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Omega KSG TM String Inverter Series is the ideal solution for commercial usage, such as medium-size shopping mall. With the characteristics of dual independent input sections with three independent MPP trackers, wide MPPT tracking range, True three phase transformer-less design, IP65 harshest industrial protection level, convectional cooling system and various communication interfaces, such as RS232, RS485, WiFi & Ethernet, it forms Omega TM String Inverter an ideal solution for small and medium PV Power Station.

Omega KSG TM 10-30K Series

KSG-10K I KSG-12.5K I KSG-15K
KSG-17K I KSG-20K I KSG-30K

Features

High Efficiency Output
- Achieve Euro Efficiency up to 97.8%
- MPPT accuracy > 99.9%

High Reliability
- True three-phase bridge transformer-less topology for DC/AC output converter
- Three independent MPP tracking gains optimal energy harvesting.
- Low sensitivity to grid disturbances to avoid undesired disconnection from the grid

High Flexibility
- Wide range of input voltage and operation environment
- Multiple MPPT Channels
- IP65 Harshest Industrial Protection for indoors & outdoors.
- Wide DC input range from 200V up to 850V
- Wide operating temperature range -20 C/+60 C.

User-friendly
- RS232/RS485/WiFi interfaces
- Cable connection without tools
- Easily accessible connection area
- Easy-to-read LCD Display with all operational status and monitored data.

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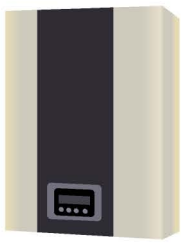
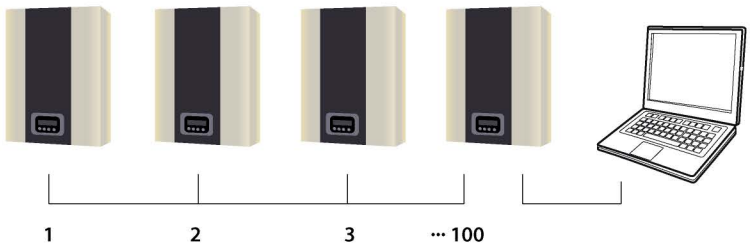
IP65 Protection

With highest industrial IP65 dust/water-proof protection, the Omega KSG TM string inverter series is for both indoor and outdoor applications.



The Omega KSG TM string inverter series can work in parallel by simply connecting via RS485 ports.
The firmware of the inverter can be easily updated via a PC, enhance it dramatically reduces unnecessary un-installed and re-installed cost.



Omega KSG TM
10-30K Series

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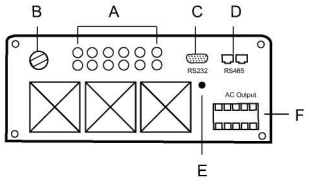
Mimic LCD display

The Dot Matrix LCD display with 128 x 64 pixels provides user-friendly menu **control and delivers messages to manage, configure, control and diagnose** the inverter directly. To simplify stock management, you may select the voltage/frequency required by the Grid of each country through the LCD display or the setting tool provided. Meanwhile, the display language can also be customized.

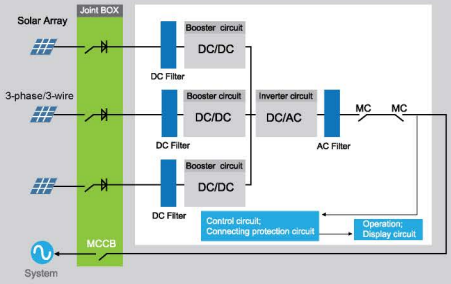
With the embedded DC input switch, it is required no external one when the PV strings are connected and disconnected; hence, it reduces overall system set-up cost.

With optional Monitoring Software connecting via communication port, all operational status and electricity generated data can be monitored and stored in the computer.



A	Connectors for DC Inputs
B	DC Input Switch
C	RS232 port
D	RS485
E	Connector for External WiFi or Ethernet
F	Connectors for AC Output

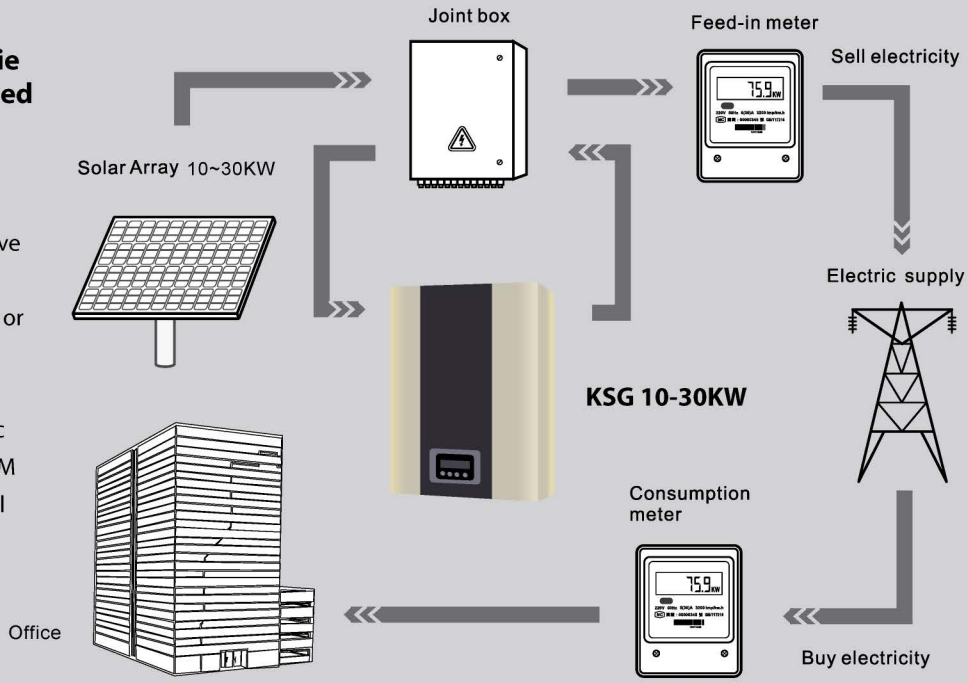
Block Diagram



The Omega KSG TM string inverter series is a special type of inverter that converts direct current (solar) electricity into alternating current (AC) electricity and feeds it into an existing electrical grid.

Omega KSG TM string inverter series is a grid tie inverter, which is designed for residential and commercial applications.

If you're looking for a way to save money on your power bill, increase the value of your farm or commercial place and reduce your carbon footprint without losing the security of the public power grid, then Omega KSG TM string inverter series is the ideal choice for you.



Omega KSG TM Series Technical Specifications

Model	KSG-10K	KSG-12.5K	KSG-15K	KSG-17K	KSG-20K	KSG-30K
DC Input						
Max. Input Power	12KW	14KW	17KW	19KW	22KW	33KW
Rated Voltage	580V					
Max. DC Voltage	900V					1000V
Operating Voltage Range	200V-850V					
Max. MPPT Voltage Range	250V-850V					
Number of MPP Tracker	3					
Strings per MPP Tracker	2					3
Max. DC Power per MPP Tracker	5.5KW		15KW			11KW
DC Switch	Optional					
Max. Input Current per MPP Tracker	12A/12A/12A		17A/17A/17A			26A/26A/26A
AC Input						
Normal AC Power	10.0KW	12.5KW	15.0KW	17.0KW	20.0KW	30.0KW
Max. AC Power Output	10.5KW	13.0KW	15.5KW	17.5KW	20.5KW	30.5KW
Normal AC Voltage	400Vac					
AC Voltage Range	400V±20% (adjustable)					
Phase/Wire	3 phases 4 wires + Ground					
Output Frequency Range	50/ 60Hz ±5Hz (adjustable)					
Max. Ouput Current	17.0A	20.0A	24.0A	27.0A	30.0A	48.0A
Rated Ouput Current(rms)	15.2A	18.9A	22.9A	25.8A	29.0A	44.0A
Power Factor(cos φ)	0.9 leading- 0.9 lagging					
Current THD(THDi)	<3%					
AC connection	Three phase					
Islanding Protection Detection	Active & Passive					
System						
Topology	Transformer less					
Consumption (standby / night)	<10W / < 2W			<15W / < 2W		
Efficiency						
Max. Efficiency	>98.0%	>98.0%	>98.1%	>98.1%	>98.2%	>98.2%
Euro Efficiency	>97.5%	>97.5%	>97.6%	>97.6%	>97.7%	>97.8%
MPPT Efficiency	99.90%					
Cooling concept	Forced Air Cooling					
Protection						
DC reverse-polarity Protection	Yes					
All-pole fault current monitoring unit	Yes					
AC Short-circuit Protection	Yes					
Ground fault monitoring	Yes					
Environment						
Environmental Protection Degree	IP65					
Operating Temperature	–20 °C ~ +60 °C					
Noise Emission	<40 dB (1 meter from surface)					≦60 dB
Relative Humidity	0～95% (non-condensing)					
Altitude	<2000m without de-ration					
Communiction Interface						
Communiction Port	RS485 standard, external WiFi or Ethernet (optional)					
Mechanical Characteristics						
Dimension (WxHxD)mm	506x670x210		522x690x210			600x800x250
Overall Weight(Kg)	44		50			65
Satety Conformance						
Quality Assurance	ISO9001					
EMC Standard	EN61000-6-2, EN61000-6-3, EN61000-3-11, EN61000-3-12, etc					
Safety	IEC/EN62109-1,IEC/EN62109-2,VDE0126-1-1, VDE AR N4105,G83/59/EEG2012,AS3100/4777,CEI 0-21,etc					

Specifications subject to change without prior notice.

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