

INVERTERS

WIT 29.9-50K-XHU

Hybrid inverter · Three-phase · 29.9 – 50 kW · 5 models


29.9 – 50 kW

RATED POWER

Three-phase

PHASE

4

MPPT TRACKERS

98.1 %

MAX. EFFICIENCY

Parameter	Unit	WIT 29.9K-XHU	WIT 30K-XHU	WIT 36K-XHU	WIT 40K-XHU	WIT 50K-XHU
PV input						
Max. PV input power	W	59800	60000	72000	80000	100000
Max. PV input voltage	V	1100				
Rated PV input voltage	V	620				
MPPT voltage range	V	180 – 1000				
Start-up voltage	V	195				
Max. input current per MPPT	A	40				
Max. short-circuit current per MPPT	A	50				
Number of MPPT trackers		4				
PV strings per MPPT		2				
Max. open-circuit voltage of PV	V	1000				
Full-load DC voltage range	V	375 – 850		450 – 850	500 – 850	620 – 850
AC output						
Rated output power	W	29900	30000	36000	40000	50000
Max. apparent power	VA	29900	33000	39600	44000	55000
Rated AC voltage	V	400				
Phase		Three-phase				
Rated AC frequency	Hz	50/60				
Max. AC output current	A	45.3	50	60	66.7	83.3
Power factor		>0.99 (at nominal power); adjustable -1 to +1				
Total harmonic distortion (THDi)	%	<3				
Backup output power	W	29900	30000	36000	40000	50000
Peak (surge) power	W	44850	45000	54000	60000	75000
Generator input		Yes				

Parameter	Unit	WIT 29.9K-XHU	WIT 30K-XHU	WIT 36K-XHU	WIT 40K-XHU	WIT 50K-XHU
Max. parallel units		10				
Nominal AC voltage and range (grid)		380/400 V, -15% to +10%				
AC grid connection type		3P3W+PE / 3P4W+PE				
Nominal AC grid frequency range (50 Hz / 60 Hz)	Hz	45-55 / 55-65				
AC input nominal power (grid)	W	59800	60000	72000	80000	100000
Max. AC input apparent power (grid)	VA	59800	66000	79200	88000	110000
Max. AC input current (grid)	A	90.6	100	120	133.3	166.7
Max. input current (GEN / AC coupling)	A	90.6 / 45.3	100 / 45.5	120 / 54.5	133.3 / 60.7	166.7 / 75.7
Max. continuous AC passthrough current	A	200				
Backup: Max. AC apparent power	VA	29900	45000	54000	60000	75000
Backup: Nominal AC voltage		220/230 V (L-N); 380/400 V (L-L)				
Backup: Nominal AC frequency	Hz	50/60				
Backup: Max. output current	A	68.0	68.2	81.8	91	113.6
Backup: Overload capability		1.5 x rated power, 10 s				
Backup: THDv (linear full load)	%	<3				
Backup: On/off-grid switchover time		<=10 ms				
Backup: Unbalanced load capability		100% three-phase unbalanced				
Battery						
Battery voltage range	V	200 – 900				
Full-load battery voltage range	V	200 – 800		225 – 800	250 – 800	310 – 800
Recommended battery voltage	V	512				
Number of battery inputs		3				
Max. charge/discharge current per battery input	A	55				
BMS communication		RS485 / CAN				
Efficiency						
Max. efficiency	%	98.1				
Protection						
Protection functions		DC reverse polarity protection; Battery reverse protection; Insulation resistance monitoring; AC/DC surge protection (Type II); AC short-circuit protection; Ground fault monitoring; Grid monitoring; String monitoring; Anti-islanding protection; Residual-current monitoring unit				
General data						
Dimensions (W x H x D)	mm	920 × 585 × 320				
Weight	kg	90				
Ingress protection (IP rating)		IP66				
Operating temperature range	°C	–30 – 60				
Relative humidity	%	0 – 95				

Parameter	Unit	WIT 29.9K-XHU	WIT 30K-XHU	WIT 36K-XHU	WIT 40K-XHU	WIT 50K-XHU
Max. operating altitude	m	4000				
Cooling		Smart air cooling				
Noise level	dB	≤55				
Topology		Transformerless				
Warranty	years	5 – 10				
UPS function		Yes				
Black start function		Yes				
Smart load function		Yes				
Weak-grid adaptability (short-circuit ratio, SCR)		<1.2				
Communication						
Display		OLED + LED; app				
Communication interfaces		RS485; USB; CAN; Wi-Fi (optional); LAN (optional)				
Certifications						
Certifications and standards		IEC/EN 61000-6-1; IEC/EN 61000-6-3; IEC/EN 62109-1; IEC/EN 62109-2				
Grid codes		NRS 097-2-1:2017; EN 50549-1; NC RFG; PSE-2018; PTPIREE-2021; IEC 62116; IEC 61727; G99:2020; VDE 4105				

Specifications are subject to change without notice. Values are typical at 25 °C unless stated.
XUSION is a brand of Hunan New Lithium Aviation Technology Co., Ltd.

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