



**electronic residual current circuit-breaker/miniature circuit-breaker, 25A, 30mA, miniature circuit-breaker trip curve: C, 2pole, residual current circuit-breaker trip characteristic: F**



**Part no. NDRBM-25/2/C/003-F**  
**Catalog No. 300501**

## Delivery program

|                         |                |   |  |
|-------------------------|----------------|---|--|
| Basic function          |                |   | Combined RCD/MCB device, digital                       |
| Number of poles         |                |   | 2 pole   |
| Tripping characteristic |                |   | C  |
| Application             |                |   | Switchgear for residential and commercial applications |
| Rated current           | $I_n$          | A | 25   |
| Rated fault current     | $I_{\Delta n}$ | A | 0.03   |
| Type                    |                |   | Type F   |
| Product range           |                |   | NdRBM  |

## Technical data

### Electrical

|                      |                |    |    |
|----------------------|----------------|----|----|
| Rated fault currents | $I_{\Delta n}$ | mA | 30 |
| Characteristic       |                |    | C  |
| Selectivity Class    |                |    | 3  |

### Mechanical

|                                      |  |    |             |
|--------------------------------------|--|----|-------------|
| Degree of protection                 |  |    |             |
| Switch                               |  |    | IP20        |
| Integrated                           |  |    | IP40        |
| Admissible ambient temperature range |  | °C | -25 ... +40 |
| Thickness of busbar material         |  | mm |             |
| Material thickness                   |  | mm | 0.8 ... 2   |

## Design verification as per IEC/EN 61439

|  |  |    |  |
|--|--|----|--|
| Technical data for design verification   |  |    |  |
| Operating ambient temperature min.   |  | °C | -25  |
| Operating ambient temperature max.   |  | °C | 40   |
| IEC/EN 61439 design verification   |  |    |  |
| 10.2 Strength of materials and parts   |  |    |  |
| 10.2.2 Corrosion resistance  |  |    | Meets the product standard's requirements.                         |
| 10.2.3.1 Verification of thermal stability of enclosures   |  |    | Meets the product standard's requirements.                         |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat   |  |    | Meets the product standard's requirements.                         |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |  |    | Meets the product standard's requirements.                         |
| 10.2.4 Resistance to ultra-violet (UV) radiation   |  |    | Meets the product standard's requirements.                         |
| 10.2.5 Lifting   |  |    | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.6 Mechanical impact   |  |    | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.2.7 Inscriptions  |  |    | Meets the product standard's requirements.                         |
| 10.3 Degree of protection of ASSEMBLIES  |  |    | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.4 Clearances and creepage distances   |  |    | Meets the product standard's requirements.                         |
| 10.5 Protection against electric shock   |  |    | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.6 Incorporation of switching devices and components   |  |    | Does not apply, since the entire switchgear needs to be evaluated. |
| 10.7 Internal electrical circuits and connections  |  |    | Is the panel builder's responsibility.                             |
| 10.8 Connections for external conductors   |  |    | Is the panel builder's responsibility.                             |
| 10.9 Insulation properties   |  |    |  |
| 10.9.2 Power-frequency electric strength   |  |    | Is the panel builder's responsibility.                             |
| 10.9.3 Impulse withstand voltage   |  |    | Is the panel builder's responsibility.                             |

|  |  |  |
|--|--|--|
| 10.9.4 Testing of enclosures made of insulating material |  | Is the panel builder's responsibility.   |
| 10.10 Temperature rise                                   |  | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating                               |  | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.12 Electromagnetic compatibility                      |  | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.13 Mechanical function                                |  | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 7.0

|  |                 |  |                    |
|--|-----------------|--|--------------------|
| Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker (EC000905)   |                 |  |                    |
| Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss10.0.1-27-14-22-07 [AFZ810015]) |                 |  |                    |
| Number of poles (total)  |                 |  | 2                  |
| Number of protected poles  |                 |  | 2                  |
| Rated voltage  | V               |  | 240                |
| Rated insulation voltage Ui  | V               |  | 250                |
| Rated impulse withstand voltage Uimp   | kV              |  | 4                  |
| Rated current  | A               |  | 25                 |
| Rated fault current  | A               |  | 0.03               |
| Leakage current type   |                 |  | A                  |
| Current limiting class   |                 |  | 3                  |
| Rated short-circuit breaking capacity acc. EN 61009  | kA              |  | 10                 |
| Rated short-circuit breaking capacity IEC 60947-2  | kA              |  | 0                  |
| Rated short-circuit breaking capacity Icn acc. EN 61009-1  | kA              |  | 10                 |
| Disconnection characteristic   |                 |  | Short-time delayed |
| Surge current capacity   | kA              |  | 3                  |
| Voltage type   |                 |  | AC                 |
| Frequency  |                 |  | 50 Hz              |
| Release characteristic   |                 |  | C                  |
| Concurrently switching N-neutral   |                 |  | No                 |
| With interlocking device   |                 |  | No                 |
| Over voltage category  |                 |  | 3                  |
| Pollution degree   |                 |  | 2                  |
| Ambient temperature during operating   | °C              |  | -25 - 40           |
| Width in number of modular spacings  |                 |  | 2                  |
| Built-in depth   | mm              |  | 70                 |
| Suitable for flush-mounted installation  |                 |  | No                 |
| Anti- nuisance tripping version  |                 |  | Yes                |
| Degree of protection (IP)  |                 |  | IP20               |
| Connectable conductor cross section solid-core   | mm <sup>2</sup> |  | 1 - 25             |
| Connectable conductor cross section multi-wired  | mm <sup>2</sup> |  | 1 - 25             |