



BA22 Li-Ion Data Sheet

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Introduction



The innovative BA22 Li-Ion battery has been specially developed for use with PCP 2.0 control boxes, i.e. CAXX/COXX. It is a low weight battery with built-in charger and high performance. BA22 introduces the new and improved LINAK standard for battery safety.

BA22 Li-Ion is based on Nickel Manganese Cobalt Oxide (NMC) technology which is an environmentally friendly chemistry without heavy metals.

Further advantages of using the BA22 Li-Ion battery are:

- Dual Power Communication Ports (PCP) to connect two batteries to a system.
- Extended lifetime compared to a lead acid battery.
- The battery is equipped with clear vents, one on each side. These vents work both as a light guide for the LED charging indicator and as a pressure valve to ensure a safe failure in case of unintended behaviour. This means that there must be an air gap of 5 cm on at least one of the sides so that the vent is not blocked in case of unintended behaviour.

Features and options

Lithium-Ion technology:	Nickel Manganese Cobalt Oxide (NMC)
Output voltage:	25.7 V DC
Max. discharge current:	10 A up to 25 °C
Charging current:	1A - controlled by BA22
Battery capacity:	2.9 Ah/73.25 Wh
Weight:	1 kg
Housing colour:	Light grey (RAL 7035)
Protection class:	IPX6 Washable
Cable:	Exchangeable
Stacking:	Stacking of either 2 batteries or 1 battery and 1 control box possible
Packaging:	Every battery is packed individually and is fitted with lithium caution (transportation requirement)
Classification:	Internally powered

Usage

Compatibility:	PCP 2.0 control boxes
Duty cycle:	10%, 2 minutes continuous use followed by 18 minutes idle
Charging:	Integrated charger in battery
Charging time:	Up to 10 hours
Recharging during storage:	First recharge of the battery must be no later than 12 months after production date stated on the label. Hereafter the battery must be recharged at least every 12 months
Operation temperature:	+5 °C to +40 °C
Storage temperature:	-10 °C to +40 °C (recommended +10 to +25)
Transportation temperature:	-20 °C to +40 °C
Relative humidity:	20% to 80% – non-condensing
Atmospheric pressure:	700 to 1060 hPa
Meters above sea level:	Max. 3000 meters
Approvals:	IEC60601-1 ANSI/AAMI ES60601-1 CAN/CSA-22.2 No 60601-1

LED functionality



The LED functionality matrix below describes the battery behaviour when the control box is connected to mains.

LED	Indication of operation
Solid orange	Charging
No LED light	Fully charged
Flashing orange	Error during charging
Solid orange for X seconds	Correct connection

When the system is connected correctly, the LED will light up for X seconds as a feedback to the end user. After this time period, the LED will follow the standard behaviour shown above.

Ordering Example

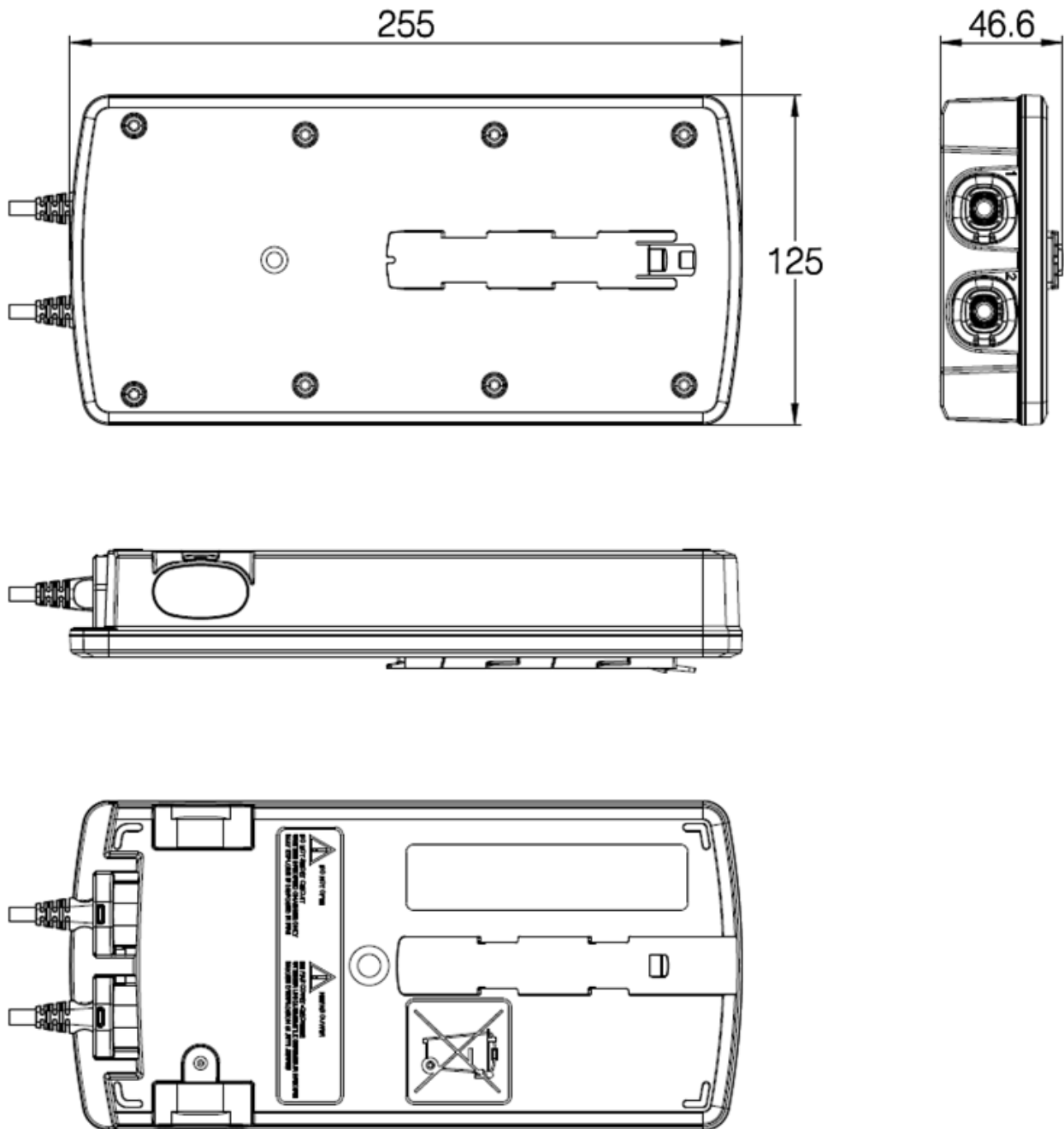
BA22	
Colour	1 = RAL7035
IP-Degree	W = Washable
Label	1 = Std. label X = Special label
PCBA	1 = BA22 PCBA
Battery Type	1 = 2850 mAh
Enclosure	1 = Std. enclosure (PP)
Software	1 = Std. BA22 SW
ID (PCP2.0 address)	0 = Auto-addressing 1 = ID1 Std. 2 = ID2 3 = ID3 4 = ID4

Chosen item number:

BA221W111111

Dimensions

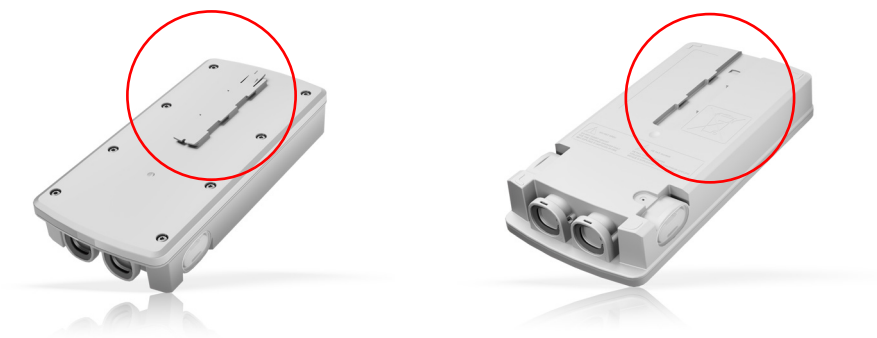
All dimensions are in millimeters (mm).



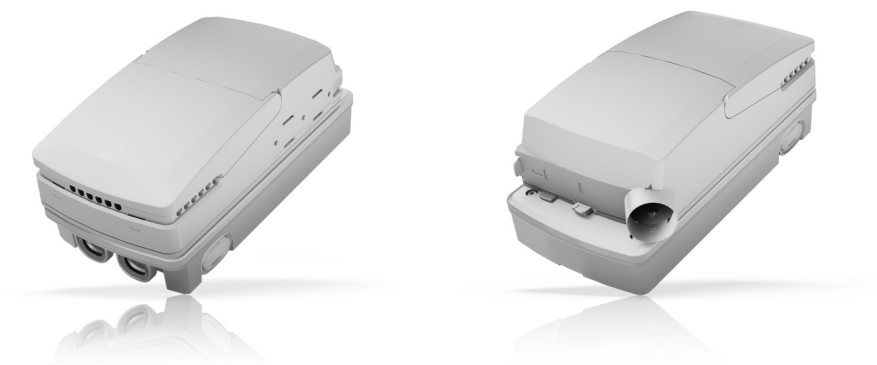
Drawing number: 1072W4000

Mounting

The BA22 battery is equipped with the LINAk mounting clip system, which allows the user to easily mount the control box on top of the battery or mount the battery to the frame of the application, with the mounting bracket seen below.



BA22 mounted with CA/CO control box.

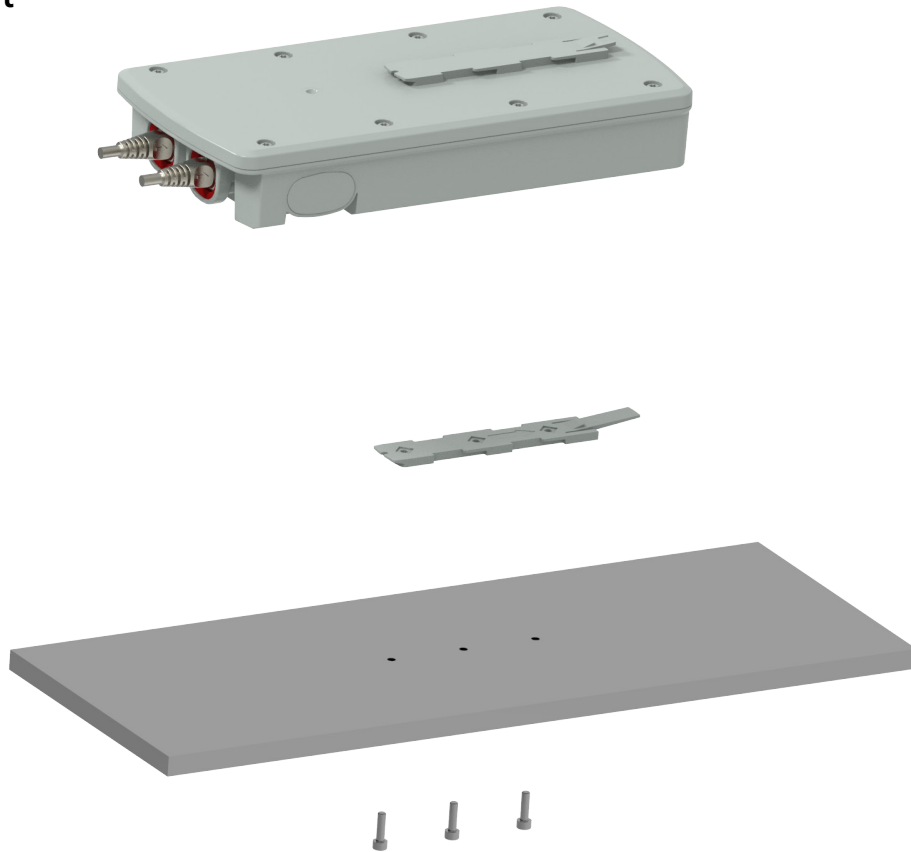


2 x BA22 batteries stacked.

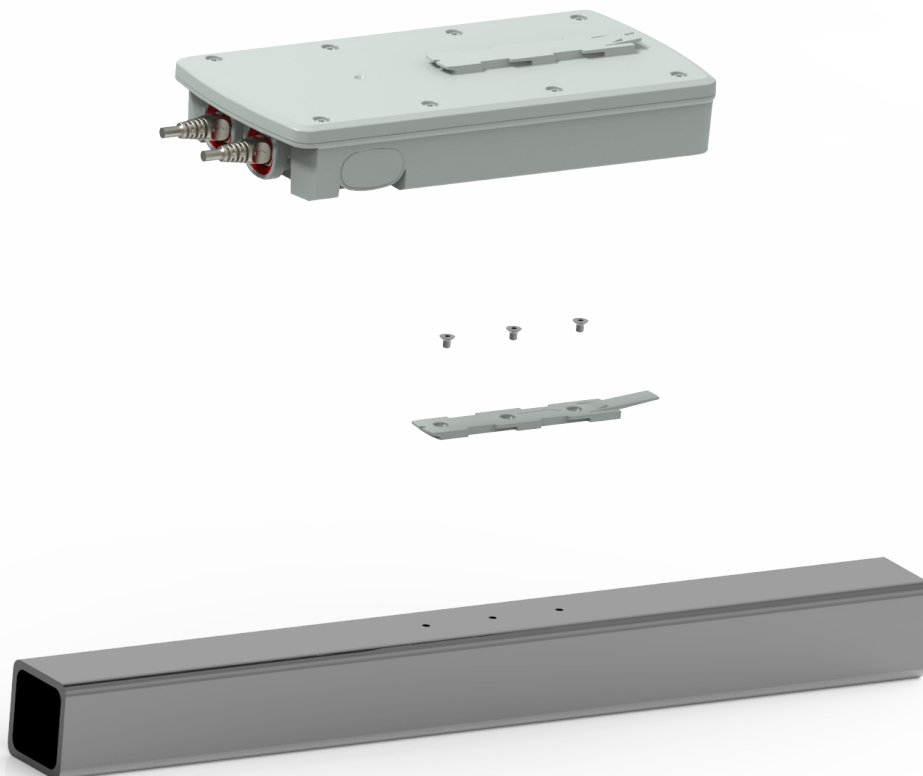


Mounting possibilities

Mounted with nut



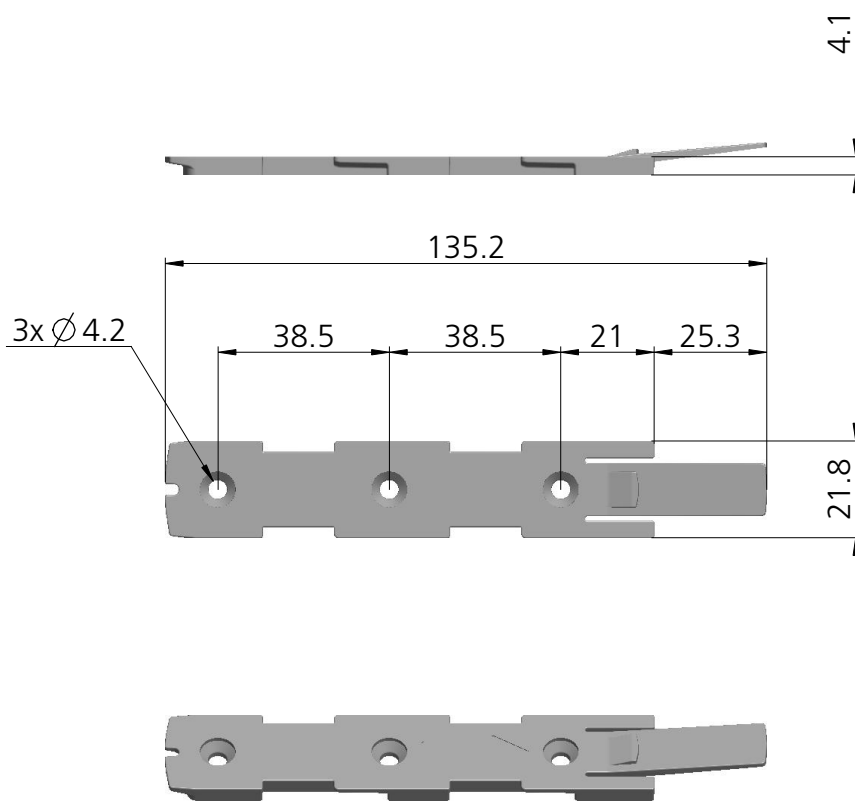
Mounted without nut



Mounting brackets

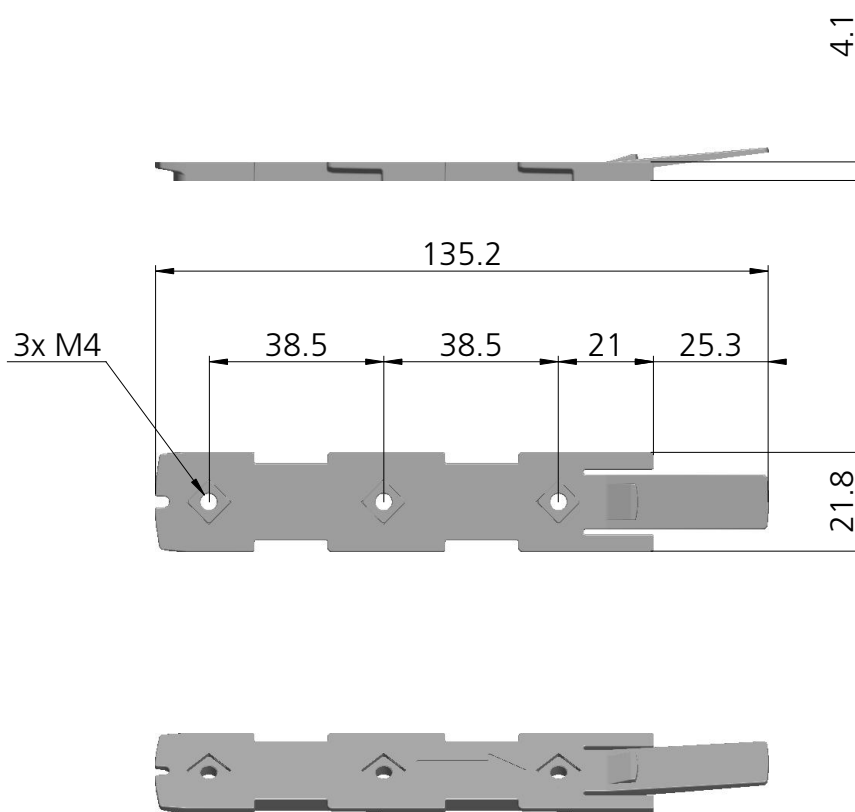
All dimensions are in millimeters (mm).

Long-tail bracket



Drawing No.: 1015W4026

Long-tail bracket with nut



Drawing No.: 1015W4027

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