Astek Globe
Model: AAA200-S190

1. Feature：

- ♦ **Input** ： **Universal 100 ~ 240 Vac / 50 ~ 60 Hz Input, without any slide switch.**
- ♦ **Output** ： **+19 V / 0 ~ 10.5 A**
- ♦ **Case Dimension** ： **161.0(L) * 54.2(W) * 33.2(H) mm ± 1 mm**
- ♦ **Efficiency** ： **$Eff_{(av)}$ ≧ 90%**
- ♦ **Safety** ： **UL / CUL / GS / PSE / BSMI**
- ♦ **EMC** ： **CE / FCC Class B；conduction & radiation Met.**
- ♦ **Protection** ： **OVP (Over Voltage Protection)、SCP (Short Circuit Protection)、OCP (Over Current Protection)、OTP (Over Temperature Protection)**
- ♦ **High frequency design，less power consumption.**
- ♦ **Suitable for usage at Telecommunication, Computer, Industrial Controller, & OA System.**
- ♦ **Gallium Nitride Based Design.**

2. Input：

2.1 Voltage	Universal 100 ~ 240 Vac，single phase
2.2 Frequency	50 ~ 60 Hz
2.3 Current	2.4 A Max.
2.4 Inrush Current	100 A max. / 240 Vac (Cold start at 25ºC，full load)
2.5 Efficiency	$Eff_{(av)}$ ≧ 90% (At 115 Vac & 230 Vac)
2.6 Power Consumption	Pi ≦ 0.21 W (At 115 Vac & 230 Vac & At No load)
2.7 Power Factor (PF)	Pi ≧ 0.9 (At 115 Vac & 230 Vac, At Full load)

$$※Eff_{(av)} = \frac{E_1 + E_2 + E_3 + E_4}{4}$$

E_1=efficiency with 25% rated load，E_2= efficiency with 50% rated load

E_3=efficiency with 75% rated load，E_4= efficiency with 100% rated load

3. Output：

3.1 DC Output	Voltage	+19.0 V ± 5%
	Current	10.5 A Max.
	Regulation	18.0 Vmin. ~ 19.0 Vtyp. ~ 20.0 Vmax.
	Ripple & Noise	190 mVp-p max.
	Total Power	200 W max.

Remark : For ripple & noise measurement, use a 20MHz bandwidth frequency oscilloscope, and add a 0.1μF multilayer Cap. and a Low ESR Electrolytic Cap. (47 μF) at output connector terminals. (At nominal line voltage, full load)

4. Protection :

4.1 Over Voltage Protection (OVP)	Vout * 180% max.
4.2 Over Current Protection(OCP)	Iout * 180% max.
4.3 Short Circuit Protection (SCP)	Shut down.
4.4 Over Temperature Protection (OTP)	Shut down.

5. Safety and EMC requirement：

5.1 Safety Requirement

a. Safety ： UL / CUL / GS / PSE / BSMI

b. Dielectric Strength ： Cut off current 10mA

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

c. Insulation Resistance ：

(1)	Primary to secondary	10 MΩ for 500 Vdc
(2)	Primary to Frame Ground	10 MΩ for 500 Vdc

5.2 EMI Requirement ： CE / FCC Class B；conduction & radiation Met.

5.3 Leakage Current ： Less than 3.5 mA

6. Operation and environment performance：

6.1 Temperature range

Operating	0 ºC ~ +40 ºC
Storage	-20 ºC ~ +80 ºC

6.2 Humidity range (non-condensing)

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

6.3 Cooling：By natural air.

7. M.T.B.F.：300,000Hrs.(Calculated Hours at 25℃ , By Telcordia SR-332)

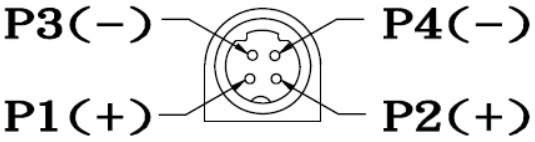
8. Mechanical :

8.1 Weight : 560 g Ref.

8.2 Cable type : Black UL2095 4C 16 AWG

(wire + plug)

Plug : 4 Pin Din



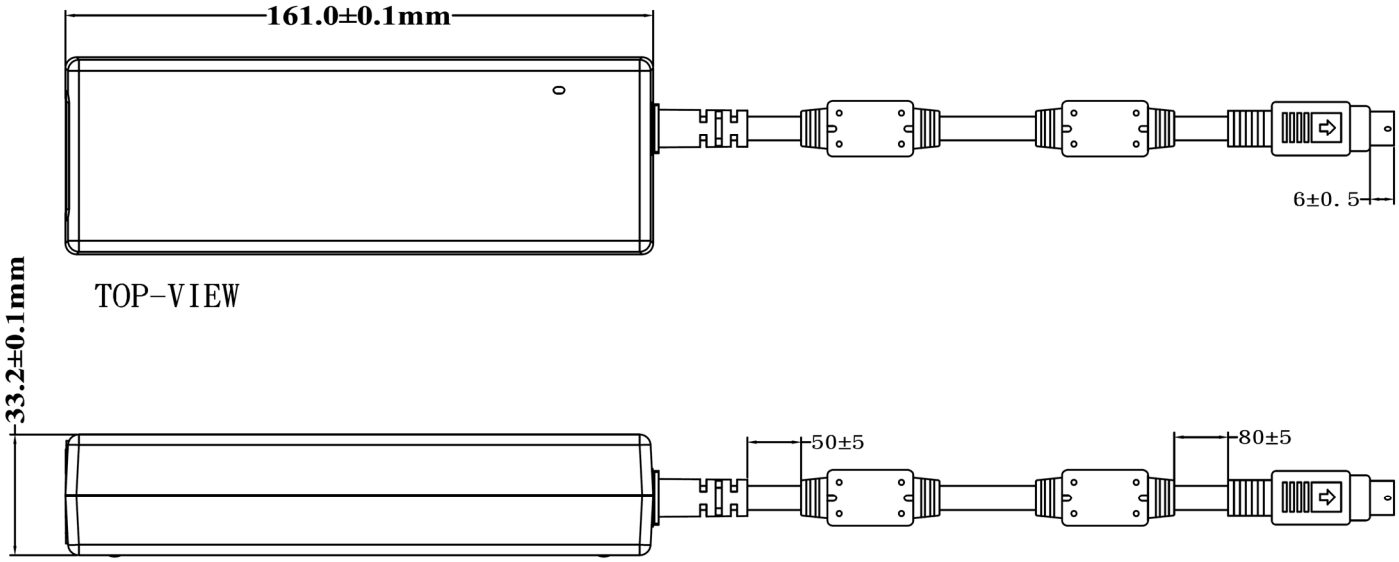
Output cable plug pin assignment

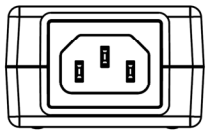
8.3 Cable length : 1500 mm

8.4 Case dimension : 161.0 (L) * 54.2 (W) * 33.2 (H) mm ± 1 mm

8.5 Material flammability : UL 94V-0

8.6 External appearance : As drawing below (scale → mm)





FRONT-VIEW