Hybrid Inverter Model   Guard Plus 10KH3		Efficiency	Efficiency		
PV String Input	T	Efficiency			
Max. Continuous PV Input Power	20kW	Max. PV Efficiency		97.60%	
Max. DC Voltage	1100V	Euro. PV Efficienc	у	97.00%	
Nominal Voltage	720V	Features & Protections			
MPPT Voltage Range	140V-1000V	Anti-islanding Protection		Yes	
MPPT Voltage Range (Full Load)	420V-850V	Output Over Current Protection		Yes	
Start Voltage <sup>1</sup>	200V	DC Reverse Polarity Protection		Yes	
Number of MPPT	2	String Fault Detection		Yes	
Strings Per MPPT	1	AC/DC Surge Protection		DC Type II; AC Type III	
Max. Input Current Per MPPT	15A	Insulation Detection		Yes	
Max. Short-circuit Current Per MPPT	20A	AC Short Circuit Protection		Yes	
Output (On Grid)		Input-side disconn	nection device	Yes	
Nominal AC Output Power	10kW	Residual current m	nonitoring	Yes	
Max. AC Apparent Power	11kVA	AC overcurrent pr	otection	Yes	
Nominal AC Voltage	400Vac	AC overvoltage pr	otection	Yes	
AC Grid Frequency Range	50 / 60Hz±5Hz	Ripple receiver co	ntrol	Yes	
Nominal Output Current	14.5A	Battery reverse ch	arging from grid	Yes	
Max. Output Current	16A	General Data			
Power Factor (cosΦ)	0.8leading-0.8lagging *	Dimensions W x H x D		540*980*240mm	
Max. total harmonic distortion	<3%	Weight		49kg	
Battery Input		Operating Temper	ature Range	-25°C ~+60°C	
Battery Type	LFP (LiFePO4)	Cooling Type	ataro rango	Natural Convection	
Nominal Battery Voltage	51.2V	Max. Operation Al	titude	2000m	
Charging Voltage Range	44-58V	Operation Humidit		0~95% (No Condensation)	
Max. Charging Current	160A	IP Class	.,	IP65	
Max. Discharging Current	200A	Topology		Battery Isolation	
Battery Capacity	200/400/600/800Ah	Communication		RS485/CAN2.0/WIFI/4G	
Output (Off Grid)		Display		LCD/APP	
Nominal AC Output Power	9.2kW	Standard Com	nliance (more av	/ailable upon request)	
Max. Apparent Power	10kVA				
Nominal Output Current	13.3A	——— Certificates		); EN IEC 61000-6-1: 2019 : 2019; EN IEC 61000-6-4: 2019	
Max. Output Current	14.5A			07/A1: 2011; EN IEC 61000-3-11:2019	
Nominal Output Voltage	400V		IEC 62109-2:201		
Nominal Output Frequency	50/60Hz	Grid connection	VDE-AR-N 4105:2	2018	
Output THDv (@Linear Load)	<3% (Linear Load)	standards		100:2020; CEI 0-21:2019;	
Power factor range	0.8leading-0.8lagging		OVE-Richtlinie R 2	5:2020; EN 50549-1:2019/AC:2019	

0.95leading-0.95lagging for Germany.
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Performance		General Specification		
Energy Capacity	5.12kwh	Humidity	0~95% (No condensation)	
Usable Capacity	4.6kwh	Capacity	200-800Ah	
Depth of Discharge (DoD)	90%	Power Consumption	<2W	
Nominal Voltage	51.2V	Communication	CAN & RS485	
DC Circuit Breaker	125A	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement	
Operating Voltage Range	44.8-56.5V			
Internal Resistance	<20mΩ		1 ODA temperature measurement	
Cycle Life	10,000cycle	Cooling	Natural convection	
Battery type	LiFePO4	Noise emission	≤25db	
System Weight	54KG	Max. operating altitude	≤2000m	
Dimension (W x D x H)	540*490*240	Display	SOC status indicator	
IP Protection	IP65	Installation	Floor stand, Wall mount(optional)	
Warranty	5 Years Product Warranty, 10 Years Performance Warranty	Scalability	Max. 4 battery packs in parallel operation for single phase system; Max. 8 battery packs in parallel operation for 3 phase	
General Specification			system;	
Max. Charge/Discharge Current	50A/80A	_		
Rated DC power	4096W	Compatibe inverters	Guard Plus 3680E/5000E, Guard Plus 8KH3/10KH3/12KH3	
Max. Charge/Discharge Power	2825W/4096W			
Operating Temperature Range	0 to 50 ℃ charging -10 to 50 ℃ discharging	Standard Compliance (more available upon request)		
		Certificates	CE, EMC, IEC62619, UN38.3, UL1973	



