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Jameco Part Number 1940547



20~25W AC-DC Single Output Desktop

GS25B series



■ Features :

- Universal AC input / Full range
- No load power consumption<0.5W
- Pass energy star(CEC) level IV regulation
- Meet EISA 2007 (Energy Independence and Security Act)
- 2 pole AC Inlet IEC320-C8
- Class II power (without earth pin)
- Full output 5~48V safety approval
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on
- Approvals: UL / CUL / TUV / BSMI / CB / FCC / CE
- Pass LPS for 9~48V output
- 2 years warranty

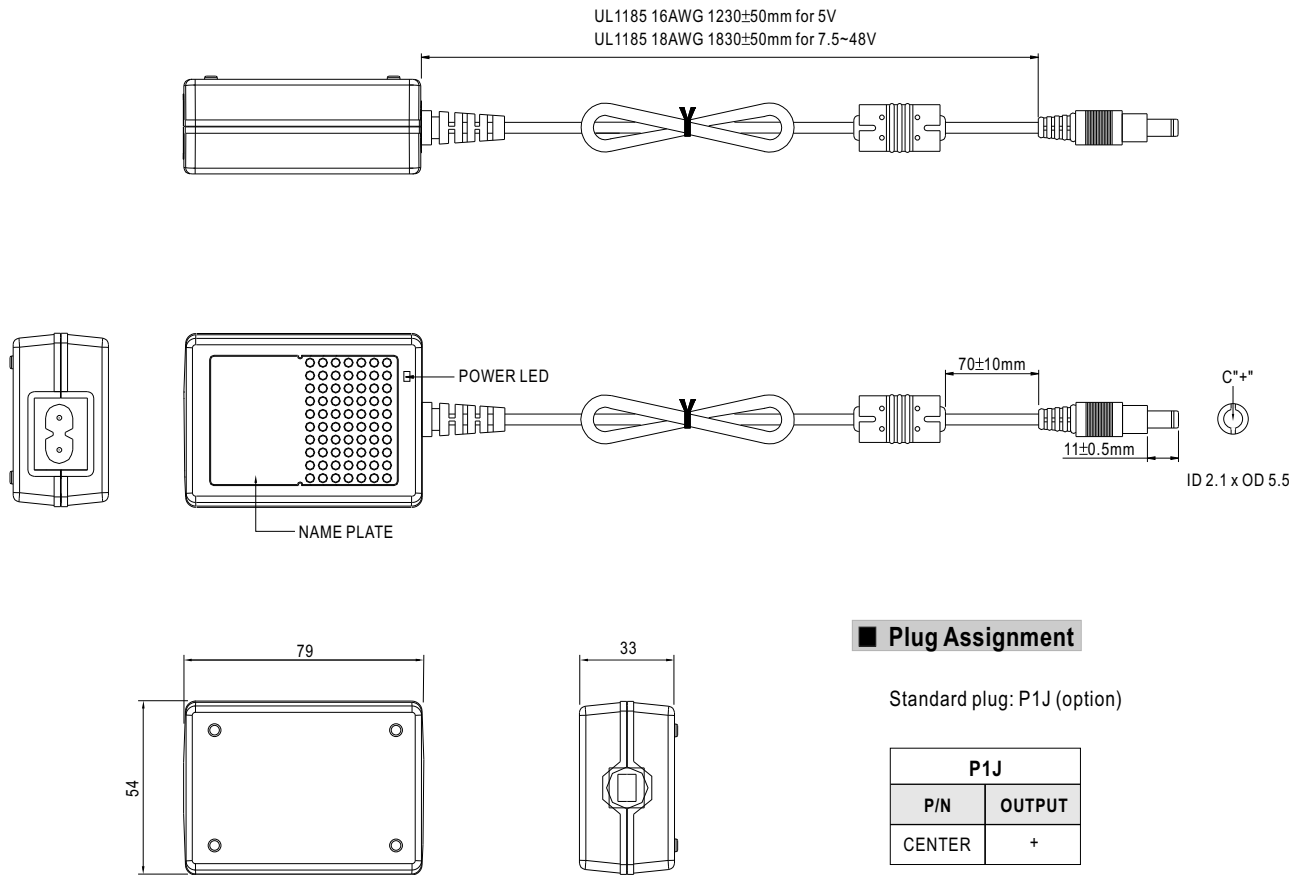


SPECIFICATION

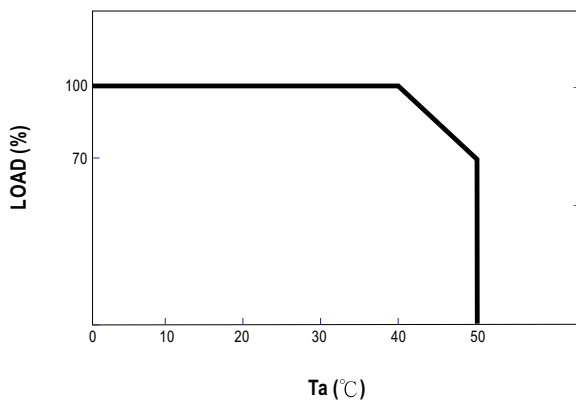
ORDER NO.		GS25B05-P1J	GS25B07-P1J	GS25B09-P1J	GS25B12-P1J	GS25B15-P1J	GS25B18-P1J	GS25B24-P1J	GS25B28-P1J	GS25B48-P1J
OUTPUT	SAFETY MODEL NO.	GS25B05	GS25B07	GS25B09	GS25B12	GS25B15	GS25B18	GS25B24	GS25B28	GS25B48
	DC VOLTAGE Note.2	5V	7.5V	9V	12V	15V	18V	24V	28V	48V
	RATED CURRENT	4.0A	2.93A	2.77A	2.08A	1.66A	1.38A	1.04A	0.89A	0.52A
	CURRENT RANGE	0 ~ 4.0A	0 ~ 2.93A	0 ~ 2.77A	0 ~ 2.08A	0 ~ 1.66A	0 ~ 1.38A	0 ~ 1.04A	0 ~ 0.89A	0 ~ 0.52A
	RATED POWER (max.)	20W	22W	25W	25W	25W	25W	25W	25W	25W
	RIPPLE & NOISE (max.) Note.3	50mVp-p	80mVp-p	80mVp-p	80mVp-p	100mVp-p	150mVp-p	180mVp-p	240mVp-p	240mVp-p
	VOLTAGE TOLERANCE Note.4	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION Note.5	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LOAD REGULATION Note.6	±5.0%	±5.0%	±5.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%	±2.0%
SETUP, RISE, HOLD UP TIME		500ms, 20ms, 50ms/230VAC 500ms, 20ms, 15ms/115VAC at full load								
INPUT	VOLTAGE RANGE	90 ~ 264VAC 135 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	74%	78%	79%	81%	82%	82%	83%	83%	84%
	AC CURRENT	0.7A/100VAC								
	INRUSH CURRENT (max.)	45A/230VAC								
	LEAKAGE CURRENT(max.)	0.25mA / 240VAC								
PROTECTION	OVERLOAD	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	105 ~ 135% rated output voltage Protection type : Clamp by zener diode								
	WORKING TEMP.	0 ~ +50℃ (Refer to output load derating curve)								
ENVIRONMENT	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. 7)	SAFETY STANDARDS	UL60950-1, CSA C22.2, TUV EN60950-1, BSMI CNS14336 approved								
	WITHSTAND VOLTAGE	I/P-O/P:4242VDC								
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃ / 70% RH								
	EMI CONDUCTION & RADIATION	Compliance to EN55022 class B, FCC PART 15 / CISPR22 class B, CNS13438 class B								
	HARMONIC CURRENT	Compliance to EN61000-3-2,3								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A								
OTHERS	MTBF	500Khrs min. MIL-HDBK-217F(25℃)								
	DIMENSION	79*54*33mm (L*W*H)								
	PACKING	210g ; 60pcs / 13.5Kg / CARTON								
CONNECTOR	PLUG	Standard type P1J: 2.1φ * 5.5φ * 11mm, turning fork type, centre positive for stock ; Other type available by customer requested								
	CABLE	Standard type UL1185 6ft (4FT only for 5V output) for stock ; Other type available by customer requested								
NOTE	1.All parameters are specified at 230VAC 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 20% to 100% rated load 7.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

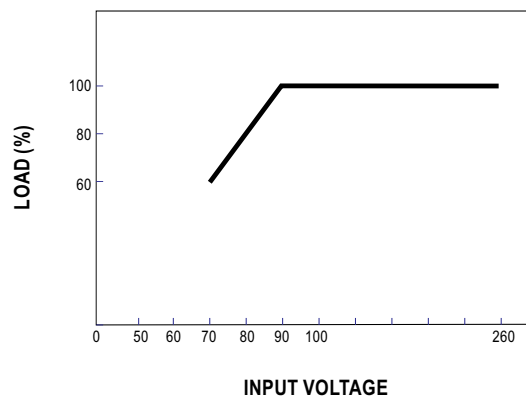
Unit:mm



■ Derating Curve



■ Static Characteristics



Model : GS25x24 25W
V1 : +24V / 1.02A

AC-DC Single Output adaptor

OUTPUT FUNCTION TEST

NO	TEST ITEM	SPECICATION	TEST CONDITION	RESULT	VERDICT
1	RIPPLE & NOISE	150mVp-p (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	15mVp-p	P
2	VOLTAGE TOLERANCE	-2% ~ +2% (Max)	I/P:90VAC~264VAC O/P:FULL~MIN. LOAD Ta:25°C	-0% ~ +0.6%	P
3	LINE REGULATION	-1% ~ +1% (Max)	I/P:90VAC ~264VAC O/P:FULL LOAD Ta:25°C	-0% ~ +0.25%	P
4	LOAD REGULATION	-2% ~ +2% (Max)	I/P:230VAC O/P:FULL ~MIN LOAD Ta:25°C	-0.26% ~ +0.26%	P
5	SET UP TIME	500 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	188.0 mS	P
6	RISE TIME	20 mS (Max)	I/P:230VAC O/P:FULL LOAD Ta:25°C	10.85 mS	P
7	HOLD UP TIME	15 mS (Min)	I/P:115VAC O/P:FULL LOAD Ta:25°C	17.6 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	64V ~ 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	85% (Typ)	I/P:230VAC O/P:FULL LOAD Ta:25°C	85.7%	P
4	AC CURRENT	0.7A (Max)	I/P: 100VAC O/P:FULL LOAD Ta:25°C	0.504A	P
5	NO LOAD POWER CONSUMPTION	< 0.5W	I/P:230VAC O/P: NO LOAD Ta:25°C	0.27W	P

6	INRUSH CURRENT	< 45A COLD START	I/P:230VAC O/P:FULL LOAD Ta:25°C	38.7A	P
7	LEAKAGE CURRENT	< 0.75mA FOR CLASS I < 0.25mA FOR CLASS II	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	110~150%	I/P:230VAC O/P:TESTING Ta:25℃	132.5% HICCUP MODE RESET AUTO RECOVER	P
2	OVER VOLTAGE PROTECTION	CLAMP BY ZENER DIODE 105 ~ 135%	I/P:230VAC O/P:MIN LOAD Ta:25℃	CLAMP BY ZENER DIODE 126%(30.2V)	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 : 3HRS I/P:115VAC O/P:100% LOAD Ta=30.3℃ 2. ROOM AMBIENT BURN-IN : 16HRS I/P:230VAC O/P:100% LOAD Ta=31.0℃ 3. ROOM AMBIENT BURN-IN : 6HRS I/P:230VAC O/P:100% LOAD Ta=51.0℃ <table border="1"><thead><tr><th>NO</th><th>Position</th><th>P/N</th><th>1</th><th>2</th><th>3</th></tr></thead><tbody><tr><td>1</td><td>C40</td><td>CapXon 47uF/25V 5*11 KF 105℃</td><td>75.3℃</td><td>76.1℃</td><td>88.4℃</td></tr><tr><td>2</td><td>Q1</td><td>2SK2628</td><td>95.8℃</td><td>97.3℃</td><td>110.1℃</td></tr><tr><td>3</td><td>I/P C5</td><td>CapXon 47uF/400V 16*25 KM 105℃</td><td>72.6℃</td><td>67.8℃</td><td>79.1℃</td></tr><tr><td>4</td><td>BD1</td><td>KBP06</td><td>84.8℃</td><td>71.8℃</td><td>83.2℃</td></tr><tr><td>5</td><td>C105</td><td>CapXon 330uF/35V 10*16 KF 105℃</td><td>69.9℃</td><td>71.4℃</td><td>82.4℃</td></tr><tr><td>6</td><td>D100</td><td>URF1020C</td><td>77.0℃</td><td>78.1℃</td><td>88.6℃</td></tr><tr><td>7</td><td>T1</td><td>LF1466(JYS)</td><td>79.8℃</td><td>80.3℃</td><td>91.6℃</td></tr><tr><td>8</td><td>CASE</td><td>LABEL</td><td>59.3℃</td><td>57.5℃</td><td>70.3℃</td></tr><tr><td>9</td><td>LF1</td><td>LF801</td><td>71.5℃</td><td>61.6℃</td><td>73.6℃</td></tr></tbody></table>			NO	Position	P/N	1	2	3	1	C40	CapXon 47uF/25V 5*11 KF 105℃	75.3℃	76.1℃	88.4℃	2	Q1	2SK2628	95.8℃	97.3℃	110.1℃	3	I/P C5	CapXon 47uF/400V 16*25 KM 105℃	72.6℃	67.8℃	79.1℃	4	BD1	KBP06	84.8℃	71.8℃	83.2℃	5	C105	CapXon 330uF/35V 10*16 KF 105℃	69.9℃	71.4℃	82.4℃	6	D100	URF1020C	77.0℃	78.1℃	88.6℃	7	T1	LF1466(JYS)	79.8℃	80.3℃	91.6℃	8	CASE	LABEL	59.3℃	57.5℃	70.3℃	9	LF1	LF801	71.5℃	61.6℃	73.6℃	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 50092395 CLASS I S 50092324 CLASS II UL: File No : E183223 BSMI: Certificate No : R33100			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:3KVAC/min	I/P-O/P:3KVAC/min Ta:25°C	I/P-O/P:1.37 mA NO DAMAGE	P
9	ISOLATION RESISTANCE	I/P-O/P:500VDC>100MΩ	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 C105 IS THE MOST CRITICAL COMPONENT I/P:230 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=77812HRS I/P:230 VAC O/P:FULL LOAD Ta=51°C LIFE TIME=23949HRS I/P:115 VAC O/P:FULL LOAD Ta=25°C LIFE TIME=82249HRS			P
2	MTBF	MIL-HDBK-217F NOTICES2 STRESS ANALYSIS PREDICTION TOTAL FAILURE RATE: 1.43 M.T.B.F: 698912HRS			P

DATE	SAMPLE	TEST RESULT	TESTER	APPROVAL
2006.12.11	GS25x24	PASS	T.K.CHENG	MAX LIN