PHILIPS

LFC7530

Product Guide

Battery

The Battery is a client module in the Cabinet Control. It is a backup/UPS module which is used for supplying other modules with emergency power in the event of power failure.

All modules in the Cabinet Control incorporate an A-Bus interface which is based on the industrially proven RS-485 technology. The A-Bus interface is used for power supply and for direct communication between the modules.

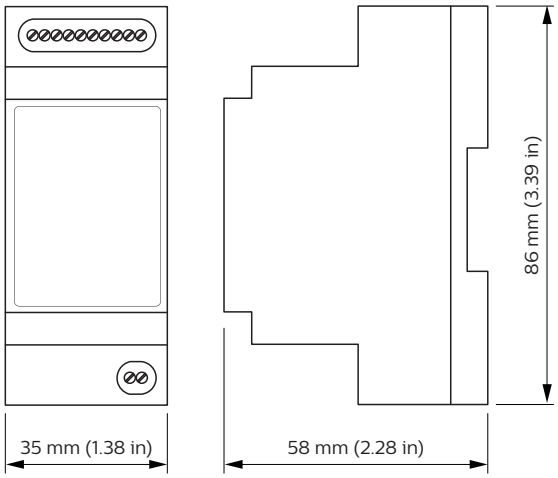
If the Battery is installed together with an SCU, it will be recharged with power as long as the battery is supplied with 12 V from the A-Bus interface.

If the main power fails, the Battery will instantaneously take over the power supply of the A-Bus. This enables the SCU to store data and send a main power failure alarm to the central server via GPRS/SMS before it shuts down safely.

For more detailed information, see the specific manuals and guides.

LFC7030

Dimensional drawing



Functionality

Communication	A-Bus two-way communication with A-Bus masters.
Battery charging	Battery charging is performed autonomously when the battery is not full and the temperature is in the range of 0 to 40 °C (32 to 104 °F).
Auto discovery	The module is automatically discovered by the SCU. In case a module is disconnected from the SCU, this is reported to the server application and the module is listed as missing. If the module is reconnected to the SCU or another SCU, it will be rediscovered by the system.
LED	Status LED (green): indicates whether the A-Bus is up and running. Battery LED (red): indicates whether the Battery module is charging or supplying the SCU with backup power in the event of power failure.

Functional specifications

A-Bus	A-Bus client module, check SCU specification for details.
Battery	Initial capacity of 950 mAh (7.4 V). Li-Polymer rechargeable, incl. safety circuit

Reliability & Maintainability

Software upgrade	The software on the Battery can be updated remotely from the central server.
Installation of new software	New software is transferred without interrupting the normal functionality of the Battery. When the software has been transferred, the integrity of the software is checked and the software is installed.
Self-test	A built-in self-test is performed after power-up.
Watchdog and brown-out reset	Watchdog and brown-out reset ensure that the system is up and running at all times.

Installation

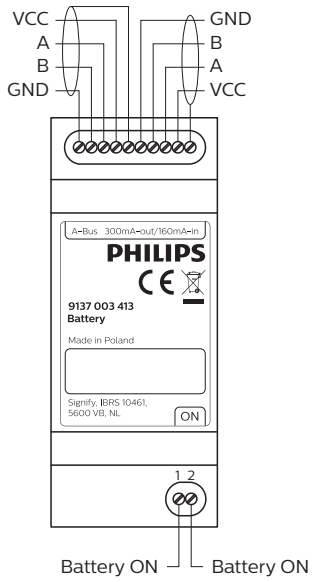
The Battery should be protected from dust and water, preferably by enclosing the system in a metal IP class 65 (NEMA type 4) outdoor cabinet.

Use shielded cables, with the shield connected to GND (pins 5 and 10 for the A-bus). If the use of shielded cables is not possible keep the cable length as short as possible and avoid placement close to sources of interference, such as RF antennas and mains power lines.

A-Bus cable	Use shielded twisted pair (2x2) cable The Battery module can be connected to any master module in the Cabinet (the SCU). Double connections on the A-Bus makes daisy-chaining of the signals easy. For detailed information, see wiring diagrams.
A-Bus cable length	< 3 m (10 ft)
Battery turn on	To minimize self-discharge the module is delivered with the battery disconnected. To enable the battery, terminal 1 and 2 of the battery connection (ON) must be connected to each other. Keep this bridge wire short. **Attention** The Lithium Ion battery is not user-replaceable. Risk of explosion if the battery is replaced by an incorrect type. Disposal of used batteries must be in accordance with local environmental regulations.

Wiring

A-Bus connection:
Shielded twisted pair (2x2) cable
Max. 3 m (10 ft)



Battery connection / disconnection

Terminals: 0.5 mm² (AWG 20)

Specifications

Environmental conditions

Be careful, temperature range limited by battery!

Storage temperature	-20 to 60 °C (-4 to 140 °F)
Operating temperature	-20 to 55 °C (-4 to 131 °F)
Humidity	45% ±20% (non-condensing)
Charge Retention/ Storage [%]:	6 months at -20 to 25 °C (-4 to 77 °F) > 80% 3 months at -20 to 35 °C (-4 to 95 °F) > 80% 1 month at -20 to 45 °C (-4 to 113 °F) > 80%

Supply characteristics

Input voltage	12 Vdc via A-Bus
Current (battery charged)	Typical 20 mA Maximum 55 mA
Current (during charge)	120 mA
Output current	Maximum 500 mA

Mechanical

Housing	Top part Gray (RAL 7035) Lexan 940 Base part Black (RAL 7021) Noryl VO 1550 Coating Conformal coated
Mounting	DIN-rail (EN50022)
Weight	90 g (3.2 oz)

Connections

A-Bus and Battery connector	0.14 to 0.5 mm^2 (AWG 26 to 20) solid/ stranded; copper conductors only, wire rating 65° C (149 °F) min.; wire strip length: 4.5 mm; screwdriver, bladed, size 0.4 x 2.0; tightening torque: min 0.12 Nm, max 0.15 Nm (1.1 to 1.3 lb in)

Standards and approvals

2006/95/EC, Low Voltage Directive (LVD)
2004/108/EC, EMC Directive
1999/5/EC, R&TTE Directive
2002/95/EC, RoHS Directive
2006/121/EC, REACH directive

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Packing data

Type	Box dimensions	Qty	Material	Weight	
				net	gross
LFC7530	395 x 290 x 205 mm (15.6 x 11.4 x 8.1 in)	60	Cardboard	5.4 kg (11.9 lb)	6.3 kg (13.9 lb)

Ordering Data

Type	MOQ	Ordering number	EAN code level 1	EAN code level 3	EOC
LFC7530/00	1	9137 003 41303	8727900 947625	8727900 947632	947625 00