

# Switched Mode Power Supply - DIN Mount / Panel Mount

- Excellent Load & Line Regulation
- High Noise Immunity & Low Ripple
- No Load Power Consumption of less than 0.5W
- Over voltage, Overload, Short-Circuit & Over Temperature Protection
- High Efficiency of Operation
- Suitable for Temperatures upto 70°C
- Small Form Factor
- Peak Power Capacity
- Compact Design with Panel Mounting (DIN Mounting with bracket)
- Excellent Load Transient Response



## Ordering Information

Cat. No.	Description
PS100W24V	100W, 90 - 264 VAC/130 -373 VDC, 24 VDC/ 4.5A, Terminal Block Facing Upward, Switch Mode Power Supply
PS100W24VF	100W, 90 - 264 VAC/130 - 373 VDC, 24 VDC/ 4.5A, Terminal Block Facing Forward, Switch Mode Power Supply
Accessories	Description
L10024	Mounting Bracket for SMPS

# Switched Mode Power Supply



Cat. No.	PS100W24V	PS100W24VF
<b>Input Supply Characteristics</b>		
Supply Voltage Range	90V to 264VAC 130 - 373VDC	
Frequency Range	47 to 63Hz	
Efficiency	89.00%	
AC Current	1.9A @ 115V Ac ; 1.2A @ 230V AC	
Inrush Current	Cold start 50A @ 230V AC	
No Load Power Consumption	<0.3W @230V AC	
<b>Output Characteristics</b>		
Output DC voltage	24V	
Output DC voltage adjustment range	21.6V to 28.8V DC	
Output Current	4.5A@24VDC	
Output Power	108W max	
Line Regulation	+/- 0.5%	
Load Regulation	+/- 0.5%	
Ripple & Noise	150mVp-p	
Startup Time	500msec at full load	
Hold up time	50msec at full load	
Rise Time	30msec at full load	
Dynamic Response (Overshoot & Undershoot O/P Voltage)	0-100% load @ 5Hz & 10KHz	
Start-up with Capacitive Loads	8,000µF Max	
<b>Protections</b>		
Over Voltage	28.8V to 33.6V Shut down O/P voltage , re-power ON to recover	
Over load/ Over current	110% or higher of rated output current (Hiccup mode, Auto recover when fault clear)	
Over temperature	Shut down output voltage, re-power ON to recover (Refer derating curve)	
Short circuit	Hiccup mode, recovers automatically after fault recovery	
Protection against shock	Class 1 with Earth Protection	
Over temperature protection	> 50°C de-rate power by 2% / °C (85% load @ 90Vac)	
<b>User Interface</b>		
Pot	For output voltage setting	
<b>LED Indication</b>		
Green LED	ON : DC O/P OK	
<b>Environmental</b>		
Operating Temperature	-30°C to +70°C deg	
Storage Temperature / Humidity	-40°C to +85°C / 20 - 90% RH non-condensing	
Operating Relative humidity	20 - 90% RH non-condensing	
Operating Altitude	Up to 2000 meters	
Over voltage Category	III	
Pollution degree	3	
Vibration Test	<b>Operating &amp; Non-Operating as per</b> : IEC 60068-2-6	
Shock Test	<b>Operating &amp; Non-Operating as per</b> : IEC 60068-2-27	
<b>Mechanical</b>		
Case chassis	Aluminium	
Dimensions (LxWxH)	129x97x37.1mm	137x97x37.1mm
Unit weight	Approx. 340g	
Cooling system	Convection	
Terminals	M4 x 7 Pins 7 terminals : L , N , E , V+, V+, V-	

# Switched Mode Power Supply



Cat. No.	PS100W24V	PS100W24VF
Terminal Type	Upward facing terminal	Forward facing terminals
Wire	AWG 22-12	
Mounting type	Panel / DIN Rail Mount	
<b>Reliability</b>		
MTBF	>700,000 hrs	
<b>Certification</b>		

## EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
Voltage Flicker and Fluctuations	IEC 61000-3-3
ESD	IEC61000-4-2
Radiated Susceptibility	IEC61000-4-3
Electrical Fast Transients	IEC61000-4-4
Surge	IEC61000-4-5
Conducted Susceptibility	IEC61000-4-6
Power Frequency Magnetic Field	IEC 61000-4-8
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Voltage Dips & Interruptions (DC)	IEC 61000-4-29
Conducted Emission	CISPR 32
Radiant Emission	CISPR 32

## Safety Compliance

Test Voltage between I/P and O/P	4.0 KV for 1 min
Test Voltage between Input and Ground	2.0 KV for 1 min
Impulse Voltage between I/P and O/P	4KV
Single Fault	IEC 61010-1
Insulation Resistance	100M Ohms
Leakage Current	<0.75mA /240VAC

## Environmental Compliance

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Damp heat, cyclic	IEC 60068-2-3

# Switched Mode Power Supply



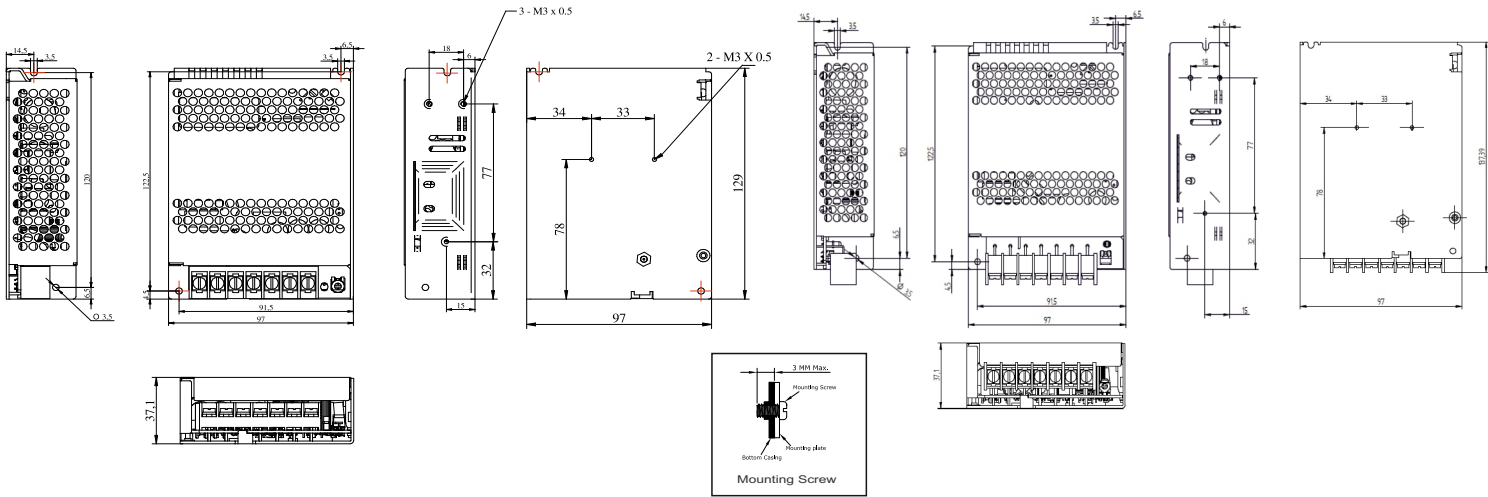
## MOUNTING DIMENSIONS (mm)

Overall Dimensions of PS100W24V:

L x W x H : 129 x 97 x 37.1 mm (5.07 x 3.82 x 1.46 inch)

Overall Dimensions of PS100W24VF:

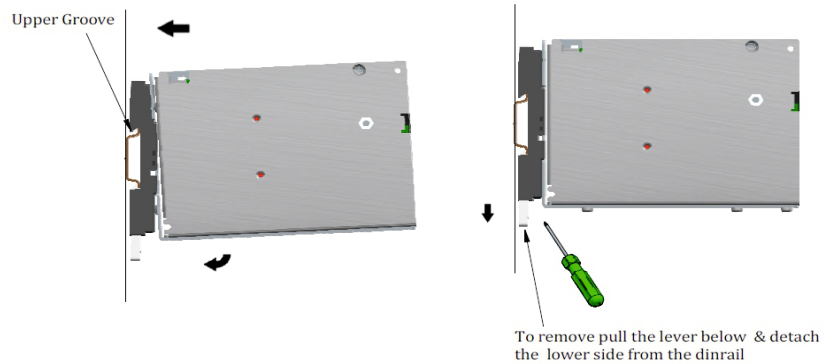
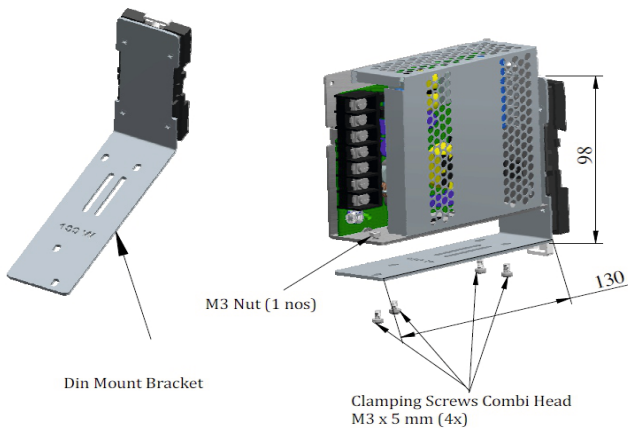
L x W x H : 137.39 x 97 x 37.1 mm (5.40 x 3.82 x 1.46 inch)



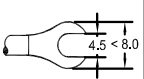
## MOUNTING ACCESSORY

1. Connect the main Unit & Clamping Bracket with using Screw as shown.

2. Clip the upper groove of the bracket over the DIN rail & push the lower end



## TERMINAL TORQUE & CAPACITY

Tightening Torque	1.2 N.m. (10.6 lb.in.) Terminal Screw - M4
	1 x 4 mm Wire with lug
AWG	1 x 22 to 12

# Switched Mode Power Supply - DIN Mount / Panel Mount

- Excellent Load & Line Regulation
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- No Load Power Consumption of less than 0.5W
- Overload, Overload, Short Circuit & Over Temperature Protection
- High Efficiency of Operation
- Suitable for Temperatures upto 70°C
- Small Form Factor
- Peak Power Capacity
- Compact Design with Panel Mounting (DIN Mounting with bracket)



## Ordering Information

Cat. No.	Description
PS150W24V	150W, 85 - 132 VAC/170 - 264 VAC, 24 VDC/ 6.25A, Terminal Block Facing Upward, Switch Mode Power Supply
PS150W24VF	150W, 85 - 132 VAC/170 - 264 VAC, 24 VDC/ 6.25A, Terminal Block Facing Forward, Switch Mode Power Supply
Accessories	Description
L15024	Mounting Bracket for SMPS



# Switched Mode Power Supply



Cat. No.	PS150W24V	PS150W24VF
<b>Input Supply Characteristics</b>		
Supply Voltage Range	85V to 132V AC / 170V to 264V AC – Select able through Switch 240V to 370V DC (When Switch is on 230V AC)	
Frequency Range	47 to 63Hz	
Efficiency	89.00%	
AC Current	3A @ 115V Ac ; 1.7A @ 230V AC	
Inrush Current	Cold start 60A @ 230V AC	
No Load Power Consumption	<0.5W @230V AC	
<b>Output Characteristics</b>		
Output DC voltage	24V	
Output DC voltage adjustment range	21V to 28V DC	
Output Current	6.25A @24VDC	
Output Power	150W max	
Line Regulation	+/- 0.5%	
Load Regulation	+/- 0.5%	
Ripple & Noise	120mV Ripple max	
Startup Time	500msec at full load	
Rise Time	30msec at full load	
Hold up time	168% of rated output (Max.30msec at full load)	
Dynamic Response (Overshoot & Undershoot O/P Voltage)	± 5% @ 115 & 230Vac input, 10-100% load (Slew Rate: 2.5A/μS, 50% duty cycle @ 5Hz & 10KHz)	
Start-up with Capacitive Loads	8,000μF Max	
<b>Protections</b>		
Over Voltage	28.8V to 33.6V Shut down O/P voltage , re-power ON to recover	
Over load/ Over current	110 to 140% rated output power Hiccup mode, recovers automatically after fault recovery	
Over temperature	Shut down output voltage, re-power ON to recover	
Short circuit	Hiccup mode, recovers automatically after fault recovery	
Protection against shock	Class 1 with Protection Earth connection	
Over temperature protection	Low – 0°C to High - 50°C ambient temp. range 70°C with de-rating of 2.5%/°c above 50°C. Forced air cool (Refer de-rating curve)	
<b>User Interface</b>		
Pot	For output voltage setting	
Supply voltage selector switch	To select supply voltage 115V or 230V	
<b>LED Indication</b>		
Green LED	ON : DC O/P OK	
<b>Environmental</b>		
Operating Temperature	-30°C to +70°C deg	
Storage Temperature / Humidity	-40°C to +85°C / 10 - 90% RH non-condensing	
Operating Relative humidity	20 - 90% RH non-condensing	
Operating Altitude	Up to 2000 meters	
Over voltage Category	III	
Pollution degree	3	
Vibration Test	<b>Operating &amp; Non-Operating as per</b> : IEC 60068-2-6	
Shock Test	<b>Operating &amp; Non-Operating as per</b> : IEC 60068-2-27	
<b>Mechanical</b>		
Case chassis	Aluminium	
Dimensions (LxWxH)	159x97x37.1mm	167x97x37.1mm
Unit weight	Approx. 400g	
Cooling system	Convection	
Terminals	M3.5 x 7 Pins (Rated 300V/20A) 7 terminals : L , N , E , -V, -V, +V, +V Terminals should be Front & Top side wire insert-able	

# Switched Mode Power Supply



Cat. No.	PS150W24V	PS150W24VF
Terminal Type	Upward facing terminal	Forward facing terminals
Wire	AWG 22-12	
Mounting type	Panel / DIN Rail Mount	
<b>Reliability</b>		
MTBF	> 700,000 hrs as per IEC 62380	
<b>Certification</b>	 	

## EMI / EMC

Harmonic Current Emissions	IEC 61000-3-2
Voltage Flicker and Fluctuations	IEC 61000-3-3
ESD	IEC61000-4-2
Radiated Susceptibility	IEC61000-4-3
Electrical Fast Transients	IEC61000-4-4
Surge	IEC61000-4-5
Conducted Susceptibility	IEC61000-4-6
Power Frequency Magnetic Field	IEC 61000-4-8
Voltage Dips & Interruptions (AC)	IEC 61000-4-11
Conducted Emission	CISPR 32
Radiated Emission	CISPR 32

## Safety Compliance

Test Voltage between I/P and O/P	4.0 KV for 1 min (Test Voltage between Input and Ground 2.0 KV for 1 min)
Impulse Voltage between I/P and O/P	4KV (Test Voltage between Output and Ground 1.25 KV for 1 min)
Single Fault	IEC 61010-1
Insulation Resistance	UL 508
Leakage Current	<0.75mA /240VAC

## Environmental Compliance

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2

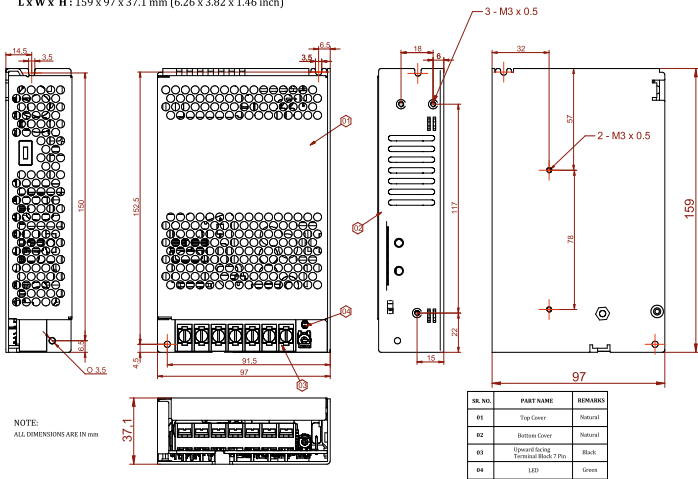
# Switched Mode Power Supply



## MOUNTING DIMENSIONS (mm)

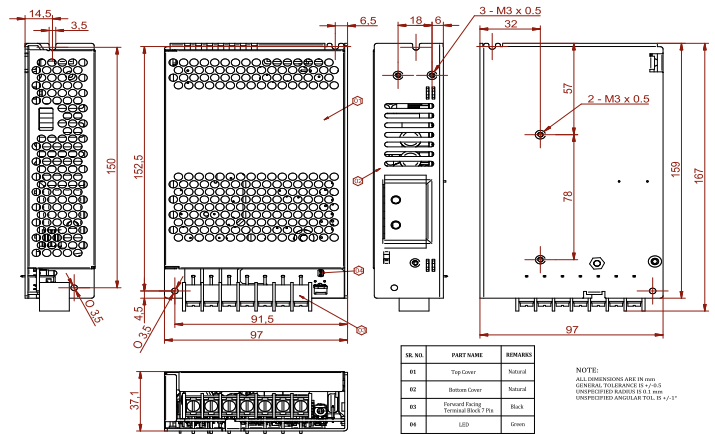
Overall Dimensions of PS150W24V:

L x W x H : 159 x 97 x 37.1 mm (6.26 x 3.82 x 1.46 inch)



Overall Dimensions of PS150W24VF:

L x W x H : 167 x 97 x 37.1 mm (6.57 x 3.82 x 1.46 inch)

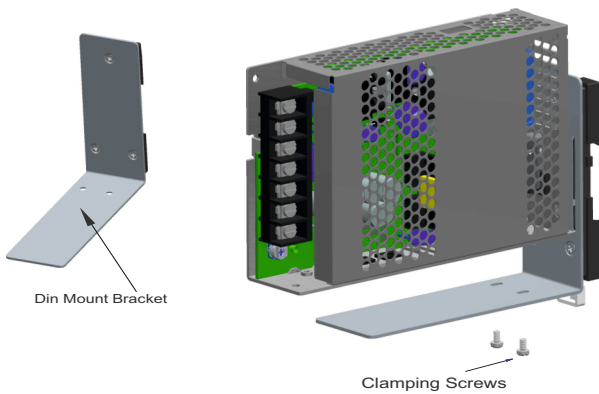


## MOUNTING ACCESSORY

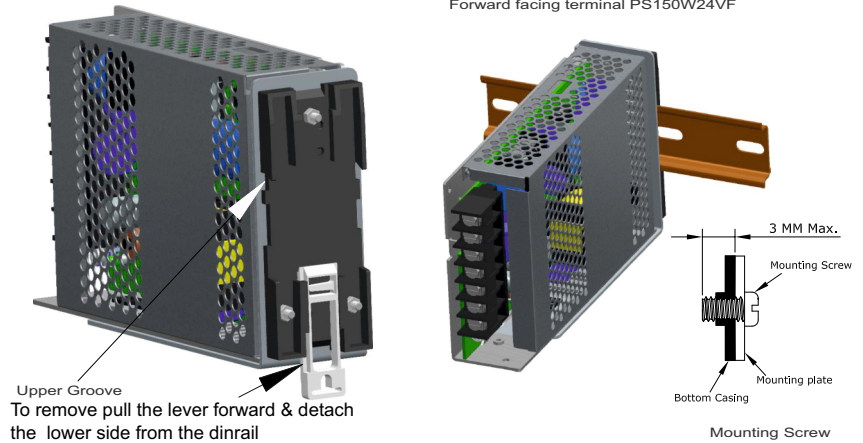
### Dinrail Mounting Accessory

1. Connect the main Unit & Clamping Bracket with using Screw as shown.

Upward facing terminal PS150W24V



2. Clip the upper groove of the bracket over the DIN rail & push the lower end Forward facing terminal PS150W24VF



## TERMINAL TORQUE & CAPACITY

Tightening Torque	1.2 N.m. (10.6 lb.in.) Terminal Screw - M4
	1 x 4 mm Wire with lug
AWG	1 x 22 to 12