AST115Plus

Micro-processor controller capable of managing the automatic changeover between two supplies, both mains and/or genset(s).

DESCRIPTION

Automatic Transfer Switch controller with 3 phase (RMS) mains voltage and 3 phase (RMS) generator voltage and current monitoring, suitable for operation with two different power sources.

ATS115Plus is a device suitable for managing the switch in different plants configuration. A or B sources can be set as "mains" or "genset" in any possible combination.

All the parameters can be set directly by the controller's keyboard or, alternatively using the free software tool (Mecc Alte BoardPrg4), available from Mecc Alte's website.

The ATS115Plus graphic display allows a real time check of the switch status, the measurements and any occurred alarms.

The ATS115Plus also allows the remote control of the switch through its communication ports.

The ATS115Plus has an extensive input and output capability with optional communication interfaces.

INPUTS - OUTPUTS AND AUXILIARY FUNCTIONS



8 Digital inputs



8 Digital outputs



4 Analogue inputs



AND/OR Logic control



16 Calendars 4 timers



Event history log



RS232



USB port



Ethernet connection



RS485

- N. 8 Digital inputs.
- · N. 4 Analogue inputs, also available as non-isolated digital inputs.
- N. 2 Programmable relay Outputs.
- · N. 4 Insulated digital Outputs.
- N. 2 Programmable relays (10A), usually used for the switch management.
- · All inputs and Outputs are freely programmable.



MAIN FEATURES

- True RMS measure for voltages of both sources and load currents.
- Measure of active power and power factor.
- · Measure of frequency for both sources and load power.
- 8 programmable digital inputs (insulated).
- 8 programmable digital outputs.
- USB Port and ETHERNET Port.
- Graphic display with single-line diagram representation.
- · Real time clock.
- · Events and data recording.
- · Remote switch commands and remote start and stop commands.
- · Embedded alarm horn.

COMMUNICATION

- ATS115Plus
 - N. 1 USB Port.
 - · N. 1 Serial port RS232 Modbus RTU.
 - · N. 1 Isolated serial port RS485 Modbus RT.
 - N. 1RJ45 Port Ethernet interface TCP/IP.
- Optional
 - GSM/GPRS/GPS modem (REWIND): SMS in case of warnings and alarms.
 - PSTN modem for data call in case of alarm and warning.
 - Supervisor software for Windows®.

The ATS115 Plus is a multilingual device. The selectable languages are, English, Italian, Spanish, French, Russian and Portuguese/Brazilian.

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MEASURES

Source A Voltage: (mains or genset)

L1-N, L2-N, L3-N, L1-L2, L2-L3, L3-L1.

True RMS measure.

Lx-N max. voltage < 300Vac cat. IV.

Source B Voltage: (mains or genset)

L1-N, L2-N, L3-N, L1-L2, L2-L3, L3-L1.

True RMS measure.

Lx-N max. voltage < 300Vac cat. IV.

A or B Currents or towards load

L1, L2, L3, N.

True RMS measure.

Rated current: /5A and /1A.

Overload of measure current: 4 x 5Aac (sinusoidal).

Lx-N max. voltage < 300Vac cat. IV.

A or B Frequency

Resolution = 0.1 Hz.

Accuracy = \pm 50ppm, \pm 35ppm/°C (typical).

Battery Voltage

Resolution = 0.1V.

PROTECTIONS

- · Status and Signals
 - Source A live (Mains or Genset).
 - · Source B live (Mains or Genset).
 - Source A circuit breaker closed.
 - Source B circuit breaker closed.
 - Source A or B Start/Stop.
 - Remote Start.
 - Battery failure (Max/Min Voltage).
 - Max. controller temperature.
 - Emergency stop.
 - Clock set up failure.

Protections

- Genset "X" not stopped.
- · Genset "X" out of threshold.
- Source A or B operation conditions not reached.
- Source A or B wrong phase sequence.
- Source A or B failure.
- Source A or B circuit breaker not open.
- Source A or B circuit breaker not closed.

A set of high efficiency LED is used for signaling the statuses of the genset and of potential alarms occurred. Secondary alarms are represented by their corresponding display code.

TECHNICAL DATA

- · Supply voltage: 7...32 Vdc.
- Power consumption: typically, less than 2W (Auto mode, Standby, AMF active, LCD Lamp Saving active).
- · Genset rated frequency 50Hz or 60Hz.
- · LCD: transflective with LED backlight.
- · Operating temperature: -25 °C to 60 °C.
- · Protection degree: IP65 (gasket included).
- Weight: 650g.
- Overall dimension: 244 (W) x 178 (H) x 40 (D).
- Panel cut-out: 218 x 159 (W x H).
- Graphic display dimensions: 70 x 38 mm 128 x 64 pixel.
- · EMC: compliant with EN61326-1.
- · Safety: built in compliance with EN61010-1.



