

Distributed Energy Storage System

29.9~50kW/50~60kWh

- Inverter and battery highly integrated to form a compact design
- Support multiple sets of sub-systems operation in parallel in off-grid mode
- Multiple MPPTs and battery input for single system
- Easy installation and maintenance
- Suitable for multiple C&I application scenarios
- Support UPS function
- Strong power grid adaptability



GROWATT

P O W E R
- I N G O
T O M O -
R R O W O

Hybrid Inverter Data					
Model	WIT 29.9K-XHU	WIT 30K-XHU	WIT 36K-XHU	WIT 40K-XHU	WIT 50K-XHU
Max. recommended PV power (for module STC)	59.8kW	60kW	72kW	80kW	100kW
Start voltage			195V		
Max. DC voltage			1100V		
Nominal voltage			620V		
MPP voltage range			180V-1000V		
Full load DC voltage range	375V-850V	375V-850V	450V-850V	500V-850V	620V-850V
Max. input current per MPP tracker			40A		
Max. short-circuit current per MPP tracker			50A		
No. of PV strings per MPP tracker			2		
No. of MPP trackers			4		
Battery Data (DC)					
Battery voltage range			200-900V		
No. of battery input			3		
Max. charging / discharging current			55A*3		
BMS communication			RS485/CAN		
Input/Output AC					
AC input/output nominal power(Grid)	59.8kW/29.9kW	60kW/30kW	72kW/36kW	80kW/40kW	100kW/50kW
Max. AC input/output apparent power(Grid)	59.8kVA/29.9kVA	66kVA/33kVA	79.2kVA/39.6kVA	88kVA/44kVA	110kVA/55kVA
Max. input/output current(Grid)	90.6A/45.3A	100A/50A	120A/60A	133.3A/66.7A	166.7A/83.3A
Max. input current(GEN/AC couple)	90.6A/45.3A	100A/45.5A	120A/54.5A	133.3A/60.7A	166.7A/75.7A
Max. output current(Smart load)			200A		
Nominal AC voltage/range			380/400V, -15%~10%		
Nominal AC grid frequency/range			50Hz/60Hz, 45-55Hz/55-65Hz		
Power factor(@nominal power)			>0.99		
Adjustable power factor			-1...+1		
THDi			<3%		
AC grid connection type			3P3W+PE/3P4W+PE		
Backup Power					
AC nominal output power	29.9kW	30kW	36kW	40kW	50kW
Max. AC apparent power	29.9kVA	45kVA	54kVA	60kVA	75kVA
Nominal AC voltage			220V/230V(L-N), 380V/400V(L-L)		
Nominal AC frequency			50/60Hz		
Max. output current	68.0A	68.2A	81.8A	91A	113.6A
Overload capability			1.5 time of rated power, 10s		
THDv			<3% (@Linear full load)		
Efficiency					
Max. efficiency			98.1%		
Protection Devices					
DC reverse polarity protection			Yes		
Battery reverse protection			Yes		
Insulation resistance monitoring			Yes		
AC/DC surge protection			Type II		
AC short-circuit protection			Yes		
Ground fault monitoring			Yes		
Grid monitoring			Yes		
String monitoring			Yes		
Anti-islanding protection			Yes		
Residual-current monitoring unit			Yes		
General Data					
Dimensions (W/H/D)			920/585/320mm		
Weight			92kg		
Operating temperature range			-30°C ~ 60°C (>50°C derating)		
Noise emission			≤55dB		
Altitude			4000m		
Topology			Transformerless		
Cooling			Smart air cooling		
Protection degree			IP66		
Relative humidity			0~95%		
Interfaces					
Display			OLED+LED/APP		
Interfaces			RS485/USB/CAN, WIFI/LAN(Opt)		
Warranty: 5 / 10 years			Yes/Opt		

NRS 097-2-1:2017, EN 50549-1, IEC 62116, IEC 61727, G99:2020, VDE 4105, IEC/EN 61000-6-1, IEC/EN 61000-6-3, IEC/EN 62109-1, IEC/EN 62109-2

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Battery System Data		
Model	AXE 50.0H-1HT-S1	AXE 60.0H-1HT-S1
Control module		AXE 1000100-C1
Number of control module		1
Battery module		AXE 5.0H-E1 EU
Number of modules in series	10	12
Energy capacity	50kWh	60kWh
Usable capacity	45kWh	54kWh
Max. output power* ¹	50kW	60kW
Max. charge/discharge current		100A
Dimension (W/H/D)		800/2000/1000mm
Weight	≤0.9t	≤1t
Nominal voltage	512V	614.4V
Operating voltage range	464~568V	556.8~681.6V
Ingress protection	IP55	
Installation style		Floor stand
Operating temperature range		-25~55°C
Relative humidity		5% ~ 95%
Cooling	Air-Cooling	
Warranty	10 years	
Noise emission	<65dB	
Maximum altitude	≤2000m	
Control Module		
AXE 1000100-C1		
Dimension (W/H/D)		482/131/580mm
Weight		≤15kg
Communication port		CAN/RS485/USB
Operating voltage range		120V~1000Vdc
Maximum current		100A
Monitoring parameters	SOC, System voltage, current, cell voltage, cell temperature, PCBA temperature	
Battery Module		
AXE 5.0H-E1 EU		
Battery type	Lithium-ion	
Nominal energy	5kWh	
Nominal voltage	51.2V	
Pack operating voltage range	46.4~56.8V	
Dimension (W/H/D)	482/131/580mm	
Battery module weight	≤47kg	
UN 38.3, IEC 62619, IEC 60730, IEC 62477, CE, RoHS, UKCA		

System Options						
AXE 50.0~60.0H-1HT-S1*3(92.16~184.32kWh)	✓	✓	✓	✓	✓	✓
AXE 50.0~60.0H-1HT-S1*2(61.44~122.88kWh)	✓	✓	✓	✓	✓	✓
AXE 60.0H-1HT-S1*1(61.44kWh)	✓	✓	✓	✓	✓	✓
AXE 55.0H-1HT-S1*1(56.32kWh)	✓	✓	✓	✓	✓	✓
AXE 50.0H-1HT-S1*1(51.2kWh)	✓	✓	✓	✓	✓	✓
Battery System						
Inverter						
	WIT 29.9K-XHU	WIT 30K-XHU	WIT 36K-XHU	WIT 40K-XHU	WIT 50K-XHU	

* 1 Depend on the max. battery charge/discharge power of the inverter.

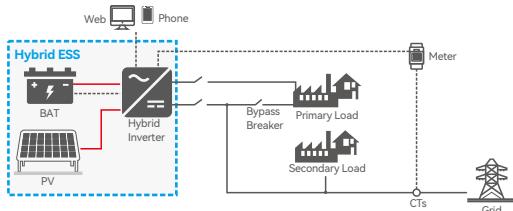
* Nominal charge/discharge current and power derating will occur related to temperature and SOC.

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SHENZHEN GROWATT NEW ENERGY CO.,LTD. A: 4-13/F, Building A, Sino-German(Europe) Industrial Park, Hangcheng Ave, Bao'an District, Shenzhen, China
T: +86 755 2747 1900 F: +86 755 2749 1460 E: info@ginverter.com

Solutions

On/Off-Grid System

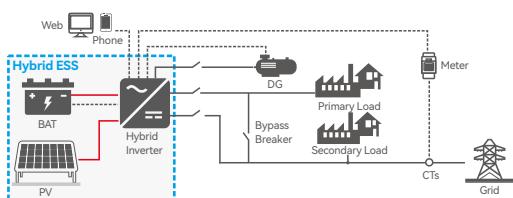


Single System or Multiple Systems

Hybrid ESS:

- WIT 29.9-50K-XHU
- AXE 50.0-60.0H-1HT-S1
- SEM-XA-RM+CTs (for multiple system)
- ShineWiLAN-X2 (for single system)
- TPM-CT-E/C-EU (for single system)
- Battery Terminal Junction Box (optional)

On/Off-Grid System with DG

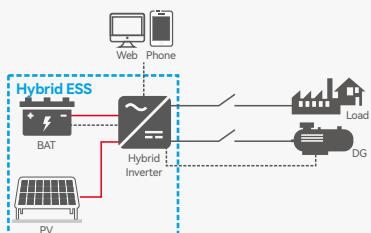


Single System or Multiple Systems

Hybrid ESS:

- WIT 100K-HU-PLUS
- AXE 50.0-60.0H-1HT-S1
- SEM-XA-RM+CTs (for multiple system)
- ShineWiLAN-X2 (for single system)
- TPM-CT-E/C-EU (for single system)

Off-Grid System

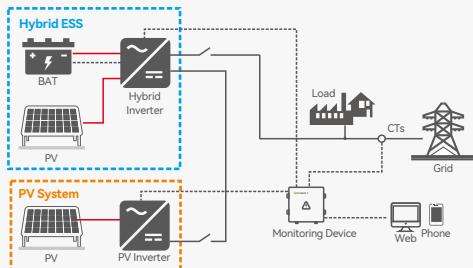


Single System or Multiple Systems

Hybrid ESS:

- WIT 29.9-50K-XHU
- AXE 50.0-60.0H-1HT-S1
- SEM-XA-RM+CTs (for multiple system)
- ShineWiLAN-X2 (for single system)
- Battery Terminal Junction Box (optional)

On-Grid AC-Coupled System



Multiple Systems

Hybrid ESS:

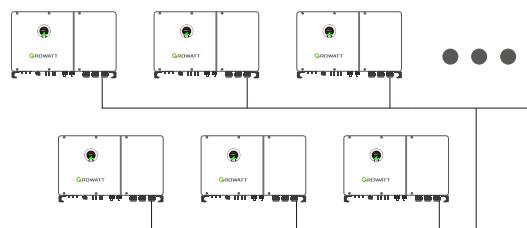
- WIT 29.9-50K-XHU
- AXE 50.0-60.0H-1HT-S1
- SEM-XA-RM+CTs (for multiple system)
- Battery Terminal Junction Box (optional)

PV System:

- MAX series PV Inverters
- MID series PV Inverters

AC

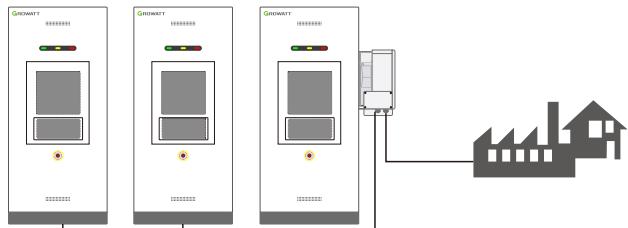
Multi-System Parallel Operation



parallel operation of up to 10 inverters^{*2}

DC^{*1}

Flexible Battery Capacity



extend to 120~180kWh each inverter^{*3}

*1 DC means battery input capability here.

*2 For parallel demand over 6 units, please consult with Growatt technical team for more information.

*3 Each battery input provides up to 55A current. For higher charging/discharging current demand, battery terminal junction box can be purchased.