



New product



Decarbonized Switching Power Supply

Especially excellent in standby power characteristics. Energy-saving switching power supplies with greatly improved efficiency at light loads.

EPD's Standard Eco Power Supply 5W wide Input type

Key Features:

- Energy-saving switching power supply is low-power consumption power supply that achieves high efficiency over a wide range of loads, from light to full.
- The frequency reduction control method at light load provides lower noise and ripple compared to the intermittent oscillation method (Burst method).
- Noise countermeasures are implemented without Y-Capacitors, realizing low leakage current.
- Energy-saving switching power supply is compact and highly reliable with a small number of components.
- Pin-type Input/output connections eliminate the need for harnesses, and the product is compatible with other manufacturers products.

Power Supply Standards Table

MODEL	EPF505	EPF512	EPF524
Rated Output Voltage	5V	12V	24V
Rated Output Current	1A	0.45A	0.22A
Maximum Output Capacity	5W	5.4W	5.28W
INPUT CONDITIONS			
INPUT VOLTAGE (Voltage tolerance)	Single phase AC100-200V(AC85~264V or DC110~370V)		
FREQUENCY	47~63Hz		
INPUT CURRENT(at AC100V/200V Rated output)	0.11A/0.07A(Typ)		
INRUSH CURRENT(at AC100V/200V Rated output)	15A/30A(Typ)		
EFFICIENCY(AC100V/200V load factor10~100%output)	60~72% / 51~73%	72~79% / 62~80%	70~82% / 58~83%
OUTPUT CONDITIONS			
OUTPUT VOLTAGE ADJUSTMENT RANGE	Fixed (No adjustment)		
RIPPLE NOISE(0~+50°C) *1	80mVp-p(max)	120mVp-p(max)	150mVp-p(max)
OUTPUT VOLTAGE ACCURACY(General) *2	Within ±5%		
OUTPUT HOLD-UP TIME(AC100V/200V Rated output)	10mS/20mS(Typ)		
START-UP TIME(AC100V/200V Rated Output)	600mS/400mS(max)		
PROTECTION CIRCUIT AND OTHERS			
OVERCURRENT PROTECTION *3	Works over 110% of rated output current value		
OVERVOLTAGE PROTECTION *4	Zener limiter method (Works over 115% of rated output)		
OPERATING INDICATION	Not provided		
REMOTE SENSING	Not provided		
Parallel/Series Operation	unavailable		
LEAKAGE CURRENT *5			
EN62368-1Act	0.00mA		
DEN-AN	0.00mA		
AMBIENT CONDITIONS			
OPERATING TEMPERATURE	-10~50°C (Refer to "Derating Curve" on next page for 50-60°C)		
NON-OPERATING	-25°C~85°C		
OPERATING HUMID	30~90% (Non condensing)		
NON-OPERATING HUMID	30~95% (Non condensing)		
ISOLATION			
Input - FG-Terminal	Isolation: AC2000V for 1min (impressive current 10mA) Isolation resistance: 100MΩmin (DC500V Megger)		
INPUT-OUTPUT	Isolation: AC3000V for 1min (impressive current 10mA) Isolation resistance: 100MΩmin (DC500V Megger)		
OTHER REGULATIONS			
SAFETY AGENCY APPROVALS	UL62368-1 · C-UL · EN62368-1 · DEN-AN · IEC60601-1 (Complies with)		
CONDUCTED NOISE	Complies with VCCI-B, CISPR-B, FCC-B		
COOLING METHOD	Natural air cooling		
EXTERNAL DIMENSIONS	32W×72.5D×21H(mm)		
WEIGHT	24g		

*1. Measurements taken 30cm from the power supply output end(47μF electrolytic capacitor+0.1μF film capacitor installed to load capacitor)

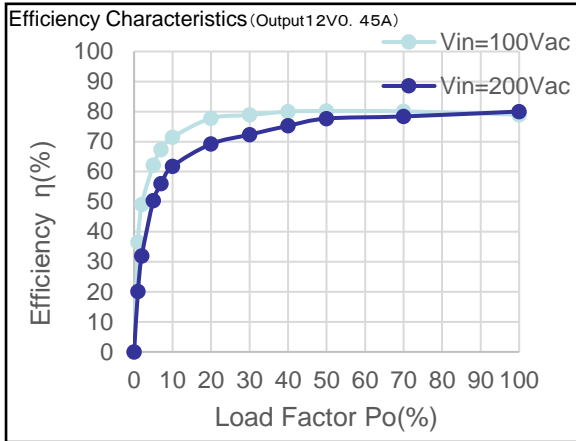
*2. Includes static input fluctuation, static load fluctuation, ambient temperature fluctuation, drift over time, and setting deviation.

*3. Recovers automatically.

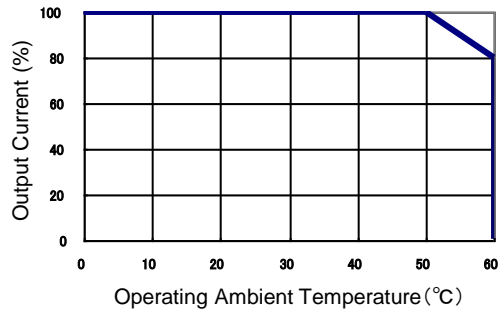
*4. Overvoltage protection complies with FMEA. Since the clamp method does not provide long-term protection, if product protection is required, please provide protection on the product side.

*5. The FG-Terminal has no internal connection.

Eco Power Design Co., Ltd.

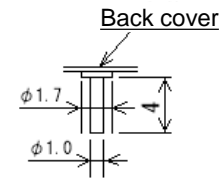
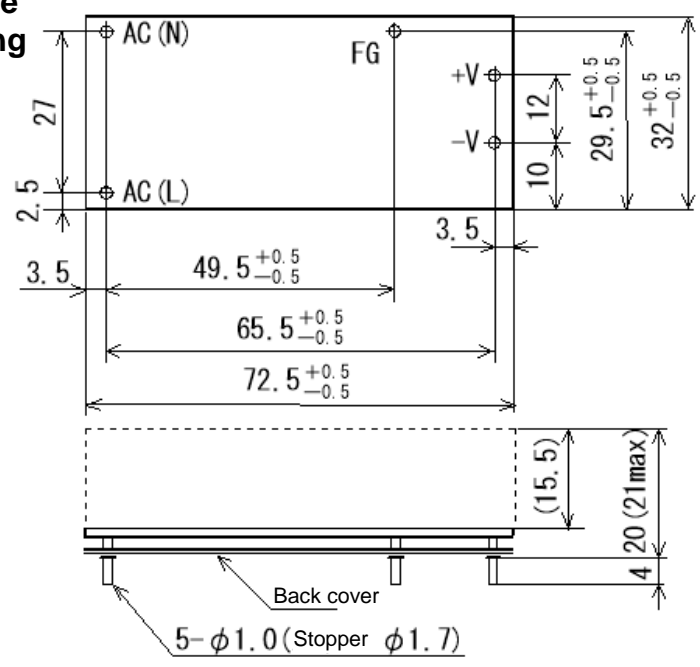


Derating Curve



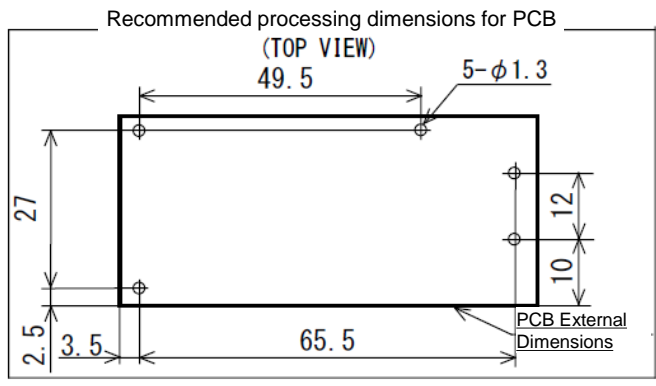
Outline Drawing

Unit : mm



Pin Shape Detail Drawing

- ※PCB Material : CEM3, or FR-4
- ※PCB thickness : t=1.0
- ※Pin Material : CP wire solder plated
- ※Recommended hole diameter for PCB processing : $\Phi 1.3$



CAUTION

- This power supply is manufactured by SMD technology. The stress to PCB like twisting or bending causes the defect of the unit, so handle the unit with care
- This power supply is intended for use in general electronic equipment. If you intend to use this power supply for other than general electronic equipment, please consult us.
- This power supply uses patented technology.
- The information in this catalog is subject to change without notice due to product improvement.

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