

ECP-82 Series

Uninterruptible Power Supply (UPS)



The ECP-82 uninterruptible power supply is built to operate in harsh conditions. It replaces a standard battery box for a variety of transceivers and remote control units. It can also be used in military or civilian vehicles and marine craft or for any general power supply application. The ECP-82 is designed for the BBx590 series of lithium rechargeable batteries. The battery is automatically charged when an AC or DC source is applied to the ECP-82. Short-circuit protection, as well as over-power, over-voltage, and over-temperature protection ensure that the ECP-82 continues to run even after other devices fail.

FEATURES

Simultaneous Inputs:	Separate AC input and DC input connectors
DC Source Input:	+9 Vdc to +36 Vdc; +120 Vdc to +430 Vdc
AC Source Input:	90 Vac to 305 Vac, 47 Hz to 63 Hz
Single Output:	24 Vdc up to 270 W (regulated)
Load:	No load to 11.25 A (continuous)
Efficiency:	Up to 91%
Internal Battery:	Rechargeable 2590/5590/x390 series
Automatic Switchover:	From AC or DC source to internal battery
Battery Charging:	Automatic when operating from AC or DC sources
Environmental:	Conduction cooling, ruggedized, IP67 (pending)
Operating Temperature:	-25°C to +60°C
EMI/RFI Protection:	Pending (FCC Part 15; IEC/EN 61000-6; AS/NZS 61000.6; EN 55022 Class A; IEC/EN 61000-4; EN 55015 Class B; EN 61547)

APPLICATIONS

- Suitable for AN/PSC-5/5D, MBMMR, AN/PRC-117F/150/138/113, AN/URC-200, MXF-400 and RF-5000 transceivers, or any other 24 V transceiver with the same form factor.
- Military or civilian vehicles and/or marine craft.
- General power supply applications.

SPECIFICATIONS¹

		Model	
		ECP-82M	ECP-82C
AC Source Input	AC Connector	3-pin Mil-C circular	IEC
	Input Voltage	90–305 Vac or 120–430 Vdc	
	Input Frequency	47–63 Hz	
	Input Current	0.6 A @ 245 Vac	
	Inrush Current	TBD	TBD
	Input Leakage Current	0.1 A (max)	
	Power Factor	0.96 (at full load, 240 Vac)	
DC Source Input	DC Connector	5-pin Mil C circular	3-pin XLR
	Input Voltage	9–36 Vdc	9–36 Vdc
	Input Current	6.3 A @ 24 Vdc (max)	
	Inrush Current	TBD	TBD
	Input Leakage Current	0.4 A (max)	
	Input Surge Voltage	50 Vdc	
Output	Voltage	24 Vdc ±1 Vdc	
	Full Load Current	6.25 A (battery only) / 12.5 A (AC plus DC source)	
	Surge Current	18 A (5 seconds max)	
	Output Power	150 W (battery only) / 270 W (AC plus DC source)	
	Regulation	±1% (AC source) / ±0.4% (DC source)	
	Capacitive Load	50000 µF (AC source) / 10000 µF (DC source)	
	Ripple Noise	100 mVpp (AC source) / 200 mVpp (DC source)	
	Efficiency ²	91% (AC source) / 85% (DC source or battery)	
	Hold-up Time ³	9.5 ms (battery only) / 3.3 ms (AC plus DC source)	
Protection	Switching Frequency	100 kHz (AC source) / 220–330 kHz (DC source)	
	Over Voltage	Voltage Limiter	
	Over Current	Current Limiter	
	Over Power	Constant Current Mode with Falling Voltage	
Isolation	Over Temperature	Thermal Shutdown	
	Input to Output	3750 Vac / 2250 Vdc	
	Input to Case	1180 Vac / 1600 Vdc	
Environmental	Output to Case	500 Vac / 1600 Vdc	
	Operating Temperature	-25°C to +60°C	
	Storage Temperature	-40°C to +85°C	
Physical	Size / Mass	242 mm X 203 mm X 81 mm / 2.95 kg (without battery)	
	Pressure Relief	3.4 kPa (0.5 PSI) differential breather valve	

¹Preliminary specifications subject to change; ²At full load; ³Rated voltage to rated voltage less 2 V.

ORDERING DETAILS

ECP-82



BK:	Black	DB:	Drab Olive
SD:	Sand	XX:	Unpainted
M:	3-pin Mil-C (shell size 12) for AC source 5-pin Mil-C (shell size 14) for DC source		
C:	IEC connector for AC / 3-pin XLR connector for DC		

ACCESSORIES

Part Number	Accessory
ECP-82X-ACP/AU	AC power cable (Australia / New Zealand)
ECP-82X-ACP/UK	AC power cable (UK)
ECP-82X-ACP/US	AC power cable (USA, Canada)
ECP-82X-DCP	DC power cable with alligator clips
ECP-82X-OPC	Output power cable with alligator clips