

What are the PV Array or AC loads? ?

Less than 3kWp

3-5kWp

More than 5kWp

[OG-PLUS3.24 - KING](#) or [OG-3.24 - VMIII](#) operating at 24V

[OG-PLUS5.48 - KING](#) or [OG5.48 - VMIII](#) or [OGX-5.48 - MKSII](#) operating at 48V

[OG-PLUS5.48 -KING](#) or [OGX-5.48 - MKSII](#) in parallel mode or [OG-7.2-MAX](#) at 48V

Variable Grid Voltage? ?

Variable Grid Voltage? ?

Variable Grid Voltage? ?

Yes

No

Yes

No

Yes

No

[OG-PLUS3.24 - KING](#) operating at 24V

[OG-3.2-VMIII](#) operating at 24V

[OG-PLUS5.48 - KING](#) operating at 48V

[OGX-5.48 - MKSII](#) or [OG5.48 - VMIII](#) operating at 48V

[OG-PLUS5.48-KING](#) operating at 48V

[OGX-5.48-MKSII](#) or [OG-7.2-MAX](#) operating at 48V

PV Input Voltage Range/MPPT ?

PV Array Size MPPT ?

[OGX-5.48-MKSII](#)  
120-450 PV DC  
Single MPPT - 5kW

[OG5.48-VMIII](#)  
120 - 500 PV DC  
Single MPPT - 5kW

[OGX-5.48-MKSII](#)  
120-450 PV DC  
Single MPPT - 5kW

[OG-7.2-MAX](#)  
120 - 450 PV DC  
Dual MPPT - 4/8kW

## • System Size:

The rated DC power of the PV array, and the peak household AC loads, will determine whether a single inverter can be deliver enough energy, or whether more than are needed. The

<3kW: If the loads are less than 3kW, the lower capacity versions of the King or VMIII can be utilised. Both operate at 24V and are ideal matches with the Pylontech UP2500 battery.

3-5kW: If rated power of between 3 and 5kW is needed, a single inverter is sufficient but it must be one of the 5kW models that operate at 48V. This allows additional battery capacity to fulfil more demanding loads in the home.

>5kW: For the majority of domestic installations, 7kWp of power will be sufficient to cover all necessary loads, so a single OG-7.2 Max inverter is needed.

If the PV array is larger, or the AC loads are higher than 7kW, more than one inverter will be required. The King and MKSII can be run in parallel mode and work in tandem with up to 8 other units. The Max can be paralleled with 5 others.

## • Variable Grid Voltage

Sites located in more rural locations, or those are the end of a local transmission network, can often experience variable AC voltage that fluctuates above or below the nominal 230V quite significantly.

Yes: The King always produces a steady 230V supply whether the grid is connected or not. This ensures that appliances see their ideal operating voltage and improves their efficiency.

No: If the AC voltage generally stays within a few percent of 230V nominal then the MKSII, VMIII or Max are ideal choices.




## • Lithium or Lead

Inverters that communicate directly with battery management systems are able to deliver exactly the right charge current to the battery depending on its state of charge. This ensures that energy isn't wasted and the full capacity of the battery can be used. Better communication also helps avoid damage to components.

Yes: The King, VMIII and Max models have an RJ45 communication port

No: The MKSII has no direct battery communication function, but an [ICC](#) add-on module can be used to improve battery communication and also enable remote system monitoring.

# Which KODAK package

			
KODAK System Partno	<a href="#">OG5.48-FL5.2</a>	<a href="#">OG-PLUS5.48-L1-BATT-7.1</a>	<a href="#">OG-7.2-FL5.2-2</a>
Short Description of Benefits	Simple and affordable system suitable for managing sudden loads of up to 5kW thanks to the 1C battery discharge rate.	Mid-range system with more storage capacity and useful features: UPS and permanent smooth 230V AC for keeping loads running reliably.	Premium load shedding system with high discharge power of up to 7kW. Max PV input of 8kW with dual MPPT helps improve solar production.
PV Array Charging			
MPPT Voltage Range	120-430V	60-115V	90-430V
Max MPPT Voltage	500V	145V	500V
Typical DC String Layout	2 Strings of 8 x 60 or 72 cell modules	4 Strings of 3 x 60 cell modules	4 Strings of 6 x 60 or 72 cell modules
Max PV module power	5000W	4000W	8000W
Battery			
Battery Capacity	5.1kWh	7.1kWh	10.2kWh
Battery Voltage	48V		
Max Solar Charge Current	80A	80A	80A
Max AC Charge Current	60A	60A	80A
AC Operation			
Max Sustained Load	5kW	5kW	7kW
Peak Load (3 secs)	10kW	5kW	15kW
Parallel Inverter Operation	No, single unit only	Yes, up to 9 units	Yes, up to 6 units
Direct Battery BMS Communication	Yes, connect directly to KODAK battery		
Transfer Time: Grid to battery mode	15-20ms	0-4ms. Suitable for important loads: servers, ATMs etc	15-20ms
Special Feature		Produces permanent 230V AC, even when the grid is connected.	Dual MPPT for superior PV generation and improved battery charging.