

Leading the Industry in **Solar Microinverter Technology**



APsystems breaks new ground once again with the QS1, a cutting edge microinverter design accommodating up to four high-capacity PV modules up to 450W+ with independent MPPT. A single-phase, smart grid-compliant microinverter, the QS1 features Zigbee wireless communication over a mesh network with faster data speeds than PLC, and a wide MPPT voltage range results in a greater energy harvest for homeowners.

A true utility-interactive microinverter with Reactive Power Control (RPC) technology, the QS1 is inherently NEC 690.12 2014/2017 Rapid Shutdown compliant. The unit also builds on the successful APsystems line of multi-module microinverters, simplifying installation and reducing costs.



APsystems QS1 Microinverter Datasheet

INPUT DATA (DC) PER CHANNEL

Module Compatibility	60 + 72 Cell PV Modules	
MPPT Voltage Range	22V-48V	
Operation Voltage Range	16V-55V	
Maximum Input Voltage	60V	
Startup Voltage	20V	
Maximum Input Current	12A	
Maximum DC short circuit current	15A	
Recommended PV Module Input Power	440W	
OUTPUT DATA (AC)	240V	208V
OUTPUT DATA (AC) Maximum Continuous Output Power	240V 1,200W	208V 1,100W
OUTPUT DATA (AC) Maximum Continuous Output Power Nominal Output Voltage/Range	240V 1,200W 240V/211V-264V	208V 1,100W 208V/183V-229V
OUTPUT DATA (AC)Maximum Continuous Output PowerNominal Output Voltage/RangeNominal Output Current	240V 1,200W 240V/211V-264V 5.00A	208V 1,100W 208V/183V-229V 5.29A
OUTPUT DATA (AC)Maximum Continuous Output PowerNominal Output Voltage/RangeNominal Output CurrentNominal Output Frequency/Range	240V 1,200W 240V/211V-264V 5.00A 60Hz/59.3Hz-6	208V 1,100W 208V/183V-229V 5.29A 50.5Hz
OUTPUT DATA (AC)Maximum Continuous Output PowerNominal Output Voltage/RangeNominal Output CurrentNominal Output Frequency/RangePower Factor	240V 1,200W 240V/211V-264V 5.00A 60Hz/59.3Hz-6 >0.99	208V 1,100W 208V/183V-229V 5.29A 50.5Hz
OUTPUT DATA (AC)Maximum Continuous Output PowerNominal Output Voltage/RangeNominal Output CurrentNominal Output Frequency/RangePower FactorTotal Harmonic Distortion	240V 1,200W 240V/211V-264V 5.00A 60Hz/59.3Hz-6 >0.99 <3%	208V 1,100W 208V/183V-229V 5.29A 50.5Hz
OUTPUT DATA (AC)Maximum Continuous Output PowerNominal Output Voltage/RangeNominal Output CurrentNominal Output Frequency/RangePower FactorTotal Harmonic DistortionMaximum units per branch	240V 1,200W 240V/211V-264V 5.00A 60Hz/59.3Hz-6 >0.99 <3% 3 (12 PV modules)	208V 1,100W 208V/183V-229V 5.29A 50.5Hz 3 (12 PV modules)

EFFICIENCY

Peak Efficiency	96.5%
Nominal MPPT Efficiency	99.5%
Night Power Consumption	30mW

MECHANICAL DATA

Operating Ambient Temperature Range	-40°F to +149°F(-40°C to +65°C)
Storage Temperature Range	-40°F to +185°F(-40°C to +85°C)
Dimensions (W x H x D)	11.1" x 9.1" x 1.6"(281mm x 231mm x 41.3mm)
Weight	9.9lbs (4.5kg)
AC Trunk Cable Maximum Current	20A
Enclosure Rating	NEMA 6
Cooling	Natural Convection - No Fans

FEATURES

Communication	Wireless (Zigbee)
Transformer Design	High Frequency Transformers, Galvanically Isolated
Monitoring	Via EMA* Online Portal
Warranty	10 years standard, extendable to 25 years

CERTIFICATE & COMPLIANCE

Safety and EMC Compliance

Certificate & Compliance

Grid Connection Compliance

Rapid Shutdown

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** Meets the standard requirements for Distributed Energy Resources (UL 1741) and identified with the CSA Listed Mark.

Specifications subject to change without notice - please ensure you are using the most recent update found at www.APsystems.com

600 Ericksen Ave NE, Suite 200, Seattle, WA 98110 | 844.666.7035 | APsystems.com

FCC Part15; ANSIC63.4; ICES-003

UL1741**, CSAC22.2No.107.1-01 UL 1741 SA/Rule 21 compliant (240V version only)

IEEE1547

Meets NEC 2014/2017 690.12

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