Features:

- Seamless switching between main and backup power
- UART 3.3 V communication protocol can be customized
- Protections: Short circuit、Overload、Battery reverse polarity
- 120% peak power capability
- Accurate charge and discharge management
- Accurate AC input voltage, output voltage, output current detection
- Mandatory emergency function, battery maintenance function
- Patrol inspection of spare battery pack

Application :

- Applied to fire emergency lighting and evacuation indication system, including centralized power supply non-centralized control type and centralized control type

Specification

MODEL		SNE-150-41
INPUT	VOLTAGE RANGE	187～253VAC
	FREQUENCY RANGE	47～63Hz
	Backup power voltage	36VDC /Range: 27-42VDC
	EFFICIENCY(Typ.)	89%
	AC CURRENT(Typ.)	1.2A/230VAC
	INRUSH CURRENT(Typ.)	50A/230VAC (cold start)
	LEAKAGE CURRENT	<0.3mA/240VAC
OUTPUT	DC VOLTAGE	41.5V
	CURRENT RANGE	0-3.6A
	RATED POWER	150W (Including charging channel)
	RIPPLE&NOISE(max.)	420mVp-p
	VOLTAGE TOLERANCE	±2.0%
	LINE REGULATION	±1%
	LOAD REGULATION	±2.0%
	OVER SHOOT (max.)	5%Vout
	SETUP TIME (max)	3S
	CAPACITIVE LOAD (min)	3000uF
	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	0.7A/Range:0.6-0.85A
	FIOAT CHARGING VOLTAGE	40.8VDC/Range:39.8-41.2VDC
	Standby limit discharge voltage	34VDC/Range:33.2-34.8VDC
ENVIRONIMENT	WORKING TEMP,HUMIDITY	-10～+50℃, 20～90%RH non-condensing
	STORAGE TEMP,HUMIDITY	-40～+60℃, 10～95%RH
	ALTITUDE	≤3000m
	Heat dissipation mode	Program-controlled air cooling
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

Specification

Electromagnetic compatibility immunity	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	----
		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*90*45mm		
	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			

State signal output function:

Mandatory emergency function:
The forced emergency interface adopts two modes of 2.54-2P terminal and self-locking stroke switch. If the forced emergency interface is short-circuited or the stroke switch is pressed, the power supply enters the forced emergency state, under this condition, the function of back-up over-discharge protection is invalid, the strong-up interface short circuit is removed, and the power supply returns to normal working state.
The pins are arranged as shown in the following figure:

Lighting 220VAC detection function: hardware reserved, need the function to consult.
Fire alarm control linkage emergency function: hardware reservation, need the function to consult.

Communication functions: power supply uploads all kinds of fault signals to the controller (charging port short circuit, standby open circuit, output overload, battery under voltage fault, output open circuit, main power fault, battery sampling line open circuit/short circuit) , power supply working state (strong rise mode, manual mode, automatic mode) , charging state, single battery voltage (optional) , main voltage, output voltage, output current, charging limit voltage, overdischarge voltage, etc. , see the details of the communication protocol.

The precision of the main voltage (50Hz) is ± 2% (minimum resolution is 1v) , the error of the DC voltage sampling value and the actual value is less than or equal to 0.5 V, the current sampling value and the actual value error is less than 0.9 a, and according to the instruction of the controller, change the working state of the power supply. UART 3.3 V communication mode is used between power supply and emergency lighting controller, and XH2.54-4P connector is used for communication interface.

Installation size diagram, unit: mm