

**ONESTO**<sup>®</sup>

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**ONESTO ELECTRIC Co., Ltd.**

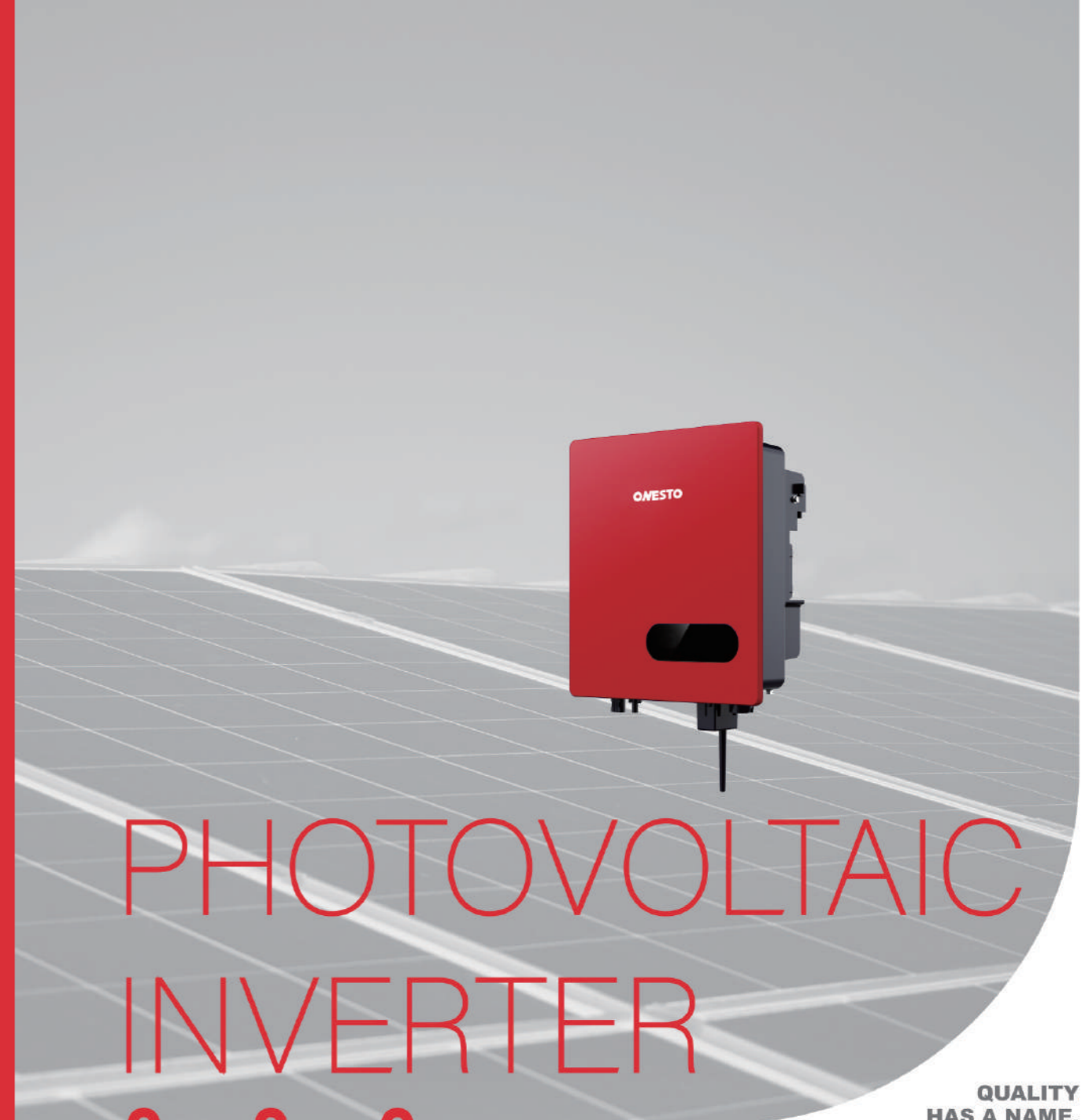
Room 1601-1603, Yueshang Mansion,  
No.2088 Wenzhou Avenue, Wenzhou,  
China. 325000

TEL. 0086 577 8676 0560  
FAX. 0086 577 8676 0580  
E-MAIL. [onesto@onestoelectric.com](mailto:onesto@onestoelectric.com)



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2022.4.5



# PHOTOVOLTAIC INVERTER

**QUALITY  
HAS A NAME.**

-  HYBRID INVERTER
-  MPPT INVERTER
-  ENERGY STORAGE BATTERY

# 2022-2023

**ONESTO**<sup>®</sup>



## Company Profile

As an active player in electrical manufacturing industry over 15 years, **ONESTO** is committed to providing quality assured products for application in power distribution, industrial control and new energy etc.

**ONESTO** is a name of quality that focuses on customer's safety and satisfaction. The company is operated under ISO9001:2015 Quality Management System. All the products are manufactured in conformity with BE,EN,IEC international standards and acquired CE,CB,TUV,Semko, KEMA-KEUR certificates.

**ONESTO** is undertaking intelligent manufacturing. The factory set up advance automated assembly and testing production line to secure high precision parts dimension, accurate automated assembly, outstanding technical performance and efficient production capacity. Onesto introduced advance ERP system to achieve full quality tracing for each step of raw material incoming, production process and delivery.

**ONESTO** always pursues constant product innovation to offer customers with comprehensive selection for commercial, industrial, residential project where quality is essential. Onesto owns independent intellectual property rights for its product range including domestic and international patents.

Today, customers over 50 countries are benefited from **ONESTO** products and solution for its reliable protection of electrical systems. As a well recognized partner with renowned companies around the world, **ONESTO** is ready to create new value and competitive advantages with partners for mutual continuously development.

## Factory Tour



# Inverter & Battery for Photovoltaic Systems

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- **SINGLE PHASE AC COUPLED & HYBRID INVERTER**
- **THREE PHASE HYBRID INVERTER**
- **SINGLE PHASE & THREE PHASE INVERTER**
- **ENERGY STORAGE BATTERY**



- Aluminum enclosure with top-ranking high quality components
- Intelligent active monitoring system to provide real-time response and remote trouble shooting
- Extreme low operating voltage, self-studying MPPT technology and patented ECO mode to increase power generation

TÜV CE



**OST 4.6/5/6KAC**



**SUPERIOR EFFICIENCY**

Max Charge/Discharge efficiency 94%  
 Convenient to retrofit existing grid-connected systems increase the proportion of spontaneous use

**HIGH RELIABILITY**

With BMS system to ensure high battery life  
 Natural cooling design

**INTELLIGENT MAINTENANCE**

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



FOR OTHER VERSIONS:  
 Please consult ONESTO or local distributor.

Model	OST 4K6AC	OST 5KAC	OST 6KAC
<b>Efficiency</b>			
Max. efficiency (Max. charge/discharge)	94.0%		
<b>Input (BAT)</b>			
Compatible battery type	Lithium-ion / Lead-acid		
Nominal battery voltage	48V		
Battery voltage range	40V-60V		
Max. charge/discharge current	100A / 100A	100A / 100A	120A / 120A
Max. charge/discharge power	5000W / 5000W	5000W / 5000W	6000W / 6000W
Lithium battery charge curve	Self-adaption to BMS		
<b>Output (Grid)</b>			
Nominal AC output power	4600W	5000W	6000W
Max. AC output apparent power	4600VA	5500VA	6000VA
Max.AC output power (PF=1)	4600W	5500W	6000W
Max. AC output current	22A	25A	27.2A
Rated AC voltage	220V		
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)		
<b>Output (Back up)</b>			
Nominal output voltage	230V		
Nominal output frequency	50Hz / 60Hz		
Nominal output power	4600W	5000W	5000W
Nominal output current	20A	21.7A	21.7A
Transfer time	10ms (typ), 20ms (max)		
THDV	<3% @100% R Load		
<b>Protection</b>			
Protection category	Class I		
Anti-islanding protection	Support		
AC overcurrent protection	Support		
AC short circuit protection	Support		
Surge Arrester	AC Type III		
Leakage current protection	Support		
AC overvoltage category	III		
<b>General</b>			
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		
Battery connection way	Dedicated DC connector		
AC connection way (grid & back up)	Dedicated AC connector		
<b>HMI &amp; COM</b>			
Display	LED+APP		
Communication interface	RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: WIFI/GPRS/LAN		
<b>Certification</b>			
Grid	IEC 61000-1/2/3/4, G99, NRS 097, EN 50549-1, IEC 61727/62116, CEI 021		
Safety	IEC 62109-1/2		
Warranty	5 Years / 10 Years (Optional)		

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

**OST 4600/5000/6000 HB-60, OST 4600/5000/6000HB-120**



**SUPERIOR EFFICIENCY**

Max efficiency 97.3%, Battery efficiency 94%  
 Max. Charge/Discharge Current 120A  
 Reasonable energy control to increase the proportion of spontaneous use

**HIGH RELIABILITY**

With BMS system to ensure high battery life  
 Natural cooling design

**INTELLIGENT MAINTENANCE**

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

FOR OTHER VERSIONS:  
 Please consult ONESTO or local distributor.

Model	OST 4600HB-60	OST 4600HB-120	OST 5000HB-60	OST 5000HB-120	OST 6000HB-60	OST 6000HB-120
<b>Efficiency</b>						
Max. efficiency (PV to AC)	97.3%					
Max. efficiency (BAT to AC)	94.0%					
<b>Input (PV)</b>						
MAX PV Power	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-520V					
No. of MPPT trackers	2					
String per MPP tracker	1					
<b>Input (BAT)</b>						
Compatible battery type	Lithium-ion / Lead-acid					
Nominal battery voltage	48V					
Battery voltage range	40V-60V					
Max. charge/discharge current	60A/60A	120A/120A	60A/60A	120A/120A	60A/60A	120A/120A
Max. charge/discharge power	3000W/3000W	5000W/5000W	3000W/3000W	5000W/5000W	3000W/3000W	5000W/5000W
Lithium battery charge curve	Self-adaption to BMS					
<b>Output (Grid)</b>						
Nominal AC output power	4600W	4600W	5000W	5000W	6000W	6000W
Max. AC output apparent power	4600VA	4600VA	5500VA	5500VA	6000VA	6000VA
Max. AC output power (PF=1)	4600W	4600W	5500W	5500W	6000W	6000W
Max. AC output current	22A	22A	25A	25A	27.2A	27.2A
Rated AC voltage	220V					
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)					
<b>Output (Back up)</b>						
Nominal output voltage	230V					
Nominal output frequency	50Hz/ 60Hz					
Nominal output power	3000W	4600W	3000W	5000W	3000W	6000W
Nominal output current	13A	20A	13A	21.7A	13A	26A
Transfer time	10ms (typ) / 20ms (max)					
THDV	<3% @100% R Load					
<b>Protection</b>						
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					
<b>General</b>						
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	20Kg	25Kg	20Kg	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	LED+APP					
Communication interface	RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: WIFI/GPRS/LAN					
<b>Certification</b>						
Grid	IEC 61000-1/2/3/4, G99, NRS 097, EN 50549-1, IEC 61727/62116, CEI 021					
Safety	IEC 62109-1/2					
Warranty	5 Years /10 Years (Optional)					

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

**OST 5000/6000/8000 /10000 HB-T**

**SUPERIOR EFFICIENCY**

Max efficiency 98.4%, Battery efficiency 98%  
 Max. Charge/Discharge Current 50A  
 Reasonable energy control to increase the proportion of spontaneous use

**HIGH RELIABILITY**

With BMS system to ensure high battery life  
 Natural cooling design

**INTELLIGENT MAINTENANCE**

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



Model	OST 5000 HB-T	OST 6000 HB-T	OST 8000 HB-T	OST 10000 HB-T
<b>Efficiency</b>				
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%			
<b>Input (PV)</b>				
MAX PV Power	8000W	9000W	12000W	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	
<b>Input (BAT)</b>				
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	8000W/5200W	9000W/6300W	12000W/10500W	15000W/10500W
Lithium battery charge curve	Self-adaption to BMS			
<b>Output (Grid)</b>				
Nominal AC output power	5000W	6000W	8000W	10000W
Max. AC output apparent power	5500VA	6600VA	8800VA	10000VA
Max. AC output power (PF=1)	5500W	6600W	8800W	10000W
Max. AC output current	3*8.3A	3*10A	3*13.3A	3*15.2A
Rated AC voltage	380V / 400V			
AC voltage range	277V-520V (Adjustable)			
Rated grid frequency	50Hz / 60Hz			
AC frequency range	45Hz-55Hz/55Hz-65Hz (Adjustable)			
Grid connection	Three phase			
Power factor	>0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)			
THDI	<3% (Rated Power)			
<b>Output (Back up)</b>				
Nominal output voltage	380V / 400V			
Nominal output frequency	50Hz / 60Hz			
Nominal output power	5000W	6000W	8000W	10000W
Nominal output current	3*7.6A	3*9.1A	3*12.2A	3*15.2A
Transfer time	10ms (typ) / 20ms (max)			
THDV	<3% (R Load), 5% (RCD Load)			
<b>Protection</b>				
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			
<b>General</b>				
Max. operation altitude	4000m			
Noise emission	30dB			
Ingress protection degree	IP65			
Operating temperature range	-25℃~45℃			
Relative humidity	0~100%			
Cooling concept	Natural Cooling			
Mounting	Wall bracket			
Dimensions (W*H*D)	530mm*550mm*212mm			
Weight	26Kg		29Kg	
PV connection way	MC4 / H4			
Battery connection way	Dedicated DC connector			
<b>HMI &amp; COM</b>				
Display	LED+APP (Bluetooth)			
Communication interface	BMS (CAN/RS485), Optional: WiFi/GPRS/4G/Ethernet, DI (DRM/RCR) / Meter (RS485), 1*DO, USB (Firmware upgrade)			
<b>Certification</b>				
Grid	IEC 61000-1/2/3/4, G99, NRS 097, EN 50549-1, IEC 61727/62116, CEI 021			
Safety	IEC 62109-1/2			
Warranty	5 Years / 10 Years (Optional)			

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



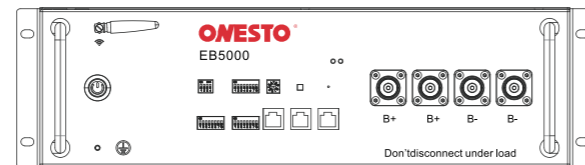
FOR OTHER VERSIONS:  
 Please consult ONESTO or local distributor.

# EB5000



## FEATURES

- Assembly freely in series or parallel Up to 8S8P (409.6V326.4kWh)
- High energy efficiency Energy efficiency (charge and discharge) > 97%
- High Rate Charge & Discharge Max charge current 60A,Max discharge current 80A
- More Safety Dual hardware & Triple software protection
- Safe and Reliable BMS Relay design instead of mosfet
- Long Life Reliable LFP cells,Cycle life >6000 cycles
- High Reliability Key devices (Relay,Fuse) approved by UL and IEC
- More Smart With digital monitor system App with WIFI
- Smart Design & Easy installation Plug in & off
- More Quiet Without fan,more quiet and reduce the risk of fan failure



## TECHNICAL DATA

Model	EB5000	
Total Energy*	5.1kWh	
Usable Energy(DC)*	4.8kWh	
Nominal Dis-/Charge Power	3.0kW	
Peak Power(Only Discharge)	6kW for 3s	
Constant Current(Only Discharge)	80A	
Voltage	48-56Vd.c	
Nominal Voltage	51.2Vd.c	
Nominal Current	60A	
Max. Charge Voltage	57.6Vd.c	
Weight	45kg	
Dimension(mm)	500*448*135mm	
Max.recommended DOD	90%	
Operating Condition	Indoor	
Operating Temperature	Charge	From 0~50°C
	Discharge	From -10~55°C
WIFI Frequency Range	2400MHz~2483MHz	
Humidity	< 60%(No condensed water)	
Over Voltage Category	II	
Cooling Type	Natural cooling	
Case Material	Metal	
Color	Black or White	
Installation	Wall mounting/Ground Installation	
IP rating	IP 20	
Protective Class	I	
Max. Connection Number	8S/4P	
Warranty	10 years	
Life Span	>15 years	
Communication	CAN/ RS485	
Protection Mode	Dual hardware protection	
Battery Protection	Over-current / Over-voltage / Short circuit / Under-voltage / Over temperature	
Safety	Cell UL 1973	CE / IEC62619
Hazardous Material Classification	9	
Transportation	UN 38.3	

Testing conditions based on temperature 25 at the beginning of life.



FOR OTHER VERSIONS:  
Please consult ONESTO or local distributor.



# ES Series



**ES5000**  
5kWh/LV

**ES5800**  
5.8kWh/LV



**ES10K**  
10kWh/LV

## ENERGY STORAGE

- Digital monitoring system APP
- High inverter compatibility
- Reliable LFP cells
- CANbus standard connection
- Natural cooling system
- Scalable up to 20-40kWh (4 Parallel)
- 10 Years limited warranty
- IP65

## TECHNICAL PROPERTIES

Model	ES5000 5kWh/LV	ES5800 5.8kWh/LV	ES10K 10kWh/LV
Total Energy(DC)*	5.1kWh	5.8kWh	10kWh
Usable Energy(DC)*	4.6kWh	5.3kWh	9.2kWh
Nominal Dis-/Charge Power	3.0kW	2.75kW	4.6kW
Peak Power(Only Discharge)	6kW for 3s	7kW for 3s	10kW for 3s
Constant Current(Only Discharge)	80A	100A	120A
Voltage	48~56Vd.c	42~54Vd.c	48~56Vd.c
Nominal Voltage	51.2Vd.c	48Vd.c	51.2Vd.c
Nominal Current	60A	57A	90A
Max. Charge Voltage	57.6Vd.c	54.0Vd.c	57.6Vd.c
Weight	55kg	66kg	101kg
Dimension(mm)	525*537*238mm	525*635*238mm	525*825*238mm
Max.recommended DOD	90%		
Operating Condition	Indoor or outdoor		
Operating Temperature	Charge	From 0~50°C	From 0~45°C
	Discharge	From -10~55°C	From -10~50°C
WIFI Frequency Range	2400MHz~2483MHz		
Humidity	4~100%(No condensed water)		
Pollution Degree	3		
Over Voltage Category	II		
Cooling Type	Natural cooling		
Case Material	Metal + Plastic		
Color	Black+Silver grey or White		
Installation	Free standing		
IP rating	IP 65		
Protective Class	I		
Max. Number of Parallel or Series	4		
Warranty	10 years		
Life Span	>15 years		
Communication	CAN/ RS485		
Protection Mode	Triple hardware protection		
Battery Protection	Over-current/Over-voltage/Short circuit/ Under-voltage/Over temperature		
Safety	Cell UL 1973		
	CE	Pack TUV/CE	CE
Hazardous Material Classification	9		
Transportation	UN 38.3		

Testing conditions based on temperature 25°C at the beginning of life.



FOR OTHER VERSIONS:  
Please consult ONESTO or local distributor.

# OST 2/3/3K6TL-S15

Application: Family Use



## SUPERIOR EFFICIENCY

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

## HIGH RELIABILITY

IP65 waterproof and dustproof, C5 anti-corrosion  
Compatible with wide power grid voltage and high harmonic power grid environment  
DC /AC SPD optional, AFCI detection optional

## INTELLIGENT MAINTENANCE

Remote configuration and upgrade  
Supports export power control

Model	OST 2KTL-S15	OST 3KTL-S15	OST 3K6TL-S15
<b>Efficiency</b>			
Max. Efficiency	97.5%	97.8%	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 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 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)		
<b>Protection</b>			
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		
<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		
Noise (typical)	30dB		
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		
<b>Certification</b>			
Safety	IEC62109-1/2		
Grid Code	IEC 61000-1/2/3/4, IEC 61727/62116, CEI 021		
Warranty	5 Years		

**Remarks:** • ①②The range of output voltage and frequency may vary depending upon different grid codes.  
• Specifications are subject to change without advance notice.



FOR OTHER VERSIONS:  
Please consult ONESTO or local distributor.

# OST 4/5/6KTL-D15

Application: Family Use



## SUPERIOR EFFICIENCY

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

## HIGH RELIABILITY

IP65 waterproof and dustproof, C5 anti-corrosion  
Compatible with wide power grid voltage and high harmonic power grid environment  
DC /AC SPD optional, AFCI detection optional

## INTELLIGENT MAINTENANCE

Remote configuration and upgrade  
Supports export power control



FOR OTHER VERSIONS:  
Please consult ONESTO or local distributor.

Model	OST 4KTL-D15	OST 5KTL-D15	OST 6KTL-D15
<b>Efficiency</b>			
Max. Efficiency	98.0%	98.2%	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 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)		
<b>Protection</b>			
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		
<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		
Noise (typical)	30dB		
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		
<b>Certification</b>			
Safety	IEC62109-1/2		
Grid Code	IEC 61000-1/2/3/4, IEC 61727/62116, CEI 021		
Warranty	5 Years		

Remarks: • ①②The range of output voltage and frequency may vary depending upon different grid codes.  
• Specifications are subject to change without advance notice.

**OST 7/8/10KTL-D15**

Application: Family Use



**SUPERIOR EFFICIENCY**

Maximum efficiency 98.2%  
String current 18A, compatible with high power modules  
150% PV configuration, 110% output overload

**HIGH RELIABILITY**

IP65 waterproof and dustproof, C5 anti-corrosion  
Compatible with wide power grid voltage and high harmonic power grid environment  
DC /AC SPD optional, AFCI detection optional

**INTELLIGENT MAINTENANCE**

Remote configuration and upgrade  
Supports export power control

 FOR OTHER VERSIONS:  
Please consult ONESTO or local distributor.

Model	OST 7KTL-D15	OST 8KTL-D15	OST 10KTL-D15
<b>Efficiency</b>			
Max. Efficiency	98.2%	98.2%	98.2%
European Efficiency	97.4%	97.5%	97.6%
<b>Input(PV)</b>			
Max. Input Voltage	550V		
Max. PV configuration (STC)	150%		
Rated Input Voltage	360V		
Max. Input Current	36A (2*18A)	48A (2*15A+18A)	
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		
<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 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)		
<b>Protection</b>			
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		
<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		
Noise (typical)	30dB		
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		
<b>Certification</b>			
Safety	IEC62109-1/2		
Grid Code	IEC 61000-1/2/3/4, IEC 61727/62116, CEI 021		
Warranty	5 Years		

Remarks: • ①②The range of output voltage and frequency may vary depending upon different grid codes.  
• Specifications are subject to change without advance notice.

**OST 5/6/8/10/12/15KTL**

Application: Small-sized Industrial and Residential Use



**SUPERIOR EFFICIENCY**

Maximum efficiency 98.3%  
 Max String Current 20A, compatible with 600W+ modules  
 150% PV configuration, 110% output overload

**HIGH RELIABILITY**

Die-cast aluminum case, IP66 waterproof and dustproof, C5 anti-corrosion  
 DC /AC SPD, AFCI detection optional  
 Compatible with wide power grid voltage and high harmonic power grid environment

**INTELLIGENT MAINTENANCE**

App quick commissioning  
 Remote configuration and upgrade  
 Supports export control

Model	OST 5KTL	OST 6KTL	OST 8KTL	OST 10KTL	OST 12KTL	OST 15KTL
<b>Efficiency</b>						
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%
<b>Input (PV)</b>						
Max. Input Voltage	1100V					
Max. PV configuration	150%					
Rated Input Voltage	620V					
Max. Input Current	2*15A			2*15A+15A		
Max.Short Circuit Current	2*20A			2*20A+20A		
Start Input Voltage	180V					
MPPT Operating Voltage Range	160V-1000V					
Max. Number of PV Strings	2 (1/1)			3 (2/1)		
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	11,000VA	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*16.8A	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)					
<b>Protection</b>						
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					
String current detection	Support					
Leakage current protection	Support					
<b>General</b>						
Topology	Transformerless					
IP Rating	IP66					
Night Self Consumption	<1W					
Cooling	Natural cooling					
Operating Temperature Range	-25℃ -60℃					
Relative Humidity Range	0-100%					
Max. Operating Altitude	4000m					
Noise	<30dB					
Dimensions (W*H*D)	398mm*460mm*190mm					
Weight	23Kg					
<b>HMI &amp; COM</b>						
Display	Wireless & APP +LED, LCD (Optional)					
Communication	RS485, Optional: WiFi / GPRS / 4G					
<b>Certification</b>						
Safety	IEC62109-1/2					
Grid Code	IEC 61000-1/2/3/4, IEC 61727/62116, CEI 021					
Warranty	5 Years					

Remarks: • ①② The range of output voltage and frequency may vary depending upon different grid codes.  
 • Specifications are subject to change without advance notice.



FOR OTHER VERSIONS:  
 Please consult ONESTO or local distributor.

**OST 10/15KTL,  
OST 17/20/22/  
25KTL**

Application: Small-sized Industrial and Residential Use



**SUPERIOR EFFICIENCY**

Maximum efficiency 98.4%  
Max String Current 20A, compatible with 600W+ modules  
150% PV configuration, 110% output overload

**HIGH RELIABILITY**

Die-cast aluminum case, IP66 waterproof and dustproof, C5 anti-corrosion  
DC /AC SPD, AFCI detection optional  
Compatible with wide power grid voltage and high harmonic power grid environment

**INTELLIGENT MAINTENANCE**

App quick commissioning  
Remote configuration and upgrade  
Supports export control

Model	OST 10KTL	OST 15KTL	OST 17KTL	OST 20KTL	OST 22KTL	OST 25KTL
<b>Efficiency</b>						
Max. Efficiency	98.3%	98.4%	98.4%	98.4%	98.4%	98.4%
European Efficiency	97.8%	98.0%	98.0%	98.0%	98.0%	98.0%
<b>Input (PV)</b>						
Max. Input Voltage	1100V					
Max. PV configuration	150%					
Rated Input Voltage	620V					
Max. Input Current	30A+15A	2*30A				
Max.Short Circuit Current	40A+20A	2*40A				
Start Input Voltage	180V					
MPPT Operating Voltage Range	160V-1000V					
Max. Number of PV Strings	3 (2/1)	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
Max. AC Apparent Power	11,000VA	16,500VA	18,700VA	22,000VA	24,200VA	25,000VA
Max. AC Active Power (PF=1)	11,000W	16,500W	18,700W	22,000W	24,200W	25,000W
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 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)					
<b>Protection</b>						
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					
String current detection	Optional					
Leakage current protection	Support					
<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					
Noise	<45dB					
Dimensions (W*H*D)	398mm*460mm*190mm					
Weight	23Kg					
<b>HMI &amp; COM</b>						
Display	Wireless & APP +LED, LCD (Optional)					
Communication	RS485, Optional: WiFi / GPRS / 4G					
<b>Certification</b>						
Safety	IEC62109-1/2					
Grid Code	IEC 61000-1/2/3/4, IEC 61727/62116, CEI 021					
Warranty	5 Years					

Remarks: • ①② The range of output voltage and frequency may vary depending upon different grid codes.  
• Specifications are subject to change without advance notice.



FOR OTHER VERSIONS:  
Please consult ONESTO or local distributor.

# OST 28/30KTL

Application: Small-sized Industrial and Residential Use



## SUPERIOR EFFICIENCY

Maximum efficiency 98.6%  
 String current 13.5A, compatible with high power modules  
 150% PV configuration, 110% output overload

## HIGH RELIABILITY

Integrated type II DC/AC SPD  
 APP for local settings & display

## INTELLIGENT MAINTENANCE

Remote configuration and upgrade  
 Supports export control

**FOR OTHER VERSIONS:**  
 Please consult ONESTO or local distributor.

Model	OST 28KTL	OST 30KTL
<b>Efficiency</b>		
Max. Efficiency	98.6%	98.6%
European Efficiency	98.3%	98.3%
<b>Input(PV)</b>		
Max. Input Voltage	1000V	
Max. PV configuration (STC)	150%	
Rated Input Voltage	620V	
Max. Input Current	81A (2*40.5A)	
Max.Short Circuit Current	90A (2*45A)	
Start Input Voltage	250V	
MPPT Operating Voltage Range	180V-960V	
Max. Number of PV Strings	6 (3/3)	
No. of MPPTs	2	
<b>Output(Grid)</b>		
Rated AC Active Power	28,000W	30,000W
Max. AC Apparent Power	30,800VA	33,000VA
Max. AC Active Power (PF=1)	30,800W	33,000W
Max. AC Output Current	3*45A	3*48A
Rated AC Voltage	380V/400V, 3W+N+PE	
AC Voltage Range ①	277V-520V (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)	
<b>Protection</b>		
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	
<b>General</b>		
Topology	Transformerless	
IP Rating	IP65	
Night Self Consumption	<1W	
Cooling	Fan cooling	
Operating Temperature Range	-25 C -60 C	
Relative Humidity Range	0-100%	
Max. Operating Altitude	4000m	
Noise	<50dB	
Dimensions (W*H*D)	555mm*446mm*270mm	
Weight	41Kg	
<b>HMI &amp; COM</b>		
Display	Wireless & APP+LED, LCD (Optional)	
Communication	RS485, Optional: WiFi / GPRS / 4G / LAN	
<b>Certification</b>		
Safety	IEC62109-1/2	
Grid Code	IEC 61000-1/2/3/4, IEC 61727/62116, CEI 021	
Warranty	5 Years	

Remarks : • ①②The range of output voltage and frequency may vary depending upon different grid codes.  
 • Specifications are subject to change without advance notice.

# OST 50/60KTL

Application: Large-scale Industrial and Commercial Sites



## SUPERIOR EFFICIENCY

Maximum efficiency 99.0%  
 String current 13A, compatible with high power modules  
 150% PV configuration, 110% output overload

## HIGH RELIABILITY

Integrated type II DC/AC SPD  
 APP for local settings & display  
 High quality components use

## INTELLIGENT MAINTENANCE

String level I/V detect (Optional)  
 Remote configuration and upgrade  
 Supports export control

 FOR OTHER VERSIONS:  
 Please consult ONESTO or local distributor.

Model	OST 50KTL	OST 60KTL
<b>Efficiency</b>		
Max. Efficiency	99.0%	
European Efficiency	98.5%	
<b>Input(PV)</b>		
Max. Input Voltage	1100V	
Max. PV configuration (STC)	150%	
Rated Input Voltage	620V	
Max. Input Current	130A (39A/39A/26A/26A)	156A (39A/39A/39A/39A)
Max.Short Circuit Current	150A (45A/45A/30A/30A)	180A (45A/45A/45A/45A)
Start Input Voltage	250V	
MPPT Operating Voltage Range	200V-1000V	
Max. Number of PV Strings	10 (3/3/2/2)	12 (3/3/3/3)
No. of MPPTs	4	
<b>Output(Grid)</b>		
Rated AC Active Power	50,000W	60,000W
Max. AC Apparent Power	55,000VA	66,000VA
Max. AC Active Power (PF=1)	55,000W	66,000W
Max. AC Output Current	3*76A	3*92A
Rated AC Voltage	380V/400V, 3W+N+PE	
AC Voltage Range ①	277V-520V (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)	
<b>Protection</b>		
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	
<b>General</b>		
Topology	Transformerless	
IP Rating	IP65	
Night Self Consumption	<1W	
Cooling	Fan cooling	
Operating Temperature Range	-25℃ -60℃	
Relative Humidity Range	0-100%	
Max. Operating Altitude	4000m	
Noise	<62dB	
Dimensions (W*H*D)	855mm*555mm*275mm	
Weight	73Kg	74Kg
<b>HMI &amp; COM</b>		
Display	Wireless & APP+LED, LCD (Optional)	
Communication	RS485, Optional: WiFi / GPRS / 4G / LAN	
<b>Certification</b>		
Safety	IEC62109-1/2	
Grid Code	IEC 61000-1/2/3/4, IEC 61727/62116, CEI 021	
Warranty	5 Years	

Remarks : • ①②The range of output voltage and frequency may vary depending upon different grid codes.  
 • Specifications are subject to change without advance notice.