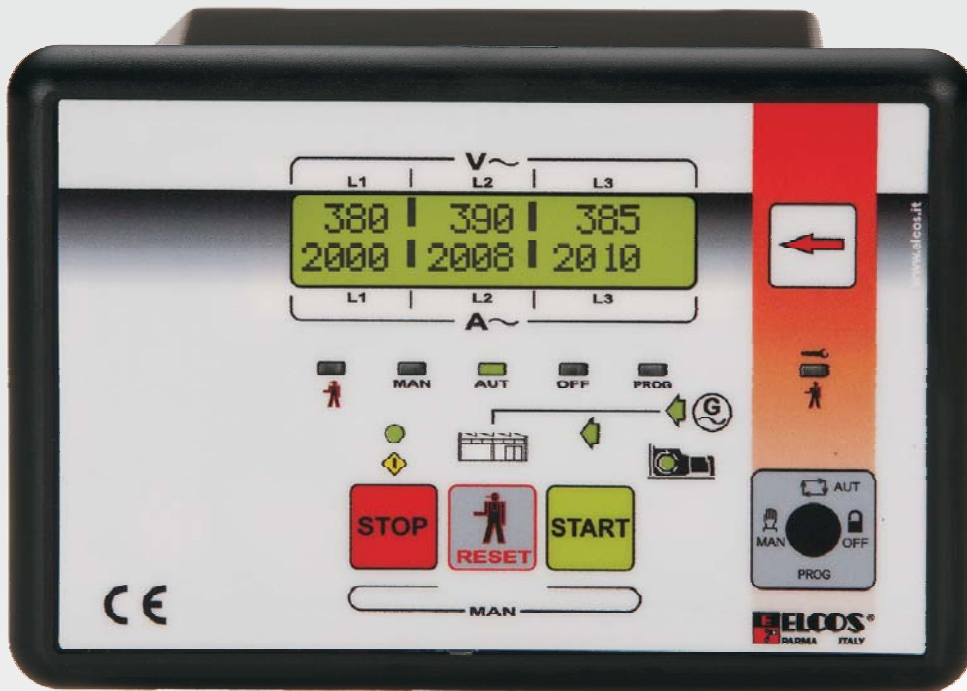


# SELF-CONTAINED GENERATING SET CONTROL UNIT TYPE CAM-120



This starts, monitors and protects the generating set, and stops it in the event of an anomaly through solenoid valve or electromagnet.

Possibility of connecting CAN Bus with engine equipped with control unit for electronic control of the injection system.

This has provision for automatic operation. Possibility of combination with ATS - 100 or ATS - 050 control unit to obtain power switching control.

It shows the main parameters of the generating set on the display.

Complete with instruments (synchronous reading of 6)

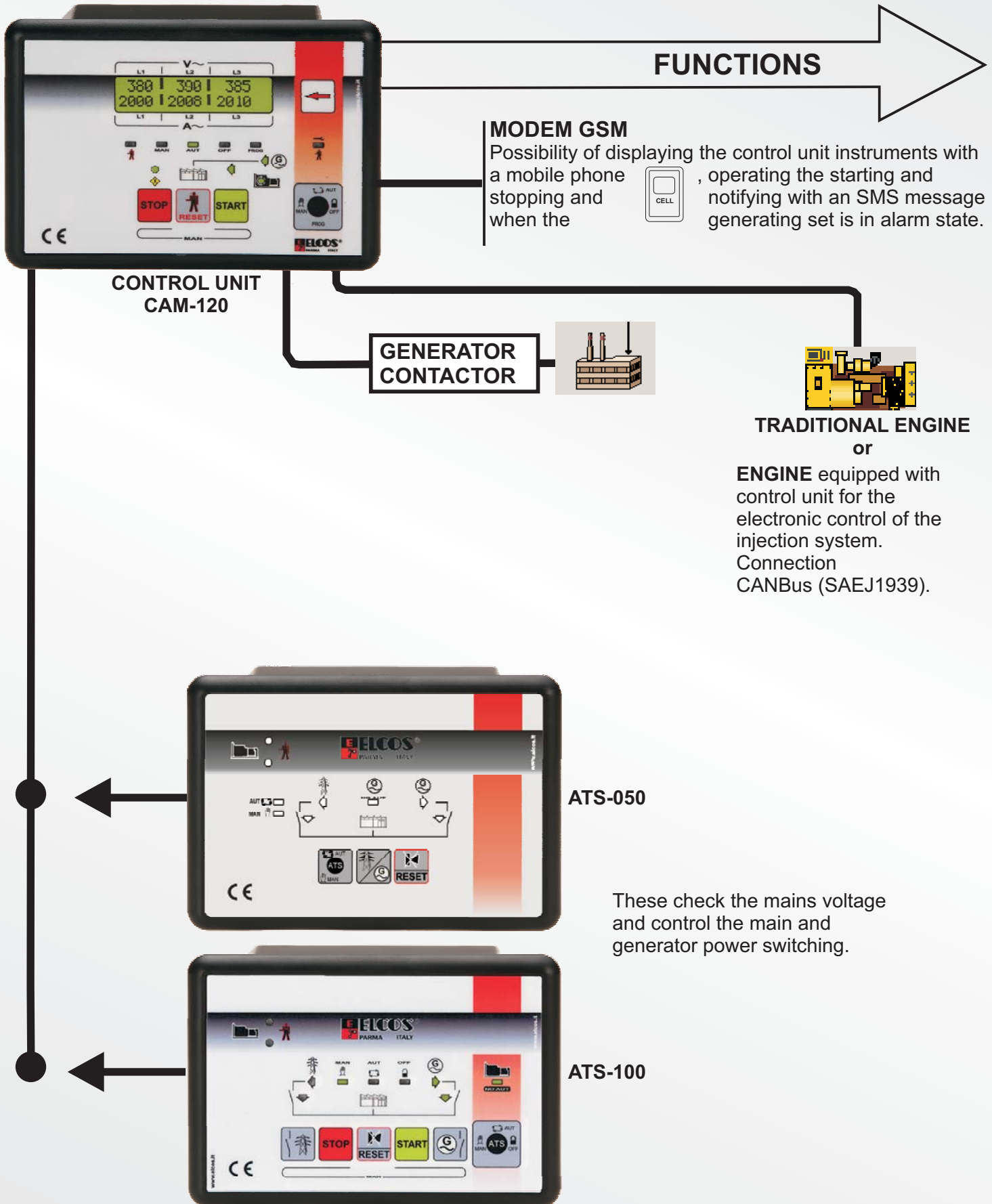
## Texts in:

-  Italian
-  English
-  French
-  German
-  Spanish
-  Portuguese



# CONNECTIONS AND FUNCTIONS OF CENTRAL UNIT CAM-120

CONTROL UNIT FOR MANUAL GENERATING SET,  
THIS HAS PROVISION FOR AUTOMATIC OPERATION.  
POSSIBILITY OF COMBINATION WITH  
THE CONTROL UNITS ATS-050 ATS-100  
TO OBTAIN POWER SWITCHING CONTROL.



- Three-phase voltmetric control. Minimum, maximum voltage, asymmetry and phase sequence of the generator.
- Manual start/stop buttons.
- Remote start input (call).
- Available fully programmable input for anomaly (times, polarities, stopping possibility and message about the anomaly).
- Glow plugs preheating management.
- Remote control (start and stop).
- Possibility of starting the generator when the charge of the battery is low.
- Clock for programming the starting or the stopping.
- Weekly selftest.
- Anomalies log (Including data from the last 100 occurred anomalies).
- Indication of preventive maintenance.
- Mod Bus protocol (Suppliable on request).

## REMOTE OPERATION BY PERSONAL COMPUTER WITH REMOTE OPERATION SOFTWARE ZW-100

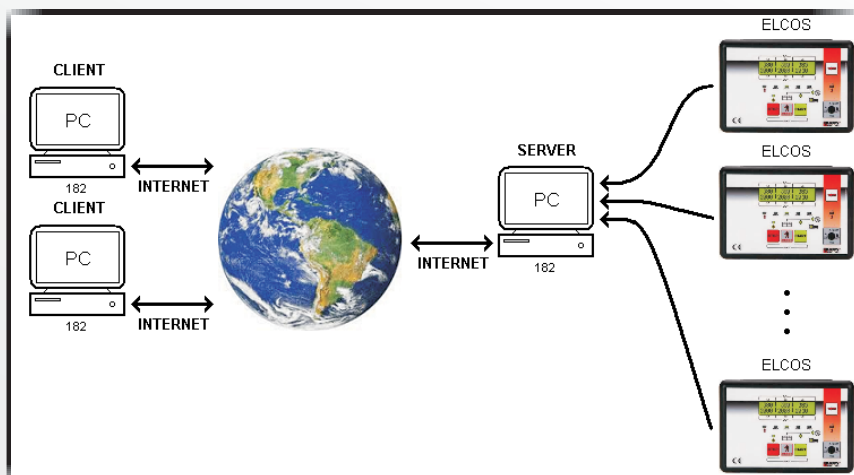


- It displays and prints: instruments, alarms and the anomalies log managed by the central unit CAM-120.
- It allows starting and stopping of the motor and resetting of the faults present.
- When a multipoint connection is used (RS422 or Ethernet) it can manage up to 8 control units simultaneously.

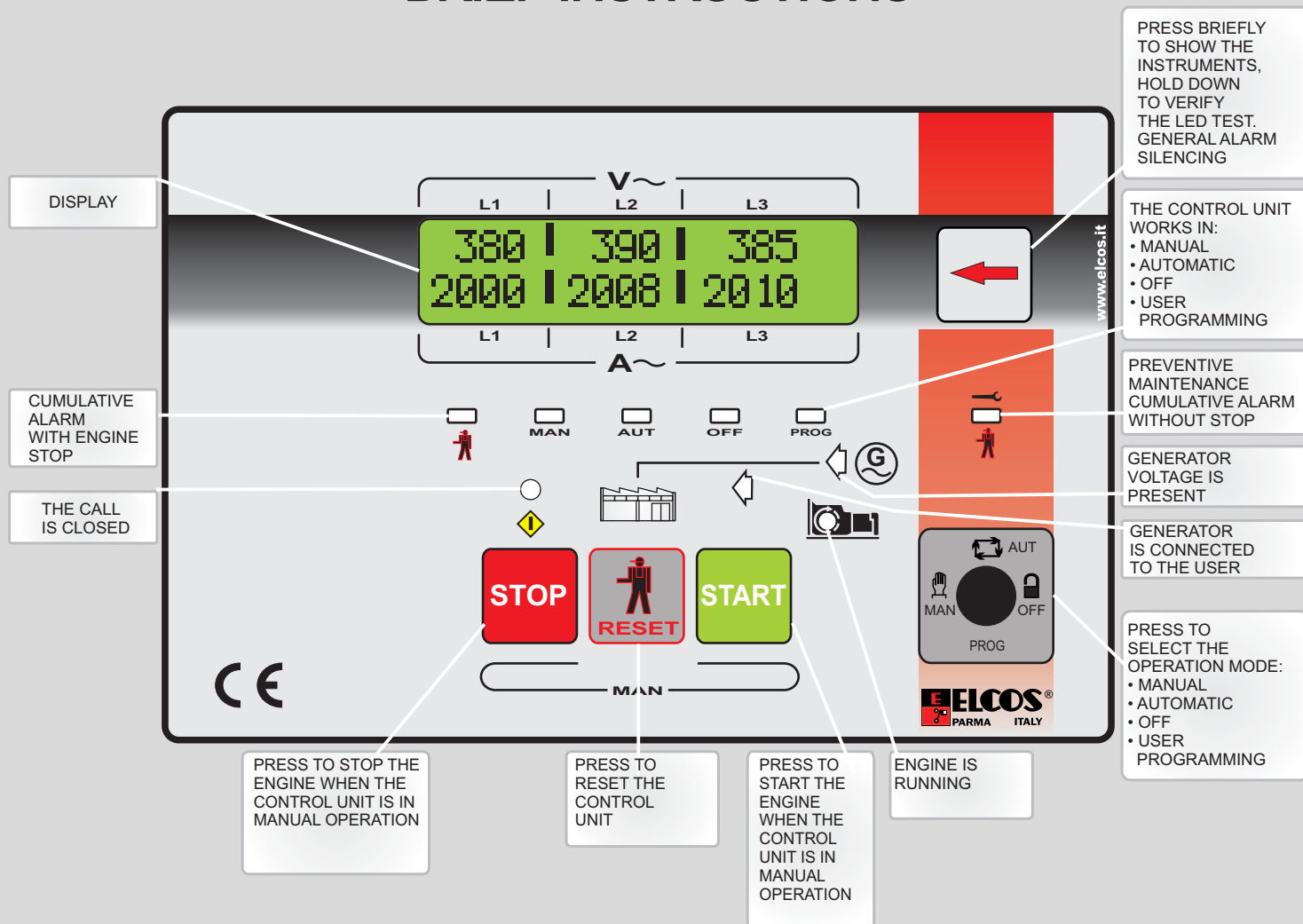
## CONNECTIONS

- **DIRECT CONNECTION.** Used to control only the control unit installed **near** the personal computer.
- **GSM MODEM CONNECTION.** Used to monitor a single control unit installed **at a distance** from the personal computer.
- **STANDARD ANALOGUE MODEM CONNECTION.** Used to monitor a single control unit installed at a distance from the personal computer, and when there is a mains phone line near the control unit.
- **MULTIPOINT CONNECTION.** With the multipoint connection a small network is created in which it is possible to connect a maximum of 8 Elcos (CAM-685 CAM-120) control units. All the control units are monitored by the remote control software ZW-100.
- **ETHERNET CONNECTION .** Used to connect max. 8 Elcos control units (CAM-685 CAM-120) to an existing LAN network. All the control units are monitored by the remote control software ZW-100.

- **INTERNET CONNECTION**  
Used to remotely monitor and manage the Elcos control units (CAM-685 CAM-120), using the Internet.



# BRIEF INSTRUCTIONS



## DISPLAYED INSTRUMENTS:

- THREE GENERATOR VOLTMETERS
- DELTA VOLTAGES
- STAR VOLTAGES
- THREE GENERATOR AMMETERS
- FREQUENCY METER
- WATTMETER (1)
- VARMETER (1)
- VOLTAMMETER (1)
- COSPHIMETER
- KILOWATT-HOUR
- PARTIAL HOUR METER
- TOTAL HOUR METER
- STARTING COUNTER
- BATTERY VOLTMETER
- TACHOMETER
- FUEL LEVEL INDICATOR
- WATER OR OIL THERMOMETER
- OIL PRESSURE GAUGE
- STARTING FAILURE COUNTER

(1) Total and per phase

## TECHNICAL DATA

- Battery power supply 9 ÷ 32 VDC
- Degree of protection
  - FRONT IP64
  - REAR IP00
- Dimensions (LxHxP)mm 157 x 109 x 114
- Hole mm 137 x 88