

## TW60-12 Series single output power supply for battery charge (UPS)



Dimension: 129 × 98 × 38mm

### Features:

- Universal AC input/Full range
- Small volume, low weight, high efficiency
- Protections: Short circuit / Overload
- Indicator for power on/charge/normal(LED)
- 100% full load burn-in test
- Battery protection at low voltage
- 2 Years warranty

CE

Model		TW60-12	
Output	DC voltage	CH1:13.8V	CH2:13.4V
	Voltage tolerance	± 1%	-----
	Rated current	4.0A	0.35A
	Current range	0 ~ 4A	-----
	Rated power	59.9W	
	Ripple & noise	100mVp-p	-----
	DC voltage ADJ. range	CH1:11.3 ~ 14.9V	
Setup, rise, hold up time	800ms,50ms,80ms/230VAC.1600ms,50ms,16ms/115VAC.		
Input	Voltage range	90 ~ 264VAC or 127 ~ 370VDC	
	AC current	1.6A/115VAC 0.8A/230VAC	
	Efficiency	81%	
	Inrush current	cold-start current 25A/115VAC 45A/230VAC	
	leakage current	< 1mA/240VAC	
Protection	over load	rated output power 110% ~ 150% start over load protection protection type: AC charging mode :hiccup mode, auto-recovery after fault condition is removed	
	battery protection at low voltage	9.5 ~ 11V protection mode :cutoff output	
Function	UPS introduction	long-term online floating charge to battery,high charging efficiency,battery can saturate to more than 90%	
		auto-stop charging when it's full,prevent over charging. Effectively extend battery life	
		AC/battery auto switch,no switch time,no need human guard	
		cold-start ,when there is no AC input ,can use battery start UPS,Meet the user's emergency needs	
Environment	Working temp, humidity	-10°C ~ +60°C;20% ~ 90%RH(Please refer to "derating curve" )	
	Storage temp, humidity	-20°C ~ +85°C;10% ~ 95%RH Non-condensing	
	Withstand vibration	10 ~ 500Hz, 2G 10min./1Cycle, Period for 60min, Each axes	
Safety	Withstand voltage	I/P-O/P: 1.5KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC	
	Isolation resistance	I/P-O/P: I/P-FG,O/P-FG: 100M Ohms/500VDC	
Fit standard	Safety standard	Compliance to UL60950-1	
	EMC Standard	Compliance to EN55022, CLASSA	
Others	Weight	0.52kg 129*96*38mm ( L*W*H )	

Note: 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C 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

## Mechanical specification

Unit:mm

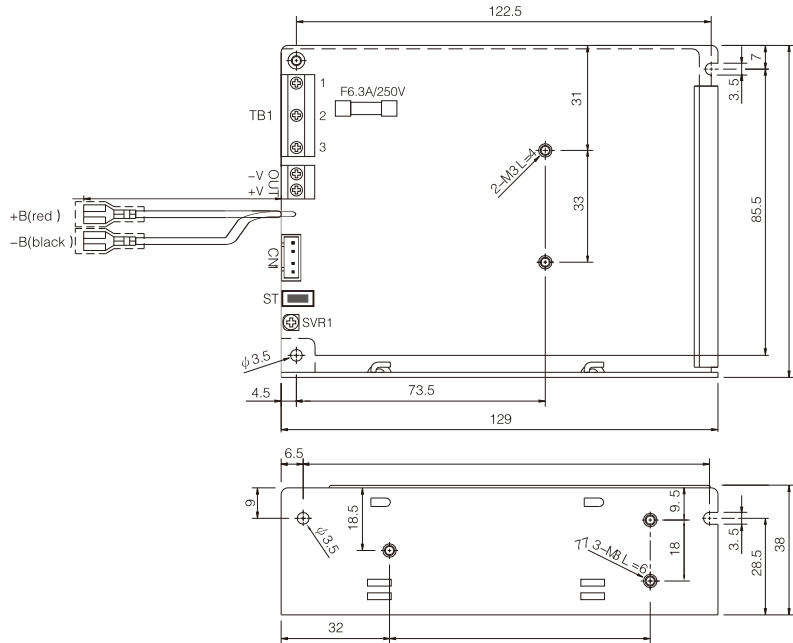
### PIN assignment

Pin No.	Assignment
1	AC/L
2	AC/N
3	FG $\perp$

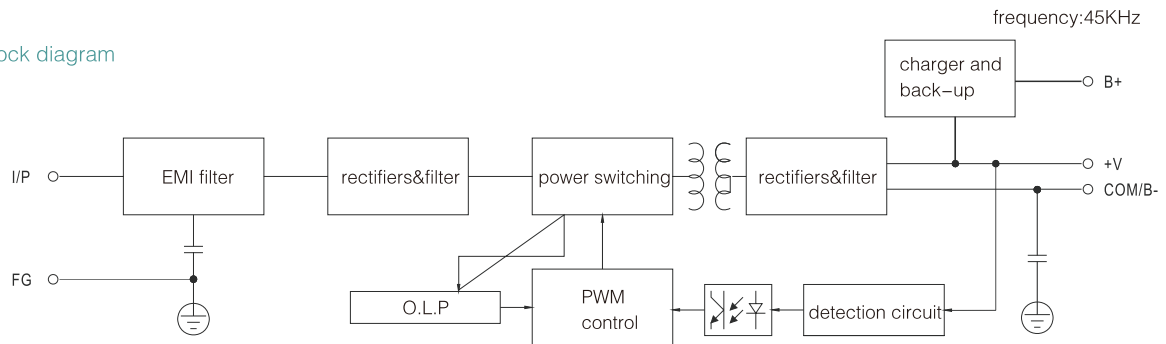
### circumscribed indicator explain

indicator color	explain
green	DC OUTPUT indicator
red	AC INPUT indicator
white	battery charge indicator

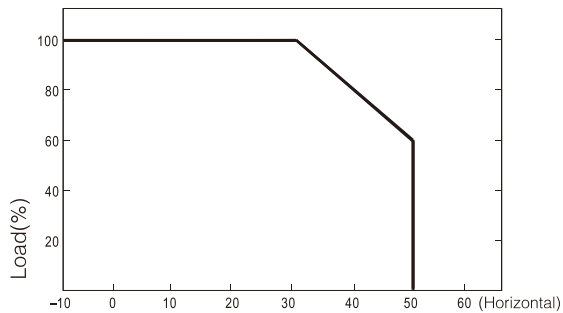
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## Block diagram

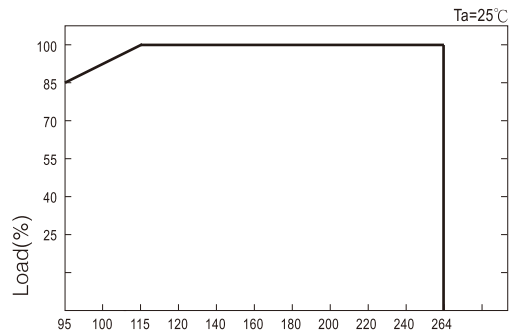


## Derating curve



Ambient temperature(°C)

## Static characteristic



Input voltage(V)50Hz