

ESS Series Hybrid Charger & Inverter (Single-phase)



ESS 10K~20K / ESS-B 10K~20K

Features

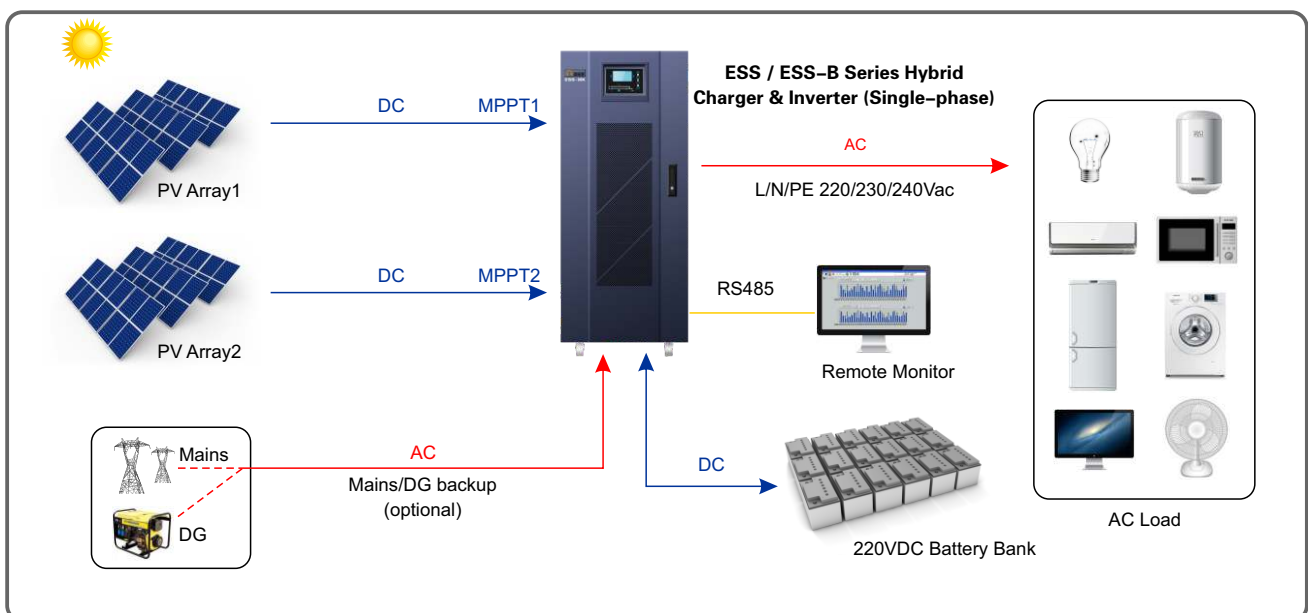
- Built-in MPPT solar controller, maximize the utilization of solar panel
- Integrated design with controller, inverter and isolated technique
- Solar controller modular design, hot plug function, flexible configuration, easy capacity expansion
- Intelligent battery management and temperature compensation function
- Pure sine wave output, output isolated transformer, safe and stable
- It supports mains/generator input (optional)
- Output isolated transformer, safe and stable
- LCD display + LED status indicator
- Perfect protection
- System efficiency up to 92%
- Strong environment adaptability

SC22050-ESS



Description

ESS series single-phase off-grid inverter adopts integrated design of solar controller, inverter and isolated transformer. The controller adopts MPPT technology and intelligent battery management design which is very efficient and smart; integrated pure sine wave inverter and low frequency isolated transformer make it with excellent overload performance, suitable for a variety of electrical appliances. ESS series controller adopts modular design with flexible configuration; the inverter is with output of 10kVA~20KVA, supplying power for the places without city power e.g. remote areas, pastoral areas, islands, communication base stations, bringing customer the optimized social, economical and environmental benefits. It supports mains/generator input (optional), take advantages of old diesel generators, saving initial investment and operation maintenance cost.



Technical data

System (without AC bypass)			
Model	ESS 10K	ESS15K	ESS 20K
DC Input (PV Side)			
MPP voltage range (Vdc)	250~450		
Max. input voltage (Vdc)	460		
Recommended MPP voltage (Vdc)	330		
Rated power (kW)	20 (1~2*10kW module optional)		
Inverter Output			
Output voltage (Vac)	L/N/PE, 220/230/240		
Output wave	Pure sine wave		
Rated power (kVA)	10	15	20
Power factor	0.8		
AC current crest factor	3:1		
Overload capacity	105%~110%, 10mins; 110%~125%, 1min, >125%,10s		
Voltage THD	THDU<3%, linear load; THDU<5%, nonlinear load		
Isolation	Low frequency transformer		
Battery			
Rated voltage (Vdc)	220		
Battery type	Lead-acid battery		
General Data			
Operating temperature range (°C)	-20~50 (>50°C derating)		
Relative humidity in operation	0~95% (non-condensing)		
Max. operating altitude (m)	6000 (>3000m derating)		
Display	LCD+LED		
Communication	RS485, dry contact		
Ingress protection rating	IP20		
Dimension (D*W*H mm)	616*456*1113		
Weight (kg)	101	114	124
PV Control Module			
Model	SC22050 -ESS		
Control type	MPPT control		
MPPT efficiency	>99.5%		
MPP voltage range (Vdc)	250~450		
Max. input voltage (Vac)	460		
Max. input power (kW)	11		
Max. input current (A)	45		
Output voltage range (Vdc)	192~264		
Max. output current (A)	50		
Max. efficiency	98%		
Module dimension (D*W*H mm)	415*356*84.5		
Module weight (kg)	11		

Technical data

System (with AC bypass)			
Model	ESS-B 10K	ESS-B 15K	ESS-B 20K
DC Input (PV Side)			
MPP voltage range (Vdc)	250~450		
Max. input voltage (Vdc)	460		
Recommended MPP voltage (Vdc)	330		
Max. power (kW)	20 (1~2 10kW module optional)		
AC Input			
AC input voltage range (Vac)	220/230/240±20%		
AC input voltage frequency (Hz)	50/60±5%		
Inverter Output			
Output voltage (Vac)	L/N/PE, 220/230/240		
Output wave	Pure sine wave		
Rated power (kW/kVA)	8/10	12/15	16/20
AC current crest factor	3:1		
Overload capacity	105%~110%, 10mins; 110%~125%, 1min; >125%, 10s		
Voltage THD	THDU<3%, linear load; THDU<5%, nonlinear load		
Isolation	Low frequency transformer		
Battery			
Rated voltage (Vdc)	220		
Battery type	Lead-acid battery		
General Data			
Operating temperature range (°C)	-20~50 (>50°C derating)		
Relative humidity in operation	0~95% (non-condensing)		
Max. operating altitude (m)	6000 (>3000m derating)		
Display	LCD+LED		
Communication	RS485, dry contact		
Dimension (D*W*H mm)	610*455*1125		
Weight (kg)	101	114	124
PV Control Module			
Model	SC22050 -ESS		
Control type	MPPT control		
MPPT efficiency	>99.5%		
MPP voltage range (Vdc)	250~450		
Max. input voltage (Vdc)	460		
Max. input power (kW)	11		
Max. input current (A)	45		
Output voltage range (Vdc)	192~264		
Max. output current (A)	50		
Max. efficiency	98%		
Module dimension (D*W*H mm)	415*356*84.5		
Module weight (kg)	11		