OP3116-V02

selec

TPS50-24
Operating Instruction



FEATURES

- Supports 90 - 264 VAC / 127 - 373 VDC.
- - 40°C to + 70°C Operating Temperature.
- Compact size and 1U low profile.
- Cooling by free air convection.

INTENDED USE

This device is designed for the general professional use such as in instrumentation equipment, office, industrial control and communication .
Do not use this power supply in equipment where malfunction may cause severe personal injury or threaten human life.

INPUT SPECIFICATIONS

INPUT VOLTAGE RANGE	100 - 240 VAC ± 10 % ; 127 - 373 VDC (Refer datasheet for input de-rating)
FREQUENCY RANGE	47 - 63 Hz
EFFICIENCY (TYP.)	> 86 % @ 230 VAC
AC CURRENT (TYP.)	0.9 A @ 115 VAC; 0.50 A @ 230 VAC
INRUSH CURRENT (TYP.)	< 60 Amps; Measured at 264 VAC, 25°C Ambient, Cold Start

OUTPUT SPECIFICATIONS

OUTPUT VOLTAGE	24 - 28 VDC
OUTPUT CURRENT	2.2 A at 24 VDC; 1.88 A at 28 VDC
RIPPLE AND NOISE	< 1 % of Vout ★
LINE AND LOAD REGULATION	± 1 %
START UP TIME	< 1 Sec @ 230 VAC & < 3 Sec @115 VAC, Full Load
HOLD UP TIME	≥ 60 ms at 230 VAC & ≥ 10 ms at 115 VAC, Full Load
SERIES OPERATION	Possible for up to two power supplies (with external diode)

★ Ripple & Noise measured at 20 MHz of bandwidth by using 0.1 uF &10 uF parallel capacitor.

PROTECTIONS

INPUT FUSE	2 A - 250 VAC Internal
OUTPUT OVER LOAD	≥ 110 % of rated output current Protection type: Hiccup mode; recovers automatically after fault condition is removed.
OUTPUT SHORT CIRCUIT	Hiccup mode when output is shorted; Recovers automatically after fault condition is removed.
OUTPUT OVER VOLTAGE	31.5 VDC ± 1 VDC Protection type: Latched; Input AC power has to be recycled to recover the power supply.

ENVIRONMENT

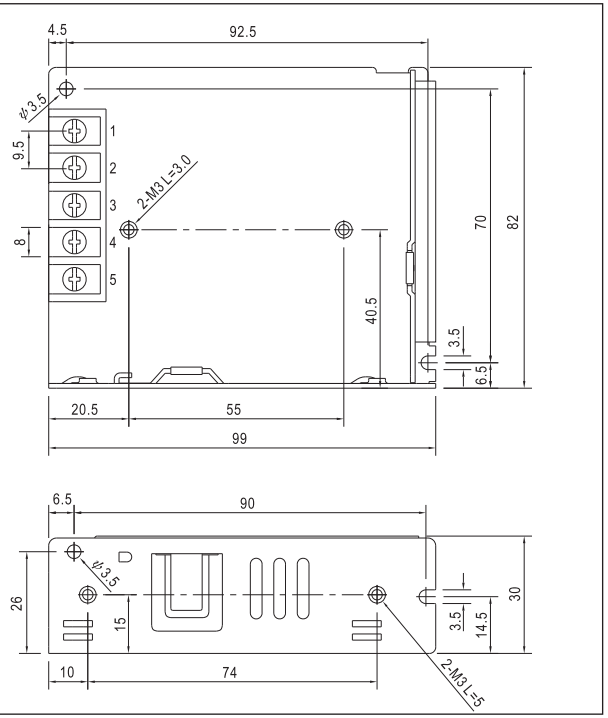
OPERATING TEMPERATURE	- 40°C to + 70°C *De-rate output power at 3 W/°C above + 50°C Ambient.
STORAGE TEMPERATURE	- 40°C to + 85°C.
HUMIDITY	5 to 95 % RH, Non Condensing
ALTITUDE	2000 m

SAFETY & EMC

DIELECTRIC WITHSTAND VOLTAGE	I/P to Earth : 2500 VAC I/P to O/P : 4000 VAC O/P to Earth : 1500 VAC

MECHANICAL

DIMENSION	99 * 82 * 30 mm (L * W * H)
UNIT WEIGHT	< 230 gms



CONNECTOR DETAILS

Ref Des	Description	Type	Pin number	Function
TRL1	Input AC connector	GOOSVN:GSA45S -9.5-05P-1Y-00A(H)	1	AC Line
			2	AC Neutral
	Earth		3	Earth
	Output DC connector		4	V1 Negative
			5	V1 Positive

WIRING INSTRUCTIONS

Recommended Wire size and Torque

Connector	Wire size	Torque
Input	20 AWG	0.5 Nm
Output	19 AWG	0.5 Nm

1. To prevent risk of electric shock, power supply equipment must be kept OFF while wiring.
2. Terminals and electrically charged parts must not be touched when the power is ON.
3. Wiring shall be done strictly according to the connector details.
4. Connection to earth terminal is a must.

⚠ WARNING : Risk of electrical shock, fire, personal injury or death.

1. Do not block the ventilation holes of power supply.
2. Do not use the power supply without proper grounding (Protective Earth).
3. Do not use in wet locations or in areas where moisture or condensation can be expected.
4. Make sure mains power supply is off before wiring the power supply unit. Make sure of correct wiring. Incorrect wiring may cause electrical shock or damage.
5. Do not touch the power supply during operation or immediately after turning off because some parts get hot or are at high voltage which may cause burns or electrical shock.
6. Do not install the power supply where human body may come into contact while power is supplied to the power supply.
7. Do not repair the power supply at user end . Modification or repairing of the power supply by users may cause electrical shocks, damage, & other accidents.
8. If damage or malfunction occurs during operation, immediately turn off mains power.

MEANING OF PRODUCT SAFETY SYMBOL

	WEEE symbol for Electrical and Electronic Equipment waste management Symbole DEEE pour la gestion des déchets d'équipements électriques et électroniques

SAFETY INSTRUCTIONS

- This manual is meant for personnel involved in wiring installation operation & routine maintenance of the equipment.
- Disconnect power supply of your system before starting any installation operation or wiring.
- Improper installation operation or wiring may impair safety & failure of the unit or electrical shock or damage.
- Connect the ground completely. A protective earthing terminal stipulated in safety standards is used. Electric shock or malfunction may occur if ground is not connected properly.

? SERVICE DETAILS

This power supply is not field serviceable product. In case of failure or malfunction, send back the power supply to factory.
Please contact service center for repair on the following numbers:

Tel. No. : +91-7498077172;
Email : service@selec.com

NO WARRANTY ON UNIT DAMAGED DUE TO WRONG CONNECTION OF POWER SUPPLY.
(Specifications are subject to change, since development is a continuous process.)

Factory Address :
EL-27/1, Electronic Zone, TTC Industrial Area,
MIDC, Mahape, Navi Mumbai - 400 710, INDIA.
Tel. No. : +91-22-28476443 / 1882
Fax No. : +91-22-28471733 I Toll free : 1800 227 353
Website: www.selec.com I Email: sales@selec.com