

Technical Data Sheet

CAR4A Car/Truck/Air Power Adapter



60 Watt automobile power adapter

Features:

- Wide input voltage range
- Max. output power 72 Watt
- Car/Truck/Air input connector

Applications:

- Suitable for use with tablet PC's, netbooks, handheld devices (e.g. scanner, RFID devices), etc.

Specification

Input	
Voltage range	10.5 - 32VDC
Standby current	Typical 77mA @ 10.5V input Typical 54mA @ 32V input
Input fuse	10A
Protection	Reverse polarity (input fuse) Under voltage protection (Transient suppression circuit)

Output	
Voltage range	3 - 24V nominal
Power	60W cont. 72W max.
Initial set tolerance	±5% max.
Load regulation ⁽¹⁾	- 100mV max. / A
Line regulation	±1% max.
Ripple & noise ⁽²⁾	< 300mV _{pk-pk}
Current limit	Constant current, 4A max.
Protection	Short circuit Over temperature protection Over voltage protection

Environmental	
Cooling	Convection cooled
Temperature	Operating: -20°C to 35°C 35°C to 50°C, derating 35% Non-operating -40°C to 85°C
Pressure & altitude	Operating: 1200hPa to 570hPa, max. 4600m above sea level Non-operating: 1200hPa to 115hPa, max. 15000m above sea level
Humidity	5 to 95% r.H., non-condensing

General	
Input connector	Cigarette lighter adapter
Output connector	Customer-specific
Efficiency ⁽³⁾	typical 86% at 100% load
MTBF	20000h @ 25°C ambient temperature and G _B per MIL-HDBK217F
Green procurement	WEEE RoHS
Indicator	Single green LED
Ingress protection rating	IEC60529, IP40

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Safety & EMC		
Regulatory approvals	Europe USA/Canada Australia	CE UL60950-1 RCM
Electromagnetic emissions	Europe USA Airborne equipment	EN55011/EN55022 class B, EN55024, EN55014-1 FCC15 class B RTCA/DO-160D, Section 21
Electromagnetic immunity	ESD immunity	IEC61000-4-2, 4kV contact, 8kV air
	Electromagnetic field immunity	IEC61000-4-3, 80-1000MHz, 10V/m, AM 80% 1kHz, PM ED50% 200Hz
	Electrical fast transient/burst immunity test	IEC61000-4-4, +/-1kV, 5/50ns
	Surge immunity test	IEC61000-4-5, +/-0.5kVsym, 1.2/50(8/20) μ s
	Conducted Immunity	IEC61000-4-6, 0.15-80MHz, 10V, 80%, 1KHz, AM, CDN-M2
	Immunity	IEC61000-6-1
	Impulses	DIN40839 part 1
Airborne equipment	RTCA/DO-160D Section 20	
UNECE vehicle regulation	E13 ECE Reg. 10	

- other approvals on request

Mechanical Details	
Housing dimensions (LxWxH)	111 x48 x 35mm, without cables and connectors
Input cable length	100cm \pm 5%
Output cable length	100cm \pm 5%
Weight	approx. 200g, without cables and connectors

Notes

1. Load regulation is measured at the output connector and includes the voltage drop across the output cable.
2. Measured with a 0.1 μ F ceramic and a 10 μ F electrolytic capacitors across the output terminals. The oscilloscope bandwidth is set at 20MHz a co-axial cable will be used to measure it. The test condition is maximum load.
3. Power losses of input and output cables are not considered here.

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