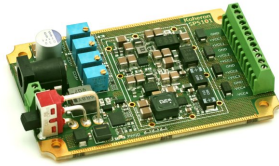


# Quad-channel adjustable power supply



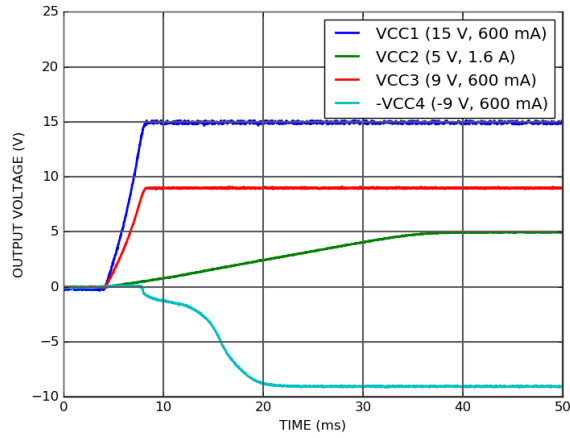
Koheron SPS101 is a 25 W power supply with 4 adjustable outputs (3 positive and 1 negative rails). It operates from a single 18 V to 33 V input supply. Integrated input and output EMI filters ensure low levels of ripple and radiated emissions (< 10 mVpp). The SPS101 allows powering different modules from a single power supply.

## Specifications

	SPS101	SPS101-HV
<b>9 V to 15 V output (+VCC1)</b>		
Maximum output current	600 mA	600 mA
Efficiency at 12 V / 0.6 A (24 V <sub>in</sub> )	92 %	92 %
Ripple and noise (20 MHz bandwidth, 12 V / 0.6 A)	8 mV <sub>pp</sub>	8 mV <sub>pp</sub>
Start up time to 15 V	5 ms	5 ms
Load regulation (9 V out.)	2 % max.	2 % max.
<b>3 V to 6 V output (+VCC2)</b>		
Maximum output current	1.6 A	
Efficiency at 6 V / 1.6 A (24 V <sub>in</sub> )	87 %	
Ripple and noise (20 MHz bandwidth, 5 V / 1.6 A)	8 mV <sub>pp</sub>	
Start up time to 5 V	35 ms	
Load regulation (3 V out.)	2 % max.	
<b>11 V to 20 V output (+VCC2)</b>		
Maximum output current		1 A
Efficiency at 15 V / 1 A (24 V <sub>in</sub> )		92 %
Ripple and noise (20 MHz bandwidth, 15 V / 1 A)		20 mV <sub>pp</sub>
Start up time to 20 V		35 ms
Load regulation (11 V out.)		1 % max.

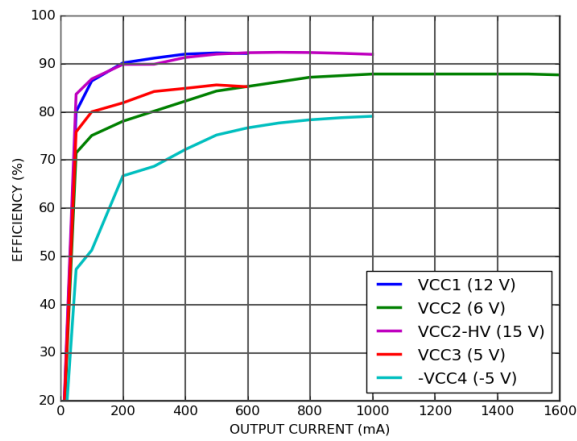
3 V to 9 V output (+VCC3)		
Maximum output current	600 mA	600 mA
Efficiency at 5 V / 0.6 A (24 Vin)	85 %	85 %
Ripple and noise (20 MHz bandwidth, 9 V / 0.6 A)	8 mV <sub>pp</sub>	8 mV <sub>pp</sub>
Start up time to 9 V	5 ms	5 ms
Load regulation (3 V out.)	3 % max.	3 % max.
-3 V to -9 V output (-VCC4)		
Maximum output current	1 A	1 A
Efficiency at -5 V / 1 A (24 Vin)	79 %	79 %
Ripple and noise (20 MHz bandwidth, -9 V / 0.6 A)	8 mV <sub>pp</sub>	8 mV <sub>pp</sub>
Start up time to -9 V	14 ms	14 ms
Load regulation (-3 V out.)	4 % max.	4 % max.
Input supply		
Input voltage	18 - 33 V (nominal 24 V)	18 - 33 V (nominal 24 V)
Input connector	Jack (1.95 mm) or terminal block	Jack (1.95 mm) or terminal block
Input current limit	2.1 A	2.1 A
Input current no load (24 Vin, max. voltage on each output)	3 mA	3 mA
Surge voltage (10 s max.)	50 V max.	50 V max.
Start up voltage	17.8 V max.	17.8 V max.
Undervoltage lock-out	16.5 V typ.	16.5 V typ.
Overvoltage lock-out	35 V typ.	35 V typ.
Other		
Maximum output power	25 W	25 W
Outside Dimensions	79 mm x 50 mm x 15 mm	79 mm x 50 mm x 15 mm
Weight	40 g	40 g
Operating temperature	0 - 50 °C	0 - 50 °C
Temperature coefficient	200 ppm/°C	200 ppm/°C

## Startup

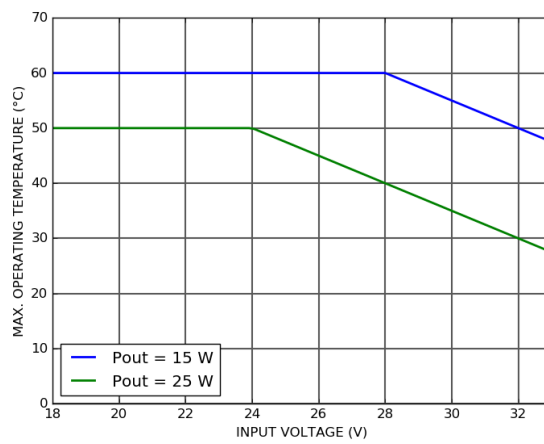


## Conversion efficiencies

Input voltage 24 V.



## Maximum operating temperature



This rating was obtained using the following loads:

- 15 W: VCC1 10 V / 400 mA, VCC2 5 V / 1.0 A, VCC3 8 V / 400 mA, VCC4 -6 V / -600 mA.
- 25 W: VCC1 12 V / 600 mA, VCC2 5 V / 1.6 A, VCC3 6 V / 600 mA, VCC4 -9 V / -900 mA.

## Ordering codes

- SPS101: +VCC2 3 V - 6 V
- SPS101-HV: +VCC2 11 V - 20 V