## **EnerSolis Series Grid-Connected Single Phase**

ES3000HC~ES4600HC



- Compact Size & Low Weight
- User Friendly LCD Display
- Uses High MTBF Component
- Convection Cooling (Fan-less)
- Intelligent DSP Controller
- Protection Class IP65
- Wide MPPT Range of 150 to 450 Vdc
- Intelligence MPPT Technology
- Anti-islanding Technology
- RS485 Communication
- De-rating Function
- High MPPT Tracker Efficiency
- Easy Installation

## Specifications

	ES3000HC	ES3680HC	ES4000HC	ES4600HC	
		Sine-wave, Current sour	ce, High frequency PWM		
	Method Transformer-less Design				
Nominal DC Voltage	370 VDC				
Max. DC Input Voltage	500 VDC				
Working Range	120VDC~500VDC*				
Max. DC Input current	1x15.8 Amp	2x9.7Amp	2x10.5 Amp	2x12.1 Amp	
MPPT Range	150 VDC ~ 450 VDC				
MPPT Tracker	1		2		
Max. Efficiency	>97.2%				
Euro Efficiency	>96%				
CEC efficiency	>96%				
Operating Temperature	-25°C ~ +50°C / -13°F~122°F				
Humidity	0 to 90%(Without condensation)				
		0 ~ 2000 M / 0 ~ 6600 ft			
Dimensions (WxHxD,mm/inch)		439x531x157	/ 19.4x20.9x6.2		
Weight (kg/lbs)	20 / 44				
Protection Class	IP65, outdoor				
Cooling	Convection				
AC Connection		Screw Terminals			
DC Connection	MC4				
Communication Interface	Standard : RS485 Optional: USB, Dry contact, WiFi, TCP/IP				
Front Panel  LED	Boost input Voltage/Boost input Current/Boost input Power/AC output Voltage /AC output frequency/AC output current /				
	AC output power/AC Energy yield/Inner Temperature/Heat sink Temperature /Status message/ Error message				
	Leakage current fault or DC input isolation fault				
	Spec. of Utility is not matches with the Utility specifications of the inverter				
	Solar Cell power is greater or smaller than sleep power				
Key Pad	UP key/ Down key/ Function key/ Enter key				
	Over/under Voltage, Over/under Frequency,				
	Ground fault, DC Isolation fault				
Protection	Passive : Voltage phase jump detection				
Islanding operation detection —	Active : Reactive power control				
Over Temperature	Reduced output power				
On-Gird Performance	VDE0126-1-1/A1, VDE-AR-N 4105				
		Safty IEC 62109-1, IEC 62109-2 , IEC 60730-1			
		IEC 62109-1, IEC 62	2109-2 , IEC 60730-1		
	Inverter Technology  Nominal DC Voltage  Max. DC Input Voltage  Working Range  Max. DC Input current  MPPT Range  MPPT Tracker  Max. Efficiency  Euro Efficiency  Operating Temperature  Humidity  Altitude  Dimensions (WxHxD,mm/inch)  Weight (kg/lbs)  Protection Class  Cooling  AC Connection  DC Connection  Communication Interface  LCD  Key Pad  Utility  Islanding operation detection  Over Temperature	Inverter Technology Inverter Technology  Nominal DC Voltage  Max. DC Input Voltage  Working Range  Max. DC Input current  MPPT Range  MPPT Tracker  I Max. Efficiency  Euro Efficiency  CEC efficiency  Operating Temperature  Humidity  Altitude  Dimensions (WxHxD,mm/inch)  Weight (kg/lbs)  Protection Class  Cooling  AC Connection  DC Connection  Communication Interface  LCD  Spec.  Key Pad  Utility  Islanding operation detection  Over Temperature	Inverter Technology		





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<sup>\*\*</sup> Depending on the model and voltage, please contact Ablerex for more information.

\*\*\* The same technical specification may be sold in different countries under different model names, please consult Ablerex for more information.