



■ Features: • Universal AC input / Full range • Protections: Short circuit / Overload / Over voltage • Battery low protections		• Cooling by free air convection • 100% full load burn-in test • Fixed switching frequency at 45KHz • 2 years warranty			
MODEL		60-220S13UPS		60-220S27UPS	
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH1	CH2
	DC VOLTAGE	13.8V	13.4V	27.6V	26.5V
	RATED CURRENT	3.5A	0.23A	1.8A	0.16A
	CURRENT RANGE	0 ~ 4A	-----	0 ~ 2A	-----
	RATED POWER	51.38W		53.92W	
	RIPPLE & NOISE (max.) Note.2	100mVp-p	-----	100mVp-p	-----
	VOLTAGE ADJ. RANGE	CH1: 12 ~ 14.5V		CH1: 24 ~ 29V	
	VOLTAGE TOLERANCE Note.3	±1.0%	-----	±1.0%	-----
	LINE REGULATION	±0.5%	-----	±0.5%	-----
	LOAD REGULATION	±0.5%	-----	±0.5%	-----
	SETUP, RISE TIME	800ms, 50ms/230VAC 1600ms, 50ms/115VAC at full load			
HOLD UP TIME (Typ.)	80ms/230VAC 16ms/115VAC at full load				
INPUT	VOLTAGE RANGE	88 ~ 264VAC 124 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	71%		74%	
	AC CURRENT (Typ.)	1.6A/115VAC 1A/230VAC			
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC 40A/230VAC			
	LEAKAGE CURRENT	<1mA / 240VAC			
PROTECTION	OVERLOAD	105 ~ 150% rated output power Protection type: AC Charging Mode: Hiccup mode, recovers automatically after fault condition is removed UPS Mode: Protected by internal fuse			
	OVER VOLTAGE	CH1:15.87 ~ 18.63V		CH1:31.74 ~ 37.26V	
	BATTERY LOW	9.5 ~ 11V		20 ~ 22V	
FUNCTION	DC ALARM SIGNAL(OPTIONAL)	AC fail CN1 PIN2			
		Battery low under charge voltage 82.5%±2% CN1 PIN1			
		Normal 0.8V max. Abnormal 5V±0.5V			
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to "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) on CH1 output			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes			
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I /P-FG:2KVAC O /P-FG:0.5KVAC			
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH			
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2, -3			
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A			
	MTBF	304.3K hrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	159*97*38mm (L*W*H)			
	PACKING	0.5Kg; 24pcs/12.6Kg/0.75CUFT			

