

# Technical Data Sheet

## CAR12A Car/Truck/Air Power Adapter



### 12 Watt automobile power adapter

#### Features:

- Wide input voltage range
- Max. output power 12 Watt
- Car/Truck/Air input connector

#### Applications

- Suitable for use with PDA's, GSM & GPRS navigation systems, handheld devices (e.g. payment terminals) etc.

### Specification

Input	
Voltage range	9 - 32VDC
Standby current	Typical 21mA @ 9V input Typical 11mA @ 32V input
Input fuse	3.15A
Protection	Reverse polarity (input fuse)

Output	
Voltage range	3 - 8V
Power	12W cont.
Initial set tolerance	±3% max.
Load regulation <sup>(1)</sup>	-4% max.
Line regulation	±1% max.
Ripple & Noise <sup>(2)</sup>	< 120mV <sub>pk-pk</sub>
Current Limit	Constant Current
Protection	Short circuit Over temperature protection

Environmental	
Cooling	Convection cooled
Temperature	Operating: -20°C to 40°C Non-operating -40°C to 85°C
Pressure & altitude	Operating: 1200hPa to 570hPa, max. 4600m above sea level Non-operating: 1200Pa 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 <sup>(3)</sup>	typical 80% at 100% load
MTBF	>20000h @ 25°C ambient temperature and G <sub>B</sub> 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 / CSA C22.2 No. 60950 RCM
Electromagnetic emissions	Europe International	EN55022 class B CISPR 22, level B
Electromagnetic Immunity	ESD immunity Electromagnetic field immunity Electrical fast transient/burst immunity test Surge immunity test Conducted Immunity vehicle directive	IEC61000-4-2, 4kV contact, 8kV air IEC61000-4-3, 80-1000MHz, 3V/m, modulation 80%/200Hz IEC61000-4-4, +/-1kV, 5/50ns IEC61000-4-5, +/- 1kV, 1.2/50(8/20) $\mu$ s IEC61000-4-6, 0.15-230MHz, 10V, 80%, 1KHz, AM E13 ECE Reg.10

- other approvals on request

Mechanical Details	
Housing dimensions (LxWxH)	61 x 41 x 29mm, without cables and connectors
Input cable length	100cm $\pm$ 5%
Output cable length	100cm $\pm$ 5%
Weight	approx. 34g 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 $\mu$ F ceramic and a 10 $\mu$ 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.

Germany/Headquarters	USA	Hong Kong	China
RRC power solutions GmbH Technologiepark 1 D-66424 Homburg / Saar	RRC power solutions Inc. 18340 Yorba Linda Blvd., Suite 107-437 Yorba Linda, CA 92886-4104	RRC power solutions Ltd. S-V,6/F, Valiant Industrial Centre 2-12 Au Pui Wan Street Fo Tan, N.T., Hong Kong	RRC power solutions Ltd. Room 520, Yuanlin Building, Aiguo Road No. 3066, Luohu District, Shenzhen 518021
Tel.: +49 6841 98090 Fax: +49 6841 9809280 Email: sales@rrc-ps.de Web: www.rrc-ps.de	Tel.: +1 714 777 3604 Fax: +1 714 777 3658 Email: usa@rrc-ps.com Web: www.rrc-ps.com	Tel.: +852 2376 0106 Fax: +852 2375 0107 Email: hkrrc@rrc-ps.cn Web: www.rrc-ps.com	Tel.: +86 755 8374 1908 Fax: +86 755 8374 1861 Email: hkrrc@rrc-ps.cn Web: www.rrc-ps.com