

6MCV

Control and Metering IED



IEC 61850

The ideal complement to protective relays for intelligent management of analog and digital signals

Control Functions

- Status of digital inputs and internal logic.
- Local and remote control via programmable trip-rated contacts.
- Customizable graphical HMI: includes LCD displays of the bay single line diagram and control push buttons.
- Programmable I/O logic, lockouts, interlocks, control hierarchy and automatic control functions.
- Flexible communications via substation central unit or directly to SCADA.

Programmable Logic

The following functions can be programmed using any of the signals and/or analog quantities available in the IED:

- Protection functions
- Digital input mapping
- Communications
- Control functions
- Logic and arithmetic of analog quantities

Programmable logic includes primitive logic functions such as logic gates (AND, OR, XOR, NOT, ...), flip-flops, timers, comparators, and analog operators.

User programmable logic can be used for trip sequences, controls, interlocks, lockouts and control hierarchy required for the complete protection and control of the bay.






Metering Functions

- Captured analog quantities: voltages and currents (both phase and line).
- Harmonic content for phase A current and voltage up to the 8th harmonic.
- Positive, negative, and zero sequence voltages and currents.
- Calculated power: active, reactive, and apparent.
- Cos phi.
- Frequency.
- Thermal image.
- Energy meters: active incoming and outgoing; reactive capacitive and inductive.

Additional Functions

- Sequence of events record with programmable metering annotation.
- Time synchronization.
- Front panel LED targets.
- Programmable digital inputs (8 to 82 depending on model).
- Programmable auxiliary inputs (7 to 34 depending on model).
-  Software.

Communications

Three simultaneous protocols available in standard model: DNP 3.0, Modbus, IEC 870-5 (Procome).

Optional **IEC 61850** via optical and electrical Ethernet (100FX and RJ45). **IEC 61850** allows the exchange of all information to the upper levels or between peers. It is a self descriptive protocol based on international open standards.

Ports:

- Front (COM1) – Local
- Rear P1 (COM2) – Remote
- Rear P2 (COM3) – Remote

Protocols:

- | | |
|---------|-----------|
| PROCOME | MODBUS |
| DNP 3.0 | IEC 61850 |

Connectors:

- RS232
- USB
- Glass Fiber Optic
- F.O. plástico
- RS232 Full Modem
- RS232-RS485
- 100 FX
- RJ45



Spain

Headquarters

Parque Tecnológico, 210
48170 Zamudio, Bizkaia
t: +34 94 452 20 03
f: +34 94 452 21 40

Madrid

Avda. Vía Dos Castillas 23, Ch. 16
28224 Pozuelo de Alarcón,
Madrid
t: +34 91 352 70 56
f: +34 91 352 63 04

Barcelona

Biscaia, 383
08027 Barcelona
t: +34 93 349 07 00
f: +34 93 349 22 58

Sevilla

Avda. Isaac Newton
Pabellón de Italia, 3ª N-E
41092 Sevilla
t: +34 954 46 13 60
f: +34 954 46 24 84

USA and Canada

2340 Des Plaines River Road
60018 Des Plaines, Chicago, IL.
t: +1 847 299 65 80
f: +1 847 299 65 81

Brazil

Rua Dr. Carlos Maximiano, 18
24120-000 Fonseca, Niteroi, RJ.
t: +55 21 27 29 0170
f: +55 21 26 20 2398

UAE

Mazaya Center, Block C,
Suite 3005 - 3089 Dubai
t: +971 4 3438501
f: +971 4 3437501

