



- **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*

Battery model	48V / 105 Ah
Technology	Lithium / iron phosphate (LiFePO4)
Nominal voltage	48 V
Rated capacity	105 Ah
Rated energy	5,040 KWh
Nº of Cycles at 80% SOH	5000
<b>Discharge</b>	
Discharge cut off voltage.	40,5V
Maximum discharge voltage	54 V
Recommended discharge current (0.5C)	50 A
Maximum discharge current (at 1C)	100 A
Fuses	250 A
<b>Charge</b>	
Max charging voltage	54,00 V
Recommended charging voltage	Range 51,75 V - 53,2 V
Recommended charging current (0.7C)	70 A
<b>Temperature</b>	
Charging Temperature	0 °C to 55 °C
Discharging Temperature	-20 °C to 55 °C
<b>Mechanic</b>	
Connections	1 set of bolt connectors
Protection Rating	IP65
Dimensions and weight	According to the technical sheet of the machine
<b>Security</b>	
Battery Management System (BMS)	Built-in integrated BMS
Communication	CAN bus, Yasaki connector
Balanced	Passive
<b>Monitoring</b>	
GPRS system	optional
<b>Compliance and Regulations</b>	
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	

