



### Features:

- Seamless switching between main and backup power
- TTL signals for status detection (optional: 485 communication)
- Protections: Short circuit, Overload, Battery reverse polarity
- 120% peak power capability
- Accurate charge and discharge management
- Forced UPS mode for battery maintenance

### Application

- Fire alarm controller, electrical fire monitoring equipment
- Combustible gas alarm controller, Gaseous fire suppression system
- Security monitoring system
- distributed temperature sensor
- Fire equipment power monitoring system

### Specification

MODEL		SNE-110-27
INPUT	VOLTAGE RANGE	187~253VAC
	FREQUENCY RANGE	47~63Hz
	Backup power voltage	18~28VDC
	EFFICIENCY(Typ.)	85%
	AC CURRENT(Typ.)	1.0A/230VAC
	INRUSH CURRENT(Typ.)	40A/230VAC (cold start)
	LEAKAGE CURRENT	<0.3mA/240VAC
OUTPUT	DC VOLTAGE	27.5V
	CURRENT RANGE	0~4A
	RATED POWER	110W (Including charging channel)
	RIPPLE&NOISE(max.)	300mVp-p
	VOLTAGE TOLERANCE	±2.0%
	LINE REGULATION	±1%
	LOAD REGULATION	±2.0%
	OVER SHOOT (max.)	5%Vout
	SETUP TIME (max)	3S
	CAPACITIVE LOAD (min)	4000uF
	CONVERSION TIME	0mS
PROTECTION	OVER LOAD	120%~150% rated output power/Self-recovery
	SHORT CIRCUIT Note6	HICCUP mode, recovers after fault condition is removed; When the backup power is working, the output is short circuited and the backup power fuse is burned out. After replacement, it will resume normal operation
	BATTERY REVERSE POLARITY	no damage, recovers after fault condition is removed
BACKUP POWER MANAGEMENT	CHARGING CURRENT	0.35A/Range:0.3~0.4A
	FLOAT CHARGING VOLTAGE	27.2VDC/Range:26.4~28VDC
	BATTERY LOW	22VDC/Range:21~23VDC
	DISCHARGE	21VDC/Range:20~22VDC output shutdown, Buzzer alarm 2 hours. During this period, the output is normal after the main power is restored
FUNCTION SIGNALS	BACKUP POWER STATUS	When the backup power is normal, the signal output is at a low level; When the backup power fails to provide output due to undervoltage, short circuit, power outage, etc. during the main power operation, or when the backup power voltage is lower than the backup power undervoltage point during the backup power operation,
	AC STATUS	When the main power is working normally, the signal output is at a low level; When the AC input voltage is below 170 ± 15VAC, power outage, etc., and AC power cannot be provided, the signal output is at a high level.
ENVIRONMENT	WORKING TEMP, HUMIDITY	-10~+50°C, 20~90%RH non-condensing
	STORAGE TEMP, HUMIDITY	-40~+60°C, 10~95%RH
	ALTITUDE	≤3000m
	Heat dissipation mode	Cooling by free air convection
Safety and electromagnetic compatibility	Safety standards	GB4717-2005, GB14287.1-2014 and other standards for the power part of the requirements
	Withstand voltage	I/P-O/P 3KVAC, I/P-FG 1.5KVAC, FG-O/P 0.5KVAC
	Isolation resistance	I/P-O/P, I/P-FG, O/P-FG: 100MΩ/500Vdc/25°C/70%RH
	Surge Lightning	Line to line: 1KV, Line to PE: 2KV
	Group immunity of electrical fast	AC Line: 2KV, Other line: 1KV

## Specification

		Parameter	Standard	Test Level / Note	
Electromagnetic compatibility	emission	Conducted emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1EAC TP TC 020,MSIP KN32	Class A	
		Radiated emission	BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 CAN ICES-3(B)/NMB-3(B),CNS13438,GB17625.1EAC TP TC 020,MSIP KN32	Class A	
		Harmonic current	BS EN/EN61000-3-2,GB9254	Class A	
		Voltage flicker	BS EN/EN61000-3-3	----	
			BS EN/EN55035		
	immunity	Electromagnetic compatibility immunity			
			ESD	BS EN/EN61000-4-2	Level 4, 8KV /15KV
			RF field susceptibility	BS EN/EN61000-4-3	Level 4
			EFT bursts	BS EN/EN61000-4-4	Level 3, 2KV
			Surge susceptibility	BS EN/EN61000-4-5	Level 3, 1KV
			Conducted susceptibility	BS EN/EN61000-4-6	Level 4
			Magnetic field immunity	BS EN/EN61000-4-8	Level 4
			Voltage dips , interruption	BS EN/EN61000-4-11	
OTHERS	DIMENSION	146*80*48mm			
	Warranty	18months			
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor.</p> <p>3. Tolerance: includes set up tolerance, line regulation and load regulation.</p> <p>4. Line regulation ,voltage must be measured from the output terminal.</p> <p>5. Efficiency needs to be measured when the backup power is in a floating charge state.</p> <p>6. The specification of the backup power fuse is 7.5A automotive fuse</p>				

**State signal output function:**

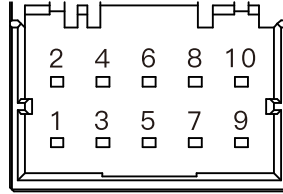
The signal of working state is output at TTL level, high level (4.0-5.3 V) effective, low level ( $\leq 0.8$  v) effective, the maximum absorption current is 1 mA, the maximum output current is 1 mA.  
The pins are arranged as shown in the following figure

PIN function:

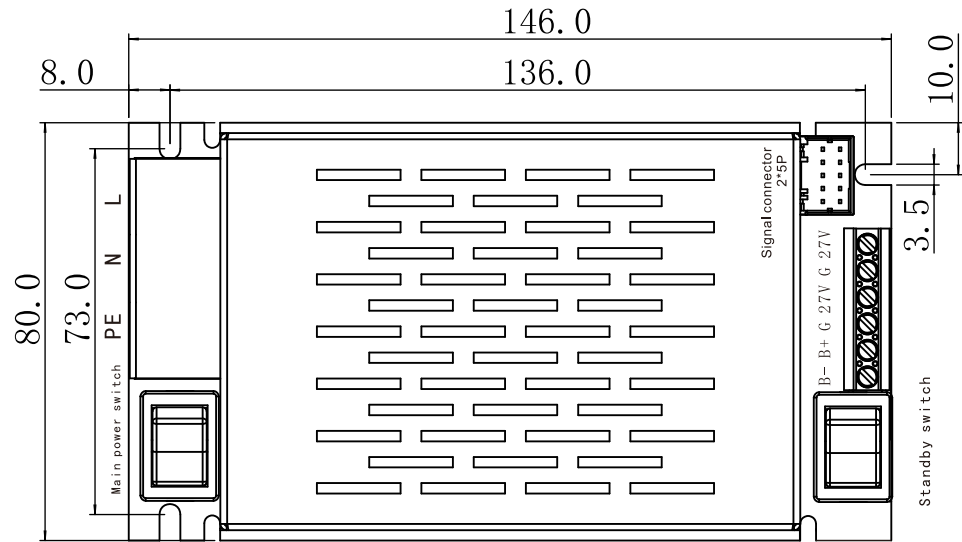
PIN1: FG

PIN3: Standby power fault signal

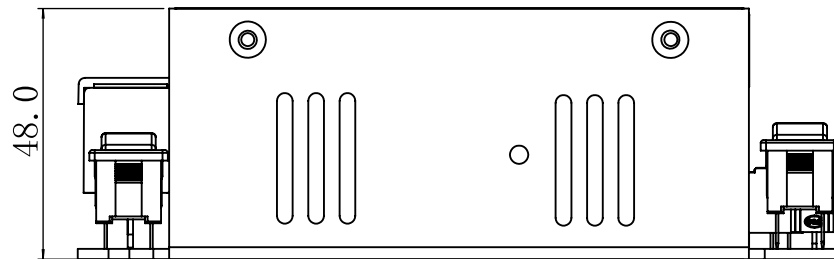
PIN5: Main power fault signal



**Top View**



Installation size diagram, unit: mm



**Front View**