

## Features

- Up to 150 W nominal output power, 18 W/in<sup>3</sup>
- Extreme case operating temp. range for request up to -50° ... +85° C
- Efficiency up to 93 %
- 110x61x21 (mm) metal case
- Input ranges:  
115
- One or two galvanically isolated outputs
- Ability to achieve increased output voltage via serial connection of outputs



## Description

**JETA150-LP** are the series of isolated AC/DC power supplies meant to work under both heavy electrical and environmental conditions. Output power is **up to 150 Watts**, power density is up to **18 W/in<sup>3</sup>**. The units offer you flexibility of wide input and temperature ranges of **-40° to +85° C**. The units feature a system of over-current protection and over-voltage protection. Its versatility allows you to implement the converter in a vast number of industrial applications, supplying capacitive, constant-power and impulse load. Application fields: low-high altitude, land transport, supercomputers, mining, equipment in high and low temperature regions, digital signage equipment, APAR radars and others - where there are needed low-profile, low weight and high efficiency.

Custom 150 W model					
One channel 150 W model	Input voltage range**	Power max.	Output voltage nom.***	Output current max.	Efficiency typ.
<b>JETA150-115S27-SCN-LP-A2</b>	<b>81-138 VAC or DC equiv.</b>	<b>150 W</b>	<b>28 V</b>	<b>5.4 A</b>	<b>91 %</b>

Custom parameters compared to base model	
Input voltage range	<b>81-138 VAC</b>
Input voltage frequency	<b>400 Hz</b>
Output voltage	<b>28 VDC</b>
Input connector type	<b>blade-type terminal</b>

## General specifications

Switching frequency		200 kHz typ. (PWM modulation)
Temperature ranges	operating case temp.	−40° C to +85° C (Standard "N" range)
	storage temp.	−60° C to +85° C
Over-temperature protection		+90° C typ.
Thermal mode and cooling method		conductive via heatsink or natural convection (consult with the producer first)
Thermal resistance	case-environment	4.8 K/W
Humidity (non-condensing)		5-95 % rel. H
Insulation	input/case	1500 VAC
	input/output	3000 VAC
	output/case	500 VAC
	output/output	500 VDC
Isolating resistance @ 500 VDC		>20 MOhm
Thermal shock, mechanical shock & vibration		MIL-STD-810F
Safety standards		IEC/EN 60950-1
Typical MTBF	$P_{out} = 0.7 \cdot P_{out,max}$	50 000 hrs (Tcase = 50° C)
Weight (max)		220 g

## Input specifications

Input voltage range (with power deration)	400 Hz	81-138 VAC
	accepted DC	114-194 VDC
Start-up input voltage		< 80 VAC
EMC standard compliance*	CE MIL-STD-461F, CE EN 55022 - class A (class B with JETAF1 filter)	
Power Factor		>0,67

\* See product page for AC/DC filters at [www.aeps-group.com](http://www.aeps-group.com).

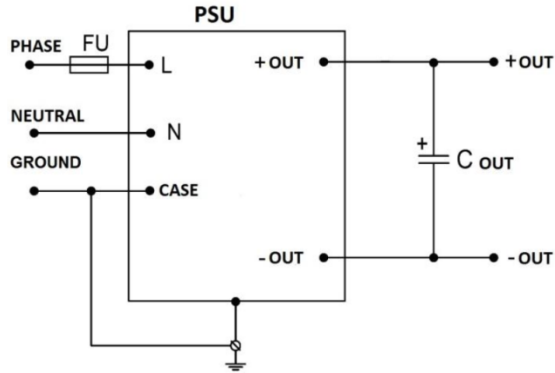
## Output specifications

Power deration based on input voltage	no deration	
Output voltage adjustment	range	<i>n.a.</i>
Output voltage regulation	input variance $U_{in,min}$ to $U_{in,max}$	±0.5 %
	load variance 10 % to 100 %	±2 %
Ripple and noise (peak-to-peak)	20 MHz bandwidth	<2 %
Protection	over-load	auto-reset at 110-140 % of $I_{out,nom}$
	over-voltage	<130 % $U_{out}$
Capacitive load (max)	12 VDC, 50% $P_{out,nom}$	typ. 20 000 µF
Minimum load	<i>not required</i>	
Remote Off	<i>n.a.</i>	

Please contact the tech. team at [aeps@aeps-group.cz](mailto:aeps@aeps-group.cz) for more information.

All specifications are valid for normal climatic conditions, nominal output voltage and current, unless otherwise stated.

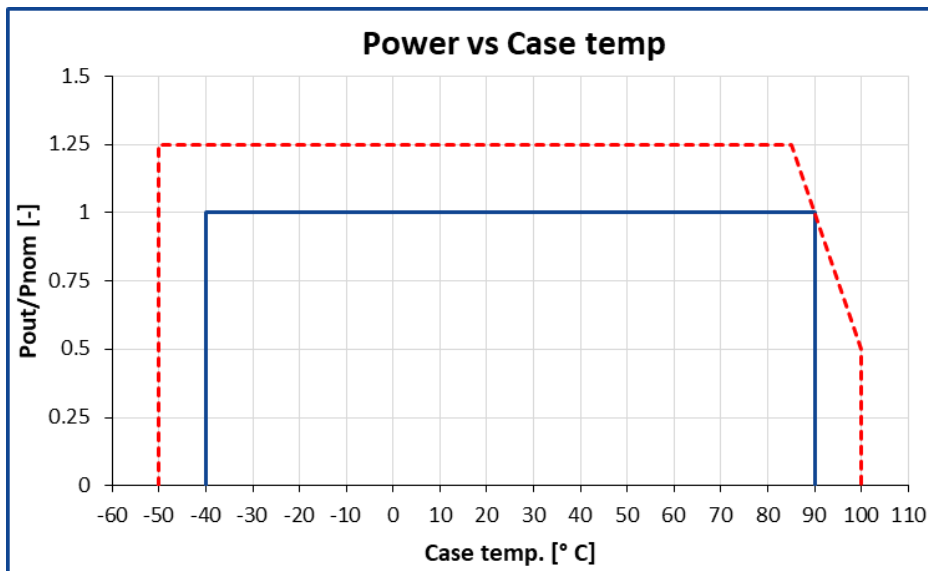
## Typical connection scheme (minimum required)



When using the units with typical connection scheme it's necessary to use certain type components.

C out values – please see point 5.6 in [Reference Technical Material](#).

## Max output power based on case temperature



—— Standard maximum power output based on case temperature.

- - - Possible range of output power for customized product.

Before operation, the product label on converter top side has to be removed.

The unit must be operated on a heatsink with thermal conductive paste applied between the unit surface and a heatsink for quality contact (with thickness less than 100  $\mu\text{m}$ , of minimal thermal resistance 2 W/K.m). Mesh stencil should be used to apply paste in a pattern of 2x2 mm to 4x4 mm squares mm with 0.5-1 mm spacing between the squares. This allows paste to be evenly spread in a thin layer and excess air to escape when tightening screws during unit mounting.

### Note:

The units have a short-circuit output protection, which is for emergency only, not for long-term operation. It's prohibited to use the units with reversed input voltage polarity or turn on the units with short-circuited outputs (the units have the special detectors inside).

If you have any questions please contact us directly at [aeps@aeps-group.cz](mailto:aeps@aeps-group.cz).

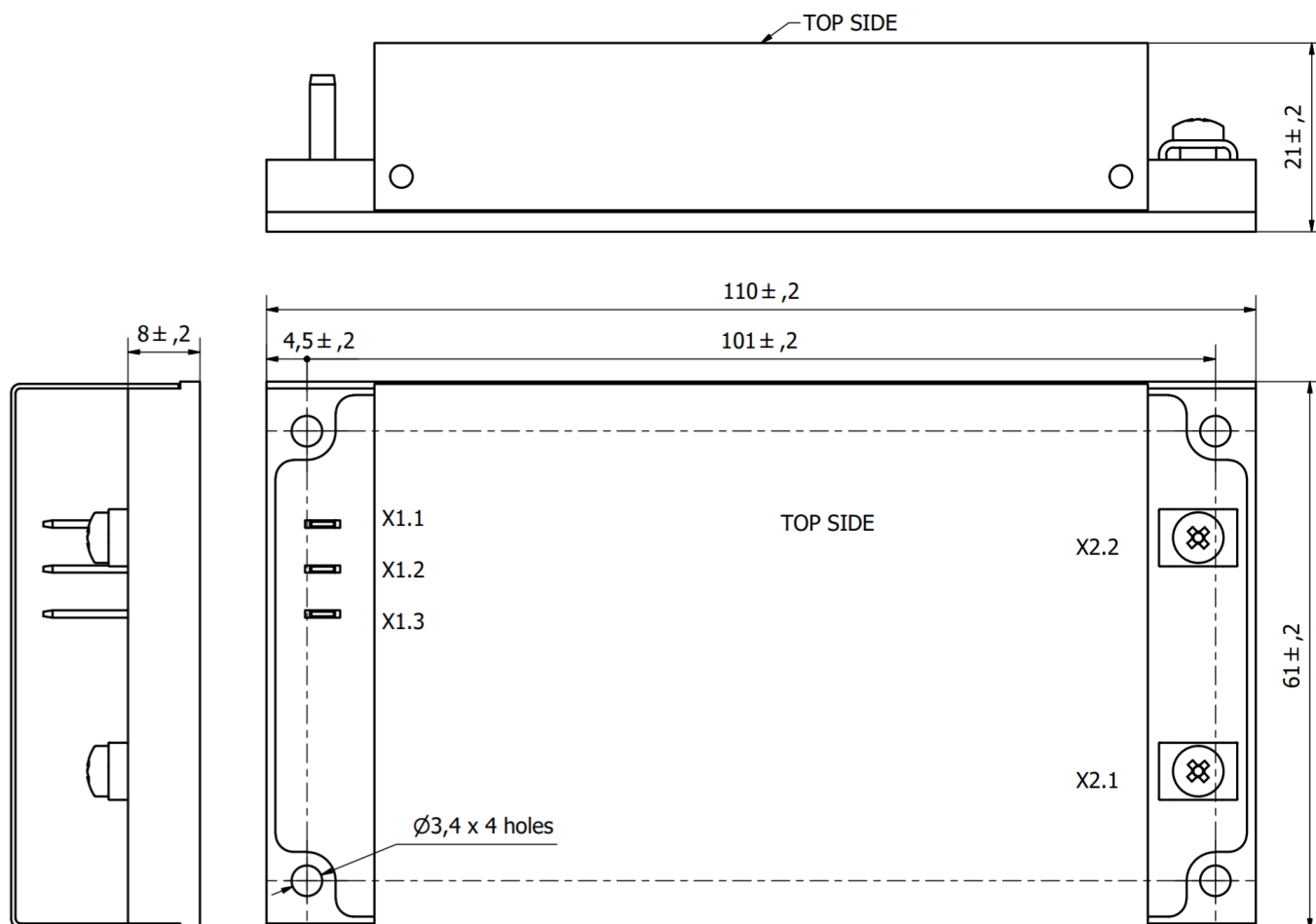
## Dimensions

Pin #	X1.1	X1.2	X1.3	X2.1	X2.2
Single out	GND	L	N	+OUT	-OUT

<b>X1</b>	<p>RATED WIRE SIZE  SOLID: max.: 3.3mm<sup>2</sup>  Stranded (flexible): max.: 3.3mm<sup>2</sup>  Stranded with Ferrule: max 3.3mm<sup>2</sup></p> <p><b>Connector type:</b> Blade Press-Fit Terminal  <b>Part Number:</b> Autosplice 7-V5006-015TT</p>
<b>X2</b>	<p>Screw size: 6-32 x 1/4L  Recommended torque: 0.5Nm  Recommended: Use ring terminal, for example  MOLEX 19323-0007, MOLEX 19324-0007</p> <p><u>OR same spec as X1 for Dual Models</u></p>

Dimensions in millimeters

### Single Output



## Additional information

Please, note that all information in this material is for reference only. Further detailed information (including: additional requirements, manuals and circuit schemes) is found at [www.aeps-group.com](http://www.aeps-group.com) or provided via an email request at [aeps@aeps-group.cz](mailto:aeps@aeps-group.cz). All pictures shown are for illustration purpose only, actual product appearance may vary, incl. inner components choice and placement and connectors placement.

According to company's policy in view of constant improvements of the production design the manufacturer reserves the right to change the contents of specifications and promotional materials without prior notice! Make sure you are using the latest documentation downloadable at [www.aeps-group.com](http://www.aeps-group.com).

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