

IRX Multifunctional Protection, Control and Metering IED



Compact and flexible solution for modular applications





Designed for mounting in LV compartments

Allows flexible architecture combining auxiliary external elements

Facilitates integration using standard protocols: 870-5; DNP3; ModBus and IEC61850







Protection Functions

- 50 Instantaneous Phase Overcurrent (2 units).
- 50Q Instantaneous Negative Sequence Overcurrent (I2) (2 units).
- 50G Instantaneous Ground Overcurrent (2 units).
- 50SG Instantaneous Sensitive Ground Overcurrent.
- Time Delay Phase Overcurrent (Inverse/Definite) (3 units).
- 51Q Time Delay Negative Sequence Overcurrent (Inverse/Definite) (3 units).
- 51G Time Delay Ground Overcurrent (Inverse/Definite) (3 units).
- 51SG Time Delay Sensitive Ground Overcurrent (Inverse/Definite).
- 51V Overcurrent with Voltage Restraint (3 units).
- 67 Directional Phase Overcurrent.
- 67G Directional Ground Overcurrent.
- 67SG Directional Sensitive Ground Overcurrent.
- 67Nu Directional Ungrounded / Petersen Coil Neutral Overcurrent.
- Coil Neutral Overcurrent.

 37 Time Delay Phase Undercurrent.
- 27 Undervoltage (3 units) (Selectable Input L-L or L-N).
- 59 Overvoltage (3 units) (Selectable Input L-L or L-N).
- 59N Neutral Overvoltage Calculated from the Phase Voltages (2 units).
- 64 Neutral Overvoltage with dedicated Voltage Channel.
- 47 Negative Sequence Overvoltage.
- 81M Overfrequency (4/8 units).
- 81m Underfrequency (4/8 units).
- 81D Rate of Change (4/8 units).
- 81DNU Rate of Change Independent of 81m (8 units).
- 81DA Mean Rate of Change (8 units).
- 79 Recloser
- 25 Synchrocheck with Voltage, Phase and Frequency Elements.
- 32P/Q Directional Power (Active/Reactive).
- 49 Thermal Image.
- 50BF Breaker Failure.
- Phase Balance (I2/I1).
- 87N Restricted Earth Fault.
- 78 Phase Angle Measuring (Out-of-Step).



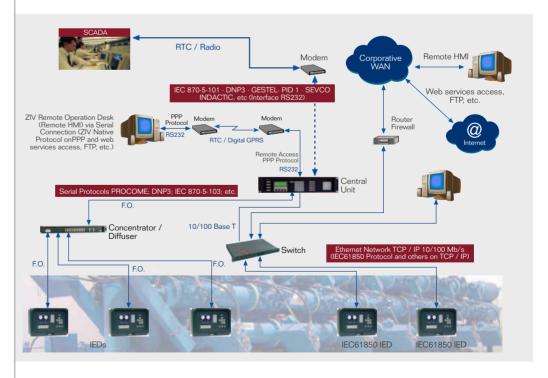
IRX

Description

IRX units are designed to provide integrated protection, control and metering solutions in overhead lines, underground cables and feeders in general, as well as in backup protection of bus-bars and transformers.

It incorporates a programmable unit that allows the user to define the operational logic of both protection and control functions, to suit specific application needs. The IRX models are complemented by a series of easy-to-use communications and programming tools that provide a user-friendly environment in which to configure applications.

The IRX models are equipment designed to provide complete protection of feeders, incorporating also programmable control logic.



Application

IRX units are designed for all applications that require multifunctional protection in different distribution networks, in systems both grounded as well as ungrounded or with Petersen Coil.

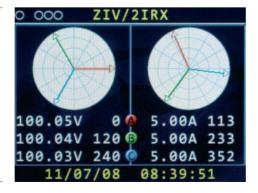
Due to their versatile communications structure, **IRX** units can be optimally used as stand-alone components or as parts of an integrated protection and control system, both conventional as well as IEC 61850 compliant.

Because of its modular construction and reduced size, the **IRX** is especially designed for application in MV switchgear.

The **IRX** equipment makes possible a drastic reduction of the wiring inside the LV compartment.



The modular design of IRX allows to drastically reduce the amount of internal cabling in the MV switchgear.

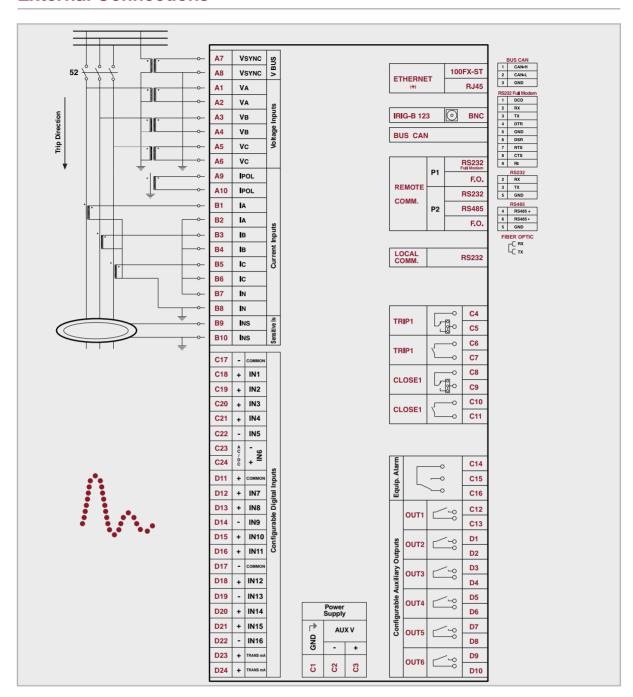




There are two communication ports to each IED: one for protection and one for control functions. Interfacing each subsystem (protection and control) with independent networks is possible.

Independent network architectures can use the different communications protocols supported by the IRX.

External Connections





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