

DS3D

Doubling the Performance of the Most Powerful Dual Microinverter series

- 2 input channels with independent MPPT and monitoring function
- Single unit connects to 4 modules
- Maximum continuous output power up to 1600VA, 1800VA, 2000VA
- Engineered to match the highest power modules available (Max input current 20A)
- Encrypted ZigBee Communication
- Safety protection relay integrated

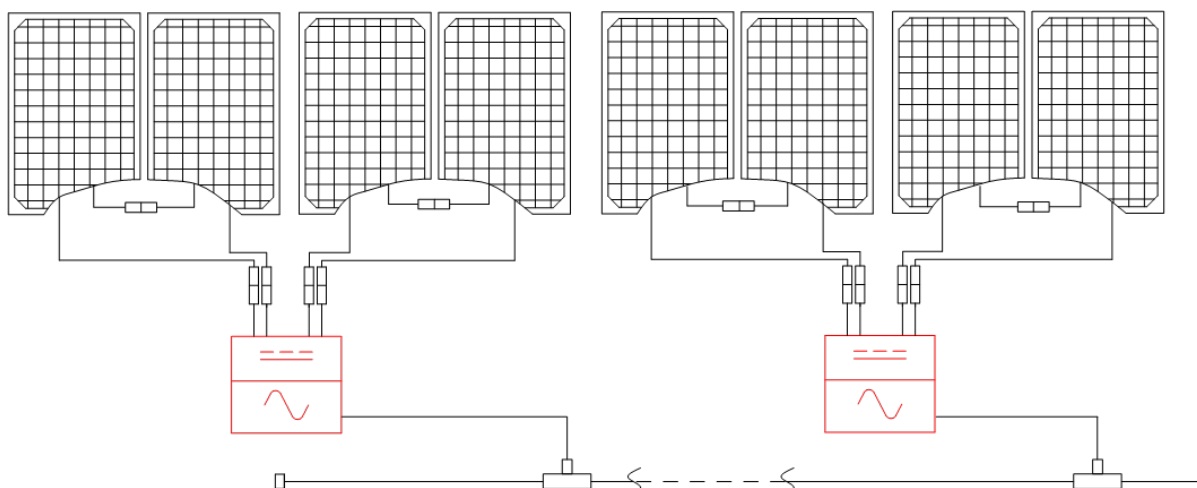
PRODUCT FEATURES

APsystems expands its 3rd generation of dual microinverter series with the DS3D. With unprecedented power outputs of 1600VA, 1800VA, 2000VA, the DS3D connects to 4 high power modules (2 by 2 in series). With 2 independent MPPTs, encrypted ZigBee signal, the DS3D benefits from an entirely new architecture.

The innovative design makes the product unique 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.

In addition, it provides 97% peak efficiency. DS3D is a game changer for multi residential and commercial PV rooftops.

WIRING SCHEMATIC



Datasheet | DS3D Microinverter

Model	DS3D-L	DS3D	DS3D-H
Region		Australia, New Zealand	

Input Data (DC)

Peak Power Tracking Voltage	56V-90V		
Operating Voltage Range	52V-112V		
Maximum Input Voltage	112V		
Maximum Input Current	20A x 2		
Isc PV(absolute maximum)	25A x 2		
Max. inverter backfeed current to the array	0A		
Over voltage category PV	OVC II		
Max input DC power	1680W	1900W	2100W
Input Start-up Voltage	56V		

Output Data (AC)

Rated Apparent Power	1600VA	1800VA	2000VA
Nominal Output Voltage / Range ⁽¹⁾	230V / 180V-265V		
Adjustable Output Voltage Range	180V-265V		
Rated Current	7A	7.8A	8.7A
Nominal Output Frequency / Range ⁽¹⁾	50Hz / 47Hz-52Hz		
Adjustable Output Frequency Range	45Hz-55Hz		
Power Factor(Default / Adjustable)	0.99 / 0.8 leading...0.8 lagging		
Maximum Units per 4mm ² Branch ⁽²⁾	4	3	3
Inrush Current	20.3A/1.6us		
Maximum output fault current	24A/2us		
Maximum output overcurrent protection	16A		
Protective class	I		
Over voltage category Mains	OVC III		
Frequency band of operation	2405 to 2480MHz		
Maximum transmit power	9.87dBm EIRP		

Efficiency

Peak 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)	284mm X 234mm X 50.2mm
Weight	4.3kg
AC Bus Cable	4mm ² (28A)
DC Connector Type	Stäubli MC4 PV-ADBP4-S2&ADSP4-S2
Cooling	Natural Convection - No Fans
Enclosure Environmental Rating	IP67
Inverter Topology	Isolated
Active Anti-islanding Method	Frequency shift

Datasheet | DS3D Microinverter

Features

Communication (Inverter To ECU) ⁽⁴⁾	Encrypted ZigBee
Isolation Design	High Frequency Transformers, Galvanically Isolated
Energy Management	Energy Management Analysis (EMA) system
Warranty ⁽⁵⁾	10 Years Standard ; 15 Years Optional
Relative humidity ratings	4%-100%
Maximum altitude rating	<2000m
Pollution degree	2
Class of equipment	Class I
Environment category	Outdoor

Compliance

Compliance	AS/NZS 4777.2; IEC 62109-1, IEC 62109-2; EN 61000-6-3; 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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