

Q/U Protection



Decentralised feeders of Wind and Solar plants are now directly connected to the Medium voltage network. They should be able to absorb reactive power (Q) to mitigate the rise of voltage (U).

The high amount of renewable energies that can be injected on the medium voltage network can destabilise the grid. The objective is then to keep the reactive power exchange with the medium voltage grid constant.

As a protection, the energy producer can be asked to absorb a certain amount of reactive power (Q) to decrease the voltage. This protection scheme can also be fixed by local regulations. This ensures that the power utility can delay the disconnection of the producer from the grid.

3M™ Sensored Cable Accessories (SCA) has a compact design for an easy retrofit solution in the MV substation. It provides accurate signals for the voltage (U), current (I) and the reactive power level (Q). Combining the 3M™ SCA with protective relays offers a solution to implement Q/U protection.

Key benefits for the producer:

- Local regulatory compliance
- Additional protection to enhance the quality of the electricity
- Costs savings
- Increased connection time and revenue through reduced disconnection time.

