

OSW00301

Low Ripple

Made in Germany

30 Watts Power Supply -20...+70°C
85..265Vac Input Voltage

Short Specification:

- Screw terminal plugs & Molex-plugs
- High efficiency up to 86%
- Continuous short circuit protected
- Overload & low voltage protected
- Soft start & auto-recovery
- Minimum load = 0A
- Hold up time >40ms
- Galvanic insulated
- Sense mode for 3.3V and 5V
- Free air convection
- Series operation mode
- Parallel operation mode
- EMI/EMS EN61000-6-2,3, EN55022 class
- PFC : EN61000-3-2 class A
- Safety : cUL60950/16950 IEC(EN)60950-1
- Power LED
- Low ripple/noise , smart start-up with critical loads 24 hours burn in test

Applications:

- critical loads like LED, thermal element & dc drive
- Audio applications very low ripple & noise
- Sensitive test equipment
- Mini DC-UPS



Models: 5V, 9V, 12V, 15V, 18V, 24V, 48V, 60V

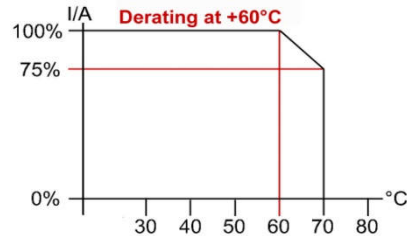


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(Subject to alterations. This product is not designed to be used in applications such as life support systems wherein a failure or malfunction could result in injury or death)

AC-Input	85...265Vac , 47...63Hz , 110...375Vdc							
Input Rating	100...240Vac , 115Vac <0.8A 230Vac <0.3A							
Rated DC-Voltage	5V	9V	12V	15V	24V	48V	60V	
Rated DC-Current	5A	3.3A	2.5A	2A	1.3A	0.6A	0.5A	
Ripple 20MHz 230Vac	15mV	15mV	10mV	10mV	50mV	100mV	100mV	
DC adj. range	4,9-5,25V	8,5-9,9V	11,4-13,6V	14,2-22,5V	23,5-28,5V	45,6-53V	57-66V	
Order Code	OSW00301.(volt) example: OSW00301.12							

Factory Adjust. Tolerance Uout	± 1%
Load regulation	< ± 0.5% 10-100%, 100-10%
Switching Frequency	70KHz typical
Basic Load	0 A
Efficiency	Up to 86%
Load Protection	1,2x I _{rated} , auto recovery
Voltage Protection	140% of U _{out} , auto recovery
Short Circuit Protection	Continuous
Temperature Control	Not available
Hold Up Time	> 40ms 230Vac with full load
Inrush Current	< 17A (230Vac)
Softstart	30ms typ.
Cooling	Free air convection
Ambient Temperature	- 20°C ...+70°C
Storage Temperature	- 40°C ...+85°C
EMI	EN55022 class B / EN61000-3-2
EMS	EN61000-6-2,3
Safety	EN60950-1, EN60204-1
Safety class 1(A)	VDE0805, VDE0100
Air & Surface Leakage Paths	> 8mm
Input to Output Isolation	IP-OP: 3kVac IP-GND:2kVac OP-GND:0.5kVac
MTBF EN61209	300000h
MTTF EN61209.SN29500	125433h @ 40°C 24/7 85% load
Clima/Dirt/Hight/Humidity	3k3, KI.2, 3000m NN, 90% hum.
ROHS conformity	ROHS Directive 2011/65/EU
REACH conformity	REACH Directive 1907/2006
Dimensions (HxWxD)	28.5x62x96.5mm
Weight	145g
Connectors	Terminal plug AWG26...AWG12
SK1 & SK2 not included	



Terminal Connects:

SK1
1 = L
2 = N

Sk2
1 = Sense - (5V only)
2 = DC -
3 = DC +

Screw terminal order

codes for SK1 & SK2:
(each package = 10 pcs)

Art.No. SK1: 3520054

(2 pins for AC-input)

Art.No. SK2: 3520037

(3 pins for 1x DC-out)

Conception

The OSW power supply series realizes very high power efficiency in a space-saving housing. This design enables Green Power applications and allows free air convection. Latest generation electrical devices relate to the high reliability of all Camtec products. The Camtec philosophy is, to employ low ESR ultra long life capacitors where expedient to achieve a superior lifetime of our products. The used screw terminals allow easy to wire and smooth service. The units perform low ripple & noise. It makes them applicable for sensitive MSR and for Audio systems.

Sense operation

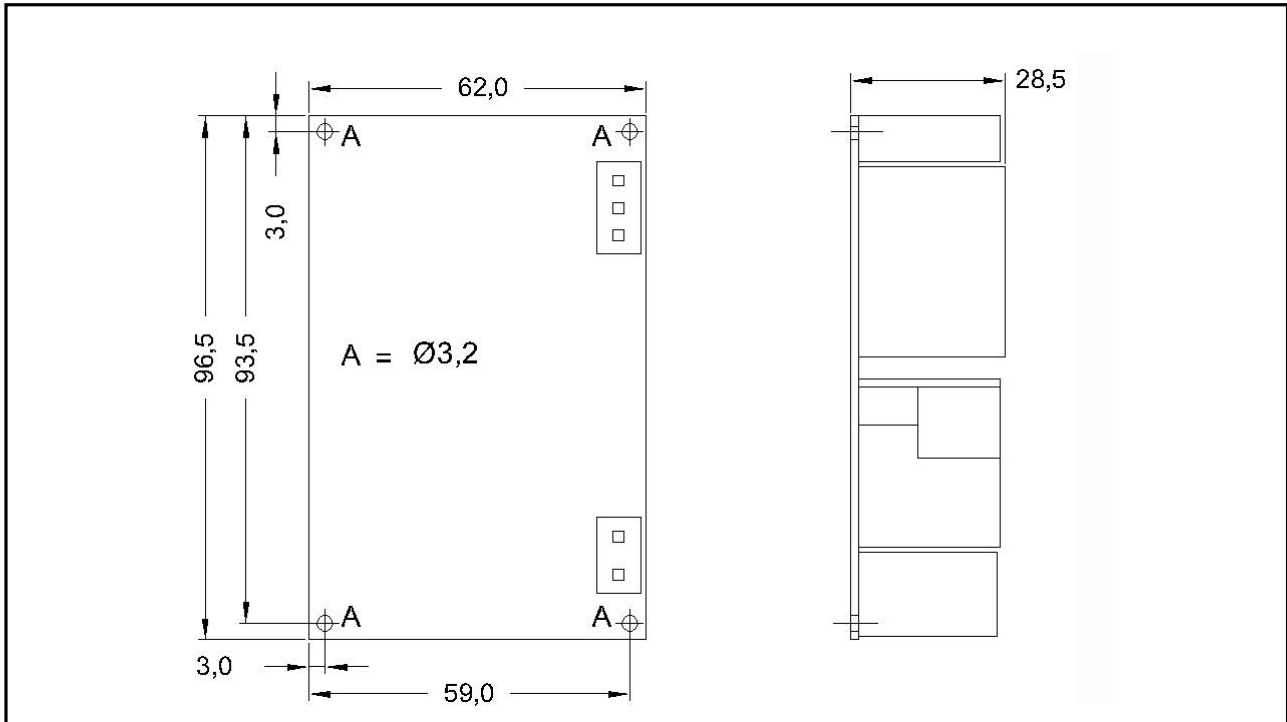
The OSW00751.05 provides sense connections to compensate a voltage drop over the load lines. The maximum compensation is 200mV. Be aware that this operation mode may recommend extended preparations concerning interference elimination or other protections. We recommend to use the sense wires twisted. Make sure that the polarization is correct to avoid damages to the power supply. All other OSW00751 models have no sense connection.

Parallel und series operation

Camtec power supplies of the same model and the same output voltage can be either used parallel or in series. The assembling of external parts is usually not recommended. Make sure that the output voltage of each connected unit is ±1% equal. We recommend connecting the DC-outputs to a neutral point or a power bar. Follow the safety norms of dangerous dc-voltages.

UI-Chart, overload and temperature control characteristic

The OSW models base on a typical resonance converter. The converter is ideal for complex loads and DC-drives. Consciously we resigned an excessive power boost that mostly occurs in less exact working control circuits. The advantage is, that the power supply delivers its energy always controlled and constant to the load. Even with a faulty operation of the power supply the loads never expose to high risk.



Safety Instructions: Please read all warnings and advices carefully before installing or operating the power supply. Retain this operation manual always ready to hand. The device must be installed by specialist staff only.

Installation:

- 1.) The device is designed for systems fulfilling the safety norms of dangerous voltages/energy and fire prevention
- 2.) Installation is restricted to specialists only, make sure that the AC wire system is free of voltage
- 3.) Opening the unit, making any modifications to it, dismounting any screws from it, operating the HPW out of specification and/or using it in appropriate area will inevitably result in losing manufacturer's guarantee; we decline taking any responsibility for risk of damages caused to someone's health or to any installed system.
- 4.) Attention: The power supply has an internal input fuse. It is necessary to wire an automatic circuit breaker (MCB) to the line. We suggest to use a 8A-type with B-characteristic. Do not operate the power supply without protective earth wired. It is essential to install a line switch before the device.

Warnings:

Disregard these warnings can cause fire, electric shock, serious accident and death.

1. **Never operate the device without Protective Earth Conductor**
2. **Before connecting the unit to the AC wire system make all wires free of voltage and assure accidentally switch on**
3. **Allow neat and professional cabling**
4. **Never open nor try to repair the power supply by yourself. Inside are dangerous voltages that can cause electric shock hazard.**
5. **Avoid metal pieces or other conductive material to fall into the device**
6. **Do not operate the unit under damp or wet conditions**
7. **Do not operate the unit under Ex conditions or in Ex-Area**



All parameters base on 15 minutes run-in @ full load / 25°C / 230Vac 50/60Hz, as otherwise stated.