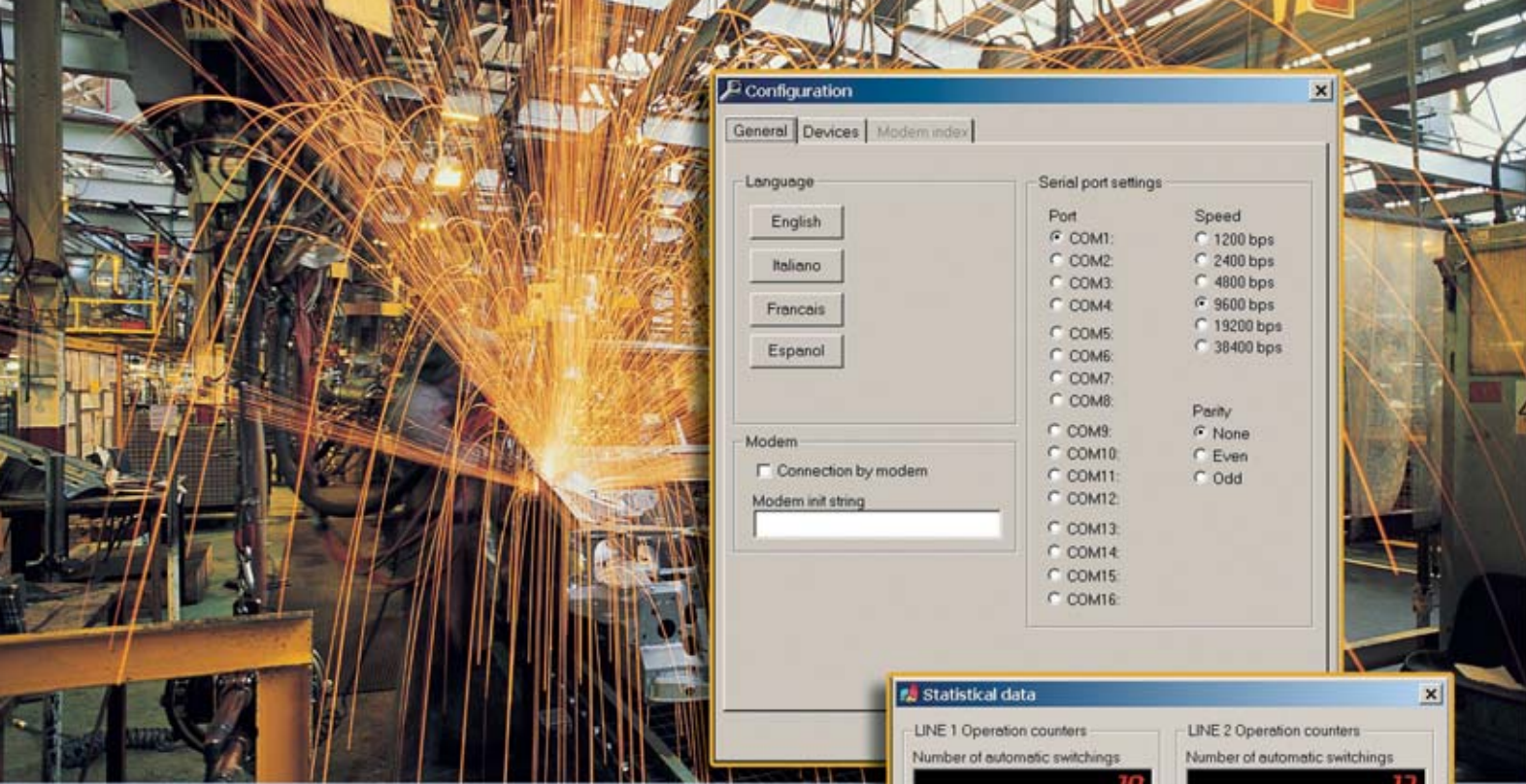


Automatic transfer switch controllers ATL series





Configuration

General | Devices | Modem index

Language: English, Italiano, Francais, Espanol

Serial port settings: Port (COM1-16), Speed (1200-38400 bps), Parity (None, Even, Odd)

Modem: Connection by modem, Modem init string

Set-up and remote control software ATL SW

- Measure viewing of 2 sources
- Data and event viewing and printout
- Set-up data programming
- Real time clock programming, with PC clock synchronising feature
- Virtual front panel viewing with key activation feature
- Analog modem / GSM modem support.

Statistical data

LINE 1 Operation counters	LINE 2 Operation counters
Number of automatic switchings: 19	Number of automatic switchings: 13
Number of manual switchings: 11	Number of manual switchings: 8
Number of switching faults: 7	Number of switching faults: 2
LINE 1 Operation time	LINE 2 Operation time
Switch closed: 1:16:20	Switch closed: 0:00:01
Line ok: 4:20:58	Line ok: 4:20:58
Line not ok: 1:51:19	Line not ok: 0:38:54
- General operation time	



Event log

Date	Time	Event
82	01-01-06	12:00:32 [083] - Begin of alarm A03 - Line 1 switch fault
83	01-01-06	12:01:02 [087] - Begin of alarm A07 - Load not powered timeout
84	01-01-06	12:00:00 [001] - ATL Power on
85	01-01-06	12:00:12 [042] - Line 1 present
86	01-01-06	12:00:12 [062] - Line 2 present
87	01-01-06	12:00:12 [029] - Stop command to generator 2
88	01-01-06	12:00:14 [052] - Line 1 switch closed
89	01-01-06	12:00:00 [001] - ATL Power on
90	01-01-06	12:00:12 [042] - Line 1 present
91	01-01-06	12:00:12 [062] - Line 2 present
92	01-01-06	12:00:12 [029] - Stop command to generator 2

ATL Control panel

View Configuration Mode Communication Parameters Tools Help

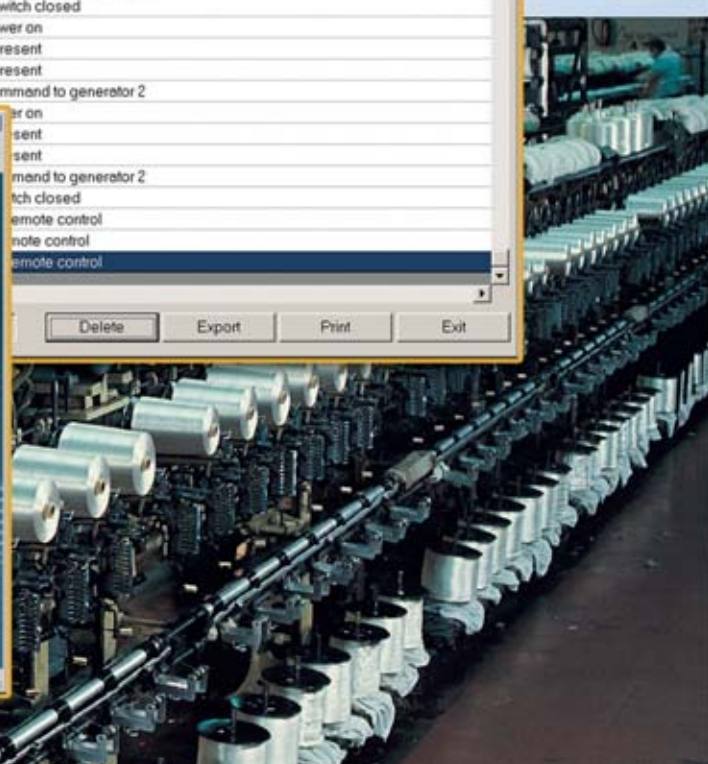
LINE 1: LI1, LI2, LI3 (231, 231, 231), IMA1, IMA2, IMA3 (400, 400, 400), FREQHz (50.0)

LINE 2: LI1, LI2, LI3 (231, 231, 231), IMA1, IMA2, IMA3 (400, 400, 400), FREQHz (50.0)

SUPPLY: AC SUPPLY, DC SUPPLY, VBATT (24.5)

ALARMS: [083] - LOW BATTERY VOLTAGE, [087] - HIGH BATTERY VOLTAGE, [052] - LINE 1 SWITCH FAULT, [062] - LINE 2 SWITCH FAULT, [029] - STOP COMMAND TO GENERATOR 2, [042] - LINE 1 SWITCHING PHASE 001, [042] - LINE 2 SWITCHING PHASE 001, [042] - LINE 2 SWITCHING PHASE 100, [042] - LINE 2 SWITCHING PHASE 200, [042] - LINE 2 SWITCHING PHASE 300, [042] - LINE 2 SWITCHING PHASE 400, [042] - LINE 2 SWITCHING PHASE 500, [042] - LINE 2 SWITCHING PHASE 600, [042] - LINE 2 SWITCHING PHASE 700, [042] - LINE 2 SWITCHING PHASE 800, [042] - LINE 2 SWITCHING PHASE 900, [042] - LINE 2 SWITCHING PHASE 000, [042] - LINE 2 SWITCHING PHASE 100, [042] - LINE 2 SWITCHING PHASE 200, [042] - LINE 2 SWITCHING PHASE 300, [042] - LINE 2 SWITCHING PHASE 400, [042] - LINE 2 SWITCHING PHASE 500, [042] - LINE 2 SWITCHING PHASE 600, [042] - LINE 2 SWITCHING PHASE 700, [042] - LINE 2 SWITCHING PHASE 800, [042] - LINE 2 SWITCHING PHASE 900, [042] - LINE 2 SWITCHING PHASE 000

ATL20 Rev 08 ONLINE AUT MODE 0.43



Automatic transfer switch controllers

Keep control around the clock



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
- RS485 opto-isolated interface on ATL30 type only
- Real time clock with backup energy on ATL30 type only
- 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.

Description

The ATL20 and ATL30 are 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.

Both units include 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 conditions predefined by the user take place, for example:

- 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.

There are two models available, the base unit ATL20 and the more complete unit ATL30; both come equipped with DC and AC power supply inputs.

The more complete ATL30 has the following features, not available on the ATL20 type:

- RS485 opto-isolated interface in addition to the standard RS232 port
- Real time clock with backup energy.



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.

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 for quick PC set-up
- Simultaneous use of both RS232 and RS485 ports.

Technical 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 U_e	690VAC phase-phase (400VAC phase-neutral)
Measure limits	80...800VAC phase-phase
Frequency limits	45...65Hz
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 \pm 0.25% f.s. \pm 1digit

Digital inputs

Number of inputs	8 (all programmable)
Type of input	Negative
Input current	\leq 10mA
Input signal "0" state	\leq 1.5 (2.9V typical)
Input signal "1" state	\geq 5.3 (4.3V typical)
Input signal delay	\geq 50msec

Relay outputs

Number of outputs	7 (all programmable)
Number of control outputs for circuit breaker opening and pre-charging ①	2 (1 N/O - rated 12A 250VAC) (relay contacts rated 16A AC1 250V/B300)
Number of control outputs for circuit breaker closing ①	2 relays (1 NO - rated 8A AC1 250V/B300; 1A 30VDC pilot duty)
Number of control outputs for generating set ①	1 relay (1 NO - rated 8A AC1 250V/B300; 1A 30VDC pilot duty)
Number of spare outputs ①	1 relay (1 C/O - rated 8A AC1 250V/B300; 1A 30VDC pilot duty)
Number of alarm outputs ①	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
RS485 serial port for ATL30 only	Opto-isolated, programmable baud-rate 1200...38400 bps Connection by plug-in/removable terminal

Real time clock for ATL30 only

Type of backup energy	Capacitor (Super Cap)
Operating autonomy without power supply	12...15 days

Insulation

Rated insulation voltage U_i	690V
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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 mm ² (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

Certifications and compliance

Certifications obtained	cULus - Gost
Compliant with standards	IEC/EN 60947-1, IEC/EN 60947-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3.

① All outputs are programmable.

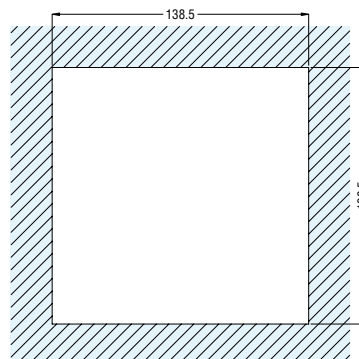
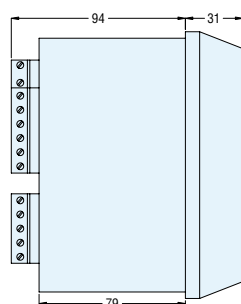
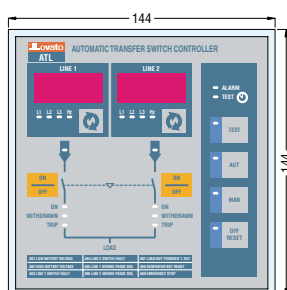
How to order

Order code	Description	Quantity per package	Weight [kg]
Automatic transfer switch controllers			
ATL20 A240 ②	Type with RS232 port	1	0.950
ATL30 A240 ②	Type with RS232 and RS485 port and real time clock	1	0.950
Remote control software			
ATL SW	PC software for set-up and remote control, complete with PC-ATL connecting cable (51 C2) via RS232 port	1	0.246
Accessories			
51 C2	PC-ATL connecting cable, 1.8m long	1	0.090
51 C4	PC-PX1 connecting cable, 1.8m long (ATL30 A240 only)	1	0.147
51 C5	ATL-modem connecting cable, 1.8m long (ATL30 A240 only)	1	0.111
51 C6	ATL (RS232 port)-PX1 connecting cable, 1.8m long (ATL30 A240 only)	1	0.102
51 C9	PX1-modem connecting cable, 1.8m long (ATL30 A240 only)	1	0.137
4 PX1	RS232/RS485 converter drive, opto-isolated 220-240VAC ③ (ATL30 A240 only)	1	0.600
31 PACR	IP54 front protection cover	1	0.107

② Other supply voltages in AC on request. Contact our Customer Service (Tel. +39 035 4282422) for details.

③ 110-120VAC supply on request. Contact our Customer Service (Tel. +39 035 4282422) for details.

Dimensions [mm]



orange



Contactors



Push buttons and selectors



Rotary cam switches

moduLo



Protection relays



Digital instruments



Automatic battery chargers

Planet-SWITCH

- Motor protection circuit breakers
- Switch disconnectors
- Contactors
- Motor protection relays
- Electromechanical starters
- Control and signalling units
- Limit, micro and foot switches
- Rotary cam switches

Planet-DIN

- Modular contactors
- Time relays
- Protection relays
- Level control relays
- Earth leakage relays

Planet-LOGIC

- Digital metering instruments and current transformers
- Soft starters
- AC motor drives
- Automatic power factor controllers
- Automatic battery chargers
- Automatic transfer switch controllers
- Programmable logic relays
- Generating set controllers

The products described in this publication are subject to be revised or improved at any moment. Catalogue descriptions and details, such as technical and operational data, drawings, diagrams and instructions, etc., do not have any contractual value. In addition, products should be installed and used by qualified personnel and in compliance with the regulations in force for electrical systems in order to avoid damages and safety hazards.