

GS1500

PV inverter for Utility Scale plants
1500 Vdc

Nidec

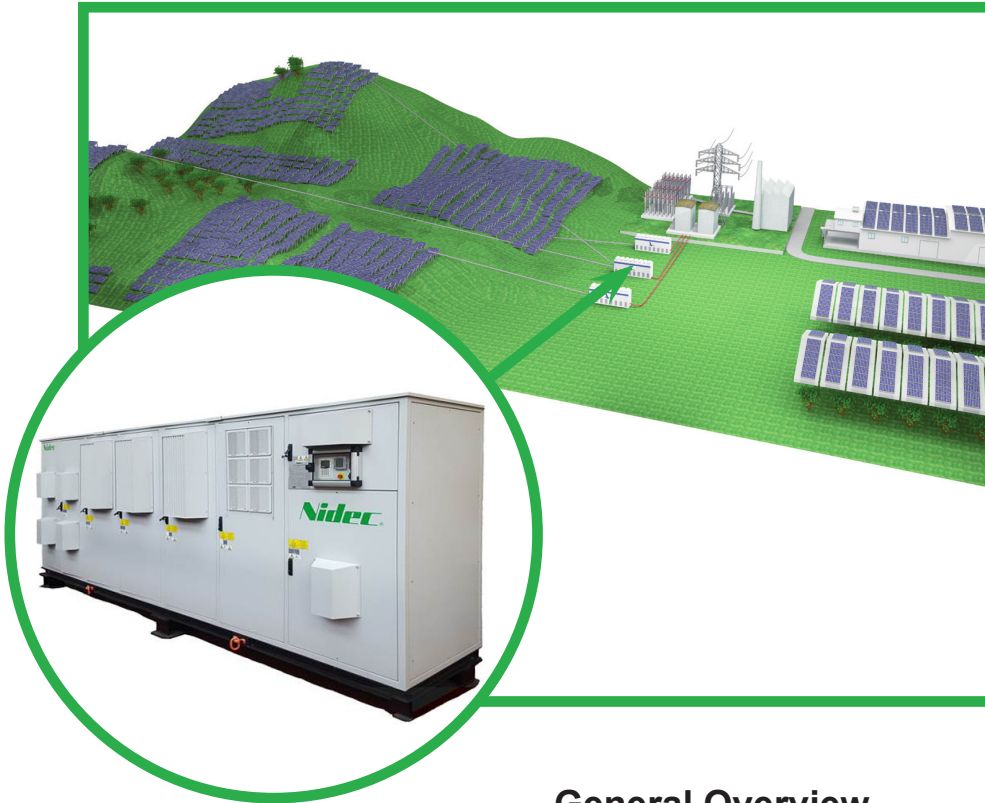
All for dreams

Typical Users

- Solar Farm Operators
- Public Utilities
- Independent Power Producers
- Smart microgrids

Advantages

- High DC input voltage up to 1500Vdc
- Maximum power 5 MW (cabinet); 9.6 MWp for turn-key stations
- Efficiency: 98.84%
- EU Efficiency: 98.62%
- Modular, scalable design
- Standard Outdoor Protection: IP54 or NEMA 3R
- Indoor Solutions also available
- Air Cooled (water cooling available upon request)



Nidec

GS1500

High-performance
solar inverters for
large photovoltaic
power plants

General Overview

Nidec has more than forty years of experience in the design and manufacture of inverters with significant experience in renewable energy applications. Our new inverter is based on a modular design that allows us to configure stand-alone cabinet solutions up to 5 MW or complete turn-key power conversion stations up to 9.6 MWp. The power conversion station includes inverter, control system, DC and AC side protection, integrated DC connection with variable number of inputs.

The multi-level inverters offer improved efficiency of 98.84% (European Efficiency 98.62%) with very low harmonics thanks to an innovative modular design and advanced air cooling system.

Specifically designed for solar application

Our new inverters are ideal for system integrators and end users who require high-performance solar inverters for large photovoltaic plants and are interested in reducing installation time and the overall complexity of the plant to enhance power production and performance. The three-level architecture provides high performance for the entire life cycle of the plant with very high levels of reliability. In addition, our inverter software includes all of the latest grid support and monitoring features including active power limitation, fault ride-through (FRT) with current feed-in and reactive power control. One of the most outstanding features of the inverter is its innovative cooling system which significantly reduces system losses offering one of the highest efficiencies on the market today, maximizing the availability of energy to be sold to the grid.

The inverter housing was designed for direct outdoor installation (IP54 and NEMA 3R) and can resist even harsh environments (pollution degree 3). Indoor solutions and/or water cooling are also available upon request.



Technical Data

Inverter size	Rated power $T_{AMB} = 40^{\circ}C$ (1)	Power @50°C (1)	AC Rated voltage	MPPT voltage range	Maximum DC voltage	DC Max power $T_{AMB} = 35^{\circ}C$
	[kW]	[kW]	[V rms]	[V DC]	[V DC]	[kW]
PV500A60	470	439	560	846÷1400	1500	494
	500	470	600	906÷1400		530
	540	502	640	966÷1400		565
PV800A60	750	700	560	846÷1400	1500	787
	800	750	600	906÷1400		843
	858	800	640	966÷1400		899
PV1K0A60	940	878	560	846÷1400	1500	988
	1000	940	600	906÷1400		1059
	1080	1004	640	966÷1400		1130
PV1K6A60	1500	1400	560	846÷1400	1500	1574
	1600	1500	600	906÷1400		1686
	1715	1600	640	966÷1400		1798
PV2K4A60	2250	2100	560	846÷1400	1500	2360
	2400	2250	600	906÷1400		2529
	2570	2400	640	966÷1400		2698
PV3K2A60	3000	2800	560	846÷1400	1500	3147
	3200	3000	600	906÷1400		3372
	3430	3200	640	966÷1400		3597
PV4K0A60	3750	3500	560	846÷1400	1500	3934
	4000	3750	600	906÷1400		4215
	4280	4000	640	966÷1400		4496
PV4K8A60	4500	4200	560	846÷1400	1500	4721
	4800	4500	600	906÷1400		5058
	5140	4800	640	966÷1400		5395

For information on turn-key stations up to 9.6MWp or for information on water-cooled solutions please contact us.

General Data

Environmental Conditions	
Installation	Outdoor
Degree of Protection	IP54 – NEMA 3R
Working Temperature	-20°C +50°C (derating up to 60°C)
Altitude	≤ 2000 m a.s.l. (4000 m with de-rating)
Relative Umidity	4%÷100% (Outdoor: condensing)
Painting cycle	C3 (C4 optional)
Pollution Degree	3

Electrical Data	
Rated AC Voltage	560 / 600 / 640 Vac
Rated Frequency	50÷60 Hz
THDi	≤3% @ Pnom
Distribution system	IT – Unearthed
European Efficiency	98.62%

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