

- ◆ Supervision of two three-phase supply lines
- ◆ Emergency demand supervision for stand-by generating set
- ◆ Control of contactors, motorised circuit breakers or motorised changeover switches
- ◆ Event logging
- ◆ TRMS measurements of voltage values
- ◆ Microprocessor remote control and supervision
- ◆ RS232 and RS485 ports
- ◆ Modbus®-RTU and Modbus®-ASCII communication protocols
- ◆ Real time clock.



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- ATL10**
- Automatic transfer switch controller with RS232 port
 - DC auxiliary supply
 - 6 programmable digital inputs
 - 6 programmable relay outputs.



PAGE 19-3

- ATL20**
- Automatic transfer switch controller with RS232 port
 - AC/DC auxiliary supply
 - 8 digital inputs; 6 programmable
 - 7 relay outputs; 5 programmable.

- ATL30**
- Automatic transfer switch controller with RS232 and RS485 ports
 - Real time clock
 - AC/DC auxiliary supply
 - 8 digital inputs; 6 programmable
 - 7 relay outputs; 5 programmable.

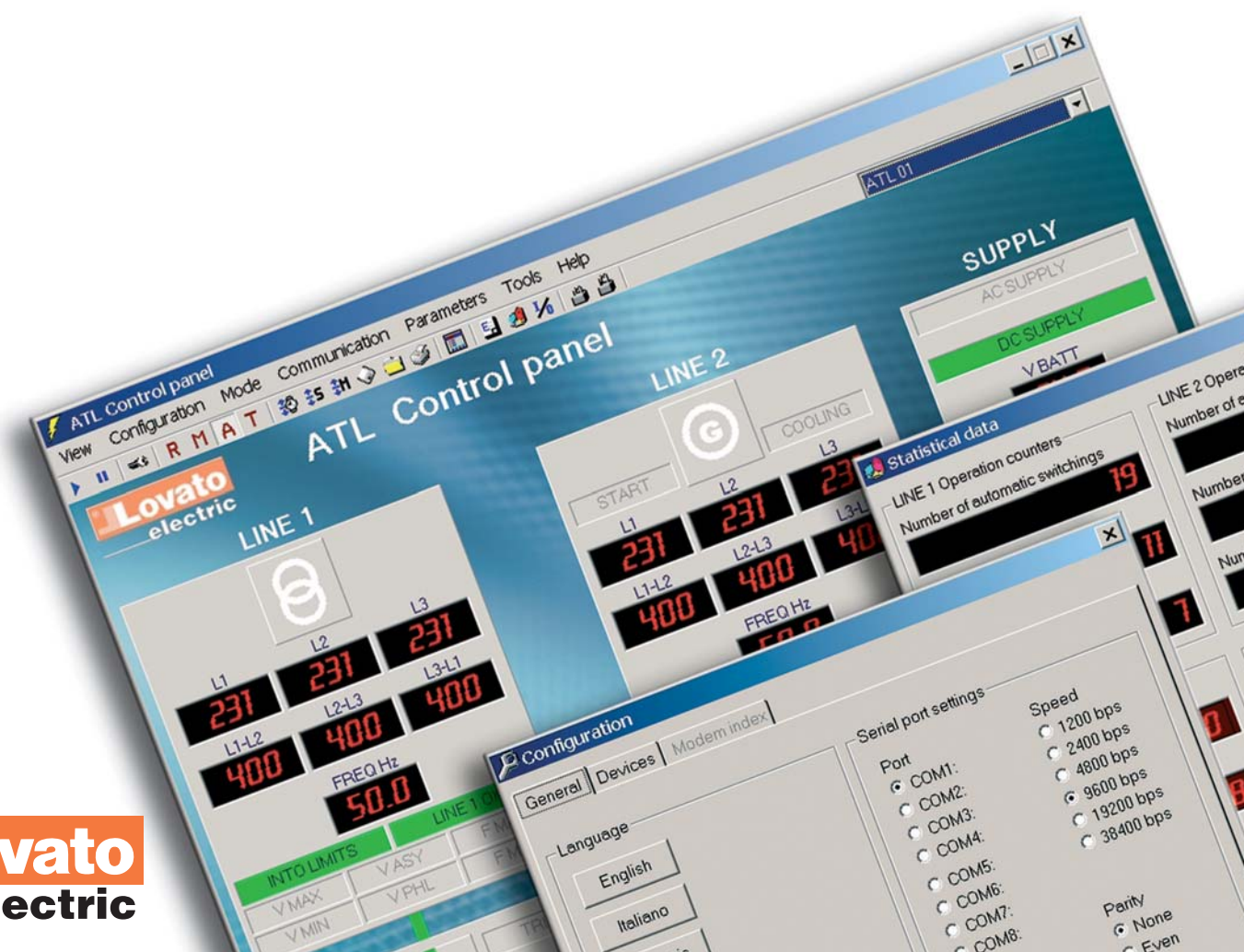
Automatic transfer switch controllers

Automatic transfer switch controller ATL10 type	19- 2
Automatic transfer switch controller ATL20 and ATL30 type	19- 3

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Accessories

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Automatic transfer switch controller



ATL10



Order code	Description	Qty per pkg	Weight
		n°	[kg]
ATL10	Automatic transfer switch controller with RS232 port; 96x96mm	1	0.484

General characteristics

The automatic transfer switch controller ATL10 is used for the automatic switching of the load from the MAIN LINE to a stand-by or emergency SECONDARY LINE and vice versa.

It is made of a single unit in an insulated housing and has two outputs for the "automatic" and/or "manual" control of contactors or motorised circuit breakers.

The transfer switch controller has the following main features:

- Supply input from battery supply 12-48VDC
- Measurement inputs of three-phase with neutral voltages, also suitable for 1 and 2-phase lines
- Display to view main and secondary line measurements
- 15 status LED indicators
- 6 digital inputs programmable
- 6 relay outputs programmable
- 3 operating modes: OFF-MAN-AUT
- Viewing of phase and phase-to-phase line voltage measurements
- Status viewing of motorised circuit breakers or contactors
- Configuration programming of lines and control parameters
- Emergency demand supervision parameter programming for stand-by generating sets
- Microprocessor supervision of functions
- RS232 communication interface
- Modbus[®]-RTU and Modbus[®]-ASCII communication protocols
- Set-up and remote control software via direct PC connection, analog or GSM modem or Ethernet network.

CONTROL FUNCTIONS OF THE LINES

- Phase sequence and phase loss
- Minimum and maximum voltage
- Voltage asymmetry
- Minimum and maximum frequency.

Operational characteristics

- Auxiliary supply
 - Auxiliary supply voltage: 12-48VDC
 - Operating range: 9-70VDC
 - Power consumption: 3W
 - Power dissipation: 3W
 - Current consumption: 250mA at 12VDC; 130mA at 24VDC; 65mA at 48VDC.
- Voltage measurement inputs
 - Rated voltage U_e : 480VAC phase-phase
 - Measurement range: 50-576VAC phase-phase
 - Frequency range: 45-65Hz.
- Digital inputs
 - Negative type of inputs
 - Input current: ≤ 10 mA.
- Relay outputs
 - 5 relay outputs, each with 1 NO contact
 - 1 relay output with 1 changeover contact.
- Housing
 - Flush-mount 96x96mm version
 - Degree of protection:
 - IP20 at rear
 - IP54 on front.

Certifications and compliance

Certifications obtained: cULus and GOST.
Compliant with: IEC/EN 60947-1, IEC/EN 60947-6-1, IEC/EN 61000-6-3, IEC/EN 61000-6-2, UL508, CSA C22.2 n° 14.

Automatic transfer switch controller



ATL20 A240
ATL30 A240

Order code	Description	Qty per pkg	Weight
		n°	[kg]
ATL20 A240	Automatic transfer switch controller with RS232 port; 144x144mm	1	1.040
ATL30 A240	Automatic transfer switch controller with RS232 and RS485 ports and real time clock; 144x144mm	1	1.050

Accessories

Order code	Description	Qty per pkg	Weight
		n°	[kg]
Software for ATL10, ATL20 A240 and ATL30 A240.			
ATL SW	Set-up and remote control software complete with 51 C2 cable	1	0.246
Accessories and spare parts for ATL10.			
51 C2	PC ↔ ATL connecting cable, 1.8m long	1	0.090
31 PA96X96	Front IP54 protective cover	1	0.077
Accessories and spare parts for ATL20 A240 and ATL30 A240.			
51 C2	PC ↔ ATL connecting cable, 1.8m long	1	0.090
31 PACR	Front IP54 protective cover	1	0.107
Accessories and spare parts for ATL30 A240.			
51 C4	PC ↔ 4 PX1 converter connecting cable, 1.8m long	1	0.147
51 C5	Analog modem ↔ ATL connecting cable, 1.8m long	1	0.111
51 C6	4 PX1 converter ↔ ATL connecting cable, 1.8m long	1	0.102
51 C7	GSM modem ↔ ATL connecting cable, 1.8m long	1	0.137
4 PX1	RS232/RS485 converter drive, opto-isolated, 220-240VAC [Ⓜ]	1	0.600

[Ⓜ] RS232/RS485 opto-isolated converter drive, 38,400 Baud rate maximum, automatic or manual TRANSMIT line supervision., 220-240VAC ±10% (110-120VAC supply on request).

General characteristics

The automatic transfer switch controllers "ATL20" and "ATL30" are used for the automatic switching of the load from the MAIN LINE to a stand-by or emergency SECONDARY LINE and vice versa.

They are made of a single unit in an insulated housing and have two outputs for the "automatic" and/or "manual" control of contactors or motorised circuit breakers.

The transfer switch controllers have the following main features:

- Dual supply input, one for AC and the other for battery supply
- Measurement inputs of three-phase with neutral voltages, also suitable for 1 and 2-phase lines
- 2 displays to view main and secondary line measurements
- 22 status LED indicators
- 8 digital inputs, 6 of which programmable
- 7 relay outputs, 5 of which programmable
- 4 operating modes: OFF-MAN-AUT-TEST
- Viewing of phase and phase-to-phase line voltage measures
- Viewing of motorised circuit breakers or contactors status
- Configuration programming of lines and control parameters
- Emergency demand supervision parameter programming for stand-by generating set
- Microprocessor supervision of functions
- RS232 communication interface
- RS485 opto-isolated communication interface for ATL30 A240 only
- Modbus[®]-RTU and Modbus[®]-ASCII communication protocols
- Set-up and remote control software via direct PC connection, analog or GSM modem or Ethernet network.

CONTROL FUNCTIONS OF THE LINES

- Phase sequence and phase loss
- Minimum and maximum voltage
- Voltage asymmetry
- Minimum and maximum frequency.

Operational characteristics

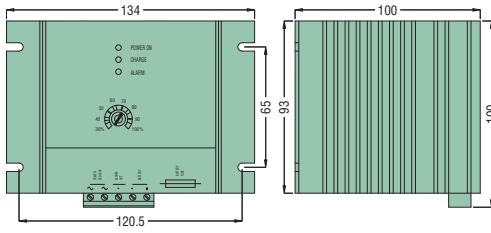
- Auxiliary supply
 - Auxiliary supply voltage: 12-48VDC and 220-240VAC[Ⓜ]
 - Operating range: 9-70VDC; 187-264VAC
 - Power consumption: 9VA at 240VAC
 - Power dissipation: 4.1W at 48VDC; 6.3W at 240VAC
 - Current consumption: 300mA at 12VDC; 180mA at 24VDC; 90mA at 48VDC
 - Frequency range: 45-65Hz
- Voltage measurement inputs
 - Rated voltage U_e: 690VAC phase-phase (400VAC phase-neutral)
 - Measurement range: 80-800VAC phase-phase
 - Frequency range: 45-65Hz.
- Digital inputs
 - Negative type of input
 - Input current: ≤10mA.
- Relay outputs
 - 5 relay outputs, each with 1 NO contact
 - 2 relay outputs, each with 1 changeover contact.
- Housing
 - Flush-mount 144x144mm version
 - Degree of protection:
 - IP20 at rear
 - IP41 on front, without protective cover
 - IP54 on front, complete with protective cover.

Certifications and compliance

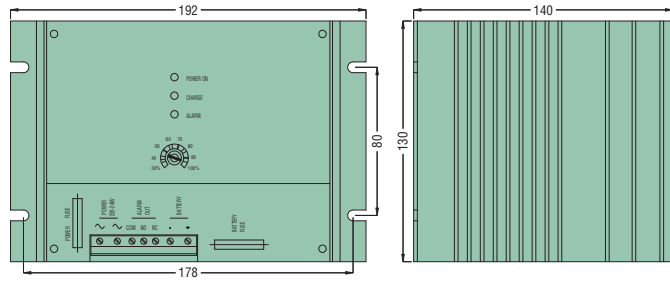
Certifications obtained: cULus and GOST.
Compliant with: IEC/EN 60947-1, IEC/EN 60947-6-1, IEC/EN 61000-6-3, IEC/EN 61000-6-2, UL508, CSA C22.2 n° 14.

[Ⓜ] Other AC voltages are available on request.

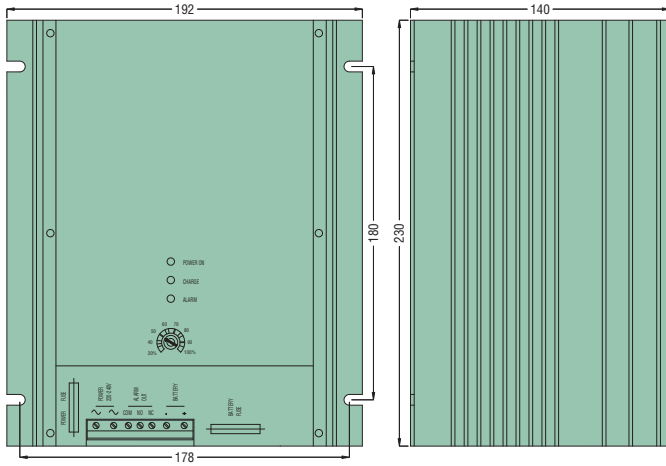
BCE 0312 - BCE 2V524



BCE 0612 - BCE 0524

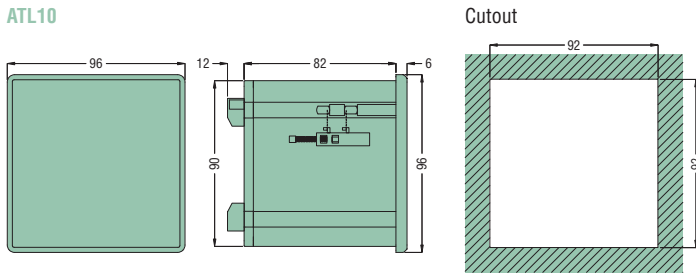


BCE 1212 - BCE 1024

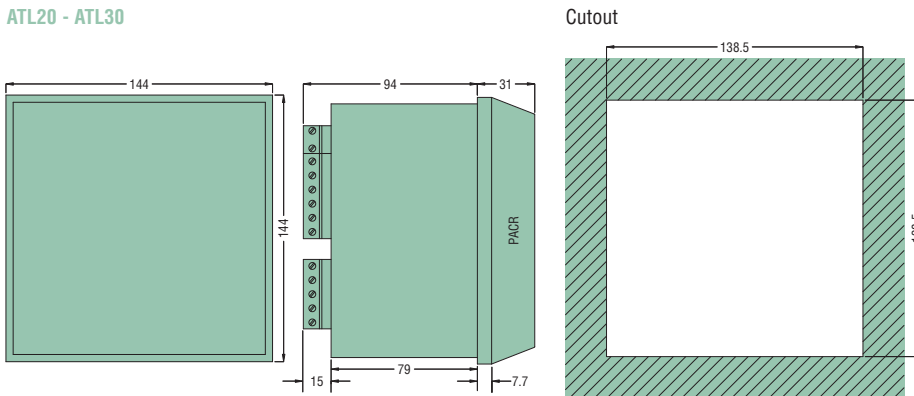


Automatic transfer switch controllers

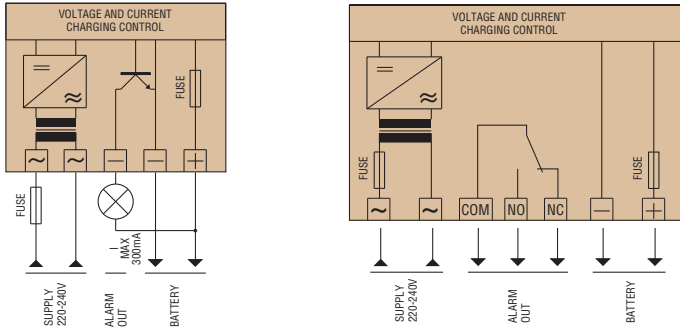
ATL10



ATL20 - ATL30

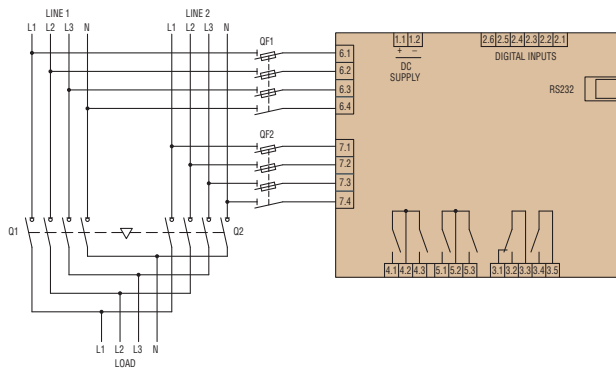


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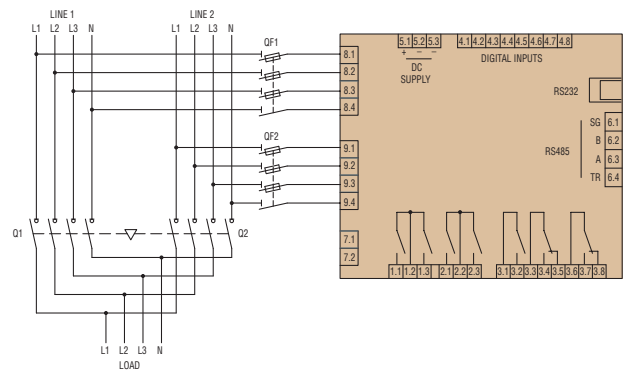


Automatic transfer switch controllers

ATL 10



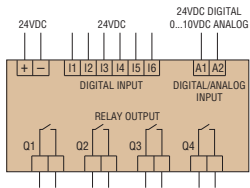
ATL 20 - ATL 30



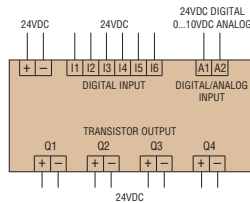
Programmable logic relays

Base relay unit

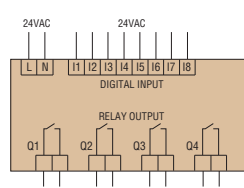
LRD12R D024



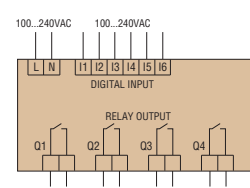
LRD12T D024



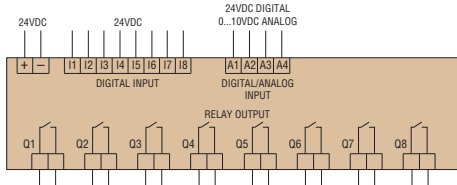
LRD12R A024



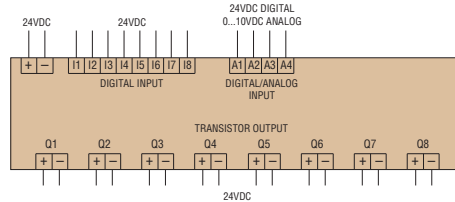
LRD10R A240



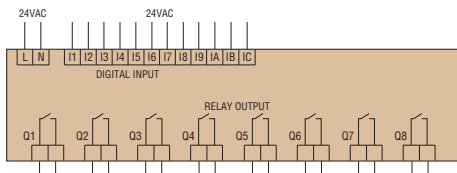
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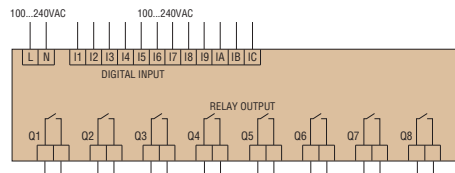
LRD20T D024



LRD20R A024



LRD20R A240



Operational characteristics

TYPE	ATL10	ATL20	ATL30
AUXILIARY SUPPLY			
Rated auxiliary voltage U_s	12-48VDC	12-48VDC; 220-240VAC	
Operating voltage range	9-70VDC	9-70VDC; 187-264VAC	
Frequency	—	45-65Hz	
Power consumption maximum	3W	9VA (240VAC)	
Power dissipation maximum	3W	4.1W (48VDC); 6.3W (240VAC)	
Current consumption maximum	250mA (12VDC); 130mA (24VDC); 65mA (48VDC)	300mA (12VDC); 180mA (24VDC); 90mA (48VDC)	
Immunity time for microbreakings	50ms	50ms	
VOLTAGE INPUTS			
Maximum rated voltage	480VAC L-L (277VAC L-N)	690VAC L-L (400VAC L-N)	
Measurement range	50-576VAC (L-L)	80-800VAC (L-L)	
Frequency range	45-65Hz		
Method of measuring	True RMS value		
Measuring input impedance	$>1.1M\Omega$ L-L and $>0.5M\Omega$ L-N		
Method of connection	Single-phase, two-phase or three-phase system		
Measuring error	$\pm 0.25\%$ f.s. ± 1 digit (Class 0.5)		
CURRENT INPUTS			
Number of inputs	6	8	
Type of input	Negative		
Input current	≤ 10 mA		
Input signal - "0" logic state	≤ 1.5 V (2.9V typical)		
Input signal - "1" logic state	≥ 5.3 V (4.3V typical)		
Input signal delay	≥ 50 msec		
OUTPUT RELAYS			
Number of outputs	6	7	
Contact configuration	- 5 relays, each with 1 N/O contact - 1 relay with 1 c/o contact - All 8A - 250VAC AC1	- 2 relays, each with 1 N/O contact - 16A 250VAC AC1 - 3 relays, each with 1 N/O contact - 8A 250VAC AC1 - 2 relays, each with 1 c/o contact - 8A 250VAC AC1	
COMMUNICATION LINES			
Serial interface	RS232 connection by RJ6/6 jack	RS232 with programmable baud rate 1200-38400bps connection by RJ6/6 jack	
	—	—	RS485 opto-isolated with programmable baud rate 1200...38400 bps Connection by removable/plug-in terminals
INSULATION VOLTAGE			
Rated insulation voltage U_i	480V	690V	
CONNECTIONS			
Type of terminals	Removable / Plug-in		
Conductor section min-max	0.2-2.5mm ² (24-12AWG)		
Tightening torque maximum	0.5Nm (4.5 lbin)		
AMBIENT OPERATING CONDITIONS			
Operating temperature	-20...+60°C		
Storage temperature	-30...+80°C		
Relative humidity	$< 90\%$		
Maximum pollution degree	2	3	
HOUSING			
Material	Black self-extinguishing Noryl UL94 V0	Self-extinguishing thermoplastic LEXAN	
Version	Flush mount 96x96mm	Flush mount 144x144mm	