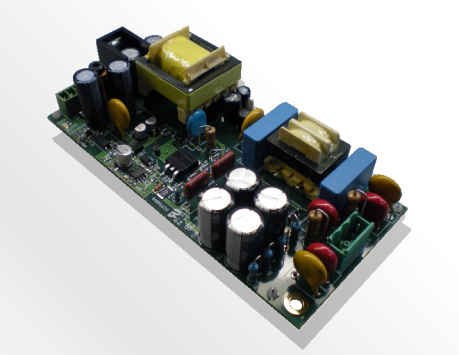
SCPS6006

25 W Quad Output Switching Power Supply

PRELIMINARY TECHNICAL INFORMATION

HIGHLIGHTS

- Up to 480 V_{AC} mains voltage supply.
- Rated output power 25 W.
- Low ripple and output noise.
- Rated output voltages 5 V_{DC} and ±15 V_{DC}.
- Auxiliary 15 V_{DC} isolated output.
- 4000 V_{AC} isolation.



non-contractual photo

OVERVIEW

SCPS6006 is a very rugged, robust and reliable OEM switched mode power supply in open chassis presentation that offers a stable supply working in a very wide input voltage and a great isolation between mains and output (> 4000 V_{AC}).
It has as primary rated outputs: 5 V_{DC} for supply TTL devices and ±15 V_{DC}. Additionally it has an isolated 15 V_{DC} auxiliary output.
Easy to mount or integrate in your designs. Neat an easy connection by using an standard screw plug for AC mains and secondary output.
Initially designed to be the SC6006 power supply it is also suitable to work as power supply for any of our SCRs firing boards or with any application which needs to be adapted to a very changing input mains voltage.

TECHNICAL ESPECIFICATIONS

Description	*Symbol*	*Notes / Test conditions*	*Min*	*Typ*	*Max*	*Units*
Line voltage	V_{IN}	*±10%*	195	230	480	V_{RMS}
			275		678	V_{DC}
Frequency range	f_w		47		63	Hz
Power output	P_{out}			25		W
Typical input current		*Full load @ 230$V_{AC\ IN}$*		200		mA
		Full load @ 400 $V_{AC\ IN}$		130		mA
Inrush current limiting		*@ 230$V_{AC\ IN}$*		11.5		A
		@ 400 $V_{AC\ IN}$		20		A
Typical efficiency	η	*@ 230$V_{AC\ IN}$, full load*		72%		
Isolation between mains and output		*@ 1min*		4000		V_{RMS}
Isolation between secondaries		*@ 1min*		4000		V_{RMS}
Minimum start up load		*@ V1*		100		mA
Minimum sustaining load		*@ V1*		25		mA
Tolerance output voltage		*V1, V2*			± 1%	
Charge regulation		*V1, no charge to full charge*		± 0.5%		
Mains regulation				± 0.2%		
Starting time after applying the supply voltage		Ir			1.5	s
		w ith 3500uF			2	s

Data at T_a = 25 °C, V_{IN} = 230 V_{AC} and rated values, unless otherwise indicated

CONFORMALS

Conformal coating	MIL-1-46058, Type UR
Security	EN60950-1, UL60950-1

130301 Rev:0

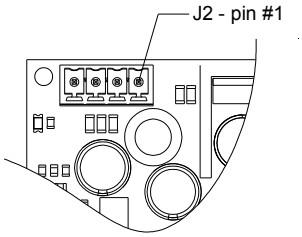
EMC DIRECTIVE

This switched mode power supply is intended to work as part of an industrial fixed installation and is not for itself a functional unit destined to an end user. According 2004/108/CE directive, CE marking for this device not apply.

OUTPUTS

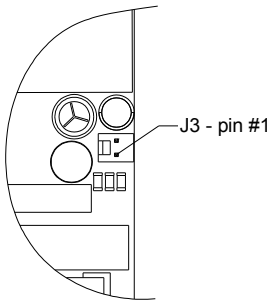
Description	Symbol	Notes / Test conditions	Min	Typ	Max	Units
V1 Output voltage	V_1			15		V
V1 Output current	I_{nom1}			1200		mA
V2 Output voltage	V_2			5		V
V2 Output current	I_{nom4}			500		mA
V3 Output voltage	V_3			-15		V
V3 Output current	I_{nom4}			120		mA
V4 Output voltage	V_4			15		V
V4 Output current	I_{nom4}			120		mA

CONNECTORS PINOUT



J2 – MAIN OUTPUTS CONNECTOR

pin	designation	description
1	V3	-15 V_{DC}
2	GND	Ground
3	V2	5 V_{DC}
4	V1	15 V_{DC}



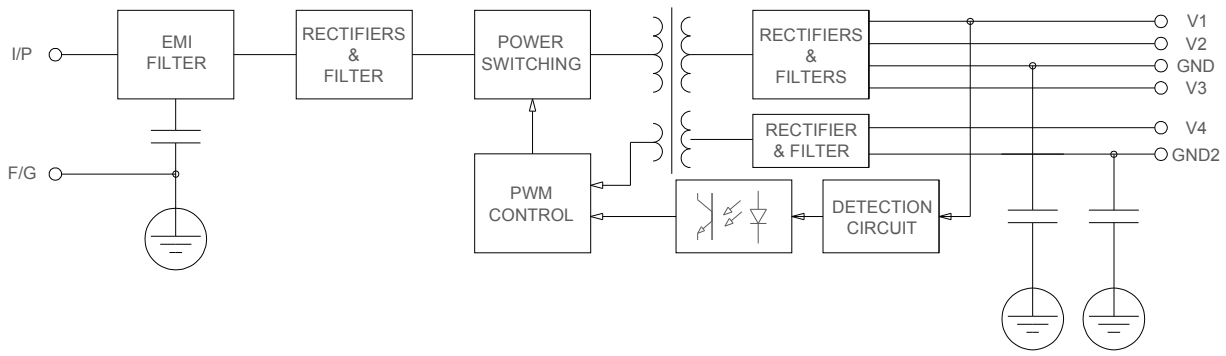
J3 – AUXILIAR OUTPUT CONNECTOR

pin	designation	description
1	V4	-15 V_{DC}
2	GND2	GND2

Connector J1: type MSTBV, PHOENIX CONTACT 1936021
Connector J2: type MCV, PHOENIX CONTACT 1803442
Connector J3: type KK, MOLEX 22-27-2021

All mating housings and terminals are included as a mounting kit.

BLOCK DIAGRAM



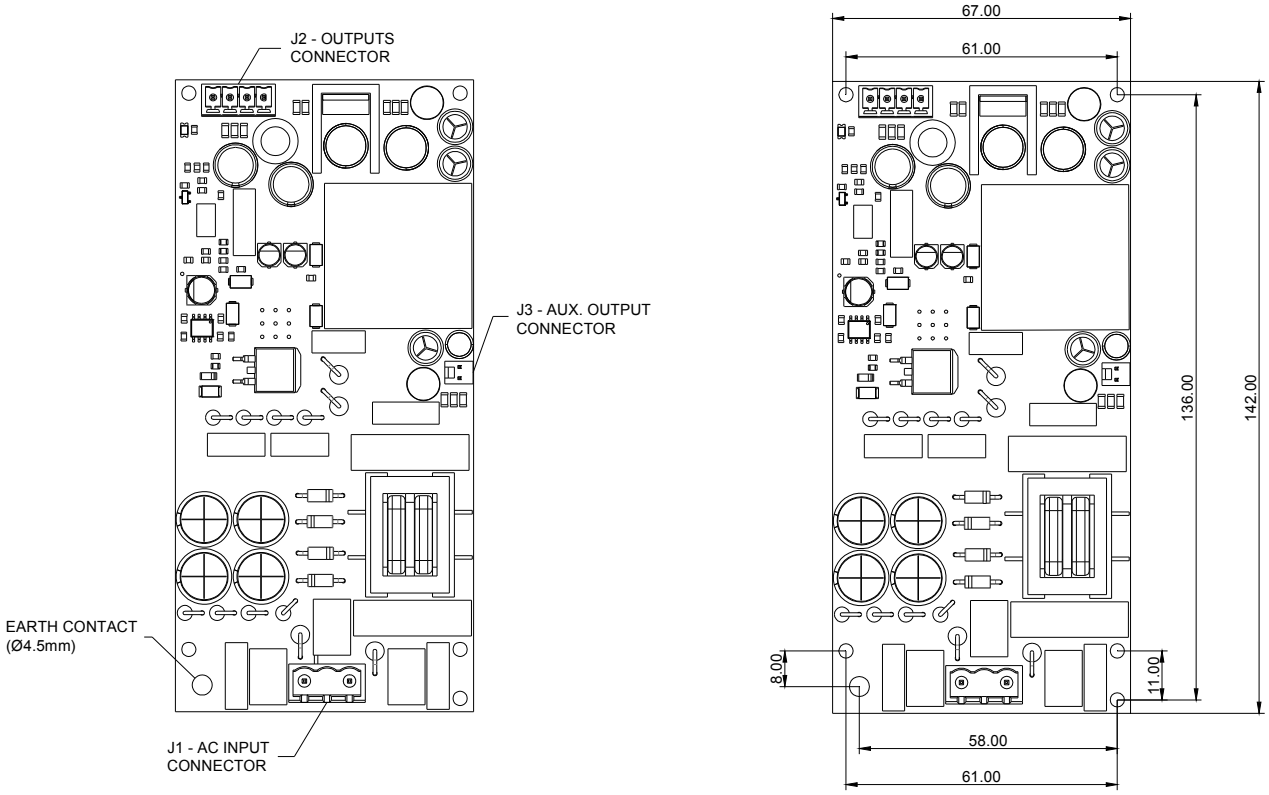
130301 Rev:0

ENVIRONMENTAL CHARACTERISTICS

Description	*Temperature*	*Relative Humidity*
Storage	-15ºC to +50ºC	70%
Operating	-15ºC to +50ºC >50 to 70ºC 50% load	70%

MECHANICAL CHARACTERISTICS

Description	*Notes / Test conditions*		*Units*
Board		62 x 142 x 27	mm
Fixations	*fixation holes diameter*	3	mm
Weight (aprox)		155	gr



All dimensions in mm.

130301 Rev.:0

Cost Effective Products

SEMICODE ELECTRONICA

Offers to the market a comprehensive range of products from recognized manufacturers at the best price/quality ratio, this products are provided with a basic reference code that allows maintaining the same product reference even if the original device manufacturer is replaced. SEMICODE product reference has to be considered as a generic brand.

Seeking the market needs and trends, we are constantly increasing the product portfolio with new products and suppliers, please ask for the updated information available to our local contacts.

SEMICODE products include semiconductors, passive components and accessories focused in power electronics market.

Datasheet Annotations:

SEMICODE ELECTRONICA annotate datasheets in the top left hard corner of the front page, to indicate product status. The annotations are as follows:
Tentative information: This is the most tentative form of information and represents a very preliminary specification. No actual design work on the product has been started.
Preliminary Information: The product is in design and development. The datasheet represents the product as it is understood but details may change.
Advance Information: The product design is complete and final characterisation for volume production is well in hand.
No Annotation: The product parameters are fixed and the product is available to datasheet specification.