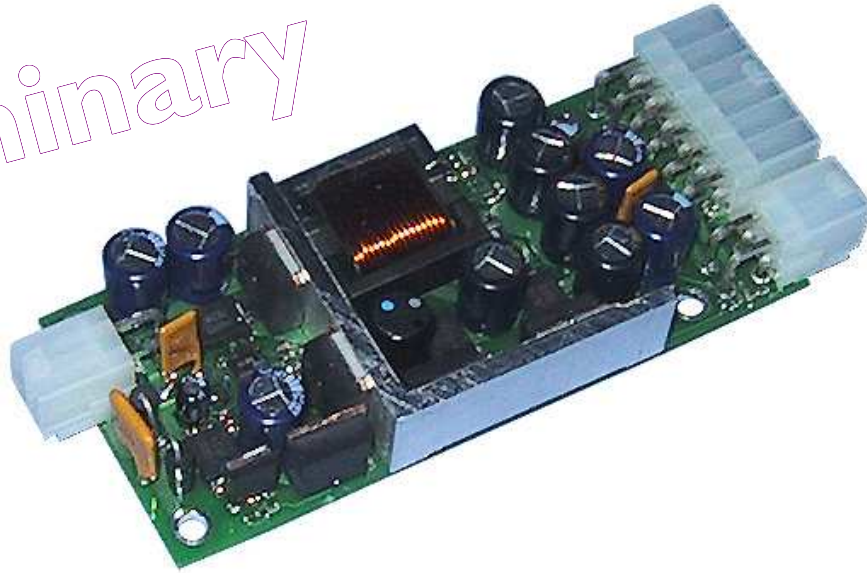


# white bream

## E3 I I Mini-ITX car power supply

preliminary



### Introduction:

One major problem when dealing with DC powered computer systems is the power supply, especially in harsh environments such as automotive. This power supply is an affordable solution for that problem. The embedded microcontroller controls the computer system and protects the car battery, eliminating any external devices needed for this, thus reducing system cost.

### Applications:

- MP3 station in the car,
- Mobile navigation computer,
- UPS for Epia based server appliances.

### Quick specs:

- 8 to 30V input range,
- Mini-ITX standard,
- Shutdown control,
- Ultra small 92 x 40 mm.

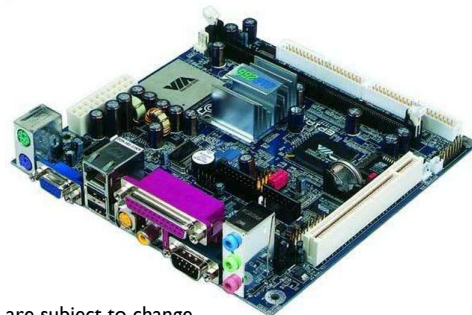
### Power management:

The on board power control takes care of starting and shutting down the computer. When power is applied to the switch input line, a power pulse is generated to start the computer (similar to a manual press on the power button). After the switch line has been deasserted, the same pulse is generated again – now to initiate the shutdown sequence of the operating system. At the same time a watchdog timer is started, which cuts off system power after 5 minutes to protect the battery. This watchdog can be disabled by removing a jumper for standby purposes. The shutdown sequence can be postponed by toggling the switchline and by a default time through a jumper. To safeguard the battery, the input voltage is monitored. When this voltage gets too low, the system is switched off completely.

This car power supply is designed specifically for the Via Mini-ITX mainboards, including the new Epia-M and Epia-V series.

Other low power mainboards will work just as well, as long as they do not need the (historic) negative 5V and 12V power rails.

Specifications and product image on top are subject to change



# E3 I I - Mini-ITX car power supply

## Specifications:

- 8 to 30V input range, maximum rating 36V,
- 63 Watt output power,
- Mini-ITX standard,
- Ultra small: 92 x 40 x 15 mm,
- Low weight: 67 gram,
- Operating temperature range : -20 to +65 °C,
- Storage temperature range: -45 to +125 °C,
- 3.3V/5A, 5V/7A, 12V/1.5A (Sum of 3.3V and 5V max 7A),
- 5V/2A Standby power,
- Shutdown control,
- Flexible power-off delay 15min, 30m, 1hour, 2h, 4h, 8h, 12h,
- Low battery protection.



preliminary

Designed for



## Versions:

**E3 I ISET** is the power supply and all required cables,

**E3 I IOEM** is the same power supply but without the cables,

**E3 I ICON** is like the OEM, but the output power connectors are not placed to facilitate manual soldering of some existing cables,

Finally **E3 I IKIT** is a component kit for hobbyists that want to assemble the supply themselves (WARNING; the power supply contains fine-pitch SMT components!).

## Accessoires:

The complete set is supplied with all required cables. These are a mainboard cable, a harddisk cable, a ATX power button cable and the power cable. Also a mounting screw set and an installation instruction are included.

All internal cables are blue and have a length of 20cm, the power cable is 5m.

Other versions of the power supply do not come with cables, but these can be ordered separately.

## Application example:



## Warranty:

All power supplies are covered by a two-year warranty and support period, except the DIY version, which lacks the warranty.

## Pricing:

These are ~~estimated~~ retail prices:

<b>E3 I ISET</b>	€	<b>90.-</b>
<b>E3 I IOEM</b>	€	<b>75.-</b>
<b>E3 I ICON</b>	€	<b>73.-</b>
<b>E3 I IDIY</b>	€	<b>65.-</b>

prices ex. VAT, ex S&H

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