

ARK Battery A1/A2 Versions Differences Declaration

General Introduction

Growatt's ARK low and high voltage batteries have a new version of iteration, A2 version has been optimized based on A1 version. This article will mainly discuss the differences between A2 version and A1 version, as well as the mixed usage scenarios of the new and old versions, so as to help installers/distributors distinguish between them.









Differences between the old and new versions

1. ARK-LV Battery





➤ Side cover

New version battery used a damping shaft, and the side cover would not rebound when opened. The opening angle can reach 150°, and the cover opening direction is outward, using one screw to lock the side cover, which is convenient for on-site installation.

	ARK 2.5L-A1 (Old version)		ARK 2.5L-A2 (New version)	
Side cover	The opening angle of the side cover of the old version battery is less than 90°		The opening angle can reach 150°	
	Opening direction is inward		Opening direction is outward	
	Two screws lock the side cover		One screw locks the side cover for easy fixing	



➤ Light display

The new version of the ARK-LV battery indicator light and button moved to the outside for easy access to information and maintenance.

	ARK 2.5L-A1 (Old version)		ARK 2.5L-A2 (New version)	
Light display	Battery indicator light is hidden, not easy to observe the battery status		Battery indicator light and buttons moved to the outside for easy access to information and maintenance	
				


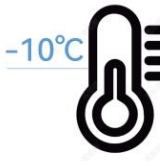
➤ Cable routing

The battery to the PCS cables can be routed from the top and from the rear side, which is more convenient for on-site installation.

	ARK 2.5L-A1 (Old version)		ARK 2.5L-A2 (New version)	
Cable routing	The battery to the PCS cables can only be routed from the top		The battery to the PCS cables can be routed from the top and from the rear side	

➤ **Charging temperature**





The new version of the battery cell supports -10°C low-temperature charging, enabling the battery to be charged in colder environmental conditions

	ARK 2.5L-A1 (Old version)		ARK 2.5L-A2 (New version)	
Charging temperature	Supports 0°C charging		Supports -10°C low temperature charging	

2. ARK-HV Battery



➤ **Side cover**

New version battery used a damping shaft, and the side cover would not rebound when opened. The opening angle can reach 150° , and the cover opening direction is outward, using one screw to lock the side cover, which is convenient for on-site installation.

	ARK 2.5H-A1 (Old version)		ARK 2.5H-A2 (New version)	
Side cover	The opening angle of the side cover of the old version battery is less than 90°		The opening angle can reach 150°	
	Opening direction is inward		Opening direction is outward	
	Two screws lock the side cover		One screw locks the side cover for easy fixing	



➤ **Light display**

New version battery's light panel on the front of the BMS Controller for easy access to battery information and maintenance.

	ARK 2.5H-A1 (Old version)	ARK 2.5H-A2 (New version)
Light display	Battery indicator light is inside the side cover 	Light panel on the front of the BMS Controller for easy access to battery information and maintenance 



➤ Cable routing

The battery to the PCS cables can be routed from the top and from the rear side, which is more convenient for on-site installation.

	ARK 2.5H-A1 (Old version)	ARK 2.5H-A2 (New version)
Cable routing	The battery to the PCS cables can only be routed from the top 	The battery to the PCS cables can be routed from the top and from the rear side 

➤ Power cable plug


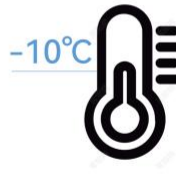
The wiring port has been optimized. Battery/PCS positive and negative power cables can not be interconnected and are compatible with older power cables, preventing on-site wiring errors and ensuring accuracy.

	ARK 2.5H-A1 (Old version)	ARK 2.5H-A2 (New version)
Power cable plug	Battery/PCS positive and negative power cables can be interconnected 	Battery/PCS positive and negative power cables can not be interconnected and are compatible with older power cables 

➤ Charging temperature



The new version of the battery cell supports -10°C low-temperature charging,





enabling the battery to be charged in colder environmental conditions.

	ARK 2.5H-A1 (Old version)		ARK 2.5H-A2 (New version)	
Charging temperature	Supports 0°C charging		Supports -10°C low temperature charging	



How to identify old and new batteries

➤ ARK-LV Battery

	ARK 2.5L-A1 (Old version)	ARK-2.5L-A2 (New version)
Product picture		
Side cover	Has two screws to lock the side cover, and the opening direction is inward	One screw locks the side cover for easy fixing and the opening direction is outward
Light display	Battery indicator light is inside the cover	Battery indicator light is external, which can directly be seen for the battery information
Nameplate	If the nameplate has “-A1” on the model number, it is a new version of the battery	If the nameplate has “-A2” on the model number, it is a new version of the battery

		
Package	No label	New version of ARK 2.5L-A2/ ARK 2.5H-A2 batteries with A2 label on the carton to differentiate between old and new batteries
		

➤ ARK-HV Battery

	ARK 2.5H-A1 (Old version)	ARK-2.5H-A2 (New version)
Product picture		
Side cover	Has two screws to lock the side cover, and the opening direction is inward	One screw locks the side cover for easy fixing and the opening direction is outward
Light display	Battery indicator light is inside the cover	Battery indicator light is on the front of the Control Module

Nameplate	If the nameplate has “-A1” on the model number, it is a new version of the battery	If the nameplate has “-A2” on the model number, it is a new version of the battery
Package	No label	New version of ARK 2.5L-A2/ ARK 2.5H-A2 batteries with A2 label on the carton to differentiate between old and new batteries

Mixed Use of New&Old Versions Battery

The old and new versions of the battery can be used together, but it is not recommended to mix them to ensure optimal performance. If use the new and old versions of the battery in one system, there will be differences in the appearance of the left and right sides of the front view of the new and old batteries, as well as in the opening direction of the side covers. The old version of the battery does not support charging and discharging below 0 °C, so charging and discharging below 0 ° C is not allowed when mixing the old and new batteries. The available capacity of the system is based on the minimum battery (old version battery) capacity.

For the cables between battery modules, the cables of the new version can be used for the old version of the batteries, and the cables of the old version can be used

for the new version of the batteries. However, the cables from the control modules to the inverter cannot be used interchangeably between the new and old versions of the control modules.

➤ **ARK-LV Battery**

	ARK 2.5L-A1 (Old version)	ARK 2.5L-A2 (New version)
ARK 2.5L-A1 (Old version)	√	√*
ARK 2.5L-A2 (New version)	√*	√

* If use the new and old versions of the battery in one system, the system will operate according to the old MAP, and do not support charging and discharging below 0 °C.

➤ **ARK-HV Battery**

	Control module (Old version)	Control module (New version)
ARK 2.5H-A1 (Old version)	√	√*
ARK 2.5H-A1 and ARK 2.5H-A2	√*	√*
ARK 2.5H-A2 (New version)	√* (It can be upgraded to support charging and discharging below 0 °C)	√

* If use the new and old versions of the battery in one system, the system will operate according to the old MAP, and do not support charging and discharging below 0 °C.