

OSW00901

Open Frame

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 isolated
- 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

Smart start-up with critical loads:

- motor drives
- capacitive loads
- DC-DC-converters



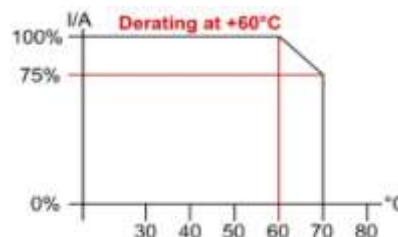
Single-Output: 24V, 36V, 48V, 60V, 72V, 140V



In accordance with IEC60950-1

AC Input	85...265Vac , 47...63Hz , 110...375Vdc					
AC Input Rating	100...240Vac , 115Vac <1.6A 230Vac <0.8A					
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+W+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)
Softstart	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	cUL60950/1950 , EN60950-1
Safety class 1(A)	VDE0805, VDE0100
Air & Surface Leakage Paths	> 8mm
Input/Output	Galvanic insulated 3000Vac
MTBF IEC61709	400000h
MTTF EN61209,SN29500	140182h @ 40°C 24/7 85% Load
Climate/Pollution/Altitude/ Humidity	3k3, Kl.2, 3000m NN, 90% Hum.
Dimensions (HxWxD)	see drawing
Weight	300g
Connectors (AC & DC)	Terminal plug AWG26...AWG12



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.: 3520038
(3 pins for AC-input)
Art.No.: 3520037
(2 pins for DCout)

Conception:

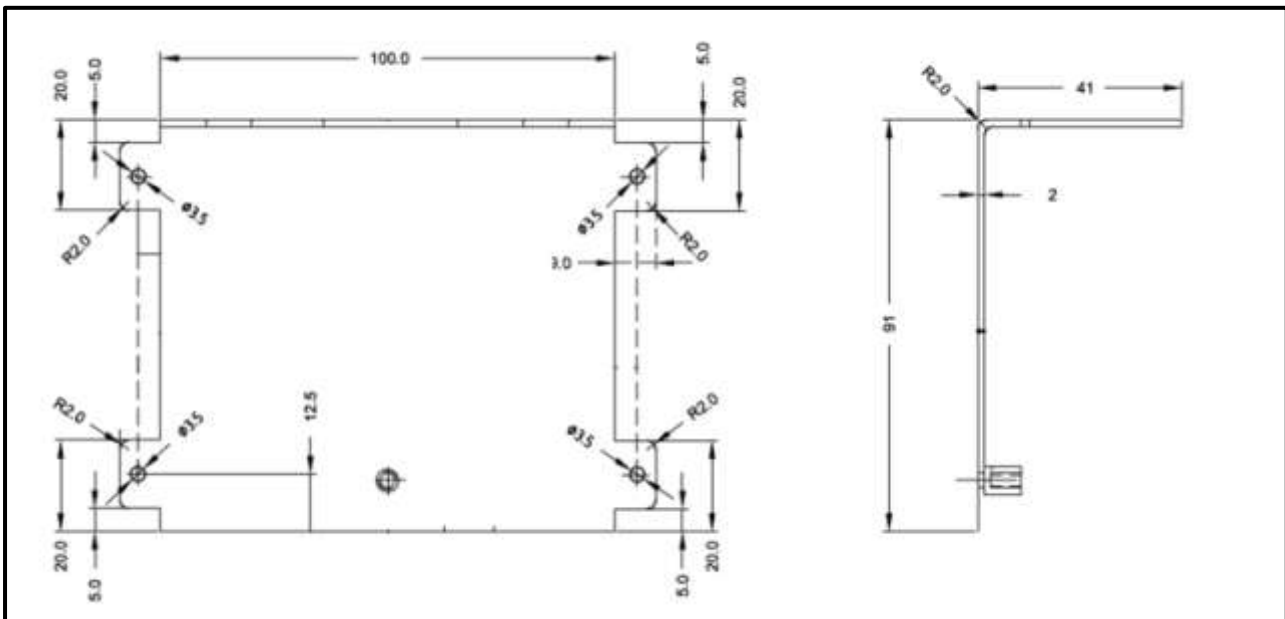
The OSW power supply series realizes very high power efficiency in a space-saving housing. This design enables Green Power applications and allows free air convection. Latest generation electrical devices relate to the high reliability of all products. The product philosophy is, to employ 125°C low ESR ultra long life capacitors where expedient to achieve a superior lifetime of our products. The screw terminals used allow easy wiring and smooth service.

Parallel and serial operation:

Power supplies of the same model and the same output voltage can be either used in parallel or 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 Powerboost 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 qualified engineer 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 qualified engineer 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 OSW 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 16A-type with B-characteristic. It is forbidden to operate the power supply without the 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 or 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 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. **It is forbidden to 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, unless otherwise stated.