48 V · 120/240 V AC · SPLIT-PHASE

SPI Series

4-6.5 kW hybrid inverter

Solar storage inverters with dual MPPT, pure sine wave output and lithium-ion battery BMS communication.

99.9%	6 units	24 months
MPPT EFFICIENCY	IN PARALLEL	WARRANTY



6 kW model shown

Dual MPPT tracking
Two trackers with up to 18 A + 18 A PV input current.

Battery integration
BMS communication and dual activation for lithium-ion batteries.

Flexible charging
Up to 140 A hybrid charging, plus utility or generator input.

Time-slot control
Scheduled operation to help manage peak and off-peak costs.

MODEL COMPARISON

Model	SPI-4K-UP	SPI-5K-UP	SPI-6K-UP	SPI-6.5K-UP
Rated output power	4,000 W	5,000 W	6,000 W	6,500 W
Maximum peak power	8,000 VA	10,000 VA	12,000 VA	13,000 VA
Maximum PV array power	3,000 + 3,000 W	3,800 + 3,800 W	4,500 + 4,500 W	5,000 + 5,000 W
Max. mains / generator charging current	60 A	60 A	80 A	80 A
Maximum hybrid charging current	100 A	120 A	140 A	140 A

INVERTER OUTPUT

Rated output voltage	120/240 V AC Single-phase / split-phase
Rated AC frequency	50/60 Hz
Output waveform	Pure sine wave
Transfer time	10 ms typical
Parallel capacity	1-6 units

BATTERY

Battery type	Lithium-ion / lead-acid / user-defined
Rated battery voltage	48 V DC
Battery voltage range	40-60 V DC

PV INPUT

MPPT trackers	2
Maximum input current	18 A + 18 A
Max. open-circuit voltage	550 V DC + 550 V DC
MPPT voltage range	150-450 V DC

EFFICIENCY

MPPT tracking efficiency	99.90%
Max. battery inverter efficiency	93%

UTILITY / GENERATOR INPUT

Input voltage range	65-140 V AC
Frequency range	50/60 Hz
Bypass overload current	40 A

GENERAL

Dimensions	584.6 × 410 × 133 mm
Weight	18.9 kg
Protection	IP20; indoor use only
Operating temperature	-10 to 55 °C; derating above 45 °C
Noise	<60 dB
Cooling method	Intelligent fan
Warranty	24 months

COMMUNICATION

Embedded interfaces	RS485 / CAN / USB / dry contact
Optional modules	Wi-Fi / GPRS

CERTIFICATIONS

Safety	IEC62109-1, IEC62109-2, UL1741
EMC	EN61000-6-1, EN61000-6-3, FCC 15 Class B
RoHS	Yes