

MINIES-B3-R1 3kWh Battery extension spec

System Introduction

■ Intro

BYD Auto Industry Company Limited develop the 3kWh battery extension solution on the basis of years' development and operation experience to satisfy the customer requirement for more MINIES-capacity, which is intelligent integration of the overall technical superiority: LiFePO₄-battery, battery management system, small size, light weight and so on.



Figure 1 Appearance of battery extension

■ Structure

3kWh battery extension consists of 3kWh battery and BMS.

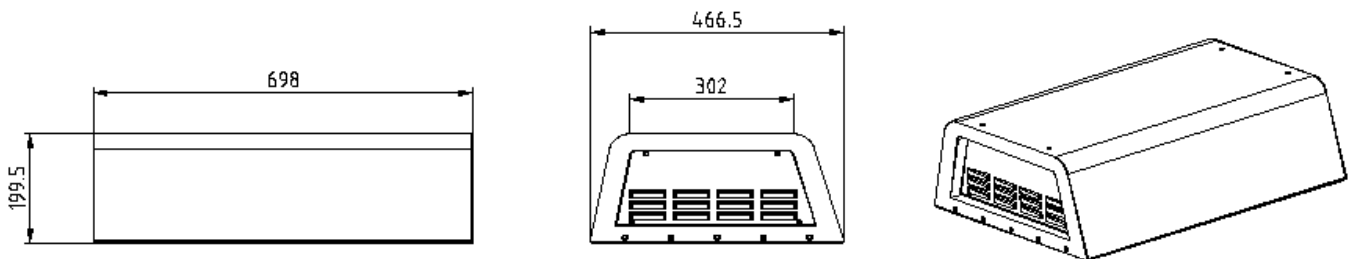


Figure 2 three views drawing of battery extension

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External interface

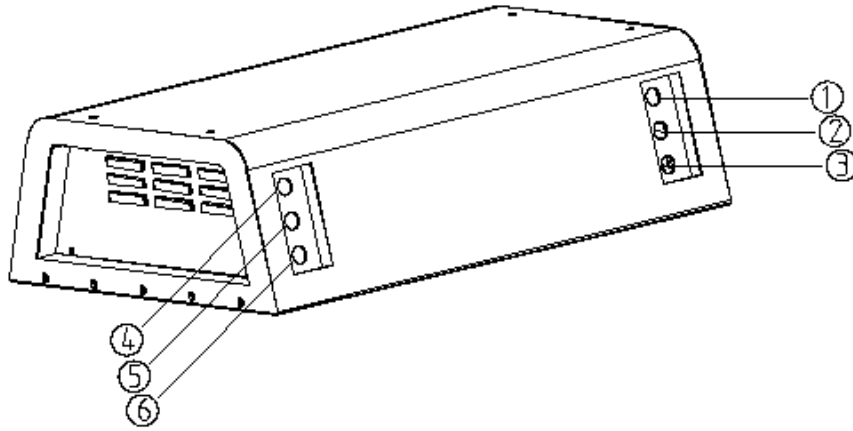


Figure 3: external interface of battery extension

Table 1: The interface list in Figure 3

No.	Name	Description	Remark
①	DC1+	DC interface of Host	
②	DC1-	DC interface of Host	
③	CAN &	Communication& power interface	
④	DC2+	Reserved (BYD authorized products can access)	
⑤	DC2-	Reserved (BYD authorized products can access)	
⑥	CAN	Reserved (BYD authorized products can access)	

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■ System parameter

No.	Type	MINIES-B3-R1 battery extension	Remark
Battery parameter			
1	Rated Voltage	51.2Vdc	
2	Voltage Range	44.8Vdc~57.6Vdc	
3	Rated Current	37.5A	
4	Maximum Charge Current	65A	
5	Minimum Charge Current	2A	
6	Maximum Output Short Circuit Current	247.5Ad.c(peak),1.93ms	
7	Battery Type	LiFePO4	
8	Maximum usable battery Storage capacity	3.3kWh@DC	Environment +10°C~+30°C, discharge rate @0.25C
9	Depth of discharge	85%	
Protection			
10	BMS	Short circuit protection	
11		Low temperature protection	
12		Over temperature protection	
13		Over voltage protection	
14		Under voltage protection	
15		Over current protection	
Other parameters			
16	Working humidity	5%~95%	
17	Altitude	<2000m	
18	Cooling method	Forced air cooling	
19	Noise	<45dB	
20	communication	CAN	
21	Temperature	0~40°C	

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No.	Type	MINIES-B3-R1 battery extension	Remark
22	Storage temperature	-10℃~40℃	
23	Product size	466.5mm×698mm×199.5mm	
24	Weight (netto)	About 57kg	
25	Protection grade	IP32	
26	Recommended operation environment	Indoor (no condensing, no frozen, no direct sunshine)	

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System application

3.3kWh extension would be used with MINIES 3kVA/3kWh together to extend the system from 3kWh to 6.3kWh. This kind of design can be easily connected and the costs of assembling and material can be reduced



Figure 4 3kVA/6.3kWh MINIES diagram



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