

Technical Data Sheet

CAR70M Car/Truck Power Adapter



IP42

70 Watt automobile power adapter with medical approval

Features:

- Suitable for use with all mobile medical devices
- Car/Truck input connector
- Galvanic isolation for maximum patient safety
- Wall-mount kit optional

Specification

Input	
Voltage range	10 - 32VDC
Standby current	typical 37mA @ 10V input typical 29mA @ 32V input
Input fuse	10A
Protection	Reverse polarity Over voltage protection (Transient suppression circuit)

Output	
Voltage range	16V - 19V nominal
Power	66W cont. 70W max.
Initial set tolerance	±3% max.
Load regulation ⁽¹⁾	-4% max.
Line regulation	±1% max.
Ripple & noise ⁽²⁾	< 120mV _{pk-pk}
Current limit	Constant current
Protection	Short circuit Over temperature protection Over voltage protection

Environmental	
Cooling	convection cooled
Temperature	Operating: -20°C to 40°C Non-operating: -40°C to 75°C
Pressure & altitude	Operating: 1200hPa to 570hPa max. 4600m above sea level Non-operating: 1200hPa to 115hPa max. 15300m above sea level
Humidity	5 to 95% r.H., non-condensing

General	
Galvanic isolation	Isolation voltage 2kV
Input connector	PRO-CAR 6771 1010
Output connector	Standard DC connector (others on request)
Efficiency ⁽³⁾	typical 88% at 100% load
MTBF	20000h per MIL-HDBK217F
Green procurement	RoHS2002/95/EC WEEE 2002/96/EC
Indicator	Single green LED

Technical Data Sheet



CAR70M Car/Truck Power Adapter

Safety & EMC		
Regulatory approvals	Europe	E13 CE
	International	CB Report IEC 60601-1:2005 incl. Canadian, American and Australian deviations
Electromagnetic emissions	Europe	EN55022, level B
	USA	FCC15 class B
	Airborne equipment	RTCA/DO-160F, Section 21
Electromagnetic immunity	ESD immunity	IEC61000-4-2, 8/15 kV
	Radiated immunity	IEC61000-4-3
	Electrical fast transient/burst immunity test	IEC61000-4-4
	Surge immunity test	IEC61000-4-5
	Conducted Immunity	IEC61000-4-6
	Airborne equipment	RTCA/DO-160F
	ISO-Impulses	ISO7637-2:2004, pulse 1 till 7, immunity test level III

Mechanical Details	
Housing dimensions (LxWxH)	160 x 59 x 34 mm, without cables and connectors
Input cable length	240cm ±5%
Output cable length	100cm ±5%
Weight	approx. 350g, without cables, connectors and wall-mount kit

Notes

1. Load regulation is measured at the output connector and includes the voltage drop across the output cable.
2. Measured with a 0.1µF ceramic and a 47µF tantalum capacitor 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.

Ordering Information

Product code	Voltage	Current	Input connector	Customer code
CAR70M	XXX	YYY	- CT	- CC
XXX	Output voltage (e.g. 165 gives the nominal output voltage of 16.5V DC)			
YYY	Output current (e.g. 375 gives the nominal output current of 3.75A)			
CT	Car/Truck input connector			
CC	RRC reserved			

Germany / Headquarters	France	USA	Hong Kong / China
RRC power solutions GmbH Technologiepark 1 D-66424 Homburg / Saar	RRC power solutions SAS 4, rue de Charenton 2/3/4, Quai Blanqui F-94140 Alfortville	RRC power solutions Inc. 19713 Yorba Linda Blvd. #207 Yorba Linda, CA 92886-3532	RRC power solutions Ltd. 9/F Park Tower, 15 Austin Road Tsim Sha Tsui, Kowloon, Hong Kong
Tel.: +49 0 6841 9809-0 Fax: +49 0 6841 9809-280 E-Mail: sales@rrc-ps.de	Tel.: +33 0 1 3005 6100 Fax: +33 0 1 3005 6101 E-Mail: france@rrc-ps.com	Tel.: +1 714 777 3604 Fax: +1 714 777 3658 E-Mail: usa@rrc-ps.com	Tel.: +852 0 2376 0106 Fax: +852 0 2376 0107 E-Mail: hkrrc@rrc-ps.cn