



DS3

The most powerful Dual Microinverter

- One microinverter connects to two modules
- Max output power reaching 730VA, 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

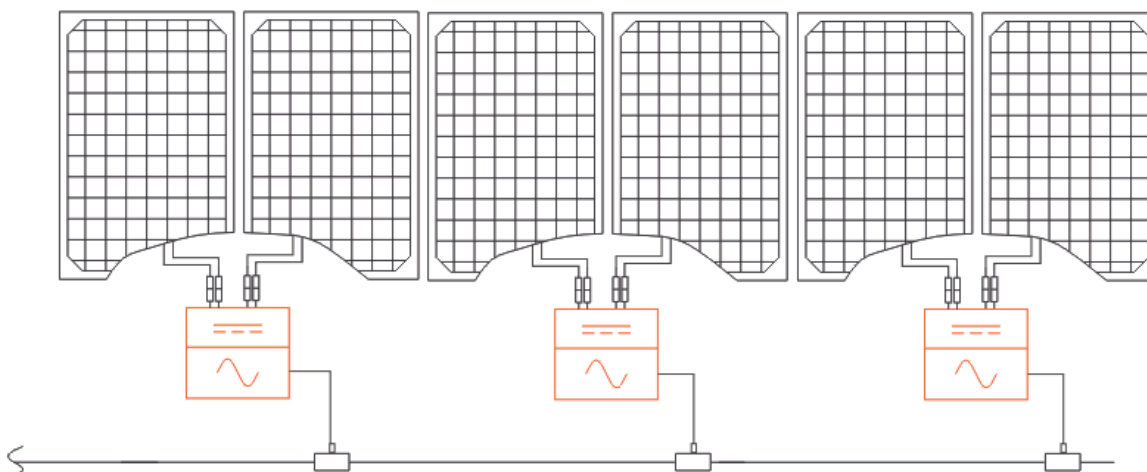
PRODUCT FEATURES

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 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 97.3%, a unique integration with 20% less components, APsystems DS3-L, DS3, and DS3-H are a game changer to residential and commercial PV.

WIRING SCHEMATIC



Datasheet | DS3 Microinverter Series

Model	DS3-L	DS3	DS3-H
Region		EMEA	

Input Data (DC)

Recommended PV Module Power (STC) Range	255Wp-550Wp+	300Wp-620Wp+	330Wp-660Wp+
Peak Power Tracking Voltage ⁽¹⁾	28V-45V		
Operating Voltage Range	16V-60V		
Maximum Input Voltage	60V		
Maximum Input Current	18A x 2	20A x 2	20A x 2
Isc PV	22.5A x 2	25A x 2	25A x 2

Output Data (AC)

Maximum Continuous Output Power	730VA	880VA	960VA
Nominal Output Voltage/Range ⁽²⁾	230V/184V-253V		
Nominal Output Current	3.2A	3.8A	4.2A
Nominal Output Frequency/ Range ⁽²⁾	50Hz/48Hz-51Hz		
Power Factor(Default/Adjustable)	0.99/0.8 leading...0.8 lagging		
Maximum Units per 2.5mm ² Branch ⁽³⁾	7	5	5
Maximum Units per 4mm ² Branch ⁽³⁾	8	7	6

Efficiency

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

Mechanical Data

Operating Ambient Temperature Range ⁽⁴⁾	- 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)/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) ⁽⁵⁾	Encrypted ZigBee
Isolation Design	High Frequency Transformers, Galvanically Isolated
Energy Management	Energy Management Analysis (EMA) system
Warranty ⁽⁶⁾	10 Years Standard ; 20 Years Optional

Compliances

Safety, EMC & Grid Compliances	EN 62109-1/-2; EN 61000-1/-2/-3/-4; EN 50549-1; PN-EN 50549-1; DIN V VDE V 0126-1-1; VFR 2019; UTE C15-712-1; CEI 0-21; UNE 217002; NTS; RD647; VDE-AR-N 4105; G98; G99; G98/NI; G99/NI
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(1) VMP values may be different on previous DS3 models with a 34-45V range for microinverters not connected to an ECU and 30-45V range for devices upgraded with an ECU.

(2) Nominal voltage/frequency range can be extended beyond nominal if required by the utility.

(3) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

(4) The inverter may enter to power de-grade mode under poor ventilation and heat dissipation installation environment.

(5) Recommend no more than 80 inverters register to one ECU for stable communication.

(6) 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 emea.APsystems.com.

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