

# ETS Series Hybrid Charger & Inverter (Three-phase)

ETS 10K~60K / ETS-B 10K~60K



## Features

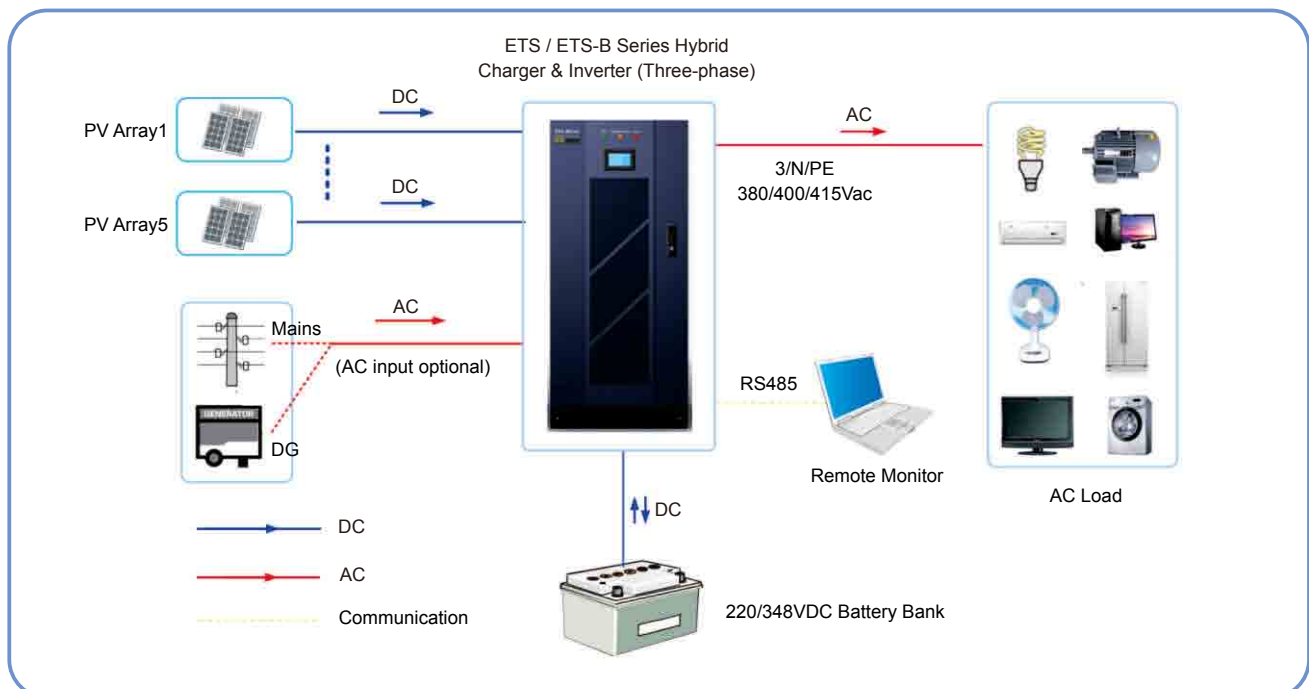
- Built-in MPPT solar controller, maximize the utilization of solar panels
- Integrated design with controller, inverter and isolated technique
- Solar controller modular design, hot plug function, flexible configuration, easy capacity expansion
- Pure sine wave output, output isolated transformer, safe and stable
- It supports mains/generator input (optional)
- Three phase AC output, support 100% unbalanced load
- Intelligent battery management and temperature compensation function
- LCD display + LED status indicator
- Complete protections
- 92% system efficiency
- Strong environment adaptability



## Description

SC22050-ESS / SC22050 / SC35040

- ETS series three-phase off-grid inverter adapts integrated design of solar controller, inverter and isolated transformer. The controller adapts 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, It supports mains/generator input (optional), take advantages of old diesel generators, saving initial investment and operation maintenance cost.
- ETS series controller adapts modular design with flexible configuration; the inverter output covers 10kVA~60kVA, supply power for places without city power e.g. remote areas, pastoral areas, islands, communication base stations, bring customer the optimized social, economical and environmental benefits.



## Technical data

System (without AC bypass)						
Model	ETS 10K	ETS 20K	ETS 30K	ETS 40K	ETS 50K	ETS 60K
<b>DC Input (PV Side)</b>						
MPP voltage range (Vdc)	250~450			420~650		
MPP max. voltage (Vdc)	460			660		
Recommended rated voltage (Vdc)	330			480		
Max. controller module number	2	2	3	3	4	4
<b>Inverter Output</b>						
Output voltage (Vac)	3/N/PE, 380/400/415					
Output wave	Pure sine wave					
Rated power (kVA)	10	20	30	40	50	60
AC current crest factor	3:1					
Power factor	0.8					
Overload capacity	105%~110%, 10mins; 110%~125%, 1min; >125%, 10s					
Voltage THD	THDU<3%, linear load; THDU<5%, nonlinear load					
Isolation	Low frequency transformer					
<b>Battery</b>						
Rated voltage (Vdc)	220			348		
Battery type	Lead-acid battery					
<b>General Data</b>						
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					
Protections	Input over/under voltage, output over/under voltage, overload, short circuit, over temperature, reverse polarity					
Ingress protection rating	IP20					
Dimension (D*W*H mm)	560*460*1040		600*550*1300		600*600*1450	
Weight (without PV module) (kg)	160	170	230	260	300	330
<b>PV Control Module</b>						
Model	SC22050-ESS		SC22050	SC35040		
Control type	MPPT control					
MPPT efficiency	99.5%					
MPP voltage range (Vdc)	250~450			420~650		
Max. input voltage (V)	460			660		
Max. input power (kW)	11			16		
Max. input current (A)	45			35		
Output voltage range (Vdc)	192~264			310~420		
Max. output current (A)	50			40		
Max. efficiency	98.0%					
Module dimension (D*W*H mm)	415*356*84.5		335*436*84.5			
Module weight (kg)	11					

## Technical data

System (with AC bypass)						
Model	ETS-B 10K	ETS-B 20K	ETS-B 30K	ETS-B 40K	ETS-B 50K	ETS-B 60K
<b>DC Input (PV side)</b>						
MPP voltage range (Vdc)	250~450			420~650		
MPP max voltage (Vdc)	460			660		
Recommended rated voltage (Vdc)	330			480		
Max. controller module number	2	2	4	4	5	5
<b>AC Input</b>						
AC input voltage range (Vac)	380/400/415±20%					
AC input frequency range (Hz)	50/60±5%					
Max. AC charger power (kW)	6	12	18	24	30	36
<b>Inverter Output</b>						
Output voltage (Vac)	3/N/PE, 380/400/415					
Output wave	Pure sine wave					
Rated power (kW/kVA)	8/10	16/20	24/30	32/40	40/50	48/60
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					
<b>Battery</b>						
Rated voltage (Vdc)	220			348		
Battery type	Lead-acid battery					
<b>General Data</b>						
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					
Protections	Input over/under voltage, output over/under voltage, overload, short circuit, over temperature, reverse polarity					
Ingress protection rating	IP20					
Dimension (D*W*H mm)	560*460*1040		600*550*1450		600*600*1600	
Weight (without PV module) (kg)	160	170	230	260	300	330
<b>PV Control Module</b>						
Model	SC22050-ESS		SC22050	SC35040		
Control type	MPPT control					
MPPT efficiency	99.5%					
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