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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 leading high-tech solar energy company, specializing in ODM service for PV grid-tied and hybrid inverters. Empowered by the parent company's 35 years of expertise in electronic power industry, Senergy has garnered 20 years of dedicated experience in inverter R&D and manufacturing. Its products find a wide range of applications across residential, industrial & commercial, large-scale ground stations and energy storage power stations worldwide. With an expanded manufacturing capacity reaching 10GW, Senergy is equipped with enhanced R&D and manufacturing capabilities, ensuring the delivery of cutting-edge inverter products and solutions to meet the dynamic needs of the evolving energy landscape.

### 2023

- ▶ Continuous investment: Bao'an R&D Center tripled in size
- ▶ PrimeVOLT shipments ranked first in Taiwan for 3 consecutive years

### 2022

- ▶ U.S. model product launched
- ▶ New Pingshan factory established with 10GW manufacturing capacity

### 2021

Manufacturing capacity expanded to 3GW in Shenzhen and Taipei

### 2020

- ▶ Energy storage system launched
- ▶ 1GW inverters delivered annually

### 2017

- ▶ Obtained CMMI 2 Product Engineering Management Certification
- ▶ Certified as China's "National High-Tech Enterprise"

### 2016

New generation of grid-tied PV inverters launched

### 2015

- ▶ Senergy Technology founded
- ▶ Certified as CQC type A enterprise

### 2011

2<sup>nd</sup> plant (DK) established in Shenzhen

### 2010

Renewable Energy Business set up

### 1997

1<sup>st</sup> plant (YM) established in Shenzhen

### 1994

APD Group founded in Taipei





# OUR COMPETITIVE ADVANTAGES



## R&D

- ▶ Pioneers and experts 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 systems throughout product development and production processes
- ▶ Certified by reputable international organizations



## Manufacturing

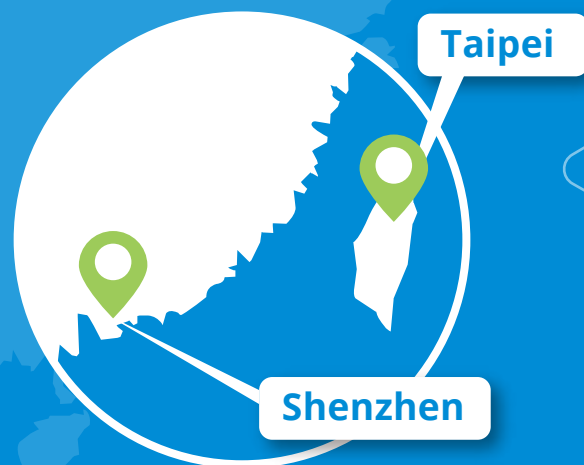
- ▶ Dual manufacturing bases in Taipei and Shenzhen
- ▶ Full industry process ranging from PCBA manufacturing to burn-in tests
- ▶ Highly-automated production equipment and flexible production line

**10GW**  
Manufacturing Capacity

**110+**  
Patents

**3**  
Factories (Shenzhen & Taipei)

**3**  
R&D Centers



# YOUR TRUSTWORTHY ODM PARTNER



35 Years of ODM Expertise in Power Electronic Products



Rapid Customization Management System



Flexible and Diverse ODM Cooperation Process



Customized Product Design and Accessories

# QUALITY CONTROL IN MANUFACTURING PROCESS

- 01** 3D Solder Paste Thickness Testing
  - 02** 1<sup>st</sup> Auto-Optical Detection for SMD
  - 03** 2<sup>nd</sup> Optical Detection for PCBA
  - 04** Functional Circuit Test
  - 05** Conformal Coating
  - 06** Hi-Pot Testing & ATE Testing before Burn-In
  - 07** Automatic Burn-In
  - 08** ATE Test after BI
  - 09** Tightness Test
- SHIPMENT



# PRODUCT LINE PLATFORM

## Grid-Tied Inverter Residential Use

Single Phase  
2kW-10kW



Three Phase  
5kW-15kW



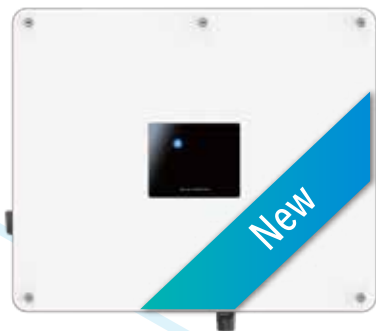
## Grid-Tied Inverter Small-Medium C&I Use

Three Phase  
10kW-25kW

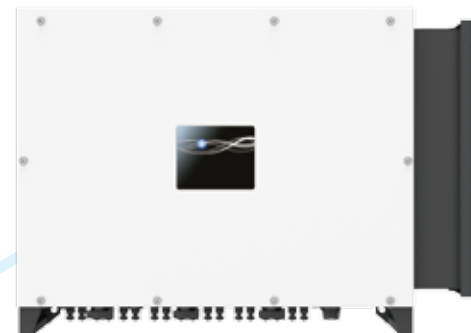


## Grid-Tied Inverter Medium-Large C&I Use

Three Phase  
30kW-50kW



Three Phase  
100kW-110kW



## Energy Storage Inverter Residential Use

Single Phase  
3.6kW-6kW (LV)



Single Phase  
3kW-6kW (HV)



Single Phase  
8kW-10kW-T/EU

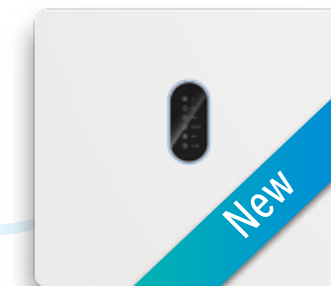


Three Phase  
5kW-10kW



## Energy Storage Inverter Residential Use & Small-Medium C&I Use

Three Phase  
12kW-30kW



# 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

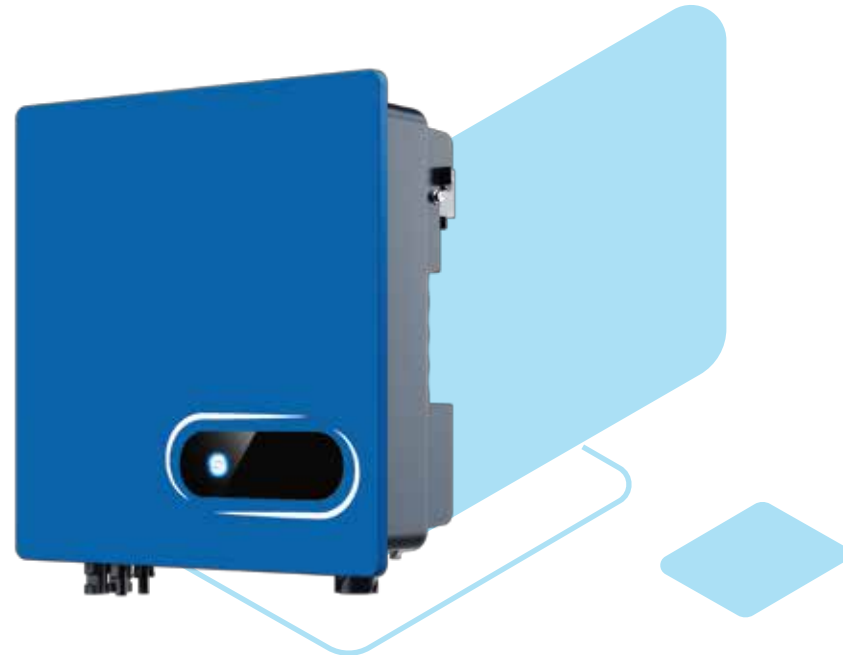
Model	SE 2KTL-S1/G2P	SE 3KTL-S1/G2P	SE 3.6KTL-S1/G2P
<b>Efficiency</b>			
Max. Efficiency		97.8%	
European Efficiency	96.5%	96.8%	96.8%
<b>Input (PV)</b>			
Max. Input Voltage		500V	
Max. PV Configuration (STC)		150%	
Rated Input Voltage		360V	
Max. Input Current		15A	
Max. Short Circuit Current		20A	
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/240V, 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)	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		
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.

# 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		15A/15A	
Max. Short Circuit Current		20A/20A	
Start Input Voltage		90V	
MPPT Operating Voltage Range		70V-540V	
Max. Number of PV Strings		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/240V, 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		
Warranty	5 Years		

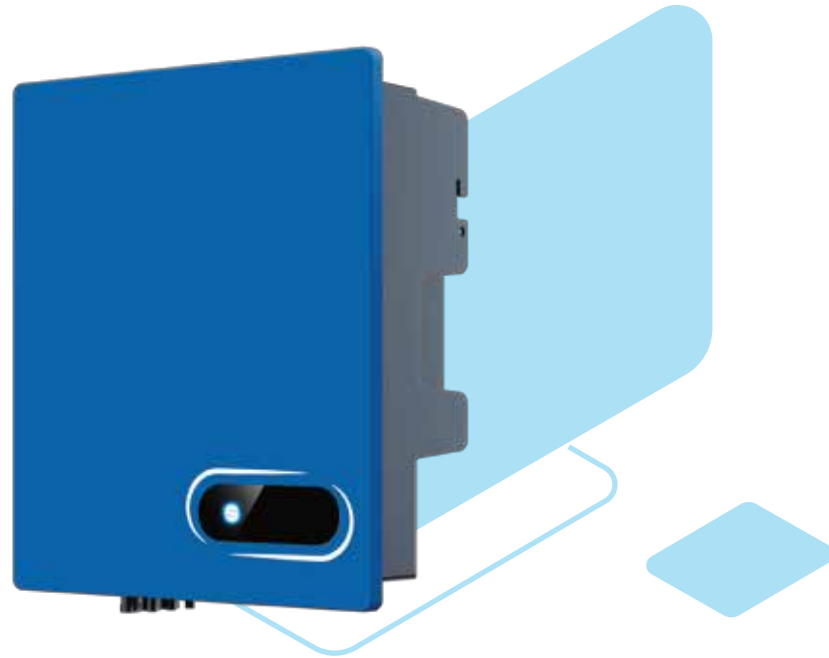
Remarks: · <sup>①②</sup>The range of output voltage and frequency may vary depending on different grid codes.  
· Specifications are subject to change without advanced notice.



# 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	20A/20A	20A/30A	
Max. Short Circuit Current	20A/20A	20A/40A	
Start Input Voltage	90V		
MPPT Operating Voltage Range	60V-540V		
Max. Number of PV Strings	1/1	1/2	
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/240V, L+N+PE		
AC Voltage Range①	160V-300V (Adjustable)		
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range②	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		
Warranty	5 Years		

Remarks: · ①②The 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%			97.8%		98.3%
European Efficiency	97.8%					
<b>Input (PV)</b>						
Max. Input Voltage	1100V					
Max. PV Configuration (STC)	150%					
Rated Input Voltage	620V					
Max. Input Current	15A/15A			15A/30A		15A/30A
Max. Short Circuit Current	26A/26A			26A/40A		26A/40A
Start Input Voltage	180V					
MPPT Operating Voltage Range	160V-1000V					
Max. Number of PV Strings	1/1			1/2		1/2
No. of MPPTs	2					
<b>Output (Grid)</b>						
Rated AC Active Power	5,000W	6,000W	8,000W	10,000W	12,000W	15,000W
Max. AC Apparent Power	5,500VA	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		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 17/20/22/25KTL-D3/G2

Application: Residential & Small-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
<b>Efficiency</b>						
Max. Efficiency						98.4%
European Efficiency	97.8%				98.0%	
<b>Input (PV)</b>						
Max. Input Voltage						1100V
Max. PV Configuration (STC)						150%
Rated Input Voltage						620V
Max. Input Current	15A/30A				30A/30A	
Max. Short Circuit Current	20A/40A				40A/40A	
Start Input Voltage						180V
MPPT Operating Voltage Range						160V-1000V
Max. Number of PV Strings	1/2				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
Max. AC Apparent Power	11,000VA	16,500VA	18,700VA	22,000VA	24,200VA	27,500VA
Max. AC Output Current	3*16.8A	3*25.3A	3*28.6A	3*33.7A	3*37A	3*39.8A
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				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 30KTL-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: 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

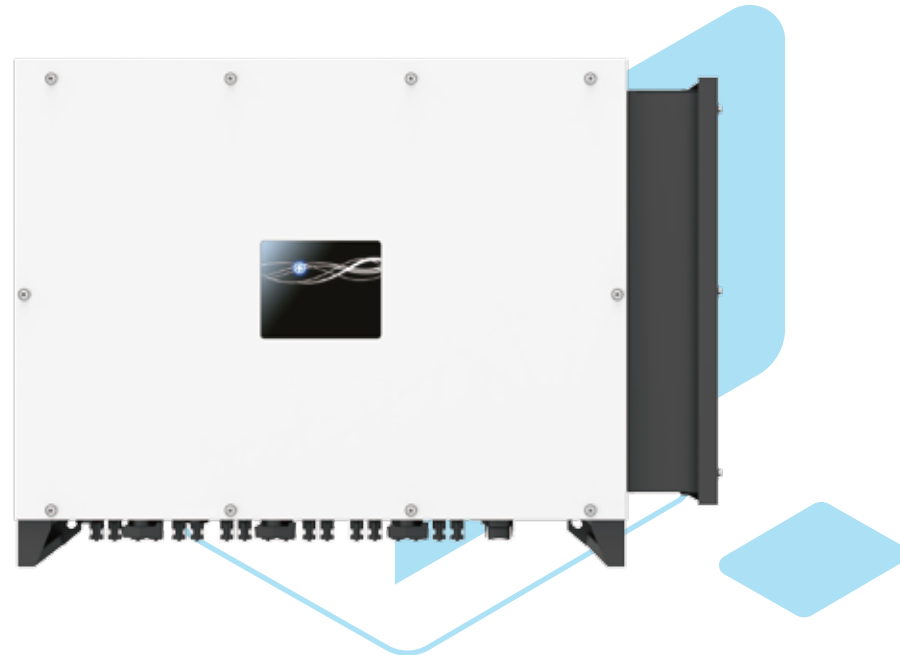
Model	SE 30KTL-T3/G2	SE 50KTL-Q3/G2
<b>Efficiency</b>		
Max. Efficiency		98.5%
European Efficiency	98.0%	97.9%
<b>Input (PV)</b>		
Max. Input Voltage		1100V
Max. PV Configuration (STC)		150%
Rated Input Voltage		620V
Max. Input Current	32A/32A/40A	32A/32A/32A/40A
Max. Short Circuit Current	45A/45A/50A	45A/45A/45A/50A
Start Input Voltage		200V
MPPT Operating Voltage Range		180V-1000V
Max. Number of PV Strings	2/2/2	2/2/2/2
No. of MPPTs	3	4
<b>Output (Grid)</b>		
Rated AC Active Power	30,000W	50,000W
Max. AC Apparent Power	33,400VA	55,600VA
Max. AC Output Current	3*51A	3*84.3A
Rated AC Voltage		380V/400V/415V, 3W+N+PE
AC Voltage Range <sup>①</sup>		320V-520V (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 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		<1W (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	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
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

Application: Commercial & Industrial Sites



### SUPERIOR PERFORMANCE

- Maximum efficiency of 98.6%
- 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
<b>Efficiency</b>		
Max. Efficiency	98.5%	98.6%
European Efficiency	98.0%	98.2%
<b>Input (PV)</b>		
Max. Input Voltage	1100V	
Max. PV Configuration	150%	
Rated Input Voltage	620V	
Max. Input Current	5*32A/3*40A	6*32A/3*40A
Max. Short Circuit Current	5*45A/3*50A	6*45A/3*50A
Start Input Voltage/ Min. Operating Voltage	250V / 200V	
MPPT Operating Voltage Range	200V-1000V	
Max. Number of PV Strings	8*2	9*2
No. of MPPTs	8	9
<b>Output (Grid)</b>		
Rated AC Active Power	100,000W	110,000W
Max. AC Apparent Power	111,000VA	123,000VA
Max. AC Output Current	3*168.8A	3*187A
Rated AC Voltage	400V, 3W+N+PE	
AC Voltage Range*	320V-520V (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	Yes	
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	RS485, 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	
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

Application: Residential Use



## EXCELLENT PERFORMANCE

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



## HIGH RELIABILITY

- Key components from international renowned brands
- IP65 protection rating, ensuring adaptability to complex outdoor environment
- Multiple built-in protections



## INTELLIGENT MAINTENANCE

- Quick commission via mobile app, 24/7 remote monitoring, configuration and upgrade
- Advanced energy management mechanism, with multiple built-in working modes and flexible customized settings
- Optional generator and smart load functions

Model	SE 3K6HB-60	SE 4K6HB-120	SE 5KHB-120	SE 6KHB-120
<b>Efficiency</b>				
Max. Efficiency (PV to AC)	97.3%			
Eur. Efficiency (PV to AC)	96.8%			
Max. Efficiency (BAT to AC)	94.3%			
<b>Input (PV)</b>				
Max. PV Input Power	6,300W	9,000W		
Max. PV Voltage	550V			
Start-up Voltage	90V			
MPPT Operating Voltage Range	70V-540V			
Max. Input Current per MPPT	15A/15A			
Max. Short Circuit Current per MPPT	20A/20A			
String per MPPT	1/1			
Nos. of MPPT	2			
<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 Output Apparent Power	3,960VA	4,600VA	5,500VA	6,000VA
Max.AC Output Power (PF=1)	3,960W	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 Output Apparent 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 (typical)			
THDV	<3% @100% R Load			
<b>Protection</b>				
Protection Category	Class I			
DC Switch	Yes			
Anti-islanding Protection	Yes			
AC Overcurrent Protection	Yes			
DC/AC Overvoltage Protection	DC Type II, AC Type III			
AC Short Circuit Protection	Yes			
DC Reverse Protection	Yes			
Surge Arrester	DC Type III, AC Type III			
Insulation Resistance Detection	Yes			
Leakage Current Protection	Yes			
Generator	Optional			
<b>General</b>				
Max. Operating Altitude	4000m (>2000m derating)			
Ingress Protection Rating	IP65			
Operating Temperature Range	-25°C~60°C (>45°C derating)			
Relative Humidity	0~100%			
Cooling Method	Natural Cooling			
Mounting	Wall bracket			
Dimensions (W*H*D)	515mm*487mm*175mm			
Weight	16Kg	25Kg		
PV Connection Way	MC4/H4			
Battery Connection Way	Dedicated DC connector			
AC Connection Way (Grid & Back up)	Dedicated AC connector			
<b>HMI &amp; COM</b>				
Display	Bluetooth & APP + LED, LCD (Optional)			
Communication Interface	RS485/CAN (for BMS), RS485, Ethernet, DRM/RS485 (for Meter), Optional: Wi-Fi/LAN			
<b>Certification</b>				
Safety	IEC 62109-1&2, IEC62040-1, IEC 62477-1			
Grid	VDE 4105, IEC 61727/62116, AS 4777.2, EN 50549-1, C10/11, G98/G99/G100, CEI 0-21, NRS 097-2-1, RD 1699/661/647/413, UNE 217002			
<b>Warranty</b>				
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 3/3.6/4.6/5/6KHB-D1/HV

Application: Residential Use



### EXCELLENT PERFORMANCE

- Maximum efficiency of 97.8% and battery efficiency of 97.0%
- Maximum 12kW PV input power
- Maximum battery charge/discharge current of 42A
- Large MPPT current, compatible with high-power solar panels
- Supporting full-house load on backup port, with maximum capacity of 12kW



### HIGH RELIABILITY

- Key components from international renowned brands
- IP66 protection rating, ensuring adaptability to complex outdoor environment
- Multiple built-in protections, with optional AFCI



### INTELLIGENT MAINTENANCE

- Quick commission via mobile app, 24/7 remote monitoring, configuration and upgrade
- Advanced energy management mechanism, with multiple built-in working modes and flexible customized settings

Model	SE 3KHB-D1/HV	SE 3K6HB-D1/HV	SE 4K6HB-D1/HV	SE 5KHB-D1/HV	SE 6KHB-D1/HV
<b>Efficiency</b>					
Max. Efficiency (PV to AC)	97.8%				
Eur. Efficiency (PV to AC)	97.5%				
Max. Efficiency (BAT to AC)	97.0%				
<b>Input (PV)</b>					
Max. PV Input Power	12,000W				
Max. PV Voltage	550V				
Start-up Voltage	90V				
MPPT Operating Voltage Range	70V-540V				
Max. Input Current per MPPT	16A/16A				
Max. Short Circuit Current per MPPT	20A/20A				
String per MPPT	1/1				
Nos. of MPPT	2				
<b>Input/Output (BAT)</b>					
Battery Type	Lithium-ion/Lead-acid				
Nominal Battery Voltage	360V				
Battery Voltage Range	80V-480V				
Max. Charge/Discharge Current	42A/42A				
Max. Charge/Discharge Power	9,000W/4,200W		9,000W/6,600W		
<b>Output (Grid)</b>					
Nominal AC Output Power	3,000W	3,600W	4,600W	5,000W	6,000W
Max. AC Output 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	13A	15.7A	20A	21.7A	26.1A
Peak Output Apparent Power (1min)	3,600VA	4,320VA	5,520VA	6,000VA	7,200VA
Peak Output Apparent Power (15s)	4,350VA	5,220VA	6,670VA	7,250VA	8,700VA
Nominal Output Voltage	220V/230V/240V, L+N+PE				
Nominal Output Frequency	50Hz/60Hz				
Transfer Time	<10ms (typical)				
THDV	<3% @100% R Load				
<b>Protection</b>					
Protection Category	Class I				
DC Switch	Yes				
Anti-islanding Protection	Yes				
AC Over Current Protection	Yes				
DC/AC Overvoltage Protection	DC Type II, AC Type III				
AC Short Circuit Protection	Yes				
DC Reverse Protection	Yes				
Surge Arrester	DC Type III, AC Type III				
Insulation Resistance Detection	Yes				
Leakage Current Protection	Yes				
AFCI	Optional				
<b>General</b>					
Max. Operation Altitude	4000m (>2000m derating)				
Ingress Protection Degree	IP66				
Operating Temperature Range	-25~60 C (>45 C derating)				
Relative Humidity	0~100%				
Cooling Method	Natural Cooling				
Mounting	Wall bracket				
Dimensions (W*H*D)	470mm*360mm*172mm				
Weight	14.1Kg			14.6Kg	
PV Connection Way	MC4/H4				
<b>HMI &amp; COM</b>					
Display	Bluetooth & APP + LED, LCD (optional)				
Communication interface	RS485/CAN (BMS), DRM/RS485 (for Meter), RS485, Optional: Wi-Fi/LAN				
<b>Certification</b>					
Safety	IEC 62109-1/2				
Grid	EN 50549-1, VDE 4105, AS 4777, CEI 0-21, G98/G99/G100, RD 1699/661/647/413, UNE 217002				
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 8/10KHB-T/EU

Application: Residential Use



### MAXIMIZE PV INPUT POWER

- Up to 200% oversizing allowed with 3 MPPTs
- Support high power module with 30A PV input current
- Support AC coupled solar input



### VERSATILE APPLICATIONS

- Stackable up to 9 units
- Standby generator connection for whole-home back up
- Four application modes
- Remote configuration and upgrade



### FLEXIBLE BATTERY CONFIGURATION

- Support 40-64V Lithium or Lead-acid battery
- Maximum battery charge/discharge current of 210A



### STABLE OUTPUT POWER

- Continuous 110% of nominal AC power
- Seamless backup transition (<10ms)

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 Operating Voltage Range	70V-540V	
Max. Input Current per MPPT	30A/22A/22A	
Max. Short Circuit Current per MPPT	40A/30A/30A	
String per MPPT	2/2/2	
Nos. of MPPT	3	
<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 Output Apparent Power	8,800VA	11,000VA
Max. AC Output Power (PF=1)	8,800W	11,000W
Max. AC Output Current	40A	50A
Nominal Grid Voltage	220V/230/240V, 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	8,000W	10,000W
Nominal Output Current	34.8A	43.5A
Peak Output Apparent Power (1s)	16,000VA	20,000VA
Nominal Output Voltage	220V/230/240V, L+N+PE	
Nominal Output Frequency	50Hz/60Hz	
Transfer Time	<10ms (typical)	
THDV	<3% @100% R Load	
<b>Protection</b>		
Protection Category	Class I	
DC Switch	Yes	
Anti-islanding Protection	Yes	
AC Overcurrent Protection	Yes	
DC/AC Overvoltage Protection	DC Type II, AC Type III	
AC Short Circuit Protection	Yes	
DC Reverse Protection	Yes	
Surge Arrester	DC Type II, AC Type II	
Insulation Resistance Detection	Yes	
Leakage Current Protection	Yes	
Generator	Yes	
<b>General</b>		
Max. Operation Altitude	4000m (>2000m derating)	
Ingress Protection Degree	IP66	
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	39Kg	
PV Connection Way	Terminals	
<b>HMI &amp; COM</b>		
Display	Bluetooth & APP + LED , LCD (optional)	
Communication Interface	CAN (for BMS), DRM/RS485 (for Meter), RS485, Optional: Wi-Fi/LAN	
<b>Certification</b>		
Safety	IEC 62109-1&2	
Grid	IEC 61727/62116, AS 4777.2, NRS 097-2-1	
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.



# THREE PHASE HYBRID INVERTER

## SE 5/6/8/10KHB-D3P

Application: Residential Use



### EXCELLENT PERFORMANCE

- Maximum efficiency of 97.8% and battery efficiency of 97.0%
- Maximum 15kW PV input power, supporting continuous overload capacity of 110% and unbalanced output of 150%
- Maximum battery charge/discharge current of 50A
- Large MPPT current, compatible with high-power solar panels
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international renowned brands
- IP65 protection rating, ensuring adaptability to complex outdoor environment
- Multiple built-in protections, with optional AFCI



### INTELLIGENT MAINTENANCE

- Quick commission via mobile app, 24/7 remote monitoring, configuration and upgrade
- Advanced energy management mechanism, with multiple built-in working modes and flexible customized settings

Model	SE 5KHB-D3P	SE 6KHB-D3P	SE 8KHB-D3P	SE 10KHB-D3P
<b>Efficiency</b>				
Max. Efficiency (PV to AC)	97.3%		97.8%	
Eur. Efficiency (PV to AC)	96.7%		97.0%	
Max. Efficiency (BAT to AC)	96.9%	97.0%	96.9%	97.0%
<b>Input (PV)</b>				
Max. PV Input Power	15,000W			
Max. PV Voltage	1000V			
Start-up Voltage	120V			
MPPT Operating Voltage Range	160V-950V			
Max. Input Current per MPPT	20A/30A			
Max. Short Circuit Current per MPPT	30A/40A			
String per MPPT	1/2			
Nos. of MPPT	2			
<b>Input/Output (BAT)</b>				
Battery Type	Lithium-ion/Lead-acid			
Nominal Battery Voltage	250V-600V			
Battery Voltage Range	120V-600V			
Max. Charge/Discharge Current	50A/50A			
Max. Charge/Discharge Power	15,000W/5,800W	15,000W/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 Output Apparent	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	15,800W			
Max. Input Current	3*25A			
Nominal Grid Voltage	380V/400V/415V, 3W+N+PE			
Grid Voltage Range	260V-520V (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	<5%			
<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 Output Apparent Power (5min)	6,000VA	7,200VA	9,600VA	12,000VA
Peak Output Apparent 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 (typical)			
THDV	<3% @100% R Load			
<b>Protection</b>				
Protection Category	Class I			
DC Switch	Yes			
Anti-islanding Protection	Yes			
AC Overcurrent Protection	Yes			
DC/AC Overvoltage Protection	DC Type II, AC Type III			
AC Short Circuit Protection	Yes			
DC Reverse Protection	Yes			
Surge Arrester	DC Type II, AC Type II			
Insulation Resistance Detection	Yes			
Leakage Current Protection	Yes			
GFCI	Yes			
AFCI	Optional			
<b>General</b>				
Max. Operation Altitude	4000m (>2000m derating)			
Ingress Protection Degree	IP65			
Operating Temperature Range	-25 C ~60 C (>45 C derating)			
Relative Humidity	0~100%			
Cooling Method	Natural Cooling			
Mounting	Wall bracket			
Dimensions (W*H*D)	560mm*580mm*218.3mm			
Weight	32Kg			
PV Connection Way	MC4/H4			
<b>HMI &amp; COM</b>				
Display	LED , LCD (optional), APP			
Communication Interface	RS485/CAN (for BMS), DRM, RS485 (for Meter), Wi-Fi/LAN (Optional, for Portal)			
<b>Certification</b>				
Safety	IEC/EN 62109-1&2			
EMC	IEC/EN 61000			
Grid	VDE 4105, EN 50549-1, CEI 0-21, PPDS, RD 1699/661/647/413, UNE 217002, AS 4777.2, C10/11, G98/G100, IEC 61727/62116			
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.

# THREE PHASE HYBRID INVERTER

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

Application: Residential & Small-Medium C&I Use



### EXCELLENT PERFORMANCE

- Maximum efficiency of 98.4% and battery efficiency of 98.0%
- Large MPPT current, compatible with high-power solar panels
- Supporting continuous overload capacity of 110% and unbalanced output
- Maximum battery charge/discharge current of 2\*75A
- Advanced parallel function



### HIGH RELIABILITY

- Key components from international renowned brands
- IP66 protection rating, ensuring adaptability to complex outdoor environment
- Multiple built-in protections, with optional AFCI



### INTELLIGENT MAINTENANCE

- Quick commission via mobile app, 24/7 remote monitoring, configuration and upgrade
- Advanced energy management mechanism, with multiple built-in working modes and flexible customized settings

Model	SE 12KHB-D3	SE 15KHB-D3	SE 20KHB-D3	SE 25KHB-T3	SE 30KHB-T3
<b>Efficiency</b>					
Max. Efficiency (PV to AC)	98.2%			98.4%	
Eur. Efficiency (PV to AC)	97.9%				
Max. Efficiency (BAT to AC)	98.0%				
<b>Input (PV)</b>					
Max. PV Input Power	30,000W	30,000W	30,000W	45,000W	45,000W
Max. PV Voltage	1000V				
Start-up Voltage	150V				
MPPT Voltage Range	160V-950V				
Max. Input Current per MPPT	32A/32A			32A/32A/32A	
Max. Short Circuit Current per MPPT	40A/40A			40A/40A/40A	
String per MPPT	2/2			2/2/2	
Nos. of MPPT	2			3	
<b>Input/Output (BAT)</b>					
Battery Type	Lithium-ion/Lead-acid				
Battery Voltage Range at Rated Power	230V-800V	285V-800V	380V-800V	190V-800V	230V-800V
Battery Voltage Range	120V-800V				
Max. Charge/Discharge Current	60A/60A			2*75A/2*75A	
Max. Charge/Discharge Power	30,000W/14,400W	30,000W/18,000W	30,000W/24,000W	45,000W <sup>1</sup> /30,000W	45,000W <sup>1</sup> /36,000W
<b>Output (Grid)</b>					
Nominal AC Output Power	12,000W	15,000W	20,000W	25,000W	30,000W
Max. AC Output Power	13,200VA	16,500VA	22,000VA	27,500VA	33,000VA
Max. AC Output Power (PF=1)	13,200W	16,500W	22,000W	27,500W	33,000W
Max. AC Output Current	3*20A	3*25A	3*33.3A	3*41.7A	3*50A
Max. Single Phase Power	10,000VA	10,000VA	10,000VA	11,000VA	11,000VA
Max. Input Power	36,000VA	40,000VA		45,000VA	
Max. Input Current	3*54.5A	3*60.6A		3*68.2A	
Nominal Grid Voltage	380V/400V/415V, 3W+N+PE				
Grid Voltage Range	277V-520V (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	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
Peak Output Apparent Power (5min)	14,400VA	18,000VA	24,000VA	30,000VA	36,000VA
Peak Output Apparent Power (10s)	18,000VA	22,500VA	30,000VA	37,500VA	45,000VA
Nominal Output Voltage	380V/400V/415V, 3W+N+PE				
Nominal Output Frequency	50Hz/60Hz				
Transfer Time	<10ms (typical)				
THDV	<3% @100% R Load				
<b>Protection</b>					
Protection Category	Class I				
DC Switch	Yes				
Anti-islanding Protection	Yes				
AC Overcurrent Protection	Yes				
DC/AC Overvoltage Protection	DC Type II, AC Type III				
AC Short Circuit Protection	Yes				
DC Reverse Protection	Yes				
Surge Arrester	DC Type II, AC Type II				
Insulation Resistance Detection	Yes				
Leakage Current Protection	Yes				
AFCI	Optional				
<b>General</b>					
Max. Operation Altitude	4000m (>2000m derating)				
Ingress Protection Degree	IP66				
Operating Temperature Range	-25 C ~60 C (>45 C derating)				
Relative Humidity	0-100%				
Cooling	Natural Cooling		Smart Fan Cooling		
Mounting Method	Wall bracket				
Dimensions (W*H*D)	660mm*596mm*235mm				
Weight	45Kg			55Kg	
PV Connection Way	MC4/H4				
<b>HMI &amp; COM</b>					
Display	Bluetooth & APP + LED, LCD (optional)				
Communication Interface	RS485/CAN (for BMS), RS485, DRM/RS485 (for Meter), Optional: Wi-Fi/LAN, 3*DO, 2*DI				
<b>Certification</b>					
Safety	IEC 62109-1&2				
EMC	IEC/EN 61000				
Grid	VDE 4105, EN 50549-1, CEI 0-21, NRS 097-2-1, RD 1699/661/647/413, UNE 217002, AS 4777.2, C10/11, IEC 61727/62116				
Warranty	5 Years				

Remarks: ①For single battery port connected, the maximum charge power is 25,500W. When two ports are used, the power can reach 45,000W.  
 • The range of output voltage and frequency may vary depending on different grid codes.  
 • Specifications are subject to change without advanced notice.

# 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

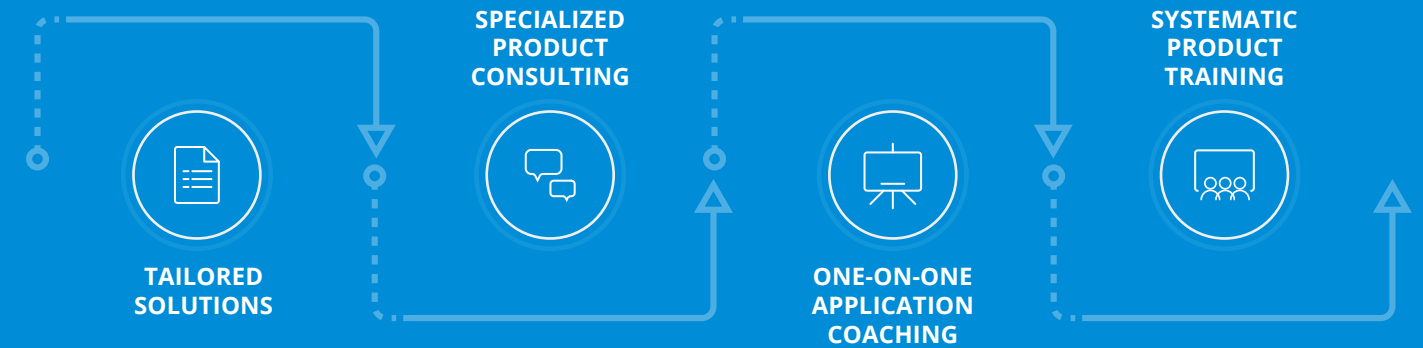


# SMART SOLAR CLOUD

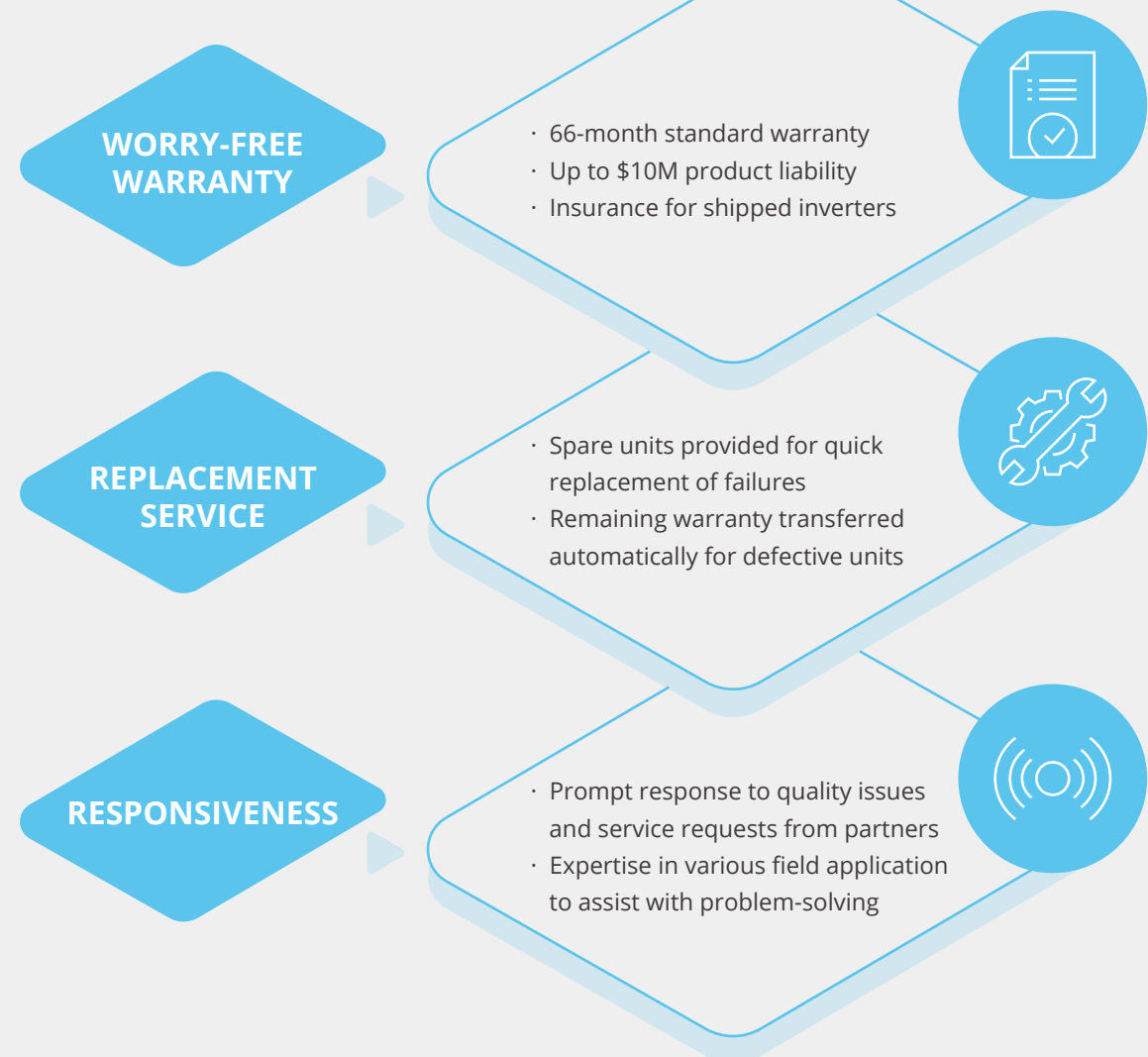


- Suitable for residential/commercial/storage applications
- Cloud services provided from Europe, the Americas, Singapore, India and China
- Monitoring the operational status of inverters, generators, communication modules, energy storage within the system
- Full visibility into energy consumption and production processes
- Remote diagnosis and detection technology with operational data visualization and intelligent analysis

# PRESALES SUPPORT



# AFTER SALE SERVICE



**WORRY-FREE WARRANTY**

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

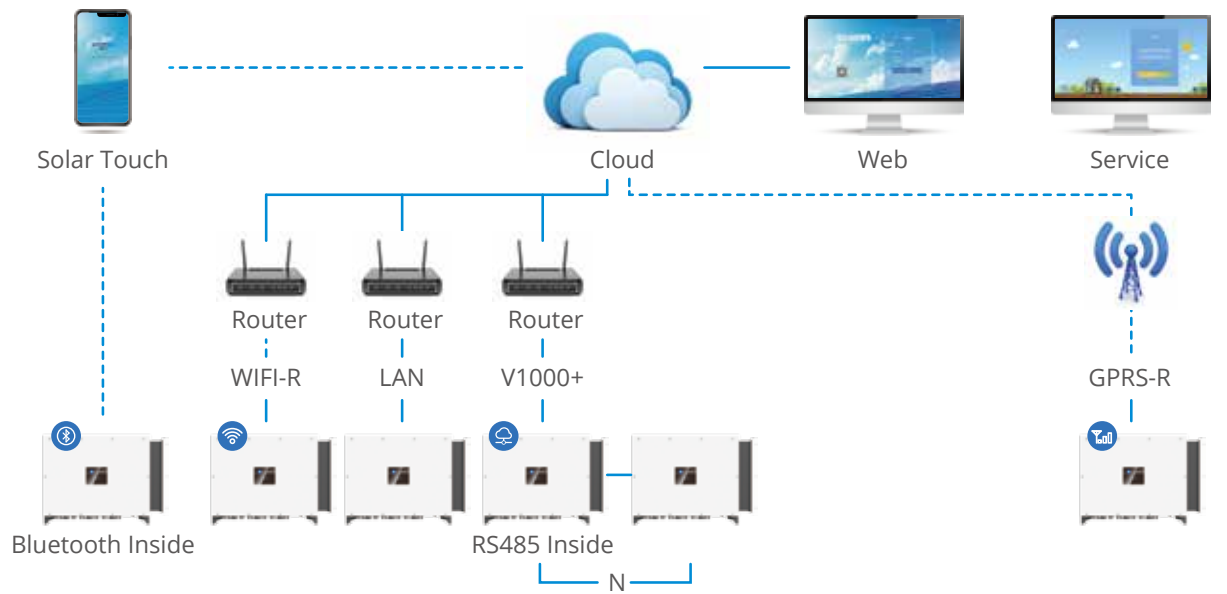
**REPLACEMENT SERVICE**

- 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 application to assist with problem-solving

— Ethernet Connection — Wireless Connection



# 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



TAICHUNG CITY, TAIWAN  
1.5MW



CHIAYI COUNTY, TAIWAN  
20MW