



CATALOGUE

Solar Inverter Series

String On-Grid Solar Inverters
5kW-25kW-50kW-100kW-250kW-350kW

Central On-Grid Solar Inverters
630kW-1250kW-2500kW-3125kW



COMPANY PROFILE

Jahad daneshgahi elm va Santa in 1980, **JSOL** stands as the one of the Iranian manufacturers PV inverter manufacturer. As a global provider of solar and energy storage solutions catering to residential, commercial, and utility-scale customers, we deliver value across the solar supply chain. Operating under the **JSOL** brand, our solar inverter product line employs innovative string technology, ensuring top-tier reliability validated through rigorous international certifications. By amalgamating a global supply chain with world-class R&D and manufacturing capabilities, tailors **JSOL** inverters to each regional market, with dedicated teams of local experts providing exceptional service and support. Our proven bankability has garnered support from leading financial institutions, assuring robust, long-term returns on investment. Collaborating with stakeholders, we are committed to expediting the world's journey towards a more sustainable future.



String On-Grid Solar Inverters:

JSOL-5 kW	Single Phase
JSOL-25 kW	Three Phase
JSOL-50 kW	Three Phase
JSOL-100 kW	Three Phase
JSOL-250 kW	Three Phase
JSOL-350 kW	Three Phase

Features:

- Super high frequency switching technology
- Wide voltage range and low startup voltage
- Multi-MPPT design with precise MPPT algorithm
- Integrated export power manager (EPM)
- AFCI protection, proactively reduces fire risk
- Compact and Optimum weight
- Friendly and adaptable connection to the grid
- Night time PID recovery function, increases overall system yield (optional)
- Night SVG function
- Supports export power control
- Intelligent string monitoring, smart I-Curve scan
- IP65, C5 Anti-Corrosion Level
- Intelligent redundant fan-cooling
- Power line communication (PLC) (optional)
- Globally recognized branded componentry for longer life Economic
- Supports GPRS/Wi-Fi communication with less wiring and reduced installation costs

General:

General		Protection	
Display	LED + APP	DC Reverse polarity protection	Yes
Communication port	RS485, CAN, Wi-Fi, GPRS, LAN	Anti-islanding protection	Yes
Operating temperature range	-25 ~ +60°C	Short circuit protection	Yes
Cooling concept	Natural convection	Output over current protection	Yes
Max. Operation altitude	4000m (Derating above 3000m)	Protection class/over voltage	DC type II
Relative humidity	0 ~ 100%	LV Surge protection	AC type II
Ingress protection	IP65	AC Input protection	Circuit Breaker
Topology structure	Transformer less	Ground fault monitoring	Yes
Type of DC terminal	MC4 plug (PV port)	Temperature protection	Yes
Type of AC terminal	Terminal block	Integrated AFCI	Optional
Installation method	Wall mounted	Integrated PID function	Optional
Standard			
Safety: IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3, Grid connection: IEC 62116, IEC 61727, IEC 60068, IEC 61683			



JSOL-5kW

Single Phase

Input (PV)	
Max PV input voltage	600 VDC
Nominal PV input voltage	330 VDC
Startup PV voltage	55 VDC
MPPT operation voltage range	170 ~ 520 VDC
Max Input current	20 A
Max Short circuit current	30 A
MPPT Number	1
Max Input strings number	2
Output (Grid)	
Nominal output power	5 kW
Max Output apparent	6.25 kVA
Max Output power	5.5 kW
Nominal grid voltage/ frequency	1/N/PE 220/230 VAC/50 Hz
Nominal output current	22.7 A
Max Output current	25 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 97.8%
Dimensions (W*H*D)	403*353*146 mm
Weight	12 kg
Self-consumption (night)	< 1 W



JSOL-25kW

Three Phase

Input (PV)	
Max PV input voltage	1100 VDC
Nominal PV input voltage	600 VDC
Startup PV voltage	180 VDC
MPPT operation voltage range	425 ~ 850 VDC
Max Input current	2 x 40A
Max Short circuit current	2 x 60A
MPPT Number	2
Max Input strings number	4
Output (Grid)	
Nominal output power	25 kW
Max Output apparent	31.25 kVA
Max Output power	27.5 kW
Nominal grid voltage/ frequency	3/N/PE 230/400 VAC/50 Hz
Nominal output current	30 A
Max Output current	40 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 98.9%
Dimensions (W*H*D)	380*450*247 mm
Weight	30 kg
Self-consumption (night)	< 1 W



JSOL-50kW

Three Phase

Input (PV)	
Max PV input voltage	1100 VDC
Nominal PV input voltage	600 VDC
Startup PV voltage	180 VDC
MPPT operation voltage range	200 ~ 1000 VDC
Max Input current	2 x 60 A
Max Short circuit current	2 x 90 A
MPPT Number	2
Max Input strings number	9
Output (Grid)	
Nominal output power	50 kW
Max Output apparent	62.5 kVA
Max Output power	55 kW
Nominal grid voltage/ frequency	3/N/PE 230/400 VAC/50 Hz
Nominal output current	72 A
Max Output current	79 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 98.6%
Dimensions (W*H*D)	520*520*265 mm
Weight	55 kg
Self-consumption (night)	< 1 W



JSOL-100kW

Three Phase

Input (PV)	
Max PV input voltage	1100 VDC
Nominal PV input voltage	1080 VDC
Startup PV voltage	600 VDC
MPPT operation voltage range	200 ~ 1000 VDC
Max Input current	4 x 65 A
Max Short circuit current	4 x 100 A
MPPT Number	4
Max Input strings number	20
Output (Grid)	
Nominal output power	100 kW
Max Output apparent	125 kVA
Max Output power	110 kW
Nominal grid voltage/ frequency	3/N/PE 230/400 VAC/50 Hz
Nominal output current	144 A
Max Output current	159 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 98.6%
Dimensions (W*H *D)	800*690*330 mm
Weight	94 kg
Self-consumption (night)	< 1 W



JSOL-250kW

Three Phase

Input (PV)	
Max PV input voltage	1500 VDC
Nominal PV input voltage	1080 VDC
Startup PV voltage	500 VDC
MPPT operation voltage range	820 ~ 1320 VDC
Max Input current	12 x 30 A
Max Short circuit current	12 x 45 A
MPPT Number	12
Max Input strings number	24
Output (Grid)	
Nominal output power	250 kW
Max Output apparent	300 kVA
Max Output power	255 kW
Nominal grid voltage/ frequency	3/PE 800 VAC/50 Hz
Nominal output current	180.4 A
Max Output current	184 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 99%
Dimensions (W*H*D)	115 kg
Weight	1090*809*337 mm
Self-consumption (night)	< 10 W



JSOL-350kW

Three Phase

Input (PV)	
Max PV input voltage	1500 VDC
Nominal PV input voltage	1080 VDC
Startup PV voltage	500 VDC
MPPT operation voltage range	830 ~ 1300 VDC
Max Input current	8 x 60
Max Short circuit current	8 x 90
MPPT Number	8
Max Input strings number	32
Output (Grid)	
Nominal output power	350 kW
Max Output apparent	437 kVA
Max Output power	385 kW
Nominal grid voltage/ frequency	3/PE 800 VAC/50 Hz
Nominal output current	252 A
Max Output current	278 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 99%
Dimensions (W*H*D)	1135*919*416 mm
Weight	135 kg
Self-consumption (night)	< 10 W



Central On-Grid Solar Inverters:

JSOL-630 kW	Three Phase
JSOL-1250 kW	Three Phase
JSOL-2500 kW	Three Phase
JSOL-3125 kW	Three Phase

Features:

Central inverter would have a high power capacity and would be suitable for a large solar power system such as a solar farm or a commercial building with a significant energy demand. It would typically include features such as maximum power point tracking (MPPT) to optimize energy production grid-tied operation to feed excess energy back into the grid, and protection mechanisms to ensure safe and reliable operation. Central inverters are typically installed in a central location within a solar power system where they can efficiently convert the DC electricity generated by the solar panels into AC electricity that can be used to power appliances or be fed back into the grid

Parameters:

General		Protection	
Display	LCD	DC Reverse polarity protection	Yes
Communication port	RS485, CAN, Wi-Fi, GPRS, LAN	Anti-islanding protection	Yes
Operating temperature range	-40 ~ +60°C	Short circuit protection	Yes
Cooling concept	Force cooling	Output over current protection	Yes
Max. Operation altitude	4000m (Derating>3000m)	Protection class/over voltage	DC type II
Relative humidity	0 ~ 100%	LV Surge protection	AC type II
Ingress protection	IP65	AC Input protection	Circuit Breaker
Topology structure	Transformer less	Ground fault monitoring	Yes
Type of DC terminal	MC4 plug (PV port)	Temperature protection	Yes
Type of AC terminal	Terminal block	Integrated AFCI	Optional
Installation method	Stand Alone	Integrated PID function	Optional
Standard			
Safety: IEC/EN 62109-1/-2, IEC/EN 61000-6-1/-3, Grid connection: IEC 62116, IEC 61727, IEC 60068, IEC 61683			

JSOL-630kW

Three Phase

Input (PV)	
Max PV input voltage	1500 VDC
Nominal PV input voltage	1080 VDC
Startup PV voltage	500 VDC
MPPT operation voltage range	820 ~ 1320 VDC
Max Input current	3 x 12 x 30 A
Max Short circuit current	3 x 12 x 45 A
MPPT Number	3 x 12
Max Input strings number	3 x 24
Output (Grid)	
Nominal output power	630 kW
Max Output apparent	790 kVA
Max Output power	700 kW
Nominal grid voltage/ frequency	3/PE 800 VAC/50 Hz
Nominal output current	3 x 180.4 A
Max Output current	3 x 184 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 99%
Dimensions (W*H*D)	3 x 250 kg
Weight	3 x (1200*1700*600) mm
Self-consumption (night)	< 30 W



JSOL-1250kW

Three Phase

Input (PV)	
Max PV input voltage	1500 VDC
Nominal PV input voltage	1080 VDC
Startup PV voltage	500 VDC
MPPT operation voltage range	820 ~ 1320 VDC
Max Input current	5 x 12 x 30 A
Max Short circuit current	5 x 12 x 45 A
MPPT Number	5 x 12
Max Input strings number	5 x 24
Output (Grid)	
Nominal output power	1250 kW
Max Output apparent	1560 kVA
Max Output power	1375 kW
Nominal grid voltage/ frequency	3/PE 800 VAC/50 Hz
Nominal output current	5 x 180.4 A
Max Output current	5 x 184 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 99%
Dimensions (W*H*D)	5 x 250kg
Weight	5 x (1200*1700*600) mm
Self-consumption (night)	< 50 W



JSOL-2500kW

Three Phase

Input (PV)	
Max PV input voltage	1500 VDC
Nominal PV input voltage	1080 VDC
Startup PV voltage	500 VDC
MPPT operation voltage range	820 ~ 1320 VDC
Max Input current	10 x 12 x 30 A
Max Short circuit current	10 x 12 x 45 A
MPPT Number	10 x 12
Max Input strings number	10 x 24
Output (Grid)	
Nominal output power	2500 kW
Max Output apparent	3125 kVA
Max Output power	2750 kW
Nominal grid voltage/ frequency	3/PE 800 VAC/50 Hz
Nominal output current	10 x 180.4 A
Max Output current	10 x 184 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 99%
Dimensions (W*H*D)	10 x 250 kg
Weight	10 x (1200*1700*600) mm
Self-consumption (night)	< 100 W



JSOL-3125kW

Three Phase

Input (PV)	
Max PV input voltage	1500 VDC
Nominal PV input voltage	1080 VDC
Startup PV voltage	500 VDC
MPPT operation voltage range	830 ~ 1300 VDC
Max Input current	9 x 8 x 60
Max Short circuit current	9 x 8 x 90
MPPT Number	9 x 8
Max Input strings number	9 x 32
Output (Grid)	
Nominal output power	3125 kW
Max Output apparent	3900 kVA
Max Output power	3575 kW
Nominal grid voltage/ frequency	3/PE 800 VAC/50 Hz
Nominal output current	9 x 252 A
Max Output current	9 x 278 A
PF at Nominal power/range	>0.99 (0.8 Leading ~ 0.8 Lagging)
THDi	< 3%
Other	
Max Efficiency	> 99%
Weight	9 x 300kg
Dimensions (W*H*D)	9 x (1200*1700*600) mm
Self-consumption (night)	< 100 W



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