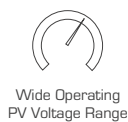




GRID TIE PV INVERTER

ESG1K | ESG3K | ESG5K | ESG10K



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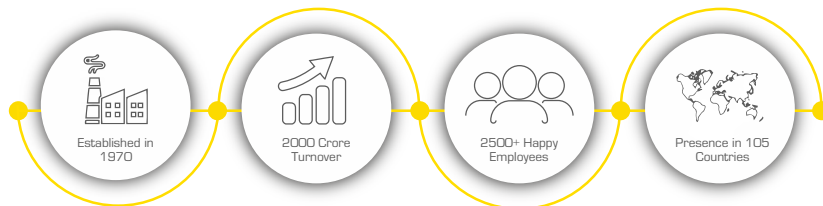
FREQUENTLY ASKED QUESTIONS

ABOUT US



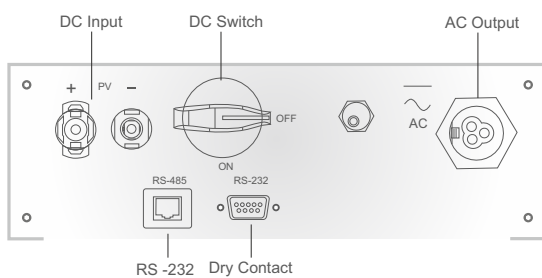
The Eastman Global group began its journey in the year 1970 with presence in over 105 countries and a 2200+ loyal distributor and dealer network across the world. Eastman Auto & Power Limited instituted by Eastman group is a leading manufacturer of Tall Tubular Batteries, Tubular Gel SMF Batteries, Solar Batteries, E-Rickshaw Batteries & Automotive Batteries, and offers a wide range of inverters, solar panels and top of the line solar products that are widely known for their innovative technology.

OUR ACHIEVEMENTS



GRID TIE PV INVERTER 1-3KW

SOLAR AND GRID CONNECTION



Eastman's 1kW - 3kW single phase Grid Tie PV Inverters are technologically advanced solar devices for residential homes and commercial establishments. The Grid tie series are compact, light weight and energy efficient. It makes the series convenient for long distant transportation and suitable for indoor and outdoor installation. Grid tie series promises a return of investment within 3-4 years making them the most sort after premium on-grid inverters available today.

FEATURES



Advanced MPPT 99.9%
Tracking Efficiency



Quick And Easy Installation



Wide Operating MPPT
Voltage Range



Generator Compatible



IP65 Protection



Maximum DC Power Of 1300W



Remote Monitoring Compatibility



User Friendly LCD Display

Model - ESG1K Technical Specification

DC-Input Parameters	Value	Unit
Max. Input PV Power	1300	Wp
Max. Input Voltage	500	Volt DC
MPPT Operating Voltage Range	100 - 490	Volt DC
Rated Input Voltage	380	Volt DC
Max. Input Current per MPPT tracker	11	-
MPPT Channel	1	-
Number of Input	1	-

AC-Output Parameters	Value	Unit
Max. Output Power	1000	Watt
Rated Output Power	1000	Watt
Mains Output Voltage Range	150 - 280	Volt AC
Rated Output Voltage	220/230	Volt AC
Rated Output Current	4.5	Ampere
Mains Output Frequency Range	45 - 55	Hertz
Power Factor	>0.99	-
Current Harmonic Distortion (THDi)	<3%	-
Max. Efficiency	97.0%	-
MPPT Tracking Efficiency %	99.9%	-

Environment	Value	Unit
Protection Level	IP65	-
Working Temperature Range	-25°C ~ +60°C	Celcius
Humidity	0~95%, no condensation	-
Altitude	2000	Metre
Ventilation	Natural Cooling	-
Noise (Typical)	<25	dB

Communication	Value
LCD	Solar Power, Total Energy Generation, AC Voltage, AC Current, Solar Voltage, Solar Current, Frequency, Temperature
Communication Interface	RS232 & RS485

Mechanical Parameters	Value	Unit
Dimensions (L x W x H)	265 x 126 x 325	Millimeters
Weight	7.6	Kilograms

Model - ESG3K Technical Specification

DC-Input Parameters	Value	Unit
Max. Input PV Power	3900	Wp
Max. Input Voltage	500	Volt DC
MPPT Operating Voltage Range	100 - 490	Volt DC
Rated Input Voltage	380	Volt DC
Max. Input Current per MPPT tracker	13	-
MPPT Channel	1	-
Number of Input	1	-

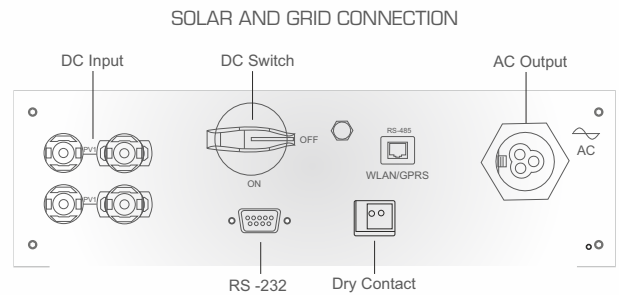
AC-Output Parameters	Value	Unit
Max. Output Power	3000	Watt
Rated Output Power	3000	Watt
Mains Output Voltage Range	150 - 280	Volt AC
Rated Output Voltage	220/230	Volt AC
Rated Output Current	14	Ampere
Mains Output Frequency Range	45 - 55	Hertz
Power Factor	>0.99	-
Current Harmonic Distortion (THDi)	<3%	-
Max. Efficiency	97.6%	-
MPPT Tracking Efficiency %	99.9%	-

Environment	Value	Unit
Protection Level	IP65	-
Working Temperature Range	-25°C ~ +60°C	Celcius
Humidity	0~95%, no condensation	-
Altitude	2000	Metre
Ventilation	Natural Cooling	-
Noise (Typical)	<25	dB

Communication	Value
LCD	Solar Power, Total Energy Generation, AC Voltage, AC Current, Solar Voltage, Solar Current, Frequency, Temperature
Communication Interface	RS232 & RS485

Mechanical Parameters	Value	Unit
Dimensions (L x W x H)	265 x 126 x 325	Millimeters
Weight	8.6	Kilograms

GRID TIE PV INVERTER 5KW



Eastman's 5kVA single phase Grid Tie PV Inverters are advanced solar devices suitable for all residential and industrial applications. All components are designed under the latest applied scientific automation with maximum conversion efficiency 97.5%. The series comply to IP65 standards with dual compatibility that makes the series suitable for indoor as well as outdoor installation. The advanced MPPT algorithm with peak efficiency of 99.9% guarantees maximum power generation intergrated with IEC standards of safety.

FEATURES

Advanced MPPT 99.9%
Tracking Efficiency

Quick And Easy Installation

Wide Operating MPPT
Voltage Range

Generator Compatible

IP65 Protection

Maximum DC Power Of 6500W

Remote Monitoring Compatibility

User Friendly LCD Display

Model - ESG5K Technical Specification

DC-Input Parameters	Value	Unit
Max. Input PV Power	6500	Wp
Max. Input Voltage	500	Volt DC
MPPT Operating Voltage Range	100 - 490	Volt DC
Rated Input Voltage	380	Volt DC
Max. Input Current per MPPT tracker	13	-
MPPT Channel	2	-
Number of Input	2	-

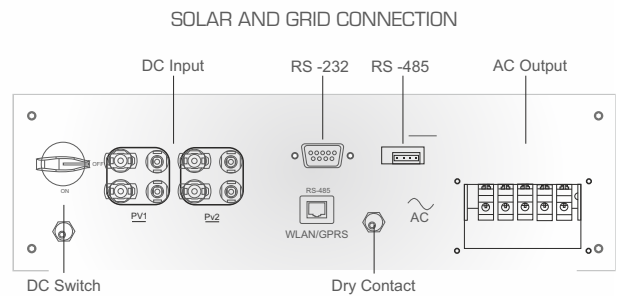
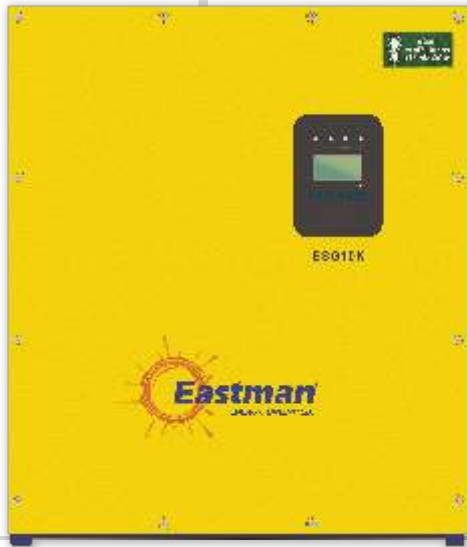
AC-Output Parameters	Value	Unit
Max. Output Power	5000	Watt
Rated Output Power	5000	Watt
Mains Output Voltage Range	150 - 280	Volt AC
Rated Output Voltage	220/230	Volt AC
Rated Output Current	22	Ampere
Mains Output Frequency Range	45 - 55	Hertz
Power Factor	>0.99	-
Current Harmonic Distortion (THDi)	<3%	-
Max. Efficiency	97.5%	-
MPPT Tracking Efficiency %	99.9%	-

Environment	Value	Unit
Protection Level	IP65	-
Working Temperature Range	-25°C ~ +60°C	Celcius
Humidity	0~95%, no condensation	-
Altitude	2000	Metre
Ventilation	Natural Cooling	-
Noise (Typical)	<25	dB

Communication	Value
LCD	Solar Power, Total Energy Generation, AC Voltage, AC Current, Solar Voltage, Solar Current, Frequency, Temperature
Communication Interface	RS232 & RS485

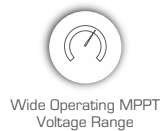
Mechanical Parameters	Value	Unit
Dimensions (L x W x H)	329 x 149 x 466	Millimeters
Weight	15.7	Kilograms

GRID TIE PV INVERTER 10KW



Eastman's 10kVA three phase Grid Tie PV Inverters with dual MPPT technology are suitable for all industrial rooftop and commercial applications. This solar PV solution comes with an intelligent cooling system that provides excellent heat dissipation and silent operation. They carry the ability to withstand extreme weather conditions with low maintenance as compared to diesel generators. The advanced MPPT algorithm with peak efficiency of 99.9% and wide MPPT voltage range from 250 to 950Vdc guarantees maximum power generation integrated with IEC standards of safety.

FEATURES



Model - ESG10K Technical Specification

DC-Input Parameters	Value	Unit
Max. Input PV Power	13000	Wp
Max. Input Voltage	1000	Volt DC
MPPT Operating Voltage Range	480 - 800	Volt DC
Rated Input Voltage	620	Volt DC
Max. Input Current per MPPT tracker	13	-
MPPT Channel	2	-
Number of Input	2	-

AC-Output Parameters	Value	Unit
Max. Output Power	10000	Watt
Rated Output Power	10000	Watt
Mains Output Voltage Range	320 - 480	Volt AC
Rated Output Voltage	400/415	Volt AC
Rated Output Current	15	Ampere
Mains Output Frequency Range	45 - 55	Hertz
Power Factor	0.8 Lead/Lag	-
Current Harmonic Distortion (THDi)	<3%	-
Max. Efficiency	98.0%	-
MPPT Tracking Efficiency %	99.9%	-

Environment	Value	Unit
Protection Level	IP65	-
Working Temperature Range	-25°C ~ +60°C	Celcius
Humidity	0~95%, no condensation	-
Altitude	2000	Metre
Ventilation	Natural Cooling	-
Noise (Typical)	<40	dB

Communication	Value
LCD	Solar Power, Total Energy Generation, AC Voltage, AC Current, Solar Voltage, Solar Current, Frequency, Temperature
Communication Interface	RS232 & RS485

Mechanical Parameters	Value	Unit
Dimensions (L x W x H)	553 x 228 x 715	Millimeters
Weight	35.4	Kilograms

FREQUENTLY ASKED QUESTIONS

01

How does a grid tie solar installation work?

Basically a Grid-connected system comprised of 4 components- PV array, PV inverter, AC connection unit and Public Grid connection unit. When sunlight falls on solar panels, they generate DC electricity. The grid tie inverter draws this electricity from the solar panels and converts it to grid ready AC power, which is then supplied to the appliances in your home. Unused or surplus solar energy generated is fed back to the grid via bi-directional meter which helps keep track of electricity taken from the grid and fed back to it.

02

What happens to a grid tie solar installation when solar fails?

In absence or lack of solar power, the panels do not generate any electricity for example during the evening hours. In such cases the grid tie solar PV inverter draws power from the mains supply to power the load.

03

How can we make savings with grid-tie solar installation?

In grid-tie solar PV solution the connected load runs entirely through solar. No power is drawn from the grid during the time solar is available. Hence during the day there is zero consumption of mains supply. The grid-tie solar solution gives the added advantage to feed surplus or unused solar power to the grid. If you live in a state that has an active net-metering policy, you can get paid from Rs. 7 to Rs. 9 per unit of electricity that you sell to the state.

04

Who should go for grid-tie solar installation?

Areas with clean, continuous and reliable power supply are most appropriate for grid-tie solar installations. Grid-tie solar installations are particularly good for establishments that function during the day such as schools and offices so as to utilize maximum solar power. If you live in a state where net-metering policy has been implemented then a grid tie solar installation is perfect for you.



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