

# Single Phase Inverter Second Generation

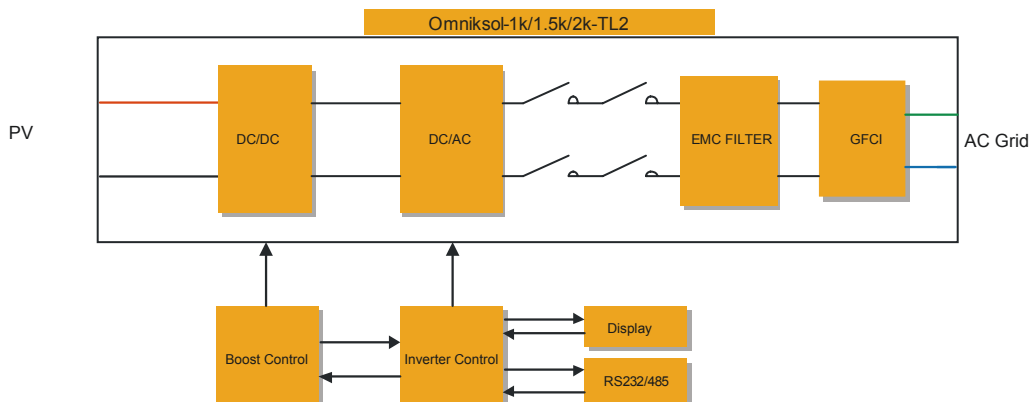
Omniksol-1k/1.5k/2k-TL2



## product features

Features	Advantages	Benefits
<ul style="list-style-type: none"> <li>Standard 10 years warranty, 5-25 years optional</li> </ul>	<ul style="list-style-type: none"> <li>Longer life cycle</li> </ul>	<ul style="list-style-type: none"> <li>More stable and reliable</li> </ul>
<ul style="list-style-type: none"> <li>Built-in GPRS as option</li> </ul>	<ul style="list-style-type: none"> <li>Plug and play</li> </ul>	<ul style="list-style-type: none"> <li>No commissioning work to get real-time remote monitoring</li> </ul>
<ul style="list-style-type: none"> <li>Built-in Wifi as option</li> </ul>	<ul style="list-style-type: none"> <li>Free monitoring fee for data transmission</li> </ul>	<ul style="list-style-type: none"> <li>More convenient monitoring solution without any charge</li> </ul>
<ul style="list-style-type: none"> <li>External Inductor</li> </ul>	<ul style="list-style-type: none"> <li>Very lower internal temperature</li> </ul>	<ul style="list-style-type: none"> <li>Longer life cycle</li> </ul>
<ul style="list-style-type: none"> <li>Smaller and lighter, 2kW only 9.6kg</li> </ul>	<ul style="list-style-type: none"> <li>Easy transportation and installation</li> </ul>	<ul style="list-style-type: none"> <li>Saving storage and installation space</li> </ul>
<ul style="list-style-type: none"> <li>High performance DSP for algorithm control</li> </ul>	<ul style="list-style-type: none"> <li>Faster CPU speed</li> </ul>	<ul style="list-style-type: none"> <li>Higher inverter control accuracy</li> </ul>
<ul style="list-style-type: none"> <li>VDE-AR-N 4105 certification</li> </ul>	<ul style="list-style-type: none"> <li>Adjustable active and reactive power</li> </ul>	<ul style="list-style-type: none"> <li>Meet the latest certification and regulations</li> </ul>
<ul style="list-style-type: none"> <li>New topology design</li> </ul>	<ul style="list-style-type: none"> <li>Maximum conversion efficiency up to 97.7%, Euro up to 96.9%</li> </ul>	<ul style="list-style-type: none"> <li>Increase system payback ability</li> </ul>
<ul style="list-style-type: none"> <li>Multi-button touch interface</li> </ul>	<ul style="list-style-type: none"> <li>User friendly operation</li> </ul>	<ul style="list-style-type: none"> <li>Easy to operate</li> </ul>
<ul style="list-style-type: none"> <li>LCD screen visible at night</li> </ul>	<ul style="list-style-type: none"> <li>Real-time data readable at night</li> </ul>	<ul style="list-style-type: none"> <li>Real-time operating condition accessible</li> </ul>
<ul style="list-style-type: none"> <li>Have anti-shading function</li> </ul>	<ul style="list-style-type: none"> <li>Suitable to complex installation environment</li> </ul>	<ul style="list-style-type: none"> <li>Increase the electricity generation of the system in shading environment</li> </ul>

## Block Diagram



# Technical Data

## Omniksol-1k/1.5k/2k-TL2

Type	Omniksol-1k-TL2	Omniksol-1.5k-TL2	Omniksol-2k-TL2
<b>Input(DC)</b>			
Max. PV Power	1300W	1750W	2300W
Max. DC Voltage	500V	500V	500V
Nominal DC Voltage	360V	360V	360V
Operating MPPT Voltage Range	80-360V	120-450V	120-450V
MPPT Voltage Range at Nominal Power	150-360V	150-450V	150-450V
Start up DC Voltage	90V	150V	150V
Turn off DC Voltage	80V	120V	120V
Max. DC Current	16A	18A	18A
Max. Short Circuit Current for each MPPT	20A	20A	20A
Number of MPP trackers	1	1	1
Number of DC Connection for each MPPT	1	1	1
DC Connection Type	MC4 Connector	MC4 Connector	MC4 Connector
<b>Output (AC)</b>			
Max. AC Apparent Power	1100VA	1650VA	2200VA
Nominal AC Power(cos phi = 1)	1000W	1500W	2000W
Nominal Grid Voltage	220V/230V/240V	220V/230V/240V	220V/230V/240V
Nominal Grid Frequency	50Hz/60Hz	50Hz/60Hz	50Hz/60Hz
Max. AC Current	5.8A	9.0A	11.0A
Grid Voltage Range*	185-276V	185-276V	185-276V
Grid Frequency Range*	45-55Hz/55-65Hz	45-55Hz/55-65Hz	45-55Hz/55-65Hz
Power Factor	0.95 capacitive...0.95 inductive	0.95 capacitive...0.95 inductive	0.95 capacitive...0.95 inductive
Total Harmonic Distortion (THD)	<2%	<2%	<2%
Feed in Starting Power	30W	30W	30W
Night time Power Consumption	<1W	<1W	<1W
Standby Consumption	6W	6W	6W
AC Connection Type	Plug-in connector	Plug-in connector	Plug-in connector
<b>Efficiency</b>			
Max. Efficiency (at 360Vdc)	97.7%	97.7%	97.7%
Euro Efficiency (at 360Vdc)	96.7%	96.8%	96.9%
MPPT Efficiency	99.9%	99.9%	99.9%
<b>Safety and Protection</b>			
DC Insulation Monitoring		Yes	
DC Switch		Optional	
Residual Current Monitoring Unit (RCMU)		Integrated	
Grid Monitoring with Anti-islanding		Yes	
Protection Class		I (According to IEC 62103)	
Overvoltage Category		PV II / Mains III (According to IEC 62109-1)	
<b>Reference Standard</b>			
Safety Standard		EN 62109, AS/NZS 3100	
EMC Standard		EN 61000-6-1, EN 61000-6-3, EN 61000-6-2, EN 61000-6-4, EN61000-3-2, EN61000-3-3	
Grid Standard		VDE-AR-N-4105,VDE 0126-1-1, RD1699, C10/11, G83/2, UTE C15-712-1, AS4777, CEI 0-21, EN50438	
<b>Physical Structure</b>			
Dimensions (WxHxD)		343x281x150mm	
Weight		9.6kg	
Environmental Protection Rating		IP 65 (According to IEC 60529)	
Cooling Concept		Natural convection	
Mounting Information		Wall bracket	
<b>General Data</b>			
Operating Temperature		-20°C to +60°C(derating above 45°C)	
RangeRelative Humidity		0% to 98%, no condensation	
Max. Altitude (above sea level)		2000m	
Noise Level		< 40dB	
Isolation Type		Transformerless	
Display		3 LED, Backlight, 4 x 20 Character LCD	
Data Communication Interfaces		RS485(WiFi, GPRS integrated)	
Computer Communication		USB	
Standard Warranty		10 Years (5-25 years optional)	



\*The AC voltage and frequency range may vary depending on specific country grid

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