



AUTOMATIC CONTROL AND SWITCHGEAR CUBICLE

for automatic standby power plant

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

