

# Balcony Battery

Maximum storage: 4\*2kWh.

- Cell type: high quality LifePO4 cells.
- Max 4 pcs batteries in parallel.
- Rated voltage: 51.2Vdc, charge and discharge rate : 40A max.
- Long cycle life ≥6000cycles@80% DOD.
- Long-life design and superior performance.
- Wi-Fi communication, smart APP real-time monitoring.
- Safe and Reliable: compliant with CE, UN38.3, IEC62619, UL1973.
- IP class: IP65.



Model	TPB2000L-LPF
Nominal voltage	51.2V
Nominal energy@0.2C	2.048kWh
Usable energy@0.2C	1.97kWh
Nominal capacity@0.2C	40Ah
Internal resistance@1kHz AC	≤30 mOhm
Operation voltage range	(With communication): 48V-56V / (Without communication): 44.8V-57.6V
Charge voltage	56.0V
Float voltage	54.6V
Allowed MAX charge current	40A max.
Recommend charge current	≤20A
Allowed MAX discharge current	40A max.
Recommend discharge current	≤20A
Peak/Surge current limit	50A@15S/60A@1s
Short circuit protection	Yes
End Discharge (Re-charge voltage)	50.0V
End Discharge (Inverter/Load cut off)	48.0V
End Discharge (Re-start voltage)	52.0V
Communication	CAN/RS485
Parallel and Series connection	Support Max. 4 in parallel
Cycle life	24000 cycles. After Normal charge, discharge @0.2C current with 90%DOD, Repeat above process until discharge capacity reduce to 60% of initial value.
Operation temperature	Charge (With communication): -10~50°C / Discharge (With communication): -20~50°C
Operation altitude	<3000m
Self-discharge rate <sup>2</sup> (Residual capacity)	≤3%/month   ≤15%/years
Self-discharge rate <sup>2</sup> (Recover capacity)	≤1.5%/Month   ≤8%/ year
Storage environment <sup>3</sup> (≤3 months)	-10~45°C   5~90%RH
Storage environment <sup>3</sup> (>3 months)	15~35°C   45~85%RH
Storage environment <sup>3</sup>	15~35°C   45~85%RH (Recommend environment)
Installation types	Stack
IP rating	IP65
Dimension(W*H*D)	427*234*246mm
Weight (without accessories)	~23kg(50.7lb)



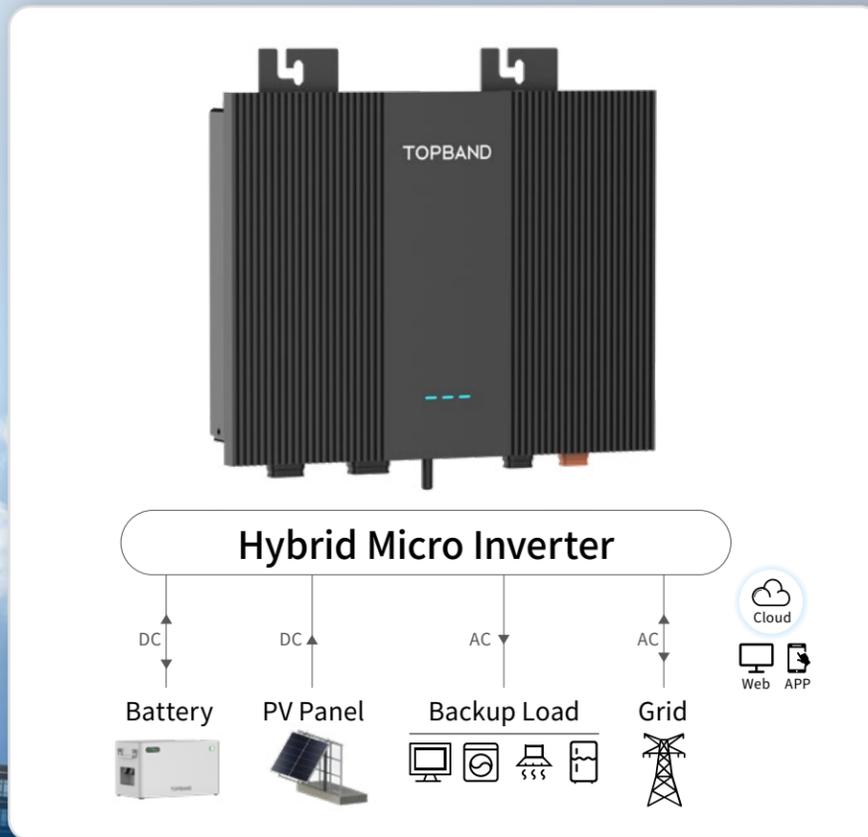
# Intelligent shutoff

Intelligent Circuit Breaker for household

- Digital intelligent communication.
- Advanced low-voltage electrical technology.
- Electromagnetic drive and other technologies.
- Factory high-power equipment circuit.
- Intelligent control, measurement, early warning, protection and other safety and convenient functions.



	Model	TPS63-1PN
Electrical Specs	Rated operational voltage	230V
	Pole No.	1P+N
	Breaking ability	6kA
	Rated current	16/20/25/32/40/50
	Mechanical life	20, 000
	Wiring capacity	25mm <sup>2</sup>
Electrical Specs	Installation	2M (2P)
	Voltage metering accuracy	0.5%FS
	Current metering accuracy	0.5%FS
	Power metering accuracy	1%FS
	Electricity metering accuracy	1%FS
	Switch on acting time	20ms
Protection Feature	Switch off acting time	5ms
	Overload protection	Integrated
	Overvoltage protection	Integrated
	Undervoltage protection	Integrated
	Leakage alarm realized by software	Integrated
	Over temperature alarm	Integrated
Others	Power limit protection	Integrated
	Overvoltage recovery delay	Integrated
	Undervoltage auto recovery	Integrated
	Leakage protection realized by hardware	Integrated
	Operating temperature	Altitude<2000m
	Dimensions (LxWxH)	105x100x147mm
Weight	≈1kg	



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Android System



iOS System

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# Balcony Solar Energy Storage Solutions

Balcony energy storage solutions are ultra-small distributed photovoltaic systems, also known as plug-in photovoltaic systems, that are compact in layout, small in size, and easy to install or move away from.

Users only need to fix the photovoltaic system to the balcony railing, plug the system cable into the home outlet, and use solar power to generate electricity supply.

# Hybrid Micro Inverter

Single-phase 1200W



- On grid: 800W.
- Back up: 1200W.
- Battery voltage: 28~59Vdc, 35A max.
- 2 MPPT trackers, 1220W max.
- UPS level switching <10ms.
- Smart APP real-time monitoring.
- Support Intelligent shutoff.
- IP class: IP65.

Balcony energy storage Solution

# Hybrid Micro Inverter

Single-phase 2000W



- On grid: 2000W.
- Back up: 2000W.
- Battery voltage: 40~59Vdc, 41.5A max.
- 2 MPPT trackers, 2100W max.
- UPS level switching <10ms.
- Smart APP real-time monitoring.
- Support Intelligent shutoff.
- IP class: IP65.

Balcony energy storage Solution

# Hybrid Micro Inverter

Single-phase 3000W



- On grid: 2300W.
- Back up: 3000W.
- Battery voltage: 40~59Vdc, 62.5A max.
- 2 MPPT trackers, 3200W max.
- UPS level switching <10ms.
- Smart APP real-time monitoring.
- Support Intelligent shutoff.
- IP class: IP65.

Balcony energy storage Solution

Model P1-1200HMI	
DC Input (PV)	Nominal voltage range 12~53Vdc Input voltage range 12~57Vdc Max. Input DC voltage Max.59Vdc Input current 14A Standby power dissipation Max.4W Reverse input Nonsupport MPPT Tracker 2
DC Input (battery)	Input voltage range 28-59Vdc Max. Input DC Voltage Max.59Vdc Inrush current No requirement Input current 35A Leakage current Max.0.5A No-load power dissipation Max.6W Reverse Input Nonsupport
AC output (On grid)	Output voltage 176~ 260Vac Rated output power 800W Max. AC apparent power 1000VA AC grid frequency 50/60 Hz Max. output current 3.7A Power factor 0.8leading...0.8lagging THDI Max.3 (Full of load)
AC output (Off grid)	Battery to AC efficiency 94%Max PV to Battery efficiency 97% max AC grid connection type Single phase AC nominal power 1200W Max. AC apparent power 1200VA Nominal AC voltage 230V AC grid frequency 50/60 Hz Max. output current 5.2A
AC Input (on-grid)	Max. input current Single phase Max. apparent power 1600VA Nominal AC voltage 230V Max. input current 8A AC grid frequency 50/60 Hz
Protection devices	Input over voltage protection Integrated Input under voltage protection Integrated Over temperature protection Integrated Output over power protection Integrated Short output protection Integrated Output under voltage protection Integrated Output over voltage protection Integrated
Others	Constant power output protection Integrated Ingress Protection IP65 Protective Class Class I Operating Ambient Temp. -40°C~+50°C Power factor range 0.8leading~0.8lagging Display LED+APP (Wi-Fi+Bluetooth) Interfaces RS485, CAN Warranty 5 Years Dimensions (LxWxH) 324x285x63.5mm Weight ≈5kg

Model P1-2000HMI	
DC Input (PV)	Nominal voltage range 12~53Vdc Input voltage range 12~57Vdc Max. Input DC voltage Max.59Vdc Input current 20A Standby power dissipation Max.4W Reverse input Nonsupport MPPT Tracker 2
DC Input (battery)	Input voltage range 40-59Vdc Max. Input DC Voltage Max.59Vdc Inrush current No requirement Input current 40A Leakage current Max.0.5A No-load power dissipation Max.6W Reverse Input Nonsupport
AC output (On grid)	Output voltage 176~ 260Vac Rated output power 2000W Max. AC apparent power 2000VA AC grid frequency 50/60 Hz Max. output current 8.7A Power factor 0.8leading...0.8lagging THDI Max.3 (Full of load)
AC output (Off grid)	Battery to AC efficiency 92%max PV to Battery efficiency 95% max AC grid connection type Single phase AC nominal power 2000W Max. AC apparent power 2000VA Nominal AC voltage 230V AC grid frequency 50/60 Hz Max. output current 8.7A
AC Input (on-grid)	Max. input current Single phase Max. apparent power 2000VA Nominal AC voltage 230V Max. input current 8.7A AC grid frequency 50/60 Hz
Protection devices	Input over voltage protection Integrated Input under voltage protection Integrated Over temperature protection Integrated Output over power protection Integrated Short output protection Integrated Output under voltage protection Integrated Output over voltage protection Integrated
Others	Constant power output protection Integrated Ingress Protection IP65 Protective Class Class I Operating Ambient Temp. -40°C~+50°C Power factor range 0.8leading~0.8lagging Display LED+APP (Wi-Fi+Bluetooth) Interfaces RS485, CAN Warranty 5 Years Dimensions (LxWxH) 378x345x86mm Weight ≈6kg

Model P1-3000HMI	
DC Input (PV)	Nominal voltage range 12~53Vdc Input voltage range 12~57Vdc Max. Input DC voltage Max.59Vdc Input current 30A Standby power dissipation Max.4W Reverse input Nonsupport MPPT Tracker 2
DC Input (battery)	Input voltage range 40-59Vdc Max. Input DC Voltage Max.59Vdc Inrush current No requirement Input current 60A Leakage current Max.0.5A No-load power dissipation Max.6W Reverse Input Nonsupport
AC output (On grid)	Output voltage 176~ 260Vac Rated output power 2300W Max. AC apparent power 2300VA AC grid frequency 50/60 Hz Max. output current 10A Power factor 0.8leading...0.8lagging THDI Max.3 (Full of load)
AC output (Off grid)	Battery to AC efficiency 93%max PV to Battery efficiency 97% max AC grid connection type Single phase AC nominal power 3000W Max. AC apparent power 3000VA Nominal AC voltage 230V AC grid frequency 50/60 Hz Max. output current 13A
AC Input (on-grid)	Max. input current Single phase Max. apparent power 3000VA Nominal AC voltage 230V Max. input current 13A AC grid frequency 50/60 Hz
Protection devices	Input over voltage protection Integrated Input under voltage protection Integrated Over temperature protection Integrated Output over power protection Integrated Short output protection Integrated Output under voltage protection Integrated Output over voltage protection Integrated
Others	Constant power output protection Integrated Ingress Protection IP65 Protective Class Class I Operating Ambient Temp. -40°C~+50°C Power factor range 0.8leading~0.8lagging Display LED+APP (Wi-Fi+Bluetooth) Interfaces RS485, CAN Warranty 5 Years Dimensions (LxWxH) 378x345x86mm Weight ≈6.5kg