

SWH 3/4/5/6 kW

Single-phase Hybrid Inverter (High Voltage)



MODEL

SWH3000H-S1 | SWH4000H-S1
SWH5000H-S1 | SWH6000H-S1



150% oversizing



Switching time <10ms



Fanless design, maintenance-free



AC and DC surge protection

Model	SWH3000H-S1	SWH4000H-S1	SWH5000H-S1	SWH6000H-S1
PV Input				
Recommended Max. PV Input Power [Wp]	4500	6000	7500	9000
Max. Input Voltage [V]			600	
MPPT Voltage Range [V]			80-560	
Rated Voltage [V]			360	
Start-up Voltage [V]			90	
No. of MPPT Trackers	1	2	2	2
No. of PV Strings per MPPT	1	1/1	1/1	1/1
Max. Input Current per MPPT [A]	14	14/14	14/14	14/14
Max. Short Circuit Current per MPPT [A]	18	18/18	18/18	18/18
AC Output				
Rated Output Power [W]	3000	4000	5000	6000
Rated Output Current [A]	13.6	18.2	22.7	27.3
Max. Output Current [A]	15	20	25	30
Max. Apparent Output Power [VA]	3300	4400	5500	6600
Rated Output Voltage [V]			220/230/240	
Rated Grid Frequency [Hz]			50/60	
Power Factor			1/0.8(leading)-0.8(lagging)	
THDi (Rated Output Power)			< 3%	
AC Input (Grid)				
Max. Apparent Input Power [VA]	6000	8000	10000	12000
Max. Input Current [A]	27.3	36.4	45.5	54.5
Rated Output Voltage [V]			220/230/240	
Rated Grid Frequency [Hz]			50/60	
Battery				
Battery Module Type			Li-ion	
Battery Voltage Range [V]			80-500	
Max. Charge/Discharge Current [A]			25	
Max. Charge Power [W]	4500	6000	7500	9000
Max Discharge Power [W]	3300	4400	5500	6600
Battery Communication			CAN	
AC Output (Backup)				
Rated Output Power [W]	3000	4000	5000	6000
Rated Output Voltage [V]			220/230/240	
Rated Output Frequency [Hz]			50/60	
Rated Output Current [A]	15	20	25	30
THDi (Rated Output Power)			< 3%	
Switch Time [ms]			< 10	
Peak Apparent Power , Duration [VA, s]	4500,60	6000,60	7500,60	7500,60
Efficiency				
Max. Efficiency			97.5%	
EU Efficiency			97%	
Battery Charged/Discharged to AC Max. Efficiency			98.5%@Charge/97.0%@Discharge	
Protection				
DC Switch			Integrated	
Insulation Resistance Detection			Integrated	
Input Reverse Polarity Protection			Integrated	
Anti-island Protection			Integrated	
Residual Current Monitoring			Integrated	
Overtemperature Protection			Integrated	
DC Surge Protection			Integrated (Type II)	
AC Surge Protection			Integrated (Type II)	
General Data				
Dimensions (W*H*D) [mm]			575*435*189	
Weight [kg]			23	
Display			LED	
Communication			GPRS/WIFI/Ethernet	
Operating Temperature Range [°C]			-25~+60	
Relative Humidity			0%~100%, Non-condensing	
Operation Altitude [m]			0~4000, if ≥2000, Power Reduction Needed	
Self Consumption (night) [W]			< 15	
Topology			Transformerless	
Cooling Concept			Natural Cooling	
Protection level			IP66	

SWH

3/4/5/6 kW

Single-phase Hybrid Inverter (Low Voltage)



MODEL

SWH3000L-S1 | SWH4000L-S1
SWH5000L-S1 | SWH6000L-S1



150% oversizing



Switching time <10ms



Fanless design, maintenance-free



Supports lead-acid batteries & lithium batteries

Model	SWH3000L-S1	SWH4000L-S1	SWH5000L-S1	SWH6000L-S1
PV Input				
Recommended Max. PV Input Power [Wp]	4500	6000	7500	9000
Max. Input Voltage [V]			600	
MPPT Voltage Range [V]			120-550	
Rated Voltage [V]			360	
Start-up Voltage [V]			150	
No. of MPPT Trackers	1	2	2	2
No. of PV Strings per MPPT	1	1/1	1/1	1/1
Max. Input Current per MPPT [A]	14	14/14	14/14	14/14
Max. Short Circuit Current per MPPT [A]	18	18/18	18/18	18/18
AC Output				
Rated Output Power [W]	3000	4000	5000	6000
Rated Output Current [A]	13	17.4	21.7	26.1
Max. Output Current [A]	15	20	25	27.3
Max. Apparent Output Power [VA]	3300	4400	5500	6600
Rated Output Voltage [V]			220/230/240	
Rated Grid Frequency [Hz]			50/60	
Power Factor			1/0.8(leading)~0.8(lagging)	
THDi (Rated Output Power)			< 3%	
AC Input (Grid)				
Max. Apparent Input Power [VA]	6000	8000	10000	12000
Max. Input Current [A]	27.3	36.4	45.5	54.6
Rated Output Voltage [V]			220/230/240	
Rated Grid Frequency [Hz]			50/60	
Battery				
Battery Module Type			Lithium-ion battery / Lead-acid Battery	
Battery Voltage Range [V]			42-58	
Max. Charge/Discharge Current [A]	75	85	90	100
Max. Charge Power [W]	3750	4250	5000	5000
Max. Discharge Power [W]	3750	4250	5000	5000
Battery Communication			CAN, RS485	
AC Output (Backup)				
Rated Output Power [W]	3000	4000	5000	5000
Rated Output Voltage [V]			220/230/240	
Rated Output Frequency [Hz]			50/60	
Rated Output Current [A]	13	17.4	21.7	21.7
THDi (Rated Output Power)			< 3%	
Switch Time [ms]			< 10	
Peak Apparent Power , Duration [VA, s]	4500,30	5100,30	6000,30	6000,30
Efficiency				
Max. Efficiency	97.6%	97.6%	97.8%	98%
EU Efficiency	97.2%	97.2%	97.3%	97.3%
Battery Charged/Discharged to AC Max. Efficiency			94.6%@Charge/94.6%@Discharge	
Protection				
DC Switch			Integrated	
Insulation Resistance Detection			Integrated	
Input Reverse Polarity Protection			Integrated	
Anti-island Protection			Integrated	
Residual Current Monitoring			Integrated	
String Current Detection			Integrated	
DC Surge Protection			Integrated (Type II)	
AC Surge Protection			Integrated (Type II)	
General Data				
Dimensions (W*H*D) [mm]			534*418*210	
Weight [kg]			23	
Display			LED	
Communication			WiFi/4G	
Operating Temperature Range [°C]			- 25~ +60	
Relative Humidity			0%~100%, Non-condensing	
Operation Altitude [m]			0~4000, if ≥2000 , Power Reduction Needed	
Self Consumption (night) [W]			< 10	
Topology			Transformerless	
Cooling Concept			Natural Convection	
Protection level			IP66	

SW 1.1/1.6/2.2/3/3.3 kW

Single-Phase On-Grid Inverter



MODEL

SW1100TL-S1 | SW1600TL-S1
SW2200TL-S1 | SW3000TL-S1
SW3300TL-S1



Small and light, easy to install



Stylish appearance



IP66 rated for outdoor use



Flexible optional monitoring modes

Model	SW1100TL-S1	SW1600TL-S1	SW2200TL-S1	SW3000TL-S1	SW3300TL-S1
DC Input					
Max. System Efficiency			600		
MPPT Voltage Range [V]		45-500		50-550	
Rated Voltage [V]			360		
Start-up Voltage [V]			70		
No. of MPPT Trackers			1		
No. of PV Strings per MPPT			1		
Max. Input Current per MPPT [A]			16		
Max. Short Circuit Current per MPPT [A]			20		

AC Output					
Rated Output Power [W]	1100	1600	2200	3000	3300
Max. Output Apparent Power [VA]	1100	1600	2200	3000	3300
Max. Output Current [A]	5	7.3	10	13.6	15
Rated Grid Voltage [V]			L/N/PE, 230		
Rated Grid Frequency [Hz]			50/60		
Power Factor [cos φ]			1(+/-0.8, adjustable)		

Efficiency		
Max. Efficiency	97.5%	97.6%
EU Efficiency	96.9%	97.2%

Protection	
DC Switch	Integrated
Insulation Resistance Monitoring	Integrated
Input Reverse Polarity Protection	Integrated
Anti-island Protection	Integrated
Residual Current Monitoring	Integrated
AC Overcurrent Protection	Integrated
AC Short-Circuit Protection	Integrated
DC Surge Protection	Integrated (Type II)
AC Surge Protection	Integrated (Type II)
DC Arc Protection	Optional

General Data	
Dimensions (W*H*D) [mm]	290*220*120
Weight [kg]	5.5
Display	LED+OLED
Communication	WiFi / 4G (Optional)
Operating Temperature Range [°C]	-25 ~ +60
Relative Humidity	0-100%
Operation Altitude [m]	≤2000
Topology	Transformerless
Cooling Concept	Natural Cooling
Ingress Protection	IP66

SW 17/20/25 kW

Three-Phase On-Grid Inverter



MODEL

SW017KTL-T1 | SW020KTL-T1
SW025KTL-T1



DC/AC Surge Protection: Type II



150% oversizing



Flexible optional monitoring modes



110% overloading

Model	SW017KTL-T1	SW020KTL-T1	SW025KTL-T1
DC Input			
Max. Input Voltage [V]		1100	
MPPT Voltage Range [V]		160~1000	
Rated Input Voltage [V]		600	
Start-up Voltage [V]		200	
No. of MPPT Trackers		2	
No. of PV Strings per MPPT		2	
Max. Input Current Per MPPT [A]		32	
Max. Short Circuit Current Per MPPT [A]		40	

AC Output			
Rated Output Power [W]	17000	20000	25000
Max. Output Apparent Power [VA]	18700	22000	27500
Max. Output Current [A]	27	32	40
Rated Grid Voltage [V]	3L/N/PE; 220/380, 230/440		
Rated Grid Frequency [Hz]	50/60		
Power Factor [cos φ]	1 (+/-0.8, adjustable)		

Efficiency	
Max. Efficiency	98.6%
EU Efficiency	98.2%

Protection	
DC Switch	Integrated
Insulation Resistance Monitoring	Integrated
Input Reverse Polarity Protection	Integrated
Anti-island Protection	Integrated
Residual Current Monitoring	Integrated
AC Overcurrent Protection	Integrated
AC Short-Circuit Protection	Integrated
DC Surge Protection	Integrated (Type II)
AC Surge Protection	Integrated (Type II)
DC Arc Protection	Optional

General Data	
Dimensions (W*H*D) [mm]	405*375*213
Weight [kg]	23
Display	LED/APP
Communication	WiFi/GPRS/4G(Optional)
Operating Temperature Range [°C]	-25~+60
Relative Humidity	0~100%
Operation Altitude [m]	≤4000, if >2000, Power Reduction Needed
Topology	Transformerless
Cooling Concept	Smart Fan-cooling
Ingress protection	IP66

SW 40/50 kW

Three-Phase On-Grid Inverter



MODEL

SW040KTL-T1 | SW050KTL-T1



150% oversizing



Compatible with 600W+ modules



Optional PID recovery



Optional DC Arc Protection

Model	SW040KTL-T1	SW050KTL-T1
DC Input		
Max. Input Voltage [V]	1100	
MPPT Voltage Range [V]	180-1000	
Rated Input Voltage [V]	600	
Start-up Voltage [V]	200	
No. of MPPT Trackers	4	
No. of PV Strings per MPPT	2	
Max. Input Current per MPPT [A]	40	
Max. Short Circuit Current Per MPPT [A]	50	

AC Output		
Rated Output Power [W]	40000	50000
Max. Output Apparent Power [VA]	44000	55000
Max. Output Current [A]	66.6	83.3
Rated Grid Voltage [V]	3/N/PE, 230/400	
Rated Grid Frequency [Hz]	50/60	
Power Factor [cos φ]	1 (+/-0.8, adjustable)	

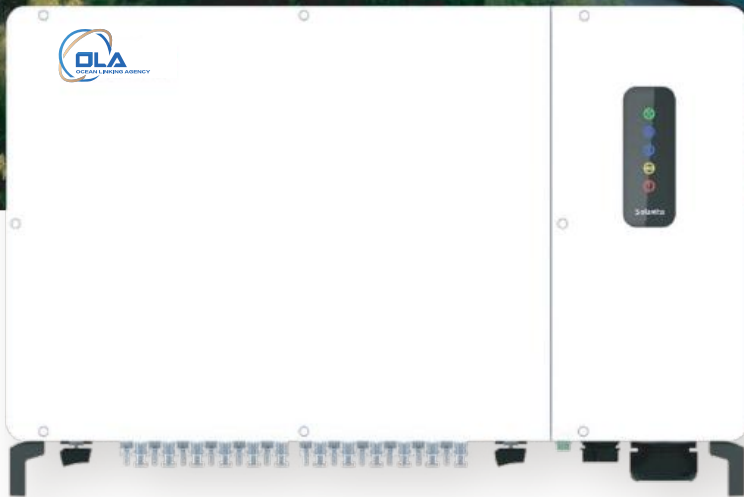
Efficiency		
Max. Efficiency	98.6%	98.9%
EU Efficiency	98.2%	98.3%

Protection		
DC Switch	Integrated	
Insulation Resistance Monitoring	Integrated	
Input Reverse Polarity Protection	Integrated	
Anti-island Protection	Integrated	
Residual Current Monitoring	Integrated	
AC Overcurrent Protection	Integrated	
AC Short-Circuit Protection	Integrated	
DC Surge Protection	Integrated (Type II)	
AC Surge Protection	Integrated (Type II)	
DC Arc Protection	Optional	
PID Recovery	Optional	

General Data		
Dimensions (W*H*D) [mm]	585*480*220	
Weight [kg]	37	
Display	LCD & Bluetooth+ APP	
Communication	WiFi/RS485/4G(Optional)	
Operating Temperature Range [°C]	-25~+60	
Relative Humidity	0-100%	
Operation Altitude [m]	≤4000, if >2000, Power Reduction Needed	
Topology	Transformerless	
Cooling Concept	Smart Fan-cooling	
Ingress Protection	IP66	

SW 225KTL-T1

Three-Phase On-Grid Inverter



MODEL

SW225KTL-T1



Optional PID recovery



IP66 rated for outdoor use



Intelligent I-V scanning for precise localization to faulty strings



Support night SVG

Model		SW225KTL-T1
DC Input		
Max. Input Voltage [V]		1500
MPPT Voltage Range [V]		500-1500
Rated Voltage [V]		1160
Start-up Voltage [V]		550
No. of MPPT Trackers		8
No. of PV Strings per MPPT		3
Max. Input Current per MPPT [A]		30
Max. Short Circuit Current per MPPT [A]		50
AC Output		
Rated Output Power [W]		225000
Max. Output Apparent Power [VA]		247500
Max. Output Current [A]		180.5
Rated Grid Voltage [V]		3/PE, 800
Rated Grid Frequency [Hz]		50/60
Power Factor [cos φ]		1(+/-0.8,adjustable)
Efficiency		
Max. Efficiency		99.03%
EU Efficiency		98.55%
Protection		
DC Switch		Integrated
Insulation Resistance Monitoring		Integrated
Input Reverse Polarity Protection		Integrated
Anti-island Protection		Integrated
Residual Current Monitoring		Integrated
String Fault Detection		Integrated
DC Surge Protection		Optional (Type II)
AC Surge Protection		Optional (Type II)
PID Recovery		Optional
DC Arc Protection		Optional
Night SVG Function		Optional
General Data		
Dimensions (W*H*D) [mm]		1100.5*713.5*368
Weight [kg]		99
Display		LCD & Bluetooth + APP
Communication		RS485/PLC
Operating Temperature Range [°C]		-30~+60
Relative Humidity		0-100%
Operation Altitude [m]		≤4000, if >2000, Power Reduction Needed
Topology		Transformerless
Cooling Concept		Smart Fan-cooling
Ingress Protection		IP66

SW 320KTL-T1

Three-Phase On-Grid Inverter



MODEL

SW320KTL-T1



IP66 & C5 protection for harsh environments



Smart I-V scanning for precise location of faulty PV strings



High current input, adaptable to 210/182 modules

Model		SW320KTL-T1
DC Input		
Max. Input Voltage [V]		1500
MPPT Voltage Range [V]		500-1500
Rated Input Voltage [V]		1160
Start-up Voltage [V]		550
No. of MPPT Trackers		8
No. of PV Strings per MPPT		4
Max. Input Current per MPPT [A]		60
Max. Short Circuit Current per MPPT [A]		100
AC Output		
Rated Output Power [W]		320000
Max. Output Apparent Power [VA]		325000
Max. Output Current [A]		254.1
Rated Grid Voltage [V]		3/PE, 800
Rated Grid Frequency [Hz]		50/60
Power Factor [cos φ]		1(+/-0.8, adjustable)
Efficiency		
Max. Efficiency		99.05%
EU Efficiency		98.55%
Protection		
DC Switch		Integrated
Insulation Resistance Monitoring		Integrated
Input Reverse Polarity Protection		Integrated
Anti-island Protection		Integrated
Residual Current Monitoring		Integrated
String Fault Detection		Integrated
DC Surge Protection		Optional (Type II)
AC Surge Protection		Optional (Type II)
PID Recovery		Optional
DC Arc Protection		Optional
Night SVG Function		Optional
General Data		
Dimensions (W*H*D) [mm]		1159*828*366
Weight [kg]		113
Display		LCD & Bluetooth + APP
Communication		RS485 / PLC
Operating Temperature Range [°C]		-30 ~ +60
Relative Humidity		0-100%
Operation Altitude [m]		≤4000, if >2000, Power Reduction Needed
Topology		Transformerless
Cooling Concept		Smart Fan-cooling
Ingress Protection		IP66