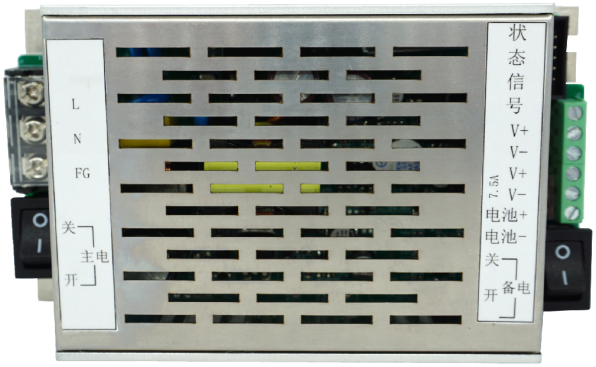


Features:

- 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 system
- distributed temperature sensor
- Fire equipment power monitoring system

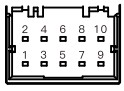
Specification

MODEL		CFS-55-13.5		
INPUT	VOLTAGE RANGE	187~253VAC		
	FREQUENCY RANGE	47~63Hz		
	Backup power voltage	5-14VDC		
	EFFICIENCY(Typ.)	80%		
	AC CURRENT(Typ.)	0.5A/230VAC		
	INRUSH CURRENT(Typ.)	40A/230VAC (cold start)		
	LEAKAGE CURRENT	<0.3mA/240VAC		
OUTPUT	DC VOLTAGE	13.5V		
	CURRENT RANGE	0- 3A		
	RATED POWER	55W(Including charging channel)		
	RIPPLE&NOISE(max.)	200mVp-p		
	VOLTAGE TOLERANCE	±2.0%		
	LINE REGULATION	±1%		
	LOAD REGULATION	±2.0%		
	OVER SHOOT (max.)	5%Vout		
	SETUP TIME (max)	3S		
	CAPACITIVE LOAD (min)	2000uF		
	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	0.75A/Range:0.65-0.85A		
	FIOAT CHARGING VOLTAGE	13.2VDC/Range:12.9~13.5V		
	BATTERY LOW	10.5VDC/Range:10~11V		
	DISCHARGE	10.5VDC/Range:10~11V output shutdown, Buzzer alarm 2 hours。During this period, the output is normal after the main power is restored		
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.		
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		
Safety and electromagnetic compatibility	Safety standards	Refer to GB4717,GB14287.1		
	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,FG-O/P :100M Ohms/500VDC/25℃/70% RH		
	Electromagnetic compatibility emission	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

Safety and electromagnetic compatibility	Electromagnetic compatibility emissionemission	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	146*80*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.			

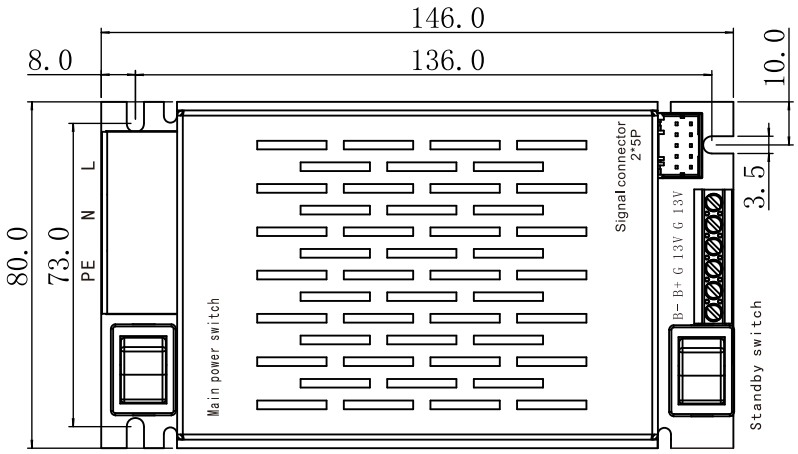
State signal output function:

The signal of working state is output at TTL level, high level (4.0-5.3 V) effective, low level (≤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.



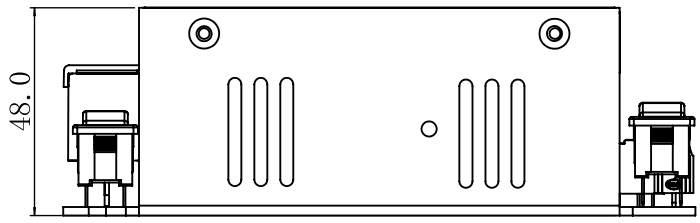
PIN function:
PIN1 : FG
PIN3 : Standby power fault signal
PIN5 : Main power fault signal

Top View



Wiring diagram:

Installation size diagram, unit: mm



Front view