AU | PLSM-D20/4-AU |
| 32 | PLSM-D32/1-AU | PLSM-D32/2-AU | PLSM-D32/3-AU | PLSM-D32/4-AU |
| 40 | PLSM-D40/1-AU | PLSM-D40/2-AU | PLSM-D40/3-AU | PLSM-D40/4-AU |





## IEC DIN MCB



PLHT-B20/1-AA


PLHT-B25/2-AA


PLHT-B32/3-AA


PLHT-B25/4-AA


Z-LHASA/230
xPole IEC DIN MCB, RCCB \& RCBO products
PLHT Miniature Circuit Breakers (MCB)

- High-quality miniature circuit breakers for commercial \& industrial applications
- Contact position indicator red - green
- Accessories suitable for subsequent installation
- 60 VDC rating (per pole, max. 2 poles)
- Terminal capacity $2.5-50 \mathrm{~mm} 2$
- 1.5 DIN modules per pole
- Rated currents up to 125 A
- Tripping characteristics B, C, D
- Rated breaking capacity up to 25 kA according to EN 60947-2

| Rated current In, A | kA rating | 1-Pole Item no. | 2-Pole Item no. | 3-Pole Item no. | 4-Pole Item no. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Trip Curve B |  |  |  |  |  |
| 20 | 25 | PLHT-B20/1-AA | PLHT-B20/2-AA | PLHT-B20/3-AA | PLHT-B20/4-AA |
| 25 | 25 | PLHT-B25/1-AA | PLHT-B25/2-AA | PLHT-B25/3-AA | PLHT-B25/4-AA |
| 32 | 25 | PLHT-B32/1-AA | PLHT-B32/2-AA | PLHT-B32/3-AA | PLHT-B32/4-AA |
| 40 | 25 | PLHT-B40/1-AA | PLHT-B40/2-AA | PLHT-B40/3-AA | PLHT-B40/4-AA |
| 50 | 25 | PLHT-B50/1-AA | PLHT-B50/2-AA | PLHT-B50/3-AA | PLHT-B50/4-AA |
| 63 | 25 | PLHT-B63/1-AA | PLHT-B63/2-AA | PLHT-B63/3-AA | PLHT-B63/4-AA |
| 80 | 20 | PLHT-B80/1-AA | PLHT-B80/2-AA | PLHT-B80/3-AA | PLHT-B80/4-AA |
| 100 | 20 | PLHT-B100/1-AA | PLHT-B100/2-AA | PLHT-B100/3-AA | PLHT-B100/4-AA |
| 125 | 15 | PLHT-B125/1-AA | PLHT-B125/2-AA | PLHT-B125/3-AA | PLHT-B125/4-AA |
| Trip Curve C |  |  |  |  |  |
| 20 | 25 | PLHT-C20/1-AA | PLHT-C20/2-AA | PLHT-C20/3-AA | PLHT-C20/4-AA |
| 25 | 25 | PLHT-C25/1-AA | PLHT-C25/2-AA | PLHT-C25/3-AA | PLHT-C25/4-AA |
| 32 | 25 | PLHT-C32/1-AA | PLHT-C32/2-AA | PLHT-C32/3-AA | PLHT-C32/4-AA |
| 40 | 25 | PLHT-C40/1-AA | PLHT-C40/2-AA | PLHT-C40/3-AA | PLHT-C40/4-AA |
| 50 | 25 | PLHT-C50/1-AA | PLHT-C50/2-AA | PLHT-C50/3-AA | PLHT-C50/4-AA |
| 63 | 25 | PLHT-C63/1-AA | PLHT-C63/2-AA | PLHT-C63/3-AA | PLHT-C63/4-AA |
| 80 | 20 | PLHT-C80/1-AA | PLHT-C80/2-AA | PLHT-C80/3-AA | PLHT-C80/4-AA |
| 100 | 20 | PLHT-C100/1-AA | PLHT-C100/2-AA | PLHT-C100/3-AA | PLHT-C100/4-AA |
| 125 | 15 | PLHT-C125/1-AA | PLHT-C125/2-AA | PLHT-C125/3-AA | PLHT-C125/4-AA |
| Trip Curve D |  |  |  |  |  |
| 20 | 25 | PLHT-D20/1-AA | PLHT-D20/2-AA | PLHT-D20/3-AA | PLHT-D20/4-AA |
| 25 | 25 | PLHT-D25/1-AA | PLHT-D25/2-AA | PLHT-D25/3-AA | PLHT-D25/4-AA |
| 32 | 25 | PLHT-D32/1-AA | PLHT-D32/2-AA | PLHT-D32/3-AA | PLHT-D32/4-AA |
| 40 | 25 | PLHT-D40/1-AA | PLHT-D40/2-AA | PLHT-D40/3-AA | PLHT-D40/4-AA |
| 50 | 25 | PLHT-D50/1-AA | PLHT-D50/2-AA | PLHT-D50/3-AA | PLHT-D50/4-AA |
| 63 | 25 | PLHT-D63/1-AA | PLHT-D63/2-AA | PLHT-D63/3-AA | PLHT-D63/4-AA |
| 80 | 20 | PLHT-D80/1-AA | PLHT-D80/2-AA | PLHT-D80/3-AA | PLHT-D80/4-AA |
| 100 | 15 | PLHT-D100/1-AA | PLHT-D100/2-AA | PLHT-D100/3-AA | PLHT-D100/4-AA |

## PLHT Miniature Circuit Breaker accessories

| Description | Item no. |
| :--- | :--- |
| Auxiliary switch $(0.5 \mathrm{MU})$ | Z-LHK |
| Shunt trip release $110-415 \mathrm{Vac}(1.5 \mathrm{MU})$ | Z-LHASA/230 |
| Shunt trip release $12-60 \mathrm{Vac}(1.5 \mathrm{MU})$ | Z-LHASA/24 |

## IEC DIN MCB

## xPole IEC DIN MCB, RCCB \& RCBO products

Residual Current Devices general data - short description and symbol

|  | Eaton standard. Suitable for outdoor installation (distribution boxes for outdoor installation and building sites) up to $-25^{\circ} \mathrm{C}$. |
| :---: | :---: |
| $\square$ | Conditionally surge-current proof (>250 A, 8/20 f Ês) for general application. |
| $\sim$ | Type AC: AC current sensitive RCD |
| $\wedge$ | Type A: AC and pulsating DC current sensitive RCD |
| $\approx$ | Type F: AC and pulsating DC current sensitive RCD, trip also at frequency composition ( $10 \mathrm{~Hz}, 50 \mathrm{~Hz}, 1000 \mathrm{~Hz}$ ) |
| kHz | Frequency range up to 20 kHz |
| DMMM, | Trip also at frequency composition ( $10 \mathrm{~Hz}, 50 \mathrm{~Hz}, 1000 \mathrm{~Hz}$ ) |
|  | RCD of type G (min 10 ms time delay) surge current-proof up to 3 kA . For system components where protection against unwanted tripping is compulsory to avoid personal injury and damage to property (§ 12.1.6 of OVE/ONORM E 8001-1). Also for systems involving long lines and high line capacity. Some versions are sensitive to pulsating DC. Some versi-ons are available in all-current sensitive design. |
| $\curvearrowleft$ $\sim$ | RCD of type $S$ (selective, min 40 ms time delay) surge current-proof up to 5 kA . Mainly used as main switch accord-ing to OVE/ONORM E 8001-1 § 12.1.5, as well as in combination with surge arresters. This is the only RCD suitable for series connection with other types if the rated tripping current of the downstream RCD does not exceed one third of the rated tripping current of the device of type S. Some versions are sensitive to pulsating DC. Some versions are available in all-current sensitive design. |
| "röntgenfest" | X-ray-proof, for avoiding unwanted tripping caused by x-ray devices. |

## Tripping characteristics (IEC/EN 61008)

AS/NZS 3000-2.6 deals with additional protection and provides essentially the following: In circuits with outlets and lighting points up to 20A with fault current/residual current protection by protective earthing, protective multiple earthing or residual current devices (RCDs), additional residual current protection devices with a rated tripping current of 0.03A must be installed.

## Testing:

RCDs with tripping time delay (Types -G and $-S$ ) may be function tested with conventional testing equipment which must be set according to the instructions for operation of the testing device. Due to reasons inherent in the measuring process, the tripping time determined in this way may be longer than expected in accordance with the specifications of the manufacturer of the measuring instrument. However, the device is ok if the result of measurement is within the time range specified by the manufacturer of the measuring instrument.

Tripping characteristics, tripping time range and selectivity of instantaneous, surge current-proof "G" and surge current-proof - selective "S" residual current devices.


## Low Voltage Circuit Protection \& Switchgear

## IEC DIN MCB

xPole IEC DIN MCB, RCCB \& RCBO products
eRB6 Residual Current operated circuit Breaker with Overcurrent protection (RCBO)

- Rated breaking capacity 6kA
- Approval number NSW25350
- Single module electronic RCBO
- Terminal capacity $1-25 \mathrm{~mm} 2$
- More compact and easier wiring
- Complete with 950 mm long pigtail
- Fully conforms to AS/NZS61009.1:2004 +A1
- Type AC

| Description <br> 1-Pole | Rating <br> $(\mathbf{A})$ | Width <br> $(\mathbf{m m})$ | Trip <br> curve | Sensitivity <br> $(\mathbf{m A )}$ | Item no. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| eRB6 RCBO 6A 1P 6kA <br> C curve 30mA | 6 | 18 | C | 30 | eRB6-6/1/C/003-AU |
| eRB6 RCBO 10A 1P 6kA <br> C curve 30mA | 10 | 18 | C | 30 | eRB6-10/1/C/003-AU |
| eRB6 RCBO 16A 1P 6kA <br> C curve 30mA | 16 | 18 | C | 30 | eRB6-16/1/C/003-AU |
| eRB6 RCBO 20A 1P 6kA <br> C curve 30mA | 20 | 18 | C | 30 | eRB6-20/1/C/003-AU |
| eRB6 RCBO 25A 1P 6kA <br> C curve 30mA | 25 | 18 | C | 30 | eRB6-25/1/C/003-AU |
| eRB6 RCBO 32A 1P 6kA <br> C curve 30mA | 32 | 18 | C | 30 | eRB6-32/1/C/003-AU |
| eRB6 RCBO 40A 1P 6kA <br> C curve 30mA | 40 | 18 | C | 30 | eRB6-40/1/C/003-AU |
| eRB6 RCBO 45A 1P 6kA <br> C curve 30mA | 45 | 18 | $C$ | 30 | eRB6-45/1/C/003-AU |

* 10mA version available - contact Eaton for details.
eRBM Residual Current operated circuit Breaker with Overcurrent protection (RCBO)
- Rated breaking capacity 10kA
- Approval number NSW25350
- Single module electronic RCBO
- Terminal capacity $1-25 \mathrm{~mm} 2$
- More compact and easier wiring
- Fully conforms to AS/NZS61009.1:2004 +A1
- Complete with 950 mm long pigtail
- Type A - pulsating DC

| Description <br> 1-Pole | Rating <br> (A) | Width <br> (mm) | Trip <br> Curve | Sensitivity <br> (mA) | Item no. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| eRBM RCBO 6A 1P 10kA <br> C-curve 30mA | 6 | 18 | C | 30 | eRBM-6/1/C/003-A-AU |
| eRBM RCBO 10A 1P 10kA <br> C-curve 30mA | 10 | 18 | C | 30 | eRBM-10/1/C/003-A-AU |
| eRBM RCBO 16A 1P 10kA <br> C-curve 30mA | 16 | 18 | C | 30 | eRBM-16/1/C/003-A-AU |
| eRBM RCBO 20A 1P 10kA <br> C-curve 30mA | 20 | 18 | C | 30 | eRBM-20/1/C/003-A-AU |
| eRBM RCBO 25A 1P 10kA <br> C-curve 30mA | 25 | 18 | C | 30 | eRBM-25/1/C/003-A-AU |
| eRBM RCBO 32A 1P 10kA <br> C-curve 30mA | 32 | 18 | C | 30 | eRBM-32/1/C/003-A-AU |
| eRBM RCBO 40A 1P 10kA <br> C-curve 30mA | 40 | 18 | C | 30 | eRBM-40/1/C/003-A-AU |
| eRBM RCBO 45A 1P 10kA <br> C-curve 30mA | 45 | 18 | C | 30 | eRBM-45/1/C/003-A-AU |
| eRBM RCBO 6A 1P 10kA <br> D-curve 30mA | 6 | 18 | D | 30 | eRBM-6/1/D/003-A-AU |
| eRBM RCBO 10A 1P 10kA <br> D-curve 30mA | 10 | 18 | D | 30 | eRBM-10/1/D/003-A-AU |
| eRBM RCBO 16A 1P 10kA <br> D-curve 30mA | 16 | D | D | eRBM RCBO 20A 1P 10kA |  |
| D-curve 30mA |  |  |  |  |  |

[^0]
## IEC DIN MCB

## xPole IEC DIN MCB, RCCB \& RCBO products

## PKNM Residual Current operated circuit Breaker with Overcurrent protection (RCBO)

- High-quality residual current device / miniature circuit breaker combination, line voltage-independent
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Wide variety of rated tripping currents
- Rated currents up to 40A
- Tripping characteristics B, C
- Type AC
- Rated breaking capacity 10kA
- Australian Standards AS/NZS 61009.1 Approval Number NSW21900
- Terminal capacity $1-25 \mathrm{~mm} 2$

| A | mA | 2-Pole Item no. |
| :--- | :--- | :--- |
| 10 kA, trip curve C |  |  |
| 6 | 30 | PKNM-6/1N/C/003-AU |
| 10 | 30 | PKNM-10/1N/C/003-AU |
| 16 | 30 | PKNM-16/1N/C/003-AU |
| 20 | 30 | PKNM-20/1N/C/003-AU |
| 25 | 30 | PKNM-25/1N/C/003-AU |
| 32 | 30 | PKNM-32/1N/C/003-AU |
| 40 | 30 | PKNM-40/1N/C/003-AU |
| 6 | 300 | PKNM-6/1N/C/03-AU |
| 10 | 300 | PKNM-10/1N/C/03-AU |
| 16 | 300 | PKNM-16/1N/C/03-AU |
| 20 | 300 | PKNM-20/1N/C/03-AU |
| 25 | 300 | PKNM-25/1N/C/03-AU |
| 32 | 300 | PKNM-32/1N/C/03-AU |
| 40 | 300 | PKNM-40/1N/C/03-AU |

## PKNM Type A Residual Current operated circuit Breaker with Overcurrent protection

 (RCBO)- High-quality residual current device / miniature circuit breaker combination, line voltage-independent
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Wide variety of rated tripping currents
- Rated currents up to 40 A
- Tripping characteristics B, C
- Type A - pulsating DC
- Rated breaking capacity 10 kA
- Australian Standards AS/NZS 61009.1 Approval Number NSW21900
- Terminal capacity $1-25 \mathrm{~mm} 2$

| A | mA | 2-Pole Item no. |
| :--- | :--- | :--- |
| 10 kA, trip curve C |  |  |
| 6 | 30 | PKNM-6/1N/C/003-A-AU |
| 10 | 30 | PKNM-10/1N/C/003-A-AU |
| 16 | 30 | PKNM-16/1N/C/003-A-AU |
| 20 | 30 | PKNM-20/1N/C/003-A-AU |
| 25 | 30 | PKNM-25/1N/C/003-A-AU |
| 32 | 30 | PKNM-32/1N/C/003-A-AU |
| 40 | 30 | PKNM-40/1N/C/003-A-AU |
| 6 | 300 | PKNM-6/1N/C/03-A-AU |
| 10 | 300 | PKNM-10/1N/C/03-A-AU |
| 16 | 300 | PKNM-16/1N/C/03-A-AU |
| 20 | 300 | PKNM-20/1N/C/03-A-AU |
| 25 | 300 | PKNM-25/1N/C/03-A-AU |
| 32 | 300 | PKNM-32/1N/C/03-A-AU |
| 40 | 300 | PKNM-40/1N/C/03-A-AU |

## Low Voltage Circuit Protection \& Switchgear

## IEC DIN MCB

## xPole IEC DIN MCB, RCCB \& RCBO products

PFIM Residual Current operated Circuit Breaker without overcurrent protection (RCCB)


PFIM-16/2/001-AU


PFIM-40/4/003-AU

- A complete spectrum of compact residual current devices for a wide range of applications
- For residual current protection \& additional protection
- Wide variety of nominal currents
- Comprehensive range of accessories
- Contact position indicator red-green
- Automatic re-setting possible
- Australian Standards AS/NZS61008.1 Approval Number NSW21900
- Terminal capacity $1.5-35 \mathrm{~mm} 2$
A mA 2-Pole Item no. A mA 4-Pole Item no.

Conditionally surge current-proof 250 A , type AC $\sim$

| 16 | 10 | PFIM-16/2/001-AU |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 25 | 30 | PFIM-25/2/003-AU |  |  |  |
| 25 | 100 | PFIM-25/2/01-AU | 40 | 30 | PFIM-40/4/003-AU |
| 25 | 300 | PFIM-25/2/03-AU | 40 | 100 | PFIM-40/4/01-AU |
|  |  |  | 40 | 300 | PFIM-40/4/03-AU |
| 40 | 30 | PFIM-40/2/003-AU |  |  |  |
| 40 | 100 | PFIM-40/2/01-AU | 63 | 30 | PFIM-63/4/003-AU |
| 40 | 300 | PFIM-40/2/03-AU | 63 | 100 | PFIM-63/4/01-AU |
|  |  |  | 63 | 300 | PFIM-63/4/03-AU |
| 63 | 30 | PFIM-63/2/003-AU | 80 | 30 | PFIM-80/4/003-AU |
| 63 | 100 | PFIM-63/2/01-AU | 80 | 100 | PFIM-80/4/01-AU |
| 63 | 300 | PFIM-63/2/03-AU | 80 | 300 | PFIM-80/4/03-AU |
|  |  |  | 80 | 500 | PFIM-80/4/05-AU |
| 80 | 30 | PFIM-80/2/003-AU |  |  |  |
| 80 | 100 | PFIM-80/2/01-AU | 100 | 30 | PFIM-100/4/003 |
| 80 | 300 | PFIM-80/2/03-AU | 100 | 100 | PFIM-100/4/01 |
|  |  |  | 100 | 300 | PFIM-100/4/03 |
| 100 | 30 | PFIM-100/2/003 | 100 | 500 | PFIM-100/4/05 |
| 100 | 100 | PFIM-100/2/01 | A | mA | 4-Pole Item no. |
| 100 | 300 | PFIM-100/2/03 | 2-Pole Item no. |  |  |
| $\mathbf{m a}$ |  |  |  |  |  |

Conditionally surge current-proof 250 A, sensitive to residual pulsating DC, type A $\sim \sim$

| 16 | 10 | PFIM-16/2/001-A-AU |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| 25 | 30 | PFIM-25/2/003-A-AU | 40 | 30 | PFIM-40/4/003-A-AU |
| 25 | 100 | PFIM-25/2/01-A-AU | 40 | 300 | PFIM-40/4/03-A-AU |
| 25 | 300 | PFIM-25/2/03-A-AU |  |  |  |
|  |  |  | 63 | 30 | PFIM-63/4/003-A-AU |
| 40 | 30 | PFIM-40/2/003-A-AU | 63 | 100 | PFIM-63/4/01-A-AU |
| 40 | 100 | PFIM-40/2/01-A-AU | 63 | 300 | PFIM-63/4/03-A-AU |
| 40 | 300 | PFIM-40/2/03-A-AU |  |  |  |
|  |  |  | 80 | 30 | PFIM-80/4/003-A-AU |
| 63 | 30 | PFIM-63/2/003-A-AU | 30 | PFIM-80/4/03-A-AU |  |
| 63 | 100 | PFIM-63/2/01-A-AU |  |  |  |
| 63 | 300 | PFIM-63/2/03-A-AU | 100 | 30 | PFIM-100/4/003-A |
|  |  |  | 100 | 100 | PFIM-100/4/01-A |
| 100 | 100 | PFIM-100/2/01-A | 100 | 300 | PFIM-100/4/03-A |
| 100 | 300 | PFIM-100/2/03-A | 100 | 500 | PFIM-100/4/05-A |
|  |  |  |  |  |  |

## IEC DIN MCB

## xPole IEC DIN MCB, RCCB \& RCBO products

PFIM Residual Current operated Circuit Breaker without overcurrent protection (RCCB)

- A complete spectrum of compact residual current devices for a wide range of applications
- For residual current protection \& additional protection
- Wide variety of nominal currents
- Comprehensive range of accessories
- Contact position indicator red-green
- Automatic re-setting possible
- Australian Standards AS/NZS61008.1 Approval Number NSW21900
- Terminal capacity $1.5-35 \mathrm{~mm}^{2}$

| A | mA | 2-Pole Item no. | A | mA | 4-Pole Item no. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Surge current-proof 3 kA , type G/F $\sim$ MMMM |  |  |  |  |  |
| 25 | 30 | PFIM-25/2/003-G/F | 25 | 30 | PFIM-25/4/003-G/F |
| 25 | 300 | PFIM-25/2/03-G/F | 25 | 300 | PFIM-25/4/03-G/F |
| 40 | 30 | PFIM-40/2/003-G/F | 40 | 30 | PFIM-40/4/003-G/F |
| 40 | 300 | PFIM-40/2/03-G/F | 40 | 300 | PFIM-40/4/03-G/F |
| 63 | 30 | PFIM-63/2/003-G/F | 63 | 30 | PFIM-63/4/003-G/F |
| 63 | 300 | PFIM-63/2/03-G/F | 63 | 300 | PFIM-63/4/03-G/F |
| Selective + surge current-proof 5kA, type S/F |  |  | MMOC |  |  |
|  |  |  | 25 | 300 | PFIM-25/4/03-S/F |
|  |  |  | 40 | 300 | PFIM-40/4/03-S/F |
|  |  |  | 63 | 300 | PFIM-63/4/03-S/F |
| Surge current-proof 3 kA, type G |  |  |  |  |  |
| 40 | 30 | PFIM-40/2/003-G-AU | 40 | 30 | PFIM-40/4/003-G |
|  |  |  | 40 | 100 | PFIM-40/4/01-G |
|  |  |  | 63 | 30 | PFIM-63/4/003-G |
|  |  |  | 63 | 100 | PFIM-63/4/01-G |
|  |  |  | 100 | 30 | PFIM-100/4/003-G |
|  |  |  | 100 | 300 | PFIM-100/4/03-G |
| Surge current-proof 3 kA , sensitive to residual pulsating DC, type G/A |  |  |  |  |  |
| 40 | 30 | PFIM-40/2/003-G/A-AU | 40 | 30 | PFIM-40/4/003-G/A-AU |
| 63 | 30 | PFIM-63/2/003-G/A-AU | 63 | 30 | PFIM-63/4/003-G/A-AU |
| 100 | 30 | PFIM-100/2/003-G/A-AU | 100 | 30 | PFIM-100/4/003-G/A-AU |
|  |  |  | 100 | 300 | PFIM-100/4/03-G/A-AU |
| Surge current-proof 3 kA , X-ray application, type $\mathrm{R} \sim$ |  |  |  |  |  |
|  |  |  | 100 | 30 | PFIM-100/4/003-R |
| Selective + surge current-proof 5 kA , type S $\sim$ |  |  |  |  |  |
|  |  |  | 63 | 300 | PFIM-63/4/03-S/A-AU |
|  |  |  | 80 | 300 | PFIM-80/4/03-S/A-AU |



PFIM-40/2/003-G-AU


PFIM-63/4/003-G-AU

Surge current-proof 3 kA , sensitive to residual pulsating DC, type G/A $\cong$

## Low Voltage Circuit Protection \& Switchgear

## IEC DIN MCB

xPole IEC DIN accessories

- Auxiliary switch
- RCD tripping module
- Shunt trip release
- Remote control \& automatic
- Undervoltage release switching device


## Auxiliary switches

| For protective device/function | $\mathbf{1 8} \mathbf{~ m m}$ modules | Item no. |
| :--- | :--- | :--- |
| Auxiliary Switch Z-HK, Z-AHK, Tripping Signal Switch Z-NHK. | Design: for screw fixing |  |
| PFIM 1NO+1NC left side mount | 0.5 MU | Z-HK |
| PLS 1NO+1NC left side mount | 0.5 MU | Z-AHK |
| PLS, PFIM, 2CO left side mount | 0.5 MU | Z-NHK |
| Auxiliary Switch ZP-IHK, ZP-WHK, Tripping Signal Switch ZP-NHK. | Design: snap fixing |  |
| PLS, PKN, 1NO+1NC left side mount | 0.5 MU | ZP-IHK |
| PLS, PKN, 1CO left side mount | 0.5 MU | ZP-WHK |
| PLS, PKN, 2CO left side mount | 0.5 MU | ZP-NHK |

Shunt trip release Z-ASA, ZP-ASA

| Operational voltage range (V~) | $\mathbf{1 8} \mathbf{~ m m}$ modules | Item no. |
| :--- | :--- | :--- |
| $12-110 \mathrm{Vac}-$ screw fixing, left side mount | 1 MU | Z-ASA/24 |
| $110-415 \mathrm{Vac}-$ screw fixing, left side mount | 1 MU | Z-ASA/230 |
| $12-110 \mathrm{Vac}-$ snap on fixing, left side mount | 1 MU | ZP-ASA/24 |
| $110-415 \mathrm{Vac}-$ snap on fixing, left side mount | 1 MU | ZP-ASA/230 |

Undervoltage release Z-USA, Z-USD

| Operational voltage range (V~)/function | $\mathbf{1 8} \mathbf{~ m m}$ modules | Item no. |
| :--- | :--- | :--- |
| 115 Vac non-delayed, left side mount | 1 MU | Z-USA/115 |
| 230 Vac non-delayed, left side mount | 1 MU | Z-USA/230 |
| 400 Vac non-delayed, left side mount | 1 MU | Z-USA/400 |
| 115 Vac delayed 0.4 s left side mount | 1 MU | Z-USD/115 |
| 230 Vac delayed 0.4 s left side mount | 1 MU | Z-USD/230 |

RCD-tripping module Z-..AM

| For protective device | $\mathbf{1 8} \mathbf{~ m m}$ modules | Item no. |
| :--- | :--- | :--- |
| PFIM, RCD, left side mount | 0.5 MU | Z-FAM |
| PKNM, RCBO, left side mount | 0.5 MU | Z-KAM |

Remote control \& automatic switching device Z-FW

| Function | $\mathbf{1 8} \mathbf{~ m m}$ modules | Item no. |
| :--- | :--- | :--- |
| Automatic restarting 230VAC | 4 MU | Z-FW-LP |
| Automatic restarting 24-48VDC | 4 MU | Z-FW-LPD |
| + Remote control ON/OFF/TEST | 2 MU | Z-FW-MO |

Remote control \& automatic switching device Z-FW

| Function | $\mathbf{1 8 ~ m m}$ modules | Item no. |
| :--- | :---: | :---: |
| Pre-mounted sets Z-FW: Set consisting of automatic switching device Z-FW-LP. \& switching module |  |  |
| Z-FW-MO | 6 MU | Z-FW-LP/MO |
| 230 VAC | 6 MU | Z-FW-LPD/MO |
| $24-48 \mathrm{VDC}$ | $\mathbf{1 8 ~ \mathbf { ~ m m } \text { modules }}$ |  |
| Remote control \& automatic switching device Z-FW | Item no. |  |
| Function | 6 MU |  |
| Remote Testing Module Z-FW (for Z-FW-LP./MO set use only) | Z-FW/001 |  |
| $0,01 \mathrm{~A}$ | 6 MU | Z-FW/003 |
| $0,03 \mathrm{~A}$ | 6 MU | Z-FW/010 |
| $0,1 \mathrm{~A}$ | 6 MU | Z-FW/030 |
| $0,3 \mathrm{~A}$ | 6 MU | Z-FW/050 |
| $0,5 \mathrm{~A}$ |  |  |

## IEC DIN MCB

Controlling \& switching devices
Installation relays for light \& power distribution

- Installation relays \& contactors
- Signalling devices
- Impulse relays

| Rated current In <br> A (AC1) <br> A (AC3) | Contacts | Actuating <br> V AC | Item no. |
| :---: | :---: | :---: | :---: |
| Rated current 20A AC1, 18 mm modules: 1 MU, Finger \& hand touch safe to VGB 4, Low switching noise, no humming, Easy coil feed connection with Pozidrive screws |  |  |  |
| 208 | $1 \mathrm{~N} / \mathrm{O}$ | 240 V AC | Z-R230/S |
|  | $2 \mathrm{~N} / \mathrm{O}$ |  | Z-R230/SS |
|  | $1 \mathrm{~N} / \mathrm{O}, 1 \mathrm{~N} / \mathrm{C}$ |  | Z-R230/SO |
|  | 2 N/C |  | Z-R230/00 |
| 208 | 1 N/O | 24 V AC | Z-R24/S |
|  | $2 \mathrm{~N} / \mathrm{O}$ |  | Z-R24/SS |
|  | $1 \mathrm{~N} / \mathrm{O}, 1 \mathrm{~N} / \mathrm{C}$ |  | Z-R24/SO |
|  | $2 \mathrm{~N} / \mathrm{C}$ |  | Z-R24/OO |
| Suitable for auxiliary contacts Z-SC, 18 mm modules: 2 MU |  |  |  |
| 25 9 | $3 \mathrm{~N} / \mathrm{O}, 1 \mathrm{~N} / \mathrm{C}$ | 240 V AC | Z-SCH230/25-31 |
|  | $2 \mathrm{~N} / \mathrm{O}, 2 \mathrm{~N} / \mathrm{C}$ |  | Z-SCH230/25-22 |
|  | $4 \mathrm{~N} / \mathrm{O}$ |  | Z-SCH230/25-40 |
|  | 4 N/C |  | Z-SCH230/25-04 |
|  | 4 N/O | 24 V AC | Z-SCH24/25-40 |
|  | $2 \mathrm{~N} / \mathrm{O}, 2 \mathrm{~N} / \mathrm{C}$ | 24 V AC | Z-SCH24/25-22 |

Installation contactors for light \& power distribution


[^1]
## Low Voltage Circuit Protection \& Switchgear

## IEC DIN MCB

Dimensions (mm)

## AFDD+



## IS switches



PLN6


PLS4, PLS6, PLSM

eRB6 and eRBM


## Auxilary switches



Shunt trip release
Z-ASA and ZP-ASA


## Undervoltage release

Z-USA and Z-USD


## IEC DIN MCB

Dimensions (mm)

## PKNM



PFIM


## PLHT



Shunt trip release
Z-LHASA



Auxilary switch
Z-LHK


## Controlling and switching devices

Z-S and Z-SMV switches



Z-R relay


Contactors
Z-SCH.../25 Z-SCH.../40, ...63


Z-Sc


## IEC DIN MCB



Z-EMER-E


Z-EMER-DIN

Controlling \& switching devices

| Description Colour push button | Item no. |
| :---: | :---: |
| Signal lamps |  |
| O White - | Z-EL/WH230 |
| - Red - | Z-EL/R230 |
| - Green - | Z-EL/G230 |
| Orange - | Z-EL/OR230 |
| Blue - | Z-EL/BL230 |
| Pushbuttons |  |
| $16 \mathrm{~A}, 1 \mathrm{~N} / \mathrm{O}$ | Z-PU/S |
| $16 \mathrm{~A}, 2 \mathrm{~N} / \mathrm{O}$ | Z-PU/SS |
| $16 \mathrm{~A}, 1 \mathrm{~N} / \mathrm{O}+1 \mathrm{~N} / \mathrm{C}$ | Z-PU/SO |
| $16 \mathrm{~A}, 1 \mathrm{~N} / \mathrm{C}$ | Z-PU/OO |
| Illuminated Pushbuttons |  |
| $16 \mathrm{~A}, 2 \mathrm{~N} / \mathrm{O}$ | Z-PUL230/SS |
| $16 \mathrm{~A}, 1 \mathrm{~N} / \mathrm{O}+1 \mathrm{~N} / \mathrm{C}$ | Z-PUL230/SO |
| Changeover switch |  |
| $1 \mathrm{C} / \mathrm{O}, \mathrm{I}-\mathrm{O}$ - II | Z-S/WM |
| $1 \mathrm{C} / \mathrm{O}$, DAY - O - NIGHT | Z-S/WTN |
| Hour run counter: display 5 + $\mathbf{2}$ digit |  |
| $230 \mathrm{~V}, 50 \mathrm{~Hz}$ | ASOHC230 |
| Emergency lighting test kit |  |
| Enclosed | Z-EMER-E |
| DIN rail mounting | Z-EMER-DIN |
| Replacement key for Z-EMER-E | M22-ES-MS1 |
| General accessories |  |
| Padlocking attachment for xPole PLS \& eRB devices | Z-IS/SPE-1TE |
| Padlocking attachment for xPole PKNM, PFIM \& IS devices | IS/SPE-1TE |
| Pole filler 1 strip $=6$ poles | AP-45-W |

Busbar combs
Commoning busbars

| Description | No. of poles |  | A Max. no. of devices | Rated operational current, le, A | Item no. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Commoning busbars, 1.25 mm thick For miniature circuit-breakers without auxiliary contacts with fork connectors, for combination box terminal | 1 | - | $2 \times 1 \mathrm{P}$ | 85 | EVG-16/1PHAS/2MODUL |
|  | 1 | - | $6 \times 1 \mathrm{P}$ | 85 | EVG-16/1PHAS/6MODUL |
|  | 1 | - | $12 \times 1 \mathrm{P}$ | 85 | EVG-16/1PHAS/12MODUL |
|  | 2 | 2 \& 4 pole | $2 \times 2 \mathrm{P}$ | 100 | EVG-16/2PHAS/4MODUL |
|  | 2 | version can be used for PFIM | $3 \times 2 \mathrm{P}$ | 100 | EVG-16/2PHAS/6MODUL |
|  | 2 |  | $6 \times 2 \mathrm{P}$ | 100 | EVG-16/2PHAS/12MODUL |
|  | 3 | - | $2 \times 3 \mathrm{P}$ | 100 | EVG-16/3PHAS/6MODUL |
|  | 3 | - | $4 \times 3 \mathrm{P}$ | 100 | EVG-16/3PHAS/12MODUL |
|  | 4 | $2 \& 4 \text { pole }$ | $\underline{2 \times 4 P}$ | 100 | EVG-16/4PHAS/8MODUL |
|  | 4 | version can be used for PFIM | $3 \times 4 \mathrm{P}$ | 100 | EVG-16/4PHAS/12MODUL |
| For miniature circuit-breakers with auxiliary contacts | 1 | - | $2 \times 1 \mathrm{P}$ | 85 | EVG-16/1PHAS/2MODUL/HI |
|  | 1 | - | $6 \times 1 \mathrm{P}$ | 85 | EVG-16/1PHAS/6MODUL/HI |
|  | 1 | - | $9 \times 1 \mathrm{P}$ | 85 | EVG-16/1PHAS/9MODUL/HI |
|  | 2 | 2 pole version | $2 \times 2 \mathrm{P}$ | 100 | EVG-16/2PHAS/4MODUL/HI |
|  | 2 | can be used for | $3 \times 2 \mathrm{P}$ | 100 | EVG-16/2PHAS/6MODUL/HI |
|  | 2 | PFIM | $5 \times 2 \mathrm{P}$ | 100 | EVG-16/2PHAS/10MODUL/HI |
|  | 3 | - | $2 \times 3 \mathrm{P}$ | 100 | EVG-16/3PHAS/6MODUL/HI |
|  | 3 | - | $4 \times 3 \mathrm{P}$ | 100 | EVG-16/3PHAS/12MODUL/HI |
|  | 3 | - | $6 \times 1 \mathrm{P}$ | 100 | EVG-16/3X1PHAS/6MODUL/HI |
|  | 3 | - | $8 \times 1 \mathrm{P}$ | 100 | EVG-16/3X1PHAS/8MODUL/HI |
|  | 3 | - | $9 \times 1 \mathrm{P}$ | 100 | EVG-16/3X1PHAS/9MODUL/HI |

## IEC DIN MCB

PE loadcentres
Eaton offers a wide range of plastic loadcentres, available in a variety of sizes, mounting configuraitons and IP ratings. The PE range of enclosures are adequately sized to be suitable for use of Eaton xPole eRB type single module RCBOs. Aside from ease of use, PE loadcentres offer an aesthetically pleasing design with discreet markings.

| No. of poles | Type of mounting | Type of door | Item no. |
| :---: | :---: | :---: | :---: |
| Protection rating IP42 |  |  |  |
| 1 | Surface | Opaque | PE1E |
| 2 | Surface | Opaque | PE2E |
| 4 | Surface | Opaque | PE4E |
| 8 | Surface | Opaque | PE8E |
| 12 | Flush | Transparent | PE12FT |
| 12 | Flush | Opaque | PE12FW |
| 12 | Surface | Transparent | PE12ST |
| 12 | Surface | Opaque | PE12SW |
| 18 | Flush | Transparent | PE18FT |
| 18 | Flush | Opaque | PE18FW |
| 18 | Surface | Transparent | PE18ST |
| 18 | Surface | Opaque | PE18SW |
| 24 | Flush | Transparent | PE24FT |
| 24 | Flush | Opaque | PE24FW |
| 24 | Surface | Transparent | PE24ST |
| 24 | Surface | Opaque | PE24SW |
| 36 | Flush | Transparent | PE36FT |
| 36 | Flush | Opaque | PE36FW |
| 36 | Surface | Transparent | PE36ST |
| 36 | Surface | Opaque | PE36SW |
| Protection rating IP55 |  |  |  |
| 4 | Surface | Transparent | PE4ST-IP55 |
| 6 | Surface | Transparent | PE6ST-IP55 |
| 8 | Surface | Transparent | PE8ST-IP55 |
| 12 | Surface | Transparent | PE12ST-IP55 |
| 18 | Surface | Transparent | PE18ST-IP55 |
| 24 | Surface | Transparent | PE24ST-IP55 |

PE1E


PE12SW


PE12ST


PE24ST

## IP42 surface mount dimensionslos

| Item no. | No of Din <br> Rails | $\mathbf{A}(\mathbf{m m})$ | $\mathbf{B}(\mathbf{m m})$ | $\mathbf{C}(\mathbf{m m})$ |
| :--- | :--- | :--- | :--- | :--- |
| PE12ST/W | 1 | 200 | 95 | 256 |
| PE18STM | 1 | 221 | 95 | 364 |
| PE24STM | 2 | 326 | 95 | 270 |
| PE36STM | 3 | 474 | 100 | 308 |



## IP42 flush mount

| Item no. | No of <br> Din <br> Rails | $\mathbf{A}(\mathbf{m m})$ | $\mathbf{B}(\mathbf{m m})$ | $\mathbf{C}(\mathbf{m m})$ | $\mathbf{D}(\mathbf{m m})$ | $\mathbf{E}(\mathbf{m m})$ | $\mathbf{F}(\mathbf{m m})$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| PE12FT/W | 1 | 200 | 66 | 256 | 92 | 305 | 245 |
| PE18FT/W | 1 | 218 | 66 | 366 | 100 | 414 | 270 |
| PE24FT/W | 2 | 312 | 66 | 260 | 100 | 306 | 358 |
| PE36FT/W | 3 | 456 | 66 | 296 | 100 | 340 | 504 |

IP55 surface mount

| Item no. | No of DIN <br> Rails | $\mathbf{A}(\mathbf{m m})$ | $\mathbf{B}(\mathbf{m m})$ | $\mathbf{C}(\mathbf{m m})$ |
| :--- | :--- | :--- | :--- | :--- |
| PE4ST-IP55 | 1 | 215 | 98 | 126 |
| PE6ST-IP55 | 1 | 215 | 98 | 162 |
| PE8ST-IP55 | 1 | 215 | 98 | 215 |
| PE12ST-IP55 | 1 | 215 | 98 | 272 |
| PE18ST-IP55 | 1 | 235 | 98 | 380 |
| PE24ST-IP55 | 2 | 340 | 98 | 285 |


[^0]:    * $10 \mathrm{~mA}, 100 \mathrm{~mA}$ and 300 mA versions available - contact Eaton for details.

[^1]:    Technical application data within technical section refer to pages 438-441

