

## Control Panel: Parallel Model: QPA2-2A Industrial Range

### Technical Data Sheets

Control Panel Model	QPA2-2A
Type	Parallel
Applicable Range (kVA)	130 - 160
Change Over	
IP	20
Control Board Model	COELMO Lexys SYNC

### Control Panel Dimensions

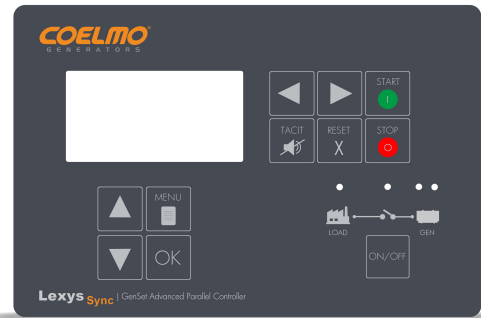
Length (mm)	620
Width (mm)	300
Height (mm)	1350

### Standard Set-up

- Manual and Automatic start up from an external signal
- Automatic start up and shutdown according to the load
- Automatic load sharing
- Generating Set power Load/Unload Ramp
- Automatic management of the Start up according to the working hours
- Possibility of Synchronization and load sharing of up to 8 Generating Sets
- Automatic Master/Slave switch for the eventual case of a break down of the Master
- Possibility to connect CANJ1939 to the engine
- Event log upto 512 events
- Measures in real efficient values
- Black Start and shut down Management on deadband
- Voltage and Current Balance Control Management
- Scheduled Maintenance Management
- buffer battery
- Possibility to schedule the start ups
- Possibility of PLC type programming

### Available Options

- Ground Failure
  - Synchronization with the mains
  - To and from Mains Load/unload ramp
  - Parallel to mains
  - Parallel without exporting on to the mains
  - Relay interface module
  - Configuration software with USB adapter
  - Remote monitoring and Parameter download software
  - ERMES remote management kit
  - Programme block key
- Certified Company  
ISO 9001 SA800  
ISO 14001 OHSAS 18001 AEO



### Descriptions

The automatic control panel and change over switch allows a perfect management of the Generating Set. A magnetothermic circuit breaker is available for the protection of Generating Set and eventual sockets. As an option a Change over switch Mains/Generating Set can be supplied. The control board (micro processor) that is supplied along with the Automatic control panel allows 4 different operational functions: "manual", "automatic", "test", "supermanual". The diagnostics is multilingual (Italian, English, French and Spanish), with clear messages regarding the operational state and active alarms. The electronic board is entrusted with the management of operational safety, thanks to visual/acoustic alarms and eventual engine shutdown, it can help prevent damage caused by malfunctions. The control board counts the number of start attempts and issues the following clear messages on the illuminated display: Running hours, engine speed, start attempts, phase-phase voltage and phase-neutral voltage, battery voltage, active power, apparent power, power factor, provided power, alarms, optional mechanical measurements (oil pressure, engine temperature, fuel level meter).

The automatic control panel manages its own maintenance program indicating the routine maintenance to be performed. It offers the possibility to calibrate measuring instruments and to regulate more than 70 parameters. It can be managed and programmed through a PC and remotely managed thanks to an RS232 port. It has a historic memory that records the breakdowns and services.

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### Advanced Features

#### Electrical measuring instruments

- Generating Set Voltage V: L1-N, L2-N, L3-N, L1-L2, L2-L3, L3-L1
- Generating Set Current A: L1, L2, L3
- Active Generated Power KW: L1, L2, L3, kW tot.
- Apparent Generated Power KVA: L1, L2, L3, kVA tot.
- Reactive Generated Power KVAr: L1, L2, L3, kVAr tot.
- Power Factor Cos Phi: L1, L2, L3, Cos Phi medio
- Generating Set Frequency,
- Bus Bar Voltage V: L1-N, L2-N, L3-N, L1-L2, L2-L3, L3-L1
- Bus Bar Frequency
- Syncope with Phase Angle
- Frequency Alignment / Generating Set-Bus Bar Voltage
- Load Percentage
- Battery Voltage
- Energy meters: kWh, kVAh, kVArh

#### Measurements of mechanical quantities

- Engine Rounds RPM
- Cooling Liquid Temperature
- Oil Pressure
- Oil Temperature
- Fuel Level
- Working Hours
- Hour count down for Maintenance
- Number of Start Ups
- Number of Generating Sets connected to the bus bar system

#### Blocks and Alarms

- Generating Set Minimum and Maximum Voltage (Two Thresholds)
- Generating Set Minimum and Maximum Frequency (Two Thresholds) (due soglie)
- Battery Minimum and Maximum Voltage
- Low Fuel Level (Two Thresholds)
- High Oil/Water Temperature (Two Thresholds)
- Low Oil Pressure (Two Thresholds)
- Low Water Level
- Start/Stop Failure
- Incorrect phase sequence
- Communication Error on J1939 / Can Bus / Data Link
- Voltage/Current Imbalance
- Dynamo Failure CB
- Speed Governor contrôle / Voltage Failure
- Insufficient power to the system (Generating Set Insufficient)
- Maintenance Request
- Inverse Power
- Overload
- Maximum Current (Two Thresholds)
- Synchronization Failure
- Generating Set Circuit Breaker Open/Close Failure
- Incorrect Bus Bar phase sequence
- No busbar for synchronization
- Bus Bar Voltage out of range
- Dead Band