

Apollo Matrix Series



PURSUIT OF PERFECTION

Solar Hybrid Inverter 2KW-5KW

All in one

All in one, plug and play.



Transformer based, it can run any kinds of inductive loads such as water pump, air conditioner.



Designed for various applications, including solar hybrid or power backup



DC coupled, ESS and AC couple to retrofit existing solar system.



Designed for self-consumption and offer full off-grid power.



Typical 0ms UPS class transfer speed, 2ms at max



Support parallel and three phase operation up to 6 units.



Lithium battery charging is available

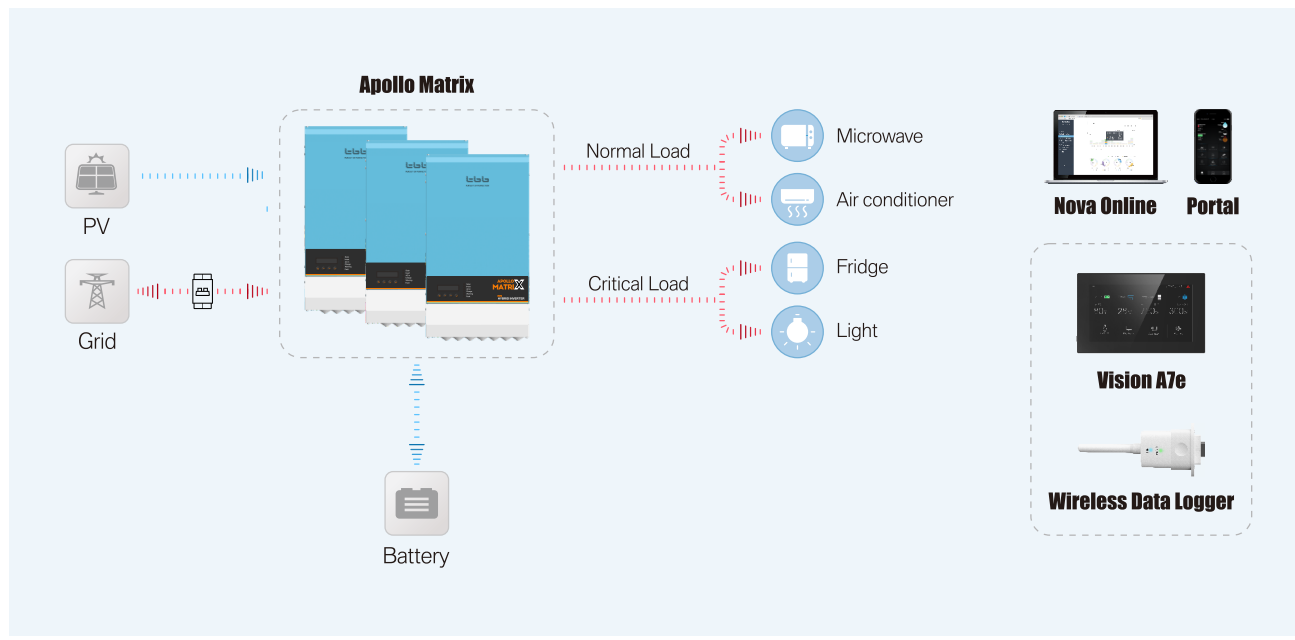


Remote monitoring and control via Free Nova online portal



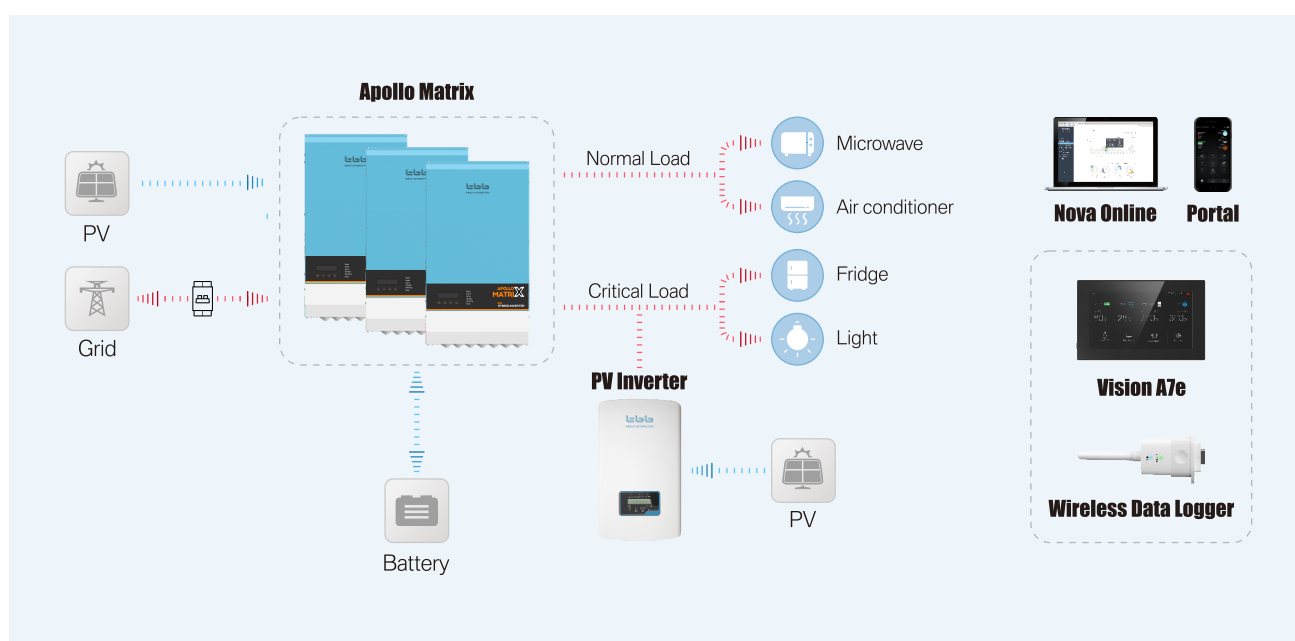
Self-Consumption System

The energy generated by the PV will be mainly used by local loads, and the rest will be stored in the battery. The excessive power will be fed back to the grid. It will dramatically increase the self-consumption rate and reduce the energy bill dramatically.



AC Coupling System

For application where both direct daytime consumption and backup energy are required, a PV inverter can be coupled with the Apollo Matrix to set up a standard AC+DC Coupling system which will supply energy with higher efficiency to secure the daytime consumption and provide the backup power for the load in the night time.



NOVA Online Portal

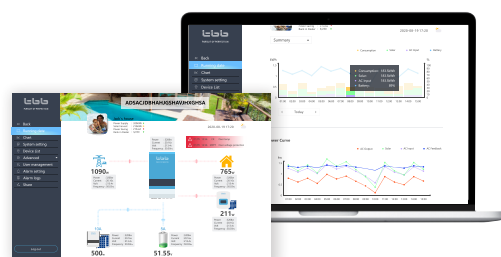
Nova online portal is a FREE energy management system designed by TBB Power, which provides not only the simple monitoring function for system owner, but also the complete energy management solution for dealer or installer.



Kinergy Stick
(Working with NOVA for remote monitoring)

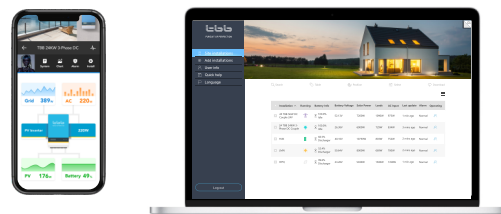
Comprehensive Monitoring

- Live data and status overview
- System configuration and parameter setting
- Configuration updating
- Customized alarm setting
- Report downloads
- WEB Compatible for Windows and Mac PC
- APP available for Android and iOS phone

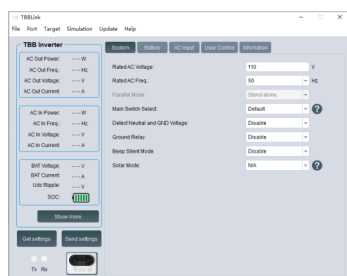


Dealer Intelligent Maintenance

- Customized banner used to show dealer's information and slogan
- Offer management for multiple installations
- Maintenance team grouping and job arrangement
- Efficient system maintenance to keep good relationship with customers



nova.tbbpower.com



Interface

TBB Link

For connecting TBB product for configuration

Most of TBB products can be easily to use. You can use the equipment LCD to fulfill the configuration if needed. However, in some cases, you may need to carry out the complicated configuration or to run batch configuration, TBB Link can help you to deal with all these jobs.



Model No.	Apollo Matrix 2.0M	Apollo Matrix 3.0M	Apollo Matrix 2.0S	Apollo Matrix 3.0S	Apollo Matrix 5.0S
Product Topology	Transformer based				
Grid feedback	Yes				
Power Assist	Yes				
Parallel & Three Phase	Yes				
AC input voltage range (VAC)	175~265				
AC input Frequency range (Hz)	45~65				
AC input Current (transfer switch) (A)	32			50	

Inverter

Nominal battery voltage (V)	24		48		
Input voltage range (V)	21~34		42~68		
AC output voltage (VAC)	220/230/240 ± 2%				
AC output Frequency (Hz)	50/60 ± 0.1%				
Harmonic distortion	< 2%				
Load Power factor	1.0				
Cont. output power at 25°C (VA)	2000	3000	2000	3000	5000
Max output power at 25°C (W)	2000	3000	2000	3000	5000
Peak power (W) for 5 sec	6000	9000	6000	9000	15000
Surge	300%				
Maximum efficiency	94%	94%	95%	95%	96%
Zero load power (W)	11	14	11	14	21

Charger

Charge voltage 'absorption' (V)	28.8		57.6		
Charge voltage 'float' (V)	27.6		55.2		
Battery types	AGM / GEL / OPZV / Lead-Carbon / Li-ion / Flooded / Traction / TBB SUOER-L				
Max AC charge current (A)	50	80	25	40	70
Temperature compensation	Yes				

Solar Charge Controller

Max output current (A)	60		90		
Maximum PV power (W)	2000		4000		6000
PV open circuit voltage (V)	150				
MPPT voltage range (V)	65~145				
Charge voltage 'absorption' (V)	28.8		57.6		
Charge voltage 'float' (V)	27.6		55.2		
MPPT charger maximum efficiency	98%				
MPPT efficiency	> 99.5%				
Protection	a) output short circuit; b) overload; c) battery voltage too high d) battery voltage too low; e) temperature too high; f) input voltage out of range				

General Data

Main Output (AC Out1) Current (A)	32		50		
Auxiliary Output (AC Out2) Current (A)	32				
Transfer time	0ms (<15ms in Weak AC source Mode)				
Remote on-off	Yes				
Programmable relay	2x				
Protection	a) output short circuit; b) overload; c) battery voltage too high; d) battery voltage too low e) temperature too high; f) input voltage out of range; g) input voltage ripple too high; h) Fan block				
CAN Bus communication port	For three phase operation, remote monitoring and system integration				
General purpose com. Port	RS485 (GPRS, WLAN optional with kinergy)				
Operating temperature range	-20°C~65°C				
Relative humidity in operation	95% without condensation				
Altitude (m)	2000				

Mechanical Data

Dimension (mm) (max)	499 x 272 x 144			560 x 310 x 155	
Net weight (kg)	17	20	17	20	32
Cooling	Forced fan				
Protection index	IP21				

Standards

Safety	EN-IEC 62477-1, EN-IEC 62109-1, EN-IEC 62109-2				
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-3-11, EN61000-3-12				