

APPLICATION NOTE

Coordination between ABB products not published in SOC

- Table management

Selected Optimized Coordination

The SOC tool provides coordination tables for products in different applications. For some combinations of products selectivity and back-up tables are not published in SOC. The reason for this and the corresponding combinations are listed here.

Total selectivity by construction case

In some cases, selectivity between upstream and downstream protection devices is Total due to the construction of the circuit breakers. This occurs when the rated current of the upstream device is much higher than the rated current of the downstream device. For any Icu value of the downstream device the upstream device is slower and grant selectivity. For these cases SOC does not provide any coordination tables.

Below are the combinations for which total selectivity is given:

At a rated voltage of 230/400 VAC respectively 240/415 VAC according to IEC/EN60947-2, selectivity is given for the following combinations up to the ultimate rated short-circuit breaking capacity of the downstream MCB and RCBO:

Upstream MCCB

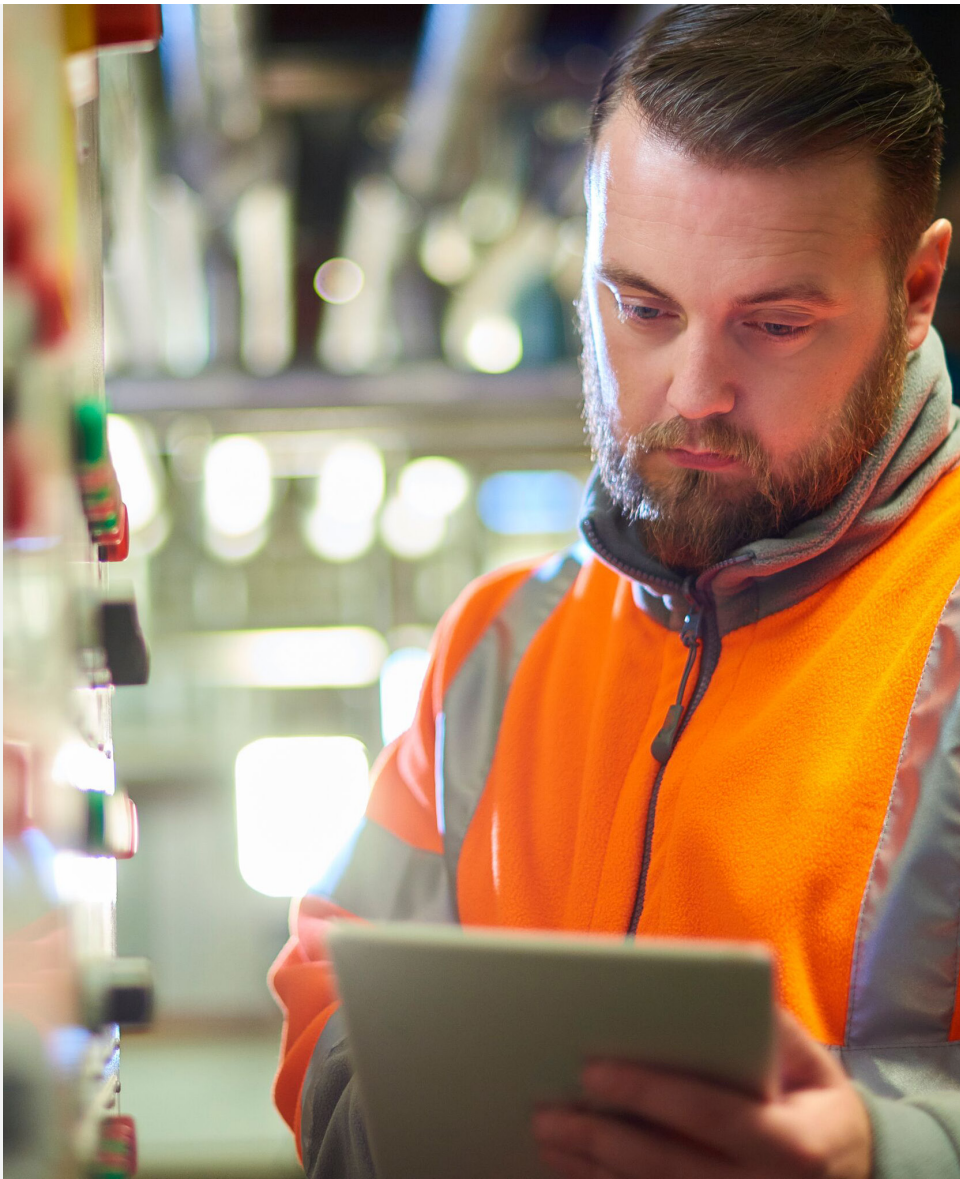
- Tmax XT5 N,S,H, L, V, X
- Tmax XT6 N, S, H
- Tmax XT7 S, H, L

Downstream MCB

- S200L, S200, S200M, S200P, S300P all rated currents, tripping characteristics, pole variants.
- S200C all rated currents, tripping characteristics, pole variants.
- S400E, S400M, S400P all rated currents, tripping characteristics, pole variants.
- SN201L, SN201, SN201M, all rated currents, tripping characteristics.
- S800P, S800S, S800N, S800C, S800B, all rated currents, tripping characteristics, pole variants.

Downstream RCBO

- DDA200+S200, S200M, S200P, S300P all rated currents, characteristics, pole variants.
- DS201L, DS201, DS201M, DS301C, DS202C, DS202CR, DS202CM, DS203NC, DS200, DS200M, all rated currents, characteristics, pole variants.
- FS400E, FS400M, all rated currents, characteristics, pole variants.



Not possible back-up cases

In some cases, it is not possible to have back-up protection by the upstream device to the downstream device due to the construction of the circuit breakers. It occurs when the upstream device has rated currents much higher than the downstream device and cannot be fast enough to provide back-up function. For these cases SOC does not provide any coordination tables.

Below are the combinations for which no back-up protection is given:

At a rated voltage of 230/400 VAC respectively 240/415 VAC according to IEC/EN60947-2, there is no back-up protection given for the following combinations:

Upstream MCCB

- Tmax XT6 N, S, H
- Tmax XT7 S, H, L

Downstream MCB

- S200L, S200, S200M, S200P, S300P all rated currents, tripping characteristics, pole variants.
- S200C all rated currents, tripping characteristics, pole variants.
- S400E, S400M, S400P all rated currents, tripping characteristics,
- pole variants.
- SN201L, SN201, SN201M, all rated currents, tripping characteristics. S800P, S800S, S800N, S800C, S800B, all rated currents, tripping characteristics, pole variants.

Downstream RCBO

- DDA200+S200, S200M, S200P, S300P, all rated currents, characteristics, pole variants.
- DS201L, DS201, DS201M, DS301C, DS202C, DS202CM,DS202CM, DS203NC, DS200, DS200M, all rated currents, characteristics, pole variants.
- FS400E, FS400M, all rated currents, characteristics, pole variants

The short-circuit capacity of the combination is equal to the ultimate rated short-circuit capacity of the downstream MCB, RCBO.

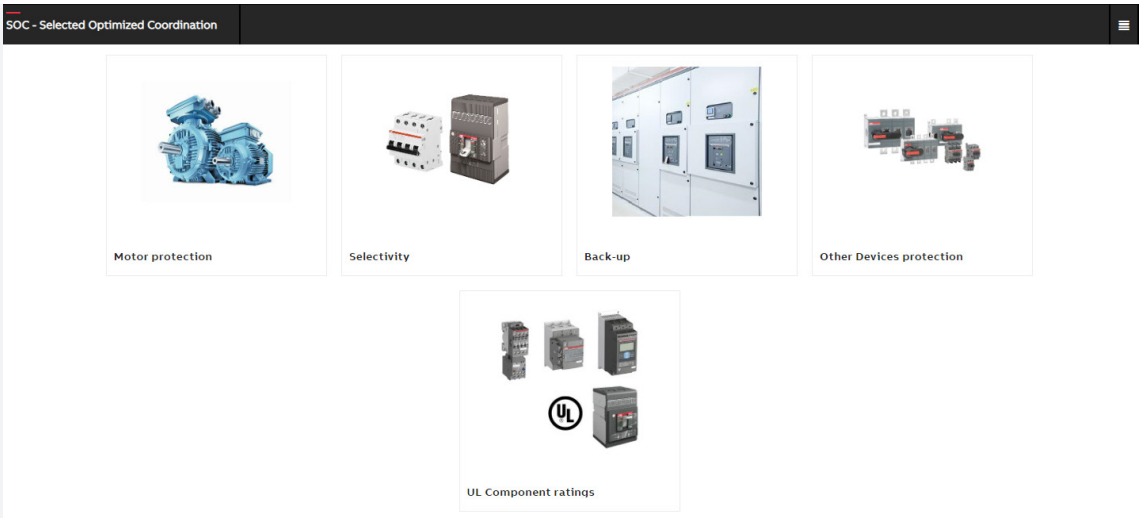


ABB France
11 rue d'Arsonval
F-69687 Chassieu cedex / France

ABB STOTZ-KONTAKT GmbH
Eppelheimer Straße 82
69123 Heidelberg, Germany

ABB AB
ABB Electrification Sweden AB
Motor Starting and Safety
721 61 Västerås, Sweden

You can find the address of your local sales organization on the ABB home page

https://new.abb.com/contact-centers

Note
We reserve the right to make technical changes or modify the contents of this document without prior notice.
Concerning purchase orders, the agreed particulars shall prevail.
ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

Exclusion of liability
ABB is not responsible for the implementation, verification, and validation of the overall safety system. It is the responsibility of the system integrator (or another party) who is responsible for the overall system and system safety. The system integrator (or other responsible parties) must make sure that the entire implementation complies with all relevant standards, directives, and local electrical code, and that the system is tested, verified, and validated correctly.

We reserve all rights in this document and the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties, or utilization of its contents - in whole or in parts – is forbidden without the prior written consent of ABB.

© 2021 ABB - All rights reserved

9AKK108466A9679 Rev A 05.2022