



Electronic Design & Research Co. Inc.

Diversification is our name

7331 Intermodal Dr. *** Louisville *** KY *** 40258

(502) 933-8660

(502) 933-3422 fax

Web Site: <http://www.vsholding.com>

NEW RELEASE

The first 1.5W, 3W and 6W iUPS-DC/DC with isolated converters and internal Lithium-Ion batteries for the most demanding bio-medical and industrial applications

The EDR/Vsholding' iUPS-DC/DC converter provides a complete solution for bio-medical and industrial needs for protecting vital data gathering in cases of power failure and surge protection. The iUPS is designed to deliver up to 1.5W, 3W or 6W at all industrial standard output voltages to any peripheral device. It is a general purpose wide input DC/DC converter with remote control. An internal precision fast charger with temperature compensation maintains the internal Lithium-Ion batteries fully charged to provide a truly uninterrupted and regulated DC output(s) despite large input voltage and load variations. Input and output protection is provided by electronic current limiting.

STANDARD RATINGS for iUPS-X YY W

Single Output - replace X with 1		Dual Output - replace X with 2	
Output Volts (YY)	Output Current/Power (W = 1 or 3 or 6)	Output Volts (YY)	Output Power/Current (W = 1 or 3 or 6)
5 V (YY = 05)	1.5W/.3A; 3W/.6A; 6W/1.2A	+/- 12 V	1.5W/.062A; 3W/.125A; 6W/.25A
12V (YY = 12)	1.5W/.1A; 3W/.25A; 6W/.5A	+/- 15 V	1.5W/.050A; 3W/.1A; 6W/.2A
15 V (YY = 15)	1.5W/.1A; 3W/.20A; 6W/.4A	Any V by order	Any W by order
24 V (YY = 24)	1.5W/.0625 A; 3W/.125A; 6W/.25A		

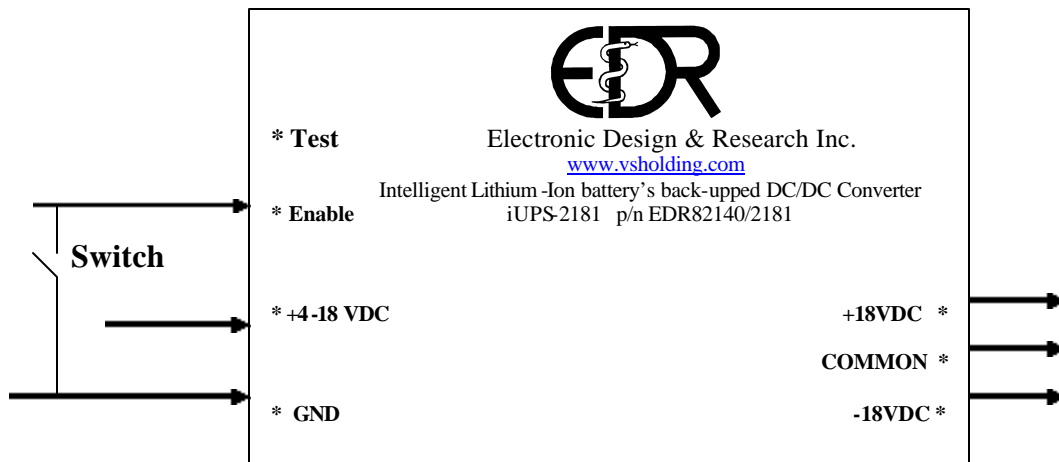
- For proper charging of the internal battery the input voltage should be anywhere from 8 VDC to 16 VDC. The DC/DC converter will continue to function until the voltage drops below 4.5VDC. Simple external circuitry can be added to enable an internal battery to provide power to the DC/DC converter only if the input voltage drops below 4.5V.
- Remote control ON/OFF is a logical input. When nothing is connected to the terminal it measures about 7VDC. If there is no remote operation would require than the control terminal must be connected to a "GND" pin for continues operation.
- The operational time of an internal battery depends on the output power consumption. There are two 1.1Ah Lithium-Ion batteries in series inside of each module. A 1.5W, 3W and 6W DC/DC converter consumes 45mA, 56mA and 68mA respectfully at no load.. That means a 1.5W the module would run up to 30 hours without any additional charge.
- The output test pin allows monitoring the condition of the internal batteries. Two batteries in series hold at 7.2V. If the voltage drops below 5.8V that would be an indication of a potential problem. The batteries guarantee for at least 500 charging cycles.
- Please call for any other power requirements.

Ordering Example:

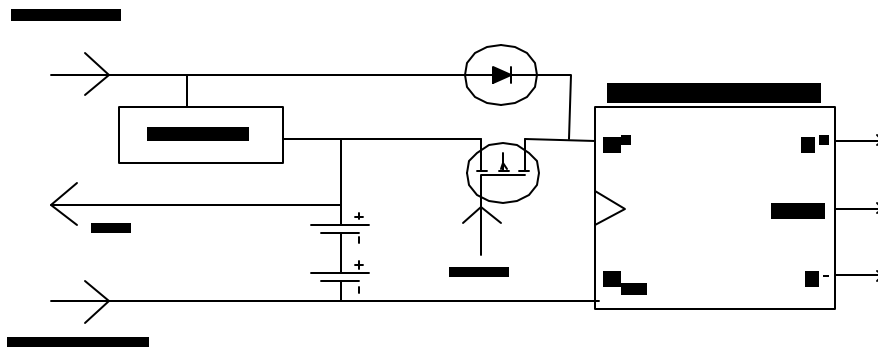
P/N **iUPS-2153 (EDR82140)**

This is a +/- 12 VDC, 3W iUPS-DC/DC converter with an internal Lithium-Ion battery.

Pins assignment (top view)



Simplified block-diagram of the iUPS



The iUPS represents the unique designed which allows providing of up to 6W uninterrupted, isolated power either from the internal Lithium-Ion battery or an external power supply. The charge uses a flexible pulse-width modulation, two-phase fast-charging algorithm to control voltage and current during charging. The switch-mode design minimizes power dissipation. The charger starts a full charging cycle when at least 9.5VDC is applied. Thou an internal voltage converter (DC/DC converter) start delivering an output voltage since 4.5 VDC. The enable terminal must connect to the GND (Power Supply return) to enable the internal battery supply power to the converter. The batter starts providing power to converter when the enable grounded and the power supply voltage is a lower than the battery's voltage.

Two of 1100mAh, 3.6V Lithium-Ion battery provides in total 7.2V, 1.1A power to the internal converter insuring a long (depending on an output power) uninterrupted output voltage.