

ALL PSU DATA SHEET.

50 Watt Encapsulated DC/DC-converter SI50W1

- Output power 50W max.
 - Input/output galvanically isolated
 - π -filtering at input
 - Overload and overtemperature protected
 - Copper case
 - For high ambient temperatures (125°C) and long life
 - Wide input range
 - According to EN 50155 For Railway Applications.
- PCB Or Chassis Mounting Options.
PCB Pin Or Faston Connections

Standard Models (Other Input / Output Versions Available)

Input Range	According to EN50155 For Rail Applications			
Input Order Code	2	4	5	7
Input Voltage DC	12V (9~18)	24V (18~36)	48V (36~60)	110V (83~130)
Output	Isolated			
Output Power Rating	Max. 50 W			
Output Order Code	1	2	3	4
Output Voltage (Standard Options)	5V	12V	15V	24V
Output Current	8A	4A	3A	2,1A
Accuracy	Typ.1%			

Output Limit With 12V input voltage max. 75% output power

Specification

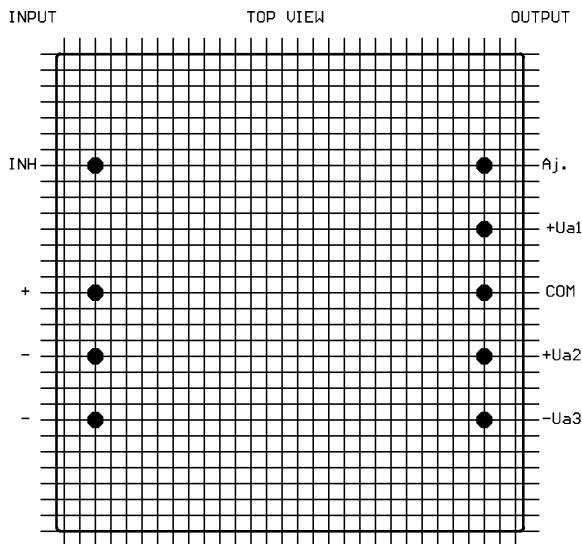
(after warm-up-time at 25°C)

- Output Voltage Accuracy At 50% Load	typ. 1%
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- Regulation	
- Load Variation 10-90% static	typ. 0,4%(max.1,0%)
- Input Voltage Variation	typ. 0,5%(max.2,0 %)
- Recovery Time	100 μ s (max. 500 μ s)
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- Efficiency At Full Load & Nominal Input	
Input / Output 24 Volts	typ. 89%
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- Reflected Output Ripple	1% pp.max.
- Input Ripple	1% pp max.
- Storage Temperature Range	-40°C...+125°C
- Operating Temperature	-40°C...+125°C
- Derating Above 85°C	2,5% / °C
- Temperature Coefficient	0,01 %°K
- Humidity	100 % RH
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- Switching Frequency	ca./approx. 150kHz
- Isolation Input / Output	1000 VDC / 1 min.
- Isolation Capacity Input / Output	typ.100 pF *

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- Output Adjustment Range	-20% - +5%
- Output Short-Circuit Protected	By Switch Off
- Overvoltage Protection	Standard
- For 5V Output	- ca./approx. 6
- For 12V Output	- ca./approx. 16V
- For 15V Output	- ca./approx. 19V
- For 24V Output	- ca./approx. 27V
- Environmental Protection Rating	- IP68

Pin-Out



PCB Mount Version Shown.

Example Part Number
SI50W 1 - 4 2

Unit type
Number of outputs (1)
Input voltage (24V)
Output voltage (12V)

Dimension:

76mm x 76mm x 17,3mm

Additional Mounting Plate Option Available.

Pin Diameter approx.: 1,3mm

Faston Connector Option Available.

Connections :

INH - Inhibit Open = On, Link to Input -VE to Inhibit

Aj = Output Adjust, Link Pot across from Output to Com
With centre connection to Aj pin, (typ 1-5K pot)

+Ua1 = Output 1 +Ve

+Ua2 & -Ua3 ~ For Single output versions pins are present but
not electrically connected.

Notes

Other input/output voltages or special modules on request.

Higher output currents on request.

Higher break down voltage (input/output) on request.

The units are available with earth-pin on request.

Subject to technical changes. E&OE.

*Further Power Supplies And DC-DC Converters Can Be Seen At
www.allpsu.co.uk*

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