



AC-DC
single output switching
power supply 1000W
parallelable with current sharing



MADE IN ITALY

General Features

- CE Certified
- Produced according to EN50081-2 and EN50082-2 (Industrial Environment Specifications)
- 220/110 Vac internal selection
- Internal line fuse
- Protected against overcurrents, short circuits, over voltages (O.V.P.), overtemperature
- Remote control for power good and overtemperature with insulated contacts
- Parallelable with current sharing
- Redundancy configuration by optional diode
- External inhibit
- Power Fail signal
- Voltage adjustment on front panel
- Output is floating versus ground
- Remote sensing for output (0.5 V compensation)
- 100% test and burn-in (test report on request)
- No load operation allowed
- Two years warranty

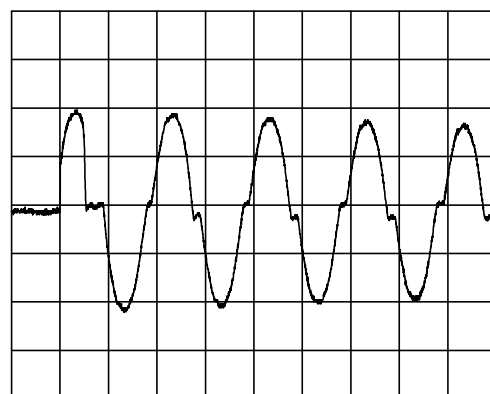
Standard models

| Model | Output voltages and maximum currents | |
|--------|--------------------------------------|--------|
| | Volt | Ampere |
| 9912PL | 12 | 60 |
| 9915PL | 15 | 50 |
| 9924PL | 24 | 40 |
| 9928PL | 28 | 35 |
| 9948PL | 48 | 20 |
| 9956PL | 56 | 18 |
| 9910PL | 110 | 9 |

Input specification

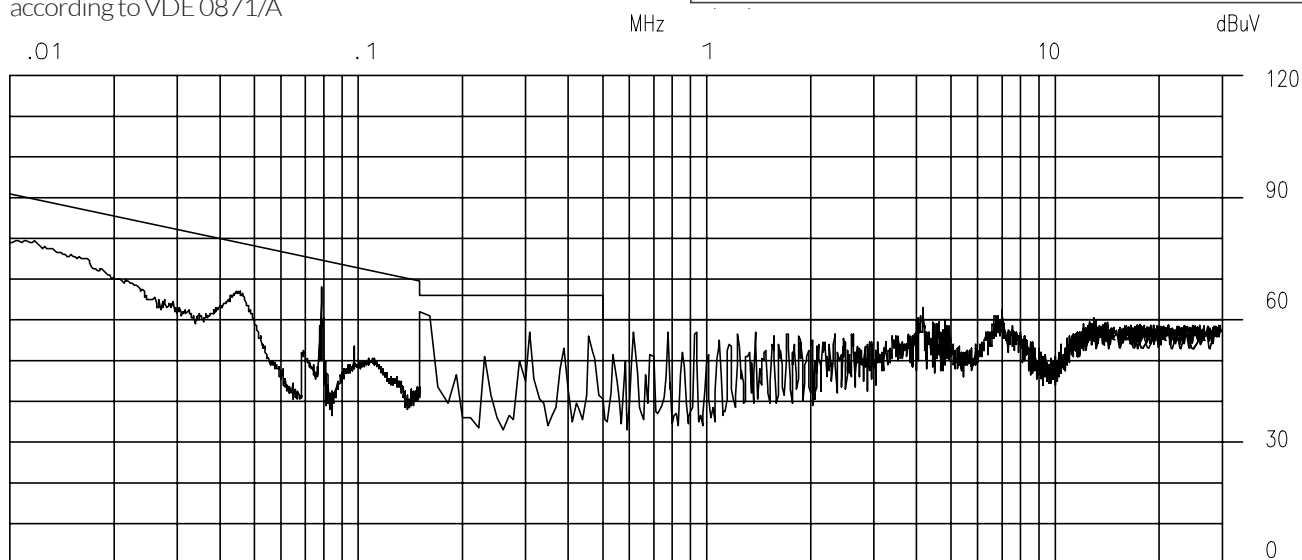
- **Input voltage**
230/110 Vac (internal selection) $\pm 15\%$ 47+63 Hz
- **Leakage current**
 $\leq 3,5$ mA at 230 Vac/50 Hz
- **Transient suppressor**
14 joule 350Vdc / 470 Vp
- **Line fuse rating**
F12A 500V 10 x 38 for 230V mains
F20A 500V 10 x 38 for 110V mains

- **Peak inrush current**
nominal input voltage



Tb=10ms/div; 1A/div dc

- **Emi filter**
according to VDE 0871/A



Enviromental specifications

- **Operating temperature range**
-10 to 55°C rated power; up to 70°C with 2.5%/°C derating
- **Relative humidity**
up to 93% without condensing
- **Cooling**
By internal fan
- **Storage temperature range**
-40 to +85 °C

Insulation specifications

- **Insulation resistance**
Input to output
Input to ground
Output to ground
— > 100 MOhm (1000 Vdc for 1').
- **Dielectric withstand voltage**
Input to output 3000 Vrms for 1'.
Input to ground 2500 Vrms for 1'.
Output to ground 2500 Vrms for 1'.
All arm contacts to in/out/ground 2500 Vrms for 1'.

Standard protections

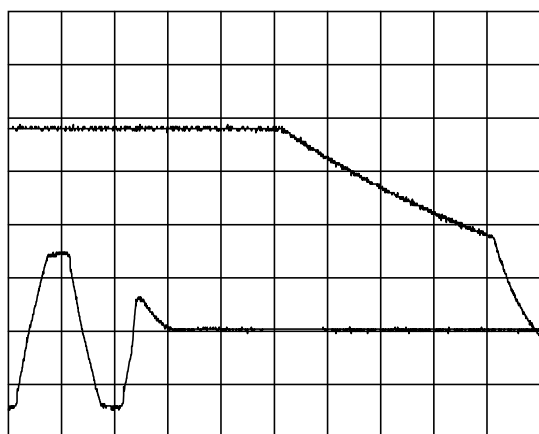
- **Mains transient**
Tranzorb & EMI filter.
- **Mains low**
module off until mains is within its specified value.
- **Overload/shorts**
a temporized circuit after about 3" of continuous overload, shuts the module off and lights on a red LED. Latch type protection.
- **Output overvoltage**
latch type protection & transil.
- **Overttemperature**
double thres. comparator; first thres. set to 70° C is signaled by a red LED and rele' closing; the second one higher than 10° C respect to the first, shuts the module off. Latch type.
- **Note**
to reset the latch type protections is necessary to remove the mains voltage, wait for 2' than apply mains again.

Output specifications

| Model | V nom (V) | Vadj | I max (A) | Efficiency | Output Stability | |
|--------|-----------|------|-----------|------------|--------------------------------|-----------------------------------|
| | | | | | Versus line variation ±15 % | Versus load variation 10 -100% |
| 9912PL | 12 | ±5% | 60 | 83 % | ± 0.5% | ± 1% |
| 9915PL | 15 | ±5% | 50 | 83 % | ± 0.5% | ± 1% |
| 9924PL | 24 | ±5% | 40 | 85 % | ± 0.5% | ± 1% |
| 9928PL | 28 | ±5% | 35 | 85 % | ± 0.5% | ± 1% |
| 9948PL | 48 | ±5% | 20 | 87 % | ± 0.5% | ± 1% |
| 9956PL | 56 | ±5% | 18 | 87 % | ± 0.5% | ± 1% |
| 9910PL | 110 | ±5% | 9 | 88 % | ± 0.5% | ± 1% |

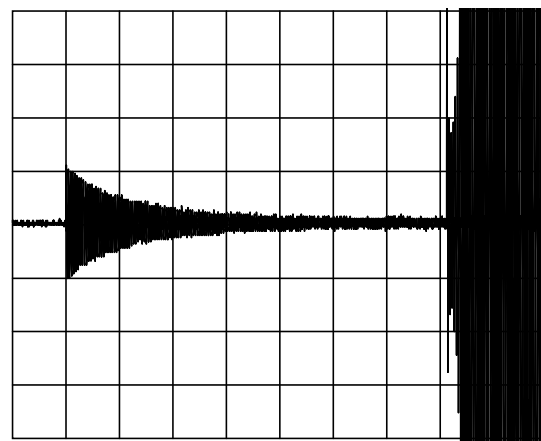
- **Output power** 1000 W continuos
- **Switching frequency** 80 KHz typical
- **Transient response** < 1 ms for 50% load variation.
Voltage deviations are within ± 2% of nominal value.
- **Ripple and noise** < 1% pk-pk (0 ,2 MHz) < 2% pk-pk (2 ,30 MHz)
- **Overshoot** No turn-on or turn-off overshoot
- **Electric signals** INH: Inhibit TTL compatible; output off when low.
PF: Power Fail open collector when mains low (25V /20mA).
PAR: Current sharing signal connected with other modules.
- **Electromechanical signals** OL: Open contact when output voltage is within its range.
OVT: Close contact when internal temperature > 70° C.
Both contacts are floating and can switch 50V / 1A.

- **Output hold-up** ≤ 20 ms at rated load and minimum input line



Tb=10mSdiv
Upper trace +24V 5V/div dc
Lower trace Mains 187Vac

- **Rise time at turn-on** 3.5 S typ with soft start



Tb=0.5 S/div
2A/div dc

Electromagnetic compatibility

- IEC 255-5
- IEC 1000-4-11 (ex IEC 77B)
- IEC 1004-5
- IEC 1000-4-12 (ex IEC 255-22-1)
- IEC 1000-4-4 (ex IEC 801-4)
- IEC 1000-4-6 (ex IEC 801-6)
- IEC 1000-4-2 (ex IEC 801-2)
- IEC 6100-4-8
- IEC 6100-4-10
- IEC 1000-4-3 (ex IEC 801-3)
- IEC 6100-4-9

Safety

- EN 60950 (CEI 74-2)

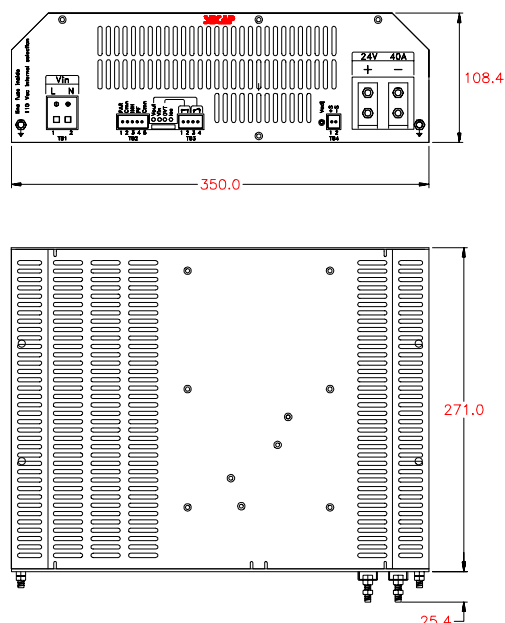
Case protection level

- IP20

Flammability

- UL 94 V2

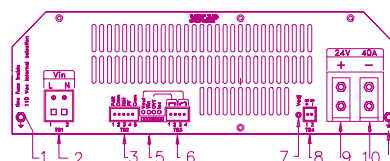
Mechanical dimensions



Dimensions in mm.
Weight: approx. 4.5 KG

Pin out and regulations

900PL - 9900PLD



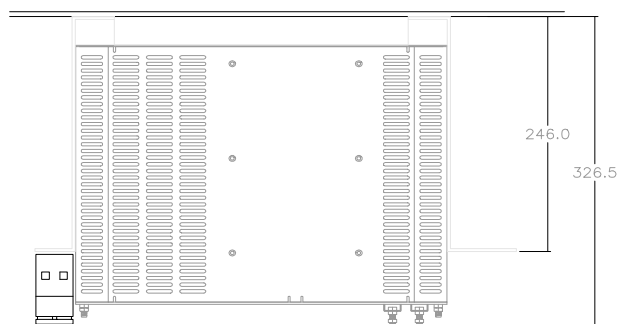
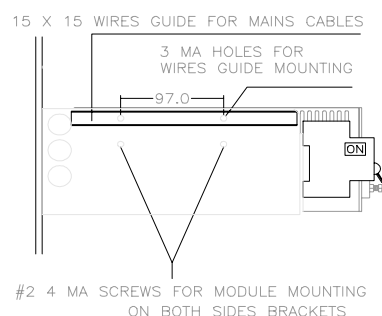
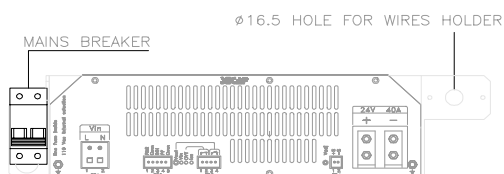
- 1) M5 safety ground double nut.
- 2) Mains input bipolar terminal-block.
- 3) Control/status signals terminal-block.
- 4) Remote visual signals (leds) terminal-block.
- 5) Visual status signals (leds).
- 6) Alarm contacts terminal-block.
- 7) Output voltage adjust trimmer.
- 8) Remote sensing terminal-block.
- 9) Output voltage positive bus-bar.
- 10) Output voltage negative bus-bar.

Electrical options

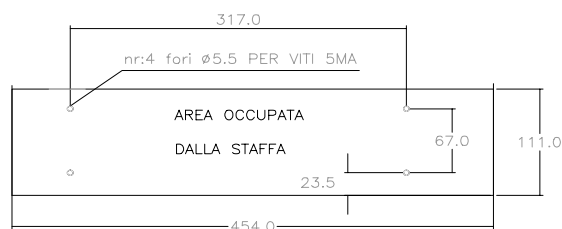
- **Option "D"**
Redundancy diode.
Example to order: 9924 PLD

Mechanical accessories

- **Codice "K"**: mounting on backpanel bracket



DIMA DI FORATURA SULLA PARETE
TOLLERANZE $\pm 0.2\text{mm}$



- **Codice "P"**: panel for mounting on rack 3U 84TE

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