MUPS-02 User Manual

Product Introduction

As a power supply equipment specially designed for vehicle scenarios, MUPS-02 can reserve power for itself and provide stable power support for Dashcam & MDVR during vehicle driving. Meanwhile, after the vehicle is turned off, the reserved power of MUPS-02 can be used to provide temporary power supply for Dashcam & MDVR. This not only ensures the normal operation of Dashcam & MDVR when the vehicle is turned off, but also avoids the consumption of the vehicle battery. It effectively prevents equipment failures, data loss and other problems caused by unstable power supply, and escorts your vehicle power safety.

Product advantages

- Fully sealed protective body to cope with complex vehicle environments. Adopting an IP66-rated sealed housing design, seamless connection of the body is achieved through ultrasonic welding technology, effectively blocking the intrusion of rainwater, dust, and fine particles. Whether in driving scenarios during heavy rain or outdoor road conditions filled with sand and dust, the device can operate stably, avoiding the risk of internal circuit short-circuit caused by water ingress or dust accumulation, and providing round-the-clock protection for the vehicle power supply system.
- Dual-mode power supply switching for continuous power in power-outage scenarios. Equipped with an intelligent power management system, it supports automatic switching between two modes: "vehicle DC power supply" and "independent power supply from built-in battery":
  - When the vehicle is in operation: It directly connects to the vehicle's cigarette lighter power supply, simultaneously charging the device's own battery and powering external electronic devices, achieving continuous power support in a "charge while using" mode;
  - When the vehicle is turned off or experiences a power outage: It automatically switches to battery-powered mode, providing 2-6 hours of continuous power (specific duration depends on the load power), meeting the power demand of Dashcam & MDVR devices during parking breaks and preventing interruptions to their normal operation due to vehicle power outages.

Core parameters

Item	Parameter
Case Material	metal
Power Input	9---36V
Battery Case Material	18650 lithium battery

Battery Capacity	2600mAh	
Battery Rating Voltage	14.8V (4*3.70V)	
End of Charge Voltage	16.8V (4*4.20V)	
Discharge Cut-off Voltage	11V (4*2.75V)	
Charging Current	1.5A	
Charging Time	＜2.5h	
Max output current	7A	
Size	74x18.8x70mm	
Weight	About 700g	
Waterproof grade	IP66	
Ambient Temperature	charge	0~45℃
	discharge	-20~60℃
	Storage Temperature	-20~50℃

Attention: Do not install the equipment near high temperature heat sources

Wiring Instructions

Input Voltage Description	Input 10-19V	Boost charging	Charging efficiency 92%, automatic switching
	Input 19-36V	Buck charging	Charging efficiency 96%, automatic switching
	Note: Try to use 16-gauge (1.3 sq. ft.) wire for input.		
Output Voltage Description	Input 0-9V	Switch to battery voltage, 12-16.5V	Note: Input below 9V, switch to battery power. Input higher than 9V is input power supply
	Input 9-36V	Input 9-36V	
Description of discharge duration	Battery power 38Wh. example MDVR device 12V power supply, current 1.5A, power 18Wh 38Wh/18Wh=2.1h		

Using the following wiring method, the battery power will not be consumed when the ACC is off.