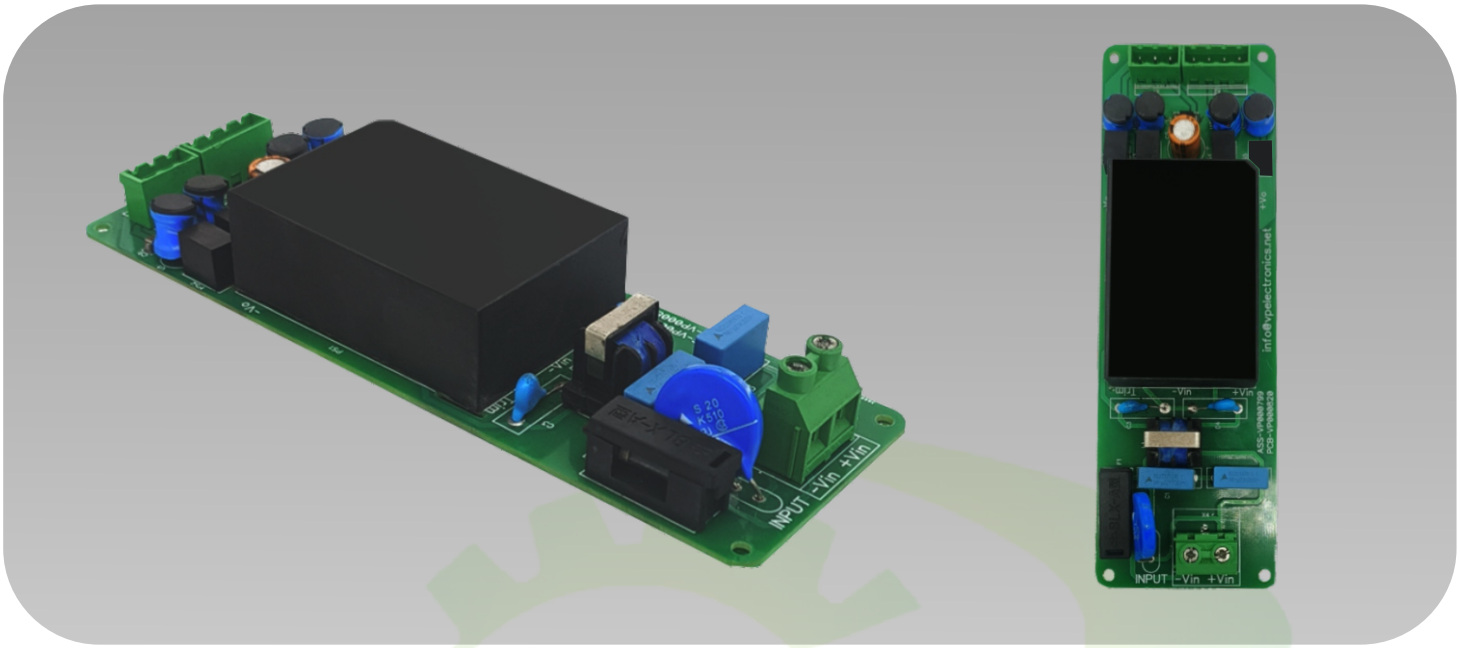
VP000799

MUL_CH_POWER SUPPLY _30W (+15V,-15V ,+12V &+5V)



APPLICATIONS

- Inductions Heating
- Medical equipments
- UPS
- Inverter
- Solar Inverter
- Railways
- Battery charger

MUL_CH_POWER SUPPLY_30W (+15V,-15V ,+12V &+5V)

A compact size, high efficiency module power supply provided by Aipu. It has the advantages of universal input voltage both DC & AC available, low ripple, low temperature rise, low standby power consumption, high efficiency & reliability, safety isolated and good EMC performance. EMC conforms to EN55032, IEC/EN61000. It can be widely used for electric power, industrial, instrument and smart home applications. The additional circuit for EMC is recommended in this datasheet for the application with higher EMC requirement.

FEATURES

- Wide input voltage range 176-528VAC/248-745VDC
- No-load power consumption ≤0.55W
- Efficiency 82% Typ.
- Operating Temperature -40℃~105℃
- Switching frequency 65KHz
- Isolation voltage 4000Vac
- Altitude during operation 4000m Max
- Compliant with IEC/EN62368/UL62368
- Conform to CE & RoHS regulation
- Plastic case, flame class UL94 V-0
- PCB mounting
- Output Short Circuit, Over Current, Over Voltage Protections

OUTPUT SPECIFICATIONS

Item	Operating Condition	Min.	Typ.	Max.	Unit
Voltage Accuracy	Full input voltage Range, Any load	-	±2.0	±3.0	%
Line Regulation	Rated Load	-	-	±0.5	%
Load Regulation	Rated input Voltage, 20%~100% load	-	-	±1.0	%
Minimum load	Single isolated output	0	-	-	%
Turn-on Delay Time	Input 230Vac	-	2000	-	mS
	Input 400Vac	-		-	
Power-off Hold up Time	Input 230VAC	-	35	-	mS
	Input 400VAC	-	100	-	
Dynamic Response	25%~50%~25% 50%~75%~50%	Overshoot range ≤ ±10 Recovery time ≤ 5.0			%
Over Voltage Protection	15VDC Output	≤20			VDC
Output Overshooting	Full input voltage range	≤10%Vo			%
Short Circuit Protection		Continuous, Self-recovery			Hiccup
Drift Coefficient	-	-	±0.02%	-	%/℃
Over Current Protection	Input 230VAC	⩾120% Io, Self-recovery			Hiccup

Part No	Output Specification			Max. Capacitive Load	Ripple& Noise 20MHz (Max)	Efficiency @Full Load 230Vac (Typical)
	Power	Voltage	Current			
	(W)	(V)	(mA)	uF	mVp-p	%
FA30-380S15H2N4	30	15	2000	5000	120	82

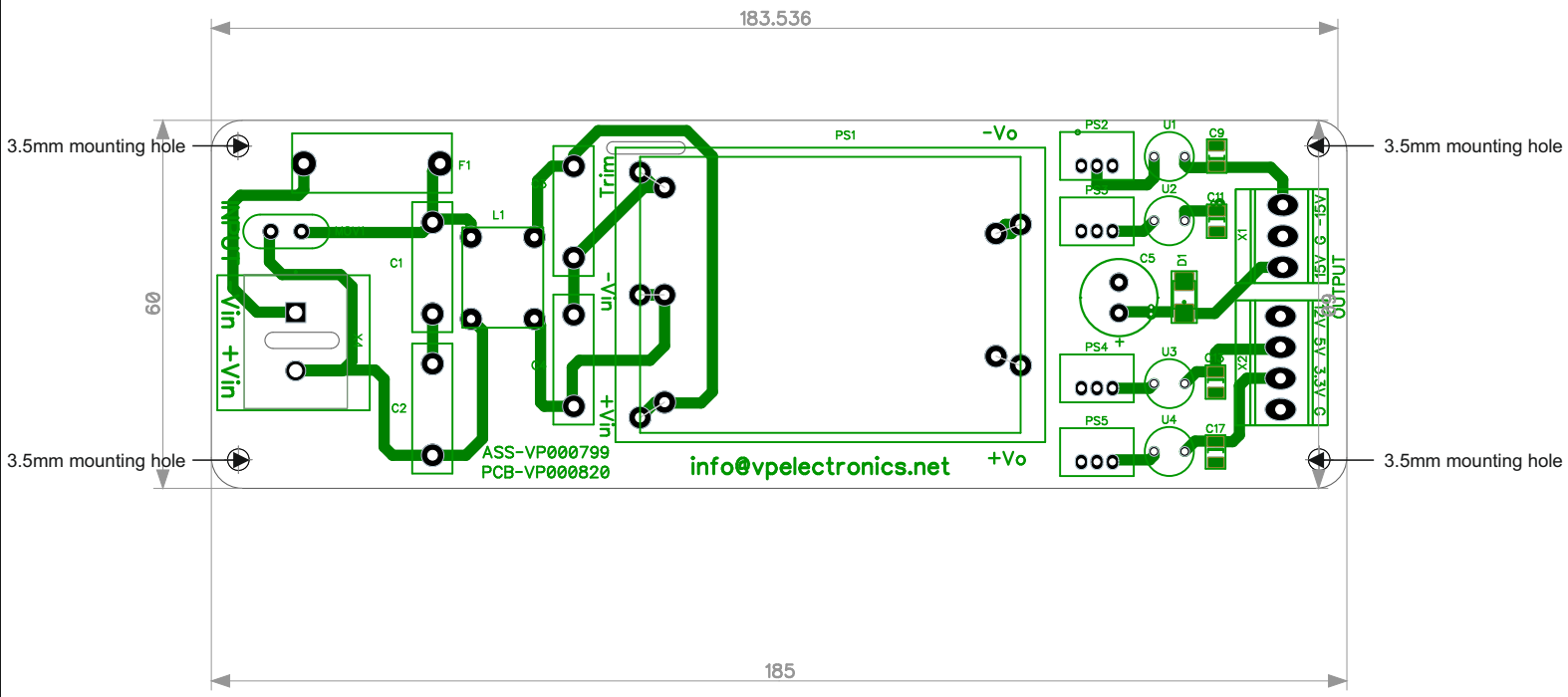
GENERAL SPECIFICATIONS

Item	Operating Condition	Min.	Typ.	Max.	Unit
Switching Frequency	-	-	65	-	KHz
Operating Temperature	Refer to the temperature derating curve	-40	-	+105	℃
Storage Temperature	-	-40	-	+110	
Soldering Temperature	Wave-soldering	260±4℃, timing 5-10S			
	Manual-soldering	360±8℃, timing 4-7S			
Relative Humidity	-	10	-	90	%RH
Isolation Voltage	I/P-O/P test 1min, leakage current≤5mA	4000	-	-	VAC
	I/P-O/P @DC500V	100	-	-	MΩ
Safety Standard	-	IEC/EN62368/UL62368			
Vibration	-	10-55Hz,10G, 30 Min, along X,Y,Z			
Safety Class	-	CLASS Ⅰ			
Flame Class of Case	-	UL94 V-0			
MTBF	MIL-HDBK-217F@25℃	>300,000H			
Product Weight	Part No.	Weight (Typ.)			
	VP000799	220 gm			

EMC PERFORMANCE

Total Item		Sub Item	Standard	Performance/Class
EMC	EMI	CE	CISPR22/EN55032	CLASS B
		RE	CISPR22/EN55032	CLASS B
	EMS	RS	IEC/EN61000-4-3	10V/m Perf.Criteria A
		CS	IEC/EN61000-4-6	3Vr.m.s Perf.Criteria A
		ESD	IEC/EN61000-4-2	Contact ±6KV / Air ±8KV Perf.Criteria B
		Surge	IEC/EN61000-4-5	Line to line ±2KV Perf.Criteria B
				Line to line ±4KV Perf.Criteria B (with the Recommended Circuit 2, 3&4)
		EFT	IEC/EN61000-4-4	±2KV Perf.Criteria B
				±4KV Perf.Criteria B (with the Recommended Circuit 2, 3&4)
		Voltage dip, short interruption and voltage variation	IEC/EN61000-4-11	0%~70% Perf.Criteria B

MODULE LAYOUT



MODULE SCHEMATIC