

# WIT 28-55kW Hybrid Inverter

WIT 28-55K-HU-US L2

- Scalable system configuration, extend to 165kW
- Support UPS function and black start
- 100% unbalanced load when backup
- 110% continuous AC overloading capacity
- Support remote control of DG
- Grid-support functions



Preliminary Version

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

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Datasheet	WIT 28K-HU-US L2	WIT 35K-HU-US L2	WIT 40K-HU-US L2	WIT 55K-HU-US L2
<b>Input Data (PV)</b>				
Max. recommended PV power (for module STC)	54kW	75.6kW	86.4kW	108kW
Start voltage			195V	630V
Max. open circuit voltage of PV*1			360V, 180V-550V	
MPPT nominal voltage/range			32A	
Max. input current per MPP tracker			40A	
Max. short-circuit current per MPP tracker			2	
No. of PV strings per MPP tracker			8	10
No. of MPP trackers	5	7		
<b>Output Data (AC)</b>				
AC nominal power/max. AC apparent power	28kW/30.8kVA	35kW/38.5kVA	40kW/44kVA	55kW/60.5kVA
Nominal AC voltage/range			208V/220V, -15%~10%	
AC grid frequency/range			60Hz, 55-65Hz	
Max. output current	85.6A@208V 80.8A@220V	106.9A@208V 101A@220V	122.2A@208V 115.5A@220V	168.1A@208V 158.8A@220V
Adjustable power factor			-1...+1	
THDi			<3% (@100% load)	
AC grid connection type			3P3W+PE/3P4W+PE	
<b>Input Data (AC)</b>				
AC nominal power	56kW	70kW	80kW	110kW
Max. AC apparent power	56kVA	70kVA	80kVA	110kVA
Nominal AC voltage/range			208V/220V, -15%~10%	
Nominal AC grid frequency/range			50/60Hz, 45-55Hz/55-65Hz	
Nominal input current	155.6A@208V 147A@220V	194.4A@208V 183.7A@220V	222.2A@208V 210A@220V	305.6A@208V 288.7A@220V
Max. input current	155.6A@208V 147A@220V	194.4A@208V 183.7A@220V	222.2A@208V 210A@220V	305.6A@208V 288.7A@220V
<b>Backup Power (AC power)</b>				
AC nominal power/Max. AC apparent power	28kW/33.6kVA	35kW/42kVA	40kW/48kVA	55kW/66kVA
Max. single phase power	9.3kW	11.6kW	13.3kW	18.3kW
Nominal AC voltage			120V/127V(L-N), 208V/220V(L-L)	
Nominal AC frequency			50/60Hz	
Max. output current	93.3A@208V 88.2A@220V	116.7A@208V 110A@220V	133.3A@208V 126A@220V	183.3A@208V 173.2A@220V
Overload capability			≤110%: Continues; 110%~120%: <10min; >120%: 200ms	
Load unbalance			100%	
THDv			<3% (Linear load)	
On/off grid transfer time			≤16.6ms	
<b>Battery Data (DC)</b>				
Battery voltage range			380V-650V, recommended @ 512V	
Max. charging / discharging current	79A	99A	113A	156A
Continuous charging / discharging power	31.7kW	39.7kW	45.3kW	62.3kW
BMS communication			RS485/CAN	
Types of battery			Lithium /Lead-acid (Check third-party battery compatibility in the Approved Battery List)	
<b>Efficiency</b>				
Max. efficiency			98.2%	
<b>Protection Devices</b>				
PV 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	
String monitoring			Yes	
Anti-islanding protection			Yes	
PID protection			Yes	
AFCI function			Opt	
<b>General</b>				
Dimensions (W/H/D)			33.5/53.1/20.1inch (850/1350/510mm)	
Weight	153kg/337.3lbs		160kg/352.7lbs	
Operating temperature range			-22°F~+140°F, >122°F derating	
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.  
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