

# 24V DC Power Supplies

## FP-PS24 Series



FP-PS24-120E  
5.0A/24V DC

FP-PS24-060E  
2.5A/24V DC

FP-PS24-024E  
1.0A/24V DC

### Features

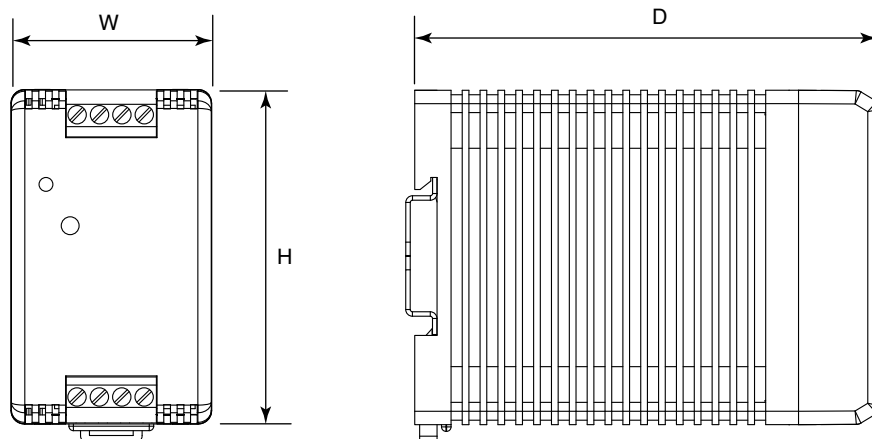
- Up to 91.5% efficiency (FP-PS24-060E)
- Current limiting and Short circuit save
- High power density with minimal losses
- Wide ambient temperature range from -10°C to +70°C, without performance loss
- Safety Standards Approved (IEC60950, UL60950, CSA22.2-60950, EN60950) tested by CSA
- Protection class II, without grounding
- Easy mounting and wiring
- Extremely compact with optimal air cooling

# FP-PS24 Power Supplies

## Specifications

Item	FP-PS24-024E	FP-PS24-060E	FP-PS24-0120E	
Ambient temperature	-10°C to +70°C, without needing cooling fans			
Storage temperature	-25 to +85°C			
Humidity	Max. 95%, no condensation			
Vibration	IEC 60068-2-27, 20g - 6ms, 10g - 11ms; 4 shocks/axis, 18 shocks total			
Shock	IEC 60068-2-6, 2-17.8Hz: ±1.6mm; 17.8 - 500Hz: 2g 2 hours/axis			
Primary side	Rated input voltage	100 – 240V AC/DC, 50 – 60Hz		
	Power supply voltage	85-264V AC, 47-63Hz (DC 100-375V), wide range power supply, switching ranges unnecessary		
	Input current	Fulfills the requirements of EN61000-3-2 (limits for harmonic current emissions)		
	Fuse	Internal in power supply T4AH/250V, not accessible		
Secondary side	Output voltage	24VDC nominal		
	Accuracy, output voltage	±1% over the complete load and input voltage range		
	Adjustable range with potentiometer	23V – 29V		
	Output capacity (max.)	1A continuous at 24V 1.25A (25% above nominal load) Dynamic for 7s, max. 1.5A (50 % above nominal load) dynamic for 2.5s, max.	2.5A continuous at 24V 3.15A (25% above nominal load) Dynamic for 7s, max. 3.75A (50 % above nominal load) dynamic for 2.5s, max.	5.0A continuous at 24V 6.25A (25 % above nominal load) dynamic for 7s, max.sec. 7.5A (50 % above nominal load) dynamic for 3s, max.x. 3 sec
	Output capacity (min.)	0A		
	Current limiting (typ.)	2A continuous, 2A dynamic	2.7A continuous, 5A dynamic	5.3A continuous, 9.5A dynamic
Ripple voltage (< 20MHz)	= 40mVSS measured at 20MHz, 50 Ohms terminated			
Efficiency	VAC = 230V	88.0%	91.5%	90.0%
	VAC = 115V	87.0%	90.0%	89.0%
	VAC = 100V	86.0%	88.0%	89.0%
Lifetime of the capacitors	All capacitors used are special 105°C long-life-types with a minimum lifetime of 50,000 hours @ Tu = 50°C (power supply-air flow temperature)			
Safety and function tests	100% testing			
Startup duration	Depends on the load, typically 5-10ms			
Safety	Output	Safety extra low voltage (SELV) EN 60950		
	Class of protection	Class II (with additional constructive measures)		
	Degree of protection	IP20		
	Leakage current	max. 0.25mA, 47-63Hz and max. 264V AC		
Protection and monitoring	Over-voltage protection	yes, U1 limited to max. 35V		
	Short circuit save	yes, output is short circuit save		
	Current limiting::	In case of overload the output voltage will be reduced down to approx. 17V below this the power supply will enter hiccup mode to protect power supply and load from over temperature or burning.		
	No load operation	yes, indefinite no load safe		
	Overload protection	yes		
Dimensions (D x W x H)	105.5 x 30 x 75 mm	104.5 x 44.8 x 75 mm	105.5 x 70 x 85 mm	
Weight	Approx. 170g	Approx. 250g	Approx. 500g	

## Dimensions



You can find further information on our homepage: [www.panasonic-electric-works.com](http://www.panasonic-electric-works.com)

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