



## ■ Features

- True sine wave current output (THD < 3%)
- Graphic LCD display
- High efficiency up to 96%
- IP65 design for indoor or outdoor installations
- Anti-Islanding protection
- Transformerless design
- Multi-string input and MPPT
- With internal ground fault detector
- RS485 communication interface
- Monitoring software
- Optional DC disconnect switch
- 5 years warranty



IP65

## ■ Description

GSI-3000 and GSI-4600 series are single-phase grid-tied solar inverters. Featuring the transformerless design, these series can convert, with a high efficiency up to 96%, the DC power harvested from the PV modules to high-quality AC power, which could be synchronized and fed into the utility. The built-in Maximum Power Point Tracker (MPPT) functions allow the maximum possible power to be acquired from one or multiple solar panel arrays in different directions. In addition to providing the maximum power harvest rate, with various kinds of protection and monitoring functions, GSI-3000 and GSI-4600 series guarantee the best operation of solar systems.

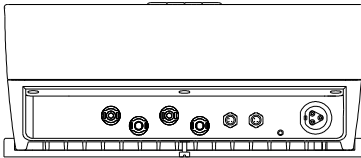


**SPECIFICATION**

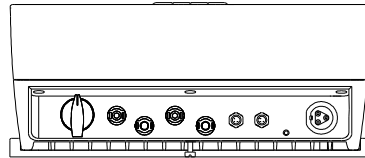
	<b>GSI-3000</b>	<b>GSI-4600</b>
<b>DC Input</b>		
Max. Input Power	3160W	4850W
Input Voltage Range	100 ~ 550V	100 ~ 550V
MPPT Range	125 ~ 500V	125 ~ 500V
Number of MPPT Tracker	1	2
Max. Input Current	1*16A	2*10A
<b>AC Output</b>		
Rated Output Power (Typ.) (@230V, 50Hz)	3000VA	4600VA
Max. Output Power (Typ.)	3000VA	4600VA
AC Voltage Range	180 ~ 264V	180 ~ 264V
AC Grid Frequency	50±5Hz / 60±5Hz	50±5Hz / 60±5Hz
Max. Output Current (Typ.)	13.1A	20A
Power Factor at rated power	>0.99	>0.99
Adjustable Displacement Power Factor	0.9 overexcited ~ 0.9 underexcited	0.9 overexcited ~ 0.9 underexcited
THD(at rated power) (Typ.)	<3%	<3%
DC Current Injection (Typ.)	<0.5% of rated output current	<0.5% of rated output current
AC Connection	Single Phase	Single Phase
<b>Efficiency</b>		
Max. Efficiency (Typ.)	>96%	>96%
Euro Efficiency (Typ.)	>95%	>95%
<b>Protection</b>		
DC Reverse Polarity	Yes	Yes
Over Temperature	Yes	Yes
AC Short	Yes	Yes
Residual-Current Monitoring Unit	Yes	Yes
Over Voltage Category Main	III	III
Over voltage Category PV	II	II
<b>Standards Compliance</b>		
Certificates and Approvals	VDE-AR-N 4105, NB/T 32004-2013	
LVD	IEC62109-1, IEC62109-2	
EMI Conduction & Radiation	EN61000-6-3 include(EN61000-3-11/12)	
EMS Immunity	EN61000-6-2 include(EN61000-4-2/3/4/5/6/8)	
<b>Environment</b>		
Working Temperature	-25 ~ +60°C	-25 ~ +60°C
Working Humidity	4 ~ 100% RH non-condensing	4 ~ 100% RH non-condensing
Maximum Altitude Rating	2000m	2000m
Pollution Degress	III	III
Storage Temperature / Humidity	-30 ~ +70°C	-30 ~ +70°C
Vibration	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes	
Protection Degree	IP65	IP65
<b>General Data</b>		
DC Disconnect Switch	Optional	Optional
Cooling	Convection	Forced Air
Interface	RS485	RS485
Topology	Transformerless	Transformerless
Display	LED / Graphic LCD	LED / Graphic LCD
Dimension(L*W*H)	438*390*158mm (L*W*H)	438*390*158mm (L*W*H)
Weight	20Kg; 1pcs/21Kg/2.16CUFT	20Kg; 1pcs/21Kg/2.16CUFT

O/P Wattage:3000VA      **GSI-4600**      Blank: Without DC disconnect switch  
 O/P Wattage:4600VA      A : With DC disconnect switch

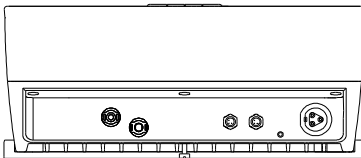
■ GSI-4600



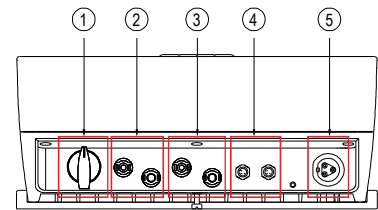
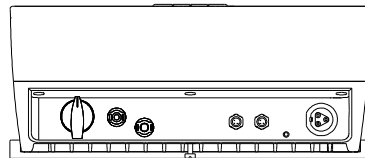
■ GSI-4600A



■ GSI-3000



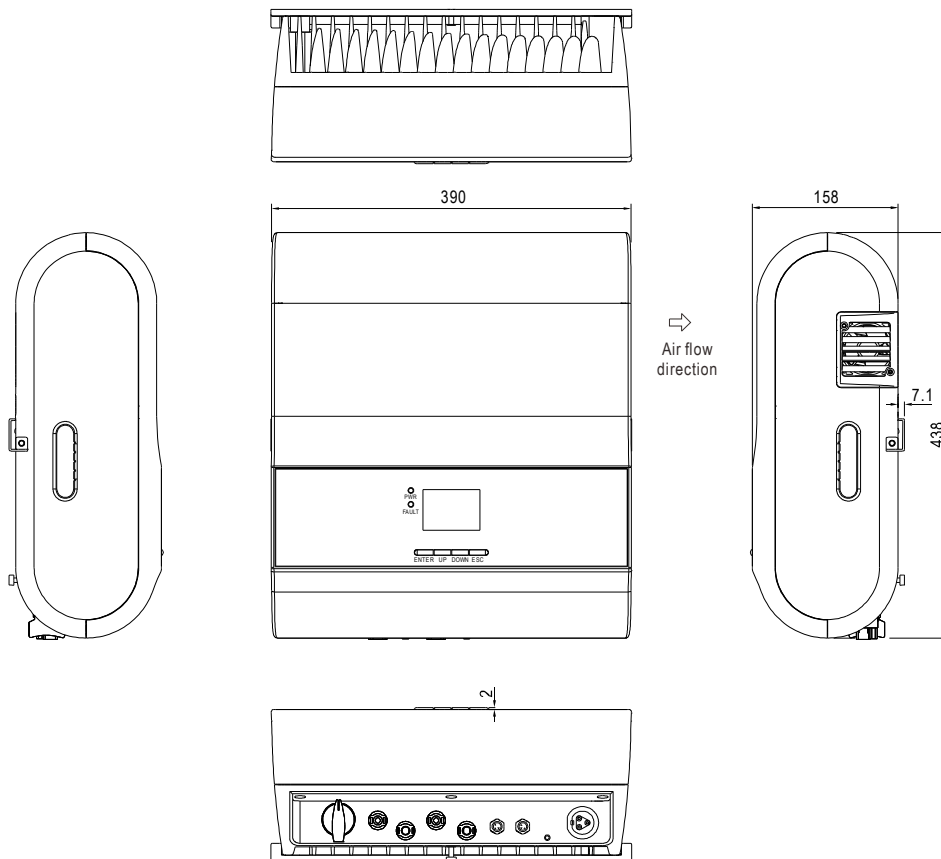
■ GSI-3000A



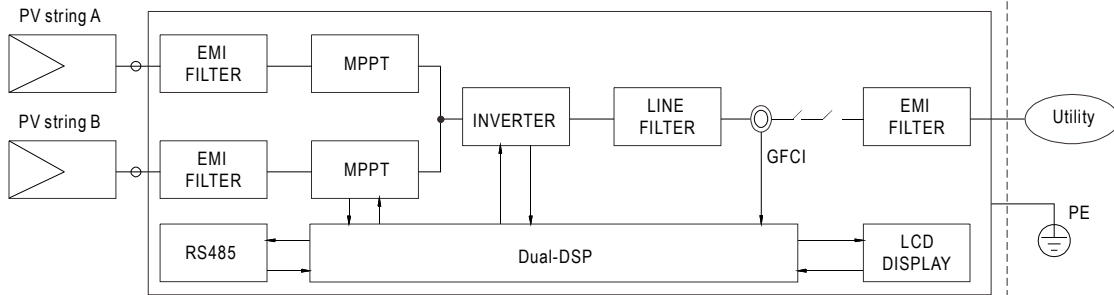
- ① DC Switch
- ② PV String A DC connector
- ③ PV String B DC connector
- ④ Remote Port
- ⑤ AC Connector

■ Mechanical Specification

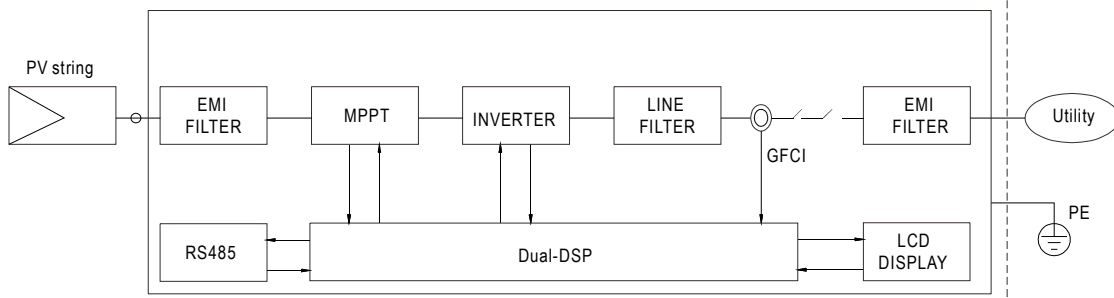
Case No.      Unit:mm



### Block Diagram-Grid Type (4600VA)

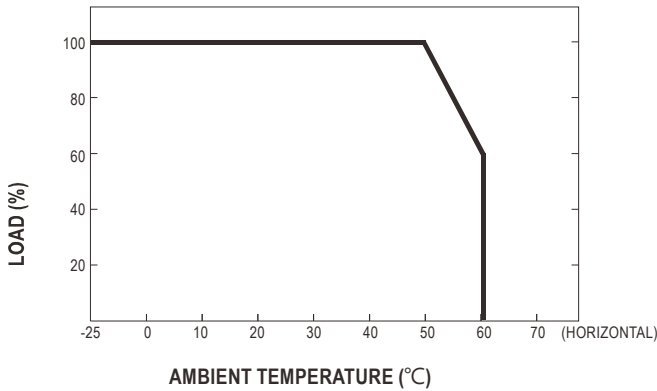


### Block Diagram-Grid Type (3000VA)



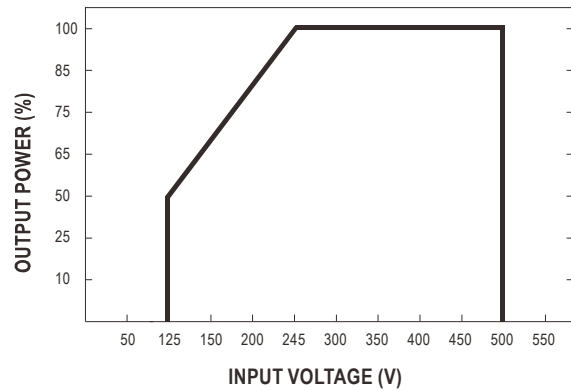
### Derating Curve

**GSI-4600**



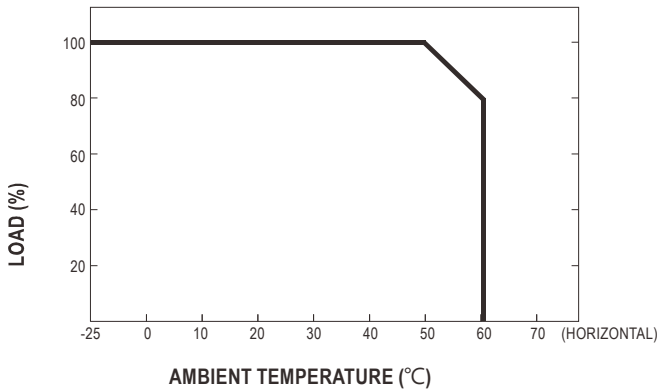
Curve 1

### Static Characteristics

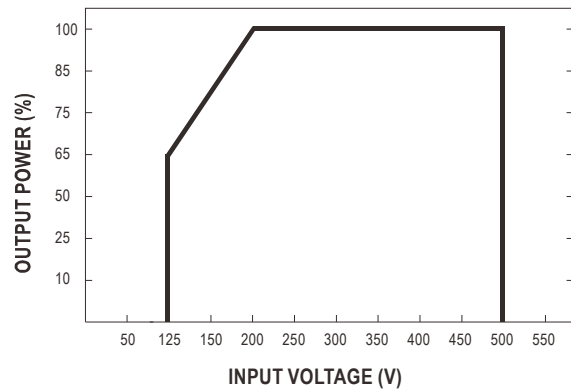


Curve 2

**GSI-3000**



Curve 3



Curve 4