



#### Features:

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- Built-in active PFC function, PF>0.91
- Protections: Short circuit / Overload / Over voltage / Over temperature
- · Fully enclosed plastic case
- Approvals: UL / CUL / PSE / TUV / BSMI / CCC / CB / FCC / CE
- Class I power (with earth pin)
- · LED indicator for power on
- No load power consumption<0.5W</li>
- ErP step2 compliant
- NRCan compliant
- Meet EISA 2007 (Energy Independence and Security Act)

### **SPECIFICATION**

















ORDER NO.		GS220A12-R7B	GS220A15-R7B	GS220A20-R7B	GS220A24-R7B	GS220A48-R7B	
	SAFETY MODEL NO.	GS220A12	GS220A15	GS220A20	GS220A24	GS220A48	
ОИТРИТ	DC VOLTAGE Note.2	12V	15V	20V	24V	48V	
	RATED CURRENT	15A	13.4A	11A	9.2A	4.6A	
	CURRENT RANGE	0 ~ 15A	0 ~ 13.4A	0 ~ 11A	0 ~ 9.2A	0 ~ 4.6A	
	RATED POWER (max.)	180W	201W	220W	221W	221W	
	RIPPLE & NOISE (max.) Note.3	80mVp-p	100mVp-p	150mVp-p	180mVp-p	240mVp-p	
	VOLTAGE TOLERANCE Note.4		±5.0%	±4.0%	±3.0%	±2.0%	
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	LOAD REGULATION	±5.0%	±5.0%	±4.0%	±3.0%	±2.0%	
	SETUP, RISE TIME Note.7	2000ms, 20ms / 230VAC 2000ms, 20ms / 115VAC at full load					
	HOLD UP TIME (Typ.)	20ms / 230VAC 20ms / 115VAC at full load					
	VOLTAGE RANGE Note.8	90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.91 / 230VAC PF>0.98 / 115VAC at full load					
INPUT	EFFICIENCY (Typ.)	90%	90%	92%	93.5%	94.5%	
	AC CURRENT (Typ.)	4A / 115VAC 2A / 23	BOVAC				
	INRUSH CURRENT (max.)	120A / 230VAC					
	LEAKAGE CURRENT(max.)	1.5mA / 240VAC					
PROTECTION	OVERLOAD	105 ~ 135% rated output power					
		Protection type: Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	105 ~ 135% rated output voltage					
		Protection type : Shut down o/p voltage, re-power on to recover					
	AVED TEMPED ATURE	95°C ±5°C (TSW1) detect on heatsink of power transistor					
	OVER TEMPERATURE	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down					
ENVIRONMENT	WORKING TEMP.	-30 ~ +60°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20% ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03% / °C (0~50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC (Note. 6)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1, BSMI CNS14336, CCC GB4943, J60950-1(except for 48V) approved					
	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC					
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Compliance to EN55022 class B, EN61000-3-2,3, FCC PART 15 class B / CISPR22 class B, CNS13438 class B, GB9254 class B, GB17625.1					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A					
<u> </u>	MTBF	191.3Khrs min. MIL-HDBK-217F(25°C)					
OTHERS	DIMENSION	210*85*46mm (L*W*H)					
	PACKING	1.1Kg; 12pcs/14.2Kg/0.73CUFT					
CONNECTOR	PLUG	See page 2; Other type available by customer requested					
	CABLE	See page 2; Other type	See page 2; Other type available by customer requested				
NOTE	All parameters are specifie	d at 230VAC input, rated	load, 25°C 70% RH amb	ient.			

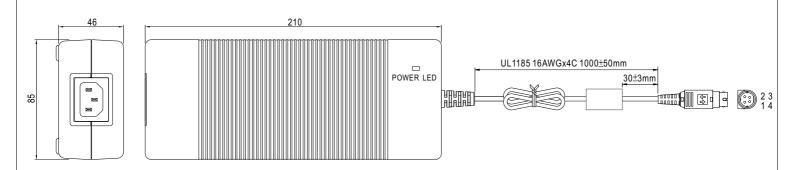
NOTE

- All parameters are specified at 230VAC input, rated load, 25°C 70% RH ambient.
- 2. DC voltage: The output voltage set at point measure by plug terminal & 50% load.
- 3. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf capacitor.
- 4. Tolerance: includes set up tolerance, line regulation, load regulation.
- 5. Line regulation is measured from low line to high line at rated load.
- 6. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives.
- 7. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.
- 8. Derating may be needed under low input voltage. Please check the derating curve for more details.



## **■** Mechanical Specification

Case No.961A Unit:mm



### ■ Plug Assignment

Standard plug: R7B

R7B						
	PIN NO.	OUTPUT				
2 (0 0) 3	1,4	+V				
	2,3	-V				
10.50						

-V connected to AC FG

# **■** Derating Curve

#### 230VAC 100 80 100VAC for others 110VAC for 12~15V 60 50 LOAD (%) 40 20 -30 50 70 (HORIZONTAL) 10 20 40 AMBIENT TEMPERATURE (°C)

### **■** Static Characteristics

