



## Desktop Switching Power Supply Built-in Battery Backup Circuit

**Model**  
SEC-1223BBM-CE  
13.8 VDC  
230 VAC  
23 Amps

### 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
- Conforms to European, Australian and New Zealand safety and EMI/EMS requirements

**3 YEAR LIMITED WARRANTY**



MODEL NO.		SEC-1223BBM-CE
AC INPUT	INPUT VOLTAGE	230 VAC (200-260 VAC), 50/60 Hz
	INPUT CURRENT	2.75A @ 230 VAC
	INPUT CURRENT AT NO LOAD	105mA ± 10%
	INRUSH CURRENT AT STARTUP	32A ±5% for 2.4 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 ± 0.2V when not fully charged (ii) 13.5V ± 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	- 25A for 100 sec (External 25A fuse will blow) - Surge > 25A as permitted by Time Current Characteristics of 25A load side fuse (In Battery backup Mode)
	OUTPUT CURRENT LIMIT AT BATTERY TERMINALS (BATTERY BACKUP)	4A (When battery is completely discharged to Standing Voltage of 11.1V)
EXTERNAL BATTERY (NOT INCLUDED)	PEAK EFFICIENCY	85% ± 5%
	TYPE & VOLTAGE	Lead Acid, 12V
PROTECTIONS	CAPACITY	40Ah to 100 Ah
	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 ≥ 105°C ± 5°C / 221°F ± 9°F; Auto reset on cooling down to ≤ 75°C ± 5°C / 167°F ± 9°F
COOLING	FORCED AIR	Temperature controlled fan. ON when Power Transformer winding temperature is ≥ 60°C ± 5°C / 140°F ± 9°F; OFF when cools down to ≤ 40°C ± 5°C / 104°F ± 9°F



**samlex**america®

# 23A

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Switching  
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<b>FUSES</b>	<b>INTERNAL AC SIDE FUSE</b>	- 5 mm x 20 mm Glass Fuse - 250V, 4A, Time Delay Type - Bussmann: "GDC-4" ; Littelfuse : 218004
	<b>EXTERNAL BATTERY SIDE FUSE (BY USER)</b>	- 32V, 25 A, Fast Acting - Within 7" of the Battery Positive Post
	<b>EXTERNAL LOAD SIDE FUSE (BY USER)</b>	- 32V, 25 A, Fast Acting - Within 7" from Load Terminal of the unit

<b>COMPLIANCE</b>	<b>SAFETY</b>	Low Voltage Directive (LVD) 2006/95/EC and 2014/35/E • IEC 60950-1:2005 (2nd) + A1:2009 • EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 • AS/NZS 60950-1:2011 + A1:2012; ANNEX ZZ Variations
	<b>ELECTRO-MAGNETIC INTERFERENCE (EMI)</b>	European Council Directive 2004/108/EC • EN 55022:2010; Class-B • EN 61000-3-2:2006+A1:2009+A2:2009 • EN 61000-3-3:2013 • AS/NZS CISPR 22 (2009+A1:2010), Class B; (C-TICK)
	<b>ELECTRO-MAGNETIC SUSCEPTIBILITY</b>	European Council Directive 2004/108/EC • EN55024:2010 ; Class-B • EN61000-4-2:2009 • EN61000-4-3:2006+A2:2010 • EN61000-4-4:2012 • EN61000-4-5:2006 • EN61000-4-6:2009 • EN61000-4-8:2010 • EN61000-4-11:2004

<b>INPUT/OUTPUT CONNECTIONS</b>	<b>AC INPUT CONNECTION</b>	- "IEC 320-C14" Inlet Connector on the unit - Detachable Power Cord with: "IEC 320-C13" Connector on one end and CEE-7/7 "Schuko" Plug on the other end
	<b>DC OUTPUT CONNECTORS FOR LOAD AND BATTERY CONNECTIONS</b>	Terminal with Tubular Hole - Diameter 5mm / 0.2" and set screw (5/64" Hex Socket Head, #10, 24 TPI, 5/16" long)
	<b>BATTERY CABLES</b>	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