



PBES Specification Sheet

System Specifications for the PBES Power & Energy Systems

PBES Power and Energy Industrial Lithium Batteries:

Power 65 (P65) is designed for high discharge power applications requiring high C-rates and faster cycling, the system provides 15,000 charge/discharge cycles at 80% DoD.

ROI focussed Energy 100 (E100) has been designed for applications requiring lower discharge rates and greater energy density. A 35% decrease in cost and weight provides the end user with a faster path to ROI and decreased footprint and weight.

Both systems use the same PBES form factor and are backed by industry leading safety, performance, and recycling systems. CellCool™, ThermalStop™ and CellSwap™ provide ideal operating conditions, thermal runaway prevention and best industry value.

PBES batteries are manufactured in Norway and exceed NMA flag approval and DNV Type Approval criteria (DNV Type Approval pending).

PBES proudly uses the highest quality lithium-ion NMC cells from XALT Energy in USA.



General PBES Features	PBES System Specifications
BMS (Battery Management System)	MegaWatt ++
IMS (Information Management System)	API Interface
Engineered Design Life	5/10 year
CellCool™ Liquid Cooling	Yes - Patent Pending
Cell Partner	XALT Energy (USA)
TCP Ultra Fast Internal Comms	Yes
Thermal-Stop™ Thermal Runaway Protection	Yes - Patent Pending
E-Vent™ Safety Venting System	Yes - Patent Pending
Operating Temperature (active heating/cooling)	15°C to 30°C
Series Configurable	Yes
OnPoint™ Remote Active Monitoring	Yes
OnPoint™ Remote Active Programming	Yes
Parallel Configurable (capacity scalable)	Unlimited

*Specifications subject to change



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Single Module (BBU)	Power 65	Energy 100
C Rate RMS (Continuous)	3C	1.4C
Cycle Life @ 80% DoD	15000 cycles	TBF
Cell Chemistry	NMC	NMC
Dimensions	L 580mm, H 380mm, W 320mm	L 580mm, H 380mm, W 320mm
Weight	90kg	90kg
Energy	6.5kWh	10kWh
Capacity	75Ah	112Ah
Voltage Range	77-100VDC	77-100VDC
Nominal Voltage	88.8VDC	88.8VDC
RMS Continuous Current	225A	160A
Max Discharge Current	450A	336A
Max Charge Current	225A	112A
Connectors	IP67	IP67
Terminal Isolation at Module	Contactors	Contactors
Thermal-Stop™ Thermal Runaway Protection	Yes	Yes
Self Discharge Rate/month	<2%	<2%
Internal resistance	17mΩ	20mΩ
Efficiency (at 1C)	>98%	>97%
Electrical Isolation	Open circuit when not in operation	Open circuit when not in operation
Communication interface	UDP	UDP

Series String (1000V)	Power 65	Energy 100
Dimensions (including racking, venting and lifting apparatus)	W 896mm, H 2550mm, D 632mm	W 896mm, H 2550mm, D 632mm
Weight 10BBUs +1 MBU	950 kg	950 kg
Energy	65kWh	100kWh
Capacity	75Ah	112Ah
Voltage Range	770-1000VDC	770-1000VDC
Nominal Voltage	888VDC	888VDC
RMS Continuous Current	225A	160A
Max Discharge Current	450A	336A
Max Charge Current	225A	112A
Internal Resistance	180mΩ	200mΩ
Electrical Isolation at DC Bus	Breaker	Breaker
Integrated Racking System	Included	Included
Communication to Higher Level System	Modbus/TCP	Modbus/TCP

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