CFS -120 series

120W security/fire alarm power supply

Features:

- Seamless switching between main and backup power
- TTL singals 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 syste
- Distributed temperature sensor
- Fire equipment power monitoring system

Specification

MODEL		SNE-120-27
INPUT	VOLTAGE RANGE	187～253VAC
	FREQUENCY RANGE	47～63Hz
	Backup power voltage	18-28VDC
	EFFICIENCY(Typ.)	85%
	AC CURRENT(Typ.)	1.05A/230VAC
	INRUSH CURRENT(Typ.)	40A/230VAC (cold start)
	LEAKAGE CURRENT	<0.3mA/240VAC
OUTPUT	DC VOLTAGE	27.5V
	CURRENT RANGE	0-4.5A
	RATED POWER	120W（含充电通道）
	RIPPLE&NOISE(max.)	400mVp-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 MANAGEMEN	CHARGING CURRENT	0.35A/Range:0.3-0.4A
	FIOAT 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
FUNCION 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, the signal output is high level.
	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.
	Total fault signal	During normal operation, it is at a low level, and any pin 3, 4, or 6 is at a high level. This signal is at a high level.
	Backup power supply working signal	When the main power supply is working at a low level, when the input AC voltage is below 170 ± 15V and the backup power supply is separately supplied to the load, this signal outputs a high level.
	Backup power supply undervoltage signal	When the backup power supply is working normally, it is at a low level. Only when the backup power supply is working and the voltage is below DC22V, can the signal output be at a high level.
	Main electrical working signal	When the AC input voltage is cut off or below 170 ± 5V and cannot supply power to the load, it is considered as a low level. If the AC power input meets the requirements, the system operates normally at a high level.
	Standby open/short circuit identification signal	The backup power off/short identification signal is invalid when the backup power failure signal is "0".When the backup power failure signal is "1", this signal is "1", indicating that the connection between the system and the backup power has broken;If this signal is "0", it indicates a short circuit between the system and the backup power connection.
ENVIRONIMENT	WORKING TEMP,HUMIDITY	-10～+50℃, 20～90%RH non-condensing
	STORAGE TEMP,HUMIDITY	-40～+60℃, 10～95%RH
	ALTITUDE	≤3000m
	Heat dissipation mode	Cooling by free air convection

Specification

Electromagnetic compatibility immunity	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℃/70%RH		
	Electromagnetic compatibility emissionemission	**Parameter**	**Standard**	**Test Level / Note**
		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	----
	Electromagnetic compatibility immunity	BS EN/EN55035		
		Parameter	**Standard**	**Test Level /Note**
		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	180*106*48mm		
	Warranty	18 months		

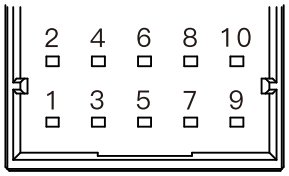
NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Line regulation ,voltage must be measured from the output terminal.
5. Efficiency needs to be measured when the backup power is in a floating charge state
6. The specification of the backup power fuse is 7.5A automotive fuse

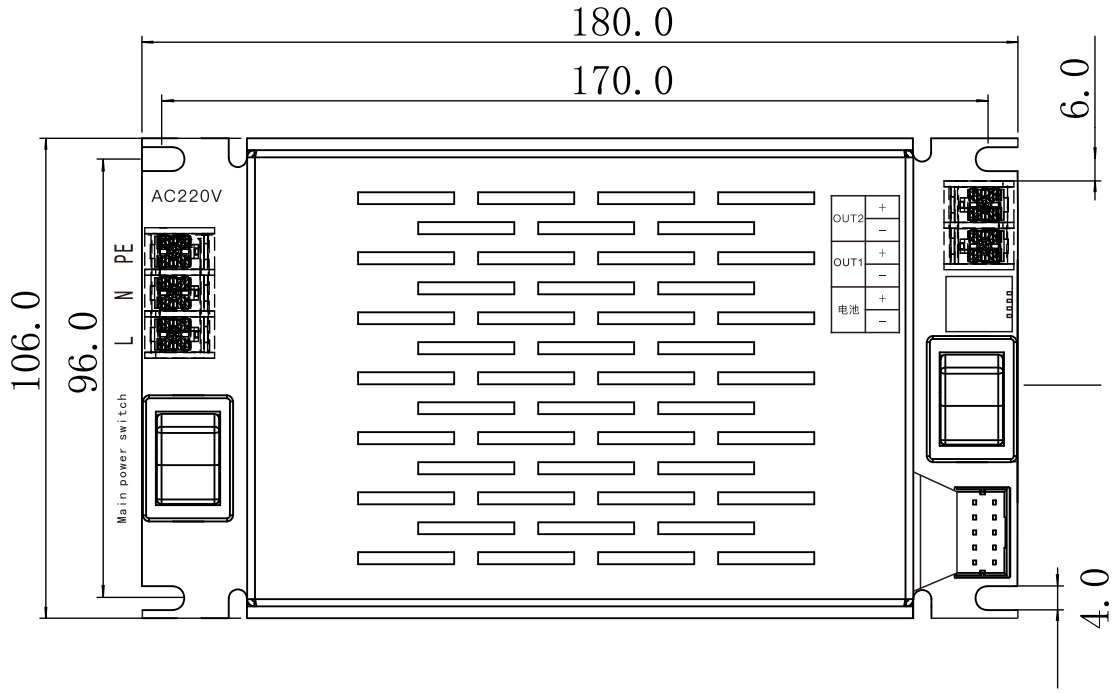
State signal output function:

The power supply has two working state output signals, signal output and isolation 5V common ground, TLL level output, high level 4.0 ~ 5.3 V, low level ≤0.8 V, port maximum input and output current 1mA.
The pins are arranged as shown in the following figure

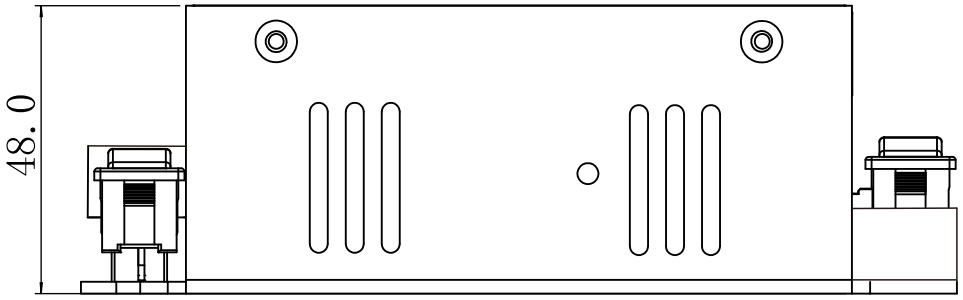
PIN function:
PIN1: Main electrical working signal
PIN2: Working signal of standby power supply
PIN3: Backup power supply undervoltage signal
PIN4: Standby power failure signal
PIN5: Total failure signal
PIN6: Main power fault signal
PIN7: Standby open/short circuit identification signal
PIN8: Reserve pin, when the actual use of suspension
PIN9 : FG



Top View



Installation size diagram, unit: mm



Front View