



Features

Input	Universal 100 - 240 Vac / 50 - 60 Hz Input, without any slide switch.
Output	12 V / 0 ~ 2 A
Case Dimension	100 (L) * 50 (W) * 33 (H) mm (±1mm)
Efficiency	Eff (av) ≥ 86.204 %Min.
EMI	CE Class B ; Conduction & Radiation Met.
Protection	OVP (Over voltage protection), SCP (Short circuit protection) OCP (Over current protection)
High frequency design , less power consumption Suitable for usage at Telecommunication, Computer, Industrial Controller, & OA System.	

Input

Voltage	Universal 100 - 240Vac, single phase
Frequency	50 - 60 Hz
Current	0.58 A Max.
Inrush Current	50 A Max. / 100 Vac ; 60 A Max. / 230 Vac (Cold Start At 25 °C , Full Load)
Efficiency	Eff (av) ≥ 86.204 % Min. (At 115 Vac & 230 Vac)
Power Consumption	Pi ≤ 0.1 W (At 230 Vac & No Load)

$$\text{※ Eff(av)} = \frac{E1 + E2 + E3 + E4}{4}$$

E1=efficiency with 25% rated load , E2=efficiency with 50% rated load

E3=efficiency with 75% rated load , E4=efficiency with 100% rated load

Output

Voltage	+12.00 V \pm 5%
Current	2A Max.
Regulation	11.4 Vmin. \sim 12V typ. \sim 12.6 Vmax.
Ripple & Noise	120 mVp-p Max.
Total Power	24 W Max.

Remark : For ripple & noise measurement , use a 20 MHz bandwidth frequency oscilloscope , and add a 0.1 μ F multilayer cap. and a low ESR electrolytic cap. (10 μ F) at output connector terminals. (at nominal line voltage , full load)

Protection

Over voltage protection (OVP)	22 V max.
Short circuit protection (SCP)	Automatic recovery after short-circuit fault being removed
Over current protection (OCP)	5 A max.

Remark : When short circuit protection or over current protection is activated , the power supply will shutdown automatically. Once the abnormal condition resulting in the failure being removed , the power supply will restart accordingly. When over voltage protection is activated , the power supply will shutdown.

Safety and EMC Requirement

Safety requirement

a. Dielectric strength : 10mA Max. Cut off current

(1)	Primary to secondary	3000 Vac for 1 minute
(2)	Primary to Frame Ground	1500Vac for 1 Minute

b. Insulation resistance :

(1)	Primary to secondary	10 M Ω for 500 Vdc
(2)	Primary to Frame Ground	10 M ohm for 500Vdc

EMC requirement : CE / FCC Class B ; Conduction & Radiation Met.

Leakage current : Less than 3.5 mA

Grounding Test : Resistance 0.1ohm Max. @ 32A

Operation and Environment Performance

Temperature Range

Operating	0 °C ~ +40 °C
Storage	-20 °C ~ +80 °C

Humidity Range (non-condensing)

Operating	20% - 80 % RH
Storage	10% - 90 % RH

Cooling : By natural air

MTBF

300,000 Hrs. (calculated hours at 25°C)

Mechanical

Weight	170 g Typical
Cable Type	Black UL 2468 22 AWG (wire + plug) Plug : 5.5mm x 2.1mm x 9.5mm (tuning fork & cannelure)
Cable Length	1500 mm
Case Dimension	100 (L) * 50 (W) * 33 (H) mm (±1mm)
Material Flammability	UL 94V-0
External Appearance	As drawing below (scale → mm)

Drawing Specifications

