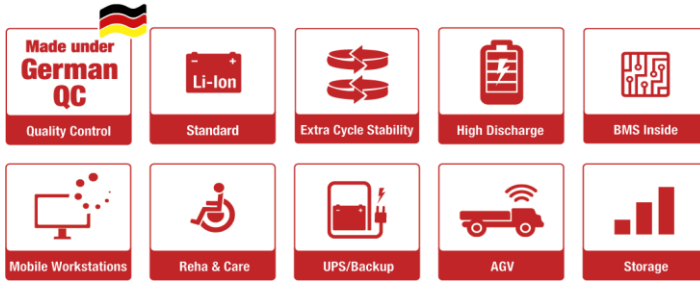


Data sheet



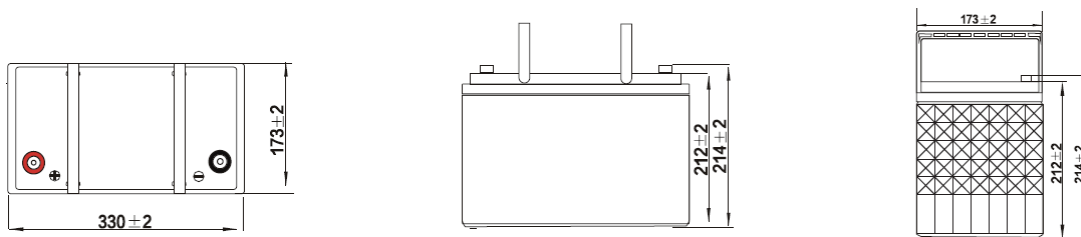
Lithium Iron Phosphate (LiFePO₄)

LiBrick S12-100



Main Applications

- + Mobile Workstations
- + Reha & Care
- + UPS/Backup
- + AGV
- + Storage
- + Medical Devices
- + Emergency Lights



Electrical Parameter	
Cell type	Prismatic 48x173x115
Technology	Lithium Iron Phosphate
Configuration	4S1P
Nominal voltage	12,8 V
Rated capacity	100 Ah
Rated energy	1280 Wh
Internal resistance	10 mΩ
Serial interconnectability	4
Parallel interconnectability	10

Mechanical Parameter	
Length (±2mm)	330 mm
Width (±2mm)	173 mm
Height (±2mm ±2mm M8)	212 mm
Weight	10000 g
Volumetric energy density	105,8 Wh/l
Gravimetric energy density	128,0 Wh/kg
Housing	ABS; V0 - UL94
Protection level	(not certified) IP56
Special features	designed for highest safety
Life span* >	5 Years

Charge Parameter	
Charging method	CC-CV
Recommended charge current	50 A
Maximum charge current	100 A
End of charge voltage	14,6 V
Temperature range charge	0 - 45 °C
Temperature range storage	0 - 40 °C
Humidity range	5-85% %RH
Recuperation	/ A
Cycle life* at 80% DOD	4000

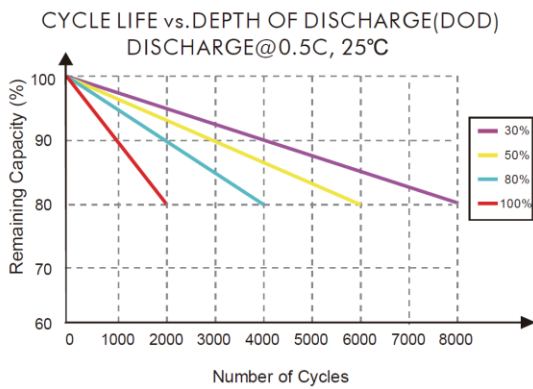
Discharge Parameter	
Constant discharge current	100 A
Peak discharge current	200 A
Duration of peak discharge	5 s
End of discharge voltage	10 V
Temperature range discharge	-20 - 60 °C
Discharge current @ < -20°C	20 A
Discharge current @ -15°C	50 A
Discharge current @ > 0°C	100 A
Capacity drop at low temp.	80% (-10°C/0,2C) 50% (-20°C/0,2C)

Data sheet

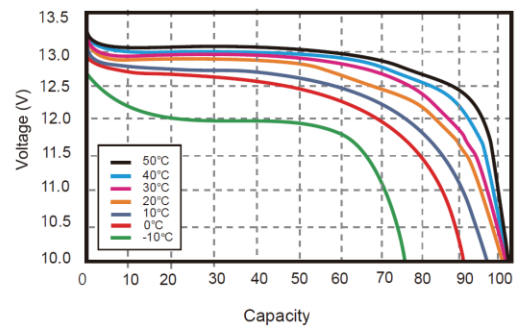


BMS Parameter		
Short circuit protection	200-500	μ S
Over current protection	410 \pm 80	A
Over current protection	\leq 350	mS
Deep discharge protection cel	2.2 \pm 0.05	V
Deep discharge protection	50-300	mS
Over voltage protection cell	3.75 \pm 0.05	V
Over voltage protection	\leq 2000	ms
Over temp. protection >	65 \pm 5	$^{\circ}$ C
Balancing start voltage >	3.6 \pm 0.25	V
Board consumption (sleep)	200	μ A

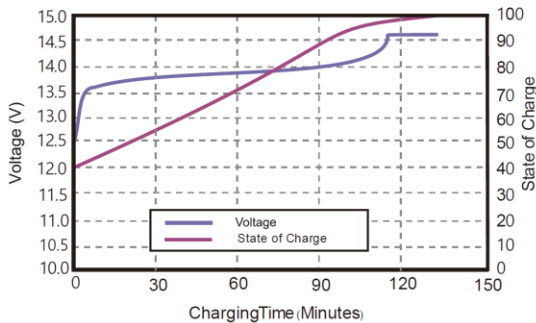
Interconector / Interfaces	
Charge	M8
Discharge	M8
Data	/
Communication	/
M8	



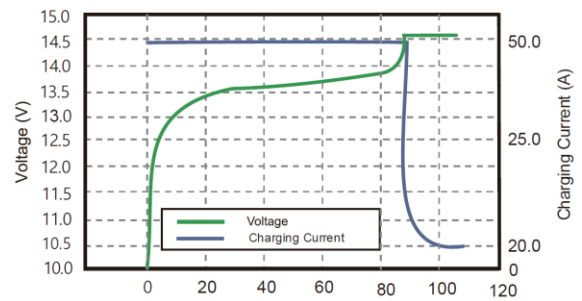
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @0.5C



STATE OF CHARGE CURVE @0.5C, 25 $^{\circ}$ C



CHARGING CHARACTERISTICS @0.5C, 25 $^{\circ}$ C



Suitable Accessories

Compliance	
UN38.3	Yes
RoHS	Yes
REACH	Yes
CE	Yes
UL1642	Cell
IEC 62133-2:2017	Ready
UL2054	Ready

*Values are approximations only. Cycle life and life span significantly depend on usage patterns and ambient conditions.

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