WIT 50-150kW 480V Hybrid Inverter

(WIT 50/63/75/85/100/125/150K-XHU-US)

- Multiple MPPTs input, 2.0 DC/AC ratio
- Wide battery voltage range
- 100% unbalanced load when backup
- 160% rated AC overload capability
- Built-in UPS function and black start
- Supports DG integration and smart load
- Scalable to 10 units for off-grid parallel operation
- Compatible with third-party batteries



Preliminary Version

POWER-INGO TOMO-RROW

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https://us.growatt.com

Datasheet	WIT 50K-XHU-US	WIT 63K-XHU-US	WIT 75K-XHU-US	WIT 85K-XHU-US	WIT 100K-XHU-US	WIT 125K-XHU-US	WIT 150K-XHU-US
Input Data (PV)							
Max. recommended PV power(for module STC)	100kW	126kW	150kW	170kW	100kW	250kW	250kW
Start voltage	195V						
Max. input voltage	1100V						
Max. open circuit voltage of PV	1000V						
MPPT nominal voltage/range	180V-1000V						
Max. input current per MPP tracker	42A						
Max. short-circuit current per MPP tracker	50A						
No. of PV strings per MPP tracker	2						
No. of MPP trackers	10						
Output Data (AC)							
AC nominal power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Max. AC apparent power	55kVA	69.3kVA	82.5kVA	93.5kVA	110kVA	137.5kVA	165kVA
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	112.5A	132.4A	165.5A	198.6A
Adjustable power factor	-1…+1						
THDi	<3% (@100% load)						
AC grid connection type	3P3W+PE/3P4W+PE						
Input Data (AC)							
Nominal AC voltage/range	277/480V, -15%~+10%						
Nominal AC grid frequency/range	50/60Hz, 45-55Hz/55-65Hz						
AC grid connection type	3P3W+PE/3P4W+PE						
Rated input power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Max. input current	250A						
Input Data (GEN)							
Nominal AC voltage/range	277/480V, -15%~+10%						
Nominal AC grid frequency/range	50/60Hz, 45-55Hz/55-65Hz						
AC grid connection type	3P3W+PE/3P4W+PE						
Rated input power(GEN/AC couple)	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Rated input power(Smart load)	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Battery Data (DC)							
Continuous charging and discharging power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Battery voltage range	180-1000V(>900V derating)						
Max charging and discharging current	200A						
BMS communication	RS485/CAN						
Backup Power (AC)							
Rated AC output power	50kW	63kW	75kW	85kW	100kW	125kW	150kW
Max. AC apparent power	55kVA	69.3kVA	82.5kVA	93.5kVA	110kVA	137.5kVA	165kVA
Nominal AC voltage	277(L-N),480(L-L)V						
Nominal AC output frequency	50/60Hz						
Load connection	3P3W+PE/3P4W+PE						
Max. output current	66.2A	83.4A	99.3A	112.5A	132.4A	165.5A	198.6A
THDv	<3% (Linear load)						
Load unbalance	100% three-phase unbalanced						
Overload capacity	≤110%: Continues; 160%: 10s						
On/off grid transfer time	≤10ms						
Efficiency							
Max. efficiency	98.5%						
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	Yes						
General							
Dimensions (W/H/D)	720/1360/400mm						
Weight	160kg						
Operating temperature range	-30~60℃, >50℃ derating						
Relative humidity	0~100%						
Altitude	≤4000m						
Topology	Transformerless						
Cooling	Smart air cooling						
Enclosure	IP66						
Display	OLED+LED/WIFI+APP						
Interfaces: RS485/CAN	Yes						
Interfaces: WIFI/4G/LAN	Opt						
Warranty (5/10 years)	Yes/Opt						

*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.

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