

# 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  
- I N G O  
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Datasheet	WIT 50K-HU-US	WIT 63K-HU-US	WIT 75K-HU-US	WIT 100K-HU-US
<strong>Input Data (PV)</strong>				
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*		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	7	8	10	10
No. of MPP trackers		2		
<strong>Output Data (AC)</strong>				
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*		3P3W+PE/3P4W+PE		
<strong>Input Data (AC)</strong>				
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
<strong>Battery Data (DC)</strong>				
Continuous charging and discharging power	56.7kW	71.4kW	85.1kW	113.5kW
Battery voltage range*		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		
<strong>Backup Power (AC)</strong>				
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*		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		
<strong>Efficiency</strong>				
Max. efficiency		98.2%		
<strong>Protection Devices</strong>				
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		
<strong>General</strong>				
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.

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