

## FACT SHEET

### KVS-105 UPS battery backup with 1.2AH battery for 12V vehicle equipment

The Backup-Jr UPS is designed to keep your equipment from losing power or rebooting during engine startup, 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.

The Backup-Jr isolates its battery from the vehicle, so it can't be discharged by the vehicle's other electronics, and it won't try to participate in the engine startup process.

The Backup-Jr DC-UPS 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 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.





## SPECIFICATION

Specifications	PST-Backup-Jr 12A	PST-Backup-Jr 5A
Maximum pass-through current	12 Amps continuous	5 Amps continuous
Max Charge Current	400 milliamps.	400 milliamps
Maximum input voltage (steady state)	15V	15V
Maximum input voltage (transient)	40V	40V
Maximum pass-through wattage	144 Watts	60 Watts
Transient pass-through current	13 amps for 40 seconds 20 amps for 5 seconds Over 20 amps immediate shutdown	6 Amps for 40 seconds
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 switch-over.	
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	5A for 300 seconds 4A for 400 seconds 2A for 1000 seconds 1A for 44 minutes 60mA for 20 hours
Charge voltage	Factory selectable, default is 13.8V	Factory selectable, default is 13.8V
Internal battery	1.2 AH Sealed lead acid battery	
Charge algorithm	Constant current until the battery voltage reaches 13.4 volts, taper charge above 13.4 volts to zero current at 14.1 volts	
Nominal Battery Voltage	12 Volts	
Size	3x 4.7 x 3.9 inches (5 inches including flanges) 76 x 119 x 99 mm (127 mm including flanges)	
Vehicle's electrical bus reconnects to the load when its voltage raises to:	13.5 volts	
Load is switched to the auxiliary battery when the main voltage drops below	13.1 volts	
Auxiliary battery is disconnected from the load when the auxiliary battery's voltage drops below	10 volts	

\*Koogle Co.,Ltd. retains the right to modify design and specifications without prior notification

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Temperature Range	<p>Minimum ambient temperature -10°C (-40°C available upon request)</p> <p>Maximum ambient temperature of 70°C</p> <p>When the case temperature gets above 45°C the charge current is automatically reduced to maintain system operation at higher temperatures.</p>
Storage Temperature	-20°C to 70°C
Connection	Screw terminals, included are spade terminal adapters as shown below
Included spade (faston) connector adapters	
Optional DIN Rail mounting. Depending on application you might need two of these kits	
LEDs	LEDs light up showing whether the load is being powered by the car or the auxiliary battery
Weight	1.8 lbs or 0.8 kg

## FEATURES AND BENEFITS

1. Easy to keep your equipment from losing power or rebooting.
2. Protection against power variances.
3. With the protection of a UPS unit, data record could be store safer.
4. Help to saving time to redoing work.