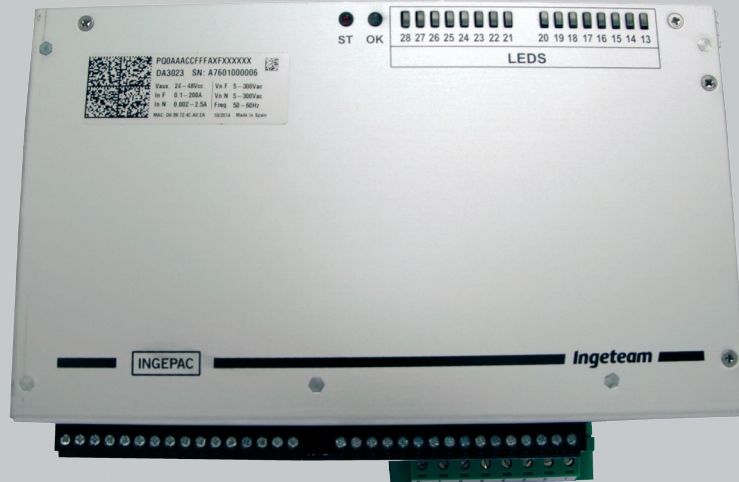


INGEPAC

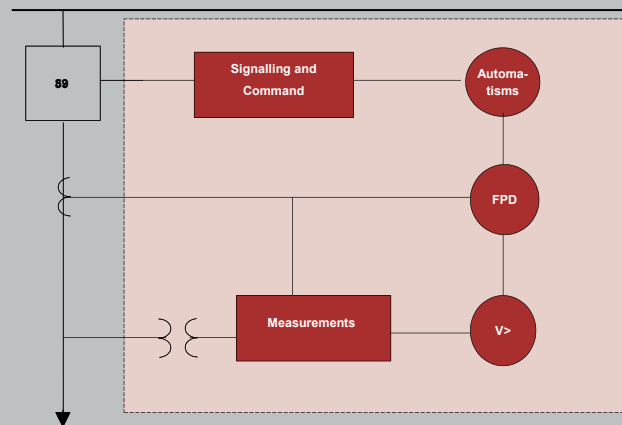
DA PQQ

Remote control unit



INGEPAC™ DA PQQ equipment covers a wide range of applications making it possible to use one single device to fulfil every automation, measurement and telecontrol requirement, for simple elements in a secondary network.

INGEPAC™ DA PQQ allows you to capture measurements and digital signals from different elements in one compact box. It permits automatic sequences and offers realtime reports to the electrical company's SCADA and DMS systems via different communication protocols.



Software

- All of the equipment in the INGEpac™ family can be accessed using powerful software tools developed by Ingeteam and which run on Windows®. The application software is specifically designed for simple and user-friendly access to the equipment.

INGESAS EFS

Automation and supervision functions

Realtime signal monitoring
Local and remote operation of the element
Directional fault detection
Fault isolation automatic operation
50/51/67 phase overcurrent
Logical functions (IEC 61131-3)

Data Acquisition Functions

Events log

Measurements

Measurement of neutral and phase current, voltages, power (active, reactive and apparent), power factor, frequency and harmonics

Battery temperature

Communications

2 Ethernet ports and 1 RS232/485 serial
DNP3 and DNP3 TCP/IP (secure authentication) communication protocol

Synchronisation

SNTP and protocols

Web server

www.ingeteam.com
ingepac.info@ingeteam.com

Ingeteam

Electromagnetic and Insulation Tests

· Conducted radio-electric emissions measurement in DC power supply terminals.	IEC60255-25/ EN55022
· Radiated radio-electric emissions measurements.	IEC60255-25/ EN55022
· Insulation resistance measurement	IEC60255-5
· Dielectric strength measurement	IEC60255-5
· Isolation measurement with voltage pulses.	IEC60255-5
· Electrostatic discharge immunity	IEC61000-4-2 ENV 50204/IEC 61000-4-3
· Radiated radiofrequency fields immunity test	IEC61000-4-4 IEC61000-4-5
· Fast transient burst immunity	IEC61000-4-6
· Surge pulse immunity	IEC61000-4-6
· Immunity to signals induced by radio-frequency	IEC61000-4-8
· 50Hz magnetic fields immunity test	IEC61000-4-9
· Immunity to pulsing magnetic fields	IEC61000-4-10 IEC61000-4-17
· Damped oscillatory magnetic field immunity test	IEC61000-4-17
· Ripple	IEC61000-4-18/ IEC60255-22-1
· 1 Mhz dampened wave immunity	IEC61000-4-29/ IEC60255-11
· Interrupts, dips and DC power supply variations test	IEC60255-11
· Grid frequency signal immunity	IEC60255-22-7

Climatic

· Cold low temperature test	IEC 60068-2-1
· Dry heat test	IEC 60068-2-2
· Continuous humid heat test	IEC 60068-2-78
· Thermal shock	IEC 60068-2-14

Mecanic

· Sinusoidal vibration test	IEC60255-21-1
· Shocks and shaking test	IEC 60255-21-2
· Seismic test	IEC 60255-21-3
· Random vibrations test	IEC 60068-2-64

Main features

- User logic signals
- Digital inputs, digital outputs and programmable LEDs
- Built-in web server for remote access using browser. Realtime display, commands, settings changes and register downloads
- Ethernet or serial communication
- Harmonics register, THD and RMS values
- Synchronisation via SNTP

Options

- Operating voltages 24/48 Vdc
- Power supply voltage measurement
- 28 configurable LEDs
- Modules
CPU with 8DI + 5 DO
3 V + 4 I + 1 mA + 13 DI

Applications

- LBS controller
- Mini RTU

