

# JouleBox 500

Product Specifications  
PS-JOULEBOX500-01/02-180215

The **JouleBox** is an Energy Storage Solution based on Li-ion battery chemistry specifically designed for use with DC appliances. The **JouleBox** has a storage capacity of 500kj and can supply up to 600.000kj (600 MJ) over it's battery lifetime which depending on it's daily usage and rate of discharge will give a useful service life of 3 up to 10 years.

The **JouleBox** can be charged from LEC200 up to LEC1500 (or any type of 36 Cell 20Wp to 100Wp PV solar panel with Vmpp of 17.5V).

The **JouleBox** has 2 universal outputs to supply any DC appliances that can run from 12 to 16VDC source. Typical appliances that can be used with the **JouleBox** are Sundaya LCD TV of 18" up to 24" and Ceiling fans of 30 up to 120cm diameter.

The **JouleBox** also has 2 USB ports for charging USB devices like mobile phones and Tablets. Furthermore it is equipped with 2 docks with Bayonet fitting to recharge Sundaya JouleSticks that can be used in all Sundaya Portable products. The integrated electronics of the **JouleBox** take care of the health management of each cell's capacity to ensure a long life of the storage system. The electronics also protect against short circuit, overload, and overusage. A state of charge indicator provides information about the energy content in the **JouleBox** and an Audible alarm warns the user when **JouleBox** is 10% and 5% away from automatic cut-off when energy is depleted.



## Energy

Energy Content	580 kj
Energy Available for usage	500 kj

## Lifetime Energy Supply Capacity

@ 1 hour discharge rate	150.000 kj
@ 2 hour discharge rate	300.000 kj
@ 4 hour discharge rate	450.000 kj
@ 8 hour discharge rate	600.000 kj

## Charging details

Max Charging Capacity (per hour)	400 kj/h
Max Charging Capacity (per second)	110 J/s (W)
Max Charge Current	8 A

## Discharging details

Max Discharging Capacity (per hour)	250 kj/h
Max Discharging Capacity (per second)	70 J/s (W)
Max Discharging Current	5 A
Output Voltage Range	12-16 VDC

## Input / Output Ports

Charging input port (5.5-2.0mm socket)	2 pcs
Load Output port (4.0-1.6mm socket)	2 pcs
USB output socket 5V, 2A	2 pcs
JouleStick Charging Dock 5V, 1A	2 pcs

## Product Dimensions

Length	146 cm
Width	80 cm
Height	101 cm
Mass	1.250 gr

## Protections

Protection on Inputs	Over Voltage Cut-off Over current Protection Reverse Polarity protection Reverse current protection Voltage surge protection
----------------------	--

Protection on 12-16 V Outputs	Under Voltage Cut-off Over Load Protection Short Circuit Protection Reverse current protection
-------------------------------	---

Protection on USB Outputs	Over Load Protection Short Circuit Protection
---------------------------	--

## Others

Electronic Master On/Off Switch	Yes
State of Charge Indicator by green LED (activated upon switch press)	5 Blinks = 100% 4 Blinks = 80% 3 Blinks = 60% 2 Blinks = 40% 1 Blink = 20%
Audible Alarm	at 10% before Low Voltage cut off at 5% before Low Voltage cut off
Low Voltage Cut-Off indicator	by Red LED

## Mechanical Dimensions

