

OSW00901

Low Ripple

Made in Germany

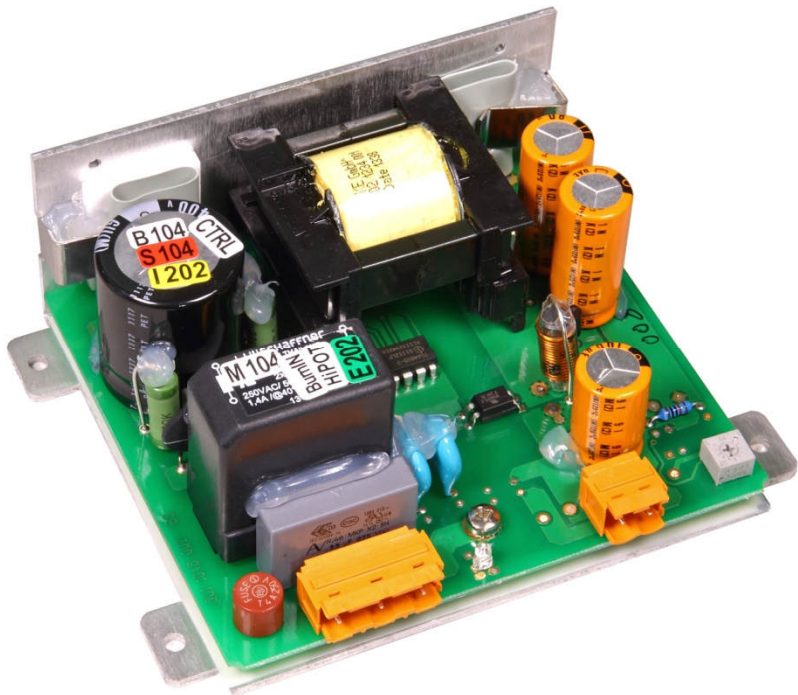
90 Watts Power Supply -20...+70°C
Baseplate Cooled Power
85..265Vac Input Voltage

Short Specification:

- Metal housing
- > 91% efficiency typical
- -20°C...+60°C full output power
- Natural convection
- Galvanic insulated
- Continuous short circuit protected
- Overload & low voltage protected
- Soft start & auto-recovery
- Hold up time >40ms
- Minimum load = 0A
- EMI/EMS EN61000-6-2,3, EN55022 class B
- PFC: EN61000-3-2 class A
- cUL60950/16950 IEC(EN)60950-1
- Series & parallel operation
- DIN Rail 35mm
- Screwing terminals AWG26...AWG12
- 24 hours burn in test
- High reliability, shock & vibration resistant

Applications:

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



Models: 24V, 36V, 48V, 60V, 72V, 140V

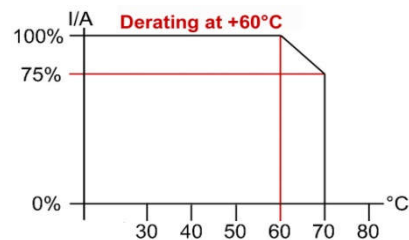


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P (Subject to alterations. This product is not designed to be used in applications such as life support systems wherein a failure or malfunction could result in injury or death)

| | | | | | | |
|---|--|------------|------------|------------|--------------|--------------|
| AC Input | 85...265Vac , 47...63Hz , 110...375Vdc | | | | | |
| AC Input Rating | 100...240Vac , 115Vac <1.9A 230Vac <0.9A | | | | | |
| Rated DC Voltage | 24V | 36V | 48V | 60V | 72V | 140V |
| Rated DC Current | 3.8A | 2.5A | 1.9A | 1.5A | 1.3A | 640mA |
| Power Boost ≤60 Seconds | 4.6A | 3.0A | 3.7A | 1.8A | 1.6A | 770mA |
| Ripple [mVpp] (230Vac/20MHz) | 50 | 60 | 60 | 100 | 120 | 120 |
| Output adj. Range [V] | 22,5..28,5 | 34,2..39,6 | 45,6..52,8 | 57,0..66,0 | 68,0...86,0V | 133,0..155,0 |
| Stability Load switch 0-100% | ± 0,1% | ± 0,1% | ± 0,1% | ± 0,1% | ± 0,3% | ± 0,5% |
| Options: coating finish on electronic circuits (Option C) | | | | | | |
| Order code: OSW00901.Vout+options Example: 24V with coating = OSW00901.24WC | | | | | | |

| | |
|-----------------------------|---|
| Tolerance | ± 1% |
| Load regulation | < ± 0.5% 10-100%, 100-10% |
| Minimum Load | 0 A |
| Efficiency | Up to 90% |
| Load Protection | 1,2x I _{rated} ,auto recovery |
| Voltage Protection | 140% of U _{out} , auto recovery |
| Short Circuit Protection | Continuous |
| Hold Up Time | > 40ms 230Vac |
| Inrush Current | < 32A (230Vac) |
| Soft start | 50ms typical |
| Cooling | Natural 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 IEC61709 | 400000h |
| MTTF EN61209, SN29500 | 140182h @ 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) | see drawing page 3 |
| Weight | 300g |
| Connectors | Terminal plug AWG26...AWG12 |
| SK1 & SK2 not included | |



Terminal Connects:

- SK1
- 1 = L
 - 2 = N
 - 3 = GND
- SK2
- 1 = sense +
 - 2 = sense -
 - 3 = DC +
 - 4 = DC -
 - 5 = n.c.
 - 6 = n.c.

Screw terminal order codes for SK1 & SK2: (each package = 10 pcs)
 Art.No. SK1: 3520038
 (3 pins for AC-input)
 Art.No. SK2: 3520037
 (2 pins for 1x DC-out)

Conception

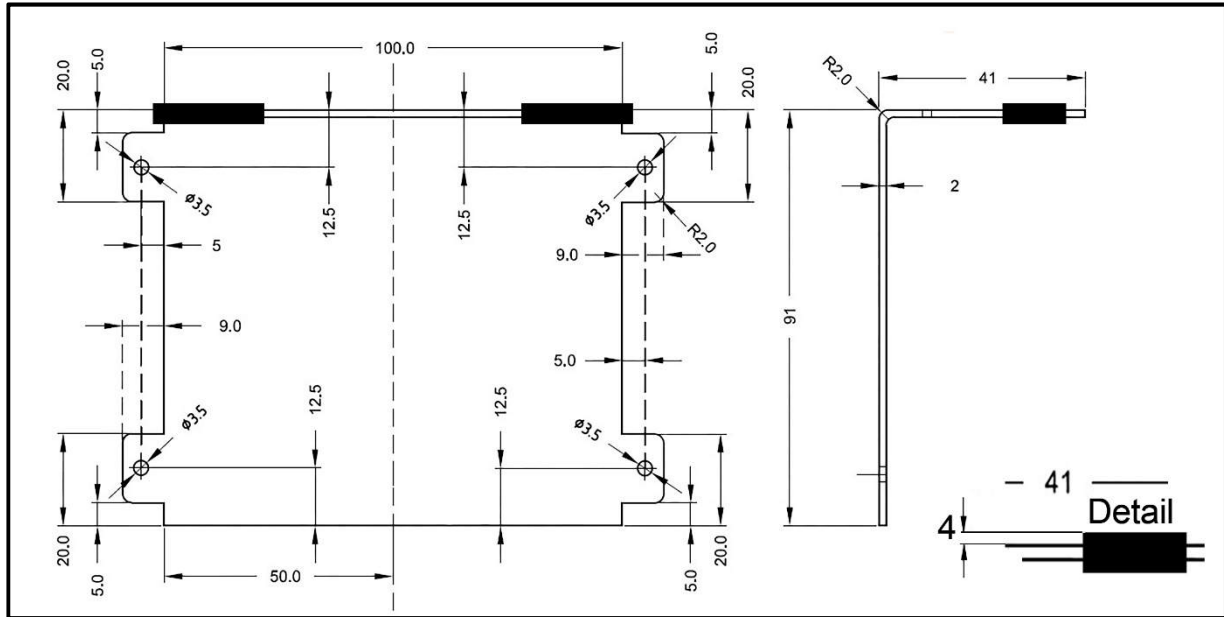
The OSW power supply series realizes very high power efficiency in a space-saving housing. This design enables Green Power applications and allows free air convection. Latest generation electrical devices relate to the high reliability of all Camtec products. The Camtec philosophy is, to employ 125°C 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.

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 loosing manufactureres guarantee; we decline taking any responsibility for risk of damages caused to someones health or to any installed system.
- 4.) Attention: The power supply has an internal input fuse. It is necessary to wire an automatic circuit braker (MCB) to the line. We suggest to use a 10A-type with B-characteristic. Do not operate the power supply without protective earth wired. It important to install a line in front of 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 accidently switch on
3. Allow neat and professional cabling
4. Never open nor try to repair the device by yourself. Inside are dangerous voltages that can cause electric shock hazard.
5. Avoid metal pieces or other conductive material to fall into the power supply
6. Do not operate the device under damp or wet conditions
7. Do not operate the device 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.