PRODUCT DATA SHEET

27.6VDC Power Supply Series

EN54-4 +A1 +A2 Certified Power Supply Units

Compliant with Fire Detection and Alarm systems

FEATURES

Compliant to EN54-4:1997, A1:2002 & A2:2006
Input Voltage – 110-240V AC
27.6VDC uninterruptible power supply for compliant Fire Systems
1A / 2A / 5A versions available in small mental enclosures for 7Ah batteries
2A / 5A versions available in large metal enclosures for 18Ah batteries
Overload protection circuit to avoid damage to the PCB during short circuit or overload
Deep discharge protection will disconnect batteries to avoid battery damage if draining too low (Below 21VDC)
Battery Monitoring checks status of batteries (low voltage, incorrect connection, short circuit and temperature)
Voltage free outputs: EPS (Mains fail), GEN (Battery low/battery fuse blown)

UT-PSU-EN54-1A-E8
UT-PSU-EN54-2A-E8
UT-PSU-EN54-5A-E8
UT-PSU-EN54-2A-E9
UT-PSU-EN54-5A-E9

Accessories List		
1A Unit	2A Unit	5A Unit
Fuse 1A x 1	Fuse 2A x 1	Fuse 5 A x 1
Fuse 3A x 1		
M20 Rubber Grommet x 2		
PG11 Gland x 1		
Battery Leads +temp. sensor x 1 set		
Battery Jumper Lead x 1		
Battery Brackets x2		
Manual x 1		

Warranty: 3 Years

For more information contact your ADI salesperson or visit us at www.adiglobal.com

Rev: May 25

27.6VDC Power Supply Series

Specifications

		UT-PSU-EN54-1A-E8	UT-PSU-EN54-2A-E8	UT-PSU-EN54-5A-E8	UT-PSU-EN54-2A-E9	UT-PSU-EN54-5A-E9
Mains Input	Rated Voltage/Frequency	110~240V AC ,47～63Hz				
	Input Current	0.3A	0.5A	1.2A	0.5A	1.2A
	Fuse Ratings	F3A				
Low Voltage Output	Voltage (Mains Power)	22.0 ~ 27.6 Vdc				
	Voltage (Battery Standby)	20.0 ~ 26.0Vdc				
	Ripple	<100 mV	<150 mV	<150 mV	<180 mV	<180mV
	Output Fuse	F1A	F2A	F5A	F2A	F5A
	Battery Fuse	F1A	F2A	F5A	F2A	F5A
	Imax A（With Charging）	1A	2A	5A	2A	5A
	Imax B (No Charging)	1.5A	2.8A	5.8A	2.8A	5.8A
	Battery Capacity	2 x 7Ah			2 x 18Ah	
	Ri max	The maximum internal resistance of the battery and its associated circuitry is 5Ω				
	I min	0.1 Amp				
	Battery Charging	Two stage charging: Constant current bulk charging to 80% capacity within 24 hours. Float charging to 100% within 48 hours				
	Constant Current Charge	0.5A	0.8A			
	Temperature Compensation	Coefficient for charging voltage: -30mV/ ºC (0~50 ºC)				
	Low Battery Voltage Trigger	Threshold voltage – 23V				
	Deep Discharge Protection Cut Out	Threshold voltage – 21V				
Terminal connections	L ⏚ N	Mains Input				
	+OP -	Voltage output to load				
	+ BATT -	Connection to batteries using leads (supplied)				
	TEMP	Connection to battery temperature sensor (supplied)				
	GEN	GEN Fault output normally closed；0.50 A @ 60Vdc 0.9Ω solid state relay contacts, volt free；Open if Mains failed and battery voltage < 23V or fault PSU fault condition (see below)				
	EPS	EPS Fault output normally closed; 0.50 A @ 60V dc 0.9Ω solid state relay contacts, volt free; Open if loss of mains for > 10 seconds				
Environmental Conditions	Operating Temperature	- 20 to +45°C (operating), 20%~90% RH non-condensing				
	Storage Temperature	-25 to +85°C (storage),10%~90% RH non-condensing				
Enclosure	Material	1.2 mm steel white powder coated				
	Enclosure Dimensions w*h*d (mm)	275 x 330 x 80			420 x 400 x 80	
	Weight excluding batteries (KG)	3.1	3.1	3.3	5	5.2

Rev: Mayl 25

27.6VDC Power Supply Series

Diagnosic Chart

End User Basic Fault Finding Guide				
Fault LED (Yellow)	**Mains LED (Green)**	**Power Supply Status**	**Potential Issue**	**Investigation**
OFF	ON	Normal Operation	Mains & Battery Operating Correctly	No action required - PSU ok
Continual Flash	On Or Off	System Fault	Internal Power Fault	Call Service Provider
1 Flash	OFF	System in battery mode	Mains Power is disconnected	Check mains power to PSU Call service provider where required

Service Engineer Fault Finding Guide					
Diagnostics LED (Amber)	**Fault LED (Yellow)**	**Mains LED (Green)**	**Power Supply Status**	**Potential Issue**	**Investigation Required by Engineer**
OFF	OFF	ON	Status normal	Mains & battery power ok	No action required - PSU ok
	1 Flash	OFF	Battery standby mode	Mains failure - batteries in use	Investigate mains power loss to PSU
Continual Flash	Continual Flash	ON/OFF	No 24v power at output	Overload Fuse blown Cable or auxiliary device short circuit	Check fuses, cable and auxiliary device for short circuit
1 Flash	OFF	ON	PSU charging batteries	PSU operating normally - batteries are charging but not fully charged	No action required - PSU ok and charging batteries
2 Flashes	Continual Flash	ON	PSU not seeing batteries	Batteries not fitted Batteries discharged too low Battery fuse blown	Test and replace discharged batteries - check battery fuse
		OFF	Battery power low	Mains power off and batteries running low (<23V)	Reinstate mains power and check battery charging
3 Flashes	Continual Flash	ON/OFF	PSU is registering a battery fault	Possible battery fault Poor battery connection	Replace batteries if required Check battery connections are tight and not corroded
4 Flashes	Continual Flash	ON/OFF	PSU is registering a battery charging fault	PSU charging circuit is faulty	Replace power supply unit
5 Flashes	Continual Flash	ON/OFF	PSU is registering battery temperature sensor fault	Battery temperature sensor either faulty or disconnected from input	Check TEMP input connections on PCB. If connected ok, replace battery and sensor leads.

LED Indicators	
LED Colours & Function	**LED Function**
Green LED	Mains power present
Yellow LED	Fault present (See Fault Finding Guide Above)
Amber LED	Fault diagnostics (See Fault Finding Guide Above)

Power Supply Fault Reporting Outputs				
GEN Fault	**EPS Fault**	**Status**	**Potential Issue**	**Investigation Required by Engineer**
Closed	Closed	Status normal	Mains & battery power ok	No action required - PSU ok
Closed	Open	Battery standby mode	Mains failure - batteries in use	Investigate mains power loss to PSU
Open	Closed	System Fault	General fault/Faulty batteries/Internal Fault	Fault - Use Fault finding guide above
Open	Open	Total power loss	Mains Power off and batteries too low	Restore mains power and replace batteries

Rev: May 25