TECHNICAL SPECIFICATIONS:		
Cat. No.:		**PS120W12V**
INPUT SUPPLY CHARACTERISTICS:		
Supply Voltage Range		90V AC to 264V AC 127V DC to 375V DC
Frequency Range		47 - 63 Hz
Efficiency	@ 115 VAC/100% load	85 % Typ.
	@ 230 VAC/100% load	85 % Typ.
AC Input Current (Max.)		< 2.25 A @ 115 VAC, < 1.3 A @ 230 VAC
Inrush Current		20A/115VAC; 35A/230VAC
No load power consumption		<0.5W @ 230V AC
OUTPUT CHARACTERISTICS:		
Nominal Output DC Voltage		12 V DC
Output DC voltage adjustment range (Pot. setable)		10.2 - 13.8 V DC
Rated Output Current		10 A @ 12 V DC
Rated Output Power		120 W
Load Regulation		± 0.5 % typ.
Line Regulation		± 0.5 % typ.
Ripple & Noise		120 mV p-p max.
Start Up Time		< 1,000 ms @ nominal input (100% load)
Hold UP Time		> 10 ms @ 115 VAC, > 16 ms @ 230 VAC (100% load)
Rise Time		60 msec at full load
Dynamic Response (Overshoot & Undershoot O/P Voltage)		± 5% @ 85-264 VAC input, 10-90% load (Slew Rate: 0.1 A/µs, 50% duty cycle @ 5 Hz to 1 KHz)
Start Up with capacitive load		8000uF
PROTECTIONS :		
Over Voltage		13.2 V ~ 17.4 V (Output voltage turn off, Restart power to turn on device).
Over Load/Over current		105 - 150% of rated load current, Auto-recovery Continuous current limit Mode
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		Class 1 with Protection Earth connection, Earthing terminal required
Internal Input Fuse		4A / 250V
Recommended breaker for input protection		6 A ... 16 A (Characteristic B, C, D, K or comparable)
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
Over Voltage category		II
Pollution Degree		2
USER INTERFACE		
Potentiometer		To set output voltage

LED INDICATION	
Green Led	ON : DC Output OK
MECHANICAL	
Case Chassis (Base)	Aluminum
Casing (Top)	Galvanize
Dimensions (W X H XD)	40 x 128.8 x 128.3 (in mm)
Weight (unpacked)	510g Approx.
Cooling	Convection

CONFORMITY TO STANDARDS :

Safety Standard	EN IEC 62368-1
EMC Standard	EN IEC 61000-6-2 EN IEC 61000-6-4

SAFETY DATA:

Dielectric strength	3 KV AC
Rated Impulse withstand voltage(Uimp)	4 KV(1.2/50 us)
Insulation Resistance	>100 Mohm
Leakage Current	<0.50 mA@230VAC

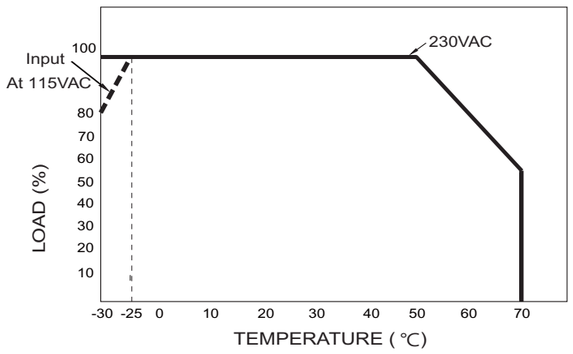
ENVIRONMENTAL DATA:

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6 5-500Hz : 5g, 60min. each along X, Y, Z axes
Shock	IEC 60068-2-27 50G(11ms) for not in operation 10G(11ms) for in operation

Terminal Details:

INPUT Terminal Torque		OUTPUT Terminal Torque	
Ø4.5 mm Combi Head Bit./Flat	0.5 N.m. (4.5 lb.in.)	Ø 3.5 mm	0.4 N.m. (3.54 lb.in.)
	1 x 4 mm^2 Solid/Standard wire		1 x 2.5 mm^2 Solid/Standard wire
AWG	26 to 10	AWG	24 to 12

Derating Curve:



Output Load Derating VS Input Voltage:

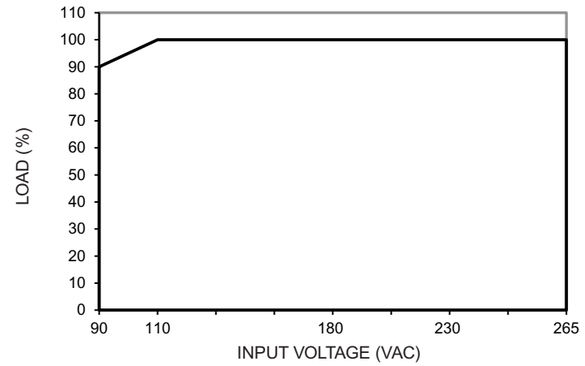


Figure 2.

There is no output derating applicable from 110 to 265VAC.Refer graph.

Note

1. It can cause degradation or damage to the power supply's components.If the power supply is consistently used outside of the shaded range For further information, see the graph in Figure 1.
2. The device can get extremely hot depending on the ambient air temperature and the output load that the power supply is delivering!

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

When the output voltage is more than 80% and the output current range is 105~150% of the rated current, the power supply provides continuous current limit protection for inductive and capacitive load applications. The output voltage starts decreasing when this happens. The protection will start in and the power supply will run continuously when it has reached its maximum power limit.
After eliminating the cause of Overload/Overcurrent and restoring the output current within the specified range, the power supply will recover.

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. Latch mode, re-power ON to recover output voltage.

Short circuit Protection

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

SWITCH MODE POWER SUPPLY 120W 12VDC

Catalog Nos.: PS120W12V

PRODUCT DESCRIPTION:

GIC Cost-Effective Single-Phase Switched-Mode Power Supply with Universal Input Range, Adjustable Output Range from 10.2-13.8VDC, and Compliance with Safety Standards. Space-Saving Compact Design for All Applications.

FEATURES:

- Universal input voltage range.
- Excellent load & line regulation.
- Excellent Load Transient Response.
- 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 II.
- Pollution degree II.
- Small form factor.
- Din rail mount.
- CE & RoHS compliance.

⚠ CAUTION:

- 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:

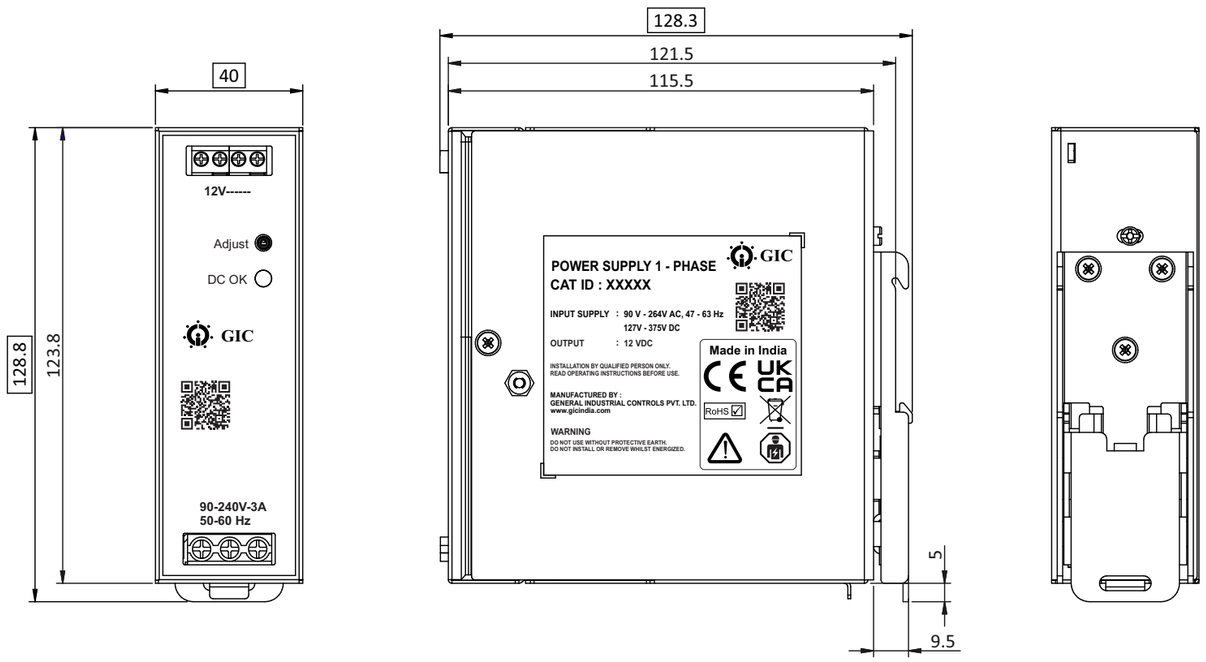
- The technical information provided in this document was correct at the time of publish.
- Product innovation being a continuous process, we reserve the right to alter specifications.

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/

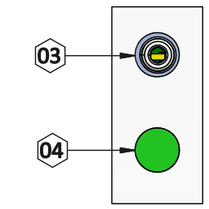
Overall Dimensions of PS120W12V :

WXHXD= 40 X 128.8 X 128.3 MM (1.574 X 5.070 X 5.051 INCH)

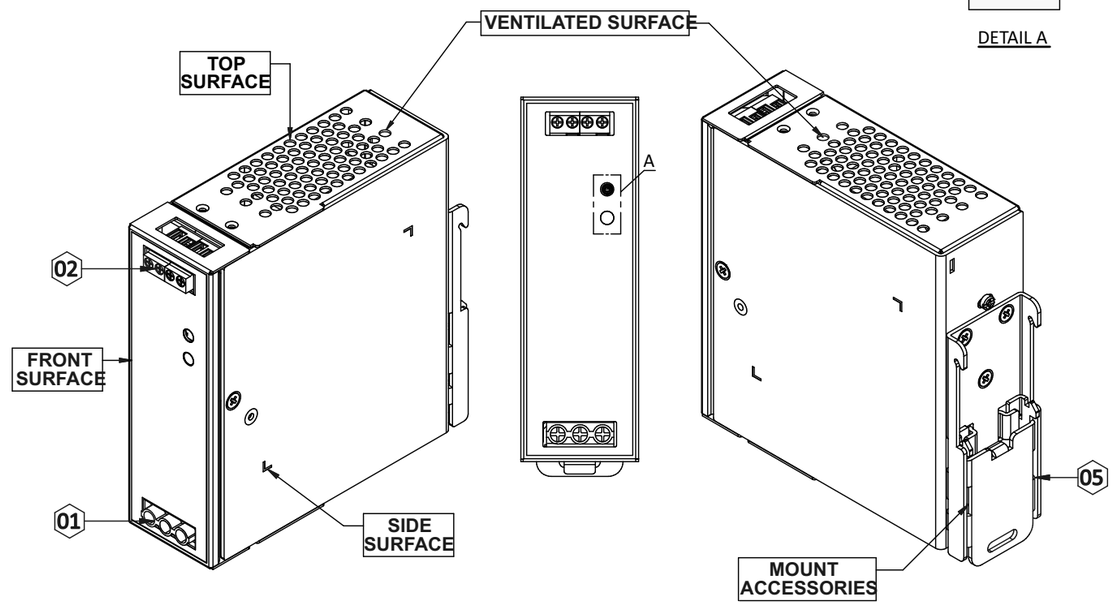


DEVICE DESCRIPTION :

1) INPUT TERMINAL BLOCK CONNECTOR
2) OUTPUT TERMINAL BLOCK CONNECTOR
3) DC VOLTAGE ADJUSTMENT POTENTIOMETER
4) DC OK CONTROL LED (GREEN)
5) UNIVERSAL MOUNTING RAIL SYSTEM

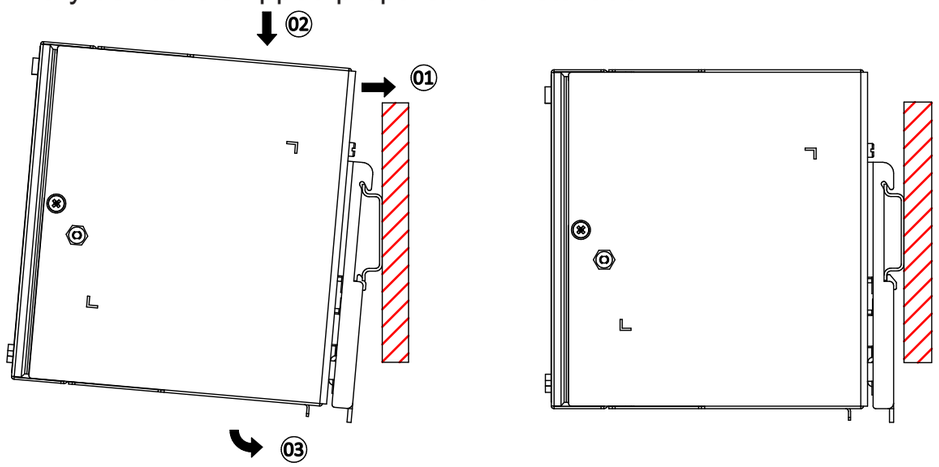


DETAIL A



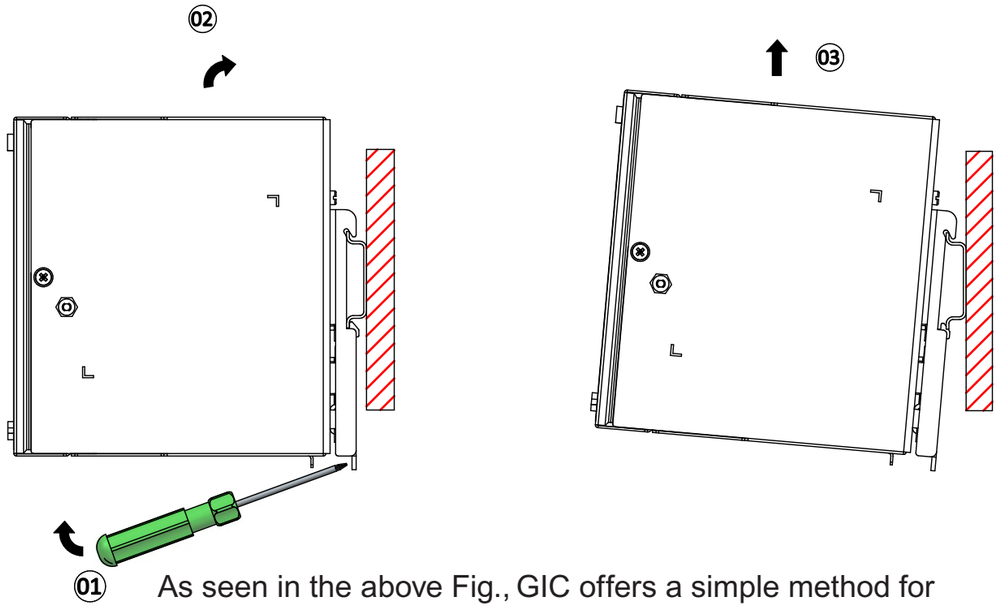
MOUNTING & INSTALLATION

The power supply unit can be installed in compliance with EN 60715, using 35 mm DIN rails.
Installation of the device should be done with the input terminal block at the bottom.
Every device is shipped prepared for installation.



As seen in the above figure, snap on the DIN rail.
1. Place the device on the DIN rail by tilting it upward.
2. Press down until the movement stops.
3. To lock, press against the front bottom side.
4. To ensure that sure the device is attached, give it a little shake.

DISMOUNTING



As seen in the above Fig., GIC offers a simple method for uninstalling that involves using a screwdriver to pull or slide down the latch. Next, release the latch and pull the power supply unit in the other direction.
The power supply unit is removed from the rail.

TECHNICAL SPECIFICATIONS:			
Cat. No.:		**PS120W24V**	**PS240W24V**
INPUT SUPPLY CHARACTERISTICS:			
Supply Voltage Range		90V AC to 264V AC 127V DC to 375V DC	
Frequency Range		47 - 63 Hz	47 - 63 Hz
Efficiency	@ 115 VAC/100% load	85 % Typ.	90 %
	@ 230 VAC/100% load	87 % Typ.	90 %
AC Input Current (Max.)		< 1.40 A @ 115 VAC, < 0.80 A @ 230 VAC	2.5 A typ. @ 115 VAC, 1.3 A typ. @ 230 VAC
Inrush Current		20A/115VAC; 35A/230VAC	20 A typ. @ 115 VAC, 40 A typ. @ 230 VAC
No load power consumption		<0.5W @ 230V AC	<2W @ 230V AC
OUTPUT CHARACTERISTICS:			
Nominal Output DC Voltage		24 V DC	24 V DC
Output DC voltage adjustment range (Pot. setable)		22 - 28 V DC	22 - 28 V DC
Rated Output Current		5 A @ 24 V DC	10 A @ 24 V DC
Rated Output Power		120 W	240 W
Load Regulation		± 0.5 % typ.	± 0.5 % typ.
Line Regulation		± 0.5 % typ.	± 0.5 % typ.
Ripple & Noise		120 mV p-p max.	150 mV p-p max.
Start Up Time		< 1,000 ms @ nominal input (100% load)	500 ms typ. @ 115 VAC & 230 VAC
Hold UP Time		> 35 ms @ 115 VAC,> 70 ms @ 230 VAC (100% load)	20 ms typ. @ 115 VAC (100% load)
Rise Time		30 msec at full load	30 ms typ. @ 115 VAC & 230 VAC
Dynamic Response (Overshoot & Undershoot O/P Voltage)		± 5% @ 85-264 VAC input, 10-90% load (Slew Rate: 0.1 A/µs, 50% duty cycle @ 5 Hz to 1 KHz)	± 10% @ 115 VAC & 230 Vac input, 10-100% load (Slew Rate: 2.5 A/µs, 50% duty cycle @ 5 Hz & 10 kHz)
Start Up with capacitive load		8000uF	8000uF
PROTECTIONS :			
Over Voltage		28.8 V ~ 33.6 V (Output voltage turn off, Restart power to turn on device).	
Over Load/Over current		105 - 150% of rated load current, Auto-recovery Continuous current limit Mode	
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		Class 1 with Protection Earth connection, Earthing terminal required	
Internal Input Fuse		4A / 250V	5A / 300V
Recommended breaker for input protection		6 A ... 16 A (Characteristic B, C, D, K or comparable)	
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	
Over Voltage category		II	
Pollution Degree		2	
USER INTERFACE			
Potentiometer		To set output voltage	

LED INDICATION		
Green Led	ON : DC Output OK	
MECHANICAL		
Case Chassis (Base)	Aluminum	
Casing (Top)	Galvanize	
Dimensions (W X H XD)	40 x 128.8 x 128.3 (in mm)	
Weight (unpacked)	510g Approx.	620g Approx.
Cooling	Convection	

CONFORMITY TO STANDARDS :

Safety Standard	EN IEC 62368-1
EMC Standard	EN IEC 61000-6-1
	EN IEC 61000-6-2
	EN IEC 61000-6-3
	EN IEC 61000-6-4

SAFETY DATA:

Dielectric strength	4 KV AC
Rated Impulse withstand voltage(Uimp)	4 KV(1.2/50 us)
Insulation Resistance	>100 Mohm
Leakage Current	<0.50 mA@230VAC

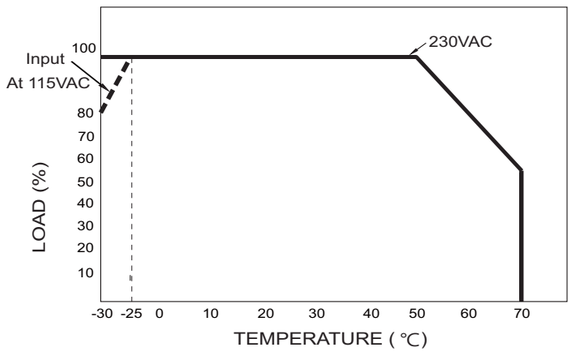
ENVIRONMENTAL DATA:

Cold Heat	IEC 60068-2-1
Dry Heat	IEC 60068-2-2
Vibration	IEC 60068-2-6 5-500Hz : 5g, 60min. each along X, Y, Z axes
Shock	IEC 60068-2-27 50G(11ms) for not in operation 10G(11ms) for in operation

Terminal Details:

INPUT Terminal Torque		OUTPUT Terminal Torque	
Ø4.5 mm Combi Head Bit./Flat	0.5 N.m. (4.5 lb.in.)	Ø3.5 mm	0.4 N.m. (3.54 lb.in.)
	1 x 4 mm^2 Solid/Standard wire		1 x 2.5 mm^2 Solid/Standard wire
AWG	26 to 10	AWG	24 to 12

Derating Curve:



Output Load Derating VS Input Voltage:

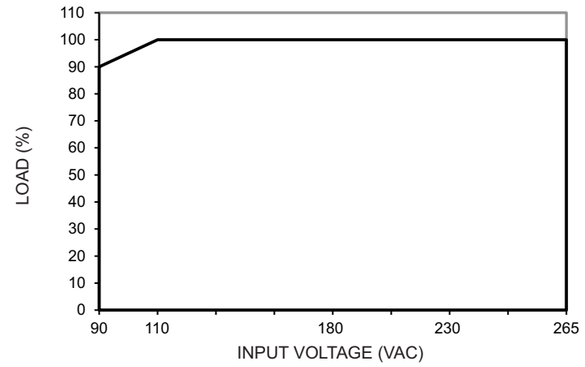


Figure 2.

There is no output derating applicable from 110 to 265VAC.Refer graph.

Note

1. It can cause degradation or damage to the power supply's components.If the power supply is consistently used outside of the shaded range For further information, see the graph in Figure 1.
2. The device can get extremely hot depending on the ambient air temperature and the output load that the power supply is delivering!

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

When the output voltage is more than 80% and the output current range is 105~150% of the rated current, the power supply provides continuous current limit protection for inductive and capacitive load applications. The output voltage starts decreasing when this happens. The protection will start in and the power supply will run continuously when it has reached its maximum power limit.
After eliminating the cause of Overload/Overcurrent and restoring the output current within the specified range, the power supply will recover.

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. Latch mode, re-power ON to recover output voltage.

Short circuit Protection

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

SWITCH MODE POWER SUPPLY 120W 24VDC & 240W 24VDC

Catalog Nos.: PS120W24V PS240W24V

PRODUCT DESCRIPTION:

GIC Cost-Effective Single-Phase Switched-Mode Power Supply with Universal Input Range, Adjustable Output Range from 22-28VDC, and Compliance with Safety Standards. Space-Saving Compact Design for All Applications.

FEATURES:

- Universal input voltage range.
- Excellent load & line regulation.
- Excellent Load Transient Response.
- 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 II.
- Pollution degree II.
- Small form factor.
- Din rail mount.
- CE & RoHS compliance.

⚠ CAUTION:

- 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:

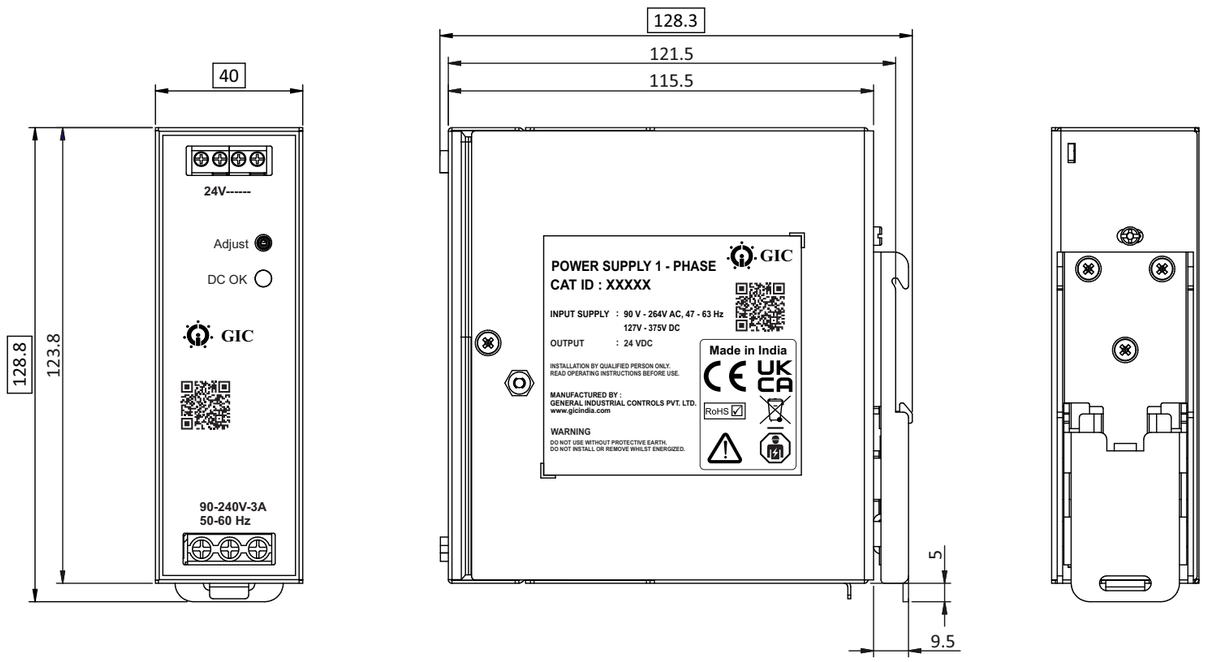
- The technical information provided in this document was correct at the time of publish.
- Product innovation being a continuous process, we reserve the right to alter specifications.

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/

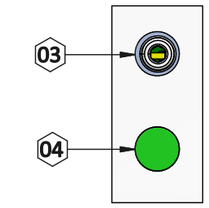
Overall Dimensions of PS120W24V and PS240W24V :

WXHXD= 40 X 128.8 X 128.3 MM (1.574 X 5.070 X 5.051 INCH)

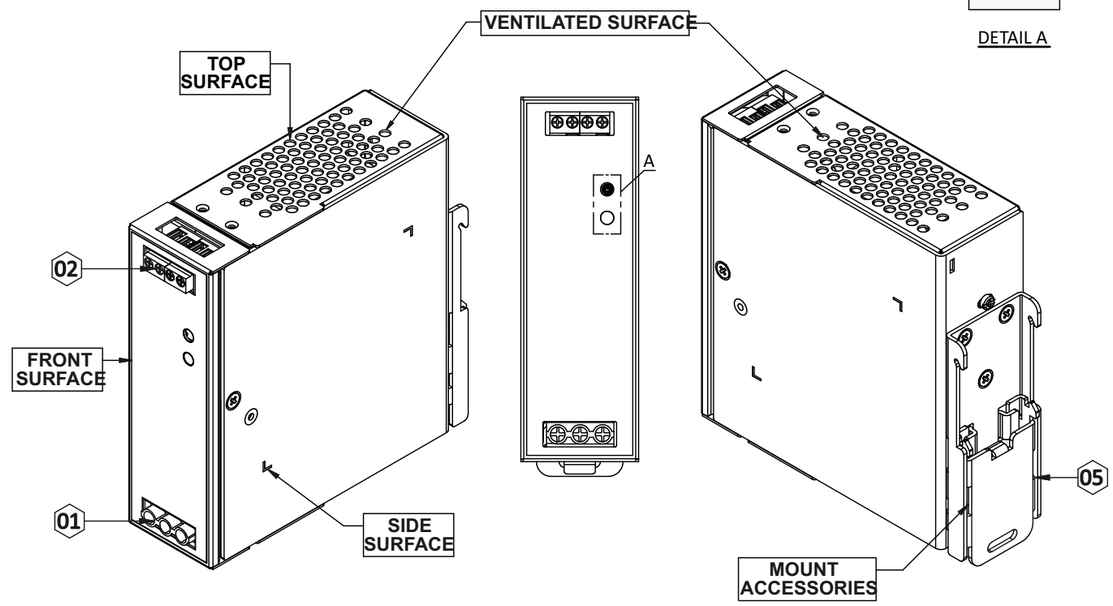


DEVICE DESCRIPTION :

1) INPUT TERMINAL BLOCK CONNECTOR
2) OUTPUT TERMINAL BLOCK CONNECTOR
3) DC VOLTAGE ADJUSTMENT POTENTIOMETER
4) DC OK CONTROL LED (GREEN)
5) UNIVERSAL MOUNTING RAIL SYSTEM

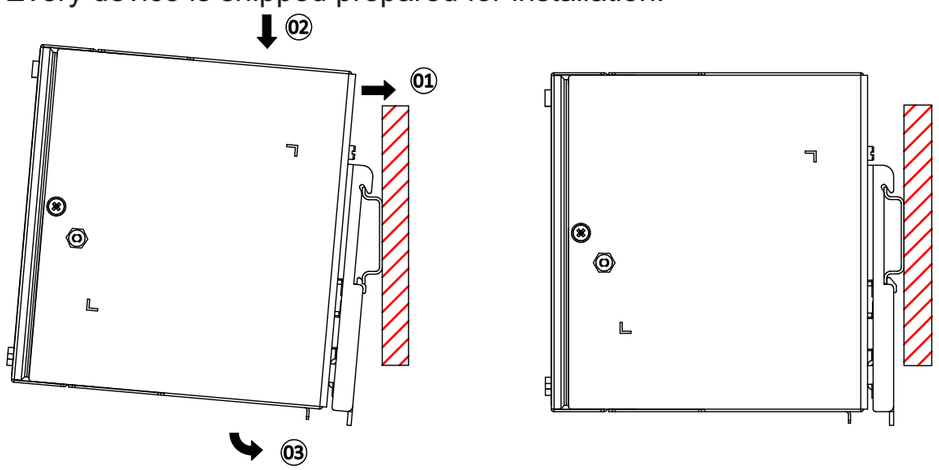


DETAIL A



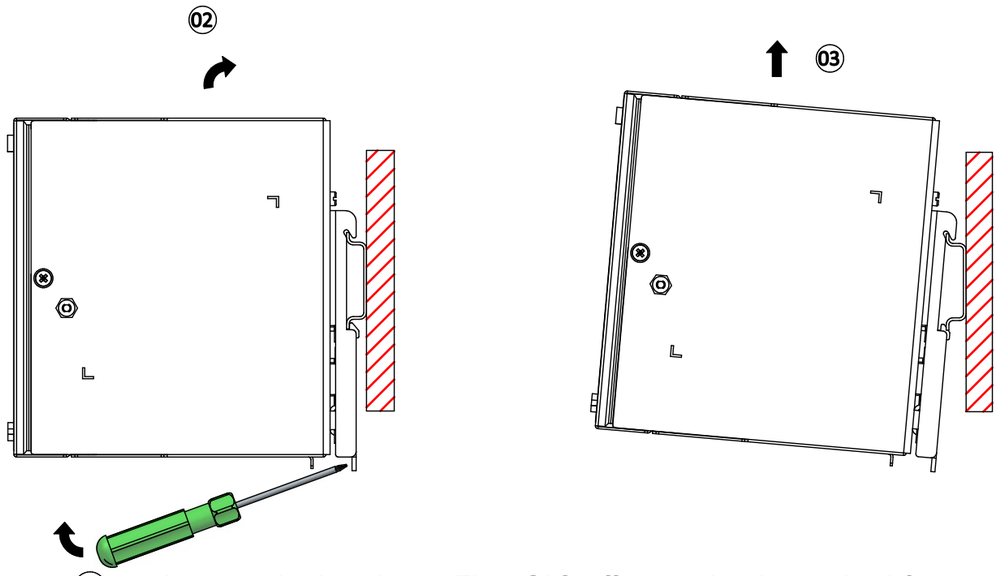
MOUNTING & INSTALLATION

The power supply unit can be installed in compliance with EN 60715, using 35 mm DIN rails.
Installation of the device should be done with the input terminal block at the bottom.
Every device is shipped prepared for installation.



As seen in the above figure, snap on the DIN rail.
1. Place the device on the DIN rail by tilting it upward.
2. Press down until the movement stops.
3. To lock, press against the front bottom side.
4. To ensure that sure the device is attached, give it a little shake.

DISMOUNTING



As seen in the above Fig., GIC offers a simple method for uninstalling that involves using a screwdriver to pull or slide down the latch. Next, release the latch and pull the power supply unit in the other direction.
The power supply unit is removed from the rail.