



3.6-6kW On-grid Inverter

INS-SI-3.6/4.2/5/6K

98.1%

Max. Efficiency

15A

PV Input Current

60V

Start-up Voltage

110%

AC Overloading

Single-Phase

2 MPPTs

DATA SHEET



Optimal Power

- 98.1% Max. Efficiency
- 15A PV input current per string, 2 MPP trackers



Strong Load

- 110% continuous AC output overloading
- 60V Start-up Voltage, longer working hours with low start-up voltage



Convenient Installation & Operation

- Plug & Play terminals for easy wiring
- OLED display and App for setting and data management



Flexible Design & Use

- IP65 for indoor and outdoor installation
- Compact size and elegant appearance

Model		INS-SI-3.6	INS-SI-4.2	INS-SI-5	INS-SI-6
PV Input					
Start-up Voltage	[V]	60	60	60	60
Max. DC Input Voltage*	[V]	600*	600*	600*	600*
Rated DC Input Voltage	[V]	360	360	360	360
MPPT Voltage Range*	[V]	50-550*	50-550*	50-550*	50-550*
No. of MPP Trackers		2	2	2	2
No. of DC Inputs per MPPT		1/1	1/1	1/1	1/1
Max. Input Current	[A]	15/15	15/15	15/15	15/15
Max. Short-circuit Current	[A]	20/20	20/20	20/20	20/20
Grid Side					
Rated Output Power	[kW]	3.60	4.20	5.00 ⁴⁾	6.00
Max. Output Power	[kW]	3.96 ¹⁾	4.60	5.50 ⁵⁾	6.00
Rated Output Apparent Power	[kVA]	3.60	4.20	5.00 ⁶⁾	6.00
Max. Output Apparent Power	[kVA]	3.96 ²⁾	4.60	5.50 ⁷⁾	6.00
Rated AC Voltage		L/N/PE; 220/230/240V			
Rated AC Frequency	[Hz]	50/60	50/60	50/60	50/60
Rated Output Current	[A]	15.70	18.30	21.70 ⁸⁾	26.10
Max. Output Current	[A]	18.00 ³⁾	21.00 ⁸⁾	25.00 ⁹⁾	26.10
Power Factor		0.8 leading ... 0.8 lagging			
Max. Total Harmonic Distortion		<3% @Rated output power			
DCI		<0.5%In	<0.5%In	<0.5%In	<0.5%In
Efficiency					
Max. Efficiency		98.1%	98.1%	98.1%	98.1%
European Efficiency		97.5%	97.5%	97.5%	97.5%
MPPT Efficiency		99.9%	99.9%	99.9%	99.9%
Protection					
DC Reverse Polarity Protection		Integrated			
Insulation Resistance Protection		Integrated			
Surge Protection		Integrated			
Over-temperature Protection		Integrated			
Residual Current Protection		Integrated			
Islanding Protection		Integrated			
AC Over-voltage Protection		Integrated			
Overload Protection		Integrated			
AC Short-circuit Protection		Integrated			
General Data					
Over Voltage Category		PV: II Main: III			
Dimensions	[W×H×D mm]	358×300×158			
Weight	[KG]	9.8			
Protection Degree		IP65			
Self-Consumption at Night	[W]	<1			
Topology		Transformerless			
Operating Temperature Range	[°C]	-30~60			
Relative Humidity	[%]	0~100			
Operating Altitude	[m]	3000 (>3000m derating)			
Cooling		Natural Convection			
Noise Level	[dB]	<25			
Display		OLED & LED			
Communication		RS485, WiFi/LAN/4G (Optional)			

* PV Max. Input voltage is 550V, otherwise inverter will be waiting;

1) G98: 3.68kW; 2) G98: 3.68kVA; 3) G98: 16.00A; 4) VDE-AR-N 4105: 4.60kW; 5) AS 4777.2: 5.0kW, VDE-AR-N 4105: 4.6kW; 6) VDE-AR-N 4105: 4.60kVA; 7) AS 4777.2: 5.0kVA, VDE-AR-N 4105: 4.6kVA; 8) VDE-AR-N 4105: 20.00A; 9) AS 4777.2: 21.7A, VDE-AR-N 4105: 20.0A;