Inverter Energy Storage Integrated Machine Selection Manual

逆变储能一体机选型手册





便携式逆变储能一体机
PORTABLE AII-IN-ONE ESS SERIES

ESS 300W+896WH
ESS 500W+1000WH

BMS Integrated design of inverter and BMS
逆变器+BMS 集成化设计

Support solar charging
支持光伏充电

Wide MPPT Range 10-55V
光伏工作电压范围10-55V

循环次数可达8000次
Cycles can reach 8000 times

All around protection
全方位保护

Supports USB output & phone charging
支持USB输出与手机充电

规格参数Specifications Parameter

型号Model	ESS 300W+896WH	ESS 500W+1000WH
逆变器/充电器Inverter/Charger		
额定交流输出功率Rated AC Output Power	300W	500W
输出电压波形Output Voltage Waveform	Pure Sine Wave	Pure Sine Wave
输出电压Output Voltage	185～230VAC 50Hz	185～230VAC 50Hz
低直流警告点Low DC Warning Point	≤19%	≤19%
低直流切断电压Low DC Cut-off Voltage	2.9Vdc	2.9Vdc
低直流警告恢复电压Low DC Warning Return Voltage	>20%	>20%
充电功率 Charging Power(Utility and solar together)	400W Max.	500W Max.
均充电压Bulk Charging Voltage	3.6Vdc	3.6Vdc
浮充电压Float Charging Voltage	3.5Vdc	3.5Vdc
交流输入AC Input		
标称输入电压Nominal Input Voltage	230Vac	230Vac
低电压保护点Low Loss Voltage	90Vac±7	90Vac±7
低电压恢复点Low Loss Return Voltage	100Vac±7	100Vac±7
高电压保护点High Loss Voltage	280Vac±7	280Vac±7
高电压恢复点High Loss Return Voltage	270Vac±7	270Vac±7
最大交流输入电压Max.AC Input Voltage	300Vac	300Vac
标称输入频率Nominal Input Frequency	45～65Hz	45～65Hz
交流充电功率AC Charging Power	300W Max.	500W Max.
太阳能输入Solar Input		
标称光伏电压Nominal PV Voltage	30Vdc	30Vdc
光伏阵列 MPPT 电压范围PV Array MPPT Voltage Range	10Vdc~55Vdc	10Vdc~55Vdc
最大光伏阵列开路电压Max.PV Array Open Circuit Voltage	56Vdc	56Vdc
太阳能充电功率Solar Charging Power	300W Max.	300W Max.
磷酸铁锂电池 Lithium Iron Battery		
容量Capacity	896Wh	1004.8Wh
标称电池电压Nominal Battery Voltage	3.2Vdc	3.2Vdc
典型容量Typical Capacity	280Ah	314Ah
最大充电电流Max.Charge Current	130A	220A
最大放电电流Max.Discharge Current	130A	220A
工作电压范围Operation Voltage Range	2.9Vdc～3.6Vdc	
工作温度Operation Temperature	-10℃~+50℃	
直流输出DC Output		
直流输出功率DC Output Power	5W Max.	
直流输出插座DC Output Socket	1pcs 5V1A USB charger	
显示功能Display Function		
LED指示灯LED Indicator	4pcs SOC indicators,1 pcs working status indicators	
环境Ambient		
噪音 (dB)Noise(dB)	<40dB(1meter)	
工作温度 working Temperature	-10℃~+50℃	
湿度Humidity	5~95%(no condensation)	
海拔高度 (米)Sea Level(m)	≤2000	
尺寸Dimension		
长×宽×高(产品尺寸)L×W×H(products size)	312*215*146mm	356*210*156mm
长×宽×高(包装尺寸)L×W×H(package size)	410*272*226mm	412*262*212mm
重量(净重 Kg)Weight(NW Kg)	9.9Kg	11.0Kg
重量(毛重 Kg)Weight(GW Kg)	11.0Kg	12.0Kg



便携式逆变储能一体机
PORTABLE AII-IN-ONE ESS SERIES

ESS 1000W+2009WH

BMS Integrated design of inverter and BMS
逆变器+BMS 集成化设计

Support solar charging
支持光伏充电

Wide MPPT Range 10-55V
光伏工作电压范围10-55V

循环次数可达8000次
Cycles can reach 8000 times

All around protection
全方位保护

Supports USB output & phone charging
支持USB输出与手机充电

规格参数Specifications Parameter

型号Model	ESS 1000W+2009wh
逆变器/充电器Inverter/Charger	
额定交流输出功率Rated AC Output Power	1000W
输出电压波形Output Voltage Waveform	Pure Sine Wave
输出电压Output Voltage	185～230VAC 50Hz
低直流警告点Low DC Warning Point	⩽19%
低直流切断电压Low DC Cut-off Voltage	5.8Vdc
低直流警告恢复电压Low DC Warning Return Voltage	>20%
充电功率 Charging Power(Utility and solar together)	800W Max.
均充电压Bulk Charging Voltage	7.2Vdc
浮充电压Float Charging Voltage	7.0Vdc
交流输入AC Input	
标称输入电压Nominal Input Voltage	230Vac
低电压保护点Low Loss Voltage	90Vac±7
低电压恢复点Low Loss Return Voltage	100Vac±7
高电压保护点High Loss Voltage	280Vac±7
高电压恢复点High Loss Return Voltage	270Vac±7
最大交流输入电压Max.AC Input Voltage	300Vac
标称输入频率Nominal Input Frequency	45～65Hz
交流充电功率AC Charging Power	800W Max.
太阳能输入Solar Input	
标称光伏电压Nominal PV Voltage	38Vdc
光伏阵列 MPPT 电压范围PV Array MPPT Voltage Range	13Vdc~55Vdc
最大光伏阵列开路电压Max.PV Array Open Circuit Voltage	56Vdc
太阳能充电功率Solar Charging Power	550W Max.
磷酸铁锂电池 Lithium Iron Battery	
容量Capacity	2009.6Wh
标称电池电压Nominal Battery Voltage	6.4Vdc
典型容量Typical Capacity	314Ah*2
最大充电电流Max.Charge Current	220A
最大放电电流Max.Discharge Current	220A
工作电压范围Operation Voltage Range	5.8Vdc～7.2Vdc
工作温度Operation Temperature	-10℃~+50℃
直流输出DC Output	
直流输出功率DC Output Power	5W Max.
直流输出插座DC Output Socket	1pcs 5V1A USB charger
显示功能Display Function	
LED指示灯LED Indicator	4pcs SOC indicators,1 pcs working status indicators
保护Protection	Overcharge protection、Overdischarge protection、Overcurrent protection Shortcircuit protection、Overtemperature protection"
环境Ambient	
噪音 (dB)Noise(dB)	<40dB(1meter)
工作温度 working Temperature	-10℃~+50℃
湿度Humidity	5~95%(no condensation)
海拔高度 (米)Sea Level(m)	⩽2000
尺寸Dimension	
长×宽×高(产品尺寸)L×W×H(products size)	422*295*160mm
长×宽×高(包装尺寸)L×W×H(package size)	532*337*325mm
重量(净重 Kg)Weight(NW Kg)	20.9Kg
重量(毛重 Kg)Weight(GW Kg)	22.7Kg



逆变储能一体机

ALL-IN-ONE INVERTER & BATTERY SYSTEM

ESS 3.6KW+8KWH

BMS Support Lithium/Lead-acid Battery
支持理电或铅酸电池

MAX.PV 5KW
最大光伏功率5KW

Pure Sine Wave
纯正玄波

Built-in Solar Charger
内置太能充电器

Feed-in to Grid
支持并网

Lithium BatteryActivation
支持理电池激活

Wide MPPT Range 40-450V
光伏工作电压范围40-450V

WiFi Monitoring
支持wifi监控

规格参数Specifications Parameter

型号Model	ESS 3.6KW+8KWH
交流输入 AC Input	
额定输入电压 Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE
电压范围 Voltage Range (VAC)	90~280±3 (normal mode); 170~280±3 (UPS mode)
频率 Frequency (Hz)	50 / 60 (自适应 Auto Adaptive)
交流输出 AC Output	
额定功率 Rated Capacity (kW)	3.6
峰值功率 Surge Power (kVA)	5.7
电压 Voltage (VAC)	208 / 220 / 230 / 240
功率因数 Power Factor (PF)	1
频率 Frequency	50/60Hz±0.1%
切换时间 Switch Time (ms)	10
正弦波 Wave Form	正弦波 Pure Sine Wave
过载容量（电池模式） Overload Capacity (Battery Mode)	60s@102%~110%；10s@110%~130%; 3s@130%~150%；0.2s@>150%;
最大效率 Max. Efficiency (Battery Mode)	92.7%@24VDC
充电 Charger (PV / AC)	
太阳能充电类型 Solar Charger Type	MPPT
光伏输入 Max PV input current / power	18A / 5000W
电压范围 Operating Voltage Range (VDC)	40~450
开路电压Max PV Open Circuit Voltage (VDC)	500
光伏充电电流Max PV Charge Current (A)	100
市电充电电流Max AC Charge Current (A)	100
最大充电电流Max. Charge Current (PV + AC) (A)	100
电池 Battery	
额定电池电压 Nominal Battery Voltage	25.6VDC
额定能量Rated Energy	8KWh(0.2C , 25℃)
可用能量(90%深度放电)Usable Energy(90%DOD)	8KWh
最大充电/放电电流Max.Charge/Discharge Current	75A/150A
工作电压范围Operation Voltage Range	20Vdc ~ 29.2Vdc
工作温度Operation Temperature	-10℃ ~ +50℃
界面 Interface	
显示 reveal	LCD
通讯 communication	USB
监控 Monitoring	WiFi
一般信息 General Data	
防护等级 Ingress Protection	IP20
工作温度 Operating Temperature	-10 ℃ ~ 50 ℃
相对湿度 Relative Humidity	5% ~ 95% (Non-condensing)
存储温度 Storage Temperature	-15 ℃ ~ 60 ℃
最大工作海拔 Max. Operating Altitude	4000m (Derating above 1000m)
尺寸 DIMENSION	
LxWxH (产品products size, mm)	440*246*760mm
LxWxH (包装package size, mm)	520*436*890mm



逆变储能一体机

ALL-IN-ONE INVERTER & BATTERY SYSTEM

ESS 6KW+16KWH

BMS Support Lithium/Lead-acid Battery
支持锂电或铅酸电池

MAX.PV 9KW
最大光伏功率9KW

Pure Sine Wave
纯正玄波

Built-in Solar Charger
内置太能充电器

Feed-in to Grid
支持并网

Lithium BatteryActivation
支持锂电池激活

Wide MPPT Range 120-520V
光伏工作电压范围120-520V

WiFi Monitoring
支持wifi监控

规格参数Specifications Parameter

型号Model	ESS 6KW+16KWH
交流输入 AC Input	
额定输入电压 Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE
电压范围 Voltage Range (VAC)	90~280±3 (normal mode); 170~280±3 (UPS mode)
频率 Frequency (Hz)	50 / 60 (自适应 Auto Adaptive)
交流输出 AC Output	
额定功率 Rated Capacity (kW)	6
峰值功率 Surge Power (kVA)	12
电压 Voltage (VAC)	208 / 220 / 230 / 240
功率因数 Power Factor (PF)	1
频率 Frequency	50/60Hz±0.1%
切换时间 Switch Time (ms)	10
正弦波 Wave Form	正弦波 Pure Sine Wave
过载容量（电池模式） Overload Capacity (Battery Mode)	60s@102%~110%；10s@110%~130%; 3s@130%~150%；0.2s@>150%；
最大效率 Max. Efficiency (Battery Mode)	93%@48VDC
充电 Charger (PV / AC)	
太阳能充电类型 Solar Charger Type	MPPT
光伏输入 Max PV input current / power	19A+19A/9000W
电压范围 Operating Voltage Range (VDC)	80-520
开路电压Max PV Open Circuit Voltage (VDC)	500
光伏充电电流Max PV Charge Current (A)	120
市电充电电流Max AC Charge Current (A)	120
最大充电电流Max. Charge Current (PV + AC) (A)	120
电池 Battery	
额定电池电压 Nominal Battery Voltage	51.2VDC
额定能量Rated Energy	16KWh(0.5C , 25℃)
可用能量(90%深度放电)Usable Energy(90%DOD)	16KWh
最大充电/放电电流Max.Charge/Discharge Current	100A/150A
工作电压范围Operation Voltage Range	40.5Vdc ~ 54.5Vdc
工作温度Operation Temperature	-10℃ ~ +50℃
界面 Interface	
显示 reveal	LCD
通讯 communication	USB
监控 Monitoring	WiFi
一般信息 General Data	
防护等级 Ingress Protection	IP20
工作温度 Operating Temperature	-10 ℃ ~ 50 ℃
相对湿度 Relative Humidity	5% ~ 95% (Non-condensing)
存储温度 Storage Temperature	-15 ℃ ~ 60 ℃
最大工作海拔 Max. Operating Altitude	4000m (Derating above 1000m)
尺寸 DIMENSION	
LxWxH (产品products size, mm)	430*481*736mm
LxWxH (包装package size, mm)	540*510*895mmmm



逆变储能一体机

ALL-IN-ONE INVERTER & BATTERY SYSTEM

ESS 6KW+15KWH

BMS Support Lithium/Lead-acid Battery
支持理电或铅酸电池

MAX.PV 9KW
最大光伏功率9KW

Pure Sine Wave
纯正玄波

Built-in Solar Charger
内置太能充电器

Feed-in to Grid
支持并网

Workable with Generator
支持发电机

Wide MPPT Range 80-520V
光伏工作电压范围80-520V

WiFi Monitoring
支持wifi监控

Lithium BatteryActivation
支持理电池激活

规格参数Specifications Parameter

型号Model	ESS 6KW+15KWH
光伏输入 PV Input	
输入功率 Max.PV Input Power(kW)	9
开路电压Max.PV Open Circuit Voltage(V)	550
电压范围MPPT Voltage Range(VDC)	80~520
满功率电压范围 Full Power MPPT Voltage Range(VDC)	250-500V
启动电压 Start-up Voltage(VDC)	90
输入电流 Max.Input Current per MPPT(A)	19/19
短路电流 Max. Short-circuit Current(A)	25/25
光伏串数 MPPT Tracker/Strings	2 /1
额定输入电压 Nominal Input Voltage(V)	360
交流输出(并网)AC Output(On-Grid)	
额定功率Nominal Output Power to Grid(kW)	6
视在功率Max.Apparent Power to Grid(kVA)	6
视在功率Max.Apparent Power from Grid(kVA)	6
视在电流Max.Apparent Current from Grid(A)	26.1
标称电流Nominal Output Current from Grid(A)	26.1
输出电流Max.Output Current to Grid(A)	26.1
标称电压频率 Nominal Voltage/Frequency	230V(176V~280V)，50/60Hz，L+N+PE
可调功率因数 Adjustable Power Factor	0.8leading~0.8lagging
电流谐波总畸变率 THDI	<2%
交流输出(备用) AC Output(BackUp)	
标称功率Nominal Output Power(kW)	6
视在功率Max.Apparent Power(kVA)	6
标称电流Nominal Output Current(A)	26.1
输出电流Max.Output Current(A)	26.1
额定电压频率 Nominal Voltage/Frequency	230V(176V~238V)，50/60Hz,L+N+PE
切换时间 Automatic Switch Time(ms)	<20
电压谐波总畸变率THDU	<2%
过载能力 Overload Capacity	110%,10s /130%,3s /150%,50ms
效率 Efficiency	
最大效率 Max.Efficiency	96.65%
欧洲效率 Europe Efficiency	97.50%
光伏效率 MPPT Efficiency	99.00%
充放电效率Max.Battery Charge/Discharge Efficiency	94.60%
电池 Battery	
额定电池电压Nominal Battery Voltage	51.2VDC
额定能量Rated Energy	15KWh(0.5C , 25℃)
可用能量(90%深度放电)Usable Energy(90%DOD)	15KWh
最大充电/放电电流Max.Charge/Discharge Current	120A/120A
工作电压范围Operation Voltage Range	40.5Vdc ~ 54.5Vdc
工作温度Operation Temperature	-10℃ ~ +50℃
显示 reveal	LCD
通讯 communication	RS485/RS232
监控 Monitoring	WiFi
一般信息 General Data	
防护等级 Ingress Protection	IP65
工作温度 Operating Temperature	-10℃~ 50℃
相对湿度 Relative Humidity	5%~95%(Non-condensing)
存储温度 Storage Temperature	-15 ℃~ 60℃
最大工作海拔 Max.Operating Altitude	4000m (Derating above 1000m)
尺寸 DIMENSION	
产品products size (mm)	550*285*1243mm
包装package size (mm)	570*305*1443mm



逆变储能一体机

ALL-IN-ONE INVERTER & BATTERY SYSTEM

ESS 12KW+30KWH

BMS Support Lithium/Lead-acid Battery
支持理电或铅酸电池

MAX.PV 12KW
最大光伏功率12KW

DUAL Dual AC Output
双AC输出

Built-in Solar Charger
内置太能充电器

Feed-in to Grid
支持并网

Workable with Generator
支持发电机

Wide MPPT Range 120-520V
光伏工作电压范围120-520V

WiFi Monitoring
支持wifi监控

Lithium BatteryActivation
支持理电池激活

规格参数Specifications Parameter

型号Model	ESS 10KW+30KWH	ESS 12KW+30KWH
交流输入 AC Input		
额定输入电压 Rated Input Voltage (VAC)	120(L1/N,L2/N)240(L1/L2)	
电压范围 Voltage Range (VAC)	(85~140)±2%	
频率 Frequency (Hz)	50Hz/60Hz (Auto detection)	
交流输出 AC Output		
额定功率 Rated Capacity (W)	10000W	12000W
峰值功率 Surge Power (VA)	15000VA	18000VA
电压 Voltage (VAC)	120(L1/N,L2/N)240(L1/L2)	
功率因数 Power Factor (PF)	1	
频率 Frequency	50/60Hz+0.1%	
切换时间 Switch Time (ms)	10	
正弦波 Wave Form	Pure Sine Wave	
过载保护 Overload protection	(105% < load <110%) ±5%: report error and turn off the output after 5 minutes; (110% < load < 125%) ± 5%: report error and turn off the output after 10 seconds; Load >125% ±5%: report error and turn off the output after 5 seconds	
最大效率 Max. Efficiency (Battery Mode)	>95%	
充电 Charger (PV / AC)		
太阳能充电类型 Solar Charger Type	Dual MPPTs	
光伏输入 Max PV input current / power	22A+22A/5KW+5KW	22A+22A/6KW+6KW
电压范围 Operating Voltage Range (VDC)	90Vdc~485Vdc	
开路电压Max PV Open Circuit Voltage (VDC)	500Vdc	
光伏充电电流Max PV Charge Current (A)	200A	220A
市电充电电流Max AC Charge Current (A)	120A	160A
最大充电电流Max. Charge Current (PV + AC) (A)	0-200A	0-220A
电池 Battery		
额定电池电压 Nominal Battery Voltage	51.2VDC	
额定能量Rated Energy	30720Wh(0.5C , 25℃)	
可用能量(90%深度放电)Usable Energy(90%DOD)	30KWh	
最大充电/放电电流Max.Charge/Discharge Current	200A/200A	
工作电压范围Operation Voltage Range	44.8Vdc ~ 58.4Vdc	
工作温度Operation Temperature	-10℃ ~ +50℃	
界面 Interface		
显示 reveal	LCD	
通讯 communication	RS485 / RS232 / USB / Dry Contact	
监控 Monitoring	WiFi	
一般信息 General Data		
防护等级 Ingress Protection	IP21	
工作温度 Operating Temperature	-10 ℃~ 50 ℃	
相对湿度 Relative Humidity	5% ~ 95% (Non-condensing)	
存储温度 Storage Temperature	-15 ℃~ 60 ℃	
最大工作海拔 Max. Operating Altitude	4000m (Derating above 1000m)	
尺寸 DIMENSION		
LxWxH (产品products size, mm)	595x298x1550mm	
LxWxH (包装package size, mm)	755x480x1630mm	



堆叠式逆变储能一体机

STACKABLE ALL-IN-ONE INVERTER & BATTERY SYSTEM

ESS 10KW+30KWH
ESS 12KW+60KWH

BMS Support Lithium/Lead-acid Battery
支持锂电或铅酸电池

MAX.PV 12KW
最大光伏功率12KW

DUAL Dual AC Output
双AC输出

Built-in Solar Charger
内置太能充电器

Feed-in to Grid
支持并网

Workable with Generator
支持发电机

Wide MPPT Range 120-520V
光伏工作电压范围120-520V

WiFi Monitoring
支持wifi监控

Lithium BatteryActivation
支持锂电池激活

规格参数Specifications Parameter

型号Model	ESS 10KW+30KWH	ESS 12KW+60KWH
交流输入 AC Input		
额定输入电压 Rated Input Voltage (VAC)	220/230/240;L+N+PE	
电压范围 Voltage Range (VAC)	90~280+3 (normal mode); 170~280+3 (UPS mode)	
频率 Frequency (Hz)	50Hz/60Hz (Auto detection)	
交流输出 AC Output		
额定功率 Rated Capacity (W)	10000W	12000W
峰值功率 Surge Power (VA)	20000VA	24000VA
电压 Voltage (VAC)	220/230/240	
功率因数 Power Factor (PF)	1	
频率 Frequency	50/60Hz+0.1%	
切换时间 Switch Time (ms)	10(APP/UPS mode), 20(GEN mode)	
正弦波 Wave Form	Pure Sine Wave	
过载保护 Overload protection	(105% < load <110%) ±5%: report error and turn off the output after 5 minutes; (110% < load < 125%) ± 5%: report error and turn off the output after 10 seconds; Load >125% ±5%: report error and turn off the output after 5 seconds	
最大效率 Max. Efficiency (Battery Mode)	94%@48VDC	
充电 Charger (PV / AC)		
太阳能充电类型 Solar Charger Type	Dual MPPTs	
光伏输入 Max PV input current / power	1*MPPT: 27A/9KW , 2*MPPTs: 22.5A/15kW	
电压范围 Operating Voltage Range (VDC)	90Vdc~485Vdc	
开路电压Max PV Open Circuit Voltage (VDC)	500Vdc	
光伏充电电流Max PV Charge Current (A)	160A	
市电充电电流Max AC Charge Current (A)	160A	
最大充电电流Max. Charge Current (PV + AC) (A)	160A	
电池 Battery		
额定电池电压 Nominal Battery Voltage	51.2VDC	
额定能量Rated Energy	15360Wh*2	15360Wh*4
可用能量(90%深度放电)Usable Energy(90%DOD)	30KWh	60KWh
最大充电/放电电流Max.Charge/Discharge Current	200A/200A	
工作电压范围Operation Voltage Range	44.8Vdc ~ 58.4Vdc	
工作温度Operation Temperature	-10℃ ~ +50℃	
界面 Interface		
显示 reveal	LCD	
通讯 communication	RS485 / RS232 / USB / Dry Contact	
监控 Monitoring	WiFi	
一般信息 General Data		
防护等级 Ingress Protection	IP21	
工作温度 Operating Temperature	-10 ℃ ~ 50 ℃	
相对湿度 Relative Humidity	5% ~ 95% (Non-condensing)	
存储温度 Storage Temperature	-15 ℃ ~ 60 ℃	
最大工作海拔 Max. Operating Altitude	4000m (Derating above 1000m)	
尺寸 DIMENSION		
L×W×H (产品products size, mm)	Inverter:680x520x182mm/Battery:680x520x246mm(1PCS)	
L×W×H (包装package size, mm)	Inverter:736X576X336mm/Battery:760X600X444mm(1PCS)	



三相低压储能一体机

3 PHASE LOW-VOLTAGE ALL-IN-ONE INVERTER & BATTERY SYSTEM

ESS LV 15KW+64KWH

BMS Support Lithium/Lead-acid Battery
支持锂电或铅酸电池

MAX.PV 18KW
最大光伏功率18KW

Pure Sine Wave
纯正玄波

Built-in Solar Charger
内置太能充电器

Battery support Up to 16
锂电池最大支持16并

Input/output 400V
输入输出400V

Wide MPPT Range 120-520V
光伏工作电压范围120-520V

WiFi Monitoring
支持wifi监控

Lithium BatteryActivation
支持锂电池激活

规格参数Specifications Parameter

型号Model	ESS LV 15KW+64KWH
交流输入 AC Input	
额定输入电压 Rated Input Voltage (VAC)	400V/3L+N+PE
电压范围 Voltage Range (VAC)	400V/-20%~15%
频率 Frequency (Hz)	50 / 60 (自适应 Auto Adaptive)
交流输出 AC Output	
额定功率 Rated Capacity (kW)	15KVA
峰值功率 Surge Power (kVA)	18KVA
电压 Voltage (VAC)	400V/-20%~15%
功率因数 Power Factor (PF)	1
频率 Frequency	50/60Hz±0.1%
切换时间 Switch Time (ms)	10
正弦波 Wave Form	正弦波 Pure Sine Wave
过载容量（电池模式） Overload Capacity (Battery Mode)	60s@102%~110%；10s@110%~130%; 3s@130%~150%；0.2s@>150%;
最大效率 Max. Efficiency (Battery Mode)	93%@48VDC
充电 Charger (PV / AC)	
太阳能充电类型 Solar Charger Type	MPPT
光伏输入 Max PV input current / power	9000W+9000W
电压范围 Operating Voltage Range (VDC)	80-520
开路电压Max PV Open Circuit Voltage (VDC)	500
光伏充电电流Max PV Charge Current (A)	200A
市电充电电流Max AC Charge Current (A)	160A
最大充电电流Max. Charge Current (PV + AC) (A)	200A
电池 Battery	
额定电池电压 Nominal Battery Voltage	51.2VDC
额定能量Rated Energy	64KWh(0.5C , 25℃)
可用能量(90%深度放电)Usable Energy(90%DOD)	57.6KWh
最大充电/放电电流Max.Charge/Discharge Current	400A/400A
工作电压范围Operation Voltage Range	40.5Vdc ~ 58.4Vdc
工作温度Operation Temperature	-10℃ ~ +50℃
界面 Interface	
显示 reveal	LCD
通讯 communication	USB
监控 Monitoring	WiFi
一般信息 General Data	
防护等级 Ingress Protection	IP20
工作温度 Operating Temperature	-10 ℃ ~ 50 ℃
相对湿度 Relative Humidity	5% ~ 95% (Non-condensing)
存储温度 Storage Temperature	-15 ℃ ~ 60 ℃
最大工作海拔 Max. Operating Altitude	4000m (Derating above 1000m)
尺寸 DIMENSION	
LxWxH (产品products size, mm)	Inverter:745X440x176mm/Battery:745X440X240mm(1PCS)
LxWxH (包装package size, mm)	Inverter:836X496X232mm/Battery:840X520X430mm(1PCS)







工商业储能系统

INDUSTRIAL & COMMERCIAL ENERGY STORAGE SYSTEM

ESS HV 30KW+66KWH

该产品采用储能一体柜作为储能系统的载体，采用模块化设计，将一套磷酸铁理电池柜、电池管理系统BMS、储能变流器PCS、本地控制系统EMS、消防等设备集成在一体柜内。可灵活布置在多种工商业应用场景，帮助企业降低用电成本。

This product adopts an integrated energy storage cabinet as the carrier of the energy storage system, with a modular design that integrates a set of iron phosphate battery cabinet, battery management system BMS, energy storage inverter PCS, local control system EMS, fire protection and other equipment into the integrated cabinet. It can be flexibly deployed in various industrial and commercial application scenarios to help enterprises reduce electricity costs.

规格参数Specifications Parameter

型号Model	ESS HV 30KW+66KWH
最高电池电压 Maximum Battery Voltage	850V
最低电池电压 Minimum Battery Voltage	200V
额定电池电压范围 Rated Battery Voltage Range	320V-820V
最大电池电流 Maximum Battery Current	100A
Pv参数 Pv Parameter	
最大功率 Maximum Power	19.2kW+19.2kw
最高pv电压 Maximum Pv Voltage	850V
Pv 启动电压 Pv Startup Voltage	250V
Mppt电压范围 Mppt Voltage Range	200V-800V
最大pv电流 Maximum Pv Current	32A+32A
交流侧(并网) Ac Side (grid Connected)	
额定功率 Rated Power	30kVA
额定电流 Rated Current	43.5A
额定电网电压 Rated Grid Voltage	400V/230V
电网电压范围 Voltage Range Of Power Grid	-20%~15%
启动冲击电流 Start The Impulse Current	8.5A
电网频率范围 Grid Frequency Range	50Hz(47Hz~52Hz)/60Hz(57Hz~62Hz)
电流谐波 Current Harmonics	<3%
功率因素 Power Factor	-1~1
交流侧(离网) Ac Side (off Grid)	
额定输出功率 Rated Output Power	30kVA
最大输出功率 Maximum Output Power	33kVA
最大输出电流 Maximum Output Current	43.5A
额定电压 Rated Voltage	400V/230V
输出电压谐波 Output Voltage Harmonics	<3%
不平衡度 Imbalance	100%
输出过载 Over Load	1.1 times long-term/1.25 times 100s/1.5 times 100ms
系统参数 System Parameter	
并离网切换时间 Off Grid Switching Time	<10ms
最大效率 Maximum Efficiency	97.8%
功耗 Power Consumption	Standby<20W/No load<100W
防护等级 Protection Grade	IP 20 (Core Control Part IP5X)
电池 Battery	
额定电池电压 Nominal Battery Voltage	320VDC
额定能量Rated Energy	66 KWh(0.5C,25℃)
可用能量(90%深度放电)Usable Energy(90%DOD)	59.4 KWh
最大充电/放电电流Max.Charge/Discharge Current	100A/100A
工作电压范围Operation Voltage Range	290VDC~350VDC
工作温度Operation Temperature	-10℃~+50℃
湿度 Humidity	5~95%
冷却方式 Cooling Method	Intelligent air cooling
海拔 Altitude	4000m(used for downgrading over 2000m)





工商业储能系统
INDUSTRIAL & COMMERCIAL ENERGY STORAGE SYSTEM

ESS HV 50KW+100KWH

该产品采用储能一体柜作为储能系统的载体，采用模块化设计，将一套磷酸铁理电池柜、电池管理系统BMS、储能变流器PCS、本地控制系统EMS、消防等设备集成在一体柜内。可灵活布置在多种工商业应用场景，帮助企业降低用电成本。

This product adopts an integrated energy storage cabinet as the carrier of the energy storage system, with a modular design that integrates a set of iron phosphate battery cabinet, battery management system BMS, energy storage inverter PCS, local control system EMS, fire protection and other equipment into the integrated cabinet. It can be flexibly deployed in various industrial and commercial application scenarios to help enterprises reduce electricity costs.

规格参数Specifications Parameter

型号Model	ESS HV 50KW+100KWH
最高电池电压 Maximum Battery Voltage	850V
最低电池电压 Minimum Battery Voltage	200V
额定电池电压范围 Rated Battery Voltage Range	410V-850V
最大电池电流 Maximum Battery Current	150A
Pv参数 Pv Parameter	
最大功率 Maximum Power	38.4kW+38.4kW
最高pv电压 Maximum Pv Voltage	850V
Pv 启动电压 Pv Startup Voltage	250V
Mppt电压范围 Mppt Voltage Range	200V-800V
最大pv电流 Maximum Pv Current	64A+64A
交流侧(并网) Ac Side (grid Connected)	
额定功率 Rated Power	50kVA
额定电流 Rated Current	72.5A
额定电网电压 Rated Grid Voltage	400V/230V
电网电压范围 Voltage Range Of Power Grid	-20%~15%
启动冲击电流 Start The Impulse Current	10.2A
电网频率范围 Grid Frequency Range	50Hz(47Hz~52Hz)/60Hz(57Hz~62Hz)
电流谐波 Current Harmonics	<3%
功率因素 Power Factor	-1~1
交流侧(离网) Ac Side (off Grid)	
额定输出功率 Rated Output Power	50kVA
最大输出功率 Maximum Output Power	55kVA
最大输出电流 Maximum Output Current	80A
额定电压 Rated Voltage	400V/230V
输出电压谐波 Output Voltage Harmonics	<3%
不平衡度 Imbalance	100%
输出过载 Over Load	1.1 times long-term/1.25 times 100s/1.5 times 100ms
系统参数 System Parameter	
并离网切换时间 Off Grid Switching Time	<10ms
最大效率 Maximum Efficiency	98.2%
功耗 Power Consumption	Standby<20W/No load<160W
防护等级 Protection Grade	IP 20 (Core Control Part IP5X)
电池 Battery	
额定电池电压 Nominal Battery Voltage	358.4VDC
额定能量Rated Energy	100 KWh(0.5C,25℃)
可用能量(90%深度放电)Usable Energy(90%DOD)	90 KWh
最大充电/放电电流Max.Charge/Discharge Current	150 A/150A
工作电压范围Operation Voltage Range	324.8VDC~392VDC
工作温度Operation Temperature	-10℃~+50℃
湿度 Humidity	5~95%
冷却方式 Cooling Method	Intelligent air cooling
海拔 Altitude	4000m(used for downgrading over 2000m)

Inverter Energy Storage Integrated Machine Selection Manual

逆变储能一体机选型手册

