

# 55W Single Output with Battery Charger

**HF55W-SB Series** 



#### **SPECIFICATIONS**

Input Voltage	85~264VAC (120~370VDC)
Input Current	1.8A
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	105~150%, hiccup mode, auto
Protection	recovery
Output Over Voltage	115~150%, hiccup mode, auto
Protection	recovery
Short Circuit Protection	hiccup mode, auto recovery
Rise Time	50ms @full load (typical)
Hold up Time	20ms @full load (typical)
Mechanical Feature	enclosed
Battery Reverse	red LED on when battery +/-
Connection Indication	pole reverse connected
Dimensions	160 x 98 x 39mm (L x W x H)

#### **FEATURES**

- Universal AC input / full range
- Electrolytic capacitors all 105°C
- · To charge lead acid battery by floating charge
- Auto switch when power off (UPS function)
- · AC mains failure signal
- · Battery low signal
- Battery +/- pole reverse connection protection
- · Approvals: CE
- · Protections: overload/ over voltage/ short circuit
- · 5 years limited warranty
- F605 160 x 98 x 39mm

Operating Temperature	-20°C ~+70°C(ref. derating curve)
Storage Temperature	-20°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	8P/8.25mm pitch terminal block
Signal Output CN1	2P/2.50mm, 2501WV-2P wafer
(refer to drawing)	2501-T terminal, 2501H-2P housing
	Manufacturer: Taiwan CKM
Packing	0.49kgs, 36pcs/18.5kgs/0.045CBM per carton
	por outton

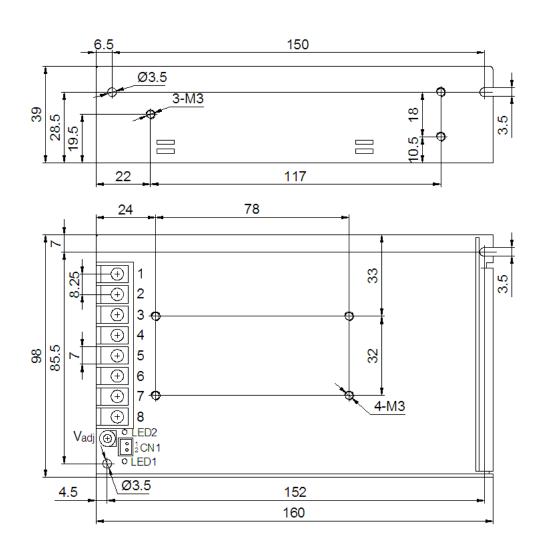
Model No.	DC Output	Voltage Adjust Range	Voltage Tolerance	Charging Current	Battery Low Voltage Protection	Ripple & Noise (max.)	Efficiency
HF55W-SB-13.8	13.8V 4A	± 5%	±1%	0.23A		120mVp-p	75%
	13.4V 0.23A	not	±3%		9.6V ± 0.5V		
	(charger)	adjustable					
HF55W-SB-27.6	27.6V 2A	± 5%	±1%	0.16A	19.6V ± 0.5V	150mVp-p	76%
	26.5V 0.16A (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



# Length of assembly screw: max. 6mm

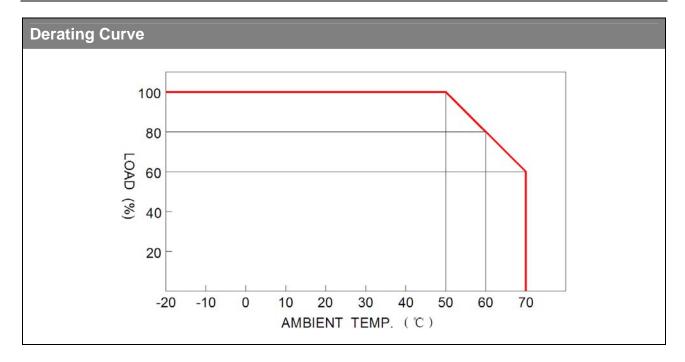
# Terminal Pin No. Assignment

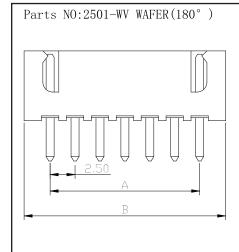
Pin No.	Assignment	Pin No.	Assignment		
1	AC/L	4,7	COMMON "-" of DC & BATTERY OUTPUT		
2	AC/N	5	DC OUTPUT +V		
3	PE	6	BATTERY "+" POLE		
		8	NO USE		

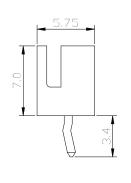
## CN1 Pin No. Assignment

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 after it gives the battery low signal. When battery switched off, you have to re-power on AC mains, so the battery can recover.)
2	AC mains failure signal (low level < 0.7V when AC power on, high level > 3V when AC mains fails)







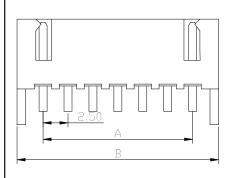


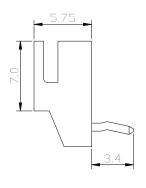
Material:pin/post:Brass Tin-plated Wafer:Nylon 66 UL 94V-0

Circuits:2-15 circuits available Insulation resistance:1000M  $\Omega$  min Withstand voltage:1000V AC/minute

Current rating :3A AC/DC voltage rating:250V AC/DC

### Parts NO:2501-WR WAFER(90°)





	Dimension mm			
Circuits	Part No	A	<u>B</u>	
2	2051WV/WR-2P	2.50	7.5	
3	2051WV/WR-3P	5.00	10.0	
4	2051WV/WR-4P	7.50	12.5	
5	2051WV/WR-5P	10.00	15.0	
6	2051WV/WR-6P	12.50	17.5	
7	2051WV/WR-7P	15.00	20.0	
8	2051WV/WR-8P	17.50	22.5	
9	2051WV/WR-9P	20.00	25.0	
10	2051WV/WR-10P	22.50	27.5	
11	2051WV/WR-11P	25.00	30.0	
12	2051WV/WR-12P	27.50	32.5	
13	2051WV/WR-13P	30.00	35.0	
14	2051WV/WR-14P	32.50	37.5	
15	2051WV/WR-15P	35.00	40.0	

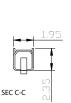
# TERMINAL Parts NO:2501-T Material:Phosphor bronze or brass Finish:Tin-plated Accept housing:2501-H Applicable wires:AWG#28-#22 Insulation O. D.:1.2-1.76mm Q'ty/reel:8,000pcs

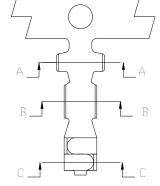


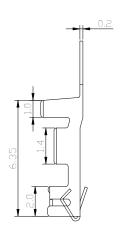




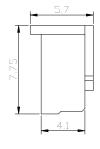
SEC B-B

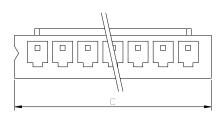


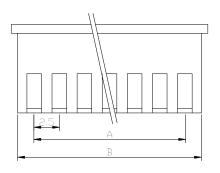




# HOUSING Parts NO:2501-H Material:Nylon 66 94V-2 Circuits:2-15 circuits available Insulation resistance:1000M¦, min Withstand voltage:1000V AC/minute Current rating:3A AC/DC voltage rating:250V AC/DC







	Dimension mm				
Circuits	Part No	A	В	<u>C</u>	
2	2501H-2P	2.50	5. 7	7.3	
3	2501H-3P	5.00	8.2	9.8	
4	2501H-4P	7.50	10.7	12.3	
5	2501H-5P	10.00	13. 2	14.8	
6	2501H-6P	12.50	15.7	17.3	
7	2501H-7P	15.00	18.2	19.8	
8	2501H-8P	17.50	20.7	22. 3	
9	2501H-9P	20.00	23. 2	24.8	
10	2501H-10P	22.50	25.7	27.3	
11	2501H-11P	25.00	28.2	29.8	
12	2501H-12P	27.50	30.7	32.3	
13	2501H-13P	30.00	33.2	34.8	
14	2501H-14P	32.50	35. 7	37.3	
15	2501H-15P	35.00	38. 2	39.8	

Manufacturer: Taiwan CKM