

Automatic Transfer Switch-Controller ATS-C by Eaton

# ATS-C



## Automatic Transfer Switch-Controller ATS-C 96 and C 144



Powering Business Worldwide

# Supply safety for low voltage energy distribution.

## Automatic Transfer Switch-Controller ATS-C by Eaton

Mains power failures can lead to critical situations, especially in sensitive usage sites such as hospitals or data processing centres, or during industrial production processes.

In the event of disruptions to the mains supply, an uninterrupted power supply is of utmost priority in protecting human life and safeguarding the continuity of operations.

The microprocessor-controlled ATS-C power switching system by Eaton offers, in such cases, automatic or manual switching from the mains to an auxiliary power supply, thus ensuring that the supply of power is safeguarded at all times.



### Classic usage sites:

Classic usage sites for an auxiliary power supply

- Hospitals, data processing centres in conjunction with UPS units
- Commercial buildings such as high-rise buildings, hotels, shopping centres...
- Infrastructural buildings such as airports, underground railways, train stations
- Industrial processes

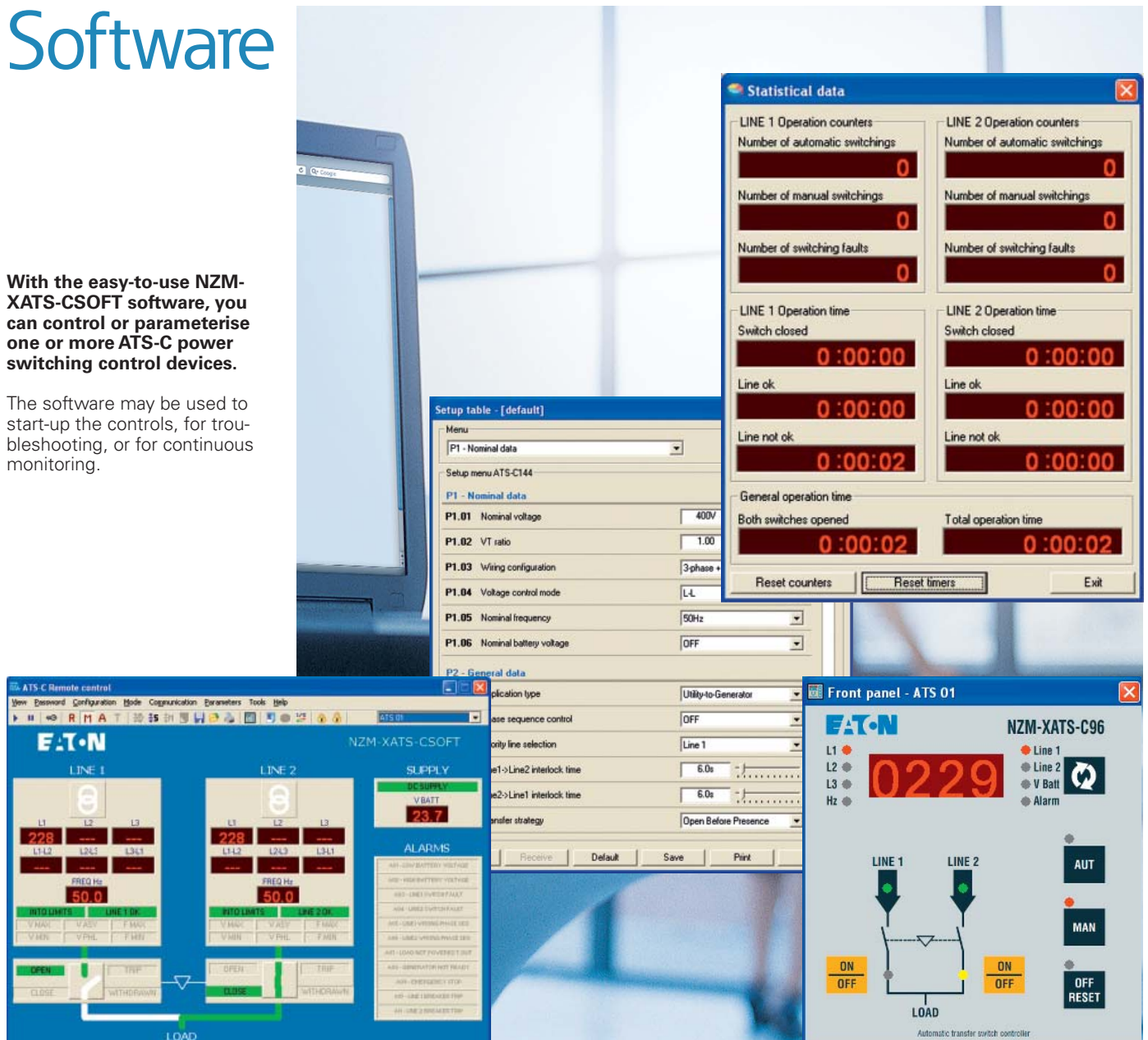
### Advantages of the ATS-C by Eaton:

- **Control of 3-phase systems with or without neutral conductors**
- **Test function with or without switching**
- **7 different parameters such as voltage, frequency, and individual activation of the supply lines**
- **Programmable inputs and outputs are available for the generator, monitoring, and controls**
- **Easy operation and setting of parameters, either directly on the system or through PC software**
- **Integrated Modbus®-RTU- and Modbus®-ASCII communication protocols**
- **Permanent storage and option to call-up incidents and operating statuses (ATS-C144)**

# Software

With the easy-to-use NZM-XATS-CSOFT software, you can control or parameterise one or more ATS-C power switching control devices.

The software may be used to start-up the controls, for troubleshooting, or for continuous monitoring.



## Advantages:

- Compatible with all Windows computers
- RS232 or USB interface
- View of all ATS-C measurements
- Access to all Setup dialogue boxes
- Access to the real-time clock (only ATS-C144)
- Access to statistics data (only ATS-C144)
- Storing, loading and printing of all parameter settings
- Display of an ATS-C virtual control panel with operable keys
- Switching between operating modes
- Keypad lock
- Display of an incident protocol showing the last 100 incidents with date and time



# Technical Data

	ATS-C 96	ATS-C 144
<b>Power supply</b>		
Rated operating voltage (Us)	12 – 24 – 48 V $\overline{\text{=}}$	12 – 24 – 48 V $\overline{\text{=}}$ , 220 – 240 V $\sim$
Operating range	9 – 70 V $\overline{\text{=}}$	9 – 70 V $\overline{\text{=}}$ , 187 – 264 V $\sim$
Maximum current consumption	250 mA 12 V $\overline{\text{=}}$ ; 130 mA 24 V $\overline{\text{=}}$ ; 70 mA 48 V $\overline{\text{=}}$	300 mA 12 V $\overline{\text{=}}$ ; 180 mA 24 V $\overline{\text{=}}$ ; 90 mA 48 V $\overline{\text{=}}$
Maximum power consumption	3,3 W	9 VA (Us = 240 V $\sim$ )
Max. heat dissipation	3 W	6,3 W (Us = 240 V $\sim$ ) 4,1 W (Us = 48 V)
Safety on short-term interruption	50 ms	50 ms
<b>Measuring inputs</b>		
Maximum rated operating voltage (U <sub>e</sub> )	400 V $\sim$ L-L (220 V $\sim$ L-N)	690V $\sim$ L-L (400V $\sim$ L-N)
Measuring procedure	TRMS (RMS value)	TRMS (RMS value)
Measurement input impedance	> 1,1 M $\Omega$ L-L and > 570 k $\Omega$ L-N	> 1,1 M $\Omega$ L-L and > 0,5 M $\Omega$ L-N
Connection procedure	Single-phase, two-phase, three-phase system with or without neutral conductor	Single-phase, two-phase, three-phase system with or without neutral conductor
Measuring range	50 - 576 V $\sim$ L-L	80 - 800 V (L-L)
Frequency	45 - 66 Hz	45 - 65 Hz
Measurement error	0,25 % $\pm$ 1 digit	0,25 % $\pm$ 1 digit
<b>Communication cables</b>		
Serial interface RS232	Connection through RJ6/6. USB-adapter in ATS-SW enclosed.	Connection through RJ6/6. USB-adapter in ATS-SW enclosed.
Serial interface RS485		Connection through plug-in terminals
<b>Real-time clock</b>		
Charging reserve		Storage capacitor
Operation without supply supply		Approx. 12 to 15 days
<b>Insulation</b>		
Rated insulation voltage Ui	480 V	690 V
<b>Environmental Conditions</b>		
Operating temperature	-20 – +60 °C	-20 – +60 °C
Storage temperature	-30 – +80 °C	-30 – +80 °C
Relative humidity	< 90 % (IEC/EN 60068-2-78)	< 90 % (IEC/EN 60068-2-78)
Maximum pollution degree 3	3	3
Overvoltage category 3	III	III
Measurement category	III	III
Installation altitude	$\leq$ 2000 m	$\leq$ 2000 m
Climate sequence	Z/ABDM (IEC/EN 60068-2-61)	Z/ABDM (IEC/EN 60068-2-61)
Mechanical shock resistance	10 g (IEC/EN 60068-2-27)	15 g (IEC/EN 60068-2-27)
Vibration resistance	0,7 g (IEC/EN 60068-2-6)	0,7 g (IEC/EN 60068-2-6)
<b>Connections</b>		
Terminal type	Bolt on	Bolt on
Conductor cross-section (Min/Max)	0,2 - 2,5 mm <sup>2</sup>	0,2 - 2,5 mm <sup>2</sup>
Tightening torque	0,5 Nm	0,5 Nm
<b>Housing</b>		
Model	Flush mounting	Flush mounting
Degree of protection	IP54 front - IP20 at terminals	IP41 front, IP20 at terminals
Weight	470 g	1050 g
<b>Approvals and conformity</b>		
Fulfills standards	IEC/EN 60947-6-1	IEC/EN 60947-6-1
	IEC/EN 61000-6-2, IEC/EN 61000-6-3	IEC/EN 61000-6-2, IEC/EN 61000-6-3
	IEC/EN 61010-1	IEC/EN 61010-1

## Control Parameters (einstellbar)

Phase-phase voltages
Phase-neutral voltages
Voltage asymmetry
Frequency
Battery voltage
Phase loss
Phases sequence

## Alarms (konfigurierbar)

Low battery voltage
High battery voltage
Line 1 switch fault
Line 2 switch fault
Line 1 wrong phase sequence
Line 2 wrong phase sequence
Generator not ready

## Functions

TECHNICAL CHARACTERISTICS	ATS-C96	ATS-C144
Programmable Inputs	✓	✓
Programmable Outputs	✓	✓
Line to Line Function	✓	✓
Line to Generator Function	✓	✓
Generator to Generator Function		✓
Auto Mode with Manual Return to Mains Function	✓	✓
Automatic test on-load or off-load	✓	✓
Programmable Alarms Property	✓	✓
Events Logging	✓	✓
Operational Statistic Data Recording		✓
Alarm Relay	Programmable	Programmable
Alarms Text Display	✓ (5 languages)	
Set-up Mode	Manual or via PC	Manual or via PC
Mod-Bus RTU or ASCII Protocols	✓	✓
Remote Control PC SW availability		✓
RS232	✓	✓
RS485 (opto-insulated)		✓
Real Time Clock with Energy Backup		✓
Non Volatile Memory for Event/Statistic-Data	✓ (only events)	✓



## Selection information

Type designation	Article No.	Dimensions (mm)
NZM-XATS-C96	164330	96 x 96 x 94 mm
NZM-XATS-C144	164331	144 x 144 x 94 mm
NZM-XATS-CSOFT	164332	

# The complete solution by Eaton

Main supply  
(transformer)

Continuous analysis of the mains  
power supply, and automatic  
switching to the auxiliary supply  
when needed.

Auxiliary supply  
(e.g. generator/transformer)



Eaton is a leading supplier of system solutions for auxiliary power supply systems. With Eaton you have a partner that makes available to you a full palette of products, including for low voltage incidents. The ATS-C power switching control devices are a logical add-on that will increase the power supply safety of your system.

Eaton is dedicated to ensuring that reliable, efficient and safe power is available when it's needed most. With unparalleled knowledge of electrical power management across industries, experts at Eaton deliver customized, integrated solutions to solve our customers' most critical challenges.

Our focus is on delivering the right solution for the application. But, decision makers demand more than just innovative products. They turn to Eaton for an unwavering commitment to personal support that makes customer success a top priority.

For more information, visit  
[www.eaton.com/electrical](http://www.eaton.com/electrical).

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