

Multisolar hybrid inverter : Grid connected inverter with battery storage



- Pure sine wave output
- Self-consumption and injection of surplus production into the grid
- Programmable power priority: PV, battery, grid
- Setting of battery charge curves according to type
- Programming according to different modes: grid connected, off grid and grid connected with back-up
- Integrated timer
- Communication via USB, RS-232 Modbus and SNMP
- Real time monitoring and control software

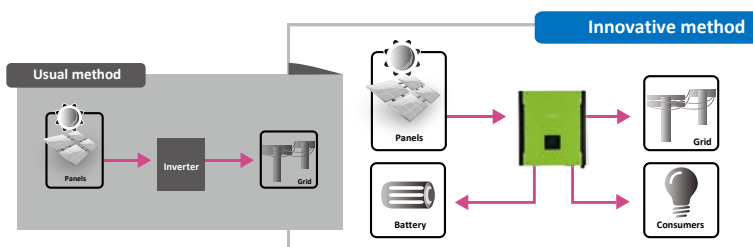
The Multisolar inverter is a flexible and intelligent inverter that can be connected to photovoltaic panels, the grid and batteries to provide uninterrupted power. This inverter offers a simple solution for storing solar energy for residential use during the day and night, maximising self-consumption.

The power priorities (energy source) can be set via the control software. During the night or in case of a grid failure, the power source automatically switches to the batteries. The Multisolar inverter therefore reduces your dependence on the grid.



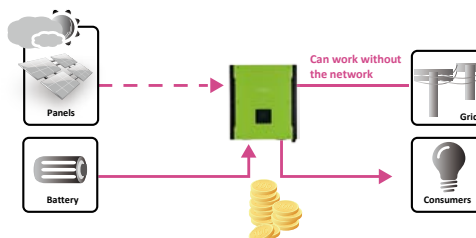
Injection into the grid: a choice

Unlike standard inverters that feed their energy into the grid, the Multisolar inverter chooses where it delivers its energy. It can: charge the batteries (for future use), supply consumer appliances directly and inject surplus production into the grid. Injection into the grid can be blocked by programming.



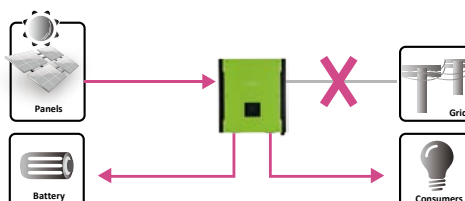
Using batteries to maximise self-consumption and savings

The Multisolar inverter saves money by supplying energy during the day and discharging its batteries at night. If the battery level drops below a certain level, the inverter will switch its power supply to the grid.



Back-up in case of power failure

The Multisolar UPS works as an uninterruptible power supply (UPS) by providing energy via its batteries even in the event of a power failure. It is therefore an effective solution in areas where load shedding and blackouts are frequent or in remote areas not connected to the grid.



Models	MultiSolar Plus 3KW	MultiSolar Plus 5KW	MultiSolar 3P 10KW	MultiSolar 3P 15KW
Phase	1-phase in / 1-phase out		3-phase in / 3-phase out	
Max PV power	4500 W	10000 W	14850 W	22500 W
Power output	3000 W	5000 W	10000 W	15000 W
Max. load power	1200 W	4800 W	9600 W	15000 W
Network connected operation				
Solar input (DC)				
Nominal DC voltage / Max. DC voltage	360 VDC / 500 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Starting voltage / Minimum working voltage	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC	320 VDC / 350 VDC
Voltage range MPP	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 VDC	400 VDC ~ 800 VDC
Number of MPP inputs / Max input current	1 / 1 x 18 A	2 / 2 x 10 A	2 / 2 x 18.6 A	2 / A: 37.65A; B:18.6A
Consumer output (AC)				
Rated output voltage	208/220/230/240 VAC		230 VAC (P-N) / 400 VAC (P-P)	
Output voltage range	184 - 265 VAC*		184 - 265 VAC* by phase	184 - 264.5 VAC* by phase
Rated output current	13 A	21 A	14.5A by phase	21.7A by phase
Power factor	> 0.99			
Efficiency				
Maximum conversion efficiency (DC/AC)			96%	
European efficiency at nominal voltage			95%	
Off-grid operation (off-grid)				
AC input				
AC starting voltage / automatic restart voltage	120 - 140 VAC / 180 VAC		120 - 140 VAC by phase / 180 VAC by phase	120 - 140 VAC by phase / 180 VAC by phase
Input voltage range	170 - 280 VAC		170 - 280 VAC by phase	170 - 280 VAC by phase
Max. AC input current	30 A	40 A	40 A	40 A
Solar input (DC)				
Max. DC voltage	500 VDC	900 VDC	900 VDC	900 VDC
Voltage range MPP	250 VDC ~ 450 VDC	277 VDC ~ 450 VDC	400 VDC ~ 800 VDC	350 VDC ~ 850 VDC
Number of MPP inputs / Max input current	1 / 1 x 18 A	1 / 1 x 18 A	2 / 2 x 18.6A	2 / A: 37.65A; B:18.6A
Output in battery mode (AC)				
Nominal output voltage	202/208/220/230/240 VAC		230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Signal shape	Pure sinus			
Efficiency (DC/AC)	93%		91%	
Hybrid operation				
Solar input (DC)				
Nominal DC voltage / Max. DC voltage	360 VDC / 500 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Starting voltage / Minimum working voltage	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC	320 VDC / 350 VDC
Voltage range MPP	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC / 800 VDC	350 VDC / 850 VDC
Number of MPP inputs / Max input current	1 / 1 x 18 A	2 / 2 x 10A	2 / 2 x 18.6A	2 / A: 37.65A; B:18.6A
Consumer output (AC)				
Rated output voltage	202/208/220/230/240 VAC		230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Output voltage range	184 - 264.5 VAC*		184 - 264.5 VAC* by phase	184 - 264.5 VAC* by phase
Rated output current	13 A	21 A	14.5 A by phase	21.7 A by phase
AC Input				
AC starting voltage / automatic restart voltage	120 - 140 VAC / 180 VAC		120 - 140 VAC by phase / 180 VAC by phase	120 - 140 VAC by phase / 180 VAC by phase
Voltage range MPP	170 - 280 VAC		170 - 280 VAC par phase	170 - 280 VAC by phase
Number of MPP inputs / Max input current	30 A		40 A	
Output in battery mode (AC)				
Nominal output voltage	202/208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC/AC)	93%		91%	91%
Batteries and chargers				
Nominal DC voltage	48 VDC			
Max. load current	Default 25A, 5A - 25A (Adjustable)	Default 60A, 5A - 100A (Adjustable)	Default 60A, 10A - 200A (Adjustable)	Default 60A, 5A - 300A (Adjustable)
General characteristics				
Physical characteristics				
Dimensions, P x L x H (mm)	107 x 438 x 480	204.2 x 460 x 600	167.5 x 500 x 622	219 x 650 x 820
Weight (kg)	15.5	29	45	62
Interface				
Communication port	RS-232/USB		RS-232/USB and CAN Interface	
Intelligent Slot	SNMP, Modbus and AS-400 cards available as options			
Environment				
Humidity	0 ~ 90% RH (non-condensing)			
Operating temperature	0 to 40°C		-10 to 55°C	
Altitude	0 ~ 1000 m**			

Product specifications are subject to change without notice.



VDE 0126-1-1

AS4777, AS/NZS3100, NRS-097-2-1 (only for multipolar Plus 3KW)

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