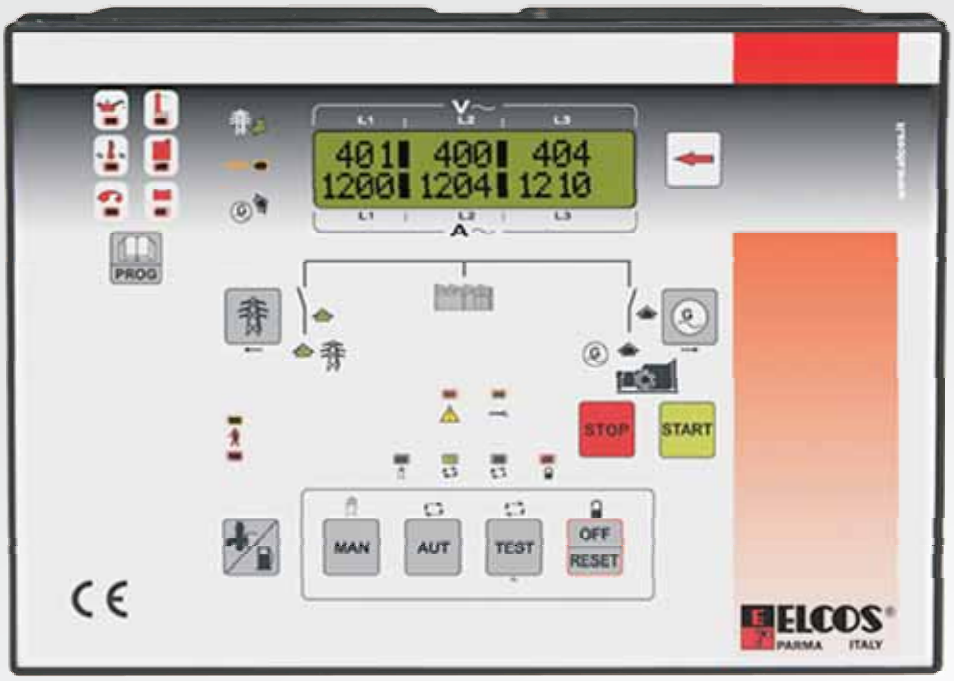
AUTOMATIC GENERATING SET CONTROL UNIT
TYPE CAM-685

www.elcos.it

Made for preparing panels for automatic emergency intervention.



CE

This carries out the function of control and drive of a generating set and connects the power users to the mains or the generator.

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

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

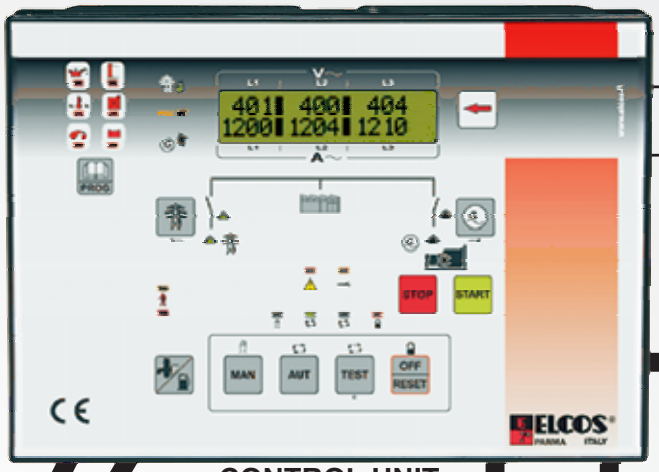
Complete with 26 instruments (synchronous reading of 6).

Texts in:

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

ELCOS® PARMA ITALY

CONNECTIONS AND FUNCTIONS OF CENTRAL UNIT CAM-685



CONTROL UNIT CAM-685

FUNCTIONS

MODEM GSM

Possibility of displaying the control unit instruments with a mobile phone operating the starting and stopping and notifying with an SMS message when the generating set is in alarm state.

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TRADITIONAL ENGINE or

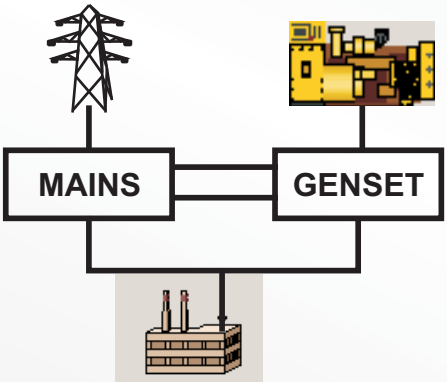
ENGINE equipped with control unit for the electronic control of the injection system. CAN Bus Connection (SAEJ1939).

BATTERY CHARGER CBS-030 or 060

connecting the battery charger to the special serial cable (RS485), the central unit CAM-685 displays the following conditionsi:

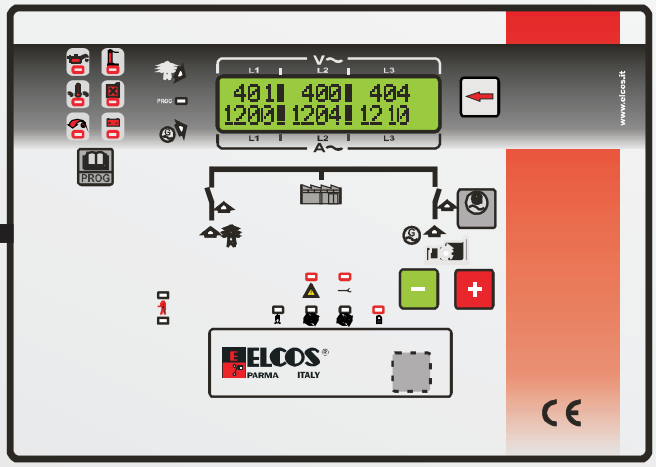
- Short circuiting, polarity inversion, and battery cables disconnected.
- Charging current and battery voltage.

CONTACTORS OR MOTOR-DRIVEN SWITCH COMMAND



EXPANSION MODULE MDE-088

The expansion module manages 8 digital inputs and 8 outputs with the central unit CAM-685 through the connection RS485.
Up to 4 modules can be connected at the same time.



REMOTE PANEL PRE-685

Remotely repeats the instruments and anomalies managed by the central unit CAM-685.

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- Three-phase voltmetric control. Minimum, maximum voltage, asymmetry and phase sequence of the mains and of the generator.
- Remote controls.
- EJP function.
- Possibility of starting the generator when the charge of the battery is low.
- IAvailable fully programmable inputs for anomalies (times, polarities, stopping possibility and message about the anomaly).
- Glow plugs preheating management.
- Management of refuelling of working tank from storage tank
- Clock for programming the starting or the stopping.
- Generator start/stop on request for power.
- Weekly selftest.
- Anomalies log (Including data from the last 50 occurred anomalies).
- Indication of preventive maintenance.
- Display of the most serious faults with both led and messages on the display.
- MOD Bus protocol (Suppliable on request).

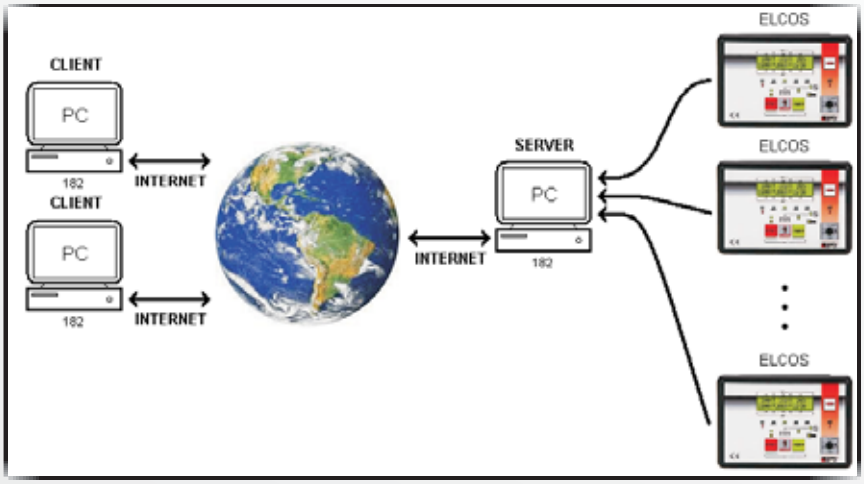
REMOTE OPERATION BY PERSONAL COMPUTER

WITH REMOTE OPERATION SOFTWARE ZW-100

- Displays and prints: instruments, alarms and the anomalies log managed by the central unit CAM-685.
- 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.
- **ANALOG STANDARD 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 control units (CAM-685 CAM-120). 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.



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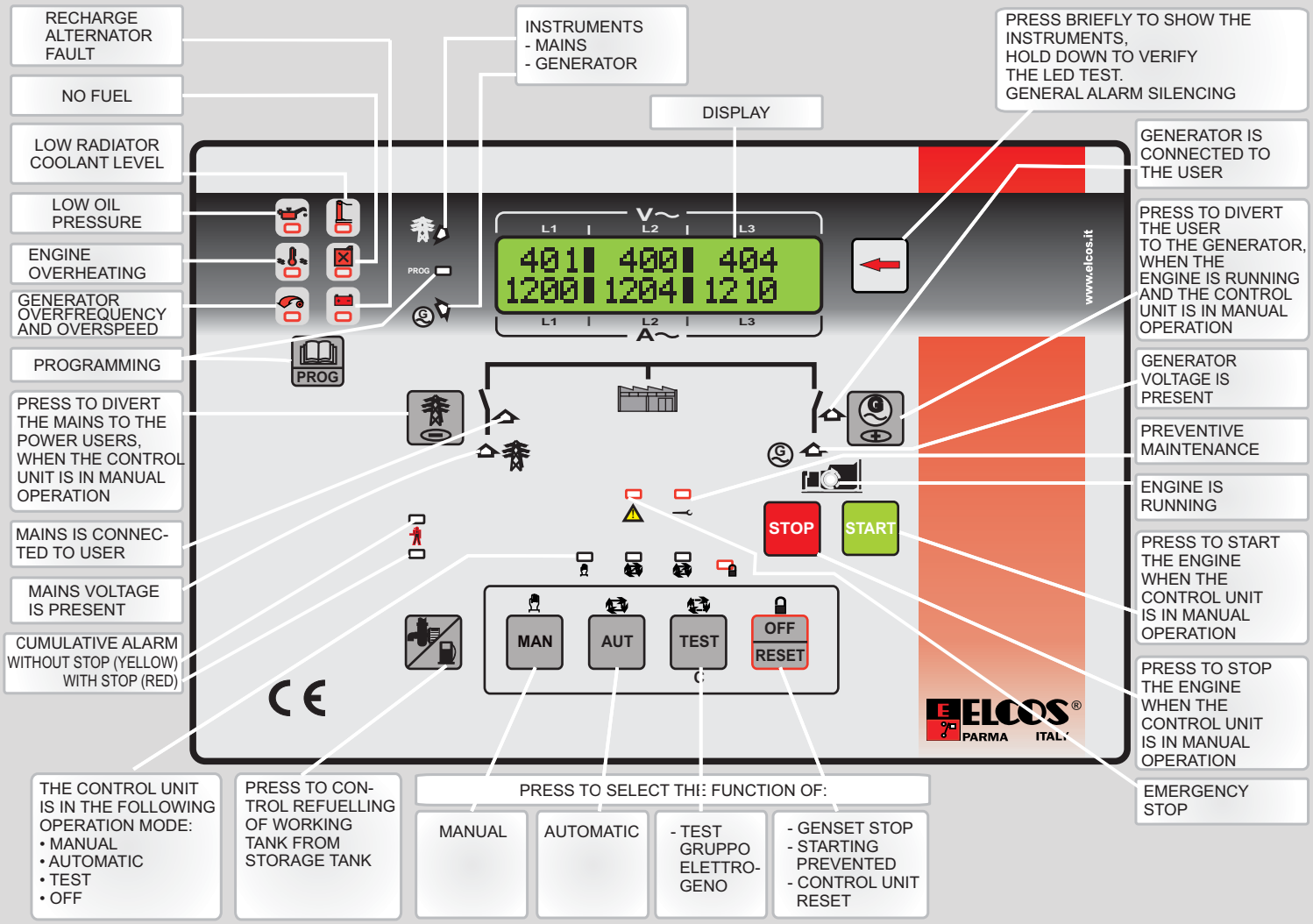
BRIEF INSTRUCTIONS



DISPLAYED INSTRUMENTS:

- THREE MAINS VOLTMETERS
- THREE GENERATOR VOLTMETERS
- MAINS/GENERATOR PHASE/PHASE LINE VOLTAGES
- MAINS/GENERATOR STAR VOLTAGES
- THREE MAINS/GENERATOR AMMETERS
- FREQUENCY METER
- WATTMETER (1)
- VARMETER (1)
- VOLTAMMETER (1)
- COSPHIMETER
- KILOWATT-HOUR METER

(1) Total and per phase

- PARTIAL HOUR METER
- TOTAL HOUR METER
- STARTING COUNTER
- TACHOMETER
- BATTERY CHARGER VOLTAGE
- BATTERY CHARGER CURRENT

} WITH BATTERY CHARGER TYPE CBS-030 CBS-060

- FUEL LEVEL INDICATOR
- WATER OR OIL THERMOMETER
- OIL PRESSURE GAUGE

TECHNICAL DATA

- **Battery power supply** **8 ÷ 32 VDC**
- **Degree of protection**
  - **FRONT** **IP64**
  - **REAR** **IP00**
- **Dimensions (LxHxP)mm** **290 x 200 x 62**

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