

FACT SHEET

KVS-104 Battery backup for 24V equipment in vehicles

Small, self-contained automotive battery backup system with 1.2 AH battery 24-volt LEAD-ACID BATTERY module or battery backup (BBU) keeps 24-volt equipment alive in cars, trucks and taxis using an internal sealed lead acid battery.



This LEAD-ACID BATTERY contains a 1.2 amp-hour sealed lead acid battery. It is charged from the vehicle's electrical system and switches your load to its internal battery when the engine is turned off, or at any other time that the electrical bus drops below 23.6 volts. Keep computers and video systems alive during engine starting or other interruptions in power.

KVS-104 UPS battery is designed to keep your equipment from losing power or rebooting during engine start-up, ensuring these spikes and sags in power don't shorten the life of your mission critical electronics. We do this by providing uninterrupted, clean, consistent power to your equipment, extending the life of your electronics.

The backup prevents your equipment from running the vehicle's battery down avoiding jump-starts. It switches over to the auxiliary battery when the engine is shut off and the alternator stops or the car's battery drops below 11.8 volts. This means you never have to worry about that after-market equipment leaving you with a dead battery in the morning.

KVS-104 isolates its battery from the vehicle. It can't be discharged by the vehicle's other electronics, and it won't try to participate in the engine start-up process.

The KVS-104 lead-acid battery powers your equipment in the vehicle using the car electrical system, but switches to external battery power when the car's battery is removed, stolen, or drops below a predetermined voltage, acting as a battery backup (BBU) and power conditioner.

Allows for safely charging our internal battery from the car's electrical bus by isolating and current regulating the connection to the auxiliary battery. This


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uninterruptible power supply is designed to withstand the harsh electrical and temperature requirements of automotive equipment including spike, dropouts, load dumps, jump-starting, high and low temperatures.

Detailed Specifications	KVS-104-1.2-24V
Maximum pass-through current	12 Amps continuous
Max Charge Current	400 milliamps.
Maximum input voltage (steady state)	30V
Maximum input voltage (transient)	40V
Maximum pass-through wattage	288 Watts
Transient pass-through current	16 amps for 40 seconds 20 amps for 5 seconds Over 20 amps immediate shutdown
Transition time	Less than 50 microseconds from main battery to auxiliary battery less than 50 microseconds from auxiliary battery to main battery. We have a capacitor to keep the voltage up during the transition and have not had any problem with customer's equipment dropping out during the switchover.
Backup time	12A for 50 seconds 9A for 100 seconds 6A for 200 seconds 2A for 1000 seconds 1A for 44 minutes 60mA for 20 hours
Charge voltage	Factory selectable, default is 23.6V This is the input voltage at which the internal charger starts boosting the voltage to charge the auxiliary battery
Internal battery	1.2 AH 24V Sealed lead acid battery
Charge algorithm	Constant current until the battery voltage reaches 26.8 volts, taper charge above 26.8 volts to zero current at 28.2 volts
Nominal Battery Voltage	24 Volts

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Size	3 x 4.9 x 5.7 inches (6.8" including flanges) 76 x 124 x 145 mm (173 mm including flanges)
Vehicle's electrical bus reconnects to the load when its voltage raises to:	26 volts
External battery is disconnected from the load when the external battery's voltage drops below	23.6 volts
Temperature Range	Minimum ambient temperature -10°C (-40°C available upon request) Maximum ambient temperature of 70°C When the case temperature gets above 45°C the charge current is automatically reduced to maintain system operation at higher temperatures.
Storage Temperature	-20°C to 70°C
Connection	Screw terminals, included are spade terminal adapters as shown below
Included spade (faston) connector adapters	
LEDs	LEDs light up showing whether the load is being powered by the car or the auxiliary battery
Weight	3.3 lbs or 1.5 kg

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