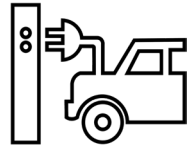


AC-DC POWER SUPPLY

UP TO 100 WATTS

EV CHARGING APPLICATIONS

PFEV100 SERIES



FEATURES

- Universal Input Range 90-264VAC, 127-370VDC, 47-63Hz
- Remote ON/OFF Control
- Adjustable Output Voltage
- I/O Isolation 4300VAC
- Operating Ambient Temperature Range: -40°C to +85°C
- No Load Power Consumption < 0.1W
- 5000m Altitude Application
- Over-Voltage Category OVC III (New Edition)
- High Efficiency up to 93.5%
- Isolation Class II
- EMC Compliant without External Components
- Meets UL/IEC/EN 62368-1, IEC/EN 61558-1, IEC/EN 61558-2-16, IEC/EN 60335-1

SELECTION GUIDE Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified.

Input Voltage Range Vac / Vdc	Output Voltage V	Output Current at Full Load mA	Maximum Output Wattage W	Efficiency %	Model Number	Max. Capacitor Load µF
90-264 / 127-370	12	8,333	100	93	PFEV100-12S	4,000
90-264 / 127-370	24	4,166	100	93.5	PFEV100-24S	2,000
90-264 / 127-370	48	2,083	100	93	PFEV100-48S	1,000

Input Specifications

Rated input voltage, Vac/Vdc	90-264 / 127-370	
Input frequency, Hz	47-63	
Input current, A	2 Max.	115Vac
	1 Max.	230Vac
Inrush current, A	45 Max.	115Vac
	90 Max.	230Vac
No load power consumption, W	< 0.15	115/230 Vac
Power factor	>0.9	Full Load

Output Specifications

Voltage accuracy, %	±2	
Minimum load, %	0%	
Line regulation, %	±0.5% Typ.	Low Line to High Line
Load regulation, %	±1% Typ.	0-100%
Ripple & noise, mV	Full Load, measured at 20MHz of bandwidth with 0.1µF & 47µF parallel capacitor	
	120	PFEV100-12S
	200	PFEV100-24S
	240	PFEV100-48S
Hold-up time, ms	20 Typ.	

General Specifications

Short circuit protection,	Hiccup mode (automatic recovery)			
Over voltage protection	Auto recovery			
Over current protection	Auto recovery			
Isolation	Input-Output (V.AC)		4,300V	

Environmental Specifications

Operating temperature, °C	With derating	-40		85
Storage temperature, °C		-40		85
Temperature coefficient, %/°C			±0.05	
Altitude during operation, m	OVC II		5,000	
	OVC III		2,000	
Humidity	95% RH			
Over voltage category	III: Compliance to EN 61558; altitude up to 2000 meters			
Vibration	IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes)			
Shock	IEC60068-2-27			

Physical Specifications

Dimensions	3.5" x 2.5" x 1.06" (89.0 x 63.5 x 27.0 mm)
Case material	Plastic resin (flammability to UL 94V-0)
Weight g	300
Cooling method	Free air convection
Safety approval	UL / IEC / EN 62368-1
Safety meets	IEC / EN 61558-1, IEC / EN 61558-2-16, IEC / EN 60335-1
MTBF	>250,000 h @ 25°C (MIL-HDBK-217F)

EMC Specifications

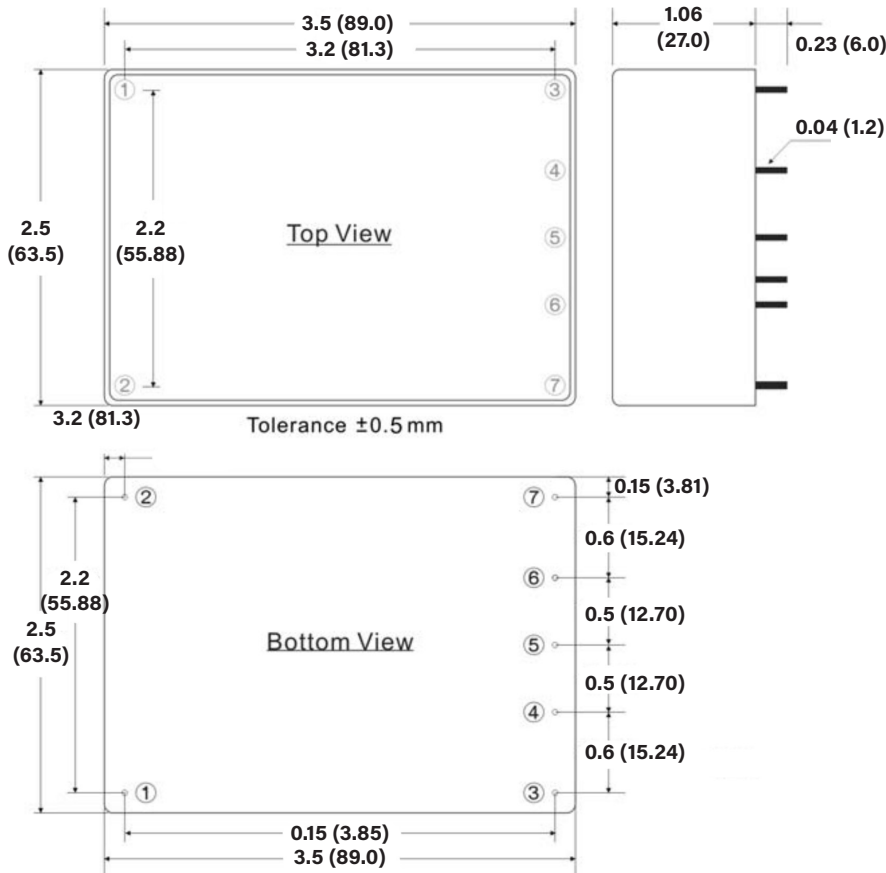
Specifications	Conditions	Level
EMI conducted emissions	EN 55032	Class B
EMI radiated emissions	EN 55032	Class B
EMS Noise immunity	EN 55035	

Note:

- It's recommended to add Varistor 14S561K at L / N input side in parallel.
- Double pole, neutral fusing. Disconnect mains before servicing.
- For further information, please contact Polytron Devices.

CAUTION: This power module is not internally fused. An input line fuse must always be used.

Mechanical Drawing

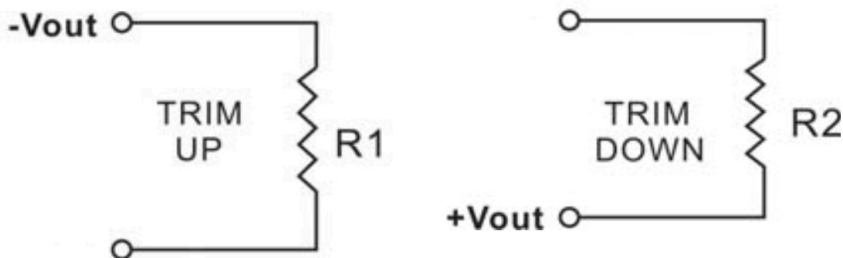


PIN #	Φ ²	Single ²
1	1.2 ± 0.1% mm	AN IN (N)
2	1.2 ± 0.1% mm	AC IN (L)
3	1.2 ± 0.1% mm	+DC OUT
4	1.2 ± 0.1% mm	TRIM
5	1.2 ± 0.1% mm	-DC OUT
6	1.2 ± 0.1% mm	NO PIN
7	1.2 ± 0.1% mm	ON/OFF

Note:

1. All dimensions in inches (mm)
2. Provide +5Vdc Controlled

Trim



	R1		R2	
12S	+5%	1%	-5%	-1%
	0	~ 150K	75K	~ 680K
24S	+5%	1%	-5%	-1%
	0	~ 680K	820K	~ 6.8M
48S	+5%	1%	-5%	-1%
	0	~ 330K	1M	~ 7.5M

Characteristic Curve

