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HomeEnergy

8 kW(1/1) / 24 kW(3/3)

HYBRID INVERTER

Long Life Cycle
Lithium Battery

Long life Lithium Battery pack
Thanks to the built-in 48V 100Ah lithium battery group that does not require maintenance for 10 years, HomeEnergy energy storage systems are much more durable and long-lasting compared to ordinary AGM and VLRA battery-operated devices.

MPPT (Solar Panel input)
HomeEnergy 8kW energy storage systems have a built-in 80A MPPT charger. With this feature you can charge your batteries and support your system free of charge with your solar panels.

Intelligent charging technology for optimal battery performance
Since it charges the battery with the 3-step battery charging algorithm, it extends the battery life, reduces your operating costs and provides savings.

BMS(Battery Management System) Features
Thanks to this feature, which is a kind of battery safety system, it is ensured that the batteries are kept in safe conditions. Thanks to this system, which controls and manages battery packs consisting of one or more cells during charging and discharging, the lifespan of your batteries is extended. Thanks to this feature, you can charge Lithium batteries with HomeEnergy energy storage systems.

Wi-Fi communication
HomeEnergy energy storage systems can be controlled by our special program that you can download to your mobile phones thanks to its Wi-Fi feature.

High performance microprocessor
Thanks to the digital structure and high speed of the high-performance microprocessor CPU-controlled control card, full protection is provided in the energy storage system.

RS-232 & USB communication port
To allow for unattended energy storadge system to shutdown/start-up and status monitoring, connect the communication cable one end to the USB/RS-232 port and the other to the communication port of your PC. With the monitoring software installed, you can schedule shutdown/start-up and monitor energy storage system status through.

Dry contact
The dry contact alarms can adjust from the front panel. It could be used to deliver signal to external device as scada when battery voltage reaches warning level.

Parallelable structure
It has the feature of paralleling up to 3 devices. Parallelability feature will be disabled when PV power is enabled.

Pure sinewave output
Full compatibility with all kinds of electrical devices, the ideal solution for your critical applications.

Wide input voltage range (90-280 VAC)
The ability to work online in electrical household appliances at voltages between 90-280VAC, in computer applications at voltages between 170-280VAC without switching to the battery.

Generator compatibility
It facilitates the power transition from the generator to the load, allowing you to use a lower capacity generator.

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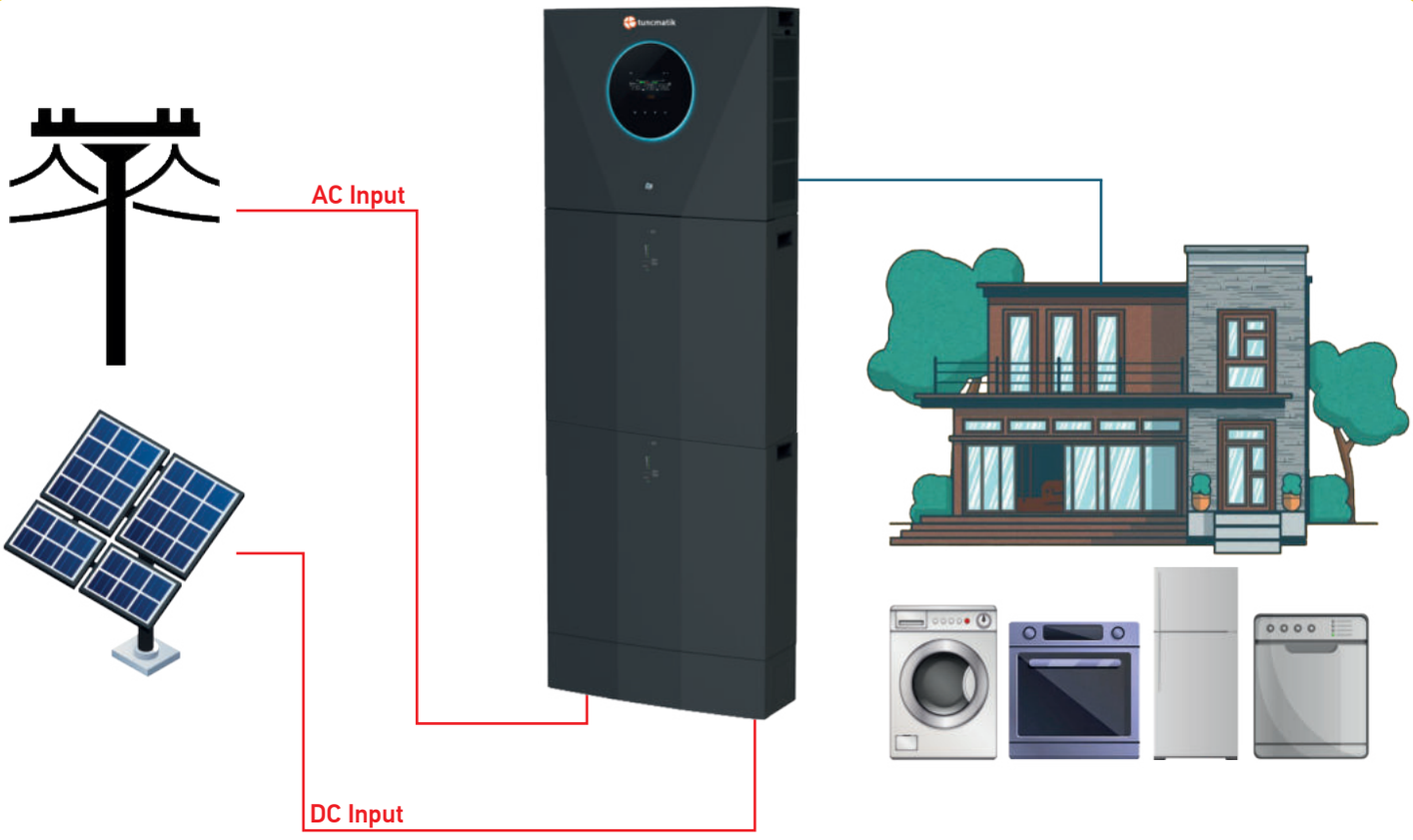
HYBRID INVERTER

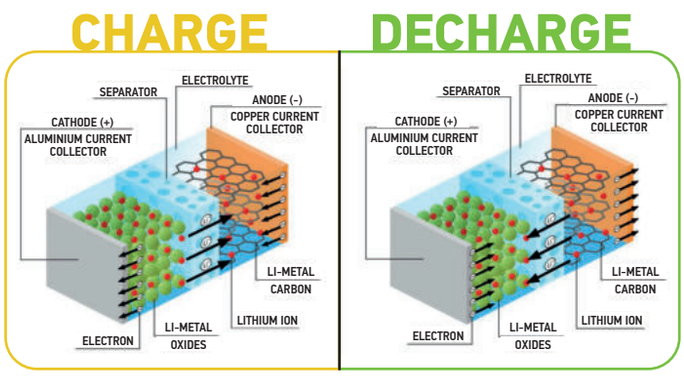
Source



Economical Solution

Thanks to HomeEnergy, you can determine the charging time of your batteries. Thanks to this feature, the device charges its batteries at night when low electricity tariffs are applied and saves on electricity bills by using the energy stored during daytime hours when more expensive electricity tariffs are applied. In addition, thanks to the solar panel input, it can charge its batteries free of charge with solar panels during the daytime.

Lithium Battery Pack



Thanks to this internal 48V 100Ah lithium battery group that does not require maintenance for 10 years, our product is more durable than ordinary AGM and VLRA battery powered products. This battery group can be connected in parallel with up to 10 units. Thus, you can increase your support time as long as you want.

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HYBRID INVERTER

Product Overview

WiFi Communication

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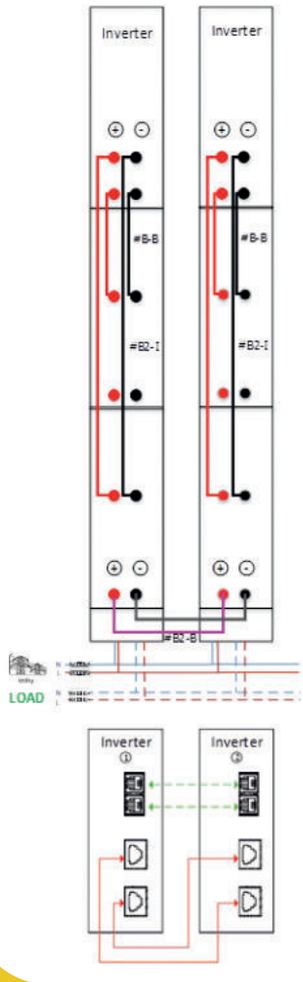
HYBRID INVERTER

Parallel Operation (Inverter)

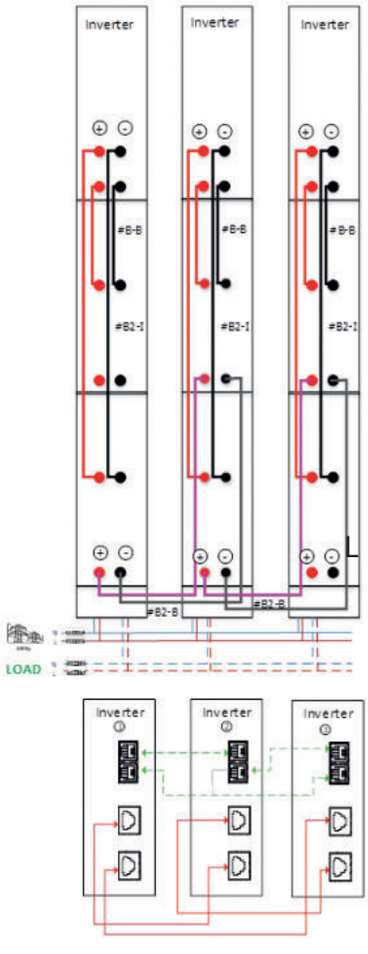
2 Inverter
Single Phase Parallel

8kW + 8kW = 16kW



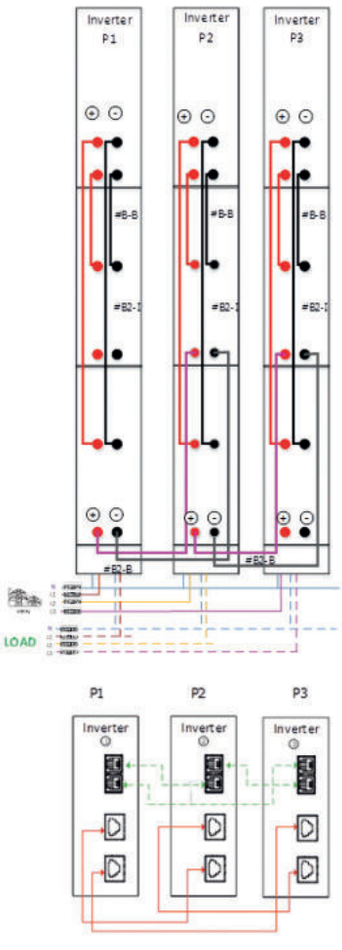
3 Inverter
Single Phase Parallel

8kW + 8kW + 8kW = 24kW



3 Inverter
Three Phase Parallel

8kW + 8kW + 8kW = 24kW



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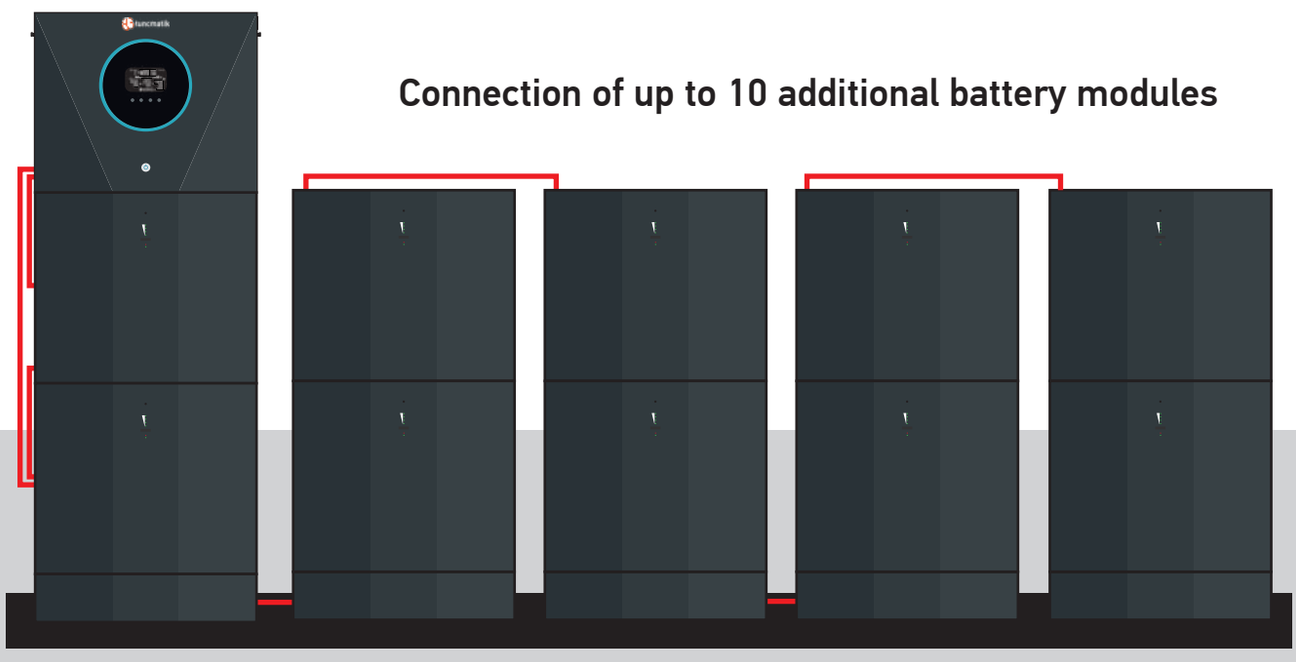
8 kW(1/1) / 24 kW(3/3)

HYBRID INVERTER

Parallel Operation (Battery)



HomeEnergy energy storage systems can be easily installed and added with expandable battery modules, and two battery modules can be added under a single inverter.For your extra battery needs, a modular design that can be expanded up to a maximum of 10 battery modules by paralleling the battery modules with parallelism with paralleling cables.

Long-life 48V 100Ah 5000W internal Lithium batteries are used in HomeEnergy energy storage systems. Thanks to these batteries, it is aimed to minimize your maintenance needs. In addition to the built-in lithium batteries, the Battery Management System (BMS) ensures balanced charging and safety of lithium batteries. With the Battery Management System, Lithium batteries are charged using the 3-step charging technique in a controlled manner and in a way that maximizes life expectancy.

Maximum Lifecycle
8000 cycles is for 60% DOD with >50% capacity
2000 cycles is for 90% DOD with >80% capacity

Fast Charging
Battery module can be fully charged in shorter time

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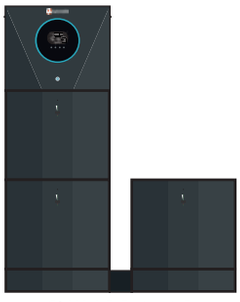
HYBRID INVERTER

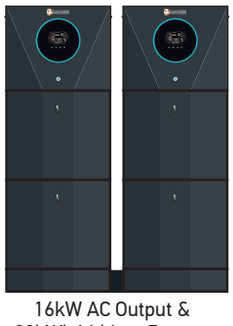
Parallel Operation (Battery & Inverter)

8kW AC Output &
10kWh Lithium Battery

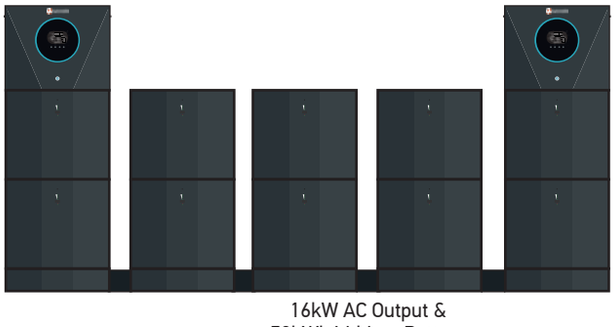


8kW AC Output &
15kWh Lithium Battery

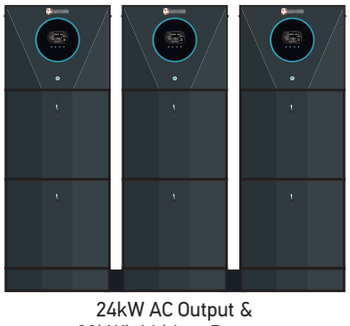
8kW AC Output &
50kWh Lithium Battery



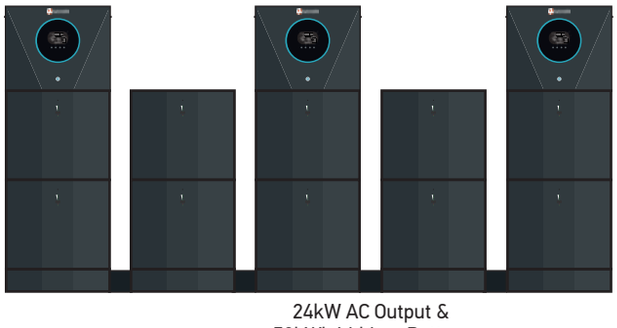
16kW AC Output &
20kWh Lithium Battery



16kW AC Output &
50kWh Lithium Battery



24kW AC Output &
30kWh Lithium Battery



24kW AC Output &
50kWh Lithium Battery

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HYBRID INVERTER

MODEL		HomeEnergy
Capacity(VA/W)		8000VA/8000W
INPUT (Line Mode)		
Nominal Voltage		230VAC
Voltage Range		170-280Vac±7V (UPS) / 90-280Vac±7V (Appliances)
Return Voltage Range		180-270Vac±7V (UPS) / 100-270Vac±7V (Appliances)
Max AC Voltage		300Vac
Max AC Input Current		60A
Nominal Frequency		50Hz / 60Hz (Auto detection)
Frequency Range		40±1Hz - 65±1Hz
Frequency Return Range		42±1Hz - 63±1Hz
Voltage Waveform		Sinusoidal (utility or generator)
INPUT (Inv Mode)		
Nominal DC Input Voltage		48Vdc
Cold Start Voltage		46Vdc
High DC Cut-off Voltage		54Vdc (TSS LIO-I-4810), 57.5Vdc (TSS LIO-II-4810)
DC Voltage Accuracy		±0.3V@ no load
THDV		<5% for linear load,<10% for non-linear load @ nominal voltage
No Load Power Consumption		<75W
OUTPUT		
Voltage Regulation		230Vac±5%
Frequency		50Hz or 60Hz
Overload Protection (Inv Mode)		100ms@≥205% load;5s@≥150% load; 10s@110%~150% load
Efficiency (Inv Mode)		93%
Efficiency (Line Mode)		>95% (Rated R load, battery full charged)
Transfer Time		10ms typical (UPS); 20ms typical (Appliances)
Surge Capacity		2 x rated power for 5 seconds
Short Circuit Protection	Line Mode	Circuit Breaker
	Battery Mode	Electronic Circuits
Waveform		Pure sinewave
CHARGING		
Charging Algorithm		3-Step
Charging Current (UPS)		30A (@VI/P=230Vac)
Floating Charging Voltage		52.5Vdc (TSS LIO-I-4810), 56.0Vdc (TSS LIO-II-4810)
Overcharge Protection		54.0Vdc (TSS LIO-I-4810), 57.5Vdc (TSS LIO-II-4810)
SYSTEM FEATURES		
Parallel Operation	Max parallel numbers	3
	Circulation Current under No Load Condition	Max 2A
	Power Unbalance Ratio	<5% @ 100% Load
	Transfer time in parallel mode	Max 50ms
Communication		USB/RS232/Dry contacts/Bluetooth(Android and iOS)/BMS communication(CAN,RS232 or RS485)
MPPT SOLAR CHARGE		
Max. PV Array Open Circuit Voltage		500Vdc
Max PV Panel Power		8000W
Start-up Voltage		80Vdc ±5Vdc
PV Array MPPT Voltage Range		90~450Vdc
Max Charging Current		18A x 2
ENVOROMENTAL		
Operating Temperature Range		-10°C to 50°C
Storage temperature		-15°C~60°C
Humidity		5% to 95% Relative Humidity (Non-condensing)
DIMENSION & WEIGHT		
W x D x H (mm)		621 x 214 x 500
Weight (kg)		25
STANDARDS		
Safety Certification		CE

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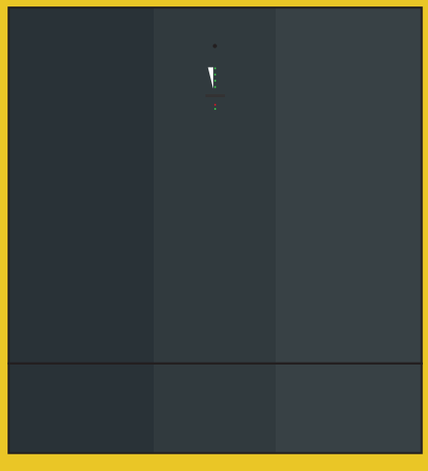
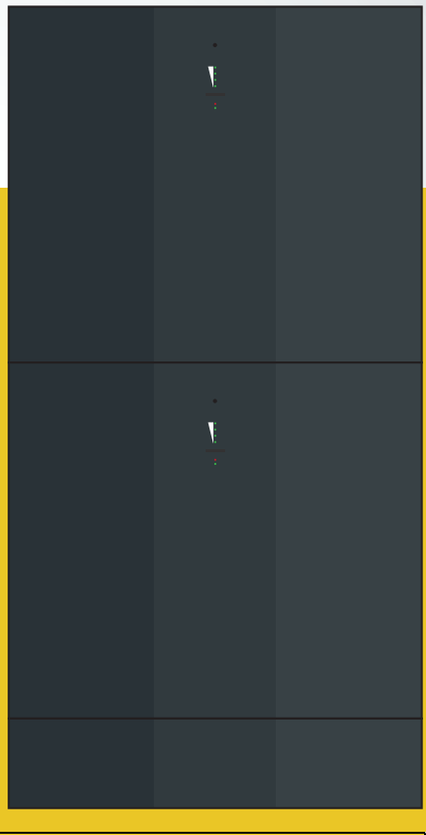
HYBRID INVERTER





MODEL		Lithium Battery
Capacity(VA/W)		5000W
BATTERY MODULE		
Nominal Voltage		51.2VDC
Full Charge Voltage		56VDC
Full Discharge Voltage		42VDC
Capacity		100Ah
Max Continuous Discharging Current		150A
Max Discharging Current		192A @ 1dk
Charge Voltage		20A (0.2C)
Charge Current		50A (0.5C)
SYSTEM FEATURES		
Parallel Operation		Var
Max Parallel Numbers		10
Standard Charging Method		0.2C constant current charge to full charge, constant voltage carge till current declines to <0.5C
Internal Resistance		<20m ohm
Protection		BMS, Breaker
Communication		RS485 port (RJ45), CAN
ENVOROMENTAL		
Operating Temperature	Charge	0°C to 50°C
	Discharge	0°C to 50°C
Storage Temperature		<18 months -20°C~25°C, <3 months 25°C~45°C, <1 months 45°C~60°C20°C ±5°C is the recommended storage temperature
Humidity		5% to 95% Relative Humidity (Non-condensing)
DIMENSION & WEIGHT		
W x D x H (mm)		621 x 214 x 550
Weight (kg)		55
STANDARDS		
IP Protection		IP20