

INVERTERS

MID 29.9-50K-HU

Hybrid inverter · Three-phase · 29.9 – 50 kW · 6 models


29.9 – 50 kW

RATED POWER

Three-phase

PHASE

3

MPPT TRACKERS

98.6 %

MAX. EFFICIENCY

Parameter	Unit	MID 29.9K-HU	MID 30K-HU	MID 33K-HU	MID 36K-HU	MID 40K-HU	MID 50K-HU
PV input							
Max. PV input power	W	59800	60000	66000	72000	80000	100000
Max. PV input voltage	V	1000					
Rated PV input voltage	V	600					
MPPT voltage range	V	200 – 1000					
Full-power MPPT voltage range	V	400 – 800				450 – 800	
Start-up voltage	V	160					
Max. input current per MPPT	A	40					
Max. short-circuit current per MPPT	A	50					
Number of MPPT trackers		3				4	
PV strings per MPPT		2					
AC output							
Rated output power	W	29900	30000	33000	36000	40000	50000
Max. apparent power	VA	29900	33000	36300	39600	44000	50000
Rated AC voltage	V	400					
Rated AC voltage options	V	220/380; 230/400					
Phase		Three-phase					
Grid connection type		3W+N+PE / 3W+PE					
Rated AC frequency	Hz	50/60					
Grid frequency range (50 Hz / 60 Hz)	Hz	45-55 / 55-65					
Max. AC output current	A	45.3	50	55	60	66.7	75.8
Power factor		> 0.99 at nominal power; adjustable 0.8 leading to 0.8 lagging					
Total harmonic distortion (THDi)	%	<3					
Three-phase unbalanced output		Supported only with APX HV Battery 1.0 / 2.0					

Parameter	Unit	MID 29.9K-HU	MID 30K-HU	MID 33K-HU	MID 36K-HU	MID 40K-HU	MID 50K-HU
AC nominal input power (grid side)	W	35900	36000	39600	43200	48000	60000
Max. AC input apparent power (grid side)	VA	35900	36000	39600	43200	48000	60000
Max. AC input current (grid side)	A	54.4	54.5	60	65.5	72.7	90.9
Backup output power	W	29900	30000	33000	36000	40000	50000
Max. backup apparent power	VA	29900	30000	33000	36000	40000	50000
Nominal backup AC voltage	V	220/380; 230/400					
Nominal backup AC frequency	Hz	50 / 60					
Max. backup output current	A	45.3	45.5	50	54.5	60.6	75.8
Peak (surge) power	W	35880	36000	39600	43200	48000	60000
Backup overload duration	s	10					
Backup THDv	%	<3					
Backup switch time	ms	<150					
Battery							
Compatible battery		APX HV Battery 1.0; APX HV Battery 2.0 (5 kWh-30 kWh)					
Battery voltage range	V	600 – 980					
Battery operating voltage range by battery model	V	APX HV Battery 1.0: 600-980; APX HV Battery 2.0: 660-980					
Max. battery operating current (APX HV Battery 1.0 / 2.0)	A	83.3 / 75.8					
Max. discharge power with APX HV Battery 1.0	W	29900	30000				
Max. discharge power with APX HV Battery 2.0	W	29900	30000	33000	36000	40000	45000
Max. charge power	W	50000					
Efficiency							
Max. efficiency	%	98.6					
European efficiency	%	97.2					
Protection							
Protection functions		DC switch; DC reverse polarity protection; AC/DC surge protection (Type II); Insulation resistance monitoring; Output surge protection (Type II); AC short-circuit protection; Ground fault monitoring; Grid monitoring; Anti-islanding protection; Residual-current monitoring unit; String fault monitoring; AFCI protection (optional)					
General data							
Dimensions (W x H x D)	mm	680 × 570 × 256					
Weight	kg	48				50	
Operating temperature range	°C	-25 – 60					
Power derating above	°C	45					
Noise level	dB	≤55					
Max. operating altitude	m	4000					
Night-time power consumption	W	<25					
Topology		Transformerless					

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Cooling		Smart air cooling					
Ingress protection (IP rating)		IP66					
Relative humidity	%	0 – 100					
DC connection		H4 / MC4 (optional)					
AC connection		Waterproof PG connector + OT terminal					
Warranty	years	5 – 10					
Communication							
Display		OLED + LED / Wi-Fi + App					
Communication interfaces		RS485; CAN; USB					
Monitoring		Optional external monitoring modules (Wi-Fi/LAN, 4G, data logger)					
Certifications							
Certifications and standards		CE					
Grid codes		N4105; EN 50549-1; C10/C11; CEI 0-21; G99; G100					

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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