



■ Features :

- Universal AC input / Full range
- No load power consumption <0.5W
- Meet energy star level IV(CEC) for 5 ~ 48V
- Meet EISA 2007 (Energy Independence and Security Act) for 5 ~ 48V
- 2 pole USA plug
- Class II power (without earth pin)
- Full output 3~48V safety approval
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- Approvals: UL / CUL / CB / FCC / CE
- 2 years warranty

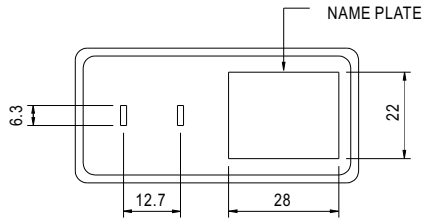


SPECIFICATION

ORDER NO.		GS15U-0P1J	GS15U-1P1J	GS15U-11P1J	GS15U-2P1J	GS15U-3P1J	GS15U-4P1J	GS15U-5P1J	GS15U-6P1J	GS15U-8P1J	
OUTPUT	SAFETY MODEL NO.	GPSU15U-0	GPSU15U-1	GPSU15U-1-1	GPSU15U-2	GPSU15U-3	GPSU15U-4	GPSU15U-5	GPSU15U-6	GPSU15U-8	
	DC VOLTAGE Note.2	3.3V	5V	7.5V	9V	12V	15V	18V	24V	48V	
	RATED CURRENT	2.18A	2.40A	1.60A	1.66A	1.25A	1.00A	0.83A	0.62A	0.31A	
	CURRENT RANGE	0 ~ 2.18A	0 ~ 2.40A	0 ~ 1.60A	0 ~ 1.66A	0 ~ 1.25A	0 ~ 1.00A	0 ~ 0.83A	0 ~ 0.62A	0 ~ 0.31A	
	RATED POWER	7.2W	12W	12W	15W	15W	15W	15W	15W	15W	
	RIPPLE & NOISE (max.) Note.3	50mVp-p	50mVp-p	80mVp-p	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	240mVp-p	
	VOLTAGE ADJ. RANGE	3~5V	5~6V	6~8V	8~11V	11~13V	13~16V	16~21V	21~27V	33~48V	
		Fixed									
	VOLTAGE TOLERANCE Note.4	±6.0%	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
	LINE REGULATION Note.5	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION Note.6	±6.0%	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	
SETUP, RISE, HOLD UP TIME	3000ms, 50ms, 16ms at full load										
INPUT	VOLTAGE RANGE	90 ~ 264VAC 135 ~ 370VDC									
	FREQUENCY RANGE	47 ~ 63Hz									
	EFFICIENCY (Typ.) Note.7	55%	65%	72%	74%	76%	77%	78%	80%	81%	
	AC CURRENT	0.5A / 100VAC									
	INRUSH CURRENT (max.)	50A / 230VAC									
	LEAKAGE CURRENT(max.)	0.25mA / 240VAC									
PROTECTION	OVERLOAD	105 ~ 250% rated output power									
		Protection type : Hiccup mode, recovers automatically after fault condition is removed									
	OVER VOLTAGE	>120% rated output voltage									
ENVIRONMENT		Protection type : Clamp by zener diode									
	WORKING TEMP.	0 ~ +50℃ (Refer to output load derating curve)									
	WORKING HUMIDITY	20% ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-20 ~ +85℃, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03% / °C (0 ~ 50℃)									
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes									
SAFETY & EMC (Note. 8)	SAFETY STANDARDS	UL60950-1, CSA22.2, EN60950-1 approved									
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC									
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃ / 70% RH									
	EMI CONDUCTION & RADIATION	Compliance to EN55022 class B, FCC part 15 Class B									
	HARMONIC CURRENT	Compliance to EN61000-3-2,3									
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,11, light industry level, criteria A									
OTHERS	MTBF	500Khrs min. MIL-HDBK-217F(25℃)									
	DIMENSION	34*71*50mm (L*W*H)									
	PACKING	150g ; 84pcs / 14Kg / CARTON									
CONNECTOR	PLUG	Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type center positive for stock ; Other type available by customer requested									
	CABLE	Standard type 18Awg UL1185 6ft and 5ft for 3.3V output only for stock ; Other type available by customer requested									
NOTE	1.All parameters are specified at 115VAC input, rated load, 25℃ 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.Load regulation is measured from 0% to 100% rated load 7.Efficiency is measured at 115VAC. 8.The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.										

Mechanical Specification

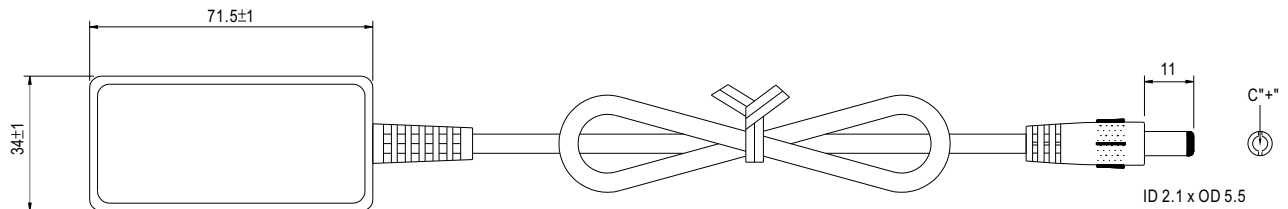
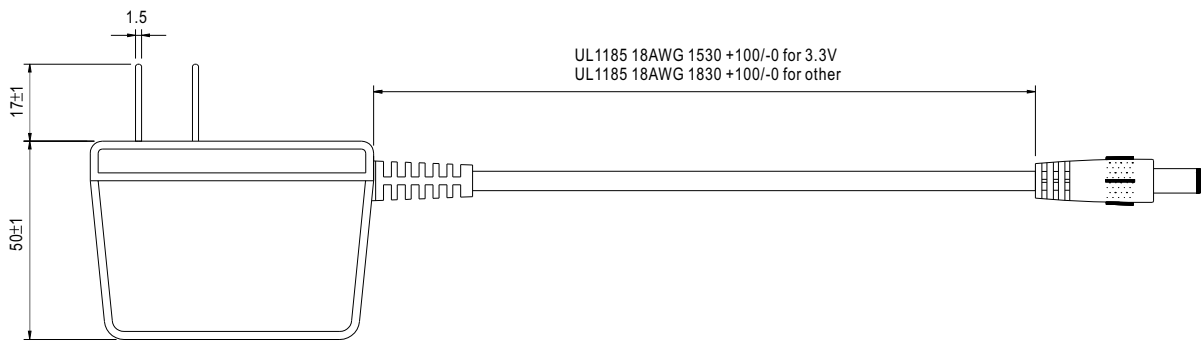
Unit:mm



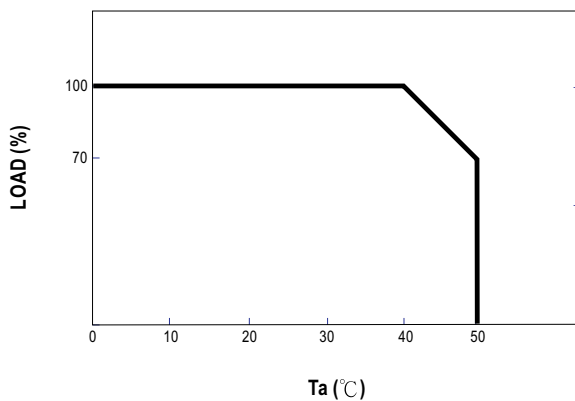
Plug Assignment

Standard plug: P1J (option)

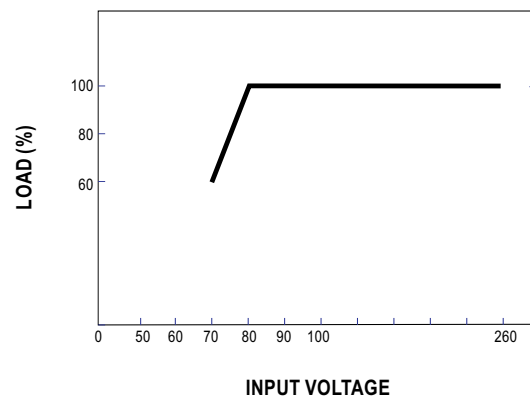
P1J	
P/N	OUTPUT
CENTER	+



Derating Curve



Static Characteristics



Model : GS15x-1 12W
+5V / 2.4A

AC-DC Single Output Wall-mount adaptor

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	50mVp-p (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	20mVp-p	P
2	VOLTAGE TOLERANCE	-5% ~ +5% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-3.3% ~ +3.5%	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0% ~ +0%	P
4	LOAD REGULATION	-5% ~ +5% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-3.2% ~ +3.4%	P
5	SET UP TIME	3000mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	1.11s	P
6	RISE TIME	50mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	2.96mS	P
7	HOLD UP TIME	16mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	24.0 ms	P

INPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	VOLTAGE RANGE	100VAC ~ 240VAC (Typ)	I/P:TESTING O/P:FULL LOAD Ta:25°C	56V ~ 264V	P
2	FREQUENCY RANGE	50HZ - 60HZ (Typ) NO DAMAGE OSC	I/P: 100VAC ~ 240VAC O/P:FULL~MIN LOAD Ta:25°C	TEST: OK	P
3	EFFICIENCY	65% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	72.4%	P
4	AC CURRENT	0.5A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.33A	P
5	NO LOAD POWER	< 1W	I/P:230VAC O/P: NO LOAD Ta:25°C	0.4W	P

6	INRUSH CURRENT	< 50A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	40.0A	P
7	LEAKAGE CURRENT	<0.25mA / 240VAC	I/P:240VAC O/P:Min LOAD Ta:25°C	L-FG:0.02mA N-FG:0.02mA	P

PROTECTION FUNCTION TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	115~250%	I/P:230VAC O/P:TESTING Ta:25°C	215% HICCUP MODE RESET AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	CLAMP BY ZENER DIODE >120%	I/P:230VAC O/P:MIN LOAD Ta:25°C	8.88V(178%)	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25°C	NO DAMAGE HICCUP MODE RESET AUTO RECOVER	P

ENVIRONMENT TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	TEMPERATURE RISE TEST	1. ROOM AMBIENT BURN-IN : 7HRS I/P:230VAC O/P:100% LOAD Ta=27.4°C 2. ROOM AMBIENT BURN-IN : 2HRS I/P:230VAC O/P:100% LOAD Ta=43.5°C 3. ROOM AMBIENT BURN-IN : 3HRS I/P:115VAC O/P:100% LOAD Ta=27.0°C 4. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:70% LOAD Ta=54.0°C			P

NO	Position	P/N	1	2	3	4
1	VCC C4	FuhYin 33uF/25V 105°C 5*11 HFR	62.9°C	71.8°C	60.5°C	68.2°C
2	Q1	K2101	70.1°C	79.6°C	67.0°C	74.3°C
3	I/P C2	FuhYin 33uF/400V 105°C 15*20 HFR	54.9°C	64.7°C	56.7°C	63.5°C
4	O/P C9	LTEC 680uF/10V 105°C 8*16 LZG	85.2°C	94.3°C	82.7°C	81.6°C
5	O/P C11	LTEC 680uF/10V 105°C 8*16 LZG	71.3°C	80.4°C	69.3°C	72.2°C
6	O/P D4	FCQ10A04	95.6°C	104.9°C	93.0°C	89.1°C
7	T1	EE-20	87.3°C	96.8°C	83.0°C	84.5°C
8	CASE	UPON	66.4°C	75.7°C	63.4°C	70.2°C

SAFETY & E.M.C TEST

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	SAFETY STANDARDS	TUV: Certificate NO : S 50071802 FOR CLASS I POWER (GS15A TYPE) S 50072133 FOR CLASS II POWER (GS15B/E TYPE) UL: File NO : E206808			P
2	HARMONIC	IEC61000-3-2 CLASS A	I/P:230VAC / 50HZ O/P:FULL LOAD Ta:25°C	PASS	P
3	CONDUCTION	EN55022 CLASS B	I/P:230VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS	P
4	RADIATION	EN55022 CLASS B	I/P:230VAC (50HZ) O/P:FULL LOAD Ta:25°C	PASS	P
5	E.S.D	IEC61000-4-2 LIGHT INDUSTRY AIR:8KV / Contact:4KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
6	E.F.T	IEC61000-4-4 LIGHT INDUSTRY INPUT: 1KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
7	SURGE	IEC61000-4-5 LIGHT INDUSTRY L-N :1KV	I/P:230VAC/50HZ O/P:FULL LOAD Ta:25°C	CRITERIA A	P
8	WITHSTAND VOLTAGE	I/P-O/P:4242VDC/min	I/P-O/P:4242VDC/min Ta:25°C	I/P-O/P:0.02mA NO DAMAGE	P
9	ISOLATION RESISTANCE	I/P-O/P:500VDC>50MΩ	I/P-O/P:500VDC Ta:25°C	I/P-O/P:>100MΩ NO DAMAGE	P

OTHER

NO	TEST ITEM	SPECIFICATION	TEST CONDITION	RESULT	VERDICT
1	CAPACITOR LIFE CYCLE	SUPPOSE C9 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=23294Hrs I/P:230 VAC O/P:FULL LOAD Ta=40°C LIFE TIME=13379Hrs I/P:230 VAC O/P:70% LOAD Ta=50°C LIFE TIME=33403Hrs			P
2	MTBF	MIL-HDBK-217F NOTICES2 PARTS COUNT TOTAL FAILURE RATE: 1.702642 M.T.B.F: 587322HRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2007.4.17	GS15x-1	PASS	T.K.CHENG	MAX LIN