



DS3

The most powerful Dual Microinverter

- One microinverter connects to two modules
- Max output power reaching 625VA, 750VA, 880VA or 960VA
- Two input channels with independent MPPT
- Large input current to adapt to large modules
- Reactive Power Control
- Maximum reliability, IP67
- Encrypted ZigBee Communication
- Safety protection relay integrated
- Perfectly match 5kW requirement with 8 units

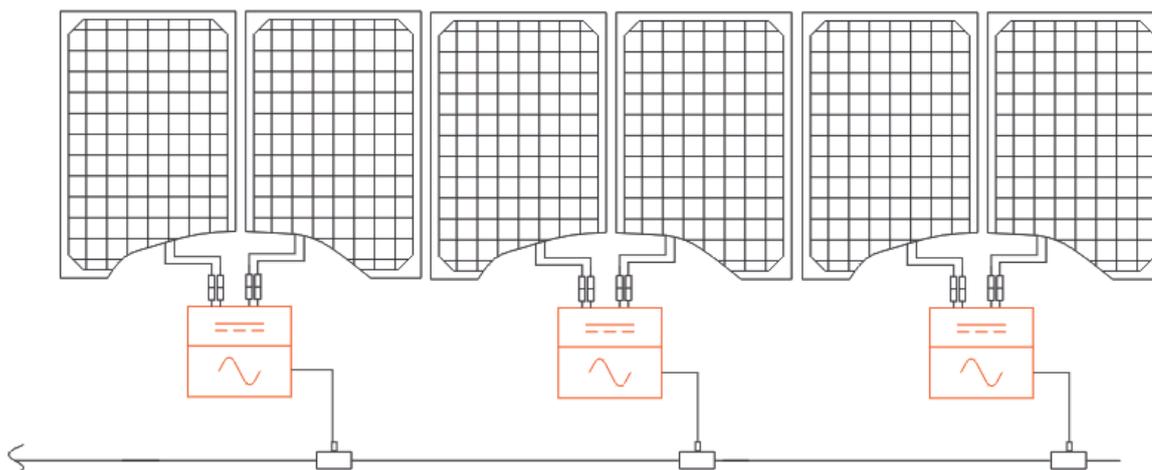
PRODUCT FEATURES

APsystems 3rd generation dual microinverters benefit from an entirely new architecture. With 2 independent MPPT, large input current and output power, the DS3 series products adapt to today's high power modules.

The innovative and compact design make the product lighter while maximizing power production. The components are encapsulated with silicone to reduce stress on the electronics, facilitate thermal dissipation, enhance waterproof properties, and ensure maximum reliability of the system via rigorous testing methods including accelerated life testing. A 24/7 energy access through Apps or web based portal facilitate remote diagnosis and maintenance.

The DS3 series is interactive with power grids through a feature referred to as RPC (Reactive Power Control) to better manage photovoltaic power spikes in the grid. With an excellent performance and high conversion efficiency, a unique integration with less components, APsystems DS3-S, DS3-L, DS3 and DS3-H are a game changer to residential and commercial PV.

WIRING SCHEMATIC



Datasheet | DS3 Microinverter Series

Model	DS3-S	DS3-L	DS3	DS3-H
Region	Australia, New Zealand			

Input Data (DC)

Recommended PV Module Power (STC) Range	250Wp-415Wp+	255Wp-495Wp+	300Wp-585Wp+	330Wp-660Wp+
Peak Power Tracking Voltage	28V-45V			
Operating Voltage Range	16V-60V			
Maximum Input Voltage	60V			
Maximum Input Current	18A x 2		20A x 2	
ISC PV	22.5A x 2		25A x 2	

Output Data (AC)

Rated Apparent Power	625VA	750VA	880VA	960VA
Nominal Output Voltage/Range ⁽¹⁾	230V / 180V-258V			
Rated Current	2.7A	3.3A	3.8A	4.2A
Nominal Output Frequency/ Range ⁽¹⁾	50Hz/47Hz-52Hz			
Power Factor (Default/Adjustable)	0.99/0.8 leading...0.8 lagging			
Maximum Units per 2.5mm ² Branch ⁽²⁾	8	6	6	5
Maximum Units per 4mm ² Branch ⁽²⁾	10	8	7	6

Efficiency

Peak Efficiency	97.3%			
CEC Efficiency	97%			
Nominal MPPT Efficiency	99.5%			
Night Power Consumption	20mW			

Mechanical Data

Operating Ambient Temperature Range ⁽³⁾	- 40 °C to + 65 °C			
Storage Temperature Range	- 40 °C to + 85 °C			
Dimensions (W x H x D)	263mm x 218mm x 41.2mm/36.5mm		263mm x 218mm x 42.5mm/37mm	
Weight	2.8kg		3.2kg	
AC Bus Cable	2.5mm ² (23A)/4mm ² (28A)			
DC Connector Type	Stäubli MC4 PV-ADBP4-S2&ADSP4-S2			
Cooling	Natural Convection - No Fans			
Enclosure Environmental Rating	IP67			

Features

Communication (Inverter To ECU) ⁽⁴⁾	Encrypted ZigBee			
Isolation Design	High Frequency Transformers, Galvanically Isolated			
Energy Management	Energy Management Analysis (EMA) system			
Warranty ⁽⁵⁾	12 Years Standard ; 25 Years Optional			

Compliances

Safety, EMC & Grid Compliances	AS/NZS 4777.2; IEC 62109-1,IEC62109-2; EN61000-6-3; EN 61000-6-4			
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(1) Nominal voltage/frequency range can be extended beyond nominal if required by the utility.
(2) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.
(3) The inverter may enter to power de-grade mode under poor ventilation and heat dissipation installation environment.
(4) Recommend no more than 80 inverters register to one ECU for stable communication.
(5) To be eligible for the warranty, APsystems microinverters need to be monitored via the EMA portal. Please refer to our warranty T&Cs available on apsystem.com.au

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