Glannu

PRODUCT DATASHEET
LFP-1254

SOFT PACK SERIES

$LiFePO_4$ Lithium Battery Pack

12V 54Ah

12.8 V · 54 Ah · 691 Wh

5-YEAR WARRANTY **20A SMART BMS**

12.8 V Nominal voltage	**54 Ah** Capacity	**691 Wh** Energy
≥ 2000 Cycles @ 80% DoD	**20 A** Max continuous	**4S9P** Configuration

Representative image - size and lead position vary by model

Key Features

- **5-Year Warranty**
  5 years or 2000 cycles, whichever is earlier
- **A-Grade $LiFePO_4$ Cells**
  36 matched cylindrical 32700 cells, 4S9P
- **Integrated Smart BMS**
  Over-charge, over-discharge, over-current, short-circuit and temperature protection
- **Long Cycle Life**
  ≥ 2000 cycles at 80% depth of discharge
- **Outdoor Ready**
  IP54 soft pack, operates -10 °C to +60 °C
- **Maintenance-Free**
  No acid, no topping-up; about one third the weight of lead-acid

Applications

Solar Lighting

Solar CCTV

Automation

Remote Monitoring

Robotics

Also: telecom & router backup, DC lighting and fans, small UPS, agricultural sprayers, portable power.

DIMENSIONS (L x W x H, mm)

Single decker	305 x 130 x 70
Double decker	163 x 147 x 130
Flat	290 x 293 x 37

Weight ≈ 5.4 kg · Wire leads 2.5 mm²

CERTIFICATIONS

UN38.3 · IEC

Recommended Charger & Solar Controller Settings

LiFePO4 / LFP	**14.4 – 14.6 V**	**13.6 V or disabled**	**11.0 V**	**12.6 V**	**Off**
Battery type	Bulk / absorption	Float	Low-voltage disconnect	Reconnect	Temp. compensation

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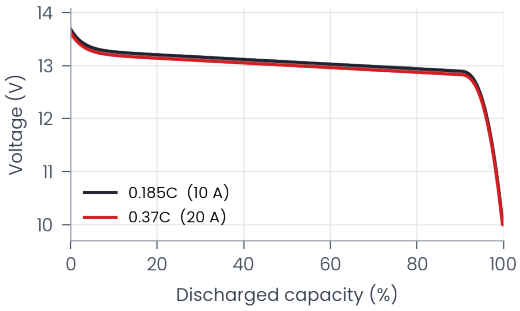
Specifications subject to change · © 2026 Glannu Industries

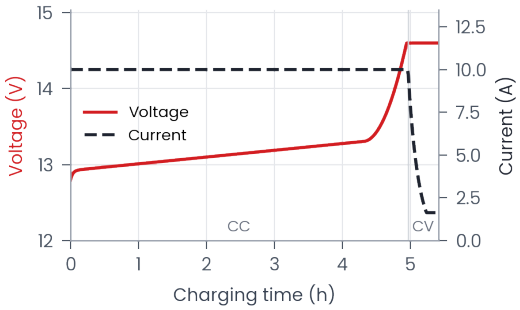
Technical Specifications

GENERAL	
Product name	$LiFePO_4$ Battery Pack 12.8 V 54 Ah (691 Wh)
Model no.	LFP-1254
Battery chemistry	Lithium Iron Phosphate ($LiFePO_4$)
Cell type	Cylindrical $LiFePO_4$ 32700 (6 Ah)
Cell configuration	4S9P (36 cells)
ELECTRICAL CHARACTERISTICS	
Nominal voltage	12.8 V
Nominal capacity	54 Ah
Nominal energy	691 Wh
Operating voltage range	10.0 – 14.6 V
Depth of discharge (DoD)	80% recommended
Round-trip efficiency	≥ 96%
Self-discharge	≤ 3% per month
CHARGE	
Charging method	CC–CV
Full-charge voltage	14.6 V
Standard charge current	10 A (0.19C)
Max. charge current	20 A (0.37C)
Charge temperature	0 °C to +45 °C
DISCHARGE	
Standard discharge current	10 A (0.19C)
Max. continuous discharge	20 A (0.37C)
Discharge cut-off voltage	10.0 V
Discharge temperature	-10 °C to +60 °C
CYCLE LIFE	
Cycle life	≥ 2000 cycles @ 80% DoD
Test rate (charge / discharge)	0.19C / 0.19C
Expected calendar life	≥ 5 years
BMS / PCM	
BMS type	Integrated PCM, 20 A continuous
Protections	Over-charge, over-discharge, over-current, short-circuit, over-temperature
Cell balancing	Passive
Communication	Not applicable
MECHANICAL	
Dimensions (L x W x H)	305 x 130 x 70 / 163 x 147 x 130 / 290 x 293 x 37 mm
Weight	≈ 5.4 kg
Enclosure	Soft pack, PVC heat-shrink
Terminals	Wire leads, 2.5 mm², 400 mm
Ingress protection	IP54
ENVIRONMENT, STANDARDS & WARRANTY	
Operating temperature	-10 °C to +60 °C
Storage temperature	-5 °C to +40 °C, at 40–60% charge
Cooling	Natural
Transport	UN38.3
Safety standards	IEC 62133 / IEC 62619
Warranty	5 years or 2000 cycles, whichever is earlier

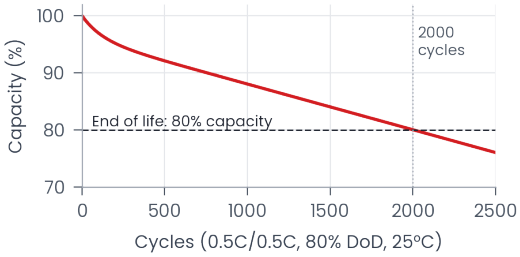
Typical Discharge Curves



Charging Profile (CC–CV)



Cycle Life



Charts show typical LiFePO4 behaviour at 25 °C for this 4S9P configuration and are for reference only. Charge with a LiFePO4 charger or solar controller set to 14.6 V; charging above this voltage shortens battery life.

Need help choosing a pack?

Bulk, dealer and custom-size enquiries welcome.

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