

Product Specification

Product Name: Vehicle UPS

Version : V1.0

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1. Outline

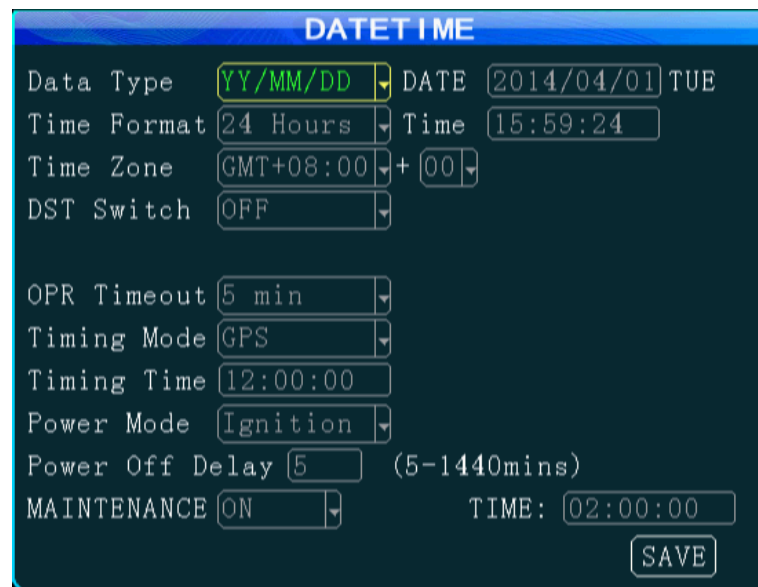
1.1 Product image



1.2 introduction

The UPS is high-end backup power which designed for vehicle MDVR products. The input section uses a lithium iron phosphate battery and special charge management IC; and it uses the high efficiency DC-DC buck-boost switching circuit. In order to achieve accurate voltage overshoot, over-discharge voltage, current overload and short circuit protection it uses a battery cell Protection control circuit. Rated input voltage is 8 ~ 36V DC. When the supply voltage of vehicle MDVR is less than 9V or unexpected power failure the vehicle MDVR will automatically switch to UPS.

Caution : MDVR will work five minutes default after the vehicle keys close , if customers want to lengthen working hours after power failure , please change the delay time on the DATE&TIME interface of MDVR which shows in the figure:



The screenshot shows a configuration menu titled "DATE&TIME" with various settings for date, time, and power management. The settings are as follows:

Parameter	Value
Data Type	YY/MM/DD
DATE	2014/04/01 TUE
Time Format	24 Hours
Time	15:59:24
Time Zone	GMT+08:00
DST Switch	OFF
OPR Timeout	5 min
Timing Mode	GPS
Timing Time	12:00:00
Power Mode	Ignition
Power Off Delay	5 (5-1440mins)
MAINTENANCE	ON
TIME	02:00:00

A "SAVE" button is located at the bottom right of the interface.

1.3 Product Features

- IC control technology and multiple protection circuit;
- High-efficiency current output, high-capacity branded lithium battery;
- Friendly and easy to install;
- Special vehicle power supply input and output ports;
- All-metal shell design for vandal proof ;
- Long battery life, outstanding high temperature durability, no memory effect and Environmentally Friendly;

2. Main Specifications

Charging input voltage and current	Output voltage and current	Capacity batteries	Power stability and accuracy	Remark
12V 2.6A(MAX)	9.6V 1.6A	3 series 18650 1600mAh	$\leq \pm 10\%$	-20 ~ 75°C working normally

3. Product Size

115.0mm*88.5mm*42.2mm

4. Working Parameters

No.	Projects	Technical indicators	Unit	Remark
1	working temperature	-20 ~ 75°C	°C	
2	vibration resistance	MIL-STD-810F		
3	power performance	ISO 7637		
4	shock limit	≤ 2000		(19,600M/S ²) @1MS
5	waterproof rating	IP53		
6	machine power	0.01	W	
7	cooling	metal cooling		natural cooling

5. Electrical Characteristics

5.1 Input Characteristics

No.	Projects	Technical Requirements	Unit	Remark
1.1	Input voltage	8V ~ 36V	Vdc	
1.2	Conversion efficiency	≥85%		
1.3	Maximum input current	≤2.6	A	12V below

5.2 Output Characteristics

No.	Projects	Technical Requirements	Unit	Remark
2.1	Output Current Range	0 ~ 1.6	A	
2.1	Output Voltage Range	8 ~ 9.7	V	
2.3	Noise	≤50	dB	

5.3 Protection Characteristics

No.	Project	Technical Requirements	Unit	Remark
3.1	Discharge voltage protection (batteries)	8	V	Over discharge release 7V
3.2	Charging voltage protection (batteries)	10.9	V	Overcharge release 10.95V
3.3	Load current (batteries)	≥1	A	
3.4	Output over-current	≥6	A	Lock(protection)

6. Work and charging time

It can work for half an hour or so with 12W Loads.

Charging voltage :12V, Maximum current:2.6A, charging time:≥40min

Remark:

Type and model	Power Range
SD Card Machines (JS1/JS2)	5W~7W without Camera,15W~17W with 4 Cameras
SD Card Machines (JS5) Hard Drive (JH4/JH8)	7W~9W without Camera,17W~19W with 4 Cameras