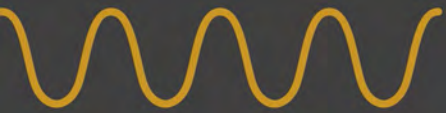


Advanced Microinverter Technology

Q1000



Next Generation
Microinverters



Model:
Q1000-4101

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Sparq is pleased to introduce the Q1000 - a revolutionary new microinverter that will reset industry standards. The Q1000 is not just the first 4-in-1, 1000-Watt, microinverter on the market, it's the first microinverter to support smart grid functionality requirements.



The **Q1000** enjoys all the benefits of a traditional microinverter - better energy harvest, improved safety, simplified design and installation, and increased reliability. However, unlike traditional microinverters that have one PV module inputting into one microinverter, the **Q1000** allows for inputs from up to four PV modules and provides independent maximum peak power tracking (MPPT) for each.

The result is a microinverter that **installs fast**. Based on its per Watt rating, the **Q1000** has the highest real power output, maximum power density, and lowest weight in the industry.

The **Q1000** is designed to last as long as the solar module - 25+ years, providing best-in-class returns on your investment. Our patented design and software enables us to eliminate the use of short-life electrolytic capacitors and other unreliable components. The **Q1000** is backed by a 12-year limited warranty, with the option to extend it to 25 years.

Sparq is the first company to deliver a smart microinverter that is advanced grid ready. Unlike any competitors, the **Q1000** can deliver full reactive power control and VAR compensation.

The **Q1000** provides for individual module monitoring via wireless Zigbee communications. The optional data collection and communications gateway allows for high visibility monitoring, including remote access, cloud support, and a simple mobile device access.

We can afford to be **built in the USA**.

Key Features

Easy to Install

- + One Quad unit for every four panels
- + Fewer units to manage and install
- + Cabling has fewer drops
- + Industry standard cabling & Amphenol connectors

Smartest

- + Reactive power control ready
- + High visibility, module level monitoring
- + Simplified web and mobile consumer apps

Most Reliable

- + Electrolytic capacitor-free design for ultra long life
- + Made at a leading manufacturer in the USA
- + 25-year warranty

Maximum Financial Return

- + Lowest initial capital cost per Watt
- + Reduced install, design, and BoS costs
- + Long life
- + Maximum real power production

High Energy Harvest

- + High System performance with per-module MPPT
- + Elimination of burst mode operation in low-light, which enhances real energy production
- + Highest real energy output

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Detailed Specifications

Key Specifications	Unit	S1000-G-LV4	
Maximum Continuous AC Output Power	W	1000	
Rated Continuous AC Output Power	W	960	
Number of Input Channels		4	
Rated Grid AC Voltage	V	208 / 240	
Input (DC) Specifications			
Recommended PV Power Class	W	215-300 per channel	
Absolute Maximum Input DC Voltage	V	50 per channel	
Maximum Input DC Current	A	14 per channel	
Full Power MPPT Voltage Range	V	22-35 per channel	
Extended MPPT Voltage Range	V	22-40 per channel	
Start-up Voltage	V	19 on <i>one</i> channel	
DC Connection Type		MC4 compatible panel receptacles	
Output (AC) Specifications			
Grid Connection Type		208V L-to-L from 3 ϕ	240V L-to-L from Split- ϕ
Operational Voltage Range	V	183 - 229	211 - 264
Rated Output Current	A	4	
Nominal Output Frequency	Hz	60	
Operational Frequency Range	Hz	59.3 - 60.5	
Power Factor		> 0.99	
Output THD	%	< 2	
Inrush Current	A	< 8	
Output Wiring Type		Branch cable: 18 AWG Trunk Cable: 10/12 AWG	
Output Connection Type		Amphenol SMC Receptacle SPS-04RFMC	

Protection Devices	Unit	S1000-G-LV4
Input Reverse Polarity Protection		Yes, Polarized PV Connectors
Anti-Islanding Protection		per UL1741/IEEE1547
Output Over-Voltage Protection		Yes
Integrated GFDI		Yes
Efficiency and Operating Performance		
Maximum Efficiency	%	96.5
CEC Efficiency	%	96
MPPT Efficiency	%	Static: 99.85 - Dynamic: 99.8
Stand-by Consumption	mW	< 30
Communication		
Monitoring System		Wireless, Web-based monitoring through SparqLinQ & SparqVU
Environmental		
Ambient Operating Temperature Range	°C (°F)	-40 to +65 - outdoor
Relative Humidity	%RH	0 - 100 condensing
Mechanical		
Enclosure Rating		NEMA 6 - Outdoor
Cooling		Natural Convection
Dimensions (H x W x D)	mm (in)	53 x 196 x 374 (2.09 x 7.72 x 14.72)
Weight	kg (lb)	5 (12)
Recommended Mounting		Rack mount with two M8, 1/4", or 5/16" bolts
Safety		
Isolation		Galvanic Isolation
Regulatory Certifications		UL 1741, IEEE1547, CSA22.2 No. 107.1, FCC Part 15-Class B
Warranty		
Standard Warranty		25 Years

SPARQ

SOLAR JUST GOT SMARTER

Sparq Systems Inc.

Innovation Park

945 Princess St.

Kingston, Ontario

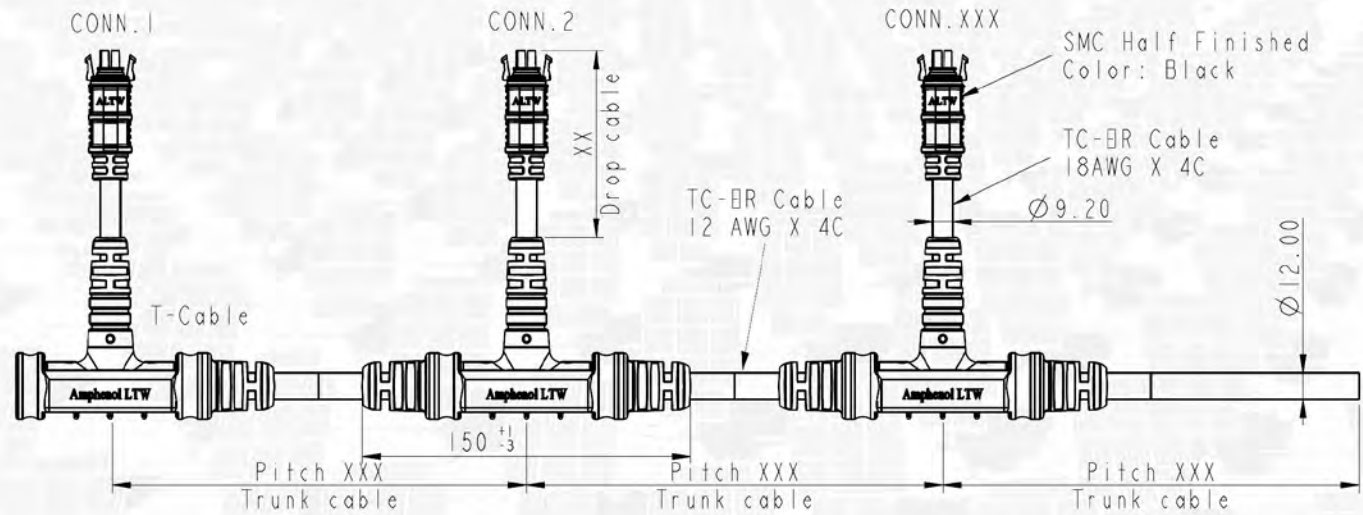
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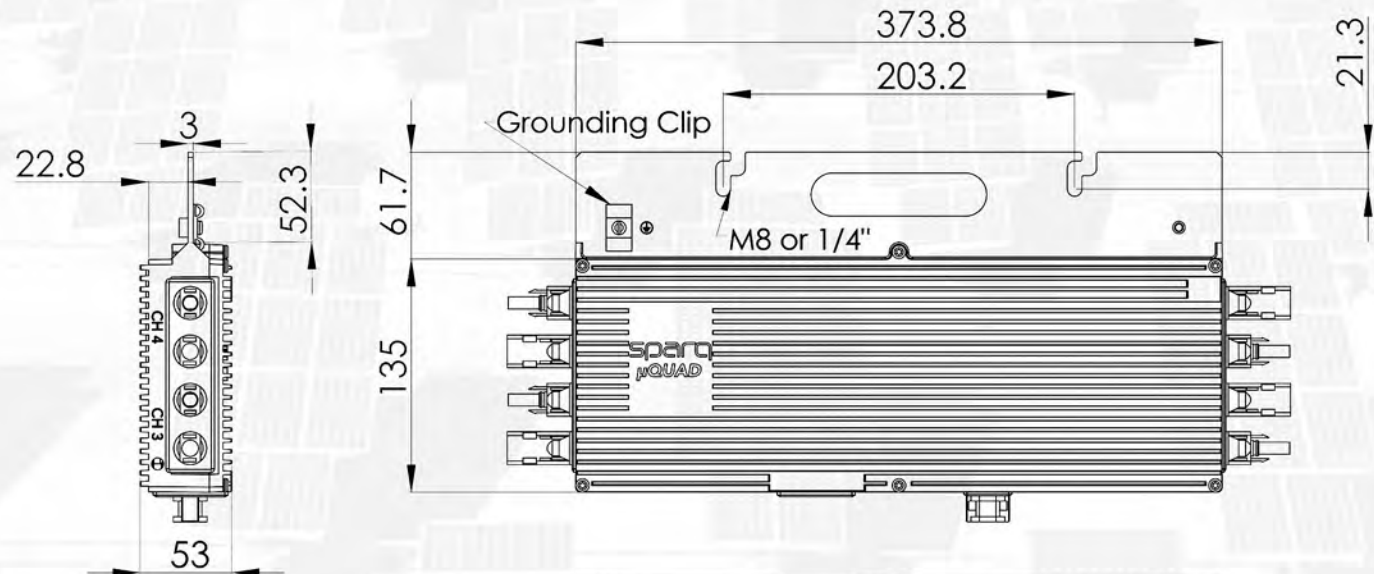
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Model:
Q1000-4101

Mechanical Specifications



all dimensions in mm



all dimensions in mm

