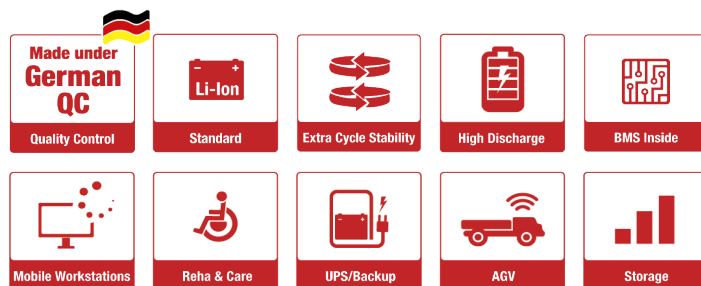


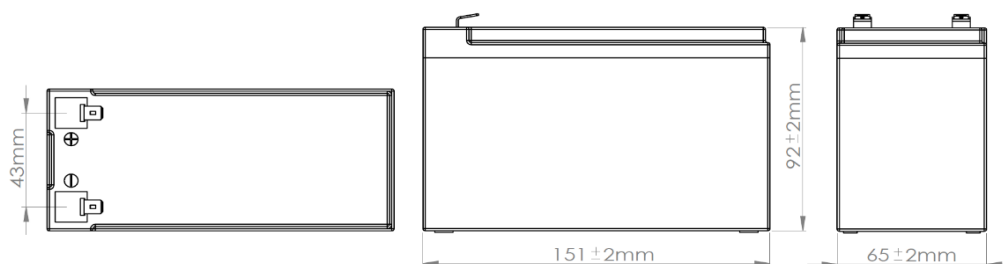
Lithium Iron Phosphate (LiFePO₄)

LiBrick S12-7.5 T1



Main Applications

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



Electrical Parameter		
Cell type	18650	
Technology	Lithium Iron Phosphate (LFP)	
Configuration	4S5P	
Nominal voltage	12,8	V
Rated capacity	7,5	Ah
Rated energy	96	Wh
Internal resistance	40	mΩ
Interconnectable (serial)	*	
Interconnectable (parallel)	4	
Temperature range transport	-20 - 60	°C

Mechanical Parameter		
Length (±2mm)	151	mm
Width (±2mm)	65	mm
Height (±2mm + 2 mm T1)	92	mm
Weight	1100	g
Volumetric energy density	106,3	Wh/l
Gravimetric energy density	87,3	Wh/kg
Housing	ABS; V0 - UL94	
Protection level	(not certified)	IP56
Special features	designed for highest safety	
Design life** >	10	Years

Charge Parameter		
Charging methode	CC-CV	
Recommended charge current	3,75	A
Maximum charge current	7,5	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	

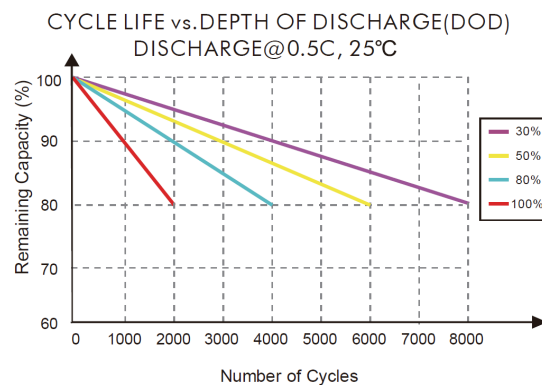
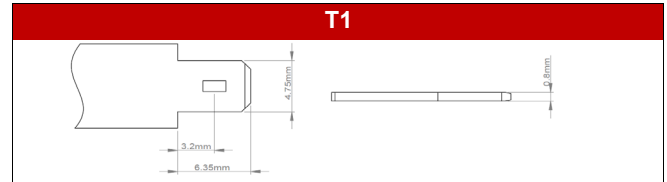
Discharge Parameter		
Constant discharge current	20	A
Peak discharge current	37,5	A
Duration of peak discharge	5	s
End of discharge voltage	10	V
Temperature range discharge	-20 - 60	°C
Discharge current @ < -20°C	0	A
Discharge current @ -15°C	3,5	A
Discharge current @ > 0°C	20	A
Capacity drop at low temp.	80% (0°C/0,2C) 50% (-10°C/0,2C)	

Data sheet

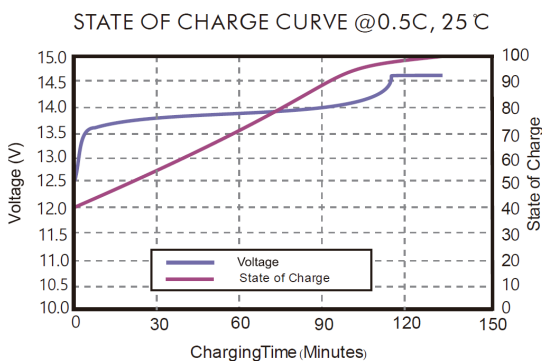
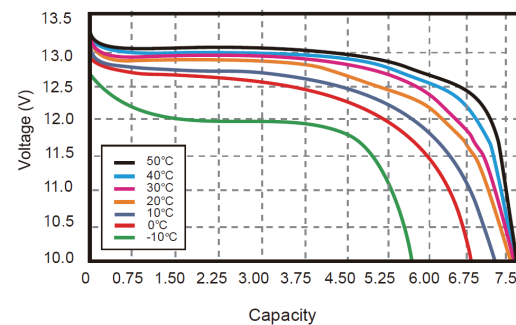


BMS Parameter		
Short circuit protection	100-600	μ S
Over current protection	50 \pm 10	A
Over current protection	\leq 300	mS
Deep discharge protection cell	2,0 \pm 0,1	V
Deep discharge protection	\leq 300	mS
Over voltage protection cell	3,9 \pm 0,05	V
Over voltage protection	\leq 2000	ms
Over temp. protection >	65 \pm 5	$^{\circ}$ C
Balancing start voltage >	3,6 \pm 0,05	V
Board consumption (sleep)	100	μ A

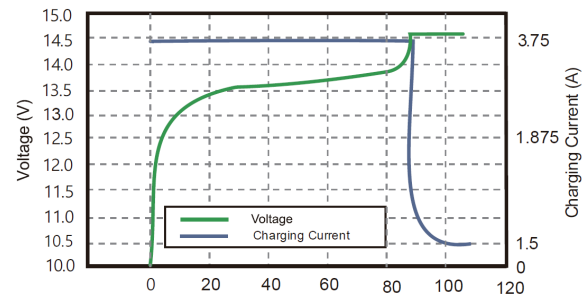
Interconnector / Interfaces	
Charge	T1
Discharge	T1
Data	/
Communication	/
Communication protocol	/



DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @0.5C



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



Suitable Accessories

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

*Serial connection is not recommended, as differences in capacity or state of charge, for example, can affect the performance and safety of the entire system. If a serial connection is required, ensure that the batteries used are identical (same capacity, voltage, and from the same batch) and synchronized (same state of charge and internal resistance). Use a suitable charging and management system that monitors the entire connection.

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

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