



GENERAL CHARACTERISTICS

ATS-9 is automatic transfer switch controller dedicated for LV switchgear. The device is especially dedicated for switchgears serving as auxiliary voltage supply system including diesel generator incoming feeders. An Incoming feeder where unplanned outage occurs is automatically switched off and the controller immediately sends switch on command to one of stand-by supplies according to set priority. Signalling of failures provides the staff precise and immediate information about occurring alert states. The controller provides also event recorder function. The records can be transferred to SCADA system with fiber optic port, RS-485 port or ethernet port. The communication protocol is chosen from one of the available protocols from the list as follows: ZEG, IEC 60870-5-103 or (optional) MODBUS, DNP-3, IEC 61850.

MAIN FEATURES

- standard rack 19" enclosure 19"/4U/160
- removable front panel with possibility to install in any place
- 48 programmable binary inputs
- 24 relay outputs to control breakers and cooperate with substation telecontrol system
- 16 analog inputs with function of voltage unbalance detection
- 32 LED RGB diodes, fully programmable
- watchdog contact in order to signal lack of auxiliary voltage or power supply module failure
- binary inputs for remote confirmation of visual signalling
- input/output modules equipped with screw 16-pins plugs
- possibility of upgrading the device to control any number of supplies
- possibility to block signalling with "Alarm ON/OFF" button
- „Alarm C" button to confirm signalling
- function buttons F1-F6 for setting the priority of supplies
- 8 communication ports: RS-232, RS-485, ST-fibre-optic
- transmission protocol chosen by software: IEC 60870-5-103 or ZEG

TECHNICAL DATA

Rated supply voltage	110-230V DC/AC or other value on request
Burden in supply module	<3 0VA
No. of inputs	64-128
No. of 4U cassettes	1-4
Insulation	optical
Rated input voltage	$U_{in}=220V$ DC/AC or other value on request
Burden in binary inputs	0,3W
Time delay setting range	25s
Time resolution	1ms
Number of communication channels	8
	<ul style="list-style-type: none"> • fiber-optic ST / IEC 870-5-103 • RS485 • Ethernet • USB
Weight	5kg
Operating temperature range	-5 ÷ +40 °C

PRINCIPLE OF OPERATION

ATS-9 is freely programmable device which by: light indicators on front panel, LCD display and set of relay outputs, signals the current condition of auxiliary voltage switchgear. The signals can be grouped and individually assigned to visual indicators and signalling outputs. Inputs can be picked-up by energising them or by voltage drop. Input signal can be delayed by timer of duration up to 25sec. Lack of voltage on the feeder or voltage unbalance is detected and causes open of current feeder and closing the another according to set priority. Priority of operation can be selected by F1-F6 function buttons. Occurrence of disturbance picks-up the blinking light of frequency 2 Hz.