

DS3

The most powerful Dual Microinverter

- One microinverter connects to two modules
- Max output power reaching 730VA or 880VA
- Two input channels with independent MPPT
- Reactive Power Control
- Maximum reliability, IP67
- Encrypted ZigBee Communication
- Safety protection relay integrated

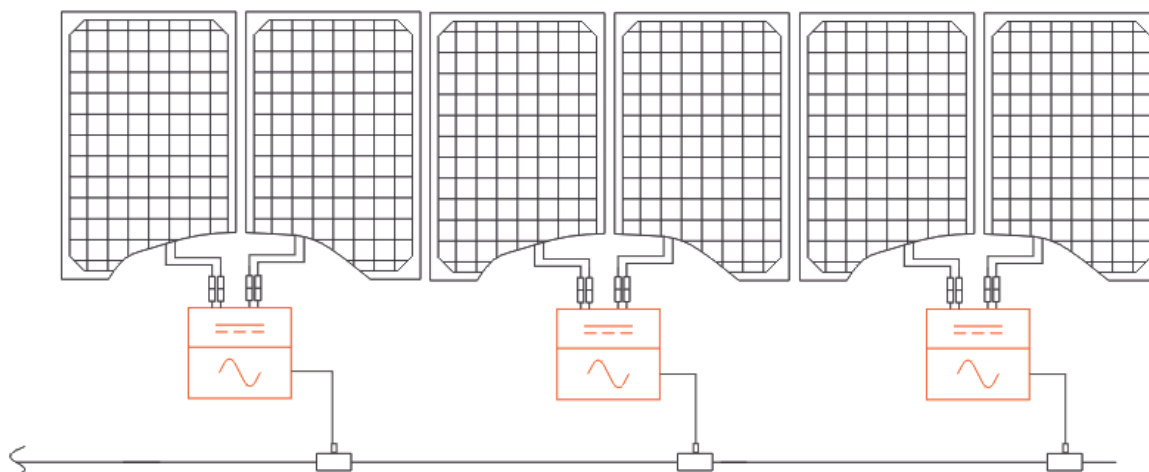
PRODUCT FEATURES

APsystems 3rd generation of dual microinverters are reaching unprecedented power outputs of 730VA or 880VA to adapt to today's larger power module. With 2 independent MPPT, encrypted ZigBee signals, the DS3-L and DS3 benefit from an entirely new architecture and are fully backwards compatible with the QS1 and YC600 microinverters.

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 new 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 a performance and an efficiency of 97%, a unique integration with 20% less components, APsystems DS3-L & DS3 are a game changer to residential and commercial PV.

WIRING SCHEMATIC



Datasheet | DS3 Microinverter Series

Model	DS3-L	DS3
Region	APAC	

Input Data (DC)

Recommended PV Module Power (STC) Range	300Wp-550Wp+	400Wp-660Wp+
Peak Power Tracking Voltage	28V-45V	
Operating Voltage Range	26V-60V	
Maximum Input Voltage	60V	
Maximum Input Current	18A x 2	20A x 2

Output Data (AC)

Maximum Continuous Output Power	730VA	880VA
Nominal Output Voltage/Range ⁽¹⁾	230V/184-253V	
Nominal Output Current	3.17A	3.8A
Nominal Output Frequency/Range ⁽¹⁾	50Hz/48-51Hz or 60Hz/59.3-60.5Hz	
Power Factor(Default/Adjustable)	0.99/0.8 leading...0.8 lagging	
Maximum Units per 2.5mm ² Branch ⁽²⁾	7	6

Efficiency

Peak Efficiency	97%
CEC Efficiency	96.5%
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	263mm x 218mm x 42.5mm
Weight	2.7kg	3.1kg
AC Bus Cable	2.5mm ² (23A)	
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⁾	10 Years Standard ; Extended Warranty Optional

Compliances

Safety, EMC & Grid Compliances	IEC 62109-1; IEC 62109-2; IEC 61000-6-1,-2,-3,-4; IEC 61727; IEC 62116; AS/NZS 4777.2; MEA; PEA; EN 62109-1; EN 62109-2; EN 61000-6-1; EN 61000-6-3; EN 50549-1;
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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 global.APsistemas.com.

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