

Protections with RC type differential release relays: 2023 update 1

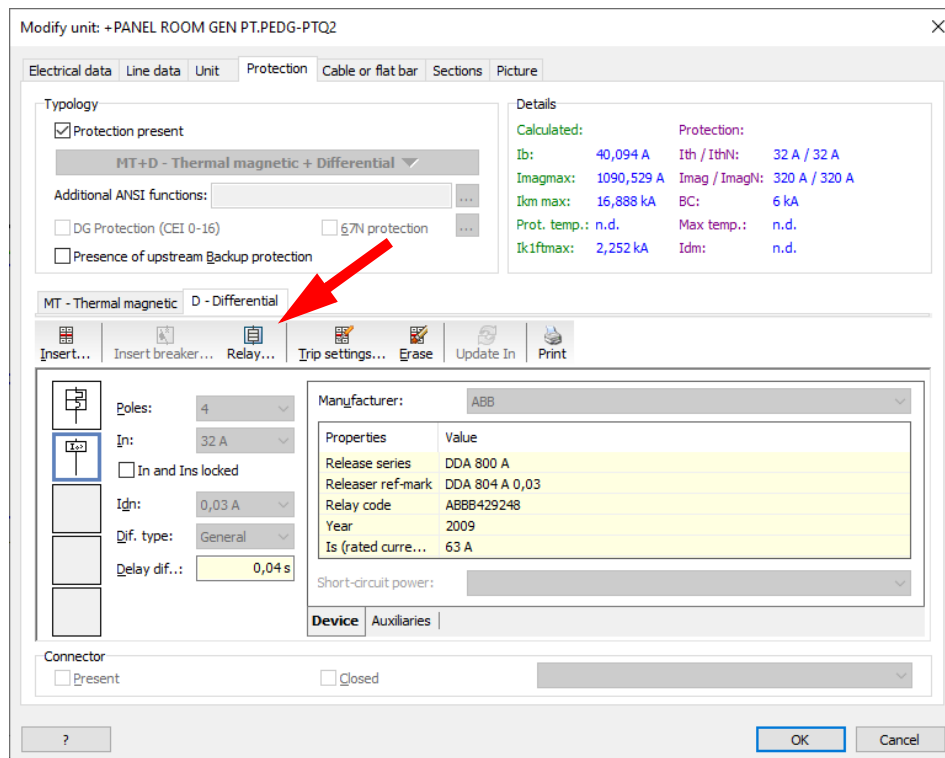
This technical support intends to clarify the management of protections made up of several elements, and in particular the management of the RC residual current releases in the Ampère 2023 line software after installing the **2023 Series Update 1** and the **RC type differential release relays - Various manufacturers - Revision** package dated February 14, 2023.

Both packages can be installed using the appropriate Electro Graphics Update utility available from the Electro Graphics 2023 Series applications group installed on the PC. Alternatively, you can download the files from the Download page of the CUSTOMER AREA of the website (https://www.electrographics.it/en/area-clienti/download/download_found.php?ver=2023) and then install them.

In the common MT+D composition, the **Differential** is an element in series with the **Magnetothermic**, normally a release relay. Up to the Ampère 2022 version, the software did not manage the **Pure differentials** separately from the **Differentials relays**. RC-type differentials relays were previously classified in the archive as "D"-type protectors; with the archive update package, these elements are placed as out of production in the "D" type category and have been reinserted as RC type relay releases. This operation guarantees the correct interpretation of the previously implemented projects.

After installing the Ampère 2023 *Update 1* package and the Devices archive revision package, the software manages the Differentials relays according to their true nature as **RC type differentials relays**.

With reference to the **MT+D** protection, after entering the **MT** protection, use the **Relay** command to add the differential element **D**: it will be searched for within the *Protections* archive among the elements *Relay release* of the **Differentials RC**.



Modify unit: +PANEL ROOM GEN PT.PEDG-PTQ2

Electrical data | Line data | Unit | Protection | Cable or flat bar | Sections | Picture

Typology

☒ Protection present

MT+D - Thermal magnetic + Differential

Additional ANSI functions:

☐ DG Protection (CEI 0-16) ☐ 67N protection

☐ Presence of upstream Backup protection

Details

Calculated:

Ib: 40,094 A Ith / IthN: 32 A / 32 A

Imagmax: 1090,529 A Imag / ImagN: 320 A / 320 A

Ikm max: 16,888 kA BC: 6 kA

Prot. temp.: n.d. Max temp.: n.d.

Ik1ftmax: 2,252 kA Idm: n.d.

MT - Thermal magnetic | D - Differential

Insert... Insert breaker... Relay... Trip settings... Erase Update In Print

Poles: 4

In: 32 A

☐ In and Ins locked

Ign: 0,03 A

Dif. type: General

Delay dif...: 0,04 s

Manufacturer: ABB

Properties

Property	Value
Release series	DDA 800 A
Releaser ref-mark	DDA 804 A 0,03
Relay code	ABB8429248
Year	2009
Is (rated curre...)	63 A

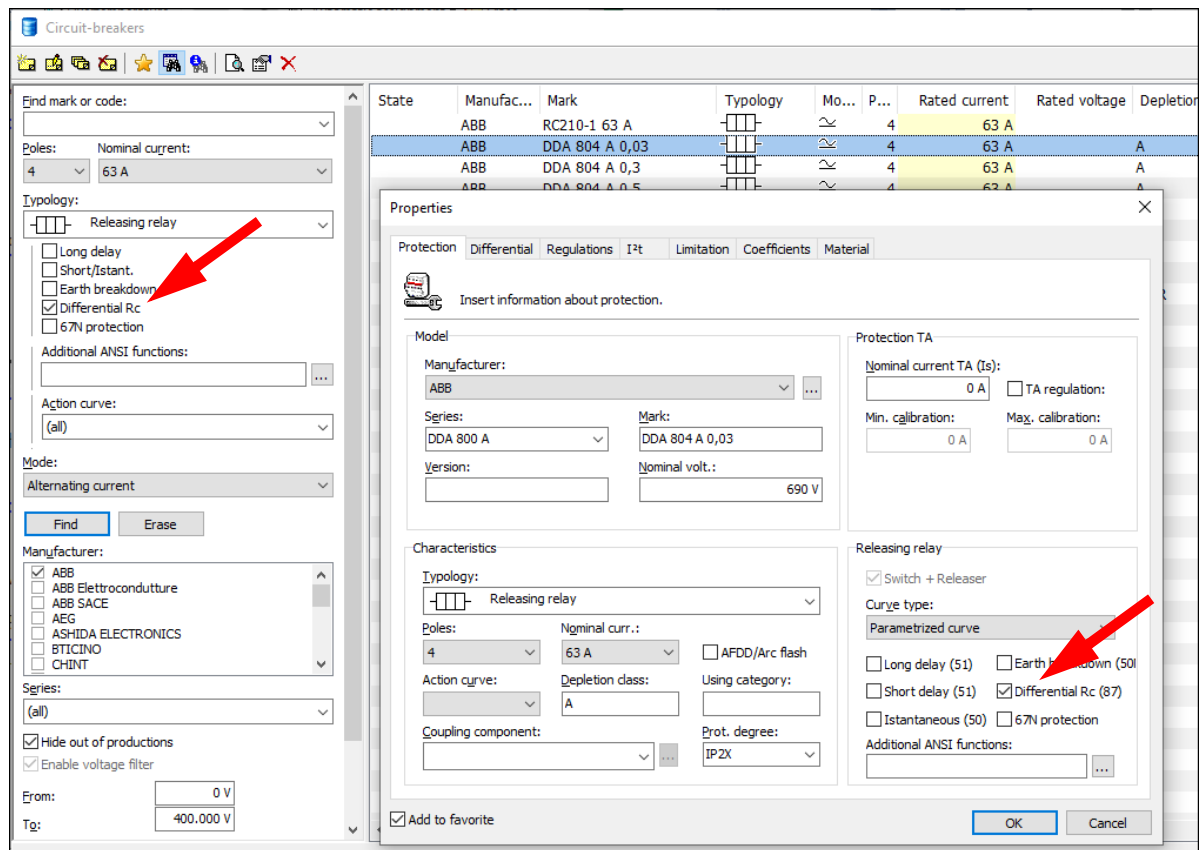
Short-circuit power:

Device Auxiliaries

Connector

☐ Present ☐ Closed

OK Cancel



Although in most cases the residual current device is a release relay to be combined with the magnetothermic, the software gives the possibility of assigning a pure differential device as the second element of the MV+D protection as well. The choice is made using the **Insert** command (for a Pure differential) or the **Relay** command (for a RC differential relay).