

# OSE01201

# Low Ripple

Made in Germany

**120 Watts Power Supply -20...+70°C**  
**Baseplate Cooled Power**  
**115/230Vac Input Voltage**

## Short Specification:

- Metal housing
- Up to 91% efficiency
- -20°C...+60°C full output power
- Free air convection
- Galvanic insulated
- Continuous short circuit protected
- Overload & low voltage protected
- Soft start & auto-recovery
- Hold up time >30ms
- Minimum load = 0A
- Switching frequency typ. 100KHz
- EMI/EMS EN61000-6-2,3, EN55022 class B
- PFC: EN61000-3-2 class A
- cUL60950/16950 IEC(EN)60950-1
- Series & parallel operation
- Open Frame
- Screw 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
- Small DC-UPS



**Models: 12V, 24V, 36V, 48V, 60V, 72V, 110V**



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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)

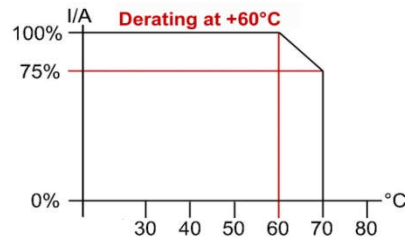
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|   |   |             |             |             |         |         |           |
|---|---|-------------|-------------|-------------|---------|---------|-----------|
| AC Input  | 85..132Vac / 184..265Vac , 47...63Hz , 110...375Vdc |             |             |             |         |         |           |
| AC Nominal Input  | 115Vac <2.2A 230Vac <1.1A                           |             |             |             |         |         |           |
| Nominal Voltage   | 12V   | 24V         | 36V         | 48V         | 60V     | 72V     | 110V      |
| Nominal Current   | 8.0A  | 5.0A        | 3.3A        | 2.5A        | 2.0A    | 1,7A    | 1,1A      |
| Adjust Range  | 11,4..13,2V   | 22,5..28,5V | 34,2..39,6V | 45,6..52,8V | 57..66V | 68..86V | 100..120V |
| Ripple 230Vac 20MHz                                       | 50mVpp  | 65mVpp      | 65mVpp      | 100mVpp     | 120mVpp | 120mVpp | 200mVpp   |
| Order code: OSE01201.(Volt)W Example: 24Vdc= OSE01201.24T |   |             |             |             |         |         |           |

|                                |  |
|--------------------------------|--|
| Factory Adjust. Tolerance Uout | ± 1%                                       |
| Load regulation                | < ± 0.5% 10-100%, 100-10%                  |
| Switching Frequency            | 100KHz typical                             |
| Basic Load                     | 0 A  |
| Efficiency                     | 91% typ.                                   |
| Load Protection                | 1,2x I <sub>rated</sub> ,auto recovery     |
| Voltage Protection             | 145% of U <sub>out</sub> , auto recovery   |
| Short Circuit Protection       | Continuous                                 |
| Temperature Control            | Upon request                               |
| Hold Up Time                   | > 30ms 230Vac                              |
| Inrush Current                 | < 16A (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 / Output Isolation       | IP-OP:4kVac IP-GND:2kVac<br>OP-GND:0.5kVac |
| MTBF EN61209                   | 600000h                                    |
| MTTF EN61209, SN29500          | 149600h @ 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                         | 510g                                       |
| Connectors                     | Terminal plug AWG26...AWG12                |
| SK1 & SK2 not included         |  |



#### Terminal Connects:

|     |  |
|-----|--|
| SK1 | 1 = L<br>2 = N<br>3 = GND  |
| SK2 | 1 = DC +<br>2 = DC +<br>3 = DC -<br>4 = DC -<br>5 = n.c.<br>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 2x DC-out)

#### Conception:

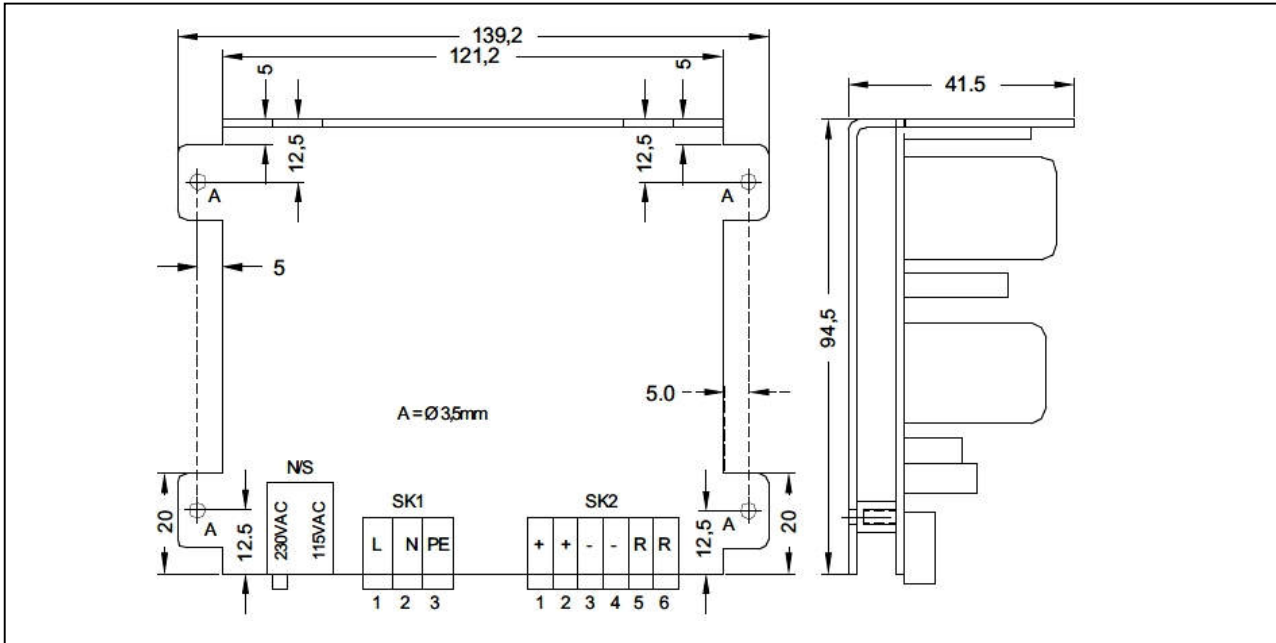
The OSE power supply series realizes very high power efficiency in a space-saving housing. This design enables Green Power applications and allows free air convection. Latest generation electrical devices relate to the high reliability of all Camtec products. The Camtec philosophy is, to employ 125°C 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 OSE models base on a typical resonance converter. The devices provide a good vertically C/V-chart with no fold. Thus the converter is ideal for complex loads, DC-drives and as a battery charger. 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, dismantling 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 wiring. 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.