

Li.ON ESS 51.2V

TECHNICAL DATASHEET



Technical specifications		
Module type	Standard	Heavy duty
Battery chemistry	LiFePO ₄ (LFP)	LiFePO ₄ (LFP)
Module electrical characteristics		
Rated energy	5.12kWh	7.68kWh
Nominal voltage	51.2V	51.2V
Minimum voltage	50.9V	50.9V
Maximum voltage	55.1V	55.1V
Nominal capacity	100Ah	150Ah
Maximum current	75A	100A
Recommended Charging Current	50A (0.5C)	75A (0.5C)
Charge/Discharge cycles SoH> 80%	>4500 @ 80%DoD	>4500 @ 80%DoD
Operating temperature	Charging: 0°C - 55°C Discharging: -20°C - 55°C	Charging: 0°C - 55°C Discharging: -20°C - 55°C
Efficiency	>98%	>98%
Physical characteristics		
Module dimensions (LxWxH)/ Weight (kg)	465mm x 653mm x 228mm / 77kg	583mm x 725mm x 228mm / 110Kg
Terminal connection	Rebling M8 screw	Rebling M8 screw
Casing	Steel	Steel
Available Cabinet Options	16U, 22U, 32U, 42U, 47U	16U, 22U, 32U, 42U
Battery Capacity Range at Cabinet Level	5.12kWh up to 35.84kWh (with 47U cabinet)	7.68kWh hasta 46.08kWh (con 42U cabinet)
Cabinet Size (LxW)	600mm x 800mm / 19-inch	800mm x 800mm / 23-inch
Protection Class	IP 20 (up to IP55 upon request)	IP 20 (up to IP55 upon request)
Battery management system and communication		
Battery Management System (BMS)	Active Balancing BMS	Active Balancing BMS
Monitoring & serviceability	Bi-directional communication: Remote monitoring and remote maintenance, diagnosis & debugging over GLocal	Bi-directional communication: Remote monitoring and remote maintenance, diagnosis & debugging over GLocal
Communication protocol	CAN BUS over RJ45	CAN BUS over RJ45
Inverter communication	Compatible with all major inverters	Compatible with all major inverters
Inverter/charger settings without CANBUS communication		
Float voltage	54.5V	54.5V
Absorption voltage	55V	55V
Low cut off voltage	51V	51V

Parallelization of modules

Standard BMS							
Nominal voltage (V)	51.2						
Nominal energy (kWh)	5	10	15	20	25	30	35 up to 200
Rated power (kW)	3.8	7.7	11.5	15.4	19.2	20.48	20.48
Nominal current (A)	75	150	225	300	375	400	400

High power BMS					
Nominal voltage (V)	51.2				
Nominal energy (kWh)	35	40	50	60	70 up to 200
Rated power (kW)	26,9	30.7	38.4	46.1	48.6
Nominal current (A)	525	600	750	900	950