

KSTAR

KSTAR PV INVERTER CATALOGUE 2019

KSTAR

Powering Green Future

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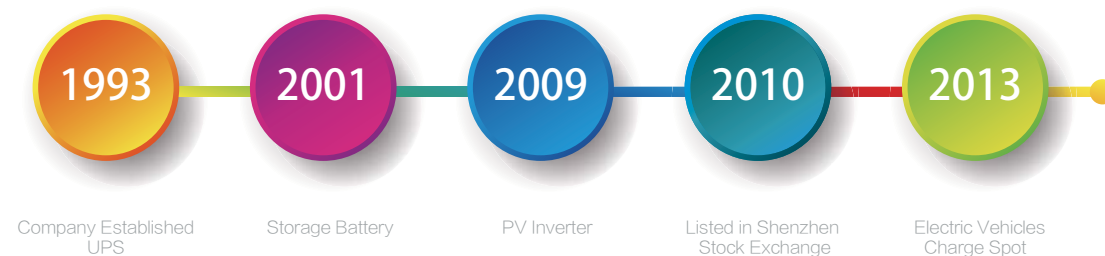
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ABOUT KSTAR

Founded in 1993, Shenzhen KSTAR Science & Technology Co., Ltd (Stock Code:002518) is a National Torch Plan Key High-tech Enterprise, and also a pioneer of UPS industry and a total solution provider for Data Center Critical Infrastructure & PV Inverter Systems in Mainland China. KSTAR is fully committed to the R&D and has been providing high-quality products with full service to over 90 countries and regions worldwide, leading the industrial development with innovation.

HISTORY



National Hi-Tech Enterprise

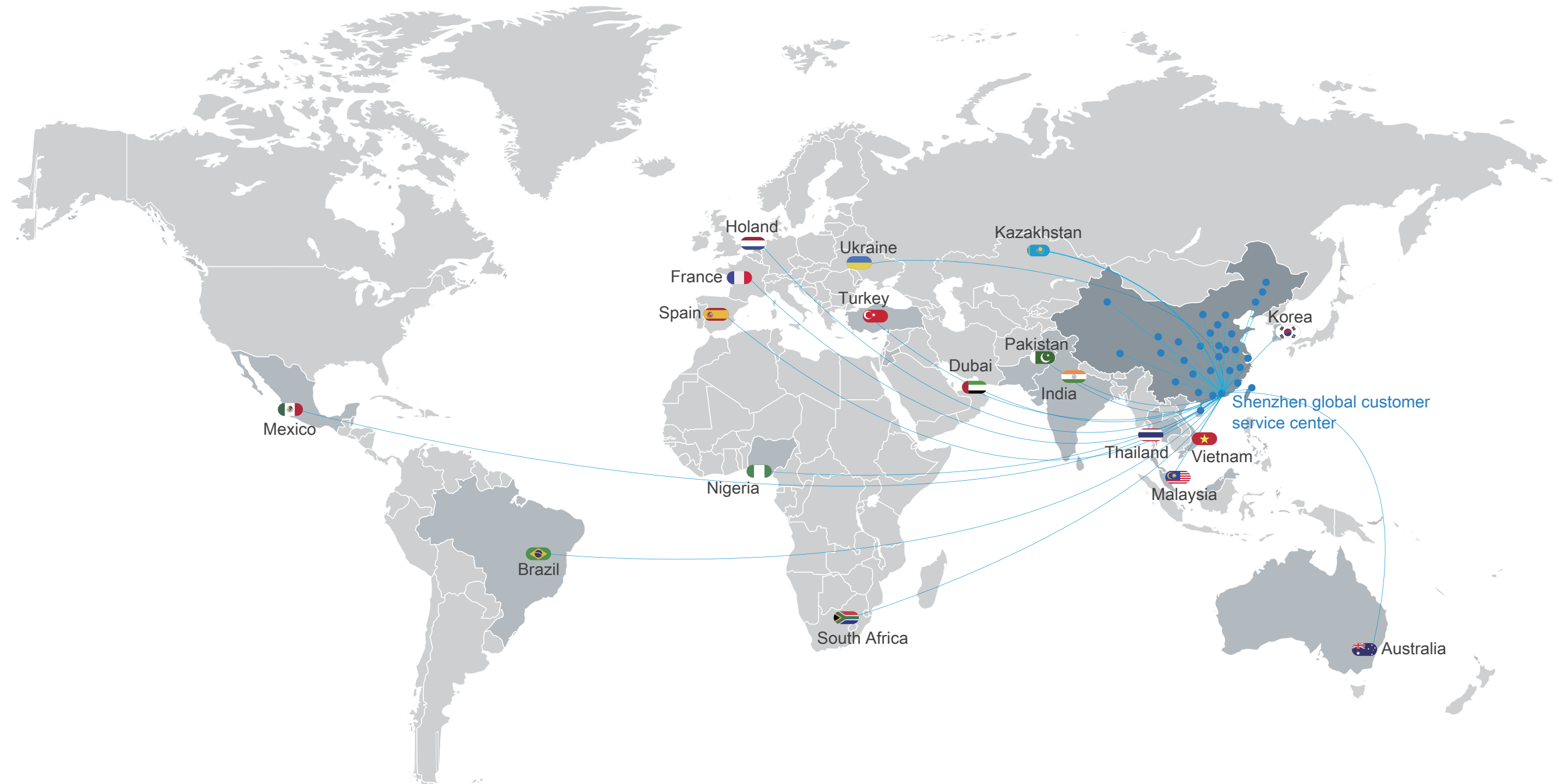


National-Recognized
Enterprise Technical Center



National Technology
Innovation Model Enterprise

Global Service Network



-  Service Centers Spare Part Centers
-  7x24 Response and Support
-  18 Overseas Technical Service Centers 40 Overseas Service Engineers
-  Global Service Network



KSG-1K-SM / KSG-1.5K-SM / KSG-2K-SM / KSG-3K-SM

String Grid-Tied PV Inverter



Max. PV voltage up to 500V
Single MPPT



DC/AC surge protection
IP65 protection



High efficiency up to 97.6%
Smaller and lighter



Easy installation
WiFi / GPRS Plug optional

Technical Specifications

MODEL	KSG-1K-SM		KSG-1.5K-SM		KSG-2K-SM		KSG-3K-SM	
Input								
Max. DC voltage / Rated DC voltage	500Vdc / 380Vdc							
MPPT voltage range	90~490Vdc				100~490Vdc			
Full load MPPT voltage range	105~400Vdc		145~400Vdc		190~400Vdc		240~400Vdc	
Min. / start DC voltage	90 / 100Vdc				120 / 150Vdc			
Number of MPPT	1							
Strings per MPPT	1							
Max. input current per MPPT	11A						13A	
Output (AC)								
Max. AC output power	1000W		1500W		2000W		3000W	
Rated AC volatge	230Vac							
AC voltage range	230Vac±20%							
Rated AC grid frequency	50 / 60Hz							
AC grid frequency range	50 / 60Hz(±5Hz)							
Max. output current	4.5A		7A		9A		14A	
Power factor (cosΦ)	0.9 leading ~0.9 lagging							
THDi	<3%							
AC connection	LN+PE							
Topology	Transformer-less							
Efficiency								
Max. efficiency	96.5%				97.6%			
Euro efficiency	96%				97%			
MPPT efficiency	99.90%							
Standby consumption	<5W							
Protection devices								
AC leakage current fault protection	Yes							
Ground fault protection	Yes							
Anti-islanding protection	Yes							
DC overvoltage protection	Yes							
DC surge protection	Yes							
AC surge protection	Yes							
DC reverse-polarity protection	Yes							
Physical								
Dimensions W x D x H (mm)	264 / 326 / 127							
Weight(kg)	7.6		8.1				8.6	
Environment								
Operating temperature range	-25℃~+60℃							
Noise emission (typical)	<25dB							
Cooling type	Natural cooling							
Protection rating	IP65							
Features								
LCD display	Yes							
Interfaces	RS485							
Optional	DC Switch / WiFi Plug / GPRS Plug							

Specifications subject to change without prior notice.

» KSG-3.2K-DM / KSG-3.6K-DM / KSG-4K-DM / KSG-4.6K-DM / KSG-5K-DM
String Grid-Tied PV Inverter



Max. PV voltage up to 500V
Dual MPPT



DC/AC surge protection
IP65 protection



High efficiency up to 97.5%
Smaller and lighter



Reactive power controller
WiFi / GPRS Plug optional

Technical Specifications

MODEL	KSG-3.2K-DM	KSG-3.6K-DM	KSG-4K-DM	KSG-4.6K-DM	KSG-5K-DM
Input					
Max. DC voltage / Rated DC voltage	500Vdc / 380Vdc				
MPPT voltage range	100~490Vdc				
Full load MPPT voltage range	150~400Vdc	145~400Vdc	165~400Vdc	240~400Vdc	
Min. / start DC voltage	120 / 150Vdc				
Number of MPPT	2				
Strings per MPPT	1				
Max. DC power per MPPT	1800W	2200W	2500W	3000W	
Max. input current per MPPT	11A/11A	13A/13A			
Output (AC)					
Max. AC output power	3000W	3680W	4000W	4600W	5000W
Rated AC voltage	230Vac				
AC voltage range	230Vac±20%				
Rated AC grid frequency	50 / 60Hz				
AC grid frequency range	50 / 60Hz(±5Hz)				
Max. output current	14A	16A	17.5A	20A	22A
Power factor (cosΦ)	0.9 leading ~ 0.9 lagging				
THDi	<3%				
AC connection	LN+PE				
Topology	Transformer-less				
Efficiency					
Max. efficiency	97.5%				
Euro efficiency	97%				
MPPT efficiency	99.90%				
Standby consumption	<5W				
Protection devices					
AC leakage current fault protection	Yes				
Ground fault protection	Yes				
Anti-islanding protection	Yes				
DC overvoltage protection	Yes				
DC surge protection	Yes				
AC surge protection	Yes				
DC reverse-polarity protection	Yes				
Physical					
Dimensions W x D x H (mm)	329×466×149				
Weight(kg)	14.5	14.9		15.5	
Environment					
Operating temperature range	-25℃~+60℃				
Noise emission (typical)	<25dB				
Cooling type	Natural cooling				
Protection rating	IP65				
Features					
LCD display	Yes				
Interfaces	RS485				
Optional	DC Switch / WiFi Plug / GPRS Plug				

Specifications subject to change without prior notice.

» KSG-10K / KSG-12K / KSG-15K / KSG-17K / KSG-20K
String Grid-Tied PV Inverter



Max. PV voltage up to 1000V
Dual MPPT



DC/AC surge protection
IP65 protection



High efficiency up to 98%
Smaller and lighter



Reactive power controller
WiFi / GPRS Plug optional

Technical Specifications

MODEL	KSG-10K	KSG-12K	KSG-15K	KSG-17K	KSG-20K
Input					
Max. DC voltage	1000Vdc				
MPPT voltage range	250~950Vdc				
Full load voltage range	480~800Vdc				
Rated DC voltage	620Vdc				
Min. / start DC voltage	200 / 250Vdc				
Number of MPPT	2				
Strings per MPPT	1		2		
Max. input current per MPPT	13A/13A		21A/21A		
Output (AC)					
Rated AC output power	10kW	12kW	15kW	17kW	20kW
Max. AC output power	11kW	13kW	16kW	18kW	22kW
Rated AC voltage	400Vac				
AC voltage range	400Vac±20%				
Rated AC grid frequency	50 / 60Hz				
AC grid frequency range	50 / 60Hz(±5Hz)				
Max. output current	17A	20A	24A	27A	32A
Power factor (cosΦ)	0.8leading-0.8lagging				
THDi	<3%				
AC connection	3W+N+PE/3W+PE				
Topology	Transformer-less				
Efficiency					
Max. efficiency	98%				
Euro efficiency	97.5%				
Protection devices					
AC leakage current fault protection	Yes				
Ground fault protection	Yes				
Anti-islanding protection	Yes				
DC overvoltage protection	Yes				
DC surge protection	Yes				
AC surge protection	Yes				
DC reverse-polarity protection	Yes				
Physical					
Dimensions W x D x H (mm)	553×715×228				
Weight(kg)	35		39		
Environment					
Operating temperature range	-25℃~+60℃				
Noise emission (typical)	<40dB				
Cooling type	Natural cooling				
Protection rating	IP65				
Features					
LCD display	Yes				
Interfaces	RS485 (WiFi Plug/GPRS Plug optional)				

Specifications subject to change without prior notice.

» KSG-30K / KSG-50K / KSG-60K
String Grid-Tied PV Inverter



Max. PV voltage up to 1000V
Three MPPT



DC/AC Type II SPD optional
Positive DC fuse optional



High efficiency up to 98.6%
String monitoring optional



Reactive power controller
LVRT/HVRT/FRT function

Technical Specifications

MODEL	KSG-30K		KSG-50K	KSG-60K
Input				
Max. DC voltage	1000Vdc			
MPPT voltage range	250~950Vdc			
Full load MPPT voltage range	400~800Vdc	480~800Vdc	500~800Vdc	
Rated DC voltage	620Vdc			
Min. / start DC voltage	200 / 250Vdc			
Number of MPPT	3			
Strings per MPPT	2	4		
Max. input current per MPPT	26A/26A/26A	36A/36A/36A	40A/40A/40A	
Output (AC)				
Rated AC output power	30kW	50kW	60kW	
Max. AC output power	33kW	55kW	66kW	
Rated AC voltage	400Vac			
AC voltage range	400Vac±20%			
Rated AC grid frequency	50 / 60Hz			
AC grid frequency range	50 / 60Hz(±5Hz)			
Rated output current	44A	72A	87A	
Max. output current	48A	80A	95A	
Power factor (cosΦ)	0.8leading-0.8lagging			
THDi	<3%			
AC connection	3W+N+PE/3W+PE			
Topology	Transformer-less			
Efficiency				
Max. efficiency	98.3%	98.6%		
Euro efficiency	98.0%	98.2%		
Protection devices				
AC leakage current fault protection	Yes			
LVRT	Yes			
Ground fault protection	Yes			
Anti-islanding protection	Yes			
DC overvoltage protection	Yes			
DC surge protection	Yes			
AC surge protection	Yes			
DC reverse-polarity protection	Yes			
Physical				
Dimensions W x D x H (mm)	636×958×260			
Weight(kg)	61	68	70	
Environment				
Operating temperature range	-25℃~-+60℃			
Noise emission (typical)	<40dB	<60dB		
Cooling type	Natural cooling	Fans		
Protection rating	IP65			
Features				
LCD display	Yes			
Interfaces	RS485 (WiFi Plug/GPRS Plug optional)			

Specifications subject to change without prior notice.

» KSG-36K-HV / KSG-50K-HV / KSG-60K-HV
String Grid-Tied PV Inverter



Max. PV voltage up to 1000V
Three MPPT



DC/AC Type II SPD optional
Positive DC fuse optional



High efficiency up to 98.6%
String monitoring optional



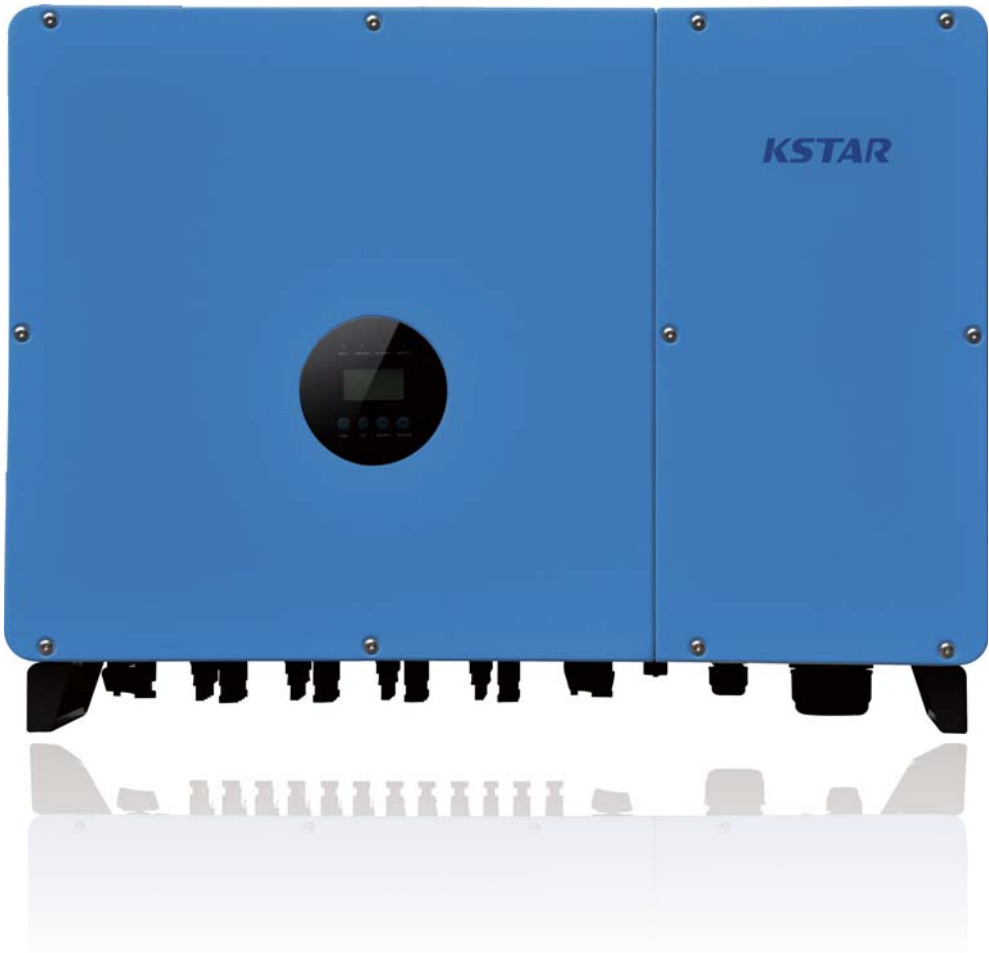
Reactive power controller
LVRT/HVRT/FRT function

Technical Specifications

MODEL	KSG-36K-HV		KSG-50K-HV	KSG-60K-HV
Input				
Max. DC voltage	1000Vdc			
MPPT voltage range	250~950Vdc			
Full load MPPT voltage range	550~800Vdc			
Rated DC voltage	720Vdc			
Min. / start DC voltage	200 / 250Vdc			
Number of MPPT	3			
Strings per MPPT	2	4		
Max. input current per MPPT	26A/26A/26A	36A/36A/36A		
Output (AC)				
Rated AC output power	36kW	50kW	60kW	
Max. AC output power	40kW	55kW	66kW	
Rated AC voltage	480Vac			
AC voltage range	480Vac±10%			
Rated AC grid frequency	50 / 60Hz			
AC grid frequency range	50 / 60Hz(±5Hz)			
Rated output current	44A	61A	72A	
Max. output current	48A	67A	80A	
Power factor (cosΦ)	0.8leading-0.8lagging			
THDi	<3%			
AC connection	3W+PE			
Topology	Transformer-less			
Efficiency				
Max. efficiency	98.5%	98.6%		
Euro efficiency	98.2%			
Protection devices				
AC leakage current fault protection	Yes			
LVRT	Yes			
Ground fault protection	Yes			
Anti-islanding protection	Yes			
DC overvoltage protection	Yes			
DC surge protection	Yes			
AC surge protection	Yes			
DC reverse-polarity protection	Yes			
Physical				
Dimensions W x D x H (mm)	636×958×260			
Weight(kg)	61	68		
Environment				
Operating temperature range	-25℃~+60℃			
Noise emission (typical)	<40dB	<60dB		
Cooling type	Natural cooling	Fans		
Protection rating	IP65			
Features				
LCD display	Yes			
Interfaces	RS485 (WiFi Plug/GPRS Plug optional)			

Specifications subject to change without prior notice.

» KSG-100K-ML/ KSG-100K-MLM
String Grid-Tied PV Inverter



1100Vdc, 400Vac
1/9 MPPT 18 DC inputs



DC/AC Type II SPD optional
Smart I-V curve function



High efficiency up to 99.0%
LED+ LCD



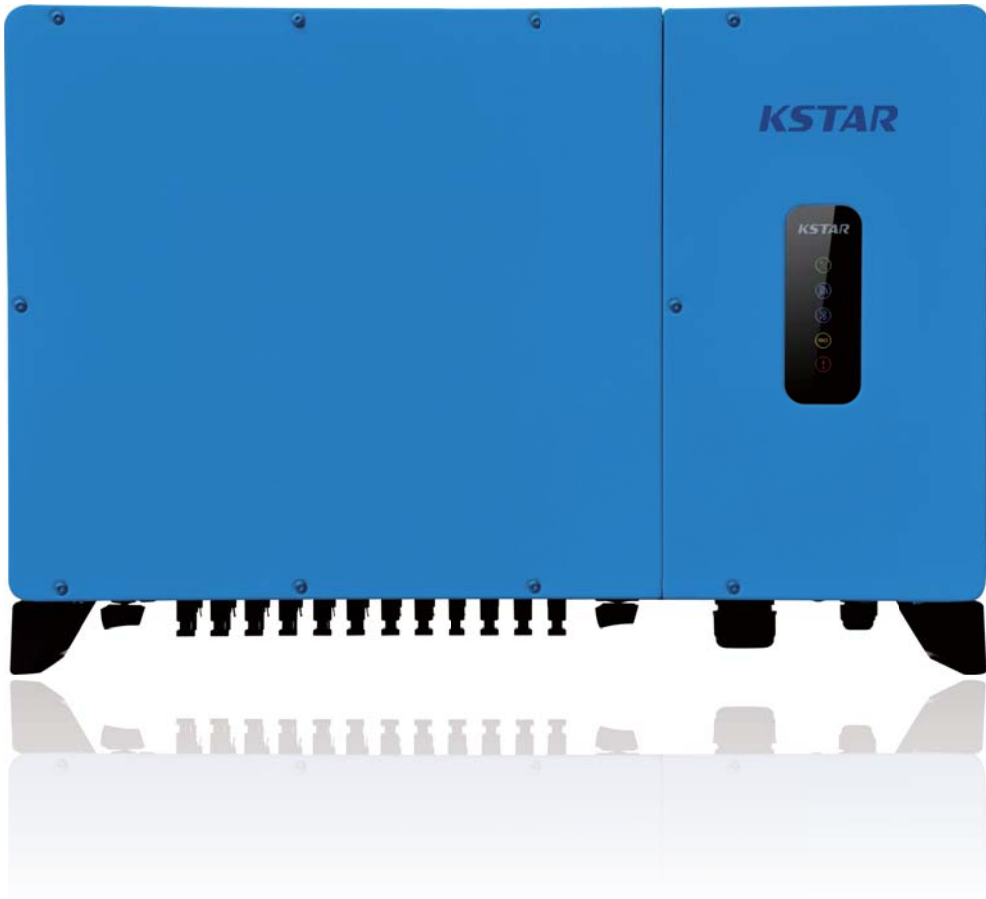
Reactive power controller
LVRT/HVRT/FRT function

Technical Specifications

MODEL	KSG-100K-ML	KSG-100K-MLM
Input		
Max. DC voltage	1100V	1100V
MPPT voltage range	570~1000Vdc	200~1000Vdc
Full load MPPT voltage range	570~850Vdc	550~850Vdc
Rated DC voltage	710Vdc	620V
Min. / start DC voltage	570 / 620Vdc	200 / 250Vdc
Number of MPPT	1	9
Strings per MPPT	18	2
Max. input current per MPPT	198A	26A
Output (AC)		
Rated AC output power	100kW	
Max. AC output power	110kW	
Rated AC voltage	400Vac	
AC voltage range	400Vac±20%	
Rated AC grid frequency	50 / 60Hz	
AC grid frequency range	50 / 60Hz(±5Hz)	
Rated output current	145A	
Max. output current	160A	
Power factor (cosΦ)	0.8leading-0.8lagging	
THDi	<3%	
AC connection	3W+N+PE/3W+PE	
Topology	Transformer-less	
Efficiency		
Max. efficiency	99.0%	
Euro efficiency	98.7%	
Protection devices		
AC leakage current fault protection	Yes	
LVRT	Yes	
Ground fault protection	Yes	
Anti-islanding protection	Yes	
DC overvoltage protection	Yes	
DC surge protection	Yes	
AC surge protection	Yes	
DC reverse-polarity protection	Yes	
Physical		
Dimensions W x D x H (mm)	880×595×295	1050×600×320
Weight(kg)	60	82
Environment		
Operating temperature range	-25℃~-+60℃	
Noise emission (typical)	<60dB	
Cooling type	Fans	
Protection rating	IP65	
Features		
LCD display	Yes	
Interfaces	RS485 (WiFi Plug/GPRS Plug optional)	

Specifications subject to change without prior notice.

» KSG-100K-HDV / KSG-175K-HDV
String Grid-Tied PV Inverter



1500Vdc, 800Vac
6/12 MPPT 12/24 DC inputs



AFCI function
Smart I-V curve function



High efficiency up to 99.0%
LED+ Bluetooth APP



Night SVG function optional
LVRT/HVRT/FRT function

Technical Specifications

MODEL	KSG-100K-HDV		KSG-175K-HDV
Input			
Max. DC voltage	1500Vdc		
MPPT voltage range	600~1500Vdc		
Full load MPPT voltage range	800~1200Vdc		
Start DC voltage	650Vdc		
Number of MPPT	6	12	
Strings per MPPT	2		
Max. input current per MPPT	25A		
Output (AC)			
Rated AC output power	100kW	175kW	
Max. AC output power	110kW	192kW	
Rated AC voltage	800Vac		
AC voltage range	640~920V		
Rated AC grid frequency	50 / 60Hz		
AC grid frequency range	50 / 60Hz(±5Hz)		
Rated. output current	72A	126A	
Max. output current	80A	140A	
Power factor (cosΦ)	0.8leading-0.8lagging		
THDi	<3%		
AC connection	3W+PE		
Topology	Transformer-less		
Efficiency			
Max. efficiency	99.0%		
Euro efficiency	98.7%		
Protection devices			
AC leakage current fault protection	Yes		
LVRT	Yes		
Ground fault protection	Yes		
Anti-islanding protection	Yes		
DC overvoltage protection	Yes		
Physical			
Dimensions W x D x H (mm)	980×600×288	1070×620×288	
Weight(kg)	80	95	
Environment			
Operating temperature range	-25°C~+60°C		
Noise emission (typical)	<60dB		
Cooling type	Fans		
Protection rating	IP65		
Features			
Display	Bluetooth + APP		
Interfaces	RS485		

Specifications subject to change without prior notice.

KSE-2K-048S / KSE-3K-048S / KSE-3.6K-048S / KSE-5K-048S

Residential Hybrid Inverter



Dual MPPT
Compatible with Li-ion and Lead-acid



Inbuilt UPS function
IP65 protection



Integrated EMS via LCD
On-grid and Off-grid mode



Reactive power controller
Export control function

Technical Specifications

Model	KSE-2K-048S		KSE-3K-048S		KSE-3.6K-048S		KSE-5K-048S	
PV Input								
Max. PV input power	2600W		3900W		4800W		6000W	
Max. PV input voltage	550Vdc (*1)							
MPPT voltage range	120~500Vdc							
Rated input voltage	420Vdc							
MPPT range for full load	236~500V		178~500V		219~500V		273~500V	
Number of MPPT	2							
Max. PV input current	11A		11A*2					
AC Output(On-grid)								
Rated output voltage	230Vac							
Output voltage range	150V~280V							
Output frequency range	50 / 60Hz (±5Hz)(adjustable)							
Max. current from utility grid	23A							
Max. apparent power from utility grid	5300VA							
Max. power output to utility grid	2000W		3000W		3680W		5000W(*2)	
Max. current output to utility grid	9A		13.5A		16A		22A(*3)	
AC output connection	L+N+PE, Transformerless							
Power factor (cosφ)	1(0.8 leading ~ 0.8 lagging) (adjustable)							
THDi	<3%							
AC Output(Back-up)								
Rated output voltage	230Vac (Fluctuation range±2%)							
Rated output frequency	50/60Hz (Fluctuation range±0.2%)							
Rated output current	9A		13A					
Rated output power	2000W		3000W					
Max. output apparent power	2400VA		3300VA					
THDv	<2% (Linear load)							
Automatic switch time	<20ms							
Battery Input								
Battery type	Li-ion or lead-acid							
Rated battery voltage	48V							
Depth of discharging	Li-ion 90%DOD(10%~90% adjustable) / Lead-acid 50%DOD(50%~80% adjustable)							
Max. discharging current(*4)	65A							
Max. charging current(*5)	50A (5~50A adjustable)							
Max. discharging power	2200W		3200W					
Max. charging power	2000W		2500W					
Efficiency								
Max. conversion efficiency (from battery)	94.0%							
Max. conversion efficiency (from PV)	97.6%							
Euro efficiency	97.0%							
Protection function	Short Circuit Protection, AC Leakage Fault Protection, Grounding Fault Protection, Anti-islanding Protection, Overload Protection, Surge Protection, DC Polarity Protection							
General								
Cooling	Natural Convection							
DC switch	Optional							
Communication Interface	RS485/CAN2.0/WIFI							
Dimensions W x D x H (mm)	359x467x170							
Weight (Kg)	15		17					
Operating temperature range	-20 C ~+60 C (Rated Power@45 C)							
Humidity range	0~95% (No condensation)							
Altitude	≤ 2000m							
Protection	IP65							
Certification & Standard								
Grid regulation	AS/NZS 4777.2, VDE-AR-N4105, VDE0126-1-1							
Safety regulation	IEC/EN 62109-1&2, IEC62040-1							
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29							

*1. Max. operating voltage is 530V.

*2. It will be 4600W under the selection of VDE-AR-N4105 & VDE0126-1-1.

*3. It will be 21.7A under the selection of AS 4777.2.

*4. For Lead-acid batteries, the default discharging current limit is shown in the table, and Li-ion batteries discharging current is in accordance with BMS instructions, but not more than the value shown in the table.

*5. For Lead-acid batteries, the default charging current is 0.1C. The default charging current can be set by APP as shown in the table, and the Li-ion batteries charging current is in accordance with BMS instructions, but not more than the value shown in the table.

KSE-3.6K-048 / KSE-5K-048 / KSE-6K-048

Residential Hybrid Inverter



Dual MPPT
Compatible with Li-ion and Lead-acid



Inbuilt UPS function
IP65 protection



Integrated EMS via LCD
On-grid and Off-grid mode



Reactive power controller
Export control function

Technical Specifications

Model	KSE-3.6K-048		KSE-5K-048		KSE-6K-048	
PV Input						
Max. PV input power	4400W		6000W		6600W	
Max. PV input voltage	550Vdc (*1)					
MPPT voltage range	120~500Vdc					
Rated input voltage	420Vdc					
MPPT range for full load	184~500V		230~500V		254~500V	
Number of MPPT	2					
Max. PV input current	13A*2					
AC Output(On-grid)						
Rated output voltage	230Vac					
Output voltage range	150V~280V					
Output frequency range	50 / 60Hz (±5Hz) (adjustable)					
Max. current from utility grid	32A					
Max. apparent power from utility grid	7360VA					
Max. power output to utility grid	3680W		5000W(*2)		6000W	
Max. current output to utility grid	16A		22A(*3)		25A	
AC output connection	L+N+PE, Transformerless					
Power factor (cosφ)	1(0.8 leading ~0.8 lagging) (adjustable)					
THDi	<3%					
AC Output(Back-up)						
Rated output voltage	230Vac (Fluctuation range±2%)					
Rated output frequency	50/60Hz (Fluctuation range±0.2%)					
Rated output current	16A		20A			
Rated output power	3680W		4600W		4600W	
Max. output apparent power	4000VA		5000VA		5000VA	
THDv	<2% (Linear load)					
Automatic switch time	<20ms					
Battery Input						
Battery type	Li-ion or lead-acid					
Rated battery voltage	48V					
Depth of discharging	Li-ion 90%DOD(10%~90% adjustable) / Lead-acid 50%DOD(50%~80% adjustable)					
Max. discharging current(*4)	80A		105A			
Max. charging current(*5)	80A (5~80A adjustable)					
Max. discharging power	4000W		5000W			
Max. charging power	3000W		4200W			
Efficiency						
Max. conversion efficiency (from battery)	95.0%					
Max. conversion efficiency (from PV)	97.6%					
Euro efficiency	97.0%					
Protection function	Short Circuit Protection, AC Leakage Fault Protection, Grounding Fault Protection, Anti-islanding Protection, Overload Protection, Surge Protection, DC Polarity Protection					
General						
Cooling	Natural Convection					
DC switch	Optional					
Communication Interface	RS485/CAN2.0/WIFI					
Dimensions W x D x H (mm)	527×472×180					
Weight (Kg)	25		25		26	
Operating temperature range	-20 C ~+60 C (Rated Power@45 C)					
Humidity range	0~95% (No condensation)					
Altitude	≤ 2000m					
Protection	IP65					
Certification & Standard						
Grid regulation	AS/NZS 4777.2, VDE-AR-N4105, VDE0126-1-1					
Safety regulation	IEC/EN 62109-1&2, IEC62040-1					
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29					

*1. Max. operating voltage is 530V.

*2. It will be 4600W under the selection of VDE-AR-N4105 & VDE0126-1-1.

*3. It will be 21.7A under the selection of AS 4777.2.

*4. For Lead-acid batteries, the default discharging current limit is shown in the table, and Li-ion batteries discharging current is in accordance with BMS instructions, but not more than the value shown in the table.

*5. For Lead-acid batteries, the default charging current is 0.1C. The default charging current can be set by APP as shown in the table, and the Li-ion batteries charging current is in accordance with BMS instructions, but not more than the value shown in the table.

GSL0500 / GSL0630 / GSL0750

Central Grid-Tied PV Inverter



Max. PV voltage up to 1000V
Max. 10 DC inputs



Max. DC/AC ratio up to 1.5
Full power output under 55°C



Dustproof protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSL0500		GSL0630	GSL0750
Input				
Max. DC input voltage	1000Vdc			
MPPT voltage range	450~850Vdc	520~850Vdc	500~850Vdc	
Number of DC input	8	9	10	
Max. input current	1200A	1400A	1500A	
Output				
Rated output power	500kW	630kW	750kW	
Max. output power	550kW	690kW	825kW	
Rated output voltage	315Vac	360Vac	350Vac	
Output voltage range	(1±10%)×Rated AC Voltage (adjustable ±5%,±10%,±15%,±20%)			
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)			
Rated AC output current	916A	1010A	1237A	
Max. AC output current	1008A	1111A	1360A	
Power factor (cosΦ)	1 (0.9 leading – 0.9 lagging) (adjustable)			
THDi	<3%			
System features				
Max. efficiency	98.7%			
Euro efficiency	98.5%			
MPPT efficiency	>99%			
Standby (night time) losses	<50W			
Cooling type	Forced air cooling			
Communication interface	RS485, External Ethernet (optional)			
Environment				
Operating temperature range	-40 C ~ + 60 C (More than 55 C derating)			
Humidity range	0 ~ 95% (non-condensing)			
Altitude	3000m			
Noise level	<65dB		<70dB	
Protection rating	IP21			
Protection devices				
AC leakage current fault protection	Yes			
LVRT	Yes			
Ground fault protection	Yes			
Anti-islanding protection	Yes			
DC overvoltage protection	Yes			
DC surge protection	Yes			
AC surge protection	Yes			
DC reverse-polarity protection	Yes			
Physical				
Dimensions W x D x H (mm)	1200x800x2000			1600x850x2000
Weight(kg)	1200	1300	1450	

Specifications subject to change without prior notice.

GSL1000 / GSL1250

Central Grid-Tied High Efficiency PV Inverter



Max. PV voltage up to 1000V
Max. 20 DC inputs



Max. DC/AC ratio up to 1.5
Full power output under 55°C



Dustproof protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSL1000	GSL1250
Input		
Max. DC input voltage	1000Vdc	
MPPT voltage range	580~850Vdc	
Number of DC input	8(400A) / 20(200A)	
Max. input current	1935A	2200A
Output		
Rated output power	1000kW	1250kW
Max. output power	1100kW	1375kW
Rated output voltage	400Vac	
Output voltage range	(1±15%)×Rated AC Voltage (adjustable ±5%,±10%,±15%,±20%)	
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)	
Rated AC output current	1444A	1804A
Max. AC output current	1588A	1985A
Power factor (cosΦ)	1 (0.9 leading – 0.9 lagging) (adjustable)	
THDi	<3%	
System features		
Max. efficiency	99%	
Euro efficiency	98.7%	
MPPT efficiency	>99%	
Standby (night time) losses	<50W	
Cooling type	Forced air cooling	
Communication interface	RS485, External Ethernet (optional)	
Environment		
Operating temperature range	-40℃ ~ +60℃ (More than 55℃ derating)	
Humidity range	0 ~ 95% (non-condensing)	
Altitude	3000m	
Noise level	<65dB	
Protection rating	IP21	
Protection devices		
AC leakage current fault protection	Yes	
LVRT	Yes	
Ground fault protection	Yes	
Anti-islanding protection	Yes	
DC overvoltage protection	Yes	
DC surge protection	Yes	
AC surge protection	Yes	
DC reverse-polarity protection	Yes	
Physical		
Dimensions W x D x H (mm)	2100x750x2100	
Weight(kg)	1600	1700

Specifications subject to change without prior notice.

GSM1250 / GSM1500

Central Grid-Tied High Efficiency PV Inverter



Max. PV Voltage up to 1500V
Max. 12 DC inputs



Max. DC/AC ratio up to 1.5
Full power output under 55°C



Dustproof protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSM1250	GSM1500
Input		
Max. DC input voltage	1500Vdc	
MPPT voltage range	800~1300Vdc	900~1300Vdc
Number of DC input	10	12
Max. input current	1750A	1870A
Output		
Rated output power	1250kW	1500kW
Max. output power	1375kW	1500kW
Rated output voltage	550Vac	600Vac
Output voltage range	(1±10%)×Rated AC Voltage (adjustable ±5%,±10%,±15%)	
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)	
Rated AC output current	1312A	1443A
Max. AC output current	1443A	1443A
Power factor (cosΦ)	1 (0.9 leading – 0.9 lagging) (adjustable)	
THDi	<3%	
System features		
Max. efficiency	99%	
Euro efficiency	98.7%	
MPPT efficiency	>99%	
Standby (night time) losses	<50W	
Cooling type	Forced air cooling	
Communication interface	RS485, External Ethernet (optional)	
Environment		
Operating temperature range	–40 C ~ +60 C (More than 55 C derating)	–40 C ~ +60 C (More than 50 C derating)
Humidity range	0 ~ 95% (non-condensing)	
Altitude	3000m	
Noise level	<65dB	
Protection rating	IP21	
Protection devices		
AC leakage current fault protection	Yes	
LVRT	Yes	
Ground fault protection	Yes	
Anti-islanding protection	Yes	
DC overvoltage protection	Yes	
DC surge protection	Yes	
AC surge protection	Yes	
DC reverse-polarity protection	Yes	
Physical		
Dimensions W x D x H (mm)	1600x750x2100	
Weight(kg)	1600	

Specifications subject to change without prior notice.

GSL1000C / GSL1260C / GSL1500C

DC1000V Container Solution



Max. PV voltage up to 1000V
Max. 20 DC inputs



Max. DC/AC ratio up to 1.5
Full power output under 50°C



IP54 outdoor protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSL1000C		GSL1260C	GSL1500C
Input				
Max. DC input voltage	1000Vdc			
MPPT voltage range	450~850Vdc	520~850Vdc	500~850Vdc	
Number of DC input	14(14~16 optional)	16(16~18 optional)	20(20~24 optional)	
Max. input current	2400A	2800A	3000A	
Output				
Rated output power	1000kW	1260kW	1500kW	
Max. output power	1100kW	1380kW	1650kW	
Rated output voltage	315Vac	360Vac	350Vac	
AC output topology	3W+PE			
Output voltage range	(1±15%)×Rated AC Voltage (adjustable ±5%,±10%,±15%,±20%)			
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)			
Rated AC output current	1836A	2020A	2474A	
Max. AC output current	2014A	2222A	2720A	
Power factor (cosΦ)	1 (0.9 leading – 0.9 lagging) (adjustable)			
THDi	<3%			
System features				
Max. efficiency	98.7%			
Euro efficiency	98.5%			
MPPT efficiency	>99%			
Standby (night time) losses	<100W			
Cooling type	Forced air cooling			
Communication interface	RS485, External Ethernet (optional)			
Environment				
Operating temperature	-40℃ ~ +60℃ (More than 50℃ derating)			
Humidity range	0 ~ 95% (non-condensing)			
Altitude	3000m			
Noise level	<65dB		<75dB	
Protection rating	IP54			
Physical				
Dimensions W x D x H (mm)	2991x2438x2591			
Weight(t)	5	5.2	5.5	

Specifications subject to change without prior notice.

GSL2000C / GSL2500C

DC1000V Container Solution



Max. PV voltage up to 1000V
Max. 40 DC inputs



Max. DC/AC ratio up to 1.5
Full power output under 50°C



IP54 outdoor protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSL2000C		GSL2500C	
Input				
Max. DC input voltage	1000Vdc			
MPPT voltage range	580~850Vdc			
Number of DC input	16(400A) / 40(200A)			
Max. input current	3870A		4400A	
Output				
Rated output power	2000kW		2500kW	
Max. output power	2200kW		2750kW	
Rated output voltage	400Vac			
Output voltage range	(1±15%)×Rated AC Voltage (adjustable ±5%,±10%,±15%,±20%)			
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)			
Rated AC output current	2888A		3608A	
Max. AC output current	3176A		3970A	
Power factor (cosΦ)	1 (0.9 leading – 0.9 lagging) (adjustable)			
THDi	<3%			
System features				
Max. efficiency	99%			
Euro efficiency	98.7%			
MPPT efficiency	>99%			
Standby (night time) losses	<100W			
Cooling type	Forced air cooling			
Communication interface	RS485, External Ethernet (optional)			
Environment				
Operating temperature range	-40 C ~ + 60 C (More than 50 C derating)			
Humidity range	0 ~ 95% (non-condensing)			
Altitude	3000m			
Noise level	<65dB			
Protection rating	IP54			
Protection devices				
AC leakage current fault protection	Yes			
LVRT	Yes			
Ground fault protection	Yes			
Anti-islanding protection	Yes			
DC overvoltage protection	Yes			
Physical				
Dimensions W x D x H (mm)	2991x2438x2591			
Weight(t)	5		5.2	

Specifications subject to change without prior notice.

GSM2500C / GSM3000C

DC1500V Container Solution



 Max. PV voltage up to 1500V
Max. 24 DC inputs

 Max. DC/AC ratio up to 1.5
Full power output under 50°C

 IP54 outdoor protection
Modular design for
Easy maintenance

 AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSM2500C	GSM3000C
Input		
Max. DC input voltage	1500Vdc	
MPPT voltage range	800~1300Vdc	900~1300Vdc
	20	24
Max. input current	3500A	3740A
Output		
Rated output power	2500kW	3000kW
Max. output power	2750kW	3000kW
Rated output voltage	500Vac	600Vac
Output voltage range	(1±15%)×Rated AC Voltage (adjustable ±5%,±10%,±15%)	
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)	
Rated AC output current	2624A	2886A
Max. AC output current	2886A	2886A
Power factor (cosΦ)	1 (0.9 leading – 0.9 lagging) (adjustable)	
THDi	<3%	
System features		
Max. efficiency	99%	
Euro efficiency	98.7%	
MPPT efficiency	>99%	
Standby (night time) losses	<100W	
Cooling type	Forced air cooling	
Communication interface	RS485, External Ethernet (optional)	
Environment		
Operating temperature range	-40℃～+60℃ (More than 50℃ derating)	-40℃～+60℃ (More than 45℃ derating)
Humidity range	0～95% (non-condensing)	
Altitude	3000m	
Noise level	<65dB	
Protection rating	IP54	
Protection devices		
AC leakage current fault protection	Yes	
LVRT	Yes	
Ground fault protection	Yes	
Anti-islanding protection	Yes	
DC overvoltage protection	Yes	
AC surge protection	Yes	
DC reverse-polarity protection	Yes	
Physical		
Dimensions W x D x H (mm)	2991x2438x2591	
Weight(t)	5	5.2

Specifications subject to change without prior notice.

GSM3125C / GSM3400C

DC1500V Container Solution



Max. PV voltage up to 1500V
Max. 28 DC inputs



IP54 outdoor protection
Modular design for
Easy maintenance



Max. DC/AC ratio up to 1.5
Full power output under 50°C



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

GSM Series Technical Specifications

MODEL	GSM3125C		GSM3400C
Input			
Max. DC input voltage	1500Vdc		
MPPT voltage range	920~1300Vdc		
Number of MPPT	2		
Number of DC input	28		
Max. input current	4080A		
Output			
Rated output power	3125kW	3400kW	
Max. output power	3600KW (25° C)		
Rated output voltage	630Vac		
AC voltage range	504V~693V (adjustable)		
Rated grid frequency	50/60Hz		
Grid frequency range	50/60(± 4.5Hz) (adjustable)		
Power factor (cosΦ)	1(0.8 leading~0.8 lagging) (adjustable)		
THDi	<3%		
Grid connection system	3W+PE		
System Features			
Max. efficiency	99%		
Euro efficiency	98.7%		
MPPT efficiency	>99%		
Cooling type	Forced air cooling		
Communication interface	RS485		
Protection Devices			
AC leakage current fault protection	Yes		
LVRT/HVRT	Yes		
Ground fault protection	Yes		
Anti-islanding protection	Yes		
DC overvoltage protection	Yes		
DC surge protection	Yes		
AC surge protection	Yes		
DC reverse-polarity protection	Yes		
Environment			
Operating temperature	- 40℃ ~ + 60℃ (More than 50℃ derating)	- 40℃ ~ + 60℃ (More than 45℃ derating)	
Humidity range	0 ~ 95% (non-condensing)		
Altitude	3000m		
Noise level	<65dB		
Protection rating	IP54		
Physical			
Dimensions W x D x H (mm)	2991x2438x2591		
Weight(t)	5		

Specifications subject to change without prior notice.



GSL2500C-MV

DC1000V Turnkey Solution (Inverter+MV Transformer+RMU)



Max. PV voltage up to 1000V
Max. 40 DC inputs



Max. DC/AC ratio up to 1.5
Full power output under 50°C



IP54 outdoor protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSL2500C-MV
Input	
Max. DC input voltage	1000Vdc
MPPT voltage range	580~850Vdc
Number of DC input	16(400A) / 40 (200A)
Max. input current	3870A
Output	
Rated output power	2500kW
Max. output power	2750kW
AC output voltage	10~35kV
LV/MV voltage	0.4kV / 10~35kV
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)
Power factor (cosΦ)	1 (0.9 leading ~ 0.9 lagging) (adjustable)
THDi	<3%
System features	
Inverter Max. efficiency	99%
Inverter Euro efficiency	98.7%
MPPT efficiency	>99%
Cooling type	Forced air cooling
Communication interface	RS485, External Ethernet (optional)
Environment	
Operating temperature range	-40 C ~ +60 C (More than 50 C derating)
Humidity range	0 ~ 95% (non-condensing)
Altitude	2000m
Noise level	<65dB
Protection rating	IP54
Protection devices	
AC leakage current fault protection	Yes
LVRT	Yes
Ground fault protection	Yes
Anti-islanding protection	Yes
DC overvoltage protection	Yes
DC surge protection	Yes
AC surge protection	Yes
DC reverse-polarity protection	Yes
Physical	
Dimensions W x D x H (mm)	6058X2438X2896
Weight(t)	16

Specifications subject to change without prior notice.



GSM2500C-MV

DC1500V Turnkey Solution (Inverter+MV Transformer+RMU)



Max. PV voltage up to 1500V
Max. 24 DC inputs



Max. DC/AC ratio up to 1.5
Full power output under 50°C



IP54 outdoor protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSM2500C-MV
Input	
Max. DC input voltage	1500Vdc
MPPT voltage range	800~1300Vdc
Number of DC input	20~24
Max. input current	3500A
Output	
Rated output power	2500kW
Max. output power	2750kW
AC output voltage	10~35kV
LV/MV voltage	0.55kV / 10~35kV
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)
Power factor (cosΦ)	1 (0.9 leading ~ 0.9 lagging) (adjustable)
THDi	<3%
System features	
Inverter Max. efficiency	99%
Inverter Euro efficiency	98.7%
MPPT efficiency	>99%
Cooling type	Forced air cooling
Communication interface	RS485, External Ethernet (optional)
Environment	
Operating temperature range	-40 C ~ +60 C (More than 50 C derating)
Humidity range	0 ~ 95% (non-condensing)
Altitude	2000m
Noise level	<65dB
Protection rating	IP54
Protection devices	
AC leakage current fault protection	Yes
LVRT	Yes
Ground fault protection	Yes
Anti-islanding protection	Yes
DC overvoltage protection	Yes
DC surge protection	Yes
AC surge protection	Yes
DC reverse-polarity protection	Yes
Physical	
Dimensions W x D x H (mm)	6058X2438X2896
Weight(t)	16

Specifications subject to change without prior notice.

GSM5000C-MV

DC1500V Turnkey Solution (Inverter+MV Transformer+RMU)



 Max. PV voltage up to 1500V
Max. 48 DC inputs

 Max. DC/AC ratio up to 1.5
Full power output under 50°C

 IP54 outdoor protection
Modular design for
Easy maintenance

 AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSM5000C-MV
Input	
Max. DC input voltage	1500Vdc
MPPT voltage range	800~1300Vdc
Number of DC input	40~48
Max. input current	7000A
Output	
Rated output power	5000kW
Max. output power	5500kW
AC output voltage	10~35kV
LV/MV voltage	0.55kV / 10~35kV
Grid frequency range	50 / 60Hz(±4.5Hz) (adjustable)
Power factor (cosΦ)	1 (0.9 leading – 0.9 lagging) (adjustable)
THDi	<3%
System features	
Inverter Max. efficiency	99%
Inverter Euro efficiency	98.7%
MPPT efficiency	>99%
Cooling type	Forced air cooling
Communication interface	RS485, External Ethernet (optional)
Environment	
Operating temperature range	–40 C ~ +60 C (More than 50 C derating)
Humidity range	0 ~ 95% (non-condensing)
Altitude	2000m
Noise level	<65dB
Protection rating	IP54
Protection devices	
AC leakage current fault protection	Yes
LVRT/HVRT	Yes
Ground fault protection	Yes
Anti-islanding protection	Yes
DC overvoltage protection	Yes
DC surge protection	Yes
AC surge protection	Yes
DC reverse-polarity protection	Yes
Physical	
Dimensions W x D x H (mm)	12192X2438X2896
Weight(t)	25

Specifications subject to change without prior notice.

GSM6250C-MV / GSM6800C-MV

DC1500V Turnkey Solution (Inverter+MV Transformer+RMU)



Max. PV voltage up to 1500V
Max. 56 DC inputs



Max. efficiency up to 99%
Full power output under 50°C



IP54 outdoor protection
Modular design for
Easy maintenance



AGC/AVC
Night SVG function
LVRT/HVRT/FRT function

Technical Specifications

MODEL	GSM6250C-MV		GSM6800C-MV
Input			
Max. DC input voltage	1500Vdc		
MPPT voltage range	900~1300Vdc		
Number of MPPT	4		
Number of DC input	56		
Max. input current	8160A		
Output			
Rated output power	6250kW	6800kW	
Max. output power	7200kW (25°C)		
AC output voltage	10~35kV		
LV/MV voltage	0.63kV / 10~35kV		
Grid frequency range	50 / 60Hz(±5Hz) (adjustable)		
Power factor (cosΦ)	1 (0.8 leading – 0.8 lagging) (adjustable)		
THDi	<3%		
System features			
Inverter Max. efficiency	99%		
Inverter Euro efficiency	98.7%		
MPPT efficiency	>99%		
Cooling type	Forced air cooling		
Communication interface	RS485, External Ethernet (Optional)		
MV transformer vector	Dy11y11		
MV transformer type	Oil/Dry		
MV switchgear protection	Circuit Breaker		
Environment			
Operating temperature	-40℃ ~ +60℃ (More than 50℃ derating)	-40℃ ~ +60℃ (More than 45℃ derating)	
Humidity range	0 ~ 95% (non-condensing)		
Altitude	2000m		
Noise level	<65dB		
Protection rating	IP54		
Protection devices			
AC leakage current fault protection	Yes		
LVRT/HVRT	Yes		
Ground fault protection	Yes		
Anti-islanding protection	Yes		
DC overvoltage protection	Yes		
DC surge protection	Yes		
AC surge protection	Yes		
DC reverse-polarity protection	Yes		
Physical			
Dimensions W x D x H (mm)	12192X2438X2896		

Specifications subject to change without prior notice.

GSC Series PV Array Combiner box

DC1000V / DC1500V



Positive & negative DC Fuse protection
Alarms for PV array and blown fuse



IP65 protection
Anti-feedback diode optional



Real-time monitoring to the status
of Fuse, Breaker and SPD



RS485 and Modbus-RTU protocol
String current and voltage monitoring

Technical Specifications

MODEL	GSC08-M	GSC12-M	GSC16-M	GSC08-DM	GSC12-DM	GSC16-DM
Input						
Max. PV string parallel inputs	8	12	16	8	12	16
Rated current for each string	15A					
Operating voltage range	200~1000Vdc					
System power	From PV array					
Diode spec	Without			55A/1600V		
Communication	RS485 / Modbus-RTU protocol, 9600bps					
Isolation resistance	>10MΩ					
Physical						
Dimensions W x D x H (mm)	720x200x514			720x240x640		
Weight(kg)	26	35		32	40	
Environment						
Operating temperature	-40℃ ~ +65℃					
Humidity range	0 ~ 95% (non-condensing)					
Altitude	3000m					
Protection rating	IP65					

Technical Specifications

MODEL	GSC08-MH	GSC12-MH	GSC16-MH	GSC08-DMH	GSC12-DMH	GSC16-DMH
Input						
Max. PV string parallel inputs	8	12	16	8	12	16
Rated current for each string	15A					
Operating voltage range	400~1500Vdc					
System power	From PV array					
Diode spec	Without			55A/2100V		
Communication	RS485 / Modbus-RTU protocol, 9600bps					
Isolation resistance	>10MΩ					
Physical						
Dimensions W x D x H (mm)	810x206x680			840x235x680		
Weight(kg)	35	40			45	
Environment						
Operating temperature	-40℃ ~ +65℃					
Humidity range	0 ~ 95% (non-condensing)					
Altitude	3000m					
Protection rating	IP65					

Ksolar Monitoring System

WiFi Plug / GPRS Plug Wireless Communication Module



Model

Quantity of Connected Inverter	1
Inverter Communication Interface	RS485
Remote Communication Interface	GPRS,Wifi (802.11b/g/n)
Radio Operating Frequency	900/1800MHz(GPRS)2.4GHz(Wifi)
Data Acquisition Interval	Default 5 minutes/1~15 minutes optional
Data Storage	EEPROM
Data Access Mode	Remote server/Wifi point-to-point
Operating Humidity	10~90%(Relative humidity,non-condensing)
Operating Temperature	-30℃ ~ +85℃
Protection Rating	IP65

GPRS PLUG/ WIFI PLUG



PC Website / Mobile APP Monitoring System



- Remote access & communication
- Easy-to-use large-screen display
- High capacity server cloud backup
- Speedy and Stable
- Real-time online monitoring
- From anywhere at anytime



 Russian 500MW PV Plant



 Ukraine 240MW PV Plant



 Pakistan 900MW PV Plant



 Talesun Jiayuguan 1GW PV Plant



 Zhejiang 300MW Watersurface PV Plant



 SPIC Qinghai 100MW PV Plant



 CPI Golmud 200MW PV Plant



 GCL Datong 200MW PV Plant



 Ukraine 200MW PV Plant



 CGN Sichuang 50MW PV Plant



 Jiangsu Tracking System PV Plant



 Russian 300MW PV Plant



 Tibet 4747m Altitude PV Plant



 Brazil PV Plant



 Hungary PV Plant



 Indian PV Plant



 Mexico PV Plant



 Turkey PV Plant



 Thailand PV Plant



 South Korea PV Plant



 APEC Beijing PV Plant