




KSE-2K-048S / KSE-3K-048S / KSE-3.6K-048S / KSE-5K-048S


Residential Hybrid Inverter



 Dual MPPT
Compatible with Li-ion and Lead-acid

 Inbuilt UPS function
IP65 protection

 Integrated EMS via LCD
On-grid and Off-grid mode

 Reactive power controller
Export control function

Technical Specifications

Model	KSE-2K-048S	KSE-3K-048S	KSE-3.6K-048S	KSE-5K-048S
PV Input				
Max. PV input power	2600W	3900W	4800W	6000W
Max. PV input voltage			550Vdc (*1)	
MPPT voltage range			120~500Vdc	
Rated input voltage			420Vdc	
MPPT range for full load	236~500V	178~500V	219~500V	273~500V
Number of MPPT			2	
Max. PV input current	11A		11A*2	
AC Output(On-grid)				
Rated output voltage			230Vac	
Output voltage range			150V~280V	
Output frequency range			50 / 60Hz (±5Hz)(adjustable)	
Max. current from utility grid			23A	
Max. apparent power from utility grid			5300VA	
Max. power output to utility grid	2000W	3000W	3680W	5000W(*2)
Max. current output to utility grid	9A	13.5A	16A	22A(*3)
AC output connection			L+N+PE, Transformerless	
Power factor (cosφ)			1(0.8 leading ~0.8 lagging) (adjustable)	
THDi			<3%	
AC Output(Back-up)				
Rated output voltage			230Vac (Fluctuation range±2%)	
Rated output frequency			50/60Hz (Fluctuation range±0.2%)	
Rated output current			13A	
Rated output power	2000W		3000W	
Max. output apparent power	2400VA		3300VA	
THDv			<2% (Linear load)	
Automatic switch time			<20ms	
Battery Input				
Battery type			Li-ion or lead-acid	
Rated battery voltage			48V	
Depth of discharging			Li-ion 90%DOD(10%~90% adjustable) / Lead-acid 50%DOD(50%~80% adjustable)	
Max. discharging current(*4)			65A	
Max. charging current(*5)			50A (5~50A adjustable)	
Max. discharging power	2200W		3200W	
Max. charging power	2000W		2500W	
Efficiency				
Max. conversion efficiency (from battery)			94.0%	
Max. conversion efficiency (from PV)			97.6%	
Euro efficiency			97.0%	
Protection function	Short Circuit Protection, AC Leakage Fault Protection, Grounding Fault Protection, Anti-islanding Protection, Overload Protection, Surge Protection, DC Polarity Protection			
General				
Cooling			Natural Convection	
DC switch			Optional	
Communication Interface			RS485/CAN2.0/WIFI	
Dimensions W x D x H (mm)			359x467x170	
Weight (Kg)	15			17
Operating temperature range			-20°C~+60°C (Rated Power@45°C)	
Humidity range			0~95% (No condensation)	
Altitude			≤2000m	
Protection			IP65	
Certification & Standard				
Grid regulation	AS/NZS 4777.2, VDE-AR-N4105, VDE0126-1-1			
Safety regulation	IEC/EN 62109-1&2, IEC62040-1			
EMC	EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4, EN61000-4-16, EN61000-4-18, EN61000-4-29			

*1. Max. operating voltage is 537V.

*2. It will be 4600W under the selection of VDE-AR-N4105 & VDE0126-1-1.

*3. It will be 21.7A under the selection of AS 4777.2.

*4. For Lead-acid batteries, the default discharging current limit is shown in the table, and Li-ion batteries discharging current is in accordance with BMS instructions, but not more than the value shown in the table.
*5. For Lead-acid batteries, the default charging current is 0.1C. The default charging current can be set by APP as shown in the table, and the Li-ion batteries charging current is in accordance with BMS instructions, but not more than the value shown in the table.