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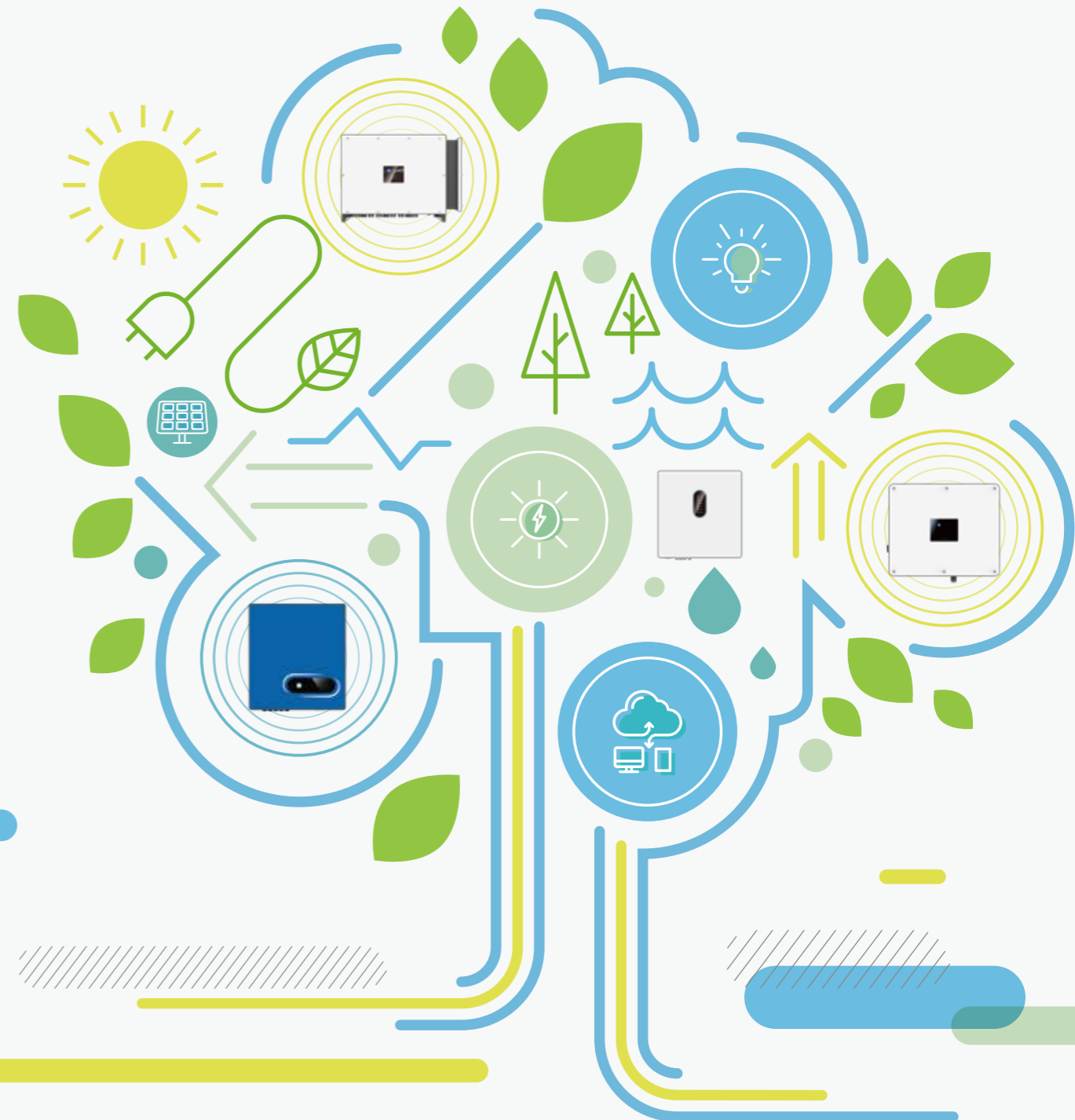
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# YOUR TRUSTWORTHY SOLAR INVERTER AND STORAGE ODM PARTNER



# COMPANY MILESTONES

Parent Company

## APD

A leader in Power Electronics and Renewable Energy Technology

For over two decades, APD Group has been cultivating its business in the power industry, upholding core values of R&D innovation and expanding its business horizon with the goal of becoming a leader in power electronics and renewable energy.

APD has two business groups: Power Systems and Renewable Energy, focusing on power supply and PV inverter products respectively.



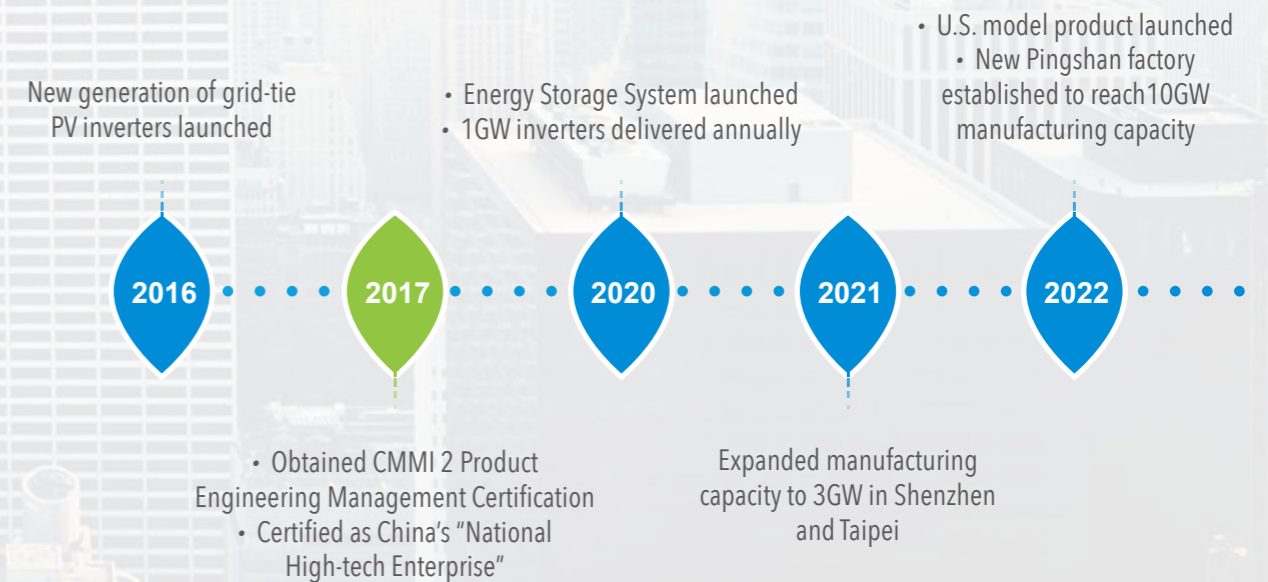
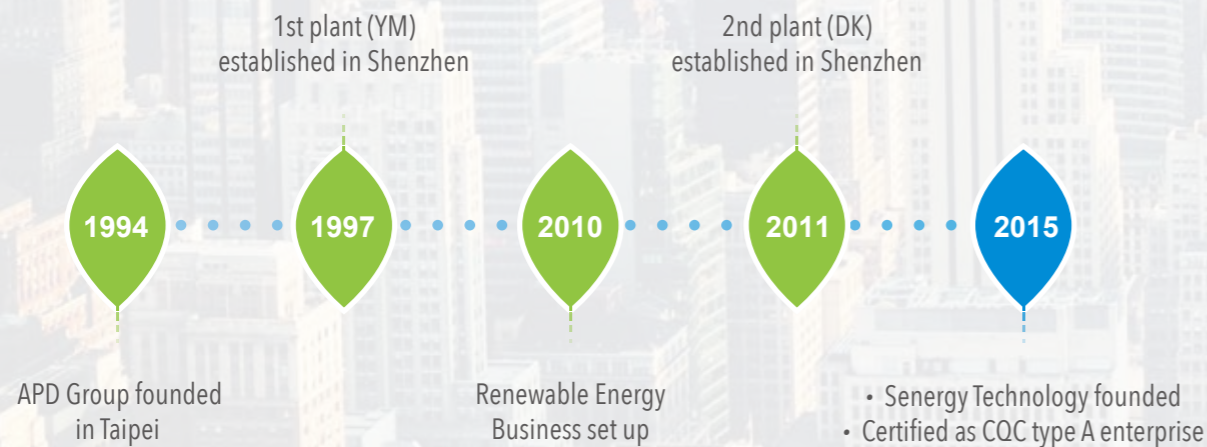
Subsidiary

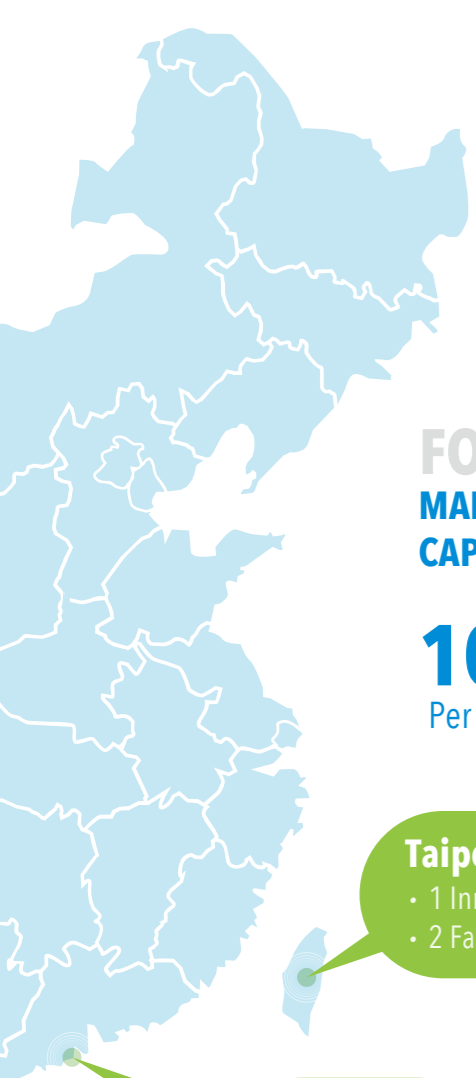
## Senergy

A leading ODM service supplier of PV inverters and energy storage solutions

Shenzhen Senergy Technology Co., Ltd., a wholly-owned subsidiary of Asian Power Devices Inc. (APD), is a high-tech solar energy company that supports customers in leading their next-generation PV inverters, from end-to-end design, research and development, to manufacturing and services – all under one roof.

With over 35 years of experience in power electronic products management and nearly 20 years of expertise in PV inverter development and manufacturing, Senergy provides flexible and diverse cooperation models to support rapid customized systems and help customers succeed. Our wide portfolio of products ranges from on-grid inverters to hybrid models, meeting the requirements of local, national and international standards.





## FOOTPRINT MANUFACTURING CAPACITY

**10GW**  
Per Year

### Taipei

- 1 Innovation Center
- 2 Factories

### Shenzhen

- 2 R&D Centers
- 2 Factories

## OUR COMPETITIVE ADVANTAGES



### R&D

- Pioneers and practitioners of Chinese string inverter technology
- Dual research centers in Taipei and Shenzhen
- Integrated Product Development (IPD) process
- DFMEA & PFMEA-guaranteed product reliability



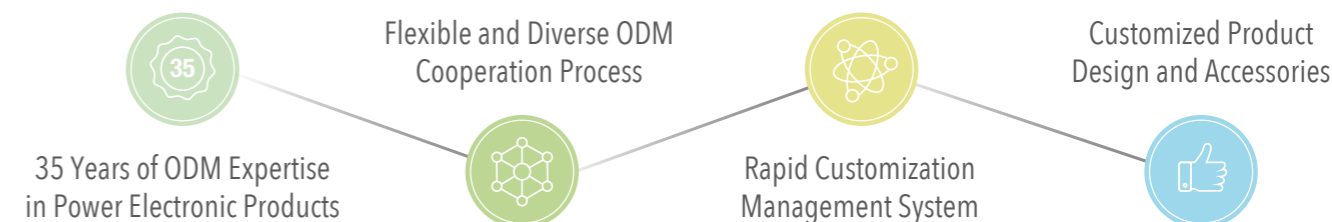
### QUALITY CONTROL

- Comprehensive QC and GP system throughout product development and production processes
- Endorsed by the leading industry players



### MANUFACTURING

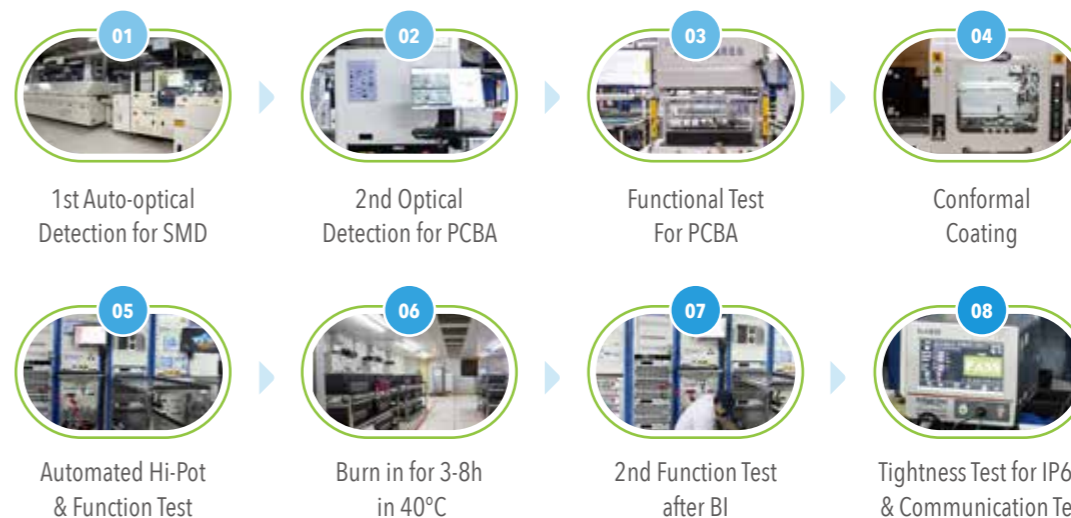
- Dual manufacturing bases in Taipei and Shenzhen
- Full industry process ranging from PCBA manufacturing to burn-in tests
- Highly-automated production equipment and flexible production line



## YOUR TRUSTWORTHY ODM PARTNER



## QUALITY CONTROL IN MANUFACTURING PROCESS



## SHIPMENT

# PRODUCT LINE PLATFORM

## On-Grid Inverter Residential Use

Single Phase  
2kW-10kW

Three Phase  
5kW-15kW



## On-Grid Inverter Small-Medium C&I Use

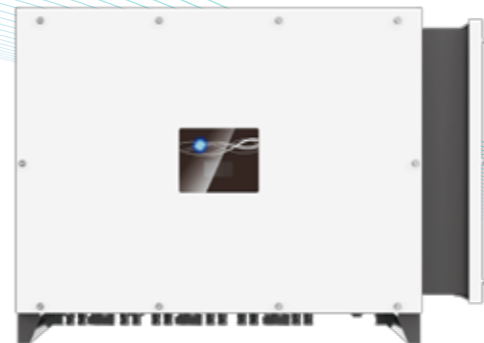
Three Phase  
10kW-30kW



## On-Grid Inverter Medium-Large C&I Use

Three Phase  
30kW-50kW

Three Phase  
100kW-125kW



## Energy Storage Inverter Residential Use

Single Phase  
3.6kW-6kW

Single Phase  
3kW-6kW

Three Phase  
5kW-10kW

Three Phase  
12kW-30kW



Split Phase  
5kW-10kW-UL

Single Phase  
8kW-10kW-EU



# SINGLE PHASE & SINGLE MPPT

## SE 2/3/3.6KTL-S1/G2P

Application: Residential Use



### SUPERIOR PERFORMANCE

- Maximum efficiency of 97.8%
- Large string current, compatible with large PV modules
- Wide voltage range, compatible with various power grids



### HIGH RELIABILITY

- IP65 protection level for outdoor installation
- Optional: DC/AC Type II SPD
- Optional: AFCI function



### INTELLIGENT MAINTENANCE

- Power consumption monitoring
- Remote configuration and upgrade
- Quick commissioning via mobile app

Model	SE 2KTL-S1/G2P	SE 3KTL-S1/G2P	SE 3K6TL-S1/G2P
<b>Efficiency</b>			
Max. Efficiency		97.8%	
European Efficiency	96.5%	96.8%	96.8%
<b>Input(PV)</b>			
Max. Input Voltage		500V	
Max. PV Configuration (STC)		150%	
Rated Input Voltage		360V	
Max. Input Current		15A	
Max.Short Circuit Current		20A	
Start Input Voltage		70V	
MPPT Operating Voltage Range		50V-490V	
Max. Number of PV Strings		1	
No. of MPPTs		1	
<b>Output(Grid)</b>			
Rated AC Active Power	2,000W	3,000W	3,600W
Max. AC Apparent Power	2,200VA	3,300VA	3,600VA
Max. AC Output Current	10A	15A	16A
Rated AC Voltage	220V/230V, L+N+PE		
AC Voltage Range <sup>①</sup>	160V-300V (Adjustable)		
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range <sup>②</sup>	45Hz-55Hz / 55Hz-65Hz (Adjustable)		
THDI	<3% (Rated Power)		
DC Current Injection	<0.5%In		
Power Factor	>0.99 Rated power (Adjustable 0.8 LD-0.8 LG)		
<b>Protection</b>			
DC Switch	Yes		
Anti-Islanding Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short Circuit Protection	Yes		
DC Reverse Protection	Yes		
Surge Arrester	DC Type III(Type II optional) / AC Type III(Type II optional)		
Insulation Detection	Yes		
Leakage Current Protection	Yes		
<b>General</b>			
Topology	Transformerless		
IP Rating	IP65		
Night Self Consumption	<1W		
Cooling	Natural cooling		
Operating Temperature Range	-25°C-60°C		
Relative Humidity Range	0-100%		
Max. Operating Altitude	4000m		
Dimensions (W*H*D)	320mm*344mm*137mm		
Weight	6.5Kg		
<b>HMI &amp; COM</b>			
Display	Wireless & APP+LED, LCD (Optional)		
Communication	Optional: WiFi / GPRS / RS485 / LAN		
<b>Certification</b>			
Safety	IEC62109-1, IEC62109-2		
Grid Code	DE-AR-N 4105, EN 50549-1, CEI 0-21, UNE 206001/206002-1, IEC 61727/62116, ORDINANCE n°140 2022, IEEE 1547, UL 1741, AS 4777, VDE 0126-1		
<b>Warranty</b>	5 Years		

**Remarks :**

- <sup>①②</sup>The range of output voltage and frequency may vary depending on different grid codes.
- Specifications are subject to change without advanced notice.

# SINGLE PHASE & DUAL MPPT

## SE 4/5/6KTL-D1/G2P

Application: Residential Use



### SUPERIOR PERFORMANCE

- Maximum efficiency of 98.2%
- Large string current, compatible with large PV modules
- Wide voltage range, compatible with various power grids



### HIGH RELIABILITY

- IP65 protection level for outdoor installation
- Optional: DC/AC Type II SPD
- Optional: AFCI function



### INTELLIGENT MAINTENANCE

- Power consumption monitoring
- Remote configuration and upgrade
- Quick commissioning via mobile app

Model	SE 4KTL-D1/G2P	SE 5KTL-D1/G2P	SE 6KTL-D1/G2P
<b>Efficiency</b>			
Max. Efficiency		98.2%	
European Efficiency	97.0%	97.3%	97.4%
<b>Input(PV)</b>			
Max. Input Voltage		550V	
Max. PV Configuration (STC)		150%	
Rated Input Voltage		360V	
Max. Input Current		30A (2*15A)	
Max.Short Circuit Current		40A (2*20A)	
Start Input Voltage		90V	
MPPT Operating Voltage Range		70V-540V	
Max. Number of PV Strings		2 (1/1)	
No. of MPPTs		2	
<b>Output(Grid)</b>			
Rated AC Active Power	4,000W	5,000W	6,000W
Max. AC Apparent Power	4,400VA	5,500VA	6,000VA
Max. AC Output Current	20A	25A	27.3A
Rated AC Voltage	220V/230V, L+N+PE		
AC Voltage Range <sup>①</sup>	160V-300V (Adjustable)		
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range <sup>②</sup>	45Hz-55Hz / 55Hz-65Hz (Adjustable)		
THDI	<3% (Rated Power)		
DC Current Injection	<0.5%In		
Power Factor	>0.99 Rated power (Adjustable 0.8 LD-0.8 LG)		
<b>Protection</b>			
DC Switch	Yes		
Anti-Islanding Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short Circuit Protection	Yes		
DC Reverse Protection	Yes		
Surge Arrester	DC Type III(Type II optional) / AC Type III(Type II optional)		
Insulation Detection	Yes		
Leakage Current Protection	Yes		
<b>General</b>			
Topology	Transformerless		
IP Rating	IP65		
Night Self Consumption	< 1W (Standard)		
Cooling	Natural cooling		
Operating Temperature Range	-25°C-60°C		
Relative Humidity Range	0-100%		
Max. Operating Altitude	4000m		
Dimensions (W*H*D)	350mm*347mm*137mm		
Weight	8.5Kg		
<b>HMI &amp; COM</b>			
Display	Wireless & APP+LED, LCD (Optional)		
Communication	Optional: WiFi / GPRS / RS485 / LAN		
<b>Certification</b>			
Safety	IEC62109-1, IEC62109-2		
Grid Code	DE-AR-N 4105, EN 50549-1, CEI 0-21, UNE 206001/206002-1, IEC 61727/62116, ORDINANCE n°140 2022, IEEE 1547, UL 1741, AS 4777, VDE 0126-1		
<b>Warranty</b>	5 Years		

**Remarks :**

- <sup>①②</sup>The range of output voltage and frequency may vary depending on different grid codes.
- Specifications are subject to change without advanced notice.

# SINGLE PHASE & DUAL MPPT

## SE 7/8/10KTL-D1P

Application: Residential Use



### SUPERIOR PERFORMANCE

- Maximum efficiency of 98.2%
- Large string current, compatible with large PV modules
- Wide voltage range, compatible with various power grids



### HIGH RELIABILITY

- IP65 protection level for outdoor installation
- Optional: DC/AC Type II SPD
- Optional: AFCI function



### INTELLIGENT MAINTENANCE

- Power consumption monitoring
- Remote configuration and upgrade
- Quick commissioning via mobile app
- Multiple I/O and communication configurations

Model	SE 7KTL-D1P	SE 8KTL-D1P	SE 10KTL-D1P
<b>Efficiency</b>			
Max. Efficiency	98.2%		
European Efficiency	97.5%		
<b>Input (PV)</b>			
Max. Input Voltage	550V		
Max. PV Configuration (STC)	150%		
Rated Input Voltage	360V		
Max. Input Current	40A (2*20A)	50A (2*15A+20A)	
Max. Short Circuit Current	52A (2*26A)	66A (2*20A+26A)	
Start Input Voltage	90V		
MPPT Operating Voltage Range	60V-540V		
Max. Number of PV Strings	2 (1/1)	3 (2/1)	
No. of MPPTs	2		
<b>Output (Grid)</b>			
Rated AC Active Power	7,000W	8,000W	10,000W
Max. AC Apparent Power	7,700VA	8,800VA	10,000VA
Max. AC Output Current	35A	40A	45.5A
Rated AC Voltage	220V/230V, L+N+PE		
AC Voltage Range <sup>①</sup>	160V-300V (Adjustable)		
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range <sup>②</sup>	45Hz-55Hz / 55Hz-65Hz (Adjustable)		
THDI	<3% (Rated Power)		
DC Current Injection	<0.5%In		
Power Factor	>0.99 Rated power (Adjustable 0.8 LD-0.8 LG)		
<b>Protection</b>			
DC Switch	Yes		
Anti-Islanding Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short Circuit Protection	Yes		
DC Reverse Protection	Yes		
Surge Arrester	DC Type III(Type II optional) / AC Type III(Type II optional)		
Insulation Detection	Yes		
Leakage Current Protection	Yes		
<b>General</b>			
Topology	Transformerless		
IP Rating	IP65		
Night Self Consumption	< 1W (Standard)		
Cooling	Natural cooling		
Operating Temperature Range	-25°C-60°C		
Relative Humidity Range	0-100%		
Max. Operating Altitude	4000m		
Dimensions (W*H*D)	400mm*450mm*170mm		
Weight	16Kg		
<b>HMI &amp; COM</b>			
Display	Wireless & APP+LED, LCD (Optional)		
Communication	Optional: WiFi / GPRS / RS485 / LAN		
<b>Certification</b>			
Safety	IEC62109-1, IEC62109-2		
Grid Code	DE-AR-N 4105, EN 50549-1, CEI 0-21, UNE 206001/206002-1, IEC 61727/62116, ORDINANCE n°140 2022, IEEE 1547, UL 1741, AS 4777, VDE 0126-1		
<b>Warranty</b>	5 Years		

**Remarks :**

- <sup>①②</sup>The range of output voltage and frequency may vary depending on different grid codes.
- Specifications are subject to change without advanced notice.

# THREE PHASE & DUAL MPPT

## SE 5/6/8/10/12/15KTL-D3/G2

Application: Residential & Small C&I use



### SUPERIOR PERFORMANCE

- Maximum efficiency of 98.3%
- Large string current, compatible with large PV modules
- Wide voltage range, compatible with various power grids
- Compact for easy installation



### HIGH RELIABILITY

- IP66 protection level for outdoor installation
- Optional: DC/AC Type II SPD
- Optional: AFCI function



### INTELLIGENT MAINTENANCE

- Power consumption monitoring
- Remote configuration and upgrade
- Quick commissioning via mobile app
- Multiple I/O and communication configurations

Model	SE 5KTL-D3/G2	SE 6KTL-D3/G2	SE 8KTL-D3/G2	SE 10KTL-D3/G2	SE 12KTL-D3/G2	SE 15KTL-D3/G2
<b>Efficiency</b>						
Max. Efficiency	98.2%			98.3%		
European Efficiency	97.8%					
<b>Input (PV)</b>						
Max. Input Voltage	1100V					
Max. PV Configuration	150%					
Rated Input Voltage	620V					
Max. Input Current	2*15A				15A+2*15A	
Max.Short Circuit Current	2*20A				20A+2*20A	
Start Input Voltage	180V					
MPPT Operating Voltage Range	160V-1000V					
Max. Number of PV Strings	2 (1/1)				3 (1/2)	
No. of MPPTs	2					
<b>Output (Grid)</b>						
Rated AC Active Power	5000W	6,000W	8,000W	10,000W	12,000W	15,000W
Max. AC Apparent Power	5500VA	6,600VA	8,800VA	11,200VA	13,200VA	16,700VA
Max. AC Output Current	3*8.4A	3*10.1A	3*13.4A	3*17A	3*20.2A	3*25.3A
Rated AC Voltage	380V / 400V / 415V, 3W+N+PE					
AC Voltage Range <sup>①</sup>	260V-510V (Adjustable)					
Rated Grid Frequency	50Hz / 60Hz					
Grid Frequency Range <sup>②</sup>	45Hz-55Hz / 55Hz-65Hz (Adjustable)					
THDI	<3%@Rated Power					
DC Current Injection	<0.5%@Rated Current					
Power Factor	> 0.99 Rated power (Adjustable 0.8 LD - 0.8 LG)					
<b>Protection</b>						
DC Switch	Yes					
Anti-Islanding Protection	Yes					
AC Overcurrent Protection	Yes					
AC Short Circuit Protection	Yes					
DC Reverse Protection	Yes					
Surge Arrester	DC Type III(Type II optional) / AC Type III(Type II optional)					
Insulation Detection	Yes					
Leakage Current Protection	Yes					
<b>General</b>						
Topology	Transformerless					
IP Rating	IP66					
Night Self Consumption	< 1W (Standard)					
Cooling	Natural cooling					
Operating Temperature Range	-25°C-60°C					
Relative Humidity Range	0-100%					
Max. Operating Altitude	4000m					
Dimensions (W*H*D)	398mm*460mm*190mm					
Weight	16.8Kg					18.7Kg
<b>HMI &amp; COM</b>						
Display	Wireless & APP + LED, LCD (Optional)					
Communication	RS485, Optional: WiFi / GPRS / LAN					
<b>Certification</b>						
Safety	IEC62109-1, IEC62109-2					
Grid Code	VDE-AR-N 4105, EN 50549-1, CEI 0-21, UNE 206006/206007-1, RD 1699/661&413, IEC 61727/62116, AS4777.2					
Warranty	5 Years					

Remarks: • <sup>①②</sup>The range of output voltage and frequency may vary depending on different grid codes.  
• Specifications are subject to change without advanced notice.



## THREE PHASE & DUAL MPPT

SE 10/15KTL-D3/G2P, SE 17/20/22/25/30KTL-D3/G2

Application: Residential & Small and Medium C&I use



### SUPERIOR PERFORMANCE

- Maximum efficiency of 98.4%
- Large string current, compatible with large PV modules
- Wide voltage range, compatible with various power grids
- Compact for easy installation



### HIGH RELIABILITY

- IP66 protection level for outdoor installation
- Optional: DC/AC Type II SPD
- Optional: AFCI function



### INTELLIGENT MAINTENANCE

- Power consumption monitoring
- Remote configuration and upgrade
- Quick commissioning via mobile app
- Multiple I/O and communication configurations

Model	SE 10KTL-D3/G2P	SE 15KTL-D3/G2P	SE 17KTL-D3/G2	SE 20KTL-D3/G2	SE 22KTL-D3/G2	SE 25KTL-D3/G2	SE 30KTL-D3/G2	
<b>Efficiency</b>								
Max. Efficiency	98.4%							
European Efficiency	97.8%						98.0%	
<b>Input (PV)</b>								
Max. Input Voltage	1100V							
Max. PV Configuration	150%							
Rated Input Voltage	620V							
Max. Input Current	15A+30A						2*30A	40A/30A
Max.Short Circuit Current	20A+40A						2*40A	50A/37.5A
Start Input Voltage	180V							
MPPT Operating Voltage Range	160V-1000V							
Max. Number of PV Strings	3 (1/2)						4 (2/2)	
No. of MPPTs	2							
<b>Output (Grid)</b>								
Rated AC Active Power	10,000W	15,000W	17,000W	20,000W	22,000W	25,000W	30,000W	
Max. AC Apparent Power	11,000VA	16,500VA	18,700VA	22,000VA	24,200VA	27,500VA	33,000VA	
Max. AC Output Current	3*16.8A	3*25.3A	3*28.6A	3*33.7A	3*37A	3*39.8A	3*50.2A	
Rated AC Voltage	380V / 400V / 415V, 3W+N+PE							
AC Voltage Range <sup>①</sup>	260V-510V (Adjustable)							
Rated Grid Frequency	50Hz / 60Hz							
Grid Frequency Range <sup>②</sup>	45Hz-55Hz / 55Hz-65Hz (Adjustable)							
THDI	<3%@Rated Power							
DC Current Injection	<0.5%@Rated Current							
Power Factor	> 0.99 Rated power (Adjustable 0.8 LD - 0.8 LG)							
<b>Protection</b>								
DC Switch	Yes							
Anti-Islanding Protection	Yes							
AC Overcurrent Protection	Yes							
AC Short Circuit Protection	Yes							
DC Reverse Protection	Yes							
Surge Arrester	DC Type III(Type II optional) / AC Type III(Type II optional)							
Insulation Detection	Yes							
Leakage Current Protection	Yes							
<b>General</b>								
Topology	Transformerless							
IP Rating	IP66							
Night Self Consumption	<1W							
Cooling	Natural cooling						Fan cooling	
Operating Temperature Range	-25°C-60°C							
Relative Humidity Range	0-100%							
Max. Operating Altitude	4000m							
Dimensions (W*H*D)	398mm*460mm*190mm							
Weight	18.7Kg						20.1Kg	20.3Kg
<b>HMI &amp; COM</b>								
Display	Wireless & APP +LED, LCD (Optional)							
Communication	RS485, Optional: WiFi / GPRS / LAN							
<b>Certification</b>								
Safety	IEC62109-1, IEC62109-2							
Grid Code	VDE-AR-N 4105, EN 50549-1, CEI 0-21, UNE 206006/206007-1, RD 1699/661&413, IEC 61727/62116, AS4777.2							
Warranty	5 Years							

Remarks: • <sup>①②</sup>The range of output voltage and frequency may vary depending on different grid codes.  
• Specifications are subject to change without advanced notice.

# THREE PHASE & MULTIPLE MPPT

## SE 30/40KTL-T3/G2, SE 50KTL-Q3/G2

Application: Commercial & Industrial Sites



### SUPERIOR PERFORMANCE

- Maximum efficiency of 98.5%
- Large string current, compatible with large PV modules
- 30KW with natural cooling design



### HIGH RELIABILITY

- IP66 protection level for outdoor installation
- DC/AC Type II SPD
- Optional: AFCL, Night SVG, I/V detection, and integrated PID



### INTELLIGENT MAINTENANCE

- Power consumption monitoring
- Remote configuration and upgrade
- Quick commissioning via mobile app
- String level current detection

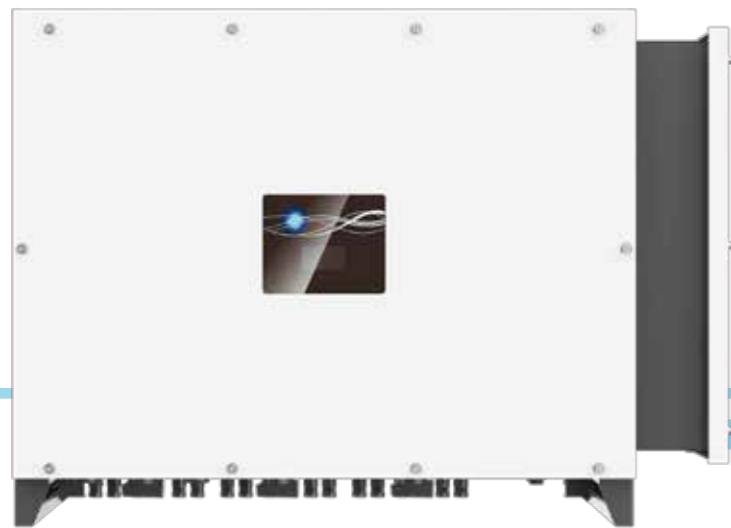
Model	SE 30KTL-T3/G2	SE 40KTL-T3/G2	SE 50KTL-Q3/G2
<b>Efficiency</b>			
Max. Efficiency		98.5%	
European Efficiency	98.0%	98.0%	97.9%
<b>Input (PV)</b>			
Max. Input Voltage		1100V	
Max. PV Configuration (STC)		150%	
Rated Input Voltage		620V	
Max. Input Current	40A+2*32A	40A+2*32A	40A+3*32A
Max.Short Circuit Current	50A+2*45A	50A+2*45A	50A+3*45A
Start Input Voltage		200V	
MPPT Operating Voltage Range		180V-1000V	
Max. Number of PV Strings	2/2/2	2/2/2	2/2/2/2
No. of MPPTs	3	3	4
<b>Output (Grid)</b>			
Rated AC Active Power	30000W	40000W	50000W
Max. AC Apparent Power	33400VA	44500VA	55600VA
Max. AC Output Current	51A	67.4A	84.2A
Rated AC Voltage		380V/400V/415V, 3W+N+PE or 3W+PE	
AC Voltage Range <sup>①</sup>		320V-520V (Adjustable)	
Rated Grid Frequency		50Hz / 60Hz	
Grid Frequency Range <sup>②</sup>		45-55Hz / 55-65Hz (Adjustable)	
THDI		<3% (Rated Power)	
DC Current Injection		<0.5In	
Power Factor		>0.99 Rated power (Adjustable 0.8 LD - 0.8LG)	
<b>Protection</b>			
DC Switch		Yes	
Anti-Islanding Protection		Yes	
AC Overcurrent Protection		Yes	
AC Short Circuit Protection		Yes	
DC Reverse Protection		Yes	
Surge Arrester		DC Type II / AC Type II	
Insulation Detection		Yes	
Leakage Current Protection		Yes	
PV String Monitoring		Optional	
Consumption Monitoring		Optional	
<b>General</b>			
Topology		Transformerless	
IP Rating		IP66	
Night Self Consumption		<5W (Standard)	
Cooling	Natural cooling	Fan cooling	
Operating Temperature Range		-25°C-60°C	
Relative Humidity Range		0-100%	
Max. Operating Altitude		4000m	
Dimensions (W*H*D)		635mm*530mm*224mm	
Weight	36Kg	40Kg	42Kg
<b>HMI &amp; COM</b>			
Display		Wireless & APP+LED, LCD (Optional)	
Communication		RS485, Optional: WiFi / GPRS / LAN	
<b>Certification</b>			
Safety		IEC62109-1, IEC62109-2	
Grid Code	VDE-AR-N 4105, EN 50549-1, CEI 0-21, UNE 206006/206007-1, RD 1699/661&413, IEC 61727/62116, AS4777.2		
Warranty		5 Years	

Remarks : • <sup>①②</sup>The range of output voltage and frequency may vary depending on different grid codes.  
• Specifications are subject to change without advanced notice.

# THREE PHASE & MULTIPLE MPPT

## SE 100/110KTL-M3, SE 125KTL-MH3

Application: Commercial & Industrial Sites



### SUPERIOR PERFORMANCE

- Maximum efficiency of 98.8%
- Large string current, compatible with large PV modules
- 9 MPPT, fuse-free design technology



### HIGH RELIABILITY

- IP66 protection level for outdoor installation
- Replaceable DC/AC Type II SPD
- Optional: AFCI, Night SVG, I/V detection, and integrated PID



### INTELLIGENT MAINTENANCE

- Power consumption monitoring
- Remote configuration and upgrade
- Quick commissioning via mobile app
- String level current detection

Model	SE 100KTL-M3	SE 110KTL-M3	SE 125KTL-MH3
<b>Efficiency</b>			
Max. Efficiency	98.5%	98.6%	98.8%
European Efficiency	98.0%	98.2%	98.4%
<b>Input (PV)</b>			
Max. Input Voltage	1100V		
Max. PV Configuration	150%		
Rated Input Voltage	620V		
Max. Input Current	3*40A+5*32A	3*40A+6*32A	
Max. Short Circuit Current	3*50A+5*45A	3*50A+6*45A	
Start Input Voltage/ Min. Operating Voltage	250V / 200V		
MPPT Operating Voltage Range	200V-1000V		
Max. Number of PV Strings	16 (8*2)	18 (9*2)	
No. of MPPTs	8	9	
<b>Output (Grid)</b>			
Rated AC Active Power	100,000W	110,000W	125,000W
Max. AC Apparent Power	111,000VA	123,000VA	139,000VA
Max. AC Output Current	3*168.8A	3*187A	3*167.3A
Rated AC Voltage	400V, 3W+N+PE or 3W+PE		480V, 3W+N+PE or 3W+PE
AC Voltage Range*	320V-520V (Adjustable)		408V-550V (Adjustable)
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range**	45Hz-55Hz / 55Hz-65Hz (Adjustable)		
THDI	<3% (Rated Power)		
DC Current Injection	<0.5%In		
Power Factor	> 0.99 Rated power (Adjustable 0.8 LD - 0.8 LG)		
<b>Protection</b>			
DC Switch	Yes		
Anti-Islanding Protection	Yes		
AC Overcurrent Protection	Yes		
AC Short Circuit Protection	Yes		
DC Reverse Protection	Yes		
Surge Arrester	DC Type II / AC Type II		
Insulation Detection	Yes		
Leakage Current Protection	Yes		
AFCI	Optional		
PID Recovery	Optional		
PV String Monitoring	Optional		
Consumption Monitoring	Optional		
<b>General</b>			
Topology	Transformerless		
IP Rating	IP66		
Night Self Consumption	< 10W (Standard)		
Cooling	Fan cooling		
Operating Temperature Range	-25°C-60°C		
Relative Humidity Range	0-100%		
Max. Operating Altitude	4000m		
Dimensions (W*H*D)	936mm*678mm*365mm		
Weight	91.5Kg	92Kg	
<b>HMI &amp; COM</b>			
Display	Wireless & APP +LED, LCD (Optional)		
Communication	RS 485, Optional: WiFi / GPRS / LAN		
<b>Certification</b>			
Safety	IEC62109-1, IEC62109-2		
Grid Code	EN 50549-1/-2, IEC 61727/62116, VDE-AR-N 4105, CEI 0-21/16, UNE 206006/206007-1, UNE 217001, AS 4777		
Warranty	5 Years		

Remarks: • The range of output voltage and frequency may vary depending on different grid codes.  
• Specifications are subject to change without advanced notice.

## SINGLE PHASE HYBRID INVERTER

### SE 3.6KHB-60, SE 4.6/5/6KHB-120



### EXCELLENT PERFORMANCE

- Maximum efficiency 97.3%, battery efficiency 94.3%
- Maximum 9kW PV input power
- Maximum Charge/Discharge current 120A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international famous brands
- IP65 protection rating, good adaptability to complex outdoor environment
- Multiple protections built-in, optional Type II SPD



### INTELLIGENT MAINTENANCE

- Quick commission through APP, 7\*24h remote monitoring, configuring, upgrading
- Advance energy management mechanism, multiple working modes built-in, and support flexible customized setting
- Optional generator and smart load function

Model	SE 3K6HB-60	SE 4K6HB-120	SE 5KHB-120	SE 6KHB-120
<b>Efficiency</b>				
Max. Efficiency (PV to AC)			97.3%	
Max. Efficiency (BAT to AC)			94.3%	
Euro. Efficiency (PV-AC)			96.8%	
<b>Input (PV)</b>				
Max. PV Input Power	6,300W		9,000W	
Max. PV Voltage			550V	
Start-up Voltage			90V	
MPPT Voltage Range			70V-540V	
Max. Input Current			15A/15A	
Max. Short Circuit Current			20A/20A	
Nos. of MPPT			2	
String per MPPT			1/1	
<b>Input/Output (BAT)</b>				
Battery type			Lithium-ion, Lead-acid	
Nominal Battery Voltage			48V	
Battery Voltage Range			40V-65V	
Max. charge/Discharge Current	60A/60A	120A/120A	120A/120A	120A/120A
Max. Charge/Discharge Power	3,000W/3,000W	6,000W/6,000W	6,000W/6,000W	6,000W/6,000W
<b>Output (Grid)</b>				
Nominal AC Output Power	3,600W	4,600W	5,000W	6,000W
Max. AC Apparent Power	3,960VA	4,600VA	5,500VA	6,000VA
Max.AC Output Power (PF=1)	39,60W	4,600W	5,500W	6,000W
Max. AC Output Current	18A	22A	25A	27.2A
Nominal Grid voltage			220V/230V/240V, L+N+PE	
Grid Voltage Range			150V-300V (Adjustable)	
Nominal Grid Frequency			50Hz/60Hz	
Grid Frequency Range			45Hz-55Hz/55Hz-65Hz (Adjustable)	
Power factor			> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
THDI			<3% (Rated Power)	
<b>Output (Back up)</b>				
Nominal Output Power	3,000W	4,600W	5,000W	6,000W
Nominal Output Current	13A	20A	21.7A	26A
Peak Power(>1s)	4,500VA	6,900VA	7,500VA	9,000VA
Nominal Output Voltage			220V/230V/240V, L+N+PE	
Nominal Output Frequency			50Hz/60Hz	
Transfer Time			<10ms	
THDV			<3% @100% R Load	
<b>Protection</b>				
Protection Category			Class I	
DC switch			Yes	
Anti-islanding Protection			Yes	
AC Over Current Protection			Yes	
AC Over Voltage Protection			Yes	
AC Short Circuit Protection			Yes	
DC Reverse Protection			Yes	
Surge Arrester			DC Type III, AC Type III	
PV Insulation Detection			Yes	
Leakage Current Protection			Yes	
<b>General</b>				
Max. Operation Altitude			4000m (>2000m derating)	
Protection Degree			IP65	
Operating Temperature Range			-25°C~60°C (>45°C derating)	
Relative Humidity			0~100%	
Cooling			Natural Cooling	
Mounting			Wall bracket	
Dimensions (W*H*D)			570mm*495mm*175mm	
Weight	20Kg		25Kg	
PV Connection			MC4/H4	
Battery Connection			Dedicated DC connector	
AC Connection			Dedicated AC connector	
<b>HMI &amp; COM</b>				
Display			LED+APP	
Communication Interface			RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: Wi-Fi/GPRS/LAN	
<b>Certification</b>				
Grid	VDE-AR-N4105, IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G99/G100, CEI 0-21, NRS 097-2-1, RD 1699/661/413			
Safety	IEC 62109-1&2, IEC 62477-1			
Warranty	5 Years/10 Years (Optional)			

- Remarks:**
- The range of output voltage and frequency may vary depending on different grid codes.
  - Specifications are subject to change without advanced noticed.

## SINGLE PHASE HYBRID INVERTER

### SE 3/3.6/4.6/5/6KHB-HV



### EXCELLENT PERFORMANCE

- Maximum efficiency 97.8%, battery efficiency 97.0%
- Maximum 12kW PV input power
- Maximum Charge/Discharge current 30A
- Large MPPT current, compatible with high-power solar panels
- Support full-house loads on backup port, maximum 12kW



### HIGH RELIABILITY

- Key components from international famous brands
- IP65 protection rating, good adaptability to complex outdoor environment
- Multiple protections built-in, optional AFCI, Type II SPD



### INTELLIGENT MAINTENANCE

- Quick commission through APP, 7\*24h remote monitoring, configuring, upgrading
- Advance energy management mechanism, multiple working modes built-in, and support flexible customized setting

Model	SE 3KHB-HV	SE 3.6KHB-HV	SE 4.6KHB-HV	SE 5KHB-HV	SE 6KHB-HV
<b>Efficiency</b>					
Max. Efficiency (PV to AC)			97.8%		
Max. Efficiency (BAT to AC)			97.0%		
Euro. Efficiency (PV to Grid)			97.5%		
<b>Input (PV)</b>					
Max. PV Input Power			12,000W		
Max. PV Voltage			550V		
Start-up Voltage			90V		
MPPT Voltage Range			70V-540V		
Max. Input Current			16A/16A		
Max. Short Circuit Current			20A/20A		
Nos. of MPPT			2		
String per MPPT			1/1		
<b>Input/Output (BAT)</b>					
Battery Type			LLithium-ion, Lead-acid		
Battery Voltage Range			80-480 V		
Max. Charge/Discharge Current			30A/30A		
Max. Charge/Discharge Power	6,000W/3,960W	6,000W/3,960W	6,000W/6,600W	6,000W/6,600W	6,000W/6,600W
<b>Output (Grid)</b>					
Nominal AC Output Power	3,000W	3,600W	4,600W	5,000W	6,000W
Max. AC Apparent Power	3,300VA	3,960VA	4,600VA	5,500VA	6,600VA
Max. AC Output Power (PF=1)	3,300W	3,960W	4,600W	5,500W	6,600W
Max. AC Output Current	15.0A	18.0A	21.0A	25.0A	28.7A
Nominal Grid voltage			220V/230V/240V, L+N+PE		
Grid Voltage Range			150V-300V (Adjustable)		
Nominal Grid Frequency			50Hz/60Hz		
Grid Frequency Range			45Hz-55Hz/55Hz-65Hz (Adjustable)		
Power Factor			> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)		
THDI			<3% (Rated Power)		
<b>Output (Back up)</b>					
Nominal Output Power	3,000W	3,600W	4,600W	5,000W	6,000W
Nominal Output Current	13.6/13.0/12.5A	16.4/15.7/15.0A	20.9/20.0/19.2A	22.7/21.7/20.8A	27.3/26.1/25.0A
Peak Power(1min)	3,600VA	4,320VA	5,520VA	6,000VA	7,200VA
Peak Power(5s)	4,500VA	5,400VA	6,900VA	7,500VA	9,000VA
Nominal Output Voltage			220V/230V/240V, L+N+PE		
Nominal Output Frequency			50/60Hz		
Transfer Time			<10ms		
THDV			<3% @100% R Load		
<b>Protection</b>					
Protection Category			Class I		
DC Switch			Yes		
Anti-islanding Protection			Yes		
AC Over Current Protection			Yes		
AC Over Voltage Protection			Yes		
AC Short Circuit Protection			Yes		
DC Reverse Protection			Yes		
Surge Arrester			DC Type III, AC Type III		
PV Insulation Detection			Yes		
Leakage Current Protection			Yes		
AFCI			Optional		
RSD			Optional		
<b>General</b>					
Max. Operation Altitude			4000m (>2000m derating)		
Protection Degree			IP66		
Operating Temperature Range			-25~60°C (>45°C derating)		
Relative Humidity			0~100%		
Cooling			Natural Cooling		
Mounting			Wall bracket		
Dimensions (W*H*D)			491mm*348mm*170mm		
Weight			16Kg		
<b>HMI &amp; COM</b>					
Display			LED+APP		
Communication interface			RS485/CAN (for BMS), RS485, DRM/RS485 (for Meter), Optional: Wi-Fi/GPRS/LAN		
<b>Certification</b>					
Grid			IEC 61727& 62116, EN 50549-1, VDE 4105, AS 4777, CEI 0-21, G98, G99, RD1699, C10/11, NRS097		
Safety			IEC 62109-1/2, IEC 62477		
EMC			IEC/EN 61000-6-3, IEC 61000-3-11, IEC 61000-3-12		
Warranty			5 Years/10 Years (Optional)		

- Remarks :**
- The range of output voltage and frequency may vary depending on different grid codes.
  - Specifications are subject to change without advanced notice.

## SINGLE PHASE HYBRID INVERTER

### SE 8/10KHB-EU



### EXCELLENT PERFORMANCE

- Maximum efficiency 98.0%, battery efficiency 94.5%
- Maximum 15kW PV input power, continuously 10% output overload
- Maximum Charge/Discharge current 210A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international famous brands
- IP65 protection rating, good adaptability to complex outdoor environment
- Multiple protections built-in, optional AFCI, RSD



### INTELLIGENT MAINTENANCE

- Quick commission through APP, 7\*24h remote monitoring, configuring, upgrading
- Advance energy management mechanism, multiple working modes built-in, and support flexible customized setting

Model	SE 8KHB-180-T/EU	SE 10KHB-210-T/EU
<b>Efficiency</b>		
Max. Efficiency (PV to AC)	98.0%	
Max. Efficiency (BAT to AC)	94.5%	
<b>Input (PV)</b>		
Max. PV Input Power	12,000W	15,000W
Max. PV Voltage	600V	
Start-up Voltage	90V	
MPPT Voltage Range	70V-540V	
Max. Input Current	30A/22A/22A	
Max. Short Circuit Current	40A/30A/30A	
Nos. of MPPT	3	
String per MPPT	2/2/2	
<b>Input/Output (BAT)</b>		
Battery Type	Lithium-ion, Lead-acid	
Nominal Battery Voltage	48V	
Battery Voltage Range	40V-64V	
Max. Charge/Discharge Current	210A/180A	210A/210A
Max. Charge/Discharge Power	10,000W/8,000W	10,000W/10,000W
<b>Output (Grid)</b>		
Nominal AC Output Power	8,000W	10,000W
Max. AC Apparent Power	8,800VA	11,000VA
Max. AC Output Power (PF=1)	8,800W	11,000W
Max. AC Output Current	40A	50A
Rated Grid voltage	220V/230/240V, L+N+PE	
Grid Voltage Range	150V-300V (Adjustable)	
Rated Grid Frequency	50Hz/60Hz	
Grid Frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)	
Power Factor	> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
THDI	<3% (Rated Power)	
<b>Output (Back up)</b>		
Nominal Output Power	8,000W	10,000W
Nominal Output Current	34.8A	43.5A
Peak Power (1s)	16,000VA	20,000VA
Nominal Output Voltage	220V/230/240V, L+N+PE	
Nominal Output Frequency	50Hz/60Hz	
Transfer Time	<10ms	
THDV	<3% @100% R Load	
<b>Protection</b>		
Protection Category	Class I	
DC Switch	Yes	
Anti-islanding Protection	Yes	
AC Over Current Protection	Yes	
AC Over Voltage Protection	Yes	
AC Short Circuit Protection	Yes	
DC Reverse Protection	Yes	
Surge Arrester	DC Type II, AC Type II	
PV Insulation Detection	Yes	
Leakage Current Protection	Yes	
AFCI	Optional	
RSD	Optional	
<b>General</b>		
Max. Operation Altitude	4000m (>2000m derating)	
Protection Degree	IP65	
Operating Temperature Range	-25°C~60°C(>45°C derating)	
Relative Humidity	0~100%	
Cooling	Fan Cooling	
Mounting	Wall bracket	
Dimensions (W*H*D)	420mm*800mm*240mm	
Weight	37Kg	
PV Connection	Terminals	
<b>HMI &amp; COM</b>		
Display	LED+APP, LCD (Optional)	
Communication Interface	RS485/CAN (for BMS), DRM/RS485 (for Meter), RS485 Optional: Wi-Fi/GPRS/LAN	
<b>Certification</b>		
Grid	IEC 61727/62116, AS 4777.2, NRS 097-2-1	
Safety	IEC 62109-1&2	
EMC	EN 61000	
Warranty	5 Years/10 Years (Optional)	

**Remarks:**

- The range of output voltage and frequency may vary depending on different grid codes.
- Specifications are subject to change without advanced notice.

## SPLIT PHASE HYBRID INVERTER

### SE 5/6/8/10KHB-UL



### EXCELLENT PERFORMANCE

- Maximum efficiency 98.0%, battery efficiency 94.5%
- Maximum 15kW PV input power, continuously 10% output overload
- Maximum Charge/Discharge current 210A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international famous brands
- IP65 protection rating, good adaptability to complex outdoor environment
- Multiple protections built-in, AFCI, RSD



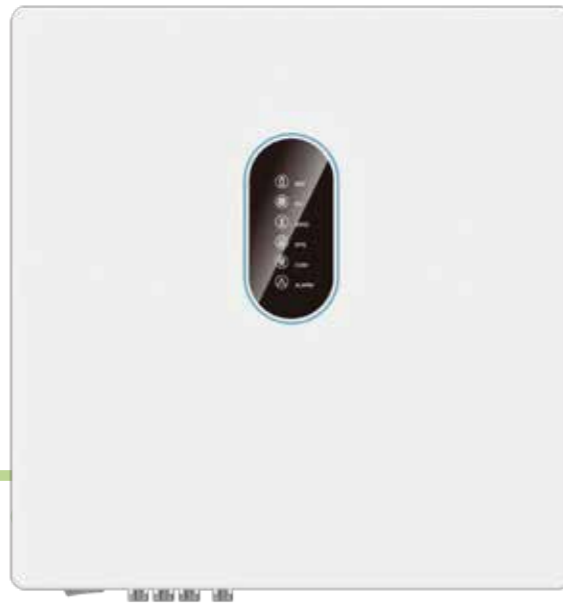
### INTELLIGENT MAINTENANCE

- Quick commission through APP, 7\*24h remote monitoring, configuring, upgrading
- Advance energy management mechanism, multiple working modes built-in, and support flexible customized setting

Model	SE 5KHB-130-D2/UL	SE 6KHB-130-D2/UL	SE 8KHB-180-T2/UL	SE 10KHB-210-T2/UL
<b>Efficiency</b>				
Max. Efficiency (PV to AC)			98.0%	
Max. Efficiency (BAT to AC)			94.5%	
CEC Efficiency			97%	
<b>Input (PV)</b>				
Max. PV Input Power	7,500W	9,000W	12,000W	15,000W
Max. PV Voltage			600V	
Start-up Voltage			90V	
MPPT Voltage Range			70V-540V	
Max. Input Current		30A/22A		30A/22A/22A
Max. Short Circuit Current		40A/30A		40A/30A/30A
Nos. of MPPT		2		3
String per MPPT		2/2		2/2/2
<b>Input/Output (BAT)</b>				
Battery Type			Lithium-ion, Lead-acid	
Nominal Battery Voltage			48V	
Battery Voltage Range			40V-64V	
Max. Charge/Discharge Current	210A/130A	210A/130A	210A/180A	210A/210A
Max. Charge/Discharge Power	10,000W/5,000W	10,000W/6,000W	10,000W/8,000W	10,000W/10,000W
<b>Output (Grid)</b>				
Nominal AC Output Power	5,000W	6,000W	8,000W	10,000W
Max. AC Apparent Power	5,500VA	6,600VA	8,800VA	11,000VA
Max. AC Output Power (PF=1)	5,500W	6,600W	8,800W	11,000W
Max. AC Output Current	25A	30A	40A	50A
Rated Grid voltage		120/240V (Split Phase) / 230V (Single Phase) / 208V (2/3 Phase)		
Rated Grid frequency		60Hz		
Grid Frequency Range		55Hz-65Hz (Adjustable)		
Power Factor		> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)		
THDI		<3% (Rated Power)		
<b>Output (Back up)</b>				
Nominal Output Power	5,000W	6,000W	8,000W	10,000W
Nominal Output Current	20.9A	25A	33.4A	41.7A
Peak Power (1s)	10,000VA	12,000VA	16,000VA	20,000VA
Nominal Output Voltage		120/240V (Split phase) / 230V (Single phase) / 208V (2/3 phase)		
Nominal Output Frequency		60Hz		
Transfer Time		10ms		
THDV		<3% @100% R Load		
<b>Protection</b>				
Protection Category			Class I	
DC Switch			Yes	
Anti-islanding Protection			Yes	
AC Over Current Protection			Yes	
AC Over Voltage Protection			Yes	
AC Short Circuit Protection			Yes	
DC Reverse Protection			Yes	
Surge Arrester			DC Type II, AC Type II	
Insulation Detection			Yes	
Leakage Current Protection			Yes	
AFCI			Yes	
RSD			Support (MLRSD Sunspec)	
<b>General</b>				
Max. Operation Altitude			2000m	
Protection Degree			IP65	
Operating Temperature Range			-25°C~60°C(>45°C derating)	
Relative Humidity			0~100%	
Cooling			Fan Cooling	
Mounting			Wall bracket	
Dimensions (W*H*D)			420mm*800mm*240mm	
Weight			37Kg	
PV Connection			Terminals	
<b>HMI &amp; COM</b>				
Display			LED+APP	
Communication Interface			RS485/CAN (for BMS), DRM/RS485 (for Meter), RS485 Optional: Wi-Fi/GPRS/LAN	
<b>Certification</b>				
Grid			UL1741SB, IEEE1547: 2018, HECO SRD 2.0	
Safety			UL 1741/CSA C22.2/UL 1699B	
EMC			FCC Part 15 Class B	
Warranty			5 Years/10 Years (Optional)	

- Remarks:**
- The range of output voltage and frequency may vary depending on different grid codes.
  - Specifications are subject to change without advanced noticed.

## THREE PHASE HYBRID INVERTER SE 5/6/8/10KHB-D3



### EXCELLENT PERFORMANCE

- Maximum efficiency 98.4%, battery efficiency 98%
- Maximum 15kW PV input power, continuously 10% output overload, 150% unbalance output
- Maximum Charge/Discharge current 50A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international famous brands
- IP65 protection rating, good adaptability to complex outdoor environment
- Multiple protections built-in, optional AFCI, RSD



### INTELLIGENT MAINTENANCE

- Quick commission through APP, 7\*24h remote monitoring, configuring, upgrading
- Advance energy management mechanism, multiple working modes built-in, and support flexible customized setting

Model	SE 5KHB-D3	SE 6KHB-D3	SE 8KHB-D3	SE 10KHB-D3
<b>Efficiency</b>				
Max. Efficiency (PV to AC)	98.2%		98.4%	
Euro. Efficiency (PV to AC)	97.2%		97.9%	
Max. Efficiency (BAT to AC)	98.0%			
<b>Input (PV)</b>				
Max. PV Input Power	9,000W		15,000W	
Max. PV Voltage	1000V			
Start-up Voltage	150V			
MPPT Voltage Range	160V-950V			
Max. Input Current	15A/15A		20A/30A	
Max. Short Circuit Current	20A/20A		30A/40A	
Nos. of MPPT	3			
String per MPPT	1/1		1/2	
<b>Input/Output (BAT)</b>				
Battery Type	Lithium-ion, Lead-acid			
Nominal Battery Voltage	250V-600V			
Battery Voltage Range	150V-600V			
Max. Charge/Discharge Current	25A/25A	25A/25A	50A/50A	50A/50A
Max. Charge/Discharge Power	9,000W/5,800W	9,000W/7,000W	15,000W/9,100W	15,000W/11,300W
<b>Output (Grid)</b>				
Nominal AC Output Power	5,000W	6,000W	8,000W	10,000W
Max. AC Apparent Power	5,500VA	6,600VA	8,800VA	11,000VA
Max. AC Output Power (PF=1)	5,500W	6,600W	8,800W	11,000W
Max. AC Output Current	3*8.3A	3*10A	3*13.3A	3*16.7A
Max. Single Phase Power	2,500W	3,000W	4,000W	5,000W
Max. Input Power	15,000VA			
Max. Input Current	3*25A			
Rated Grid Voltage	380V/400V/415V, 3W+N+PE			
Grid Voltage Range	260V-520V (Adjustable)			
Rated Grid Frequency	50Hz/60Hz			
Grid Frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)			
Power factor	> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)			
THDI	<5% (Rated Power)			
<b>Output (Back up)</b>				
Nominal Output Power	5,000W	6,000W	8,000W	10,000W
Nominal Output Current	3*7.6A	3*9.1A	3*12.2A	3*15.2A
Max. Single Phase Power	2,500W	3,000W	4,000W	5,000W
Peak Power (5min)	6,000VA	7,200VA	9,600VA	12,000VA
Peak Power (10s)	7,500VA	9,000VA	12,000VA	15,000VA
Nominal Output Voltage	380V/400V/415V, 3W+N+PE			
Nominal Output Frequency	50Hz/60Hz			
Transfer Time	10ms			
THDV	<3% (R Load)			
<b>Protection</b>				
Protection Category	Class I			
DC Switch	Yes			
Anti-islanding Protection	Yes			
AC Over Current Protection	Yes			
AC Over Voltage Protection	Yes			
AC Short Circuit Protection	Yes			
DC Reverse Protection	Yes			
Surge Arrester	DC Type II, AC Type II			
PV Insulation Detection	Yes			
Leakage Current Protection	Yes			
AFCI	Optional			
RSD	Optional			
<b>General</b>				
Max. Operation Altitude	4000m (>2000m derating)			
Protection Degree	IP65			
Operating Temperature Range	-25°C~60°C (>45°C derating)			
Relative Humidity	0~100%			
Cooling	Natural Cooling			
Mounting	Wall bracket			
Dimensions (W*H*D)	530mm*550mm*212mm			
Weight	30Kg		32Kg	
PV Connection	MC4/H4			
<b>HMI &amp; COM</b>				
Display	LED+APP, LCD(Optional)			
Communication Interface	RS485/CAN (for BMS), RS485, RS485 (for Meter), DRMs, 2*DI (1 for RMO), 2*DO, Optional: Wi-Fi/GPRS/LAN			
<b>Certification</b>				
Grid	VDE-AR-N4105, IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G99, CEI 0-21, NRS 097-2-1, RD 1699/661/413			
Safety	IEC 62109-1&2			
EMC	EN 61000			
Warranty	5 Years/10 Years (Optional)			

- Remarks:**
- The range of output voltage and frequency may vary depending on different grid codes.
  - Specifications are subject to change without advanced noticed.



## THREE PHASE HYBRID INVERTER

### SE 12/15/20/25/30KHB-D3



### EXCELLENT PERFORMANCE

- Maximum efficiency 98.4%, battery efficiency 98%
- Maximum 150% PV input power, continuously 10% output overload, 150% unbalance output
- Maximum Charge/Discharge current 2\*50A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international famous brands,
- IP65 protection rating, good adaptability to complex outdoor environment
- Multiple protections built-in, optional AFCI, RSD



### INTELLIGENT MAINTENANCE

- Quick commission through APP, 7\*24h remote monitoring, configuring, upgrading
- Advance energy management mechanism, multiple working modes built-in, and support flexible customized setting

Model	SE 12KHB-D3	SE 15KHB-D3	SE 20KHB-D3	SE 25KHB-D3	SE 30KHB-D3
<b>Efficiency</b>					
Max. Efficiency (PV to AC)		98.2%		98.4%	
Eur. Efficiency (PV to AC)			97.9%		
Max. Efficiency (BAT to AC)			98%		
<b>Input (PV)</b>					
Max. PV Input Power	18000W	22500W	30000W	37500W	45000W
Max. PV Voltage			1000V		
Start-up Voltage			150V		
MPPT Voltage Range			160V-950V		
Max. Input Current		30A/30A		30A/30A/30A	
Max. Short Circuit Current		40A/40A		40A/40A/40A	
Nos. of MPPT		2		3	
String per MPPT		2/2		2/2/2	
<b>Input/Output (BAT)</b>					
Battery Type			Lithium-ion/Lead-acid		
Nominal Battery Voltage	250V-800V	320V-800V	420V-800V	260V-800V	320V-800V
Battery Voltage Range			150V-800V		
Max. Charge/Discharge Current		50A/50A		2*50A/2*50A	
Max. Charge/Discharge Power	14,400W/ 13,600W	18,000W/ 17,000W	24,000W/ 22,680W	30,000W/ 28,350W	30,000/ 34,000W
<b>Output (Grid)</b>					
Nominal AC Output Power	12,000W	15,000W	20,000W	25,000W	30,000W
Max. AC Apparent Power	13,200W	16,500W	22,000W	27,500W	33,000W
Max. AC Output Power (PF=1)	13,200VA	16,500VA	22,000VA	27,500VA	33,000VA
Max. AC Output Current	3*20.1A	3*25.1A	3*33.4A	3*41.8A	3*50.1A
Max. Single Phase power	6,000W	7,500W	10,000W	11,000W	11,000W
Max. Input Power		30,000VA		45,000VA	
Max. Input Current		3*50A		3*75A	
Rated Grid Voltage			380V/400V/415V, 3W+N+PE		
Grid Voltage Range			277V-520V (Adjustable)		
Rated Grid Frequency			50Hz/60Hz		
AC Frequency Range			45Hz-55Hz/55Hz-65Hz (Adjustable)		
Power Factor			> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)		
THDI			<3% (Rated Power)		
<b>Output (Back up)</b>					
Nominal Output Power	12,000W	15,000W	20,000W	25,000W	30,000W
Nominal Output Current	3*18.2A	3*22.7A	3*30.3A	3*37.9A	3*45.5A
Max. Single Phase Power	6,000W	7,500W	10,000W	11,000kW	11,000kW
Peak Power (5min)	14,400VA	18,000VA	24,000VA	30,000VA	36,000VA
Peak Power (10s)	18,000VA	22,500VA	30,000VA	37,500VA	45,000VA
Nominal Output Voltage			380V/400V, 3W+N+PE		
Nominal Output Frequency			50Hz/60Hz		
Transfer Time			10ms (typical)		
THDV			<3 (R Load)		
<b>Protection</b>					
Protection Category			Class I		
DC Switch			Yes		
Anti-islanding Protection			Yes		
AC Over Current Protection			Yes		
AC Over Voltage Protection			Yes		
AC Short Circuit Protection			Yes		
DC Reverse Protection			Yes		
Surge Arrester			DC Type II, AC Type II		
PV Insulation Detection			Yes		
Leakage Current Protection			Yes		
AFCI			Optional		
RSD			Optional		
<b>General</b>					
Max. Operation Altitude			4000m (>2000m derating)		
Protection Degree			IP66		
Operating Temperature Range			-25°C~60°C (>45°C derating)		
Relative Humidity			0~100%		
Cooling		Natural Cooling		Smart Fan Cooling	
Mounting			Wall bracket		
Dimensions (W*H*D)			660mm*570mm*230mm		
Weight		45Kg		55Kg	
PV Connection			MC4/H4		
<b>HMI &amp; COM</b>					
Display			LED+APP, LCD(Optional)		
Communication Interface			RS485/CAN (for BMS), RS485, DRM/RS485 (for Meter), Optional: Wi-Fi/GPRS/LAN, 2*DO, 2*DI		
<b>Certification</b>					
Grid	VDE-AR-N4105, IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G99, CEI 0-21, NRS 097-2-1, RD 1699/661/413				
Safety	IEC 62109-1&2, IEC 62477-1				
EMC	EN 61000				
Warranty	5 Years/10 Years (Optional)				

- Remarks:**
- The range of output voltage and frequency may vary depending on different grid codes.
  - Specifications are subject to change without advanced noticed.

## DATA LOGGER V1000+



- Built-in web server for LAN monitoring
- 12 Months of data storage
- Automatic network clock synchronization
- RS485 interface for inverter connection
- Standard RJ45 patch cable
- Power export control supported

Model	V1000+
Connection	Inverter: RS485 Router: RJ45
Access Number	40pcs
Transmission Maximum Distance	1200m
Display	LED
<b>Input</b>	
Input Voltage	Input: AC 90V-250V 50/60Hz Output: DC 5V
Static Current Consumption	1A
<b>General</b>	
Operating Temperature	-25°C~55°C
Humidity	10%~95% relative humidity, no condensation
IP Rating	IP20
Dimension (L*W*H)	118mm*78mm*29mm
<b>Certification</b>	
Safety	FCC, CE, ROHS

## WIFI Communication Module SE WIFI-R



- Easy plug-and-play installation for quick and convenient setup
- Preferred monitoring solution for residential use

Model	SE WIFI-R
Connection	TTL
Standards	802.11 b/g/n
Transmission Maximum Distance	100m Unobstructed environment
Setting	APP / WEB
<b>Input</b>	
Input Voltage	DC 5V
Static Power Consumption	<1.6W
<b>General</b>	
Operating Temperature	-25°C~60°C
Humidity	0%~100% relative humidity, no condensation
IP Rating	IP65
Dimension (L*W*H)	71mm*41mm*92mm
<b>Certification</b>	
Safety	FCC / CE-RED / SRRC

## LAN Communication Module SE LAN-R



- Easy plug-and-play installation for quick and convenient setup
- Mobile internet monitoring, ideal for rural and remote areas

Model	SE LAN-R
Connection	TTL
Standards	IEEE 802.3
Transmission Maximum Distance	100m CAT5
Setting	APP
<b>Input</b>	
Input Voltage	DC 5V
Static Power Consumption	<1.6W
<b>General</b>	
Operating Temperature	-25°C~60°C
Humidity	0%~100% relative humidity, no condensation
IP Rating	IP65
Dimension (L*W*H)	71mm*41mm*117mm
<b>Certification</b>	
Safety	FCC, CE-RED, SRRC

## SMART SOLAR CLOUD



- Suitable for residential, commercial and storage applications
- Android/iOS app compatible with latest operating systems
- Cloud service available in Europe, America, Singapore and China
- String monitoring capability
- Intelligent data analysis

## PRESALES SUPPORT



TAILORED SOLUTIONS



SPECIALIZED PRODUCT CONSULTING



ONE-ON-ONE APPLICATION COACHING



SYSTEMATIC PRODUCT TRAINING

## AFTER SALE SERVICE



WORRY-FREE WARRANTY

- 66-month standard warranty
- Up to \$10M product liability
- Insurance for shipped inverters



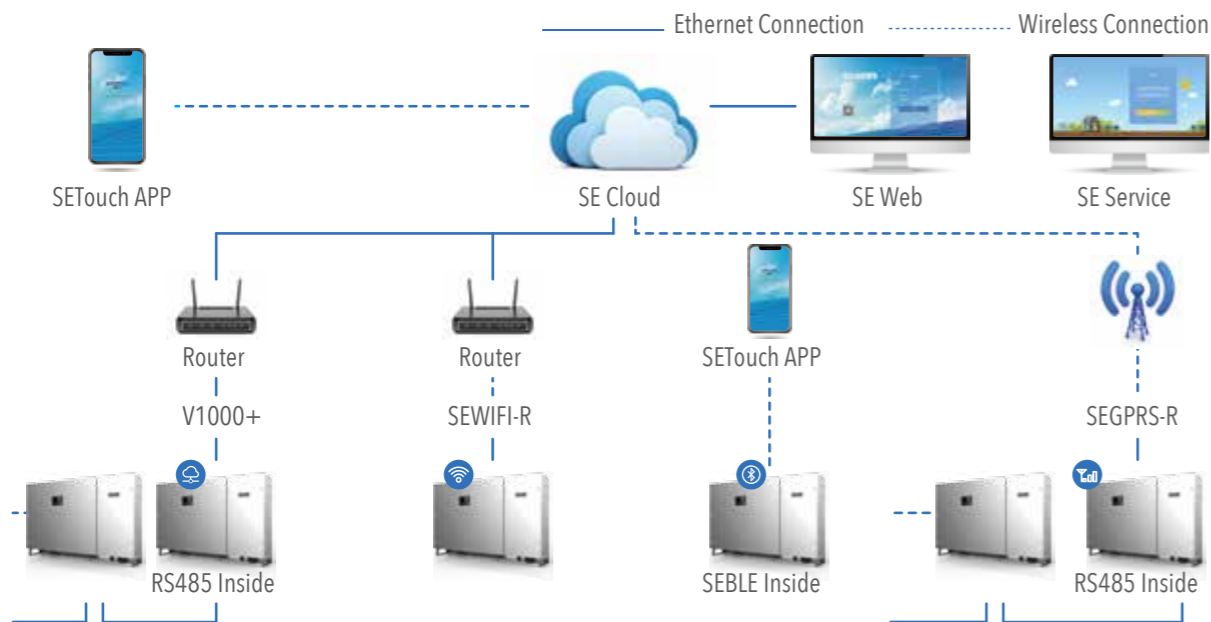
REPLACEMENT SERVICE

- Spare units provided for quick replacement of failures
- Remaining warranty transferred automatically for defective units



RESPONSIVENESS

- Prompt response to quality issues and service requests from partners
- Expertise in various field applications to assist with problem-solving



## GLOBAL NETWORK



## VISION & MISSION

Become the technology and market leader in the new energy industry through continuous innovation, distinctive and highly competitive products and services.

## MARKETING PROMOTION



## APPLICATION REFERENCES



📍 FOSHAN, CHINA  
**4.2MW**



📍 SHANTOU, CHINA  
**2MW**



📍 HUNAN, CHINA  
**6MW**



📍 VIETNAM  
**200KW**



📍 BUDAI TOWN, TAIWAN  
**4MW**



📍 CHIAYI COUNTY, TAIWAN  
**20MW**