

BC-SMPS

BATTERY CHARGER



POSITIVE PROBLEM SOLVING **+ =**

The BC-SMPS range of switch-mode battery chargers provides maximum output powers of 75 watts to 750 watts. The range switches at 100 kHz and achieves efficiencies of 88%.

This high efficiency translates into a very compact package and a lower level of input energy to power your application. The units incorporate a passive power factor correction circuit and all components are derated to provide long term reliability and trouble free use. All units in the series are fully enclosed and have mounting options on either the base or side of the case.

- + Overload & Over Temperature Protection
- + Other O/P Voltages on Request
- + CC & CV Operating Modes
- + High Efficiency up to 88%
- + Rugged Design
- + PFC Circuit

FURTHER DETAILS

The output characteristics are CC /CV and with over temperature, overload protection elevated operating temperature (70°C) and a conformal protection option ensures that these power supplies are suitable for a wide range of applications.

The power platforms in this range have formed the base of many customer specific charging requirements including: fire alarm systems, F15 avionic battery charge and test systems, industrial DC UPS systems, and rail applications.

SELECTION TABLE

Part Number	Max. Power	Voltage Range	Current	Dimensions	Weight
BC-SMPS 75-5-TC	75W	5V	15A	140 × 100 × 42mm	1.2kg
BC-SMPS 75-12-TC	75W	12 - 15V	5A	140 × 100 × 42mm	1.2kg
BC-SMPS 75-24-TC	75W	24 - 28V	3A	140 × 100 × 42mm	1.2kg
BC-SMPS 75-48-TC	75W	48 - 60V	1.5A	140 × 100 × 42mm	1.2kg
BC-SMPS 150-5-TC	150W	5V	30A	200 × 100 × 42mm	1.5kg
BC-SMPS 150-12-TC	150W	12 - 15V	12A	200 × 100 × 42mm	1.5kg
BC-SMPS 150-24-TC	150W	24 - 28V	5A	200 × 100 × 42mm	1.5kg
BC-SMPS 150-48-TC	150W	48 - 60V	3.3A	200 × 100 × 42mm	1.5kg
BC-SMPS 250-5-TC	250W	5V	50A	225 × 127 × 48mm	2.1kg
BC-SMPS 250-12-TC	250W	12 - 15V	20A	225 × 127 × 48mm	2.1kg
BC-SMPS 250-24-TC	250W	24 - 28V	12A	225 × 127 × 48mm	2.1kg
BC-SMPS 250-48-TC	250W	48 - 60V	6A	225 × 127 × 48mm	2.1kg
BC-SMPS 350-5-TC	350W	5V	60A	225 × 127 × 48mm	2.4kg
BC-SMPS 350-12-TC	350W	12 - 15V	25A	225 × 127 × 48mm	2.4kg
BC-SMPS 350-24-TC	350W	24 - 28V	15A	225 × 127 × 48mm	2.4kg
BC-SMPS 350-48-TC	350W	48 - 60V	7.5A	225 × 127 × 48mm	2.4kg
BC-SMPS 500-12-TC	500W	12 - 15V	33A	227 × 127 × 63mm	2.9kg
BC-SMPS 500-24-TC	500W	24 - 28V	19A	227 × 127 × 63mm	2.9kg
BC-SMPS 500-48-TC	500W	48 - 60V	9A	227 × 127 × 63mm	2.9kg
BC-SMPS 500-90-TC	500W	90 - 110V	5A	227 × 127 × 63mm	2.9kg
BC-SMPS 500-125-TC	500W	125 - 150V	3.5A	227 × 127 × 63mm	2.9kg
BC-SMPS 750-12-TC	750W	12 - 15V	50A	227 × 127 × 63mm	2.9kg
BC-SMPS 750-24-TC	750W	24 - 28V	30A	227 × 127 × 63mm	2.9kg
BC-SMPS 750-48-TC	750W	48 - 60V	15A	227 × 127 × 63mm	2.9kg
BC-SMPS 750-90-TC	750W	90 - 110V	7A	227 × 127 × 63mm	2.9kg
BC-SMPS 750-125-TC	750W	125 - 150V	5A	227 × 127 × 63mm	2.9kg

Different output ranges and application/user specific options are possible. Please contact ETPS Ltd to discuss your requirements.

TECHNICAL DATA

GENERAL	
AC Input [250W/350W/500W/750W]	90 - 264VAC, 47 - 63Hz
AC Input [75W/150W]	115/230VAC, 47-63Hz [90-264Vac option for 75 & 150W]
Safety	EN 60950
Creeping and Clearance	8/8
Emission	EN 61000-6-4
Immunity	EN 61000-6-2
Protection Class	1
Operating Temperature	0 - 70°C
Temperature Coefficient	0.02%/°C
Storage Temperature	-45 to 85°C
Derating from 55°C	-2.5%/°C
MTBF MIL Handbook	120.000h
Load Regulation	0.2% [10 - 90 - 10% load]
Input Regulation	0.1% [± 15%]
Response Time	800µsec [20 - 100 / 100 - 20%]
Ripple & Noise	0.2% / 1% [rms/pp]
Temperature Voltage Adjust	± 6mV/°C
Output Adjustable	± 5%

OPTIONS

CODE	DESCRIPTION
/AI-5CC	0-5V = 0 to I_{MAX} [setting only, no readback]
/AI-5CV	0-5V = 5V to V_{MAX} [for 5V units range is 2V to V_{MAX}] [setting only, no readback]
/AI-5CC/CV	0-5V = 0 to I_{MAX} , 5V to V_{MAX} [for 5V units range 0 to I_{MAX} and 2V to V_{MAX}] [setting only, no readback]
/AI-10CC	0-10V = 0 to I_{MAX} [setting only, no readback]
/AI-10CV	0-10V = 5V to V_{MAX} [for 5V units range is 2V to V_{MAX}] [setting only, no readback]
/AI-10CC/CV	0-10V = 0 to I_{MAX} , 5V to V_{MAX} [for 5V units range 0 to I_{MAX} and 2V to V_{MAX}] [setting only, no readback]
/LT	-20° to +70°C temperature range
/LT40	-40° to +70°C temperature range
/PF	AC power fail signal TTL or open collector
/L3	DC output power fail signal
/CC	Conformal coating
/IEC	IEC Inlet fitted [500W to 750W only]
/N+1	Blocking diode fitted [500W to 750W only]
/PS	Active power sharing input [500W to 750W only]
/AS	Auto select 90-264Vac [for 75W & 150W units]

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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ETPS engineer electronic power supply and testing systems. Our problem solving skills provide the spark of innovation to some of the world's leading technology brands.



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