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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.



1st plant (YM) established in Shenzhen

2nd plant (DK) established in Shenzhen

1994

1997

2010

2011

2015

APD Group founded in Taipei

Renewable Energy Business set up

- Senergy Technology founded
- Certified as CQC type A enterprise

New generation of grid-tie PV inverters launched

- Energy Storage System launched
- 1GW inverters delivered annually

- U.S. model product launched
- New Pingshan factory established to reach 10GW manufacturing capacity

2016

2017

2020

2021

2022

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

Expanded manufacturing capacity to 3GW in Shenzhen and Taipei



FOOTPRINT MANUFACTURING CAPACITY

10_{GW}
Per Year

Taiwan

- Innovation Center
- 2 Factories

Shenzhen

- 2 R&D Center
- 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



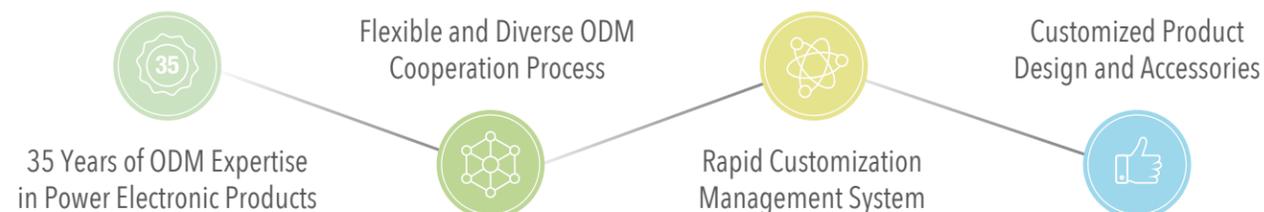
QUALITY CONTROL

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



MANUFACTURING

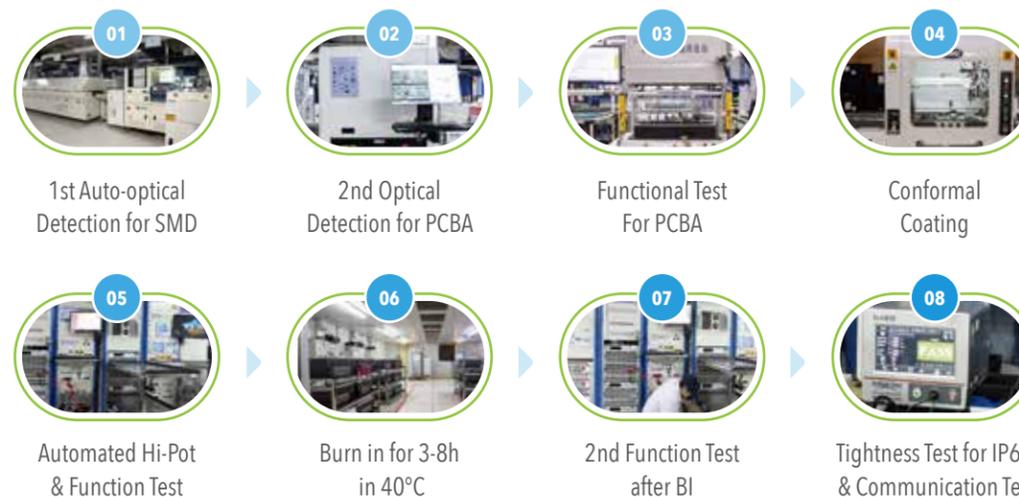
- Dual manufacturing bases in Taipei and Shenzhen
- Full industry process ranging from PCBA manufacturing to burn-in tests
- Highly-automated production equipment and flexible production line



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 I&C Use

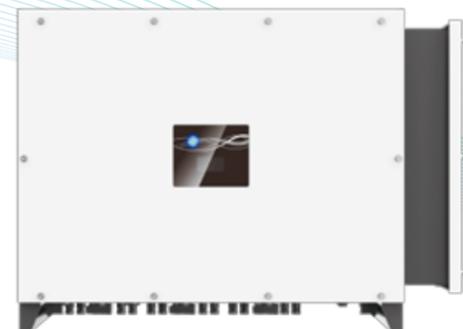
Three Phase
10kW-30kW



On-Grid Inverter Medium-Large I&C Use

Three Phase
30kW-50kW

Three Phase
100kW-125kW



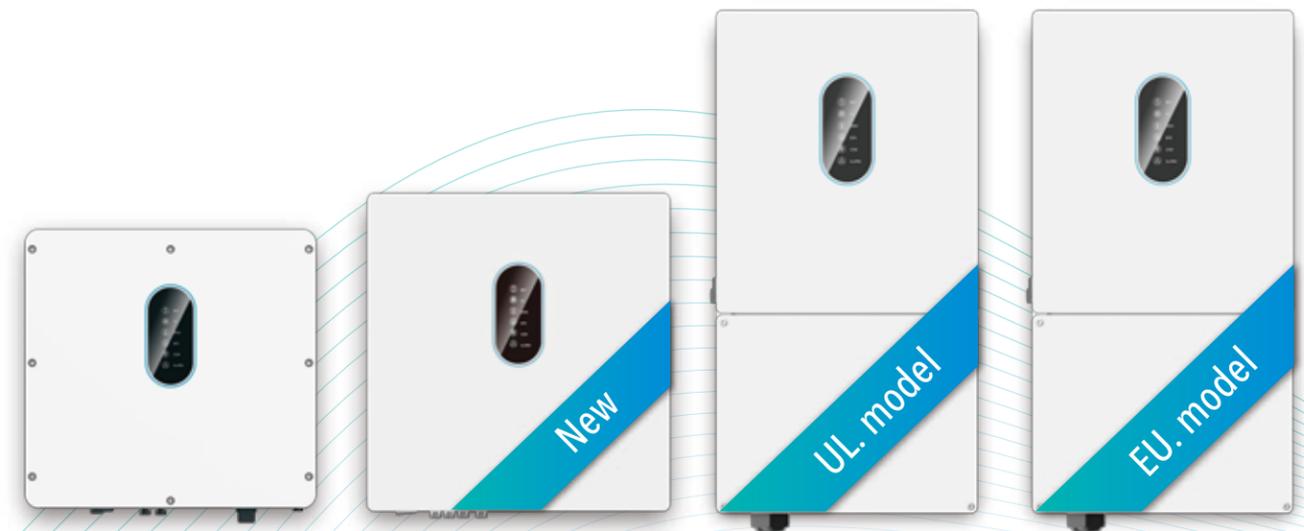
Energy Storage Inverter Residential Use

Single Phase
3.6kW-6kW

Three Phase
5kW-10kW

Single Phase
5kW-10kW-UL

Single Phase
8kW-10kW-T/EU



SINGLE PHASE & SINGLE MPPT

SE 2/3/3.6KTL-S1/G2P

Application: Family Use



SUPERIOR EFFICIENCY

- Maximum efficiency of 97.8%
- String current of 15A, compatible with high power modules
- 150% PV configuration and 110% output overload



HIGH RELIABILITY

- IP65 waterproof and dustproof
- Compatible with a wide range of power grid voltage and high harmonic power grid environments
- Optional DC/AC SPD, AFCI detection and C5 anti-corrosion features for added protection



INTELLIGENT MAINTENANCE

- Remote configuration and upgrade
- Power export control supported

Model	SE 2KTL-S1/G2P	SE 3KTL-S1/G2P	SE 3K6TL-S1/G2P
Efficiency			
Max. Efficiency	97.5%	97.8%	97.8%
European Efficiency	96.5%	96.8%	96.8%
Input(PV)			
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		
Output(Grid)			
Rated AC Active Power	2,000W	3,000W	3,600W
Max. AC Apparent Power	2,200VA	3,300VA	3,600VA
Max. AC Active Power (PF=1)	2,200W	3,300W	3,600W
Max. AC Output Current	10A	15A	16A
Rated AC Voltage	220V/230V, 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)		
Protection			
DC Switch	Support		
Anti-Islanding Protection	Support		
AC Overcurrent Protection	Support		
AC Short Circuit Protection	Support		
DC Reverse Connection	Support		
Surge Arrester	DC Type III (Optional) / AC Type III		
Insulation Detection	Support		
Leakage Current Protection	Support		
General			
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		
Noise (typical)	30dB		
Dimensions (W*H*D)	320mm*344mm*137mm		
Weight	6.5Kg		
HMI & COM			
Display	Wireless & APP+LED, LCD (Optional)		
Communication	Optional: WiFi / GPRS / RS485 / LAN		
Certification			
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.

SINGLE PHASE & DUAL MPPT

SE 4/5/6KTL-D1/G2P

Application: Family Use



SUPERIOR EFFICIENCY

- Maximum efficiency of 98.2%
- String current of 15A, compatible with high power modules
- 150% PV configuration and 110% output overload



HIGH RELIABILITY

- IP65 waterproof and dustproof
- Compatible with a wide range of power grid voltage and high harmonic power grid environments
- Optional DC/AC SPD, AFCI detection and C5 anti-corrosion features for added protection



INTELLIGENT MAINTENANCE

- Remote configuration and upgrade
- Power export control supported

Model	SE 4KTL-D1/G2P	SE 5KTL-D1/G2P	SE 6KTL-D1/G2P
Efficiency			
Max. Efficiency	98.0%	98.2%	98.2%
European Efficiency	97.0%	97.3%	97.4%
Input(PV)			
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		
Output(Grid)			
Rated AC Active Power	4,000W	5,000W	6,000W
Max. AC Apparent Power	4,400VA	5,500VA	6,000VA
Max. AC Active Power (PF=1)	4,400W	5,500W	6,000W
Max. AC Output Current	20A	25A	27.3A
Rated AC Voltage	220V/230V, L+N+PE		
AC Voltage Range ^①	160V-300V (Adjustable)		
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range ^②	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)		
Protection			
DC Switch	Support		
Anti-Islanding Protection	Support		
AC Overcurrent Protection	Support		
AC Short Circuit Protection	Support		
DC Reverse Connection	Support		
Surge Arrester	DC Type III (Optional) / AC Type III		
Insulation Detection	Support		
Leakage Current Protection	Support		
General			
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		
Noise (typical)	30dB		
Dimensions (W*H*D)	350mm*347mm*137mm		
Weight	8.5Kg		
HMI & COM			
Display	Wireless & APP+LED, LCD (Optional)		
Communication	Optional: WiFi / GPRS / RS485 / LAN		
Certification			
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.

SINGLE PHASE & DUAL MPPT

SE 7/8/10KTL-D1P

Application: Family Use



SUPERIOR EFFICIENCY

- Maximum efficiency of 98.2%
- String current of 20A, compatible with high power modules
- 150% PV configuration and 110% output overload



HIGH RELIABILITY

- IP65 waterproof and dustproof
- Compatible with a wide range of power grid voltage and high harmonic power grid environments
- Optional DC/AC SPD, AFCI detection and C5 anti-corrosion features for added protection



INTELLIGENT MAINTENANCE

- Remote configuration and upgrade
- Power export control supported

Model	SE 7KTL-D1P	SE 8KTL-D1P	SE 10KTL-D1P
Efficiency			
Max. Efficiency	98.2%	98.2%	98.2%
European Efficiency	97.4%	97.5%	97.6%
Input(PV)			
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	70V-540V		
Max. Number of PV Strings	2 (1/1)	3 (2/1)	
No. of MPPTs	2		
Output(Grid)			
Rated AC Active Power	7,000W	8,000W	10,000W
Max. AC Apparent Power	7,700VA	8,800VA	10,000VA
Max. AC Active Power (PF=1)	7,700W	8,800W	10,000W
Max. AC Output Current	35A	40A	45.5A
Rated AC Voltage	220V/230V, L+N+PE		
AC Voltage Range ^①	160V-300V (Adjustable)		
Rated Grid Frequency	50Hz / 60Hz		
Grid Frequency Range ^②	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)		
Protection			
DC Switch	Support		
Anti-Islanding Protection	Support		
AC Overcurrent Protection	Support		
AC Short Circuit Protection	Support		
DC Reverse Connection	Support		
Surge Arrester	DC Type III (Optional) / AC Type III		
Insulation Detection	Support		
Leakage Current Protection	Support		
General			
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		
Noise (typical)	30dB		
Dimensions (W*H*D)	400mm*450mm*170mm		
Weight	16Kg		
HMI & COM			
Display	Wireless & APP+LED, LCD (Optional)		
Communication	Optional: WiFi / GPRS / RS485 / LAN		
Certification			
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 : • ^{①②}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: Small-Scale Industrial and Residential Use



SUPERIOR EFFICIENCY

- Maximum efficiency of 98.3%
- Maximum String Current of 15A, compatible with 600W+ modules
- 150% PV configuration and 110% output overload



HIGH RELIABILITY

- Die-cast aluminum case, IP66 waterproof and dustproof
- Optional DC/AC SPD, AFCI detection and C5 anti-corrosion features for added protection
- Compatible with a wide range of power grid voltage and high harmonic power grid environments



INTELLIGENT MAINTENANCE

- Quick commissioning via mobile app
- Remote configuration and upgrade
- Power export control supported

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
Efficiency						
Max. Efficiency	98.2%	98.2%	98.2%	98.2%	98.3%	98.3%
European Efficiency	97.8%	97.8%	97.8%	97.8%	97.8%	97.8%
Input (PV)						
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					
Output (Grid)						
Rated AC Active Power	5000W	6,000W	8,000W	10,000W	12,000W	15,000W
Max. AC Apparent Power	5500VA	6,600VA	8,800VA	11,000VA	13,200VA	16,500VA
Max. AC Active Power (PF=1)	5500W	6,600W	8,800W	11,000W	13,200W	16,500W
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 ^①	260V-510V (Adjustable)					
Rated Grid Frequency	50Hz / 60Hz					
Grid Frequency Range ^②	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)					
Protection						
DC Switch	Support					
Anti-Islanding Protection	Support					
AC Overcurrent Protection	Support					
AC Short Circuit Protection	Support					
DC Reverse Connection	Support					
Surge Arrester	AC Type III (Type II optional) / DC Type III (Type II optional)					
Insulation Detection	Support					
Leakage Current Protection	Support					
General						
Topology	Transformerless					
IP Rating	IP66					
Night Self Consumption	<1W					
Cooling	Natural cooling					
Operating Temperature Range	-25°C-60°C					
Relative Humidity Range	0-100%					
Max. Operating Altitude	4000m					
Noise	<30dB					
Dimensions (W*H*D)	398mm*460mm*190mm					
Weight	16Kg			18Kg		
HMI & COM						
Display	Wireless & APP + LED, LCD (Optional)					
Communication	RS485, Optional: WiFi / GPRS / 4G / LAN					
Certification						
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 : • ^{①②}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: Small-Scale Industrial and Residential Use



SUPERIOR EFFICIENCY

- Maximum efficiency of 98.4%
- Maximum String Current of 15A, compatible with 600W+ modules
- 150% PV configuration and 110% output overload



HIGH RELIABILITY

- Die-cast aluminum case, IP66 waterproof and dustproof
- Optional DC/AC SPD, AFCI detection and C5 anti-corrosion features for added protection
- Compatible with a wide range of power grid voltage and high harmonic power grid environments



INTELLIGENT MAINTENANCE

- Quick commissioning via mobile app
- Remote configuration and upgrade
- Power export control supported

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
Efficiency							
Max. Efficiency	98.3%	98.4%	98.4%	98.4%	98.4%	98.4%	98.4%
European Efficiency	97.8%	98.0%	98.0%	98.0%	98.0%	98.0%	98.0%
Input (PV)							
Max. Input Voltage	1100V						
Max. PV Configuration	150%						
Rated Input Voltage	620V						
Max. Input Current	15A+30A						2*30A
Max.Short Circuit Current	20A+40A						2*40A
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						
Output (Grid)							
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 Active Power (PF=1)	11,000W	16,500W	18,700W	22,000W	24,200W	27,500W	33,000W
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 ^①	260V-510V (Adjustable)						
Rated Grid Frequency	50Hz / 60Hz						
Grid Frequency Range ^②	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)						
Protection							
DC Switch	Support						
Anti-Islanding Protection	Support						
AC Overcurrent Protection	Support						
AC Short Circuit Protection	Support						
DC Reverse Connection	Support						
Surge Arrester	AC Type III (Type II optional) / DC Type III (Type II optional)						
Insulation Detection	Support						
Leakage Current Protection	Support						
General							
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						
Noise	<45dB						
Dimensions (W*H*D)	398mm*460mm*190mm						
Weight	18Kg						20Kg
HMI & COM							
Display	Wireless & APP +LED, LCD (Optional)						
Communication	RS485, Optional: WiFi / GPRS / 4G / LAN						
Certification							
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 : • ①②The range of output voltage and frequency may vary depending on different grid codes.
• Specifications are subject to change without advanced notice.

THREE PHASE & QUAD MPPT

SE 30/40/50KTL

Application: Large-Scale Industrial and Commercial Sites



SUPERIOR EFFICIENCY

- Maximum efficiency of 98.5%
- String current of 16A/20A, compatible with 210mm PV modules
- 150% PV configuration and 110% output overload



HIGH RELIABILITY

- Integrated type II DC/AC SPD
- Local settings & display via app
- High-quality components used



INTELLIGENT MAINTENANCE

- String level I/V detection (Optional)
- Remote configuration and upgrade
- Power export control supported

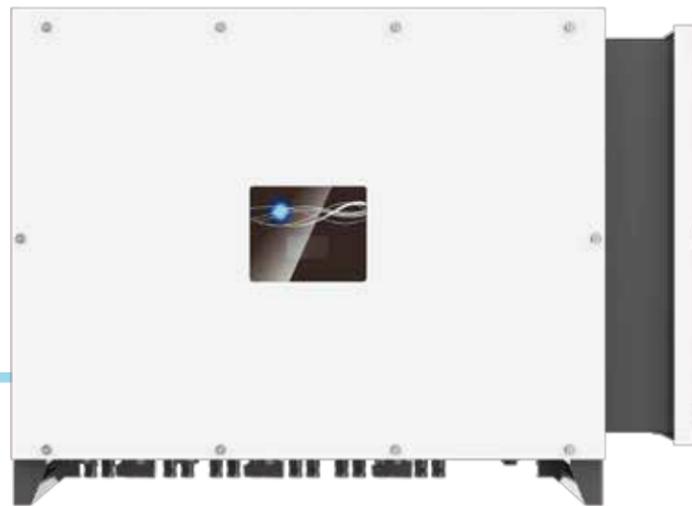
Model	SE 30KTL-T3/G2	SE 40KTL-T3/G2	SE 50KTL-T3/G2
Efficiency			
Max. Efficiency		98.5%	
European Efficiency	98.0%	98.0%	97.9%
Input (PV)			
Max. Input Voltage		1100V	
Max. PV Configuration (STC)		150%	
Rated Input Voltage		620V	
Max. Input Current	40A+2*32A	40A+2*32A	40A+3*32A
Max.Short Circuit Current	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
Output (Grid)			
Rated AC Active Power	30000W	40000W	50000W
Max. AC Apparent Power	33400VA	44500VA	55600VA
Max. AC Active Power (PF=1)	33400W	44500W	55600W
Max. AC Output Current	51A	67.4A	84.2A
Rated AC Voltage		380/400/415 3L/N/PE, 3L/PE	
AC Voltage Range ^①		320V-520V	
Rated Grid Frequency		50Hz / 60Hz	
Grid Frequency Range ^②		45-55Hz / 55-65Hz	
THDI		<3% (Rated Power)	
DC Current Injection		<0.5%In	
Power Factor		0.8 LD - 0.8 LG	
Protection			
DC Switch		YES	
Anti-Islanding Protection		YES	
AC Overcurrent Protection		YES	
AC Short Circuit Protection		YES	
DC Reverse Connection		YES	
Surge Arrester		DC Level II / AC Type II	
Insulation Detection		YES	
Leakage Current Protection		YES	
General			
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	
Noise (typical)	< 30dB		< 50dB
Dimensions (W*H*D)		635mm*530mm*224mm	
Weight	36Kg	40Kg	42Kg
HMI & COM			
Display		Wireless & APP+LED, LCD (Optional)	
Communication		Optional: WiFi / GPRS / RS485 / LAN	
Certification			
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 : • ①②The 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: Large-Scale Industrial and Commercial Sites



SUPERIOR EFFICIENCY

- Maximum efficiency of 98.8%
- Compatible with high power modules (500W/600W+)
- 150% PV configuration and 110% output overload



HIGH RELIABILITY

- IP66 waterproof and dustproof
- High quality components used
- Integrated type II DC/AC SPD, optional AFCI detection and C5 anti-corrosion



INTELLIGENT MAINTENANCE

- String level I/V detection (Optional)
- Remote configuration and upgrade
- Power export control supported

Model	SE 100KTL-M3	SE 110KTL-M3	SE 125KTL-MH3
Efficiency			
Max. Efficiency	98.5%	98.6%	98.8%
European Efficiency	98.0%	98.2%	98.4%
Input (PV)			
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	
Output (Grid)			
Rated AC Active Power	100,000W	110,000W	125,000W
Max. AC Apparent Power	110,000VA	121,000VA	137,500VA
Max. AC Active Power (PF=1)	110,000W	121,000W	137,500W
Max. AC Output Current	3*168.8A	3*187A	3*167.3A
Rated AC Voltage	400V, 3W+N+PE		480V, 3W+PE
AC Voltage Range*	277V-520V (Adjustable)		300V-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)		
Protection			
DC Switch	Support		
Anti-Islanding Protection	Support		
AC Overcurrent Protection	Support		
AC Short Circuit Protection	Support		
DC Reverse Connection	Support		
Surge Arrester	DC Type II / AC Type II		
Insulation Detection	Support		
Leakage Current Protection	Support		
AFCI	Optional		
PID Recovery	Optional		
PV String Monitoring	Optional		
Night load Consumption Monitoring	Optional		
General			
Topology	Transformerless		
IP Rating	IP66		
Night Self Consumption	<10W		
Cooling	Fan cooling		
Operating Temperature Range	-25°C-60°C		
Relative Humidity Range	0-100%		
Max. Operating Altitude	4000m		
Noise	<75dB		
Dimensions (W*H*D)	850mm*670mm*356mm		
Weight	92Kg		
HMI & COM			
Display	Wireless & APP +LED, LCD (Optional)		
Communication	RS 485, Optional: WiFi / GPRS / 4G / LAN		
Certification			
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



HIGH YIELD

- Maximum efficiency of 97.3% and battery efficiency of 94.3%
- Maximum charge/discharge current of 120A
- Reasonable energy control to increase spontaneous usage proportion



HIGH RELIABILITY

- BMS system to ensure longer battery life
- Natural cooling design



INTELLIGENT MAINTENANCE

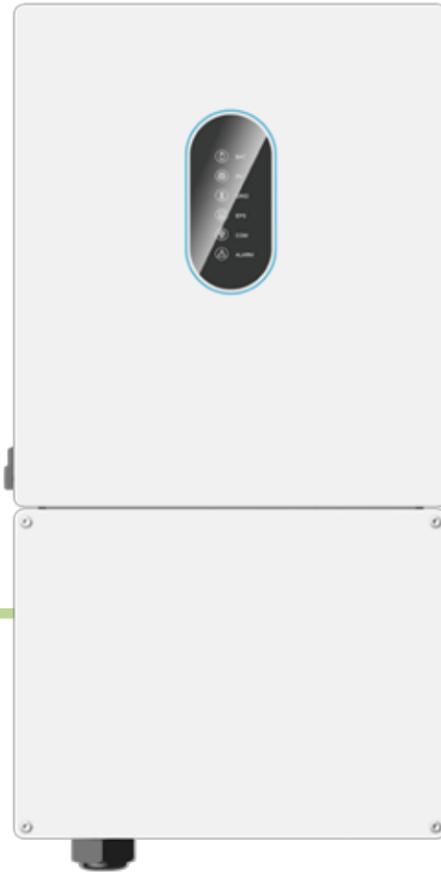
- Compatible with both lead-acid and lithium battery energy storage systems
- Remote configuration and upgrade

Model	SE 3K6HB-60	SE 4K6HB-120	SE 5KHB-120	SE 6KHB-120
Efficiency				
Max. Efficiency (PV to AC)			97.3%	
Max. Efficiency (BAT to AC)			94.3%	
Input (PV)				
MAX PV Power	6300W		9000W	
Max PV Voltage			550V	
Max Input Current (input A/input B)			15A/15A	
Max Short Current (input A/input B)			20A/20A	
Start Operating Voltage			90V	
MPPT Voltage Range			70V-540V	
No. of MPPT Trackers			2	
String Per MPP Tracker			1	
Input (BAT)				
Compatible 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	3000W/3000W	6000W/6000W	6000W/6000W	6000W/6000W
Lithium Battery Charge Curve			Self-adaption to BMS	
Output (Grid)				
Nominal AC Output Power	3600W	4600W	5000W	6000W
Max. AC Output Apparent Power	3600VA	4600VA	5500VA	6000VA
Max. AC Output Power (PF=1)	3600W	4600W	5500W	6000W
Max. AC Output Current	16A	22A	25A	27.2A
Rated AC Voltage			230V, L+N+PE	
AC Voltage Range			150V-300V (Adjustable)	
Rated Grid Frequency			50Hz / 60Hz	
AC Frequency Range			45Hz-55Hz/55Hz-65Hz (Adjustable)	
Grid Connection			Single phase	
Power Factor			> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
THDI			<3% (Rated Power)	
Output (Back up)				
Nominal Output Power	3000W	4600W	5000W	6000W
Nominal Output Current	13A	20A	21.7A	26A
Maximum Power (1s)	6000VA	9200VA	10000VA	12000VA
Nominal Output Voltage			230V, L+N+PE	
Nominal Output Frequency			50Hz / 60Hz	
Transfer Time			10ms (typ) / 20ms (max)	
THDV			<3% @100% R Load	
Protection				
Protection Category			Class I	
DC Switch			Support	
Anti-Islanding Protection			Support	
AC Overcurrent Protection			Support	
AC Short Circuit Protection			Support	
DC Reverse Connection			Support	
Surge Arrester			DC Type III, AC Type III	
Insulation Detection			Support	
Leakage Current Protection			Support	
PV Overvoltage Category			II	
AC Overvoltage Category			III	
Gen			Optional	
General				
Max. Operation Altitude			4000m	
Noise Emission			<35dB	
Ingress Protection Degree			IP65	
Operating Temperature Range			-25°C ~ 60°C	
Relative Humidity			0 ~ 100%	
Cooling Concept			Natural Cooling	
Mounting			Wall bracket	
Dimensions (W*H*D)			515mm*485mm*175mm	
Weight	20Kg		25Kg	
PV Connection Way			MC4/H4	
Battery Connection Way			Dedicated DC connector	
AC Connection Way (grid & back up)			Dedicated AC connector	
HMI & COM				
Display			LED+APP	
Communication Interface			RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: WiFi/GPRS/LAN	
Certification				
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	IEC62109-1&2, IEC62477-1			
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 8/10KHB-T/EU



FEATURES

- »» Maximum efficiency of 98.0% and CEC efficiency of 95%
- »» Maximum PV power of 15KW
- »» String current of 30A, compatible with high-power modules
- »» Advanced parallel up to 9Pcs
- »» BMS management system to ensure longer battery life
- »» Compatible with both lead-acid and lithium battery energy storage systems
- »» Remote configuration and upgrade

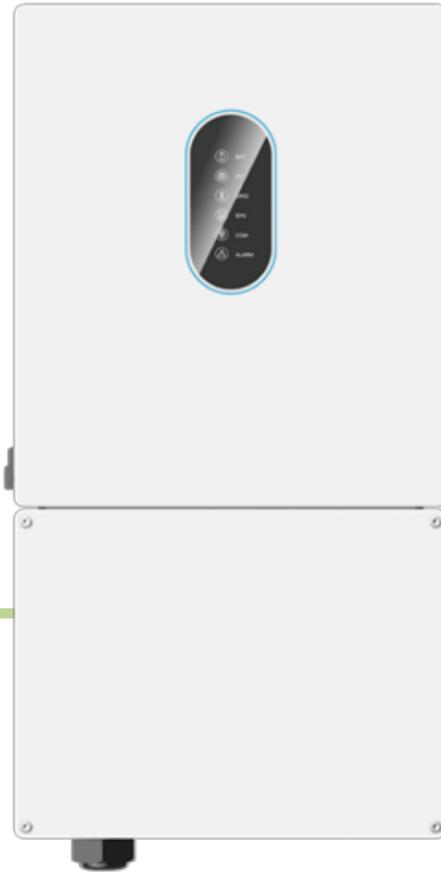
Model	SE 8KHB-180-T/EU	SE 10KHB-210-T/EU
Efficiency		
Max. Efficiency (PV To AC)		98.0%
Max. Efficiency (Bat To AC)		95.0%
Input(PV)		
Max. PV Power	12000W	15000W
Max. Input Voltage		600V
Max. Input Current (PV-A/PV-B)		30A/22A/22A
Max Short Current (input A/input B) (A)		40A/30A/30A
Start Operating Voltage (V)		90V
MPPT Operating Voltage Range		70V-540V
No. of MPPT Trackers		3
String Per MPP Tracker		2
Input(Bat)		
Compatible 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	10000W/8000W	10000W/10000W
Lithium Battery Charge Curve		Self-adaption to BMS
Input (Grid)		
Nominal AC Input Power	12000W	15000W
Max. AC Input Current	52.5A	65.3A
Rated AC Voltage		230V (Single phase)
Output (Grid)		
Nominal AC Output Power	8000W	10000W
Max. AC Output Apparent Power	8800VA	11000VA
Max. AC Output Power (PF=1)	8800W	11000W
Max. AC Output Current	40A	50A
Rated AC Voltage		230V, L+N+PE
Rated Grid Frequency		50Hz / 60Hz
Grid Connection		Single phase
Power Factor		> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)
THDI		<3% (Rated Power)
Output (BackUp)		
Nominal Output Power	8000W	10000W
Nominal Output Voltage		230V, L+N+PE
Nominal Output Frequency		50/60Hz
Nominal Output Current	34.8A	43.5A
Maximum Power (1s)	16000VA	20000VA
Nominal Output Voltage		230V, L+N+PE
Nominal Output Frequency		50Hz / 60Hz
Transfer Time		10ms (typ) / 20ms (max)
THDV		<3% @100% R Load
Protection		
Protection Category		Class I
DC Switch		Support
Anti-Islanding Protection		Support
AC Overcurrent Protection		Support
AC Short circuit Protection		Support
DC Reverse Connection		Support
Surge Arrester		DC Type II, AC Type II
Insulation Detection		Support
Leakage Current Protection		Support
Gen		Support
PV Overvoltage Category		II
AFCI		Optional
RSD		Optional
General		
Max. Operation Altitude		4000m
Noise Emission		<45dB
Ingress Protection Degree		IP65
Operating Temperature Range		-25~60°C(>45°C derating)
Relative Humidity		0~100%
Cooling Concept		Fan Cooling
Mounting		Wall bracket
Dimensions (W*H*D)		420mm*800mm*240mm
Weight		37Kg
PV Connection		Terminals
BAT Connection		DC special connector
HMI & COM		
Display		LED+APP
Communication Interface		RS485/CAN (for BMS), DRM/RS485 (for Meter), RS485, USB, Optional: WiFi/GPRS/LAN
Certification		
Grid		NRS 0-97 / IEC61727 / IEC62116
Safety		IEC62109
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.

SINGLE PHASE HYBRID INVERTER

SE 5/6/8/10KHB-UL



FEATURES

- »» Maximum efficiency of 98.0% and CEC efficiency of 94.5%
- »» Maximum PV power of 15KW
- »» String current of 30A, compatible with high-power modules
- »» Advanced parallel up to 9Pcs
- »» 100% backup power available with split-phase out
- »» BMS management system to ensure longer battery life
- »» Compatible with both lead-acid and lithium battery energy storage systems
- »» Remote configuration and upgrade

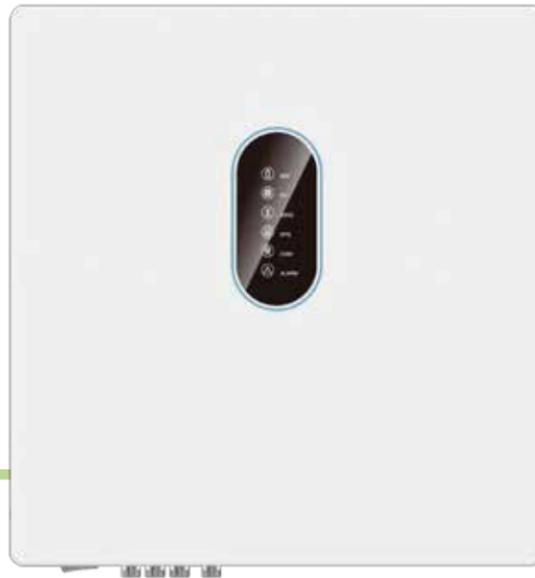
Model	SE 5KHB-130-D2/UL	SE 6KHB-130-D2/UL	SE 8KHB-180-T2/UL	SE 10KHB-210-T2/UL
Efficiency				
Max. Efficiency (PV to AC)				98.0%
Max. Efficiency (BAT to AC)				94.5%
Input (PV)				
MAX PV Power	7500W	9000W	12000W	15000W
Max PV Voltage				600V
Max Input Current (input A/input B)	30A/22A		30A/22A/22A	
Max Short Current (input A/input B)	40A/30A		40A/30A/30A	
Start Operating Voltage				90V
MPPT Voltage Range				70V-540V
No. of MPPT Trackers	2		3	
String per MPP Tracker				2
Input (BAT)				
Compatible 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	10000W/5000W	10000W/6000W	10000W/8000W	10000W/10000W
Lithium battery Charge Curve	Self-adaption to BMS			
Output (Grid)				
Nominal AC Output Power	5000W	6000W	8000W	10000W
Max. AC Output Apparent Power	5500VA	6600VA	8800VA	11000VA
Max. AC Output Power (PF=1)	5500W	6600W	8800W	11000W
Max. AC Output Current	25A	30A	40A	50A
Rated AC Voltage	120V/240V (Split phase) / 230V (Single phase) / 208V (2/3 phase)			
Rated Grid Frequency	60Hz			
AC Frequency Range	55Hz-65Hz (Adjustable)			
Grid Connection	Split phase			
Power Factor	> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)			
THDI	<3% (Rated Power)			
Output (Back up)				
Nominal Output Power	5000W	6000W	8000W	10000W
Nominal Output Current	20.9A	25A	33.4A	41.7A
Maximum Power (1s)	10000VA	12000VA	16000VA	20000VA
Nominal Output Voltage	120V / 240V (Split phase) / 230V (Single phase) / 208V (2/3 phase)			
Nominal Output Frequency	60Hz			
Transfer Time	10ms (typ) / 20ms (max)			
THDV	<3% @100% R Load			
Protection				
Protection Category	Class I			
DC Switch	Support			
Anti-Islanding Protection	Support			
AC Overcurrent Protection	Support			
AC Short Circuit Protection	Support			
DC Reverse Connection	Support			
Surge Arrester	DC Type II, AC Type II			
Insulation Detection	Support			
Leakage Current Protection	Support			
PV Overvoltage Category	II			
AC Overvoltage Category	III			
AFCI	Y			
RSD	Y (MLRSD Sunspec or Tigo Transmitter)			
General				
Max. Operation Altitude	2000m			
Noise Emission	<40dB			
Ingress Protection Degree	IP65			
Operating Temperature Range	-25°C~60°C			
Relative Humidity	0~100%			
Cooling Concept	Fan Cooling			
Mounting	Wall bracket			
Dimensions (W*H*D)	420mm*800mm*240mm			
Weight	37Kg			
PV Connection	Terminals			
BAT Connection	DC special connector			
HMI & COM				
Display	LED+APP			
Communication Interface	RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: WiFi/GPRS/Ethernet			
Certification				
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 notice.

THREE PHASE HYBRID INVERTER

SE 5/6/8/10KHB-D3



HIGH YIELD

- Maximum efficiency of 98.4% and battery efficiency of 98%
- Maximum charge/discharge current of 50A
- Reasonable energy control to increase spontaneous use proportion



HIGH RELIABILITY

- BMS system to ensure longer battery life
- Natural cooling design



INTELLIGENT MAINTENANCE

- Compatible with both lead-acid and lithium battery energy storage systems
- Remote configuration and upgrade

Model	SE 5KHB-D3	SE 6KHB-D3	SE 8KHB-D3	SE 10KHB-D3
Efficiency				
Max. Efficiency (PV to AC)	98.2%	98.2%	98.4%	98.4%
Eur. Efficiency (PV to AC)	97.2%	97.2%	97.9%	97.9%
Max. Efficiency (BAT)	98.0%			
Input (PV)				
MAX PV Power	9000W	9000W	15000W	15000W
Max PV Voltage	1000V			
Max Input Current (input A/input B)	15A/15A	15A/15A	20A/30A	20A/30A
Max Short Current (input A/input B)	20A/20A		30A/40A	
MPPT Voltage Range	160V-950V			
No. of MPPT Trackers	2			
String per MPP Tracker	1+1		1+2	
Input (BAT)				
Compatible Battery Type	Lithium-ion / Lead-acid			
Nominal Battery Voltage	200V-600V			
Battery Voltage Range	150V-600V			
Max. Charge/Discharge Current	25A/25A	25A/25A	50A/50A	50A/50A
Max. Charge/Discharge Power	9000W/5800W	9000W/7000W	15000W/9300W	15000W/10500W
Lithium Battery Charge Curve	Self-adaption to BMS			
Output (Grid)				
Nominal AC Output Power	5000W	6000W	8000W	10000W
Max. AC Output Apparent Power	5500VA	6600VA	8800VA	11000VA
Max. AC Output Power (PF=1)	5500W	6600W	8800W	11000W
Max. AC Output Current	3*8.3A	3*10A	3*13.3A	3*16.7A
Max. Single Phase Power	2.5kW	3kW	4kW	5kW
Max. Current (Output)	11.5A	13.7A	18.2A	22.7A
Apparent Power (Input)	15kVA			
Maximum Current (Input)	3*25A	3*25A	3*25A	3*25A
Rated AC Voltage	380V / 400V / 415V, 3W+N+PE			
AC Voltage Range	277V-520V (Adjustable)			
Rated Grid Frequency	50Hz / 60Hz			
AC frequency Range	45Hz-55Hz/55Hz-65Hz (Adjustable)			
Grid Connecion	Three phase			
Power Factor	>0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)			
THDI	<3% (Rated Power)			
Output (Back up)				
Nominal Output Power	5000W	6000W	8000W	10000W
Nominal Output Current	3*7.6A	3*9.1A	3*12.2A	3*15.2A
Max. Single Phase Power	2.5kW	3kW	4kW	5kW
Max. Single Phase Current	11.5A	13.7A	18.2A	22.7A
Maximum Power (5min)	6000VA	7200VA	9600VA	12000VA
Maximum Power (10s)	7500VA	9000VA	12000VA	15000VA
Nominal Output Voltage	380V / 400V, 3W+N+PE			
Nominal Output Frequency	50Hz / 60Hz			
Transfer Time	10ms (typ) / 20ms (max)			
THDV	<3% (R Load), 5% (RCD Load)			
Protection				
Anti-Islanding Protection	Support			
AC Overcurrent Protection	Support			
AC Short Circuit Protection	Support			
AC Over-Voltage Protection	Support			
Surge Arrester	DC Type II, AC Type II			
Insulation Detection	Support			
GFCI	Support			
AFCI	Optional			
RSD	Optional			
General				
Max. Operation Altitude	4000m (>2000m derating)			
Noise Emission	30dB			
Ingress Protection Degree	IP65			
Operating Temperature Range	-25°C ~ 45°C			
Relative Humidity	0~100%			
Cooling Concept	Natural Cooling			
Mounting	Wall bracket			
Dimensions (W*H*D)	530mm*550mm*212mm			
Weight	30Kg		32Kg	
PV Connection Way	MC4 / H4			
Battery Connection Way	Dedicated DC connector			
HMI & COM				
Display	LED+APP (Bluetooth)			
Communication Interface	CAN/RS485 (for BMS), DRM/RCR (for DI) / RS485 (for Meter) 1*DO, USB (Firmware upgrade), Optional: WiFi/GPRS/4G/Ethernet			
Certification				
Grid	IEC 61727/62116, EN 50549-1, VDE 4105, AS 4777, CEI 0-21, G99, C10/11, RD627			
Safety	IEC62109-1&2, IEC62477-1			
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 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
Input	
Input Voltage	Input: AC 90V-250V 50/60Hz Output: DC 5V
Static Current Consumption	1A
General	
Operating Temperature	-25°C~55°C
Humidity	10%~95% relative humidity, no condensation
IP Rating	IP20
Dimension (L*W*H)	118mm*78mm*29mm
Certification	
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
Input	
Input Voltage	DC 5V
Static Power Consumption	<1.6W
General	
Operating Temperature	-25°C~60°C
Humidity	0%~100% relative humidity, no condensation
IP Rating	IP65
Dimension (L*W*H)	71mm*41mm*92mm
Certification	
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
Input	
Input Voltage	DC 5V
Static Power Consumption	<1.6W
General	
Operating Temperature	-25°C~60°C
Humidity	0%~100% relative humidity, no condensation
IP Rating	IP65
Dimension (L*W*H)	71mm*41mm*117mm
Certification	
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

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



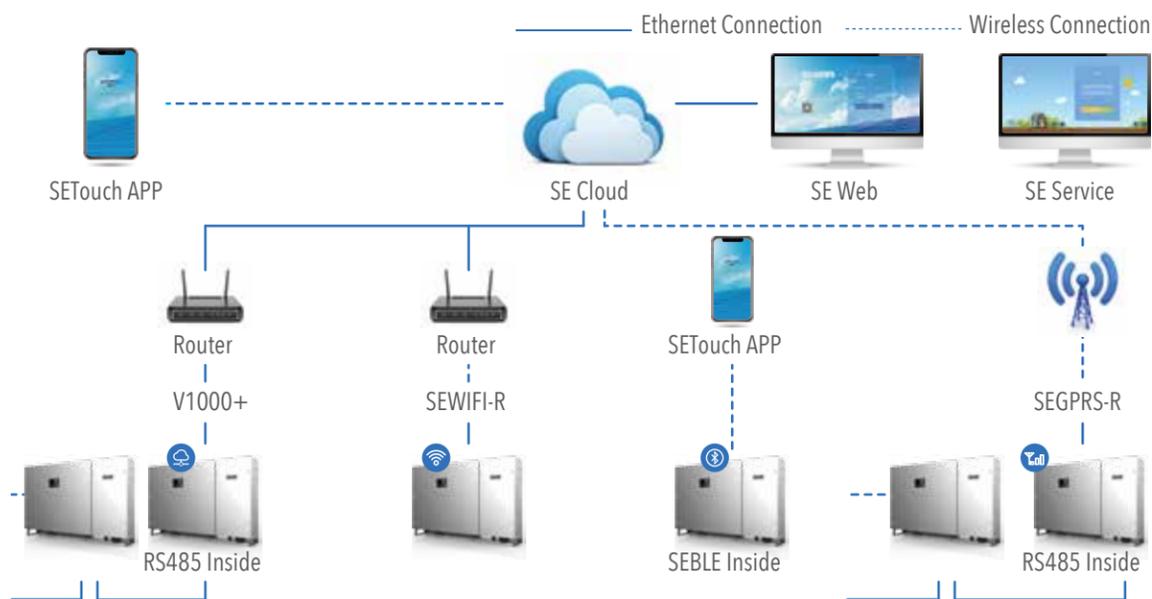
REPLACEMENT SERVICE

- 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