TECHNICAL SPECIFICATIONS:		
Cat. No.:	**PS150W24V**	**PS150W24VF**
INPUT SUPPLY CHARACTERISTICS:		
Supply Voltage Range	85V to 132V AC - When Switch is on 115V 170V to 264V AC or (240V DC to 370V DC) - When Switch is on 230V	
Frequency Range	47 - 63 Hz	
Efficiency @ 115 VAC/100% load	87 % Typ.	
Efficiency @ 230 VAC/100% load	89 % Typ.	
AC Input Current (Max.)	3A typ. @ 115V AC & 1.7A typ. @ 230V AC	
Inrush Current	Cold start 60A @ 230V AC	
No load power consumption	<0.5W @ 230V AC	
OUTPUT CHARACTERISTICS:		
Nominal Output DC Voltage	24 V DC	
Output DC voltage adjustment range (Pot. setable)	21 - 28 V DC	
Rated Output Current	6.25 A @ 24 V DC	
Rated Output Power	150 W	
Load Regulation	± 0.5 % typ.	
Line Regulation	± 0.5 % typ.	
Ripple & Noise	120 mV p-p max.	
Start Up Time	500 msec at full load	
Hold UP Time	30 msec at full load	
Rise Time	30 msec at full load	
Dynamic Response (Overshoot & Undershoot O/P Voltage)	± 5 % @ 115 & 230Vac input, 0-100% load @ 5Hz & 10KHz	
Start Up with capacitive load	8000uF	
PROTECTIONS :		
Over Voltage	29 V ~ 33 V (Output voltage turn off, Restart power to turn on device).	
Over Load/Over current	110% or higher of rated load 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 & Auto Recover after fault recovery.	
Protection against shock	Earth Protection.	
Internal Input Fuse	5A / 300V	
AMBIENT CONDITIONS		
Operating Temperature	-30° C to + 70° C (Refer Derating curve)	
Storage Temperature	-40° C to + 85° C	
Relative Humidity	20 to 90 % (Non-Condensing)	
Operating Altitude	Up to 2000 meters	
Operating Positions	Vertical & Horizontal on Top	
Over Voltage category	III	
Pollution Degree	3	
USER INTERFACE		
Potentiometer	To set output voltage	
Power Supply selection switch	To select input supply voltage 115V or 230V	
LED INDICATION		
Green Led	ON : DC Output OK	
MECHANICAL		
Case Chassis (Base)	Aluminum	
Casing (Top)	Galvanize	
Dimensions (L X W X H)	159 x 97 x 37.1 (in mm)	167 x 97 x 37.1 (in mm)
Terminal facing	Upward facing terminal	Horizontal facing terminal
Weight (unpacked)	400 g	
Cooling	Convection	

Compliance with Standards EMI/EMC:

Standard		
Harmonic Current Emission	IEC 61000-3-2	CLASS A
Voltage Flicker and Fluctuations	IEC 61000-3-3	CLASS A
ESD	IEC 61000-4-2	LEVEL IV
Radiated Susceptibility	IEC 61000-4-3	LEVEL III
Electrical Fast Transients	IEC 61000-4-4	LEVEL IV
Surge	IEC 61000-4-5	LEVEL III
Conducted Susceptibility	IEC 61000-4-6	LEVEL III
Voltage Dips and Interruptions (AC)	IEC 61000-4-11	
Voltage Dips and Interruptions (DC)	IEC 61000-4-29	
Conducted Emission	CISPR 32	CLASS B
Radiated Emission	CISPR 32	CLASS B

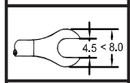
Safety:

Test Voltage Between I/P & O/P	UL 508	3KV
Test Voltage Between I/P & Earth	UL 508	2KV
Test Voltage Between O/P & Earth	UL 508	1.25KV
Test Voltage Between Enclosure & all Terminals (Except: Earth Terminal)	UL 508	1.25KV
Impulse Voltage Between I/P & O/P	IEC 61204	4KV
Insulation Resistance	UL508	>100MOhm
Leakage Current	UL508	<0.75 mA @240VAC

Environmental:

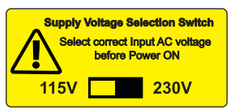
Operating Temperature	-30°C to + 70°C	
Storage Temperature	-40°C to + 85°C	
Relative Humidity	20- 90% RH (Non-condensation)	
Max. Operating Altitude	2000 meters	
Vibration	IEC 60068-2-6	20 - 500Hz (5g)

Terminal Details:

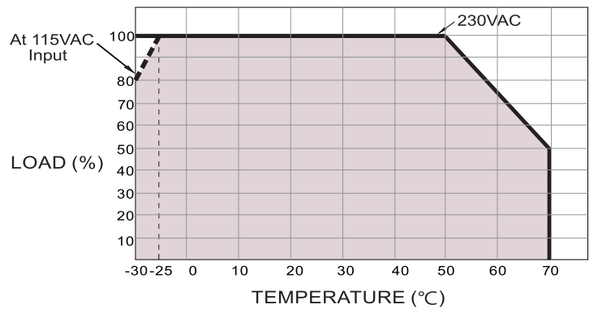
Tightening Torque	1.2 N.m. (10.6 lb.in.) Terminal Screw - M4
	1 x 4 mm Wire with lug
AWG	1 x 22 to 12

Caution note for Slide Switch:

- Factory default setting is 230V.
- Select input voltage switch position 115V or 230V as per input voltage source.
- Select 230V switch position for DC input voltage source.
- Do not change switch position during runtime operation.

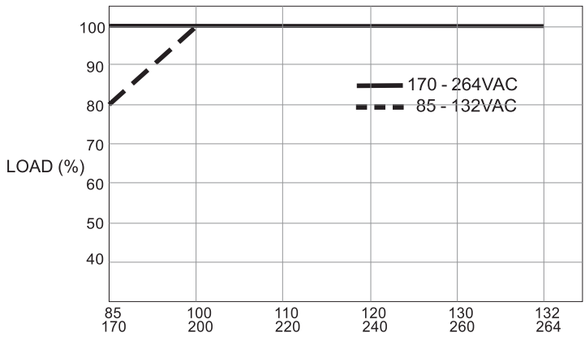


Derating Curve:



At 85-132VAC & 170-264VAC input voltage operation, the output load should be as per mention derating curve graph.

Output Load Derating VS Input Voltage:



There is no output derating applicable from 100 to 264VAC.Refer graph.

PROTECTION AGAINST FAULTS:

Over voltage Protection

Power supply output voltage may increase due to failure in feedback circuit of SMPS.Output voltage of SMPS should not increase above specified limit. In over voltage protection output of SMPS turns off. This feature prevent damage of loads due to over voltage. Reset the input power supply on successful removal of over voltage fault.

Overload/Overcurrent Protection

Power supply protect from overload/overcurrent when load current increase above 110% of rated current. Power supply auto-recover when output load current decrease & return in rated supply band.

Over Temperature Protection

Power supply have thermal protection mode, If internal temperature of SMPS rises extremely during functioning then over temperature protection circuit activate & protect SMPS by shutting down output. Turn off input power supply of SMPS up to 3min & then power on input supply to recover SMPS..

Short circuit Protection

In short circuit protection mode, due sudden rise in output current product goes in hiccup mode by shutting down output voltage. SMPS auto-recover when output short circuit removed.

E-Waste Regulatory Notice:

Kindly treat, recycle or dispose of this equipment in an environmentally sound manner after End of Life, as per WEEE (Waste Electrical and Electronic Equipment) regulations or as per local norms or hand it over to General Industrial Controls Pvt. Ltd, through website https://www.gicindia.com/get-in-touch/

GIC

SWITCH MODE POWER SUPPLY 150W/24VDC

Catalog Nos.:

PS150W24V
PS150W24VF

PRODUCT DESCRIPTION:

Switched Mode Power Supply is a circuit which is designed for obtaining the regulated DC output voltage from an unregulated DC or AC voltage. SMPS is electronic power supply that incorporates a switching regulator to convert electrical power efficiently.

FEATURES:

- Wide input voltage range selectable by switch.
- Excellent load & line regulation.
- Excellent Load Transient Response
- No load Power consumption of 0.5W max.
- High noise Immunity & Low ripple.
- High efficiency of Operation.
- Wide operating temperature -30°C to 70°C.
- Protection to overload,over voltage,short circuit & over temperature.
- High MTBF > 700,000 hrs.
- Over voltage category III.
- Pollution degree III.
- Small form factor
- Din rail/Base mount.
- CE & RoHS compliance.

⚠ CAUTION:

- Select correct position of slide switch before Power ON.
- Do not touch the terminals while power is being supplied.
- Tighten terminal screws with the specified torque.
- Always follow instructions stated in product leaflet
- Do not touch casing when power ON or immediately after turns off, Due to hot surface may chances of burning.
- During installation avoid conducted items entering into the opening area of device it may create chances of electric shock.
- Device kept away from wet, dust & humidity environments.
- During installation, keep 10mm distance on both sides of product from adjacent devices.
- Do not open device or try to rework, In case of failure return it to supplier for troubleshooting it may cause electric shock.
- Device manufacturer will not be responsible if any incident occur due to negligence of cautions.

NOTE:

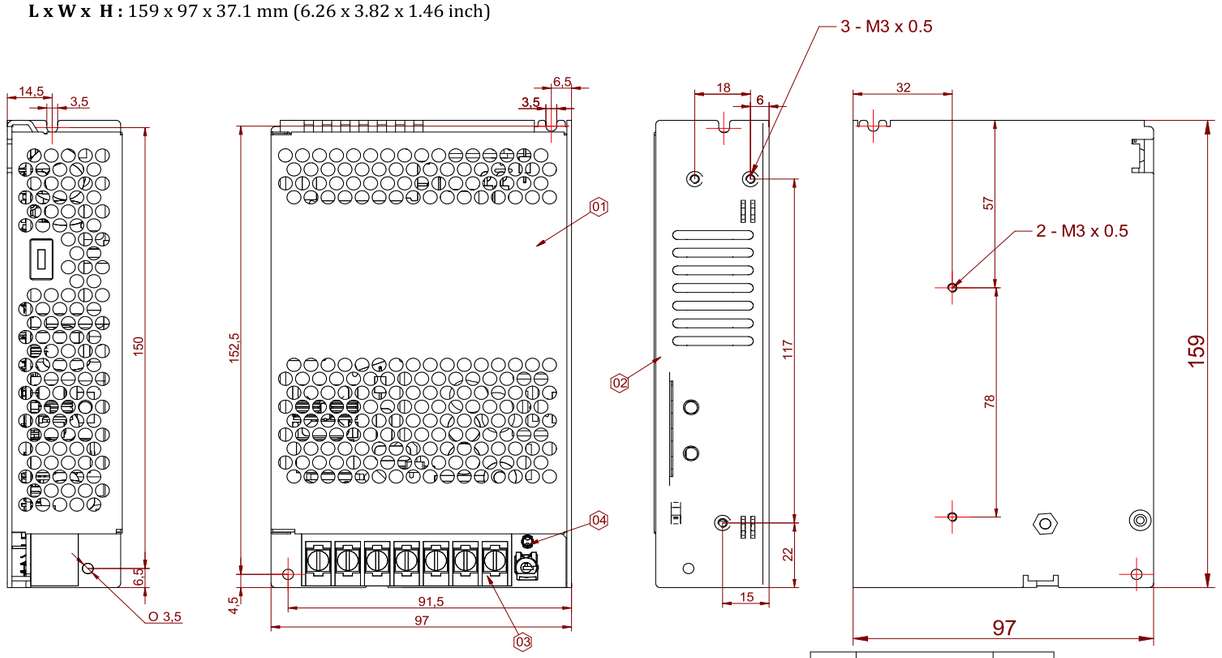
- The technical information provided in this document was correct at the time of publish.
- Product innovation being a continuous process, we reserve the right to alter specifications.

Accessory Ordering Code:

Cat No.	Description
L15024	Mounting Bracket

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)

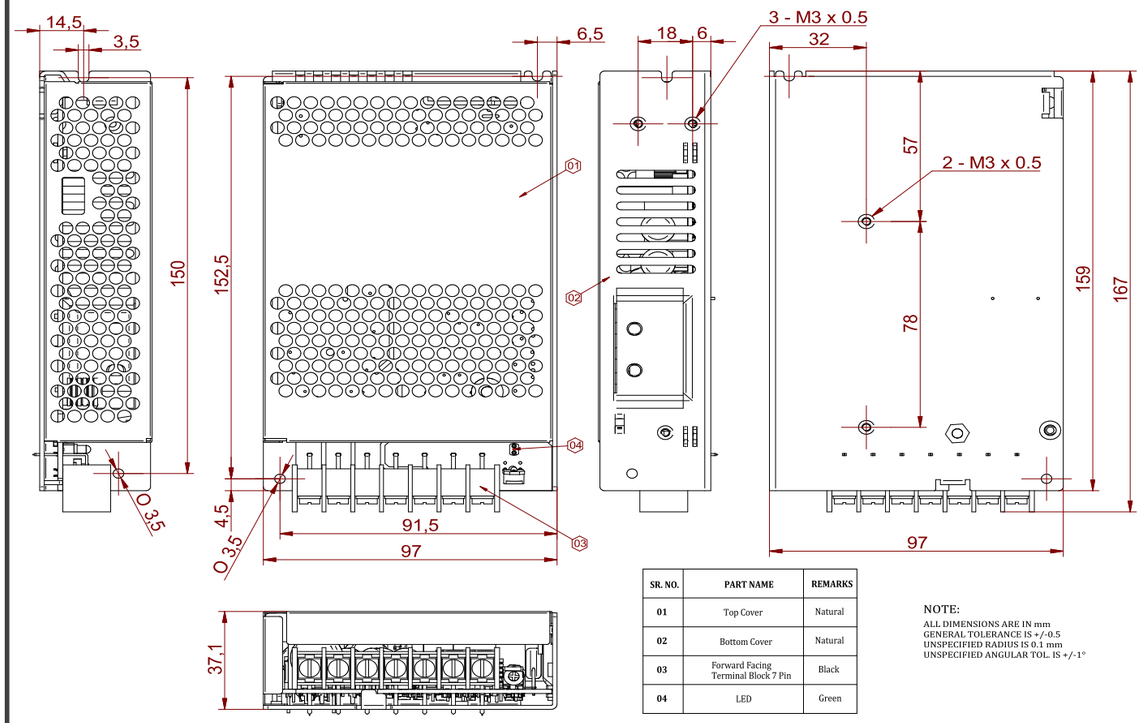


NOTE:
ALL DIMENSIONS ARE IN mm

SR. NO.	PART NAME	REMARKS
01	Top Cover	Natural
02	Bottom Cover	Natural
03	Upward facing Terminal Block 7 Pin	Black
04	LED	Green

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)

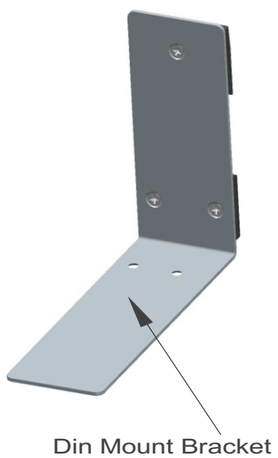


SR. NO.	PART NAME	REMARKS
01	Top Cover	Natural
02	Bottom Cover	Natural
03	Forward Facing Terminal Block 7 Pin	Black
04	LED	Green

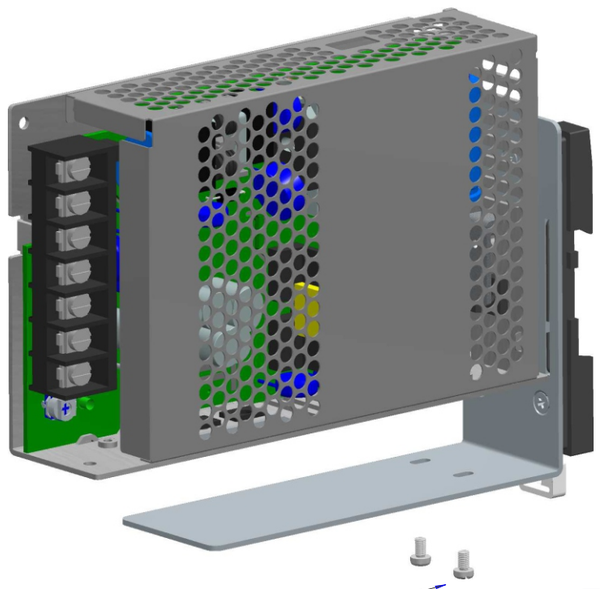
NOTE:
ALL DIMENSIONS ARE IN mm
GENERAL TOLERANCE IS +/-0.5
UNSPECIFIED RADIUS IS 0.1 mm
UNSPECIFIED ANGULAR TOL. IS +/-1°

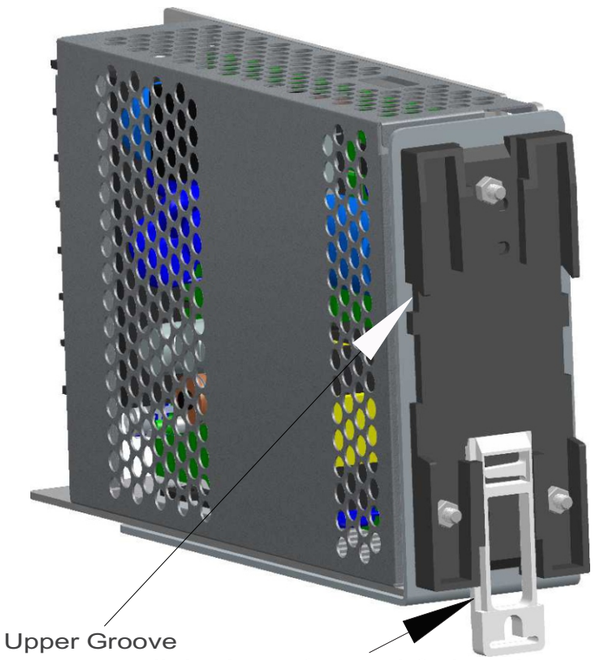
Dinrail Mounting Accessory

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



Upward facing terminal PS150W24V

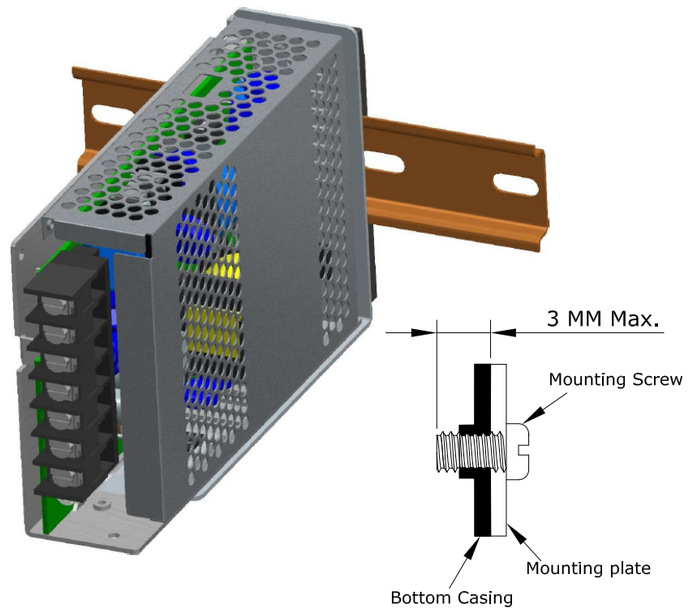




To remove pull the lever forward & detach the lower side from the dinrail

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

Forward facing terminal PS150W24VF



Mounting Screw