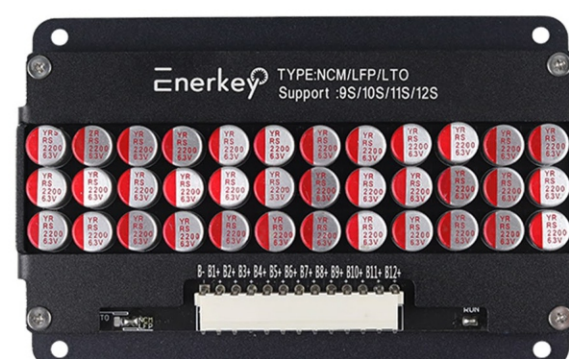
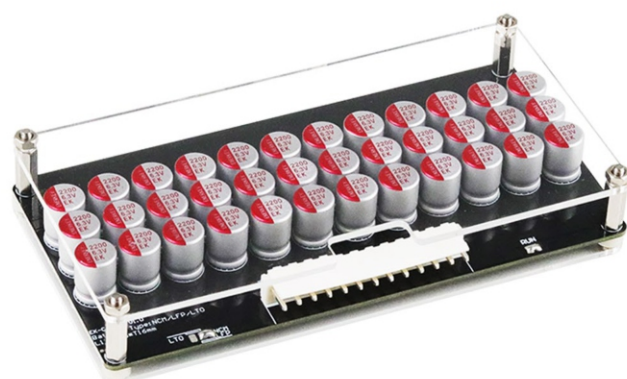


# ▶ EK-C12S5A



EK-C12S5A Parameter Description			
Battery string	9/10/11/12S		
Size(mm)	Size (mm)	Size with Acrylic Case(mm)	Weight with box and Aluminum Shell
	L137*W70*T16	L66.5*W46.5*T27.5	L141.5*W89.5*T19.5
Weight	Weight with box	Weight with box and Acrylic Case	Weight with box and Aluminum Shell
	0.2kg	0.26kg	0.32kg
Suitable Battery type	NCM / LFP (Li-ion/Lifepo4): 3S-4S NCM / LFP/ LTO (Li-ion/Lifepo4/Lto): 5S-21S		
Suitable Battery capacity	30AH-300AH		
Base material/Surface treatment	FR-4/HASL		
Single cell voltage operating range	Li-ion/Lifepo4: 2.7-4.2V LTO: 1.8-4.2V		
Undervoltage protection sleep voltage	Li-ion/Lifepo4:<2.7V LTO: <1.8V		
Equilibrium method	Patented (patent number: ZL 2019 1 1259513.3) balancing architecture Fit capacitor method, the entire battery pack is balanced at the same time.		
Equilibrium current	0.1V voltage difference is 1A balancing current, voltage difference is proportional to balancing current, maximum allowable operating current is 5.5A		
Balanced Cascading	Support balanced cascading for battery packs, for example , it can cascade for 11S , 24S ,36S , 48S....and so on		
Whether need an external power supply	No external power supply is required, relying on the internal energy transfer of the battery to achieve balance of the entire group		
Voltage equalization accuracy	5mV(Typical value)		
Feature	24H Non-stop overall balancing, supports cascading, undervoltage protection, ultra-low loss, etc.		
Application	Outdoor energy storage, home energy storage, industrial and commercial energy storage, RV modification, low-speed vehicles, solar photovoltaic, etc., temporarily used for battery balancing maintenance, repair, etc.		

EK-C12S5A Instructions															
Wiring diagram	Single board(9S)	Single board(10S)	Cascade												
	Single board(11S)	Single board(12S)													
Wiring precautions	<p>①. The assembly of this product requires welding operations; please strictly follow the wiring diagram! If you have any questions during the assembly process, please contact after-sales personnel.</p> <p>②. When assembling, please weld the terminal wire to the battery pack first, and then insert the terminal wire into the product.</p> <p>③. After connecting the battery, please pay attention to the insulation protection of the product to avoid short circuit when power is on.</p> <p>④. When used in cascade, there must be at least one "energy exchange common terminal" between each two balancing boards.</p> <p>⑤. Cascade use is a high-voltage environment, please repeatedly check whether the wiring is correct. If it cannot be used after connection, please contact after-sales personnel to consult the corresponding cascade wiring diagram.</p>														
Suitable battery types switching	<table border="1"> <thead> <tr> <th>Applicable battery type</th> <th>Pad number in the picture</th> <th>Physical illustration</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>LTO Lithium titanate</td> <td>1+2 connect (Illustration frame ①)</td> <td></td> <td>Customers need to weld and switch by themselves</td> </tr> <tr> <td>NCM ternary lithium LFP Lithium iron</td> <td>2+3 连接 (Illustration frame ②)</td> <td></td> <td>Factory default mode</td> </tr> </tbody> </table>			Applicable battery type	Pad number in the picture	Physical illustration	Remark	LTO Lithium titanate	1+2 connect (Illustration frame ①)		Customers need to weld and switch by themselves	NCM ternary lithium LFP Lithium iron	2+3 连接 (Illustration frame ②)		Factory default mode
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External switch description	<p>"Illustration frame ③" can be connected with an external switch to control the opening and closing of equalization. The factory default is to connect the battery pack and automatically turn on balancing</p>														
Indicator light description	<p>Always on-----Balance at work</p> <p>Extinguish-----Under voltage sleep</p>														