

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	9A	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 530V.

*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.