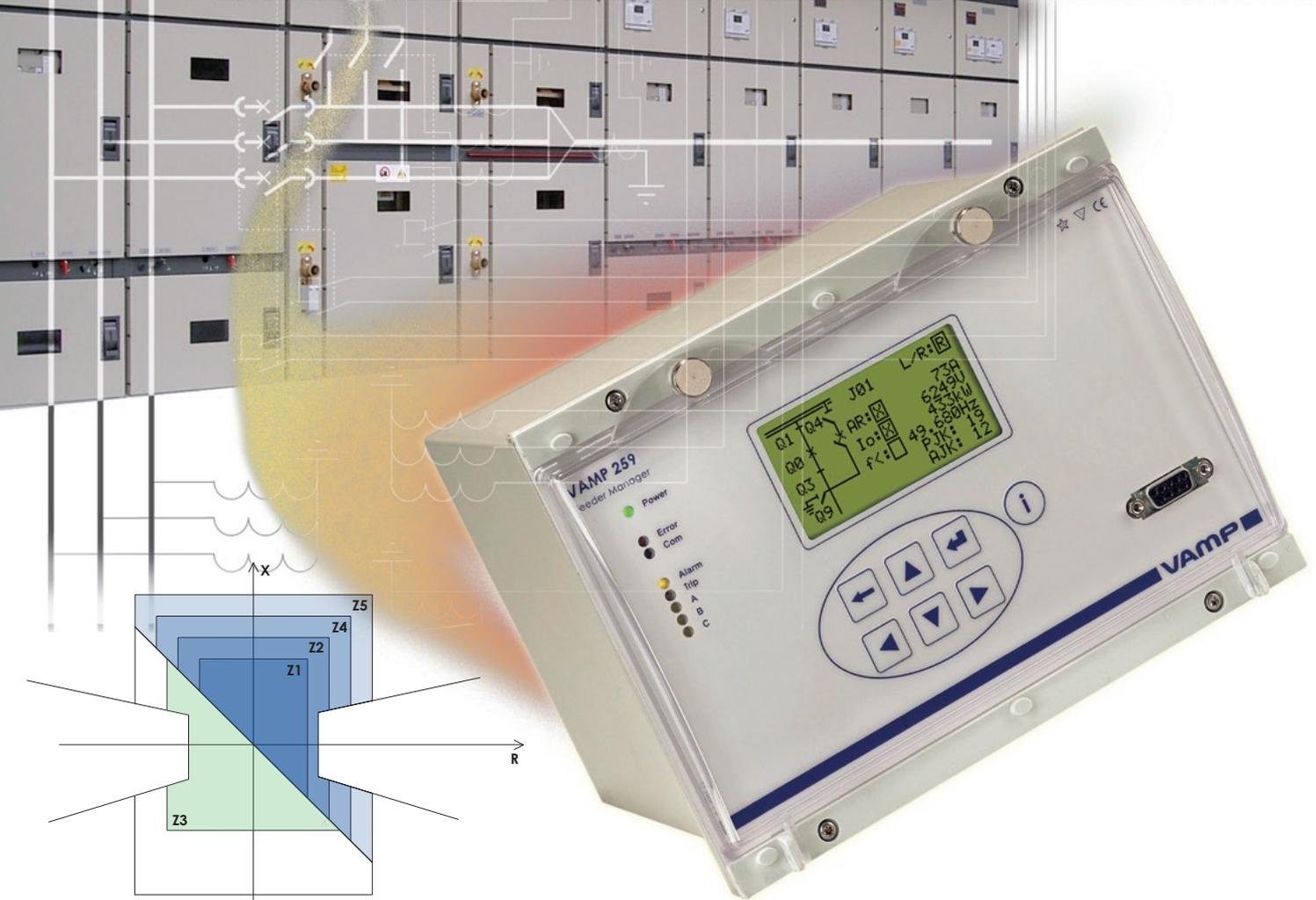


# VAMP 259

## FEEDER MANAGER WITH DISTANCE PROTECTION



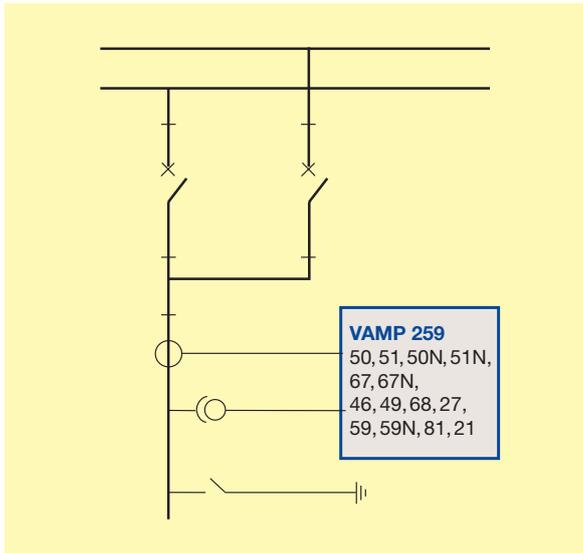
- Multifunction relay for medium voltage / sub-transmission applications
- IEC 61850 compatible
- Integrated arc protection
- Easy multilingual use

# VAMP 259 Feeder Manager with Distance Protection

## Typical application

VAMP 259 is a product typically used for applications where distance protection, undirectional/directional current back-up protection are required. VAMP 259 supports a large number of

DI / DO in order to collect and display the status information of primary equipment such as disconnectors, earthing switches, circuit breakers of a single or double busbar systems.

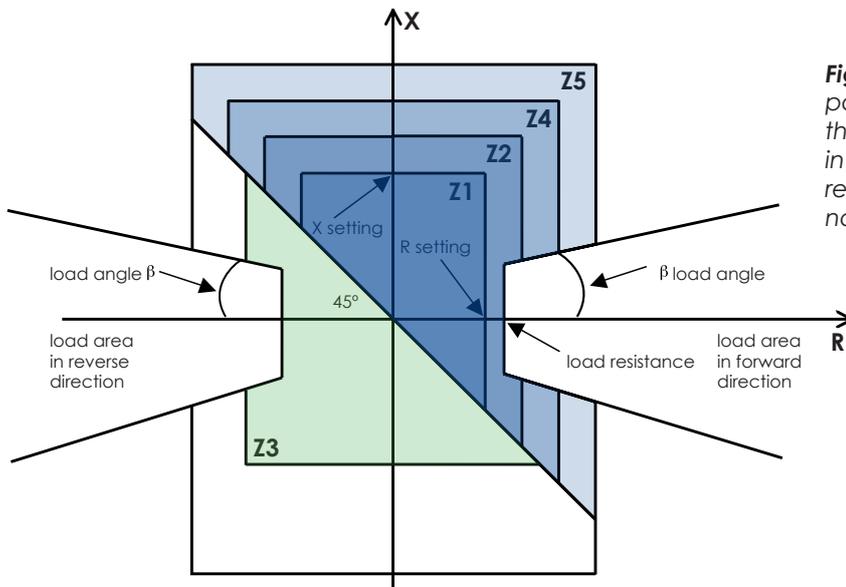


**Figure 1.** Application example where distance protection is required in a double busbar system.

## Distance protection function (21)

The distance protection function calculates the impedance  $Z = U/I$  continuously of the short circuit fault loops. If impedance is inside the tripping zone (normally presented in R-X plane), the distance protection operates. In short circuit faults there are 3 possible fault loops.

There are 5 zones (Z1, Z2, Z3, Z4 and Z5) for short-circuit protection. These are implemented as protection stages Z1<, Z2<, Z3<, Z4< and Z5<. The distance protection's zones implement polygonal characteristics as shown in figure 2.



**Figure 2.** The distance protection polygonal characteristics. In this example zone 1 & 2 & 4 are in forward direction, zone 3 is in reverse direction and zone 5 is non-directional.

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