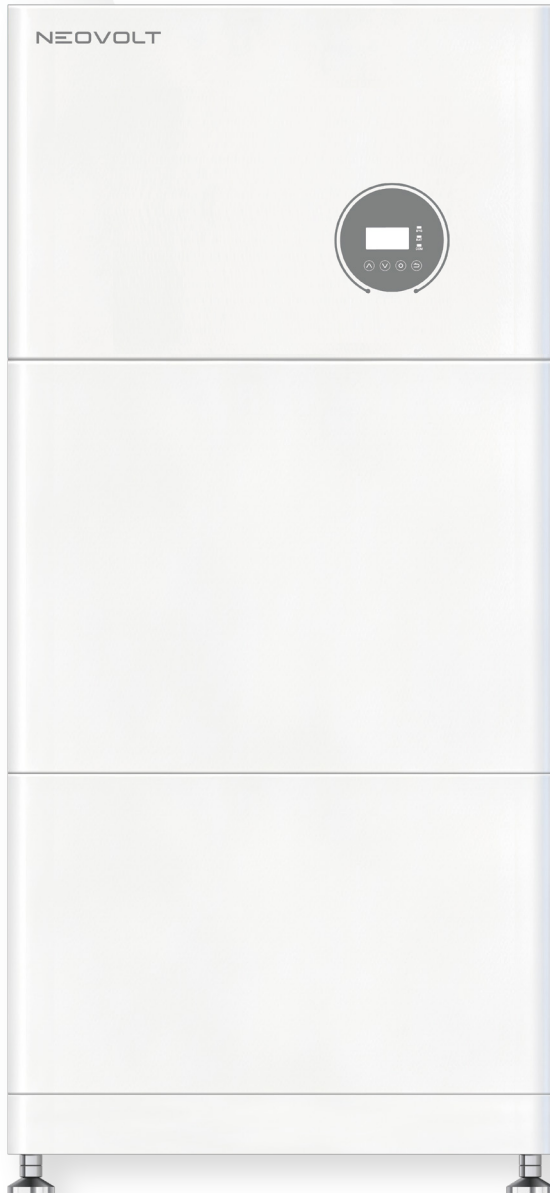


Three Phase STORAGE SYSTEM



BW-TPH SERIES

INVERTER

4 / 5 / 6 / 8 / 10 / 12 / 15 kW

BATTERY

14 / 28 / 42 / 56 kWh

Key Features

- 6-layer battery safety protection for ultimate reliability;
- Integrated EMS for intelligent home energy optimization;
- VPP & FCAS ready, enabling grid service participation;
- Modular stackable design for fast plug-and-play installation;
- Up to 3 MPPTs for maximum solar energy harvest;
- 200% backup overload capacity with up to 50A battery current.

200%

PV Input

VPP

Ready

UPS

Backup

AI

Driven Optimization

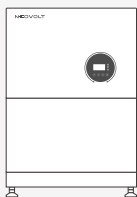
< 10ms

Seamless Switching

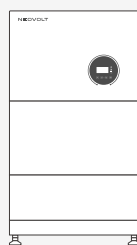
Stackable

Plug & Play

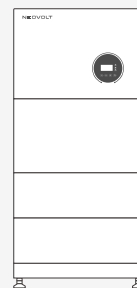
Product Lineup



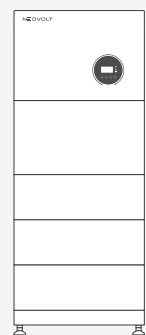
14kWh



28kWh



42kWh



56kWh

PARAMETERS

Inverter Model	BW-INV-TPH4K	BW-INV-TPH5K	BW-INV-TPH6K	BW-INV-TPH8K	BW-INV-TPH10K	BW-INV-TPH12K	BW-INV-TPH15K
PV Side							
Max. DC Input Power (kW)	8	10	12	16	20	24	30
Max. DC Input Voltage (V)				1100			
MPPT Voltage Range (V)				140~950			
Start-up Voltage (V)				85			
Nominal DC Input Voltage (V)				720			
Max. MPPT Current (A)				18 / 18 / 18			
Max. MPPT Short Circuit Current (A)				27 / 27 / 27			
Number of MPPTs				3			
Number of Strings per MPPT				1 / 1 / 1			
Battery Side							
Battery Type				LFP			
Battery Voltage Range (V)				90~700			
Max. Continuous Charging/Discharging Current (A)				50 / 50			
AC Side (On-grid)							
Nominal Power (kW)	4	5	6	8	10	12	15
Nominal Apparent Power to Grid (kVA)	4	5	6	8	10	12	15
Max. Apparent Power to Grid (kVA)	4.4	5.5	6.6	8.8	11	13.2	15.75
Max. Apparent Power from Grid (kVA)	8	10	12	16	20	20	20
Nominal Voltage (V)	3/N/PE, 220/380 or 3/N/PE, 230/400						
Nominal Frequency (Hz)	50 / 60						
Max. Current to Grid (A)	6.7	8.3	10	13.3	16.7	20	22.8
Max. Current from Grid (A)	12.1	15.2	18.2	24.2	29	29	29
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)						
THDI	<3%						
AC Side (Backup)							
Nominal Output Apparent Power (kVA)	4	5	6	8	10	12	15
Max. Output Apparent Power (kVA)	4.4	5.5	6.6	8.8	11	13.2	15.75
Max. Output Apparent Power (Bypass) (kVA)	6	7.5	9	12	15	15	15
Max. Output Current (A)	8.7	10.9	13.0	17.4	21.7	21.7	21.7
Max. Output Current (Bypass) (A)	8.7	10.9	13.0	17.4	21.7	21.7	21.7
Nominal Output Voltage (V)	400, 3L/N/PE						
Nominal Output Frequency (Hz)	50/60						
THDv (@Linear Load)	< 3%						
Efficiency							
Max. Efficiency	97.6 %	97.6 %	97.6 %	97.6 %	97.8 %	97.8 %	98.0 %
European Efficiency	96.3 %	96.3 %	96.3 %	96.3 %	96.3 %	96.3 %	96.3 %
Protection							

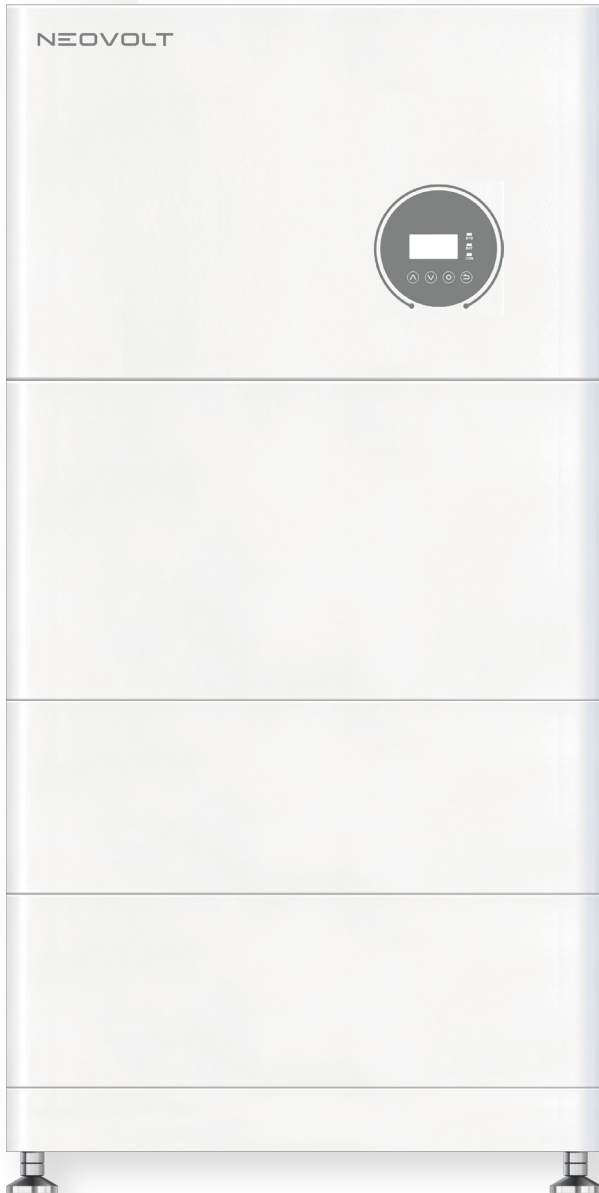
General Data							
Operating Temperature Range (°C)	-25~60						
Communication	RS-485 / WiFi / LAN / Bluetooth						
Communication Protocols	Modbus						
Dimensions (W × H × D mm)	690 × 240 × 478						
Weight (kg)	34	34	34	34	34	34	35
Cooling Method	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Smart Forced air Cooling
Topology	Non-isolated						
Ingress Protection Rating	IP65						
Grid Connection Standard	VDE-AR-N 4105:2018, G98, G99, C10/11:2021, NTS 631, RD647:2020 UNE 217002:2020, CEI 0-21, VDE 0126-1-1, NRS 097-2-1, AS/NZS 4777.2:2020, EN 50549-1						
Safety Standard	IEC/EN 62109-1&2						

Battery Model	BW-BAT-14S1-H	BW-BAT-14S2-H	BW-BAT-14S3-H	BW-BAT-14S4-H
Rated Energy (kWh)	14.06	28.13	42.2	56.26
Usable Energy (kWh)	13.79	27.57	41.36	55.14
Depth of Discharge (DoD)	98%			
Battery Type	LFP			
Nominal System Voltage (V)	350			
Operating Voltage Range (V)	200~500			
Max. Input Current (System) (A)	60			
Max. Output Current (System) (A)	60			
Operating Temperature Range (°C)	Charging: -20<T<50 / Discharging: -20<T<50			
Cycle Lifetime	8000			
Cooling Method	Natural Convection			
Noise Emission	<30 dB @1 m			
Communication	CAN			
Weight (kg)	128	224	320	416
Dimensions (W × H × D mm) *	690*240*635	690*240*1060	690*240*1495	690*240 *1925
Ingress Protection	IP66			
Safety Standard	IEC 62619; IEC/EN 62040; IEC/EN 62477; (EU)2023/1542; SA TS5398			
Transportation	UN38.3			

System	
Max. Operating Altitude (m)	≤3000 (>3000 Derating)
Relative Humidity	0~100% (Non-Condensing)
Mounting Method	Floor Stacked
Warranty	10 Years
EMC	IEC/EN 61000-6-1; IEC/EN 61000-6-2; IEC/EN 61000-6-3; IEC/EN 61000-6-4

Note: Specifications are subject to change without advance notice.
*Base height: 80 mm added to the total system height.

Three Phase STORAGE SYSTEM



BW-TPH SERIES

INVERTER

4 / 5 / 6 / 8 / 10 / 12 / 15 kW

BATTERY

7 / 14 / 21 / 28 / 35 / 42 / 49 / 56 kWh

Key Features

- 6-layer battery safety protection for ultimate reliability;
- Integrated EMS for intelligent home energy optimization;
- VPP & FCAS ready, enabling grid service participation;
- Modular stackable design for fast plug-and-play installation;
- Up to 3 MPPTs for maximum solar energy harvest;
- 200% backup overload capacity with up to 50A battery current.

200%

PV Input

VPP

Ready

UPS

Backup

AI

Driven Optimization

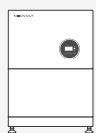
< 10ms

Seamless Switching

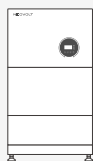
Stackable

Plug & Play

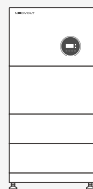
Product Lineup



7kWh



14kWh



21kWh



28kWh



35kWh



42kWh



49kWh



56kWh

PARAMETERS

Inverter Model	BW-INV-TPH4K	BW-INV-TPH5K	BW-INV-TPH6K	BW-INV-TPH8K	BW-INV-TPH10K	BW-INV-TPH12K	BW-INV-TPH15K
PV Side							
Max. DC Input Power (kW)	8	10	12	16	20	24	30
Max. DC Input Voltage (V)				1100			
MPPT Voltage Range (V)				140~950			
Start-up Voltage (V)				85			
Nominal DC Input Voltage (V)				720			
Max. MPPT Current (A)				18 / 18 / 18			
Max. MPPT Short Circuit Current (A)				27 / 27 / 27			
Number of MPPTs				3			
Number of Strings per MPPT				1 / 1 / 1			
Battery Side							
Battery Type				LFP			
Battery Voltage Range (V)				90~700			
Max. Continuous Charging/Discharging Current (A)				50 / 50			
AC Side (On-grid)							
Nominal Power (kW)	4	5	6	8	10	12	15
Nominal Apparent Power to Grid (kVA)	4	5	6	8	10	12	15
Max. Apparent Power to Grid (kVA)	4.4	5.5	6.6	8.8	11	13.2	15.75
Max. Apparent Power from Grid (kVA)	8	10	12	16	20	20	20
Nominal Voltage (V)	3/N/PE, 220/380 or 3/N/PE, 230/400						
Nominal Frequency (Hz)	50 / 60						
Max. Current to Grid (A)	6.7	8.3	10	13.3	16.7	20	22.8
Max. Current from Grid (A)	12.1	15.2	18.2	24.2	29	29	29
Power Factor	~1 (Adjustable from 0.8 leading to 0.8 lagging)						
THDI	<3%						
AC Side (Backup)							
Nominal Output Apparent Power (kVA)	4	5	6	8	10	12	15
Max. Output Apparent Power (kVA)	4.4	5.5	6.6	8.8	11	13.2	15.75
Max. Output Apparent Power (Bypass) (kVA)	6	7.5	9	12	15	15	15
Max. Output Current (A)	8.7	10.9	13.0	17.4	21.7	21.7	21.7
Max. Output Current (Bypass) (A)	8.7	10.9	13.0	17.4	21.7	21.7	21.7
Nominal Output Voltage (V)	400, 3L/N/PE						
Nominal Output Frequency (Hz)	50/60						
THDv (@Linear Load)	< 3%						
Efficiency							
Max. Efficiency	97.6 %	97.6 %	97.6 %	97.6 %	97.8 %	97.8 %	98.0 %
European Efficiency	96.3 %	96.3 %	96.3 %	96.3 %	96.3 %	96.3 %	96.3 %
Protection							

General Data							
Operating Temperature Range (°C)	-25~60						
Communication	RS-485 / WiFi / LAN / Bluetooth						
Communication Protocols	Modbus						
Dimensions (W × H × D mm)	690 × 240 × 478						
Weight (kg)	34	34	34	34	34	34	35
Cooling Method	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Natural Convection	Smart Forced air Cooling
Topology	Non-isolated						
Ingress Protection Rating	IP65						
Grid Connection Standard	VDE-AR-N 4105:2018, G98, G99, C10/11:2021, NTS 631, RD647:2020 UNE 217002:2020, CEI 0-21, VDE 0126-1-1, NRS 097-2-1, AS/NZS 4777.2:2020, EN 50549-1						
Safety Standard	IEC/EN 62109-1&2						

Battery Model	BW-BAT-07S1-H	BW-BAT-07S2-H	BW-BAT-07S3-H	BW-BAT-07S4-H	BW-BAT-07S5-H	BW-BAT-07S6-H	BW-BAT-07S7-H	BW-BAT-07S8-H
Rated Energy (kWh)	7.03	14.06	21.1	28.13	35.16	42.2	49.23	56.26
Usable Energy (kWh)	6.89	13.79	20.67	27.57	34.46	41.36	48.25	55.14
Depth of Discharge (DoD)	98%							
Battery Type	LFP							
Nominal System Voltage (V)	350							
Operating Voltage Range (V)	200~500							
Max. Input Current (System) (A)	60							
Max. Output Current (System) (A)	60							
Operating Temperature Range (°C)	Charging: -20<T<50 / Discharging: -20<T<50							
Cycle Lifetime	8000							
Cooling Method	Natural Convection							
Noise Emission	<30 dB @1 m							
Communication	CAN							
Weight (kg)	78	134	190	246	302	358	414	470
Dimensions (W × H × D mm) *	690*240*480	690*240*725	690*240*970	690*240*1215	690*240*1460	690*240*1705	690 *240*1950	690*240*2195
Ingress Protection	IP66							
Safety Standard	IEC 62619; IEC/EN 62040; IEC/EN 62477; (EU)2023/1542; SA TS5398							
Transportation	UN38.3							

System

Max. Operating Altitude (m)	≤3000 (>3000 Derating)						
Relative Humidity	0~100% (Non-Condensing)						
Mounting Method	Floor Stacked						
Warranty	10 Years						
EMC	IEC/EN 61000-6-1; IEC/EN 61000-6-2; IEC/EN 61000-6-3; IEC/EN 61000-6-4						

Note: Specifications are subject to change without advance notice.
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