



Automatic Transfer Controller

AuXC - 1000

**LARSEN & TOUBRO**

About us

Larsen & Toubro is a technology-driven USD 9.8 billion company that infuses engineering with imagination. The Company offers a wide range of advanced solutions in the field of Engineering, Construction, Electrical & Automation, Machinery and Information Technology.

L&T Switchgear, which forms part of the Electrical & Automation business, is India's largest manufacturer of low voltage switchgear, with the scale, sophistication and range to meet global benchmarks. With over four decades of experience in this field, the Company today enjoys a leadership position in the Indian market with growing presence in International markets.

It offers a complete range of products including controlgear, powergear, motor starters, energy meters, wires and host of other accessories. Most of our product lines conform to International standards, carry CE markings and are KEMA certified.



Switchgear Factory, Mumbai

CONTROL

AUTOMATIC TRANSFER



L&T's AuXC-1000 controller is designed and developed to control and supervise the automatic or manual transfer of a utility load from a principal power supply source to a stand-by. It includes all the necessary features to supervise and control power supply sources, composed by energy distribution systems or generating sets, and the relative transfer equipment, such as contactors, motorised circuit breakers and changeover switches. The utility changeover, from one power source to the other, can be automatic or manual.

The automatic transfer takes place whenever the following conditions are pre-defined by the user.

- Power supply source not respecting programmed limits
- The need to have a very reliable power source
- The need to use the most economical power source.

All the operations for set-up, operating mode change, manual transfer controls and operating checks can also be conducted, via personal computer, by using the specific remote control software.

FEATURES

- ▶ Automatic / Manual control of power supply source
- ▶ Set-up data programming
- ▶ Virtual front panel viewing with key activation feature
- ▶ Analog modem / GSM modem support
- ▶ Programmable I / OS
- ▶ Test function
- ▶ LED indications
- ▶ Voltage and Frequency display

GENERAL CHARACTERISTICS

- Rated auxiliary power supply: 220-230-240VAC or 12-24-48VDC
- Voltage transformer (PT) programming
- Phase-to-phase voltage measure inputs: 80...800VAC
- TRMS voltage measure
- Frequency measure of both sources: 45...65Hz
- 2 displays for voltage and frequency measure viewing
- 8 digital programmable inputs
- 7 programmable relay outputs
- RS232 interface
- Plug-in removable terminal connections

OPERATIONAL CHARACTERISTICS

- Supported applications:
Utility/utility, utility/gen-set and gen-set/gen-set
- Control capability:
Choice of single, two, three-phase lines, with or without neutral
- Single enable controls on the lines:
Phase loss or failure, phase sequence, min and max voltage, asymmetry and min and max frequency
- Statistical logging
- Event logging with time and date entry:
Source of automatic transfer control, automatic controls, manual controls, incomplete transfer controls, operating mode change and set-up data variations
- Data and event storage in non-volatile ferromagnetic memory
- PC or keypad set-up
- Modbus® - RTU and Modbus® ASCII communication protocols
- Analog modem / GSM modem support
- Programmable automatic gen-set test

ADVANTAGES

- Dual AC and DC power supply
- Universal battery supply 12V, 24V or 48VDC
- Control of three-phase systems, with or without neutral
- 7 different control parameters of the supply lines, individually activated
- Frequency measurement on both lines
- Control relay of motorised circuit breakers or changeover switches
- Statistical data recording related to lines, changeover systems and utilities, indispensable for optimising the system and steady operation
- Event logging with date and time entry, fundamental for diagnostics whenever breakdowns or malfunctions take place
- Memory for permanent storage of logged data and events
- Programmable inputs and outputs available for generating sets supervision and control
- Use and set-up ease
- Standard-supplied RS232 port

PROGRAMMABLE FUNCTIONS

- Automatic test
- Transfer strategy
- Gen-set starting supervision
- Two generator rotation
- Principal line selection
- Non-priority loads disconnection
- Before and after transfer indication
- EJP (Effacement Jour Pointe - special energy tariff) signal supervision

TRANSFER EQUIPMENT CAPABILITY

- Contactors
- Motorised circuit breakers
- Motorised changeover switches

UPTECHNICAL CHARACTERISTICS

AUXILIARY POWER SUPPLY	
DC supply	12...48VDC
AC supply	220...240VAC
Frequency	45...65Hz
Power consumption max	6VA (Us: 240VAC)
Power dissipation max	2,8W (Us: 48VDC or Us: 240VAC)
Current consumption max	420mA at 12VDC; 200mA at 24VDC; 100mA at 48VDC
Micro-breaking immunity time	50ms
VOLTAGE INPUTS	
Rated voltage Ue	690VAC phase-phase (400VAC phase-neutral)
Measure limits	80...800VAC phase-phase
Measure limits	80...800VAC phase-phase
Type of measurement	TRMS
Measure input impedance	>1.1M Ω phase-phase; >0.5M Ω phase-neutral
Type of connection	One, two or three phase
Measurement error	Class 0.5 ± 0.25% f.s., ± 1digi
DIGITAL INPUTS	
Number of inputs	8 (all programmable)
Type of input	Negative
Input current	10mA
Input signal "0" state	1.5 (2.9V typical)
Input signal "1" state	5.3 (4.3V typical)
Input signal delay	50msec
RELAY OUTPUTS	
Number of outputs	7 (all programmable)
Number of control outputs for circuit breaker opening and pre-charging ❶	2 (1 N/O - rated 12A, 250VAC) (relay contacts rated 16A AC1 250V/B300)
Number of control outputs for circuit breaker closing ❶	2 relays (1 NO - rated 8A AC1 250V/B300; 1A 30VDC pilot duty)

RELAY OUTPUTS	
Number of control outputs for generating set ❶	1 relay (1 NO - rated 8A AC1 250V/B300; 1A 30VDC pilot duty)
Number of spare outputs ❶	1 relay (1 C/O - rated 8A AC1 250V/B300; 1A 30VDC pilot duty)
Number of alarm outputs ❶	1 relay (1 C/O - rated 8A AC1 250V/B300; 1A 30VDC pilot duty)
COMMUNICATION INTERFACES	
RS232 serial port	Programmable baud-rate 1200...38400 bps Connection by RJ6/6 plug
INSULATION	
Rated insulation voltage Ui	690V
AMBIENT CONDITIONS	
Operating temperature	-20...+60°C
Storage temperature	-30...+80°C
Relative humidity	<90%
Pollution degree maximum	3
CONNECTIONS	
Type of terminal	Plug-in / removable
Conductor section min/max	0.2...2.5 mm2(24 - 12 AWG)
Tightening torque	0.5 Nm (4.5 lbin)
HOUSING	
Material	Thermoplastic
Version	Flush mount
Degree of protection	IP41 on front, IP20 at rear
COMPLIANCE	
Compliant with standards	IEC/EN 60947-1, IEC/EN 60947-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3
❶ All outputs are programmable.	

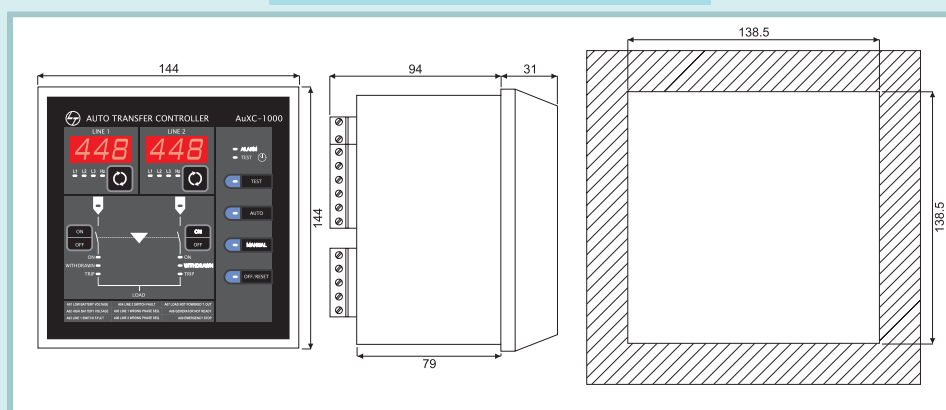
ORDERING INFO	CAT NO.	DESCRIPTION
	ST 80230	AuXC - 1000 controller

COMPLEMENTING PRODUCTS AND ACCESSORIES

RATING	CONTROLLER	SWITCHING DEVICE	TYPE	REQUIRED ACCESSORIES
400-6300A	AuXC-1000	ACB	U power / C power (Electrical Draw Out Type)	Common fault indication Electrical Position Indication Mechanical Interlock
16-1250A		MCCB	D sine / DNX	Electrical operating Mechanism Interlocking UV (If required) Base Plate Mechanical Interlock
16-700A		Contactors	MCX	Mechanical Interlock Kit

- ❷ Other supply voltages in AC on request.
❸ 110-120VAC supply on request.

DIMENSION DETAILS



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Product improvement is a continuous process. For the latest information and special applications, please contact any of our offices listed here.



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