

WIT 50-100kW US Hybrid Inverter

WIT 50-100K-HU-US

- Scalable system configuration, extend to 300kW
- Support UPS function and black start
- 100% unbalanced load when backup
- 110% continuous AC overloading capacity
- Support remote control of DG
- Multiple MPPTs input
- Grid-support functions



Preliminary Version

P O W E R
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Datasheet	WIT 50K-HU-US	WIT 63K-HU-US	WIT 75K-HU-US	WIT 100K-HU-US
Input Data (PV)				
Max. recommended PV power(for module STC)	109.2kW	124.8kW	156kW	156kW
Start voltage			195V	
Max. input voltage			1100V	
Max. open circuit voltage of PV* ¹			1000V	
MPPT nominal voltage/range			550V, 180V-800V	
Max. input current per MPP tracker			32A (16A per string)	
Max. short-circuit current per MPP tracker			40A (20A per string)	
No. of PV strings per MPP tracker			2	
No. of MPP trackers	7	8	10	10
Output Data (AC)				
AC nominal power	50kW	63kW	75kW	100kW
Max. AC apparent power	55kVA	69.3kVA	82.5kVA	110kVA
Nominal AC voltage/range			277/480V, -15%~+10%	
AC grid frequency/range			50/60Hz, 45-55Hz/55-65Hz	
Max. output current	66.2A	83.4A	99.3A	132.4A
Adjustable power factor			-1...+1	
THDi			<3% (@100% load)	
AC grid connection type* ²			3P3W+PE/3P4W+PE	
Input Data (AC)				
AC nominal power	100kW	126kW	150kW	200kW
Max. AC apparent power	100kVA	126kVA	150kVA	200kVA
Nominal AC voltage/range			277/480V, -15%~+10%	
Nominal AC grid frequency/range			50/60Hz, 45-55Hz/55-65Hz	
Max. input current	120.3A	151.6A	180.5A	240.7A
Battery Data (DC)				
Continuous charging and discharging power	56.7kW	71.4kW	85.1kW	113.5kW
Battery voltage range* ³		750-1000V for 3P3W / 820-1000V for 3P4W		
Max charging and discharging current	75.6A	95.2A	113.5A	151.3A
BMS communication			RS485/CAN	
Types of battery			Li-ion	
Backup Power (AC)				
Rated AC output power	50kW	63kW	75kW	100kW
Max. AC apparent power	60kVA	75.6kVA	90kVA	120kVA
Max. single phase power	16.6kW	21kW	25kW	33.3kW
Nominal AC voltage			277V(L-N) / 480V(L-L)	
Nominal AC output frequency			50/60Hz	
Load connection* ³			3P3W+PE/3P4W+PE	
Max. output current	72.2A	91A	108.3A	144.4A
THDv			<3% (Linear load)	
Load unbalance			100% three-phase unbalanced	
Overload capacity		≤110%: Continues; 110%~<120%: <10min; >120%: 200ms		
On/off grid transfer time			≤16.6ms	
Efficiency				
Max. efficiency			98.2%	
Protection Devices				
DC reverse polarity protection			Yes	
Battery reverse protection			Yes	
AC/DC surge protection			Type II	
Insulation resistance monitoring			Yes	
Ground fault monitoring			Yes	
Grid monitoring			Yes	
Residual-current monitoring unit			Yes	
AC short-circuit protection			Yes	
Strings monitoring			Yes	
Anti-islanding protection			Yes	
PID protection			Yes	
AFCI function			Opt	
General				
Dimensions (W/H/D)		33.5/53.1/20.1 inch (850/1350/510mm)		
Weight	337.3 lbs (153kg)		352.7 lbs (160kg)	
Operating temperature range		-22°F~+140°F, >122°F derating		
Relative humidity		0~100%		
Altitude		≤13123ft(4000m)		
Topology		Transformerless		
Cooling		Smart air cooling		
Enclosure		IP66/NEMA 4X		
Display		OLED+LED/WIFI+APP		
Interfaces: RS485/CAN		Yes		
Interfaces: WIFI/4G/LAN		Opt		
Warranty (5/10 years)		Yes/Opt		
UL1741:2021, UL1741 SA/SB:2020, IEEE1547:2018, IEEE1547.1:2020, HECO Rule14, E-5000, CSIP, SA17-SA18, UL1998:2018, CEC, FCC Part 15, CSA C22.2.107.1				

*1 The maximum open circuit voltage of PV string must be lower than the maximum input voltage of the battery system connected to the inverter.

*2 For 3P4W connection type, the inverter is only compatible with APX commercial battery.

*3 Derating may occur above 900V. For safe operation above this range, please contact Growatt for guidance.