

# Utility On Grid ESS

## Utilities Product Platform

### 1. Latest integration technology:

Utilities projects require fast installation and commissioning. Jinko offers standard 20ft and 40ft battery containers, as well as other modular design to ensure quick transportation and integration in the field.

### 2. Top level energy density:

JESS is constantly striving for higher energy density solutions. Our latest design offers more than 5mwh of energy in a 40ft container. This is possible through selection of high energy density cell, and pack design.

### 3. Long product life:

We extensively model different application scenario. Together with project historical data, we are able to maximize system life design.



Multilevel protection strategy



Rapid installation and deployment



Integrated battery platform with safety and reliability



Modular design, flexible configuration, suitable for multiple scenarios

## Application



Ancillary services



Transmission and distribution services

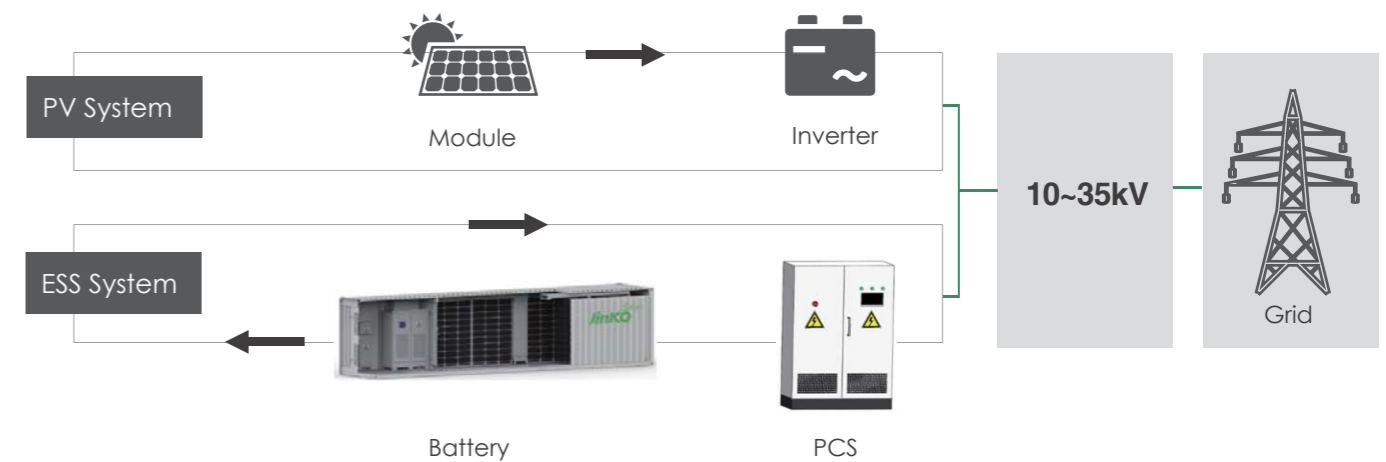


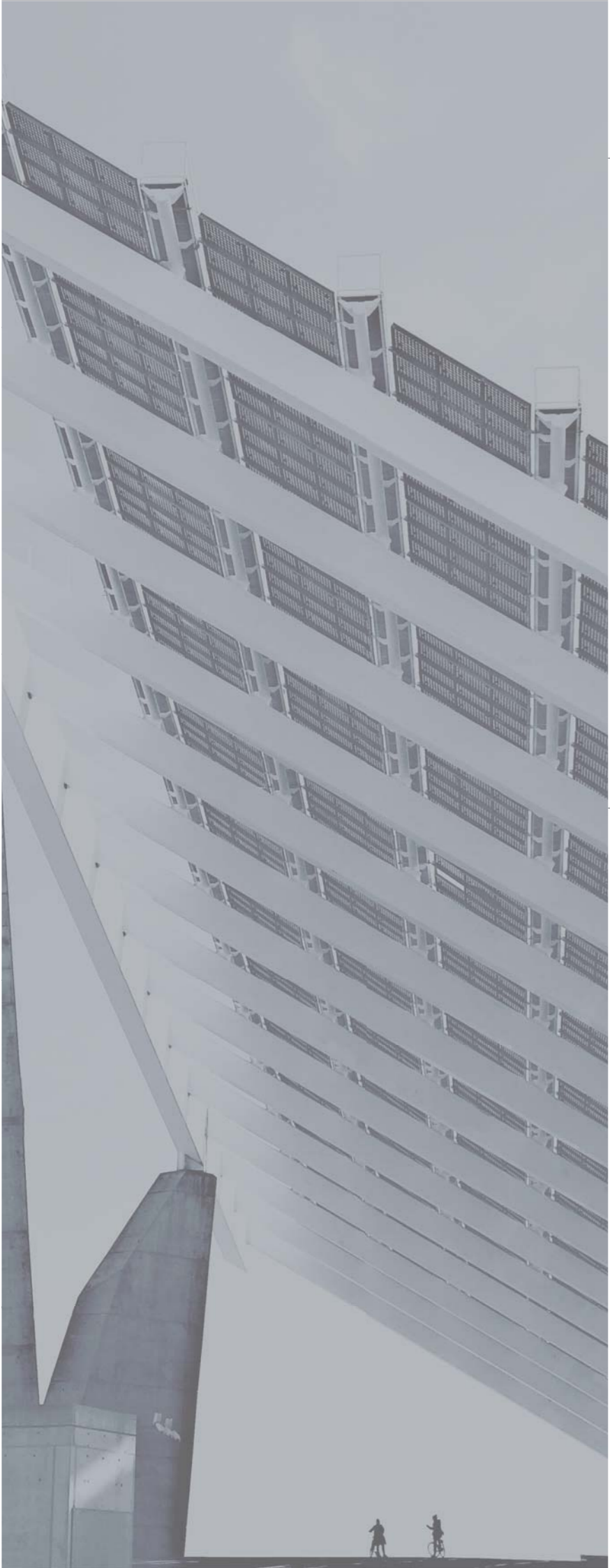
Behind-the-meter deployment energy management



Microgrid applications

## Circuit Diagram





## Energy Storage Container Configuration

System could be designed according to different Pack/Rack combination.



Rated Energy	2.39MWh	3.50MWh	4.0MWh
Rated Voltage	665.6V	729.6V	716.8V
Operating voltage range	582.4-748.8V	638.4-820.8V	627.2-806.4V
Operating ambient temperature range	-20 ~ 45°C		
DC efficiency	94% (Max )		
Altitude	≤2000m/≤5000m		
Cycle life	4000 ( 25°C , 1C , 80%DOD , EOL ≥ 80% ) , 6000 ( 25°C , 1C , 60%DOD , EOL ≥ 70% ) 4000 ( 25°C , 1C charge/discharge, 80%DOD, EOL≥80% ) , 6000 ( 25°C , 1C charge/discharge, 60%DOD, EOL≥70% )		
Calendar life	10 years		
Rated charge/discharge C rate	≤1C		≤ 0.5C

## PCS + Battery

Utility ESS System Specification



Power/Capacity	500kW/1MWh	1MW/1MWh	1.26MW/2.74MWh	2MW/2.21MWh
AC Rated Voltage	400V	315V	315V	315V
Rated frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz
DC Rated Voltage	716.8V	716.8V	652.8V	614.4V
Connection Mode	3-phase 4-wire	3-phase 3-wire	3-phase 3-wire	3-phase 3-wire
Isolation Mode	Transformer	Transformerless	Transformer	Transformerless
Operating ambient temperature range	-20-45°C			
Allowable relative humidity range	5~95%non-condensing			
Altitude	≤2000m			
Cycle life	4000 ( 25°C , 1C charge/discharge, 80%DOD, EOL≥80% ) , 6000 ( 25°C , 1C charge/discharge, 60%DOD, EOL≥70% )			
Calendar life	10 Years			
AC Efficiency	≥88%			
Protection Degree	IP54			
20 Foot high container	1	1	\	\
40 Foot high container	\	\	1	1