155W Battery Charging Power Supply

HF155W-SB Series

FEATURES

- AC input range selected by switch
- To charge lead acid battery by floating charge
- Auto switch when power off (UPS function)
- AC mains failure signal
- Battery low signal
- Free air convection cooling
- Protections: overload/ over voltage/ short circuit
- 5 years limited warranty
- F615 199 x 98 x 50mm

SPECIFICATIONS

Input Voltage	85~132/170~264VAC switchable
Input Current	3.6A/115V, 1.8A/230V
Input Frequency	47~63Hz
Inrush Current	cold start, 20A/115V, 40A/230V
Input Leakage Current	< 1mA/230VAC
Line Regulation (full load)	± 0.5%
Voltage Adjust Range	V1: ± 5%, V2: not adjustable
Output Overload Protection	105~130%, shut off, re-power on to recover
Output Over Voltage Protection	115~150%, shut off, re-power on to recover
Short Circuit Protection	shut off, re-power on to recover
Rise Time	50ms @full load (typical)
Hold up Time	20ms @full load (typical)
Mechanical Feature	metal enclosed, IP20
DC output Indication	green LED on when DC output available
Dimensions	199 x 98 x 50mm (L x W x H)

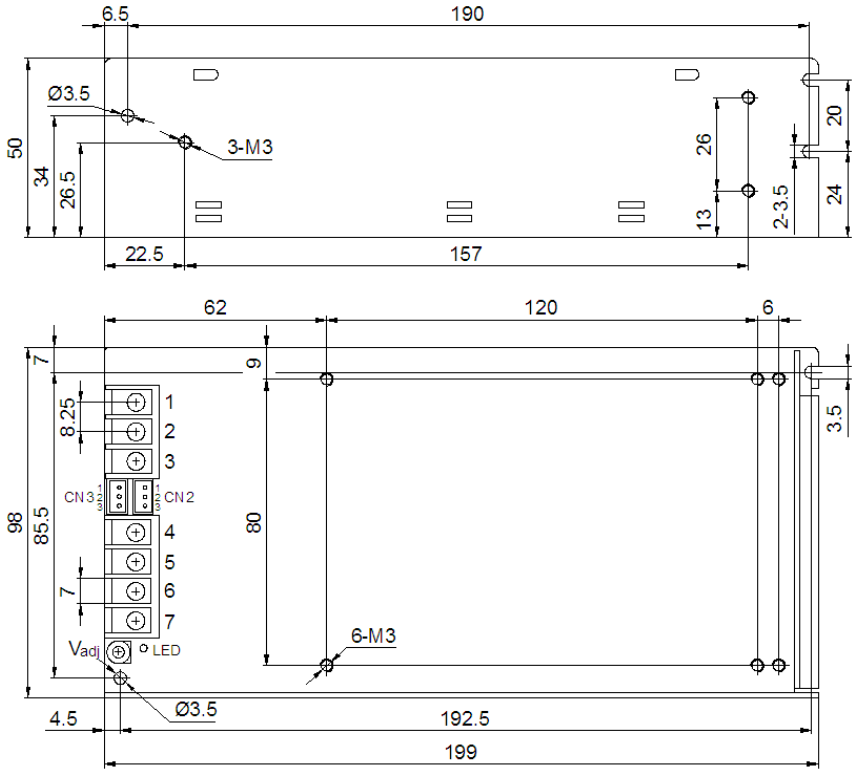
Operating Temperature	-30°C ~+70°C(ref. derating curve)
Storage Temperature	-30°C ~+85°C
Operating Humidity	20%~93%RH(non condensing)
Storage Humidity	20%~95%RH(non condensing)
MTBF	>100,000 hours
Cooling	convection
Safety Standards	GB4943, UL60950, EN60950
EMC Standards	GB9254, EN55022 Class B EN55024, EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11
Withstand Voltage	I/P -O/P: 3.0KVAC/1min I/P - PE: 1.5KVAC/1min O/P-PE: 0.5KVAC/1min
Vibration	10~150Hz, 2G 10min/1cycle, 30min each along X, Y, Z axes
Connection	7P/8.25mm pitch terminal block
Signal Output CN2,CN3 (refer to drawing)	3P/2.50mm, 2501WV-3P wafer 2501-T terminal, 2501H-3P housing Manufacturer: Taiwan CKM
Packing	0.74kgs, 20pcs/17kgs/0.030CBM per carton

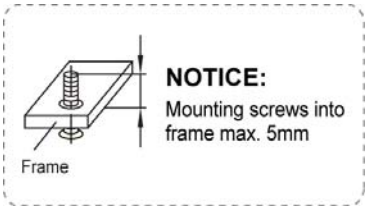
Model No.	DC Output	Voltage Adjust Range	Voltage Tolerance	Charging Current	Battery Low Voltage Protection	Ripple & Noise (max.)	Efficiency
HF155W-SB-13.8	13.8V 11.5A	± 5%	±1%	0.5A	9.6V ± 0.5V	120mVp-p	82%
	13.3V 0.5A (charger)	not adjustable	±3%				
HF155W-SB-27.6	27.6V 5.5A	± 5%	±1%	0.5A	19.6V ± 0.5V	150mVp-p	85%
	27.1V 0.5A (charger)	not adjustable	±3%				

NOTE

1. All parameters are measured at 230VAC input, rated load and 25°C ambient temperature.
2. Line regulation is measured from low line to high line at rated load.
3. Load regulation is measured from 0% to 100% of rated load for single output models. For multi-output models, it is measured from 20% to 100% of rated load, and other output at 60% rated load.
4. Ripple & noise are measured at 20MHz of bandwidth by using a 12” twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
5. The power supply is regarded as a component which will be installed into the final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

Drawing





Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	BATTERY “-”
2	AC/N	5	BATTERY “+”
3	PE	6	LOAD “-”
		7	LOAD “+”

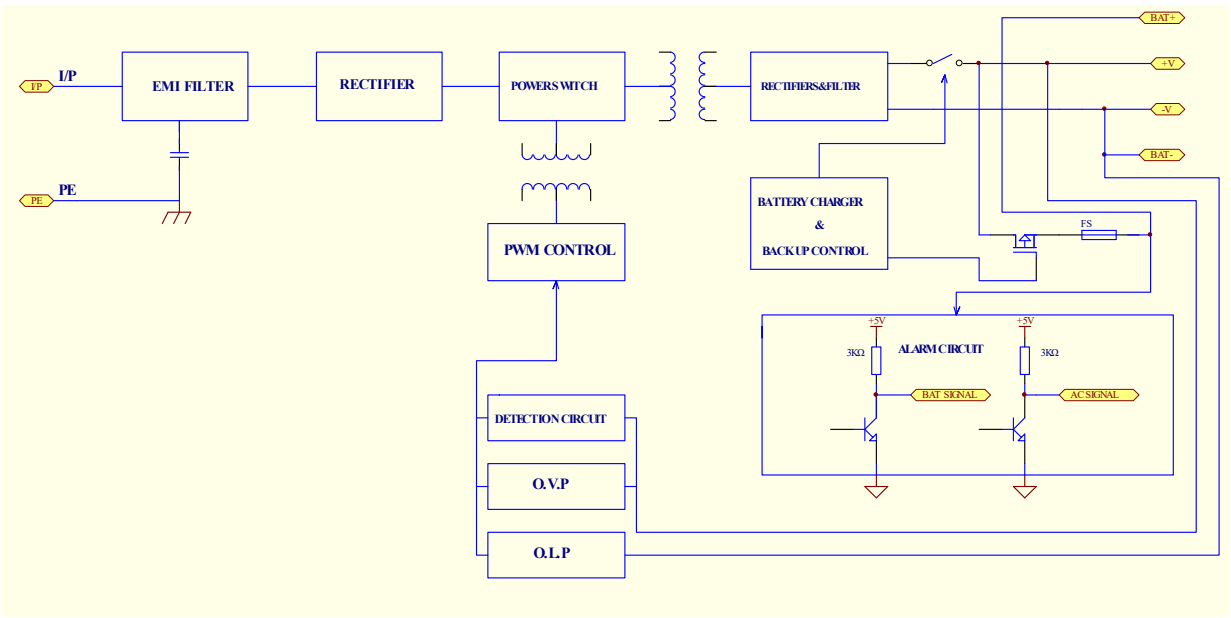
CN2 Pin No. Assignment

Pin No.	Assignment
1	Battery low signal (low level < 0.7V when battery works normally, high level > 3V when battery low. The battery will be switched off immediately when it gives the battery low signal.)
2	GND
3	AC mains failure signal (low level < 0.7V when AC power on, high level > 3V when AC mains fails)

CN3 Pin No. Assignment

Pin No.	Assignment
1,2,3	Compulsive battery discharge triggering connector: you may link pin 1 (or pin 2) and pin 3, then connect to an outside switch for compulsive discharge of the battery.

Block Diagram



Derating Curve