DFPA48100-S
Smart Lithium Battery Pack



Introduction

The DFPA48100-S Telecom Li-ion Battery is designed for various 48V application. It's composed of prismatic LFP cells, an intelligent battery management system (BMS), and a bidirectional DC converter (BDC). The unit features different charging voltage adaptability, fast charging, and long service life. It can be directly connected to lead-acid battery strings in parallel to reuse batteries.



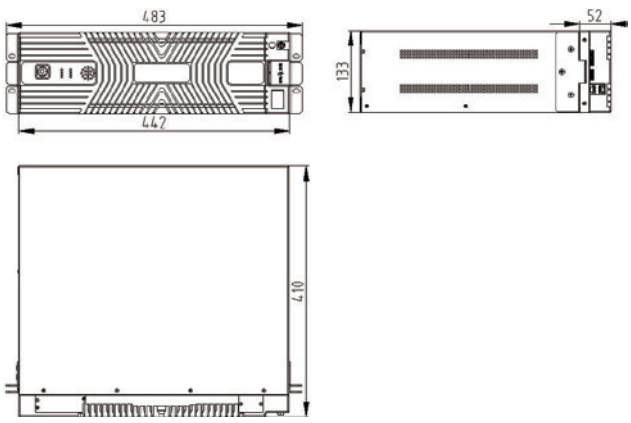
Application

- New 4G/5G telecom base station (FTTB,FTTH,RRU,BBU)
- Old base station retrofit for 5G
- High-power long-distance power supply
- Home solar energy storage
- Central server room
- Other 48VDC application

Feature

- Mixed use of lithium and lead-acid batteries
- Parallel connection of new and old lithium batteries
- Max. 32 packs of batteries in parallel
- Support for consistent-voltage long-distance power supply
- Integrated with high-efficiency BDC, smart peak shaving, peak staggering, voltage boosting, and hybrid use
- High-reliability design: integrated BMS design, long service life
- High-density design: 100 Ah with 3 U size
- Maintenance-free, modular design and lightweight

Dimension



Technical Specification

Performance Parameter		
Model	DFPA48100-S	
Nominal voltage	48V	
Rated capacity	100Ah (C_3 ,0.2C to 40V at 25℃)	
Working voltage range	40 ~ 60V	
Balanced / floating charging voltage	54.5V / 52.5V	
Discharge voltage	43.2 ~ 57.0V	
Constant pressure discharge	44.0 ~ 57.0V, default: 53.0V	
Maximum discharge power	4800W	
Limit charging current	10A (Adjustable)	
Charging current (max)	100A	
Discharging current (maximum)	100A	
Discharge cut-off voltage	40V	
Weight	40 ± 2kg	
Size (W*D*H)	442mm*410mm*133mm(±2mm)	
Functional description		
Installation method	Recessed / Wall mount	
Communication interface	RS485*2 / Dry contact*2	
Indication status	ALM / RUN / SOC	
Parallel communication	Max. 32 groups	
Parallel load power	Max. power ≤ 24kW	
Terminal screw	M6	
Working conditions		
Heat dissipation method	Self-cooling heat dissipation	
Altitude	≤ 4000m	
Humidity	5% ~ 95%	
Storage temperature	-40℃~ 70℃	
Working temperature	Charge	-5℃~ 45℃
	Discharge	-20℃~ 50℃
Recommended working temperature	Charge	15℃~ 35℃
	Discharge	15℃~ 35℃
	Storage	20℃~ 35℃

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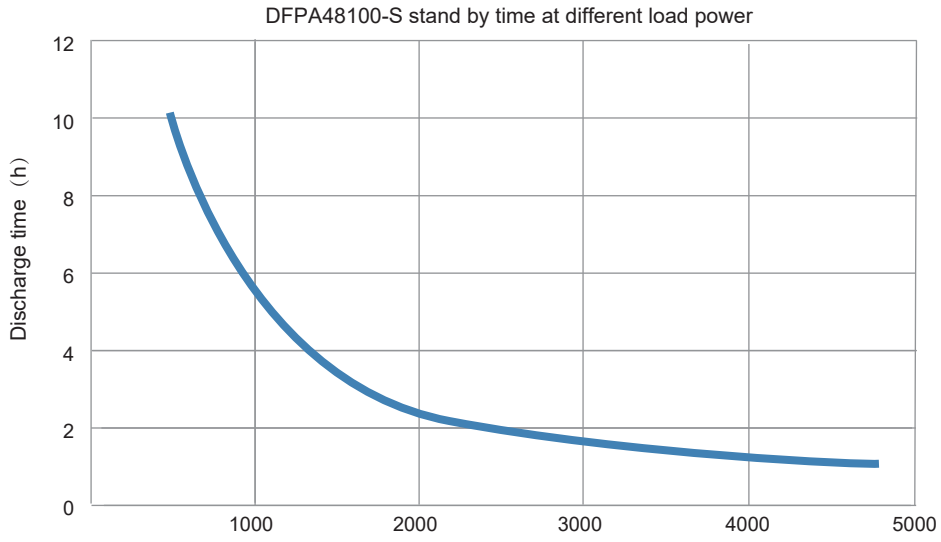
DFPA48100-S (25℃) Constant Current Discharge Data Sheet

Current/A / Voltage / Time/h	0.1C	0.2C	0.3C	0.4C	0.5C	0.6C	0.7C	0.8C	0.9C	1C
46.5V	9.55	4.7	3.04	2.2	1.67	1.33	1.06	0.87	0.69	0.54
45.0V	9.89	4.87	3.19	2.34	1.82	1.49	1.24	1.03	0.87	0.72
43.5V	10.12	4.97	3.27	2.42	1.9	1.55	1.3	1.13	0.99	0.87
42.0V	10.3	5.1	3.34	2.47	1.95	1.62	1.36	1.18	1.03	0.92
40.0V	10.5	5.2	3.41	2.54	2	1.65	1.4	1.22	1.07	0.95

DFPA48100-S (25℃) Constant Power Discharge Data Sheet

Power/W / Voltage / Time/h	480	960	1440	1920	2400	2880	3360	3840	4320	4800
46.5V	9.54	4.69	3.02	2.18	1.65	1.32	1.05	0.86	0.68	0.53
45.0V	9.88	4.85	3.17	2.32	1.8	1.47	1.22	1.01	0.85	0.7
43.5V	10.1	4.95	3.24	2.41	1.89	1.53	1.28	1.11	0.98	0.86
42.0V	10.28	5.1	3.33	2.43	1.92	1.58	1.31	1.15	1.01	0.9
40.0V	10.35	5.15	3.37	2.44	1.95	1.6	1.35	1.18	1.04	0.92

Discharge Power Curve



DFUN (ZHUHAI) CO., LTD.

6th Floor, Building A3, No. 7 Gangwan, Jintang Road, Tangjiawan Town, High-tech Zone, Zhuhai, Guangdong, China

+86 756 6123188 519085

info@dfuntech.com www.dfuntech.com

Your Representative