

SPL9100 - POWER SMART, ONLINE UPS (120V)

1kVA ~ 20kVA

PF 0.9 - 1.0

Features

- High frequency and true double-conversion
- DSP digital control technology
- Input power factor correction (PFC)
- Wide input voltage range
- Output power factor 1.0 on 6 ~ 20KVA
- Cold start
- Auto sensing frequency
- ECO mode operation for energy saving
- Selectable output voltage via LCD
- Output bypass settable for 1,2,3KVA via LCD
- 50Hz/60Hz frequency conversion mode available on 6 ~20KVA
- 6 ~20KVA built in output isolation transformer
- Selectable battery low voltage via LCD
- Power-on self test
- Advanced battery management (ABM)
- Short circuit and overload protection
- Automatic charging battery in OFF mode
- Fan speed auto control when loads varies
- Standard RS232 communication port and RJ45 protection
- Optional USB/SNMP communication port
- Optional emergency power off (EPO)
- Optional extension battery bank
- Optional manual bypass on 6 ~20KVA
- Optional N+X redundancy parallel on 6 ~20KVA

Rear Panel

1. Overcurrent protection
2. AC input
3. Modem / Tel / Fax
4. DC input
5. Outlet
6. FAN
7. RS232
8. USB (Optional)
9. EPO (Optional)
10. Manual bypass (Optional)
11. SNMP / AS400 (Optional)
12. Breaker
13. Parallel card (Optional)
14. BAT / NTC (Optional)
15. Temperature detection (Optional)
16. Intelligent slot or RS485 (Optional)
17. Reserved (Optional)
18. GND
19. Terminals and Cover



Specifications

MODEL	SPL9101	SPL9102	SPL9103	SPL9106	SPL9110	SPL9120
Capacity	1KVA / 900W	2KVA / 1800W	3KVA / 2700W	6 kVA / 6000 W	10 kVA / 10000 W	20 kVA / 20000 W
INPUT						
Rated voltage	100 Vac / 110 Vac / 115 Vac / 120 Vac / 127 Vac			208 / 220 / 230 / 240 Vac		
Voltage range	50~ 80Vac (linear derating between 50% and 100% load); 80 ~ 150Vac (no derating);			110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 288 Vac (no derating)		
Frequency	45 ~ 55Hz ± 0.5% or 55 ~ 65Hz ± 0.5% (auto-sense)			50 / 60 Hz (auto-sensing)		
Power factor	≥ 0.98			≥ 0.99		
Bypass voltage range	(90 ~ 140) ±5Vac			- 40% ~ +15% (settable)		
OUTPUT						
Voltage	100 Vac / 110 Vac / 115 Vac / 120 Vac / 127 Vac (settable via LCD)			208 (PF=0.9) / 220 / 230 / 240 Vac Or 110 / 115 / 120 Vac (two groups, their phase angles different by 180°)		
Voltage regulation	± 1%			± 5%		
Frequency	Synchronized with utility in mains mode; 50 / 60 ± 0.2Hz in battery mode			Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode		
Waveform	6 kVA / 4800 W					
Crest factor	3:1					
Harmonic distortion	≤ 3% (linear load);≤ 5% (non-linear load)			≤ 3% (linear load); ≤ 6% (non-linear load)		
Transfer time	Mains mode to battery mode : 0 ms Inverter model to bypass mode:4 ms (typical)			0 ms		
Overload capability	105% ~ 150%:transfer to bypass in 30 s; > 150%: transfer to bypass in 300 ms			105% ~ 110% for 10 min, 110% ~ 125% for 1 min, 126% ~ 150% for 30 s		
BATTERIES						
DC voltage	24V	48V	72V	192 Vdc (192 ~ 240 Vdc settable)		
Inbuilt battery of standard model	2 × 9 Ah	4 × 9 Ah	6 × 9 Ah	12 V / 7 Ah × 16	12 V / 9 Ah × 16	30 kVA / 24 kW
Charging current	1A					
Typical recharge time	8 h			90% capacity restored in 8 hours		
SYSTEM						
Efficiency	≥ 90% in mains mode; ≥ 87% in battery mode; ≥ 94% in ECO mode			Max. 89.5% (max. 93% in ECO mode)		Max. 90% (max. 93% in ECO mode)
Communications	RS232 (standard), USB / SNMP (optional)			RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)		
OTHERS						
Humidity	20 ~ 90% RH @ 0 ~ 40°C (non-condensing)			0 ~ 95% (non-condensing)		
Noise level	≤ 50dB (1m)			≤ 55 dB	≤ 58 dB	
Dimensions (mm) W×D×H	144×357×215	190×452×341		350×745×1183		≤ 58 dB
Packaged dimensions (mm) W×D×H	232×457×320	320×573×472		382×825×931		460×890×1366
Net/Gross weight (kg)	11.0 / 13.5	20.0 / 21.5	20.0 / 21.5	93.0 / 105.0	115.0 / 127.0	256.0 / 271.0