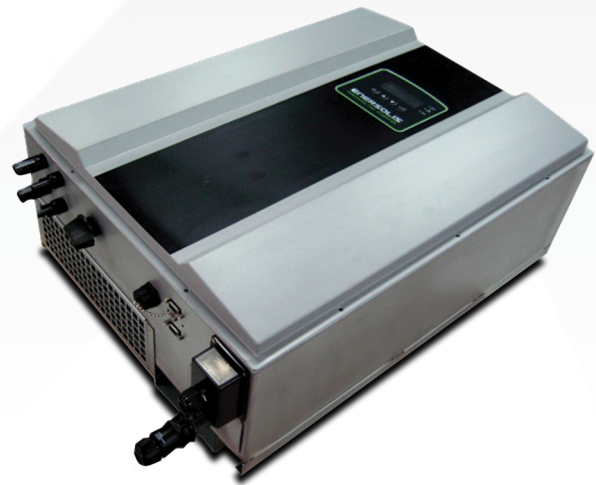


// **Enersolis Series Grid-Connected Photovoltaic Inverter** / ES6KW-12KW



- Three-phase Inverter
- Acceptable Input Voltage up to 1000 Vdc
- Transformer-less Topology
- Maximum Efficiency 97.6%
- Protection Class IP65
- Dual Independent MPP Trackers
- Intelligent MPPT Technology
- Active and Passive Anti-islanding Technology
- Compact Design
- User Friendly LCD Display
- High MTBF Components
- Maximum Output Power Clamping
- Multi-Operation Mode
- Multi-Country Certification
- Temperature-dependent Fan Cooling
- Integrated DC Switch
- High Performance DSP Controller
- Built-in RS232 and RS485 Communication Ports
- Firmware Upgradability
- Wide MPPT Voltage Range with Nominal Power
- Allowable De-rating Operation

ES6KW-ES12KW Specifications

Model	ES 6000		ES 8000		ES 10000		ES 12000	
Inverter Technology	Conversion Mode		Sine-wave, Current source, High frequency PWM					
	Isolation Method		Transformer-less Design					
DC Input Data	Nominal DC Voltage		620 Vdc					
	Max. DC Input Voltage		1000 Vdc					
	Working Range		300 ~ 1000 Vdc					
	Max. DC Input current		2 x 8.5 Amp	2 x 11.4 Amp	2 x 14.3 Amp	2 x 14.3 Amp		
	MPPT Range		370 ~ 850 Vdc				450 ~ 850 Vdc	
	MPPT Tracker		2					
AC Output Data	Nominal AC Power		6,000 Watt	8,000 Watt	10,000 Watt	12,000 Watt		
	Max. AC Apparent Power		6,600 VA	8,800 VA	11,000 VA	12,000 VA		
	Nominal AC Voltage		AC 230 V x 3					
	Output Connect Method		3-Phase / 4-Wires (L1, L2, L3, N, PE)					
	Nominal AC Current		8.69 Amp x 3	11.59 Amp x 3	14.49 Amp x 3	17.39 Amp x 2		
	Frequency		50/60Hz Auto-Selection (47.5 ~ 51.5Hz or 59.3 ~ 60.5Hz)					
	Power Factor		Leading 0.9 ~ Lagging 0.9					
	Current Distortion		Total Harmonic current : Less than 5% Single Harmonic current: Less than 3%					
Efficiency Data	Max. Efficiency		97.60%					
	Euro Efficiency		96.20%	96.60%	97.00%	97.25%		
Environmental	Operating Temperature		-20 °C ~ +60 °C -4 °F ~ 139 °F					
	Pollution degree classification		PD3					
	Overvoltage category (DC side)		Category II					
	(IEC 60664 - 1) (AC side)		Category III					
	Humidity		0 to 100% (Without condensation)					
	Altitude		0 ~ 2000 m / 0 ~ 6600 ft					
Mechanical	Dimension (WxHxD in mm)		595 x 451 x 247					
	Net Weight (kgs)		41					
	Gross Weight (kgs)		44					
	Protection Class		IP65, outdoor					
	Cooling		Temperature-dependent fan					
	AC Connection		Connector					
	DC Connection		Connector					
Communication	Communication Interface		RS232 & RS485 (Standard) USB, Dry Contact, TCP/IP, WiFi card(Optional)					
	LCD		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					
Front Panel	LED	Red	On: Ground fault of DC input insulation fault					
		Yellow	On: Unit Error or Alarm					
		Green	Flash: Standby or Sleeping mode On: Normal operation					
Key Pad		UP key/ Down key/ Function key/ Enter key						
Protection	Utility		Over/under Voltage, Over/under Frequency, Ground fault, DC Isolation fault					
	Islanding operation detection		Passive : Voltage phase jump detection Active : Reactive power control					
	Over Temperature		Reduced output power					
Certification	On Grid Performance		VDE 0126-1-1, VDE AR-N 4105, AS 4777,2/3, ENEL 2010,			VDE 0126-1-1 VDE AR-N 4105		
	Safety		EN 62109-1, EN 61209-2, EN60730, AS 3100			EN 62109-1 EN 62109-2 EN 60730		
	EMI/EMC		EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN61000 -3-3			EN 61000-6-2 EN 61000-6-4 EN 61000-3-2 EN 61000-3-3		

* Specifications subject to change without notice.

