

## ON-GRID STRING INVERTERS : 1kW to 60kW

### FEATURES

- Wide input voltage, DC input voltage up to 1100V
- Transformerless & Low noise technique
- Compact Design & Easy Installation
- IP65 compatible
- USB/485 communication interface(Wi-Fi adapter Optional)
- Maximum efficiency of 99.0% and wide input voltage range
- Latest Dual MPPT Technology Which Guarantees 99.5% Efficiency
- Internal DC Switch
- Touch Key & OLED Display
- Comprehensive Warranty Program
- BIS Compliant



Model no	KSG-I-3.3KN22	KSG-I-5KN22	KSG-III-5KN22-MC
<b>Input Data(DC)</b>			
Max.recommended PV power (For module STC)	4200W	7000W	7500W
Max.DC voltage	550V	550V	1100V
Start voltage	80V	100V	160V
Nominal voltage	360V	360V	580V
MPPT voltage range	65V-550V	80V-550V	140V-1000V
No. of MPP trackers	1	2	2
No. of PV strings per MPP tracker	1	1	1
Max. input current per MPP tracker	13A	13.5A	13A
Max. short-circuit current per MPP tracker	16A	16.9A	16A
<b>Output data (AC)</b>			
AC nominal power	3000W	5000W	5000W
Max. AC apparent power	3000VA	5000VA	5500VA
Nominal AC voltage (range*)	230V(180-280V)	230V(180-280V)	220V/380V, 230V/400V (340V-440V)
AC grid frequency (range*)	50/60Hz(45-55Hz/55-65Hz)	50/60Hz(45-55Hz/55-65Hz)	50/60Hz(45-55Hz/55-65Hz)
Max. output current	14.3A	22.7A	8.3A
Adjustable power factor	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%	<3%
AC grid connection type	Single phase	Single phase	3W+N+PE
<b>Efficiency</b>			
Max. efficiency	97.60%	98.40%	98.30%
European efficiency	97.10%	97.50%	97.50%
MPPT efficiency	99.90%	99.90%	99.90%
<b>Protection Devices</b>			
DC reverse polarity protection	Yes	Yes	Yes
DC Switch	Yes	Yes	Yes
AC/DC Surge protection	Type III/Type II	Type III/Type II	Type III/Type II
Insulation resistance monitoring	Yes	Yes	Yes
AC short-circuit protection	Yes	Yes	Yes
Ground fault monitoring	Yes	Yes	Yes
Grid monitoring	Yes	Yes	Yes
Anti-islanding protection	Yes	Yes	Yes
Residual-current monitoring unit	Yes	Yes	Yes
AFCI protection	Optional	Optional	Optional
<b>General Data</b>			
Dimensions(W/H/D)	274/254/138mm	375/350/160mm	425/387/178mm
Weight	6.2kg	10.8kg	16kg
Operating temperature range	-25..+ 60 degree C	-25..+ 60 degree C	-25..+ 60 degree C
Night time power consumption	<0.5W	<1W	<1W
Topology	Transformerless	Transformerless	Transformerless
Cooling	Natural convention	Natural convention	Natural convention
Protection degree	IP66	IP65	IP65
Relative humidity	0-100%	0-100%	0-100%
Altitude	4000m	4000m	4000m
DC connection	H4/MC4(optional)	H4/MC4(optional)	H4/MC4(optional)
AC connection	connector	connector	connector
Display	OLED+LED/WiFi+App	OLED+LED/WiFi+App	OLED+LED/WiFi+App
Interfaces: RS485/USB/Wi-Fi/GPRS/RF/LAN	Yes/Yes/Optional/Optional/Optional	Yes/Yes/Optional/Optional/Optional	Yes/Yes/Optional/Optional/Optional
Warranty	7 Warranty	7 Warranty	7 Warranty

Model no	KSG-III-10KN22-MD	KSG-III-15KN22-MD	KSG-III-20KN22-MD	KSG-III-30KN22-MC
<b>Input Data(DC)</b>				
Max.recommended PV power (For module STC)	15000W	22500W	30000W	45000W
Max.DC voltage	1100V	1100V	1100V	1100V
start voltage	160V	160V	250V	250V
Nominal voltage	580V	580V	580V	600V
MPPT voltage range	140V-1000V	140V-1000V	160V-1000V	200V-1000V
No. of MPP trackers	2	2	2	3
No. of PV strings per MPP tracker	1	1/2	2	3/3/2
Max. input current per MPP tracker	13A	13A/26A	27A	37.5A/37.5A/25A
Max. short-circuit current per MPP tracker	16A	16A/32A	33.8A	45A
<b>Output Data (AC)</b>				
AC nominal power	10000W	15000W	20000W	30000W
Max. AC apparent power	11000VA	16500VA	22000VA	33300VA
Nominal AC voltage (range*)	220V/380V,230V/400V(340-440V)	220V/380V, 230V/400V (340-440V)	220V/380V, 230V/400V (340-440V)	220V/380V, 230V/400V (340-440V)
AC grid frequency (range*)	50/60Hz(45-55Hz/55-65Hz)	50/60Hz(45-55Hz/55-65Hz)	50/60Hz(45-55Hz/55-65Hz)	50/60Hz(45-55Hz/55-65Hz)
Max. output current	16.7A	25A	31.9A	48.3A
Adjustable power factor	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%	<3%	<3%
AC grid connection type	3W+N+PE	3W+N+PE	3W+N+PE	3W+N+PE
<b>Efficiency</b>				
Max.efficiency	98.60%	98.20%	98.75%	98.70%
European efficiency	98.10%	98.10%	98.60%	98.40%
MPPT efficiency	99.90%	99.90%	99.90%	99.90%
<b>Protection Devices</b>				
DC reverse polarity protection	Yes	Yes	Yes	Yes
DC Switch	Yes	Yes	Yes	Yes
AC/DC Surge protection	Type III/Type II	Type III/Type II	Type III/Type II	Type III/Type II
Insulation resistance monitoring	Yes	Yes	Yes	Yes
AC short-circuit protection	Yes	Yes	Yes	Yes
Ground fault monitoring	Yes	Yes	Yes	Yes
Grid monitoring	Yes	Yes	Yes	Yes
Anti-islanding protection	Yes	Yes	Yes	Yes
Residual-current monitoring unit	Yes	Yes	Yes	Yes
AFCI protection	Optional	Optional	Optional	Optional
<b>General Data</b>				
Dimensions(W/H/D)	425/387/178mm	425/387/178mm	525/395/222mm	680/508/281mm
Weight	16kg	16kg	23kg	52kg
Operating temperature range	-25..+ 60 degree C	-25..+ 60 degree C	-25..+ 60 degree C	-25..+ 60 degree C
Night time power consumption	<1W	<1W	<1W	<1W
Topology	Transformerless	Transformerless	Transformerless	Transformerless
Cooling	Natural convention	Natural convention	Smart air cooling	Smart air cooling
Protection degree	IP66	IP66	IP65	IP65
Relative humidity	0-100%	0-100%	0-100%	0-100%
Altitude	4000m	4000m	4000m	4000m
DC connection	H4/MC4(optional)	H4/MC4(optional)	H4/MC4(optional)	H4/MC4(optional)
AC connection	connector	connector	connector	Cable gland+OT terminal
Display	OLED+LED/WiFi+App	OLED+LED/WiFi+App	OLED+LED/WiFi+App	OLED+LED/WiFi+App
Interfaces: RS485/USB/Wi-Fi/GPRS/RF/LAN	Yes/ Yes/Optional/Optional/Optional	Yes/Yes/Optional/Optional/Optional	Yes/Yes/Optional/Optional/Optional	Yes/Yes/Optional/Optional/Optional
Warranty	7 Warranty	7 Warranty	7 Warranty	7 Warranty

Model no	KSG-III-40KN22-MC	KSG-III-50KN22-MX	KSG-III-60KN22-MC
<b>Input Data(DC)</b>			
Max.recommended PV power (For module STC)	60000W	75000W	90000W
Max.DC voltage	1100V	1100V	1100V
start voltage	250V	250V	250V
Nominal voltage	600V	600V	600V
MPPT voltage range	200V-1000V	200V-1000V	200V-1000V
No. of MPP trackers	3	3	3
No. of PV strings per MPP tracker	3/3/3	4/3/3	4/4/4
Max. input current per MPP tracker	37.5A/37.5A/37.5A	50A/37.5A/37.5A	50A/50A/50A
Max. short-circuit current per MPP	45A	55A	55A
<b>Output data (AC)</b>			
AC nominal power	40000W	50000W	60000W
Max. AC apparent power	44400VA	55500VA	66600VA
Nominal AC voltage (range*)	220V/380V, 230V/400V (340-440V)	220V/380V, 230V/400V (340-440V)	220V/380V, 230V/400V (340-440V)
AC grid frequency (range*)	50/60Hz(45-55Hz/55-65Hz)	50/60Hz(45-55Hz/55-65Hz)	50/60Hz(45-55Hz/55-65Hz)
Max. output current	64.4A	80.5A	96.6 A
Adjustable power factor	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%	<3%
AC grid connection type	3W+N+PE	3W+N+PE	3W+N+PE
<b>Efficiency</b>			
Max. efficiency	98.70%	98.70%	98.80%
European efficiency	98.50%	98.50%	98.50%
MPPT efficiency	99.90%	99.90%	99.90%
<b>Protection Devices</b>			
DC reverse polarity protection	Yes	Yes	Yes
DC Switch	Yes	Yes	Yes
AC/DC Surge protection	Type III/Type II	Type III/Type II	Type III/Type II
Insulation resistance monitoring	Yes	Yes	Yes
AC short-circuit protection	Yes	Yes	Yes
Ground fault monitoring	Yes	Yes	Yes
Grid monitoring	Yes	Yes	Yes
Anti-islanding protection	Yes	Yes	Yes
Residual-current monitoring unit	Yes	Yes	Yes
AFCI protection	-	-	-
<b>General Data</b>			
Dimensions(W/H/D)	680/508/281mm	680/508/281mm	680/508/281mm
Weight	52kg	52kg	52kg
Operating temperature range	-25..+ 60 degree C	-25..+ 60 degree C	-25..+ 60 degree C
Night time power consumption	<1W	<1W	<1W
Topology	Transformerless	Transformerless	Transformerless
Cooling	Smart air cooling	Smart air cooling	Smart air cooling
Protection degree	IP65	IP65	IP65
Relative humidity	0-100%	0-100%	0-100%
Altitude	4000m	4000m	4000m
DC connection	H4/MC4(optional)	H4/MC4(optional)	H4/MC4(optional)
AC connection	Cable gland+OT terminal	Cable gland+OT terminal	Cable gland+OT terminal
Display	OLED+LED/WiFi+App	OLED+LED/WiFi+App	OLED+LED/WiFi+App
Interfaces: RS485/USB/Wi-Fi/GPRS/Rf/LAN	Yes/Yes/Optional/Optional/Optional	Yes/Yes/Optional/Optional/Optional	Yes/Yes/Optional/Optional/Optional
Warranty	7 Warranty	7 Warranty	7 Warranty

## Kirloskar Solar Technologies Pvt. Ltd. A Kirloskar Group Company

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