

USER MANUAL

MN101

RUGGED AND PORTABLE 24VDC / 150W AC/DC-ADAPTER

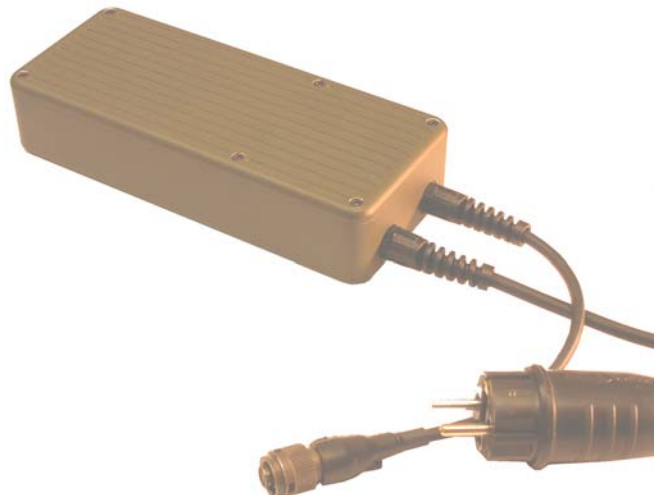
UNIVERSAL, HIGH EFFICIENT SOLDIER MODULE

GENERAL

The MN101 AC/DC-adapter is designed for demanding military use and to be carried by the soldier. The AC/DC adapter is very easy to operate; it has no switches nor are other adjustments necessary. Maximum output load is 24Vdc/150W up to +30°C ambient temperature and 24Vdc/120W from +30°C to +55°C. The AC/DC-adapter can be powered from a wide range of AC sources between nominally 100Vac and 240Vac for worldwide use.

OPERATING INSTRUCTIONS

1. Whilst not necessary for proper operation it is good practice to shield the AC/DC adapter from rain and direct sunlight whenever possible. Free airflow over the unit should be ensured at all times.
2. Connect the power cable to the AC power source.
3. Connect the DC load to the AC/DC adapter DC output cable.



SAFETY WARNINGS


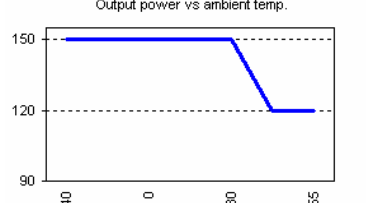




- The charger must be isolated from all power sources prior to carrying out any servicing operations or maintenance. The AC/DC adapter has no user serviceable parts. An AC/DC adapter requiring repair or service should be sent to a qualified service depot for repair.
- The charger is a safety Class 1 product and must always be used in conjunction with a protective earth when running from an AC power source.
- The AC/DC adapter input power cord with plug termination constitutes the primary means of disconnecting the charger from AC power sources. The AC/DC adapter must not be hardwired to an AC power source under any circumstances and should be used with the power cord supplied.
- Maximum load to be connected to the AC/DC adapter is 24Vdc/5A /120W at operating temperatures between +30°C and +55°C.

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TECHNICAL DATA

AC Input 	Voltage Frequency Input current Classification Protection Power factor	Nominally 100-240Vac (90–264Vac) 47-63Hz 1.75A (100Vac) - 0.7A (240Vac) at 150W load 1.37A (100Vac) - 0.56A (240Vac) at 120W load Safety Class 1. To be connected to protective earth 3.15A fuse. Not replaceable >0.95
Temperature range and output power	Operating temperature range: (Refer also to graphics) -40°C to +30°C: Max output: 6.25A _{dc} / 150W +30°C to +55°C: Max output: 5A _{dc} / 120W Storage -40°C to +85°C	
DC Output 	Voltage Minimum load Start up delay Line regulation Load regulation Ripple and noise Overvoltage protection Overload protection Short circuit protection Temperature coefficient	24V _{dc} No minimum load required 2s max 1% max, ±0.5% typical 5% max ±3% typical ±1% pk-pk max 112-132%, recycle input to reset 110-150% with auto recovery Trip & restart (Hiccup mode), auto recovery 0.04%/°C
Efficiency	88% typical	
MTBF	>100.000 hours per MIL-HDBK-217F	
Weight	1.25kg (ex. cords) 1.45kg (with standard cables and plugs)	
Input cable	1m 3G0.75mm ² rubber cable with EURO shucko mains plug. Other lengths and plugs are available on request	
Output cable	0.25m 4pole PUR cable with 4pole connector KPT06E8-4S-DN. 24V _{dc} Pin B and C; 0V _{dc} Pin A and D. Other lengths and plugs are available on request.	
Dimensions	86mm x 46mm x 210mm (WxHxL), 0.83dm ³ (Ex. connectors and cabling)	
IP	IP68 / 1meter	
Certification		MN101 is CE-marked EMC: Emission EN 55022, EN 61000-3-2, EN 61000-3-3: EMC: Immunity EN61000-4-2, -3, -4, -5, -6, -8, -11 Electrical Safety: EN 60 950-1

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