



- **More energy available**

The Lithium battery has a discharge capacity of 95% without affecting its lifespan, compared to lead-acid batteries which should not discharge more than 70%.

- **Extended life**

Working in the same conditions, the number of cycles for lithium batteries is 4-5 times higher than the number of cycles for lead-acid batteries.

- **Improvement of internal logistic processes**

The possibility of installing the charger anywhere in the facilities offers great potential for optimising all internal logistics processes.

- **Lower energy costs**

Ours Polaris lithium batteries have a 30% increase in the energy efficiency in charging/discharging process compared to lead-acid batteries.

- **Monitoring and Tracing**

Ours lithium batteries have a monitoring system that allows the owner to know at all times the parameters of consumption and use of the machinery at all times.

- **You won't need a second battery**

Especially useful for machines that work with two or three shifts. The possibility of partial charges during short stops allows the machinery to be use 24 hours a day.

Technical Data *Urban Series BUS*

| Battery model | 48V / 315 Ah | 48V / 420 Ah |
|--|---|--------------|
| Technology | Lithium / Iron phosphate (LiFePO4) | |
| Nominal voltage | 51,2 V | 51,2 V |
| Rated capacity | 315 Ah | 420 Ah |
| Rated energy | 16,128 KWh | 21,504 KWh |
| Nº of Cycles at 80% SOH | 5000 | |
| Discharge | | |
| Discharge cut off voltage. | 43,2 V | |
| Recommended discharge current (0,5C) | 160 A | 210 A |
| Maximum discharge current (at 1C) | 315 A | 420 A |
| Fuses | 300 A | 400 A |
| Charge | | |
| Max charging voltage | 57,6 V | |
| Recommended charging voltage | Range 55,2 V - 56,8 V | |
| Recommended charging current (0,7C) | 210 A | 290 A |
| Temperature | | |
| Charging temperature | 0 °C to 55 °C | |
| Discharging Temperature | -20°C to 55°C | |
| Mechanic | | |
| Connections | 1 set of bolt connectors | |
| Protection Rating | IP65 | |
| Dimensions and weight | According to the technical sheet of the machine | |
| Security | | |
| Battery Management System (BMS) | Built-in integrated BMS | |
| Communication | CAN bus + Pin Pilot | |
| Balanced | Passive | |
| Monitoring | | |
| GPRS system | GPRS and GSM | |
| Compliance and Regulations | | |
| Electromagnetic Compability (EMC) 2014/30/EU | | |
| Low Voltage Directive 2014/35/EU | | |
| RoHS Directive 2011/65/EU | | |
| Product safety device 2001/95/CE | | |
| Regulation UE 2023/1542 | | |
| UNE-EN 62919:2022 | | |
| UNE-EN 62620:2015/A1:2023 | | |
| EN 61000-6-3:2021 | | |
| UN 38.3 | | |

