Gen set control unit

DST2700

AMF Gen set control card

DST2700 is a microprocessor based controller designed to make easier electric panel manufacturing.

It inherits some solutions from DST2600 integrated control panel.

Only the power circuits and the battery charger are not embedded in the device.

It includes: power relay for cranking and fuel solenoid, all the standard required fuses, emergency stop mushroom pushbutton.

Battery charger is to be connected directly to DST2700. External battery charger allows to select the appropriate device for the application, both for power and voltage.

DST2700 include all the standard features of SICES control board: display LCD (16x2 with 10mm characters for high readability, for this application), electrical measures on all the phases, true RMS measures on generator, power and energy computation, engine measure, engine and generator protections. As standard, an RS232 interface port is available and optionally a CAN interface with J1939 protocol can be embedded.

Measures

Mains Voltages
L1-L2, L2-L3, L3-L1
Lx-N max. voltage < 300Vac cat. IV
Generator Voltages:
L1-L2, L2-L3, L3-L1, True RMS measure.
Lx-N max. voltage < 300Vac cat. IV
Generator Currents:
L1, L2, L3, True RMS measure.
Nominal max. current: 5Aac
Overload measurable current : 4 x 5Aac (sinusoidal)
Generator Frequency meter:
Resolution = 0.1 Hz.
Battery Voltmeter:
Resolution = 0.1V
Oil Pressure Gauge:
VDO 0-10 Bar, VDO 0-5 Bar, Veglia 0-8 Bar
Water Thermometer:
VDO, Veglia, BERU (optional 0-10V input)
Fuel Level:
VDO, Veglia

Technical characteristics

Computed Measures

Active power meter, Reactive power meter, Apparent power meter, power factor: Total and phase by phase
Active and reactive energy counter
Hour counter, hour counter for maint./rental, Start Counter

Engine Protections

Overspeed, coolant temperature by ON/OFF, oil pressure by ON/OFF, fuel level (warning available), belt break, maximum deliverable power, overcrank and start failure.

Generator Protections

Underfrequency (81U), Overfrequency (810), Undervoltage (27), Overvoltage (59), Power direction (32), Time dependent overcurrent (51), Instantaneous overcurrent (50), Phase sequence, Current and Voltage unbalance, rated conditions failure.

Input, Output and Auxiliary functions

Embedded alarm horn.
6 programmable digital inputs
2 relays (8A) outputs
2 relays (40A) fuel valve and start

Interface

N.1 RS232 serial port with MODBUS RTU protocol

CAN interface with J1939 protocol for engine management (optional)

As optional, it's available a 48V version of DST2700, particularly used when the genset controller has to monitor a genset aimed for charging a set of external batteries.
DST2700 controls the voltage of a set of external batteries and, in case of the voltage drops under a settable value, starts the stand-by genset which works to recharge the batteries.
DST2700, checking either voltage and current of batteries, stops the genset when proper values are reached.

Actually this version of DST2700 is available for Single phase gensets only.

Other Technical data

Nominal Auxiliary Voltage: 12/24V (switch selectable)
Auxiliary supply voltage: 7,5..15 Vdc/15..32Vdc

LCD: transflective with LED backlight; 16x2 characters, 10mm.high
Operating temperature: -20 °C to 60 °C
Weight: less than 1.2Kg
Overall dimension: 270x220x75mm (LxHxP) (not included emergency pushbutton and connectors)
Panel mounting: by means stud-bolt

EMC: conform to EN61326-1
Built in conformity to EN61010-1

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