

Moixa Smart Battery Technical Specification 4.8kWh Model

GridShare integrated Smart Battery and power delivery system.

Dimensions

H: 770mm x W: 525mm x D: 200mm

Product needs 100mm free space to the left, right, top and front sides for ventilation.

Weight

80kg. Two person install.

Power

Main connections AC240V. Input nominal 2kW AC max (variable), output nominal 2.4kW AC max (variable).

Battery Module

2x 2.4kWh 48V nominal units, using LiFePO4 chemistry. Total capacity 4.8kWh, usable capacity 3.84kWh.

Around 6,000 cycles at 80% depth of discharge.

Fully charged at 54V, fully discharged at 45V.

Temperature range: Charging 0°C to 50°C, discharging -10°C to 50°C.

Certification: TÜV / CE / UN38.3.

Communications

As standard with Ethernet, PowerLine Ethernet.

Additional connectivity for: MID Class2 energy meters. RS485.

Control of accessories such as EV charge points. RS485.



AC output quantities		UOM	spec / spec range
Voltage (nominal or range)	AC (V)	187-265 (230V Nominal)	
Current (maximum continuous)	AC (A)	13	
Current (inrush) (a.c. A, peak and duration)	AC (A)	14	
Frequency (nominal or range)	Hz	45-65	
Output Power (maximum continuous, variable up to this)	AC (W)	2400 max	
Power factor range		0.995 – 0.999	
Maximum output fault current (a.c. A, peak & duration or RMS)	AC (A)	15 (20ms)	
Maximum output overcurrent protection (a.c. A)	AC (A)	15	
AC input quantities			
Voltage (nominal or range)	AC (V)	187-265	
Current (maximum continuous) (a.c. A)	AC (A)	32	
Current (inrush) (a.c. A, peak and duration)	AC (A)	35	
Frequency (nominal or range)	Hz	45-65	
Max Input Power (nominal)	AC (W)	2000 max	
Battery Module			
2 x 2.4kWh 48V nominal units, using LiFePO4 chemistry			
Total capacity	kWh	4.8	
Usable capacity (@ 80% DOD)	kWh	3.84	
Cycle life: >4500 @ 25-degree C. Predicted 6000 cycles at 80% depth of discharge			
DC output (Internal battery)			
Voltage (min. in discharge)	DC (V)	45 (battery)	
Nominal battery voltage	DC (V)	48	
Current (maximum continuous in discharge)	DC (A)	50 (battery rating)	
Other specs / classifications			
Protective class (I or II or III)	Protective Class I		
Storage temperature range	-20 to 60 degree C		
Inverter isolation (isolated, not isolated)	Not isolated		
Possibility to work in stand-alone mode (not grid-tied)	No		
Environmental category	Indoor, conditioned		
Pollution degree classification	PD 2		
Wet location classification	No		
Ingress protection (IP)	IP 20		
Ambient service temperature range (charge and discharge)	0 to 50 degree C		
Shelf temperature	-20 to 60 degree C		
Relative humidity range	5 to 85% (non-condensing)		
UV exposure	Not required		
Maximum altitude rating	2000m		
Overvoltage Category (assigned to I/P and O/P port)	OVC III		



Protection & Compliance

Compliant with all the below:

- CE marked product, batteries and inverter
- LiFePO4 chemistry used
- EN 60950-1, IEC 62109-1 and IEC 62109-2 (for EESS)
- IEC 62619, UN 38.3, UL 1973 and IEC 60950-1 tested & certified battery modules
- UL 1642 and UN 38.3 tested & certified battery cells used
- IEC 62109-1, IEC 62109-2, IEC 60335-1, IEC 60335-2, IEC 62040-1 certified inverters
- EMC testing: EN 301 489-1, /EN 301 489-52 Ver. 1.1.0, EN 301 489-17, Ver. 3.2.0
- RED testing: EN 300 328, Ver. 2.1.1
- RoHS, REACH, WEEE and waste batteries and accumulators' directive
- UK grid connection ERECs G98, G99 and G100
- Ireland EN 50438- protection settings
- Australia AS/NZS 4777
- The unit must be installed to BS 7671 requirements for Electrical Installations (for UK), to ET 101:2008+A1+A2+A3:2018 National Rules for Electrical Installations (for Ireland) and AS/NZS 3000:2018, Electrical installations (for Australia)

To find out more information and view our certificates visit www.moixa.com/safety_and_regulations/



Warranty

Product Warranty: 10 year Moixa warranty.

Extended GridShare Warranty: For as long as the customer is signed up to GridShare membership, the Moixa Smart Battery remains under warranty.



Intellectual Property Rights

Patented and patents pending including (GB2476213, US201000076615, GB1221819.4, US9379545, US8849471, AU2013353807, GB2510804, GB2539317, GB2476213)

Current applications: US20100076615, US20140159485, EU 09756537.8 EU 13815546.0, CA 2903156, GB 1810314.3

Specifications subject to change without notice.