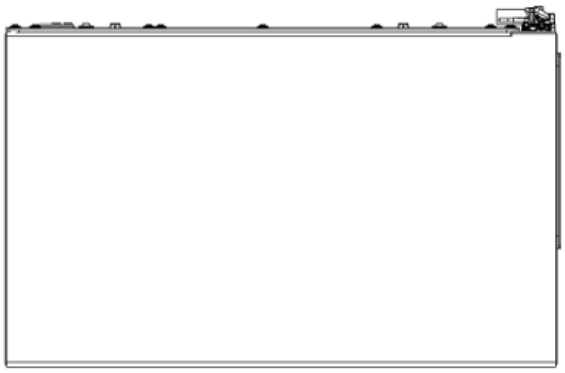
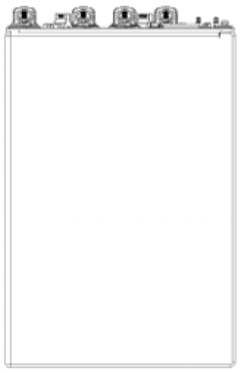
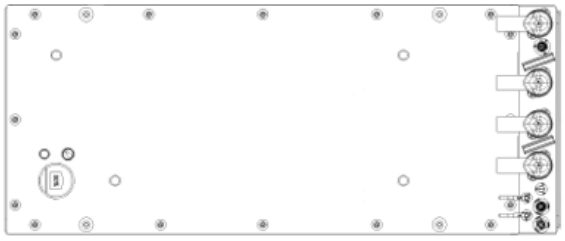
endurance®
MOVE ON

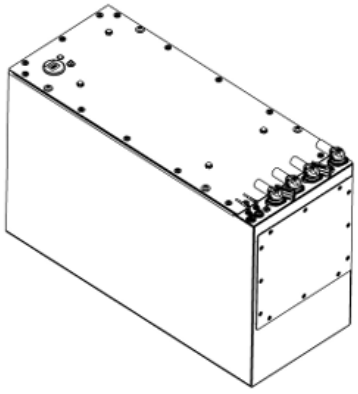
Polaris Lithium **80V**

Airport Series









- **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 internals 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.

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Technical Data

Battery Model	80V / 420 Ah	80V / 525 Ah	80V / 630 Ah	80V / 735 Ah	80V/840 Ah
Cell Technology	Lithium/ Iron Phospate (LiFePO4)				
Nominal Voltage	83.2 V				
Rated Capacity	420 Ah	525 Ah	630 Ah	735 Ah	840 Ah
Rated Energy Content	34,944 KWh	43,680 KWh	52,416 KWh	61,152 KWh	69,888 KWh
Nº of Cycles at 80% SOH	4000				
Discharge					
Discharge Cut-off Voltage	70,2 V				
Recommended Discharge Current (0.5C)	210 A	260 A	315 A	350 A	420 A
Max Discharge Current (at 1C)	420 A	525 A	630 A	735 A	840 A
Fuses	400 A	500 A	500 A	500 A	500 A
Charge					
Max Charging Voltage	93.6 V				
Recommended Charging Voltage	Range from 89,7 V to 92,3 V				
Recommended Charging Current (< a 0.7C)	290 A	370 A	440 A	510 A	580 A
Temperature					
Charging Temperature	0ºC to 55°C				
Discharging Temperature	-20°C to 55°C				
Mechanic					
Connections	1 charging cable with connector according to charger connector + 1 discharging cable with connector according to machine connector				
Protection Category	IP65				
Dimensions and weight	According to the technical datasheet of the machine				
Security					
Battery Management System (BMS)	Built-in BMS slave				
Communication	CAN-Bus, M12 connector				
Balancing	Passive				
Monitoring					
GPRS System	GPS & GSM antennas for monitoring through the platform Grafana				
Complience and Regulations					

Electromagnetic compatibility (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 62619:2022
UNE-EN 62620:2015/A1:2023
EN 61000-6-3:2021
UN 38.3

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