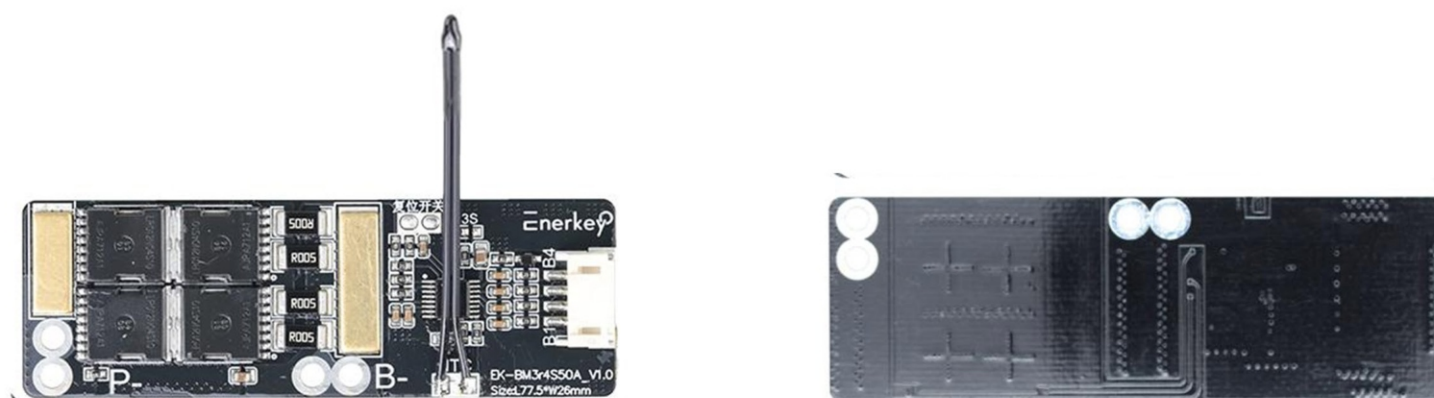


# ▶ EK-BM3r4S50A



EK-BM3r4S50A Parameter Description	
Battery string	3S/4S
Size(mm)	L77.5*W26*T7.3
Weight	24g
Continuous current	50A
Peak current	60A
Temperature protect	With
Balancing	Without
Battery type	Li-ion(NCM)
Base material/Surface treatment	FR-4 / Lead-free spray tin
Remark	Charging and discharging in same port
Feature	Automotive-grade MOS, 2oz thickened copper foil and copper strip current sharing, high precision, ultra-low internal resistance, ultra-low heat generation Overcharge protection, over-discharge protection, over-current protection, over-temperature protection, short-circuit protection, anti-static protection, dust and moisture protection, etc.
Application	Battery packs for portable electric screwdrivers, electric drills, electric saws, power tools, portable vacuum cleaners, small household appliances, etc.

## EK-BM3r4S50A Instructions

<p style="text-align: center;"><b>Wiring diagram</b></p>	<div style="border: 1px dashed purple; padding: 5px;"> <p style="text-align: center;"><b>3S Wire diagram</b></p> <p><b>3S/4S 50A BMS Support 3S and 4S</b>              Different string numbers can be selected by changing the A part              3S: Connect the 3S position with a 0R resistor; leave the 4S position blank              4S: Connect the 4S position with a 0R resistor; leave the 3S position blank</p> <p><b>3S :</b> Connect the 3S position with a 0R resistor and leave the 4S position empty.  <i>Note: Please change the circuit at A on the PCB board to 3S first, and then proceed with wiring!</i></p> </div>	<div style="border: 1px dashed purple; padding: 5px;"> <p style="text-align: center;"><b>4S Wire diagram</b></p> <p><b>Factory default 4S</b></p> <p><b>4S:</b> Connect the 4S position with a 0R resistor; leave the 3S position empty.  <i>Note: Please change the circuit at A on the PCB board to 4S first, and then proceed with wiring!</i></p> </div>						
<p style="text-align: center;"><b>Wiring precautions</b></p>	<ol style="list-style-type: none"> <li>①. Installing the protective board requires a certain amount of technical electronic knowledge</li> <li>②. Please solder the battery voltage collection line to the protective plate first, and then install it on the battery pack to fix it. Follow the order of welding from low to high, from B-..B1..B2</li> <li>③. The connection between the battery terminal B- and the protection board terminal B- should be short and thick, otherwise it will cause the protection board to charge and discharge in advance and malfunction. You need to use thick wires when wiring P+/P-. Wires that are too thin and too long will burn the board!</li> <li>④. After connecting the battery, please pay attention to the insulation protection of the product to avoid short circuit when the power is on</li> </ol>							
<p style="text-align: center;"><b>Frequently Asked Questions</b></p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">Phenomenon</th> <th style="width: 50%; text-align: center;">Solution</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">After the protective board is installed, No output or wrong output voltage</td> <td> <ol style="list-style-type: none"> <li>① Activate the protection board: Connect the charger to power on or short-circuit P- and B- for 2-3 seconds.</li> <li>② Then measure whether the output voltage is normal; The wiring order is wrong: measure whether the voltage of each battery string is normal.</li> </ol> </td> </tr> <tr> <td style="text-align: center;">After the protective board is installed, After using it for a while, the power was cut off</td> <td style="text-align: center;">Check whether the installation position of the NTC probe is normal, It should be installed close to the battery and not placed on the protective board</td> </tr> </tbody> </table>	Phenomenon	Solution	After the protective board is installed, No output or wrong output voltage	<ol style="list-style-type: none"> <li>① Activate the protection board: Connect the charger to power on or short-circuit P- and B- for 2-3 seconds.</li> <li>② Then measure whether the output voltage is normal; The wiring order is wrong: measure whether the voltage of each battery string is normal.</li> </ol>	After the protective board is installed, After using it for a while, the power was cut off	Check whether the installation position of the NTC probe is normal, It should be installed close to the battery and not placed on the protective board	
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