



Desktop Switching Power Supply Built-in Battery Backup Circuit

Model SEC-1223BBM 13.8 VDC 120 VAC 23 Amps

## 3 YEAR LIMITED WARRANTY





## **Design Features**

- Advanced Switch Mode Technology
- Reliable, 12V Nominal DC Uninterruptible Power Source (DC UPS) in conjunction with external 12V Lead Acid Battery backup
- High efficiency, compact and portable
- Protected against short circuit, overload, over voltage and over temperature
- Cooling by temperature controlled fan improves efficiency and prolongs life of the fan

	MODEL NO.	SEC-1223BBM
AC INPUT	INPUT VOLTAGE	120 VAC (100-130 VAC), 50/60 Hz [factory preset], or 230 VAC (200-260 VAC), 50/60 Hz [by internal jumper setting]
	INPUT CURRENT	5.5A @ 120 VAC
	INPUT CURRENT AT NO LOAD	53 mA ± 10%
	INRUSH CURRENT AT STARTUP	28A ± 5% for 2.8 ms
DC OUTPUT	OUTPUT VOLTAGE AT LOAD TERMINALS	13.8 VDC ± 0.2V
	OUTPUT VOLTAGE AT BATTERY TERMINALS (WITHOUT BATTERY)	13.8 VDC ± 0.2V
	OUTPUT VOLTAGE AT BATTERY TERMINALS (WITH BATTERY)	(i) Less than 13.5V $\pm$ 0.2V when not fully charged (ii) 13.5V $\pm$ 0.2V when battery is fully charged and floating
	OUTPUT VOLTAGE NOISE AND RIPPLE	< 150 mV Peak to Peak
	CONTINUOUS OUTPUT CURRENT AT LOAD TERMINALS	19A (With battery backup); 23A (Without battery backup)
	CONTINUOUS OUTPUT CURRENT AT BATTERY TERMINALS (BATTERY BACKUP)	Up to 4A (When battery is completely discharged to Standing Voltage of 11.1V)
	OUTPUT CURRENT LIMIT AT LOAD TERMINALS	<ul> <li>- 25A for 100 sec (External 25A fuse will blow)</li> <li>- Surge &gt; 25A as permitted by Time Current</li> <li>Characteristics of 25A load side fuse (In Battery backup Mode)</li> </ul>
	OUTPUT CURRENT LIMIT AT BATTERY TERMINALS (BATTERY BACKUP)	4A (When battery is completely discharged to Standing Voltage of 11.1V)
	PEAK EFFICIENCY	85% ± 5%
EXTERNAL BATTERY	TYPE & VOLTAGE	Lead Acid, 12V
(NOT INCLUDED)	CAPACITY	40Ah to 100 Ah
PROTECTIONS	SHORT CIRCUIT, OVERLOAD	External 25A Fuse will blow
	OVER VOLTAGE	Regulated by PWM Controller
	OVER TEMPERATURE	Output of Power Supply Section shuts down when Power Transformer winding temperature $\geq 105^{\circ}\text{C} \pm 5^{\circ}\text{C} / 221^{\circ}\text{F} \pm 9^{\circ}\text{F}$ ; Auto reset on cooling down to $\leq 75^{\circ}\text{C} \pm 5^{\circ}\text{C} / 167^{\circ}\text{F} \pm 9^{\circ}\text{F}$
COOLING	FORCED AIR	Temperature controlled fan. ON when Power Transformer winding temperature is $\geq$ 60°C $\pm$ 5°C / 140°F $\pm$ 9°F; OFF when cools down to $\leq$ 40°C $\pm$ 5°C / 104°F $\pm$ 9°F

NOTE: Specifications are subject to change without notice



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FUSES	INTERNAL AC SIDE FUSE FOR 120 VAC	- 5 mm x 20 mm Glass Fuse - 250V, 6.3A, Time Delay Type - Bussmann: "GDC-6.3"; Littelfuse : "21806.3"
	INTERNAL AC SIDE FUSE FOR 230 VAC INPUT (BY INTERNAL JUMPER SETTING)	- 5 mm x 20 mm Glass Fuse - 250V, 4A, Time Delay Type - Bussmann: "GDC-4"; Littelfuse: 218004
	EXTERNAL BATTERY SIDE FUSE (BY USER)	- 32V, 25 A, Fast Acting - Within 7" of the Battery Positive Post
	EXTERNAL LOAD SIDE FUSE (BY USER)	UL safety listed as "Information Technology Equipment Power Supply" for USA (UL Standard ANSI/ UL-60950-1) and for Canada (CSA Standard CAN/CSA-C22.2 No. 60950-1)
COMPLIANCE	SAFETY	UL safety listed as "Information Technology Equipment Power Supply" for USA (UL Standard ANSI/ UL-60950-1) and for Canada (CSA Standard CAN/CSA-C22.2 No. 60950-1)
	ELECTRO MAGNETIC INTERFERENCE (EMI )	FCC Part 15(B), Class B
INPUT/OUTPUT CONNECTIONS	AC INPUT CONNECTION	<ul> <li>"IEC 320-C14" Inlet Connector on the unit</li> <li>Detachable Power Cord with: "IEC 320-C13" Connector on one end and NEMA5-15P Plug on the other end</li> </ul>
	DC OUTPUT CONNECTORS FOR LOAD AND BATTERY CONNECTIONS	Terminal with Tubular Hole - Diameter 5mm / 0.2" and set screw (#10, 24 TPI, 5/16" long)
	BATTERY CABLES	Minimum AWG #10 as per NEC Table 310.15(B)(17): - Ampacity 40A (1.25 times Maximum current of 25A) - Conductor temperature rating of 90°C / 194°F
ENVIRONMENT	OPERATING TEMPERATURE RANGE	0°C / 32°F to 30°C / 86°F
GENERAL	DIMENSIONS (W x D x H)	185 x 240.5 x 61 mm / 7.28 x 9.47 x 2.40 in
	WEIGHT	1.6 kg / 3.4 lb

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