



**GENESIS**  
POWER TEK

*Brain Power System*  
**A TRU HYBRID INVERTER**

[www.GenesisPowertek.com](http://www.GenesisPowertek.com)



## Simple INSTALLATION

All is very simple with the GENESIS

- ✓ OVER THE TOP
- ✓ POWERFULL
- ✓ TRUSTED
- ✓ INCOMPARABLE
- ✓ MOST EFFICIENT
- ✓ UNIVERSAL
- ✓ SIMPLE

**Genesis** uses all the experience and resources that come from GenesisPowertek, Sofar Solar & BYD, manufacturing highly resistant power solutions. The **GENESIS** inverter is usually installed connected to the grid, but with support for energy storage, which is now easier to install in the future. A fully integrated design eliminates external MPPT charge controllers and communication boxes, significantly reducing the time and cost of installing energy storage + solar + wind + Generator.

The **GENESIS** intelligently controls and manages energy at any connection point (Grid, solar, wind, batteries, generator and loads)

The **GENESIS** has perfected the way in which energy is generated, stored and exported to the grid. Now you can take advantage of the economic benefit of the "TIME OF USE" and having a backup that now pays for itself, even now with or without solar panels you can create your own electrical network that makes you independent of the grid when ever you want. Now been Off-grid is not a far dream.

Still not ready to install batteries in your system? No problem, the **GENESIS** allows you to generate solar energy and then add the batteries to your system without having to buy more accessories, without having to change your inverter and without having to resort to spending money on complicated installations in the future. The best thing is that your solar PV system can be added by direct current for greater efficiency or by alternating current with AC coupling without having to alter your original installation. Optimus is the true creation that the inventor Nikolas once dreamed.



## GENESIS SERIES

### Genesis-5K-8k-10k-12k-LV

GenesisPowertek bi-directional energy storage inverter is applicable with both on-grid and off-grid PV systems. It can control the flow of energy intelligently. During the day, the PV plant generates electricity which can be provided to the loads, fed into the grid or charge the battery. The electricity stored can be released when the loads require it during the night. Additionally, the power grid can also charge the storage devices via the inverter.



#### ENERGY CONTROL

Export and Power Control



#### AC COUPLED RETROFIT

Generator & existing solar support



#### SOLAR EXTENSION

2 MPPT and up to 50 solar modules



#### UPS Function

Instant automatic transfer switch



#### WARRANTY

25 - 10 years free parts warranty



#### MICRO-GRID MANAGER SYSTEM

Manage all the energy sources Solar + Wind + Storage + Grid + Generator



Technical Data	Genesis-5K-LV	Genesis-8K-LV	Genesis-10K-LV	Genesis-12K-LV
<b>BATTERY INPUT DATA</b>				
Battery Type	OptimusPower   Pylontech   Simpliphi   HydroESS   NewtonElectriq   Pandora   Alpha ESS			
Battery Voltage Range (V)	40V-59V			
Max. Charging Current (A)	120A	190A	200A	200A
Max. Discharging Current (A)	120A	190A		
Charging curve	3 Stages & Equalization			
External temperature sensor	Optional			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
<b>SOLAR INPUT DATA</b>				
Max. DC Input Power (W)	5000w / 5000w	6600w / 6600w	5500w / 5500w	6600w / 6600w
DC Input Voltage (V)	(100V ~ 500V)		(125 ~ 550vdc)	
MPPT Voltage Range (V)	125 Vdc / 450 Vdc			
Start-up Voltage (V)	140 Vdc			
Max. Input dc Current (A)	11A+11A	18A+18A	25A + 25A	25A + 25A
MPPT Numbers	2			
Strings per MPPT	1+1	2 + 2	1 + 1	1 + 1
<b>AC Input / Output</b>				
AC Bypass output (Grid or Generator)	11500W / 48A	11500W / 48A	10,000w	12,000w
Rated AC output and UPS power (W)	5760W	87000W		
Peak power (UPS BACKUP)	2 times of rated power, 10 S			
AC Output Rated Current(A)	24A / 24A	37A / 37A	41.66A / 41.66A	50A / 50A
Max Continuous Passthrough (A)	35A	50A	90A	90A
Optional frequency and voltage	50/60Hz; 120/ 240Vac (Split Phase) 120/208Vac (Three Phase) 230Vac (Single Phase)			
Max. AC current(A)	Split phase , 2/3 Phase , Single Phase			
Output frequency and voltage	THD<3% (Linear loading<1.5%)			
<b>Efficiency</b>				
Battery Charge/DischargeEfficiency	96% / 95%			
Max Efficiency	97.5%			
MPPT Tracking Efficiency	99%			
<b>Protection</b>				
PV Arc Fault detection	Integrated	Integrated	Integrated	Integrated
PV input lightning protection	Integrated	Integrated	Integrated	Integrated
Anti-islanding Protection	Integrated	Integrated	Integrated	Integrated
PV String Input Reverse Polarity Protection	Integrated	Integrated	Integrated	Integrated
Insulation Resistor Detection	Integrated	Integrated	Integrated	Integrated
Residual Current Monitoring Unit	Integrated	Integrated	Integrated	Integrated
Output Over Current Protection	Integrated	Integrated	Integrated	Integrated
Output Shorted Protection	Integrated	Integrated	Integrated	Integrated
Output Over Voltage Protection	Integrated	Integrated	Integrated	Integrated
<b>Certifications and Standards</b>				
Grid Regulation	UL1741, IEEE1547, VDE-ARN 4105			
Safety Regulation	IEC62109-1, IEC62109-2, IEC62040-1			
EMC	EN61000-6-1, EN61000-6-3, FCC 15 class B			
<b>General Data</b>				
Operating Temperature Range (°C)	-25 ~ 60°C, > 45°C Derating			
Cooling Concept	Heat sink + intelligent fan cooling			
Noise (dB)	<60dB			
Communication Interfaces	RS485, CAN, WI-Fi, LCD, GPRS			
Weight (kg)	42kg / 66 pounds			
Size (Width*Height*Depth mm)	750 * 440 * 240mm			
Protection Degree	IP – 65			
Installation style	Wall-mounted			
Warranty	25 performance warranty and 10 years free parts			

