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ELECTRONICS

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Jameco Part Number 1954236



■ 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
- 3 pole AC inlet IEC320-C14
- Class I power (with earth pin)
- Full output 3~48V safety approval
- Protections: Short circuit / Overload / Over voltage
- Pass LPS
- Fully enclosed plastic case
- Approvals: UL / CUL / TUV / CB / FCC / CE
- 2 years warranty

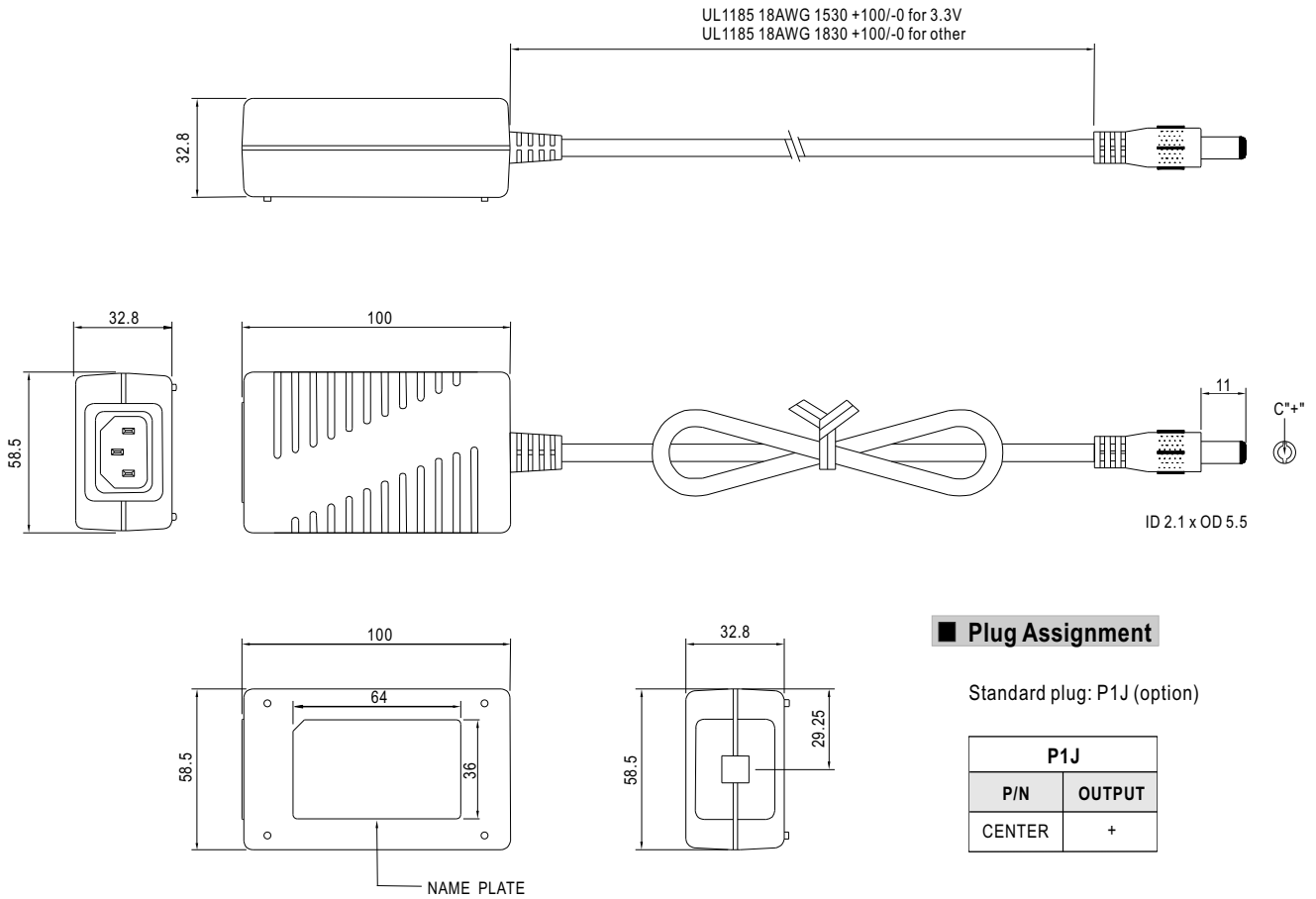


SPECIFICATION

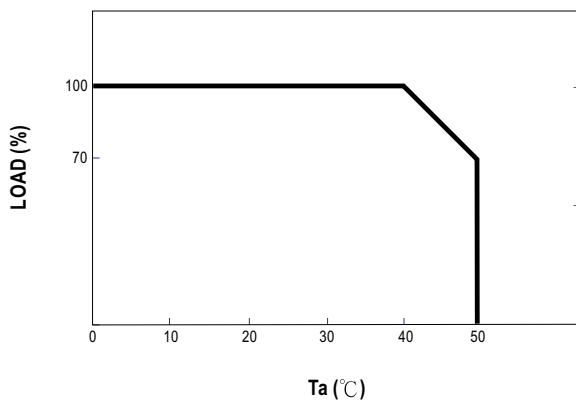
ORDER NO.		GS15A-0P1J	GS15A-1P1J	GS15A-11P1J	GS15A-2P1J	GS15A-3P1J	GS15A-4P1J	GS15A-5P1J	GS15A-6P1J	GS15A-8P1J
OUTPUT	SAFETY MODEL NO.	GPSU15A-0	GPSU15A-1	GPSU15A-1-1	GPSU15A-2	GPSU15A-3	GPSU15A-4	GPSU15A-5	GPSU15A-6	GPSU15A-8
	DC VOLTAGE Note.2	3.3V	5V	7.5V	9V	12V	15V	18V	24V	48V
	RATED CURRENT	2.18A	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
	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%
INPUT	SETUP, RISE, HOLD UP TIME	3000ms, 50ms, 16ms at full load								
	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								
PROTECTION	LEAKAGE CURRENT(max.)	0.25mA / 240VAC								
	OVERLOAD	115 ~ 250% rated output power								
	OVER VOLTAGE	>120% rated output voltage								
ENVIRONMENT	WORKING TEMP.	0 ~ +50°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20% ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 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. 8)	SAFETY STANDARDS	UL60950-1, CSA22.2, EN60950-1 approved								
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC, I/P-FG:1.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG:100M Ohms / 500VDC / 25°C / 70% RH								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 class B, FCC part 15 Class B								
	HARMONIC CURRENT	Compliance to EN61000-3-2,3								
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,11, light industry level, criteria A								
	MTBF	500Khrs min. MIL-HDBK-217F(25°C)								
	DIMENSION	100*58.5*32.8mm (L*W*H)								
CONNECTOR	PACKING	190g / 90pcs / 18Kg / CARTON								
	PLUG	Standard type P1J: 2.1φ * 5.5φ * 11mm, tuning fork type center positive for stock ; Other type available by customer requested								
NOTE	CABLE	Standard type 18Awg UL1185 6ft and 5ft for 3.3V output only for stock ; Other type available by customer requested								
		1.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.Load regulation is measured from 0% to 100% rated load 7.Efficiency is measured at 230VAC. 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

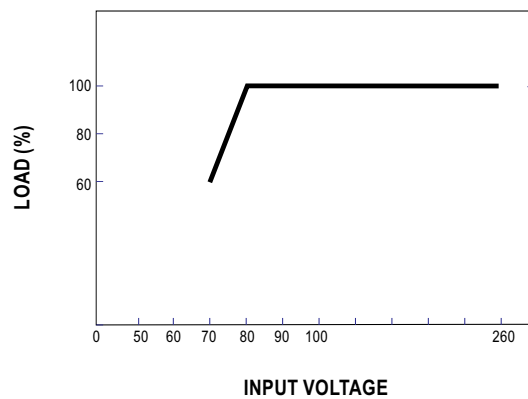
Unit:mm



■ Derating Curve



■ Static Characteristics



Model : GS15x-1-1 12W
+7.5V / 1.6A

AC-DC Single Output Wall-mount adaptor

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	80mVp-p (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	10mVp-p	P
2	VOLTAGE TOLERANCE	-5% ~ +5% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-1.8% ~ +1.8%	P
3	LINE REGULATION	-0.5% ~ +0.5% (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	-1.8% ~ +1.8%	P
5	SET UP TIME	3000mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	884mS	P
6	RISE TIME	50mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	5.2mS	P
7	HOLD UP TIME	16mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	22.8 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	55V ~ 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	72% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	76.3%	P
4	AC CURRENT	0.5A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.3A	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	37.8A	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	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	OVER LOAD PROTECTION	115~250%	I/P:230VAC O/P:TESTING Ta:25℃	221% HICCUP MODE RESET AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	CLAMP BY ZENER DIODE >120%	I/P:230VAC O/P:MIN LOAD Ta:25℃	12.2V(163%)	P
3	SHORT PROTECTION	SHORT EVERY OUTPUT 1 HOUR NO DAMAGE	I/P:264VAC O/P:FULL LOAD Ta:25℃	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 : 16HRS I/P:230VAC O/P:100% LOAD Ta=28.3℃ 2. ROOM AMBIENT BURN-IN : 1.5HRS I/P:115VAC O/P:100% LOAD Ta=28.3℃ 3. ROOM AMBIENT BURN-IN : 3HRS I/P:230VAC O/P:100% LOAD Ta=39.0℃ 4. ROOM AMBIENT BURN-IN : 4HRS I/P:230VAC O/P:70% LOAD Ta=49.2℃ <table><tr><th>NO</th><th>Position</th><th>P/N</th><th>1</th><th>2</th><th>3</th><th>4</th></tr><tr><td>1</td><td>VCC C4</td><td>FuhYin 33uF/25V 105℃ 5*11 HFR</td><td>63.2℃</td><td>59.5℃</td><td>73.0℃</td><td>72.3℃</td></tr><tr><td>2</td><td>Q1</td><td>ST P4NK60ZFP</td><td>73.0℃</td><td>67.3℃</td><td>82.5℃</td><td>79.9℃</td></tr><tr><td>3</td><td>I/P C2</td><td>FuhYin 33uF/400V 105℃ 15*20 HFR</td><td>55.0℃</td><td>56.4℃</td><td>64.9℃</td><td>66.3℃</td></tr><tr><td>4</td><td>O/P C9</td><td>Ltec 680uF/10V 105℃ 8*16 LZG</td><td>76.1℃</td><td>72.7℃</td><td>85.8℃</td><td>79.2℃</td></tr><tr><td>5</td><td>O/P C11</td><td>Ltec 680uF/10V 105℃ 8*16 LZG</td><td>64.9℃</td><td>61.8℃</td><td>74.7℃</td><td>71.7℃</td></tr><tr><td>6</td><td>O/P D4</td><td>FCQ10U06</td><td>83.3℃</td><td>79.8℃</td><td>92.8℃</td><td>84.0℃</td></tr><tr><td>7</td><td>T1</td><td>EE-20</td><td>85.5℃</td><td>79.9℃</td><td>95.3℃</td><td>86.7℃</td></tr><tr><td>8</td><td>CASE</td><td>UPON(INSIDE)</td><td>64.8℃</td><td>61.2℃</td><td>74.5℃</td><td>72.8℃</td></tr></table>			NO	Position	P/N	1	2	3	4	1	VCC C4	FuhYin 33uF/25V 105℃ 5*11 HFR	63.2℃	59.5℃	73.0℃	72.3℃	2	Q1	ST P4NK60ZFP	73.0℃	67.3℃	82.5℃	79.9℃	3	I/P C2	FuhYin 33uF/400V 105℃ 15*20 HFR	55.0℃	56.4℃	64.9℃	66.3℃	4	O/P C9	Ltec 680uF/10V 105℃ 8*16 LZG	76.1℃	72.7℃	85.8℃	79.2℃	5	O/P C11	Ltec 680uF/10V 105℃ 8*16 LZG	64.9℃	61.8℃	74.7℃	71.7℃	6	O/P D4	FCQ10U06	83.3℃	79.8℃	92.8℃	84.0℃	7	T1	EE-20	85.5℃	79.9℃	95.3℃	86.7℃	8	CASE	UPON(INSIDE)	64.8℃	61.2℃	74.5℃	72.8℃	P
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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	SPECICATION	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=46589HRS I/P:230 VAC O/P:FULL LOAD Ta=40°C LIFE TIME=17654HRS I/P:230 VAC O/P:70% LOAD Ta=50°C LIFE TIME=28284HRS			P
2	MTBF	MIL-HDBK-217F NOTICES 2 PARTS COUNT TOTAL FAILURE RATE: 1.702642 M.T.B.F: 587322HRS			P

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