CONSTRUCTION
A sheet steel cubicle, protection degree IP34. Control and monitoring components are on a hinged door of the cubicle and other components on a mounting plate inside the cubicle.

EQUIPMENT

Control equipment:
- Display of digital control system AMF 25 having buttons for:
  - mode of operation with positions "OFF- MAN- AUT- TEST"
  - manual start and stop
  - manual control of Generator Breaker and Mains Breaker
  - resetting of alarms, scanning of alarms and parameters
- Switch for engine standstill heater
- Push-button for emergency stop

Monitoring equipment:
- Alarms are indicated by text in the display of digital control system.
- Automatic alarms and shutdowns for following parameters:
  - engine: oil pressure low, coolant temperature high, overspeed, fuel shortage, start failure,
  - generator: overcurrent, short-circuit, undervoltage, overvoltage, underfrequency, overfrequency
  - battery: undervoltage, overvoltage
- 6 LED signal lights for status indications

Measuring equipment:
- Measuring values can be seen in the display of digital control system:
  - generator voltage, currents, frequency, active power, reactive power, power factor, energy
  - mains voltage and frequency
  - battery voltage
  - operating hours, number of starts
  - engine oil pressure and coolant temperature

Power equipment:
- Generator Breaker
- Short-circuit and over-current protection for generator
- Mains Contactor or Breaker (alternatively located elsewhere or in scope of Customer)

OPERATION
- Operation mode can be selected by buttons in the display of digital control system:
  - OFF: Generator stops and cannot start.
  - MAN: Operations are done by manual control: start, ON/OFF control of Breakers, stop.
  - AUT: Generator operates automatically. When Mains voltage is normal, Loads are supplied by Mains. If Mains voltage changes into abnormal for a period longer than a set time, Generator starts and Loads are supplied by Generator. When Mains voltage restores normal for a period longer than a set time, Generator Breaker is switched OFF and Mains Breaker ON and Generator stops after a set cooling period.
  - TEST: Generator starts and begins to supply Loads as in Mains break.

PRINCIPAL DIAGRAM