

AC/DC – DC/DC converters

Switching power supply with low voltage input

Thank you for having chosen one of our products for your work. We are certain that it will give the utmost satisfaction and be a notable help on the job.

Application

The power AC/DC – DC/DC low voltage converters can be used in areas from extreme industrial environment, and complies with the latest technical standard. Before working with the unit, read these instructions carefully and completely. All these low voltage converters are single output and have Mounting DIN Rail.

Installation



Switch off the system before connecting the module. Never work on the machine when it is live. The device must be installed in according with EN 93/68 EEC. The device must have a suitable isolating facility outside the power supply unit, via which can be switched to idle.



It's possible to connect the negative pole (-) to ground only if is not connect to ground also a pole of the input (transformer secondary).

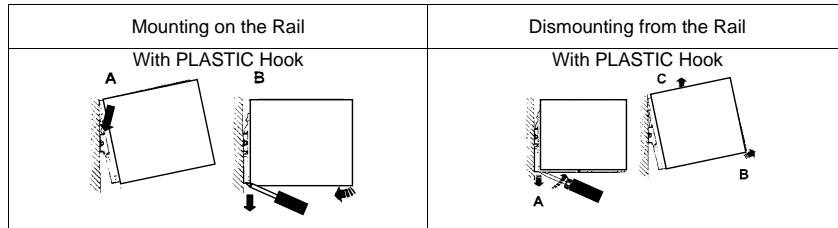
Connection:

The following cable cross-sections may be used:

Model	Input		Output		Stripping length
	Rigid	Flexible	Rigid	Flexible	
LIN2A SW series	0.2÷4 mm ²	0.2÷2.5 mm ²	0.2÷4 mm ²	0.2÷2.5 mm ²	7mm

The input – output connection is made by the screw.

Rail Mounting:



Other modules must have a minimum vertical distance of 10 cm to this power supply in order to guarantee sufficient auto convection.

Signaling

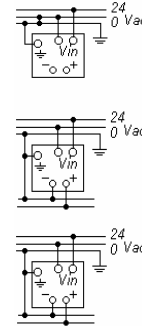
The green led lights up permanently when the input voltage is applied at the power supply.

The red led (DC ok):

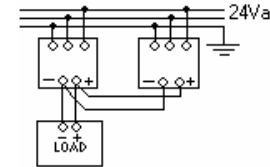
- lights up permanently when the output voltage is OK
- blink when there is in overload range or in short circuit protection.

Cables connection

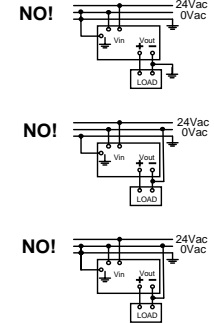
Standard Connection:



Parallel Connection: only SW



Wrong Connection:



Protection:

On the primary side: the device must be protected with an external fuse follow the table into the next page

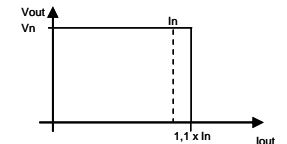
On the secondary side: the device is electrically protected against:

- Short circuit
- Over Load

Characteristic Curves

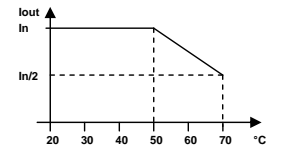
Short circuit and overload

The output of the device is electrically protected against overload and short circuit. At nominal voltage the device can supply 1.1 the nominal Current without switching off. In the case of higher overload, the operating point traces the curve illustrated in figure. As the overload increases, the output voltage is reduced until zero.



Thermal behaviour

The device supplies the nominal output current at ambient temperature of up 50°C. For ambient temperature of over 50°C, the output current must be reduced by 2.5% per °C increase in temperature. At the temperature of 70°C the output current will be In/2. The equipment does not switch off in case of ambient temperature above 70°C or thermal overload.



Standards and Certification

Electrical safety is ensured by assembling the devices in according with 93/68 EEC.

Electromagnetics compatibility:emission in according with the directive EN 55011 class B

Electromagnetics compatibility:immunity in according with the directive EN 50082-2 level 4

In according to EMC 89/336/EEC and Low voltage 93/68/EEC



MADE IN ITALY

Technical Data						
	Output Vn – In	1.25-28 – 2A	5Vdc - 3A	12Vdc - 3A	24Vdc – 3A	24Vdc - 5A
Model	LIN 2A	SW 3A.5.Vdc	SW3A.12Vdc	SWX3A.1	SWX5A.1	
INPUT DATA						
Input Voltage (Vn) Tensione d'ingresso nominale	4 - 28 Vac 5 – 36 Vdc	25 Vac 40 Vdc	25 Vac 40 Vdc	25 Vac 40 Vdc	25 Vac 40 Vdc	
Rated Voltage Range Campo di funzionamento	4 -28 Vac 5 -36 Vdc	13 - 28 Vac 17.5 - 45Vdc	17-28 Vac 17.5- 45 Vdc	24-32 Vac 33-45 Vdc	24-32Vac 33-45Vdc	
Frequency /Frequenza di Ingresso	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz	
Internal Fuse /Fusibile Interno	No	No	No	No	No	
External Fuse (Raccomanded) Fusibile raccomandato Esterno	Fast 4 A	Fast 4 A	Fast 4 A	Fast 4 A	Fast 6 A	
OUTPUT DATA						
Output Voltage - Nominal Current (In) Tensione di Uscita - Corrente Nominale	1.27-28 Vdc 2 A ± 2%	5Vdc 3A ±2%	12Vdc 3A ±2%	24Vdc 3A ±2%	24Vdc 5A ±2%	
Adjustment range (Vadj) Campo di regolazione (Vadj)	Yes	No	No	No	No	
Switch. On delay applying manis voltage Tensione in Uscita dopo l'accensione	≤ 100 msec.	≤ 100 msec.	≤ 100 msec.	≤ 100 msec.	≤ 100 msec.	
Max Current / Corrente max.	1.05x I _N ±7%	1.05 x I _N ± 7%	1.05 x I _N ± 7%	1.05x I _N ±7%	1.05x I _N ±7%	
Continuous Current Corrente funzionamento continuo	2 A	3 A	3 A	3 A	5 A	
Residual Ripple / Ripple residuo	≤ 60 mVpp	≤ 60 mVpp	≤ 60 mVpp	≤ 60 mVpp	≤ 60 mVpp	
Minimum load / Carico minimo	No	No	No	No	No	
Efficiency Rendimento tipico (al 50% Vn)	≥ 50 %	≥ 88 %	≥ 88 %	≥ 88 %	≥ 88 %	
Short-circuit protection Protezione contro il C.C.	Yes	Yes	Yes	Yes	Yes	
Over load protection Protezione sovraccarico	Yes	Yes	Yes	Yes	Yes	
Over voltage Output protection Protezione sovratensione in Uscita	Yes	No	No	No	No	
Parallel connection Collegamento in parallelo	No	No	No	No	No	
CLIMATIC DATA						
Ambient Temperature (operation) Temp. Ambiente	-10 - +70 °C	-10 - +70 °C	-10 - +70 °C	-10 - +70 °C	-10 - +70 °C	
Ambient Temperature (storage) Temp Magazzino	-25 - +85°C	-25- + 85 °C	-25- + 85 °C	-25 - +85°C	-25 - +85°C	
Humidity / Umidità	95 % to 25°C	95 % - 25°C	95 % - 25°C	95 % to 25°C	95 % to 25°C	
GENERAL DATA						
Protection Degree / Grado di protezione	IP20	IP20	IP20	IP20	IP20	
Protection Class Protezione Classe	I,with PE connected	I,with PE connected	I,with PE connected	I,with PE connected	I,with PE connected	
Dimension (w-h-d) Dimensioni (l-h-p) mm	50x95x61	50x95x61	50x95x61	50x95x61	70x95x61	
Weight / Peso	0.20 Kg	0.20 Kg	0.20 Kg	0.20 Kg	0.35kg	