

Electrical protection and selectivity

Recommendations on concept and operation

■ Avoiding unnecessary switchoff

If the protective relay on one of your industrial installations trips off unnecessarily, you will be faced with an unfortunate loss of production. A correct selection of protective devices can help avoid this kind of unnecessary outage. Obviously, this does not mean putting the safety of the workers and machinery last. In any event, the protective relay must operate as quickly as possible if an incident occurs (short circuit, under voltage, etc.). Therefore good protection goes hand in hand with correct selectivity.

■ Preventive control is recommended

After an incident, it is particularly useful to check whether the protective device in question operated quickly enough, and whether other protective relays have tripped unnecessarily. In this way, we can learn from the past. Even better still, you should have the scheme of your electrical protection devices and their selectivity checked from a preventive point of view. An inspection of this kind is particularly recommended when changes are made to the internal electricity grid or the external distribution network.

■ A complex matter

Protective devices on industrial electrical plants can be very complex, and so finding the best possible protection and selectivity may not be a sinecure. Has the protective system been properly designed? Are the protective relays properly set? Have the most appropriate protective devices been used? Our Laborelec experts will provide you with independent, expert advice.

Independent technical recommendations

■ When should you check electrical protective devices and their selectivity?

- after an incident;
- after alterations to the internal electricity grid and loads;
- after changes to the external distribution network;
- when extending the factory, or building a new plant;
- any time you are not sure whether safety and selectivity are guaranteed.





We will help you to guarantee the protection and reliability of your electrical installations.

■ Laborelec recommendations

We will visit your premises to inspect all aspects of your electrical protection system. We check whether the protection scheme takes account of all possible faults. In so doing we always look at the entire system and verify its interaction with the distribution network. We check the type of protective devices used and their settings. In most cases it will suffice to alter the settings of the relays to optimise the system. Sometimes we recommend that the protective scheme be adjusted, or a number of relays replaced. In the latter case we give advice on the choice of new relays.

■ Independent of the manufacturers and installers

Since we are completely independent of the manufacturers and installers, we can always look for the most cost-efficient solution. We will recommend the cheapest route without sacrificing selectivity or safety. We opt for protection without additional and unnecessary functions. Sometimes, by adjusting the configuration, we can even remove the need to place extra protective relays.

■ Knowledge, know-how and experience at your service

As partners of various system operators, our experts have a detailed knowledge of the distribution network. For example, they approve new protective devices for system operators. This means that they are required to have an extensive and up-to-date knowledge of electrical protection. Our experts have also written manuals on protective devices for high and medium voltage networks. Their extensive knowledge, know-how and experience in this work enables them to advise you with speed and efficiency.



Five reasons for you to choose Laborelec:

- you have one-stop shopping for your energy needs;
- you get access to more than 40 years of experience;
- you get rapid service with reliable solutions;
- you increase the profitability of your installations;
- you benefit from independent and confidential advice.

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